115 Winthrop Square
Draft Environmental Impact Report/Project Impact Report
EEA No. 15610



Submitted to:
EXECUTIVE OFFICE OF ENERGY
AND ENVIRONMENTAL AFFAIRS
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January 2, 2018

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Chapter 1

General Information and Project Introduction

1.0 GENERAL INFORMATION AND PROJECT INTRODUCTION

1.1 Introduction

The Winthrop Square Tower project (the Project) (see Figure 1-1) is the proposed redevelopment of a City of Boston-owned 47,962-square-foot parcel of land located between Devonshire and Federal streets in Downtown Boston (the Project site) (see Figure 1-2). The Project site is in one of the few areas of the entire City where extraordinary density can occur. It recently was the location of a decaying 1,125-vehicle parking garage that was closed in 2013 due to safety concerns; the structure is in the process of being razed.

The Project presented here represents the culmination of the private sector's competitively driven and benefits-rich response to an extraordinary effort by forward thinking public officials who discovered and unlocked the value of this City of Boston owned asset for its citizens.

First publicly identified for significant redevelopment in 2006, the Project site is the rare development opportunity where the City can directly bring positive changes both nearby and across the Boston region. After an initial unsuccessful attempt to solicit proposals for redevelopment, the City updated the development guidelines, conducted an open competitive bidding process in 2015 and 2016 and finally selected MCAF Winthrop LLC (the Proponent) from among five finalists, all of whom proposed towers of 675-feet and higher and up to 2,000,000 square feet in size. MCAF Winthrop LLC is a limited liability company owned by the principals of Millennium Partners, the developers of significant projects in Boston including Millennium Tower and the Burnham Building historic restoration, the mixed-use commercial entertainment and residential Ritz Carlton Towers Hotel and the historical restoration and commercial mixed-use project at 75 Arlington Street and 10 St. James Avenue. Among other reasons, the Proponent was the selected Developer due to its ability to perform expeditiously and bring the described benefits to fruition as soon as possible.

The Project will be a single tower of approximately 664 feet in height as measured in accordance with the Boston Zoning Code.[1] As described in further detail in Section 2.2, the Project is a mix of complementary uses. The economic

[1] The Project's zoning height of approximately 664 feet (710' AMSL) is consistent with the operating guidelines provided by Massport and the technical review provided by the Federal Aviation Administration (FAA), which has set various points of the Project site at 701-720 feet AMSL. The Project's height fits within this upper limit to avoid any operational changes in departures or arrivals at Logan International Airport. The FAA is currently conducting its public review period for this Aeronautical Study (see Attachment A). The zoning height will be used throughout the remainder of the document to describe the height, except as noted.



115 Winthrop Square **Boston, Massachusetts**

Figure 1-1

115 Winthrop Square Project



115 Winthrop Square **Boston, Massachusetts**

Figure 1-2

Aerial Context Plan

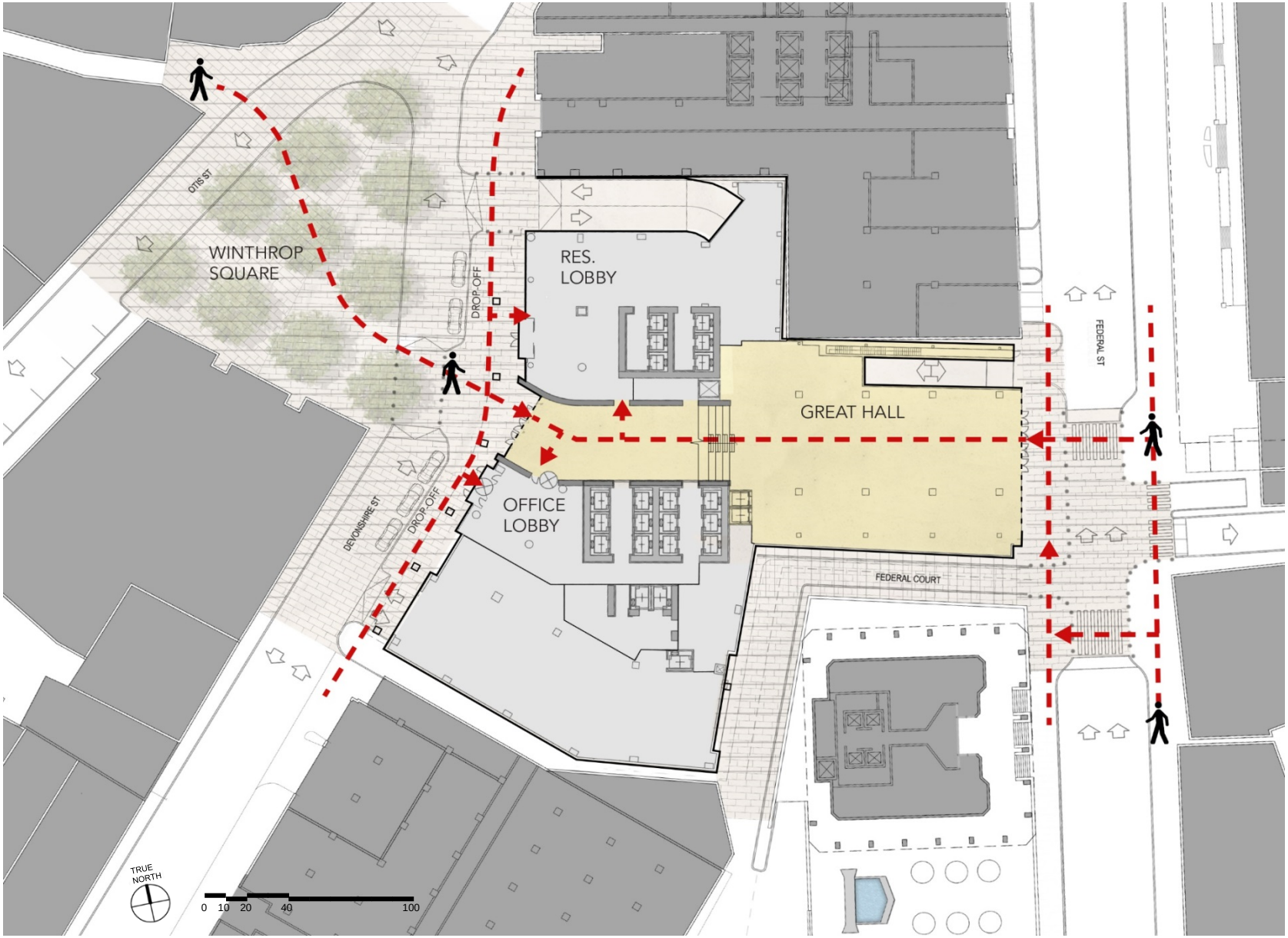
drivers of the Project, and most of the direct and indirect benefits that result, are from the residential and commercial office spaces. With approximately 500 residential units, the Project will expand the emerging critical mass of residents in the dynamic Downtown Crossing neighborhood while the commercial office space of approximately 750,000 square feet will set new standards for workplace efficiency, adaptability, environmental sustainability, and wellness. This forward-looking commercial office space will ultimately increase its occupying organizations' overall productivity, all while working with other property owners and stakeholders to reestablish Downtown Boston's commercial preeminence.

The central focus of the Project, featured prominently at grade and connecting the Winthrop Square open space and points west to the financial district and points east toward Downtown Crossing (see Figure 1-3), will be an approximately 12,000-square-foot space open and available to the public, currently referred to as the Great Hall (Figure 1-4, Great Hall Rendering). While intended to be momentous and beautiful in its own right, the Great Hall's primary focus is to provide the operational and architectural scaffolding for educational, cultural, collaborative, and civic event uses in the space that may change through the day/night and the seasons, and as they may be reimagined over time.

Importantly, the Project will also meet the Mayor of Boston's most recently updated Inclusionary Development Policy (IDP) for affordable housing. In this effort, the Proponent is collaborating with Asian Community Development Corporation (Asian CDC), to explore opportunities to create affordable housing in Boston's Chinatown neighborhood.

The Project, which is expected to strive to be LEED Platinum certifiable and will adopt other innovative ideas around minimizing energy use and occupant wellness, will be a market leader in sustainability and resiliency, and is being designed to meet the more extreme climactic conditions anticipated in the future. Sustainable design is discussed in greater detail in Section 6.0, and in the Project design. A greenhouse gas (GHG) analysis is provided in Section 10.0.

Important to the Project is the extraordinary public participation that has been occurring in connection with the site. In addition to the public competitive selection process, a broad public discussion on the Project occurred in connection with the City of Boston's home rule petition to amend the Massachusetts State laws that limit new shadows on Boston Common and the Public Garden. This change in law was required for any project on this City-owned site above approximately 340 feet to proceed. In connection with the proposed amendment, the Proponent participated in more than 50 public meetings and information sessions with members of the community to discuss the



115 Winthrop Square **Boston, Massachusetts**

Figure 1-3

Site Plan - Pedestrian Access Diagram



Figure 1-4

Great Hall Rendering

proposed amendment, its implications, and the potential benefits and impacts of the proposed development at the time, including a detailed evaluation of the potential shadow occurrence of a larger structure than the proposed Project on the historic parks. After a public hearing in City Council Chambers attended by over 1,000 interested citizens, the Boston City Council voted 10-to-3 in favor of the amendment. In the spring of 2017, the home rule petition was considered at a public hearing at the State House, voted on and enacted by both chambers of the Massachusetts Legislature and in July of 2017, "Chapter 57 of the Acts of 2017, An Act Protecting Sunlight and Promoting Economic Development in the City of Boston" was signed into law by the Governor.

In addition to amending the laws that limit new shadows on Boston Common and the Public Garden to allow a tower project on this site, the new law further restricted new shadows on Boston Common from structures nearer to the Common above the heights previously established, added new shadow limitations on Copley Square, and provided for a multi-faceted planning study for parts of the downtown area.

In addition, since a project of significant height in downtown Boston must consider air-traffic operations at Logan International Airport, a large public discussion was facilitated by public officials and the Massachusetts Port Authority (Massport). This discussion, along with the operating guidelines provided by Massport and the technical review provided by the Federal Aviation Administration (FAA), has set various points of the Project site at 701-720 feet AMSL. The Project's height fits within this upper limit to avoid any operational changes in departures or arrivals at Logan International Airport. The FAA is currently conducting its public comment period for this Aeronautical Study.

1.2 Review Process

A Project Notification Form (PNF) was submitted to the Boston Redevelopment Authority doing business as the Boston Planning & Development Agency (BPDA) on November 8, 2016. The Scoping Determination was issued on April 11, 2017. An Environmental Notification Form (ENF) was submitted to the Massachusetts Environmental Policy Act (MEPA) Office on November 15, 2016. The Certificate of the Secretary of Energy and Environmental Affairs (EEA) on the ENF was issued January 6, 2017. This Draft Environmental Impact Report/Project Impact Report (Draft EIR/PIR) is being submitted to the MEPA Office as well as the BPDA to advance review of the Project in accordance with the MEPA Certificate, the Scoping Determination and under Article 80B, Large Project Review, of the Boston Zoning Code.

1.3 Updates since ENF/PNF Filings

As a result of feedback from neighbors, residents, community members, the BPDA, the City of Boston and other local, state and federal officials, further design and planning work and feedback from potential users, the following changes to the Project have occurred since the Proponent submitted the ENF and PNF in November 2016:

- While the square footage for proposed residential space has been reduced since the ENF and PNF (from up to 780,000 to approximately 710,000 square feet), the number of residential units has increased from 460 to approximately 500;

- The office space has increased from up to approximately 635,000 square feet to approximately 750,000 square feet;

- The ENF and PNF program included between 35,000 and 60,000 square feet of restaurant/retail, which has been revised to approximately 31,000 square feet of retail/restaurant and 21,000 square feet of meeting space available to occupants of the building as well as the public.

- The Project height has been reduced from the 775 feet presented in the ENF and PNF to a proposed zoning height of approximately 664 feet;

- An accelerator is not currently proposed as part of the Project, although the Proponent may consider including an accelerator or similar concept in the final design of the Project; and

- The proposed Project is consistent with Massport/FAA height guidance.

In addition, there have been other developments related to the Project since the Proponent submitted the ENF and PNF, including:

- The enactment of Chapter 57 of the Acts of 2017, An Act Protecting Sunlight and Promoting Economic Development in the City of Boston, amends the portions of the Massachusetts state laws governing new shadows from new structures on the Boston Public Garden and Boston Common described in Section 1.1 above;

- The FAA has issued its Aeronautical Study and it is currently circulating this study for Public Comment. The various points of the site have been determined to be 701' to 720' AMSL where no interruptions to air traffic operations will occur;

- The Proponent and the Friends of the Public Garden entered into a Memorandum of Agreement in which the Proponent agreed to contribute $125,000 per year for 40 years following the completion of the Project to be used by the Friends for maintenance and enhancement of the Boston Common and the Boston Public Garden;

- Mayor of Boston Martin J. Walsh announced the preliminary allocations (subject to change as determined by the City) of most of the initial $102 million of the projected $152,790,000 purchase price for affordable housing and public parks and spaces across the City. Under the signed purchase agreement, the proposed Project could yield an additional $13,210,000 purchase price depending upon the final residential sales square footage.

- At the City's request and consistent with a MEPA Advisory Opinion issued on October 20, 2017, the Proponent has commenced demolition of the existing garage located on the Project site. The garage had become a public safety hazard in need of immediate attention, particularly in light of the winter season as engineers recently noted that snow load would have a detrimental effect on the stability of the garage.

1.4 Public Benefits Summary

The Project will generate many public benefits for the surrounding neighborhood and the City of Boston as a whole, both during construction and on an ongoing basis upon its completion; these benefits are summarized below and described in more detail in Section 2.2.3 and throughout the Draft EIR/PIR.

Millennium Partners' demonstrated history of revitalizing prominent sites in downtown Boston will be further illustrated with the redevelopment of the Project site. Among a multitude of benefits, the development of the Project will provide a $1.3 billion direct investment in the City of Boston including creating new standards for inclusion and economic opportunity and payments proposed by the Mayor of Boston to go towards Boston Common, Public Garden and Commonwealth Mall, Franklin Park, Emerald Necklace, South Boston's Old Colony public housing complex and East Boston's Orient Heights public housing. On a grand scale, the Project will strengthen economic vitality in the City by replacing a deteriorated garage with an active mixed-use Project, which by providing housing units in the financial district will promote 24-hour life in this area of the City and reestablish the Downtown area's preeminence as the region's commercial core. On a local scale, the Project will improve Winthrop Square and the surrounding sidewalks and streetscapes, making a new public realm anchor connecting Downtown Crossing, Post Office Square and Dewey Square

and will create an important space in the Great Hall for a variety of educational, civic, performance and cultural experiences available for the public. The Project will add affordable housing in accordance with the Mayor's Executive Order.

The Project will become a model of sustainability and resiliency for others to follow. The Project team will strive to achieve LEED Platinum Certifiability and adopt the principles of Passive House in the office component; the Proponent is designing the Project to meet the more extreme weather conditions anticipated in the future. To improve access to the site, the design of Winthrop Square and Federal Street will be developed in close coordination with the Boston Transportation Department (BTD) to incorporate "Complete Streets" design elements. The Project's size and location will be consistent with smart-growth and transit-oriented development principles by being well served by existing public transportation, including major regional rapid transit and commuter rail lines.

1.5 Summary of Permit Requirements

Table 1-1, below, sets forth a list of permits and approvals from governmental agencies and authorities expected to be required for the Project. It is possible that only some of these permits and approvals will be required, or that additional permits or approvals will be required.

Table 1-1 Anticipated Permits and Approvals (all pending)

Agency Name	*Permit / Approval*
FEDERAL	
Environmental Protection Agency	National Pollution Discharge Elimination System General Permit Notice
Federal Aviation Administration	Determinations of No Hazard to Air Navigation
STATE	
Executive Office of Energy and Environmental Affairs (MEPA Office)	Review under the Massachusetts Environmental Policy Act; Public Benefit Determination
Massachusetts Historical Commission	Determination of No Adverse Effect / Memorandum of Agreement
Massachusetts Water Resources Authority	Construction Dewatering Permit;
State Building Code Appeals Board	Variances from Building Code MAAB Variances for sink depth and electrical outlet locations
LOCAL	
Boston Air Pollution Control Commission	Parking Freeze Permit
Boston Civic Design Commission	Design Approval
Boston Fire Department	Fuel Storage/Tank Permit; Equipment and Access Permits

Table 1-1 Anticipated Permits and Approvals (all pending) (Continued)

Agency Name	*Permit / Approval*
LOCAL	
Boston Inspectional Service Department	Building Permit; Foundation Permit; Certificates of Occupancy
Boston Public Improvement Commission	Specific Repair and/or Canopy Approvals; Street and Sidewalk Occupancy Permits; Earth Retention/Tieback Approvals and Curb Cuts
Boston Public Safety Commission, Committee on Licenses	Permit to Erect Parking Garage; License for Storage of Inflammables
Boston Planning & Development Agency	Article 80B Large Project Review and Related Agreements and Disclosures; Affordable Housing Agreement; Article 80C Planned Development Area Development Plan Approvals; Certifications of Compliance and Consistency Certificate of Completion
Boston Transportation Department	Transportation Access Plan Agreement; Review and Approval of a Construction Management Plan
Boston Water and Sewer Commission	Site Plan Approval; Construction Dewatering Permit; Connection, Cross Connection, and Extension Permits
Boston Zoning Commission	Approval of Planned Development Area Development Plan
Boston Parks Department	Tree Removal/Replacement

1.6 Legal Information

1.6.1 Legal Judgments Adverse to the Proposed Project

The Proponent is not aware of any legal judgments in effect or legal actions pending that are adverse to the Proponent's undertaking of the Project.

1.6.2 History of Tax Arrears on Property

The Proponent does not have a history of tax arrears on any property owned within the City of Boston.

1.6.3 Evidence of Site Control/Nature of Public Easements

The BPDA has designated the Proponent as the redeveloper of the Project site. The BPDA and the Proponent have entered into a Sale and Construction Agreement pursuant to which the Proponent has the right to obtain fee title to the Property from the BPDA and thereafter construct the Project, subject to

Article 80 approvals and customary development review. The Proponent is not aware of any public easements into, through or affecting the Project site other than typical utility easements and adjacent public rights of way.

1.7 Public Participation

Before filing the PNF on November 8, 2016, the Proponent filed a Letter of Intent (LOI) with the BPDA pursuant to the Executive Order Relative to the Provision of Mitigation by Development Projects in Boston issued on October 10, 2000, as amended. The LOI began the Project's formal public review process. The Proponent's filing of the ENF with the MEPA Office on November 15, 2016 also initiated the public environmental review period at the State level.

In addition, the Proponent has over 50 meetings with public agencies, elected officials, abutters, interested parties, advocacy groups, and others. The Proponent looks forward to a comprehensive review process, including continuing meetings with neighbors, local groups, elected officials and other interested parties. Attachment B includes a list of Community Outreach Meetings.

1.8 Development Team

Name / Location:	115 Winthrop Square (also known as 115 Federal Street) Between Devonshire Street and Federal Street in Downtown Boston
Proponent:	MCAF Winthrop LLC c/o Millennium Partners 7 Water Street, Suite 200 Boston, Massachusetts 02109 617-451-0300 Joe Larkin Kathleen MacNeil
Architect:	Handel Architects LLP 120 Broadway, 6th Floor New York, NY 10271 212-595-4112 857-310-5290 Blake Middleton Stephen Matkovits Libby Farley

Collaborating Architect:	D/R/E/A/M Collaborative 236 Huntington Avenue Suite 303 Boston, MA 02115 617-606-7029 Gregory Minott Troy DePeiza
Landscape Architect:	Ground Inc. 6 Carlton Street Somerville, MA 02143 (617) 718-0889 Shauna Gillies-Smith
Off-site Affordable Housing Collaborator:	Asian Community Development Corporation 38 Oak Street Boston, MA 02111 617-482-2380 Angie Liou Kyle Sullivan Debbie Chen
Article 80 and Historic Resources Consultant:	Epsilon Associates, Inc. 3 Mill & Main Place, Suite 250 Maynard, MA 01754 978-897-7100 Cindy Schlessinger Douglas Kelleher Holly Carlson Johnston Fiona Vardy
Transportation and Parking Consultant:	VHB 99 High Street, 10th Floor Boston, MA 617-728-7777 David Black Adriana Santiago

Civil Engineer:	Nitsch Engineering, Inc. 2 Center Plaza, Suite 430 Boston, MA 02108 617-338-0063 Jared Gentilucci Chris Hodney
Mechanical-Electrical-Plumbing Engineer:	WSP Group 88 Black Falcon Avenue, Suite 210 Boston, MA 02210 Thomas Burroughs Nancy Gould
Geotechnical Engineer:	Haley & Aldrich, Inc. 465 Medford Street, Suite 2200 Boston, MA 02129 Damian Siebert
Legal Counsel:	DLA Piper LLP 33 Arch Street, 26th Floor Boston, MA 02110 617-406-6000 John Rattigan Brian Awe
Wind Consultant	Rowan Williams Davies & Irwin Inc. (RWDI) 600 Southgate Drive, Guelph Ontario Canada (519) 823-1311 Derek Kelly

Chapter 2

Project Description

2.0 PROJECT DESCRIPTION

The Project is the redevelopment of a City of Boston parcel into a vibrant mixed-use Project with approximately 1.592 million square feet of gross floor area as measured by the Boston Zoning Code. The Project site and proposed development program are described in detail below.

2.1 Existing Site and Area Context

The approximately 47,962-square-foot Project site is located at 115 Winthrop Square, also known as 115 Federal Street and 240 Devonshire Street in Downtown Boston. The site is bounded by 75-101 Federal Street to the north, 100 Summer Street to the south, Devonshire Street and Winthrop Square to the west, and Federal Street to the east.

The Project site was the location of a decaying, approximately 1,125 vehicle, parking garage that was closed in 2013 due to safety concerns and which has been, for generations, an impediment to a cohesive public realm in the area. The garage structure is in the process of being razed.

The Project site is in one of the few areas of Boston able to accommodate significant density. The Project site is located toward the southwestern edge of Boston's Financial District, which includes the largest concentration of office space in the region, and is defined by commercial office towers, mid-sized commercial buildings, and an emerging residential community. The site is a short distance from Downtown Crossing, the location in recent years of significant commercial and residential development and improvements to the public realm.

The Project site is in close proximity to several Massachusetts Bay Transportation Authority (MBTA) public transit routes and transportation hubs, with nearby South Station, Downtown Crossing, and State Street offering service to the Silver, Orange, Green, Red, and Blue lines, commuter rail service and Amtrak. In addition, numerous local MBTA bus routes serve the downtown. The area is also regionally accessible via Interstate 93 (Exit 20), which runs below Atlantic Avenue, Purchase Street, and the Rose Kennedy Greenway within one-quarter mile of the Project site.

The Project site is easily accessible to open space areas such as Post Office Square, Winthrop Square (which will be improved as part of this Project), and the Rose Kennedy Greenway, further away.

Photographs of the Project area are presented in Figures 2-1 and 2-2. A survey plan indicating the previous garage is provided in Attachment C.



115 Winthrop Square **Boston, Massachusetts**

Figure 2-1

Existing Site Photograph



115 Winthrop Square **Boston, Massachusetts**

Figure 2-2

Existing Site Photograph

2.2 Proposed Development Program

The Project represents what has become a paradigm for successful urban re-vitalization in historic city centers, commonly described as a mixed-use high-rise building. A thoughtfully assembled mixed-use building with complex and diverse functions that engage the public realm, has the power to drive significant pedestrian activity on the street through all the days of the week and through the evenings. This diversity of uses has the added benefit of the Project's infrastructure and transportation requirements peaking at different times, resulting in a significantly lower use of the area's overall infrastructure capacity than what a single-use project of the same size would have.

The Project includes a mix of complementary uses. The economic drivers of the Project, and most of the direct and indirect benefits that result, are from the residential and commercial office spaces. With approximately 500 residential units, the Project will expand the emerging critical mass of residents in the dynamic Downtown Crossing neighborhood, while the approximately 750,000 square feet of commercial office space will set new standards for workplace efficiency, adaptability, environmental sustainability, and wellness. This forward-looking commercial office space will substantially increase its occupying organizations' overall productivity, all while working with other property owners and stakeholders to reestablish Downtown Boston's commercial preeminence.

The central focus of the building will be a 12,000 sf significant publicly available space located at grade that connects Winthrop Square and points west to the Financial District and points east. Currently presented as the Great Hall, this area will provide the architectural and operational scaffolding for educational, cultural, collaborative, and event uses, as these uses may change through the day, and through the seasons and as they may be reimagined over time.

The Project will be a single mixed-use tower with approximately 500 residential units and approximately 26 floors of approximately 20,000 to 29,000 gross square feet each that step back on the western and portions of the northern and southern building edges above an approximately 37,500 gross square foot commercial floor plan on 20 floors. The first and second floors occupy most of the 47,962 square foot site.

The Project will have the commercial lobby and the residential walk-in lobby on the first level as well as the loading areas and access to the garage. Below grade uses include: vehicle pick up, drop off, parking and circulation, storage, dog and cat daycare and other programs, and mechanical and other uses ancillary to the above grade uses. Design and programming of the Project continue to evolve though market analyses and design review with the City of

Boston, BPDA, and the public. The Project is expected to include approximately 1.592 million square feet of gross floor area, as defined in Article 2A of the Boston Zoning Code. Table 2-1 presents the proposed program.

Table 2-1 Project Program*

Project Element	*Square Footage*
Residential	715,000**
Units	*500*
Total Bedroom	*920*
Office	750,000
Residential and Office Amenity Space	63,000
Great Hall/Retail/Restaurant/Support	31,000
Shared Meeting Space	21,000
Back-of-House	12,000
Parking	Capacity for approximately 550 vehicles
Office/Retail	*approximately 250 vehicles*
Total	**1,592,000**

* Program numbers are approximate.

** Note the residential sellable square footage is approximately 640,000 sf.

The Great Hall shown in Table 2-1 includes an assembly space for approximately 350 people.

The Project has a building height of approximately 664 feet as defined by zoning.[1] Floor plans, program massing, elevations, and Project renderings are presented in Figures 2-3 through 2-18. Figures 2-3 and 2-4 are Context Plans and Figure 2-5 is the Proposed Site Plan. Figure 2-6 includes a Program Axonometric and Figures 2-7 and 2-8 are Sections. Figures 2-9 through 2-11 present the Great Hall. At the end of this section are additional site plans (Figures 2-12 and 2-13) as well as typical floor plans (Figures 2-14 through 2-17). Section 7.0 contains a discussion of urban design and additional graphics.

The Project includes five levels below grade for residential vehicle drop-off and pick-up, valet-assisted parking, dog and cat daycare/play areas, management and employee areas, mechanical, storage and support for the Great Hall, as well as other accessory uses for the Project.

[1] The Project design includes a 25-foot-tall mechanical penthouse, and the height to the top of the mechanical space is 691 feet from average grade.



115 Winthrop Square **Boston, Massachusetts**

Figure 2-3

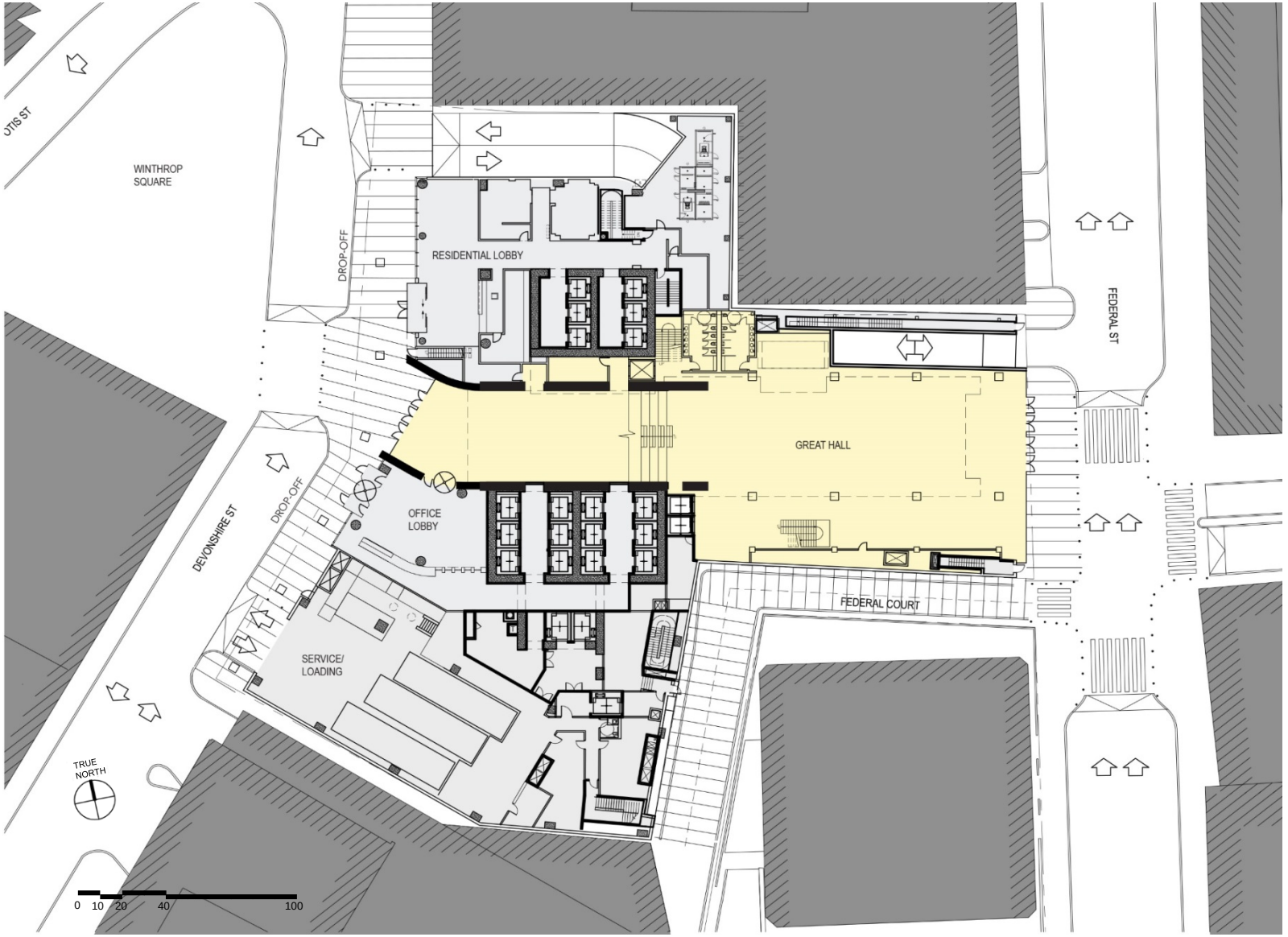
Context Plan



115 Winthrop Square **Boston, Massachusetts**

Figure 2-4

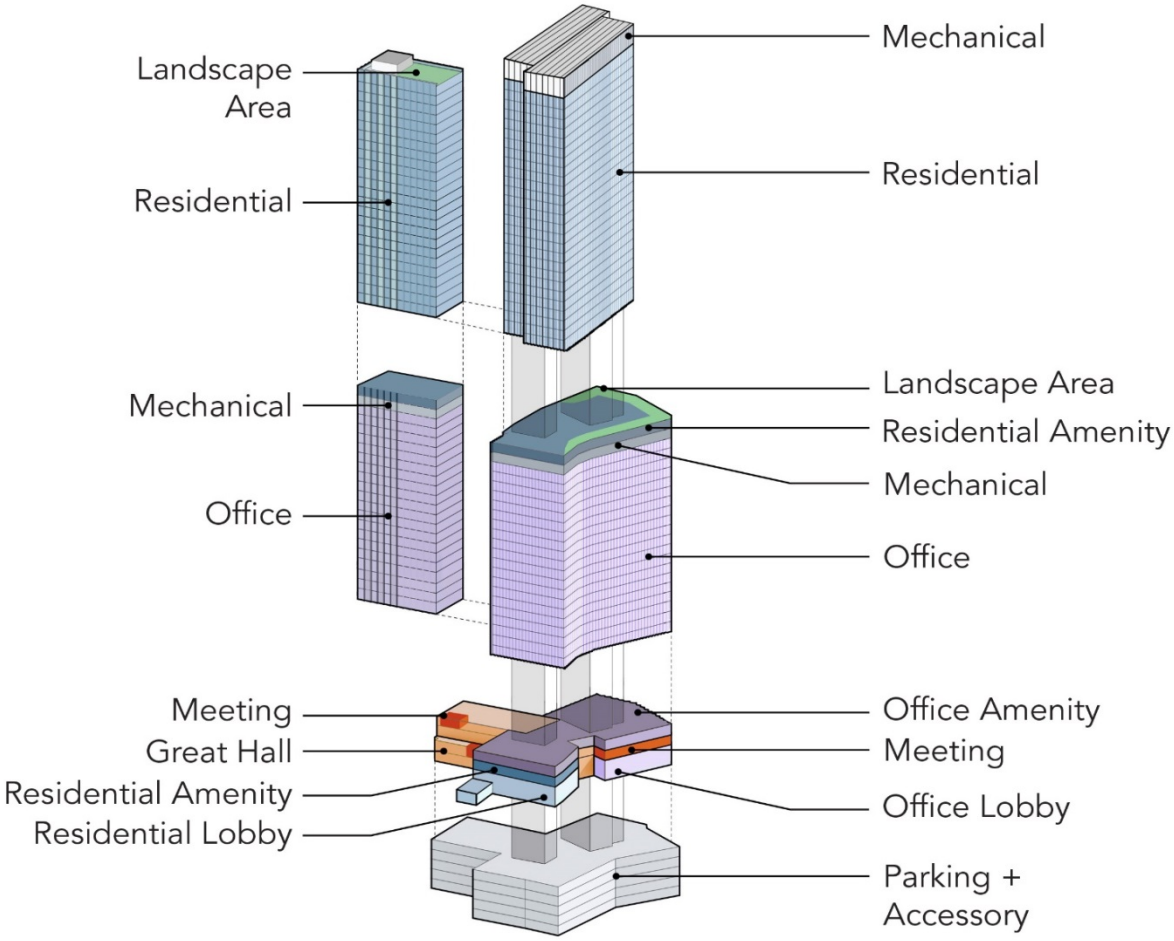
Context Plan with Program



115 Winthrop Square **Boston, Massachusetts**

Figure 2-5

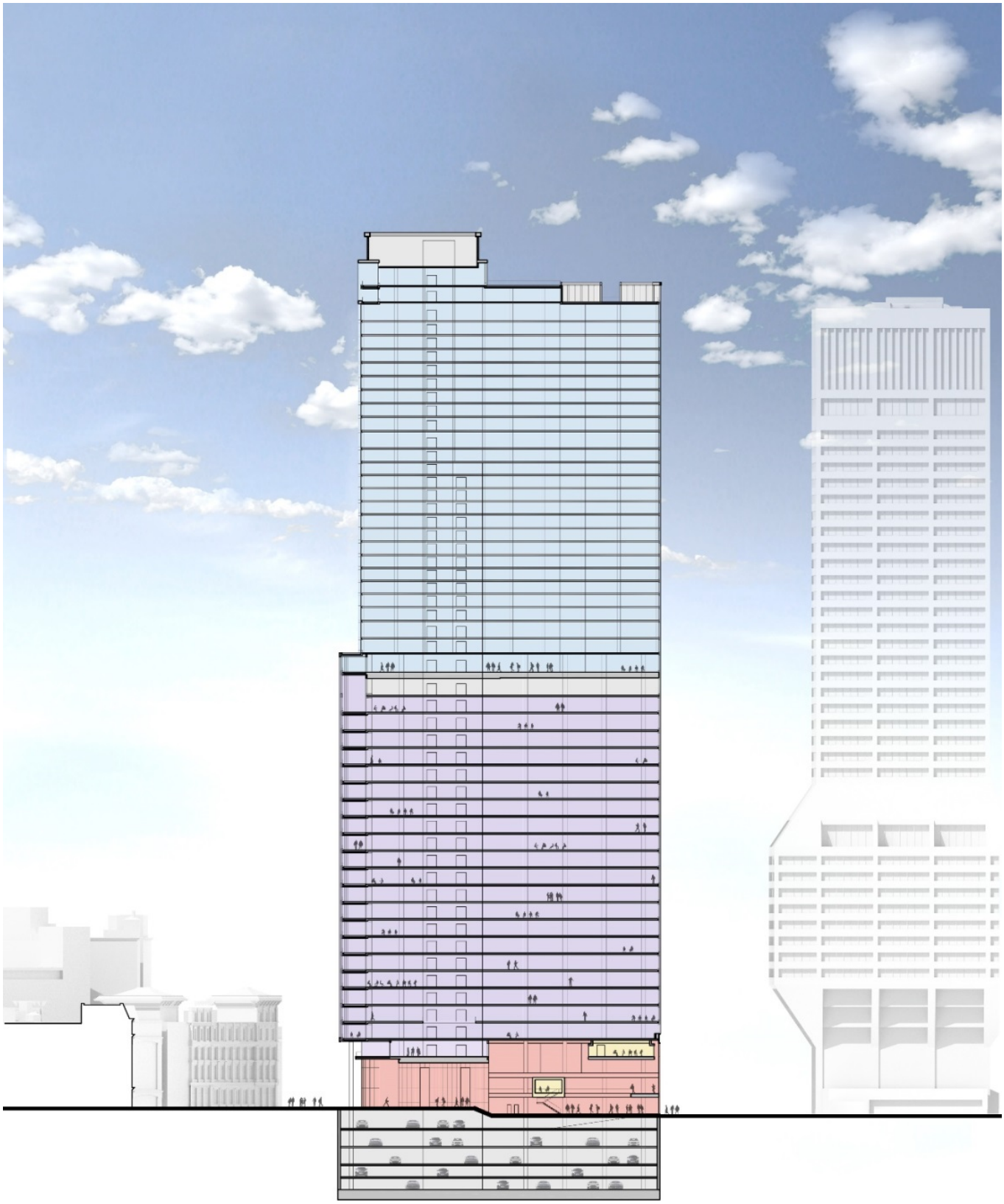
Proposed Project Site Plan



115 Winthrop Square **Boston, Massachusetts**

Figure 2-6

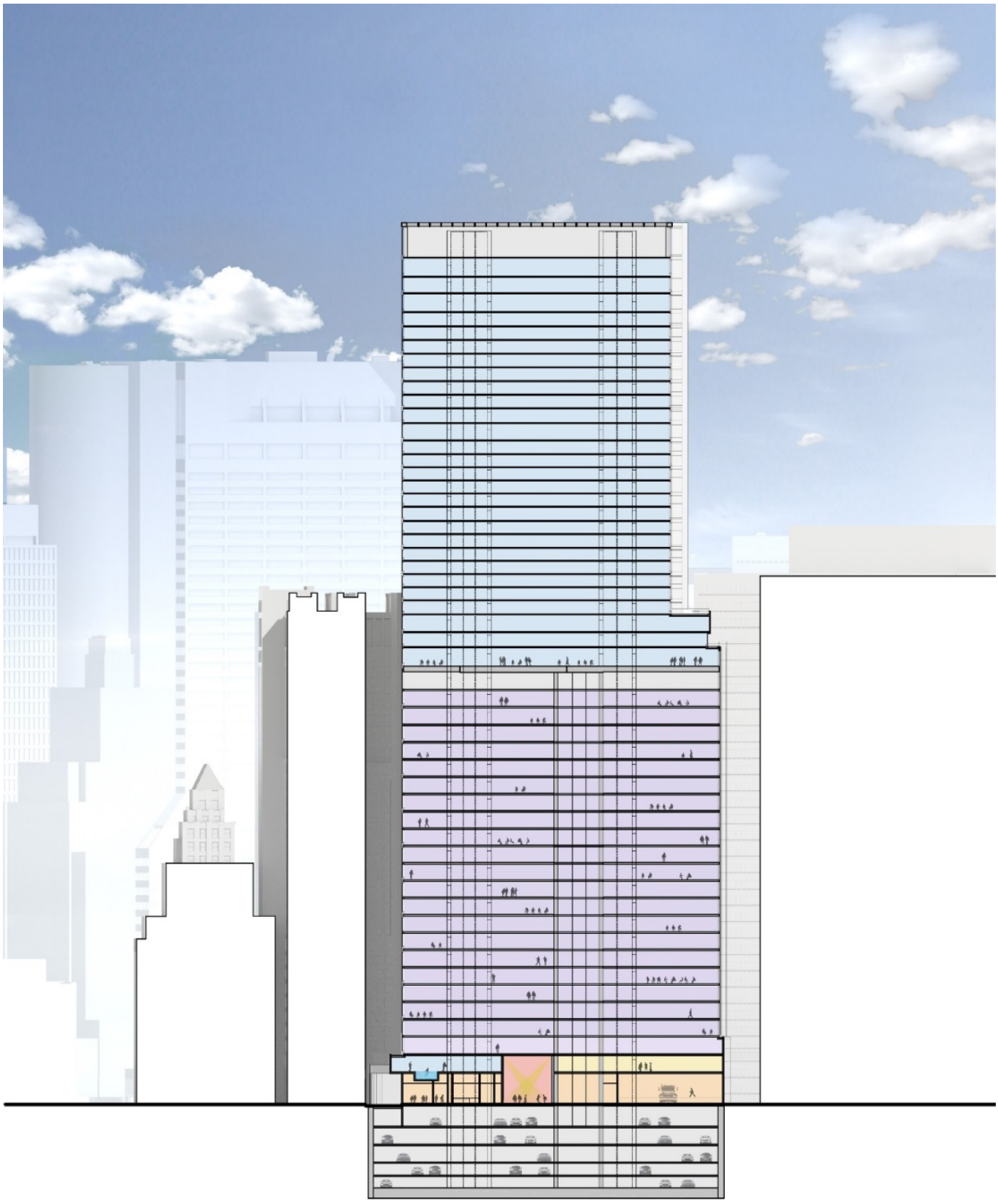
Program Axonometric



115 Winthrop Square **Boston, Massachusetts**

Figure 2-7

Master Section



115 Winthrop Square **Boston, Massachusetts**

Figure 2-8

Devonshire Street Section

2.2.1 Great Hall

The central public feature of the Project is the Great Hall. Located at grade, the approximately 12,000 square foot grand space passes entirely through the site connecting Winthrop Square, and points west to the Financial District and points east. The design of the Great Hall will be distinct from other parts of the building, and encourages people to use and enjoy the public and quasi-public spaces that are located above the Great Hall on multiple levels and include restaurant space and floating flexible rooms on levels two and three (Figures 2-9 through 2-11). The Great Hall will be a space where Bostonians can meet, work, collaborate, pass through, or just reflect in a beautiful urban setting. Also, while distinctly different than the Winthrop Square open space, the Project will explore opportunities for the Great Hall to enhance the public's experience in Winthrop Square.

The mission of the Great Hall is to provide the operational structure and architectural scaffolding to accommodate and implement a variety of programmed educational, civic, performance and cultural experiences available for the public as they may change throughout the day, with the seasons, and as they are reimagined over time. Both active and passive programming will take place daily. Like a well-managed public pedestrian zone, most pedestrian circulation will be maintained when all but the largest events take place. This mission complements the current endeavors to enhance the public's experience in the area most notably on the Greenway, in Downtown Crossing and in Post Office Square.

Implementing the Great Hall's mission to its potential requires on-site operational capability and financial support, both of which the Proponent commits will remain with the Project throughout the life of the building. Many organizations who use the space will be charged only for setup and cleanup costs (and even these can be waived) while other user event revenues will support the ongoing mission of the Great Hall.

The Proponent recognizes that the success of the Great Hall requires early and regular operational and programmatic collaboration with civic minded and talented people and groups from across the City and welcomes their participation. In particular, the Proponent welcomes the collaboration with the Downtown Business Improvement District (BID).

Below is a list of the types of experiences the Great Hall could accommodate.

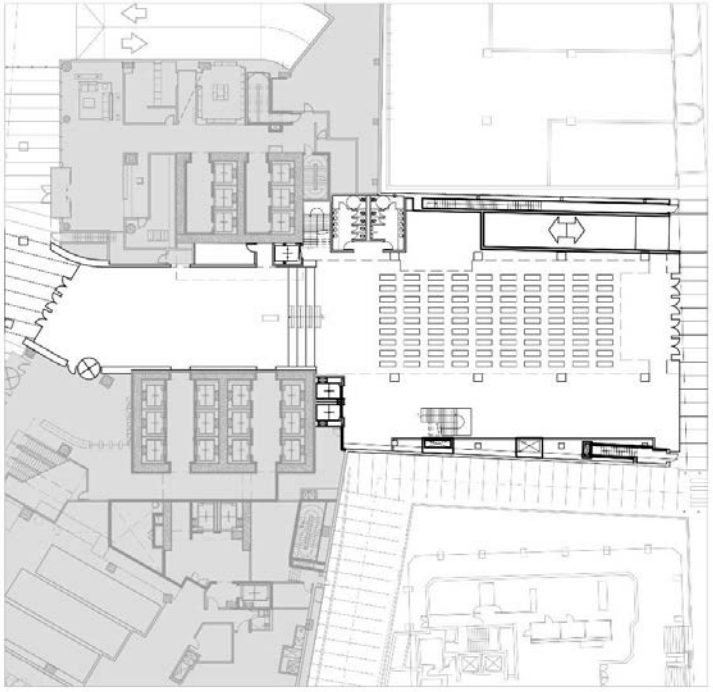
- Special events for educational based community groups can be hosted.

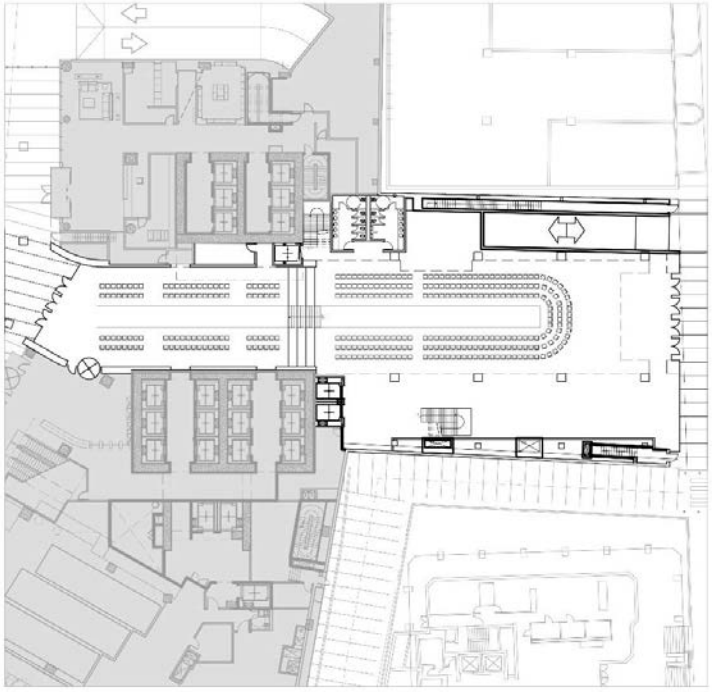
YOGA LESSONS



FASHION RUNWAYS







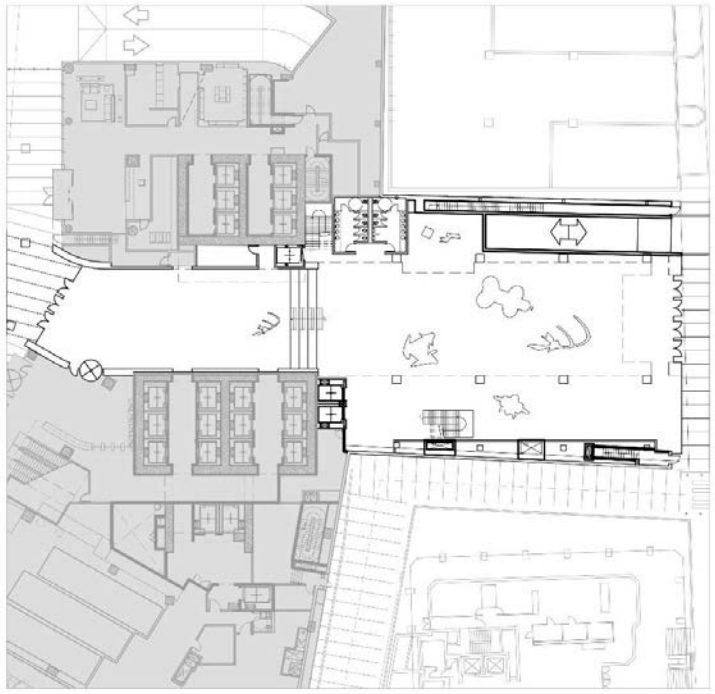
115 Winthrop Square **Boston, Massachusetts**

Figure 2-9

Great Hall Usage Configurations (1a)

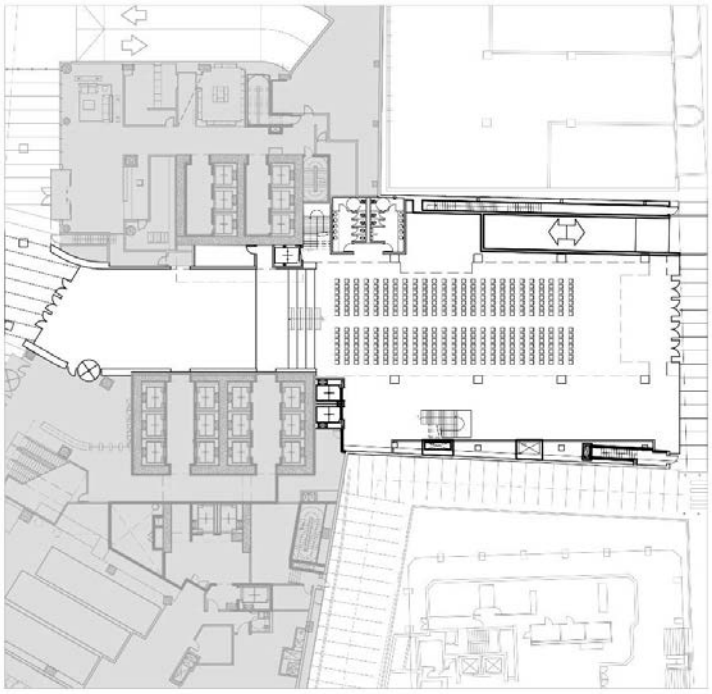
EXHIBITIONS/GALLERIES





PUBLIC LECTURES





115 Winthrop Square **Boston, Massachusetts**

Figure 2-10

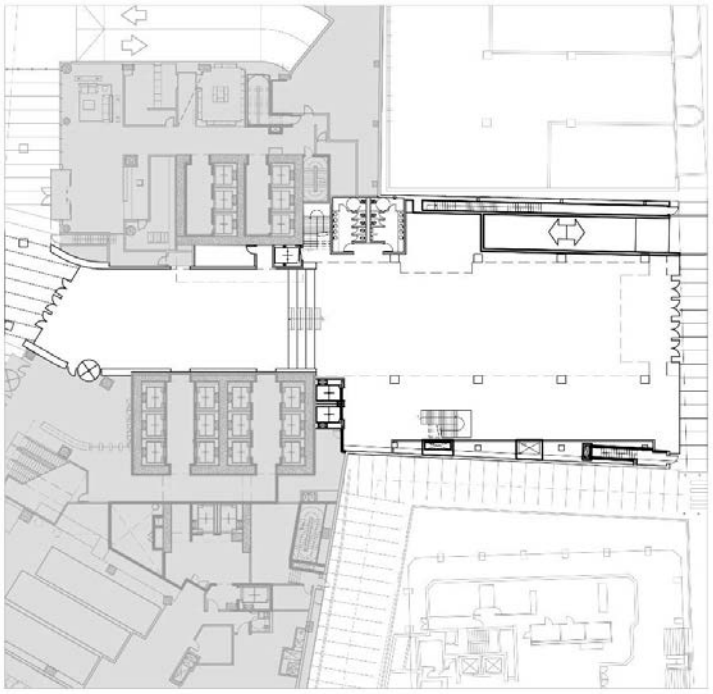
Great Hall Usage Configurations (1b)

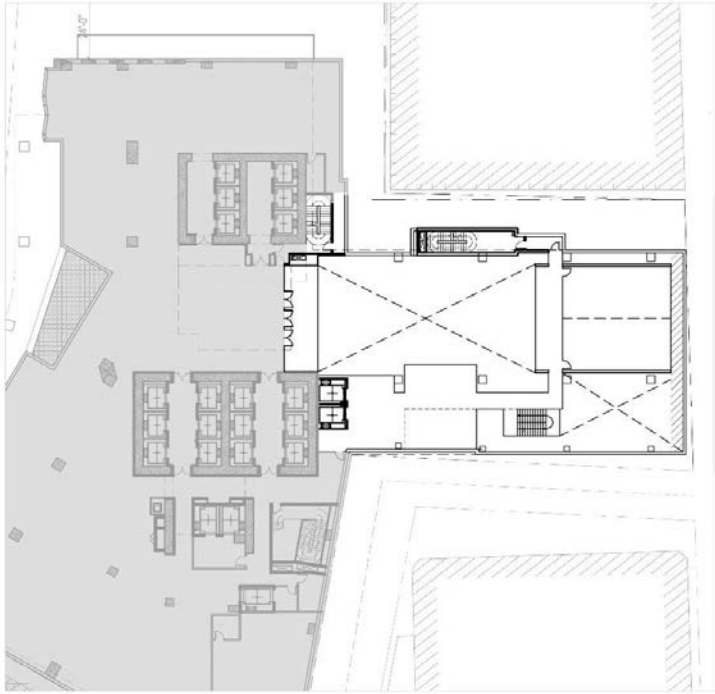
STATE OF THE CITY



MEETING PODS







115 Winthrop Square **Boston, Massachusetts**

Figure 2-11

Great Hall Usage Configurations (1c)

- The Museum of African American Artists in Roxbury founded by Ms. Elma Lewis could provide works that could be part of a rotating display of deserving but under experienced works of art in the Great Hall.

- Portions of the Great Hall could be transformed into a lush greenhouse-like greenspace, which would be especially welcomed in the winter months.

- Galas for 300 people for civic-minded charities could be hosted in the Great Hall.

- Work tables with robust connectivity could be provided in the Great Hall for use by the public.

- Innovative technologies that may still be experimental can be showcased for the public to get a glimpse into the future.

- Sensors in the building, tracking the building's energy consumption and population occupancy in real time, could aggregate the information and display the building's per person performance against benchmarks; all to be creatively displayed to both educate and give people the opportunity to see how their behavior can limit their carbon footprint.

- A digital display could take over a portion of the Great Hall to offer a full immersion experience for the visitor.

- A new precinct voting location for the emerging district's residential population could be provided.

- A taste of, or the music of, or the story of, the rich and varied ethnic and cultural groups in the City of Boston not often experienced by those of different backgrounds could be hosted in the Great Hall.

2.2.2 Open Space/Winthrop Square

Winthrop Square will be designed as an energetic and inspiring destination at the heart of Downtown Boston that enhances the existing pedestrian network of open space in the downtown core. Located at a key crossroad of pedestrian movement and encircled by high quality buildings from a number of eras, the Square is envisioned as an urban room that expands to all of the surrounding building fronts, and links the adjacent streets and activities into one vibrant center. Similar to a great European square, the goal is that the pedestrian experience will be the predominant one with vehicle movement strategically, yet safely, accommodated. While the design of the Square will relate to the design of the Great Hall and other abutting buildings, Winthrop Square will have

a distinctive stand-alone identity that can be experienced from within the Square, and visually from the surrounding area and from multiple levels of the surrounding buildings.

The design of the open space associated with the Great Hall and with Winthrop Square is planned to enhance and enliven the pedestrian experience adjacent to the Winthrop Square Tower as well as play a key role as a new anchor for the Financial District, knitting together Downtown Crossing, Shoppers Park, Dewey Square, and Post Office Square. The proposed streetscape and newly designed square will facilitate movement to and from the Great Hall as well as connections to the many other buildings and surrounding streets (Devonshire, Otis, Franklin and Federal) and pedestrian ways such as Winthrop Lane.

The program of the Square is foremost that of an engaging and relaxing passive open space to be enjoyed by all. The Square will also include the requirements of today's workforce, including wifi availability and/or areas of informal groupings. In the midst of the Square, the design of a water feature is being explored as a lively focus for both the passerby and lunch time eater alike while artistic lighting could enliven the night time and winter experience. The distinctive design will include abundant and varied seating and robust planting. While the existing honey locust trees appear in good condition, their future health and lifespan will be carefully considered and preserving them may not be the best choice in order to achieve an outstanding and timeless design for the next 50 years and beyond. The Square will continue to evolve, in consultation with the BPDA, BID and neighbors.

While the Square is not bathed in direct sunlight the ambient light will be considered in designing the seating areas and the plant choices.

Robert Burns was a Scottish poet (January 25, 1959- July 21, 1796) best known for composing the popular New Year's Eve poem turned song, Auld Lang Syne. The statue of Burns and his dog, Luath, was created by sculptor Henry Hudson Kitson and was dedicated on January 1, 1920. It was originally unveiled in The Fens and moved several times, finally residing in Winthrop Square in 1975. There have been suggestions that the statue should be returned to its original Fens location.

2.2.3 Public Benefits

By virtue of the current public ownership of the Project site, the sheer scale of the endeavor and the limited opportunities for extraordinary density in the City and Region, the proposed Project presents more opportunity for benefits to the public than any other private development in memory. Among other reasons, the

Proponent was the selected Developer due to its ability to perform expeditiously and bring the described benefits to fruition as soon as possible. Among its many benefits, the Project will:

Community Vitality

- Expand the energy being injected into downtown Boston by redeveloping an underutilized and blighted site with a vibrant mixed-use tower and a significant public component;
- Create approximately 500 residential homes, continuing the transformation of the neighborhood into a dynamic 24-hour community;
- Facilitate the expansion of retail, office, and residential uses in the neighborhood promoting economic activity throughout the City and the region;
- Create innovative state-of-the-art commercial office space in an environmentally sustainable high density environment in the commercial core of the City, and with it and other property owners, reestablish the Downtown area's preeminence as the region's commercial core;

Public Realm

- Design, in consultation with the BPDA, the Boston Civic Design Commission, and other interested parties, a new landmark in the City of Boston;
- Improve Winthrop Square, and the surrounding sidewalks and streetscapes, making a new public realm anchor connecting Downtown Crossing, Post Office Square, and Dewey Square;
- Enhance the pedestrian environment and the public realm through new plantings, sidewalks, and outdoor seating;
- Improve the accessible public space due to expanded width of sidewalks;
- Provide a connection space for walking between the Great Hall and the Franklin Street Tontine Crescent area;
- Accommodate vehicle access and maneuverability within the garage of the building, minimizing the vehicle impositions on the public realm;

- Create an important space in the Great Hall designed to provide the operational structure and architectural scaffolding to implement and accommodate a variety of programmed educational, civic, performance and cultural experiences available for the public as they may change throughout the day, with the seasons, and as they are reimagined over time;

Economic Benefits

- Strengthen economic vitality in the area by replacing the deteriorated garage with an active mixed use Project which, by providing housing units in the financial district, will promote 24-hour life in this area of the City;

- Create new standards in Economic Opportunity and Inclusion for the City of Boston that represent new higher goals and new initiatives:

  - Construction workforce of 51% City of Boston Residents, 40% minority and 12% female;

  - Minority Business Enterprises (MBE), and Women-Owned Business Enterprises (WBE) participation for both, the construction and the professional services contracts of 15%; encourage women and minority participation in this work at a management level for these professional services;

  - Post construction building services, including the Proponent's management staff, contract utilizing either W/MBE-owned firms, or firms with 50% minority, 50% women, and 51% City of Boston residents;

  - Seek out Minority and Women Owned businesses to participate in the Project's capital structure at market terms;

  - Continue to facilitate a dialogue on both the opportunities and responsibilities of how a significant downtown Boston Project can benefit people across the City;

- Provide space or directly create approximately 2,670 permanent jobs;

- Directly create over 2,800 construction jobs;

- In compliance with the most recent Mayor's executive order regarding the Inclusionary Development Policy of the City of Boston, the Project will create approximately 115,000 square feet of affordable housing (18 % of the residential units. The Proponent is exploring ways to create these units

in Chinatown and also to try to facilitate the creation of more affordable housing in Chinatown in collaboration with Asian Community Development Corporation;

- Make a **$1.3 billion** direct investment in the City of Boston;

- Pay the City of Boston $166 million ($152,970,000 plus an additional $13,210,000 subject to final residential sales square footage), as part of the $1.3 billion, for the proposed Project for the land as contractually required with the City of Boston as follows: $10 million has already been paid; $92 million is due and payable upon the issuance of the final construction permits for the Project; and approximately $64 million payable at the sale of each residential unit in the amount of $100 per square foot of residential space as identified in the unit deeds;

- Pay an estimated $18 million in sales taxes for construction material to the Commonwealth of Massachusetts, approximately $21.5 million in state personal income taxes during construction, all as extrapolated from the estimate provided by Appleseed Inc. a respected the economic analysis group;

- Put a significant property on the tax rolls for the City of Boston generating more than an estimated $14 million and growing in property taxes annually upon stabilization;

- Generate an estimated $120,000 per year assessment toward the Downtown BID;

- Most of the Project's initial $102 million up-front payments have been preliminarily identified by the City to go towards the following:

  - approximately $23 million to the Boston Common,

  - approximately $28 million to Franklin Park,

  - approximately $11 million toward improvement of the Emerald Necklace,

  - $25 million toward the redevelopment of South Boston's Old Colony public housing complex, and

  - $10 million toward improvements in East Boston's Orient Heights public housing complex.

- Contribute $125,000 annually for 40 years to the Friends of the Public Garden, Inc. entirely toward the maintenance and enhancement of Boston Common, the Public Garden and Commonwealth Avenue Mall;

- Contribute $250,000 for a planning initiative for downtown Boston conducted by the Boston Planning and Development Agency for parts of the downtown area;

- Create approximately $5.6 million in housing linkage and $1.120 million in jobs linkage funds.

Sustainability

- Strive to achieve LEED Platinum Certifiability and adopt the principles of Passive House in the office component. Passive House principles promote reduction in energy consumption, greenhouse gas emissions, and the health and wellness of its occupants. In addition, the Proponent is also designing the Project to meet the more extreme weather conditions anticipated in the future;

- Focus on integrating sustainable design seamlessly into all aspects of the Project, from the early concept, through construction, and into operation and post-occupancy;

- Make the Project a model of sustainability and resiliency for others to follow;

- Create a dense, sustainable mixed-use Project readily accessible to public transportation;

- Seek to enhance accessibility via bicycle in both the site plan and its interface with the surrounding roadway network;

- Provide secure on-site bicycle parking for both office employees and residents complemented by short-term bicycle parking in the public realm around the site;

- Design of Winthrop Square and Federal Street in the vicinity of the Project will be developed in close coordination with the Boston Transportation Department (BTD) to incorporate "Complete Streets" design elements that embrace the importance of bicycle access for the Project;

Transportation

- Create a Transportation Demand Management (TDM) program that will promote the use of alternative transportation methods, including walking, bicycling, and public transportation, taking full advantage of this particular location;

- Create a Project consistent with smart-growth and transit-oriented development principles by being well-served by existing public transportation, including major regional rapid transit and commuter rail lines that provide easy access to the Project site from the Greater Boston region;

- The Project will need less parking relative to other projects of its size because of the Project site's central location and close proximity to public transportation, as well as shared vehicle and biking options;

Infrastructure

- Commit to satisfy requirements of the Boston Water and Sewer Commission's (BWSC's) 4:1 Inflow/Infiltration program via a contribution and/or system improvements to assist in separating the combined public sewers;

- Provide for phosphorous removal of stormwater runoff and provide stormwater retention and reuse applications throughout the building;

- Promote health and wellness, assist in improving indoor air quality and reduce urban heat island effect.

Winthrop Square Economic Inclusion + Diversity + Equity

In addition to all of the benefits described above, the Proponent, in collaboration with the City of Boston, has executed a Memorandum of Understanding (MOU) to achieve diversity and inclusion opportunities in the Winthrop Square Project. The Economic Inclusion + Diversity + Equity Plan will include the City of Boston's recently adopted new workforce goals, in addition it will create a long-lasting impact for Women and Minority Owned businesses (W/MBEs) and residents of color as described above.

The MOU provides for the following:

- Acknowledges that there is disparity in economic opportunities available to underrepresented minority residents of the City; and recognizes the need to promote economic inclusion and equity beyond construction jobs to involve all aspects of the development;

- Facilitates change in the real estate development and operations infrastructure to allow diverse workers, professionals, service providers, investors, and lenders; and,

- Establishes the following Project Goals:

1. Construction Contracts and Workforce

  - 15% of total value of construction contracts awarded are to be performed by WBE and MBE certified firms.

  - 51% of total construction employee work hours in each trade to be City of Boston residents.

  - 40% of total construction employee work hours in each trade to be minorities.

  - 12% of total construction employee work hours in each trade to be women.

2. Professional Service Providers

  - 15% of the total value of consultant contracts awarded in architecture, engineering and professional services to be WBE and MBE certified firms.

  - Non-WBE and MBE firms shall endeavor to hire female and minority employees. They shall also seek to partner with WBE and MBE firms where possible and/or develop and employ mentorship programs that support WBE and MBE firms.

3. **Building Services Contractors/ Permanent Employees when Development is complete**

   - 51% of building management employees and service providers dedicated to this Project to be City of Boston Residents, and 50% of service contractors to be W/MBE business enterprises.

4. **Project Capital Structure**

   - Seek out and offer opportunities for minorities and minority-owned businesses to contribute investment capital toward the development of the Project at a level and risk tolerance that they are comfortable with appropriate at market terms.

The Proponent, to date, has conducted the following activities to achieve the goals outlined above.

1. Conducted an open house workshop at Madison Park High School in July 2017 to introduce the Project to the community and W/MBE firms. The workshop was attended by approximately 75 participants.

2. Sponsored Builders of Color Coalition networking event, hired a summer intern from UMASS Boston as part of the Commercial Real Estate Success Training (CREST) program, sponsored Youth Build Boston awareness event; sponsored Unity Concert event, sponsored BizGrow entrepreneur and small business workshop and Urban League job fair and Community Conference.

3. Provided funding along with Local 103 Electrical Union in a concentrated effort to solicit people of color and City of Boston residents to apply for Local 103 apprenticeships, and furthermore set up mentorships with applicants and funded a tutoring session for test preparation.

4. Engaged the following consultants/contractors that are W/MBE certified: Dream Consultants, Geologic-Earth Exploration, Nitsch Engineering, Engineering Design Services, Wescon Security, Enroute Pest Control, Ground Inc., Mill City Environmental, Quock Associates, Shen Milsom & Wilke, American Environmental, and the Freeman Companies.

2.2.4 Consistency with Planning

2.2.4.1 MetroFuture

The Metropolitan Area Planning Council's (MAPC's) MetroFuture Plan predicts moderate economic growth across the region in the coming years. Development of the Project will support growth in the area by creating new office and commercial space in a developed area, and will provide new space that will encourage new business ventures and bring new revenue to Boston. The Project will also create new housing in close proximity to public transit, consistent with MetroFuture's goals of creating new housing in urban areas and close to job centers.

Under the MetroFuture Plan, population growth will be concentrated in municipalities already well served by infrastructure, with slower growth in less developed areas where infrastructure is more limited. The location of this Project fulfills the Plan's objective by siting new commercial, office, and residential development in a dense urban center that is already well-served by public transit, regional roadways, and utility infrastructure.

The MetroFuture Plan directs over 60 percent of commercial and housing growth to previously developed areas to minimize loss of open space. The Project will provide several new uses on an underutilized, previously developed space, in keeping with this goal. It will also improve open space connections for pedestrians in the area through the Great Hall's open, active, commercial and civic midblock link between Federal Street and Devonshire Street.

2.2.4.2 Executive Order 385 – Planning for Growth

Executive Order 385, "Planning for Growth" (EO 385), explicitly seeks to promote sustainable economic development in the Commonwealth of Massachusetts. The Project has been designed to meet the dual objectives of EO 385: to promote economic activity supported by adequate infrastructure and without resulting in avoidable losses of environmental quality and resources.

The Project is proximate to public transportation and the dense urban development pattern of downtown Boston, and as a result is expected to generate relatively high levels of walking, public transit use, and bicycle trips. Existing water and wastewater infrastructure are adequate to accommodate the proposed uses, and the Project will improve stormwater infrastructure (see Section 9.3). All Project activities will occur on previously-disturbed and developed land, and the Project will not result in any adverse impacts to wetlands or rare species or their habitat.

2.2.4.3 Sustainable Development Principles

By redeveloping a previously-developed, underutilized site, the Project seeks to promote sustainable economic development. The Project's consistency with each of the Commonwealth's ten Sustainable Development Principles is discussed below.

1. Concentrate Development and Mix Uses: This principle encourages reuse of previously-developed sites as well as the creation of mixed-use districts. The Project proposes redevelopment of a site that recently contained an abandoned four-story public parking garage building. The proposed development of a Mixed-Use High-Rise Residential Building will revitalize this underutilized site and promote activity through all hours of the day. The Project will activate an underutilized site with enhanced connectivity for pedestrians through the ground-floor Great Hall that will connect streets, culture, ideas, and people. In addition to providing retail and restaurants to serve as pedestrian attractions, the Great Hall will improve the pedestrian experience more broadly in the area by becoming part of a larger pattern of midblock pedestrian open space links specifically, through improvements to the streetscape, sidewalks and Winthrop Square open space.

2. Advance Equity: The Project involves the responsible reuse and improvement of a previously-developed site in a manner intended to generate local and regional benefits, including jobs at a range of skill levels. These benefits are described in Section 2.2.3 as well as a description of the Project's Economic Inclusion + Diversity + Equity Plan which includes new workforce goals, in addition to creating a long-lasting impact for W/MBEs and residents of color.

3. Make Efficient Decisions: The Project capitalizes on the efficiencies associated with site reuse, which is consistent with a smart growth strategy.

4. Protect Land and Ecosystems: The proposed Project avoids any direct impacts to wetlands and will improve stormwater management relative to existing conditions. Site redevelopment will also establish a Great Hall, which will be an open, robust, inclusive space, free to the public, designed to foster community and an appreciation for the arts and Boston's rich culture.

5. Use Natural Resources Wisely: The Proponent is committed to making the Project a shining model of sustainability and resiliency. The Proponent will focus on integrating sustainable design seamlessly into all aspects of the

Project, from the early concept, through construction, and into operation and post-occupancy. The Project will strive to achieve LEED Platinum Certifiability and adopt the principles of Passive House in the office component. Passive House principles promote reduction in energy consumption, greenhouse gas emissions, and the health and wellness of its occupants. In addition, the Proponent is also designing the Project to meet the more extreme weather conditions anticipated in the future. Section 6.3 includes more detailed information.

6. Expand Housing Opportunities: The Proponent anticipates an active, hands-on role to help address the City's housing affordability crisis. The Project will comply with the City's Inclusionary Development Policy. To do so, the Proponent is collaborating with the Asian Community Development Corporation (Asian CDC) to explore opportunities to create affordable housing in Boston's Chinatown neighborhood.

7. Provide Transportation Choice: The Project is consistent with smart-growth and transit-oriented development principles. The Project site is well served by existing public transportation, including major regional rapid transit and commuter rail lines that provide easy access to the Project site from the Greater Boston region. With the Project site's central location and close proximity to public transportation as well as shared vehicular and biking options, the Project will need less parking relative to other projects of its size. The addition of residential uses to an underutilized site that is adjacent to new, more active uses will support the expansion of retail, office, and residential uses in the neighborhood. The Project will also activate an underutilized site with enhanced connectivity for pedestrians through the ground-floor Great Hall that will connect streets, culture, ideas, and people.

8. Increase Job and Business Opportunities: This principle calls for attracting economic development in industry clusters and expanding access to education, training, and entrepreneurial opportunities. The Memorandum of Understanding on Economic Opportunity and Inclusion ensures that the Project will provide for both construction and permanent jobs for minorities, women and residents of the City of Boston.

9. Promote Clean Energy: The Project will strive to achieve LEED Platinum Certifiability and adopt the principles of Passive House in the office component. Passive House principles promote reduction in energy consumption, greenhouse gas emissions, and the health and wellness of its occupants.

10. Plan Regionally: Development of the Project will support growth in the area by creating new office and commercial space in a developed area, and will provide new space that will encourage new business ventures and bring new revenue to Boston. The Project will also create new housing in close proximity to public transit, consistent with regional goals of creating new housing in urban areas and close to job centers. Section 2.2.4.1 further describes the Project's consistency with regional planning.

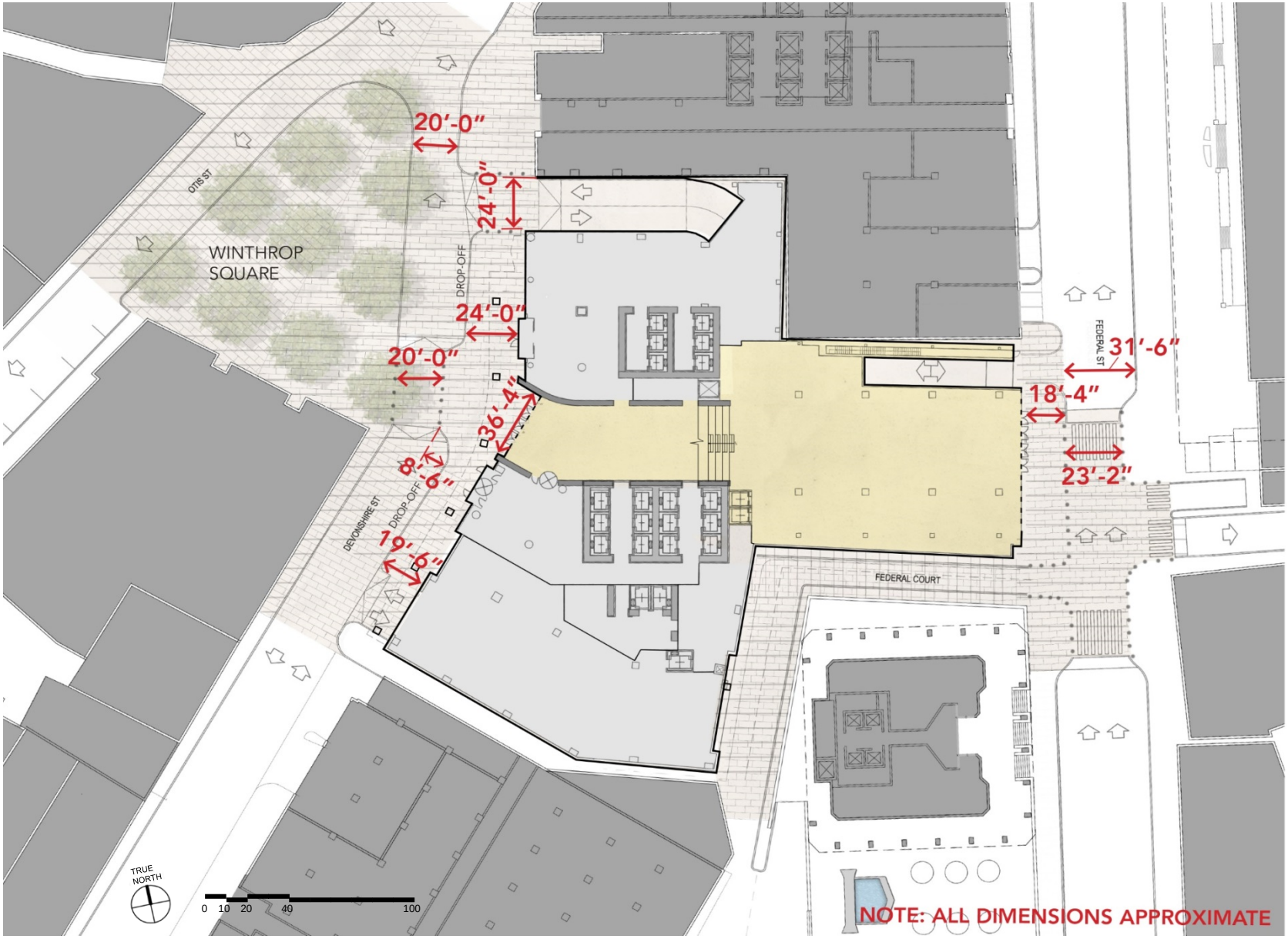
2.2.4.4 Zoning and Regulatory Controls

The Project site is located in a B-10 Business District under the base provisions of the Boston Zoning Code, and is not presently located in a Downtown or Neighborhood District. In addition, the Project site is located within a Restricted Parking Overlay District. The Proponent intends to apply for the creation of a Planned Development Area (PDA) and approval of a PDA Development Plan to permit construction of the Project.

The Project site was previously located in the Downtown Interim Planning Overlay District and the Downtown IPOD Study Area under Article 27D of the Code (the Downtown IPOD), which were time-limited provisions of the Code that were set to expire unless reauthorized. Article 27D and the Downtown IPOD expired in March 2016, and are no longer in effect.

2.3 Project Schedule and Phasing

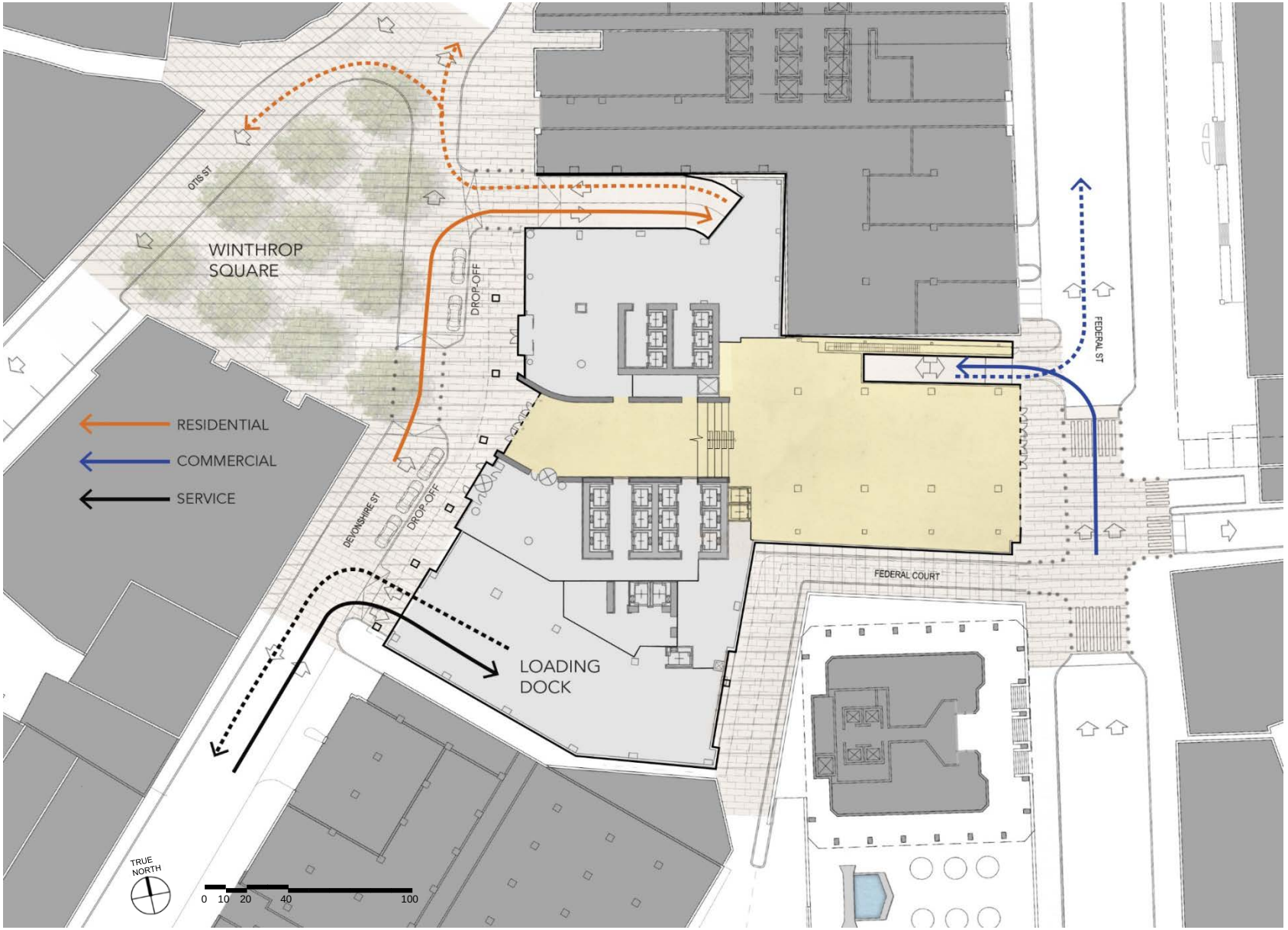
Project construction is proposed as a single phase that is estimated to commence in the second quarter of 2018, with initial occupancy by the first quarter of 2022.



115 Winthrop Square **Boston, Massachusetts**

Figure 2-12

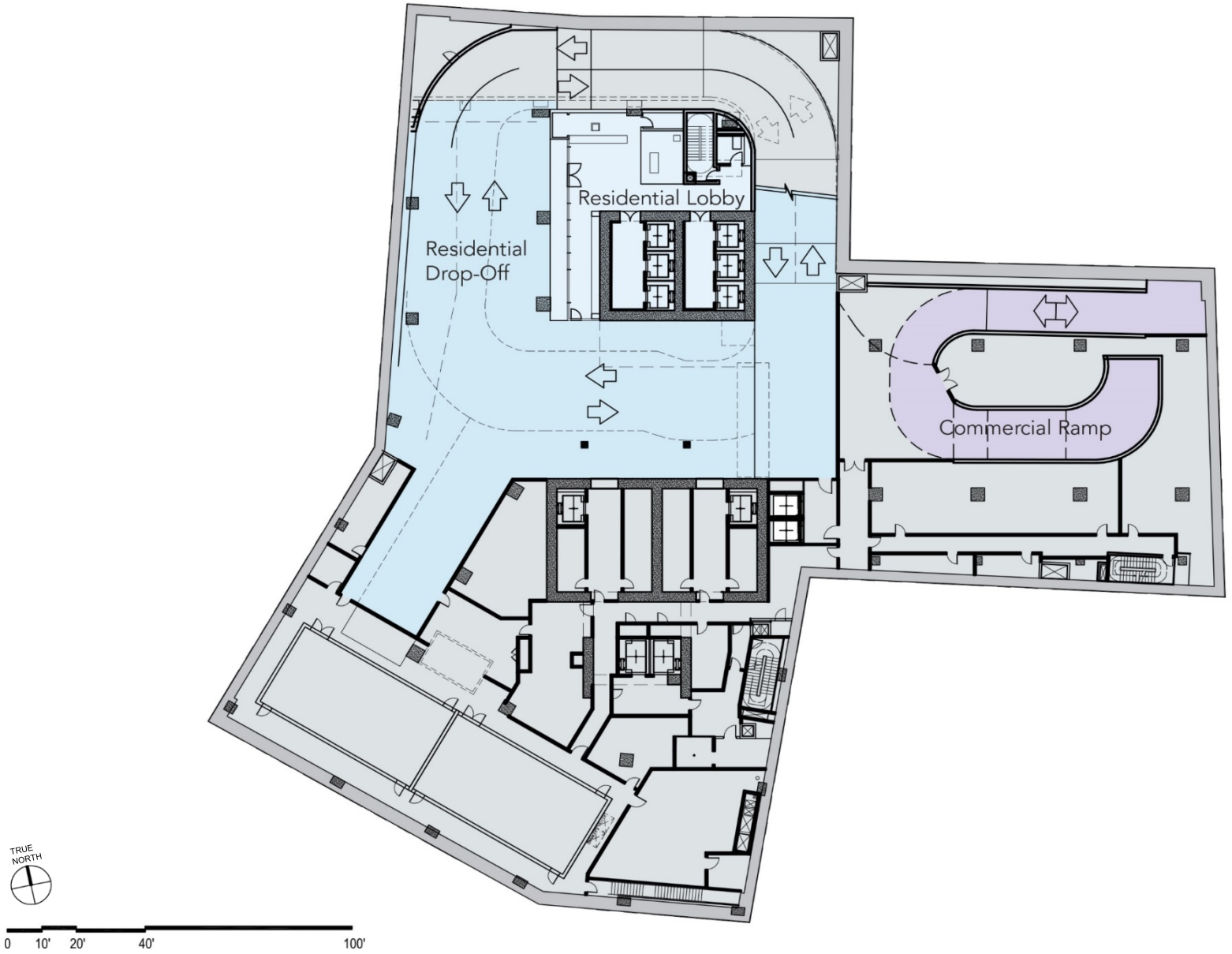
Zoomed Site Plan with Sidewalk and Roadway Dimensions



115 Winthrop Square **Boston, Massachusetts**

Figure 2-13

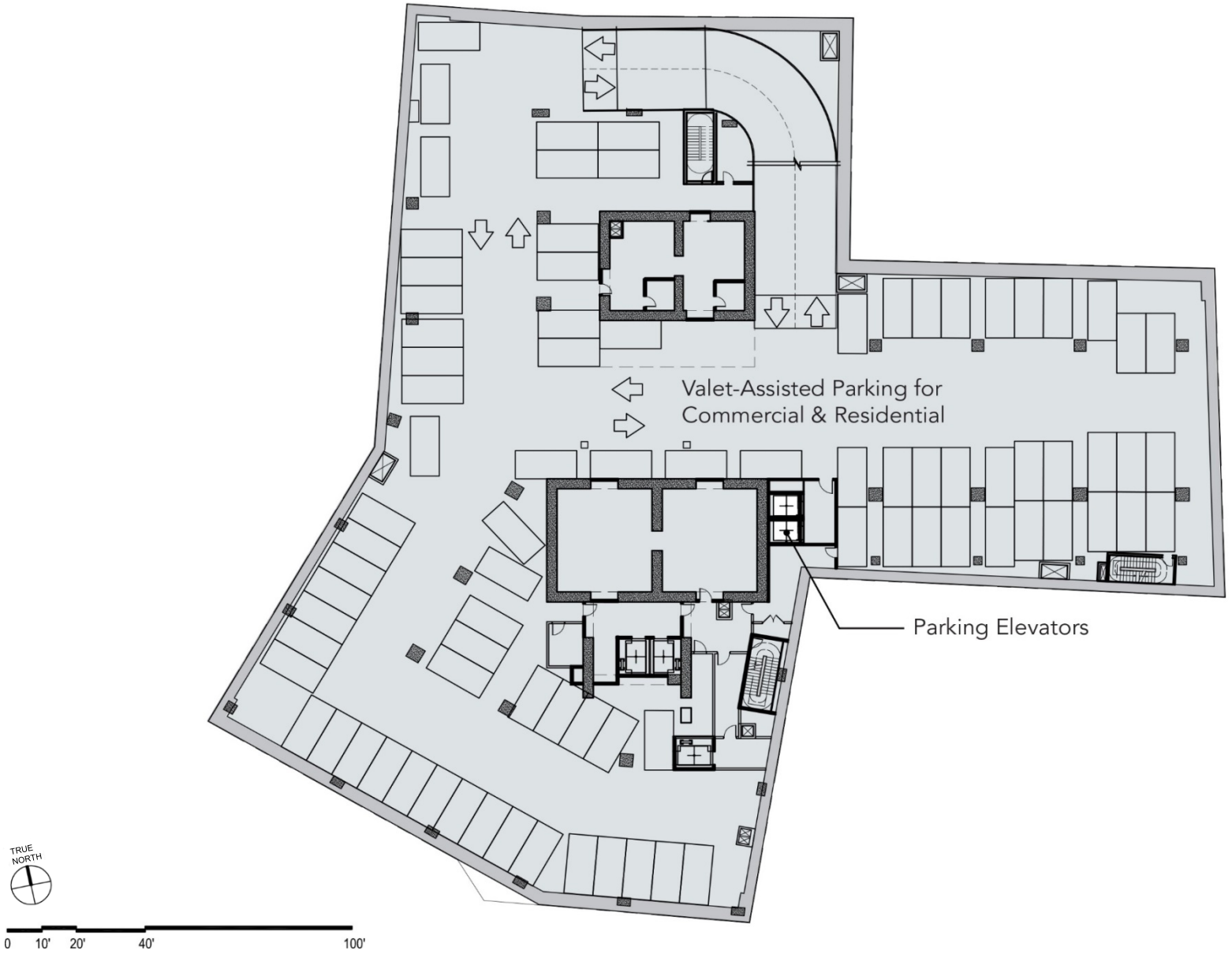
Site Plan - Vehicle Access



115 Winthrop Square **Boston, Massachusetts**

Figure 2-14

Level B1 Floor Plan



115 Winthrop Square **Boston, Massachusetts**

Figure 2-15

Typical Parking Plan



115 Winthrop Square **Boston, Massachusetts**

Figure 2-16

Office Low Tower Floor Plan



115 Winthrop Square **Boston, Massachusetts**

Figure 2-17

Sample Residential Floor

Chapter 3

Alternatives Discussion

3.0 ALTERNATIVES DISCUSSION

In 2014, the City of Boston requested the BPDA's assistance in redeveloping the Project site. Following a robust public process, the BPDA Board of Directors on November 1, 2016 granted "Tentative Designation" status to the Proponent for redevelopment of the site; this designation process is described in greater detail in Section 1.6. For comparative purposes, the Proponent has performed a comprehensive analysis of alternatives as described in the MEPA Certificate and BPDA Scoping Determination. Those alternatives are described below.

3.1 No-Build Alternative

The Certificate on the ENF requires that the Draft EIR/PIR describe a No-Build Alternative to provide a baseline against which build alternatives may be evaluated.

The No-Build Alternative would be counter to the City of Boston's goals and objectives for the site publicly introduced in 2006 and reinforced since that time. Under a No-Build alternative, the Project site would remain as a vacant site, and the numerous public benefits described in Section 2.2.3 would not be realized. Furthermore, under the No-Build alternative, the community would not benefit from the new residential units or other uses proposed as part of this Project. In addition, stormwater management would remain unimproved.

3.2 340-Foot Tower (Alternative based on Previous Shadow Law)

Chapter 362 of the Massachusetts Acts of 1990 and Chapter 384 of the Massachusetts Acts of 1992 limit the amount of new shadow that can be cast upon the Boston Common and the Boston Public Garden from new structures during certain times of the day. Modifications to these shadow laws as in effect at the time of filing of the PNF and ENF were necessary for the Project on this city-owned site above approximately 340 feet to proceed. As described in Section 1.1, a broad public discussion was initiated on the Project in connection with a City of Boston proposal to amend the Massachusetts state laws governing new shadows from new structures under certain timeframes on the Boston Public Garden and Boston Common to allow for a tower project on the Project site to proceed. In connection with the proposed amendment, the Proponent participated in more than 50 public meetings and information sessions with members of the community to discuss the proposed amendment, its implications, the potential benefits and impacts of the proposed Project including a detailed evaluation of the potential shadow occurrence of the Project on the historic parks. After a public hearing in City Council Chambers attended by over 1,000 interested citizens, the Boston City Council voted 10-to-3 in favor of the amendment. In the spring of 2017, the home rule petition was

considered at a public hearing at the State House, voted on and enacted by both chambers of the Massachusetts Legislature and signed into law by the Governor in July of 2017.

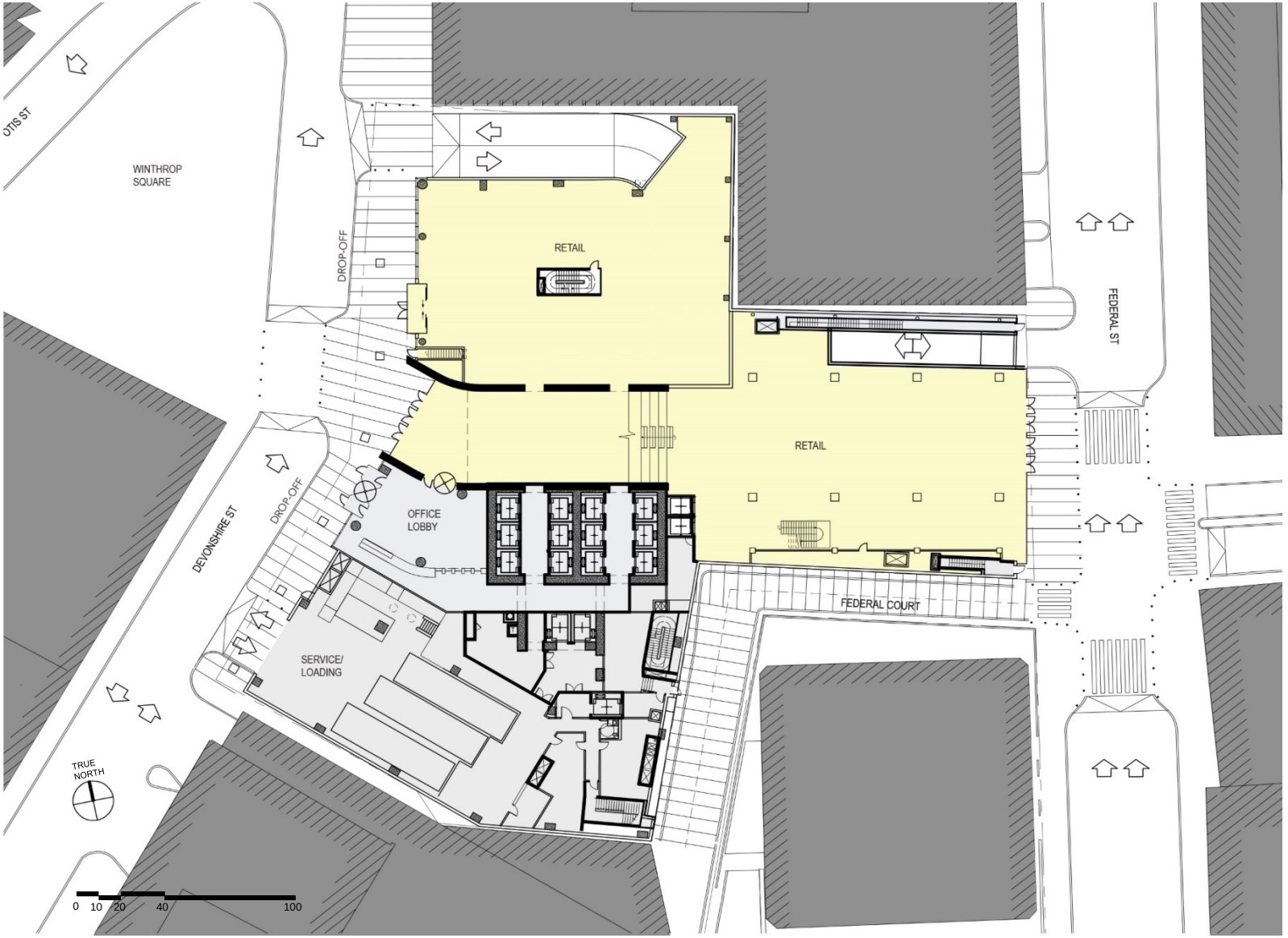
Although the Project is now fully compliant with the governing shadow laws as described in Section 1.1, the Proponent has analyzed a Project alternative that would have complied with the shadow laws as they existed when the PNF and ENF were submitted. That alternative would have a zoning height of 340 feet from average grade. The Proponent has analyzed this 25-story alternative, shown on the conceptual site plan on Figure 3-1, and has defined the development program shown in Table 3-1. The program table includes the same uses proposed as part of the proposed Project/Preferred Alternative, but not all of the uses would be included in the 340-foot alternative.

Table 3-1 Program for 340-foot-tall Project Alternative[1]

Project Element	*Square Footage*
Residential	0
Office	843,000
Office Amenity	60,000
Retail/Restaurant	50,000
Shared Meeting Space	22,000
Back-of-House	25,000
Parking	550 vehicles
Office/Retail	*250 vehicles*
TOTAL	***1,000,000 square feet***

As shown in Table 3-1, this alternative would eliminate the residential and private amenity spaces due to the site configuration, which is better optimized for office space. Since this alternative would not include residential space, a residential lobby is no longer required and that area would be absorbed into ground floor retail. This alternative, at 340 feet high, would be shorter than many of its surrounding buildings, which are in the 400-foot range. Even an office building of 340 feet would not command the rents required to finance the complex construction on the Project site. A 340-foot-high building's economic viability would be severely restricted and would not allow for the benefits described in Section 2.2 at the scale and the timing provided by the Project.

[1] Program numbers are approximate.



115 Winthrop Square **Boston, Massachusetts**

Figure 3-1

Alternative Based on Previous Shadow Law

3.3 As-of-Right Zoning Alternative

The Project site is located in a B-10 Business District under the base provisions of the Boston Zoning Code (the Code), and is not presently located in a Downtown or Neighborhood District or in an interim planning overlay district.[2] Although the Code does not specify a maximum as-of-right building height within the B-10 Business District, it does provide that the maximum as-of-right floor area ratio in the B-10 Business District is 10. The Code also sets forth certain other as-of-right dimensional requirements applicable to the B-10 Business District, including setbacks, open space requirements, and minimum lot widths that vary depending on particular uses. In addition, the Project site is located within a Restricted Parking Overlay District, in which off-street parking facilities for nonresidential uses are conditional uses.

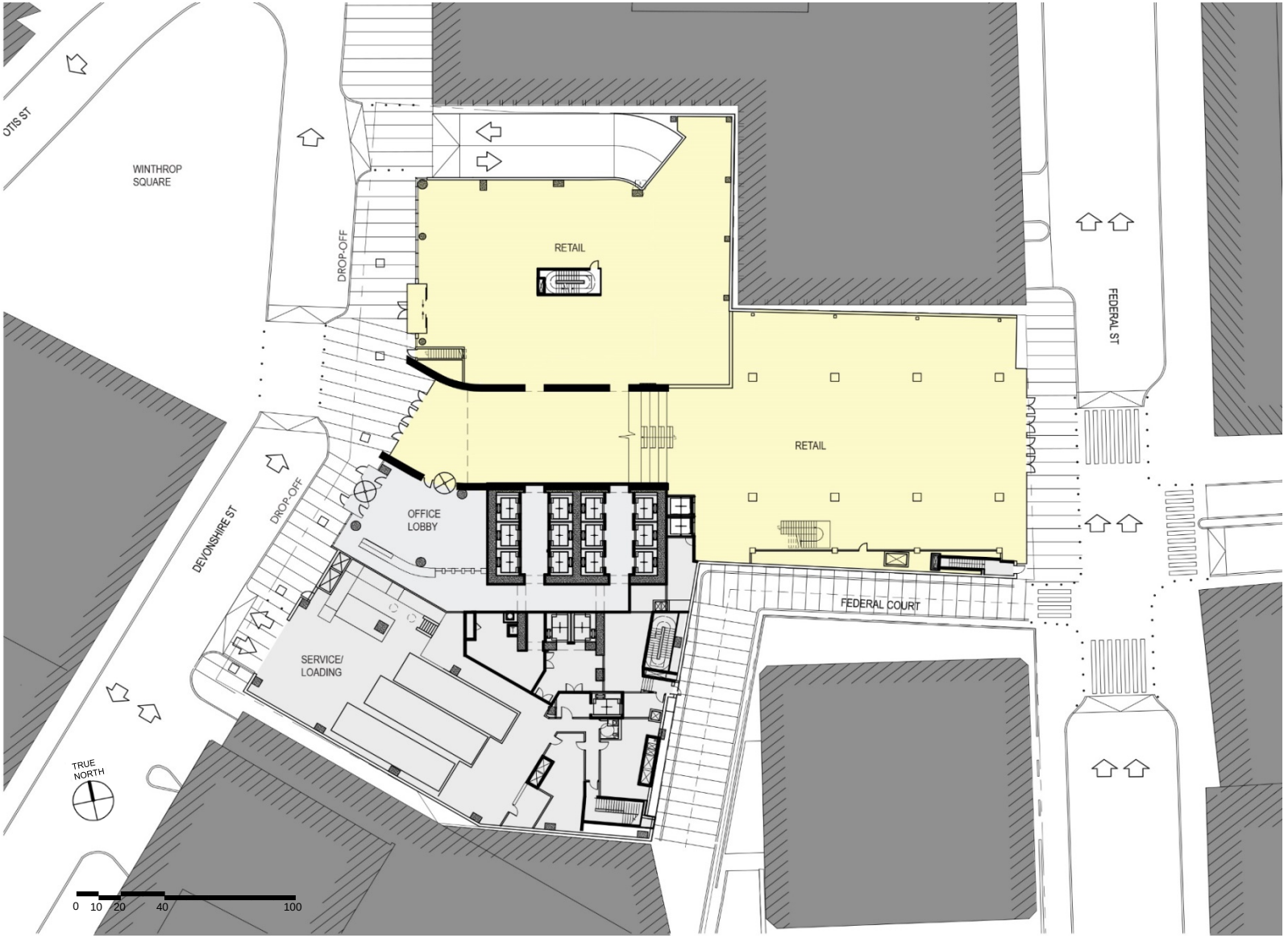
A project that is built to the as-of-right dimensional requirements of the Code applicable to the Project site (i.e., an "as-of-right" project) would result in a project having a zoning height of 202 feet from average grade. Accordingly, the Proponent has analyzed this alternative, shown on the conceptual site plan on Figure 3-2, and has defined the development program shown in Table 3-2. The as-of-right alternative has also been assessed in terms of wind and shadow impacts in Sections 5.1 and 5.2, respectively. The program table includes the same uses proposed as part of the proposed Project/Preferred Alternative, but not all of the uses would be included in this 202-foot alternative.

Table 3-2 Program for 202-foot-tall (as-of-right) Project Alternative[3]

Project Element	*Square Footage*
Residential	0
Office	446,000
Residential and Office Amenity	0
Retail/Restaurant	23,000
Back-of-House	12,000
TOTAL	***481,000 square feet***

[2] The Project site was previously located in the Downtown Interim Planning Overlay District and the Downtown IPOD Study Area under Article 27D of the Code (the Downtown IPOD), which were time-limited provisions of the Code that were set to expire unless reauthorized. Article 27D and the Downtown IPOD expired in March 2016, and are no longer in effect.

[3] Program numbers are approximate.



115 Winthrop Square **Boston, Massachusetts**

Figure 3-2

As-of-Right Site Plan

As shown in Table 3-2, this alternative would eliminate residential uses due to the site configuration, which is better optimized for office space. This alternative would also result in reductions for office space and retail uses. Since this alternative would not include residential space, associated amenity space is no longer required; in addition, this alternative would not include a Great Hall. An as-of-right alternative would underutilize this City-owned site, and compared to the proposed Project/Preferred Alternative it would not be as economically viable and would not allow for the public benefits outlined in Section 2.0 at the scale and the timing provided by the Project.

3.4 The Project (Preferred Alternative)

As described in Section 2.2, the proposed Project is an approximately 53-story, approximately 1.592 million-square-foot mixed-use building with complex and diverse functions.[4] Please see Attachment A regarding the FAA. The more public functions of the Great Hall (e.g., retail, restaurants, events) and the office spaces, when coupled with residents living in the building, will create a critical mass of activity on the streets and squares in this neighborhood. The Project is economically viable and would allow for the public benefits outlined in Section 2.2 and throughout the document including strengthening economic vitality in the area, creating new jobs and generating significant tax revenue for the City as well as a significant payment to the City for the land acquisition (see Section 2.2.3). Figure 2-5 includes the Site Plan.

Table 3-3 compares the proposed Project (Preferred Alternative) with the No-Build Alternative, as-of-right alternative, and an alternative based on the previous shadow laws.

Table 3-3 Tabular Comparison of Development Alternatives

	No-Build	*As-of-Right Zoning*	*340-Foot Tower*	*Project*
Trip Generation (ADT) Adjusted	0	2,250	3,720	3,360
Trip Generation Unadjusted ADT	0	6,700	11,100	11,120
Parking	0	0	550	550
Water Use	0	50,258	98,835	198,726
Wastewater Generation	0	45,689	89,850	178,205
Compliant with existing shadow laws?*	Yes	Yes	Yes	Yes

* The Project complies with Chapter 362 of the Acts of 1990 and Chapter 384 of the Acts of 1992, each as amended by Chapter 57 of the Acts of 2017, "An Act Protecting Sunlight and Promoting Economic Development in the City of Boston" signed by the Governor of the Commonwealth on July 24, 2017, which govern new shadows from new structures on Boston Common and the Public Garden. See Section 1.1.

[4] The proposed Project design is consistent with the Massport/FAA alternative identified in the MEPA Certificate.

Chapter 4

Transportation

4.0 TRANSPORTATION

This section presents the analysis of transportation and parking aspects of the proposed Project, which is described in detail in Section 2.0. This evaluation includes the following elements:

- A description of existing Project site conditions, traffic volumes, roadway capacities, parking, transit, pedestrian circulation, bicycle accommodations, and loading;
- An evaluation of the Project's long-term transportation impacts, including traffic operations, parking, transit, pedestrian, bicycle, and loading;
- A description of the transportation mitigation and improvements proposed as part of the Project to minimize any potential transportation impacts and improve overall mobility at the Project site and throughout the study area.

Additional details and supporting information are provided in Attachment D of this Draft EIR/PIR, which is provided electronically on the enclosed CD. Hard copies of supporting materials are available upon request.

4.1 Introduction

The Project site is ideally located to take advantage of its unique multimodal context. Like most downtown locations, it is truly transit-oriented, being close to both regional and local public transportation services. Boston's largest transit hub, South Station, is less than a five-minute walk from the site, and all four Massachusetts Bay Transportation Authority (MBTA) rapid transit lines are located in proximity to the site. In addition, numerous MBTA local bus routes serve the downtown area, and there is a major MBTA commuter bus hub across from the site on Federal Street (see Section 4.2.2 for details of services).

Development of the Project presents unique opportunities to substantially enhance the pedestrian environment on the site itself and throughout this section of downtown. The proposed site development will create an important missing link in the pedestrian network. Bicycle access will also be integrated as an increasingly important mode of transportation, with both short- and long-term bicycle parking accommodations integrated in the site design.

Finally, to the extent that the Project will rely on highway access, the site is well located in relation to both local and regional routes, including I-93 and I-90 (the Mass Turnpike). Vehicular circulation has been designed to provide direct access to on-site parking with minimum impact to the non-auto environment, as well as drop-off/pick-up locations on-street and at the residential porte cochere/drop off at the B-1 level).

4.1.1 Project Description

As described previously in Section 2.1, the Project site comprises approximately 1.1 acres (47,962 square feet), and is presently the site of a recently razed, four-story public parking garage. The garage had capacity to park 1,125[1] vehicles before its closing in 2013. The proposed Project includes construction of a mixed-use building with commercial, office, and residential uses above retail, restaurant, and public space as well as below-grade parking. In addition to the new building, the Project will provide, via the Great Hall, an open midblock link for pedestrians between public spaces as well as an improved pedestrian experience around the Project site with the re-construction and widening of the sidewalks.

Design and programming of the Project continues to evolve through market analyses and design review with the City of Boston. The Project is anticipated to include approximately 1,592,000 square feet of gross floor area, as defined in Article 2A of the Boston Zoning Code. Table 4-1 presents the Project program.

Table 4-1 Project Program*

Project Element	Square Footage
Residential	715,000
Units	*500*
Total Bedroom	*920*
Office	750,000
Meeting Space	21,000
Residential & Office Amenity Space	63,000
Great Hall/Retail/Restaurant/Support	31,000
Back-of-House	12,000
Parking	
Commercial, Office and Retail	*250 vehicles*
Total Parking	*550 vehicles*

** Program numbers are approximate.*

[1] According to the Boston Transportation Department's 1987 Downtown Boston Parking Inventory Survey, the Winthrop Square Garage had a capacity of 1,125 parking spaces.

4.1.2 Site Plan

The survey plan of the existing Project site is presented in Attachment C. Previously, when the approximately 1,125 parking space garage was in operation, vehicular access was provided via curb-cuts on both the Devonshire Street and Federal Street frontages. Pedestrian access was also provided from sidewalks on both streets.

The proposed site plans are presented and described in detail in Section 2.0, Project Description. Access for parking will be maintained on both Devonshire Street and Federal Street, with a reversible commercial curb-cut and ramp on Federal Street and a residential driveway and ramp on Devonshire Street. The latter also provides access to the residential porte cochere/drop off at the B-1 level.

Access for loading and servicing will be provided by a separate service area curb-cut on Devonshire Street. To eliminate the need for service vehicles to exit through Winthrop Square, it is proposed to convert the section of Devonshire Street between the service area curb-cut and Summer Street to two-way traffic operation. This will also enable cars and trucks exiting the garage driveway and loading dock at the rear of 100 Summer Street to depart directly to Summer Street as an alternative to passing through Winthrop Square as they must do under the existing circulation.

4.1.3 Summary of Key Findings

Section 4.0 of this DEIR/DPIR presents a detailed analysis of the Project for all modes of transportation. Key findings of the analysis include the following:

1. The Project enjoys an excellent transit-oriented location in the heart of downtown Boston which will minimize the generation of auto trips by the Project.

2. The Project will replace a garage on the site which was closed in early 2014 and is currently being demolished. At the time of closing, the garage was heavily used, and provided parking for 1,125 vehicles. By contrast, the Project will provide parking for approximately 550 vehicles, equivalent to less than 50% of its prior capacity.

3 Existing traffic conditions in the study area are subject to commuter peak characteristics, but generally operate reasonably well. However, at times, the close spacing of intersections can result in exacerbation of queuing and delays, particularly in the Congress Street corridor.

4. The Project is projected to generate approximately 370 and 390 vehicle trips in the weekday morning and evening peak hours, respectively. As the site enjoys good local and regional highway access, trips will be dispersed in multiple directions on the roadway network.

5. Because of the different travel characteristics between residential and commercial uses, the mixed-use program for the Project will generate less trips than for an all-office building of the same size, particularly as there will be internal capture of some residential and office trips. In addition, the mixed-use trip generation is less impactful directionally because it is less concentrated in the either the inbound or outbound directions, due to the office being predominantly inbound in the morning peak period and the residential being predominantly inbound in the evening peak period.

6. Some deterioration of traffic levels of service (LOS) are projected in the future 2023 time-horizon, both without (No-Build) or with the Project (Build). However, reductions in LOS grades due to the Project are limited to two locations, for which traffic signal phasing and timing changes are proposed to mitigate impacts. Striping and signage improvements are also proposed along the Congress Street corridor between Franklin Street and Purchase Street.

7. The Project is projected to generate approximately 685 and 775 transit trips in the weekday morning and evening peak hours, respectively. The trips will be broadly dispersed amongst multiple MBTA Commuter Rail, subway (heavy rail), light rail and bus routes serving the downtown. As result, impacts to individual rail lines and bus routes are expected to be relatively limited.

8. With minor exceptions, the subway lines currently operate within their MBTA Policy capacities, and well within their crush capacities. However, they are subject to pressures of delay and crush capacity during peaks in the peak periods that result largely from difficulties in maintaining schedules and consistent headways.

9. The greatest assignments of Project trips will be to the Orange and Red subway lines. However, with new cars and improved headway, both lines will have increased capacity in the future, and the impact of Project trips will result in relatively limited impact to future volume/capacity ratios and operations.

10. The Project is expected to attract high volumes of pedestrian trips, many of which will be shared trips with surrounding land uses. Pedestrian levels of service at study intersections will be largely un-impacted by the Project.

The pedestrian environment will be enhanced substantially by both the creation of a new mid-block connection between Devonshire Street and Federal Street, and by the extensive public realm improvements to be provided on those streets, including new crosswalks and widened sidewalks.

11. With parking for approximately 550 vehicles, the Project is within BTD guidelines for parking ratios and at the lower end of the guidelines for residential parking ratios. Analysis indicates that there will an adequate supply to satisfy parking demand with the goal of not over-providing parking in light of the mobility characteristics of the site. The parking analysis has taken into account shared spaces between office and residential uses.

12. Both long-term and short-term bicycle parking and supporting facilities will be provided to encourage use of bicycles by residents, employees and visitors.

13. Off-street service and loading docks will be provided to support the Project needs. A partial 2-way operation on Devonshire Street is proposed to eliminate the need for trucks to pass through Winthrop Square, thereby improving Winthrop Square's pedestrian environment.

14. The Proponent will implement a robust transportation demand management (TDM) program to reduce single-occupant vehicle (SOV) trips and enhance and encourage alternative modes.

15. Transportation improvements, including TDM, will be committed to through the execution of a Transportation Access Plan Agreement (TAPA) and Construction Management Plan with the Boston Transportation Department.

4.2 Existing Transportation Conditions

The Project site is located in the heart of downtown Boston with direct access to major roadway arterials, public transit alternatives, and a vast system of sidewalks and bike lanes to connect the site with the surrounding community and adjacent neighborhoods. Boston's largest transit hub, South Station, is less than a five-minute walk, and all four MBTA rapid transit lines are located in proximity to the site. In addition, numerous MBTA local bus routes serve the downtown area, and there is a major MBTA commuter bus terminal across from the site on Federal Street, making this Project an ideal Transit Oriented Development (TOD). The following sections provide details of the extensive existing transportation infrastructure supporting the Project site.

4.2.1 Vehicle Conditions

4.2.1.1 Roadway Network

The Project site is located at 115 Winthrop Square, also known as 115 Federal Street, in Downtown Boston. It is bounded by 75-101 Federal Street to the north, 100 Summer Street and Federal Court (a private street) to the south, Devonshire Street to the west, and Federal Street to the east. Figure 4-1 shows the Project site in the context of the roadway infrastructure and transit stations supporting the Project site.

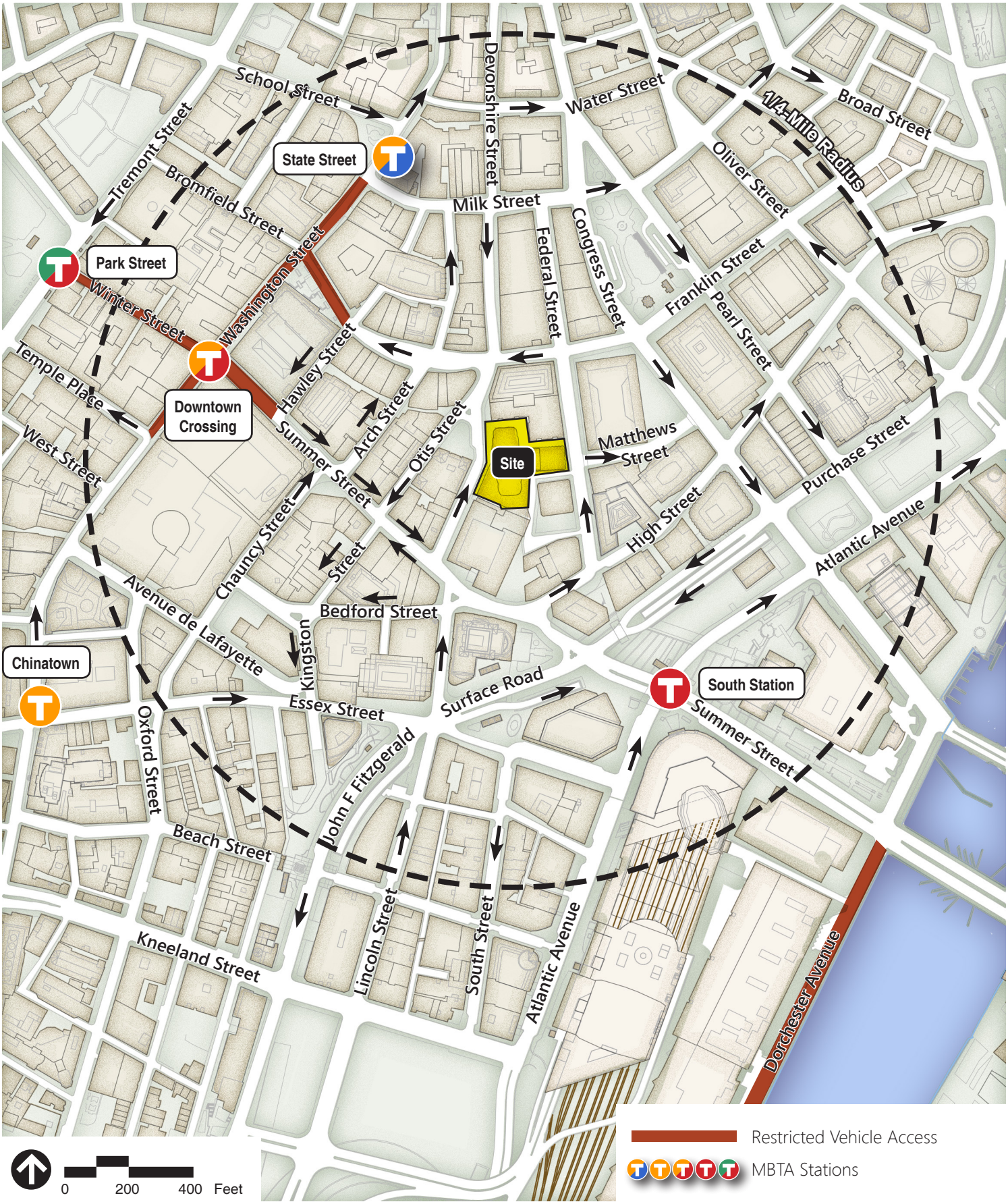
Devonshire Street runs north/south between State Street to the north and Summer Street to the south. Devonshire Street is one-way southbound between State Street and Franklin Street, and one-way northbound between Summer Street and Franklin Street. In the vicinity of the Project site, Devonshire Street provides one lane in the northbound direction with some metered on-street parking on the east side.

Federal Street runs north/south between Milk Street to the north and High Street to the south. Federal Street is one-way northbound for its entire length, and in the vicinity of the Project site provides two lanes in the northbound direction with intermittent loading zones, metered parking, and bus stops on either side of the street.

Franklin Street runs east/west between Washington Street to the west and India Street to the east. Franklin street is one-way westbound for its entire length, and near the Project site provides two travel lanes with intermittent metered parking, loading zones, and bus stops on either side.

Federal Court is a privately-owned road that loops behind 133 Federal Street between Federal Street and Milton Place. Adjacent to the Project site, Federal Court has a single travel lane, but does not have directional signage or pavement markings.

Otis Street runs north/south between Devonshire Street in Winthrop Square to the north and Summer Street to the south. Otis street is one-way southbound and is the complementary part of the two-way pair through Winthrop Square provided by Devonshire Street and Otis Street between Summer Street and Franklin Street. Otis Street provides a single, wide travel lane which often operates as two travel lanes, and has metered parking and bus stops on its west side.



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Figure 4-1

Site Context

4.2.1.2 Study Area Intersections

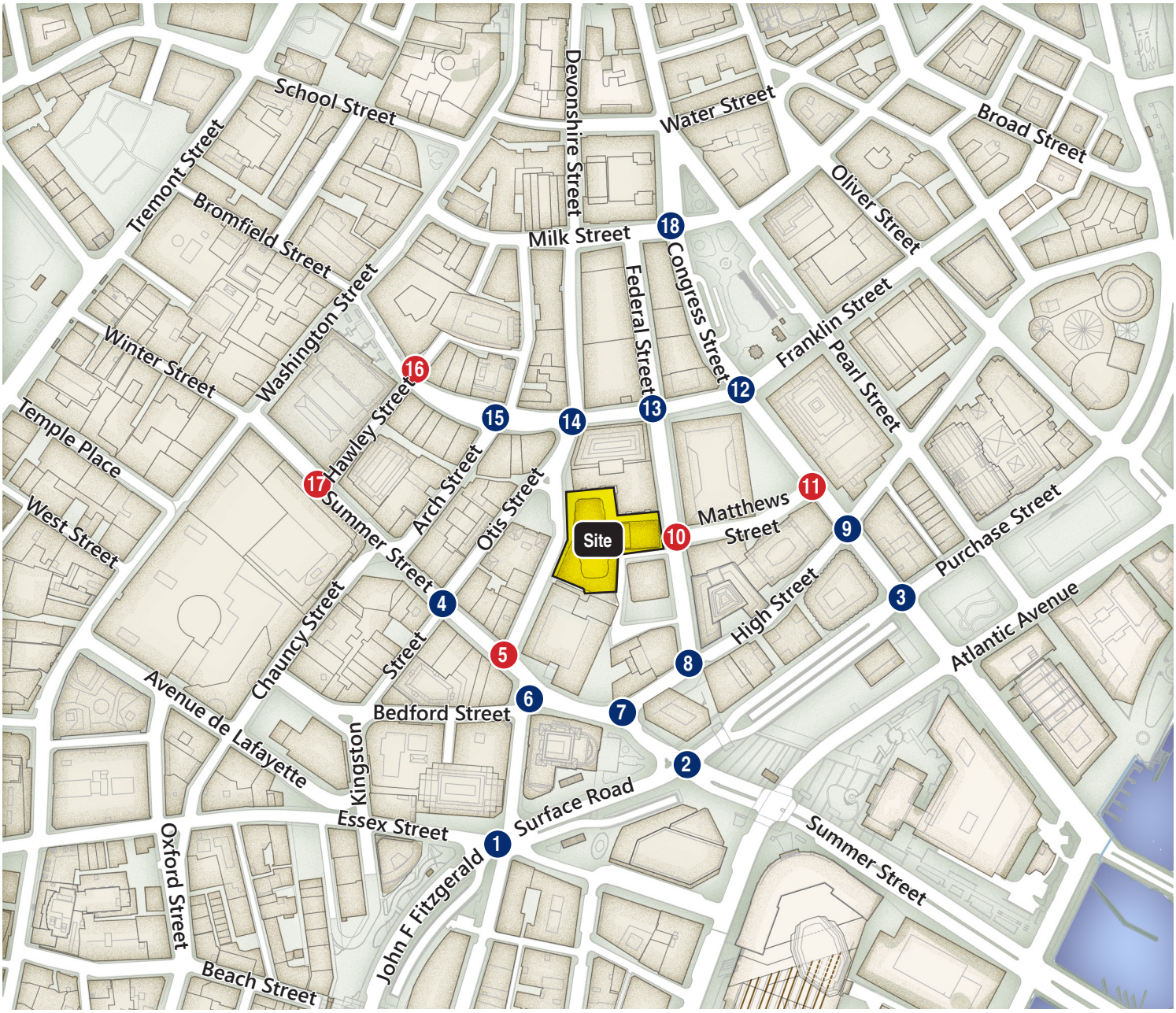
The Project study area includes the following eighteen (18) key intersections, as illustrated in Figure 4-2**:**

1. Surface Road/Lincoln Street/I-93 On-Ramp/Essex Street (signalized)
2. Summer Street at Surface Road/Purchase Street/I-93 Off-Ramp (signalized)
3. Purchase Street at I-93 On-Ramp/Congress Street (signalized)
4. Summer Street at Otis Street (signalized)
5. Summer Street at Devonshire Street (unsignalized)
6. Summer Street at Bedford Street/Lincoln Street (signalized)
7. Summer Street at High Street (signalized)
8. High Street at Federal Street (signalized)
9. Congress Street at High Street (signalized)
10. Federal Street at Matthews Street (unsignalized)
11. Congress Street at Matthews Street (unsignalized)
12. Congress Street at Franklin Street (signalized)
13. Federal Street at Franklin Street (signalized)
14. Devonshire Street at Franklin Street (signalized)
15. Franklin Street at Arch Street (signalized)
16. Franklin Street at Hawley Street (unsignalized)
17. Summer Street at Hawley Street (unsignalized)
18. Congress Street at Milk Street (signalized)

In addition, the two Project driveways, on Federal Street and Devonshire Street, have been analyzed for the Build conditions.

4.2.1.3 Existing Traffic Volumes

Daily traffic volumes were collected at three locations over a 48-hour period on Tuesday November 29 and Wednesday November 30, 2016 using automatic traffic recorders (ATRs). These days represent typical weekdays for traffic count purposes (i.e. non-holidays while schools are in session). Traffic volume summaries for the ATR locations are presented in Tables 4-2a, 4-2b and 4-2c. These data, including the averages of data collected over two days, indicate the variations of traffic volume and the directional distribution of traffic over the course of an average weekday on these streets. Raw count data sheets are included in Attachment D.



1. Surface Road/Lincoln Street/I-93 On-Ramp/Essex Street
2. Summer Street/Surface Road/Purchase Street/I-93 Off-Ramp
3. Purchase Street/I-93 On-Ramp/Congress Street
4. Summer Street/Otis Street
5. Summer Street/Devonshire Street
6. Summer Street/Bedford Street/Lincoln Street
7. Summer Street/High Street
8. High Street/Federal Street
9. Congress Street/High Street
10. Federal Street/Matthews Street
11. Congress Street/Matthews Street
12. Congress Street/Franklin Street
13. Federal Street/Franklin Street
14. Devonshire Street/Franklin Street
15. Franklin Street/Arch Street
16. Franklin Street/Hawley Street
17. Summer Street/Hawley Street
18. Congress Street/Milk Street

0 200 400 Feet

Signalized Intersection
Unsignalized Intersection

115 Winthrop Square **Boston, Massachusetts**

vhb

Figure 4-2
Study Area Intersections

Table 4-2a Daily Traffic Volumes: Federal Street north of Matthews Street

Time of Day	Tuesday 11/29/2016	Wednesday 11/30/2016	Average Day
12:00 AM	12	11	12
01:00 AM	4	5	5
02:00 AM	14	12	13
03:00 AM	11	7	9
04:00 AM	19	16	18
05:00 AM	78	72	75
06:00 AM	134	137	136
07:00 AM	235	220	228
08:00 AM	241	246	244
09:00 AM	254	235	245
10:00 AM	196	193	195
11:00 AM	184	179	182
12:00 PM	184	166	175
01:00 PM	169	129	149
02:00 PM	132	129	131
03:00 PM	133	144	139
04:00 PM	157	133	145
05:00 PM	150	136	143
06:00 PM	126	143	135
07:00 PM	84	130	107
08:00 PM	66	75	71
09:00 PM	36	50	43
10:00 PM	30	44	37
11:00 PM	15	19	17
Daily Total	**2,664**	**2,631**	**2,654**

Note: Volumes are in the northbound direction

Table 4-2b Daily Traffic Volumes: Franklin Street Between Federal St. and Devonshire St.

Time of Day	Tuesday 11/29/2016	Wednesday 11/30/2016	Average Day
12:00 AM	16	20	18
01:00 AM	10	15	13
02:00 AM	14	8	11
03:00 AM	19	16	18
04:00 AM	25	28	27
05:00 AM	101	102	102
06:00 AM	145	137	141
07:00 AM	189	191	190
08:00 AM	255	257	256
09:00 AM	277	263	270
10:00 AM	252	236	244
11:00 AM	223	256	240
12:00 PM	261	241	251
01:00 PM	223	200	212
02:00 PM	223	195	209
03:00 PM	229	214	222
04:00 PM	243	259	251
05:00 PM	230	211	221
06:00 PM	271	226	249
07:00 PM	155	210	183
08:00 PM	87	139	113
09:00 PM	87	83	85
10:00 PM	46	56	51
11:00 PM	31	33	32
Daily Total	**3,612**	**3,596**	**3,609**

Note: Volumes are in the westbound direction

Table 4-2c Daily Traffic Volumes: Devonshire Street south of Franklin Street

Time of Day	Tuesday 11/29/2016	Wednesday 11/30/2016	Average Day
12:00 AM	42	38	40
01:00 AM	17	27	22
02:00 AM	21	25	23
03:00 AM	15	23	19
04:00 AM	47	38	43
05:00 AM	141	138	140
06:00 AM	195	205	200
07:00 AM	349	351	350
08:00 AM	405	399	402
09:00 AM	426	357	392
10:00 AM	336	367	352
11:00 AM	340	404	372
12:00 PM	330	348	339
01:00 PM	324	296	310
02:00 PM	297	317	307
03:00 PM	350	348	349
04:00 PM	374	428	401
05:00 PM	431	351	391
06:00 PM	388	356	372
07:00 PM	199	324	262
08:00 PM	133	196	165
09:00 PM	119	134	127
10:00 PM	75	107	91
11:00 PM	62	67	65
Daily Total	**5,416**	**5,644**	**5,534**

Note: Volumes are a sum of northbound and southbound volumes

Concurrent with the ATR counts, turning movement counts (TMCs) were conducted at study area intersections during the weekday morning peak period from 7:00 AM to 9:00 AM and the weekday evening peak period from 4:00 PM to 6:00 PM. The TMC data indicate that, within the study area, the weekday morning peak hour generally occurs between 8:00 AM and 9:00 AM and the weekday evening peak hour occurs between 4:30 PM and 5:30 PM. TMCs at the additional intersections requested in the BTD scoping letter were conducted in May 2017. These counts were adjusted to be consistent with the November counts.

Historical MassDOT traffic counts were reviewed to understand the seasonality of traffic count data collected in the month of November. Statewide data for seasonal variation of traffic volumes indicate that traffic counts in November are generally higher (by as much as three percent) than the average month. Since the November count data are higher than annual average conditions, no further seasonal adjustment factors were applied to the data. Figures 4-3a and 4-3b present the 2016 Existing Conditions weekday peak hour traffic volumes for the morning and evening peak hours, respectively.

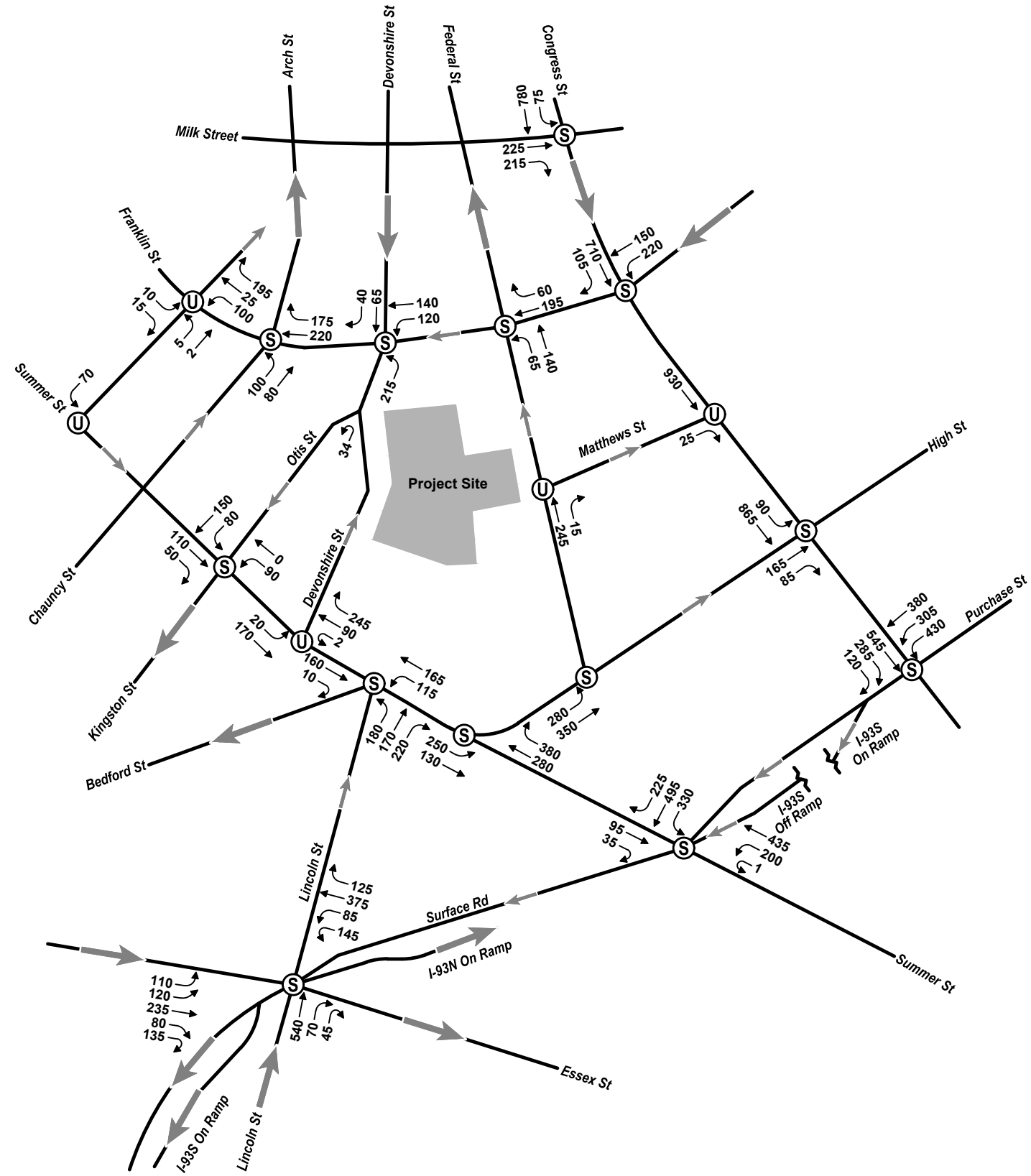
To gain a more thorough understanding of peak hour vehicle traffic conditions within the study area, field observations were conducted during peak periods on various dates. Vehicle queueing was observed on approaches to study area intersections. Observations included a particular focus on the Congress Street corridor in the evening peak hour when the close proximity of the Matthews, High, and Purchase streets intersections and multiple lane weaving maneuvers collectively exacerbate vehicle queuing.

4.2.1.4 Parking

The Project site currently contains a public parking garage in the process of being razed, which had the capacity to park 1,125 vehicles before it was closed in 2013. Access to the garage was provided on both Federal Street and Devonshire Street. The site is currently fenced.

Figure 4-4 identifies other off-street parking facilities in the area. In total, there are approximately 6,510 off-street parking spaces available to employees, tenants, and visitors within a quarter-mile (approximately five-minute walk) radius of the Project site.

Figure 4-5 presents existing on-street parking regulations within a quarter-mile radius of the Project site. Adjacent to the site, Devonshire Street has metered parking between the loading dock for 100 Summer Street and the Summer Street intersection. Along Federal Street, there is some metered parking between High Street and Matthews Street.

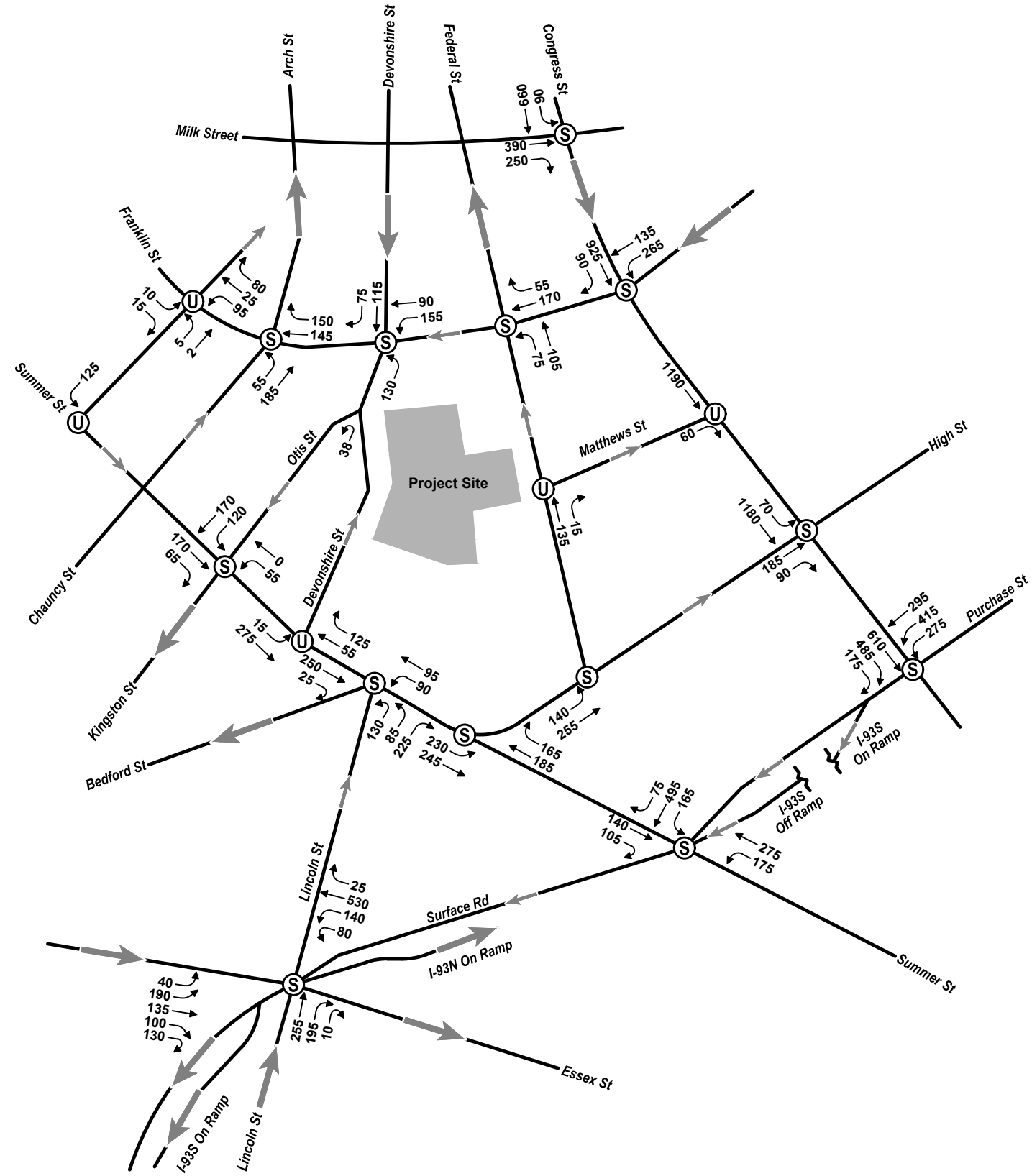


Not to Scale

115 Winthrop Square **Boston, Massachusetts**

Figure 4-3a

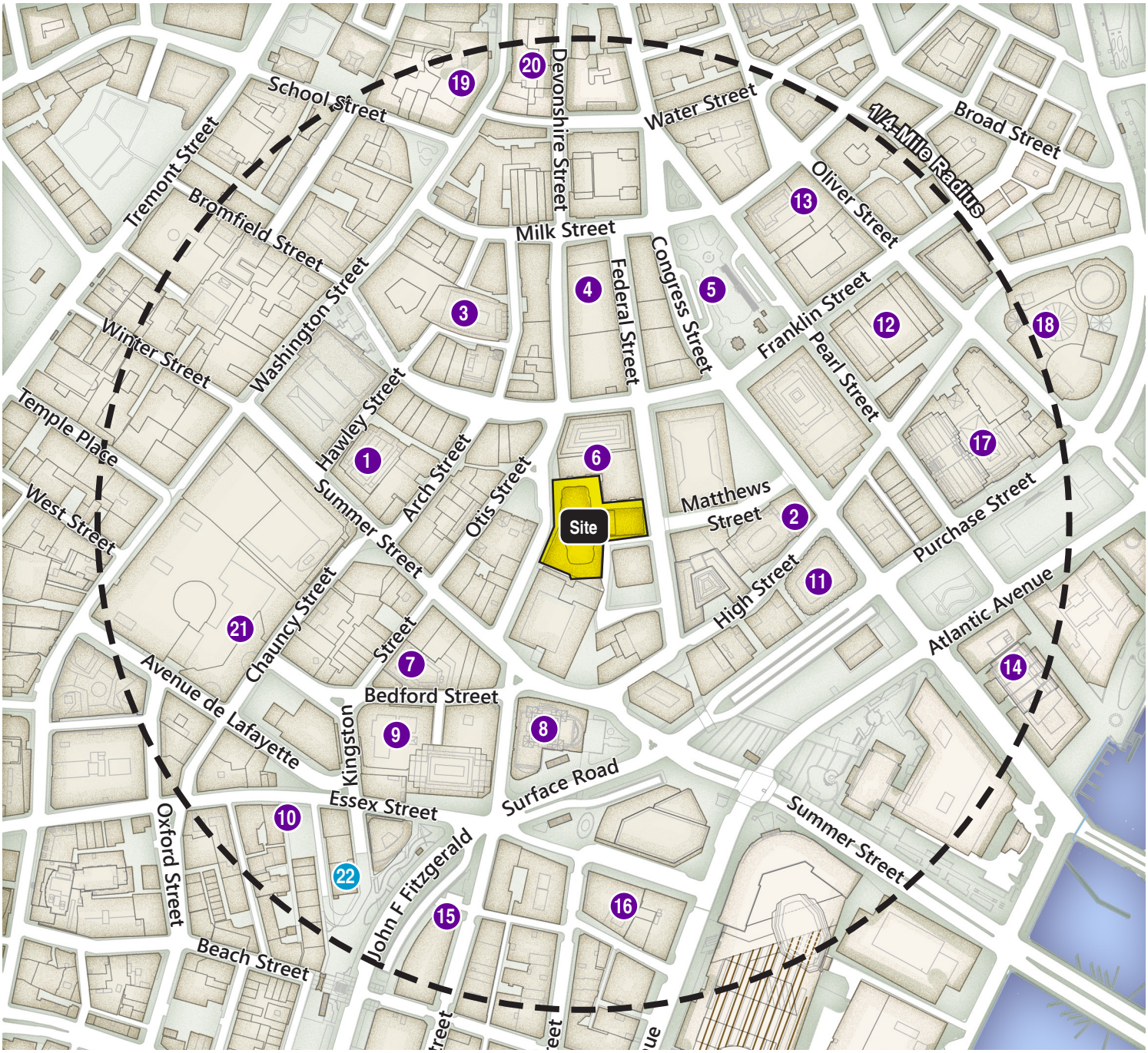
2016 Existing Condition Vehicle Volumes
Morning Peak Hour (8:00 AM - 9:00 AM)



115 Winthrop Square **Boston, Massachusetts**

Figure 4-3b

2016 Existing Condition Vehicle Volumes
Evening Peak Hour (4:30 PM - 5:30 PM)



- # Underground Lot
- # Surface Lot

1. 101 Arch Street (80 Spaces)
2. 100 High Street (128 Spaces)
3. 33 Arch Street (600 Spaces)
4. 1 Federal Street (178 Spaces)
5. Garage at Post Office Square (1400 Spaces)
6. 75-101 Federal Street Garage (150 Spaces)
7. 99 Summer Street (60 Spaces)
8. 125 Summer Street (120 Spaces)
9. State Street Financial Center (150 Spaces)
10. 85 Essex Street (50 Spaces)
11. 99 High Street (128 Spaces)
12. 225 Franklin Street (100 Spaces)
13. One Post Office Square (385 Spaces)
14. Atlantic Wharf (100 Spaces)
15. Chinatown Parking (150 Spaces)
16. Two Financial Center (74 Spaces)
17. 120 Purchase Street (776 Spaces)
18. International Place (300 Spaces)
19. Pi Alley (420 Spaces)
20. 35 Devonshire Street (150 Spaces)
21. Lafayette Garage (1000 Spaces)
22. Bradford Auto Parks (11 Spaces)

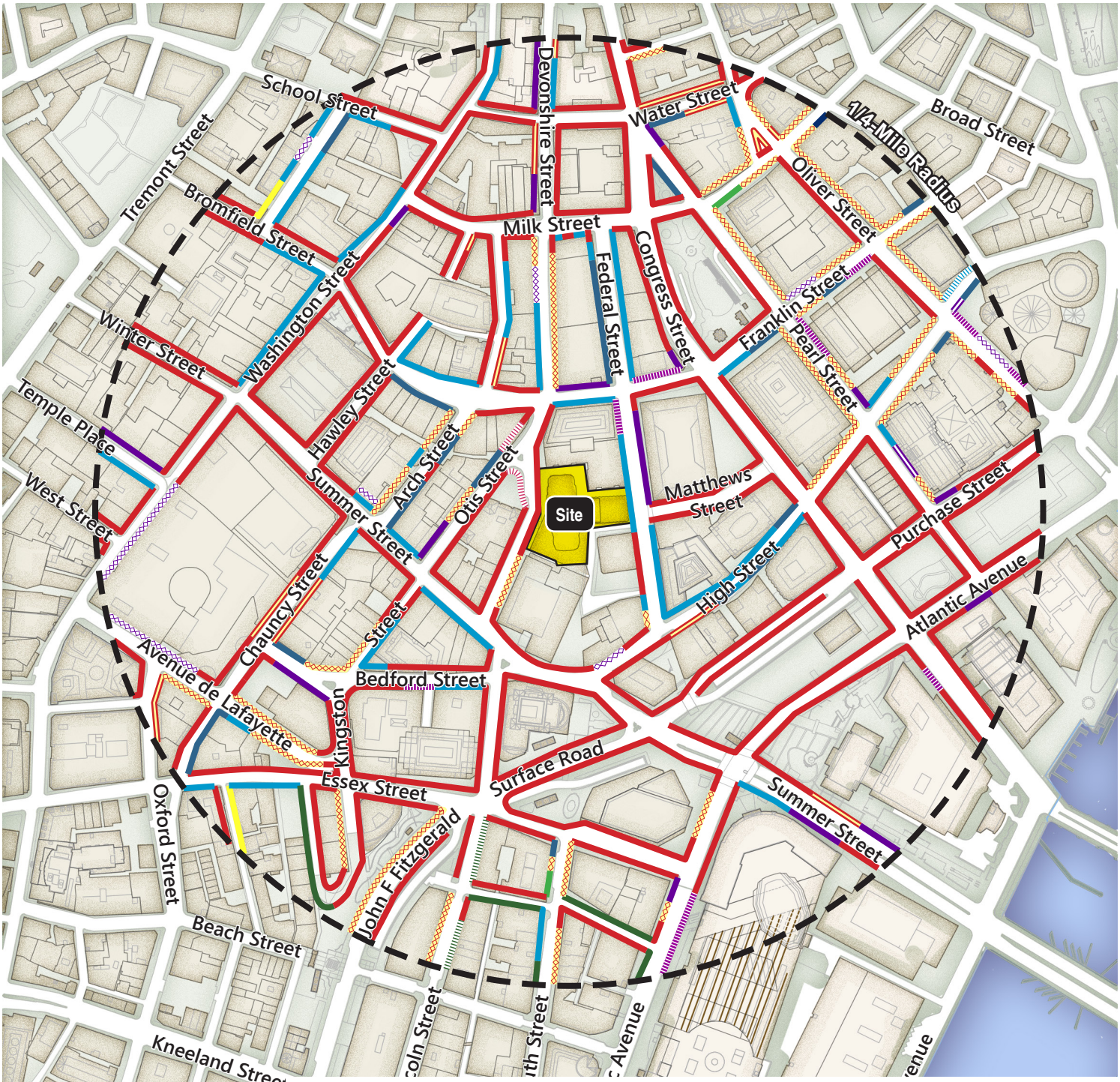
0 200 400 Feet

Total = 6,510 Sapces

115 Winthrop Square **Boston, Massachusetts**

Figure 4-4

Existing Off-Street Parking



115 Winthrop Square **Boston, Massachusetts**

Figure 4-5

Existing Curb Regulations

In addition to the various public and private parking facilities in the area, the Project site is well-served by car-sharing services (Zipcar and Enterprise). Figure 4-6 identifies car-share locations within a quarter-mile (approximately five-minute walk) radius of the Project site. Locations of Hubway stations and bike docks are also shown.

4.2.1.5 Truck Network

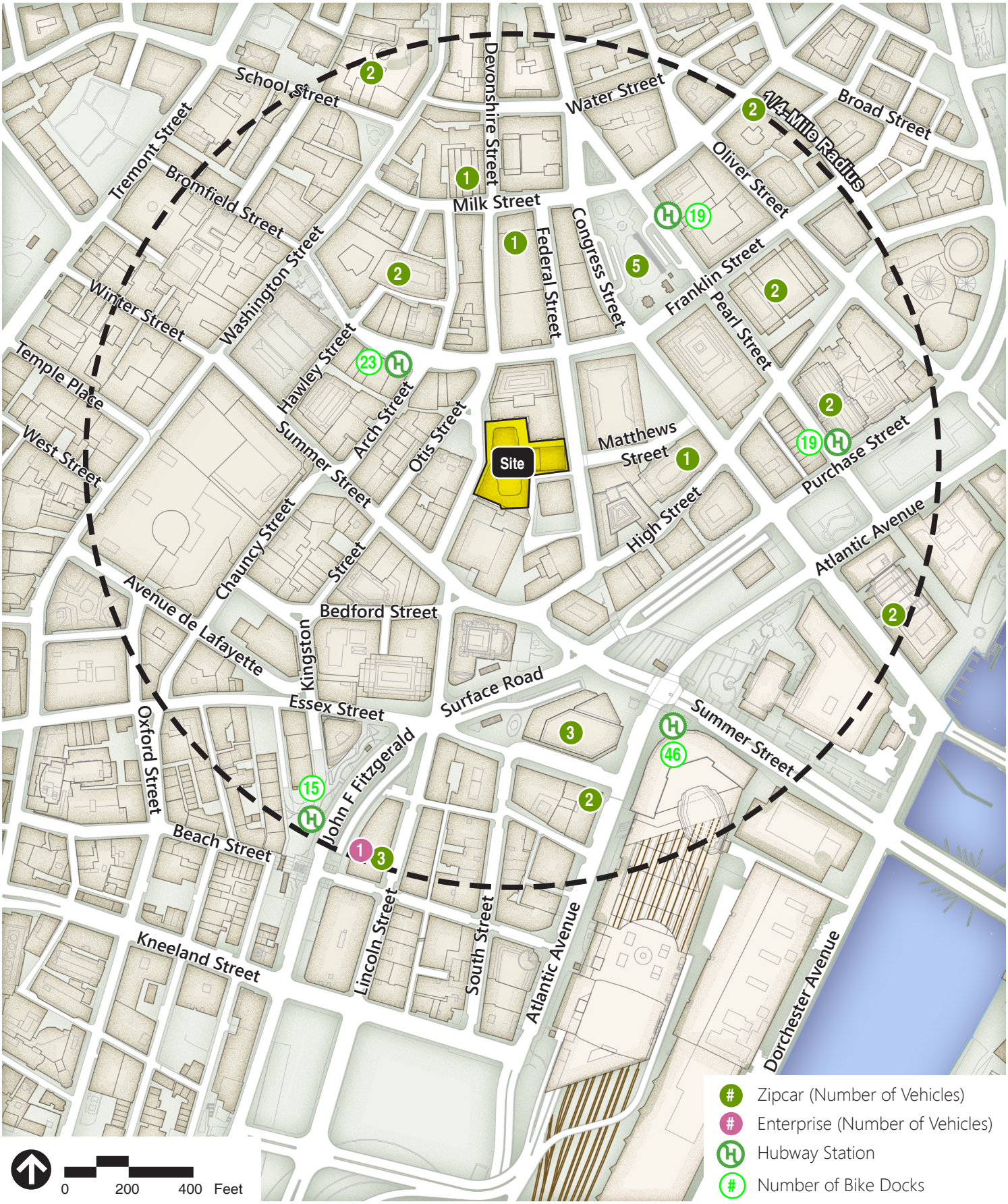
According to an interactive map of the trucking network within Massachusetts on the MassDOT website, there are no specified restrictions for freight at the study area intersections. Within the study area, Purchase Street, Summer Street, and Congress Street are designated truck routes.

4.2.2 Transit Service

The Project site is proximate to major transportation hubs at South Station, Downtown Crossing, and State Street, and is extremely well served by public transportation, including the following services:

- MBTA Red, Orange, Blue and Silver;
- Eight MBTA Commuter Rail Lines: Fairmount, Framingham/Worchester, Franklin, Greenbush, Kingston/Plymouth, Middleborough/Lakeville, Needham, and Providence/Stoughton Lines;
- MBTA Bus Routes: 4, 7, 11, 92, 93, and Express 448, 449, 459, 501, 504, 505, 553, 554, 556 and 558;
- Intercity Bus Service: Bolt, Bonanza, C + J, Concord (Dartmouth Coach and Boston Express), Dattco, Greyhound, Lucky Star, Megabus, Peter Pan and Plymouth + Brockton; and
- AMTRAK, serving the Acela Express, Lake Shore Limited, and Northeast Regional routes.

Transit services are summarized in Table 4-3. Figure 4-7 shows MBTA services, including bus stop locations, in the vicinity of the Project site.



115 Winthrop Square **Boston, Massachusetts**

Figure 4-6

Existing Car and Bike Share Locations

Table 4-3 Transit Service Summary

Transit Service	Origin – Destination	Major Stops	Nearest Stop to Project Site	Peak Hour Headway (minutes)[1]	Weekday Daily Ridership[2]	Hours of Service[1]
MBTA Commuter Rail Services						
Fairmount Line	Readville Station – South Station	Talbot Avenue Station Newmarket Station	South Station	40 - 50	1,038	Weekday: 5:39 AM – 11:30 PM Saturday: 7:30 AM – 11:15 PM Sunday: 7:30 AM – 11:15 PM
Framingham/Worcester Line	Worchester/Union Station – South Station	Yawkey Station Back Bay Station	South Station	10 – 30	16,293	Weekday: 4:45AM – 1:51 AM Saturday: 6:40 AM – 12:30 AM Sunday: 6:40 AM – 12:30 AM
Franklin Line	Forge Park/I-495 – South Station	Back Bay Station Ruggles Station	South Station	15 – 30	12,480	Weekdays: 3:50 AM – 12:53 AM Saturday: 6:35 AM – 12:19 AM Sunday: 10:40 AM – 12:19 AM
Greenbush Line	Greenbush Station – South Station	East Weymouth Station Quincy Center Station JFK/UMass Station South Station	South Station	30 – 60	5,411	Weekday: 5:40 AM – 10:57 PM Saturday: 7:15 AM – 11:54 PM Sunday: 7:15 AM – 11:54 PM
Kingston/Plymouth Line	Kingston Station – South Station	Braintree Station JFK/UMass Station South Station	South Station	25 – 60	6,560	Weekday: 5:32 AM – 11:36 PM Saturday: 7:00 AM – 11:42 PM Sunday: 7:00 AM – 11:42 PM
Middleborough/Lakeville Line	Middleboro/Lakeville Station – South Station	Quincy Center Station JFK/UMass Station South Station	South Station	20 – 60	7,182	Weekday: 5:20 AM – 11:27 PM Saturday: 6:50 AM – 11:34 PM Sunday: 6:50 AM – 11:34 PM
Needham Line	Needham Heights – South Station	Back Bay Station Ruggles Station Forest Hills Station	South Station	30 – 45	6,972	Weekday: 6:05 AM – 12: 00 AM Saturday: 7:10 AM – 12:00 AM Sunday: No Service
Providence/Stoughton Line	Wickford Junction – South Station	Route 128 Station Ruggles Station Back Bay Station	South Station	10 – 30	19,634	Weekday: 4:45 AM – 1: 10 AM Saturday: 6:35 AM – 12:15 AM Sunday: 11:05 AM – 12:15 AM

1 Based on the most recent schedule provided on the MBTA website as of January 2017
2 Ridership data from MBTA Blue Book 2014

Table 4-3 Transit Service Summary (Continued)

Transit Service	Origin – Destination	Major Stops	Nearest Stop to Project Site	Peak Hour Headway (minutes)[1]	Weekday Daily Ridership[2]	Hours of Service[1]
MBTA Subway Services						
Orange Line	Oak Grove Station – Forest Hills Station	North Station Downtown Crossing Back Bay Ruggles Station	Downtown Crossing	6	203,406	Weekday: 5:16 AM – 12:35 AM Saturday: 5:16 AM – 12:35 AM Sunday: 6:00 AM – 12:35 AM
Red Line	Alewife Station – Ashmont Station/Braintree Station	South Station Park Street Station Charles/MGH Station Central Square	Downtown Crossing South Station	9	272,684	Weekday: 5:15 AM – 1:05 AM Saturday: 5:05 AM – 1:05 AM Sunday: 5:51 AM – 1:05 AM
Blue Line	Wonderland - Bowdoin	Government Center State Street Airport	State Street	5	63,225	Weekday: 5:13 AM – 1:00 AM Saturday: 5:13 AM – 1:00 AM Sunday: 5:58 AM – 1:00 AM
Silver Line 1 (741)	South Station – Logan Airport via Waterfront	Airport Terminals World Trade Center Station South Station Court House Station	South Station	8 – 10	16,056	Weekday: 5:38 AM – 12:44 AM Saturday: 5:33 AM – 12:45 AM Sunday: 5:50 AM – 12:45 AM
Silver Line 2 (742)	Design Center – South Station via Waterfront	Dry Dock Avenue South Station World Trade Center Station Court House Station	South Station	5	16,056	Weekday: 5:45 AM – 12:50 AM Saturday: 5:50 AM – 12:49 AM Sunday: 6:35 AM – 12:49 AM
Silver Line 4 (751)	Dudley Station – South Station via Essex Street	Dudley Station Washington Street at Tufts Medical Center	Essex Street at Atlantic Avenue	10 – 12	13,783	Weekday: 5:20 AM – 12:40 AM Saturday: 5:23 AM – 12:40 AM Sunday: 6:02 AM – 12:20 AM
MBTA Bus Services						
Route 4	North Station – Tide Street	North Station State Street Station Haymarket Station South Station	Pearl Street at Congress Street	13 – 20	470	Weekday: 6:25 AM – 6:52 PM Saturday: No Service Sunday: No Service
Route 7	City Point – Otis and Summer Streets	South Station	Otis Street at Summer Street	4 –7	4,452	Weekday: 5:15 AM – 10:32 PM Saturday: 5:15 AM – 10:31 PM Sunday: No Service

1 Based on the most recent schedule provided on the MBTA website as of January 2017
2 Ridership data from MBTA Blue Book 2014

Table 4-3 Transit Service Summary (Continued)

Transit Service	Origin – Destination	Major Stops	Nearest Stop to Project Site	Peak Hour Headway (minutes)[1]	Weekday Daily Ridership[2]	Hours of Service[1]
MBTA Bus Services						
Route 11	City Point – Downtown	Tufts Medical Center Station Broadway Chinatown Station	Bedford Street at Chauncy Street	7 – 12	3,413	Weekday: 5:11 AM – 1:22 AM Saturday: 5:10 AM – 1:20 AM Sunday: 6:15 AM – 1:28 AM
Route 92	Assembly Square Mall – Downtown Boston	Sullivan Square City Square Haymarket	Devonshire Street at Milk Street	15	1,321	Weekday: 5:00 AM – 10:16 PM Saturday: 5:35 AM – 9:34 PM Sunday: No Service
Route 93	Sullivan Station – Downtown Boston	Bunker Hill City Square Navy Yard	Devonshire Street at Milk Street	7 – 8	4,874	Weekday: 4:33 AM – 1:34 AM Saturday: 4:33 AM – 1:40 AM Sunday: 5:15 AM – 12:23 AM
Route 448 Express	Marblehead – Downtown Crossing	South Station Wonderland Station Logan Airport	Otis Street at Summer Street	30	176	Weekday: 6:00 AM – 7:30 PM Saturday: No Service Sunday: No Service
Route 449 Express	Marblehead – Downtown Crossing	South Station Wonderland Station Logan Airport	Otis Street at Summer Street	30	158	Weekday: 6:00 AM – 7:30 PM Saturday: No Service Sunday: No Service
Route 459 Express	Salem Depot – Downtown Crossing	South Station Airport Terminals South Station	Otis Street at Summer Street	70 – 75	1,184	Weekday: 5:50 AM – 8:27 PM Saturday: No Service Sunday: No Service
Route 501 Express	Brighton Center – Downtown Boston	Park Street at Tremont Street	Federal Street at Franklin Street	6 – 7	1,690	Weekday: 6:20 AM – 8:05 PM Saturday: No Service Sunday: No Service
Route 504 Express	Watertown Square – Downtown Boston	Watertown Yard Newton Corner	Federal Street at Franklin Street	9 – 12	1,548	Weekday: 6:20 AM – 8:09 PM Saturday: 7:30 AM – 8:04 PM Sunday: No Service
Route 505 Express	Central Square, Waltham– Downtown Boston	Waltham West Newton	Federal Street at Franklin Street	8 – 15	1,009	Weekday: 5:55 AM – 7:56 PM Saturday: No Service Sunday: No Service
Route 553 Express	Roberts, Waltham – Downtown Boston	Waverly Square Central Square, Waltham Newton Corner	Federal Street at Franklin Street	25 – 60	978	Weekday: 5:58 AM – 10:24 PM Saturday: 6:30 AM – 7:46 PM Sunday: No Service

1 Based on the most recent schedule provided on the MBTA website as of January 2017
2 Ridership data from MBTA Blue Book 2014

Table 4-3 Transit Service Summary (Continued)

Transit Service	Origin – Destination	Major Stops	Nearest Stop to Project Site	Peak Hour Headway (minutes)[1]	Weekday Daily Ridership[2]	Hours of Service[1]
MBTA Bus Services						
Route 554 Express	Waverly Square – Downtown Boston	Waverly Square Central Square, Waltham Newton Corner	Federal Street at Franklin Street	30 – 66	649	Weekday: 5:51 AM – 8:19 PM Saturday: No Service Sunday: No Service
Route 556 Express	Waltham Highlands – Downtown Boston	Central Square, Waltham Newton Corner	Federal Street at Franklin Street	30	515	Weekday: 6:15 AM – 7:55 PM Saturday: No Service Sunday: No Service
Route 558 Express	Riverside – Downtown Boston	Newton Center	Federal Street at Franklin Street	25 – 70	429	Weekday: 6:25 AM – 7:06 PM Saturday: No Service Sunday: No Service

1 Based on the most recent schedule provided on the MBTA website as of January 2017
2 Ridership data from MBTA Blue Book 2014



115 Winthrop Square **Boston, Massachusetts**

Figure 4-7

Public Transportation

4.2.3 Bicycle Facilities

There are currently shared traffic-bike lanes (with *Sharrow* markings) on Devonshire Street adjacent to the Project site. Bike lanes are provided on portions of Franklin Street, Milk Street, Congress Street, High Street, Pearl Street and Purchase Street. Figure 4-8 identifies the existing bicycle facilities including bike lanes and shared lanes in the vicinity of the Project site.

There are five Hubway stations within walking distance of the Project site (see Figure 4-6). The closest existing Hubway station provides 23 bicycle docks and is located at the intersection of Arch Street and Franklin Street. At South Station (700 Atlantic Avenue) to the south of the Project site, there is a Hubway station that provides 46 bicycle docks, while at Post Office Square (intersection of Pearl Street and Milk Street) to the north of the Project site, there is a Hubway station that provides 19 bicycle docks. Finally, at the intersection of Purchase Street and Pearl Street to the east of the Project site, there is a Hubway station that provides 19 bicycle docks.

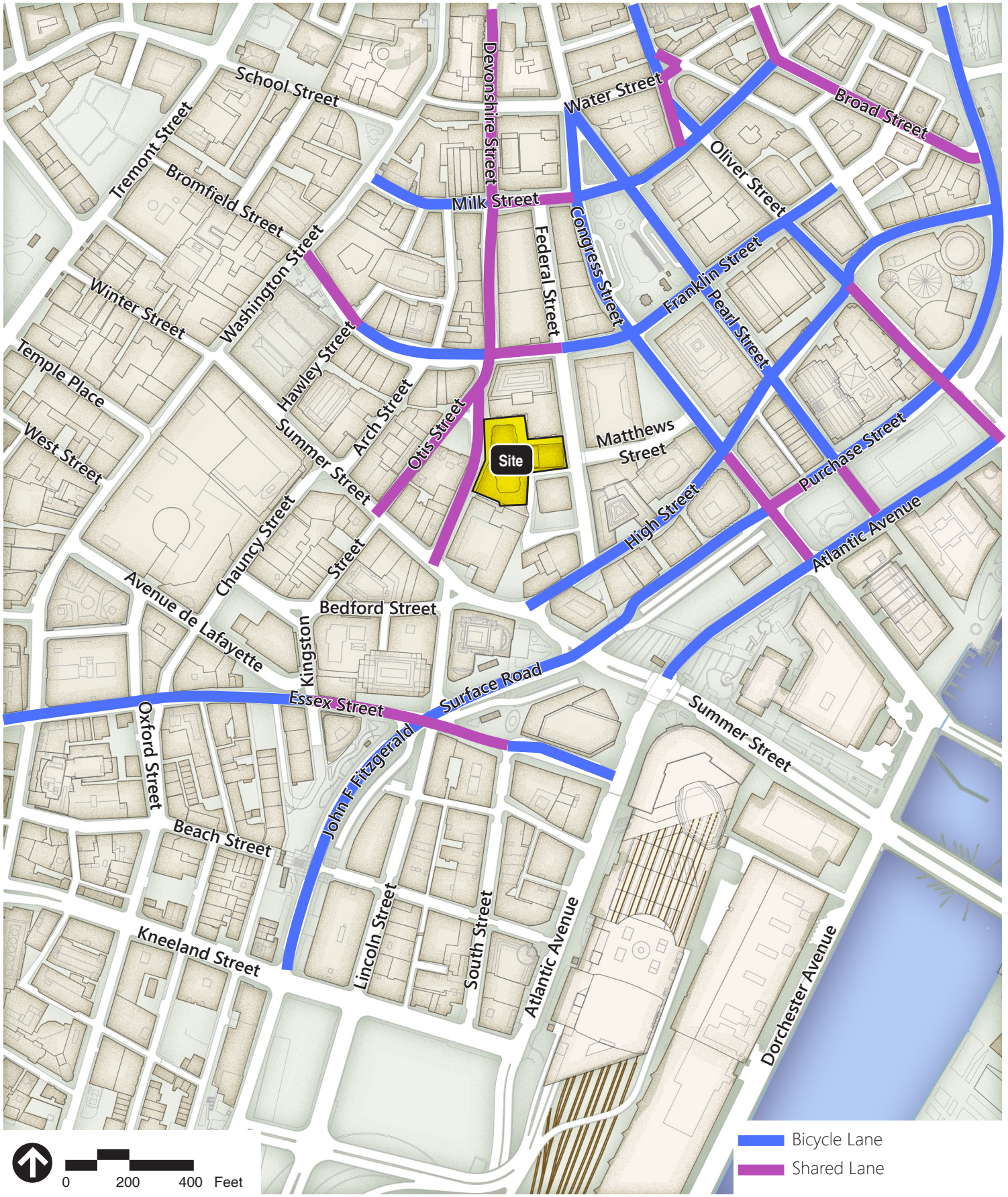
Bicycle volumes were collected in coordination with the vehicle turning movement counts and are shown in Figures 4-9a and 4-9b for the morning and evening peak hours, respectively.

4.2.4 Pedestrian Facilities

The Project site is well served by pedestrian facilities including sidewalks along all local roadways, crosswalks at all study area intersections, and activated streetscapes and building fronts. Sidewalks exist on all Project site frontages.

Busy pedestrian conditions generally prevail throughout the study area during weekdays, reflecting the high concentration of commercial development and jobs in the Downtown/Financial district. Pedestrian volumes at study intersections are shown in Figures 4-10a and 4-10b for the morning and evening peak hours, respectively.

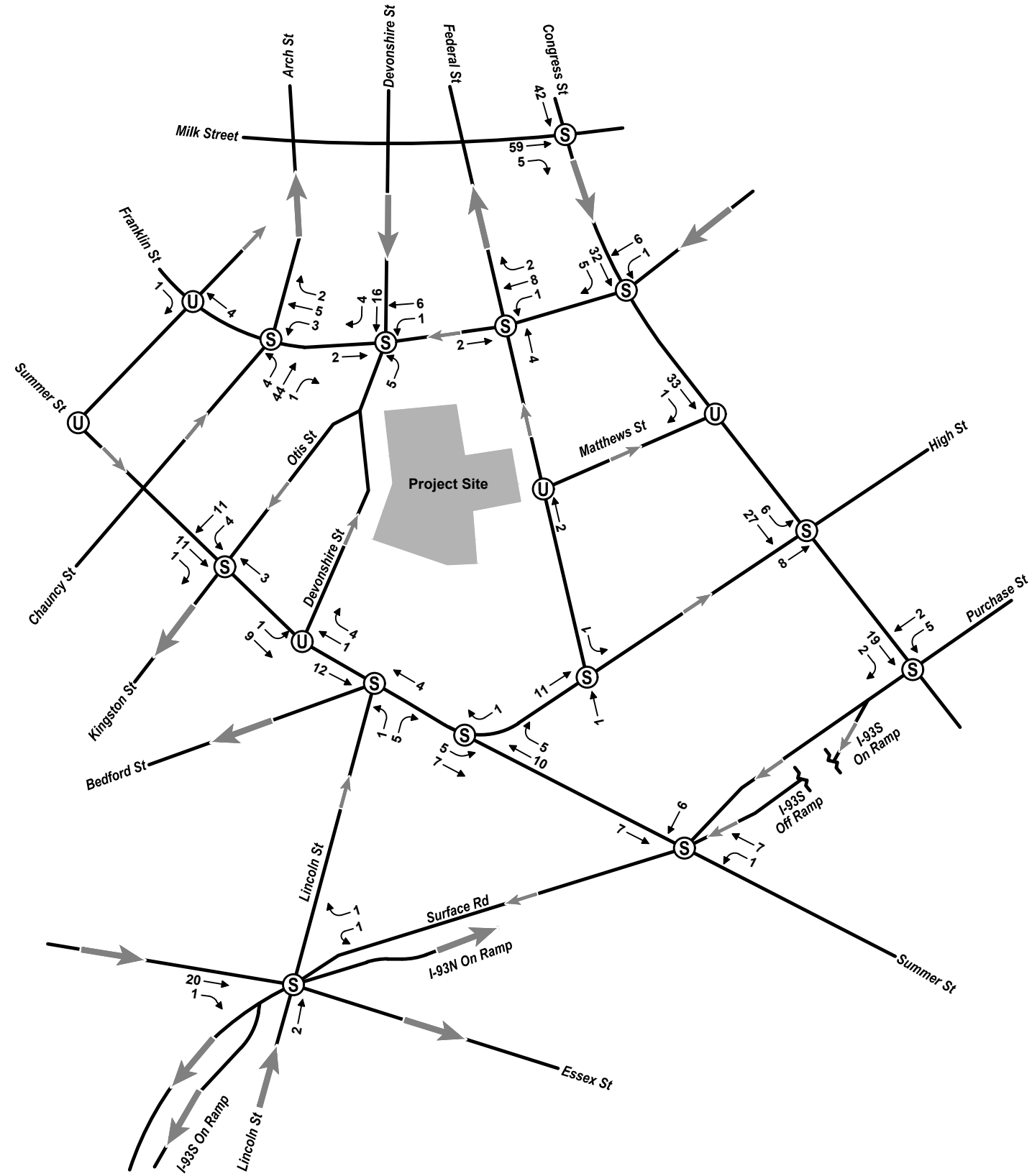
At the intersection of Summer Street at Devonshire Street, there were approximately 1,404 pedestrians crossing Devonshire Street during the morning peak hour and approximately 1,088 pedestrians crossing during the evening peak hour. Pedestrian activity was generally higher during the morning peak hour around the Project site. At the intersections of Federal Street and Franklin Street and Summer Street and Otis Street, there were approximately 4,250 and 3,400 pedestrians, respectively, crossing the intersections during the morning peak hour.



115 Winthrop Square **Boston, Massachusetts**

Figure 4-8

Existing Bicycle Facilites

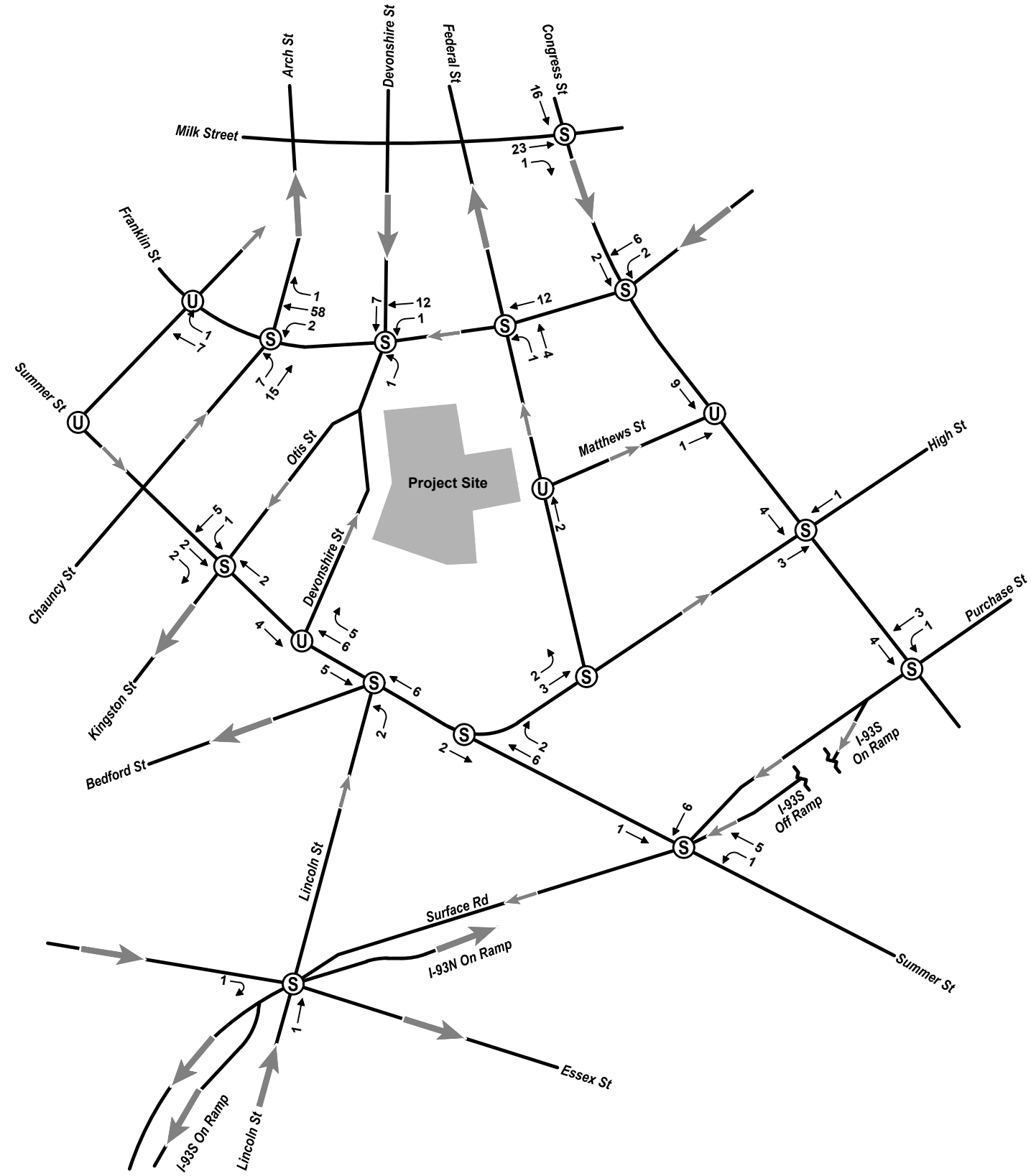


Not to Scale

115 Winthrop Square **Boston, Massachusetts**

Figure 4-9a

2016 Existing Condition Bike Volumes
Morning Peak Hour (8:00 AM - 9:00 AM)

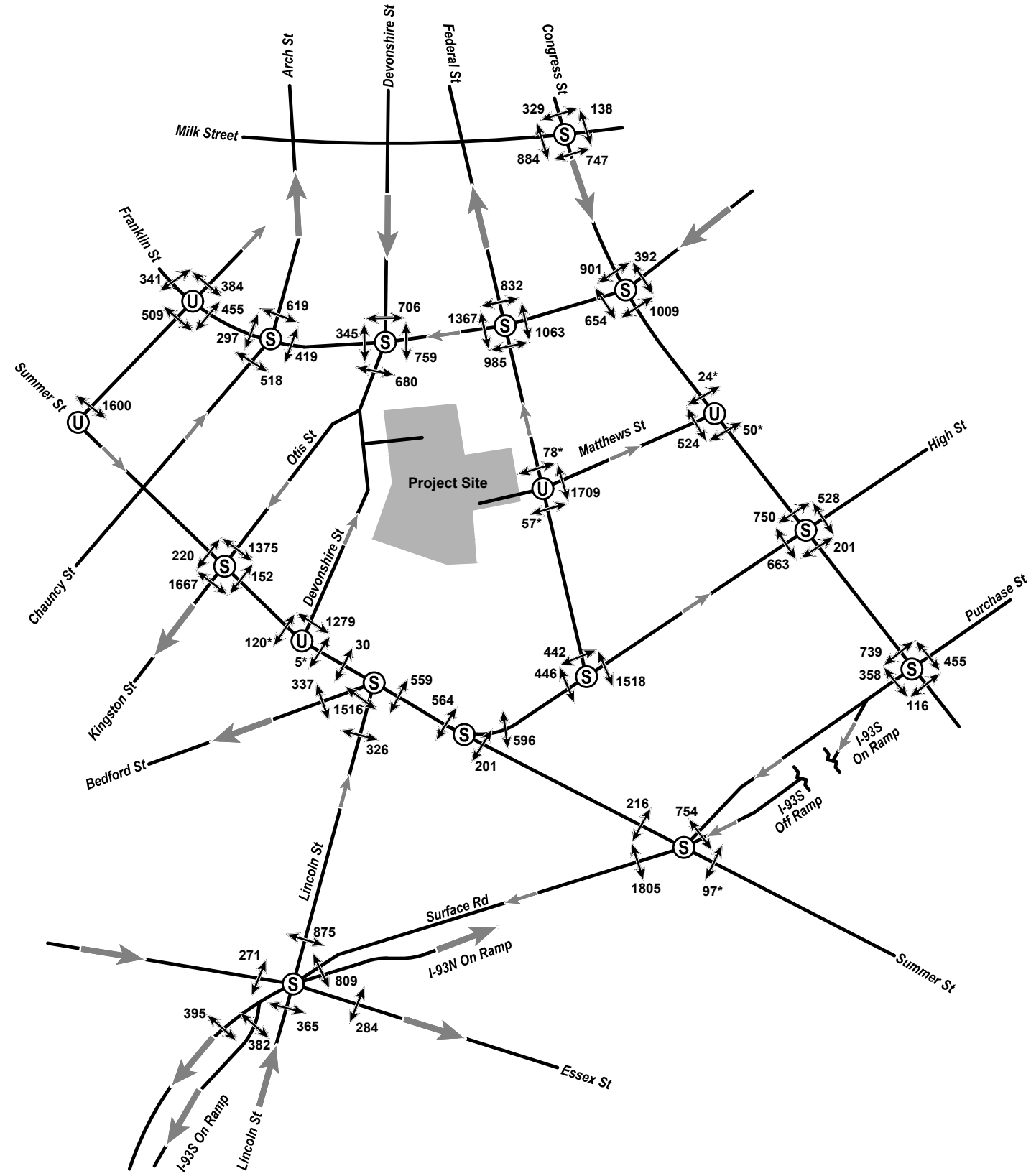


Not to Scale

115 Winthrop Square **Boston, Massachusetts**

Figure 4-9b

2016 Existing Condition Bike Volumes
Evening Peak Hour (4:30 PM - 5:30 PM)

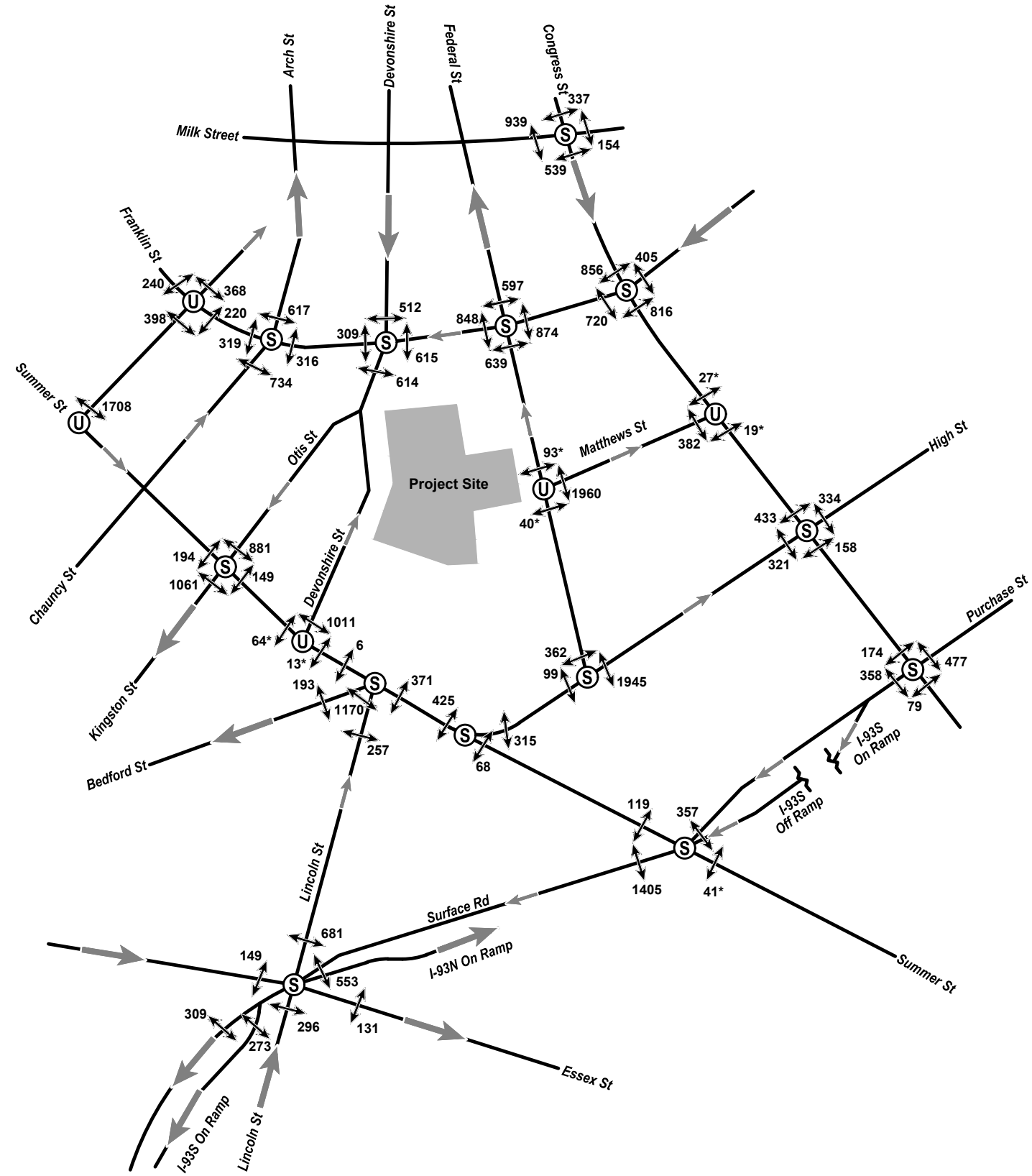


Not to Scale

115 Winthrop Square **Boston, Massachusetts**

Figure 4-10a

2016 Existing Condition Pedestrian Volumes
Morning Peak Hour (8:00 AM - 9:00 AM)



Not to Scale

115 Winthrop Square **Boston, Massachusetts**

Figure 4-10b

2016 Existing Condition Pedestrian Volumes
Evening Peak Hour (4:30 PM - 5:30 PM)

At Winthrop Square, in front of 75-101 Federal Street, there is a desire line for pedestrians to cross between Devonshire Street and Otis Street to get to and from Downtown Crossing. There are currently no crosswalks provided at the square to accommodate these movements.

4.3 Future (2023) No-Build Conditions Assessment

To determine future roadway operations, traffic volumes in the study area were projected to the year 2023 to reflect a seven-year planning horizon from Existing conditions.

Traffic volumes on the roadway network under future conditions without the Project (No-Build) are assumed to include all existing traffic, any new traffic due to regional and area background traffic growth, and traffic related to any specific nearby development projects expected to be completed by the horizon year. Roadway improvements proposed within the boundaries of the study area were also considered and incorporated where appropriate.

4.3.1 No-Build Traffic Volumes

A general area-wide traffic growth rate was applied to the Existing conditions peak hour traffic volumes to account for general future traffic growth in the study area. Consistent with DEIR/DPIR analyses for other recent projects, a rate of 0.25 percent per year for seven years was applied.

In addition to background growth, traffic associated with other planned/approved developments in Downtown Boston was considered based on a list provided by the BPDA (see Attachment D). The following five planned projects are expected to impact study area intersections and were considered as part of the background:

- 102-110 Broad Street;
- Congress Square;
- 55 India Street;
- South Station Air Rights; and
- One Bromfield.

Projected traffic volumes expected to be generated by these projects were obtained from the published traffic studies submitted as part of the permitting processes for those projects (see Attachment D).

The No-Build traffic volume networks were developed by applying the 0.25-percent annual growth rate over the seven-year study horizon to the existing volume networks and adding the traffic volumes associated with the background development described above. Figures 4-11a and 4-11b show the resulting 2023 No-Build peak hour traffic volume networks for the weekday morning and weekday evening peak hours, respectively.

4.3.2 Future Roadway Conditions

In assessing future traffic conditions, proposed roadway improvements within the study area were considered. Based on a review of development project planning/permitting documents, no specific roadway improvement projects were identified. As described previously in Section 4.1.2, however, it is proposed that the section of Devonshire Street between the Project service area curb-cut and Summer Street be converted to two-way traffic to eliminate the need for service vehicles to exit through Winthrop Square. This will also enable trucks (and cars) exiting the loading dock and driveway at the rear of 100 Summer Street to depart directly to Summer Street as an alternative to passing through Winthrop Square as is necessary under existing circulation. This circulation change is not included in the No-Build Conditions, but is incorporated in the Build Conditions described below in Section 4.4.

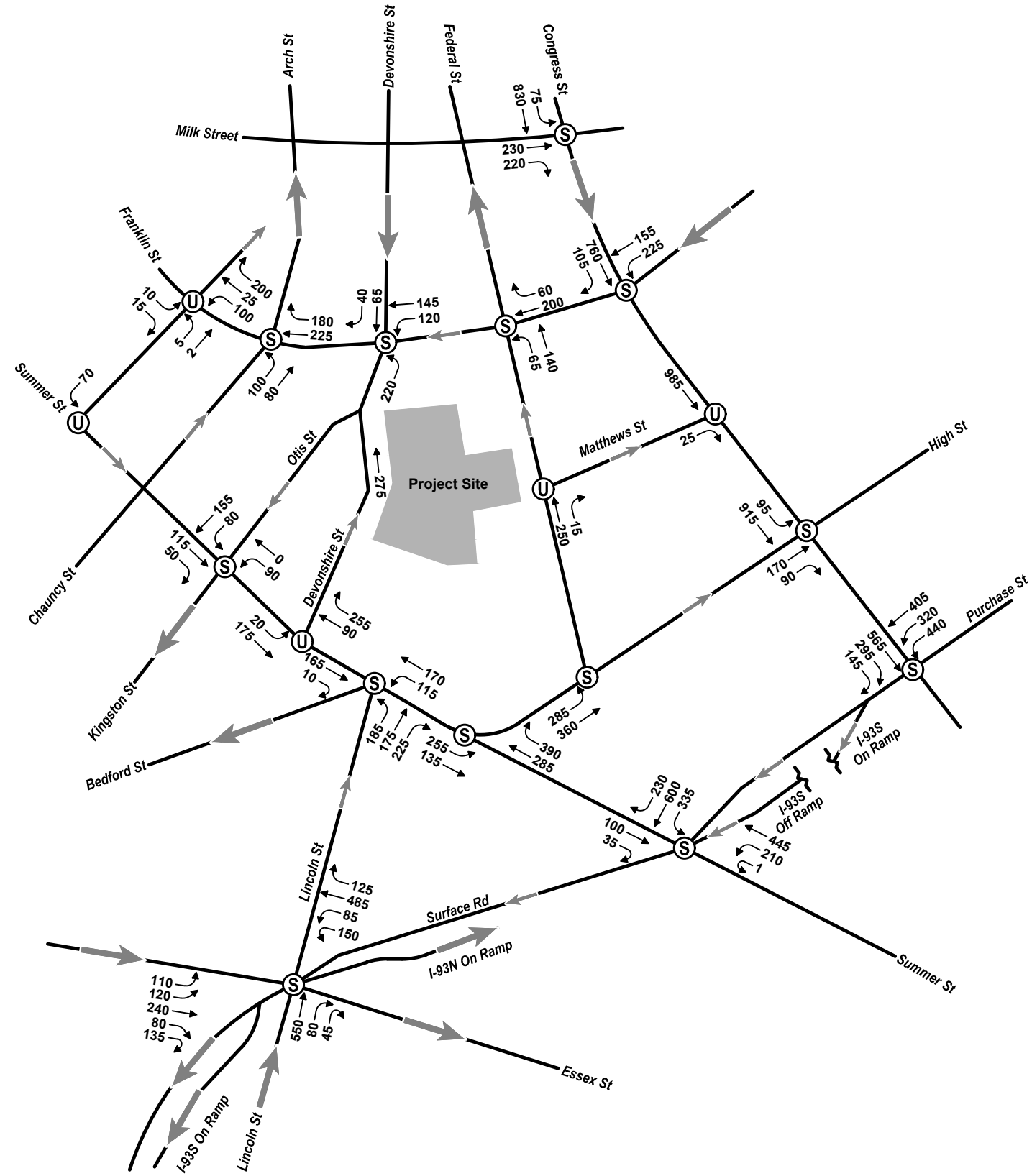
4.4 Build (2023) Conditions Assessment

The 2023 Build Conditions traffic volumes for study area roadways were developed by estimating Project-generated vehicle traffic volumes, distributing these volumes by direction, and assigning them to the study area intersections. The traffic volumes expected to be generated by the proposed Project were added to the 2023 No-Build Conditions traffic volumes to create the 2023 Build Conditions traffic volume networks. The following sections describe the procedures used to develop the 2023 Build Conditions traffic volume networks.

4.4.1 Trip Generation

Project-generated trips were calculated using methodologies outlined in the Institute of Transportation Engineers (ITE) Trip Generation Handbook, 3rd Edition (August 2014) and using 9th Edition ITE trip generation rates[2]. The appropriate trip generation methodology for each Project element is shown in Table 4-4.

[2] Trip Generation, 9th Edition, Institute of Transportation Engineers, Washington, D.C., 2002.

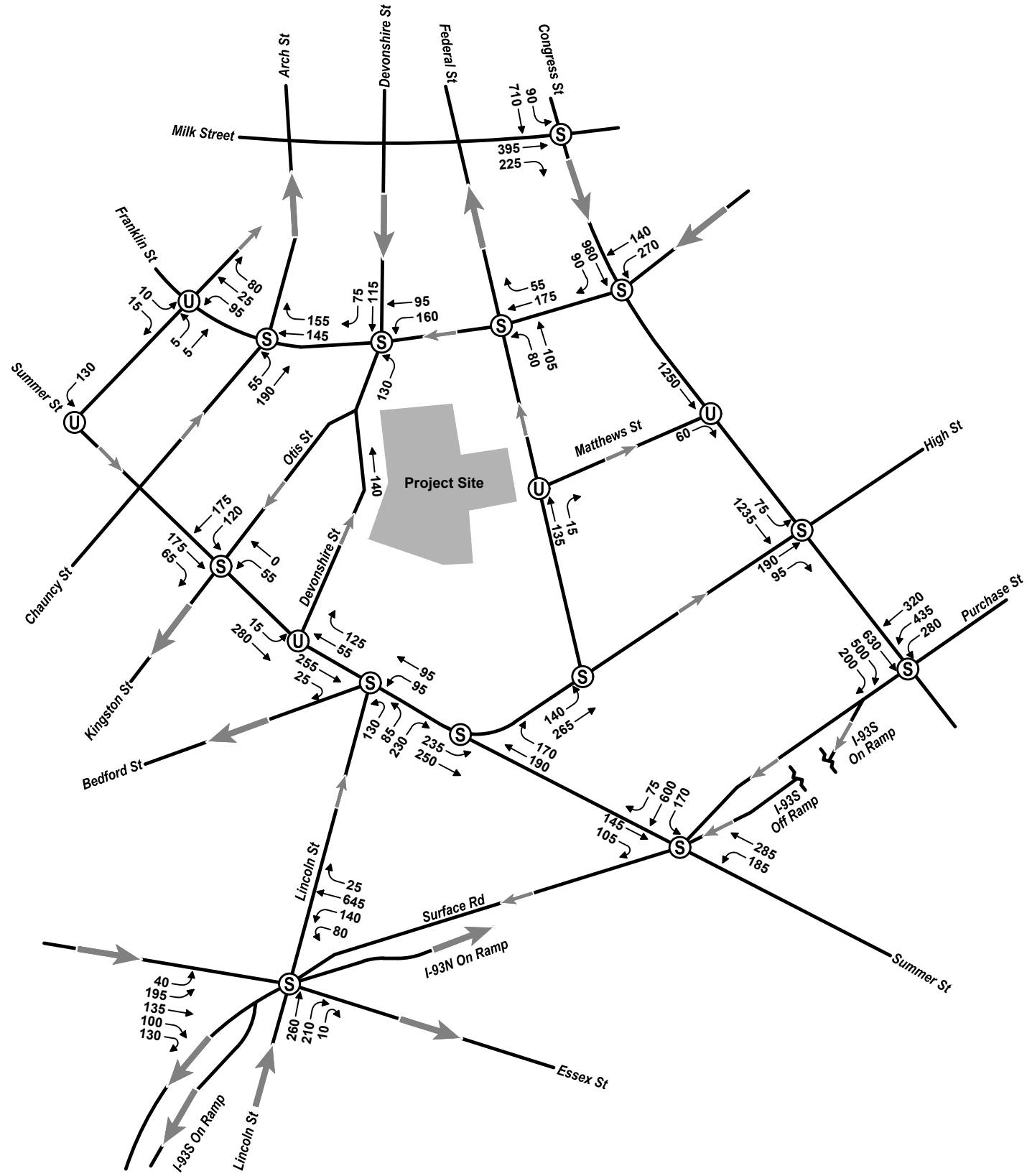


Not to Scale

115 Winthrop Square **Boston, Massachusetts**

Figure 4-11a

2023 No-Build Condition Vehicle Volumes
Morning Peak Hour (8:00 AM - 9:00 AM)



Not to Scale

115 Winthrop Square **Boston, Massachusetts**

Figure 4-11b

2023 No-Build Condition Vehicle Volumes
Evening Peak Hour (4:30 PM - 5:30 PM)

It is important to note that while the Great Hall will attract large numbers of pedestrians, it is not an independent vehicle trip generator during typical weekday peak periods in its own right. Rather, users of the space will be generated by the Project land use program elements, as well as trips generated by other existing land uses and activities in the surrounding area, most of which will comprise diversions of existing pedestrian trips. When events are held in the Great Hall, additional visitors will be attracted to the location. Great Hall events are expected to typically occur during off-peak periods and will generate minimal commuter peak-period vehicle trips. Traffic demands generated by functions in the Great Hall will be characterized in event-specific traffic management plans, as appropriate.

Neither the Private Amenity or Back-of-House spaces included in the Project program are anticipated to be independent trip generators during a typical weekday peak period. In the case of the Residential and Office Amenity Space, the facility will be restricted to occupants of the Project's office and residential spaces and will not be open to the public. The Back-of-House will be support/accessory space for the Project's mixed uses. Peak hour vehicle trip generation estimates are therefore not included for these elements.

Table 4-4 Project Program and Trip Generation Methodology

Project Element(s)	Program	ITE Land Use Code (LUC)
Residential	500 units	LUC 230 Residential Condo/Townhouse
Office and Meeting Space[1]	771,000 SF	LUC 710 General Office
Amenity Space	63,000 SF	n/a[2]
Great Hall[3]/Retail and Restaurant	19,000 SF	LUC 820 Shopping Center
Back-of-House	12,000 SF	n/a[4]

1 Includes 21,000 SF meeting space within office component.

2 Amenity Space will be restricted to occupants of the Project's office and residential spaces only and is not anticipated to be an independent trip generator during a typical weekday peak period.

3 Excludes the Great Hall 12,000 SF function and support area. The Great Hall is not anticipated to be an independent vehicle trip generator during a typical weekday peak period; trips to and from the Great Hall will be generated by the retail and restaurant space and other Project uses, as well as by shared existing trips from development in the surrounding area. Trip generation is based on the Project's 19,000 SF of retail and restaurant spaces, reflecting a conservative (high) trip generator component.

4 Back-of-House is not anticipated to be an independent trip generator during a typical weekday peak period and will be support space for other Project land uses.

ITE rates produce unadjusted vehicle trips for weekday daily, morning, and evening peak hours. Unadjusted daily vehicle trips are presented in Table 4-5.

Table 4-5 ITE Unadjusted Daily Vehicle Trips

Land Use	ITE Unadjusted Daily Vehicle Trips		
	Entering	Exiting	Total
Residential	1,305	1,305	2,610
Office	3,100	3,100	6,200
Retail	1,155	1,155	2,310
Total	5,560	5560	11,120

Unadjusted vehicle trips were converted into person trips by applying the national average vehicle occupancy (AVO) of 1.13 for office/residential and 1.67 for retail as presented in the 2009 National Household Travel Survey.

4.4.1.1 Internal Capture Trips

Because the proposed redevelopment is a mixed-use project, the trip generation characteristics of the site will be different from a single-use project. Some of the traffic to be generated by the Project will be contained on site as "internal" or "shared vehicle" trips. For example, the retail portion of the redevelopment will provide goods and services that are attractive to the office employees, which will reduce the need for them to travel off-site. While these shared trips represent new traffic to the individual uses, they would not show up as new vehicle trips on the surrounding roadway network.

To account for shared trips between the proposed uses, the shared trip methodology outlined in the National Cooperative Highway Research Program (NCHRP) Report 684 (Enhancing Internal Trip Capture Estimation for Mixed-Use Developments) was used. Internal capture trips were proportioned for each land use to develop net-new person trips generated by the Project. The worksheets used to estimate the internal person trips are provided in Attachment D.

4.4.1.2 Mode Share

Area mode shares were used to allocate the calculated person-trips by various transportation modes including vehicle (drive), transit, and walk/bike. Two sources for mode share characteristics were considered - BTD Access Boston 2000-2010, and the U.S. Census Bureau American Community Survey (ACS) 2006-2010 Five-year Estimates. Although the ACS data do not yield mode shares for

non-commute trips, the data are more recent than the BTD data, and are based on a single, more site-specific Census Tract (U.S. Census Tract 701.01 of Suffolk County, Massachusetts) rather than the much wider-area BTD Downtown data. Further, the traffic analysis is based on the critical weekday peak hours during which the office trips are expected to be predominantly employee trips. While some of the residential peak hour trips will be non-commute trips, the total of all residential trips account for less than approximately 10% of the peak hour Project trips.

Mode shares, by use, for the Project are presented in Table 4-6.

Table 4-6 Mode Share Assumptions by Land Use

Mode	Residential	Office/Retail
Vehicle	18%	33%
Transit	15%	58%
Walk/Bike	67%	9%

Source: U.S. Census Bureau, American Community Survey 2006-2010 Five-year estimates. Special Tabulation: Census Transportation Planning

The mode shares shown in Table 4-6 were applied to the net-new person trips to generate the adjusted Project trips by mode.

Local AVO for residential and office were calculated from the 2006-2010 ACS to be 1.07 and 1.10, respectively. A local AVO for retail is difficult to identify from available data, and therefore the national AVO of 1.67 was utilized. Local AVOs were applied to convert the person-trips to vehicle-trips for the vehicle trip estimate.

4.4.1.3 Trip Generation Summary (Proposed Project)

New Project-generated trips are shown in Table 4-7. In total, the Project is expected to generate approximately 3,360 daily vehicle trips, with 370 occurring in the morning peak hour and 390 in the evening peak hour. Due to the multiple public transportation options within close proximity to the site, approximately 6,730 daily transit trips (685 during the morning peak hour and 775 during the evening peak hour) will be generated by the Project. In addition, approximately 2,960 daily pedestrian/bicycle trips will be generated by the Project itself, with 240 during the morning and evening peak hours. As noted previously, the Project is expected to attract substantial numbers of shared existing pedestrian

trips from other land uses/developments in the area which are not generated by the Project itself. Detailed trip generation calculations are presented in Attachment D.

Table 4-7 Trip Generation Summary

		Vehicle			Transit			Walk/Bike		
		Daily	AM Peak	PM Peak	Daily	AM Peak	PM Peak	Daily	AM Peak	PM Peak
Residential	Entering	250	5	20	220	5	20	990	25	80
	Exiting	250	30	10	220	25	10	990	115	45
	Total	500	35	30	440	30	30	1,980	140	125
Office	Entering	1,050	290	50	2,030	555	100	315	85	15
	Exiting	1,050	35	260	2,030	65	500	315	10	80
	Total	2,100	325	310	4,060	620	600	630	95	95
Retail	Entering	380	5	25	1,115	20	75	175	5	10
	Exiting	380	5	25	1,115	15	70	175	0	10
	Total	760	10	50	2,230	35	145	350	5	20
Total	Entering	1,680	300	95	3,365	580	195	1,480	115	105
	Exiting	1,680	70	295	3,365	105	580	1,480	125	135
	Total	3,360	370	390	6,730	685	775	2,960	240	240

4.4.1.4 Alternatives Analysis

As discussed in Section 3.0, both the Certificate on the ENF and the BPDA Scoping Determination on the PNF call for analysis of alternative schemes for the Project in addition to the Preferred Alternative. The alternatives include the following:

- As-of-Right Zoning Alternative
- Tower compliant with prior shadow law

The programs for the Alternatives are described in Section 3.0. To identify the transportation implications of the Alternatives, a trip generation analysis was performed using the same trip generation methodology as for the Preferred Alternative. Results of the comparative new vehicle trip generation analysis are presented in Table 4-8, and are included in Section 3.0.

Table 4-8 Alternatives Analysis Trip Generation Summary (New Vehicle Trips)

		Proposed Project			As-of-Right Alternative			Alternative Based on Prior Shadow Laws		
		Daily	AM Peak	PM Peak	Daily	AM Peak	PM Peak	Daily	AM Peak	PM Peak
Residential	Entering	250	5	20	0	0	0	0	0	0
	Exiting	250	30	10	0	0	0	0	0	0
	Total	500	35	30	0	0	0	0	0	0
Office	Entering	1,050	290	50	695	185	30	1,145	315	60
	Exiting	1,050	35	260	695	20	160	1,145	35	285
	Total	2,100	325	310	1,390	205	190	2,290	350	345
Retail	Entering	380	5	25	430	10	35	715	15	55
	Exiting	380	5	25	430	5	40	715	10	64
	Total	760	10	50	860	15	75	1,430	25	120
Total	Entering	1,680	300	95	1,125	195	65	1,860	330	115
	Exiting	1,680	70	295	1,125	25	200	1,860	45	350
	Total	3,360	370	390	2,250	220	265	3,720	375	465

As shown in Table 4-8, the Alternative which is compliant with the prior shadow law would generate more daily and peak hour net-new vehicle trips than the proposed Project. As expected, the As-of-Right Alternative would generate fewer daily and peak hour net-new vehicle trips compared to the proposed Project. During the morning and evening weekday peak hours, the Alternative compliant with the prior shadow law would generate 375 and 465 net-new vehicle trips, compared to 370 and 390 net-new vehicle trips, in the AM and PM peak hours, respectively, for the proposed Project. The As-of-Right Alternative would generate 220 and 265 net-new vehicle trips in the morning and evening peak hours, respectively.

4.4.2 Trip Distribution

The directional distribution of the vehicular traffic approaching and departing the site is a function of the land use, population densities, the location of employment, existing travel patterns, competing uses, and the efficiency of the existing roadway system. Since the Project is a mix of different uses, the directional distributions for each use were considered separately.

The Project trip distribution is based on the origin-destination U.S. Census Bureau American Community Survey (ACS) 2006-2010 Five-year Estimates for Census Tract 701.01 of Suffolk County, Massachusetts. The BTD zone rates and the trip distribution used by surrounding area projects were reviewed for consistency. Office and retail follow the same trip distribution pattern, and residential follows a different pattern based on the Census data. Table 4-9 summarizes Project trip distributions, and Figures 4-12a and 4-12b present the Project trip distributions for residential and commercial trips, respectively, as assigned to the primary roadways serving the study area.

Table 4-9 Project Trip Distribution

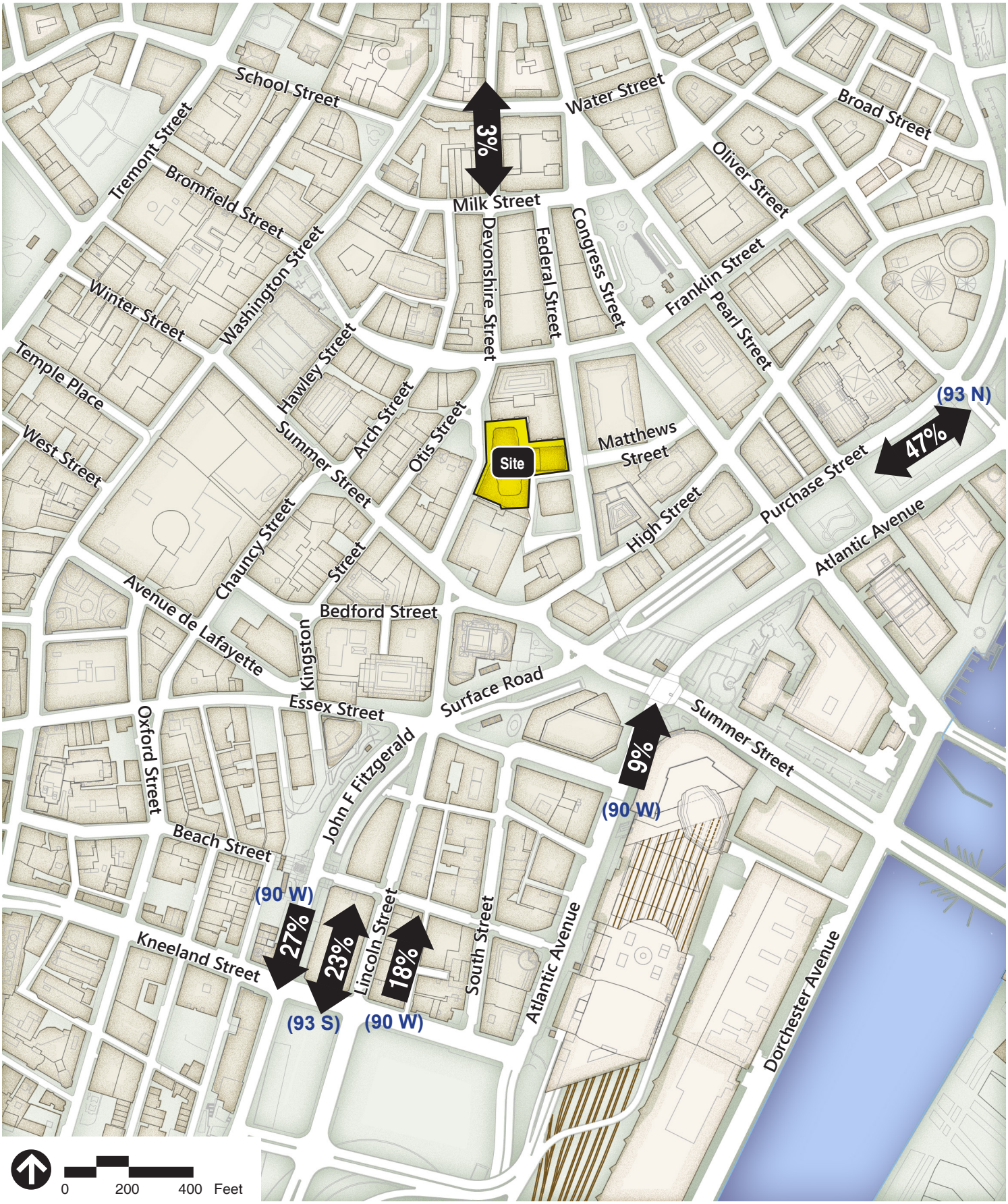
Trip Assignment	Residential	Commercial (Office/Retail)
I-93 South	23%	38%
I-93 North	47%	38%
I-90 West	27%	21%
Local Roadways	3%	3%

Source: U.S. Census Bureau, American Community Survey 2006-2010 Five-year estimates. Special Tabulation: Census Transportation Planning

4.4.3 Trip Assignment

The assignment of site-generated traffic to specific travel routes was based on observed traffic flow conditions on available routes. It is assumed that most motorists will seek the fastest and most direct routes to and from the site, although in some situations Project trips are split between alternative routes.

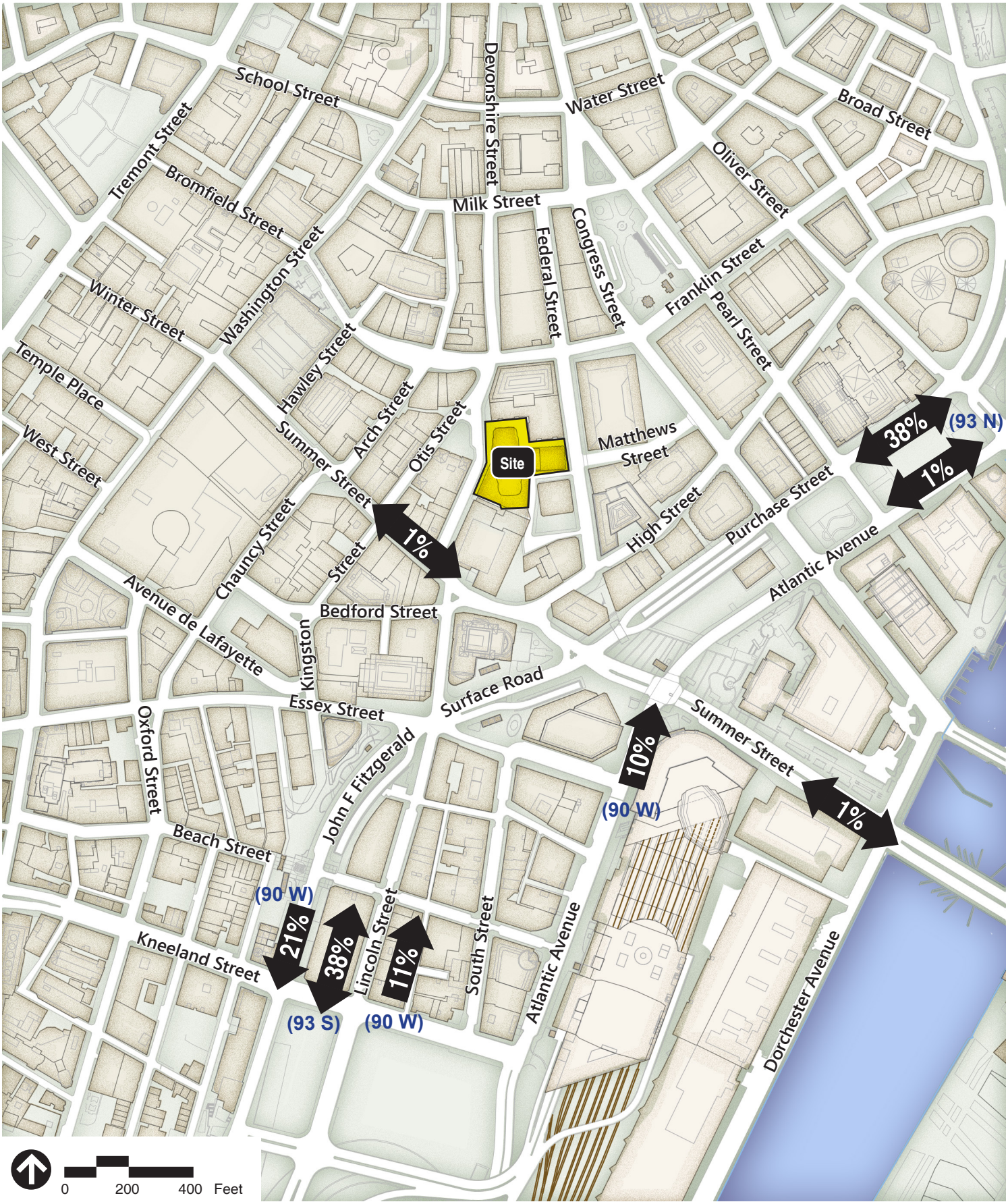
As shown on the Site Plan in Section 2.0, the driveway for the office and retail parking garage will be on Federal Street at the northern end of the Project site north of Matthews Street. As a result, the Project driveway will provide left-in and left-out turning movements only, and all commercial trips will arrive on one-way Federal Street from High Street and depart on Federal Street towards Franklin



115 Winthrop Square **Boston, Massachusetts**

Figure 4-12a

Residential Trip Distribution



115 Winthrop Square **Boston, Massachusetts**

Figure 4-12b

Office/Retail Trip Distribution

Street. However, as the ramp will be reversible one-way (inbound in the morning and outbound in the evening), the relatively small number of opposing trips (25 exiting trips in the morning peak hour and 40 exiting trips in the evening peak hour) will be directed to the residential driveway on Devonshire Street.

The residential driveway will be on Devonshire Street at the northern end of the Project site. Due to the geometry of Winthrop Square, and the desire to maintain the ability for traffic to turn from Devonshire Street northbound to Otis Street (south bound), left-turns into the residential driveway from Devonshire Street southbound will not be permitted. As a result, the Project residential driveway will provide right-in turning movements only, along with left-out and right-out movements. Therefore, all residential trips will arrive on Devonshire Street northbound from Summer Street, but will depart on Devonshire Street north towards Franklin Street or south via Otis Street towards Summer Street.

The resulting weekday peak hour Project trip networks are presented in Figures 4-13a and 4-13b for the morning and evening peak hours, respectively.

4.4.4 Build (2023) Traffic Volumes

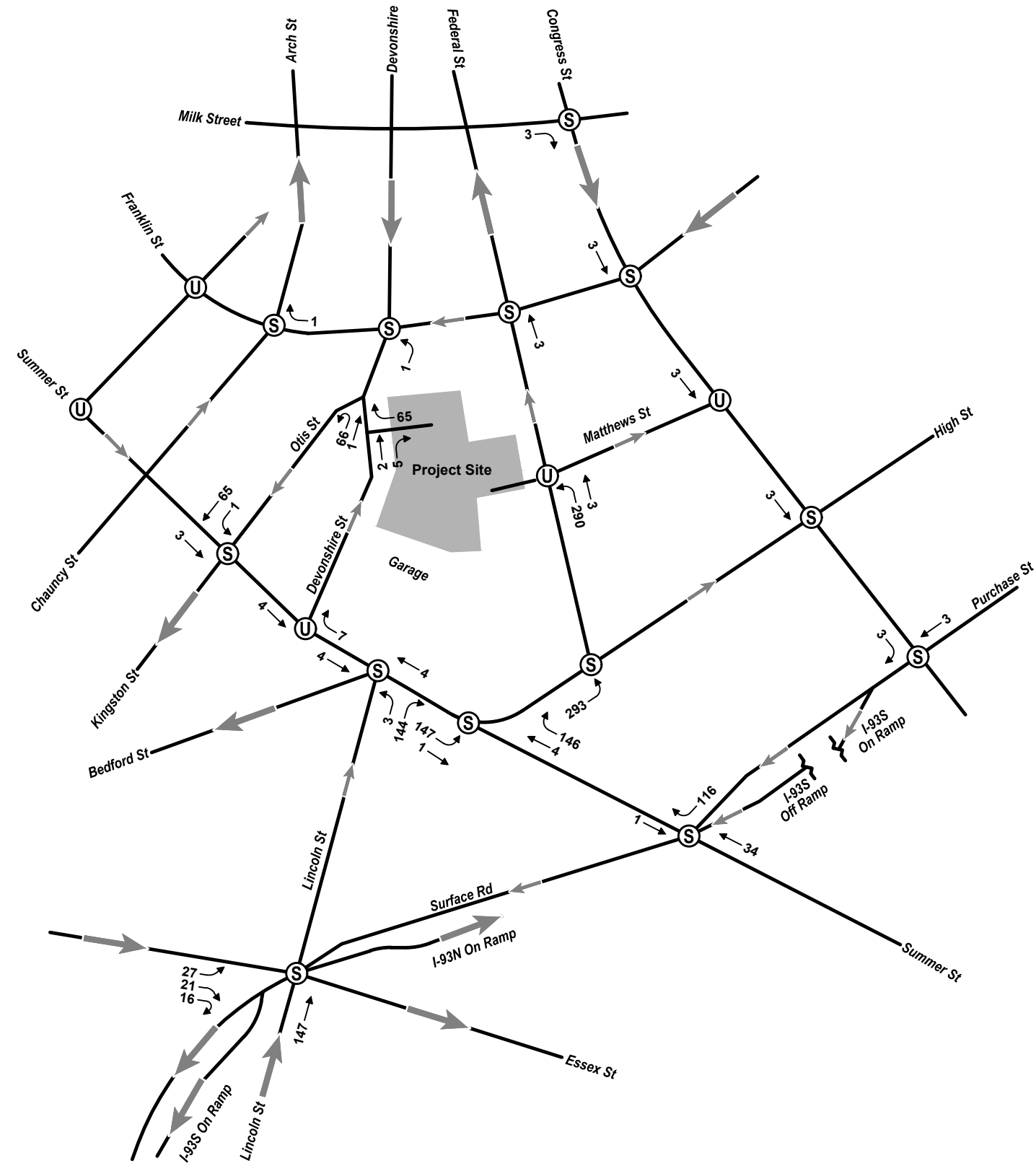
Project-generated traffic volumes were added to the No-Build traffic volumes to develop the peak hour Build traffic volume networks. The 2023 Build Condition vehicle volumes are presented in Figures 4-14a and 4-14b for the morning and evening peak hours, respectively.

4.5 Traffic Operations Analysis

4.5.1 Vehicle Operations

Vehicular Level of Service (LOS) is a measure of control delay at an intersection providing an index to the operational qualities of a roadway or intersection. LOS designations range from A to F, with LOS A representing the best operating conditions and LOS F representing the worst operating conditions. LOS designation is reported differently for signalized and unsignalized intersections:

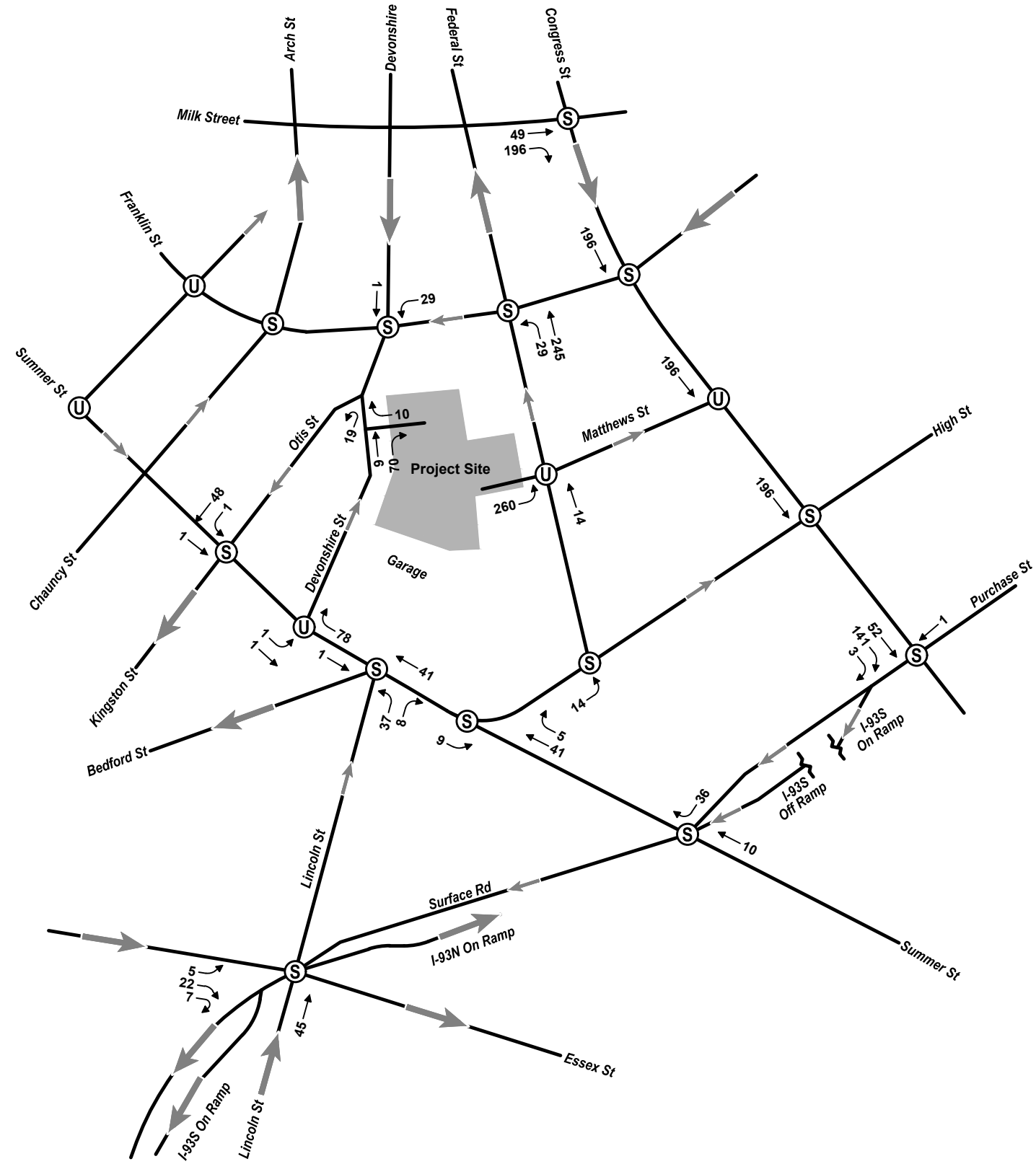
- For signalized intersections, the analysis considers the operations of each lane or lane group entering the intersection, and the overall LOS designation at the intersection is a blended average of all the individual turning movements.
- For unsignalized intersections, the analysis assumes that traffic on the mainline is not affected by traffic on the side streets. The LOS is only determined for left turns from the main street and all movements from the minor street. The LOS designation is for the most critical movement, which is most often the left turn out of the side street.



115 Winthrop Square **Boston, Massachusetts**

Figure 4-13a

Project Generated Vehicle Trips
Morning Peak Hour (8:00 AM - 9:00 AM)

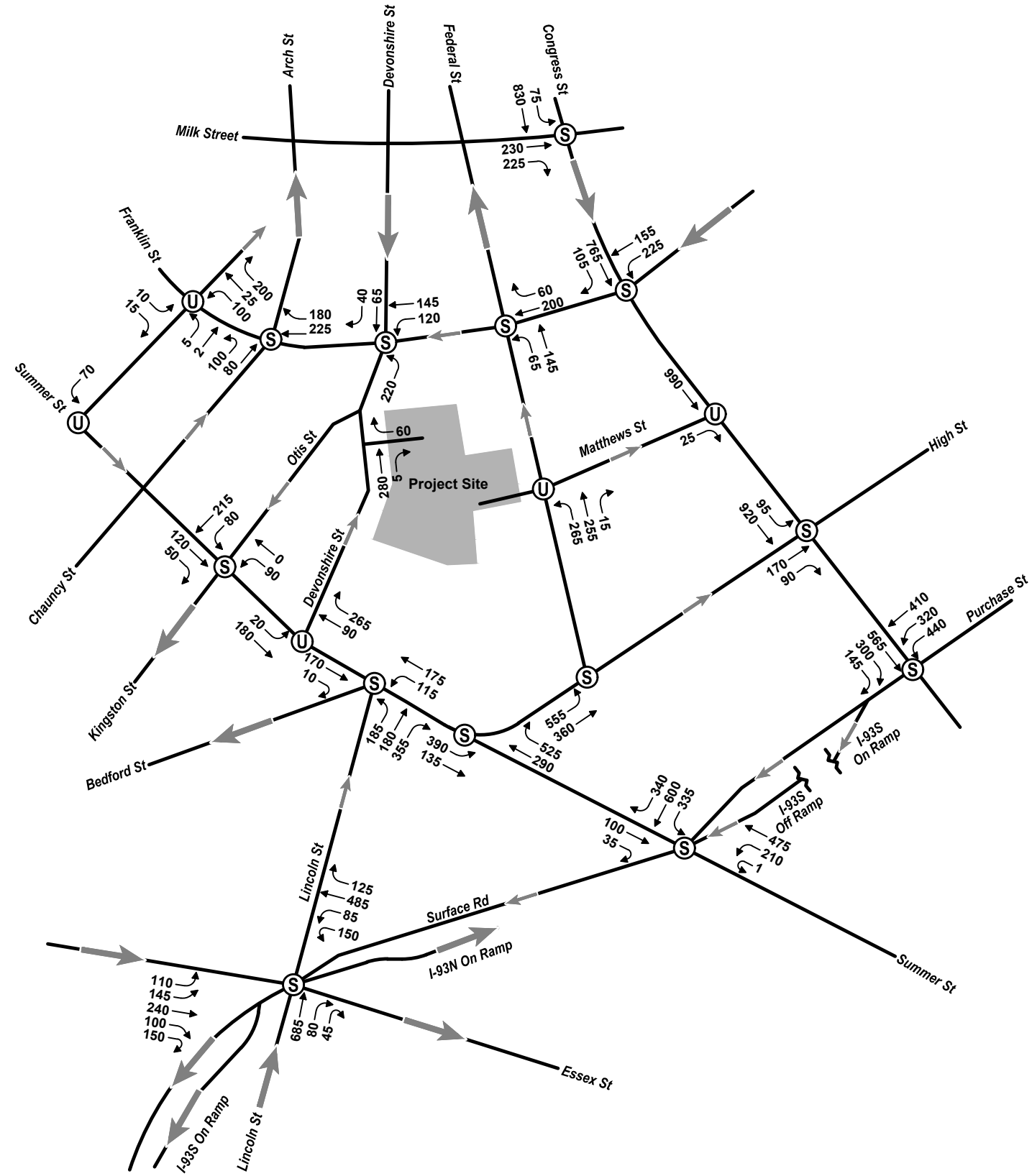


Not to Scale

115 Winthrop Square **Boston, Massachusetts**

Figure 4-13b

Project Generated Vehicle Trips
Evening Peak Hour (4:30 PM - 5:30 PM)

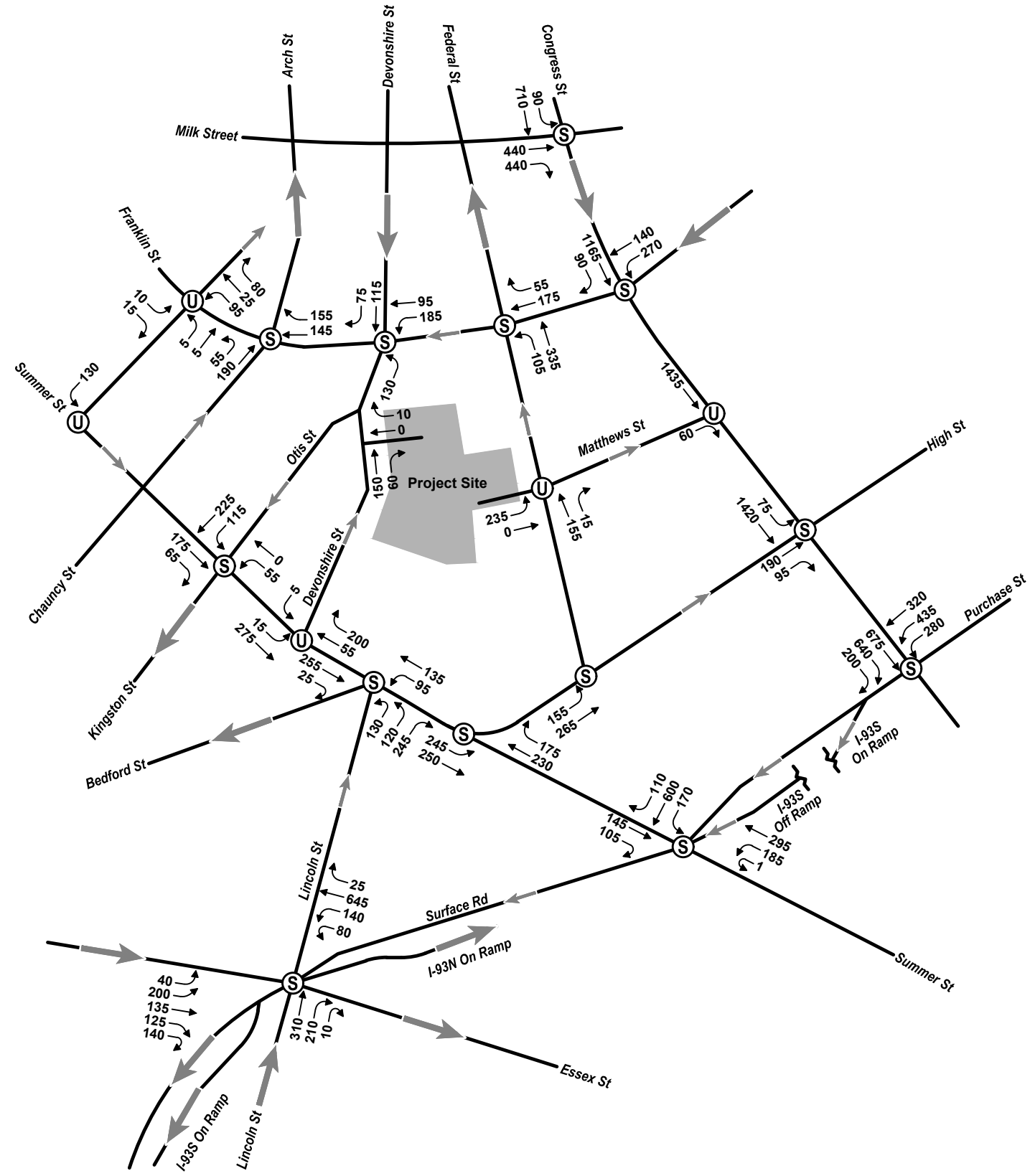


Not to Scale

115 Winthrop Square **Boston, Massachusetts**

Figure 4-14a

2023 Build Condition Vehicle Volumes
Morning Peak Hour (8:00 AM - 9:00 AM)



Not to Scale

115 Winthrop Square **Boston, Massachusetts**

Figure 4-14b

2023 Build Condition Vehicle Volumes
Evening Peak Hour (4:30 PM - 5:30 PM)

Synchro 9.0 software was used to evaluate the LOS operations at the study area intersections for the 2016 Existing, 2023 No-Build, and 2023 Build conditions. This analysis is based on the 2000 Highway Capacity Manual (HCM). Table 4-10 presents the LOS delay threshold criteria as defined in the HCM.

Table 4-10 Level of Service Criteria

Level of Service	Unsignalized Intersection Control Delay (sec/veh)	Signalized Intersection Control Delay (sec/veh)
LOS A	0 – 10	≤ 10
LOS B	> 10 – 15	> 10 – 20
LOS C	> 15 – 25	> 20 – 35
LOS D	> 25 – 35	> 35 – 55
LOS E	> 35 – 50	> 55 – 80
LOS F	> 50	> 80

Source: 2000 HCM

The results of the operational analyses for signalized intersections are summarized in Tables 4-11a and 4-11b for the morning and evening peak hours, respectively. The results of the operational analyses for unsignalized intersections are summarized in Table 4-12.

In urban areas, a LOS grade of D or better is generally considered to be acceptable. Based on this criterion, most study signalized intersections operate at acceptable overall levels of service under Existing and Future No-Build conditions, with the exception of Summer Street/Surface Road/Purchase Street/I-93 Off-Ramp intersection (#2) during the morning peak hour which operates at LOS E. As shown, there are also some individual approaches which experience LOS E or F under Existing and/or No-Build conditions.

Table 4-11a Signalized Intersection Vehicle Level of Service (Morning Peak Hour)

Intersection		Movement	2016 Existing Conditions					2023 No-Build Conditions					2023 Build Conditions				
			V/C[1]	Delay[2]	LOS[3]	50th Queue[4]	95th Queue[5]	V/C[1]	Delay[2]	LOS[3]	50th Queue[4]	95th Queue[5]	V/C[1]	Delay[2]	LOS[3]	50th Queue[4]	95th Queue[5]
1	Surface Road/ Lincoln Street/I-93 On-Ramp/Essex Street	Essex St EB T	0.85	52.4	D	188	#280	0.86	53.8	D	190	#284	0.94	64.3	E	210	#323
		Essex St EB R	0.92	80.0	E	168	#330	0.93	80.9	F	168	#330	1.01	104.2	F	~192	#371
		Lincoln St NB T/R	0.81	44.5	D	186	215	0.83	45.4	D	193	223	0.94	55.4	E	247	#295
		Surface Rd SWB L/T/R	0.63	25.5	C	147	m180	0.73	29.0	C	202	m239	0.77	30.1	C	200	m236
		Overall	**0.77**	**42.6**	**D**	-	-	**0.82**	**43.8**	**D**	-	-	**0.89**	**52.4**	**D**	-	-
2	Summer St/ Surface Road/Purchase St/I-93 Off-Ramp	Purchase St WB R/T/L	0.59	16.7	B	107	135	0.66	17.0	B	124	162	0.73	18.0	B	126	176
		Summer St NB L	0.96	97.7	F	159	#307	1.01	110.6	F	~170	#330	1.01	110.6	F	~170	#330
		Summer St NB T	1.15	138.5	F	~236	#339	1.18	149.6	F	~247	#350	1.27	184.7	F	~279	#383
		Summer St SB R	0.46	20.7	C	23	40	0.49	22.1	C	27	45	0.49	21.3	C	24	45
		Summer St SB R	0.03	37.3	D	0	0	0.03	37.3	D	0	0	0.03	37.3	D	0	0
		Overall	**0.67**	**56.6**	**E**	-	-	**0.72**	**59.1**	**E**	-	-	**0.78**	**67.4**	**E**	-	-
3	Purchase St I-93 On-Ramp/ Congress Street	Congress St SEB T	0.57	15.9	B	94	159	0.61	11.6	B	105	162	0.61	11.6	B	77	100
		Congress St SEB BR	0.61	19.5	B	88	298	0.65	15.8	B	110	293	0.66	16.1	B	74	191
		Congress St SEB HR	0.11	5.5	A	0	9	0.14	4.9	A	0	10	0.14	4.9	A	0	8
		Purchase St SWB HL	0.42	28.7	C	32	125	0.45	28.3	C	40	142	0.45	28.1	C	40	142
		Purchase St SWB BL	0.67	34.7	C	190	283	0.68	34.3	C	197	301	0.68	34.0	C	197	301
		Purchase St SWB T	0.82	43.1	D	250	366	0.84	44.7	D	265	#402	0.85	45.3	D	271	#418
		Overall	**0.59**	**26.0**	**C**	-	-	**0.62**	**24.3**	**C**	-	-	**0.63**	**24.4**	**C**	-	-

1 Volume to Capacity Ratio
2 delay in seconds
3 level of service
4 50th percentile queue (reported in feet)
5 95th percentile queue (reported in feet)
~ Volume exceeds capacity, queue is theoretically infinite
# 95th percentile volume exceeds capacity, queue may be longer
m Volume for 95th percentile queue is metered by upstream signal

Table 4-11a Signalized Intersection Vehicle Level of Service (Morning Peak Hour) (Continued)

Intersection		Movement	2016 Existing Conditions					2023 No-Build Conditions					2023 Build Conditions				
			V/C[1]	Delay[2]	LOS[3]	50th Queue[4]	95th Queue[5]	V/C[1]	Delay[2]	LOS[3]	50th Queue[4]	95th Queue[5]	V/C[1]	Delay[2]	LOS[3]	50th Queue[4]	95th Queue[5]
4	Summer St at Otis St	Summer St SEB T/R	0.81	55.3	E	133	160	0.82	54.7	D	137	165	0.82	54.9	D	141	168
		Summer St NWB L	0.45	37.7	D	59	100	0.45	38.3	D	59	100	0.45	40.9	D	62	101
		Otis St SWB L/T	0.48	27.1	C	138	245	0.50	27.9	C	143	252	0.64	32.4	C	197	#374
		Overall	**0.58**	**39.0**	**D**	-	-	**0.59**	**39.3**	**D**	-	-	**0.65**	**41.0**	**D**	-	-
6	Summer Street/Bedford Street/Lincoln Street	Summer St EB T/R	0.37	8.1	A	9	37	0.39	9.0	A	9	44	0.41	13.3	B	22	58
		Summer St WB L	0.84	47.1	D	45	#174	0.84	47.3	D	46	#173	0.84	45.3	D	53	#171
		Summer St WB T	0.31	11.8	B	52	93	0.33	12.1	B	53	97	0.34	11.8	B	57	98
		Lincoln St NB HL	0.14	0.2	A	0	m0	0.14	0.2	A	0	m0	0.14	0.1	A	0	m0
		Lincoln St NB L	0.46	7.8	A	41	m54	0.26	7.4	A	41	m54	0.27	6.1	A	36	m40
		Lincoln St NB R	0.47	9.2	A	053	m70	0.41	8.6	A	54	m69	0.66	10.5	B	74	m360
		Overall	**0.59**	**11.8**	**B**	-	-	**0.59**	**11.7**	**B**	-	-	**0.74**	**12.2**	**B**	-	-
7	Summer Street at High Street	Summer St EB L	0.79	64.7	E	179	#327	0.80	65.4	E	178	#335	1.28	197.6	F	~394	#622
		Summer St EB T	0.39	47.5	D	84	162	0.40	47.5	D	86	168	0.40	50.5	D	94	m166
		Summer St WB T	0.43	11.7	B	56	m61	0.44	11.7	B	58	m63	0.44	10.4	B	61	m71
		Summer St WB R	0.31	72.6	E	74	m78	0.32	76.7	E	80	m80	0.51	61.1	E	128	m120
		Overall	**0.44**	**51.2**	**D**	-	-	**0.45**	**53.0**	**D**	-	-	**0.63**	**90.1**	**F**	-	-
8	High Street at Federal Street	High St EB L	0.38	5.2	A	59	m59	0.39	5.2	A	59	m60	0.78	13.4	B	357	m73
		High St EB T	0.38	5.1	A	74	m72	0.39	5.1	A	75	m74	0.39	3.4	A	48	m38
		Overall	**0.27**	**5.1**	**A**	-	-	**0.27**	**5.1**	**A**	-	-	**0.54**	**9.6**	**A**	-	-

1 Volume to Capacity Ratio
2 delay in seconds
3 level of service
4 50th percentile queue (reported in feet)
5 95th percentile queue (reported in feet)
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# 95th percentile volume exceeds capacity, queue may be longer
m Volume for 95th percentile queue is metered by upstream signal

Table 4-11a Signalized Intersection Vehicle Level of Service (Morning Peak Hour) (Continued)

Intersection		Movement	2016 Existing Conditions					2023 No-Build Conditions					2023 Build Conditions				
			V/C[1]	Delay[2]	LOS[3]	50th Queue[4]	95th Queue[5]	V/C[1]	Delay[2]	LOS[3]	50th Queue[4]	95th Queue[5]	V/C[1]	Delay[2]	LOS[3]	50th Queue[4]	95th Queue[5]
9	Congress Street at High Street	High St EB T/R	0.80	42.7	D	227	256	0.80	41.9	D	236	259	0.80	43.4	D	236	268
		Congress St SB L/T	0.45	3.6	A	41	63	0.48	3.8	A	43	65	0.48	3.6	A	39	60
		Overall	**0.55**	**12.4**	**B**	-	-	**0.58**	**12.3**	**B**	-	-	**0.58**	**12.5**	**B**	-	-
12	Congress Street at Franklin Street	Franklin St WB L/T	0.29	31.0	C	50	78	0.30	31.2	C	52	81	0.30	31.2	C	52	81
		Congress St SB T	0.48	23.6	C	152	177	0.51	24.2	C	166	191	0.52	25.0	C	226	258
		Congress St SB R	0.13	19.6	B	13	44	0.14	19.7	B	15	47	0.14	18.0	B	42	35
		Overall	**0.33**	**25.6**	**C**	-	-	**0.35**	**26.0**	**C**	-	-	**0.35**	**26.3**	**C**	-	-
13	Federal Street at Franklin Street	Franklin St WB T/R	0.21	9.3	A	21	40	0.22	9.3	A	23	41	0.22	11.0	B	35	55
		Federal St NB L/T	0.24	12.2	B	52	50	0.24	12.0	B	50	48	0.48	10.6	B	23	m24
		Overall	**0.22**	**10.6**	**B**	-	-	**0.23**	**10.6**	**B**	-	-	**0.23**	**10.8**	**B**	-	-
14	Devonshire Street at Franklin Street	Franklin St WB T	0.21	13.7	B	65	101	0.21	13.8	B	66	103	0.21	10.6	B	55	87
		Devonshire St NB L	0.75	51.7	D	152	218	0.76	51.8	D	155	223	0.76	51.8	D	155	223
		Devonshire St SB T	0.71	59.8	E	68	115	0.71	59.8	E	68	115	0.71	59.8	E	68	115
		Overall	**0.41**	**36.7**	**D**	-	-	**0.42**	**36.7**	**D**	-	-	**0.42**	**35.3**	**D**	-	-
15	Franklin Street at Arch Street	Franklin St WB T	0.24	16.9	B	36	62	0.24	16.9	B	36	62	0.24	16.9	B	36	62
		Franklin St WB R	0.14	16.5	B	0	39	0.14	16.5	B	0	39	0.14	16.5	B	0	39
		Arch St NB L/T	0.23	7.8	A	18	39	0.23	7.8	A	18	39	0.23	7.8	A	18	39
		Overall	**0.23**	**13.7**	**B**	-	-	**0.23**	**13.7**	**B**	-	-	**0.23**	**13.7**	**B**	-	-

1 Volume to Capacity Ratio
2 delay in seconds
3 level of service
4 50th percentile queue (reported in feet)
5 95th percentile queue (reported in feet)
~ Volume exceeds capacity, queue is theoretically infinite
# 95th percentile volume exceeds capacity, queue may be longer
m Volume for 95th percentile queue is metered by upstream signal

Table 4-11a Signalized Intersection Vehicle Level of Service (Morning Peak Hour) (Continued)

Intersection		Movement	2016 Existing Conditions					2023 No-Build Conditions					2023 Build Conditions				
			V/C[1]	Delay[2]	LOS[3]	50th Queue[4]	95th Queue[5]	V/C[1]	Delay[2]	LOS[3]	50th Queue[4]	95th Queue[5]	V/C[1]	Delay[2]	LOS[3]	50th Queue[4]	95th Queue[5]
18	Congress Street at Milk Street	Milk St EB T	0.33	34.7	C	73	95	0.33	34.7	C	73	95	0.32	34.1	C	72	94
		Milk St EB R	0.80	53.4	D	151	213	0.78	53.4	D	151	213	0.79	52.6	D	153	217
		Congress St SB L	0.12	16.4	B	31	73	0.12	16.4	B	31	73	0.13	16.8	B	32	73
		Congress St SB T	0.46	20.1	C	152	229	0.46	20.1	C	152	229	0.47	20.5	C	156	231
		Overall	**0.47**	**27.4**	**C**	-	-	**0.47**	**27.4**	**C**	-	-	**0.48**	**27.6**	**C**	-	-

1 Volume to Capacity Ratio
2 delay in seconds
3 level of service
4 50th percentile queue (reported in feet)
5 95th percentile queue (reported in feet)
~ Volume exceeds capacity, queue is theoretically infinite
# 95th percentile volume exceeds capacity, queue may be longer
m Volume for 95th percentile queue is metered by upstream signal

Table 4-11b Signalized Intersection Vehicle Level of Service (Evening Peak Hour)

Intersection		Movement	2016 Existing Conditions					2023 No-Build Conditions					2023 Build Conditions				
			V/C[1]	Delay[2]	LOS[3]	50th Queue[4]	95th Queue[5]	V/C[1]	Delay[2]	LOS[3]	50th Queue[4]	95th Queue[5]	V/C[1]	Delay[2]	LOS[3]	50th Queue[4]	95th Queue[5]
1	Surface Road/ Essex Street at Lincoln Street	Essex St EB T	0.75	50.4	D	166	242	0.76	49.5	D	169	247	0.76	48.7	D	172	253
		Essex St EB R	0.72	48.7	D	129	201	0.71	47.9	D	128	201	0.78	52.4	D	155	237
		Lincoln St NB T/R	0.88	67.8	E	165	#262	0.91	72.8	E	180	#291	1.02d	54.3	D	156	187
		Surface Rd SWB L/T/R	0.49	28.0	C	161	229	0.58	30.7	D	214	280	0.59	30.9	C	217	280
		Overall	**0.66**	**41.5**	**D**	**-**	**-**	**0.71**	**42.5**	**D**	**-**	**-**	**0.72**	**43.2**	**D**	**-**	**-**
2	Summer St at Surface Road/ Purchase St	Purchase St WB R/T/L	0.48	18.5	B	83	105	0.55	19.1	B	121	121	0.57	18.5	B	98	120
		Summer St NB L	0.64	53.6	D	119	196	0.67	55.2	E	125	#208	0.69	56.1	E	128	#221
		Summer St NB T	0.65	47.7	D	126	174	0.68	48.7	D	132	181	0.69	49.2	D	135	185
		Summer St SB R	0.66	48.0	D	58	108	0.69	49.9	D	62	113	0.69	49.6	D	62	113
		Summer St SB R	0.10	84.0	F	5	42	0.10	88.4	F	5	44	0.10	88.7	F	3	43
		Overall	**0.56**	**36.2**	**D**	**-**	**-**	**0.61**	**36.3**	**D**	**-**	**-**	**0.62**	**35.9**	**D**	**-**	**-**
3	Purchase St at I-93 On Ramp/ Congress Street	Congress St SEB T	0.61	16.3	B	107	172	0.64	17.5	B	126	m162	0.69	19.1	B	177	m143
		Congress St SEB BR	1.06	66.5	E	~427	m#604	1.11	83.1	F	~454	m#582	1.42	213.7	F	~689	m#700
		Congress St SEB HR	0.16	8.9	A	4	m13	0.19	9.9	A	5	m13	0.24	8.9	A	9	m13
		Purchase St SWB L	0.20	27.2	C	0	58	0.21	26.8	C	0	59	0.21	26.8	C	0	59
		Purchase St SWB BL	0.91	57.4	E	288	288	0.94	62.4	E	308	308	0.94	62.4	E	308	#505
		Purchase St SWB T	0.65	35.2	D	183	183	0.69	36.5	D	203	310	0.69	36.5	D	203	310
		Overall	**0.83**	**37.8**	**D**	**-**	**-**	**0.86**	**42.6**	**D**	**-**	**-**	**1.00**	**78.1**	**E**	**-**	**-**

1 Volume to Capacity Ratio
2 delay in seconds
3 level of service
4 50th percentile queue (reported in feet)
5 95th percentile queue (reported in feet)
~ Volume exceeds capacity, queue is theoretically infinite
# 95th percentile volume exceeds capacity, queue may be longer
m Volume for 95th percentile queue is metered by upstream signal

Table 4-11b Signalized Intersection Vehicle Level of Service (Evening Peak Hour) (Continued)

Intersection		Movement	2016 Existing Conditions					2023 No-Build Conditions					2023 Build Conditions				
			V/C[1]	Delay[2]	LOS[3]	50th Queue[4]	95th Queue[5]	V/C[1]	Delay[2]	LOS[3]	50th Queue[4]	95th Queue[5]	V/C[1]	Delay[2]	LOS[3]	50th Queue[4]	95th Queue[5]
4	Summer St at Otis St	Summer St SEB T/R	0.91	69.5	E	168	#314	0.92	70.6	E	172	#321	0.92	70.6	E	172	#321
		Summer St NWB L	0.31	44.6	D	43	87	0.31	44.5	D	43	87	0.31	42.8	D	39	80
		Otis St SWB L/T	0.57	25.6	C	206	237	0.58	26.0	C	211	242	0.68	29.2	C	262	294
		Overall	**0.63**	**43.2**	**D**	**-**	**-**	**0.64**	**43.9**	**D**	**-**	**-**	**0.69**	**44.1**	**D**	**-**	**-**
6	Bedford Street/Lincoln Street at Summer Street	Summer St EB T/R	0.73	35.5	D	176	m197	0.72	33.9	C	168	m203	0.84	42.4	D	176	m214
		Summer St WB L	0.96	83.2	F	81	#161	0.97	84.5	F	85	#170	0.98	80.7	F	85	#170
		Summer St WB T	0.24	3.7	A	21	37	0.23	3.7	A	21	39	0.32	5.7	A	37	64
		Lincoln St NB HL	0.11	0.2	A	0	0	0.11	0.2	A	0	0	0.11	0.2	A	0	m0
		Lincoln St NB L	0.11	4.0	A	13	25	0.11	4.1	A	13	25	0.16	4.8	A	18	m29
		Lincoln St NB R	0.35	6.0	A	36	57	0.36	6.3	A	38	58	0.38	5.4	A	37	m55
		Overall	**0.54**	**21.0**	**C**	**-**	**-**	**0.56**	**21.0**	**C**	**-**	**-**	**0.58**	**23.4**	**C**	**-**	**-**
7	Summer Street at High Street	Summer St EB L	0.46	18.8	B	132	188	0.47	19.2	C	133	192	0.49	22.0	C	151	204
		Summer St EB T	0.45	18.3	B	140	192	0.46	18.8	C	142	197	0.46	21.1	C	155	199
		Summer St WB T	0.46	9.7	A	32	52	0.47	10.2	B	33	57	0.57	13.0	B	51	86
		Summer St WB R	0.14	2.2	A	1	2	0.15	2.1	A	0	1	0.15	2.3	A	1	m4
		Overall	**0.37**	**13.5**	**B**	**-**	**-**	**0.38**	**13.9**	**B**	**-**	**-**	**0.42**	**15.9**	**B**	**-**	**-**
8	High Street at Federal Street	High St EB L	0.18	6.0	A	44	72	0.18	6.0	A	43	73	0.20	6.2	A	52	77
		High St EB T	0.27	6.8	A	81	133	0.28	6.9	A	84	147	0.28	7.0	A	90	141
		Overall	**0.19**	**6.5**	**A**	**-**	**-**	**0.20**	**6.6**	**A**	**-**	**-**	**0.20**	**6.7**	**A**	**-**	**-**

1 Volume to Capacity Ratio
2 delay in seconds
3 level of service
4 50th percentile queue (reported in feet)
5 95th percentile queue (reported in feet)
~ Volume exceeds capacity, queue is theoretically infinite
# 95th percentile volume exceeds capacity, queue may be longer
m Volume for 95th percentile queue is metered by upstream signal

Table 4-11b Signalized Intersection Vehicle Level of Service (Evening Peak Hour) (Continued)

Intersection		Movement	2016 Existing Conditions					2023 No-Build Conditions					2023 Build Conditions				
			V/C[1]	Delay[2]	LOS[3]	50th Queue[4]	95th Queue[5]	V/C[1]	Delay[2]	LOS[3]	50th Queue[4]	95th Queue[5]	V/C[1]	Delay[2]	LOS[3]	50th Queue[4]	95th Queue[5]
9	Congress Street at High Street	High St EB T/R	0.81	37.0	D	193	183	0.81	37.3	D	202	321	0.81	37.7	D	206	321
		Congress St SB L/T	0.82	11.6	B	312	#626	0.87	14.1	B	210	#685	1.00	33.7	C	~285	#870
		Overall	**0.82**	**16.1**	**B**	**-**	**-**	**0.85**	**18.2**	**B**	**-**	**-**	**0.94**	**34.3**	**C**	**-**	**-**
12	Congress Street at Franklin Street	Franklin St WB L/T	0.30	36.3	D	44	90	0.31	36.5	D	45	93	0.27	22.2	C	47	95
		Congress St SB T	0.48	19.5	B	169	208	0.51	20.0	B	183	224	0.70	29.5	C	308	m319
		Congress St SB R	0.10	15.3	B	11	40	0.10	15.3	B	13	42	0.16	23.0	C	12	m25
		Overall	**0.35**	**23.9**	**C**	**-**	**-**	**0.37**	**24.2**	**C**	**-**	**-**	**0.37**	**26.7**	**C**	**-**	**-**
13	Federal Street at Franklin Street	Franklin St WB T/R	0.20	8.4	A	23	32	0.21	8.4	A	24	32	0.21	7.8	A	32	36
		Federal St NB L/T	0.16	12.3	B	**14**	24	0.17	12.3	B	14	24	0.42	12.9	B	45	67
		Overall	**0.18**	**9.9**	**A**	**-**	**-**	**0.19**	**10.0**	**A**	**-**	**-**	**0.30**	**11.0**	**B**	**-**	**-**
14	Devonshire Street at Franklin Street	Franklin St WB T	0.22	12.1	B	68	87	0.23	12.2	B	71	91	0.26	11.7	B	70	91
		Devonshire St NB L	0.68	52.6	D	108	151	0.68	52.6	D	108	151	0.68	52.6	D	108	151
		Devonshire St SB T	0.90	79.6	E	124	#260	0.90	79.6	E	124	#260	0.90	79.6	E	124	#260
		Overall	**0.44**	**42.2**	**D**	**-**	**-**	**0.44**	**41.7**	**D**	**-**	**-**	**0.46**	**39.8**	**D**	**-**	**-**
15	Franklin Street at Arch Street	Franklin St WB T	0.15	16.2	B	23	43	0.15	16.4	B	23	43	0.15	16.2	B	23	43
		Franklin St WB R	0.32	16.5	B	0	37	0.33	16.5	B	0	37	0.14	16.5	B	0	37
		Arch St NB L/T	0.32	9.1	A	45	85	0.33	9.2	A	46	88	0.31	9.2	A	46	88
		Overall	**0.25**	**13.1**	**B**	**-**	**-**	**0.25**	**13.1**	**B**	**-**	**-**	0.25	13.1	B	-	-

1 Volume to Capacity Ratio
2 delay in seconds
3 level of service
4 50th percentile queue (reported in feet)
5 95th percentile queue (reported in feet)

~ Volume exceeds capacity, queue is theoretically infinite
# 95th percentile volume exceeds capacity, queue may be longer
m Volume for 95th percentile queue is metered by upstream signal

Table 4-11b Signalized Intersection Vehicle Level of Service (Evening Peak Hour) (Continued)

Intersection		Movement	2016 Existing Conditions					2023 No-Build Conditions					2023 Build Conditions				
			V/C[1]	Delay[2]	LOS[3]	50th Queue[4]	95th Queue[5]	V/C[1]	Delay[2]	LOS[3]	50th Queue[4]	95th Queue[5]	V/C[1]	Delay[2]	LOS[3]	50th Queue[4]	95th Queue[5]
18	Congress Street at Milk Street	Milk St EB T	0.53	35.4	D	134	163	0.53	35.2	D	135	165	0.45	28.2	C	138	187
		Milk St EB R	0.77	48.2	D	177	246	0.78	48.5	D	180	253	1.05	92.0	F	~378	#581
		Congress St SB L	0.14	17.8	B	39	85	0.14	18.0	B	39	85	0.18	23.9	C	45	85
		Congress St SB T	0.37	20.0	C	117	174	0.40	20.6	C	129	188	0.48	27.5	C	149	188
		Overall	**0.42**	**29.3**	**C**	**-**	**-**	0.44	29.4	**C**	**-**	**-**	**0.62**	**44.7**	**D**	**-**	**-**

1 Volume to Capacity Ratio
2 delay in seconds
3 level of service
4 50th percentile queue (reported in feet)
5 95th percentile queue (reported in feet)
~ Volume exceeds capacity, queue is theoretically infinite
# 95th percentile volume exceeds capacity, queue may be longer
m Volume for 95th percentile queue is metered by upstream signal

Table 4-12 Unsignalized Intersection Vehicle Level of Service

Intersection		Morning Peak Hour									Evening Peak Hour								
		2016 Existing			2023 No-Build			2023 Build			2016 Existing			2023 No-Build			2023 Build		
		V/C[1]	Delay[2]	LOS[3]	V/C[1]	Delay[2]	LOS[3]	V/C[1]	Delay[2]	LOS[3]	V/C[1]	Delay[2]	LOS[3]	V/C[1]	Delay[2]	LOS[3]	V/C[1]	Delay[2]	LOS[3]
5	Summer St/ Devonshire St																		
	Devonshire Street Southbound Left	n/a	n/a	n/a	n/a	n/a	n/a	0.00	0.0	A	n/a	n/a	n/a	n/a	n/a	n/a	0.07	56.4*	F*
	Summer Street Southeast bound Left	0.08	3.3	A	0.08	3.3	A	0.08	3.3	A	0.03	1.0	A	0.03	1.0	A	0.06	2.3	A
	Summer Street Northeast bound Right	0.00	0.0	A	0.00	0.0	A	0.24	0.0	A	0.00	0.0	A	0.00	0.0	A	0.00	0.0	A
11	Congress St/ Matthews St *Eastbound Right*	0.03	9.4	A	0.03	9.4	A	0.03	9.4	A	0.00	9.2	A	0.07	9.2	A	0.08	9.5	A
16	Franklin St/Hawley St																		
	Franklin St WB TL	0.41	9.3	A	0.41	9.4	A	0.41	9.4	A	0.24	8.1	A	0.24	8.1	A	0.24	8.1	A
	Franklin St EB R	*0.04*	*7.2*	*A*	*0.04*	*7.2*	*A*	*0.04*	*7.2*	*A*	*0.05*	*7.1*	*A*	*0.05*	*7.1*	*A*	*0.05*	*7.1*	*A*
	Hawley St NB TL	*0.02*	*8.0*	*A*	*0.02*	*8.0*	*A*	*0.02*	*8.0*	*A*	*0.03*	*7.7*	*A*	*0.03*	*7.7*	*A*	*0.03*	*7.7*	*A*
17	Summer St/ Hawley St*Southbound Left*	0.08	7.3	A	0.08	7.3	A	0.08	7.3	A	0.15	7.6	A	0.15	7.6	A	0.15	7.6	A
-	Devonshire Street Residential Driveway	n/a	n/a	n/a	n/a	n/a	n/a	0.10	10.4	B	n/a	n/a	n/a	n/a	n/a	n/a	0.01	9.3	A
-	Federal Street Office/Retail Ramp	n/a	n/a	n/a	n/a	n/a	n/a	~	~	~	n/a	n/a	n/a	n/a	n/a	n/a	0.36	12.0	B

1 Volume to Capacity Ratio
2 Delay in seconds
3 Level of service

* Calculated delay and associated LOS grade are experienced by only two vehicles
~ No conflicting movements - ramp is inbound during morning peak period

Under Build conditions during the morning peak hour, there will be a small increase in delay at the Summer Street/Surface Road/Purchase Street intersection (#2), but the overall LOS E will be maintained. Also under Build conditions in the morning peak hour, the Summer Street/High Street intersection (#7) would experience an increase in delay, with the overall LOS grade declining from LOS D under No-Build conditions to LOS F under Build conditions. As discussed in Section 4.5.2, mitigation has been identified to address this impact, resulting in an acceptable LOS.

Under Build conditions in the evening peak hour, the Purchase Street/I-93 Ramp/Congress Street intersection (#3) would experience overall LOS D under No-Build conditions and LOS E under Build conditions, due to increases in delay for the movement to the I-93 Ramp. As discussed in Section 4.5.2, roadway striping and signage improvements are proposed along Congress Street to improve traffic operations on this approach.

Also under Build conditions in the evening peak hour, the eastbound right-turn from Milk Street to Congress Street is impacted by the addition of Project trips, resulting in LOS F for that movement. As discussed in Section 4.5.2, roadway striping improvements are proposed on the Milk Street approach to improve traffic operations for that movement.

As noted previously, the analysis results for intersections in the Congress Street corridor in particular do not reflect the actual congested operations experienced at times in practice during the evening peak due to queuing between intersections and complex lane assignments. In particular, queuing back from the Purchase Street/I-93 Ramp/Congress Street intersection (#3) prevents the Congress Street/High Street intersection (#9) from operating effectively, which in turn causes queuing sometimes backing up as far as the Congress Street/Franklin Street intersection (#12) in Post Office Square. As a result, several individual movements experience LOS E or F, with significant queue lengths, as observed in the field but sometimes not reflected in the *Synchro* model's analysis.

The results of the operational analyses for unsignalized intersections are summarized in Table 4-12, including analysis for the Project residential driveway on Devonshire Street and the Project office/retail driveway on Federal Street. All of the unsignalized study intersections operate at LOS A during both the morning and evening peak hours under Existing, No-Build, and Build conditions, with the exception of the intersection of Summer Street and two-way Devonshire Street (#5) under Build conditions. The analysis indicates that the turns from Devonshire Street to Summer Street would operate at LOS F in the evening peak, with average delays of approximately 56 seconds, caused primarily by the high

pedestrian volumes on the crosswalk. However, while this suggests that the Devonshire Street movement would "fail", the reality is that only two vehicles are projected for this movement, so the change in overall delay at the intersection in minimal, and all other movements at the intersection would be unaffected and would remain at LOS A. The proposed partial 2-way Devonshire Street is a viable circulation change that would accomplish the goal of eliminating truck traffic through Winthrop Square. The demand for cars from the 100 Summer Street garage to use Devonshire Street southbound is minimal, particularly as their existing route via Otis Street would still be available, and delays for those trips on that route are already experienced today.

At the residential driveway on Devonshire Street, the driveway exit is expected to operate at LOS B and A during the morning and evening peak hours, respectively, with minimal delays. At the office/retail driveway on Federal Street, the driveway exit is expected to operate at LOS B when the ramp is one-way outbound during the evening peak hour, with minimal delays.

4.5.2 Build Traffic Mitigation

Operational improvements are proposed as mitigation to address reductions in future LOS at study intersections as a result of the Project (Build conditions compared to No-Build conditions). Signal phasing and timing changes and or lane reassignments are proposed at the following intersections:

2. Summer Street at Surface Road/Purchase Street

7. Summer Street at High Street

18. Congress Street at Milk Street

The results of the Build with Mitigation conditions analysis are presented in Tables 4-13a and 4-13b for the morning and evening peak hours, respectively. The proposed timing changes mitigate existing and Project-related impact as follows:

2. Summer Street at Surface Road/Purchase Street: With signal timing mitigation, the overall intersection operations are improved to LOS C during both morning and evening peak hours, compared to LOS E and LOS D, respectively, under Build conditions.

7. Summer Street at High Street: With signal timing mitigation, the overall intersection operations are improved from LOS F to LOS D during the morning peak hour, and maintained at LOS B during the evening peak hour.

18. Congress Street at Milk Street: With restriping of the center approach lane on Milk Street to a thru-right lane, the overall intersection operations are maintained at LOS C in the morning peak hour, and improved from LOS D to LOS C in the evening peak hour. In particular, the LOS F in the evening peak hour for the eastbound Milk Street right-turn is improved to LOS D. Another capacity improvement for discussion with BTD is the potential review of the No Turn on Red restriction for that lane.

In addition to the above traffic signal timing improvements, mitigation is proposed in the Congress Street corridor to improve traffic operations. As discussed previously, interaction between the closely located High Street (#9) and Purchase Street (#3) intersections, along with complex weaving maneuvers in the corridor, result in delays and queuing during the evening peak hour. While there does not appear to be potential to accomplish improvements with signal phasing and timing, striping and signage improvements are proposed to assist lane assignments and weaving maneuvers and improve traffic operations along the corridor.

Table 4-13a Signalized Intersection Vehicle Level of Service (Morning Peak Hour) – Build with Mitigation

Intersection		Movement	2023 Build Conditions					2023 Build-Mitigated Conditions				
			V/C[1]	Delay[2]	LOS[3]	50th Queue[4]	95th Queue[5]	V/C[1]	Delay[2]	LOS[3]	50th Queue[4]	95th Queue[5]
2	Summer St at Surface Road/ Purchase St	Purchase St WB R/T/L	0.73	18.0	B	126	176	0.78	17.7	B	117	159
		Summer St NB L	1.01	110.6	F	~170	#330	0.66	48.0	D	151	238
		Summer St NB T	1.27	184.7	F	~279	#383	0.83	51.1	D	210	#279
		Summer St SB T	0.49	21.3	C	24	45	0.70	51.0	D	95	135
		Summer St SB R	0.03	37.3	D	0	0	0.03	42.5	D	0	1
		Overall	**0.78**	**67.4**	**E**	**–**	**–**	**0.78**	**30.9**	**C**	**-**	**-**
7	Summer Street at High Street	Summer St EB L	1.28	197.6	F	~394	#622	0.77	40.0	D	217	341
		Summer St EB T	0.40	50.5	D	94	m166	0.24	28.1	C	64	m123
		Summer St WB T	0.44	10.4	B	61	m71	0.70	38.7	D	167	m237
		Summer St WB R	0.51	61.1	E	128	m120	0.59	75.3	E	139	m181
		Overall	**0.63**	**90.1**	**F**	**–**	**–**	**0.59**	**52.3**	**D**	**-**	**-**
18	Congress Street at Milk Street	Milk St EB T	0.45	28.2	C	138	187	**0.79**	**39.7**	**D**	**234**	**295**
		Milk St EB R	1.05	92.0	F	~378	#581	**0.80**	**46.4**	**D**	**207**	**315**
		Congress St SB L	0.18	23.9	C	45	85	**0.16**	**20.9**	**C**	**43**	**85**
		Congress St SB T	0.48	27.5	C	149	188	**0.44**	**23.9**	**C**	**142**	**188**
		Overall	**0.62**	**44.7**	**D**	**-**	**-**	**0.49**	**33.2**	**C**	**-**	**-**

1 Volume to Capacity Ratio
2 delay in seconds
3 level of service
4 50th percentile queue (reported in feet)
5 95th percentile queue (reported in feet)
~ Volume exceeds capacity, queue is theoretically infinite
# 95th percentile volume exceeds capacity, queue may be longer
m Volume for 95th percentile queue is metered by upstream signal

Table 4-13b Signalized Intersection Vehicle Level of Service (Evening Peak Hour) – Build with Mitigation

Intersection		Movement	2023 Build Conditions					2023 Build-Mitigated Conditions				
			V/C[1]	Delay[2]	LOS[3]	50th Queue[4]	95th Queue[5]	V/C[1]	Delay[2]	LOS[3]	50th Queue[4]	95th Queue[5]
2	Summer St at Surface Road/Purchase St	Purchase St WB R/T/L	0.57	18.5	B	98	120	0.64	21.0	C	103	126
		Summer St NB L	0.69	56.1	E	128	#221	0.63	50.4	D	126	204
		Summer St NB T	0.69	49.2	D	135	185	0.63	45.2	D	131	181
		Summer St SB R	0.69	49.6	D	62	113	0.59	32.2	C	38	83
		Summer St SB R	0.10	88.7	F	3	43	0.10	38.6	D	1	24
		Overall	**0.62**	**35.9**	**D**	**-**	**-**	**0.62**	**30.7**	**C**	**-**	**-**
7	Summer Street at High Street	Summer St EB L	0.49	22.0	C	151	204	0.53	26.7	C	163	220
		Summer St EB T	0.46	21.1	C	155	199	0.50	25.7	C	167	219
		Summer St WB T	0.57	13.0	B	51	86	0.51	11.4	B	48	78
		Summer St WB R	0.15	2.3	A	1	m4	0.15	2.3	A	1	4
		Overall	**0.42**	**15.9**	**B**	**~**	**~**	**0.42**	**18.2**	**B**	**-**	**-**

1 Volume to Capacity Ratio
2 delay in seconds
3 level of service
4 50th percentile queue (reported in feet)
5 95th percentile queue (reported in feet)
~ Volume exceeds capacity, queue is theoretically infinite
# 95th percentile volume exceeds capacity, queue may be longer
m Volume for 95th percentile queue is metered by upstream signal

4.6 Transit Operations

As discussed in Section 4.2.2 – Transit Service, the Project site is well served by public transportation. As a result, the surrounding transit system will move a significant proportion of people to and from the Project. As presented in Table 4-7, the project trip generation analysis estimates that the Project will generate a total of 6,730 daily trips (3,365 in, and 3,365 out), 685 (580 in, 105 out) of which occur during the morning peak hour, and 775 (195 in, 580 out) of which occur during the evening peak hour. A summary of the peak hour transit trips by each Project land use is shown in Table 4-14.

Table 4-14 Project Generated Transit Trips

	Office	Residential	Retail	Total
AM Peak Hour				
In	555	5	20	580
Out	65	25	15	105
Total	620	30	35	685
PM Peak Hour				
In	100	20	75	195
Out	500	10	70	580
Total	600	30	145	775

4.6.1 Project Transit Trip Distribution and Assignment

The Project transit trips were assigned to specific transit services based on the US Census American Community Survey (ACS), the same data source for the Project mode split in Section 4.4.1.2. Table 4-15 shows the distribution of transit trips by type of transit service, including Commuter Rail, Heavy Rail (Red, Orange and Blue lines), Light Rail (Green Line), bus and Ferry.

Table 4-15 Transit Trip Distribution

	Office/Retail	Residential
Commuter Rail	27%	0%
Heavy Rail (Red/Orange/Blue Lines)	50%	86%
Light Rail (Green Line)	3%	0%
Silver Line	10%	8%
Bus (including Silver Line)	7%	6%
Ferry Boat	2%	0%
Total	100%	100%

Project trips were assigned to individual lines or routes based on the distribution of the exiting ridership on each category of service type. Table 4-16 shows the numbers of peak hour Project trips assigned by each service category. Full details of the assignments of Project trips by individual lines/routes are included in Attachment D.

Table 4-16 Number of Transit Trips by Line

	Morning Peak Hour			Evening Peak Hour		
	In	Out	Total	In	Out	Total
Commuter Rail	157	22	179	48	156	204
Orange Line	110	23	133	38	110	148
Red Line	147	31	178	52	148	200
Blue Line	34	7	41	12	34	46
Green Line	19	3	22	6	19	25
Silver Line (All lines)	60	11	71	20	59	79
Bus (All routes)	42	3	51	14	42	56
Ferry Boat	24	4	28	8	24	32

Review of the assignments by individual lines/routes in Attachment D show that Project trips are broadly distributed amongst the multiple services, with low volumes of Project trips assigned to individual bus routes, including the Silver Line routes. The highest one-direction volume of Project trips assigned to any individual bus route is nine riders on the Route 93 bus (inbound in the morning

peak hour and outbound in the evening peak hour), equivalent to less than two riders per bus. The Route 7 bus attracts eight peak hour one-direction Project trips, and the Route 11 bus attracts six peak hour one-direction Project trips. Assignments to all other bus routes are effectively negligible, ranging from 0 - 3 peak hour one-direction Project trips. The highest one-direction volume of Project trips assigned to any Silver Line route is 20 riders on Silver Line 1 during the morning peak hour, equivalent to approximately two trips per bus.

The highest one-direction volume of Project trips assigned to any Commuter Rail line is 30 riders on the Providence/Stoughton Line during either peak hour, equivalent to approximately less than eight trips per train or one trip per car. With the exception of the Blue Line and Green Line, assignment of Project trips to the heavy and light rail lines are more significant than Bus, Silver Line and Commuter Rail, with the highest Project trips assigned to the Orange and Red lines. The potential impacts of Project trips to subway lines are described in Section 4.6.2.

4.6.2 Transit Impact Analysis

The initial screening of Project transit trip distribution and assignments by line/route indicates that Project-related impacts to individual bus routes and commuter rail lines is limited. Therefore, the analysis of potential impacts to transit is focused on the light and heavy rail subway lines. The analysis is based on the volume/capacity (V/C) ratio, a measure of utilization of the line compared to its carrying capacity, for each line under Existing, future No-Build and Build conditions.

4.6.2.1 Subway Transit Ridership

Existing ridership for the Orange, Red, Blue and Green lines was based on MBTA data for April 2016. Future background growth for 2023 No-Build was based on MBTA data incorporated in analyses of other recent projects relying significantly on subway access, including the Back Bay/South End Gateway Project and Kendal Square Urban Renewal Plan. Existing and projected 2023 No-Build and Build ridership for each line at the stations serving the Project are presented in Table 4-17.

Table 4-17 Existing and Projected Subway Ridership by Line and Direction

				Morning Peak Hour				Evening Peak Hour			
	Station	Direction	Enter/Exit Station	Existing	No Build	Project Trips	Build	Existing	No Build	Project Trips	Build
Orange Line	State Street	Forest Hills	Entering	7,016	7,767	50	7,818	3,190	3,482	17	3,500
			Exiting	6,656	7,286	11	7,297	4,219	4,586	50	4,636
		Oak Grove	Entering	3,798	4,157	60	4,217	6,213	6,754	21	6,774
			Exiting	2,754	3,028	12	3,041	6,347	7,004	60	7,064
	Downtown Crossing	Forest Hills	Entering	6,639	7,268	50	7,318	4,196	4,562	17	4,579
			Exiting	4,833	5,302	11	5,313	4,687	5,184	50	5,235
		Oak Grove	Entering	4,943	5,514	60	5,573	5,004	5,457	21	5,478
			Exiting	3,800	4,159	12	4,172	6,228	6,770	60	6,829
Red Line	South Station	Braintree	Entering	4,871	6,411	81	6,491	8,337	10,971	29	10,999
			Exiting	2,048	2,715	17	2,732	8,725	11,623	81	11,705
		Alewife	Entering	9,334	12,397	66	12,463	2,755	3,644	23	3,668
			Exiting	8,592	11,306	14	11,320	5,078	6,683	67	6,749
	Downtown Crossing	Braintree	Entering	5,854	7,844	81	7,925	7,502	9,895	29	9,924
			Exiting	4,871	6,411	17	6,428	8,352	10,991	81	11,073
		Alewife	Entering	8,592	11,306	66	11,372	5,051	6,647	23	9,273
			Exiting	7,024	9,259	14	9,273	5,275	7,058	67	7,124
Blue Line	State Street	Wonderland	Entering	230	308	33	341	2,043	2,231	12	2,242
			Exiting	521	575	7	581	4,248	4,676	33	4,709
		Bowdoin	Entering	4,655	5,062	1	5,063	1,497	1,628	0	1,628
			Exiting	1,993	2,167	0	2,167	653	712	1	713
Green Line	Park Street	Westbound	Entering	3,243	3,605	14	3,619	2,566	2,849	4	2,853
			Exiting	4,917	5,458	2	5,460	4,025	4,474	14	4,487
		Lechmere	Entering	3,093	3,443	5	3,448	5,289	5,871	2	5,873
			Exiting	1,714	1,903	1	1,904	3,386	3,768	5	3,773

As shown in Table 4-17, the addition of Project trips varies by line and direction, and is higher in the evening peak than the morning peak, with maximum additional single-direction hourly loadings of 60 trips on the Orange Line, 81 trips on the Red Line, 33 trips on the Blue Line and 14 trips on the Green Line. Spread over a full one hour period, these increases are relatively insignificant compared to the total riderships, particularly as they are accommodated by multiple-car train sets.

4.6.2.2 Line Capacities

Existing capacities for the Orange, Red, Blue, and Green lines are based on vehicle load standards from the MBTA's Service Delivery Policy and Crush Capacity manual and data from the MBTA Blue Book, 14th edition. Policy and Crush Capacity are defined by the MBTA as follows:

- **Policy Capacity** – refers to the load standards or passengers per car volume defined by the MBTA's Service Delivery Policy which states the standards "establish the average maximum number of passengers allowed per vehicle to provide a safe and comfortable ride." Each vehicle type in the MBTA fleet has a defined "policy capacity" and is published in the MBTA Blue Book;

- **Crush Capacity** – refers to ta higher load capacity of a vehicle and is calculated by adding the number of seated passengers plus 1.5 square feet per standing passenger (two square feet on buses). The MBTA Blue Book publishes the "crush capacity" for each vehicle type in the MBTA fleet.

On-Time Performance (OTP)

Line capacity also depends on the reliability of the trains within a specific period of time. The MBTA publishes OTP measures related to the reliability of their services. MassDOT's Annual Performance Report for fiscal year 2016 defines MBTA Subway reliability as "the percent of customers who wait no longer than the scheduled time between trains". As reported for fiscal year 2016, the Orange Line, Red Line, Blue Line and Green Line currently operate with 91%, 87%, 93% and 72% reliability, respectively.

The MBTA's target Subway Reliability is 90%. It is assumed that the target OTP factors will be accomplished in the future and the corresponding improvements in capacity are therefore incorporated into the No-Build capacity calculations for lines that currently underperform.

Planned Improvements

The MBTA is currently manufacturing new Orange Line cars, and the updated fleet will be in operation by 2023. Signal upgrades will also be in place before then. The improvements will decrease the headways from six minutes to four-and-a-half minutes, increasing the capacity and reliability of the line.

The MBTA will also have new Red Line rolling stock in place by 2023, which, along with signal upgrades will decrease the headways form four-and-a-half minutes to three minutes, again increasing the capacity and reliability of the line. There are no planned improvements for the Blue Line.

In line with the MBTA's goal of achieving at least a 90% on time reliability on each line, the future Green Line capacity has been increased under the future condition to reflect improvements the MBTA might want to incorporate to better improve service.

Table 4-18 shows the existing and future capacity for each line.

Table 4-18 Existing and Future (2023) Rail Line Capacities

		Existing (2016)		Future (2023)	
		Policy Capacity	Crush Capacity	Policy Capacity	Crush Capacity
Orange Line		7,153	12,230	9,537	16,307
Red Line		11,623	18,583	12,024	19,224
Blue Line		6,361	9,709	6,361	9,709
Green Line	**Westbound**	5,818	15,494	7,272	19,368
	Eastbound	4,363	11,621	5,454	14,526

* Capacity expressed as number of passenger per hour

4.6.2.3 Volume/Capacity Ratios

Ridership at the stations serving the Project site were combined with the corresponding capacity to generate volume/capacity (V/C) ratios for each rail line, under Existing, No-Build and Build conditions. The analysis was performed for both Policy and Crush capacities, and includes both boarding and alighting riders at the station, yielding V/C ratios for trains entering and exiting the station. The results are presented in Tables 4-19a and 4-19b for the morning and evening peak hours, respectively. A V/C ratio greater than 1.0 indicates that the train is operating over its capacity as defined by the MBTA.

Table 4-19a V/C Ratios* For Policy and Crush Capacity on Subway Lines, A.M. Peak Hour

			Entering Station			Exiting Station		
Line / Station Line	**Direction**	**Capacity Type**	**Existing**	**No-Build**	**Build**	**Existing**	**No-Build**	**Build**
Orange Line at State Street	Forest Hills	Policy	0.98	0.81	0.82	0.93	0.76	0.77
		Crush	0.57	0.48	0.48	0.54	0.45	0.45
	Oak Grove	Policy	0.53	0.44	0.44	0.38	0.32	0.32
		Crush	0.31	0.25	0.26	0.23	0.19	0.19
Orange Line at Downtown Crossing	Forest Hills	Policy	0.93	0.76	0.77	0.68	0.56	0.56
		Crush	0.54	0.45	0.45	0.40	0.33	0.33
	Oak Grove	Policy	0.69	0.58	0.58	0.53	0.44	0.44
		Crush	0.40	0.34	0.34	0.31	0.26	0.26
Blue Line at State Street	Wonderland	Policy	0.04	0.05	0.05	0.08	0.09	0.09
		Crush	0.02	0.03	0.04	0.05	0.06	0.06
	Bowdoin	Policy	0.73	0.80	0.80	0.31	0.34	0.34
		Crush	0.48	0.52	0.52	0.21	0.22	0.22
Green Line at Park Street	Westbound	Policy	0.56	0.50	0.50	0.85	0.75	0.75
		Crush	0.21	0.19	0.19	0.32	0.28	0.28
	Lechmere	Policy	0.71	0.63	0.63	0.39	0.35	0.35
		Crush	0.27	0.24	0.24	0.15	0.13	0.13
Red Line at South Station	Braintree	Policy	0.42	0.53	0.54	0.18	0.23	0.23
		Crush	0.26	0.33	0.34	0.11	0.14	0.14
	Alewife	Policy	0.80	1.03	1.04	0.74	0.94	0.94
		Crush	0.50	0.64	0.65	0.46	0.59	0.59
Red Line at Downtown Crossing	Braintree	Policy	0.50	0.65	0.66	0.42	0.53	0.53
		Crush	0.32	0.41	0.41	0.26	0.33	0.33
	Alewife	Policy	0.74	0.94	0.95	0.60	0.77	0.77
		Crush	0.46	0.59	0.59	0.38	0.48	0.48

* Volume/Capacity Ratio = Number of Riders/Capacity expressed as number of passenger per hour

Table 4-19b V/C Ratios* For Policy and Crush Capacity on Subway Lines, P.M. Peak Hour

			Entering Station			Exiting Station		
Line / Station	**Direction**	**Capacity Type**	**Existing**	**No-Build**	**Build**	**Existing**	**No-Build**	**Build**
Orange Line at State Street	Forest Hills	Policy	0.45	0.37	0.37	0.59	0.48	0.49
		Crush	0.26	0.21	0.21	0.34	0.28	0.28
	Oak Grove	Policy	0.87	0.71	0.71	0.89	0.73	0.74
		Crush	0.51	0.41	0.42	0.52	0.43	0.43
Orange Line at Downtown Crossing	Forest Hills	Policy	0.59	0.48	0.48	0.66	0.54	0.55
		Crush	0.34	0.28	0.28	0.38	0.32	0.32
	Oak Grove	Policy	0.70	0.57	0.57	0.87	0.71	0.72
		Crush	0.41	0.33	0.34	0.51	0.42	0.42
Blue Line at State Street	Wonderland	Policy	0.32	0.35	0.35	0.67	0.74	0.74
		Crush	0.21	0.23	0.23	0.44	0.48	0.48
	Bowdoin	Policy	0.24	0.26	0.26	0.10	0.11	0.11
		Crush	0.15	0.17	0.17	0.07	0.07	0.07
Green Line at Park Street	Westbound	Policy	0.44	0.39	0.39	0.69	0.62	0.62
		Crush	0.17	0.15	0.15	0.26	0.23	0.23
	Lechmere	Policy	1.21	1.08	1.08	0.78	0.69	0.69
		Crush	0.46	0.40	0.40	0.29	0.26	0.26
Red Line at South Station	Braintree	Policy	0.72	0.91	0.91	0.75	0.97	0.97
		Crush	0.45	0.57	0.57	0.47	0.60	0.61
	Alewife	Policy	0.24	0.30	0.31	0.44	0.56	0.56
		Crush	0.15	0.19	0.19	0.27	0.35	0.35
Red Line at Downtown Crossing	Braintree	Policy	0.65	0.82	0.83	0.72	0.91	0.92
		Crush	0.40	0.51	0.52	0.45	0.57	0.58
	Alewife	Policy	0.43	0.55	0.55	0.45	0.59	0.59
		Crush	0.27	0.35	0.35	0.28	0.37	0.37

*Volume/Capacity Ratio

As shown in Tables 4-19a and 4-19b, trains on all lines currently operate within MBTA policy capacity, with V/C ratios below 1.0 during both morning and evening peaks, with the exception of the Green Line to Lechmere from Park Street. During the evening peak hour, this segment of the Green Line shows a policy V/C ratio of 1.21, although it operates well within its crush capacity. It is important to note, however, that this analysis is conducted for the whole peak hour, and does not recognize the "peak of the peak" conditions which occur within the peak hours. In practice, some lines experience a V/C ratio of over capacity during the ten to twenty minutes of "peak of the peak" conditions. There are also occurrences where trains are bunched together and do not operate on evenly spaced headways due to signaling or maintenance issues, again increasing V/C at certain times and creating crush capacity conditions for riders. These fluctuations are reflected in the OTP's discussed in Section 4.6.2.2, which indicate that the Orange Line, Red Line, Blue Line and Green Line currently operate with 91%, 87%, 93% and 72% reliability, respectively. As a result, some overcrowding and delays are experienced by riders in practice.

The previously described future improvements to the Orange Line and Red Line with new cars in service and signal improvements already in the works are expected to address these overcrowding and bunching issues with improved headways and reliability. Under 2023 No-Build conditions, all lines are projected to operate within MBTA policy capacity, with V/C ratios below 1.0 during both morning and evening peaks, with the exception of the outbound Red Line to Alewife at South Station. During the morning peak hour, this segment of the Red Line is projected to operates at a policy V/C ratio of 1.03, although it will operate well within its crush capacity.

With the Project trips added to the various subway lines, the V/C ratios on most trains are projected to remain largely unchanged under Build conditions compared to No-Build conditions. Any increase in V/C ratios are limited to approximately 0.01, which is not expected to result in a significant or noticeable impact. Again, with the exception of the outbound Red Line to Alewife from South Station during the morning peak hour, and the Green Line train to Lechmere from Park Street during the evening peak hour, all lines are projected to operate within their policy and crush capacities under No-Build and Build conditions. While the addition of Project trips may result is some minor increases in crowding, in practice such changes are not expected to be noticeable.

4.7 Pedestrian Operations Analysis

Pedestrian level-of-service (PLOS) at intersections was analyzed using the methodology outlined in the 2000 HCM. The PLOS criteria are presented in Table 4-20.

Table 4-20 Pedestrian Level of Service Criteria at Intersections

Level of Service	Pedestrian Delay (sec/p)		Likelihood of Risk-Taking or Noncompliance
	Signalized	Unsignalized	
PLOS A	< 10	< 5	Low
PLOS B	≥ 10 – 20	≥ 5 – 10	
PLOS C	> 20 – 30	> 10 – 20	Moderate
PLOS D	> 30 – 40	> 20 – 30	
PLOS E	> 40 – 60	> 30 – 45	High
PLOS F	> 60	> 45	Very High

Source: 2000 HCM

PLOS at signalized intersections is dictated by the portion of the signal cycle dedicated to the pedestrian crossing. Accordingly, increasing pedestrian volumes does not alter PLOS at signalized intersections, and if walk times and cycle lengths do not change PLOS will remain the same under any condition. Table 4-21 presents the PLOS at each signalized intersection crosswalks for morning and evening peak hours.

Table 4-21 Signalized Intersection Pedestrian Level of Service (PLOS)

Intersection	AM PLOS	PM PLOS
1. Surface Road/Essex Street at Lincoln Street		
East Crosswalk (Essex St)	B	B
West Crosswalk (Essex St)	D	D
North Crosswalk (Lincoln St)	D	D
South Crosswalk (Lincoln St)	A	A
I-93 North Crosswalk	D	D
I-93 South Crosswalk	D	D
Northeast Crosswalk (Surface Rd)	A	A
Southwest Crosswalk (Surface Rd)	D	D

Table 4-21 Signalized Intersection Pedestrian Level of Service (PLOS) (Continued)

Intersection	AM PLOS	PM PLOS
2. Summer Street at Surface Road/Purchase St/I-93 Off-Ramp		
East Crosswalk	D	D
West Crosswalk	D	D
North Crosswalk	D	C
3. Purchase Street at I-93 On-Ramp/Congress Street		
East Crosswalk	C	C
West Crosswalk	D	D
North Crosswalk	D	D
South Crosswalk	D	D
4. Summer Street at Otis Street/Kingston Street		
East Crosswalk	B	B
West Crosswalk	B	B
North Crosswalk	C	C
South Crosswalk	C	C
6. Summer Street at Bedford Street/Lincoln Street		
East Crosswalk	B	B
Southwest Crosswalk	B	B
Southeast Crosswalk	B	B
South Crosswalk	B	B
7. Summer Street at High Street		
East Crosswalk	E	E
West Crosswalk	E	E
North Crosswalk	E	E
8. High Street at Federal Street		
East Crosswalk	D	D
West Crosswalk	D	D
North Crosswalk	D	D
9. Congress Street at High Street		
East Crosswalk	B	B
West Crosswalk	B	B
North Crosswalk	B	B
South Crosswalk	B	B

Table 4-21 Signalized Intersection Pedestrian Level of Service (PLOS) (Continued)

Intersection	AM PLOS	PM PLOS
12. Congress Street at Franklin Street		
East Crosswalk	A	A
West Crosswalk	D	D
North Crosswalk	B	B
South Crosswalk	D	D
13. Federal Street at Franklin Street		
East Crosswalk	A	A
West Crosswalk	A	A
North Crosswalk	A	A
South Crosswalk	A	A
14. Devonshire Street at Franklin Street		
East Crosswalk	A	A
West Crosswalk	C	C
North Crosswalk	A	A
South Crosswalk	C	C

All crosswalks at signalized intersections currently operate at PLOS D or better, with the majority experiencing PLOS A, B or C. The exception is the crosswalks at Summer Street and High Street (#7) which all experience PLOS E. As noted previously, the PLOS is determined by the traffic signal phasing and timing, which remain unchanged under No-Build and Build conditions, and are therefore not impacted by Project trips.

For unsignalized intersections, the PLOS is calculated using the crosswalk length and the conflicting vehicular flow rates for the morning and evening peak hours. Table 4-22 presents the PLOS for each unsignalized intersection crosswalk for the morning and evening peak hours. As shown, all crosswalks at unsignalized intersections operate at PLOS A or B, and will continue to do so in the future under No-Build and Build conditions.

Table 4-22 Unsignalized Pedestrian Level of Service (PLOS)

		AM Peak Hour			PM Peak Hour		
Intersection	**Crosswalk**	**Existing**	**No-Build**	**Build**	**Existing**	**No-Build**	**Build**
5. Summer Street at Devonshire Street	North	B	B	B	A	A	B
10. Federal Street at Matthews Street	East	A	A	A	A	A	A
11. Congress Street at Matthews Street	West	A	A	A	A	A	A
16. Franklin Street at Hawley Street	East	B	B	B	A	A	A
	West	A	A	A	A	A	A
	North	A	A	A	A	A	A
	South	A	A	A	A	A	A
17. Summer Street at Hawley Street	East	A	A	A	A	A	A

4.8 Vehicle Parking

4.8.1 Vehicle Parking

The construction of the Project replaces the 1,125 car space garage currently being demolished with parking for approximately 550 vehicles. Parking for approximately 250 vehicles will support the Project office and retail land use, and parking for approximately 300 vehicles will be reserved for Project residential land use.

Building upon the strongly transit-oriented nature of the Project's location, the current trends in declining parking needs in Boston, and in response to local transportation goals, the Project will seek to minimize dependence on auto travel, and will implement a comprehensive package of Transportation Demand Management (TDM) strategies to reduce auto trips and parking demand. This is reflected in the estimated trip generation for the Project, previously presented, which will generate approximately 3,360 daily vehicle trips (1,680 in, 1,680 out) with 370 vehicle trips (300 in, 70 out) estimated during the morning peak hour and 390 vehicle trips (95 in, 295 out) estimated during the evening peak hour.

The projected parking supply for the Project is based on the following preliminary ratios which, in light of the Project's transit-oriented location, are below BTD's guidelines for office parking ratios, and at the lower end of the guidelines for residential parking ratios (Office 0.4, Residential 0.5 – 1.0):

Office	0.32 vehicle per KSF
Retail:	0.32 vehicles per KSF
Residential:	0.60 vehicles per unit

The resulting parking program for the Project is summarized in Table 4-23, which calls for parking supply for approximately 550 vehicles.

Table 4-23 Proposed Parking Ratios

Land Use	Unit	Parking Ratio	Vehicle Parking
Office* & Retail	790,000 SF	0.32 spaces per KSF	**250**
Residential	500 units	0.60 spaces per unit	**300**
Total			**550**

* 790,000 SF includes 21,000 sf of meeting space

4.8.2 Project Parking Demand vs. Supply

Determining parking supply to meet demand in an urban, transit-oriented location presents certain challenges because available methodologies are generally based on data from situations where there is low transit and limited alternative mode choice. Two alternate parking demand analyses were performed to inform the appropriate level of supply.

4.8.2.1 ITE Parking Generation Analysis

The ITE Parking Generation Handbook provides guidance on the amount of parking that should be provided for various land uses based on estimating the number of un-adjusted vehicle trips for the land uses. Similar to the ITE Trip Generation Manual, however, Parking Generation Handbook is based largely on data for suburban areas rather than urban areas with extensive alternative modes of transportation available. Table 4-24 shows the unadjusted parking demand for the Project, with total parking for approximately 2,712 vehicles.

Table 4-24 Unadjusted ITE Parking Generation Estimate

Land Use	Size	Unadjusted Parking Demand
Office and Meeting Space*	771,000 SF	1,894
Retail	19,000 SF	168
Residential	500 units	650
Total Parking Generation		**2,712**

* 771,000 SF includes 21,000 sf of meeting space

As noted, the unadjusted parking generation does not reflect the mobility choices for the Project site, where there is only an 18 and 33 percent Single Occupancy Vehicle rate for residents and employees, respectively. Therefore, the unadjusted ITE parking generation estimate dramatically overstates the demand for this Project. The ITE parking generation estimate also does not take into consideration a shared parking strategy which the Proponent will be implementing for the Project.

Table 4-25 presents the adjusted ITE parking generation for the Project with application of the mode shares and vehicle occupancies for the Project, yielding a total parking demand of 915 spaces.

Table 4-25 Adjusted ITE Parking Generation Estimate

Land Use	Unadjusted Demand	Adjusted SOV Demand	Adjusted HOV Demand	Total Demand
Office and Meeting Space*	1,894	578	117	695
Retail	168	31	7	38
Residential	650	172	10	182
Total Demand	2,712	781	134	**915**

* 771,000 SF includes 21,000 sf of meeting space

4.8.2.2 ULI Shared Parking Analysis

The Project proposes to implement a shared parking strategy between its commercial and residential components. Implementing a shared parking philosophy within the garage allows the Project to limit the need to build new parking as well as reduce the number of designated spaces.

A shared parking analysis was conducted following the standard practices in the Urban Land Institute's (ULI) Shared Parking report, second edition (2015, latest available report). The current standard practices suggested in the ULI Shared Parking report use specific parking demand rates (a ratio of the number of parking spaces per 1,000 square feet or number of residential units) needed to support a similar stand-along use. Table 4-26 shows the base parking ratios documented in the Shared Parking report by land use for employees, residents, and visitors. These rates are associated with weekday peak period parking demand which will vary over the course of the day (the weekday reflecting the highest demand when the commercial uses are fully open).

Table 4-26 ULI Shared Parking Ratios

Land Use	Ratio	Units
Office	2.6	Per 1,000 GFA
Retail	0.7	Per 1,000 GFA
Residential	0.5	Per Unit

Based on the standard ULI methodology these base factors are adjusted using three factors, as follows:

1. Mode Split (Percent Drive) represents the percentage for users that drive to the site. For residences, this is the percentage that leave their car at home during the day (if 40 percent drive to work, then 60 percent leave their car at home). The mode splits used for this analysis are based on the mode shares previously presented in Section 4.4.1.2.

2. Non-Captive Factors represent the decrease in parking demand due to users visiting multiple uses on-site during a single visit and therefore only one parking space is needed for multiple trips to various land uses. These factors are based on percentages provided in the ULI Shared Parking report.

3. Temporal Variations are parking demand variations that happen throughout the day and the year. The ULI Shared Parking report provides hourly and seasonal adjustments for this analysis.

An analysis addresses multiple times of the day during the month of October, reflecting a representative time of the year outside of Holiday or vacation periods. Tables 4-27 and 4-28 provide the adjustment factors used for each land use and the calculated shared parking demand for the Project based on the standard ULI Shared Parking methodology.

Table 4-27 Weekday Parking Demand Inputs

Land Use	Size/Units	ULI Parking Ratio	Unadjusted Demand	Mode Split	Unshared Demand	Non-Captive Factor	Monthly Adjustment (Oct)
Office & Meeting Space*	771,000	2.6	2,005	33%	662	98%	100%
Retail	19,000	0.7	13	33%	4	100%	80%
Residential	500 units	0.5	250	82%	205	100%	100%
Total Demand			2,268		871		

* 771,000 SF includes 21,000 sf of meeting space

Table 4-28 Weekday Parking Demand

Land Use	Peak Hour Adjustm't (8 AM)	Shared Parking Demand	Peak Hour Adjustm't (2 PM)	Shared Parking Demand	Peak Hour Adjustm't (5 PM)	Shared Parking Demand	Peak Hour Adjustm't (10 PM)	Shared Parking Demand
Office & Meeting Space*	75%	487	100%	649	50%	324	1%	6
Retail	40%	1	95%	3	95%	3	40%	1
Residential	60%	174	70%	144	85%	174	100%	205
Total Demand		662		796		501		212

* 771,000 SF includes 21,000 sf of meeting space

The ULI Shared Parking analysis estimates the peak parking demand of 796 vehicles to occur in the middle of the day (2 PM) on a weekday. During the beginning and end of a traditional work day, the analysis estimates that the parking demand would be 662 at 8:00 AM and 501 at 5:00 PM. Overnight the parking demand would be for residential parking and a few for office employees for a demand of approximately 212 vehicles.

4.8.3 Project Parking Demand VS Supply

The analyses presented in Section 4.8.2 yield different estimates for Project parking demand. The ITE methodology estimates a demand for 915 vehicles, but does not take sharing of parking between commercial and residential uses into account. Analysis of parking space occupancy in the nearby Millennium Tower garage shows that the residential parking for occupied units is less than 55% utilized during the weekdays after 9:00 AM, indicating that up to 45% is available throughout the daytime. For the Project's residential parking allocation of approximately 300 parking spaces, this would be equivalent to parking for approximately 135 of the residential spaces being available during the daytime. Adjusting the ITE estimate by this amount would yield a peak parking demand of 780 vehicles in practice when office parkers can take advantage of vacant residential spaces, facilitated by valet parking operation. This estimated level of demand is consistent with the ULI shared parking methodology estimate of a peak demand for 796 vehicles during the middle of a weekday.

By comparison, while this suggests that the Project parking demand is much higher than the proposed parking supply, the estimate likely does not reflect the mobility characteristics of the Project site. Further, it is expected that some office employees will park in some of the multiple existing parking garages in the area, particularly if the supply at the Project is constrained relative to demand. In any event, in the interest of not over-providing Project parking, the proposed supply of Project parking for approximately 550 vehicles is more appropriate at this transit-oriented location. As noted, should the supply be in-sufficient, some office users will choose to park in other existing area parking facilities, or even switch to alternative travel modes.

4.8.4 Parking Operation and Management

The Project includes a below-grade parking structure for approximately 550 vehicles on five levels. The garage will be valet-operated by a single operator for all uses. All drop-off and pick-up operations of the occupants will occur on levels B-1 and B-2 of the garage. In addition, shared vehicle drop-off and pick-up will also be available inside the garage. All vehicle queueing will occur inside the garage. The valet operator will facilitate the shared use of some of the parking

spaces between residential and commercial users as described above. The garage has a one-way ramp on Federal Street for the commercial users of the Project only. The direction of this ramp will be managed to accommodate the direction of peak period operation. Safety and traffic flow will be closely monitored such that vehicle queueing does not occur on Federal Street. Circulation plans are included in Section 2.0.

4.9 Bicycle Parking

The Project will provide a variety of bicycle parking options for employees, residents and visitors of the Project. Short-term, outdoor bicycle parking will be provided in the public realm in the vicinity of the Project Site. Long-term covered and secure bicycle parking will be provided for employees and residents of the Project.

Experience at Millennium Tower and Millennium Place indicate that demand for residential bicycle parking is substantially lower that suggested by the City of Boston *Bicycle Parking Guidelines*. Counts indicate a demand for only 83 internal bicycle spaces at Millennium Tower, and only 62 spaces at Millennium Place. However, the Proponent is committed to providing sufficient storage to meet demand for all residents and employees. Therefore, the Proponent will work with BTD to determine appropriate numbers of long- and short-term bicycle parking, and will commit to providing additional spaces in response to actual demand if those numbers are fully utilized.

4.10 Loading, Service and Deliveries

4.10.1 Curbside Loading & Drop-Off

Curbside accommodations along the Project site frontage on Devonshire Street are shown on the site plans in Section 2.0. In addition, residential drop-off will be provided at the porte cochere in the B-1 level. in the for res

4.10.2 Truck Access and Off-Street Service Area

The off-street loading docks serving the Project will be located at the southern end of the frontage on Devonshire Street. As described in Section 4.5.1, the conversion of Devonshire Street between the service area and Summer Street to 2-way traffic is proposed. The proposed partial 2-way Devonshire Street is a viable circulation change that would accomplish the goal of eliminating truck traffic through Winthrop Square. Service and delivery trucks will access the site using only designated truck routes, as outlined by the City of Boston. Regionally, trucks will use the Massachusetts Turnpike (I-90) to Exit 24, and I-93 to exit 20. Local trucks will use Purchase Street and Summer Street.

The layout of the service area and its internal relationship to Project uses is shown in Figure 2-5 in Section 2.0. As shown, the service area will provide three large (12'x45') loading docks capable of accommodating WB-40 trucks, which is the largest size vehicle needed to service a residential and office project. In addition, two small areas inside the loading dock are available for commercial trash and other functions.

Trash removal for residential uses is expected to be accommodated from the B-1 level with access to Federal Court for removal by City-provided trash trucks on Federal Street.

Commercial office tenants will have recycling space at each floor and will be encouraged to decrease their trash usage. Private pick-up of trash at the loading dock will occur on a schedule, eliminating the need for a full-time dumpster.

Food waste digesters are also being considered.

Autoturn analysis for trucks entering and exiting the service area are included in Attachment D.

4.10.3 Daily Deliveries

Daily truck trips were estimated based on data collected for the nearby Millennium Tower project, which comprises similar land uses to the proposed Project, albeit with a smaller office component and a larger retail component. The data distinguish between numbers of long-term (SU-30 or larger trucks) and short-term (small trucks, vans and cards) deliveries by office, retail and residential uses. Table 4-29 presents the "delivery generation" rates for Millennium Tower and the corresponding daily number of truck trips each land use component of the Project is expected to generate. Detailed worksheets are included in Attachment D.

Table 4-29 Daily Delivery/Service Vehicle Trip Generation Estimate

Land Use	**Long-Term Deliveries** (SU-30 or larger)		**Short Term Deliveries** (Small trucks, vans, and cars)		**Total Daily Deliveries**
	Rate per KSF or Units	**Number of Vehicles**	Rate per KSF or Units	Number of Vehicles	
Office (771 KSF)	0.008	6	0.017	13	19
Retail (19 KSF)	0.108	2	0.154	3	5
Residential (Units)	0.003	2	0.111	56	57
Total		10		71	81

As shown in Table 4-29, the Project is estimated to generate a total of 10 large delivery trucks which will use the off-street service area. In addition, there will be about 71 deliveries by small trucks, vans and cars on a typical weekday. These reflect numerous shared delivery opportunities for mail and Fedex etc., particularly within the residential component where services such as catering, food delivery, dry-cleaning and package delivery will be centralized. Peak hour deliveries will be managed by Project management staff.

4.11 Transportation Demand Management

4.11.1 TDM Measures

The proposed TDM plan aims to reduce drive-alone trips, or single occupancy vehicles, by encouraging employees, residents and visitors to use alternative modes of transportation. The following general TDM measures apply to both residential and commercial Project components:

1. Designate a Transportation Coordinator to oversee all transportation-related operational matters at each Project component, including vehicular operations, servicing and loading, parking and implementation of the TDM Plan. The Transportation Coordinator will act as the contact and liaison for the City, local Transportation Management Association (TMA) and tenants/residents of the Project.
2. Post and make available transit maps, schedules and other information relevant to commuting options in the office and residential building lobbies.

3. Provide real-time transportation information in all new lobbies within each Project component using Transit Screen or other similar products including online platforms.
4. Provide preferential parking to carpool and vanpool participants.
5. Assignment of Car Sharing spaces in garage subject to demand.
6. Electric vehicle charging stations for up to 28 vehicles (5% of parking capacity) and EV -ready parking for up to 83 vehicles (15% of parking capacity)
7. Join A Better City TMA which provides a variety of commuter benefits including, but not limited to:
    - Guaranteed Ride Home;
    - Ride Matching;
    - Cash incentives to try out particular MBTA services; and
    - Carpool and Vanpool Subsidies.
8. On-site transportation fairs and commuter related events.
9. Long-term covered secure, and short-term public realm, bicycle spaces (numbers of spaces to be determined based on demand and in collaboration with BTD)
10. Commitment to providing additional bike parking in response to demand.
11. On-site "Fix-it" bike station.
12. Charliecard subsidies (various types).
13. Charging for residential parking separately from condo unit purchases.
14. Passing cost of parking along to tenants in Project
15. Hubway and/or Car-sharing memberships.
16. Consolidated package delivery

4.11.2 Monitoring Program

The Proponent is committed to conducting a Transportation Monitoring Program, to include the following elements:

1. **Employee and Resident Survey** – A survey will be distributed to determine commuting modes to/from the Project site, transit ridership, bicycle parking utilization, occupancy of car-sharing parking spaces, occupancy of alternative fueled vehicle parking spaces, electric vehicle charging station demand and usage, and overall parking demands.

2. **Garage Volume Data** – Collection of traffic volume information will be collected over a continuous seven-day period at each Garage entrance/exit.

4.11.3 Construction Management Plan (CMP)

The Proponent will develop a detailed evaluation of potential short-term construction-related transportation impacts including construction vehicle traffic, parking supply and demand, and pedestrian access. Detailed Construction Management Plans are currently being prepared, reviewed and discussed with area abutters, BID and BTD. These plans, that require BTD approval prior to construction commencement, will detail construction phasing, vehicle routing, area updates, staging, road closures and pedestrian detours.

4.11.3.1 Construction Vehicle Traffic

Construction vehicles will be necessary to move construction materials to and from the Project site. Every effort will be made to reduce noise, control fugitive dust, and minimize other disturbances associated with construction traffic. Truck staging and laydown areas for the Project will be carefully planned. The need for Project site occupancy (lane closures) along roadways adjacent to the Project site is not known at this time.

4.11.3.2 Construction Parking

Contractors will be encouraged to devise access plans for their personnel that de-emphasize auto use (such as seeking off-site parking, provide transit subsidies, on-site lockers, etc.) Construction workers will also be encouraged to use public transportation to access the Project site because no parking will be provided for them.

4.11.3.3 Pedestrian Access during Construction

During the construction period, pedestrian activity adjacent to the Project site may be impacted by sidewalk closures. A variety of measures will be considered and implemented to protect the safety of pedestrians. Temporary walkways, appropriate lighting, and new directional and informational signage to direct pedestrians around the construction sites will be provided. After construction is complete, finished pedestrian sidewalks will be permanently reconstructed around the new facilities. Any damage as a result of construction vehicles or otherwise will be repaired per City standards.

4.11.4 Transportation Access Plan Agreement (TAPA)

The Proponent will enter into a Transportation Access Plan Agreement with the BTD which will formalize and document all transportation mitigation and TDM commitments. The TAPA will assign TDM implementation to the appropriate responsible entity, be that the building owner, an employer, or tenant.

Mitigation commitments are the result of the detailed transportation analyses and identification of Project impacts, as documented in the above chapter, and specific agreements made between the Proponent and the City of Boston.

Specific mitigation measures have not been discussed with the City at this time. Upon the City's review of this transportation analysis and assessment of Project impacts, TDM commitments will be discussed and agreed upon for the Project. A TAPA will be executed for the Project in advance of its building permit issuance.

Chapter 5

Environmental Protection Component

5.0 ENVIRONMENTAL PROTECTION COMPONENT

Article 80 of the Boston Zoning Code specifies that the BPDA may require in its Scoping Determination that the applicant conduct studies to determine the direct or indirect impact to the environment reasonably attributable to a project. In accordance with the BPDA Scoping Determination for the Draft EIR/PIR, as well as the Secretary's Certificate on the ENF, this section addresses various environmental considerations. Where the potential for direct or indirect impacts exists, design measures are incorporated to mitigate the impacts, to the extent economically feasible.

Design and programming of the Project continue to evolve though market analyses and discussions with the City of Boston. The Project is anticipated to include approximately 1.592 million square feet of gross floor area, as defined in Article 2A of the Boston Zoning Code. The allocation of square footage among specific uses will be determined during the design process, but Table 2-1 presents the approximate square footages for each use.

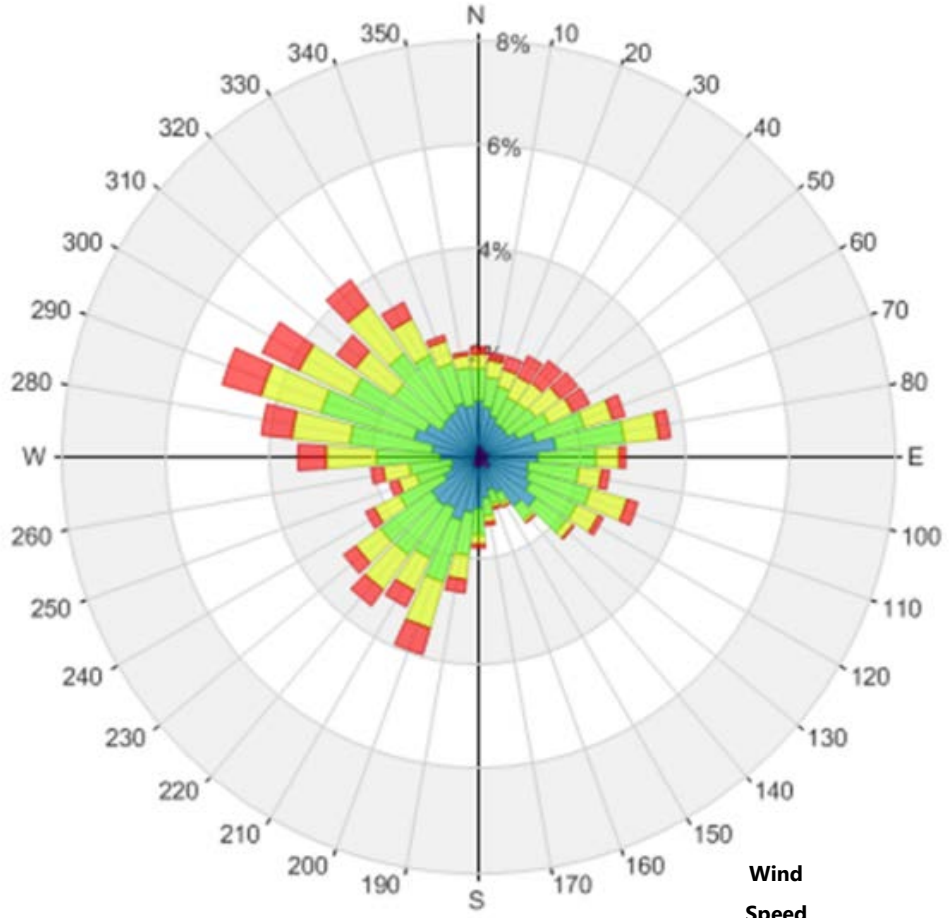
5.1 Wind

5.1.1 Introduction

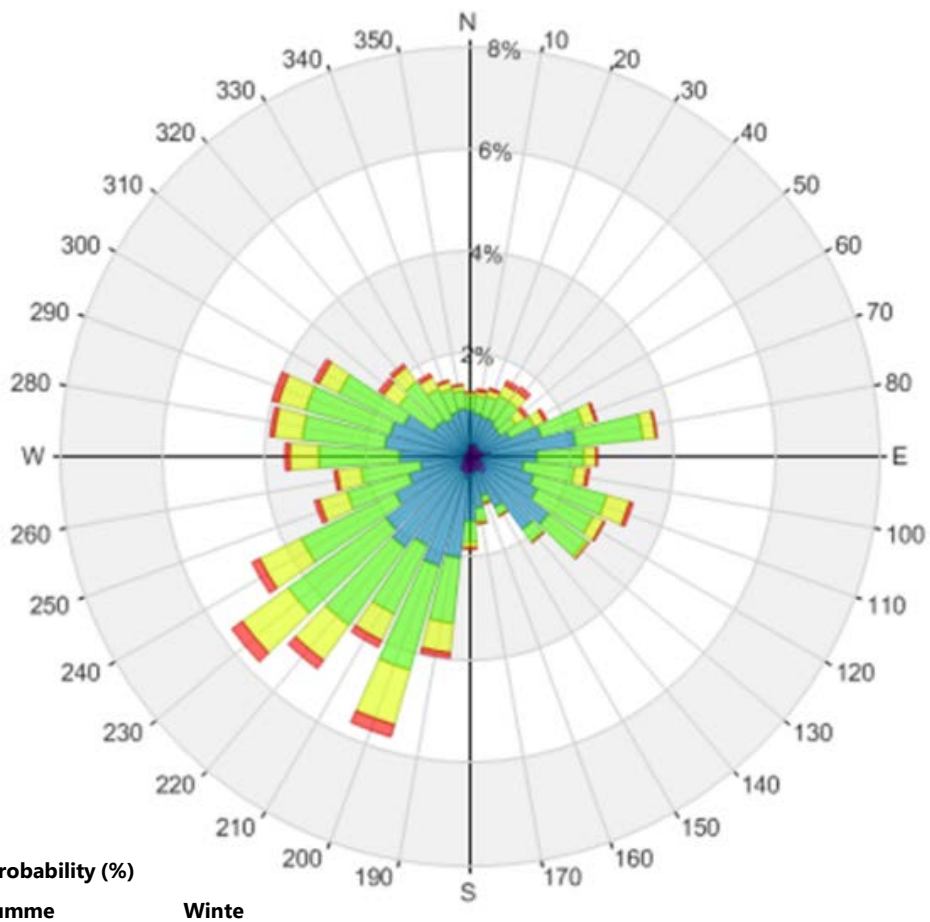
A pedestrian level wind study was conducted for the Project located in Boston, Massachusetts by Rowan Williams Davies & Irwin Inc. (RWDI). The objective of the study was to assess the effect of the Project on the local wind conditions in pedestrian areas around the site and provide recommendations for minimizing any potential adverse effects. The No Build (present condition including approved, but not yet built projects in the area) and Build (the Project) conditions as well as an as-of-right alternative were tested by placing wind sensors at 170 locations, chosen in consultation with the BPDA surrounding the Project site on a scaled model of the Project area. Please refer to Figure 1-2 for an aerial view of the Project site. Photographs of the wind tunnel study model are included in Attachment E. The wind statistics recorded at the Boston Logan International Airport used in the study are shown in Figures 5.1-1 through 5.1-3, respectively. The Project site is located south of Franklin Street, between Devonshire Street and Federal Street (see Figure 1-2). The proposed Project is surrounded by mid- and high-rise buildings in all directions. Boston Logan International Airport is located approximately two miles to the east of the site.

The study involved wind simulations on a 1:400 scale model of the proposed building and surroundings. These simulations were conducted in RWDI's boundary-layer wind tunnel, to quantify local wind speed conditions and compare to appropriate criteria for gauging wind comfort in pedestrian areas. The assessment focused on pedestrian areas on sidewalks along adjacent and nearby streets.

Spring (March – May)



Summer (June – August)



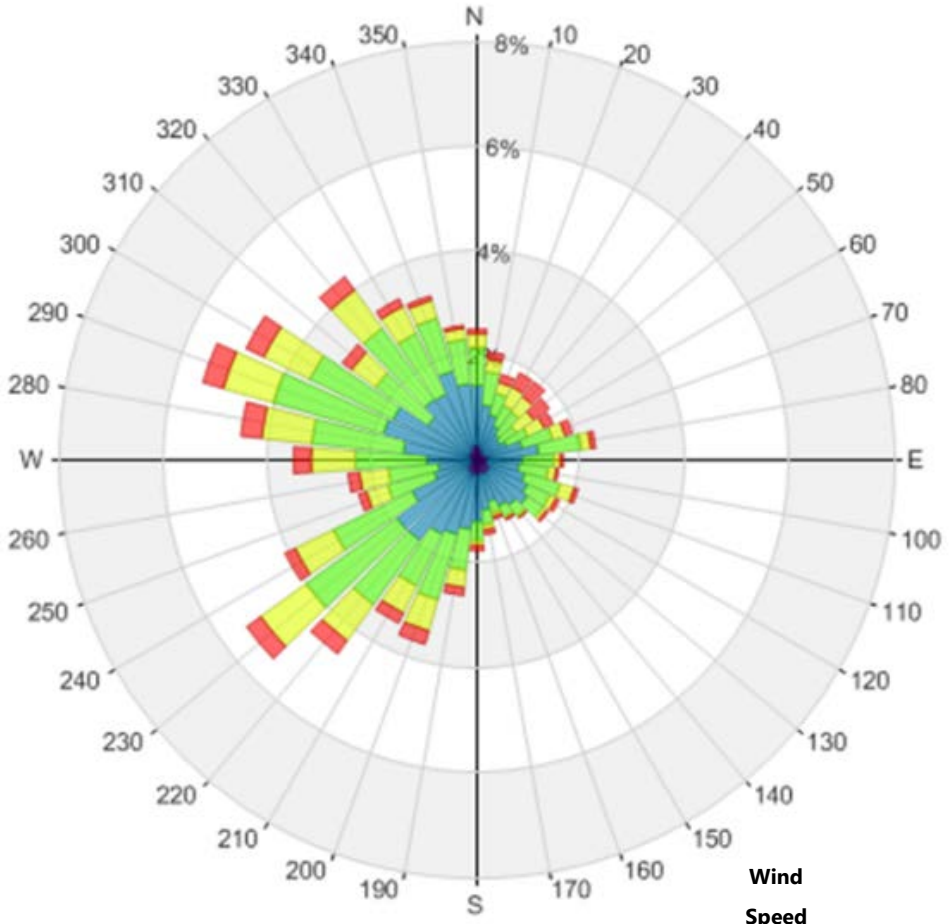
Wind Speed (mph)	Probability (%) Spring	Summer	Fall	Winter
Calm	2.4	2.7	2.9	2.3
1-5	6.4	8.9	8.0	6.2
6-10	28.5	38.1	34.3	27.5
11-15	32.9	35.1	32.8	31.1
16-20	19.7	12.6	15.3	20.1
>20	10.2	2.7	6.7	12.8

115 Winthrop Square **Boston, Massachusetts**

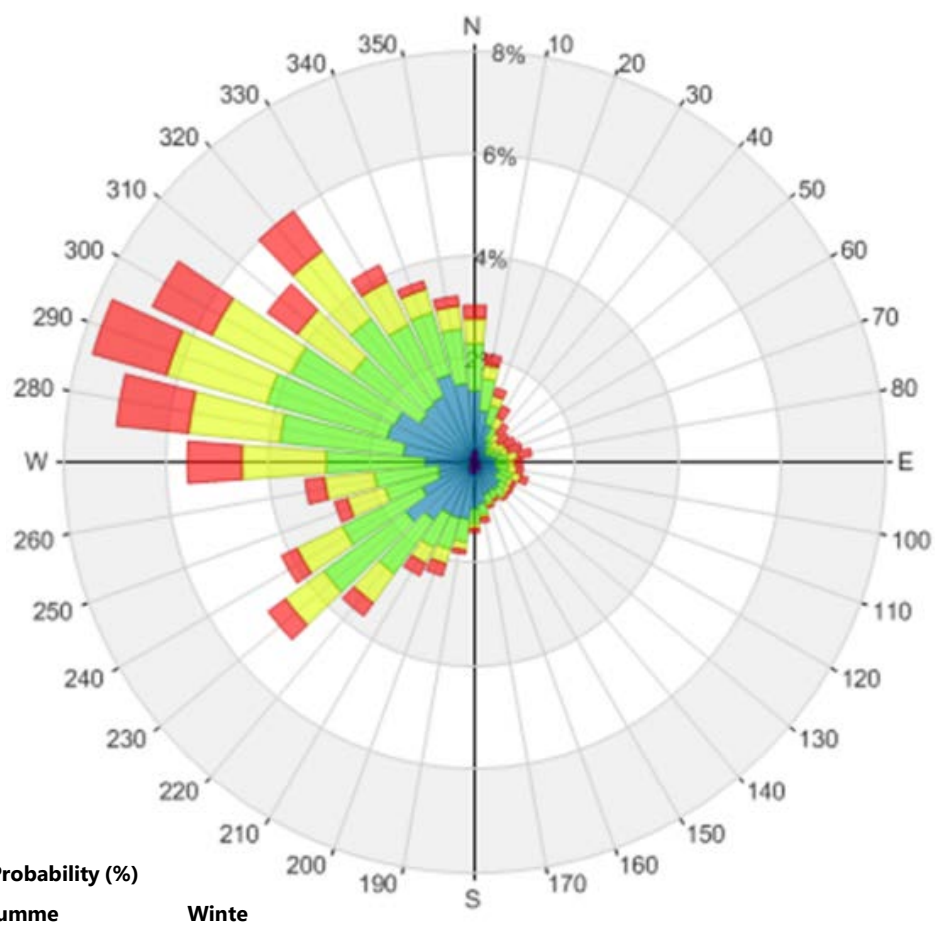
Figure 5.1-1

Directional Distribution of Winds Approaching Boston Logan International Airport from 1991 to 2015

Fall (September - November)



Winter (December - February)



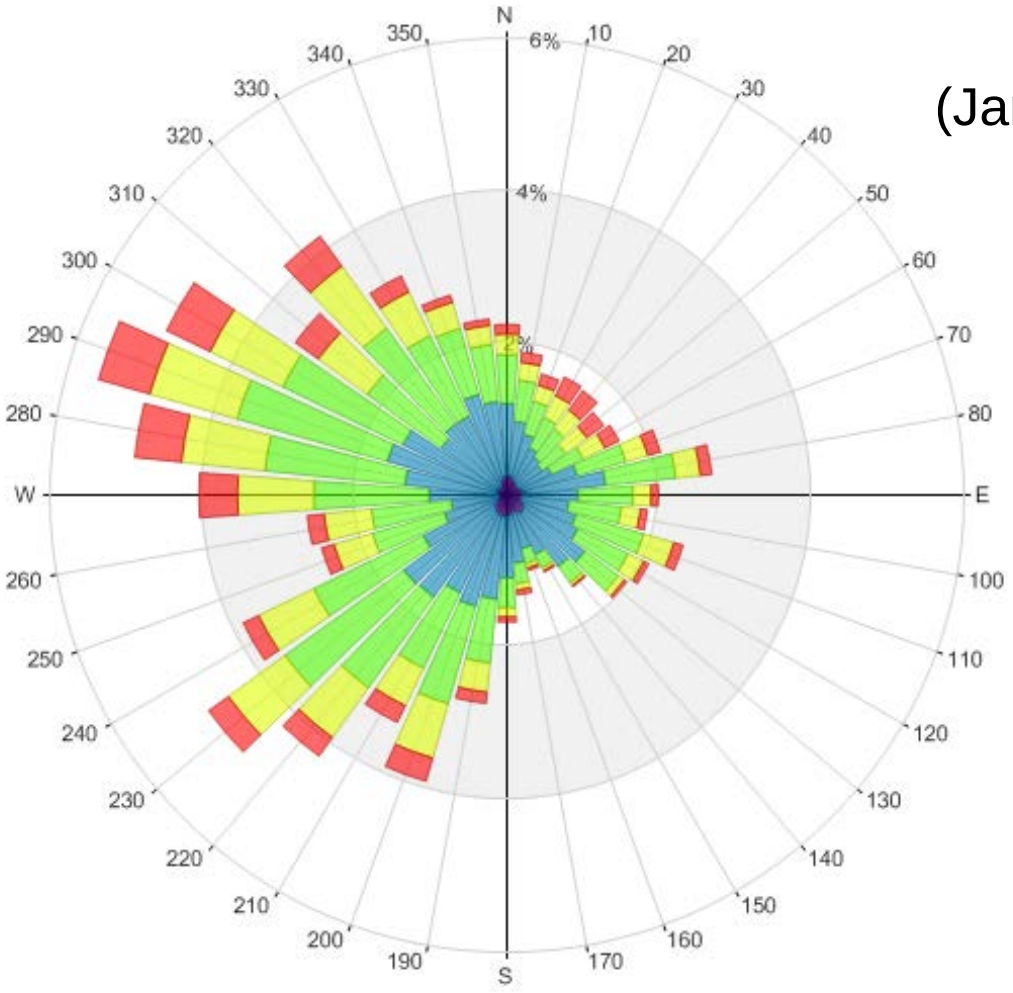
Wind Speed (mph)	Probability (%) Spring	Summer	Fall	Winter
Calm	2.4	2.7	2.9	2.3
1-5	6.4	8.9	8.0	6.2
6-10	28.5	38.1	34.3	27.5
11-15	32.9	35.1	32.8	31.1
16-20	19.7	12.6	15.3	20.1
>20	10.2	2.7	6.7	12.8

115 Winthrop Square **Boston, Massachusetts**

Figure 5.1-2

Directional Distribution of Winds Approaching Boston Logan International Airport from 1991 to 2015

Annual
(January – December)



Speed (mph)	Spring	Summer	Fall	Winter
Calm	2.4	2.7	2.9	2.3
1-5	6.4	8.9	8.0	6.2
6-10	28.5	38.1	34.3	27.5
11-15	32.9	35.1	32.8	31.1
16-20	19.7	12.6	15.3	20.1
>20	10.2	2.7	6.7	12.8

115 Winthrop Square **Boston, Massachusetts**

Figure 5.1-3

Directional Distribution of Winds Approaching Boston Logan International Airport from 1991 to 2015

The criteria recommended by the Boston Planning and Development Agency were used in this study. The analysis includes a description of the methods and presents the results of the wind tunnel simulations.

The predicted BPDA Mean Wind and Effective Gust conditions pertaining to the three configurations assessed are graphically depicted on a site plan in Figures 5.1-4 through 5.1-9. These conditions and the associated wind speeds are presented in Table 1 in Attachment E. The results presented in analysis can be summarized as follows:

- For the Project configuration, the pedestrian wind conditions at most locations are predicted to be suitable for the intended use.
- The Effective Gust criterion evaluated for the Project configuration is expected to be met at all but one location, at the intersection of Franklin and Devonshire streets, however localized wind control measures at the southeast corner of Franklin and Devonshire streets are shown to bring about acceptable wind conditions (Figure 5.1-8).
- Of the 170 locations studied, when comparing the wind comfort category change on an annual basis, from the No Build configuration to the Project configuration, 98 locations are predicted to remain unaffected by the Project, 31 are predicted to have improved wind conditions, and 35 locations are predicted to have worsened wind conditions.

5.1.2 Methodology

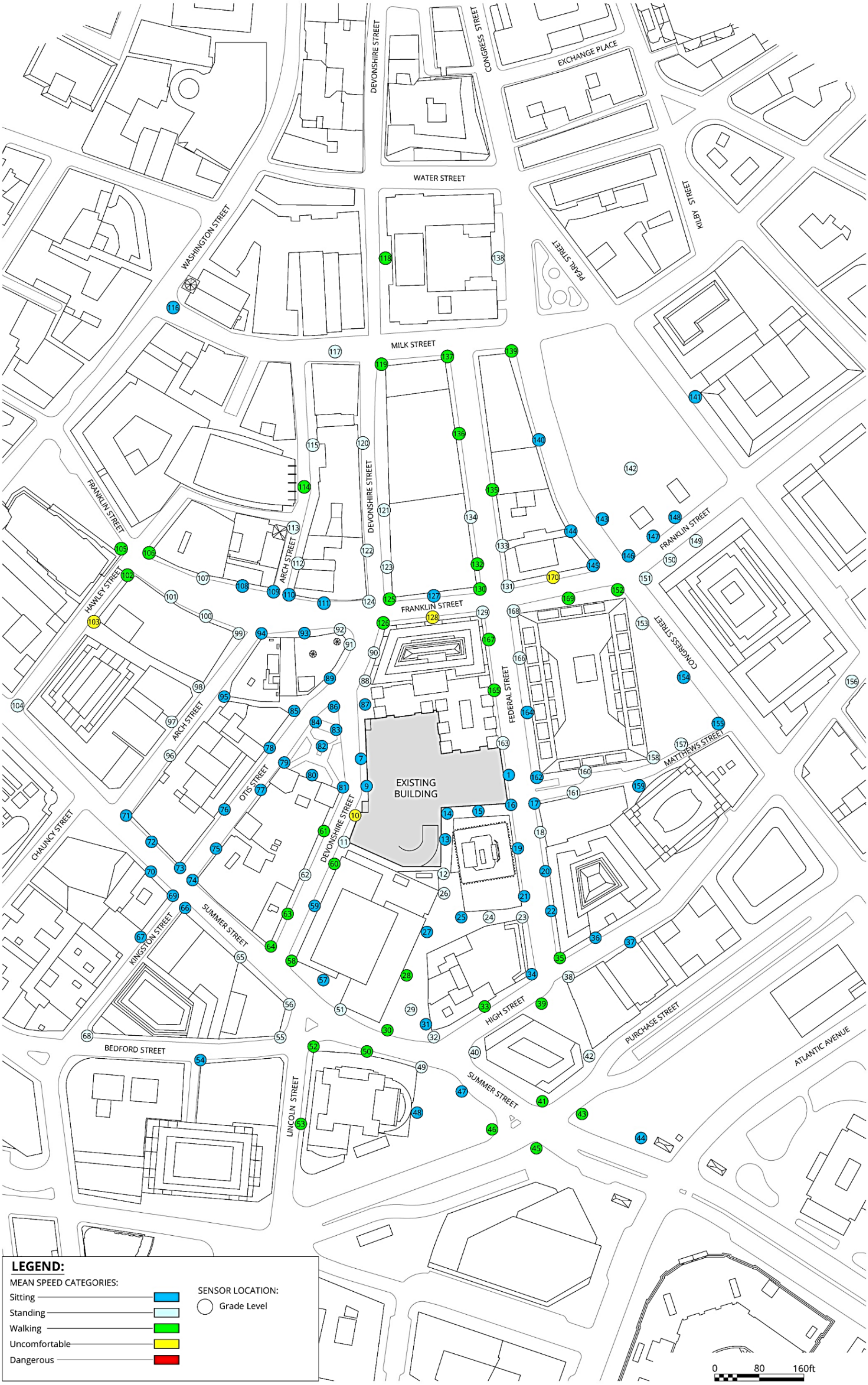
5.1.2.1 Wind Tunnel Study Model

To assess the wind environment around the proposed Project, a 1:400 scale model of the Project site and surroundings was constructed for the wind tunnel tests. Information concerning the site and surroundings was derived from: information on surrounding buildings and terrain and site plans and elevations of the proposed development provided by the design team. The following configurations were simulated:

A. No Build: Existing site with existing surroundings, Figure 1 in Attachment E

B. Build: Proposed Project with existing surroundings, Figure 2 in Attachment E

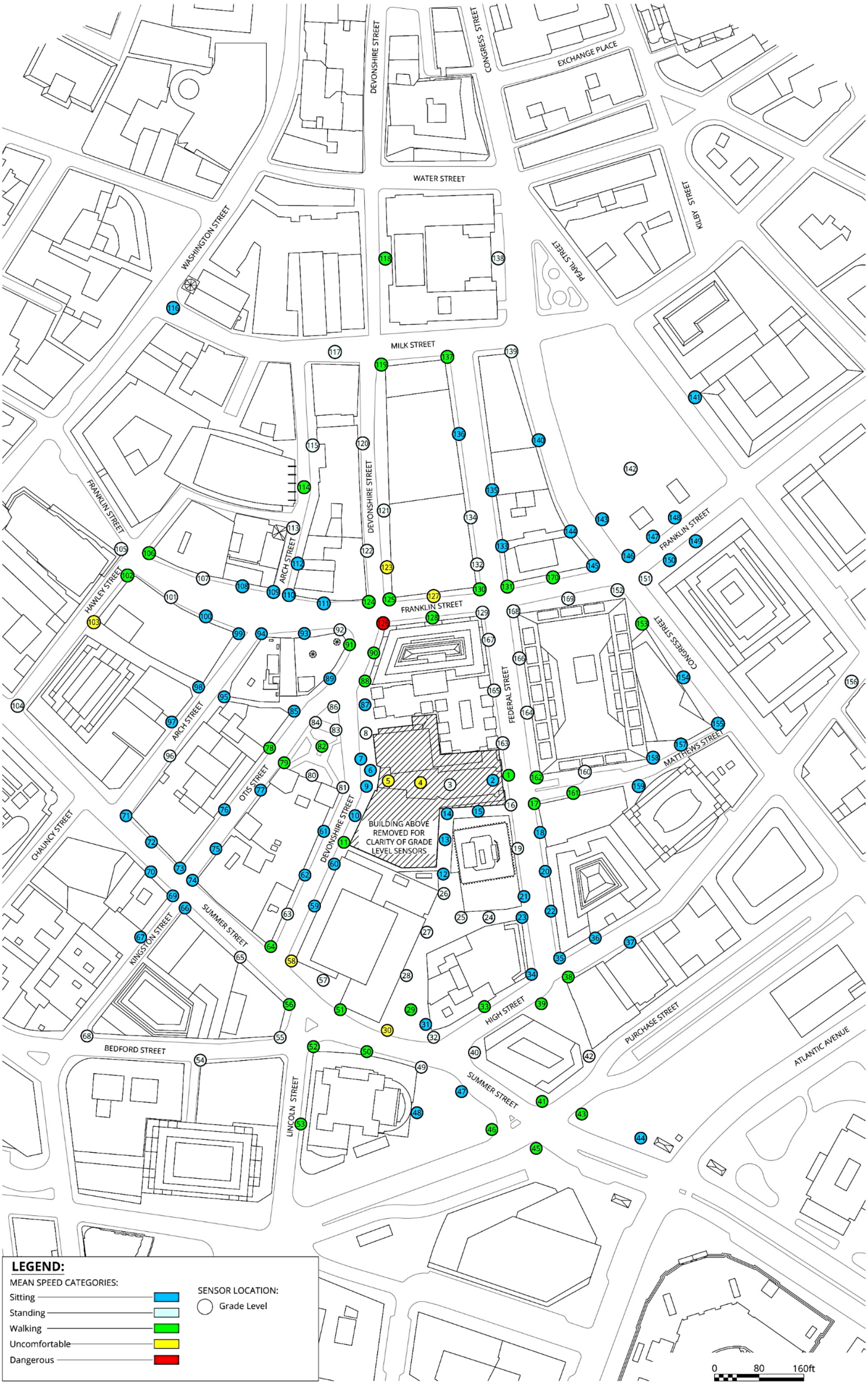
C. As-of-right: As-of-Right building with existing surroundings, Figure 3 in Attachment E



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Figure 5.1-4

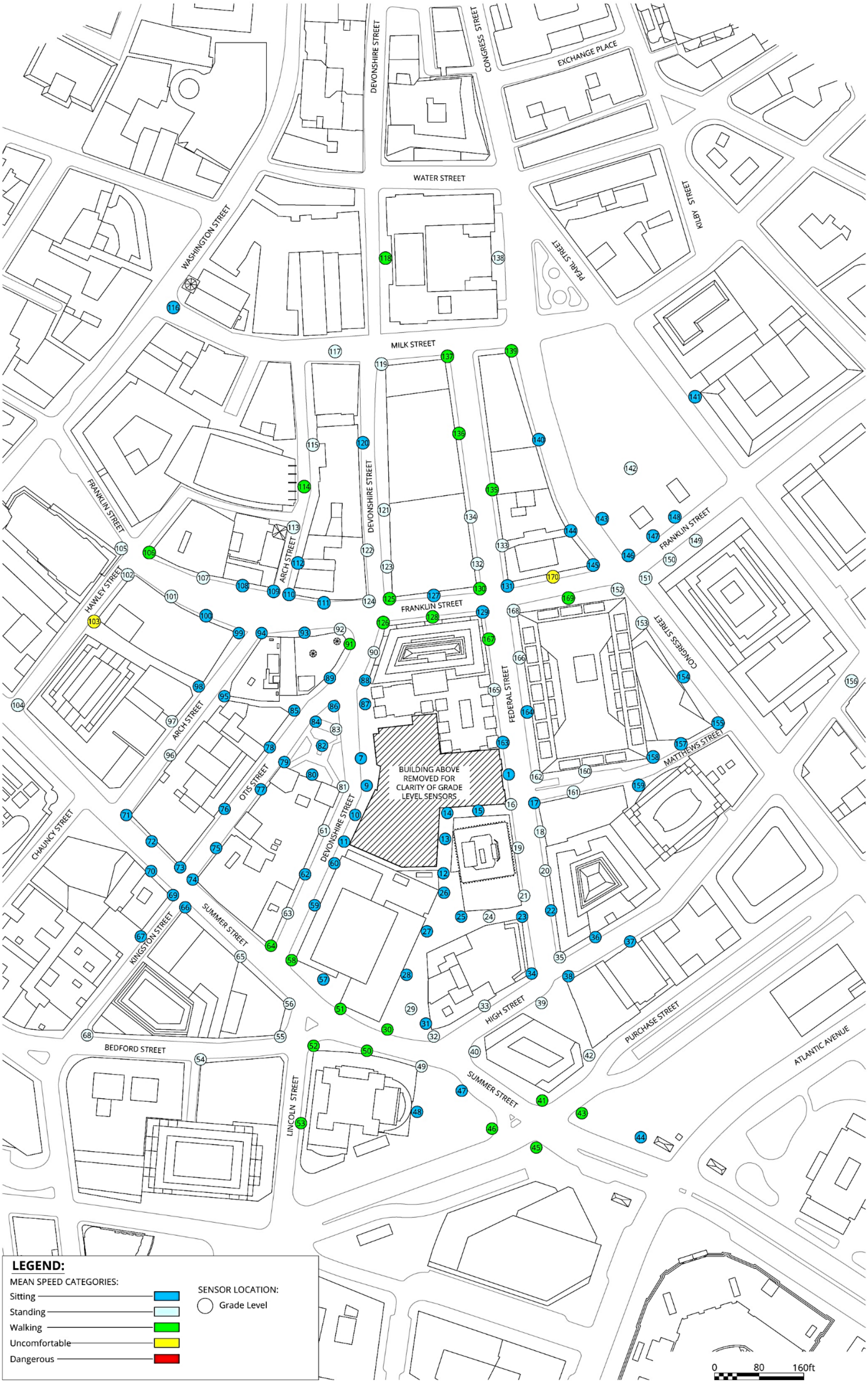
Pedestrian Wind Conditions – Mean Speed – No Build, Annual



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Figure 5.1-5

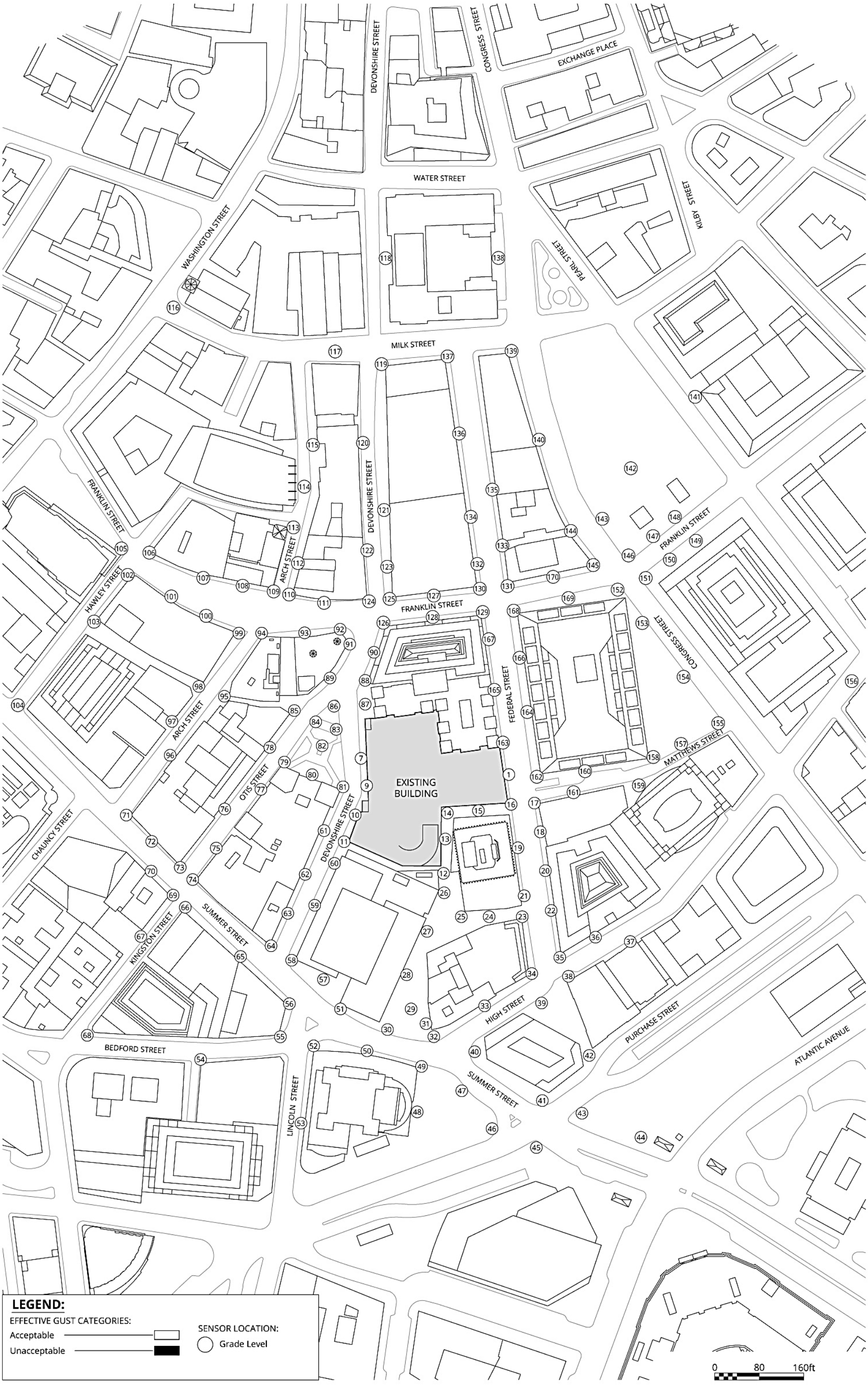
Pedestrian Wind Conditions – Mean Speed – Build, Annual



115 Winthrop Square **Boston, Massachusetts**

Figure 5.1-6

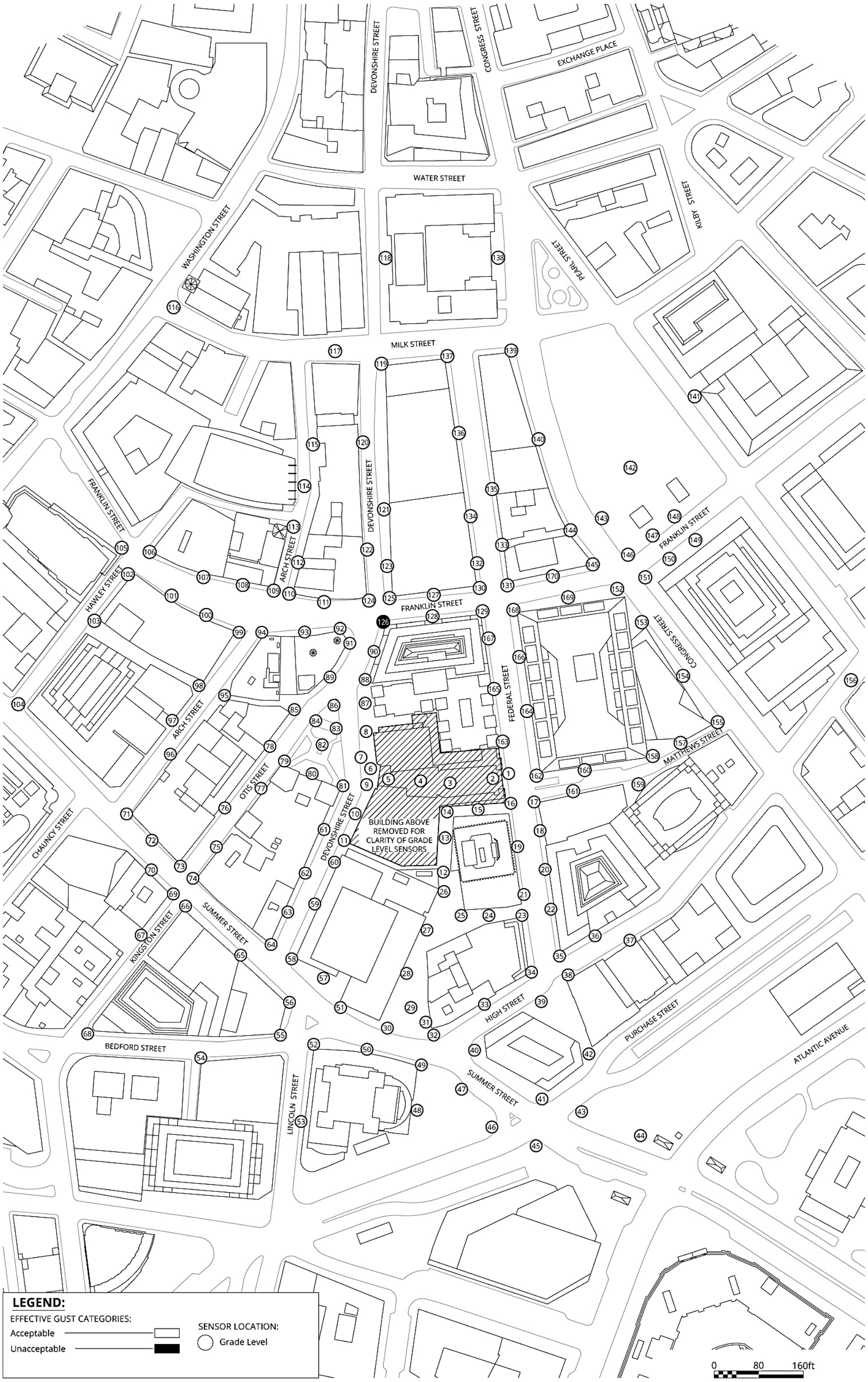
Pedestrian Wind Conditions – Mean Speed – As-of-Right Building, Annual



115 Winthrop Square **Boston, Massachusetts**

Figure 5.1-7

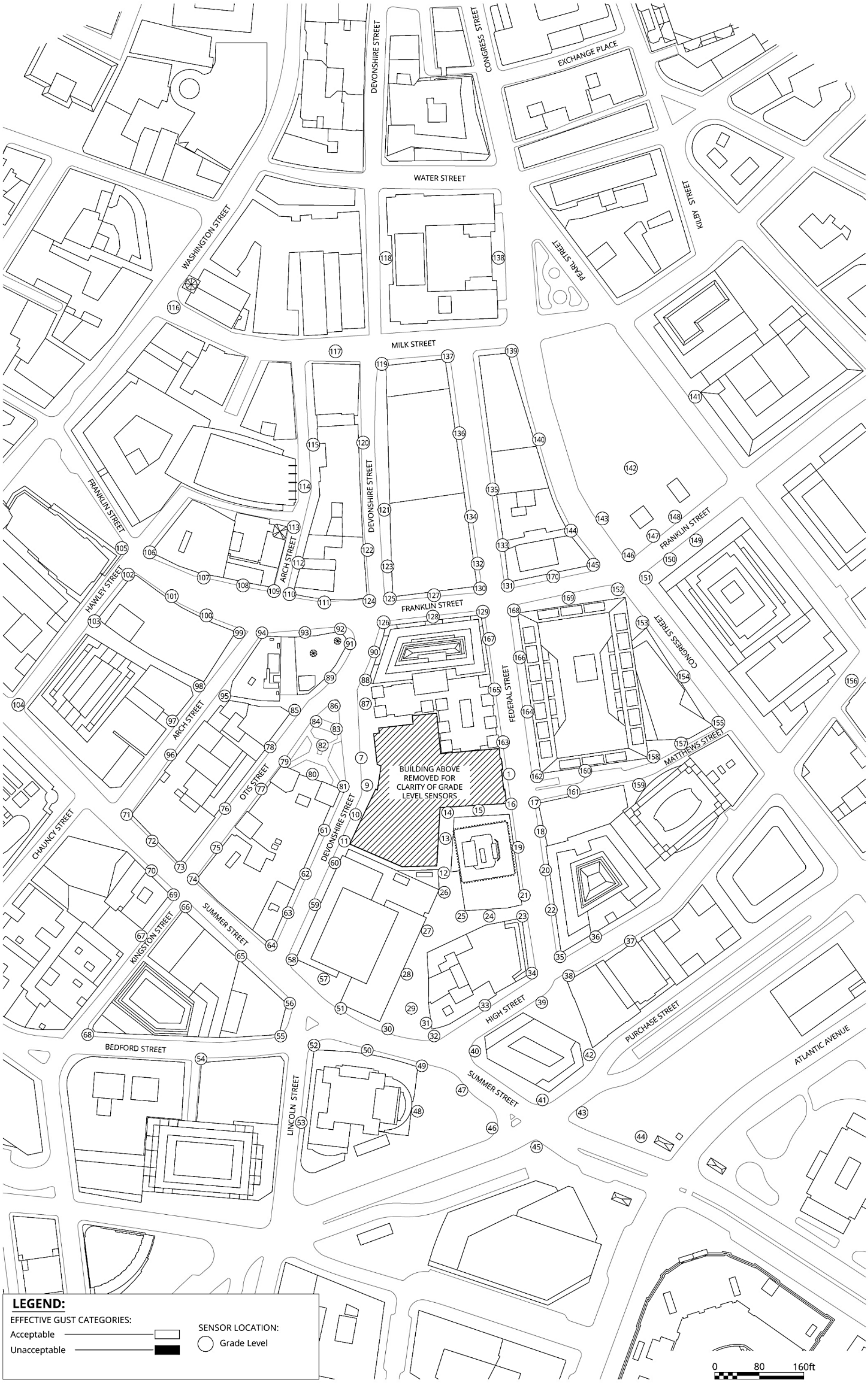
Pedestrian Wind Conditions – Effective Gust – No Build, Annual



115 Winthrop Square **Boston, Massachusetts**

Figure 5.1-8

Pedestrian Wind Conditions – Effective Gust – Build, Annual



115 Winthrop Square **Boston, Massachusetts**

Figure 5.1-9

Pedestrian Wind Conditions – Effective Gust – As-of-Right Building, Annual

The scale model of the Project (as shown in Figure 2 in Attachment E) was constructed using the design information and drawings listed in Attachment E. The wind tunnel model included all relevant surrounding buildings and topography within an approximately 1,600 foot radius of the study site. The mean speed profile and turbulence of the natural wind approaching the modelled area were also simulated in RWDI's boundary layer wind tunnel. The scale model was equipped with 170 sensors specially designed wind speed sensors that were connected to the wind tunnel's data acquisition system to record the mean and fluctuating components of wind speed at a full scale height of five feet above grade in pedestrian areas throughout the study site. Wind speeds were measured for 36 wind directions, in 10 degree increments, starting from true north. The measurements at each sensor location were recorded in the form of ratios of local mean and gust speeds to the reference wind speed in the free stream above the model. The placement of wind measurement locations was based on RWDI's experience and understanding of the pedestrian usage for this site, and it was approved by the BPDA.

5.1.3 Meteorological Data

The results were then combined with long term meteorological data, recorded during the years 1991 through 2015 at Boston's Logan International Airport to predict full scale wind conditions. The analysis was performed separately for each of the four seasons and for the entire year. Figures 5.1-1 through 5.1-3 present "wind roses", summarizing the seasonal and annual wind climates in the Boston area respectively, based on the data from Logan Airport.

For example, the first wind rose in Figure 5.1-1, summarizes the spring (March, April, and May) wind data which in general, indicate prevailing winds occurring mainly from the northwest quadrant. Over the course of a year, wind speeds larger than 20 mph are more frequent during winter and spring.

5.1.4 Wind Criteria

The BPDA has adopted two standards for assessing the relative wind comfort of pedestrians. First, the BPDA wind design guidance criterion states that an effective gust velocity (hourly mean wind speed +1.5 times the root mean square wind speed) of 31 mph should not be exceeded more than one percent of the time. The second set of criteria used by the BPDA to determine the acceptability of specific locations is based on the work of Melbourne. This set of criteria is used to determine the relative level of pedestrian wind comfort for activities such as sitting, standing, or walking. The criteria are expressed in terms of benchmarks for the 1-hour mean wind speed exceeded 1% of the time (i.e., the 99-percentile mean wind speed). They are shown on Table 5.1-1 below.

Table 5.1-1 BPDA Mean Wind Criteria*

Comfort Category	*Mean Wind Speed (mph)*
Dangerous	> 27
Uncomfortable for Walking	> 19 and ≤ 27
Comfortable for Walking	> 15 and ≤ 19
Comfortable for Standing	> 12 and ≤ 15
Comfortable for Sitting	< 12

*Applicable to the hourly mean wind speed exceeded 1% of the time.

The consideration of wind in planning outdoor activity areas is important since high winds in an area tend to deter pedestrian use. For example, winds should be light or relatively light in areas where people would be sitting, such as outdoor cafes or playgrounds. For bus stops and other locations where people would be standing, somewhat higher winds can be tolerated. For frequently used sidewalks, where people are primarily walking, stronger winds are acceptable. For infrequently used areas, the wind comfort criteria can be relaxed even further. The actual effects of wind can range from pedestrian inconvenience, due to the blowing of dust and other loose material in a moderate breeze, to severe difficulty with walking due to the wind forces on the pedestrian.

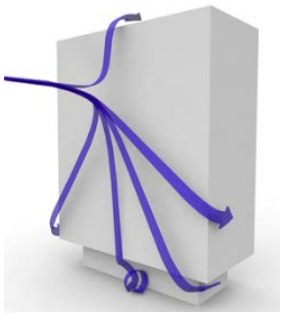
The wind climate found in a typical downtown location in Boston is generally comfortable for the pedestrian use of sidewalks and thoroughfares and meets the BPDA effective gust velocity criterion of 31 mph. However, without any mitigation measures, this wind climate is likely to be frequently uncomfortable for more passive activities such as sitting.

5.1.5 Overview of Pedestrian Winds

In the discussion of anticipated wind conditions, reference may be made to the following generalized wind flows: (See Figure 5.1-10). If these building/wind combinations occur for prevailing winds, there is a greater potential for increased wind activity.

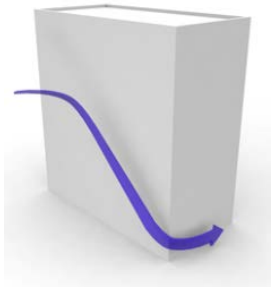
5.1.6 Predicted Wind Conditions

The predicted Mean Speed and Effective Gust Speed conditions pertaining to the three tested configurations assessed are graphically depicted on a site plan in Figures 5.1-4 through 5.1-9. These conditions and the associated wind speeds



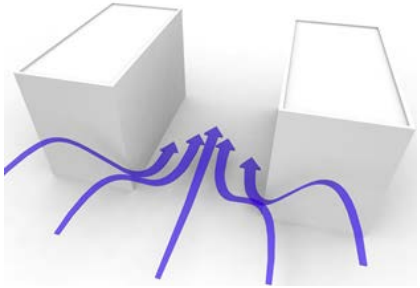
Downwashing

Tall buildings tend to intercept the stronger winds at higher elevations and redirect them to the ground level. This is often the main cause for wind accelerations around large buildings at the pedestrian level;



Corner Acceleration

When winds approach at an oblique angle to a tall façade and are deflected down, a localized increase in the wind activity or corner acceleration can be expected around the downwind building corner at pedestrian level; and,



Channeling Effect

When two buildings are situated side by side, wind flow tends to accelerate through the space between the buildings due to channeling effect caused by the narrow gap.

are also presented in Table 1 in Attachment E. Typically, the summer and fall winds tend to be more comfortable than the annual winds while the winter and spring winds are less comfortable than the annual winds.

Wind conditions comfortable for walking are appropriate for sidewalks and walkways as pedestrians will be active and less likely to remain in one area for prolonged periods of time. Lower wind speeds conducive to standing are preferred at main entrances where pedestrians are apt to linger. Wind speeds comfortable for sitting are ideal for areas intended for passive activities.

The following summary of pedestrian wind comfort is based on the annual winds for each configuration tested.

5.1.6.1 No Build Condition

The existing mean wind speeds for the No Build configuration are predicted to be generally comfortable for walking or better (Figure 5.1-4). Four locations are predicted to be within the uncomfortable criterion. The effective gust criterion is predicted to be met at all measured locations (Figure 5.1-7).

5.1.6.2 Project Configuration

The mean wind speeds for the Project configuration are predicted to be mostly comfortable for walking or better (Figure 5.1-5) (95% of the locations studied). Seven locations (locations 4, 5, 30, 58, 103, 123 and 127) are predicted to be within the uncomfortable criterion and one location, location 126 at the intersection of Franklin and Devonshire streets, is predicted to be within the Dangerous criterion. The effective gust criterion is predicted to be met at all measured locations (Figure 5.1-8), except for location 126. As described below in more detail, with mitigation as described, however, Location 126 can have acceptable wind conditions as well.

5.1.6.3 As-of-Right Configuration

The mean wind speeds for the "As-of-Right" configuration are predicted to be mostly comfortable for walking or better (Figure 5.1-6). Two locations (locations 103 and 170) are predicted to be within the uncomfortable criterion. The effective gust criterion is predicted to be met at all measured locations (Figure 5.1-9).

5.1.7 Wind Control Measures at Location 126

Location 126 is the only location predicted to be within the Dangerous Mean Wind Speed Criterion as well as to exceed the Effective Gust Criterion for safety. The proposed Winthrop Square Project, combined with adjacent buildings along Devonshire Street, function as a single massing that intercepts the prevailing westerly winds and redirect them towards the intersection of Devonshire and Franklin streets (Figure 5.1-11). At the intersection, the redirected winds accelerate around the corner.

Potential wind control elements, such as wind screens and landscaping, are being considered and further designed. Wind tunnel studies have indicated that these wind control elements can eliminate the dangerous and unacceptable wind conditions.

Wind conditions will continue to be reviewed as the design progresses through the BPDA.

5.2 Shadow

5.2.1 Introduction

The Project site is located in a densely built urban area and the Project will be surrounded by and adjacent to existing structures that cast shadows on public roads and open spaces. The Project team performed four shadow-related analyses to assess the Project.

- As is typically required by the BPDA, a shadow impact analysis was conducted to investigate shadow impacts from the Project during three time periods (9:00 a.m., 12:00 noon, 3:00 p.m.) during the vernal equinox (March 21), summer solstice (June 21), autumnal equinox (September 21), and the winter solstice (December 21). In addition, shadow studies were conducted for the 6:00 p.m. period during the summer solstice and autumnal equinox. These four dates represent the shortest day of the year, the longest day of the year and dates in between. As previously noted, the Project height is in accordance with operating guidelines provided by Massport and technical review provided by the FAA. The FAA is currently conducting its public comment period for this Aeronautical Study. (See Attachment A). In addition to the Project, the analysis incudes shadow impacts from the as-of-right alternative and an alternative based on the previous shadow law (340 feet in height as measured by zoning, identified herein as the "340' alternative").

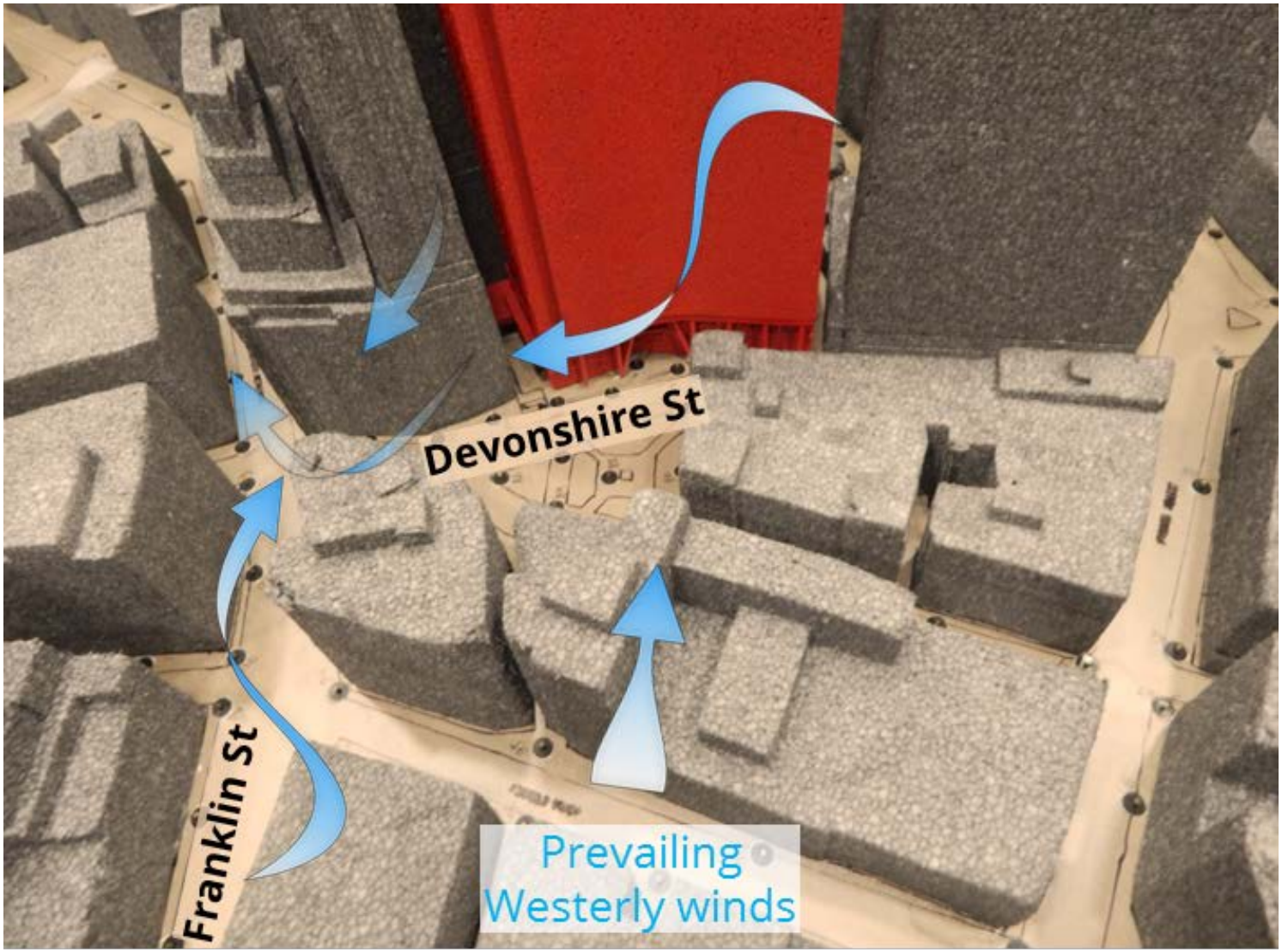


Figure 5.1-11

Prevailing Wind Channeled Towards Intersection of Franklin and Devonshire Streets

A more detailed study of these same dates was conducted for the Project to assess impacts on The Greenway, Post Office Square Park and Winthrop Square. The start of any shadow on each of the three open spaces, the time the shadow leaves the open space and the time with the maximum amount of shadow on each of the three open spaces is indicated.

- The third shadow study is an animation showing shadow impact on the Public Garden and the Boston Common related to the public discussion and the enactment of Chapter 57 of the Acts of 2017, An Act Protecting Sunlight and Promoting Economic Development in the City of Boston. The Proponent prepared updates for the Project which is now at a zoning height of 664 feet. Please see the website for the shadow study. See mpwinthropsquare.com

- In addition, an extensive shadow study was done to analyze impacts on all impacted historic resources as described in Section 8.0 including the Boston Common and the Public Garden. Hourly shadow studies were done from one hour after sunrise (or 7 a.m. whichever occurs later) until one hour before sunset (or 7 p.m. whichever occurs earlier) for March 21, June 21, September 21 and December 21. Shadows indicate beginning (or the shadow starting at 7 am or one hour after sunrise), ending, and peak shadows. See Attachment M.

Although the Project has a height of 664 feet as defined by zoning, mechanicals will reach a height of 691 feet; mechanicals have been included in this shadow analysis for the Project and each of the alternatives studied.

5.2.2 Methodology

As previously described, the Proponent conducted a shadow impact analysis to identify net new shadow impacts from the Project, an as-of-right alternative and an alternative based on the previous shadow law at three times (9:00 a.m., 12:00 noon, and 3:00 p.m.) during the vernal equinox (March 21), summer solstice (June 21), autumnal equinox (September 21), and winter solstice (December 21). The study also identified shadows at 6:00 p.m. during the summer solstice and autumnal equinox.

The shadow analysis described herein and depicted on Figures 5.2-1 through 5.2-42 illustrates the Project's incremental shadow impact by evaluating net new shadows cast from the proposed Project in the context of existing shadows cast across the Project area and surrounding vicinity. The shadow analysis shows the anticipated impacts from the Project in comparison to the existing condition, as-of-right alternative, and 340' alternative. The analysis focuses on public open spaces, major pedestrian areas, transit stops, and sidewalks in the vicinity of the Project site. Figure 5.2-1 to 5.2-42 specifically identify public transit locations such as MBTA stations, as well as major open spaces including, but not limited to, the Boston Common, the Public Garden, Commonwealth Avenue Mall, Granary Burying Ground, City Hall Plaza, Christopher Columbus Park, and the Greenway.

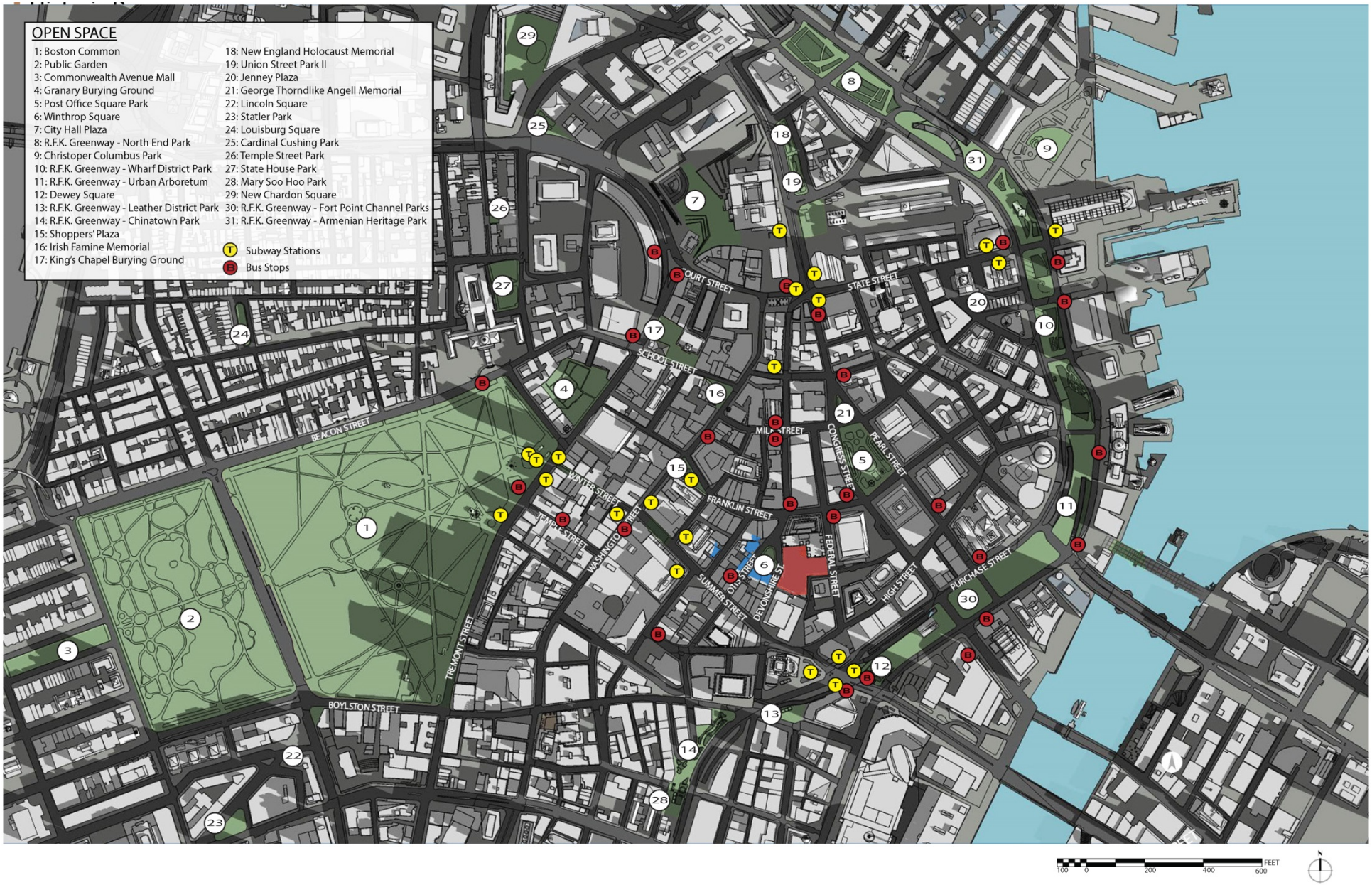
5.2.3 Vernal Equinox (March 21)

New shadow created during the vernal equinox is illustrated in Figures 5.2-1 through 5.2-9.

At 9:00 a.m. during the vernal equinox, new shadow from the as-of-right alternative, the 340' alternative and the Project will be cast to the northwest. No new shadow will be cast onto nearby bus stops or transit entrances by the Project or the two alternatives studied. New shadow from the Project will be cast onto a portion of Winter Street and its sidewalks, a small portion of Tremont Street, and onto a sliver of the northeastern portion of the Boston Common.

At 12:00 noon, new shadow from the as-of-right alternative, the 340' alternative and the Project will be cast to the north. No new shadow will be cast onto nearby bus stops, transit stops or public open space by the Project or the two alternatives studied. New shadow from the as-of-right alternative, the 340' alternative and the Project will be cast onto Devonshire and Otis streets and their sidewalks. In addition, new shadow from the Project will be cast onto a small sliver of Arch Street and its western sidewalk, and an additional area of Devonshire Street and its western sidewalk north of Franklin Street.

At 3:00 p.m., new shadow from the as-of-right alternative, 340' alternative and the Project will be cast to the northeast. No new shadow will be cast onto nearby bus stops or transit entrances by the Project or the two alternatives studied. New shadow from the Project will be cast onto the southeastern portion of Post Office Square, and onto Pearl Street and its sidewalks.



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Figure 5.2-1
Shadow Study, March 21, 9 a.m. – As-of-Right

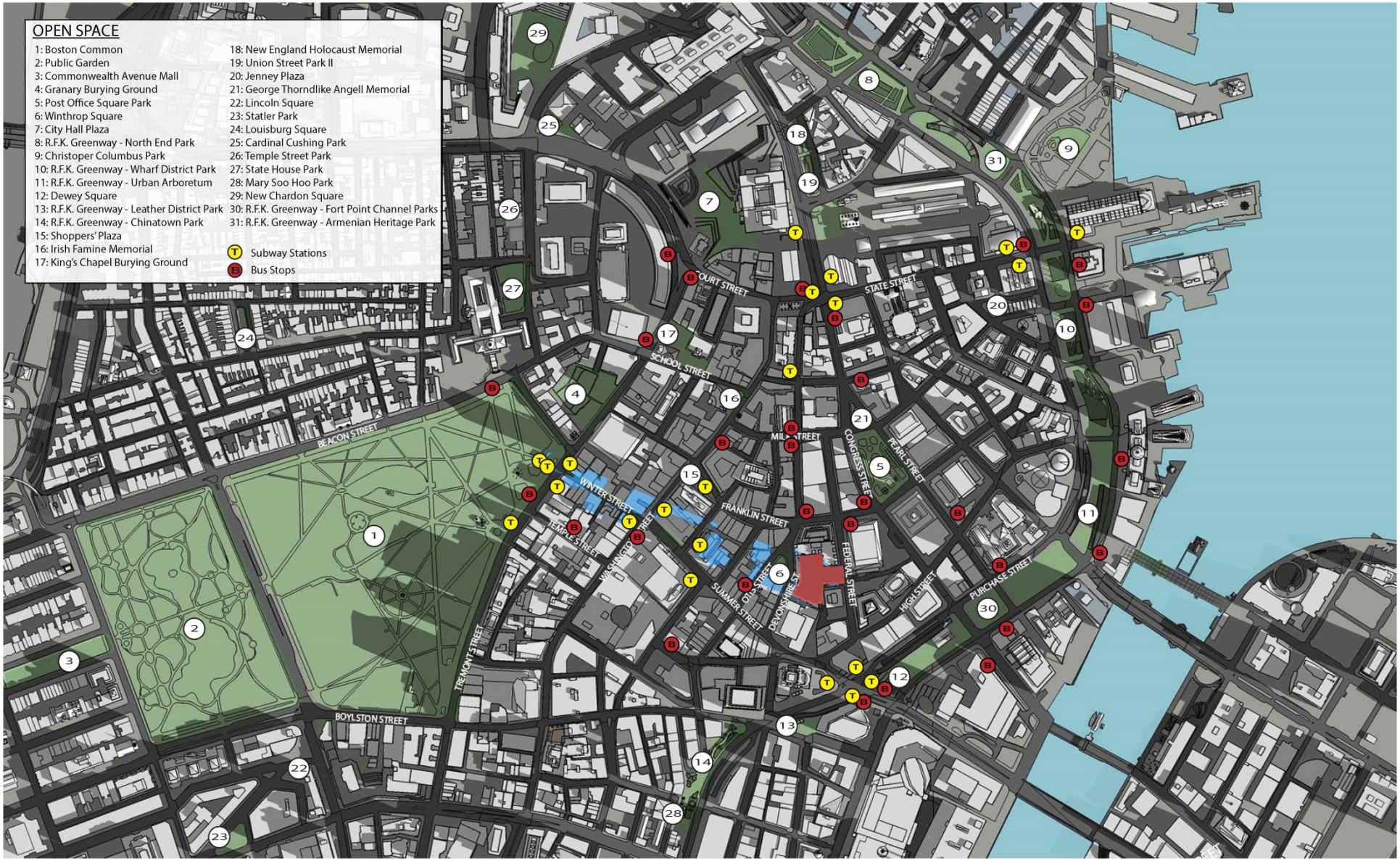


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Figure 5.2-2

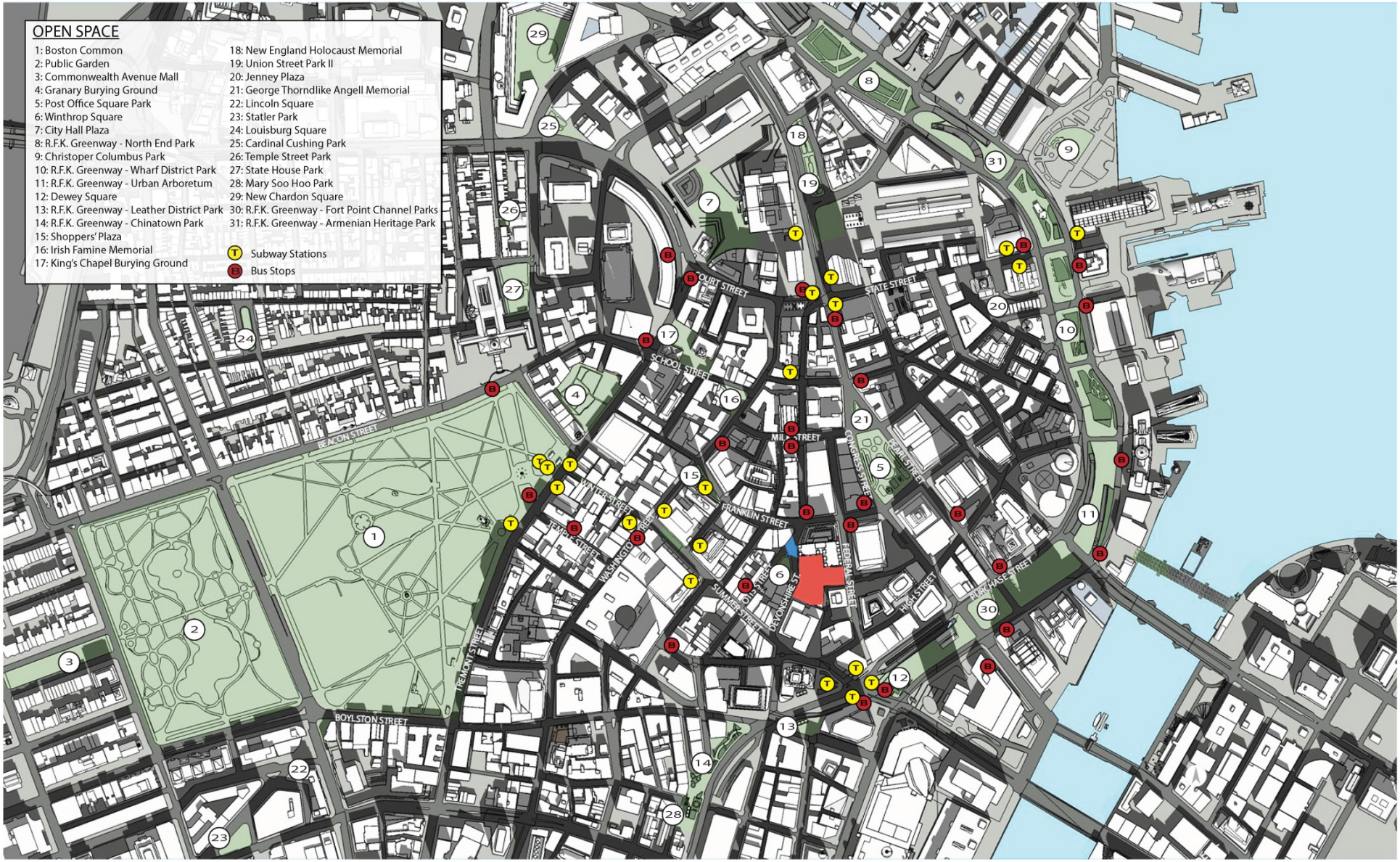
Shadow Study, March 21, 9 a.m. – Alternative Based on Previous Shadow Law



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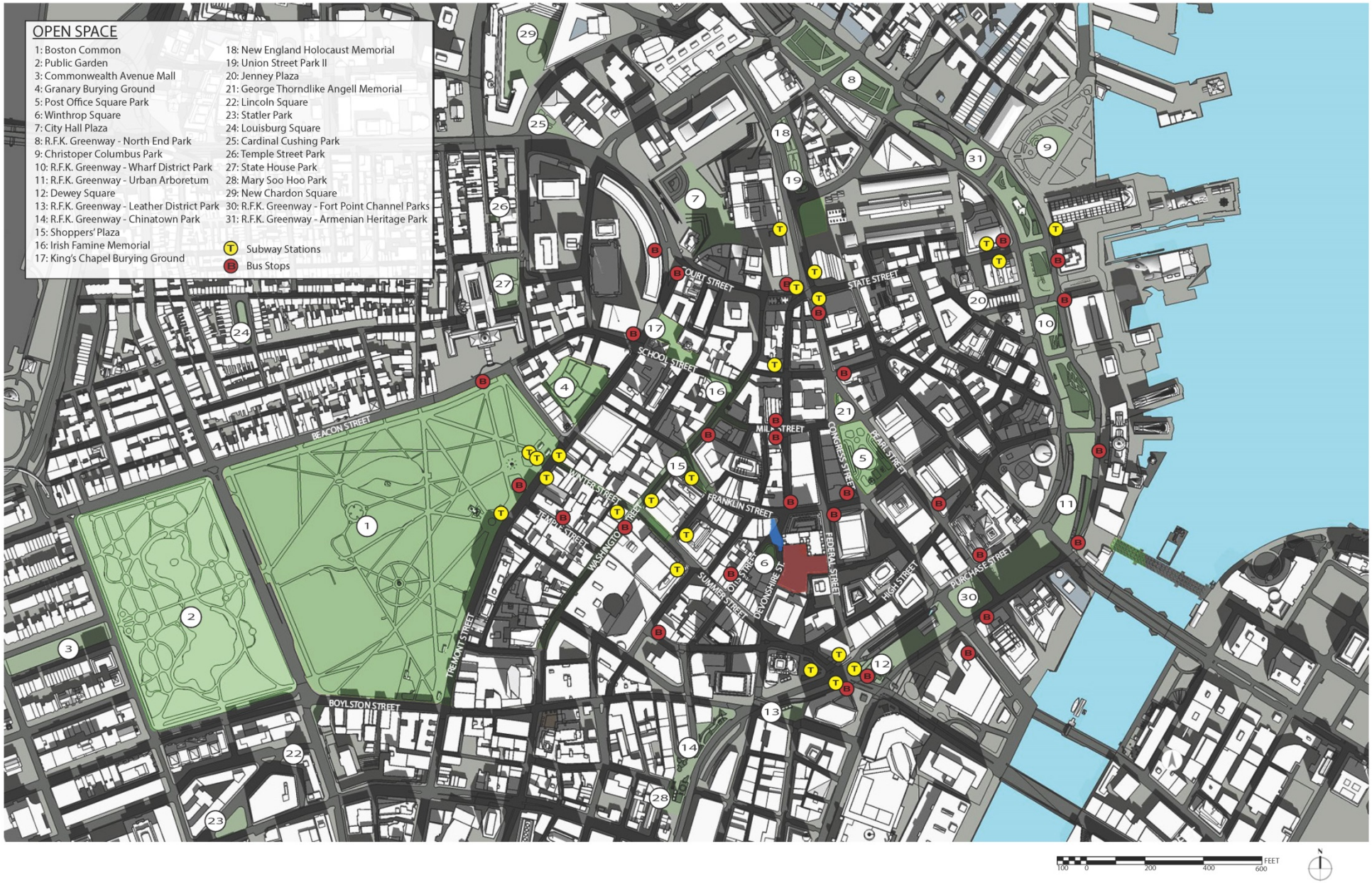
Figure 5.2-3
Shadow Study, March 21, 9 a.m. – Proposed Project



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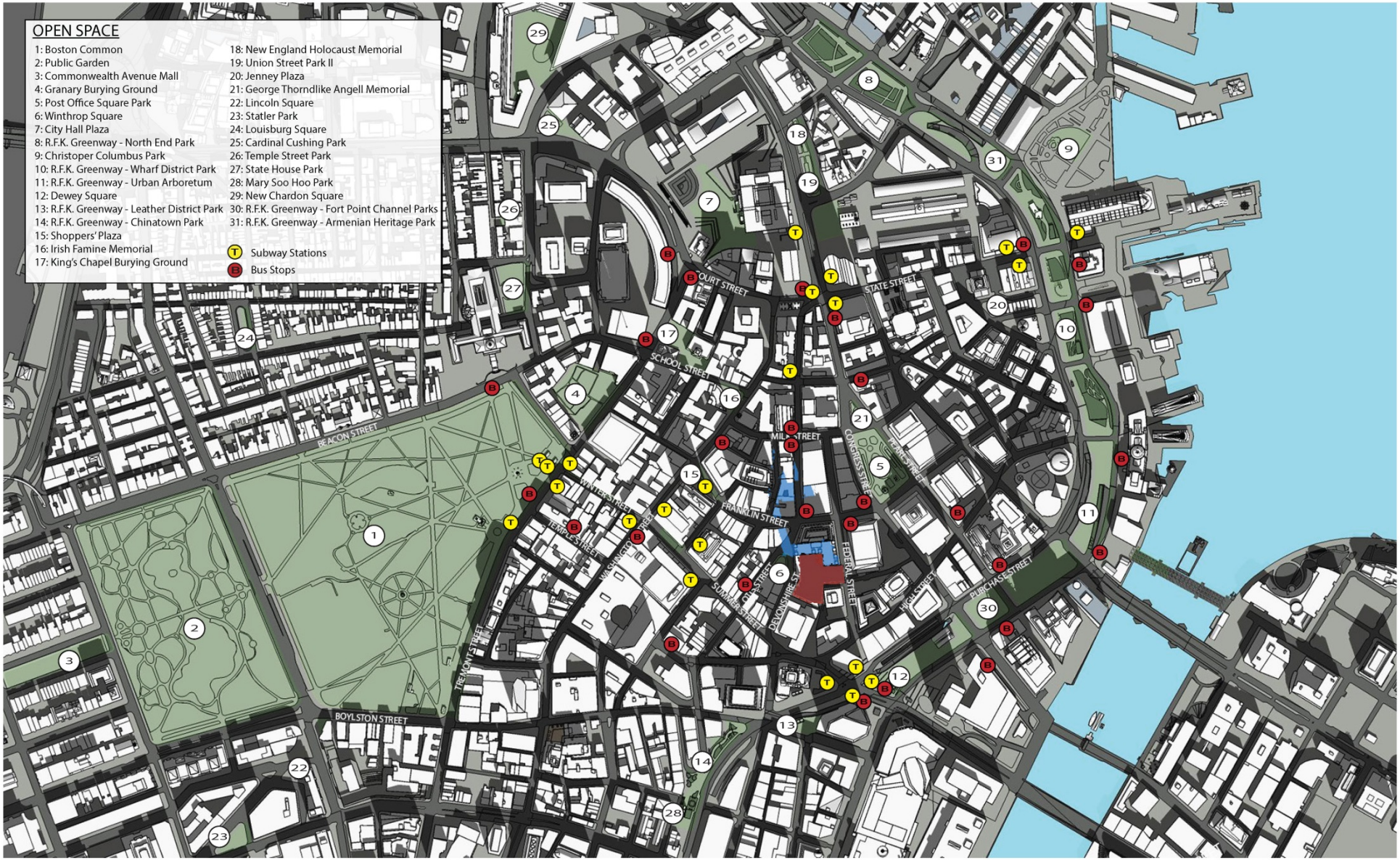
Figure 5.2-4
Shadow Study, March 21, 12 p.m. – As-of-Right



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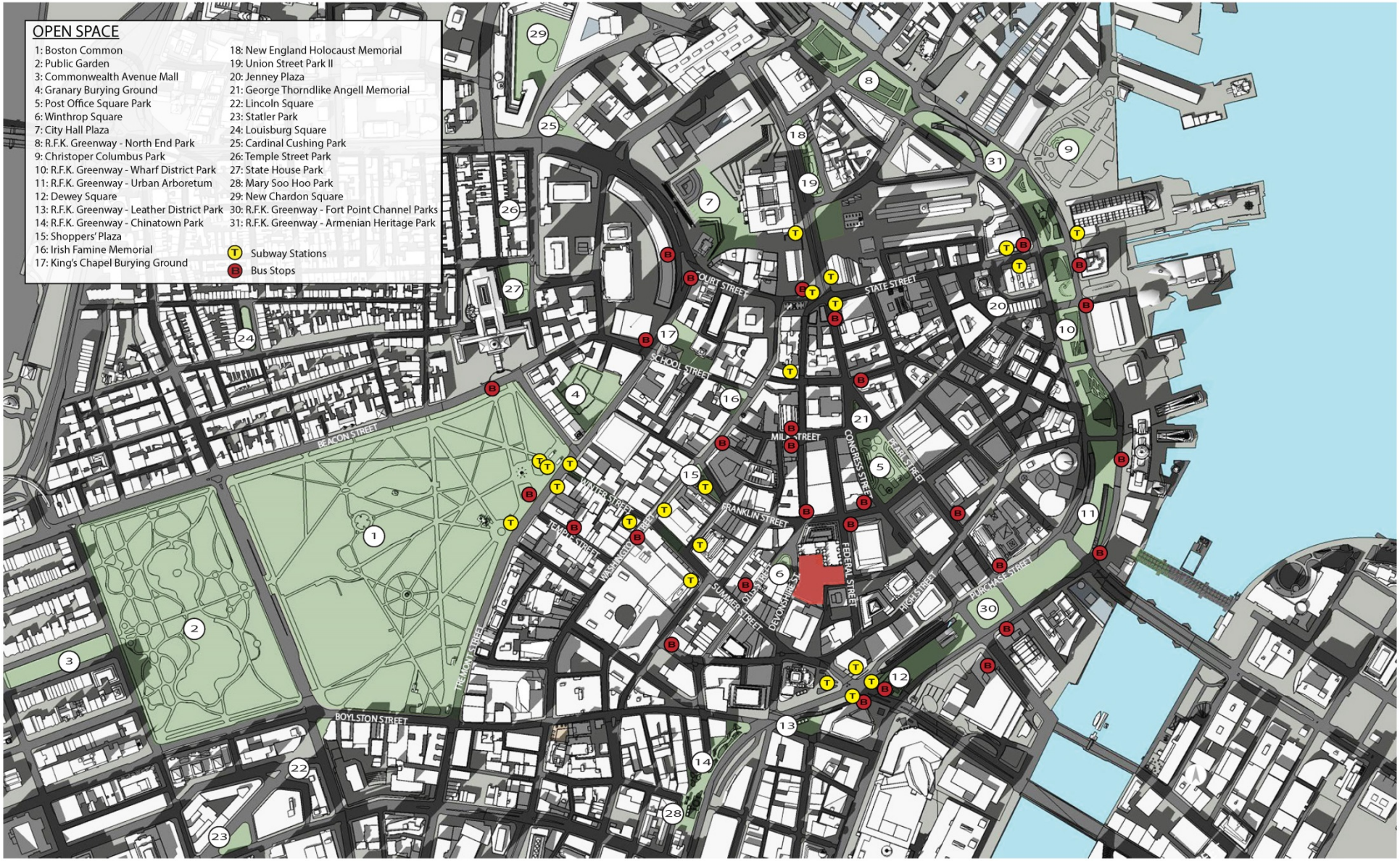
Figure 5.2-5
Shadow Study, March 21, 12 p.m. – Alternative Based on Previous Shadow Law



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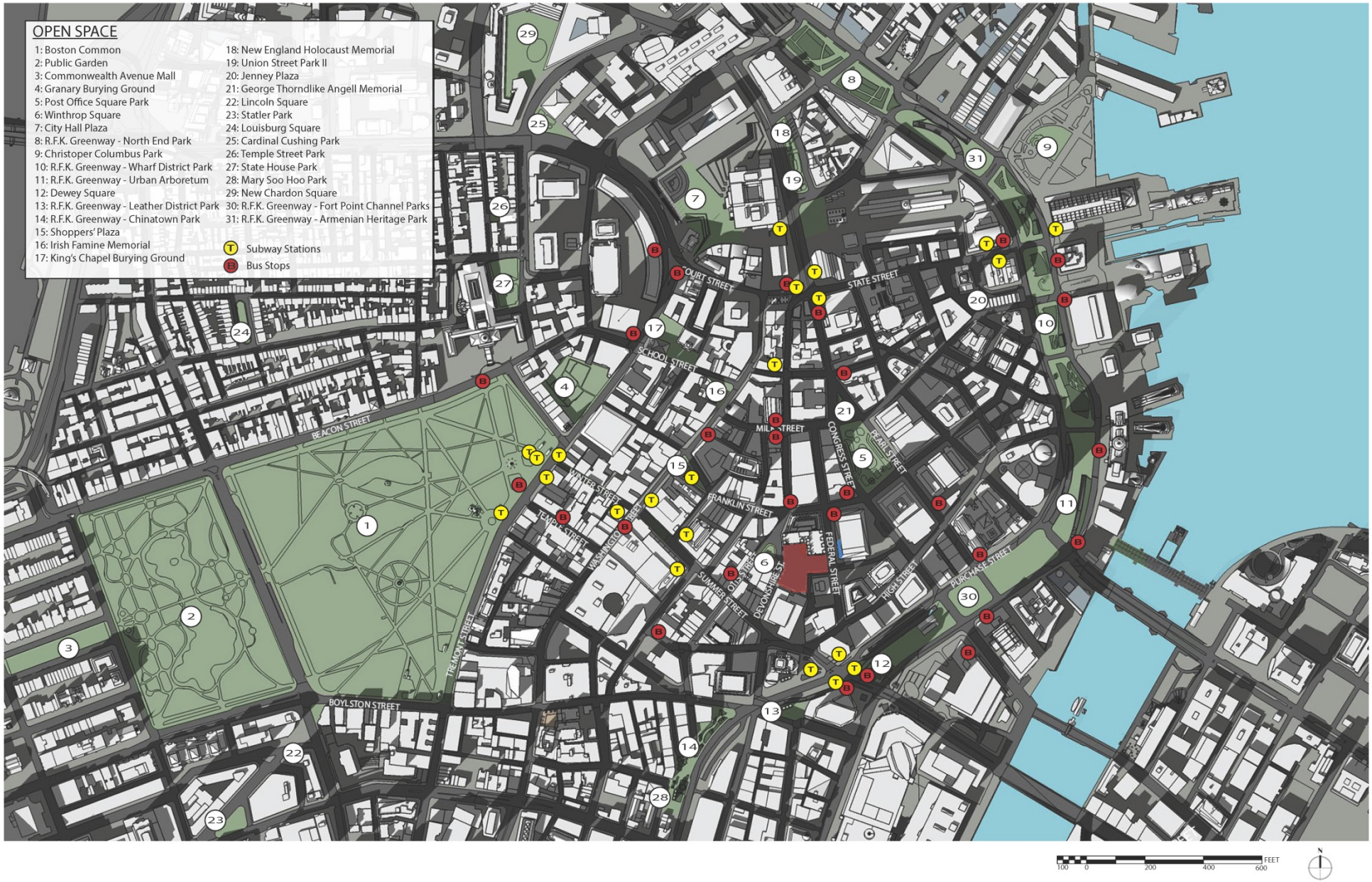
Figure 5.2-6
Shadow Study, March 21, 12 p.m. – Proposed Project



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Figure 5.2-7
Shadow Study, March 21, 3 p.m. – As-of-Right

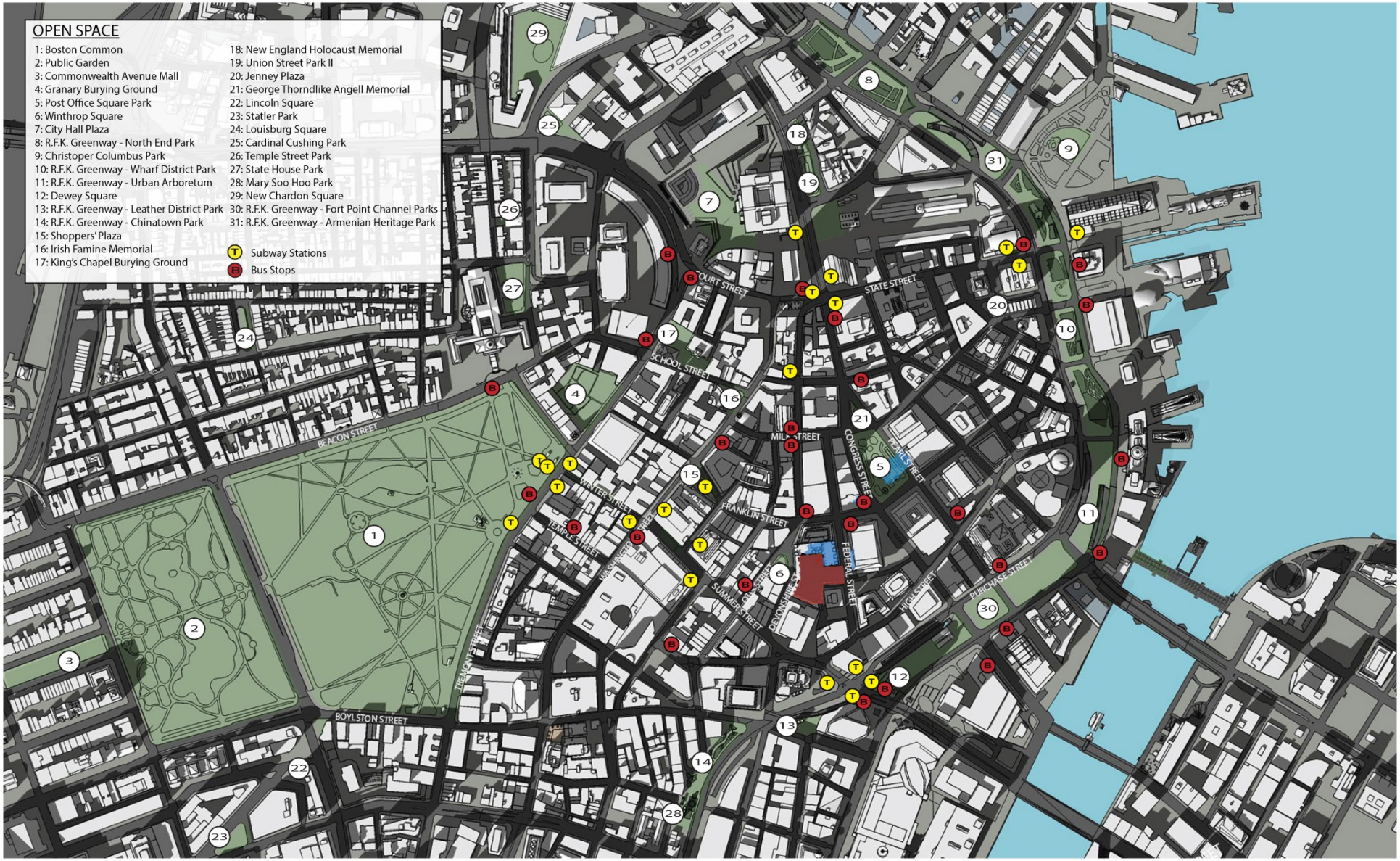


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Figure 5.2-8

Shadow Study, March 21, 3 p.m. – Alternative Based on Previous Shadow Law



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Figure 5.2-9
Shadow Study, March 21, 3 p.m. – Proposed Project

5.2.4 Summer Solstice (June 21)

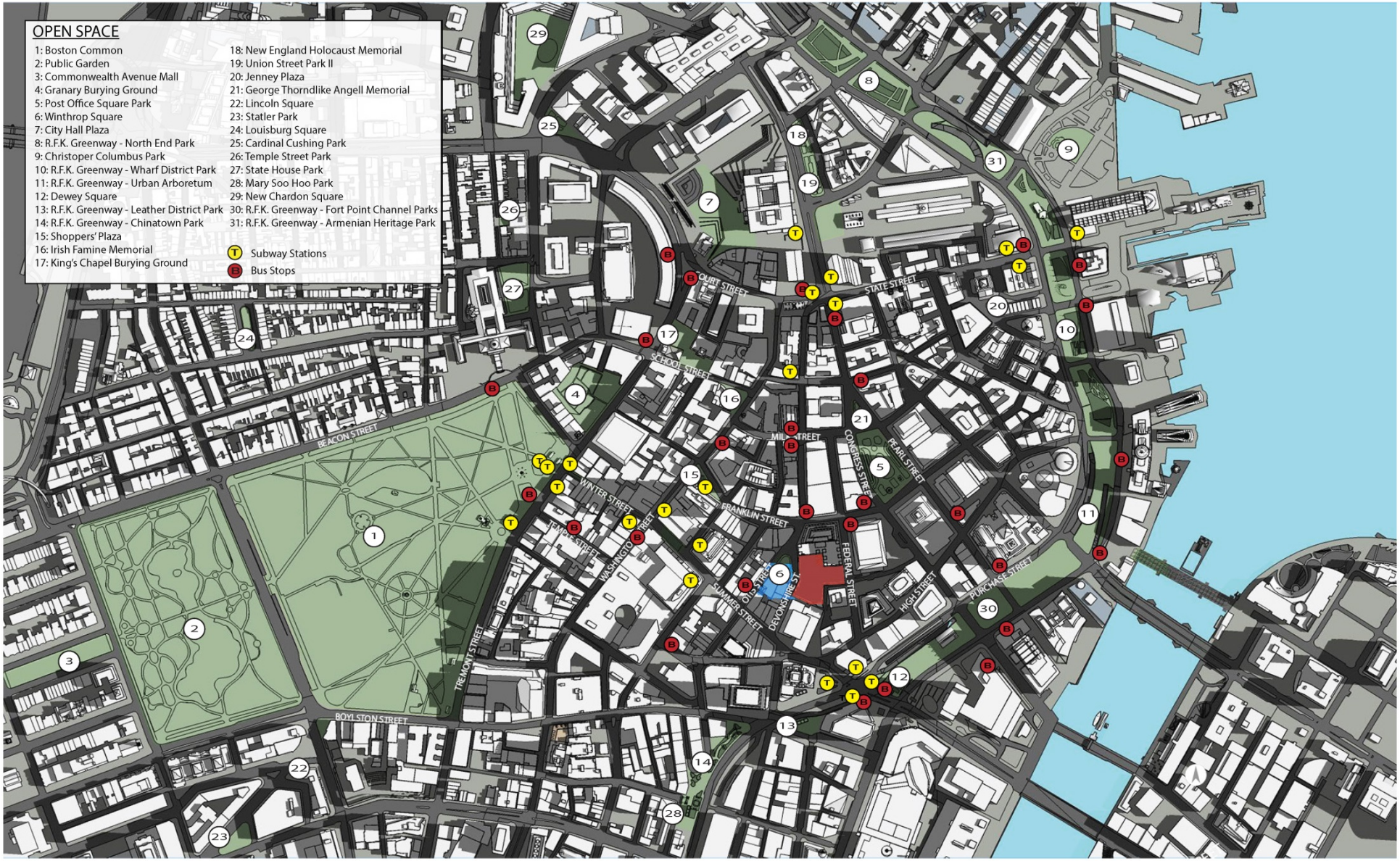
New shadow created during the summer solstice is illustrated in Figures 5.2-10 through 5.2-21.

At 9:00 a.m. during the summer solstice, new shadow from the as-of right, the 340' alternative and the Project will be cast to the west. New shadow from the as-of-right alternative, 340' alternative and Project will be cast onto a small portion of Devonshire Street and its western sidewalk, a portion of Otis Street and its sidewalks, and onto Winthrop Square. New shadow will be cast onto the bus stop on Otis Street north of Summer Street by the 340' alternative and the Project, and new shadow from the Project will be cast onto the transit entrance on the western corner of the Summer Street/Arch Street/Chauncy Street intersection. New shadow from the 340' alternative and the Project will also be cast onto a small portion of Summer Street and its southern sidewalk, and the western sidewalk of Arch Street. In addition, new shadow from the Project will be cast onto the intersection of Summer Street/Arch Street/Chauncy Street, as well as the surrounding sidewalks.

At 12:00 noon, new shadow from the as-of-right alternative, the 340' alternative and the Project will be cast to the north. No new shadow will be cast onto nearby bus stops or transit entrances by the Project or the two alternatives studied. New shadow from the as-of-right alternative, 340' alternative and the Project will be cast onto Devonshire Street and its sidewalks and a small portion of Winthrop Square. The 340' alternative and the Project will each cast additional shadow onto Otis Street and its sidewalks. In addition, the Project will cast shadow onto a small portion of Franklin Street and its northern sidewalk.

At 3:00 pm, new shadow from the as-of-right alternative, the 340' alternative and the Project will be cast to the northeast. No new shadow will be cast onto nearby bus stops, transit entrances or public open space by the Project or the two alternatives studied. New shadow from the as-of-right alternative, 340' alternative and the Project will be cast onto Federal and Matthews streets and their sidewalks—the 340' alternative and the Project will each cast additional new shadow on Matthews Street and its sidewalk. New shadow from the Project will also be cast onto a small portion of Congress Street.

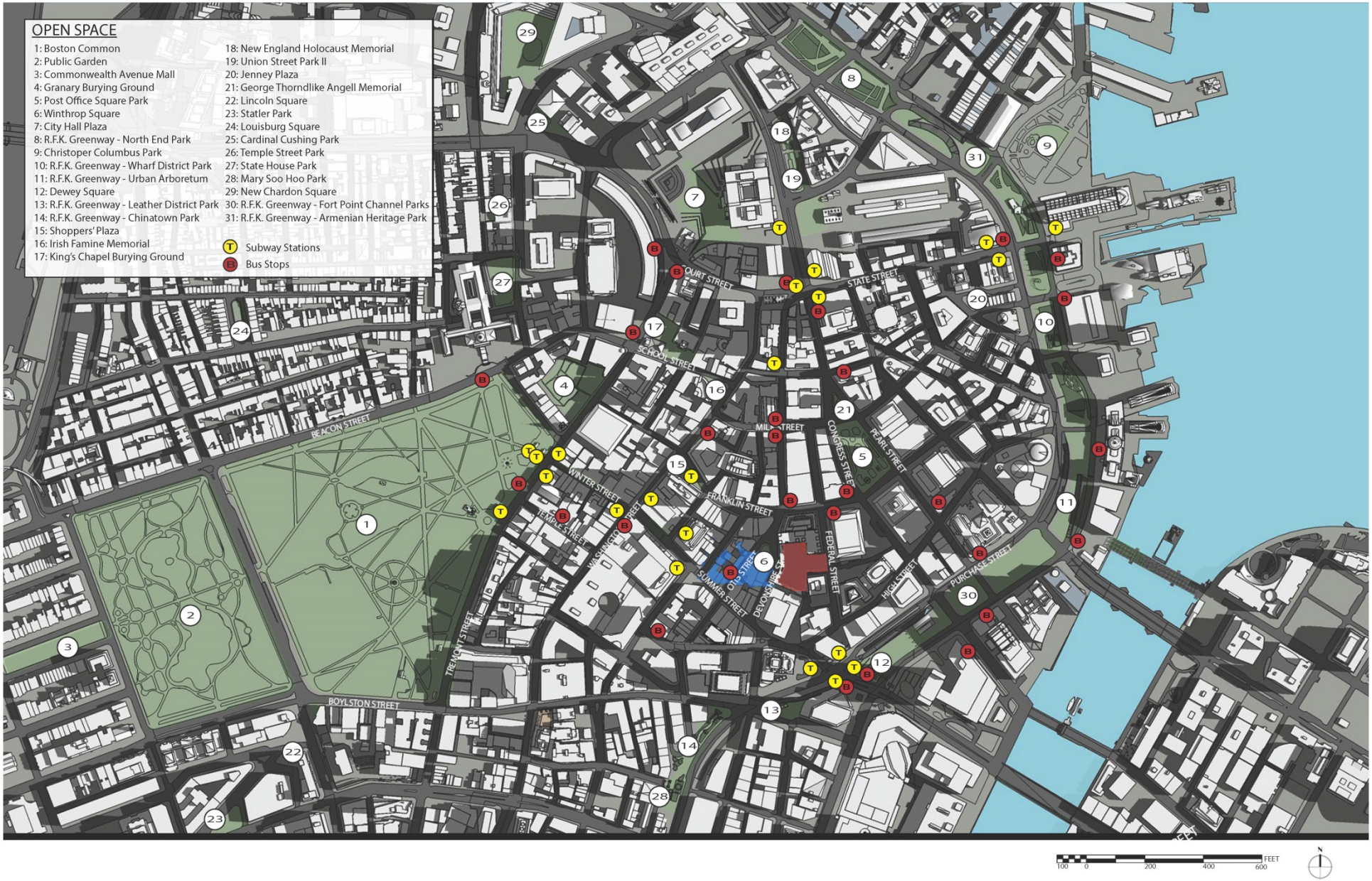
At 6:00 pm, new shadow from the as-of-right alternative, 340' alternative and the Project will be cast to the southeast. No new shadow will be cast onto nearby bus stops, transit entrances or public open space by the Project or the two alternatives studied. New shadow from the 340' alternative and from the Project will be cast onto Federal and Matthews streets and their sidewalks. New shadow from the Project will also be cast onto a small portion of Atlantic Avenue's eastern sidewalk.



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Figure 5.2-10
Shadow Study, June 21, 9 a.m. – As-of-Right

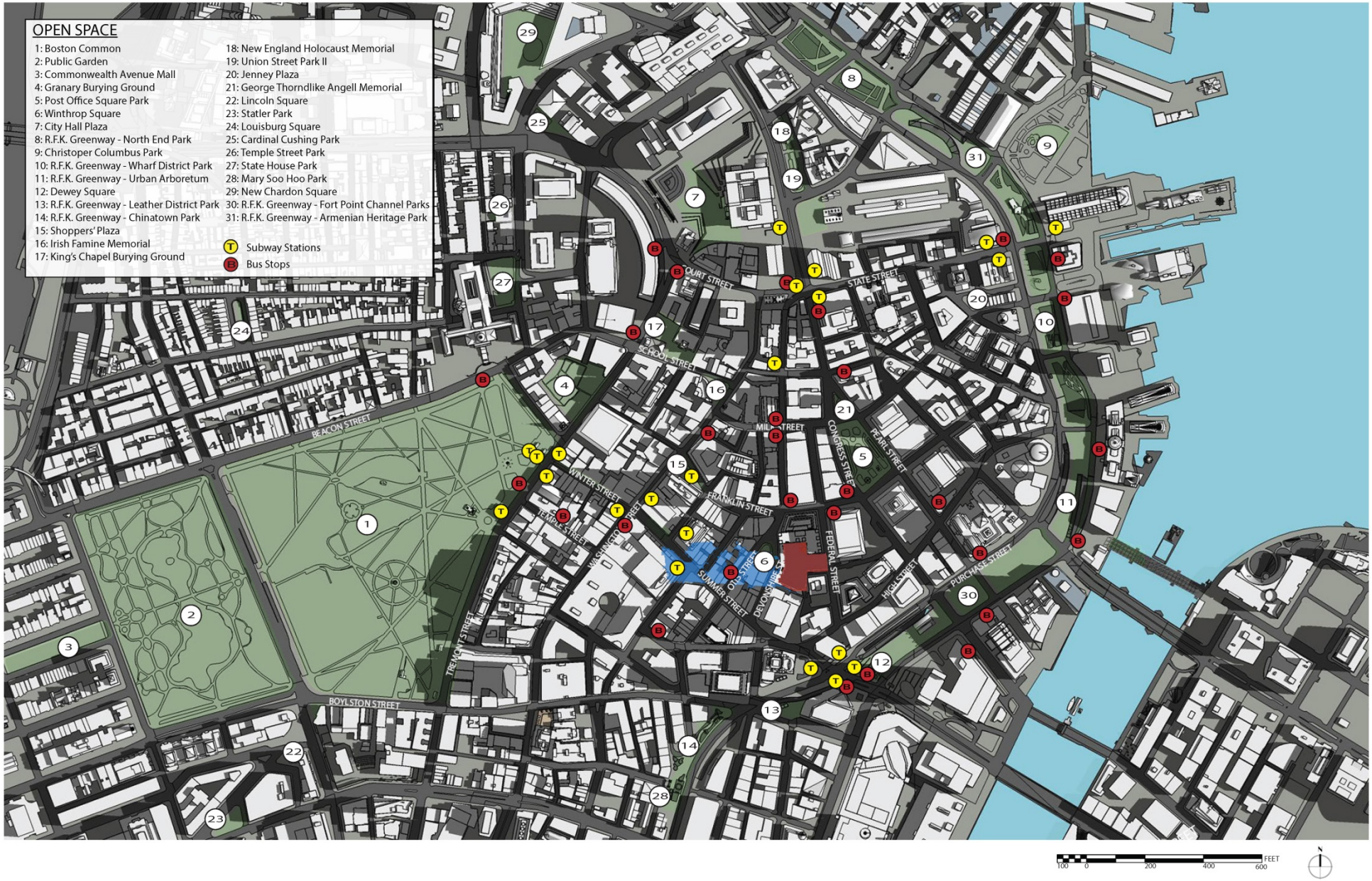


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Figure 5.2-11

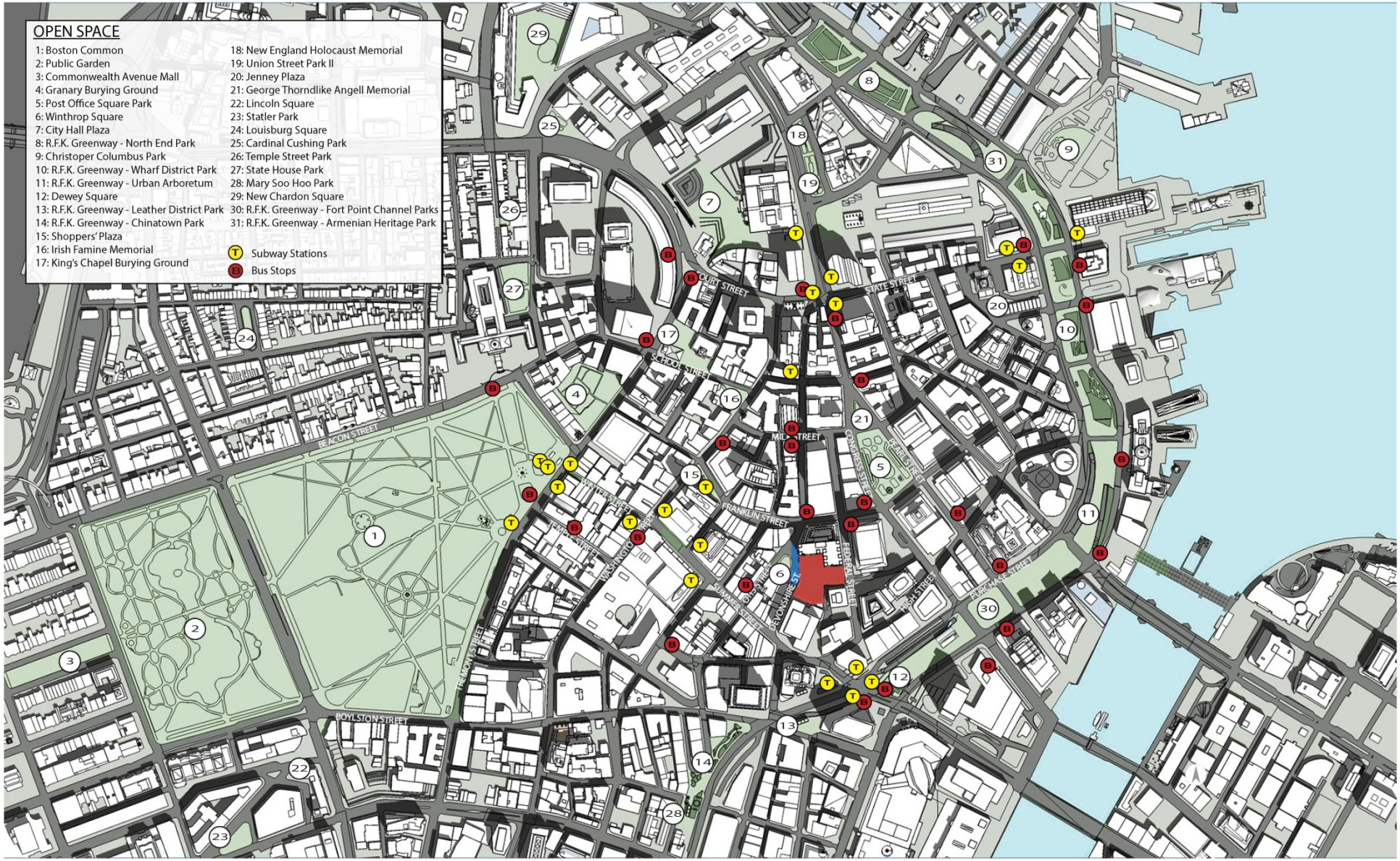
Shadow Study, June 21, 9 a.m. – Alternative Based on Previous Shadow Law



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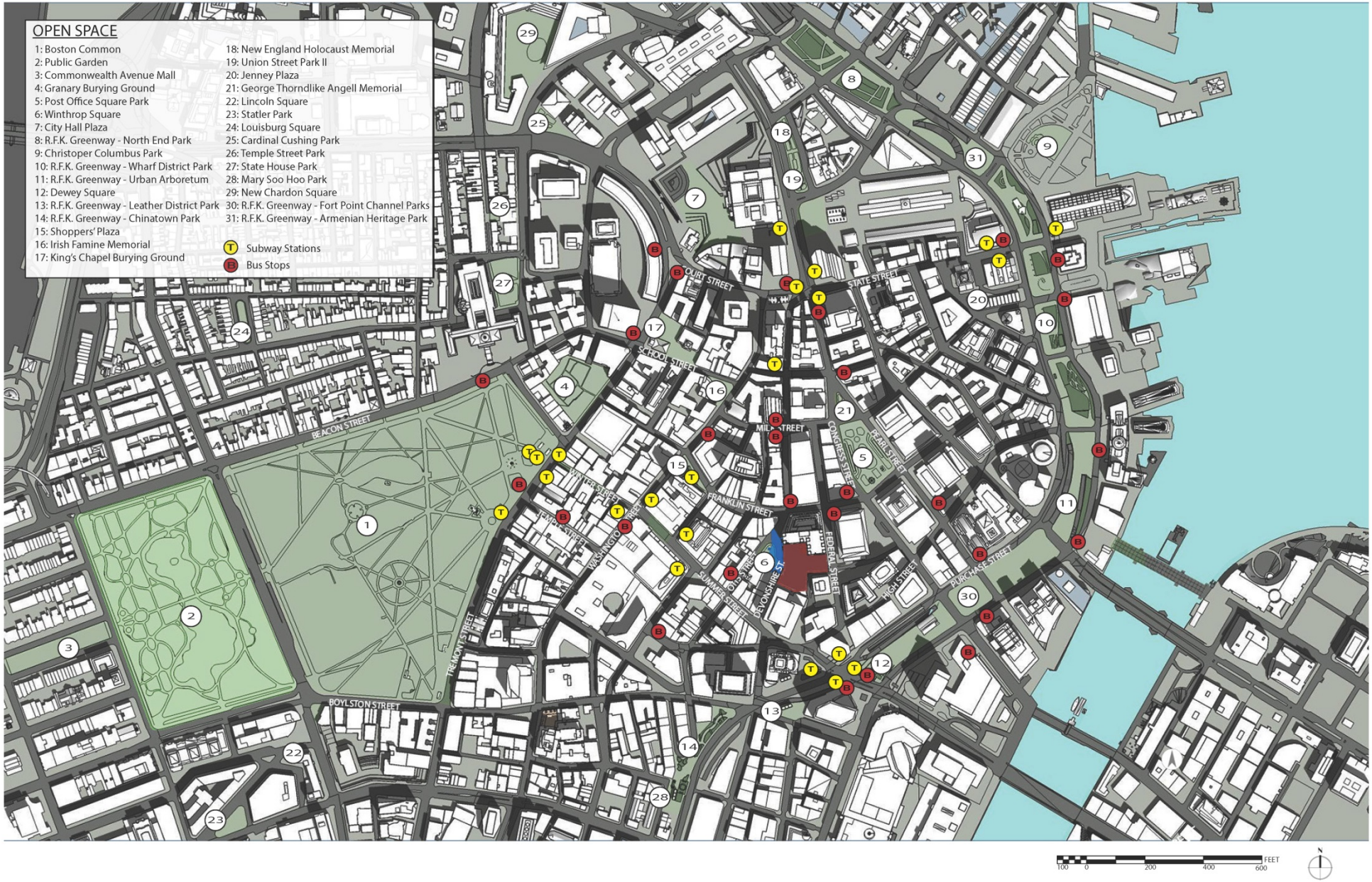
Figure 5.2-12
Shadow Study, June 21, 9 a.m. – Proposed Project



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Figure 5.2-13
Shadow Study, June 21, 12 p.m. – As-of-Right

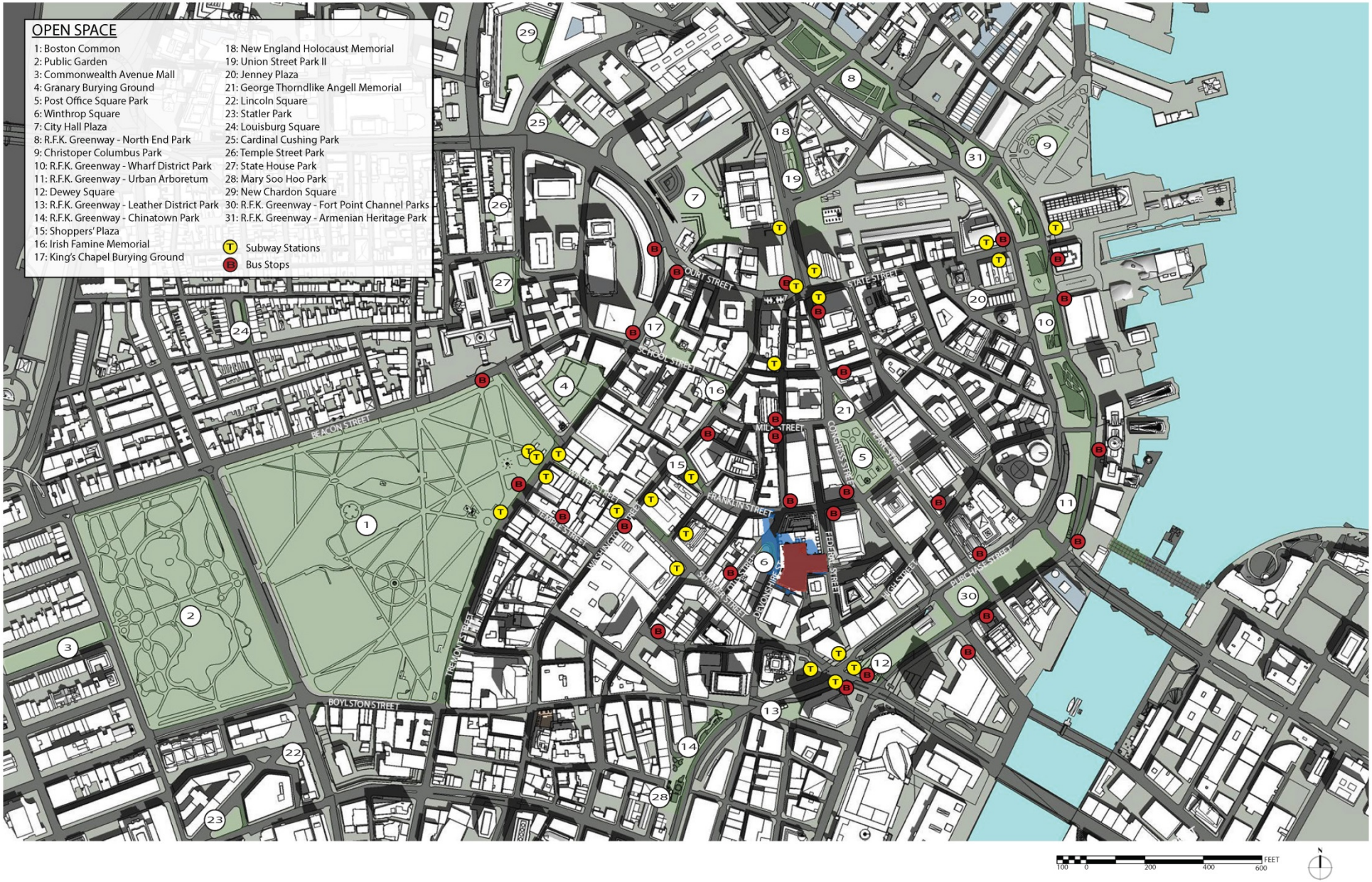


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Figure 5.2-14

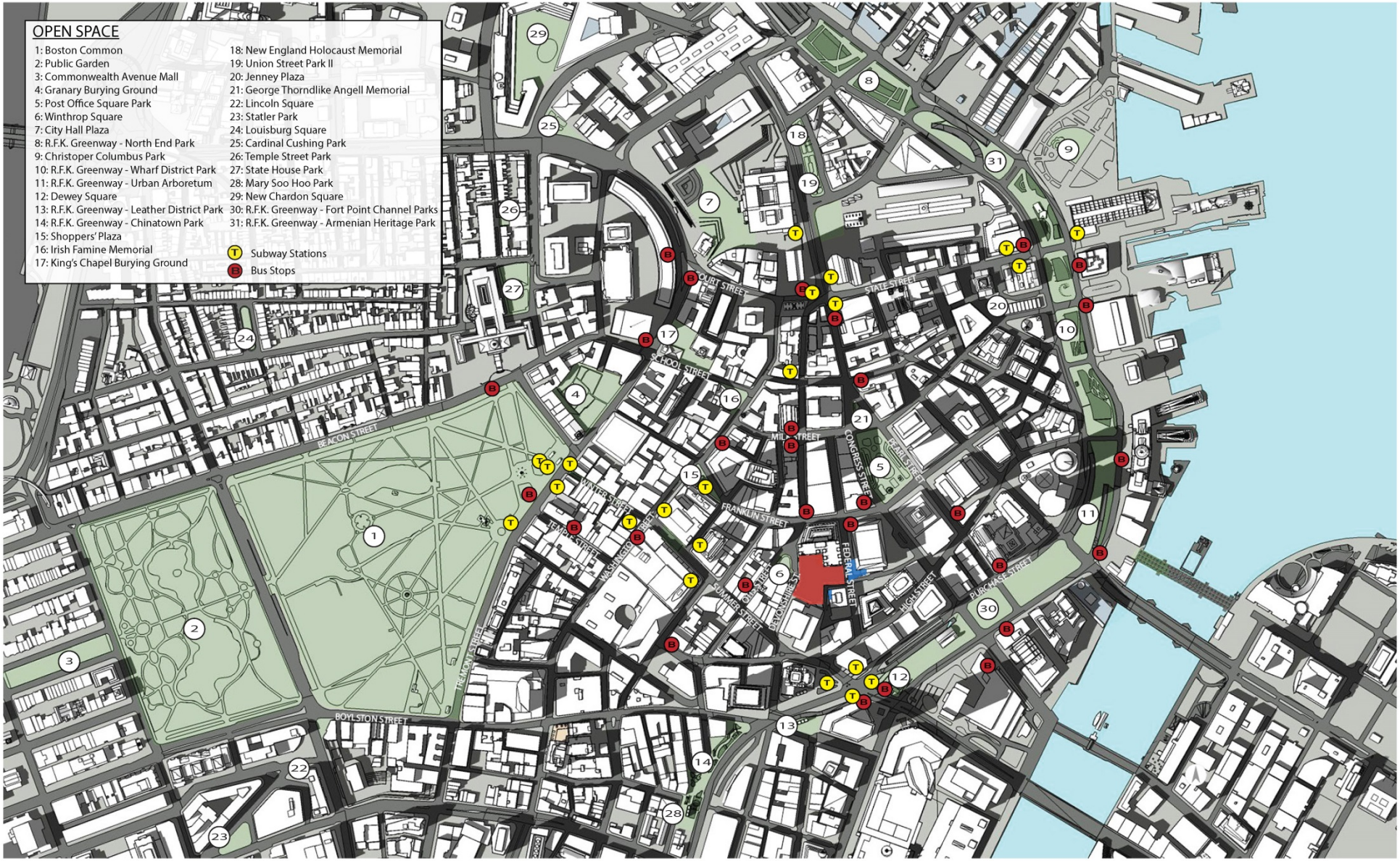
Shadow Study, June 21, 12 p.m. – Alternative Based on Previous Shadow Law



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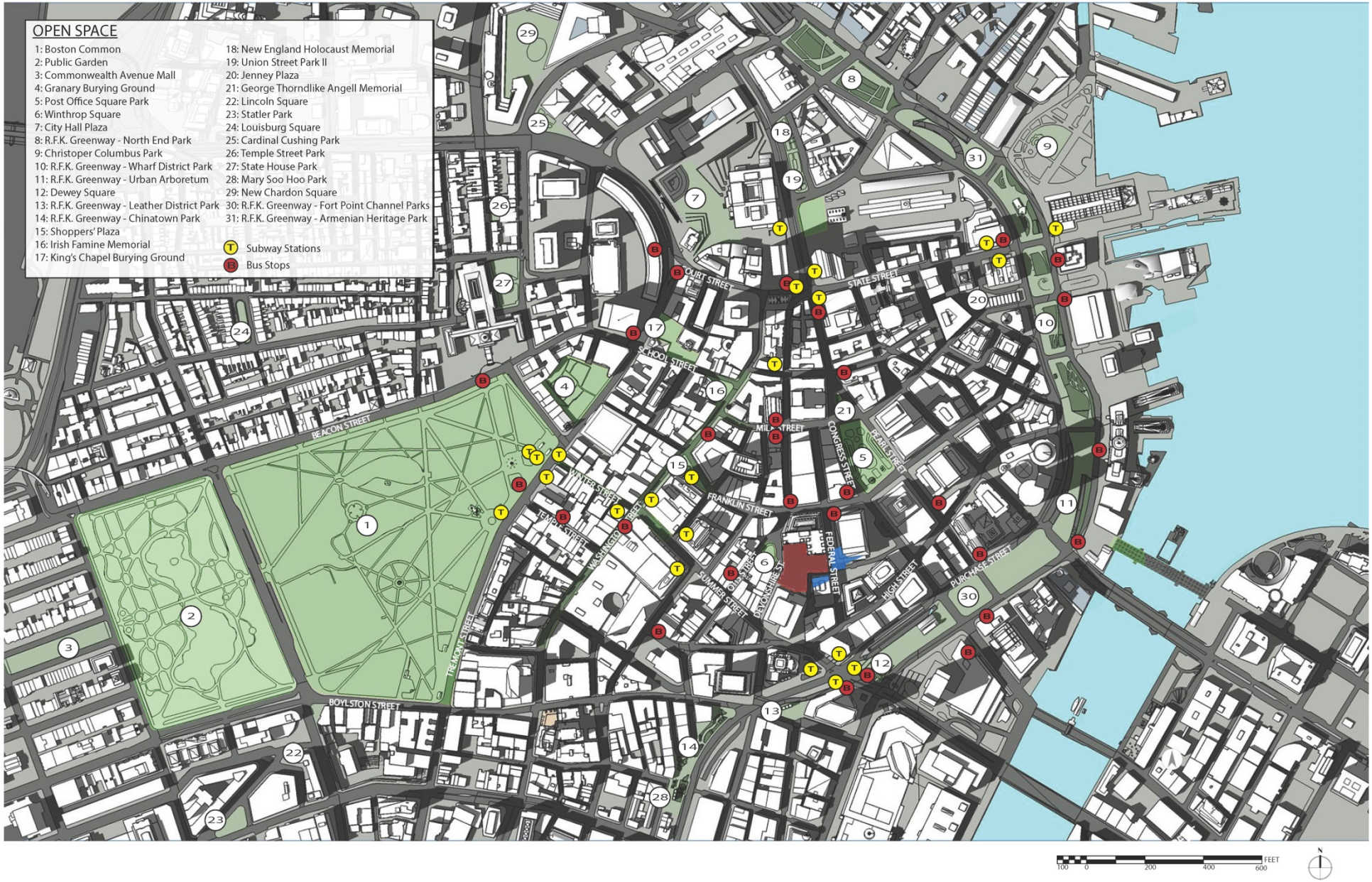
Figure 5.2-15
Shadow Study, June 21, 12 p.m. – Proposed Project



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Figure 5.2-16
Shadow Study, June 21, 3 p.m. – As-of-Right

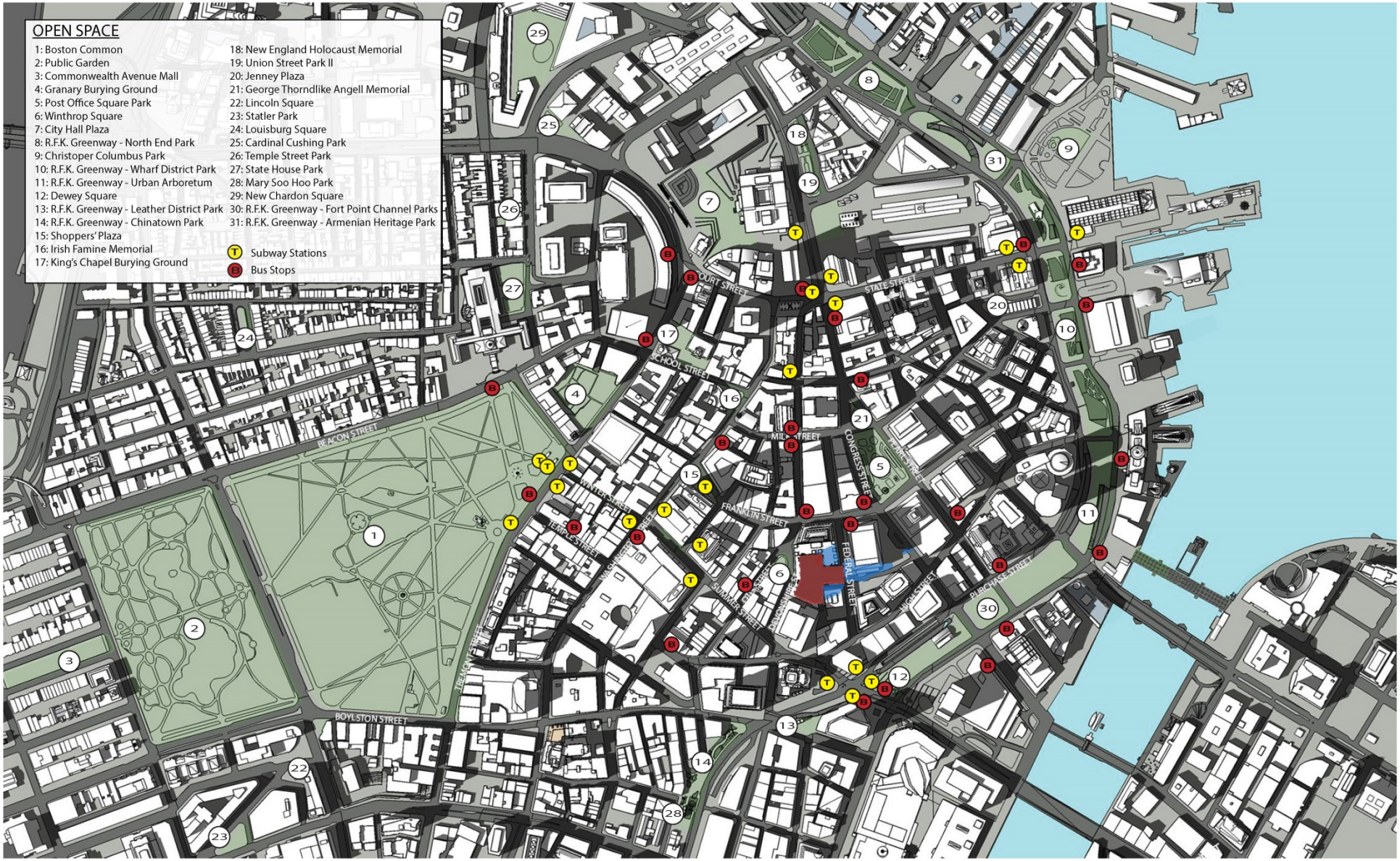


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Figure 5.2-17

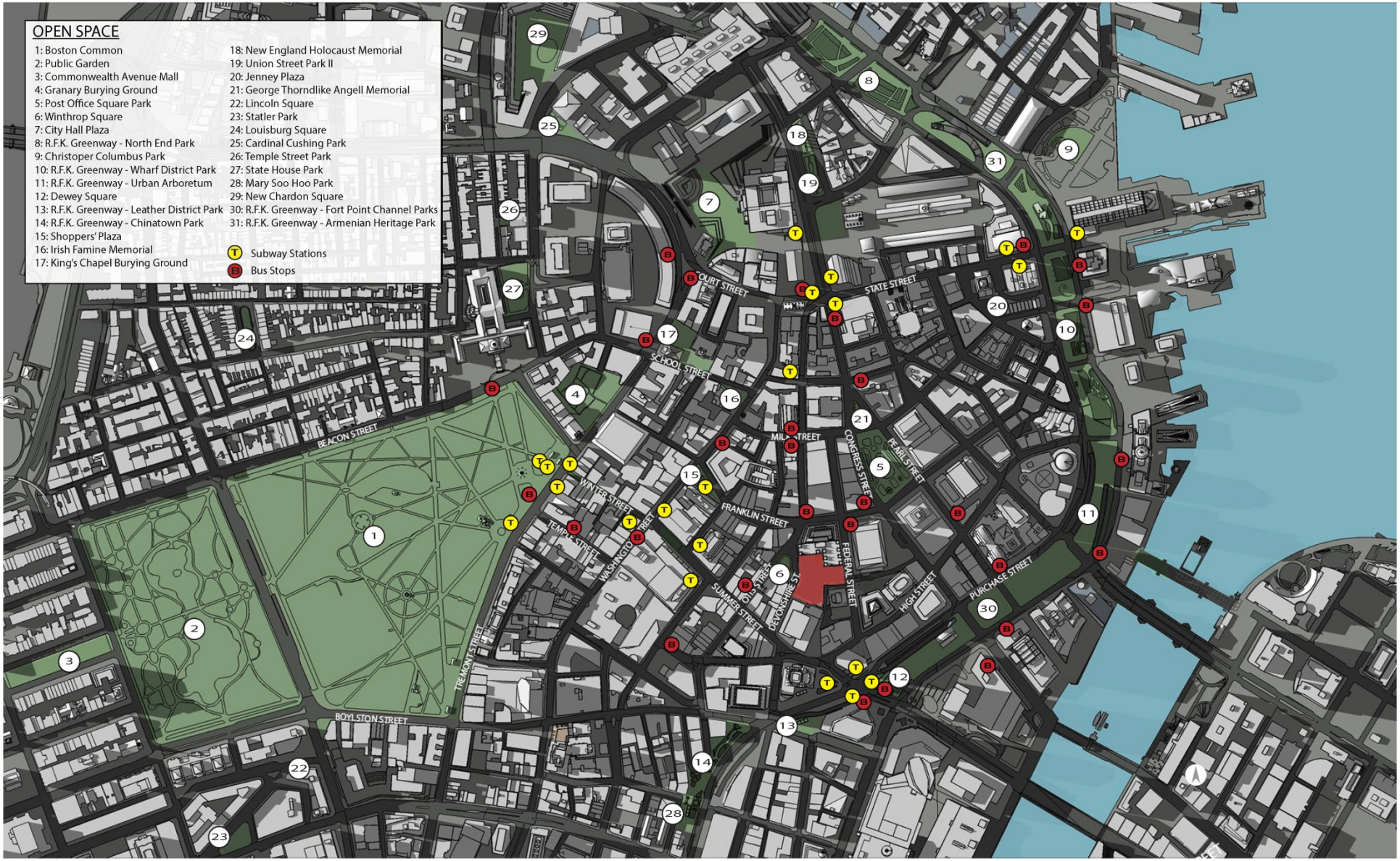
Shadow Study, June 21, 3 p.m. – Alternative Based on Previous Shadow Law



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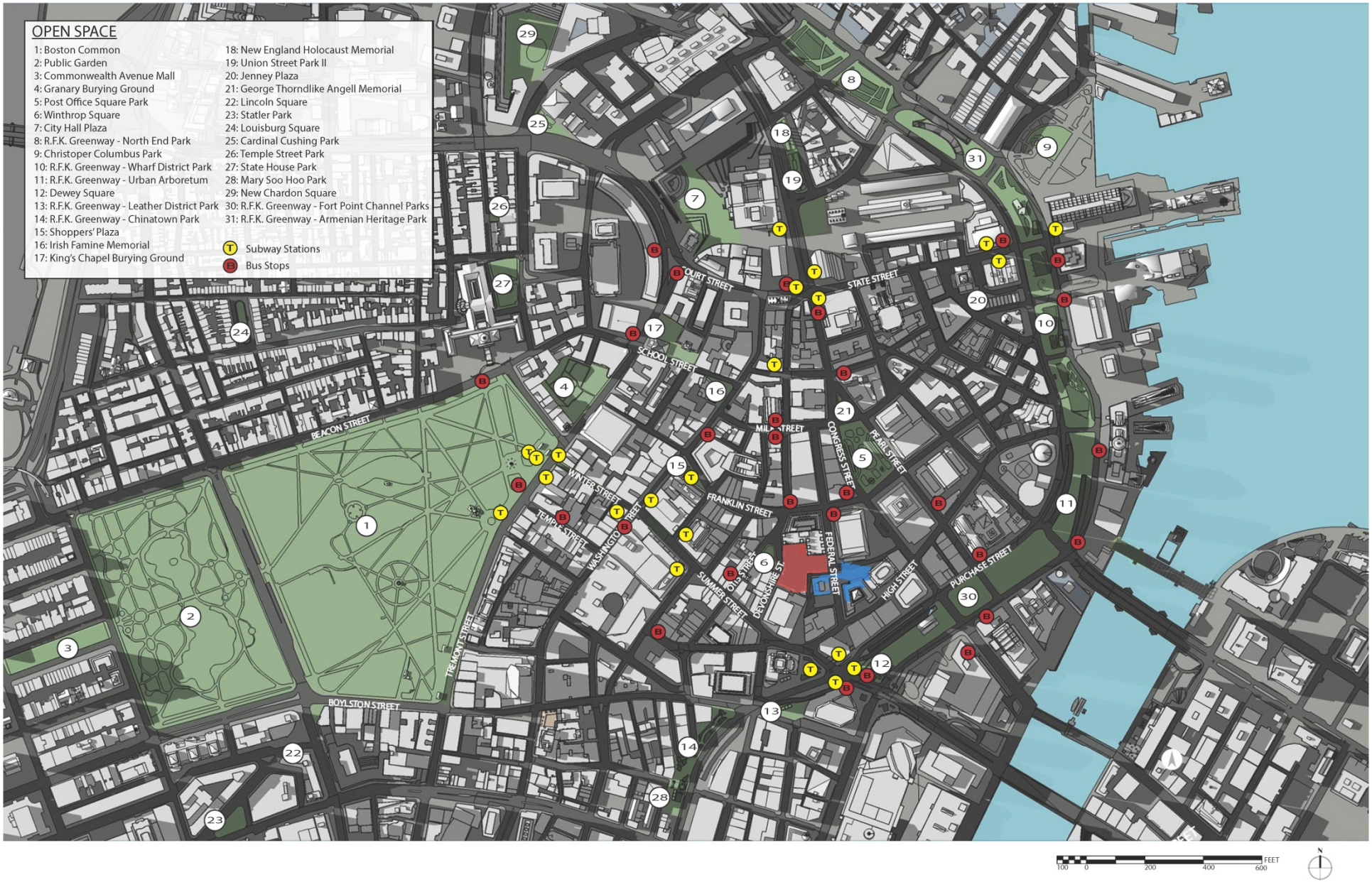
Figure 5.2-18
Shadow Study, June 21, 3 p.m. – Proposed Project



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Figure 5.2-19
Shadow Study, June 21, 6 p.m. – As-of-Right

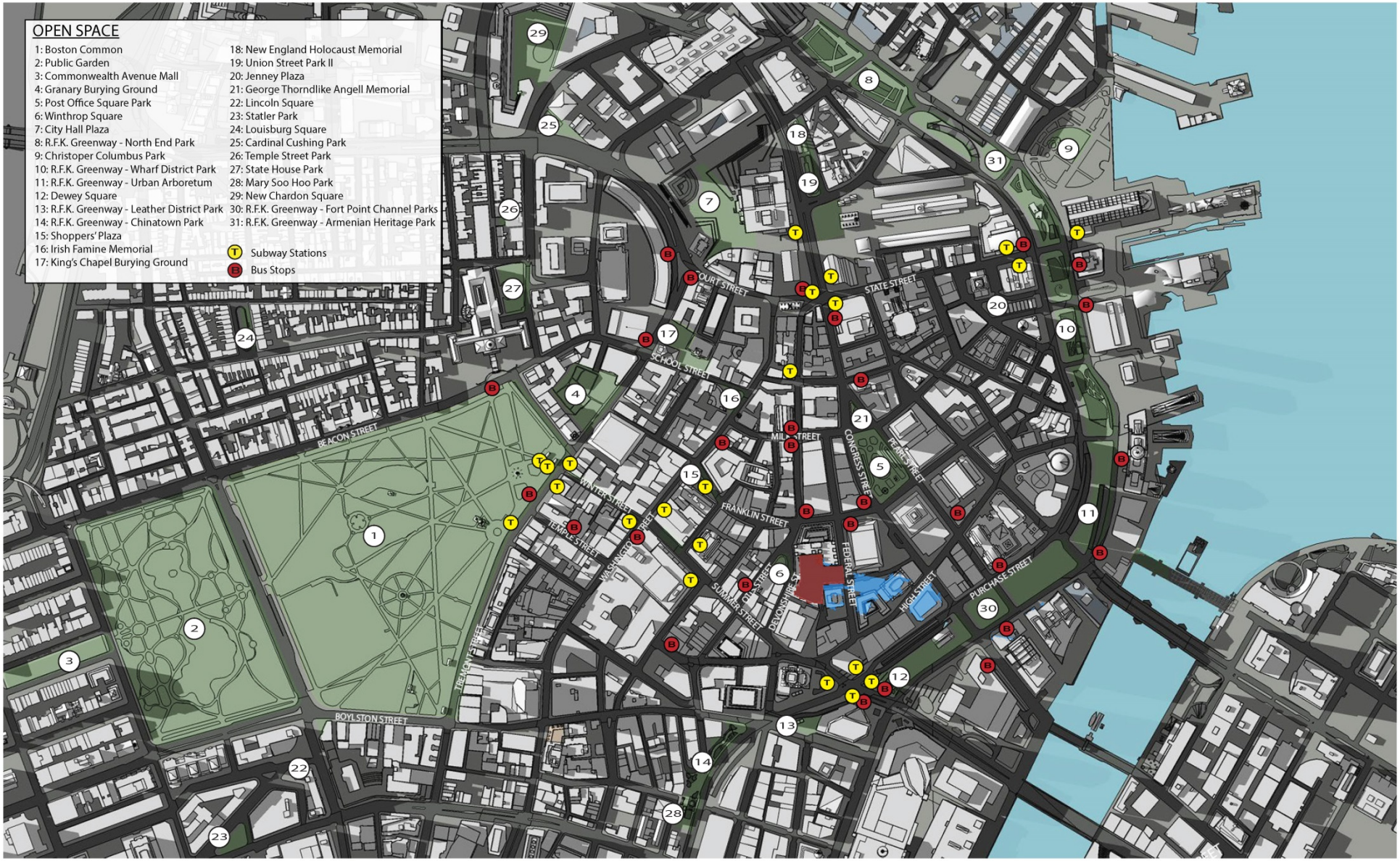


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Figure 5.2-20

Shadow Study, June 21, 6 p.m. – Alternative Based on Previous Shadow Law



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Figure 5.2-21
Shadow Study, June 21, 6 p.m. – Proposed Project

5.2.5 Autumnal Equinox (September 21)

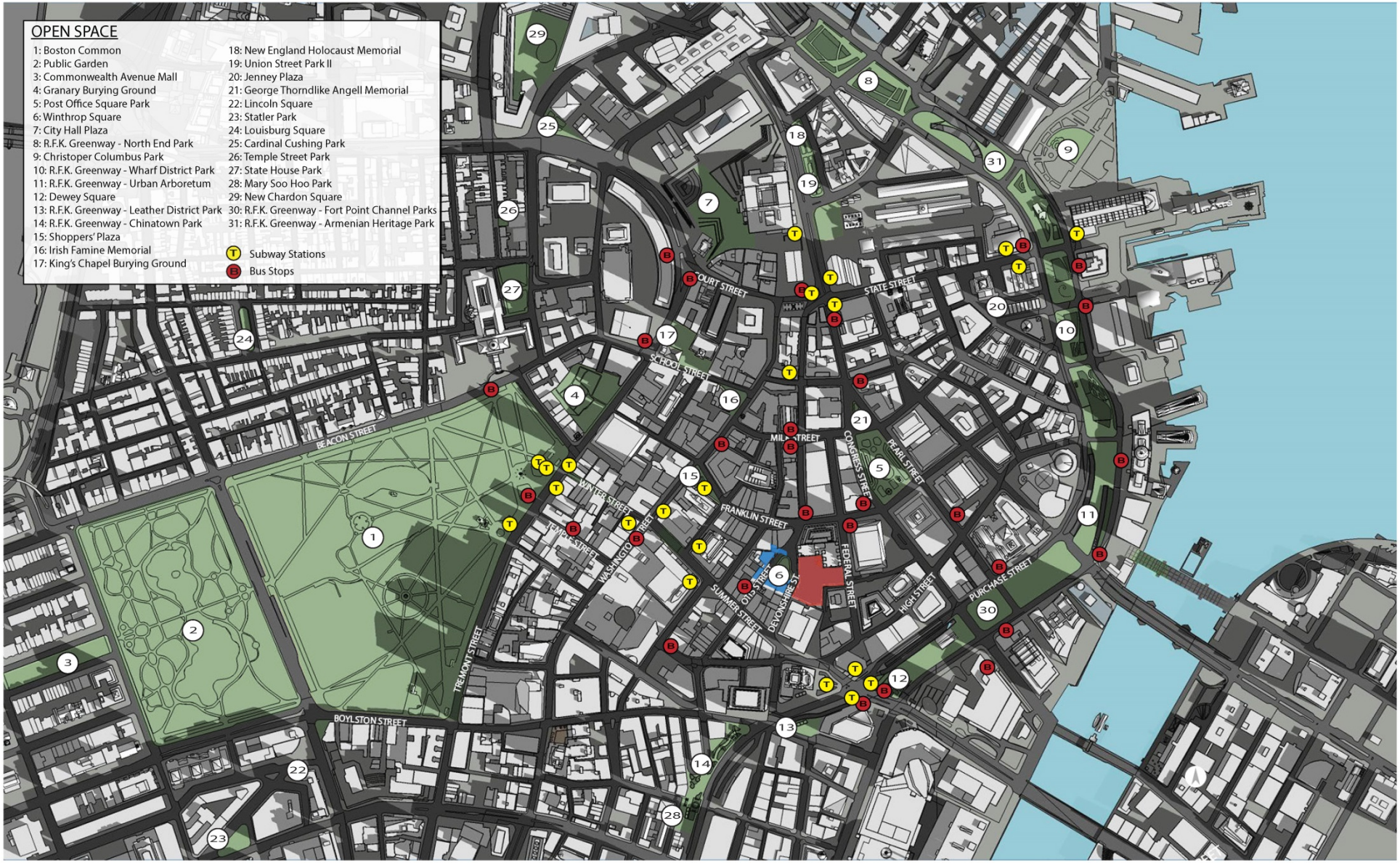
New shadow created during the autumnal equinox is illustrated in Figures 5.2-22 through 5.2-33.

At 9:00 am during the autumnal equinox, new shadow from the as-of-right alternative, the 340' alternative and the Project will be cast to the northwest. No new shadow will be cast onto nearby bus stops, transit entrances or public open space by the Project or the two alternatives studied. New shadow from the as-of-right alternative, the 340' alternative and the Project will be cast onto a small portion of Otis Street and its western sidewalk. New shadow from the 340' alternative and the Project will also be cast onto a small portion of Hawley Street and its western sidewalk. In addition, new shadow from the Project will be cast onto a portion of Winter Street and its sidewalks.

At 12:00 noon, new shadow from the as-of-right alternative, the 340' alternative and the Project will be cast to the north. No new shadow will be cast onto nearby bus stops, transit entrances or public open space by the Project or the two alternatives studied. New shadow from the as-of-right alternative, the 340' alternative and the Project will be cast onto Devonshire Street and its sidewalks, with the 340' alternative and the Project casting a small area of additional shadow on Devonshire Street and its sidewalk. New shadow from the Project will also be cast onto an additional area of Devonshire Street and its western sidewalk north of Franklin Street, and a portion of Arch Street and its sidewalks.

At 3:00 pm, new shadow from the as-of-right alternative, the 340' alternative and the Project will be cast to the northeast. No new shadow will be cast onto nearby bus stops or transit entrances by the Project and the two alternatives studied. The Project will cast new shadow onto the southeastern portion of Post Office Square, and onto Pearl Street and its sidewalks.

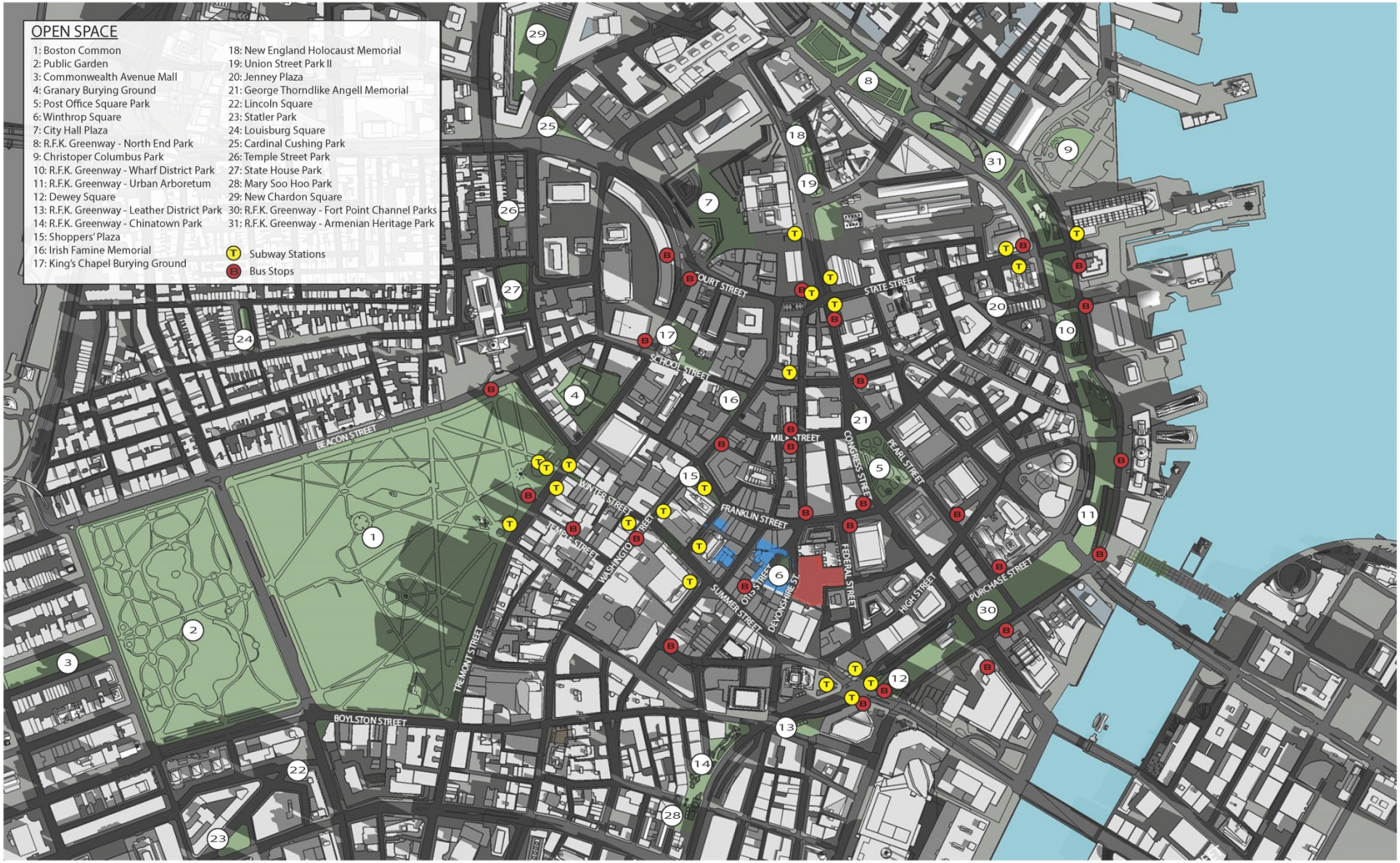
At 6:00 pm, most of the area is under existing shadow. No new shadow will be cast onto nearby open spaces, bus stops, transit entrances, streets, or sidewalks by the Project and the two alternatives studied.



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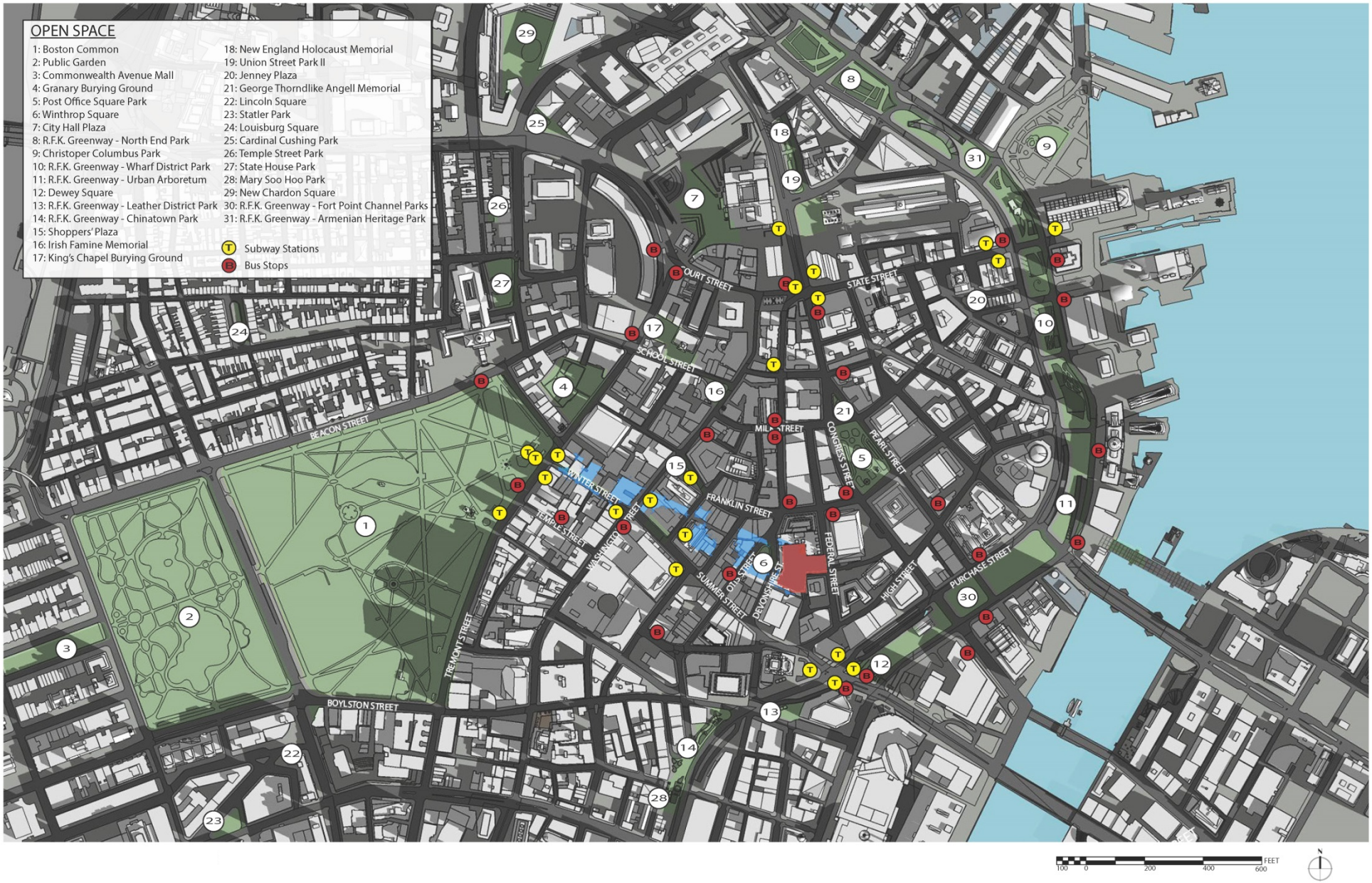
Figure 5.2-22
Shadow Study, September 21, 9 a.m. – As-of-Right



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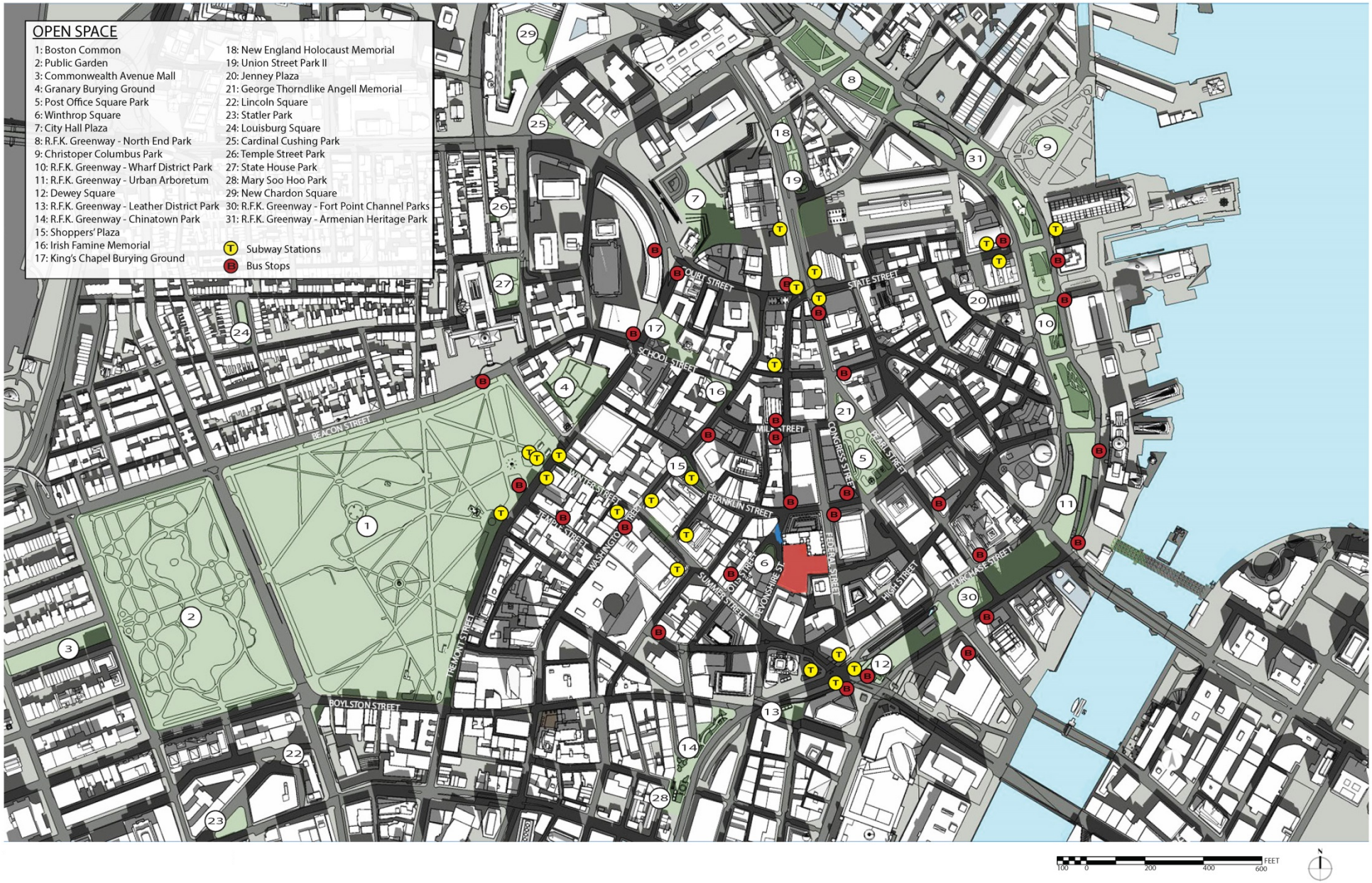
Figure 5.2-23
Shadow Study, September 21, 9 a.m. – Alternative Based on Previous Shadow Law



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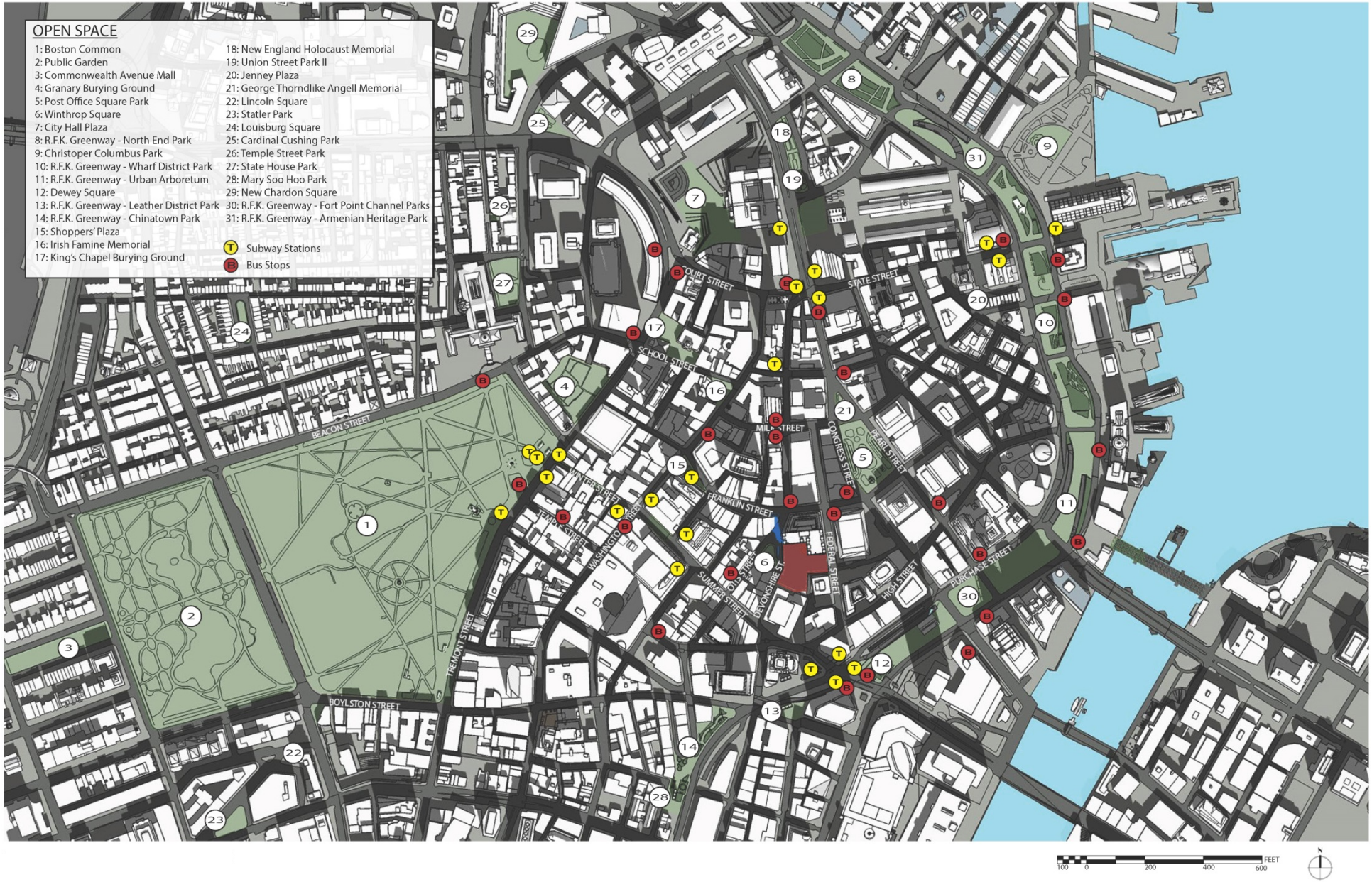
Figure 5.2-24
Shadow Study, September 21, 9 a.m. – Proposed Project



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Figure 5.2-25
Shadow Study, September 21, 12 p.m. – As-of-Right

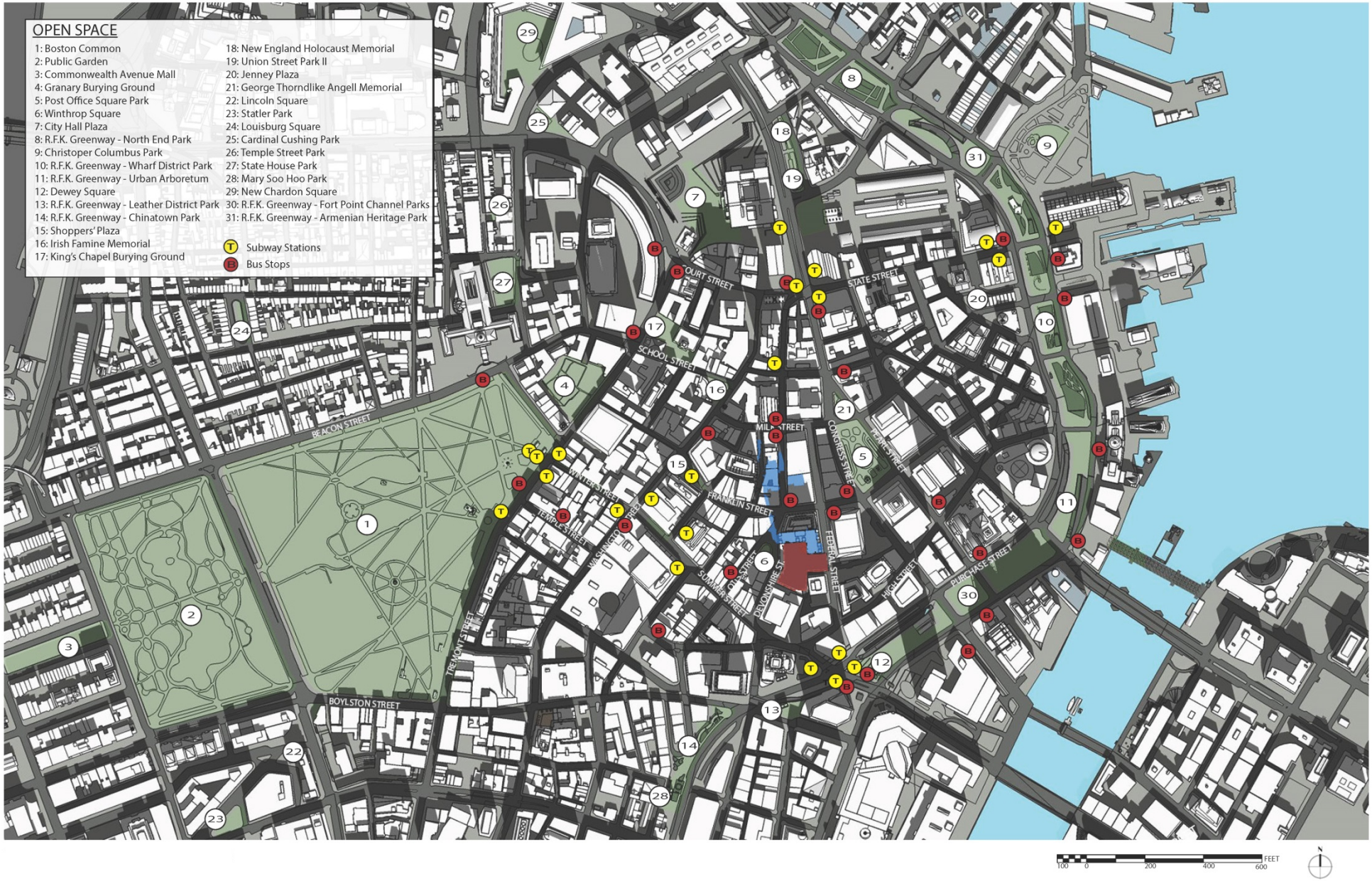


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Figure 5.2-26

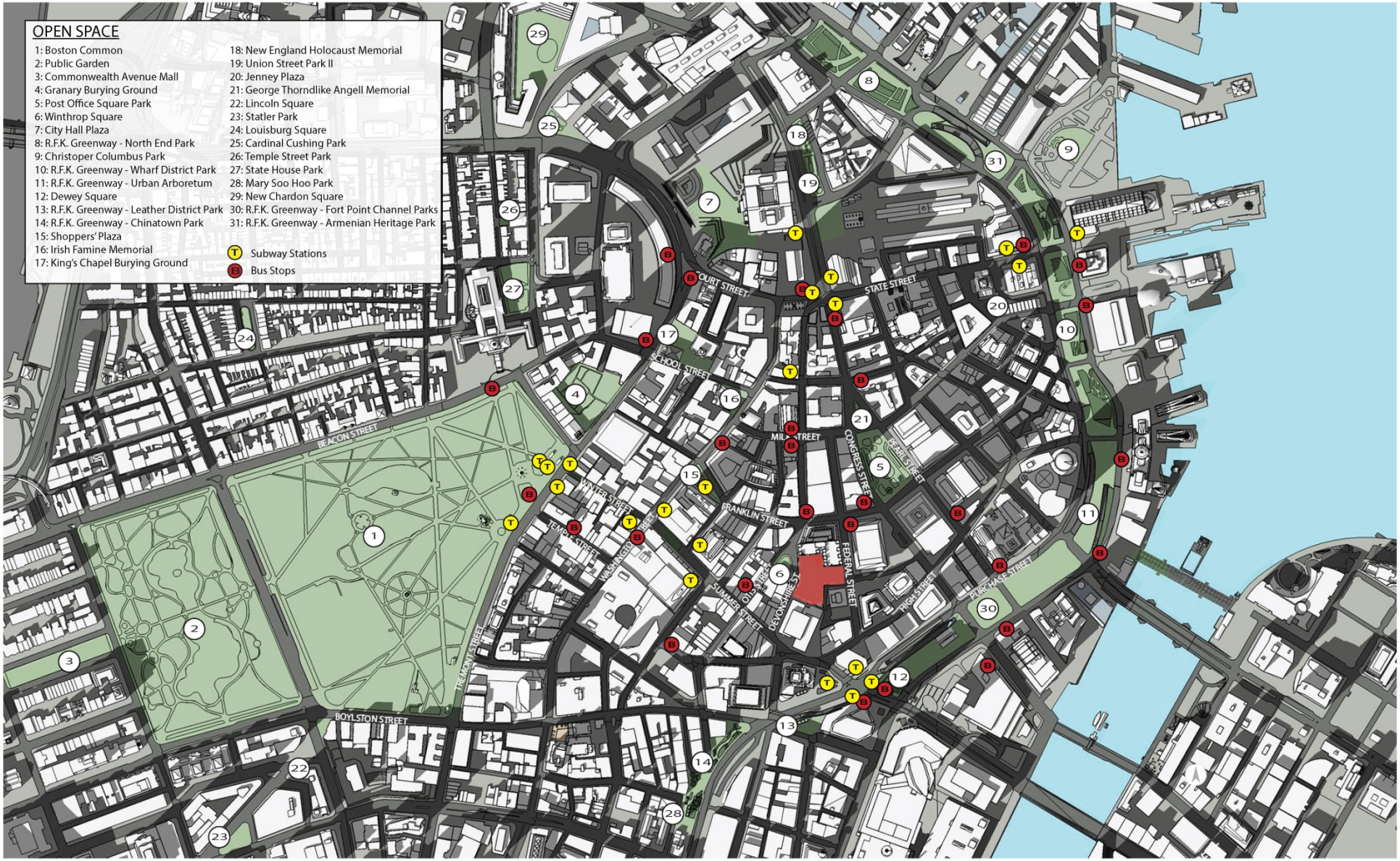
Shadow Study, September 21, 12 p.m. – Alternative Based on Previous Shadow Law



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Figure 5.2-27
Shadow Study, September 21, 12 p.m. – Proposed Project



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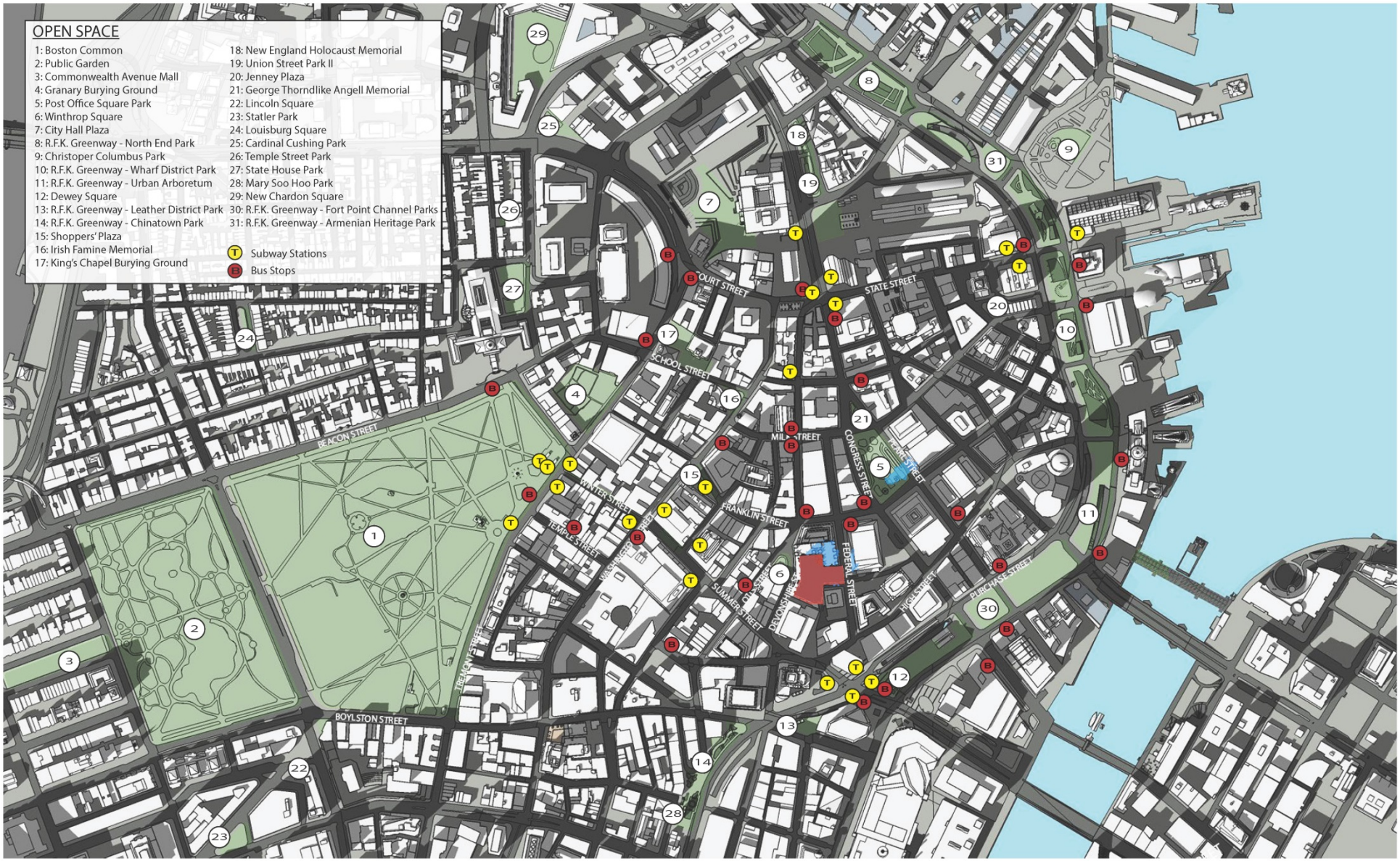
Figure 5.2-28
Shadow Study, September 21, 3 p.m. – As-of-Right



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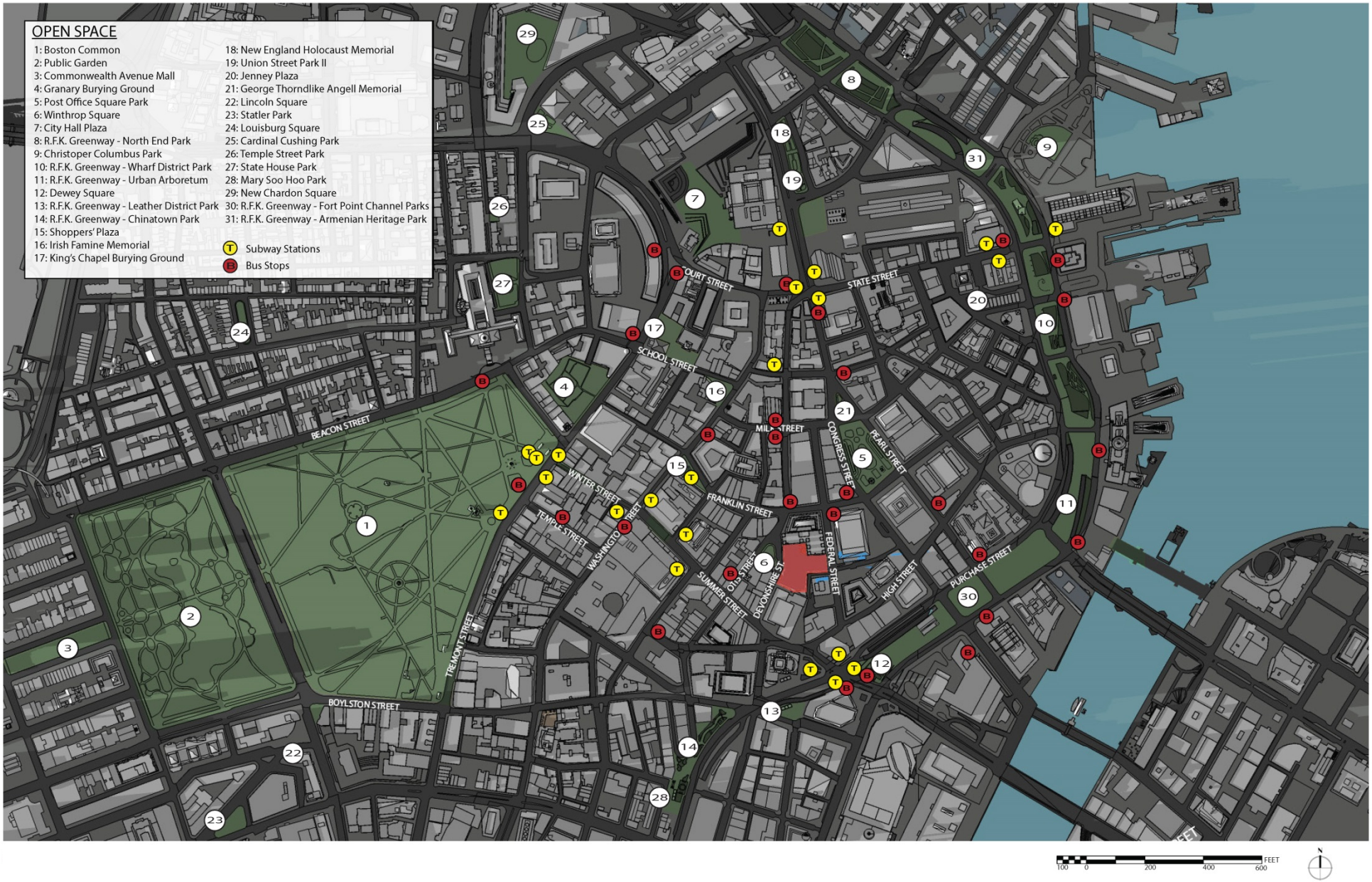
Figure 5.2-29
Shadow Study, September 21, 3 p.m. – Alternative Based on Previous Shadow Law



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Figure 5.2-30
Shadow Study, September 21, 3 p.m. – Proposed Project



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Figure 5.2-31
Shadow Study, September 21, 6 p.m. – As-of-Right



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Figure 5.2-32
Shadow Study, September 21, 6 p.m. – Alternative Based on Previous Shadow Law



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Figure 5.2-33
Shadow Study, September 21, 6 p.m. – Proposed Project

5.2.6 Winter Solstice (December 21)

New shadow created during the winter solstice is illustrated in Figures 5.2-34 through 5.2-42.

The winter solstice creates the least favorable conditions for sun in New England. The sun angle during the winter is lower than in any other season, causing the shadows in urban areas to elongate and be cast onto large portions of the surrounding area.

At 9:00 a.m., most of the area is under existing shadow. No new shadow will be cast onto nearby open spaces, bus stops, transit entrances, streets, or sidewalks by the Project and the two alternatives studied.

At 12:00 noon, most of the area is under existing shadow. No new shadow will be cast onto nearby bus stops or transit entrances by the Project or the two alternatives studied. New shadow from the Project will be cast onto a portion of George Thorndike Angell Memorial Square, Pearl Street, and Congress Street and its sidewalks.

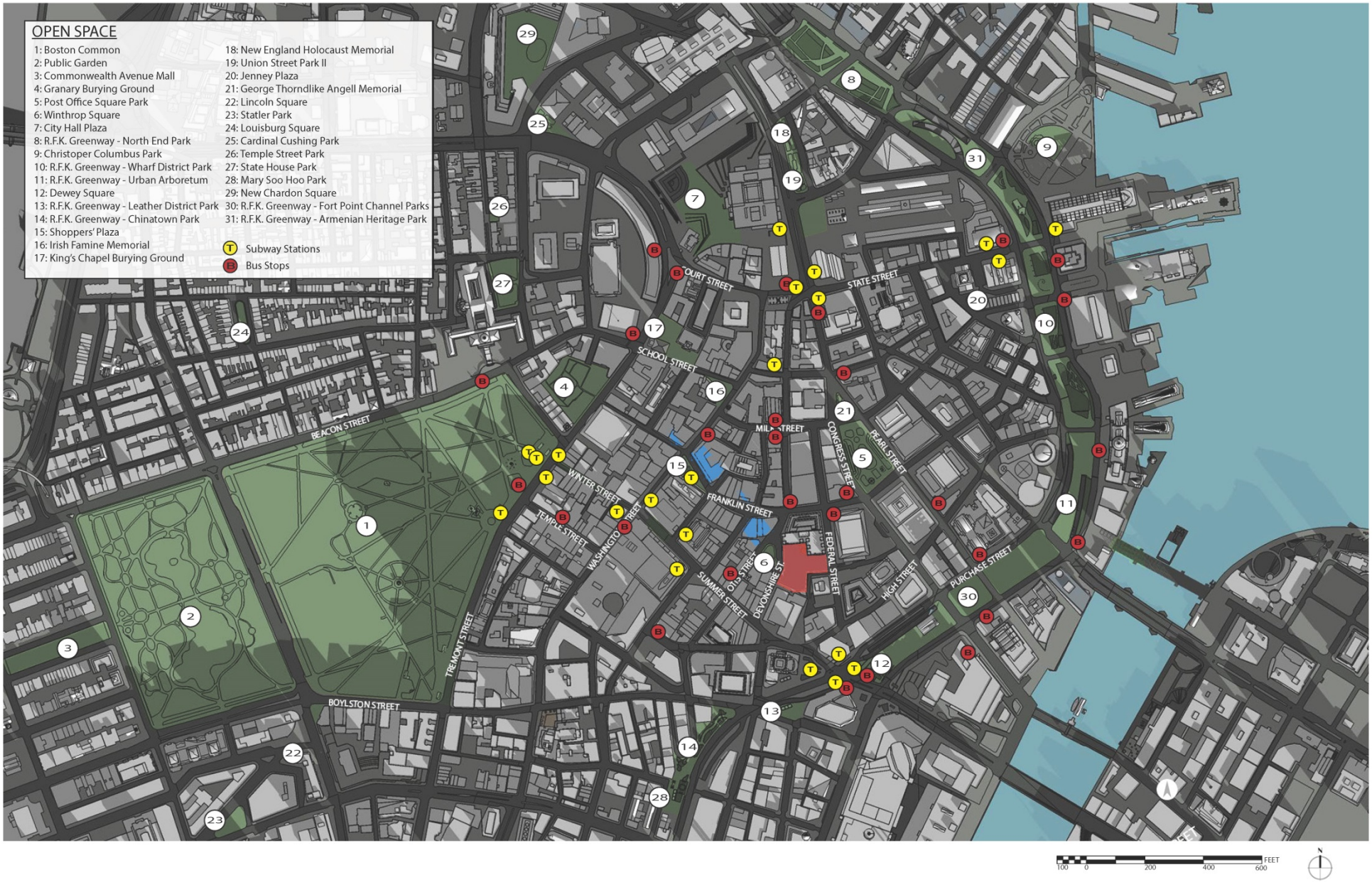
At 3:00 pm, new shadow from the as-of-right alternative, 340' alternative and the Project will be cast to the northeast. No new shadow will be cast onto nearby bus stops, transit entrances, streets, or sidewalks by the Project or the two alternatives studied. New shadow from the Project will be cast onto a small sliver of Long Wharf that is not under existing shadow, and onto the Boston Harbor.



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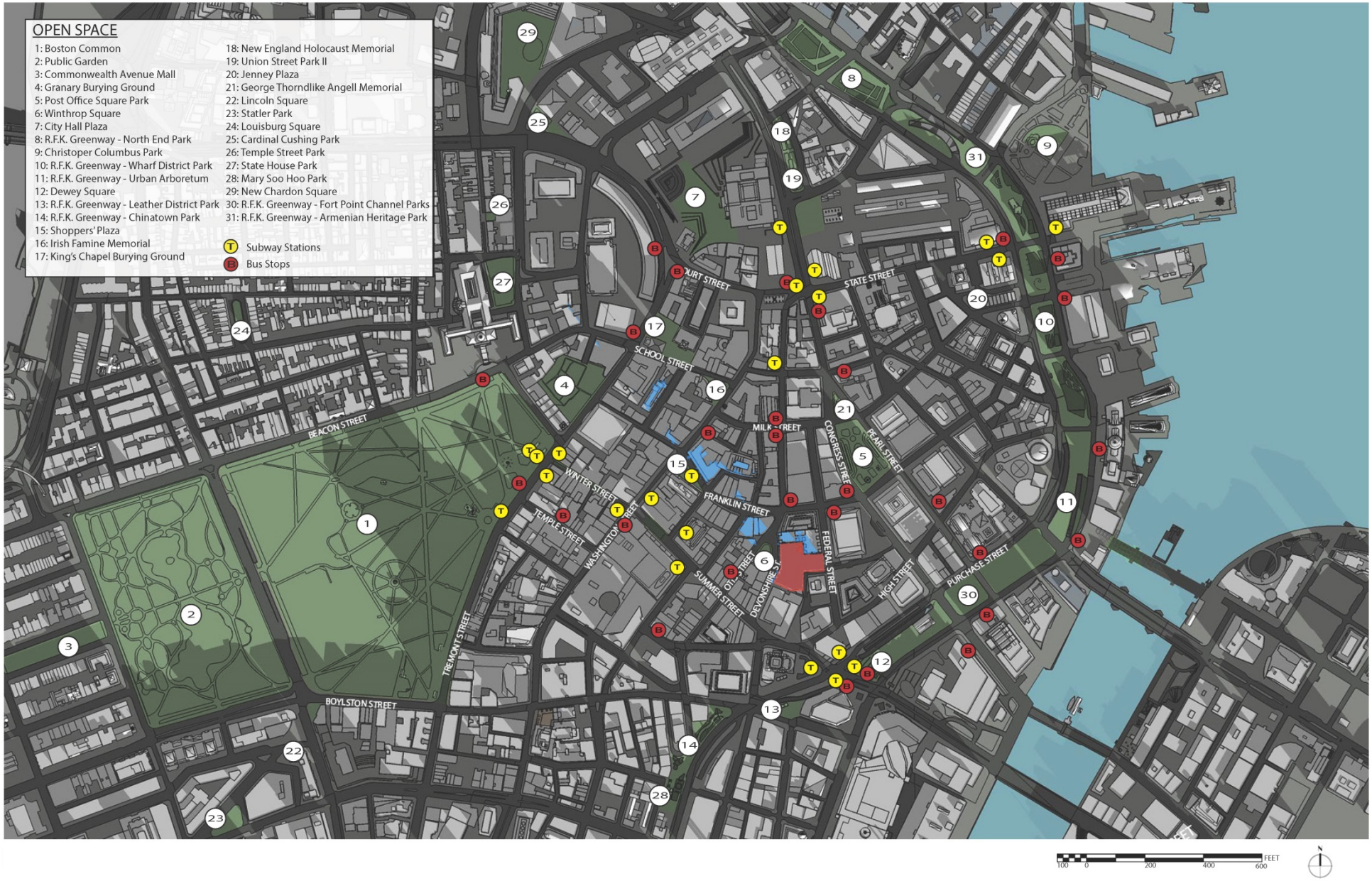
Figure 5.2-34
Shadow Study, December 21, 9 a.m. – As-of-Right



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Figure 5.2-35
Shadow Study, December 21, 9 a.m. – Alternative Based on Previous Shadow Law



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Figure 5.2-36
Shadow Study, December 21, 9 a.m. – Proposed Project



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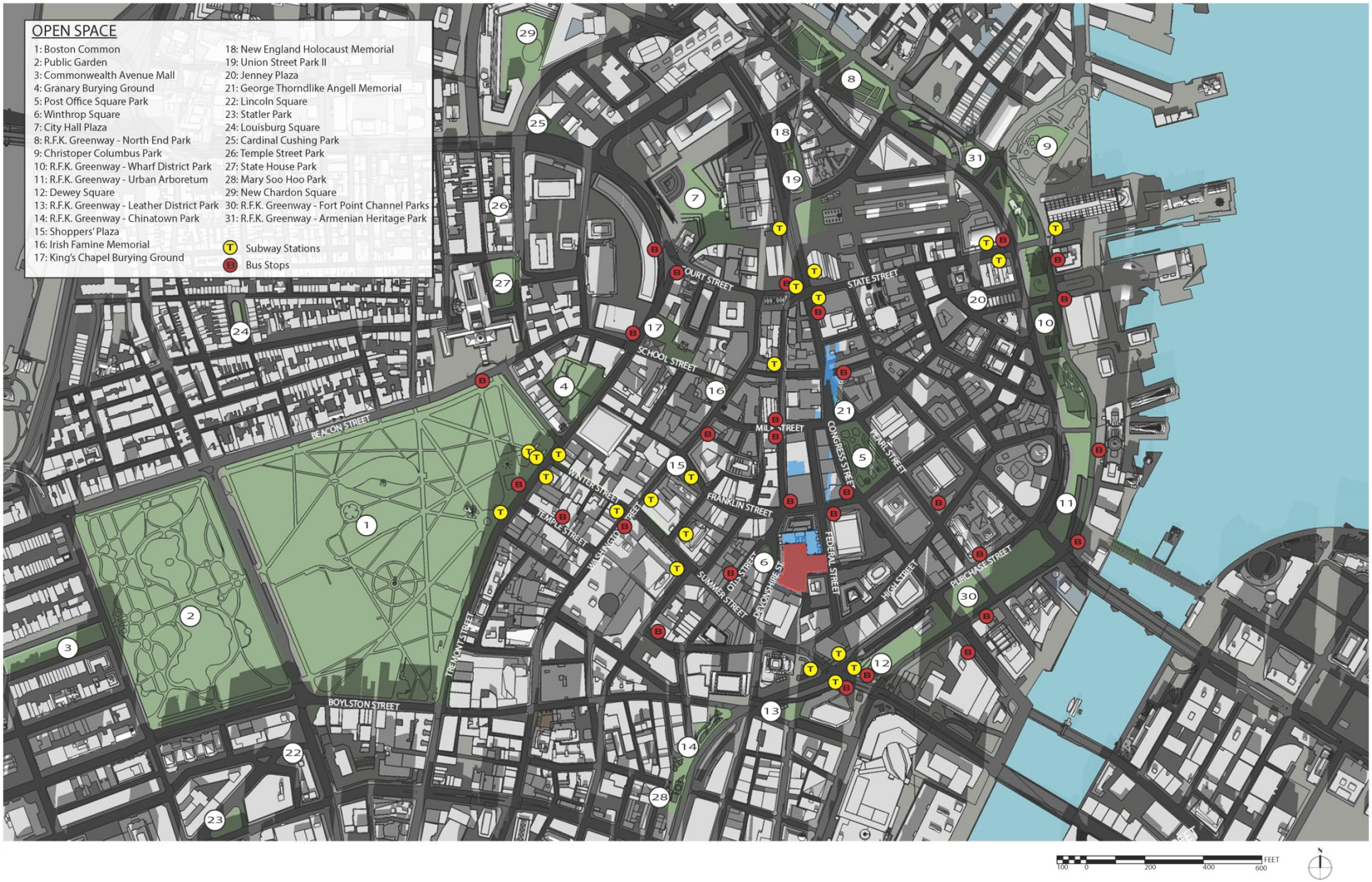
Figure 5.2-37
Shadow Study, December 21, 12 p.m. – As-of-Right.



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Figure 5.2-38
Shadow Study, December 21, 12 p.m. – Alternative Based on Previous Shadow Law.



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Figure 5.2-39
Shadow Study, December 21, 12 p.m. – Proposed Project



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Figure 5.2-40
Shadow Study, December 21, 3 p.m. – As-of-Right



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Figure 5.2-41
Shadow Study, December 21, 3 p.m. – Alternative Based on Previous Shadow Law



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Figure 5.2-42
Shadow Study, December 21, 3 p.m. – Proposed Project

5.2.7 Summary of Shadow Analysis on The Greenway, Post Office Square Park and Winthrop Square, Boston Common and Public Garden

As shown on the shadow studies included in Attachment F, there are no net new shadows on the Greenway on March 21, September 21 or December 21. Project shadows extend onto the Greenway on June 21 from 4:50 pm to 5:51 p.m.

There are no net new shadows on Post Office Square Park on June 21 or December 21. The analysis indicates that on March 21, the Project's shadows extend onto Post Office Square Park from 1:21 p.m. to 3:38 p.m. On September 21, shadows extend onto Post Office Square from 1:08 to 3:25 pm.

There is no net new shadow on Winthrop Square on December 21. Project shadow extends onto Winthrop Square from 9:18 a.m. on March 21 to 11:45 a.m. On June 21, shadows extend to Winthrop Square from 7:51 a.m. to 12:45 p.m. On September 21, shadow extends onto Winthrop Square from 9:04 a.m. to 11:31 a.m.

As indicated on the animation, there is no net new shadow generated by the Project after 8:00 am on the Public Garden and no net new shadow on the Boston Common after 9:20 a.m. When averaged over the entire year, the average net new shadow size is approximately .005 acres on the Public Garden and .049 acres on the Boston Common. The Project complies with Chapter 362 of the Acts of 1990 and Chapter 384 of the Acts of 1992, each as amended by Chapter 57 of the Acts of 2017, "An Act Protecting Sunlight and Promoting Economic Development in the City of Boston" signed by the Governor of the Commonwealth on July 24, 2017, which govern new shadows from new structures on Boston Common and the Public Garden.

5.3 Daylight

The purpose of a daylight analysis is to estimate the extent to which a proposed project affects the amount of daylight reaching public streets in the immediate vicinity of a project site.

Because the Project site contained a low-rise building, the Project will increase daylight obstruction over existing conditions; however, the resulting conditions will be typical of the area.

5.3.1 Methodology

The daylight analysis was performed using the Boston Redevelopment Authority Daylight Analysis (BRADA) computer program[1]. This program measures the percentage of sky-dome that is obstructed by a project and is a useful tool in evaluating the net change in obstruction from existing to build conditions at a specific site.

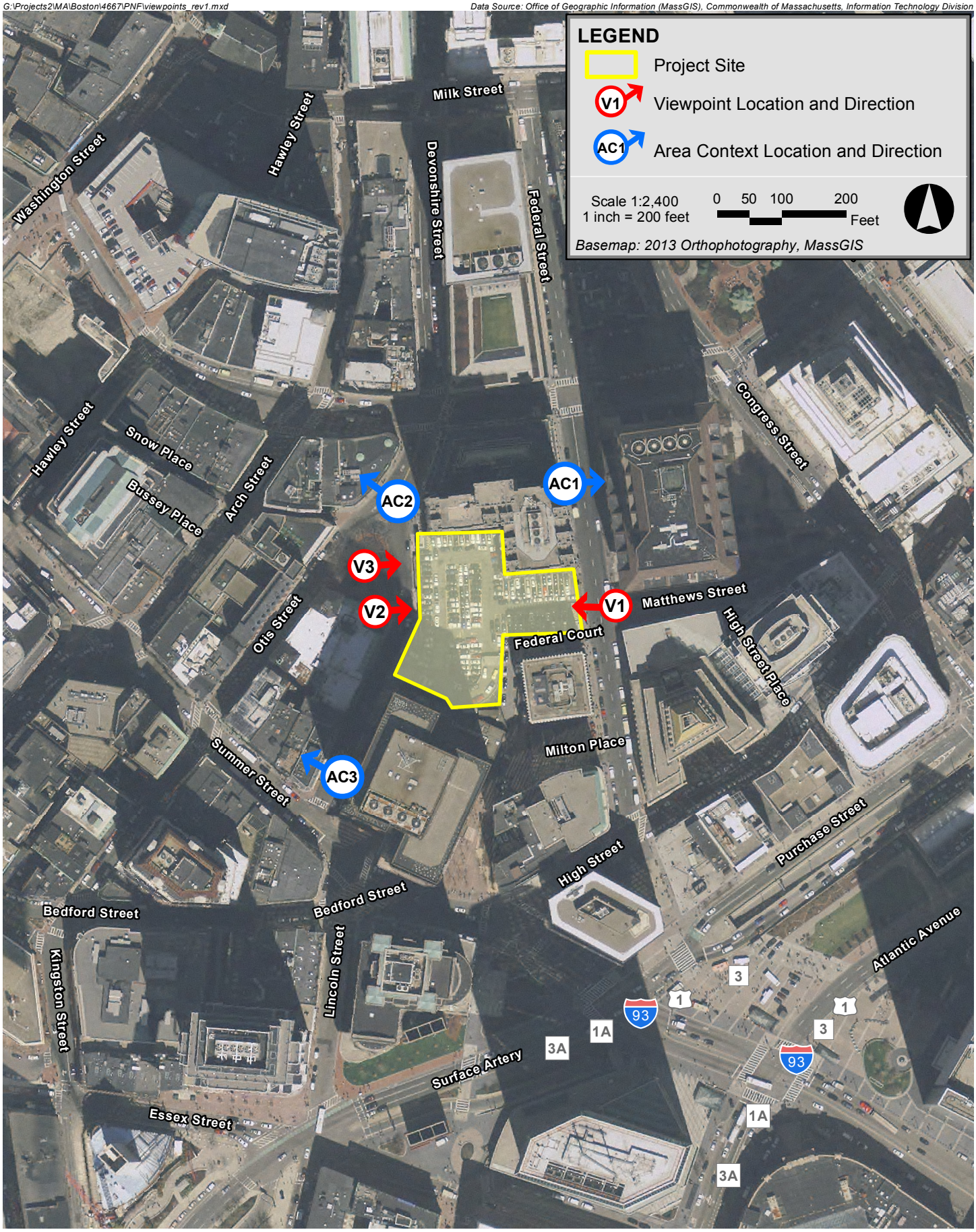
Using BRADA, a silhouette view of the building is taken at ground level from the middle of the adjacent city streets or pedestrian ways centered on the proposed building. The façade of the building facing the viewpoint, including heights, setbacks, corners and other features, is plotted onto a base map using lateral and elevation angles. The two-dimensional base map generated by BRADA represents a figure of the building in the "sky dome" from the viewpoint chosen. The BRADA program calculates the percentage of daylight that will be obstructed on a scale of 0 to 100 percent based on the width of the view, the distance between the viewpoint and the building, and the massing and setbacks incorporated into the design of the building; the lower the number, the lower the percentage of obstruction of daylight from any given viewpoint.

The analysis compares three conditions for the Project site: (1) Existing Condition; (2) Proposed Condition; (3) As-of-right Condition and (4) the context of the area.

Three viewpoints were chosen to evaluate daylight obstruction for the Existing, Proposed and As-of-right conditions: one from Federal Street (Viewpoint 1), one from Devonshire Street (Viewpoint 2) and one from the center of Winthrop Square (Viewpoint 3). Four area context points were considered to provide a basis of comparison to existing conditions in the surrounding area. The viewpoints were taken from the following locations and are shown on Figure 5.3-1:

- **Viewpoint 1:** View from Federal Street facing west toward the Project site;
- **Viewpoint 2:** View from Devonshire Street facing east toward the Project site;
- **Viewpoint 3:** View from Winthrop Square facing east toward the Project site;
- **Area Context Viewpoint (AC1):** View from Federal Street facing east toward 100 Federal Street;

[1] Method developed by Harvey Bryan and Susan Stuebing, computer program developed by Ronald Fergle, Massachusetts Institute of Technology, Cambridge, MA, September 1984.



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Figure 5.3-1
Viewpoint Locations Map

- **Area Context Viewpoint (AC2):** View from Winthrop Square facing northwest toward 20 Winthrop Square; and

- **Area Context Viewpoint (AC3):** View from Devonshire Street facing west toward 295 Devonshire Street.

5.3.2 Results

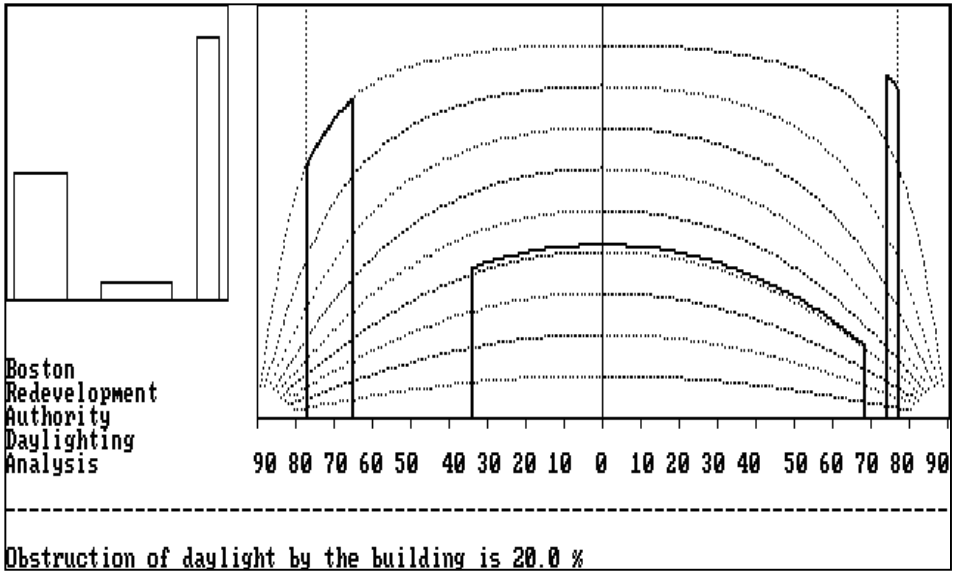
Results for each viewpoint under each condition are described in Table 5.3-1. Figures 5.3-2 through 5.3-5 illustrate the BRADA results for each analysis and are located at the end of this section.

Table 5.3-1 Daylight Obstruction Values

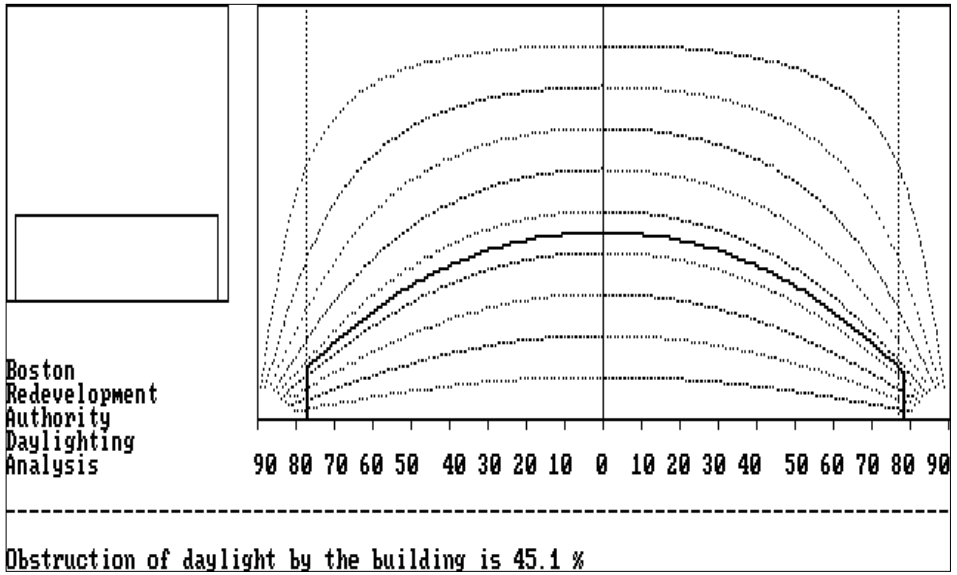
Viewpoint Locations		Existing Conditions	Proposed Conditions	As-of-right Alternative
Viewpoint 1	View from Federal Street facing west toward the Project site	20.0%	93.7%	65.9%
Viewpoint 2	View from Devonshire Street facing east toward the Project site	45.1%	91.9%	89.9%
Viewpoint 3	View from Winthrop Square facing east toward the Project site	31.5%	86.3%	57.9%
Area Context Points				
AC1	View from Federal Street facing east toward 100 Federal Street	94.1%	N/A	N/A
AC2	View from Winthrop Square facing northwest toward 20 Winthrop Square	66.7%	N/A	N/A
AC3	View from Devonshire Street facing west toward 295 Devonshire Street	75.1%	N/A	N/A

Federal Street – Viewpoint 1

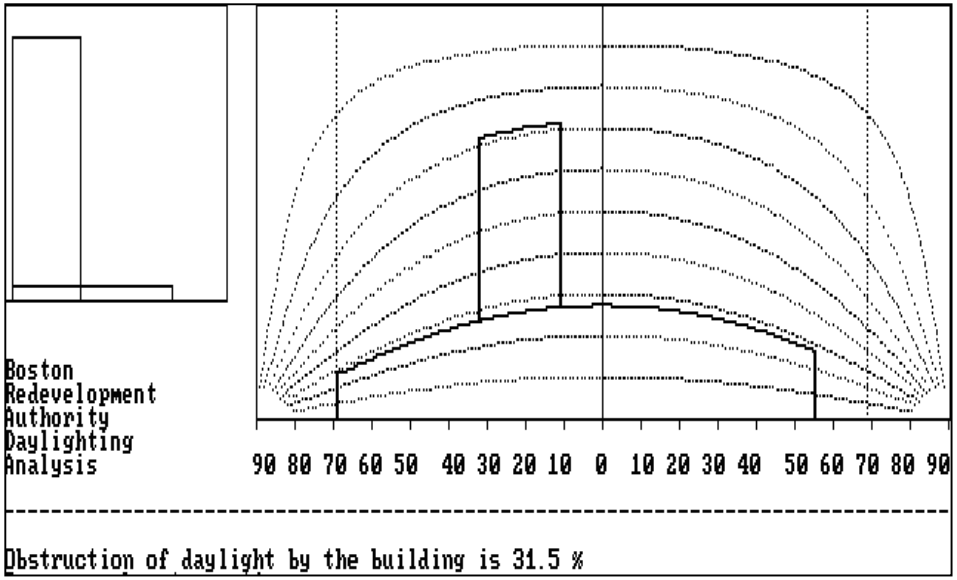
Federal Street runs along the eastern edge of the Project site. Viewpoint 1 was taken from the center of Federal Street looking west at the Project site. The development of the Project will result in an increase in the daylight obstruction value at this viewpoint of 93.7%. While this is an increase over Existing Conditions, due to setback from the street of the tallest portion of the building, this daylight obstruction value is similar to the Area Context values.



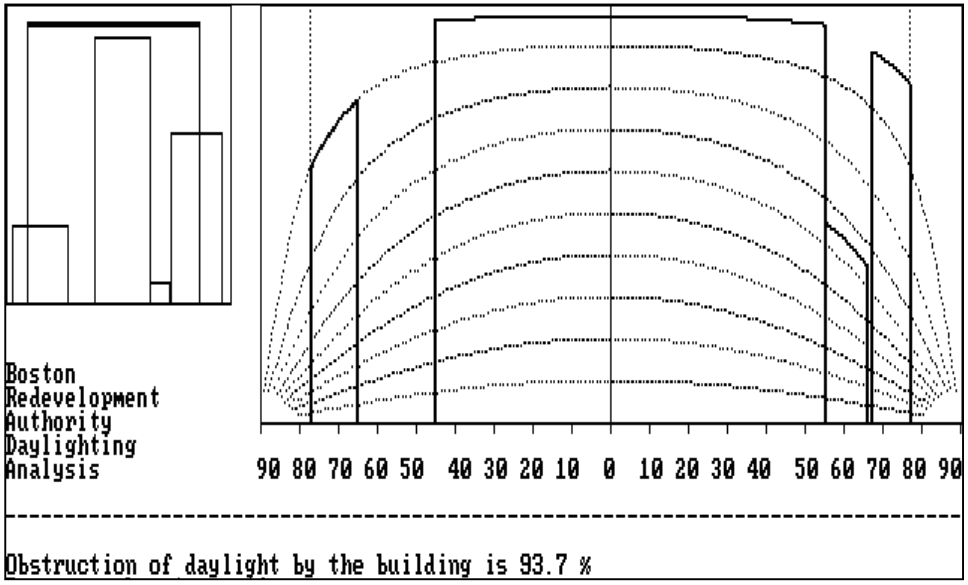
Viewpoint 1 (Existing): View from Federal Street facing west toward the Project site



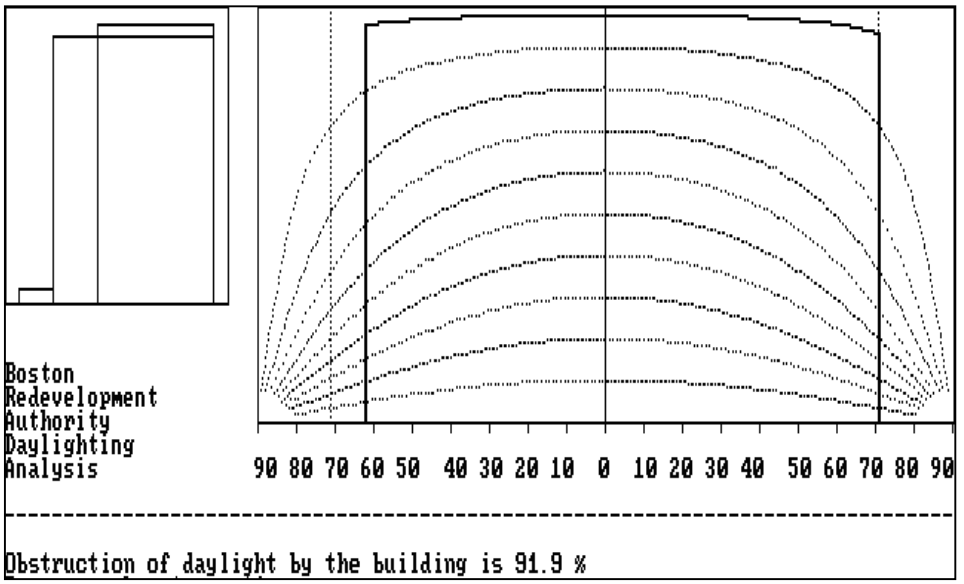
Viewpoint 2 (Existing): View from Devonshire Street facing east toward the Project site



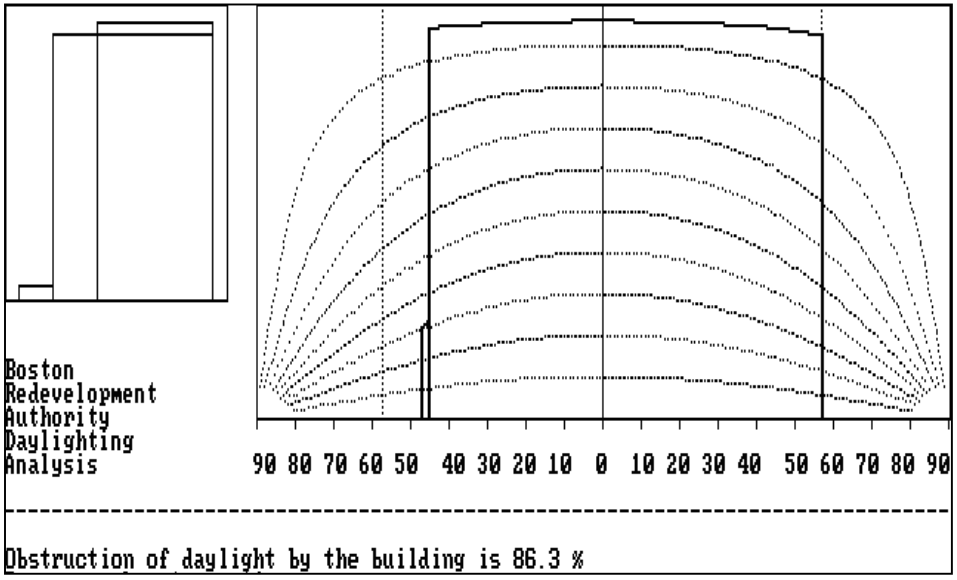
Viewpoint 3 (Existing): View from Winthrop Square facing east toward the Project site



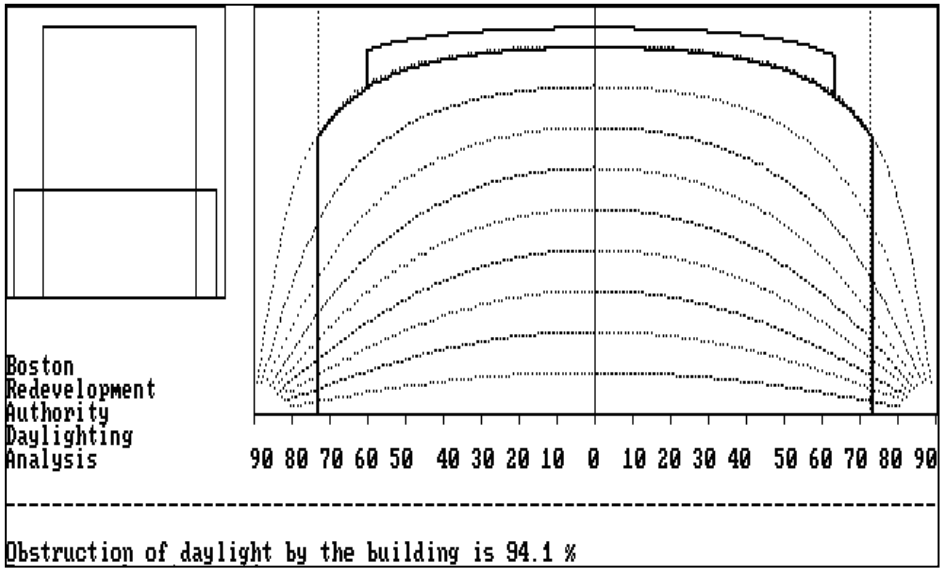
Viewpoint 1: View from Federal Street facing west toward the Project site



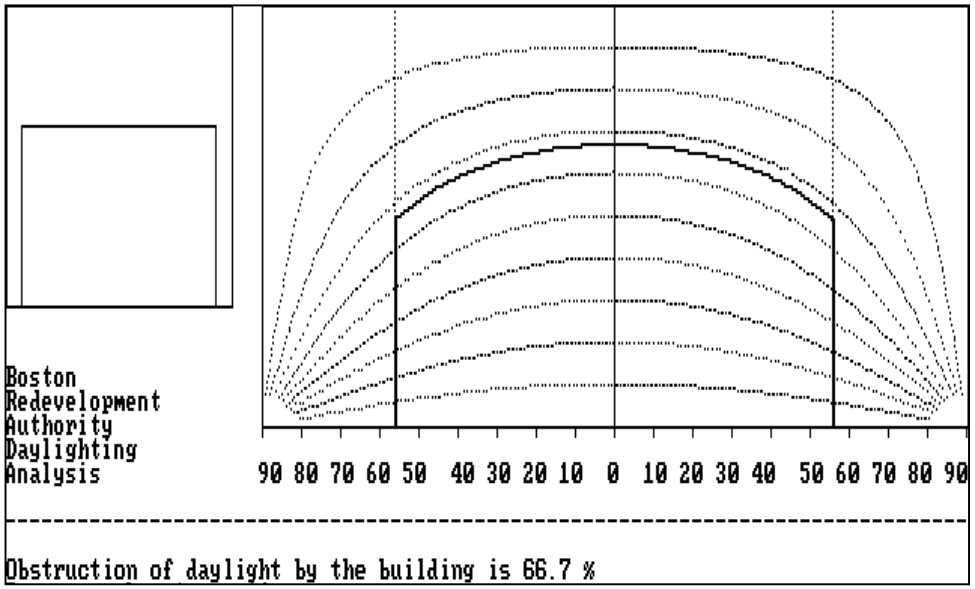
Viewpoint 2: View from Devonshire Street facing east toward the Project site



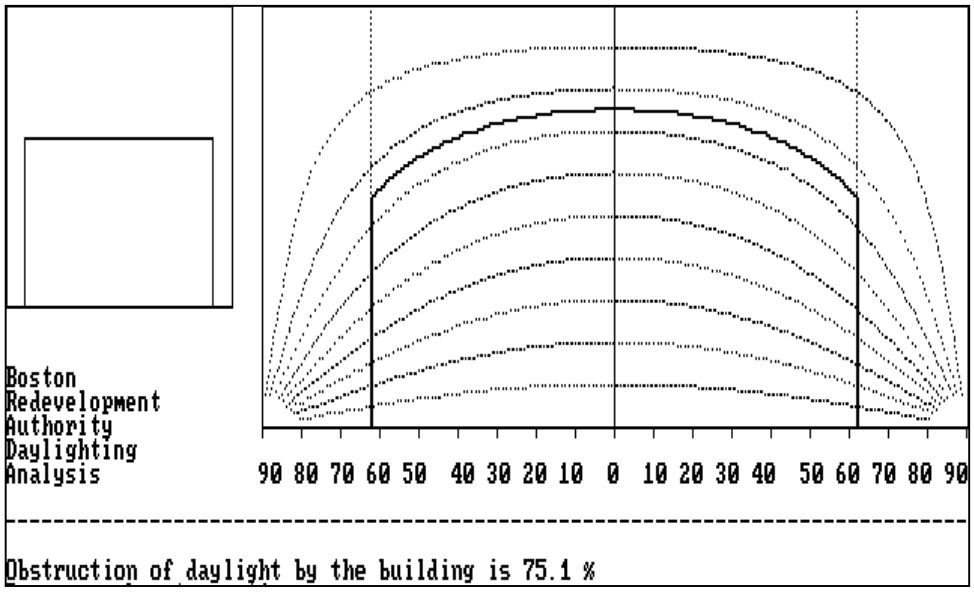
Viewpoint 3: View from Winthrop Square facing east toward the Project site



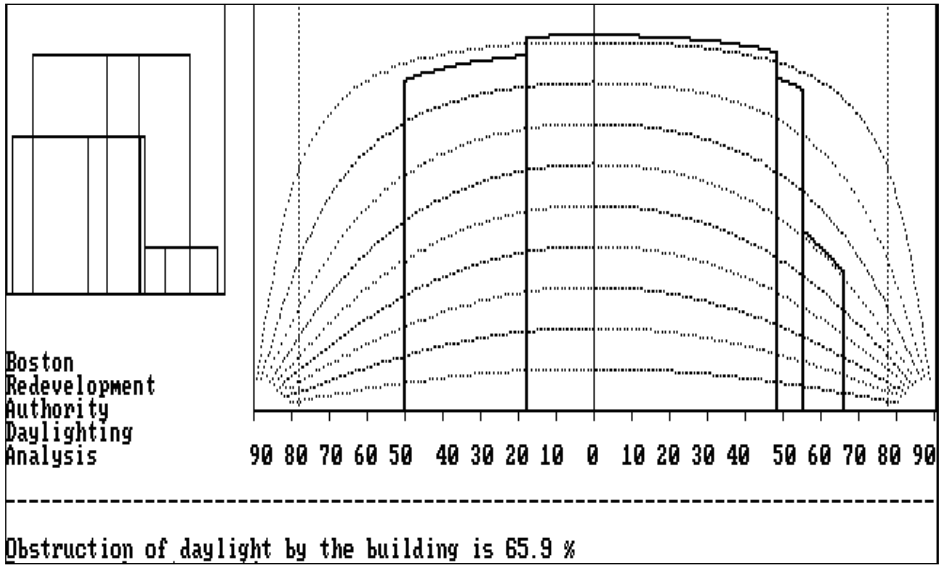
AC1: View from Federal Street facing east toward 100 Federal Street



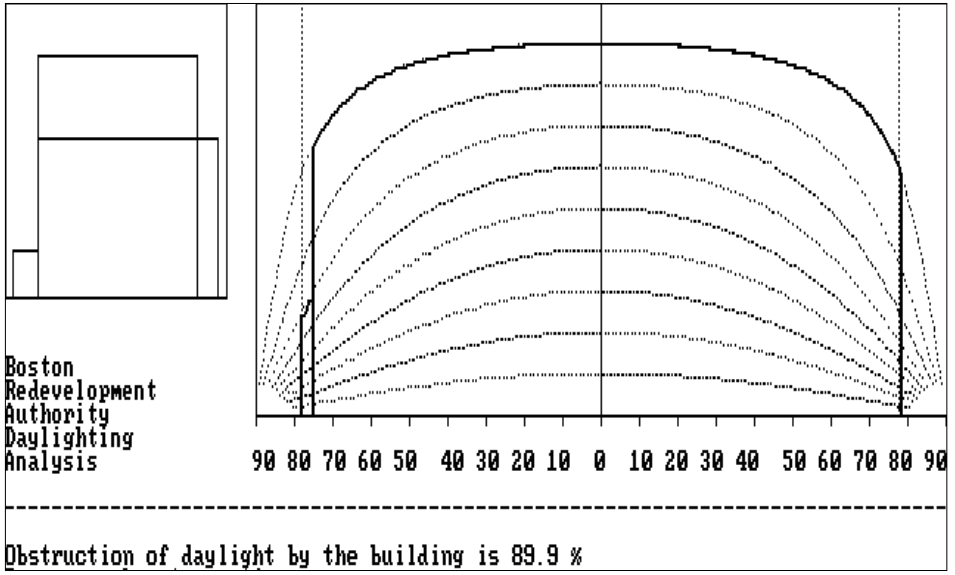
AC2: View from Winthrop Square facing northwest toward 20 Winthrop Square



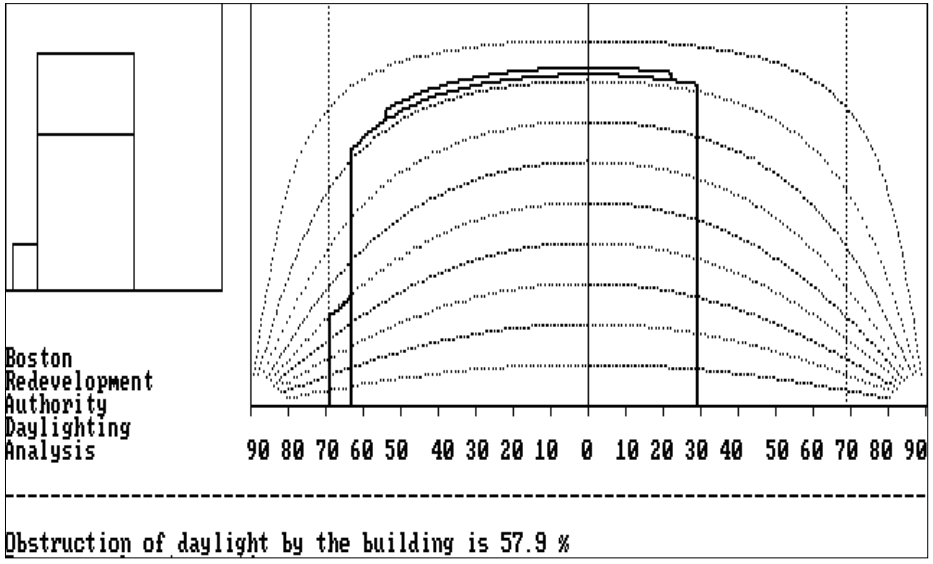
AC3: View from Devonshire Street facing west toward 295 Devonshire Street



As-of-Right Alternative 1: View from Federal Street facing west toward the Project site



As-of-Right 2: View from Devonshire Street facing east toward the Project site



As-of-Right 3: View from Winthrop Square facing east toward the Project site

Devonshire Street – Viewpoint 2

Devonshire Street runs along the western edge of the Project site. Viewpoint 2 was taken from the center of Devonshire Street looking east at the Project site. The development of the Project will result in an increase in the daylight obstruction value at this viewpoint to 91.9%. While this is an increase over Existing Conditions, this daylight obstruction value is typical of the area, less than the Area Context values and very similar to the As-of-right alternative.

Winthrop Square – Viewpoint 3

Winthrop Square borders the western sidewalk of Devonshire Street. Viewpoint 3 was taken from the center of Winthrop Square looking east toward the Project site. The development of the Project will result in an increase in daylight obstruction value at this viewpoint of 86.3%. While this is an increase over Existing Conditions, this daylight obstruction value is typical of the area, and less than the Area Context values.

Area Context Views

The area around the Project site is densely populated with many high-rise buildings, and has seen significant development activity in recent years. To provide a larger context for comparison of daylight conditions, obstruction values were calculated for four Area Context Viewpoints described above and shown in Figure 5.3-1. The daylight obstruction values ranged from 66.7% for AC2 to 94.1% for AC1. Daylight obstruction values for the Project site vary, but are similar to than buildings in the Project vicinity, including the Area Context values.

5.3.3 Conclusion

The daylight analysis conducted for the Project describes existing and proposed daylight obstruction conditions at the Project site and in the surrounding area. Results of the BRADA analysis indicate that while development of the Project will result in increased daylight obstruction over existing conditions, the resulting conditions will be similar to the daylight obstruction values within the surrounding area and typical of densely built urban areas.

5.4 Solar Glare

RWDI has been retained to investigate the impact that solar reflections emanating from the Project and an as-of-right alternative will have on the surrounding urban realm. A preliminary set of simulations was conducted to determine peak reflection intensities and the frequency of occurrence of

reflections for a broad area around the Project. The selected receptor locations, as shown in Figure 5.4-1, were chosen to understand in detail how reflections from the building may impact drivers, pedestrians, and building facades.

There are currently no existing criteria or standards that define an "acceptable" level of reflected solar radiation from buildings. RWDI has conducted a literature review of available scientific sources to determine levels of solar radiation that could be considered acceptable to individuals from a visual standpoint.

Many glare metrics are designed for interior use and have been found to not correlate well with the glare impact humans perceive from direct sun or in outdoor environments. RWDI uses the methodology of Ho et al, which defines glare impact based on a physical reaction rather than on a preference based correlation.

This methodology has been adopted by the United States Federal Aviation Administration (FAA) for determining the risk of glare to pilots and other airport staff under FAA Interim Policy 78 FR 62376.

The results of the solar glare analysis are summarized below, and the detailed results are included as Attachment G. None of the receptors studied had impacts that fell into the very high or damaging categories.

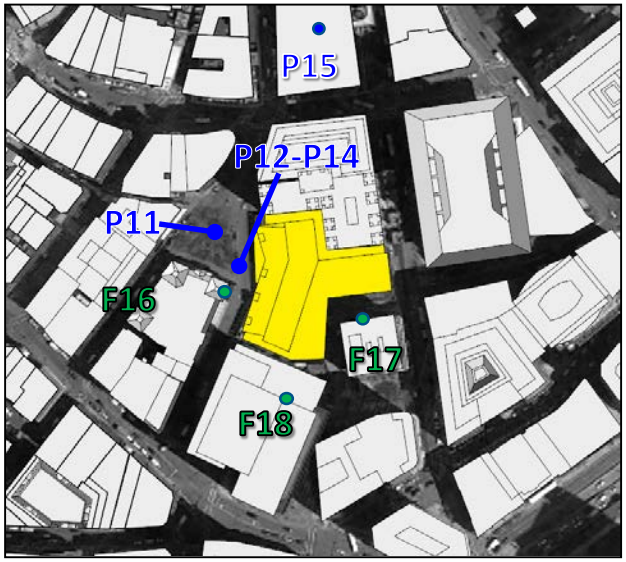
Thermal Impacts on Pedestrians, Drivers and Facades

Thermal impact categories for people are described as low, moderate, high or very high. Low impact suggests either no significant reflections occur or the reflection intensity is below a specified short term exposure threshold, moderate impact suggests the reflection intensity is above the short term exposure threshold, but below the safety threshold, high impact suggests the reflection intensity is above the safety threshold and very high impact is further above the safety threshold.

- 16 of the 18 receptors studied, indicate thermal impacts to drivers, pedestrians, and facades are anticipated to be low.

- Receptors P13 and P14 (pedestrians in front of the concave shaped façade of the tower on Devonshire Street) are the only receptors studied that indicate reflections with moderate impacts to people. The focused reflections are not expected to present a risk of property damage. The duration of the moderate impacts is expected to be less than five minutes and occur at most, four days per year.





Receptor Number	Receptor Description	Receptor Number	Receptor Description
D1	Drivers traveling northeast on Chauncy St.	**P9**	Pedestrians at Norman B. Leventhal Park
D2	Drivers traveling southeast on Summer St.	**P10**	Pedestrians at Dewey Square Farmer's Market
D3	Drivers traveling south on Devonshire St.	**P11**	Pedestrians at Winthrop Square
D4	Drivers traveling southwest on Devonshire St.	**P12-P14**	Pedestrians in front of the concave-shaped facade of the tower
D5	Drivers traveling west on Federal Ct.	**P15**	Pedestrians on roof of 1 Federal St. to the north of the development
D6	Drivers traveling northeast on Devonshire St.	**F16**	Facade of 1 Winthrop Square to the west of the development
D7	Drivers traveling north on Federal St.	**F17**	Facade of 133 Federal St. to the southeast of the development
P8	Pedestrians at Boston Common	**F18**	Facade of 100 Summer St. to the south of the development

Figure 5.4-1

Solar Glare Analysis Receptor Locations

- No on-street parking is allowed on Devonshire where the solar focusing occurs. Which, along with the short durations of potential focusing, reduce the potential for faster than expected heat gains within parked cars.

- Impacts to facades were expected to be low.

Visual Glare Impacts for Drivers, Pedestrians and Facades

Visual impact categories are described as low, moderate, high or damaging. Low impact suggests that either no significant reflections occur or the reflections will have a minimal effect on a viewer, even when looking directly at the source. Moderate impact suggests the reflections can cause some visual nuisance only to viewers looking directly at the source. High impact suggests the reflections can reduce visual acuity for viewers operating vehicles or performing other high-risk tasks who are unable to look away from the source, posing a significant risk of distraction. No damaging impacts (i.e. those which could physically damage the eye) from the Project are anticipated.

- Of the 18 receptor locations studied, 16 of the receptor locations studied indicate only low or moderate impacts.

- Reflection impacts are generally predicted to be moderate to low for drivers in the area for both the Project and the as-of-right alternative. Some high impact reflections are noted to occur in both configurations, particularly along Devonshire and Federal streets (Locations D3 and D7, rivers travelling south on Devonshire Street and drivers travelling north on Federal Street, respectively), however these impacts are short in duration, and infrequent. Mitigation is being considered for both of these locations to minimize the impacts. The longest duration of high impact reflection at each of these locations is seven or six minutes with a five minute average duration.

- At pedestrian level, reflections from both the Project and the as-of-right configuration are expected to fall most frequently onto the areas immediately west and northwest of the development, in particular on the Winthrop Square Park as well as along Otis and Devonshire streets. The maximum frequency of glare occurrence found at pedestrian level is approximately 15% of daytime hours for both the studied geometries.

- Only moderate levels of visual impact fall on the pedestrian and façade receptors in the surrounding neighborhood throughout the year under both configurations. These reflections would likely be considered at worst a nuisance, which can be remedied by pedestrians briefly looking away or with interior shading devices within buildings.

- Post Office Square Park and Dewey Square are predicted to experience very brief and infrequent reflection impacts under the proposed design. Reflections from the Project are not expected to impact Boston Common, the Public Garden or other green spaces. As the design progresses, the Project team will explore mitigation options to further minimize thermal and visual impacts to drivers and pedestrians.

5.5 Air Quality

An air quality analysis has been conducted to determine the impact of pollutant emissions from stationary and mobile sources generated by the Project. Any new stationary sources will be reviewed by the Massachusetts Department of Environmental Protection (MassDEP) during permitting under the Environmental Results Program (ERP).

5.5.1 National Ambient Air Quality Standards and Background Concentrations

Background air quality concentrations and federal air quality standards were utilized to conduct the air quality impact analyses. Federal National Ambient Air Quality Standards (NAAQS) were developed by U.S. Environmental Protection Agency (EPA) to protect the human health against adverse health effects with a margin of safety. The following sections outline the NAAQS standards and detail the sources of background air quality data.

5.5.1.1 National Ambient Air Quality Standards

The 1970 Clean Air Act was enacted by the US Congress to protect the health and welfare of the public from the adverse effects of air pollution. As required by the Clean Air Act, EPA promulgated NAAQS for the following criteria pollutants: nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter (PM) (PM10 and PM2.5), carbon monoxide (CO), ozone (O_3), and lead (Pb). The NAAQS are listed in Table 5.5-1.

NAAQS specify concentration levels for various averaging times and include both "primary" and "secondary" standards. Primary standards are intended to protect human health, whereas secondary standards are intended to protect public welfare from any known or anticipated adverse effects associated with

the presence of air pollutants, such as damage to vegetation. The more stringent of the primary or secondary standards were applied when comparing to the modeling results for this Project.

A one-hour NO_2 standard was promulgated on January 22, 2010 to protect public health, including the health of sensitive populations (e.g., people with asthma, children, and the elderly). The final rule for the new hourly NO_2 NAAQS was published in the Federal Register on February 9, 2010 and became effective on April 12, 2010. The form of this standard is the three-year average of the 98th percentile of the daily maximum one-hour concentrations.

Similarly, a one-hour SO_2 standard was promulgated on June 2, 2010 to protect public health, including the health of sensitive populations (e.g., people with asthma, children, and the elderly). The final rule for the new hourly SO_2 NAAQS was published in the Federal Register on June 22, 2010 and became effective on August 23, 2010. The form of this standard is the three-year average of the 99th percentile of the daily maximum one-hour concentrations.

The inhalable particulate (PM10) NAAQS were promulgated on July 1, 1987 at the federal level with the intent of replacing the existing standards limiting ambient levels of Total Suspended Particulate (TSP). In 2006, the annual PM_{10} standard was revoked. However it remains codified in 310 CMR 6.00. EPA also promulgated a Fine Particulate ($PM_{2.5}$) NAAQS, effective December 2006, with an annual standard of 15 micrograms per cubic meter ($\mu g/m^3$) and the 24-hour standard of 35 $\mu g/m^3$. The annual standard has since been strengthened to 12 $\mu g/m^3$ (in 2012).

The NAAQS also reflect various durations of exposure. The non-probabilistic short-term periods (24 hours or less) refer to exposure levels not to be exceeded more than once a year. Long-term periods refer to limits that cannot be exceeded for exposure averaged over three months or longer.

The NAAQS consist of primary and secondary standards. Primary standards are intended to protect human health. Secondary standards are intended to protect public welfare from known or anticipated adverse effects associated with the presence of air pollutants, such as damage to property or vegetation. NAAQS have been developed for various durations of exposure. Massachusetts Ambient Air Quality Standards (MAAQS) are codified in 310 CMR 6.04, and generally follow the NAAQS but are not identical (highlighted in bold in Table 5.5-1).

Table 5.5-1 National (NAAQS) and Massachusetts (MAAQS) Ambient Air Quality Standards

Pollutant	Averaging Period	NAAQS (µg/m3)		MAAQS (µg/m3)	
		Primary	Secondary	Primary	Secondary
NO2	Annual (1)	100	Same	100	Same
	1-hour (2)	**188**	None	**None**	None
SO2	Annual (1)(9)	80	None	80	None
	24-hour (3)(9)	365	None	365	None
	3-hour (3)	None	1300	None	1300
	1-hour (4)	**196**	None	**None**	None
PM2.5	Annual (1)	**12**	**15**	**None**	**None**
	24-hour (5)	**35**	**Same**	**None**	**None**
PM10	Annual (1)(6)	**None**	None	**50**	Same
	24-hour (3)(7)	150	Same	150	Same
CO	8-hour (3)	10,000	Same	10,000	Same
	1-hour (3)	40,000	Same	40,000	Same
Ozone	8-hour (8)	**147**	Same	**235**	Same
Pb	3-month (1)	1.5	Same	1.5	Same

(1) Not to be exceeded
(2) 98th percentile of 1-hour daily maximum concentrations, averaged over 3 years
(3) Not to be exceeded more than once per year.
(4) 99th percentile of 1-hour daily maximum concentrations, averaged over 3 years
(5) 98th percentile, averaged over 3 years
(6) EPA revoked the annual PM10 NAAQS in 2006.
(7) Not to be exceeded more than once per year on average over 3 years
(8) Annual fourth-highest daily maximum 8-hr concentration, averaged over 3 years.
(9) EPA revoked the annual and 24-hour SO2 NAAQS in 2010. However they remain in effect until one year after the area's initial attainment designation, unless designated as "nontattinmentl".

5.5.1.2 Background Concentrations

To estimate background pollutant levels representative of the area, the most recent air quality monitor data reported by the MassDEP to EPA in their Annual Air Quality Reports was obtained for 2014 to 2016. Data for all pollutant and averaging time combinations were obtained from the U.S. EPA's AirData website.

The Clean Air Act allows for one exceedance per year of the CO and SO_2 short-term NAAQS. The highest second-high accounts for the one exceedance. Annual NAAQS are never to be exceeded. The 24-hour PM_{10} standard is not to be exceeded more than once per year on average over three years. To attain the 24-hour $PM_{2.5}$ standard, the three-year average of the 98th percentile of 24-hour concentrations must not exceed 35 µg/m^3. For annual PM-2.5 averages, the average of the highest yearly observations was used as the background concentration. A new 1-hr NO_2 standard was recently promulgated. To attain this standard, the 3-year average of the 98th percentile of the maximum daily 1-hour concentrations must not exceed 188 µg/m3.

Background concentrations were determined from the closest available monitoring stations to the proposed development. All pollutants are not monitored at every station, so data from multiple locations are necessary. The closest monitor is at 174 North Street in Boston, roughly 0.6 miles north-northwest of the Project. This site samples for PM2.5 only. The next closest site is at Kenmore Square, roughly 2.1 miles west of the Project location. However, this site only samples for PM-10, NO_2 and SO_2. Finally, the remaining pollutants are measured at Harrison Avenue in Boston, roughly 2.2 miles southwest of the Project site. A summary of the background air quality concentrations is presented in Table 5.5-2.

Air quality in the vicinity of the Project site is generally good, with all local background concentrations found to be well below the NAAQS.

Table 5.5-2 Observed Ambient Air Quality Concentrations and Selected Background Levels

Pollutant	*Averaging Time*	*2014*	*2015*	*2016*	*Background Concentration (µg/m³)*	*NAAQS*	*Percent of NAAQS*
SO_2 (1)(6)	1-Hour (5)	25.4	14.4	10.7	16.9	196.0	9%
	3-Hour	24.6	11.5	10.0	24.6	1300.0	2%
	24-Hour	13.1	7.6	5.2	13.1	365.0	4%
	Annual	2.5	1.3	1.1	2.5	80.0	3%
PM-10	24-Hour	53.0	30.0	30.0	53.0	150.0	35%
	Annual	14.9	14.2	14.1	14.9	50.0	30%
PM-2.5	24-Hour (5)	14.4	16.7	14.7	15.2	35.0	44%
	Annual (5)	6.9	7.3	7.7	7.3	12.0	61%
NO_2 (3)	1-Hour (5)	92.1	105.3	88.4	95.3	188.0	51%
	Annual	32.3	32.5	28.3	32.5	100.0	33%
CO (2)	1-Hour	1489.8	1604.4	2489.1	2489.1	40000.0	6%
	8-Hour	1031.4	1031.4	2062.8	2062.8	10000.0	21%
Ozone (4)	8-Hour	106.0	109.9	113.9	113.9	147.0	77%
Lead	Rolling 3-Month	0.014	0.016	0.017	0.017	0.15	12%

Notes:
From 2013-2015 EPA's AirData Website
(1) SO_2 reported ppb. Converted to µg/m3 using factor of 1 ppm = 2.62 µg/m3.
(2) CO reported in ppm. Converted to µg/m3 using factor of 1 ppm = 1146 µg/m3.
(3) NO_2 reported in ppb. Converted to µg/m3 using factor of 1 ppm = 1.88 µg/m3.
(4) O_3 reported in ppm. Converted to µg/m3 using factor of 1 ppm = 1963 µg/m3.
(5) Background level is the average concentration of the three years.
(6) The 24-hour and Annual standards were revoked by EPA on June 22, 2010, Federal Register 75-119, p. 35520.

5.5.2 Microscale Analysis

Mobile sources of air pollution include gasoline, diesel, and natural gas fueled vehicles. Emissions from mobile sources have continually decreased as engine technologies and efficiency have been improved.

Mobile sources of air pollution include emissions from vehicle traffic associated with the Project.

BPDA guidelines state:

> *A microscale analysis predicting localized carbon monoxide concentrations should be performed, including identification of any locations projected to exceed the National or Massachusetts Ambient Air Quality Standards, for projects in which: 1) project traffic would impact intersections or roadway links currently operating at Level of Service ("LOS") D, E, or F or would cause LOS to decline to D, E, or F; 2) project traffic would increase traffic volumes on nearby roadways by 10% or more (unless the increase in traffic volume is less than 100 vehicles per hour); or, 3) the project will generate 3,000 or more new average daily trips on roadways providing access to a single location.*

For this Project, the transportation analysis shows that Project traffic affects one intersection either currently operating at LOS D or worse, or projected to operate at LOS D or worse for future cases. Therefore, a microscale analysis is required.

5.5.2.1 Methodology

The BPDA typically requests an analysis of the effect on air quality of the increase in traffic generated by projects subject to Large Project Review. The microscale analysis involves modeling of carbon monoxide (CO) emissions from vehicles idling at and traveling through signaled intersections. Predicted ambient concentrations of CO for the Build and No Build cases are compared with federal (and state) ambient air quality standards for CO.

The microscale analysis typically examines ground-level CO impacts due to traffic queues in the immediate vicinity of a project. CO is used in microscale studies to indicate roadway pollutant levels since it is the most abundant pollutant emitted by motor vehicles and can result in so-called "hot spot" (high concentration) locations around congested intersections. The NAAQS standards do not allow ambient CO concentrations to exceed 35 parts per million (ppm) for a one-hour averaging period and 9 ppm for an eight-hour averaging period, more than once per year at any location. The widespread use of CO catalysts on current vehicles has reduced the occurrences of CO hotspots. Air quality modeling techniques (computer simulation programs) are typically used to

predict CO levels for both existing and future conditions to evaluate compliance of the roadways with the standards. The analysis for the Project followed the procedure outlined in U.S. EPA's intersection modeling guidance.[2]

The microscale analysis has been conducted using the latest versions of EPA's MOVES and CAL3QHC programs to estimate CO concentrations at sidewalk receptor locations.

Baseline (2016) and future year (2023) emission factor data calculated from the MOVES model, along with traffic data, were input into the CAL3QHC program to determine CO concentrations due to traffic flowing through the selected intersection.

Existing background values of CO at the nearest monitor location at Harrison Avenue were obtained from MassDEP. CAL3QHC results were then added to background CO values of 2.2 ppm (one-hour) and 1.8 ppm (eight-hour), as provided by MassDEP, to determine total air quality impacts due to the Project. These values were compared to the NAAQS for CO of 35 ppm (one-hour) and 9 ppm (eight-hour).

The modeling methodology was developed in accordance with the latest MassDEP modeling policies and Federal modeling guidelines.[3]

Modeling assumptions and backup data for results presented in this section are provided in Attachment H.

5.5.2.2 Intersection Selection

As stated previously, a "microscale" analysis is typically required for the Project at intersections where (1) Project traffic would impact intersections or roadway links currently operating at LOS D, E, or F or would cause LOS to decline to D, E, or F; (2) Project traffic would increase traffic volumes on nearby roadways by 10% or more (unless the increase in traffic volume is less than 100 vehicles per hour); or, (3) the Project will generate 3,000 or more new average daily trips on roadways providing access to a single location.

[2] U.S. EPA, Guideline for Modeling Carbon Monoxide from Roadway Intersections; EPA-454/R-92-005, November 1992.

[3] 40 CFR 51 Appendix W, Guideline on Air Quality Models, 70 FR 68228, Nov. 9, 2005

A number of signalized intersections included in the traffic study meet the above conditions (see Section 4). The traffic volumes and LOS calculations provided in Section 4 form the basis of evaluating the traffic data versus the microscale thresholds. Of these, four intersections were chosen based on their LOS, volumes, and overall project impact.

The intersections found to meet the criteria are:

- the intersection of Surface Roadway, Lincoln Street, and I-93 Ramps;
- the intersection of Surface Roadway, Summer Street, and Purchase Street;
- the intersection of Purchase Street, Congress Street, and I-93 Ramp; and
- the intersection of Summer Street and High Street.

Microscale modeling was performed for the intersections based on the aforementioned methodology. The 2016 Existing conditions and the 2023 No Build and Build conditions were each evaluated for both morning (a.m.) and afternoon (p.m.) peak.

The CAL3QHC model's queueing algorithm is not designed for unsignalized intersections. Therefore analysis of intersections where no signal exists was not performed.

5.5.2.3 Emissions Calculations (MOVES)

The EPA MOVES computer program was used to estimate motor vehicle emission factors on the roadway network. Emission factors calculated by the MOVES model are based on motor vehicle operations typical of daily periods. The Commonwealth's statewide annual Inspection and Maintenance (I&M) program was included, as well as the county specific vehicle age registration distribution, fleet mix, meteorology, and other inputs. The inputs for MOVES for the existing (2016) and build year (2023) are provided by MassDEP.

All link types for the modeled intersection were input into MOVES. Idle emission factors are obtained from factors for a link average speed of 0 miles per hour (mph). Moving emissions are calculated based on speeds at which free-flowing vehicles travel through the intersection as stated in traffic modeling (SYNCHRO) reports. A speed of 25 mph is used for all free-flow traffic. Speeds of 10 and 15 mph were used for right (and U-turns, if necessary) and left turns, respectively. Roadway emissions factors were obtained from MOVES using EPA guidance.[4]

[4] U.S. EPA, 2010. Using MOVES in Project-Level Carbon Monoxide Analyses. EPA-420-B-10-041

Winter CO emission factors are typically higher than summer. Therefore, January weekday emission factors were conservatively used in the microscale analyses.

5.5.2.4 Receptors & Meteorology Inputs

Sets of up to 200 receptors were placed in the vicinity of the modeled intersections. Receptors extended approximately 300 feet on the sidewalks along the roadways approaching the intersection. The roadway links and receptor locations of the modeled intersection are presented in Figures 5.5-1 through 5.5-4.

For the CAL3QHC model, limited meteorological inputs are required. Following EPA guidance[5], a wind speed of one meter per second, stability class D (4), and a mixing height of 1,000 meters were used. To account for the intersection geometry, wind directions from 0° to 350°, every 10° were selected. A surface roughness length of 321 centimeters was selected.[6]

5.5.2.5 Impact Calculations (CAL3QHC)

The CAL3QHC model predicts one-hour concentrations using queue-links at signalized intersections, worst-case meteorological conditions, and traffic input data. The one-hour concentrations were scaled by a factor of 0.9 to estimate eight-hour concentrations.[7] The CAL3QHC methodology was based on EPA CO modeling guidance. Signal timings were provided directly from the traffic modeling outputs.

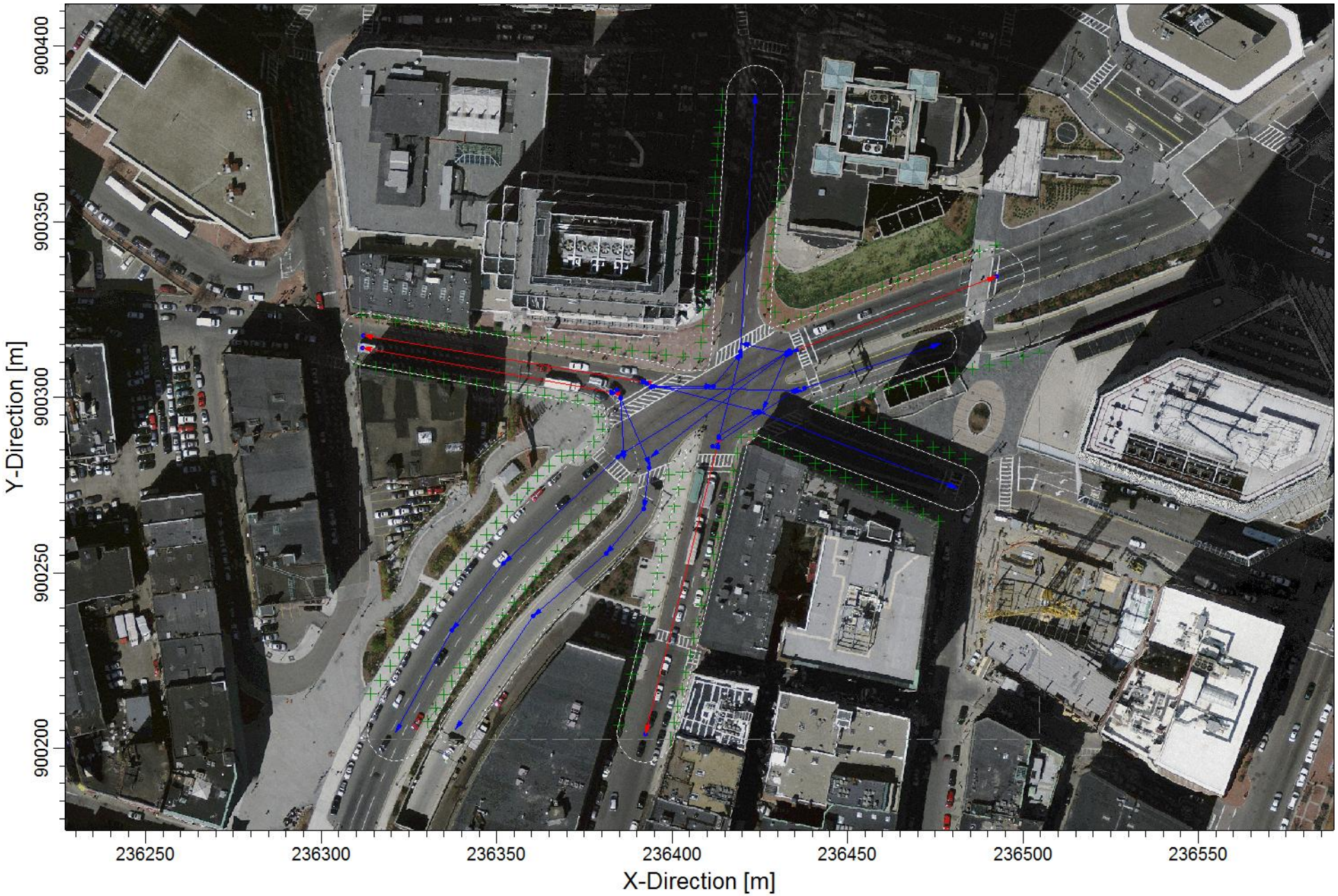
For use in the microscale analysis, background concentrations of CO in ppm were required. The corresponding maximum background concentrations in ppm were 2.2 ppm (2,489 µg/m^3) for one-hour and 1.8 ppm (2,063 µg/m^3) for eight-hour CO.

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5 U.S. EPA, Guideline for Modeling Carbon Monoxide from Roadway Intersections. EPA-454/R-92-005, November 1992.

6 U.S. EPA, *User's Guide for CAL3QHC Version 2: A Modeling Methodology for Predicting Pollutant Concentrations Near Roadway Intersections*. EPA –454/R-92-006 (Revised), September 1995.

7 U.S. EPA, AERSCREEN User's Guide; EPA-454/B-11-001, March 2011.

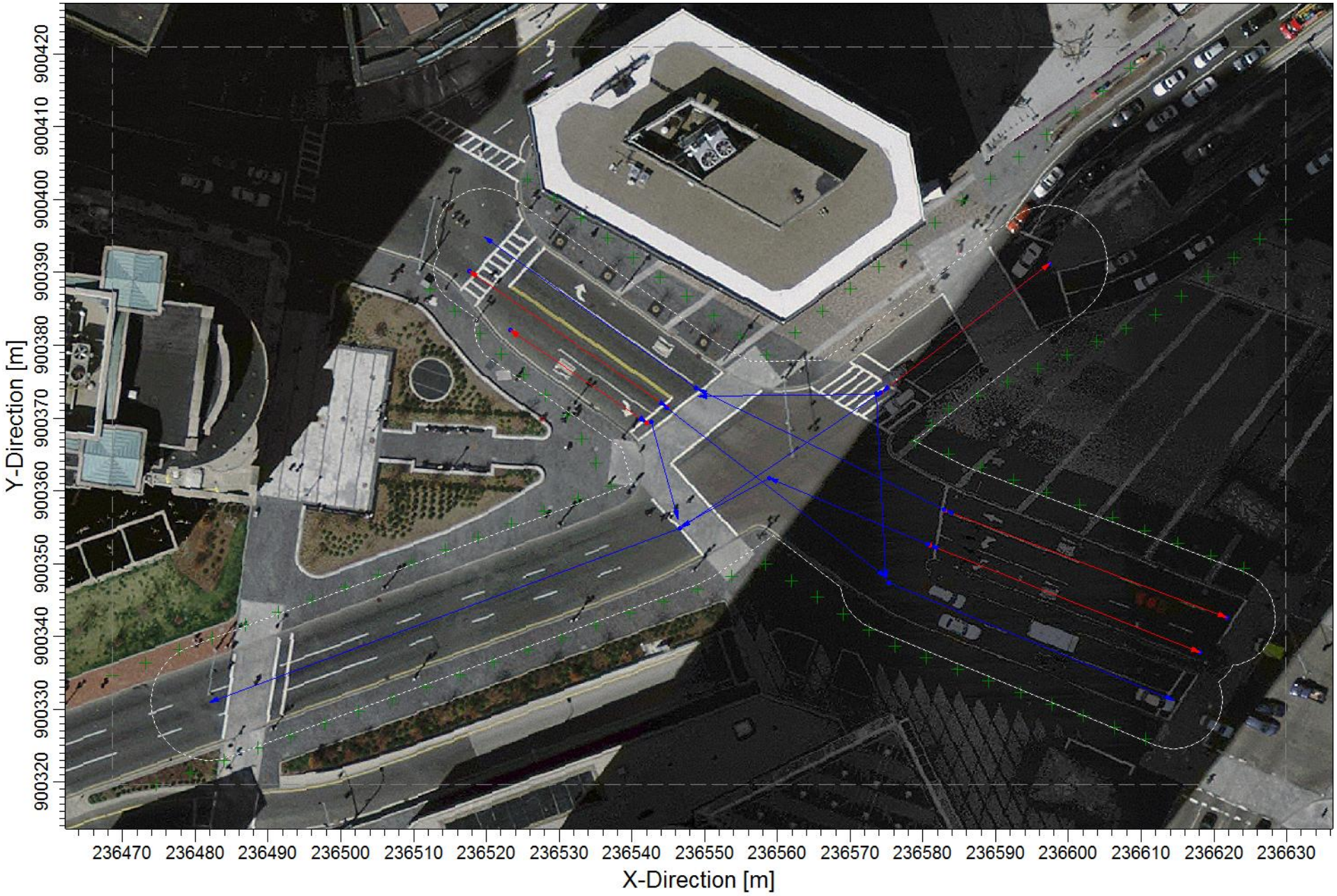


115 Winthrop Square, Boston, MA

Epsilon ASSOCIATES INC.

Figure 5-5-1

Intersection of Surface Roadway, Lincoln Street, and I-93 Ramps

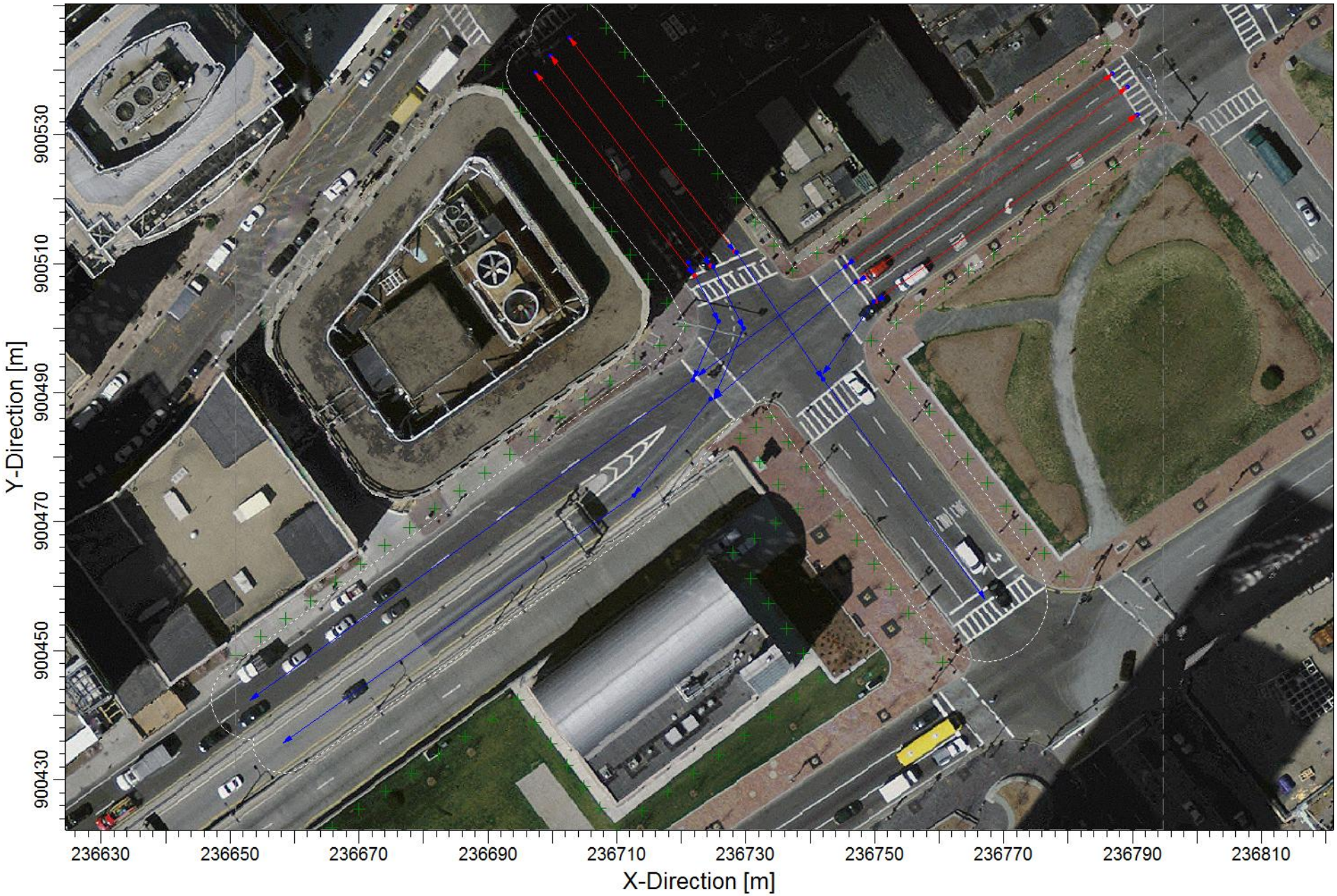


115 Winthrop Square, Boston, MA

Epsilon ASSOCIATES INC.

Figure 5-5-2

Intersection of Surface Roadway, Summer Street, and Purchase Street

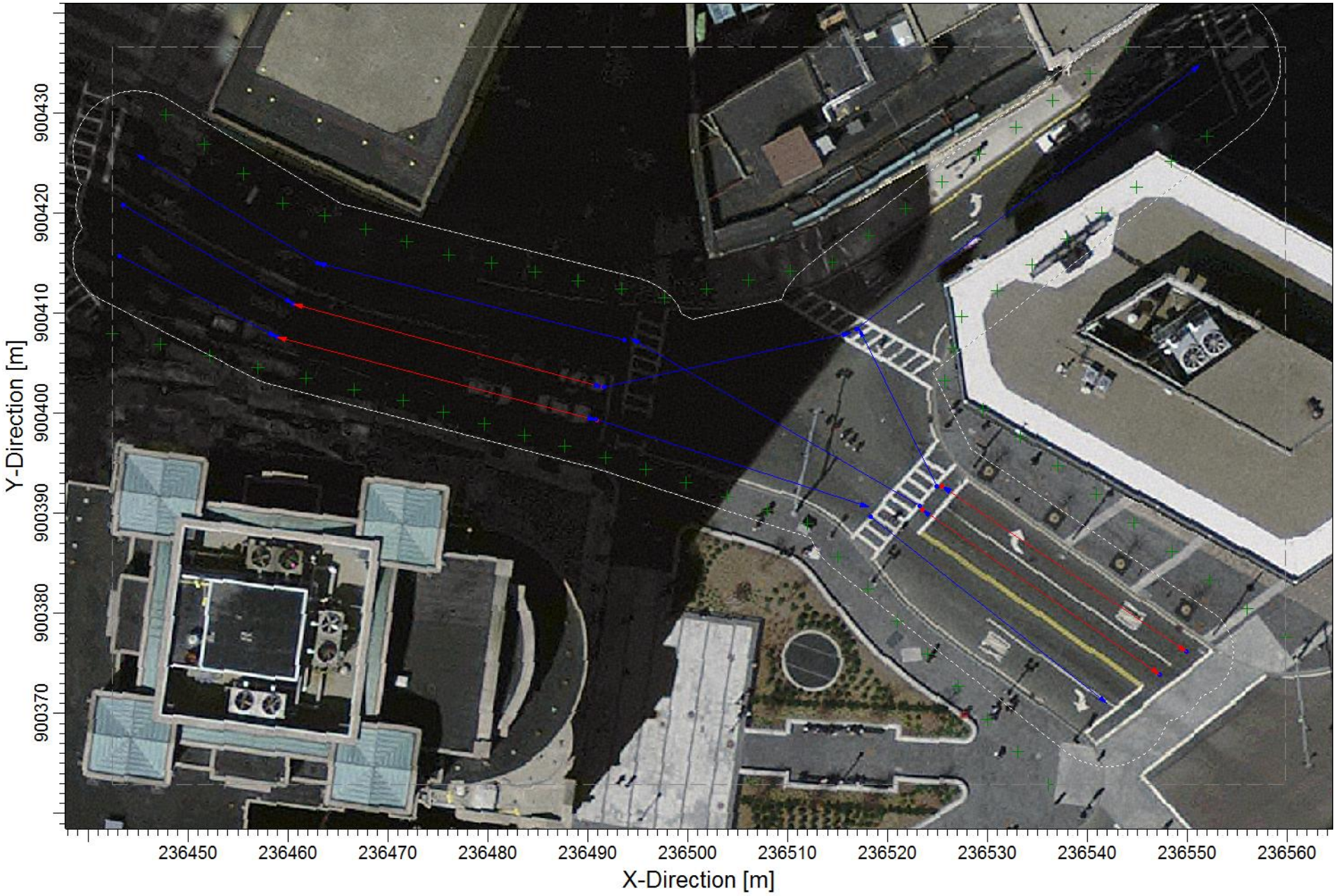


115 Winthrop Square, Boston, MA

Epsilon ASSOCIATES INC.

Figure 5-5-3

Intersection of Purchase Street, Congress Street, and I-93 Ramp



115 Winthrop Square, Boston, MA

Epsilon ASSOCIATES INC.

Figure 5-5-4

Intersection of Summer Street and High Street

5.5.2.6 Microscale Results

Results of the maximum one-hour predicted CO concentrations from CAL3QHC are provided in Tables 5.5-3 through 5.5-6 for the 2016 and 2023 scenarios. Eight-hour average concentrations are calculated by multiplying the maximum one-hour concentrations by a factor of 0.9.[8]

Results of the one-hour and eight-hour maximum modeled CO ground-level concentrations from CAL3QHC were added to EPA supplied background levels for comparison to the NAAQS. These values represent the highest potential concentrations at the intersection as they are predicted during the simultaneous occurrence of "defined" worst case meteorology. The highest one-hour traffic-related concentration predicted in the area of the Project for the modeled conditions (0.4 ppm) plus background (2.2 ppm) is 2.6 ppm. The highest eight-hour traffic-related concentration predicted in the area of the Project for the modeled conditions (0.4 ppm) plus background (1.8 ppm) is 2.2 ppm. Both maximum concentrations occur under Existing Conditions.

Under future No-Build, Build, and Mitigated Build cases, the highest one-hour traffic-related concentration predicted in the area of the Project for the modeled conditions (0.2 ppm) plus background (2.2 ppm) is 2.4 ppm. The highest eight-hour traffic-related concentration predicted in the area of the Project for the modeled conditions (0.2 ppm) plus background (1.8 ppm) is 2.0 ppm.

All concentrations are well below the one-hour NAAQS of 35 ppm and the eight-hour NAAQS of 9 ppm. Mitigation offers little to no benefit with respect to air quality impacts due to vehicle traffic at nearby intersections.

5.5.2.7 Microscale Conclusions

Results of the microscale analysis show that all predicted CO concentrations are well below one-hour and eight-hour NAAQS. Therefore, it can be concluded that there are no anticipated adverse air quality impacts resulting from increased traffic in the area.

Existing impacts are often higher than future impacts for a number of reasons:

- the evolution of alternatively-fueled low-emission vehicles into the general roadway fleet (hybrids, electrics, CNG vehicles);
- the emission rates of traditional fossil-fueled vehicles continue to improve; and

[8] U.S. EPA, AERSCREEN User's Guide; EPA-454/B-11-001, March 2011.

- the increase in traffic volume with (or even without) the proposed Project is not large enough to overcome the benefits of a lower emitting vehicle fleet.

Table 5.5-3 Summary of Microscale Modeling Analysis (Existing 2016)

Intersection	*Peak*	*CAL3QHC Modeled CO Impacts (ppm)*	*Monitored Background Concentration (ppm)*	*Total CO Impacts (ppm)*	*NAAQS (ppm)*
1-Hour					
Surface Roadway, Lincoln Street, and I-93 Ramps	AM	0.4	2.2	2.6	35
	PM	0.4	2.2	2.6	35
Surface Roadway, Summer Street, and Purchase Street	AM	0.3	2.2	2.5	35
	PM	0.3	2.2	2.5	35
Purchase Street, Congress Street, and I-93 Ramp	AM	0.3	2.2	2.5	35
	PM	0.3	2.2	2.5	35
Summer Street and High Street	AM	0.2	2.2	2.4	35
	PM	0.2	2.2	2.4	35
8-Hour					
Surface Roadway, Lincoln Street, and I-93 Ramps	AM	0.4	1.8	2.2	9
	PM	0.4	1.8	2.2	9
Surface Roadway, Summer Street, and Purchase Street	AM	0.3	1.8	2.1	9
	PM	0.3	1.8	2.1	9
Purchase Street, Congress Street, and I-93 Ramp	AM	0.3	1.8	2.1	9
	PM	0.3	1.8	2.1	9
Summer Street and High Street	AM	0.2	1.8	2.0	9
	PM	0.2	1.8	2.0	9
Notes: CAL3QHC eight-hour impacts were conservatively obtained by multiplying one-hour impacts by a screening factor of 0.9.					

Table 5.5-4 Summary of Microscale Modeling Analysis (No-Build 2023)

Intersection	*Peak*	*CAL3QHC Modeled CO Impacts (ppm)*	*Monitored Background Concentration (ppm)*	*Total CO Impacts (ppm)*	*NAAQS (ppm)*
1-Hour					
Surface Roadway, Lincoln Street, and I-93 Ramps	AM	0.2	2.2	2.4	35
	PM	0.2	2.2	2.4	35
Surface Roadway, Summer Street, and Purchase Street	AM	0.2	2.2	2.4	35
	PM	0.2	2.2	2.4	35
Purchase Street, Congress Street, and I-93 Ramp	AM	0.2	2.2	2.4	35
	PM	0.2	2.2	2.4	35
Summer Street and High Street	AM	0.1	2.2	2.3	35
	PM	0.1	2.2	2.3	35
8-Hour					
Surface Roadway, Lincoln Street, and I-93 Ramps	AM	0.2	1.8	2.0	9
	PM	0.2	1.8	2.0	9
Surface Roadway, Summer Street, and Purchase Street	AM	0.2	1.8	2.0	9
	PM	0.2	1.8	2.0	9
Purchase Street, Congress Street, and I-93 Ramp	AM	0.2	1.8	2.0	9
	PM	0.2	1.8	2.0	9
Summer Street and High Street	AM	0.1	1.8	1.9	9
	PM	0.1	1.8	1.9	9
Notes: CAL3QHC eight-hour impacts were conservatively obtained by multiplying one-hour impacts by a screening factor of 0.9.					

Table 5.5-5 Summary of Microscale Modeling Analysis (Build 2023)

Intersection	*Peak*	*CAL3QHC Modeled CO Impacts (ppm)*	*Monitored Background Concentration (ppm)*	*Total CO Impacts (ppm)*	*NAAQS (ppm)*
1-Hour					
Surface Roadway, Lincoln Street, and I-93 Ramps	AM	0.2	2.2	2.4	35
	PM	0.2	2.2	2.4	35
Surface Roadway, Summer Street, and Purchase Street	AM	0.2	2.2	2.4	35
	PM	0.2	2.2	2.4	35
Purchase Street, Congress Street, and I-93 Ramp	AM	0.2	2.2	2.4	35
	PM	0.2	2.2	2.4	35
Summer Street and High Street	AM	0.1	2.2	2.3	35
	PM	0.1	2.2	2.3	35
8-Hour					
Surface Roadway, Lincoln Street, and I-93 Ramps	AM	0.2	1.8	2.0	9
	PM	0.2	1.8	2.0	9
Surface Roadway, Summer Street, and Purchase Street	AM	0.2	1.8	2.0	9
	PM	0.2	1.8	2.0	9
Purchase Street, Congress Street, and I-93 Ramp	AM	0.2	1.8	2.0	9
	PM	0.2	1.8	2.0	9
Summer Street and High Street	AM	0.1	1.8	1.9	9
	PM	0.1	1.8	1.9	9
Notes: CAL3QHC eight-hour impacts were conservatively obtained by multiplying one-hour impacts by a screening factor of 0.9.					

Table 5.5-6 Summary of Microscale Modeling Analysis (Mitigated Build 2023)

Intersection	*Peak*	*CAL3QHC Modeled CO Impacts (ppm)*	*Monitored Background Concentration (ppm)*	*Total CO Impacts (ppm)*	*NAAQS (ppm)*
1-Hour					
Surface Roadway, Lincoln Street, and I-93 Ramps	AM	0.2	2.2	2.4	35
	PM	0.2	2.2	2.4	35
Surface Roadway, Summer Street, and Purchase Street	AM	0.2	2.2	2.4	35
	PM	0.2	2.2	2.4	35
Purchase Street, Congress Street, and I-93 Ramp	AM	0.2	2.2	2.4	35
	PM	0.1	2.2	2.3	35
Summer Street and High Street	AM	0.1	2.2	2.3	35
	PM	0.1	2.2	2.3	35
8-Hour					
Surface Roadway, Lincoln Street, and I-93 Ramps	AM	0.2	1.8	2.0	9
	PM	0.2	1.8	2.0	9
Surface Roadway, Summer Street, and Purchase Street	AM	0.2	1.8	2.0	9
	PM	0.2	1.8	2.0	9
Purchase Street, Congress Street, and I-93 Ramp	AM	0.2	1.8	2.0	9
	PM	0.1	1.8	1.9	9
Summer Street and High Street	AM	0.1	1.8	1.9	9
	PM	0.1	1.8	1.9	9
Notes: CAL3QHC eight-hour impacts were conservatively obtained by multiplying one-hour impacts by a screening factor of 0.9.					

5.5.3 Mesoscale Analysis

In accordance with MassDEP guidance[9], a mesoscale analysis is required for the following projects for which an ENF is filed under MEPA after May 1, 1991:

- any office project generating 3,000 or more ADT; and
- any other non-residential project generating 6,000 or more ADT.

A mesoscale analysis will be required for the following projects for which a decision on the adequacy of an EIR is issued under MEPA after May 1, 1991:

- any non-residential project generating 10,000 or more ADT.

A mesoscale analysis is required to ensure that a proposed project will not negatively impact the existing SIP. The SIP is created to track how the state intends to maintain compliance with NAAQS or to plan for future emissions reductions to attain compliance.

5.5.3.1 Methodology

A mesoscale analysis predicts the change in regional ozone precursor emissions [oxides of nitrogen (NOx)] and volatile organic compounds (VOCs) due to the Project.

The analysis includes a comparison of the future Build conditions to the No-Build condition. If emissions are greater for the Build conditions, reasonable and feasible mitigation measures will be evaluated. The methodology and parameters for the mesoscale analysis follow methodology approved by MassDEP.

The mesoscale analysis performed for this Project predicts the change in regional ozone precursor emissions due to the proposed redevelopment of the Project site. The total vehicle pollutant burden was estimated for the 2016 Existing conditions and the No-Build and Build conditions for year 2023. Traffic conditions are described in more detail in Section 4.0.

The EPA has developed an emissions factor model (called MOVES) and MassDEP provides state-specific inputs required for this model. Therefore, the MOVES computer program was used to estimate motor vehicle emissions of VOC and NOx (and greenhouse gases) on the roadway network in the Project area.

[9] MassDEP, Guidelines For Performing Mesoscale Analysis Of Indirect Sources, May 1991

Average hourly emission estimates were calculated using the vehicle count data provided in the transportation study, mileage between intersections, and county-specific model inputs provided by MassDEP.

Traffic volumes provided in Section 4 form the basis of the mesoscale study. Approximately 43 roadway links were included in the mesoscale analysis. Peak hour traffic volumes were provided by the transportation consultant. Estimates of average daily traffic (ADT) were made from the peak hour volumes assuming a 10% K-Factor. This ADT was then converted into average hourly volumes by simply dividing by 24. Average speed was assumed based on roadway type (typically 10-40 mph for arterial roads) for all links. Distances for the links were estimated with mapping software.

MOVES output emissions are in tons per hour. Since average hourly traffic data were input, emissions in tons per year were calculated assuming a seven day week for 52 weeks per year.

For intersection emissions, idle vehicle emission rates were obtained in MOVES by using a fictitious roadway link with 100 vehicles and a zero miles per hour vehicle speed. The total emissions on this link can be divided by the number of vehicles to get a mass per hour emission rate for idling vehicles. This method is recommended by EPA to get emission factors for air quality concentration analyses of idling vehicles at intersections (microscale analyses).[10] These emission factors were then used with vehicle counts and delay information from the traffic analyses to estimate vehicle emissions at intersections.

Attachment H presents the intersection emissions calculations, and the Project-specific link data input into the MOVES program.

5.5.3.2 Results

Results of the mesoscale analysis are presented in Tables 5.5-7 through 5.5-9.

As shown in Table 5.5-7, the analysis indicates the change in total emissions from the 2016 Existing conditions to the 2023 No-Build conditions. Typically, a decrease in total emissions, even with the modest increases in traffic vehicle miles traveled (VMT), is attributable to anticipated improvements in vehicle engine and emissions technologies, which are expected to reduce the per-vehicle emission rates. Even with a roughly 5% increase in VMT, large reductions are realized due to improved fleet vehicle emissions.

[10] U.S. EPA, 2010. Using MOVES in Project-Level Carbon Monoxide Analyses. EPA-420-B-10-041.

Table 5.5-7 Regional Mesoscale (Indirect) Emissions Analysis Summary (No Build)

Pollutant	*VOC (lbs/day)*	*VOC (tons/yr)*	*NOx (lbs/day)*	*NOx (tons/yr)*
2016 Existing	20.9	3.8	17.0	3.1
2023 No-Build	16.5	3.0	7.0	1.3
Difference	-4.4	-0.8	-10.1	-1.8
Difference (%)	-21%	-21%	-59%	-59%

As shown in Table 5.5-8, the 2023 Build condition exhibits an increase of NOx and VOC emissions compared to 2023 No-Build conditions due to a direct increase in vehicular traffic and increased delay times at area intersections attributable to the Project. This results in increases of approximately 16 percent of VOC and 15 percent of NOx emissions.

Table 5.5-8 Regional Mesoscale (Indirect) Emissions Analysis Summary (Build)

Pollutant	*VOC (lbs/day)*	*VOC (tons/yr)*	*NOx (lbs/day)*	*NOx (tons/yr)*
2023 No-Build	16.5	3.0	7.0	1.3
2023 Build	19.2	3.5	8.0	1.5
Difference	2.7	0.5	1.1	0.2
Difference (%)	16%	16%	15%	15%

As shown in Table 5.5-9, the 2023 Build condition with Mitigation exhibits a decrease of NOx and VOC emissions compared to 2023 Build conditions. This is due to decreases in idle times at area intersections. This results in decreases of approximately 1 percent of VOC and 1 percent of NOx emissions.

Table 5.5-9 Regional Mesoscale (Indirect) Emissions Analysis Summary (Mitigated Build)

Pollutant	*VOC (lbs/day)*	*VOC (tons/yr)*	*NOx (lbs/day)*	*NOx (tons/yr)*
2023 Build	19.2	3.5	8.0	1.5
2023 Mitigated Build	19.1	3.5	7.9	1.4
Difference	-0.1	0.0	-0.1	0.0
Difference (%)	-1%	-1%	-1%	-1%

5.5.3.3 Conclusions

Mesoscale analysis results show increases of 16 percent in VOC and 15 percent in NOx emissions for the 2023 Build conditions relative to the 2023 No-Build condition due to traffic increases from No-Build to Build conditions. However, the actual increase in emissions is well less than 1 ton per year of each pollutant.

Signal timing mitigation reduces idle times at area intersections to the amount of approximately 1 percent reduction in both VOC and NOx emissions. The primary focus of intersection mitigation is to alleviate traffic and keep intersections operating smoothly. Any benefits to air quality are secondary to the traffic benefits.

Reduced intersection delay times would also result in a general increase in traffic speed along roadway links. In general, NOx emission rates decrease from idle to 30 mph. Therefore, any reduction in idling time and corresponding increase in speed up to the 30 mph limit would decrease NOx emissions. Since changes in vehicle speeds are not quantified, the resulting change in emissions is not calculated.

In addition, implementation of any future improvements not yet determined or discussed in Section 4.0 may further reduce emissions.

5.5.4 Stationary Source Analysis

At MEPA's or BPDA's discretion, a stationary source analysis may be required to ensure that the proposed Project will not adversely impact air quality in the area. The stationary sources that may contribute to impacts are typically combustion sources, such as heating boilers, emergency generators, cooling towers, and garage vents.

5.5.4.1 AERMOD Modeling Methodology

The most recent version of the U.S. EPA AERMOD refined dispersion model (Version 16216r) was selected to predict concentrations from the stationary sources related to the project. AERMOD is the U.S. EPA's preferred model for regulatory applications. The use of AERMOD provides the benefits of using the most current algorithms available for steady state dispersion modeling.

The ISC-AERMOD View graphical user interface (GUI) Version 9.5.0, created by Lakes Environmental, was used to facilitate model setup and post-processing of data. The AERMOD model was selected for this analysis because it:

- is the required U.S. EPA model for all refined regulatory analyses for receptors within 50 km of a source;

- is a refined model for facilities with multiple sources, source types, and building-induced downwash;
- uses actual representative hourly meteorological data;
- incorporates direction-specific building parameters which can be used to predict impacts within the wake region of nearby structures;
- allows the modeling of multiple sources together to predict cumulative downwind impacts;
- provides for variable emission rates;
- provides options to select multiple averaging periods between one-hour and one year (scaling factors can be applied to adjust the one-hour impact to a peak impact less than one-hour); and
- allows the use of large Cartesian and polar receptor grids, as well as discrete receptor locations.

Regulatory default options adopted for the model include:

- *Use stack-tip downwash (except for building downwash)*. Stack-tip downwash is an adjustment of the actual stack release height for conditions when the gas exit velocity is less than 1.5 times the wind speed. For these conditions, the effective release height is reduced a bit, based on the diameter of the stack and the wind and gas exit velocity. This option applies to point sources only, such as emergency generators, cooling towers, boiler units and garage vents.
- *Use the missing data and calms processing routines*. The model treats missing meteorological data in the same way as the calms processing routine (i.e., it sets the concentration values to zero for that hour, and calculates the short term averages according to U.S. EPA's calms policy), as set forth in the Guideline. Since only 1-hour averages are being used, concentrations predicted with calm or missing data would not affect model results.

The AERMOD model is able to assign sources to a rural or urban category to allow specified urban sources to use the effects of increased surface heating under stable atmospheric conditions. The urban dispersion classification was selected based on a visual inspection of the area within a three kilometer radius of the Project site. A population estimate of 1,118,961 was obtained from the MassDEP and is used in the AERMOD model to estimate the urban boundary layer height.

The regional meteorology in Boston is best approximated with meteorological data collected by the nearby Boston Logan International Airport in East Boston, MA. The station is located approximately three miles (4.6 km) to the east of the Project site at an elevation of 19.7 feet (6 m) above mean sea level. This station is the closest site for which extensive meteorological data are available which are representative of similar topographic influences that affect the proposed site. Five years (2012-2016) of hourly surface data collected at the station include wind speed and direction, temperature, cloud cover and ceiling height. Upper air data from Gray, Maine was processed along with the surface data using version 16216R of the AERMET meteorological data preprocessor. These files have been used on other AERMOD applications in the area for review by MassDEP and are presumed to be of sufficient quality for regulatory applications.

A network of 2,797 receptors with increasing spacing was used for the refined AERMOD modeling analysis. A nested grid of Cartesian receptors centered on the project was used. The entire modeling domain encompassed 100 square kilometers.

Terrain data were obtained from the U.S.G.S National Map Seamless Server (www.seamless.usgs.gov) according to guidance set forth by EPA.[11] Source, building, and receptor elevations were processed using the AERMAP processor by way of the Lakes AERMOD View interface. Figures 5.5-5 and 5.5-6 present the source and receptor locations, as well as the buildings used in the GEP stack height/downwash analysis described below.

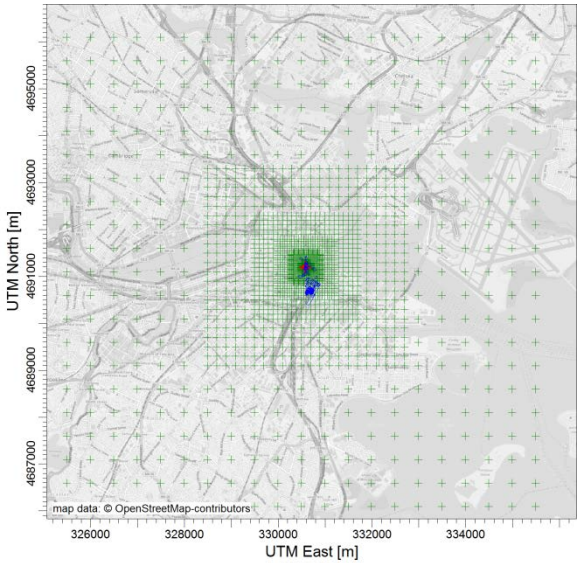
5.5.4.2 Sources

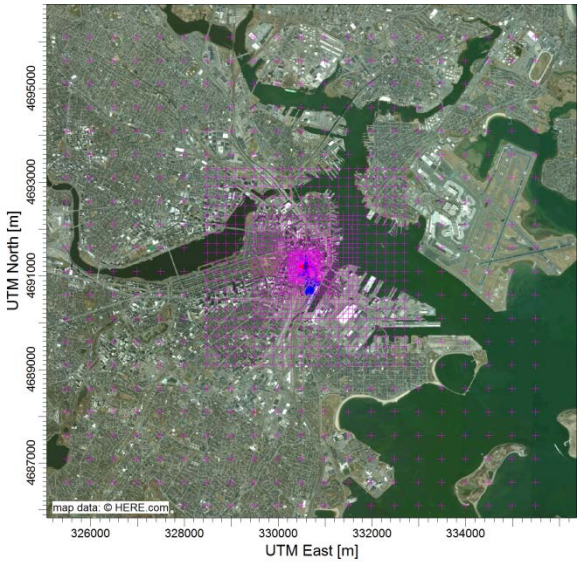
Stationary sources of air pollution are typically units that combust fuel. In this case, these sources consist of heating units, electrical generating units, etc.

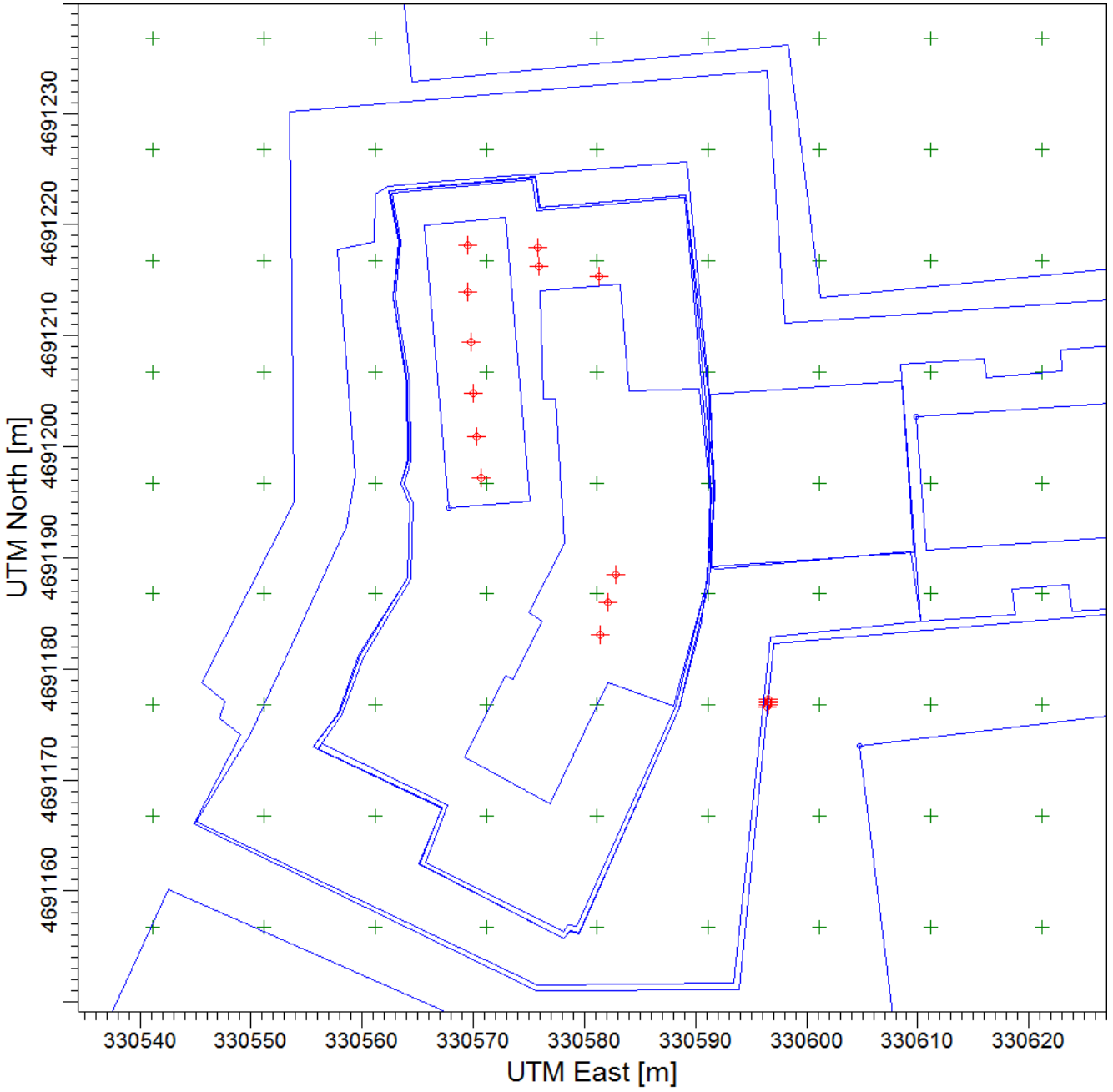
The design is for 13 heating and hot water boilers totaling 39.6 mmBTU/hr heat input. The units will be exhausted through nine stacks. All units will be natural gas-fired and located in mechanical areas in the building.

The boilers will be within the requirements of the MassDEP's Environmental Results Program (ERP) since individual estimated heat inputs are within or below the 10 to 40 mmBtu/hour ERP range. However, emissions were conservatively estimated for each boiler based on the MassDEP Boiler ERP program emission limits. Dispersion modeled impacts from the heating units were estimated from exhaust stacks 10 feet above the building roof heights above ground level. For all impacts, the heating equipment is assumed to be in operation 24 hours per day, seven days per week.

[11] U.S. EPA, AERMOD Implementation Guide, March 19, 2009.





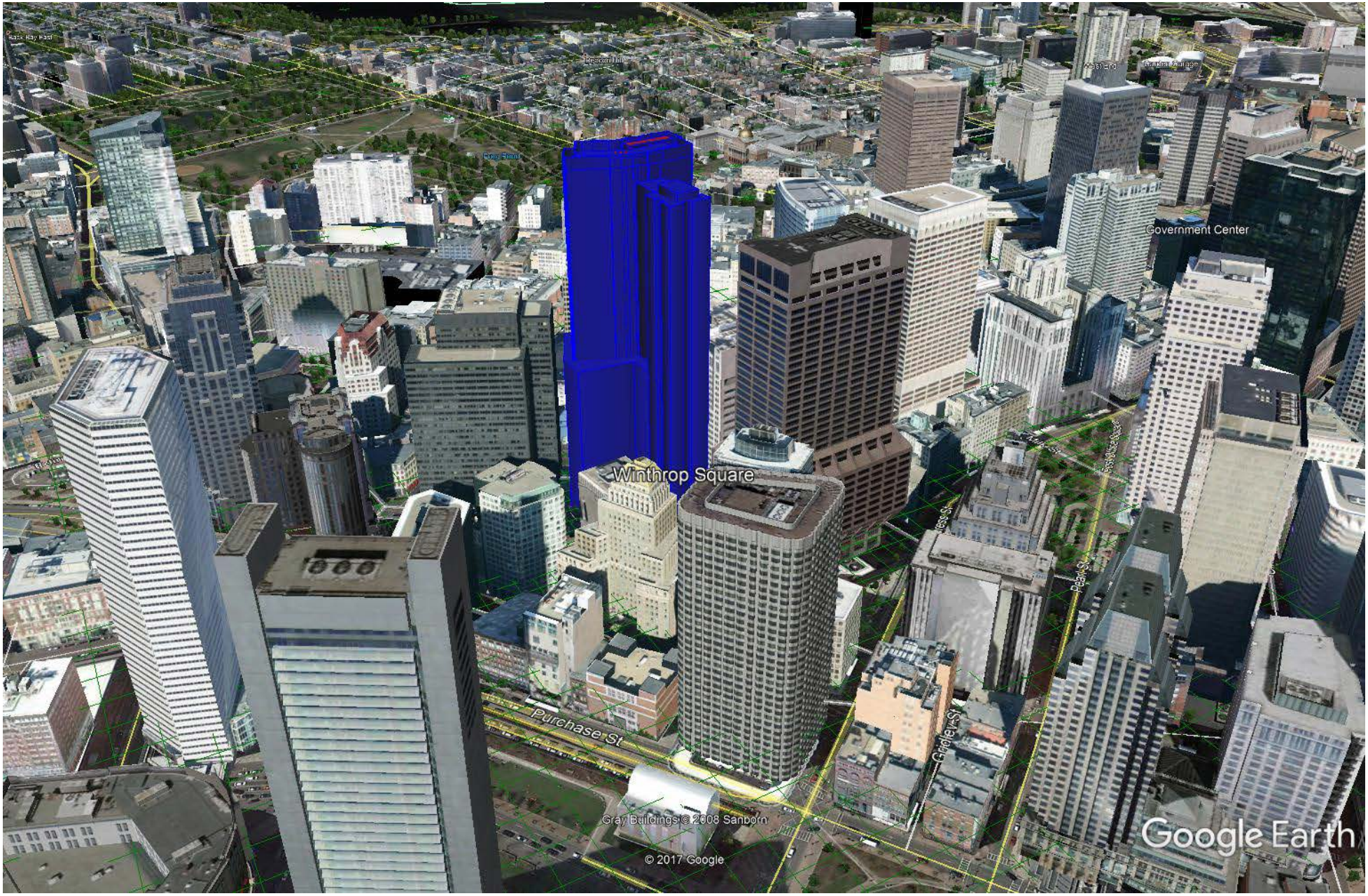


115 Winthrop Square, Boston, MA

Epsilon ASSOCIATES INC.

Figure 5-5-5

AERMOD stationary source, receptor, and building locations.



115 Winthrop Square, Boston, MA

Epsilon ASSOCIATES INC.

Figure 5-5-6

AERMOD Stationary Source Locations

All boilers are expected to be below the ERP limits of 10 MMBTU/hour. Therefore, registration with MassDEP would not be required.

Current design plans are for one 2,000-kilowatt emergency generator to be installed. The unit will provide life safety and standby emergency power. The unit will be diesel-fired and located in a mechanical area on the roof of the building. The generator is assumed to be designed such that its exhaust stack extends at least 10 feet above the building roof height above ground level.

Typically, the generator will operate for approximately one hour each month for testing and general maintenance. The ERP regulation applies to new emergency generators greater than 37 kW. The regulation is similar to the boiler ERP in that new engines are subject to emission standards, recordkeeping, certification, and compliance with the MassDEP noise policy. Since the generators' maximum rating capacities are greater than the ERP limit of 37 kW, all three will be subject to the ERP program. Per the ERP, the generators' owner will limit operation of the generators to less than 300 hours per year and submit a certification form to MassDEP within 60 days of installation.

Emissions were estimated for the emergency generators based on vendor supplied data. Comparable equipment was assumed where not provided by the architects. The generator is assumed to operate 500 of 8,760 hours per year in the modeling for annual averaging times.[12]

The design is for six single-cell cooling towers, capable of providing approximately 770 tons of cooling, each, to be installed on the tower. These units will remove the excess heat generated by the building's mechanical equipment. All units will be located on the roof of the building.

Only emissions of particulate matter are assumed to be produced by the cooling tower cells. The cooling towers are assumed to operate at 100% capacity for 8,760 hours per year. Emissions of all other pollutants from the cooling towers are expected to be negligible.

Emissions and exhaust parameters were based on vendor supplied data and/or engineering judgment.

[12] Although MassDEP currently limits operation of emergency generators to 300 hours per rolling year, proposed revisions to the regulations are citing 500 hours per year. Thus, for predicted impacts, 500 hours per year was conservatively assumed.

An underground parking garage with mechanical ventilation will be part of the proposed Project. Carbon monoxide monitors are typically installed within enclosed areas idling vehicles to insure that levels of CO do not exceed health standards. Monitors will be used to control abatement ventilation when necessary.

Emissions from the garage were calculated using MOVES and an estimate of the total number of vehicles and driving distance within the garage.

To provide a conservative assumption for emissions from the garage, an emission rate from MOVES of 10 miles per hour was conservatively assumed for the year 2016.

A three bay loading dock is also planned for the Project. The dock is assumed to be in use constantly from 5 am to 4 pm with five trucks idling for five minutes per hour (per M.G.L. 90, 16A). The loading dock and underground parking garage are ducted to the same exhaust vent.

High velocity air intake louvers and the garage entry will supply make-up air for the garage's and loading dock's ventilation systems. Based on mechanical estimates, a total ventilation air requirement of 1.5 cubic feet per square foot of garage space was used. A single vent is expected to be exhausting horizontally at a minimum of 10 feet just above sidewalk grade.

Detailed calculations, assumptions, and exhaust parameters for all stationary sources are presented in the Attachment H.

5.5.4.3 GEP Stack Height Analysis

The Good Engineering Practice (GEP) stack height evaluation of the facility has been conducted in accordance with the EPA revised Guidelines for Determination of Good Engineering Practice Stack Height (EPA, 1985). A GEP stack is sufficiently high to avoid aerodynamic downwash effects from nearby buildings or structures. As defined by the EPA guidelines, the formula for computing GEP stack height is the greater of:

1. 65 meters, or

2. for stacks constructed after January 12, 1979,

$$H_{GEP} = H_b + 1.5L$$

where H_{GEP} = GEP stack height,

H_b = Height of adjacent or nearby structures,

L = Lesser of height or maximum projected width of adjacent or nearby building (*i.e.*, the critical dimension), and nearby is within 5L of the stack from downwind (trailing edge) of the building.

The GEP formula was applied to each input building. Facility grade is approximately at mean sea level. The EPA's Building Profile Input Program Prime Version (BPIP-Prime) was run to confirm the GEP height and to calculate direction-specific building dimensions for use in AERMOD.

The point sources subject to building influences are the boiler stacks, garage vents, cooling towers, and emergency generator stack.

The proposed boiler stacks, cooling towers, garage vents, and emergency generator stack are all below GEP height; therefore, building downwash effects were considered in the air quality modeling. The AERMOD model determines when and if to include downwash in its calculations. In addition, if downwash applies, the AERMOD downwash algorithm will be used to estimate concentrations in the building cavity areas.

5.5.4.4 Results

A cumulative impact analysis of Project-related stationary sources was also conducted for comparison to the NAAQS for SO_2, NO_2, PM-10, and PM-2.5. This analysis addresses emissions from the Project's heating boilers, emergency generators, cooling towers, and the garage and loading dock vents.

Worst-case maximum predicted impacts from these source groups were added to monitored background values obtained from MassDEP and compared to the NAAQS.

Table 5.5-10 presents the cumulative modeling results for the stationary sources plus monitored background values. Total impacts, when combined with background, are below the NAAQS for all pollutants and averaging periods. The concentration closest to its applicable standard is 1-hour NO_2 (100.3 µg/m³ and 53% of NAAQS). However, of the total, background comprises 95.3 µg/m³ or nearly 50% of the NAAQS. The Project impact is extremely minor, totaling less than 10% of ambient background NO_2.

5.5.4.5 Conclusions

Using conservative estimates, all predicted concentrations at the nearest receptors for impacts from the stationary sources (including heating boilers, cooling towers, emergency generator units, and garage exhausts), plus monitored background values, are well under the NAAQS thresholds. Results are shown in Table 5.5-10.

5.5.4.6 Permitting

Stationary sources of air pollution are typically units that combust fuel. In this case, these sources consist of heating and hot water units and emergency electrical generators. Cooling towers, although not a combustion source, are a source of particulate emissions.

It is expected that the majority of stationary sources (boilers, engines, etc.) may be subject to MassDEP's Environmental Results Program (ERP). The Proponent will complete the required applications and submittals for the equipment, as necessary. No sources are expected to meet or exceed the thresholds for a Non-Major Comprehensive Plan Approval.

Table 5.5-10 Summary of NAAQS Stationary Source Modeling Analysis

Pollutant	Averaging Time	Maximum Modeled Conc. (µg/m³)	Date, Year, or Period	Background Concentration (µg/m³)	Total Conc. (µg/m³)	Standard (µg/m³)	% Of Standard
SO_2	1-HR (1)	0.081	2012-2016	16.9	16.9	195	9%
	3-HR (2)	0.065	8/7/13 hr 09	24.6	24.7	1300	2%
	24-HR (2)	0.032	10/11/14	13.1	13.1	365	4%
	ANN (3)	0.005	2012	2.5	2.5	80	3%
PM-10	24-HR (4)	0.393	12/7/12	53.0	53.4	150	36%
	ANN (3)	0.098	2012	14.9	15.0	50	30%
PM-2.5	24-HR (5)	0.307	2012-2016	15.2	15.5	35	44%
	ANN (6)	0.094	2012-2016	7.3	7.4	12	62%
NO_2	1-HR (7)	5.073	2012-2016	95.3	100.3	188	53%
	ANN (3)	0.547	2012	32.5	33.1	100	33%
CO	1-HR (2)	10.687	8/21/13 hr 10	2489.1	2499.8	40000	6%
	8-HR (2)	5.805	7/17/13 hr 08	2062.8	2068.6	10000	21%

Notes:

(1) Maximum 4th-Highest Maximum Daily 1-Hr Concentration Averaged Over 5 Years
(2) Highest 2nd-High Concentration Over 5 Years
(3) Highest Annual Concentration Over 5 Years
(4) Highest 6th-High Concentration Over 5 Years
(5) Maximum 8th-Highest 24-Hour Concentration Averaged Over 5 Years
(6) Maximum Annual Concentration Averaged Over 5 Years
(7) Maximum 8th Highest Maximum Daily 1-hour Concentrations Averaged Over 5 Years.

5.6 Noise

5.6.1 Introduction

A sound level assessment conducted including a baseline sound monitoring program to measure existing sound levels in the vicinity of the Project site, computer modeling to predict operational sound levels from mechanical equipment associated with the Project, and a comparison of future Project sound levels to applicable noise regulations, including the City of Boston Zoning District Noise Standards, the MassDEP Noise Policy, and the U.S. Department of Housing and Urban Development Criteria.

The analyses indicate that with appropriate noise attenuation measures, predicted noise levels from mechanical equipment are anticipated to comply with all applicable local, state, and federal regulations.

5.6.2 Noise Terminology

There are several ways in which sound (noise) levels are measured and quantified, all of which use the logarithmic decibel (dB) scale. The following section defines the noise terminology used in this analysis.

The decibel scale is logarithmic to accommodate the wide range of sound intensities observed in the environment. A property of the decibel scale is that the sound pressure levels of two distinct sounds are not purely additive. For example, if a sound of 50 dB is added to another sound of 50 dB, the total is only a three-decibel increase (53 dB), not a doubling (100 dB). Thus, every three-decibel change in sound level represents a doubling or halving of sound energy. A change in sound level of less than three dB is generally imperceptible to the human ear.

Another mathematical property of the decibel scale is that if one source of noise is 10 dB (or more) louder than another source, then the total combined sound level is simply that of the louder source (i.e., the quieter source contributes negligibly to the overall sound level). For example, a source of sound at 60 dB plus another source at 47 dB is 60 dB.

A sound level meter (SLM) that is used to measure noise is a standardized instrument.[13] It contains "weighting networks" to adjust the frequency response of the instrument to approximate that of the human ear under various circumstances. The most commonly used weighting network is the A-weighting

[13] *American National Standard Specification for Sound Level Meters*, ANSI S1.4-1983, published by the Standards Secretariat of the Acoustical Society of America, Melville, NY.

(there are also C- and Z-weighting networks) because it most closely approximates how the human ear responds to sound at various frequencies. Frequencies, reported in Hertz (Hz), are the detailed components of sound.

The A-weighting network is the accepted scale used for community sound level measurements and sounds are frequently reported as detected with a sound level meter with this weighting. A-weighted sound levels emphasize middle frequency sounds (*i.e.,* middle pitched – around 1,000 Hz), and de-emphasize low and high frequency sounds. A-weighted sound levels are reported in decibels designated as "dBA".

Because sounds in the environment vary with time, they are usually described with more than simply a single number. Two methods are used for describing variable sounds, exceedance levels and the equivalent level, both of which are derived from a large number of moment-to-moment, A-weighted sound level measurements. Exceedance levels are values from the cumulative amplitude distribution of all of the sound levels observed during a measurement period. Exceedance levels are designated L_n, where n can have a value between 0 and 100 in terms of percentage. Several sound level metrics that are commonly reported in community noise studies are described below.

- L_{90} is the sound level in dBA exceeded 90 percent of the time during the measurement period. The L_{90} is close to the lowest sound level observed. It is essentially the same as the residual sound level, which is the sound level observed when there are no obvious nearby intermittent noise sources.
- L_{50} is the median sound level, the sound level in dBA exceeded 50 percent of the time during the measurement period.
- L_{10} is the sound level in dBA exceeded only 10 percent of the time. It is close to the maximum level observed during the measurement period. The L_{10} is sometimes called the intrusive sound level because it is caused by occasional louder noises like those from passing motor vehicles.
- L_{max} is the maximum instantaneous sound level observed over a given period.
- L_{eq}, the equivalent level, is the level of a hypothetical steady sound that would have the same energy (i.e., the same time-averaged mean square sound pressure) as the actual fluctuating sound observed. The equivalent level represents the time average of the fluctuating sound pressure, but because sound is represented on a logarithmic scale and the averaging is done with linear mean square sound pressure values, the L_{eq} is mostly determined by occasional loud, intrusive noises.

- Day-night average sound level, abbreviated as DNL and symbolized as L_{dn}, is the 24-hour average sound level, in decibels, obtained after addition of 10 decibels to sound levels in the night for each hour from 10:00 PM to 7:00 AM. The hourly L_{eq} sound level metric is used to calculate the L_{dn}.

In the design of noise controls, which do not function quite like the human ear, it is important to understand the frequency spectrum of the noise source of interest. The spectra of noises are usually stated in terms of octave-band sound pressure levels, in dB, with the frequency bands being those established by standard (American National Standards Institute [ANSI] S1.11, 1986). To facilitate the noise control design process, the estimates of noise levels in this analysis are also presented in terms of octave-band sound pressure levels.

5.6.3 Noise Regulations and Criteria

5.6.3.1 City of Boston

The City of Boston has both a noise ordinance and noise regulations. Chapter 16 §26 of the Boston Municipal Code sets the general standard for noise that is unreasonable or excessive: louder than 50 decibels between the hours of 11:00 p.m. and 7:00 a.m., or louder than 70 decibels at all other hours. The Boston Air Pollution Control Commission (BAPCC) has adopted regulations based on the city's ordinance - "Regulations for the Control of Noise in the City of Boston", which distinguish among residential, business, and industrial districts in the city. In particular, BAPCC Regulation 2 is applicable to the sounds from the Project and is considered in this noise study.

Table 5.6-1 below presents the "Zoning District Noise Standards" contained in Regulation 2.5 of the BAPCC "Regulations for the Control of Noise in the City of Boston," adopted December 17, 1976. These maximum allowable sound pressure levels apply at the property line of the receiving property. The "Residential Zoning District" limits apply to any lot located within a residential zoning district or to any residential use located in another zone except an Industrial Zoning District, according to Regulation 2.2. Similarly, per Regulation 2.3, business limits apply to any lot located within a business zoning district not in residential or institutional use. Per Regulation 2.4, City of Boston industrial noise limits apply to any business lot located within an industrial zoning district.

Table 5.6-1 City Noise Standards, Maximum Allowable Sound Pressure Levels

Octave-band Center	Residential Zoning District		Residential Industrial Zoning District		Business Zoning District	Industrial Zoning District
Frequency (Hz)	Daytime (dB)	All Other Times (dB)	Daytime (dB)	All Other Times (dB)	Anytime (dB)	Anytime (dB)
31.5	76	68	79	72	79	83
63	75	67	78	71	78	82
125	69	61	73	65	73	77
250	62	52	68	57	68	73
500	56	46	62	51	62	67
1000	50	40	56	45	56	61
2000	45	33	51	39	51	57
4000	40	28	47	34	47	53
8000	38	26	44	32	44	50
A-Weighted (dBA)	**60**	**50**	**65**	**55**	**65**	**70**

Notes:
1. Noise standards from Regulation 2.5 "Zoning District Noise Standards", City of Boston Air Pollution Control Commission, "Regulations for the Control of Noise in the City of Boston", adopted December 17, 1976.
2. All standards apply at the property line of the receiving property.
3. dB and dBA based on a reference pressure of 20 micropascals.
4. Daytime refers to the period between 7:00 a.m. and 6:00 p.m. daily, except Sunday.

5.6.3.2 Massachusetts Department of Environmental Protection

MassDEP has the authority to regulate noise under 310 CMR 7.10, which is part of the Commonwealth's air pollution control regulations. According to MassDEP regulations, "unnecessary" noise is considered an air contaminant and thus is prohibited by 310 CMR 7.10. MassDEP administers this regulation through Noise Policy DAQC 90-001, which limits a source to a 10-dBA increase above the L_{90} ambient sound level measured at the Project property line and at the nearest occupied residences. MassDEP policy further prohibits "pure tone" conditions where the sound pressure level in one octave band is at least three dB greater than the sound levels in each of the two adjacent bands.

5.6.3.3 U.S. Department of Housing and Urban Development

The HUD Environmental Criteria and Standards (24 CFR Part 51), Subpart B – Noise Abatement and Control specifies noise criteria for HUD-funded housing developments. The HUD exterior noise goal for residential construction is a day-night average sound level (L_{dn}) of 65 dBA or less. This is considered "Acceptable". L_{dn} sound levels above 65 dBA but not exceeding 75 dBA are considered "Normally Unacceptable," and L_{dn} levels above 75 dBA are considered "Unacceptable". Funding for HUD approvals in "Normally

Unacceptable" areas require a minimum of 10 dB of additional sound attenuation for buildings having noise-sensitive uses. The HUD interior noise goal is an L_{dn} of 45 dBA.

5.6.4 Existing Background Conditions

A background noise level survey was conducted to characterize the existing "baseline" acoustical environment in the vicinity of the Project. Existing noise sources in the vicinity of the Project site include: vehicle and truck traffic along local streets, pedestrian foot traffic, mechanical noise, idling vehicles, vehicle backup alarms, nighttime street construction and sweeping, and the general city soundscape.

5.6.4.1 Noise Monitoring Methodology

Since noise impacts from the Project on the community will be highest when baseline noise levels are the lowest, the study was designed to measure community noise levels under conditions typical of "quiet periods" for the area. Daytime measurements were scheduled to avoid peak traffic conditions. Sound level measurements were made on Thursday, February 2, 2017 during the daytime (12:30 p.m. to 3:00 p.m.) and on Friday, February 3, 2017 during nighttime hours (12:00 a.m. to 4:00 a.m.). All measurements were 20 minutes in duration.

Sound levels were measured at publicly accessible locations at a height of five feet (1.5 meters) above ground level, under low wind conditions, and with dry roadway surfaces. Wind speed measurements were made with a Davis Instruments TurboMeter electronic wind speed indicator, and temperature and humidity measurements were made using a General Tools digital psychrometer. Unofficial observations about meteorology and land use in the community were made solely to characterize the existing sound levels in the area and to estimate the noise sensitivity at properties near the Project site.

5.6.4.2 Noise Monitoring Locations

The selection of the noise monitoring locations was based upon a review of zoning and land use in the Project area. Four noise monitoring locations were selected as representative sites to obtain a sampling of the ambient baseline noise environment. These measurement locations are depicted on Figure 5.6-1 and are described below.

- **Location 1** is located along the western sidewalk of Otis Street, at the northeast corner of St. Anthony's Shrine and 10 Winthrop Square. This location is representative of institutional receptors to the west of the Project.

- **Location 2** is located along Devonshire Street at the southern corner of the Club Quarters Hotel and south of Elephant and Castle Pub. This location is representative of residential receptors to the north of the Project.

- **Location 3** is located immediately south of 133 Federal Street along the northern sidewalk of Milton Place, north of the New England College of Business building. This location is representative of the institutional receptor south of the Project.

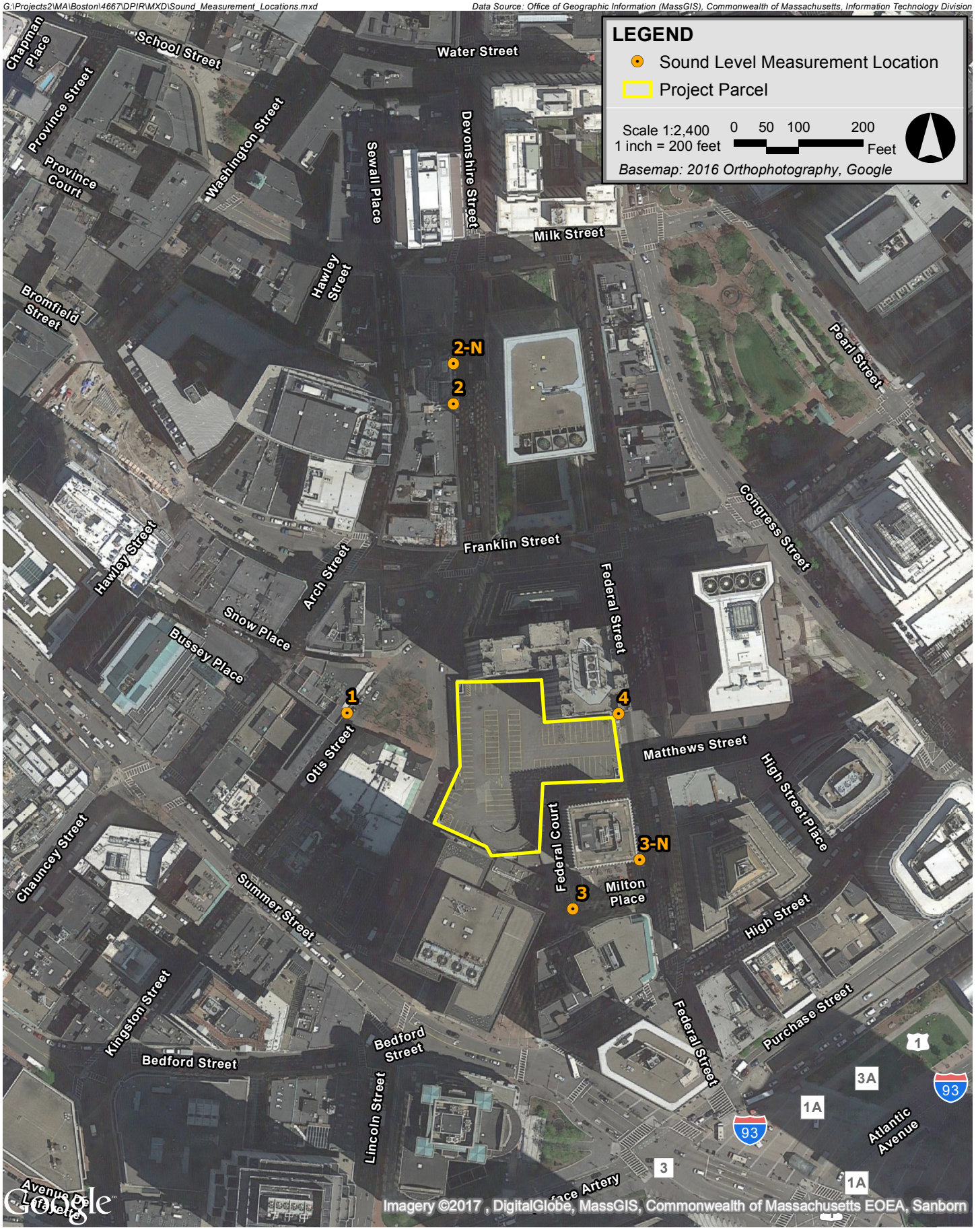
- **Location 4** is located at the Southeast corner of 75/101 Federal Street, along the western sidewalk of Federal Street. This location is representative of commercial receptors to the east of the Project.

During the nighttime monitoring period, identifiable noise sources significantly contaminated the sound levels at Locations 2 and 3. Therefore, alternate nighttime locations were selected to obtain more representative ambient sampling data. These locations are identified as Locations 2-N and 3-N in Figure 5.6-1 to indicate the relocated nighttime measurement position. Location 2-N is approximately 45 feet north of daytime Location 2, outside of 161 Devonshire Street, north of Elephant and Castle Pub. Due to overwhelming noise contribution from louvers on neighboring buildings at Location 3, a moderate distance from Location 3 was required to obtain a conservatively representative ambient nighttime measurement. Shielding from the louver noise was achieved at nighttime Location 3-N, which is located along the western sidewalk of Federal Street, on the southeast corner 133 Federal Street.

5.6.4.3 Noise Monitoring Equipment

A Larson Davis Model 831 sound level meter equipped with a PCB PRM831 preamplifier, a PCB 377B20 half-inch microphone, and manufacturer-provided windscreen was used to collect baseline sound pressure level data. This instrumentation meets the "Type 1 - Precision" requirements set forth in ANSI S1.4 for acoustical measuring devices. The measurement equipment was calibrated in the field before and after the surveys with a Larson Davis CAL200 acoustical calibrator which meets the standards of IEC 942 Class 1L and ANSI S1.40-1984. Statistical descriptors (e.g., L_{eq}, L_{90}, etc.) were measured for each 20-minute sampling period, with octave-band sound levels corresponding to the same data set processed for the broadband levels.

Data Source: Office of Geographic Information (MassGIS), Commonwealth of Massachusetts, Information Technology Division



115 Winthrop Square Boston, Massachusetts

Epsilon Associates Inc.

Figure 5.6-1

Sound Level Measurement Locations

5.6.4.4 Measured Background Noise Levels

Baseline noise monitoring results are presented in Table 5.6-2 and summarized below:

- The daytime residual background (L_{90}) measurements ranged from 60 to 62 dBA;
- The nighttime residual background (L_{90}) measurements ranged from 51 to 53 dBA;
- The daytime equivalent level (L_{eq}) measurements ranged from 66 to 70 dBA;
- The nighttime equivalent level (L_{eq}) measurements ranged from 60 to 72 dBA.

Table 5.6-2 Summary of Measured Background Noise Levels – February 2, 2016 (Daytime) & February 3, 2017 (Nighttime)

Location	Period	Start Time	L_{eq}	L_{max}	L_{10}	L_{50}	L_{90}	L_{90} Sound Pressure Level by Octave-Band Center Frequency (Hz)								
								31.5	63	125	250	500	1k	2k	4k	8k
			dBA	dBA	dBA	dBA	dBA	dB	dB	dB	dB	dB	dB	dB	dB	dB
1	Day	12:31 PM	70	95	71	63	60	66	66	61	59	58	55	50	43	33
2	Day	1:22 PM	68	92	67	63	62	67	68	68	61	59	56	50	42	34
3	Day	2:00 PM	66	85	65	63	62	66	65	63	61	61	56	51	43	33
4	Day	2:28 PM	66	78	68	64	61	66	65	64	62	59	56	50	40	32
1	Night	12:21 AM	60	81	64	54	51	58	59	57	53	50	45	37	25	22
2-N	Night	1:49 AM	60	76	63	54	52	59	59	59	54	50	46	40	29	25
3-N	Night	2:40 AM	60	83	61	55	53	58	57	59	55	51	48	41	30	24
4	Night	3:26 AM	72	89	79	58	53	57	59	59	55	52	47	42	31	24

Note: Sound pressure levels are rounded to the nearest whole decibel.

Weather Conditions:

	Date	Temp	RH	Sky	Wind
Daytime	Thursday, February 2, 2017	40°F	33%	Partly Sunny	Varying Directions @ 0-4 mph
Nighttime	Friday, February 3, 2017	30°F	30%	Cloudy	N @ 1-4 mph

Monitoring Equipment Used:

	Manufacturer	Model	S/N
Sound Level Meter	Larson Davis	LD831	3751
Microphone	Larson Davis	377B20	142884
Preamp	Larson Davis	PRM831	29562
Calibrator	Larson Davis	Cal200	7147

5.6.5 Future Conditions

5.6.5.1 Overview of Potential Noise Sources

The primary sources of continuous sound exterior to the Project will consist of ventilation, heating, cooling, and emergency power noise sources. Numerous Project-related sound sources will be within the building and a collection will be on the roof. Ventilation apertures associated with interior equipment will discharge sound at various heights and at various facades and rooftops of the Project building. The Project was modeled with a height (including mechanicals) of 688 feet. This height corresponds to the tallest roof height, which is applicable to the noise model rather than the total Project height of 691 feet that includes a three-foot parapet. An increase in this height would only reduce the noise impacts described in this section.

Table 5.6-3 provides an anticipated list of the major sources of sound. Sound power levels used in the acoustical modeling of each piece of equipment are presented in Table 5.6-4. Manufacturer sound power level data were provided for nearly all pieces of equipment. The sound power levels for the exhaust component of the emergency generator were calculated using the sound pressure levels provided by the manufacturer at a reference distance.

In the model, sound attenuation from duct losses was taken into account for multiple sources where duct paths would realistically reduce noise from the ducted sound source. Calculated octave-band attenuation levels for anticipated duct losses are provided in Table 5.6-5 for respective sources.

As the design progresses, specifications for mechanical equipment may change; however, the Project will include various noise-control measures that are necessary to achieve compliance with the applicable noise regulations. A total of 18 mechanical fenestrations around the Project facades will be equipped with acoustical louvers to reduce their impact at nearby receptors. The 18 louvers correspond to 44 modeled sources within Table 5.6-3 since many louvers are for multiple sound sources. Each source requiring an acoustical louver is identified in Table 5.6-5 with the octave-band attenuation values specified. Four energy recovery units (ERU) and the emergency generator's mechanical sound levels will be mitigated by duct silencers. Exhaust noise from the generator will be mitigated through an exhaust silencer, as specified by the Proponent. A set of garage supply fans will be installed with additional attenuation in the 250 Hz octave band either supplied by the vendor or through the selection of quieter fans from the same or alternate manufacturer. Details of these additional mitigation measures proposed for the Project are presented in Table 5.6-5.

To further limit impacts from the emergency generator, required periodic, routine testing will be conducted during daytime hours, when background sound levels are typically highest.

Table 5.6-3 Modeled Noise Sources

Model Source #[1]	Noise Source	Quant.	Approximate Location	Size/ Capacity
1	Garage Supply Fan	5	One per basement level, vented at Level 1 southern façade by Federal Ct	8,100 cfm
2	Garage Supply Fan	5	One per basement level, vented at Level 1 Mezzanine north end of western façade	8,100 cfm
3	Garage Supply Fan	5	One per basement level, vented at Level 1 Mezzanine southeastern façade by Federal Ct	5,000 cfm
4	Garage Exhaust Fan	5	One per basement level, vented at Level 1 Mezzanine northern façade near 101 Federal St	11,000 cfm
5	Garage Exhaust Fan	5	One per basement level, vented at Level 1 Mezzanine south end of western façade	11,000 cfm
6	ERU MEZZ-01 (Supply)	1	Mezzanine level, vented at Level 1 Mezzanine north end of western façade	7,500 cfm
7	ERU GH-01 (Supply)	1	Ground floor, vented at Level 1 Mezzanine north end of western façade	12,000 cfm
8	ERU MEZZ-01 (Exhaust)	1	Mezzanine level, vented at Level 1 Mezzanine northern façade near 101 Federal St	7,500 cfm
9	ERU GH-01 (Exhaust)	1	Ground floor, vented at Level 1 Mezzanine northern façade near 101 Federal St	12,000 cfm
10	ERU B1-01 (Supply)	1	Level B1, vented at Level 1 Mezzanine southeastern façade by Federal Ct	12,000 cfm
11	ERU B2-01 (Supply)	1	Level B2, vented at Level 1 Mezzanine southeastern façade by Federal Ct	12,000 cfm
12	Transformer Supply Fan	1	Level B1, vented at Level 1 Mezzanine southeastern façade by Federal Ct	40,000 cfm
13	ERU B1-01 (Exhaust)	1	Level B1, vented at Level 1 Mezzanine south end of western façade	12,000 cfm
14	ERU B2-01 (Exhaust)	1	Level B2, vented at Level 1 Mezzanine south end of western façade	12,000 cfm
15	Transformer Exhaust Fan	1	Level B1, vented at Level 1 Mezzanine south end of western façade	40,000 cfm
16	ERU B2-02 (Exhaust)	1	Level B2, vented at Level 1 Mezzanine south end of western façade	12,000 cfm
17	Loading Dock Exhaust Fan	1	Ground floor, vented at Level 1 Mezzanine south end of western façade	7,500 cfm
18	ERU B2-02 (Supply)	1	Level B2, vented at Level 1 Mezzanine western façade	12,000 cfm
19	Fire Pump Room Exhaust Fan	1	Level B2, vented at Level 1 Mezzanine south end of western façade	2,000 cfm
20	Fire Pump Room Supply Fan	1	Level B2, vented at Level 1 Mezzanine western façade	2,000 cfm
21	ERU 02-01 (Supply)	1	Level 2, vented at Level 2 southeastern façade by Federal Ct	25,000 cfm

Table 5.6-3 Modeled Noise Sources (Continued)

Model Source #	Noise Source	Quant.	Approximate Location	Size/ Capacity
22	AHU 02-01 (Supply)	1	Level 2, vented at Level 2 southeastern façade by Federal Ct	20,000 cfm
23	ERU 02-01 (Exhaust)	1	Level 2, vented at Level 2 southeastern façade by Federal Ct	25,000 cfm
24	AHU 02-01 (Exhaust)	1	Level 2, vented at Level 2 southeastern façade by Federal Ct	20,000 cfm
25	ERU 03-01 (Supply)	1	Level 3, vented at Level 3 southeastern façade by Federal Ct	5,000 cfm
26	ERU 03-01 (Exhaust)	1	Level 3, vented at Level 3 southeastern façade by Federal Ct	5,000 cfm
27	ERU 04-01 (Supply)	1	Level 4, vented at Level 4 southeastern façade by Federal Ct	5,000 cfm
28	ERU 04-01 (Exhaust)	1	Level 4, vented at Level 4 southeastern façade by Federal Ct	5,000 cfm
29	ERU 05-01 (Supply)	1	Level 5, vented at Level 5 southeastern façade by Federal Ct	5,000 cfm
30	ERU 05-01 (Exhaust)	1	Level 5, vented at Level 5 southeastern façade by Federal Ct	5,000 cfm
31	Grease Exhaust Fan	2	Level 5, vented at Level 5 southeastern façade by Federal Ct	15,000 cfm
32	ERU 23-01 (Supply)	1	Level 23, vented at Level 23 south end of western façade	25,000 cfm
33	ERU 23-02 (Supply)	1	Level 23, vented at Level 23 south end of western façade	25,000 cfm
34	ERU 23-01 (Exhaust)	1	Level 23, vented at Level 23 south end of western façade	25,000 cfm
35	ERU 23-02 (Exhaust)	1	Level 23, vented at Level 23 south end of western façade	25,000 cfm
36	Fire Pump Room Exhaust Fan	1	Level 23, vented at Level 23 south end of western façade	2,000 cfm
37	Fire Pump Room Supply Fan	1	Level 23, vented at Level 23 south end of western façade	2,000 cfm
38	HV 23-01 (Supply)	1	Level 23, vented at Level 23 southeastern façade by Federal Ct	5,000 cfm
39	AHU 23-01 (Supply)	1	Level 23, vented at Level 23 southern façade by Federal Ct	25,000 cfm
40	AHU 23-02 (Supply)	1	Level 23, vented at Level 23 southern façade by Federal Ct	25,000 cfm
41	AHU 23-03 (Supply)	1	Level 23, vented at Level 23 southern façade by Federal Ct	25,000 cfm
42	AHU 23-04 (Supply)	1	Level 23, vented at Level 23 northern façade	25,000 cfm
43	AHU 23-05 (Supply)	1	Level 23, vented at Level 23 northern façade	5,600 cfm
44	AHU 23-04 (Exhaust)	1	Level 23, vented at Level 23 northern façade	25,000 cfm
45	AHU 23-05 (Exhaust)	1	Level 23, vented at Level 23 northern façade	5,600 cfm
46	Emergency Generator (Room Supply)	1	Level 23, vented at Level 23 northern façade	2,000 kW

Table 5.6-3 Modeled Noise Sources (Continued)

Model Source #	Noise Source	Quant.	Approximate Location	Size/ Capacity
47	Emergency Generator (Room Exhaust)	1	Level 23, vented at Level 23 north end of eastern façade	2,000 kW
48	ERU 43-01	1	Level 42 roof	25,000 cfm
49	ERU 43-02 (Supply)	1	Level 43, vented at Level 43 eastern façade	25,000 cfm
50	ERU 43-02 (Exhaust)	1	Level 43, vented at Level 43 eastern façade	25,000 cfm
51	ERU 52-01	1	Level 52 roof	16,000 cfm
52	ERU 52-02	1	Level 52 roof	7,500 cfm
53	AHU 52-01	1	Level 52 roof	12,700 cfm
54	AHU 52-02	1	Level 52 roof	12,700 cfm
55	Fire Pump Room Exhaust Fan	1	Level 53, vented at Level 53 eastern façade	2,000 cfm
56	Fire Pump Room Supply Fan	1	Level 53, vented at Level 53 eastern façade	2,000 cfm
57	Cooling Tower Cell	6	Level 52 roof	Unknown[2]
58	Emergency Generator (Engine Exhaust)	1	10' above Level 53	2,000 kW

Notes:
1. Numbers are assigned for correlation between tables in this section.
2. No size specifications provided.
3. ERU = Energy Recovery Unit
4. AHU = Air Handling Unit
5. HV = Heat Ventilation

Table 5.6-4 Modeled Sound Power Levels per Noise Source

Model Src. #	Noise Source	Broad-band (dBA)	Sound Power Level (dB) per Octave-Band Center Frequency (Hz)								
			31.5[19]	63	125	250	500	1k	2k	4k	8k
1, 2	Garage Supply Fan[1]	92	80	80	77	91	89	87	84	82	73
3	Garage Supply Fan[2]	88	76	76	73	86	84	83	80	77	69
4, 5	Garage Exhaust Fan[3]	99	93	93	85	95	93	95	90	90	78
6	ERU MEZZ-01 (Supply)[4]	82	77	77	77	77	84	75	68	55	53
7	ERU GH-01 (Supply)[5]	84	78	78	81	81	84	79	71	60	60
8	ERU MEZZ-01 (Exhaust)[4]	101	94	94	94	92	97	96	93	90	89
9	ERU GH-01 (Exhaust)[5]	105	94	94	96	97	100	100	99	95	91
10	ERU B1-01 (Supply) [5]	84	78	78	81	81	84	79	71	60	60
11	ERU B2-01 (Supply) [5]	84	78	78	81	81	84	79	71	60	60
12	Transformer Supply Fan[6]	101	90	90	98	100	99	95	92	87	80
13	ERU B1-01 (Exhaust) [5]	105	94	94	96	97	100	100	99	95	91
14	ERU B2-01 (Exhaust) 5	105	94	94	96	97	100	100	99	95	91
15	Transformer Exhaust Fan[6]	105	95	95	100	103	104	100	95	90	81
16	ERU B2-02 (Exhaust) [5]	105	94	94	96	97	100	100	99	95	91
17	Loading Dock Exhaust Fan[7]	93	87	87	86	88	91	89	85	82	81
18	ERU B2-02 (Supply) [5]	84	78	78	81	81	84	79	71	60	60
19, 36, 55	Fire Pump Room Exhaust Fan[8]	88	88	88	83	82	83	83	83	78	71
20, 37, 56	Fire Pump Room Supply Fan[8]	85	77	77	75	78	81	80	80	75	70
21	ERU 02-01 (Supply) [9]	90	84	84	87	86	90	85	77	65	63
22	AHU 02-01 (Supply)[10]	82	55	55	65	79	81	77	72	65	67
23	ERU 02-01 (Exhaust) [9]	105	93	93	98	99	103	100	98	94	89
24	AHU 02-01 (Exhaust) [10]	92	86	86	85	94	91	83	80	78	79
25	ERU 03-01 (Supply)[4]	82	77	77	77	77	84	75	68	55	53
26	ERU 03-01 (Exhaust) [4]	101	94	94	94	92	97	96	93	90	89

Table 5.6-4 Modeled Sound Power Levels per Noise Source (Continued)

Model Src. #	Noise Source	Broad-band (dBA)	Sound Power Level (dB) per Octave-Band Center Frequency (Hz)								
			31.5[19]	63	125	250	500	1k	2k	4k	8k
27	ERU 04-01 (Supply) [4]	82	77	77	77	77	84	75	68	55	53
28	ERU 04-01 (Exhaust) [4]	101	94	94	94	92	97	96	93	90	89
29	ERU 05-01 (Supply) [4]	82	77	77	77	77	84	75	68	55	53
30	ERU 05-01 (Exhaust) [4]	101	94	94	94	92	97	96	93	90	89
31	Grease Exhaust Fan[11]	98	100	100	99	101	97	91	88	84	81
32	ERU 23-01 (Supply)[9]	90	84	84	87	86	90	85	77	65	63
33	ERU 23-02 (Supply) [9]	90	84	84	87	86	90	85	77	65	63
34	ERU 23-01 (Exhaust) [9]	105	93	93	98	99	103	100	98	94	89
35	ERU 23-02 (Exhaust) [9]	105	93	93	98	99	103	100	98	94	89
38	HV 23-01 (Supply)[12]	76	69	69	71	80	72	67	69	65	60
39	AHU 23-01 (Supply)10	82	55	55	65	79	81	77	72	65	67
40	AHU 23-02 (Supply) 10	82	55	55	65	79	81	77	72	65	67
41	AHU 23-03 (Supply) 10	82	55	55	65	79	81	77	72	65	67
42	AHU 23-04 (Supply) [10]	82	55	55	65	79	81	77	72	65	67
43	AHU 23-05 (Supply) [12]	76	69	69	71	80	72	67	69	65	60
44	AHU 23-04 (Exhaust) [10]	92	86	86	85	94	91	83	80	78	79
45	AHU 23-05 (Exhaust) [12]	85	78	78	80	89	81	77	78	74	69
46, 47	Emergency Generator (Mechanical)[13, 14]	128	91	91	107	119	123	121	118	119	120
48	ERU 43-01[9, 18]	105	94	94	98	99	103	100	98	94	89
49	ERU 43-02 (Supply) [9]	90	84	84	87	86	90	85	77	65	63
50	ERU 43-02 (Exhaust) [9]	105	93	93	98	99	103	100	98	94	89
51	ERU 52-01[15, 18]	104	92	92	96	97	101	99	96	92	87
52	ERU 52-02[15,18]	101	94	94	94	92	97	96	93	90	89
53	AHU 52-01[16, 18]	94	86	86	89	99	85	85	86	84	77

Table 5.6-4 Modeled Sound Power Levels per Noise Source (Continued)

Model Src. #	Noise Source	Broad-band (dBA)	Sound Power Level (dB) per Octave-Band Center Frequency (Hz)								
			31.5[19]	63	125	250	500	1k	2k	4k	8k
54	AHU 52-02[16]	94	86	86	89	99	85	85	86	84	77
57	Cooling Tower Cell[17]	91	104	104	97	92	88	84	82	77	69
58	Emergency Generator (Engine Exhaust)[13, 14]	130	109	109	119	120	122	119	124	125	120

Notes: Sound power levels do not include mitigation identified in Table 5.6-5.

1. Greenheck model QEID-20-80-A75 8.1k cfm mixed flow fan.
2. Greenheck model QEID-18-70-A50 5k cfm mixed flow fan.
3. Greenheck model QEID-20-100-A100 11k cfm mixed flow fan.
4. TMI Climate Solutions 7.5k cfm ERU.
5. TMI Climate Solutions 12k cfm ERU.
6. Unknown manufacturer, model QEID-40-85-B500 40k cfm fan.
7. Cook 150 QMX 7.5k cfm fan.
8. Greenheck model QEID-12-60-M30 2k cfm mixed flow fan.
9. TMI Climate Solutions 25k cfm ERU.
10. TMI Climate Solutions 25k cfm AHU.
11. Cook 245CA-SWSI 15k cfm fan.
12. Johnson Controls 5.6k cfm AHU.
13. Cummins model 2000DQKAB 2,000kW generator. Exhaust sound power levels were calculated from provided sound pressure levels.
14. Octave-band sound power levels are A-weighted.
15. TMI Climate Solutions 16k cfm ERU.
16. Johnson Controls 12.7k cfm AHU.
17. Baltimore Aircoil Company, Inc. Series 3000 S3E-1424-07R cooling tower cell. Unknown size.
18. Sound levels include sum of Supply Inlet, Exhaust Outlet, and Casing sound power data.
19. No data provided by manufacturer. Octave-band sound power level is assumed to be equal to the 63 Hz band level.

Table 5.6-5 Modeled Attenuation and Noise Controls by Noise Source

Model Src. #	Noise Source	Form of Attenuation/ Control	Sound Level (dB) per Octave-Band Center Frequency (Hz)								
			31.5[15]	63	125	250	500	1k	2k	4k	8k
1	Garage Supply Fan (B1, B2)	Duct Loss[1]	6	6	7	8	13	16	16	15	14
1	Garage Supply Fan (B3, B4, B5)	Duct Loss[2]	13	13	13	13	23	34	29	25	19
1	Garage Supply Fan	Additional Attenuation[16]	0	0	0	3	0	0	0	0	0
2	Garage Supply Fan (B1, B2)	Duct Loss[3]	6	6	6	6	10	15	13	11	9
2	Garage Supply Fan (B3, B4, B5)	Duct Loss[4]	13	13	12	11	20	33	26	21	14
2	Garage Supply Fan (All)	Acoustical Louver[5]	5	9	7	10	14	22	24	23	22
3	Garage Supply Fan	Duct Loss[6]	7	7	7	8	15	23	21	18	12
3	Garage Supply Fan	Acoustical Louver[5]	5	9	7	10	14	22	24	23	22
4	Garage Exhaust Fan	Duct Loss[7]	7	7	8	9	14	19	18	16	15
4	Garage Exhaust Fan	Acoustical Louver[8]	2	6	12	15	21	24	27	25	20
5	Garage Exhaust Fan	Acoustical Louver[8]	2	6	12	15	21	24	27	25	20
6	ERU MEZZ-01 (Supply)	Acoustical Louver[5]	5	9	7	10	14	22	24	23	22
7	ERU GH-01 (Supply)	Acoustical Louver[5]	5	9	7	10	14	22	24	23	22
8	ERU MEZZ-01 (Exhaust)	Duct Silencer[9]	2	5	7	15	27	33	39	31	24
8	ERU MEZZ-01 (Exhaust)	Acoustical Louver[8]	2	6	12	15	21	24	27	25	20
9	ERU GH-01 (Exhaust)	Duct Silencer[9]	2	5	7	15	27	33	39	31	24
9	ERU GH-01 (Exhaust)	Acoustical Louver[8]	2	6	12	15	21	24	27	25	20
10	ERU B1-01 (Supply)	Acoustical Louver[5]	5	9	7	10	14	22	24	23	22
11	ERU B2-01 (Supply)	Acoustical Louver[5]	5	9	7	10	14	22	24	23	22
12	Transformer Supply Fan	Acoustical Louver[5]	5	9	7	10	14	22	24	23	22
13	ERU B1-01 (Exhaust)	Duct Loss[3]	6	6	6	6	10	15	13	11	9
13	ERU B1-01 (Exhaust)	Acoustical Louver[8]	2	6	12	15	21	24	27	25	20
14	ERU B2-01 (Exhaust)	Duct Loss[3]	6	6	6	6	10	15	13	11	9
14	ERU B2-01 (Exhaust)	Acoustical Louver[8]	2	6	12	15	21	24	27	25	20
15	Transformer Exhaust Fan	Duct Loss[3]	6	6	6	6	10	15	13	11	9
15	Transformer Exhaust Fan	Acoustical Louver[8]	2	6	12	15	21	24	27	25	20

Table 5.6-5 Modeled Attenuation and Nosie Controls by Noise Source (Continued)

Model Src. #	Noise Source	Form of Attenuation/ Control	Sound Level (dB) per Octave-Band Center Frequency (Hz)								
			31.5[15]	63	125	250	500	1k	2k	4k	8k
16	ERU B2-02 (Exhaust)	Duct Loss[3]	6	6	6	6	10	15	13	11	9
16	ERU B2-02 (Exhaust)	Acoustical Louver[8]	2	6	12	15	21	24	27	25	20
17	Loading Dock Exhaust Fan	Duct Loss[3]	6	6	6	6	10	15	13	11	9
17	Loading Dock Exhaust Fan	Acoustical Louver[8]	2	6	12	15	21	24	27	25	20
19	Fire Pump Room Exhaust Fan	Acoustical Louver[8]	2	6	12	15	21	24	27	25	20
20	Fire Pump Room Supply Fan	Duct Loss[3]	6	6	6	6	10	15	13	11	9
21	ERU 02-01 (Supply)	Acoustical Louver[5]	5	9	7	10	14	22	24	23	22
22	AHU 02-01 (Supply)	Acoustical Louver[5]	5	9	7	10	14	22	24	23	22
23	ERU 02-01 (Exhaust)	Acoustical Louver[8]	2	6	12	15	21	24	27	25	20
24	AHU 02-01 (Exhaust)	Acoustical Louver[8]	2	6	12	15	21	24	27	25	20
25	ERU 03-01 (Supply)	Acoustical Louver[5]	5	9	7	10	14	22	24	23	22
26	ERU 03-01 (Exhaust)	Acoustical Louver[5]	5	9	7	10	14	22	24	23	22
27	ERU 04-01 (Supply)	Acoustical Louver[5]	5	9	7	10	14	22	24	23	22
28	ERU 04-01 (Exhaust)	Acoustical Louver[5]	5	9	7	10	14	22	24	23	22
29	ERU 05-01 (Supply)	Acoustical Louver[5]	5	9	7	10	14	22	24	23	22
30	ERU 05-01 (Exhaust)	Acoustical Louver[5]	5	9	7	10	14	22	24	23	22
30	ERU 05-01 (Exhaust)	Duct Loss[10]	0	0	0	1	2	3	3	3	3
31	Grease Exhaust Fan	Acoustical Louver[5]	5	9	7	10	14	22	24	23	22
31	Grease Exhaust Fan	Duct Loss[10]	0	0	0	1	2	3	3	3	3
32	ERU 23-01 (Supply)	Acoustical Louver[5]	5	9	7	10	14	22	24	23	22
33	ERU 23-02 (Supply)	Acoustical Louver[5]	5	9	7	10	14	22	24	23	22
34	ERU 23-01 (Exhaust)	Acoustical Louver[5]	5	9	7	10	14	22	24	23	22
34	ERU 23-01 (Exhaust)	Duct Silencer[11]	0	2	3	7	11	16	17	10	7
35	ERU 23-02 (Exhaust)	Acoustical Louver[5]	5	9	7	10	14	22	24	23	22
35	ERU 23-02 (Exhaust)	Duct Silencer[11]	0	2	3	7	11	16	17	10	7
36	Fire Pump Room Exhaust Fan	Acoustical Louver[5]	5	9	7	10	14	22	24	23	22

Table 5.6-5 Modeled Attenuation and Nosie Controls by Noise Source (Continued)

Model Src. #	Noise Source	Form of Attenuation/ Control	Sound Level (dB) per Octave-Band Center Frequency (Hz)								
			31.5[15]	63	125	250	500	1k	2k	4k	8k
37	Fire Pump Room Supply Fan	Acoustical Louver[5]	5	9	7	10	14	22	24	23	22
44	AHU 23-04 (Exhaust)	Acoustical Louver[5]	5	9	7	10	14	22	24	23	22
45	AHU 23-05 (Exhaust)	Acoustical Louver[5]	5	9	7	10	14	22	24	23	22
46	Emergency Generator (Room Supply)	Acoustical Louver[5]	5	9	7	10	14	22	24	23	22
46	Emergency Generator (Room Supply)	Duct Silencer[12]	6	12	23	26	43	49	43	36	23
47	Emergency Generator (Room Exhaust)	Acoustical Louver[5]	5	9	7	10	14	22	24	23	22
47	Emergency Generator (Room Exhaust)	Duct Silencer[13]	4	8	15	21	38	44	45	40	27
50	ERU 43-02 (Exhaust)	Acoustical Louver[5]	5	9	7	10	14	22	24	23	22
58	Emergency Generator (Engine Exhaust)	Exhaust Silencer[14]	18	37	42	43	42	40	38	39	40
58	Emergency Generator (Engine Exhaust)	Duct Loss[15]	40	40	35	18	18	18	18	18	18

Notes:

1. Epsilon-calculated estimate of acoustical duct losses using data from the Hoover & Keith Inc. (H&K) Noise Control for Buildings and Manufacturing Plants course materials. Square, straight, inner-lined metal duct with 79-90" diameter assumed for 12-foot path distance with 2 90-degree turns.
2. Epsilon-calculated estimate of acoustical duct losses using H&K data. Square, straight, inner-lined metal duct with 79-90" diameter assumed for 37-foot path distance with 2 90-degree turns.
3. Epsilon-calculated estimate of acoustical duct losses using H&K data. Square, straight, inner-lined metal duct with 79-90" diameter assumed for 16-foot path distance with 1 90-degree turn.
4. Epsilon-calculated estimate of acoustical duct losses using H&K data. Square, straight, inner-lined metal duct with 79-90" diameter assumed for 41-foot path distance with 1 90-degree turn.
5. Construction Specialties 12" sightproof fixed acoustical louver. Assumed by Epsilon.
6. Epsilon-calculated estimate of acoustical duct losses using H&K data. Square, inner-lined metal duct with 44-90" diameter assumed for zero duct length with 1 90-degree turn.
7. INC Panl-Flow® 36LP 1000 cfm face velocity. Assumed by Epsilon.
8. Commercial Acoustics 5HPA -2000 cfm face velocity. Assumed by Epsilon.
9. Commercial Acoustics 5HPA +2000 cfm face velocity. Assumed by Epsilon.
10. GT Exhaust Systems, Inc. 18" S. Cool Crit. Gr. exhaust silencer.
11. No data available. Octave-band attenuation is conservatively assumed.
12. The Proponent will consult with a manufacturer to identify acoustical options to achieve at least the attenuation values presented.

5.6.5.2 Noise Modeling Methodology

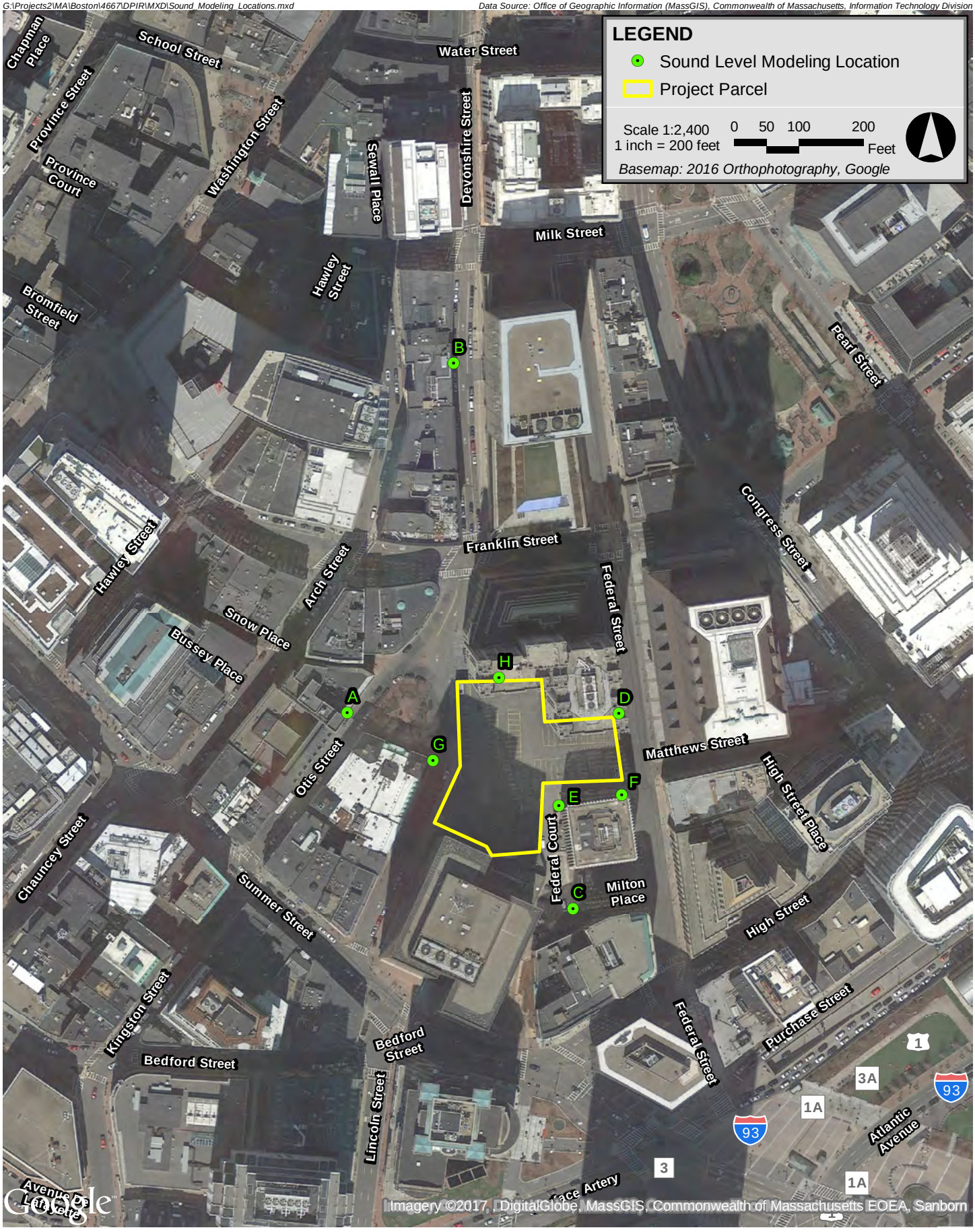
The noise impacts associated with the Project were predicted at the nearest and most representative receptors using the CadnaA noise calculation software developed by DataKustik GmbH. This software uses the ISO 9613-2 international standard for sound propagation (Acoustics - Attenuation of sound during propagation outdoors - Part 2: General method of calculation). The benefit of this software is a refined set of computations due to the inclusion of topography, ground attenuation, multiple building reflections, drop-off with distance, and atmospheric absorption. The CadnaA software allows for octave-band calculation of noise from multiple noise sources, as well as computation of diffraction around building edges.

An initial modeling scenario considered all of the Project's significant mechanical equipment without the emergency equipment running to simulate typical operating conditions at nearby receptors. A second scenario considered all of the significant mechanical equipment running with the emergency equipment also running to simulate routine, emergency testing conditions. The emergency equipment includes a power generator and three sets of fire pump ventilation systems. It is assumed that the emergency equipment will only be tested during daytime hours for brief, routine periods when background sound levels are higher as compared to during nighttime hours.

Eight modeling locations at a height of five feet (1.5 meters) above grade were included in both modeling scenarios, consisting of the nearest noise-sensitive receptors and property lines in the vicinity of the Project site, and were evaluated against the applicable noise limits. Modeling locations A through D correspond to ambient measurement locations 1, 2-N, 3, and 4, respectively. Four additional modeling locations, E through H, were added for property line locations near the Project site. Figure 5.6-2 shows the locations of each modeling receptor.

5.6.5.3 Noise Modeling Results and City of Boston Evaluation

The City of Boston limit evaluation requires a determination of zoning and land-use for each modeling receptor for applicable limits to be compared. Although Location C (Measurement Location 3) is identified as institutional use, which would require a comparison to residential City of Boston limits, this location is not a nighttime-sensitive location and measured background levels currently exceed the residential limits; therefore, Project levels at Location C are more appropriately compared to the business limits in both nighttime and daytime evaluations. Location C is representative of the New England College of Business to the south of the Project.



115 Winthrop Square Boston, Massachusetts

Epsilon Associates Inc.

Figure 5.6-2

Sound Level Modeling Locations

The nighttime sound level analysis considered all of the mechanical equipment without the emergency equipment running to simulate typical nighttime operation conditions at nearby receptors.

Modeled sound levels are predicted to be within the broadband and octave-band nighttime residential and business zoning limits for the City of Boston at the appropriate modeling receptors. The nighttime City of Boston evaluation is presented in Table 5.6-6.

As previously noted, the emergency equipment will most commonly operate during the day for brief, routine testing when the baseline sound levels are high, or during an interruption of power from the electrical grid. A second analysis combined noise from the Project's mechanical equipment and the emergency equipment to reflect worst-case conditions. The sound levels were calculated at the same receptors as in the nighttime analysis, and then were evaluated against applicable daytime limits. Modeled sound levels are predicted to be within the broadband and octave-band daytime residential and business zoning limits for the City of Boston at the appropriate modeling receptors. The daytime City of Boston evaluation is presented in Table 5.6-7.

Table 5.6-6 Comparison of Future Predicted Project Only Nighttime Sound Levels (without Emergency Equipment) to the City of Boston Limits

Modeling Location ID	Zoning / Land Use	Broad-band (dBA)	Sound Level (dB) per Octave-Band Center Frequency (Hz)								
			31.5	63	125	250	500	1k	2k	4k	8k
A	Institution (Res. Limits)	45	57	53	50	48	44	38	31	27	15
B	Residential	36	50	48	40	37	35	29	25	13	0
C	Institution (Bus. Limits)	57	63	60	62	61	57	48	42	37	31
D	Business	36	45	41	37	37	34	29	26	19	4
E	Business	63	70	66	68	66	62	54	49	46	44
F	Business	60	63	61	61	63	59	52	49	47	40
G	Business	58	68	64	58	59	57	53	45	41	36
H	Business	53	74	69	59	58	46	41	36	36	31
City of Boston Limits	**Residential**	**50**	**68**	**67**	**61**	**52**	**46**	**40**	**33**	**28**	**26**
	Business	**65**	**79**	**78**	**73**	**68**	**62**	**56**	**51**	**47**	**44**

Table 5.6-7 Comparison of Future Predicted Project Only Daytime Sound Levels (with Emergency Equipment) to City Noise Standards

Modeling Location ID	Zoning / Land Use	Broad-band (dBA)	Sound Level (dB) per Octave-Band Center Frequency (Hz)								
			31.5	63	125	250	500	1k	2k	4k	8k
A	Institution (Res. Limits)	45	70	54	50	49	44	38	32	27	16
B	Residential	37	58	48	41	37	36	31	28	18	0
C	Institution (Bus. Limits)	57	64	60	62	61	57	48	42	37	31
D	Business	41	68	47	45	41	38	36	34	25	6
E	Business	63	71	66	68	66	62	54	49	46	44
F	Business	60	63	61	61	63	59	52	49	47	40
G	Business	58	70	64	58	60	57	53	46	42	37
H	Business	54	79	69	61	60	47	41	37	36	32
City of Boston Limits	**Residential**	**60**	**76**	**75**	**69**	**62**	**56**	**50**	**45**	**40**	**38**
	Business	**65**	**79**	**78**	**73**	**68**	**62**	**56**	**51**	**47**	**44**

5.6.5.4 Noise Modeling Results and MassDEP Evaluation

MassDEP compliance entails a comparison between the lowest, representative measured ambient sound levels and the worst-case modeling results. Sound level results from the second modeling scenario that includes the emergency equipment running were evaluated against lowest ambient levels at the five modeling receptors. MassDEP compliance is defined at either a property line or at the nearest occupied residence. Modeling locations A and B are considered occupied residences and locations C, D, E, F, G, and H may be considered property line receptors.

The predicted future total sound levels (Project + measured background) are at or below the MassDEP criterion of 10 dBA over the lowest measured ambient (L_{90}) sound levels at the eight modeling receptors as shown on Table 5.6-8[14]. Project noise sources are not expected to create any "pure-tone" conditions as defined by MassDEP at these locations as shown on Table 5.6-9.

[14] Although one location (Location E) is at the DEP limit of a 10 dBA increase, it is a property line location and is additionally a commercial-use receptor. The MassDEP declares that "Noise levels that exceed the criteria at the source's property line by themselves do not necessarily result in a violation or a condition of air pollution under MassDEP regulations"; therefore, the critical point of evaluation is at the receptor. Furthermore, MassDEP only "considers the effect of noise on the nearest occupied residence and/or building housing sensitive receptors".

Table 5.6-8 MassDEP Noise Policy Broadband Compliance Evaluation

Model Loc. ID	Applicability	Representative Background Location	Measured Background Level (L_{90})	Modeled Project-Only Level	Combined Project + Background Level	Project Impact[1]	Meets MassDEP Noise Policy?
			dBA	dBA	dBA	dBA	
A	Residential	1	45	51	52	1	YES
B	Residential	2-N	37	52	52	0	YES
C	Property Line	3-N	57	53	58	5	YES
D	Property Line	4	41	53	53	0	YES
E	Property Line	3-N	63	53	63	10	YES
F	Property Line	4	60	53	61	8	YES
G	Property Line	1	58	51	59	8	YES
H	Property Line	1	54	51	56	5	YES

Notes:
1. Only whole numbers are shown; calculations performed using values with additional precision.

Table 5.6-9 MassDEP Noise Policy "Pure Tone" Evaluation

Model Loc. ID	Applicability	Combined Project + Background Sound Level (dB) per Octave-Band Center Frequency (Hz)[1]								
		31.5	63	125	250	500	1k	2k	4k	8k
A	Residential	70	60	58	54	51	46	38	29	23
B	Residential	62	59	59	54	50	46	40	29	25
C	Property Line	65	62	64	62	58	51	44	38	32
D	Property Line	68	59	59	55	52	47	43	32	24
E	Property Line	71	67	68	66	62	55	50	46	44
F	Property Line	64	63	63	64	59	53	50	47	40
G	Property Line	70	66	61	60	58	53	46	42	37
H	Property Line	79	70	63	60	52	47	40	36	33

Notes:
1. Only whole numbers are shown; calculations performed using values with additional precision.

5.6.5.5 Noise Modeling Results and HUD Evaluation

The U.S. Department of Housing and Urban Development recommends goals for residential structures based on an L_{dn} (dBA) sound level. HUD finds an L_{dn} sound level of 65 dBA acceptable at the exterior of a residential structure and an L_{dn} sound level of 45 dBA acceptable at the interior. The criteria, therefore, assume that neighboring residential building construction is sufficient in reducing the exterior levels by 20 dBA to achieve 45 dBA inside. Project operations were modeled under two scenarios that are representative of nighttime and daytime operations that can be used to calculate L_{dn} levels for a HUD evaluation. This method was performed at the residential modeling locations A and B. Locations C, D, E, F, G, and H are not considered residential, and therefore, the HUD Standards do not apply. A summary of L_{dn} (dBA) sound levels is presented in Table 5.6-10.

The existing L_{dn} sound levels in the Project area were calculated from the background measurements and exceed the HUD exterior recommendation. L_{dn} sound levels at the exterior of Locations A and B, from the Project alone, are expected to be well below 65 dBA. An accumulation of the Project and background L_{dn} levels are equivalent to the background levels; therefore, the Project will not affect the area's compliance with the HUD Environmental Criteria and Standards after the Project is complete.

Table 5.6-10 HUD Environmental Criteria and Standards Evaluation

Location	L_{dn} Sound Pressure Level (dBA)[2]			
	Background-Only[1]	Project-Only	Combined	HUD Exterior Goal
A	70	51	**70**	**65**
B	69	42	**69**	**65**

Notes:
1. Existing Ldn sound levels exceed the exterior HUD recommendation of 65 dBA.
2. Only whole numbers are shown; calculations performed using values with additional precision.

5.6.6 Conclusions

Baseline noise levels were measured at multiple locations in the vicinity of the Project during the day and at night. At these and additional locations, future Project-only sound levels were calculated based on information provided by the manufacturers of the anticipated mechanical equipment or by consulting assumptions. Project-related sound levels were evaluated against applicable limits, and with the appropriate mitigation the Project is expected to meet the City of Boston and MassDEP noise limits and is also expected not to impact the HUD standards at applicable receptors.

At this time, mechanical equipment and noise controls are conceptual in nature and, during final Project design, will be specified to meet the applicable City of Boston, MassDEP, and HUD noise limits. Additional mitigation may include the selection of quieter units, acoustical louvers, silencers, or equipment enclosures as needed.

5.7 Flood Hazard Zones and Wetlands

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) for the site located in the City of Boston - Community Panel Number 25025C 0081 J indicates the FEMA Flood Zone Designations for the site area. The map shows that the Project site is outside of the 500-year flood zone.

The Project site is developed and does not contain wetlands.

5.8 Geotechnical and Groundwater

This section describes site conditions, subsurface geologic and groundwater conditions, planned below-grade construction, potential impacts of the below-grade construction, and planned mitigation measures.

5.8.1 Site Conditions

The Project site, an approximately 1.1-acre parcel, currently contains the Winthrop Square Parking Garage at 115 Winthrop Square/115 Federal Street. Originally constructed in 1952 and reconfigured in 1967, the Winthrop Square Parking Garage is a four-level (three levels above ground and one level below ground) cast concrete parking structure. The site is bounded by 75-101 Federal Street to the north, 100 Summer Street to the south, Devonshire Street to the west, and Federal Street to the east.

Adjacent street grades typically slope upward from north to south along Devonshire Street from about El. 26 to El. 28 Boston City Base. Grades along Federal Street slope upwards from north to south from about El. 21 to El. 28.

5.8.2 Subsurface Soil and Bedrock Conditions

The Project site is within the original shoreline of the Colonial Boston Peninsula. Based on available subsurface data, subsurface soil strata present at the Project site are listed below in Table 5.8-1, in order of increasing depth below ground surface:

Table 5.8-1 Site Soil Strata

Generalized Strata	*Approximate Thickness (Feet)*
Miscellaneous Fill	5 - 13
Marine Clay	19 – 50
Glacial Deposits	16 - 30
Argillite Bedrock	---

5.8.3 Groundwater

Subsurface water levels were measured in Project site observation wells in 2007 and 2017 and ranged from approximately El. 11.2 to El. 13.8. Based on topography, regional groundwater flow is anticipated to be to the east-southeast, generally towards Fort Point Channel, located approximately 1,500 feet from the Project site.

Groundwater levels in the site vicinity are anticipated to fluctuate and could be influenced by nearby construction activities, leakage into and out of sewers, storm drains and other below-grade structures, as well as environmental factors such as precipitation, snowmelt, season, and temperature.

5.8.4 Proposed Below-Grade Construction

The Project is planned to consist of a podium and tower, with a height of 664 feet as defined by zoning, containing office, residential, and retail space, and four to five levels of below-grade parking. The building is planned to be supported on a foundation consisting of a combination of reinforced concrete mat bearing on bedrock and potentially load bearing elements bearing in the bedrock. The basement will be constructed within an approximately 65- to 75-foot-deep excavation extending approximately to the limits of the property.

The basement excavation is currently being designed to be enclosed by a stiff, water-tight, internally-braced reinforced concrete diaphragm wall ("slurry wall"), installed from ground surface into the bedrock. Some pre-excavation and backfilling will be performed in a narrow trench along the building perimeter to remove obstructions prior to installing the wall. The diaphragm wall will also serve as the permanent perimeter basement wall.

Temporary dewatering will be required within the excavation during foundation construction to remove "free" water from the soils to be excavated as well as precipitation. The essentially watertight excavation support wall will reduce withdrawal of groundwater from outside the excavation. In the unlikely event that leakage occurs through the wall(s), it will be sealed by pressure grouting of the wall(s).

If possible the groundwater will be recharged into the ground along Federal Court otherwise a temporary construction dewatering permit will be obtained from governing agencies (MWRA) prior to discharge of temporary dewatering effluent from the site. An MWRA construction dewatering discharge permit has been applied for and is pending approval. If a permit is obtained, testing of the effluent will be conducted prior to and during discharge to confirm compliance with all permit requirements.

5.8.5 Potential Impacts of the Below-Grade Construction

Potential impacts during excavation and foundation construction include temporary lowering of nearby groundwater levels, ground vibrations, noise, and ground movements outside of the excavation. Four buildings are present near the proposed basement excavation:

- 75/101 Federal Street, abutting the Project site to the north, having an approximately 21-foot-deep basement and supported on concrete caissons bearing in bedrock.

- 100 Summer Street, abutting the site to the south, having a 20- to 30-foot-deep basement and supported on concrete caissons bearing in glacial till.

- 133 Federal Street, 25 to 40 feet to the east and south of the site, respectively, having 20-foot-deep basement and supported on concrete caissons bearing in glacial till; and

- One Winthrop Square, approximately 30 to 40 feet to the west across Devonshire Street. It has been reported that the building has one basement level and is supported on spread footings in the glacial till.

The above buildings are supported on robust reinforced concrete footings or caisson foundations bearing in competent glacial till or bedrock below the proposed basement excavation depth.

The foundation design and construction will be conducted to control and limit potential adverse impacts, especially to the adjacent structures, using methods that have been proven successful on many similar projects in Boston including

the recently-completed Millennium Tower project just blocks away and adjacent to the MBTA Orange Line Tunnel. In addition, a significant instrumentation monitoring program, described further below, will be employed before construction to establish a baseline and during construction to compare changes to the preconstruction baseline.

5.8.6 Mitigation Measures

Significant mitigation measures to be incorporated into the design and construction of the Project to limit potential adverse impacts include the following:

- The Project team will conduct studies, prepare designs and specifications, and monitor the contractors' performance for conformance to the Project's contract documents with specific attention to protecting nearby structures and facilities.

- The foundation system for the Project consisting of mats and potentially load bearing will be installed using excavating methods that avoid vibrations, noise and soil disturbances that can be caused by other foundation systems such as pile driving. No pile driving or other similar vibration and noise-inducing construction activities will be conducted.

- The stiff, internally-braced concrete diaphragm wall excavation support system is anticipated to mitigate adverse temporary and long-term effects outside the Project site. These systems have proven to be protective of adjacent buildings and capable of limiting ground movements outside the wall to acceptable levels under similar conditions on many projects in Boston. The nearby buildings are supported on deep foundations bearing in very competent strata (glacial till or bedrock) at estimated depths ranging from about 50 to 80 feet, and are not anticipated to experience adverse movements as a result of the planned construction. Accordingly, underpinning or similar mitigation is not required for the adjacent buildings.

- As described above, the building basement perimeter wall will be a reinforced concrete wall that extends from ground surface through clay, and down into low-permeability glacial soils or bedrock. This system isolates the excavation and permanent basement from the groundwater table. Accordingly, temporary or permanent lowering of surface groundwater levels is not anticipated. As discussed further below existing and new groundwater observation wells will be monitored to show no adverse effect on the water levels.

- Performance criteria will be established in the Project specifications for the lateral excavation support system with respect to movements, water-tightness and the construction sequence of the below-grade portion of the work. The contractor will be required to plan, employ and modify construction methods as necessary, and take all necessary steps during the work to protect nearby buildings and other facilities. Planning will include development of mitigation measures that will be implemented in the event that performance differs from that which is anticipated or if performance criteria are approached. Haley & Aldrich, Inc. on behalf of the owner will observe the below grade construction and obtain readings from the below proposed instrumentation to evaluate the performance of the system.

- Pre-construction condition surveys have been conducted of adjacent buildings as allowed by building owners. Existing conditions and evidence of existing building distress (cracks, etc.) have been documented by video and still photography.

- As discussed above, significant geotechnical instrumentation will be installed and monitored before and during the below-grade portion of the work to observe the performance of the excavation, adjacent buildings and structures, and area groundwater levels, including the following:

  - Inclinometers in the basement walls to monitor lateral movements of the excavation support system;

  - Vertical and horizontal survey reference points on the basement walls to provide additional information on movements of wall;

  - Vertical reference points on adjacent buildings as well as on the ground surface and surface utility features, to detect settlements, as allowed by building owners. In addition to the immediately adjacent buildings, vertical reference points will be installed on the historic One Winthrop Square building and monitored frequently during excavation and foundation construction activities;

  - Crack gages on selected existing cracks in nearby buildings (if any) to detect changes to the cracks, as allowed by building owners;

  - Groundwater observation wells to monitor subsurface water levels around the excavation; and

  - Vibration and noise monitoring may be performed at selected periods during the work to document the anticipated low levels.

- Selected instrumentation will be installed and monitored before start of construction to establish baseline conditions, and for a period after construction to confirm stable conditions. All instrumentation will be monitored on a regular basis during the underground work to confirm compliance with the project performance criteria and to enable implementation of mitigating measures, if required.

5.8.7 Boston Water and Sewer Commission Stormwater Recharge

The design will comply fully with the Boston Water and Sewer Commission (BWSC) requirement to store and recharge stormwater into the ground or reuse/recycle. The Project will capture the required rainfall from all building roof areas, recycle it through a greywater system, and/or recharge it into the ground through injection wells located in adjacent public ways or, if available for use, in other areas adjacent to the Project site.

5.8.8 Groundwater Conservation Overlay District

The Project site is not located within the Groundwater Conservation Overlay District (GCOD) as established by Article 32 of the City of Boston Zoning Code. Although the provisions of Article 32 do not apply to the Project site, the BWSC-mandated stormwater recharge from the Project will meet the Article 32 requirements or be recycled.

5.9 Solid and Hazardous Wastes

Information from this section was based on recent subsurface soil and groundwater testing at the site and an environmental file review conducted by Haley & Aldrich, Inc. for the Project to identify existing or potential environmental conditions related to hazardous materials in soil and groundwater at the site.

5.9.1 Site Conditions

Past usage of the 115 Federal Street site and adjoining properties was assessed through a review of Sanborn Fire Insurance Maps dated 1867 through 2002, and from aerial photographs taken from 1938 through 2012. The Project site was initially developed with dwellings which gradually converted to commercial and warehouse space by the turn of the 19th century. The 1909 map depicts the former wool warehouses as wholesale shoe shops and printing shops; a clothing factory is depicted on the southern portion of the subject property. Warehouse and commercial use continued throughout the 1900s until the buildings were demolished. By 1950, the site was used for surface parking before the existing garage was built in the early 1960s. Based on historic drawings of the existing garage, it is anticipated the majority of the fill was removed during construction of the garage's below-grade space.

5.9.1.1 Soil and Groundwater Quality Data

Soil beneath the Project site is classified as RCS-1 under the Massachusetts Contingency Plan (MCP) 310 CMR 40.0000 because the site is located within residentially zoned property.

Eight test borings were completed at the property between 10 July to 24 August 2017 in order to collect soil quality data for soil precharacterization, and for geotechnical design purposes. A total of 39 environmental soil samples were collected from the naturally deposited soil present immediately below the existing garage footings and submitted for chemical testing. Soil chemical data indicated that no chemical constituents were detected at concentration levels above applicable MCP 2014 RCS-1 Reportable Concentrations.

In addition, on 26 May 2017, one groundwater sample was collected from a previously installed observation well located within Federal Court, immediately east of the Project. Depth to groundwater levels in this observation well ranged from depths of 14 to 17.9 feet below ground surface (El 12 to 8.1) between November 2007 and October 2017. The groundwater sample was submitted for chemical testing for the Massachusetts Water Resources Authority (MWRA) 8(m) Temporary Construction Dewatering Discharge Permit criteria. Results of the groundwater sampling program did not detect concentrations of tested chemical constituents above applicable MCP Reportable Concentrations (RCGW-2), nor above the MWRA dewatering limits.

5.9.1.2 Groundwater Hydrology

Surface water at the site appears to flow toward catch basins located in the paved areas of the property and in the surrounding streets. Based on topography, regional groundwater flow is anticipated to be to the east-southeast, generally towards Fort Point Channel, located approximately 1,500 feet from the Project site. Hydrogeologic investigations have not yet been performed at the site; therefore, it is unknown to what extent localized variations in groundwater depth and flow occur.

The site is serviced by the Massachusetts Water Resources Association (MWRA), which provides potable water to the City of Boston. According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map dated April 1, 1982, the subject property is located in an area of minimal flooding. There are no pumping or irrigation wells located on the property. According to the Massachusetts Department of Environmental Protection (MassDEP) Priority Resource Map, the site is not located within a Zone II Aquifer Protection Area, an Interim Wellhead Protection Area, or a Potentially Productive Aquifer. There are

no private drinking water wells within 500 feet of the Project site. As such, groundwater at the site would be categorized as RCGW-2 under the MCP, 310 CMR 40.0000.

5.9.1.3 Hazardous Waste – Summary of Findings

Results of soil testing indicate that the soil contains levels of contaminants typically found in soils in the Boston area. No releases of oil or hazardous material have been identified at the Project site, and there are currently no known reportable conditions under the MCP. Construction of the existing garage is believed to have removed a majority of the fill beneath the garage structure.

Groundwater quality data did not exceed MCP reportable conditions and is consistent with historical site information and database research.

5.9.1.4 Management of Soil Materials and Groundwater during Construction

In accordance with normal practices, the Proponent will use the soil testing conducted to characterize and classify the soil within the proposed excavation limits, for off-site removal to appropriate facilities, and to characterize any remaining soil for risk assessment purposes. Testing of groundwater has been performed and no treatment of construction dewatering effluent will be necessary. Materials excavated during construction of the development will be managed in accordance with all applicable regulatory requirements including a Release Abatement Measure (RAM) under the MCP. Response actions conducted under the RAM in conjunction with project construction are expected to result in achievement of a Permanent Solution under the MCP.

5.9.2 Operational Wastes and Recycling

The Project is anticipated to generate approximately 1,930 tons per year of solid waste typical of residential and commercial/retail uses. Solid waste is expected to include wastepaper, cardboard, glass bottles and food. Winthrop Square will have state of the art equipment for dealing with solid wastes produced by its occupants. The residential tower will have a recycling component to the trash chute so residents can deposit recyclable material into the trash chute by pushing a button. This trash chute sorting system was used successfully at Millennium Place and Millennium Tower, and it allows residents the ease of recycling in the same manner they deal with their other household refuse. Recycled material will include paper, newspaper, cardboard, plastics, glass, and aluminum.

Office tenants will have collection bin and areas for pick up as well as access to a cardboard baler for more efficient recycling of cardboard. The office users' recycling will be picked up by the Building Service Contractor.

Retail tenants and restaurant tenants will be the largest generators of cardboard, and they will also have access to the cardboard baler. Should food waste be large enough, an on-site digester will be provided similar to the digester used at the Roche Brothers Supermarket in Millennium's Burnham building. The Great Hall will have refuse containers that provide for recyclable materials, especially cans and bottles, available for the public to use.

With the exception of household hazardous wastes typical of residential and commercial/retail developments (e.g., cleaning fluids), the Project will not involve the generation, use, transportation, storage, release, or disposal of potentially hazardous materials. Typical waste generated by the uses will be handled in compliance with all local, state and federal regulations. Retail spaces will be equipped with grease separators for treatment of grease before entering into the BWSC system.

5.10 Construction Impacts

The Proponent is committed to working with the neighbors and the Boston Improvement District (BID) to manage and communicate construction-related impacts due to construction activities. This will be achieved through web-based email communication and alerts, community meetings, conscientious construction management and implementation of specific Best Management Practices (BMPs) involving elements such as construction waste management, stormwater management, and dust control, rodent control, adjacent building monitoring and surveying, among others.

5.10.1 Construction Management and Public Safety/Traffic

The proximity of city streets and abutting commercial properties to the Project site will require scheduling of material and deliveries with consideration of peak hour traffic and pedestrian volumes. It is likely that the major deliveries will take place after 5:00 p.m. and on weekends. Planning with the City and neighborhood will be essential to the successful construction of the Project.

A Construction Management Plan (CMP) in compliance with the City's Construction Management Program will be reviewed with the neighborhood, the BID and submitted to the BTD for review and approval prior to issuance of a building permit. The CMP will likely include several phases over the course of the Project. The construction manager will be required to comply with the details and conditions of the approved CMP.

The CMP will define truck routes which will help in minimizing the impact of trucks on local streets. Police detail will be provided to maintain access to adjacent properties and to direct pedestrian, bicycle, and vehicle flow, as required.

The Proponent intends to follow the guidelines of the City of Boston and the MassDEP, which direct the evaluation and mitigation of construction impacts.

In addition, a name and phone number will be provided on the site fence for contact regarding any construction questions or concerns. The website will also provide contact information and a place to submit questions or concerns.

Construction methods that ensure public safety will be employed. Techniques such as barricades, walkways, painted lines, and signage will be used as necessary. Construction management and scheduling—including plans for construction worker commuting and parking, routing plans and scheduling for trucking and deliveries, protection of existing utilities, maintenance of fire access, and control of noise and dust— will minimize impacts on the surrounding environment.

Throughout Project construction, a secure perimeter will be maintained to protect the public from construction activities. As the design of the Project progresses, the Proponent will meet with BTD to discuss the specific location of barricades, the need for lane closures, pedestrian walkways, and truck queuing areas. Secure fencing, signage, and covered walkways may be employed to ensure the safety and efficiency of all pedestrian and vehicular traffic flows. In addition, sidewalk areas and walkways near construction activities will be well marked and lighted to protect pedestrians and ensure their safety. Public safety for pedestrians on abutting sidewalks will also include covered pedestrian walkways when appropriate.

Streets will be swept clean as required by the pedestrian walkways adjacent to the site and kept free of snow and ice.

5.10.2 Construction Schedule

Project construction is proposed as a single phase that is estimated to commence in the second quarter of 2018, with initial occupancy by the first quarter of 2022.

Typical construction hours will be from 7:00 am to 7:00 pm (deliveries could be later), Monday through Friday, with most shifts ordinarily ending at 3:30 pm. If longer hours, additional shifts, or Saturday work is required, the construction manager will place a work permit request to Inspectional Services. The construction website and alerts will be used for major deliveries, crane activities, large concrete placements, oversize loads, etc. These activities that could require temporary street closures will be coordinated through the BID.

5.10.3 Construction Staging/Access

Access to the site and construction staging areas will be provided in the CMP.

Although specific construction and staging details have not been finalized, the Proponent and its construction management consultant will work to ensure that staging areas will be located to minimize impacts to pedestrian and vehicular flow. Secure fencing and barricades will be used to isolate construction areas from pedestrian traffic adjacent to the site. Construction procedures will be designed to meet all Occupational Safety and Health Administration (OSHA) safety standards for specific site construction activities.

The Proponent's contractor will file FAA FORM 7460, construction alteration for its crane and will coordinate all crane jumps with Massport and the FAA.

5.10.4 Construction Mitigation

The Proponent will follow City and MassDEP guidelines which will direct the evaluation and mitigation of construction impacts. As part of this process, the Proponent and construction team will evaluate the Commonwealth's Clean Air Construction Initiative.

A CMP will be submitted to BTD for review and approval prior to issuance of a Building Permit. The CMP will include detailed information on specific construction mitigation measures and construction methodologies to minimize impacts. The CMP will also define truck routes which will help in minimizing the impact of trucks on City and neighborhood streets.

5.10.5 Construction Employment and Worker Transportation

The number of workers required during the construction period will vary. The Project will create approximately 2,800 on-site union construction jobs utilizing the new City workforce goals of 51% City of Boston residents, 40% minority, and 12% female. The Proponent will enter into jobs agreements with the City of Boston.

To reduce vehicle trips to and from the construction site, minimal construction worker parking will be available at the site and all workers will be strongly encouraged to use public transportation and ridesharing options. The construction managers will work aggressively to ensure that construction workers are well informed of the public transportation options serving the area. Space on-site will be made available for workers' supplies and tools so they do not have to be brought to the site each day.

5.10.6 Construction Truck Routes and Deliveries

Truck traffic will vary throughout the construction period, depending on the activity. The construction team will manage deliveries to the site during morning and afternoon peak hours in a manner that minimizes disruption to traffic flow on adjacent streets, including large deliveries conducted after business hours or in the early morning. Construction truck routes to and from the site for contractor personnel, supplies, materials, and removal of excavations required for the development will be coordinated with BTD. Traffic logistics and routing will be planned to minimize community impacts. Truck access during construction will be determined by the BTD as part of the CMP. These routes will be mandated as a part of all subcontractors' contracts for the development. The construction team will provide subcontractors and vendors with Construction Vehicle & Delivery Truck Route brochures in advance of construction activity.

"No Idling" signs will be included at the loading, delivery, pick-up and drop-off areas.

5.10.7 Construction Air Quality

Short-term air quality impacts from fugitive dust may be expected during excavation and the early phases of construction. Plans for controlling fugitive dust during excavation and construction include mechanical street sweeping, wetting and/or misting portions of the site during periods of high wind, and careful removal of debris by covered trucks. The construction contract will provide for a number of strictly enforced measures to be used by contractors to reduce potential emissions and minimize impacts. These measures are expected to include:

- Using wetting agents on area of exposed soil on a scheduled basis;
- Using covered trucks;
- Monitoring of actual construction practices to ensure that unnecessary transfers and mechanical disturbances of loose materials are minimized;
- Minimizing storage of debris on the site; and
- Periodic street and sidewalk cleaning with water to minimize dust accumulations.
- Limit maximum travel speeds on unpaved areas; and
- Provide wheel wash stations to limit trackout of soil during the excavation phase.

Massachusetts law (MGL Chapter 90, Section 16A and 310 CMR 7.11 requires that vehicles idle for no more than five minutes. To reduce engine idling, the selected contractor(s) will be notified of the Massachusetts anti-idling regulations.

MassDEP implements the Diesel Retrofit Program for construction equipment engines. The Proponent will investigate compliance with MassDEP's Diesel Retrofit Program and will comply with requirements for the use of ultra-low sulfur diesel (ULSD) in off-road engines. The Diesel Retrofit Program, formerly called the Clear Air Construction Initiative of the Clean Construction Equipment Initiative, originated as an air quality mitigation measure for the Central Artery/Tunnel Project. The program encourages users of diesel construction equipment to install exhaust emission controls such as oxidation catalysts or particulate filters on their diesel engines.

In addition to the items listed above, all trucks leaving the site must have all dirt/mud removed from the wheels and undercarriage of the truck prior to leaving the site. In addition, any loads containing soil for off-site disposal will be covered. Construction vehicles and equipment will not be permitted to be washed in the streets outside of the Project site. Excess water from the wheel wash stations will be managed, and catch basins in the surrounding street will be protected from potential runoff from the cleaning operations.

The Proponent acknowledges the importance of emission controls and will encourage contractors to comply with the Diesel Retrofit Program. Proper emission controls, use of clean fuels, control of truck and equipment idling times, and conducting operations without affect to neighbors' clean air are all important priorities to the Proponent.

5.10.8 Construction Noise

The Proponent is committed to mitigating noise impacts from the construction of the Project. Periodic increased community sound levels, however, are an inherent consequence of construction activities. Construction work will comply with the requirements of the City of Boston Noise Ordinance. Every reasonable effort will be made to minimize the noise impact of construction activities, including:

- Instituting a proactive program to ensure compliance with the City of Boston noise limitation policy;
- Using appropriate mufflers on all equipment and ongoing maintenance of intake and exhaust mufflers;

- Muffling enclosures on continuously running equipment, such as air compressors and welding generators;
- Replacing specific construction operations and techniques by less noisy ones where feasible;
- Selecting the quietest of alternative items of equipment where feasible;
- Scheduling equipment operations to keep average noise levels low, to synchronize the noisiest operations with times of highest ambient levels, and to maintain relatively uniform noise levels;
- Turning off idling equipment; and
- Locating noisy equipment at locations that protect sensitive locations by shielding or distance.

5.10.9 Construction Vibration

All means and methods for performing work at the site will be evaluated for potential vibration impacts on adjoining property, utilities, and adjacent existing structures. Acceptable vibration criteria will be established prior to construction, and vibration will be monitored, if required, during construction to ensure compliance with the agreed-upon standard.

5.10.10 Water Quality and Stormwater

The Project will not affect the water quality of nearby water bodies. Erosion and sediment control measures will be implemented during construction to minimize the transport of site soils to offsite areas and BWSC storm drain systems. During construction, existing catch basins will be protected with filter fabric, hay bales and/or crushed stone, to provide for sediment removal from runoff. These controls will be inspected and maintained throughout the various construction phases until all areas of disturbance have been stabilized.

"Don't Dump - Drains to Charles River" plaques will be installed at storm drains that are replaced or installed as part of the Project.

All necessary dewatering will be conducted in accordance with applicable MWRA and BWSC discharge permits. Once construction is complete, the Project will be in compliance with all local and state stormwater management policies.

Management of soil materials and groundwater during construction is discussed in Section 5.10.14.

5.10.11 Construction Waste Management

The Proponent will take an active role with regard to the reprocessing and recycling of construction waste. The disposal contract will include specific requirements that will ensure that construction procedures allow for the necessary segregation, reprocessing, reuse and recycling of materials when possible. For those materials that cannot be recycled, solid waste will be transported in covered trucks to an approved solid waste facility, per MassDEP Regulations for Solid Waste Facilities, 310 CMR 16.00. This requirement will be specified in the disposal contract. Construction will be conducted so that materials that may be recycled are segregated from those materials not recyclable to enable disposal at an approved solid waste facility.

5.10.12 Utility Protection during Construction

The Project's construction manager will notify utility companies and call "Dig Safe" prior to excavation. During construction, infrastructure will be protected using sheeting and shoring, temporary relocations, and construction staging as required. The construction manager will be required to coordinate all protection measures, temporary supports, and temporary shutdowns of all utilities with the appropriate utility owners and/or agencies. The construction manager will also be required to provide adequate notification to the utility owner prior to any work commencing on their utility. Also, in the event a utility cannot be maintained in service during switch over to a temporary or permanent system, the construction manager will be required to coordinate the shutdown with the utility owners and Project abutters to minimize impacts and inconveniences.

Existing public and private infrastructure located within nearby public rights-of-way will be protected during construction of each component of the Project. The installation of proposed utility connections within public ways will be undertaken in accordance with BWSC, Boston Public Works Department, the Dig-Safe Program, and applicable utility company requirements. Specific methods for constructing proposed utilities where they are near to, or connect with, existing water, sewer, and drain facilities will be reviewed by the BWSC as part of its Site Plan Review process. All necessary permits will be obtained before the commencement of work.

The Proponent will continue to work and coordinate with the BWSC and the utility companies to ensure safe and coordinated utility operations in connection with the Project.

5.10.13 Rodent Control

A rodent extermination certificate will be filed with the building permit application to the City. Rodent inspection monitoring and treatment will be carried out before, during, and at the completion of all construction work for the proposed Project, in compliance with the City's requirements. Rodent extermination prior to work commencement will consist of treatment of areas throughout the site.

5.10.14 Wildlife Habitat

The Project site is in an established urban neighborhood. There are no wildlife habitats in or adjacent to the Project Site.

5.10.15 Construction Soil Management

During construction, the Owner's Licensed Site Professional (LSP) will have field personnel observing the excavation and removal of soil and groundwater from the site when required. Any material (soil or water) that is not consistent with the site's pre-characterization will be brought to the attention of the LSP immediately. The LSP will make a determination of the nature of the contamination and notify the appropriate parties (e.g., Owner, MassDEP, etc.) as required based on the contamination. The material of concern will be tested, handled, and disposed of in accordance with all City, State, and Federal requirements.

Chapter 6

Sustainable Design and Climate Change

6.0 SUSTAINABLE DESIGN AND CLIMATE CHANGE

This section describes how the Project incorporates sustainable design and climate change resilience strategies. The Project is anticipated to strive to be certifiable at a Platinum level under the U.S. Green Building Council's (USGBC) Leadership in Energy and Environmental Design (LEED) 2009 rating system. In addition to striving to achieve the LEED Platinum level, Passive House certification is being reviewed with the Passive House Institute for the office portion of the Project. The Project will incorporate a holistic approach to sustainability that promotes livability and economic development while mitigating the environmental impacts of energy, water, and materials use. The Project is also considering on-site renewable energy generation systems (discussed in more detail in the GHG Analysis in Section 10), and is integrating measures to increase resiliency to future climate conditions.

6.1 LEED

The Project is registered with the USGBC LEED rating system as two separate LEED projects to account for its mixed-uses: LEED Core and Shell for the office component and LEED New Construction for the residential component. This helps better align unique design aspects of different parts of the building with appropriate LEED requirements, and creates more value to building occupants and the community. The building will employ energy-efficient and water-conservation features for mechanical, electrical, architectural, and structural systems, assemblies, and materials where possible. Mechanical and HVAC systems will be designed and installed with the goal of meeting LEED Platinum requirements, and continued cooperation with the local utility providers will be maintained during design and construction to identify and take advantage of additional energy saving measures. Preliminary LEED credit categories are outlined below and shown in the LEED checklists provided at the end of this section. The overall LEED Strategy and target credits will continue to be assessed as the design of the Project moves through design development and construction documentation.

The team continues to review the energy performance and the envelope considerations, and is working with the goal that a LEED Platinum certification will be attained, as the glazing and design considerations are finalized.

6.1.1 Sustainable Sites (SS)

The Project is located in a dense urban area with excellent access to public transportation, as well as commercial and cultural activity. Site sustainability is enhanced with strategies that reduce the urban heat island effect and stormwater runoff: covered vehicle parking, highly-reflective roofs, and stormwater detention and treatment. The Project encourages alternative

transportation modes with proximity to high-quality, frequent public transit, secure bike storage and changing facilities, and preferred parking and charging stations for low-emitting vehicles. Exterior light trespass will be addressed within the context of a high-density commercial district with automatic shutoffs for the office areas and compliant exterior lighting. Office Tenant Sustainable Design and Construction Guidelines will be developed to encourage and facilitate LEED for Commercial Interiors (CI) Certification for future tenants.

6.1.2 Water Efficiency (WE)

The Project will save potable water by installing low-flow and sensor-metered plumbing fixtures, as well as conductivity meters and automatic controls for chemical treatment on cooling towers to reduce make-up water demand. Rainwater will be collected, treated, and re-used for office toilet flushing. Exterior landscaping will consist of native and drought tolerant plants and a high-efficiency irrigation system. The combination of low-flow fixtures and rainwater reuse are expected to earn additional points for the Innovative Wastewater Technologies credit.

6.1.3 Energy and Atmosphere (EA)

The Project incorporates a comprehensive, integrated energy performance strategy consistent with LEED Platinum and Passive House aspirations. The Project includes a well-insulated envelope with moderate amounts of glazing to reduce heat loss in the winter, and low Solar Heat Gain Coefficient coating to reduce solar gains in the summer. Triple glazing is considered for the office portions of the building to further reduce loads and improve occupant comfort. The HVAC system will consist of high-efficiency condensing boilers and chillers serving fan-coils with electronically commutated motors (ECMs). A 100 percent outdoor air ventilation unit with energy recovery increases savings by de-coupling the ventilation from the heating and cooling systems, reducing unnecessary reheat and recovering waste heat and moisture. To help achieve the target LEED points, electricity-saving measures will be prioritized, including variable speed fans and pumps, highly efficient LED lighting, daylight and occupancy sensors, and EnergyStar equipment and appliances. Alternative energy such as photovoltaic cells and combined heat and power (CHP) are being explored to further increase LEED savings and reduce GHG emissions. GHG emissions and mitigation measures associated with avoiding and minimizing these emissions are discussed in Section 10.0.

An extensive base-building and tenant electric and HVAC sub-metering system will be included to monitor the energy uses of individual tenants, and help promote long-term accountability and performance improvement. Refrigerants with low Ozone Depletion and Global Warming Potential will be used, and the

Project will pursue Enhanced Commissioning to help ensure major energy-using equipment is installed correctly. Finally, Green Power offsets will likely be purchased to further offset the Project's environmental footprint.

6.1.4 Materials and Resources (MR)

Environmental impacts of resource extraction, processing, and transportation during the construction process will be limited by specifying regional and recycled materials to the extent feasible. Further impact reductions will be achieved by diverting construction waste from landfill, and encouraging reuse and recycling at the building. Additional points from Certified Wood and Rapidly Renewable Materials will be pursued. The Project's operations will include recycling areas for tenants and residents for items such as paper, plastic, glass, and aluminum, and composting; a bio-digester is being reviewed for the retail/food components of the Project.

6.1.5 Indoor Environmental Air Quality (EQ)

To promote improved occupant wellbeing, the Project will use a dedicated outdoor air system (DOAS) capable of providing 100 percent fresh air to the office areas that features enhanced filtration systems. Demand-controlled ventilation will be incorporated into the HVAC design; carbon dioxide levels will be monitored and the amount of ventilation air provided will be adjusted to match actual occupancy levels in different areas of the building.

The Project architect will specify adhesives, sealants, paints, coatings, flooring systems, and composite wood that meet LEED requirements for low-emitting materials.

Daylighting, views and thermal comfort are being incorporated early into the design to promote occupant health and wellness.

6.1.6 Innovation and Design Process (ID)

Among other measures, the Project is considering Innovation Credits for Green Education, Resiliency Planning, Cooling Tower Water Management, Low-Mercury Lighting Fixtures, and Green Cleaning. Other innovative measures may be considered in the future.

The Project team includes several LEED Accredited Professionals and a certified Passive House specialist.

6.1.7 Regional Priority Credits

Regional Priority Credits (RPC) are established LEED credits designated by the USGBC to have priority for a particular area of the country. This Project anticipates three RPCs for each portion of the Project: SSc7.1-Heat Island Effect, Non-Roof; SSc7.2-Heat Island Effect, Roof; and SSc6.1-Stormwater Design-Quantity Control. Credit EAc2-On-Site Renewable Energy is under consideration.

6.2 Passive House Design

The goals of Passive House design are to reduce the overall source energy consumption of a building, ensure occupant comfort by limiting cold spots and drafts, and eliminate thermal bridging in the façade to increase durability. The key design elements that will guide this Project towards Passive House principles include an air-tight building envelope, optimized mechanical systems, a highly insulated façade, and advanced lighting controls. Together, these design features will reduce the whole building energy demand. Energy use and GHG emissions are discussed in detail in Section 10.0.

6.2.1 Airtight Building Envelope

The façade is looking to achieve a high level of air tightness in order to meet the Passive House principles. This level of air tightness is crucial in reducing heat loss and heat gain as well as drafts, at the same time preventing moisture-laden air from entering the building envelope where it could condense on cold surfaces. To achieve a high level of performance, diligent sealing of all joints, penetrations through the façade, and critical transitions in the building envelope is required. Detailed construction drawings clearly defining the building air barrier along with an Air Sealing Specification will be developed and provided to the construction team to aid them in executing these details properly. Training, testing, and inspection programs will have to be implemented to ensure tightness of facade. Upon completion, the building as a whole may ultimately be put under a blower door test to verify compliance with the Passive House principles.

6.2.2 High Levels of Insulation & Thermal Bridge Free Design and Construction

High R-Values as determined in the initial modeling for the Project will be required to address the rigid heating and cooling energy budgets set forth by Passive House. Reducing thermal bridges through the building envelope eliminates cold spots and the potential for condensation thereby reducing the potential for mold growth. Thermal bridge free construction will be addressed in the design phase and detailed in the Project drawings. Passive House Project details clearly show innovative materials and methods needed to reduce/eliminate thermal bridging.

6.2.3 Well-insulated Window Frames and Glazings

Passive House project windows strive to be efficient enough to prevent condensation and comfort problems in occupied spaces. Extensive thermal modeling will need to be conducted in order to evaluate the strict Passive House comfort and condensation criteria can be met. Window systems may be required to be triple pane with thermally broken frames and finely tuned low-e coatings and gas fills customized to meet the Project's specific needs, while boosting the thermal performance of the entire wall system.

6.2.4 Mechanical Systems

In Passive House projects, heating, cooling, and domestic hot water are provided via high efficiency equipment such as four-pipe Fan Coil units, heat recovery, and high-efficiency condensing boilers. As the highly insulated building envelope drops the space conditioning loads, fans, pumps, and lighting constitute an increasingly higher percentage of building energy use. High-efficiency auxiliary equipment such as pumps and fans with Electronically Commutated Motors (ECM) or Variable Frequency Drives (VFD) are also typical in Passive House projects and help reduce the overall energy demand.

6.2.5 Heat or Energy Recovery Ventilation

One of the integral components of a Passive House building is a balanced heat or energy recovery ventilation system that provides fresh air to all habitable spaces and removes stale air from kitchens, baths, and trash rooms. A minimum efficiency of 75% is specified by the Passive House standard, minimizing energy use and resulting in fresh, tempered air delivered to the occupants. To ensure the necessary levels of ventilation to each space, ductwork will have to be tightly sealed and the supply and return air streams balanced to provide the specific requirements.

6.2.6 Lights & Appliances

Any device that uses electricity will be evaluated to minimize energy use. Electrical systems will include bi-level lighting, daylight, and occupancy sensors as well as ENERGY STAR® lighting and LED fixtures.

6.3 Climate Change Adaptability and Resiliency

Climate change conditions considered by the Project team include higher maximum and mean temperatures, more frequent and longer extreme heat events, more frequent and longer droughts, more severe freezing rain and heavy rainfall events and associated flooding, and increased wind gusts.

The expanded life of the Project is expected to be 50 years. Therefore, the Proponent planned for climate-related conditions projected 50 years into the future. A copy of the completed Climate Change Preparedness and Resiliency Checklist is included as Attachment I. Given the preliminary level of design, the responses are also preliminary and may be updated as the Project design progresses. A Draft Green Building Report (Draft Report), Energy Model and Design Affidavit will be submitted to the Interagency Green Building Council prior to issuance of a building permit. The Draft Report will include a comprehensive narrative describing the proposed strategies and paths that will be used to meet LEED prerequisites and achieve the selected credits.

6.3.1 Extreme Heat Events

The number of days in Massachusetts with temperatures greater than 90°F is increasing. The Project design will include measures to adapt to these conditions, including use of highly-reflective roof materials, planting shade trees/shrubs, utilizing green roofs, and constructing a high performance envelope (see Attachment I for the Climate Change Preparedness and Resiliency Checklist).

6.3.2 Extreme Rain Events

As a result of climate change, the Northeast is expected to experience more frequent and intense storms. To mitigate this, the Proponent will take measures to minimize storm water runoff and protect the Project's mechanical equipment, as necessary. Stormwater management is described in Section 9.3.2. The Project will be designed to reduce the existing peak rates and volumes of storm water runoff from the site, and promote runoff recharge to the greatest extent practicable. The Project will increase the pervious area on the site, utilize green roofs, permeable paving products, and collect rainwater in on-site cisterns for reuse.

6.3.3 Drought Conditions

Although more intense rain storms are predicted, extended periods of drought are also predicted due to climate change. The occurrence of droughts lasting one to three months is expected to rise significantly over the course of the century. To minimize the Project's susceptibility to drought conditions, the landscape design is expected to include native and adaptive plant materials, and a high efficiency irrigation system will be installed. Aeration fixtures and appliances will be chosen for water conservation qualities, conserving potable water. Greywater will also be collected for reuse within the office and public restrooms.

6.3.4 Sea Level Rise

According to Climate Ready Boston, the sea level by 2030 may be as much as eight inches higher than it was in 2000, and could be as high as seven feet higher by 2100 under the high emissions scenario. As described in "Climate Change and Extreme Weather Vulnerability Assessments and Adaptation Options for the Central Artery" by MassDOT (the "MassDOT Report"), "one of the challenges presented by the wide range of sea level rise (SLR) projections is the inability to assign likelihood to any particular [SLR] scenario."[1] The Project team has analyzed the MassDOT Report, which shows the potential for flooding over the eastern portion of the Project site by a 500-year and 1,000-year storm event in 2070. The Proponent is aware of the potential impacts for this site which is roughly 22' above mean sea level, and will continue to analyze future studies that show the impacts of sea level rise on the site in the future, and will incorporate mitigation measures if necessary.

[1] Massachusetts Department of Transportation, et al. "MassDOT-FHWA Pilot Project Report: Climate Change and Extreme Weather Vulnerability Assessments and Adaptation Options for the Central Artery." November 2015.

LEED 2009 for Core and Shell Development

Project Checklist

Winthrop Square - Office

2/13/2017

Sustainable Sites — Possible Points: 28

Y	?	N			
Y			Prereq 1	Construction Activity Pollution Prevention	
1			Credit 1	Site Selection	1
5			Credit 2	Development Density and Community Connectivity	5
	1		Credit 3	Brownfield Redevelopment	1
6			Credit 4.1	Alternative Transportation—Public Transportation Access	6
2			Credit 4.2	Alternative Transportation—Bicycle Storage and Changing Rooms	2
3			Credit 4.3	Alternative Transportation—Low-Emitting and Fuel-Efficient Vehicles	3
2			Credit 4.4	Alternative Transportation—Parking Capacity	2
		1	Credit 5.1	Site Development—Protect or Restore Habitat	1
		1	Credit 5.2	Site Development—Maximize Open Space	1
1			Credit 6.1	Stormwater Design—Quantity Control	1
1			Credit 6.2	Stormwater Design—Quality Control	1
1			Credit 7.1	Heat Island Effect—Non-roof	1
1			Credit 7.2	Heat Island Effect—Roof	1
1			Credit 8	Light Pollution Reduction	1
1			Credit 9	Tenant Design and Construction Guidelines	1

Water Efficiency — Possible Points: 10

Y			Prereq 1	Water Use Reduction—20% Reduction	
4			Credit 1	Water Efficient Landscaping	2 to 4
	2		Credit 2	Innovative Wastewater Technologies	2
4			Credit 3	Water Use Reduction	2 to 4

Energy and Atmosphere — Possible Points: 37

Y			Prereq 1	Fundamental Commissioning of Building Energy Systems	
Y			Prereq 2	Minimum Energy Performance	
Y			Prereq 3	Fundamental Refrigerant Management	
14	3	4	Credit 1	Optimize Energy Performance	3 to 21
	1	3	Credit 2	On-Site Renewable Energy	4
2			Credit 3	Enhanced Commissioning	2
2			Credit 4	Enhanced Refrigerant Management	2
3			Credit 5.1	Measurement and Verification—Base Building	3
3			Credit 5.2	Measurement and Verification—Tenant Submetering	3
2			Credit 6	Green Power	2

Materials and Resources — Possible Points: 13

Y	?	N			
Y			Prereq 1	Storage and Collection of Recyclables	
		5	Credit 1	Building Reuse—Maintain Existing Walls, Floors, and Roof	1 to 5
2			Credit 2	Construction Waste Management	1 to 2
		1	Credit 3	Materials Reuse	1
2			Credit 4	Recycled Content	1 to 2
2			Credit 5	Regional Materials	1 to 2
1			Credit 6	Certified Wood	1

Indoor Environmental Quality — Possible Points: 12

Y			Prereq 1	Minimum Indoor Air Quality Performance	
Y			Prereq 2	Environmental Tobacco Smoke (ETS) Control	
1			Credit 1	Outdoor Air Delivery Monitoring	1
	1		Credit 2	Increased Ventilation	1
1			Credit 3	Construction IAQ Management Plan—During Construction	1
1			Credit 4.1	Low-Emitting Materials—Adhesives and Sealants	1
1			Credit 4.2	Low-Emitting Materials—Paints and Coatings	1
1			Credit 4.3	Low-Emitting Materials—Flooring Systems	1
	1		Credit 4.4	Low-Emitting Materials—Composite Wood and Agrifiber Products	1
1			Credit 5	Indoor Chemical and Pollutant Source Control	1
		1	Credit 6	Controllability of Systems—Thermal Comfort	1
1			Credit 7	Thermal Comfort—Design	1
	1		Credit 8.1	Daylight and Views—Daylight	1
1			Credit 8.2	Daylight and Views—Views	1

Innovation and Design Process — Possible Points: 6

1			Credit 1.1	Innovation in Design: Educational Outreach	1
1			Credit 1.2	Innovation in Design: Green Cleaning	1
1			Credit 1.3	Innovation in Design: Assessment & Planning for Resilience	1
1			Credit 1.4	Innovation in Design: Cooling Tower Management	1
1			Credit 1.5	Innovation in Design: Mercury Lamp Content	1
1			Credit 2	LEED Accredited Professional	1

Regional Priority Credits — Possible Points: 4

1			Credit 1.1	Regional Priority: Heat Island Effect - Roof	1
1			Credit 1.2	Regional Priority: Stormwater Design - Quantity Control	1
1			Credit 1.3	Regional Priority: Heat Island Effect - Non-Roof	1
	1		Credit 1.4	Regional Priority: On-Site Renewable Energy	1

Total — Possible Points: 110

83	11	16		Total	

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

LEED 2009 for New Construction and Major Renovations

Project Checklist

Wintrop Square - Residential

2/13/2017

Sustainable Sites — Possible Points: 26

Y	?	N			
Y			Prereq 1	Construction Activity Pollution Prevention	
1			Credit 1	Site Selection	1
5			Credit 2	Development Density and Community Connectivity	5
	1		Credit 3	Brownfield Redevelopment	1
6			Credit 4.1	Alternative Transportation—Public Transportation Access	6
1			Credit 4.2	Alternative Transportation—Bicycle Storage and Changing Rooms	1
3			Credit 4.3	Alternative Transportation—Low-Emitting and Fuel-Efficient Vehicles	3
2			Credit 4.4	Alternative Transportation—Parking Capacity	2
		1	Credit 5.1	Site Development—Protect or Restore Habitat	1
		1	Credit 5.2	Site Development—Maximize Open Space	1
1			Credit 6.1	Stormwater Design—Quantity Control	1
1			Credit 6.2	Stormwater Design—Quality Control	1
1			Credit 7.1	Heat Island Effect—Non-roof	1
1			Credit 7.2	Heat Island Effect—Roof	1
1			Credit 8	Light Pollution Reduction	1

Water Efficiency — Possible Points: 10

Y			Prereq 1	Water Use Reduction—20% Reduction	
4			Credit 1	Water Efficient Landscaping	2 to 4
	2		Credit 2	Innovative Wastewater Technologies	2
4			Credit 3	Water Use Reduction	2 to 4

Energy and Atmosphere — Possible Points: 35

Y			Prereq 1	Fundamental Commissioning of Building Energy Systems	
Y			Prereq 2	Minimum Energy Performance	
Y			Prereq 3	Fundamental Refrigerant Management	
12	3	4	Credit 1	Optimize Energy Performance	1 to 19
	1	6	Credit 2	On-Site Renewable Energy	1 to 7
2			Credit 3	Enhanced Commissioning	2
2			Credit 4	Enhanced Refrigerant Management	2
3			Credit 5	Measurement and Verification	3
2			Credit 6	Green Power	2

Materials and Resources — Possible Points: 14

Y			Prereq 1	Storage and Collection of Recyclables	
		3	Credit 1.1	Building Reuse—Maintain Existing Walls, Floors, and Roof	1 to 3
		1	Credit 1.2	Building Reuse—Maintain 50% of Interior Non-Structural Elements	1
2			Credit 2	Construction Waste Management	1 to 2
		2	Credit 3	Materials Reuse	1 to 2

Materials and Resources, Continued

Y	?	N			
2			Credit 4	Recycled Content	1 to 2
2			Credit 5	Regional Materials	1 to 2
1			Credit 6	Rapidly Renewable Materials	1
1			Credit 7	Certified Wood	1

Indoor Environmental Quality — Possible Points: 15

Y			Prereq 1	Minimum Indoor Air Quality Performance	
Y			Prereq 2	Environmental Tobacco Smoke (ETS) Control	
1			Credit 1	Outdoor Air Delivery Monitoring	1
1			Credit 2	Increased Ventilation	1
1			Credit 3.1	Construction IAQ Management Plan—During Construction	1
		1	Credit 3.2	Construction IAQ Management Plan—Before Occupancy	1
1			Credit 4.1	Low-Emitting Materials—Adhesives and Sealants	1
1			Credit 4.2	Low-Emitting Materials—Paints and Coatings	1
1			Credit 4.3	Low-Emitting Materials—Flooring Systems	1
		1	Credit 4.4	Low-Emitting Materials—Composite Wood and Agrifiber Products	1
1			Credit 5	Indoor Chemical and Pollutant Source Control	1
1			Credit 6.1	Controllability of Systems—Lighting	1
1			Credit 6.2	Controllability of Systems—Thermal Comfort	1
1			Credit 7.1	Thermal Comfort—Design	1
		1	Credit 7.2	Thermal Comfort—Verification	1
	1		Credit 8.1	Daylight and Views—Daylight	1
1			Credit 8.2	Daylight and Views—Views	1

Innovation and Design Process — Possible Points: 6

1			Credit 1.1	Innovation in Design: Educational Outreach	1
1			Credit 1.2	Innovation in Design: Green Cleaning	1
1			Credit 1.3	Innovation in Design: Assessment & Planning for Resilience	1
1			Credit 1.4	Innovation in Design: Cooling Tower Management	1
1			Credit 1.5	Innovation in Design: Mercury Lamp Content	1
1			Credit 2	LEED Accredited Professional	1

Regional Priority Credits — Possible Points: 4

1			Credit 1.1	Regional Priority: Heat Island Effect - Roof	1
1			Credit 1.2	Regional Priority: Stormwater Design - Quantity Control	1
1			Credit 1.3	Regional Priority: Heat Island Effect - Non-Roof	1
	1		Credit 1.4	Regional Priority: On-Site Renewable Energy	1

80	9	21	**Total**	Possible Points: 110

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

Chapter 7

Urban Design

7.0 URBAN DESIGN

7.1 Project Massing and Design

The massing of the new Tower is designed to be a beacon on the Boston skyline while showing deference for the adjacent One Winthrop Square and other neighboring Art Deco-era buildings built in the 1920s and 1940s. The new tower will seek to enhance and revamp the existing Winthrop Square, creating open space to serve Boston and linking together several other adjacent outdoor spaces. The site design is developed with a connection to the neighborhood, its history, and keeping the pedestrian and building user experience in mind through the following principles:

- Downtown "treasures": The Project site is located in the epicenter of three significant districts of downtown Boston: the resurgent creative commercial node of Downtown Crossing to the west; the primary transit gateway of South Station; and the vital Financial District to the east. The through-block site has two primary faces, each capable of re-establishing significant verticality and street-wall continuity. Devonshire Street is bookended by two 400' facades, and Federal Street a 400' facade (101 Federal) and the 600' Bank of America building to the east. The massing of the Tower is articulated in two primary components, a cubic tower on Federal Street astride the Great Hall entrance, and a rectangular tower on a partial podium facing Devonshire Street. The program's Great Hall, coupled with a dynamic array of public use spaces, will become a pedestrian attractor. In this way, it is part of an urban series of links that reinforce and add multiple pathways between these major nodes of Downtown.

- Urban "treasures": Boston is blessed with iconic outdoor urban spaces: Boston Common, the Public Garden, Copley Square, and the Fenway, among others. Downtown, intimately-scaled spaces constitute part of the special texture of the Colonial-era city: Post Office Square, Shopper's Park, the plaza dedicated to the Irish Famine Memorial, and, between these, Winthrop Square. These are part of the city's urban "treasures," and are the memorable outdoor urban rooms of this district. In the summer, these spaces are teeming with pedestrians, vendors, tourists, and workers on lunch break enjoying the sun and verdure. The renovation of the Square, and the creation of a stronger pedestrian link between Winthrop Square and the adjacent Shopper's Park via the Tontine Crescent, will further establish downtown Boston as a haven for pedestrians and outdoor spaces.

- The District Street Pattern: Boston's streets were established by cow paths, or so the story goes. In reality, the Colonial-era pattern was formed by geography: the circumferential pattern east of Beacon Hill traversing the grade around the hill, and the radial pathways connecting the intense commercial activity of the wharves to the upland merchant shops. A distinct pattern of east-west streets are bisected by Washington and Federal streets, radiating from State Street southwards. The Project design envisions new streetscape treatments creating a living street and incorporating the 100 Summer Street Plaza into the network of pedestrian links, connecting Summer Street, the open terrace at 133 Federal, and The Great Hall. In this way, the Great Hall becomes part of a larger pattern of midblock pedestrian open space links.

- Re-Constituting Federal Street: The east side of the Project site along Federal Street poses a challenge: how to reconstitute the western street wall that has been missing for more than 40 years. Combined with the raised plaza created by the setback of the Bank of America building along half the block on the east side, the shape and character of the Federal Street façade has the potential to create a varied, dynamic urban space in a previously unresolved block. The Project design establishes a stronger street line with a 654-foot vertical, slender building form that creates a pinnacle and focal point following the 390-foot 101 Federal Street tower, and the 240-foot 75 Federal Street building at the north end of the block facing on Franklin Street. The resultant stepped massing creates a stronger street wall and block presence.

- Completing the Urban Room of Winthrop Square: The Great Fire of 1872 remade much of the Financial District. The straightening of several thoroughfares, the creation of Post Office Square, and the new Boston Herald Traveler newspaper building at One Winthrop Square gave new shape and a Victorian architectural veneer to the neighborhood. However, the 20th century transformation of the Financial District has been less progressive in its wayfinding and organizational endeavors. Currently, the landscape of Winthrop Square is axially created by the granite One Winthrop Square and the shear façades of two 400-foot office towers that flank the east side with an uneasy counterpoint of 90-foot masonry loft buildings to the west. The Winthrop Square massing will complete the form of the Square, creating a coherent shape and sense of place while also improving the design, use, and accessibility of the Square itself.

At the city scale, the Project will continue the reinvigoration of this part of Boston with a distinct geometry and articulation that will add a beacon and increased distinction to the Boston skyline. The Project is located at the epicenter of three significant districts of downtown Boston, and will mark another attraction to bring pedestrians through the Midtown Cultural District, drawing them towards the new public amenities provided in the tower plinth, as well as the enhanced open space provided by Winthrop Square.

The mass of the Tower (see Figure 2-6) has a plinth devoted to a public amenity entitled the 'Great Hall,' a 60 foot-tall open space which traverses through the building and transitions between the ground level and aesthetic differences found between Federal and Devonshire streets. (Please see Figures 2-7 and 2-8.) Figures 7-1 and 7-2 are axonometrics indicating the massing of the Project in its context. Above the Great Hall, the office portion of the building gently curves around Winthrop Square to the west, while reaching to create a strong vertical expression on the commercial Federal Street to the east. This gesture continues as the building transitions to residential uses at the Tower midpoint. Adjacent to Winthrop Square, however, the building shears back above the office to maintain a consistent scale to the Devonshire Street wall, and a comfortable, intimate feeling within the Square. (Please see skyline views in Attachment J. As seen from the skyline views of the Tower, the Project's unique combination of materials and massing strategies create a building that is identifiable and defining to the skyline. In addition to the unique textures of the building, the underlying geometry, like the bustle, are created with the purpose of engendering a sense of place across varying scales.

The solid exterior expression on the north and south facades, necessitated by the party wall condition between the Project and adjacent sites, creates a strong frame for the glazed portions of the building, and helps in articulating and breaking down the scale of the façade and building (see Figures 7-3 through 7-6). The exterior bounds and contains the textural hierarchy of the massing, which is further pronounced though a series of contrasting metallic solid and glass moments. The material pallet (described in Section 7.2) is utilized to parlay the play of opacity into a distinctive façade with a pronounced texture and grain. In the office portion of the building, the introduction of projections with varying shapes allows for play between solidity and transparency, while also creating the structure for innovation and increased performance of the curtain wall façade – uniting the aesthetic with real performance. At the higher portions of the building, the texture is mimicked through a larger-scale pleating over the glass façade, allowing for a dynamic play of light. This is visible to both pedestrians and those further afield, and draws people to the public space within the building.



115 Winthrop Square **Boston, Massachusetts**

Figure 7-1

Context Axonometric - Northwest



115 Winthrop Square **Boston, Massachusetts**

Figure 7-2

Context Axonometric - Southeast



115 Winthrop Square **Boston, Massachusetts**

Figure 7-3

Building Elevation - North



115 Winthrop Square **Boston, Massachusetts**

Figure 7-4

Building Elevation - South



115 Winthrop Square **Boston, Massachusetts**

Figure 7-5

Building Elevation - West



115 Winthrop Square **Boston, Massachusetts**

Figure 7-6

Building Elevation - East

The site's through-block nature creates the 'T' shaped building and allows the Tower to reach out to two different street conditions. The variations in street conditions are mitigated through the creation of two distinct entry sequences from the east and west faces. To the west, from Winthrop Square, a much more formal, enclosed portal threshold is utilized, creating a dramatic emergence into the Great Hall space. The entry carefully scales down the overall Tower so as to complement and show deference to One Winthrop Square, as well as enhancing the experience within the Square. A portico is maintained on the exterior at the Devonshire Street plaza allowing for a formal expression of the Tower, while also allowing for a transitional intermediate space between the Square and the Great Hall, and maintaining the Square as a moment of respite in the busy city.

The formal moves leading into the building from Devonshire Street transition through the portal into a columnar Great Hall experience, generating a much more blurred and porous entry on the east. The busier Federal Street will be directly adjacent to the Great Hall space with the greatest activity, thus exposing street life to views of the interior activity, drawing pedestrian traffic into and through the Great Hall (see Figures 1-3 and 1-4). This will be accomplished through a large glass entry façade with opportunities to blur boundaries between indoor and outdoor space. The slender formation of the bustle Tower above creates a beacon to draw people from the financial district and establishes a presence and scale with the Bank of America building.

Along the street and pedestrian experience, the Great Hall public area utilizes the through-block nature of the site to create a pedestrian passage and destination. This will not only create the opportunity for a restaurant, café and multi-use civic component to further revitalize the currently unused site, but also provides an easy link from Federal Street to Winthrop Square. With main entrances to the Great Hall from both Federal Street and Winthrop Square, the ground floor will create a community amenity that can be utilized and enjoyed in all seasons, while also being a space that will easily embrace and spill into the outdoors during warmer months.

Capable of supporting a variety of special events, the Great Hall will also keep the ground plane active during the typical day-to-day. Booths for food vendors, which can be moved during events, will activate the space and provide variation. The stands will be supported by relaxed, flexible seating. This allows the Great Hall to be malleable to a wide variety of different users, events and times of day, whether it be someone working and relaxing during the work day, or attending a fashion show at night. Elevators placed at the center of the building connect basement parking and accessory spaces through to the Long Bar and sit-down food service on the mezzanine, and up to meeting and event

rooms on levels 2 and 3, creating a constant pull of people through the building vertically in addition to the pedestrian traffic through the Great Hall (see Figures 2-9 through 2-11).

Primary entrances for the office and residential portions of the building will be provided via separate lobbies off of Winthrop Square, further enlivening the space. All entrances will be covered and/or utilize glass and metal canopies, allowing maximum light through to the street level. Furthermore, an extended plaza will be used to seamlessly connect the entry plaza for the building to Winthrop Square, expanding the green space and creating a more robust and varied pedestrian experience.

7.2 Project Materials

The Project materials pallet will continue to be developed as the Tower design progresses. In addition to the traditional glass used in curtain-walled skyscraper buildings, the Project will use a warm, rich metal in a bronze or copper color in solid portions of the buildings and in projections. This will create a unique material experience on the skyline. At the pedestrian level, the Project is considering the use of various paving materials at the exterior, a pallet that would be pulled into the entry portal from Winthrop Square and through the Great Hall to create a continuous and fluid visitor experience. At the ground level, storefront glazing will be used for maximum transparency. All materials, especially in publicly trafficked portions of the building, will be chosen for accessibility, durability, ease of maintenance, and aesthetic intent.

7.3 Winthrop Square

The proposed Project will include the extensive renovation of the adjacent Winthrop Square. This renovation will improve upon the character of the Project site as a public open space, both indoor and out, and will improve accessibility throughout the Project site. The combination of the Square and adjacent Great Hall will provide varied spaces for public uses and functions, and development of these features will create a vital link through the Downtown Crossing Neighborhood.

A goal of the urban realm design is that the Winthrop Square area will feel more pedestrian than vehicular, yet allow for vehicular passage. In this vein, the intention is to "tabletop" the portion of the Devonshire Street roadway that fronts onto the Great Hall, continuing the high quality paving material across the vehicular way and separating the vehicles and pedestrians with bollards. The "tabletop" refers to the elevated roadway that slows down traffic and provides a seamless transition for pedestrians. Along Otis Street, which is an existing bus route, it is likely that a curb separation will be maintained although alternative

materials to bituminous asphalt are being considered for the roadway. Along Federal Street, a more limited tabletop strategy is being discussed with City of Boston agencies.

The pedestrian areas/sidewalks along both Devonshire Street and Federal Street will be widened to generous dimensions. Along Devonshire, the dimension will range in width from 19 feet to over 24 feet and greater directly in front of the Great Hall, some of which is under the building overhang. Along Federal Street, where the sidewalk is currently very narrow, the Project will widen the sidewalk to approximately 18 feet (see Figure 2-12). The paving material on the sidewalks will be a combination of high quality unit pavers set on concrete slab, permeable paving, and poured concrete surfaces. The dimensions and location of the poured pedestrian ways have not yet been determined; however, the development team has had preliminary meetings with the Boston Disability Commission and intends to work closely with them throughout the design process.

The Winthrop Square design will continue to evolve through discussions with the BPDA, the BTD, and the neighbors. It will be designed as a local plaza and a destination square with distinctive visual and spatial interest. Its vibrancy will accommodate, but not be dependent on multiple people for enlivenment, and will thus be welcoming for individuals or groups of many sizes. The design and programming of the Square will facilitate pedestrian movement and provide ample casual seating. Winthrop Square is currently predominantly in shade therefore lighting, both for safety and artistic effect, will be very important to the design. This will be particularly impactful after business hours in the winter and due to the extra evening activity in the square because of the activities in the Great Hall.

The landscape design will comply with the intentions of the City of Boston's Complete Streets Initiative to increase permeability and planting within the streetscape. Green infrastructure including permeable paving, street trees, and other plantings will be incorporated within the design of the streetscape and/or redesign of Winthrop Square. Depending on the final design and detailing of the square, the existing large honey locust trees might be incorporated; however, as they are nearing the end of their lifetime, an alternative strategy for shade tree planting will likely be proposed. It is anticipated that the Proponent will assume maintenance of the green infrastructure and will undertake a License, Maintenance and Indemnification (LMI) Agreement with the City of Boston.

Figures showing access through the site are included in Figures 1-3 and Figure 1 in the Accessibility Checklist, Attachment K.

As the Project design progresses, a signage and wayfinding package for both the exterior and interior portions of the Project will be studied and coordinated with the Business Improvement District current wayfinding strategy utilized throughout the district.

Maintenance of Federal Street and Devonshire Street sidewalk and Winthrop Square will be undertaken by the building owner. Details of responsibility to be established as the design of the space continues through the Public Improvement Commission.

7.4 The Tontine Crescent

To further the links between open spaces, the Tontine Crescent, bridging Shopper's Park and Winthrop Square will be enhanced and widened to encourage pedestrian flow through the area. This location also creates an ideal space for a public bike share station based on its central and well traversed location. Extending the planned Winthrop Square intervention to Franklin Street will create an even stronger link to the Tontine Crescent and will take further advantage of the opportunity to make Winthrop Square an anchor point in the City. This will create a series of green and open spaces that invite pedestrian activity.

7.5 Federal Street and Federal Court

In addition to the improvements to the west of the building, Federal Street sidewalks and Federal Court will also be improved. Sidewalk widths will be increased, accessibility improved and enhanced materials will be used. Federal Court, the private alley between the Winthrop Square tower and 133 Federal Street will receive similar treatments.

The Project also proposes the partial table-topping of Federal Street in front of the building, along with large cross-walks to improve pedestrian safety and flow. A shared ramp with the existing 101 Federal Street building entry is being discussed to further the area improvements (see Figure 7-7).



115 Winthrop Square **Boston, Massachusetts**

Figure 7-7

Alternative With Shared 101 Federal Street Ramp

Chapter 8

Historic and Archaeological Resources

8.0 HISTORIC AND ARCHAEOLOGICAL RESOURCES

This section describes the historic and archaeological resources located on the Project site and within the Project's vicinity and discusses potential Project-related impacts to the resources.

8.1 Project Site

The Project site contained the Winthrop Square Garage at 115 Federal Street (also known as 115 Winthrop Square and 240 Devonshire Street). Originally constructed in 1952 and reconfigured and expanded with a one-story addition in 1967, the Winthrop Square Parking Garage was a four-level (three levels above grade and one level below grade) cast concrete parking structure. The garage was constructed by First Federal Parking Corp. pursuant to a lease of City-owned land dated June 26, 1952.

In August 2017, the Proponent (the Applicant) and the City of Boston (the Owner) filed an Article 85 / Demolition Delay application with the Boston Landmarks Commission (BLC) for the proposed demolition of the garage. The garage had been determined to be structurally unsound and had been condemned by the City of Boston. Vandalism, trespassing, and spalling concrete were contributing factors to ongoing concerns for public safety at the Project site and the surrounding areas, despite continued efforts to secure the site.

On September 12, 2017, BLC staff determined that the garage was not significant under the Criteria for determining significance in Section 85-5.3 (a-e) of the Demolition Delay Ordinance (Article 85, Chapter 665 of the Acts of 1956 as amended). With BLC's determination, and the issuance of all necessary permits and approvals, the garage is currently in the process of being razed.

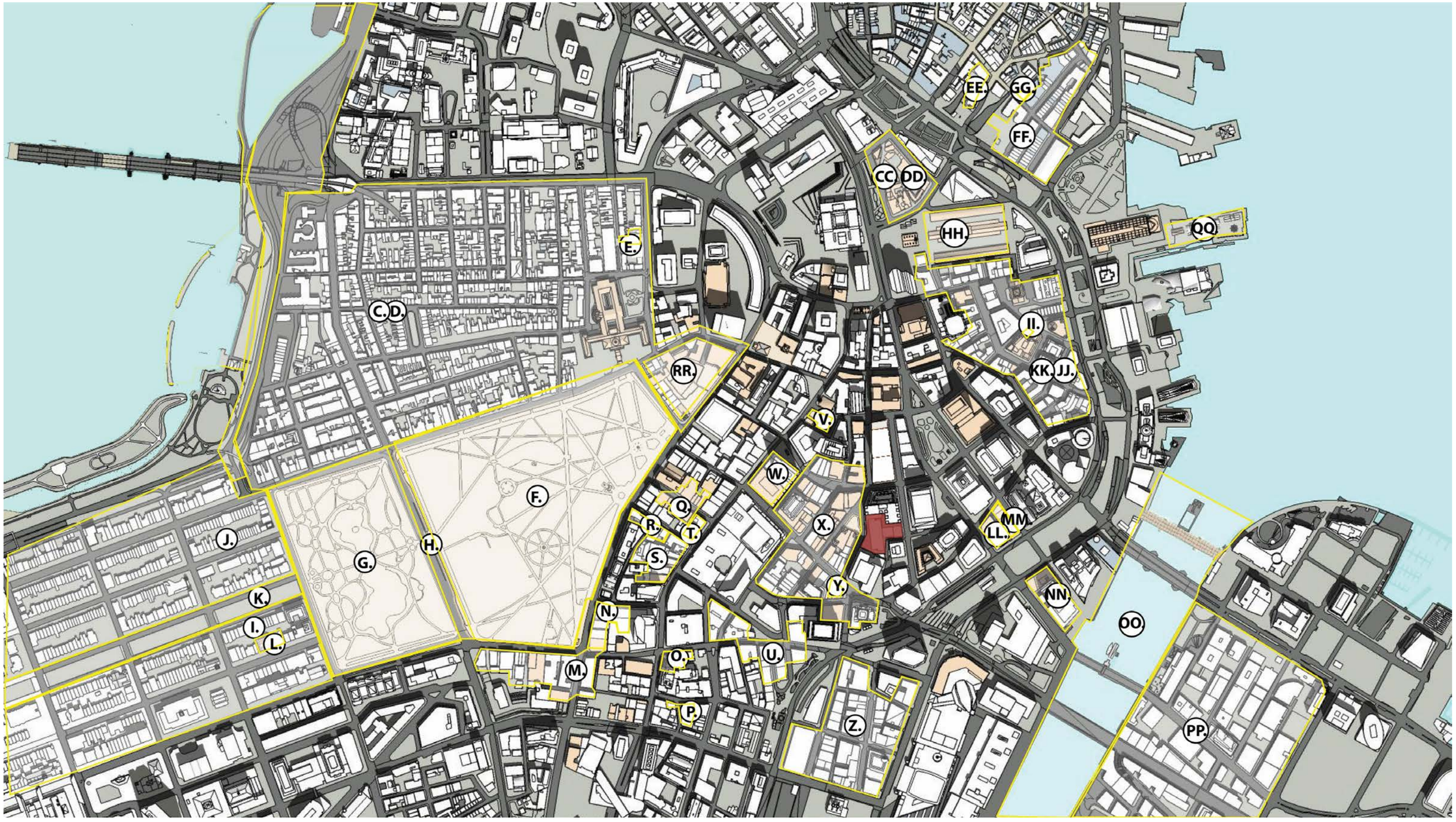
8.2 Historic Resources in the Vicinity

As noted in the ENF and PNF, there are numerous historic districts and individual properties listed in the State and National Registers of Historic Places located within the Project's vicinity. The ENF and PNF identified State and National Register listed properties within a quarter-mile radius of the Project site. At the request of the Massachusetts Historical Commission (MHC), the study area for the Draft EIR/PIR was expanded to identify all State and National Register listed historic districts and individual properties within the Project's potential impact area, regardless of distance from the Project site.

The State and National Register listed historic districts and individually listed properties are identified in the tables below; Table 8-1 lists the historic districts and Table 8-2 lists the individually listed properties. The locations of the historic districts and the individual properties are identified on Figures 8-1 and 8-2.

Table 8-1 State and National Register Listed Historic Districts

Map	State and National Register Historic District	Boundaries
A	Charles River Basin Historic District	(Boston/Cambridge) Both banks of the Charles River from the Eliot Bridge to the Charles River Dam
B	Charles River Esplanade	Parkland bounded by Boston Univ. Bridge, Storrow Dr., Charles St. and associated ramps
C	Beacon Hill Local Historic District	Beacon, Park and Tremont St.s, Embankment Rd and south side of Cambridge St.
D	Beacon Hill National Register Historic District	Beacon St., Embankment Rd., Storrow Dr., Cambridge and Bowdoin St.s
F	Boston Common	Beacon, Park, Tremont, Boylston and Charles St.s
G	Boston Public Garden	
H	Boston Common and Public Garden	Beacon, Park, Tremont, Boylston and Arlington St.s
I	Back Bay Historic District	Arlington, Providence, St. James, Exeter and Boylston St.s, Charlesgate East and Charles River
J	Back Bay Architectural District	Back St., Embankment Rd and Arlington St., Boylston St. and Charlesgate East
K	Commonwealth Avenue Mall	Commonwealth Avenue
M	Piano Row Historic District	Park Sq. to Avery St. along Boylston and Tremont St.s
N	Tremont Street block between Avery and Boylston	174-182 Tremont St.
O	Liberty Tree District	Essex and Washington St.s
P	Beach - Knapp District	Beach and Knapp St.s
Q	Temple Place Historic District	11-55 and 26-58 Temple Pl.
R	West Street Historic District	West and Tremont St.s
S	Washington Street Theatre District	511-559 Washington St.



115 Winthrop Square Boston, Massachusetts

D/R/E/A/M COLLABORATIVE
Architecture | Urban Development | LEED Consulting

Figure 8-1
State and National Register Listed Historic Districts



115 Winthrop Square Boston, Massachusetts

D/R/E/A/M COLLABORATIVE
Architecture | Urban Development | LEED Consulting

Figure 8-2
State and National Register Listed Properties

Table 8-1 State and National Register Listed Historic Districts (Continued)

Map	State and National Register Historic District	Boundaries
U	Textile District	Essex St. from Phillips Sq. to Columbia St., and Chauncy St. from Phillips Sq. to Rowe Pl.
V	Newspaper Row	322-328 Washington St., 5-23 Mil St. and 11 Hawley St.
W	Filene's Complex, The	Washington, Summer, Franklin and Hawley St.s
X	Commercial Palace Historic District	Bedford, Summer, Franklin, Hawley and Chauncy St.s
Y	Church Green Buildings Historic District	101-113 Summer St.
Z	Leather District	Atlantic Ave., Surface Artery and Kneeland St.
AA	Bulfinch Triangle Historic District	Canal, Causeway, Friend, and Lancaster St.s, Lowell Sq., Merrimac, Portland and Traverse St.s.
BB	Sears' Crescent and Sears' Block	38-68 and 70-72 Cornhill
CC	Blackstone Block Historic District	Union, Hanover, Blackstone and North St.s
DD	Blackstone Block Street Network	Public ways of Marshall St., Creek Sq., Marsh Ln., Salt Ln., Scott Alley, Public Alley 102 and sidewalks of Union, North, Blackstone and Hanover St.s
EE	Boston Police Station Number One - Traffic Tunnel Admin. Building and Boston Printing Dept. Building	128 and 150 North and 130-140 Richmond St.s
FF	Fulton - Commercial Streets District	Fulton, Commercial, Mercantile, Lewis and Richmond St.s
HH	Quincy Market	Clinton, Commonwealth and Chatham St.s and Merchants Row
II	India St, 25-27	25-27 India St.
JJ	Custom House District	Kilby St., JFK Expressway, High and Batterymarch St.s, Merchants Row, South Market and State St.
KK	Custom House District (1996 Amendment)	JFK Expressway, Kilby, High Batterymarch St.s, Merchants Row, South Market and State St.s
LL	Gridley Street Historic District	Congress, High, Pearl and Purchase St.s
MM	Richardson Block	109-119 High St. and 113-151 Pearl St.
NN	Russia Wharf Buildings	518-540 Atlantic Ave., 270 and 276-290 Congress St.

Table 8-1 State and National Register Listed Historic Districts (Continued)

Map	State and National Register Historic District	Boundaries
OO	Fort Point Channel Historic District	Fort Point Channel seawalls, Northern Ave. Bridge, Seaport Blvd, Stillings, Midway and A St.s and Necco Ct.
PP	Fort Point Channel Landmark District	Summer, Congress, A and adjoining St.s
QQ	Long Wharf and Custom House Block	Foot of State St. , east of Atlantic Ave.
RR	Park Street District	Tremont, Park and Beacon St.s

Table 8-2 State and National Register Listed Properties*

Map	Property	Address
1	89-96 Summer Street	89-96 Summer Street
2	Boston Edison Electric Illuminating Co.	25-39 Boylston Street
3	Boston Athenaeum	10 1/2 Beacon Street
4	Central Burying Ground	Boston Common at Tremont Street
5	South Station Headhouse	620-690 Atlantic Avenue
6	South Station Waiting Room	620-690 Atlantic Avenue
7	South Station Interlocking System - Tower 1	Atlantic Avenue
8.	Russia Wharf Buildings	518-540 Atlantic Avenue
9	Richardson Block - 107-139 Pearl Street	109-119 High Street & 113-151 Pearl Street
10	Federal Reserve Bank Building	27 Oliver Street
11	102 Broad Street	102 Broad Street
12	72 Broad Street	72 Broad Street
13	68-70 Broad Street	68-70 Broad Street
14	50-52 Broad Street	50-52 Broad Street
15	64A-64 Broad Street	64A-64 Broad Street
16	66 Broad Street	66 Broad Street
17	25-27 India Street	25-27 India Street
18	Flour and Grain Exchange	177 Milk Street
19	5-7 Broad Street	5-7 Broad Street
20	9 Broad Street	9 Broad Street
21	United States Custom House	3 McKinley Square
22	Ames Building - 1 Court Street	1 Court Street
23	Old Colony Trust Company Building	17 Court Street
24	Sears Crescent - Court Street & City Hall Plaza (38-68 Cornhill Street)	70-72 Cornhill Street
25	Old State House	209 State Street

Table 8-2 State and National Register Listed Properties (Continued)

Map	Property	Address
26	Second Brazer Building	25-29 State Street
27	Stock Exchange Building	53 State Street
28	National Shawmut Bank Building	2-22 Water Street
29	The Old Corner Bookstore	277-285 Washington Street
30	Faneuil Hall	1-10 Dock Square
31	Quincy Market	South Market Street; Clinton, Commonwealth, Chatham Streets; Merchants Row
32	Codman Building (10 Liberty Sq. Building)	51-57 Kilby Street
33	Samuel Appleton Building	1-11 Batterymarch; 110-114 Milk; 70-72 Kilby
34	International Trust Company Building	45 Milk Street
35	John W. McCormack Federal Building & Courthouse	5 Post Office Square
36	King's Chapel	58 Tremont Street
37	King's Chapel Burial Ground	Tremont Street
38	Old City Hall	41-45 School Street
39	Parker House	60 Tremont Street
40	Chester Harding House	16 Beacon Street
41	Tremont Baptist Church	76-88 Tremont Street
42	Saint Paul's Church	136 Tremont Street
43	Old South Meeting House	308 Washington Street
44	Newspaper Row	322-328 Washington; 5-23 Milk; 11 Hawley
45	Filene's Department Store	426 Washington Street
47	R.H. Stearns Building	24 Temple Pl; 140 Tremont Street
48	Suffolk County Courthouse	Pemberton Square
49	Temple Place Historic District	11-55 & 26-58 Temple Place
x-50	Kennedy's Building	26-38 Summer Street
x-51	Bedford Building	17 Bedford Street
x-52	Thomas E. Proctor Building	100 Bedford Street
x-53	Church Green Building	105-113 Summer Street
x-54	R.H Stearns- Foster Waterman Building	101-103 Summer Street
x-55	83-87 Summer Street	83-87 Summer Street
x-56	89-96 Summer Street	89-96 Summer Street
57	Massachusetts State House	Beacon Street at Bowdoin Street
58	Senate Reception Room	Beacon Street
59	Liberty Tree Building	628-636 Washington St; 1-9 Essex
60	Hayden Building	681-683 Washington Street
61	Dill Building	11-25 Stuart Street

Table 8-2 State and National Register Listed Properties (Continued)

Map	Property	Address
62	Jacob Wirth Building	31-39 Stuart Street
63	Grand Lodge of Masons	183-186 Tremont Street
64	Tremont Street Block Between Avery & Boylston (177-186)	Tremont Street block between Avery & Boylston
65	Young Mens Christian Union	48 Boylston Street
66	Saxon Theatre (Majestic - Emerson)	219-221 Tremont Street
67	Savoy Theatre (Opera House)	537-541 Washington Street & 163 Tremont Street
68	Wilbur Theatre	244-248 Tremont Street
69	Metropolitan Theatre	252-272 Tremont Street
70	The Walker Building	114-116 Boylston Street or 120-124 Boylston Street
71	Tremont Street Subway	Tremont Street at Boston Common
72	20-30 Bromfield Street	20-30 Bromfield Street
73	Wesleyan Association Building	38 Bromfield Street
74	Wigglesworth Building	20 Winthrop Square
75	Winthrop Building	276-278 Washington Street; 1-17 Water & 4-16 Spring Ln
76	United Shoe Machinery Corporation Bldg.	138-164 Federal Street & 34-66 High Street
77	Northern Avenue Drawbridge	Northern Ave at Fort Point Channel
78	Paramount Theatre	559 Washington Street
79	Batterymarch Building	54 Batterymarch Street
80	Congregational House	12-14 Beacon Street
81	Keith Memorial Theatre (Opera House)	537 Washington Street
82	Old Granary Burial Ground	83-115 Tremont Street
83	Dobson Building - Modern Theatre	523-527 Washington Street
84	Long Wharf & Custom House Block	Long Wharf
85	Union Oyster House	41 Union Street
x-86	Saint Anthony's Shrine & Workers Chapel	90-114 Arch Street
x-87	Barnes and Ward - Leland and Rice Co. Bldg	91-101 Arch Street
x-88	Wells, H.B. Cotton Batting & Twine Co.	105-111 Arch Street
x-90	Faulkner - Page Dry Goods Commission Co.	64-70 Franklin Street
x-91	Hatch, Simons & Whitten Co. Bldg.	72-74 Franklin Street
x-92	Boston Safe Deposit & Trust Co. Bldg.	86-102 Franklin Street
x-94	Oratory of Saint Thomas More	51 Franklin Street
x-95	Columbian National Life Insurance Co. Bldg.	77-83 Franklin Street

Table 8-2 State and National Register Listed Properties (Continued)

Map	Property	Address
x-96	Strong W.L. & Co. Bldg.	85-87 Franklin Street
x-97	1-11 Otis Street	1-11 Otis Street
x-98	Long, Thomas Co. Bldg.	40-46 Summer Street
x-99	Union Warren Savings Bank	48-50 Summer Street
x-100	55 Summer Street (CVS)	56 Summer Street
x-102	Faxon Bldg. (66-72 Summer Street)	66-72 Summer Street
x-103	Faxon Bldg. (62 Summer Street)	62 Summer Street
104	Beebe, James M. - Weld, William F. Bldg.	1-5 Winthrop Square
105	Burns, Robert Statue	Winthrop Square
106	Tremont Building	67-81 Tremont Street
107	Beacon Building	6 Beacon Street
108	Lawyers Building	9 Beacon Street
109	Chart House (58 Long Wharf)	58 Long Wharf
110	Western Union Building	230 Congress Street
111	Tremont Street Subway Kiosk	Boston Commons
112	Brewer, Gardner Fountain	Boston Commons
113	Park Street Church	117-123 Tremont Street
114	Union Club of Boston (8 Park St.)	8 Park Street
x-115	77 Summer Street	77 Summer Street
116	Saint John The Evangelist Mission Church and Rectory	35 Bowdoin Street
117	Emmanuel Church	15 Newbury Street
118	Compton Building	159 Devonshire Street
119	Publicity Building	40-44 Bromfield Street
120	Blake and Amory Building	59 Temple Place

*Properties identified with an "x" are located within the Commercial Palace District and are not individually listed in the State and National Registers. They have been identified in the table, however, because of the District's proximity to the site.

8.3 Archaeological Resources

The Project site consists of a previously developed urban parcel. Due to previous development activities and disturbances, including the 1952 construction of the Winthrop Garage, which is currently being razed, it is expected that the Project site does not contain significant archaeological resources and lacks the potential to yield significant archaeological resources.

8.4 Potential Project Impacts to Historic Resources

8.4.1 Design and Visual Impacts

As described in greater detail in Section 7, the Project will have a positive impact and will contribute to the urban design and architectural character of the city, the historic neighborhoods and historic properties. The massing of the Project is designed to be a beacon on the Boston skyline, while showing deference for the adjacent One Winthrop Square and adjacent Art Deco-era buildings built from the 1920s and 1940s.

The MHC's December 20, 2016 letter on the ENF for the Project requested visual impact studies to determine the potential impact of the Project on the character and setting of State and National Register listed properties and historic districts. Pedestrian level perspectives of the Project from Back Bay, Beacon Hill, Downtown, North End, Bay Village, South End, South Boston, Chinatown and from other historic neighborhoods and properties were requested to assist MHC in determining the Project's potential impact to the character and setting of these areas.

The enclosed visual impact studies (Attachment L) provide the requested pedestrian level perspectives of the Project and illustrate how the studied historic neighborhoods and properties will not be adversely impacted as a result of the Project. Attachment L includes visual studies depicting existing conditions, an as-of-right alternative with a height of 202 feet (based on current zoning), an alternative with a height of 340 feet (based on the previous shadow law), and the Project with a height of 664 feet. The visual studies illustrate that the Project does not adversely impact the character or setting of the State and National Register listed properties and historic districts.

8.4.2 Shadow Impacts

In their comment letter on the ENF, the MHC also requested that the study area for impacts to historic resources, including shadow impacts, be expanded to identify all State and National Register listed historic districts and properties within the Project's potential impact area, regardless of distance from the Project site. In response to MHC's request, shadow studies were conducted on all State and National Register listed historic districts and all individually listed properties within the Project's potential impact area.

As discussed in Section 5, shadow studies were conducted to investigate potential impacts from the Project during three time periods (9:00 a.m., 12:00 noon, and 3:00 p.m.) during the vernal equinox (March 21), summer solstice (June 21), autumnal equinox (September 21), and the winter solstice (December

21). In addition, shadow studies were conducted for the 6:00 p.m. time period during the summer solstice (June 21) and autumnal equinox (September 21). A more detailed study of these same dates was conducted for the Project to assess impacts on the Greenway, Post Office Square Park, and Winthrop Square.

In response to MHC's request for a study of all new shadow on all of the historic resources in the shadow impact area, hour by hour shadow studies were conducted to better understand the Project's potential to impacts to State and National Register listed historic districts and individually listed properties within the Project's area of potential impact.

These expanded studies explored the potential shadow impacts on the vernal equinox (March 21), summer solstice (June 21), autumnal equinox (September 21), and the winter solstice (December 21), from one hour after sunrise (or 7 a.m. whichever occurs later) until one hour before sunset (or 7 p.m. whichever occurs earlier). The shadow studies identify the beginning (or the shadow starting at 7 a.m. or one hour after sunrise), the peak of shadow impacts, and when the net new shadow moves off the buildings. In addition, Section 5 includes a link to an animation showing shadow impact on the Public Garden and the Boston Common as well as a summary of the impacts.

In addition, the expanded shadow analysis includes facade studies to determine where on the buildings shadows would be cast and the time duration of the new shadow. The results of the expanded shadow analysis show that of a total of 160 locations studied (40 historic districts and 120 individual properties), 65 experienced new shadow as a result of the Project. Of these locations, only six experienced new shadows on all four of the days studied and many of the locations only experienced new shadows on one of the four study days**.**

Given that the Project is located in one of the most densely developed areas of Boston, many of the shadow impacts were limited to the roofs of nearby buildings, and not the primary facades. In cases where the shadows extended beyond roofs to the building elevations, many of the shadows were cast on secondary elevations and not the primary building façades. Where there were shadows on building façades, existing shadows were often also present.

Attachment M includes the results of the expanded historic resources shadow studies in response to MHC's request. The analysis includes a map identifying the locations of the historic districts and individual properties and a table listing the historic resources by name, map number and address. The table contains columns for the March, June, September and December study days and identifies which of the study days there are net new shadow impacts and when there are no new shadow impacts.

In the figures following the table are the study results, in both plan and elevation. The plan and elevation views identify when the net new shadow first appears, followed by the time of greatest impact, and the final minute before the shadow moves off the building. Existing shadows are also depicted thereby illustrating the cumulative shadow cast on the historic resource. As an example, on December 21 new shadow is cast on the Flour and Grain Exchange Building, 177 Milk Street (Historic Resource No. 18) starting at 2:37 p.m. The greatest amount of shadow impact will occur at 2:45 p.m. The new shadow will then move off the building at 3:05 p.m., for a duration of 28 minutes of net new shadow. As indicated in the elevations, much of the building is in existing shadow during this time period, with only a small amount of net new shadow resulting from the Project.

The tables in in the expanded shadow studies also include summaries of the net new shadow resulting from the alternative based on the previous shadow law (340 feet), and the as-of-right alternative (202 feet). Any new structure taller than the former three level garage would cast new shadow. For example, the alternative height of 340 feet resulted in net new shadow impacts to 31 locations and the height of 202 feet resulted in net new shadow impacts to 22 locations.

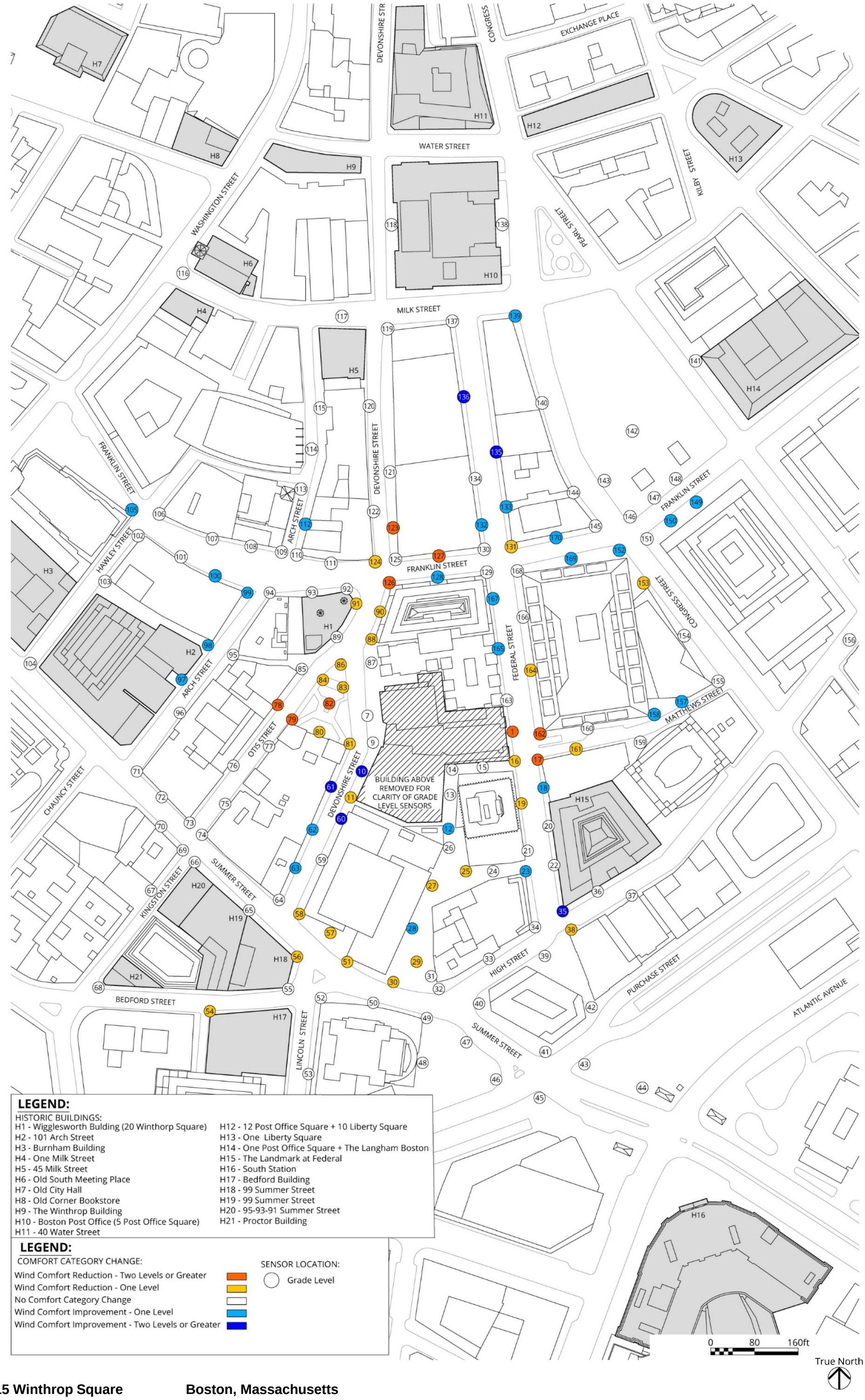
8.4.3 Wind Impacts

As noted in Section 5, a pedestrian level wind study was conducted for the Project. The objective of the study was to assess the effect of the Project on the local wind conditions in pedestrian areas around the Project site and provide recommendations for minimizing any potential adverse effects.

As described in Section 5, the potential wind impact resulting from the Project located in a heavily developed urban setting has the potential to influence spaces up to a maximum distance of 1,000 feet from the Project site. Wind measurements were studied within a 1,000 foot radius of the Project site, with particular attention at locations of historic buildings (Figure 8-3).

The study examined the following three conditions: No Build (present condition including approved, but not yet built projects in the area); Build (the Project); and an as-of-right alternative. In consultation with the BPDA, 170 wind sensor locations surrounding the Project site were selected and studied.

Figure 8-3 identifies 21 locations of State and National Register listed properties within the Project's vicinity that were studied (H1-H21). On an annual basis, the pedestrian wind conditions near 17 buildings (H3 to H16 and H-19 to H-21) are predicted to be unaffected by the Project. Building H1, the Wigglesworth Building, is predicted to have one wind comfort category reduction at the



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Figure 8-3

Historic Resources – Wind Studies

corner of Franklin and Devonshire streets. Building H2, 101 Arch Street, is predicted to have a one wind comfort category improvement. Buildings H17, the Bedford Building, and H18, 99 Summer Street, are predicted to have one wind comfort category reduction at the corners of the buildings (wind sensor Locations 54 and 56).

However, nearby measurement Locations 52, 53, 55 and 65 show that the wind comfort around those same buildings are predicted to be unaffected by the Project. Wind impacts to State and National Register listed properties beyond the 1,000 foot radius are expected to be negligible.

As described in Section 5, with the implementation of mitigation measures, the wind impacts at the intersection of Franklin and Devonshire streets, near the Wigglesworth Building, can be reduced to acceptable wind conditions thereby, not adversely impacting the character or setting of the Wigglesworth Building.

8.5 Status of Project Reviews with Historical Agencies

8.5.1 Boston Landmarks Commission

As noted above, in a letter dated September 12, 2017, BLC staff determined that the Winthrop Square Garage was not significant under the Criteria for determining significance in Section 85-5.3 (a-e) of the Demolition Delay Ordinance (Article 85, Chapter 665 of the Acts of 1956 as amended). With BLC's determination, and the issuance of all necessary permits and approvals, the garage is currently in the process of being razed. The Proponent is committed to engage BLC staff, and other interested parties such as the Boston Preservation Alliance (BPA), as part the on-going MHC consultation process.

8.5.2 Massachusetts Historical Commission

The November 2016 ENF initiated MHC's review of the Project. MHC's December 20, 2016 comment letter on the ENF requested numerous studies be conducted as part of the preparation of the EIR. Specifically, MHC requested that shadow studies, overlaid on a historic resources map, be provided to illustrate existing and anticipated shadows resulting from the Project. The MHC letter requested that the studies not be limited to a specific radius from the Project site but rather the full extent of the Project's potential to cast net new shadows. As summarized above, the shadow studies that have been conducted included both hourly studies as well as façade studies to further understand the Project's potential shadow impacts to historic resources (Attachment M).

The MHC's letter also requested that studies be conducted near historic resources to understand the potential wind impacts resulting from the Project. The wind studies, as summarized in Section 5, studied 170 locations around the

Project site, including 21 State and National Register properties within 1,000 feet of the Project site. The area predicted to be impacted the greatest by wind, the intersection of Franklin and Devonshire streets, can be mitigated to acceptable window conditions. Wind impacts to State and National Register listed properties beyond the 1,000 foot radius are expected to be negligible.

MHC's letter also requested visual impact studies to determine the potential impact of the Project on the character and setting of State and National Register listed properties and historic districts. Pedestrian level perspectives of the Project from numerous historic districts, neighborhoods and individual properties were requested by MHC to assist in determining the Project's potential impact to the character and setting of these areas and properties. The enclosed visual impact studies (Attachment L) address MHC's request and illustrate that the Project will not adversely impact the character and setting of these historic areas and properties.

In response to the requests in MHC's December 20, 2016 letter, MEPA's scope for the Draft EIR requested that the Proponent consult with MHC and other stakeholders during the preparation of this document. In advance of, and during, the preparation of this EIR, the Proponent has requested on numerous occasions the opportunity to meet with MHC staff. MHC staff has declined the opportunity to meet with the Proponent, rather requesting that the studies as outlined in their December 20, 2016 letter be provided for review.

With the submittal of this Draft EIR/PIR, and the studies contained within, the Proponent looks forward to engaging with MHC and other stakeholders including the BLC and BPA, in a meaningful and productive discussion of the Project's potential impacts to historic resources. At the conclusion of the MHC consultation process, it is anticipated that the Proponent and MHC, and BLC and BPA as interested parties, will enter into a Memorandum of Agreement (MOA) which will outline measures that the Proponent can implement to mitigate any adverse impacts of the Project to historic resources.

8.6 Potential Mitigation Measures

At the conclusion of the consultation process with the MHC, and the BLC and the BPA as interested parties, it is anticipated that an MOA will be developed and executed that will outline specific measures the Proponent can implement to mitigate the Project's potential impacts on historic resources. Potential mitigation measures may include some, or all of the following, as well others:

- Photographic documentation of the Project site, its context and the downtown Boston skyline prior to, and after, the construction of the Project;

- Construction monitoring of adjacent historic properties before, during and after construction of the Project; and
- Contributions of $125,000 per year for 40 years following the completion of the Project to the Friends of the Public Garden for maintenance and enhancement of the Boston Common and the Boston Public Garden;
- $28 million for improvements to Boston Common; and
- $11 million toward finishing the Emerald Necklace park system by connecting Franklin Park to Moakley Park in South Boston.

Chapter 9

Infrastructure Systems Component

9.0 INFRASTRUCTURE SYSTEMS COMPONENT

This section outlines the existing utilities surrounding the proposed Project site, the proposed connections required to provide service to the new structure, and any impacts on the existing utility systems that may result from the construction of the Project.

9.1 Water Supply

9.1.1 Existing Water Supply System

Water for the Project site is provided by the BWSC. There are six different water systems within the City of Boston, and these provide service to portions of the city based on ground surface elevation. The six systems are southern low (commonly known as low service), southern high (commonly known as high service), southern extra high, northern low, northern high and the high pressure fire service:

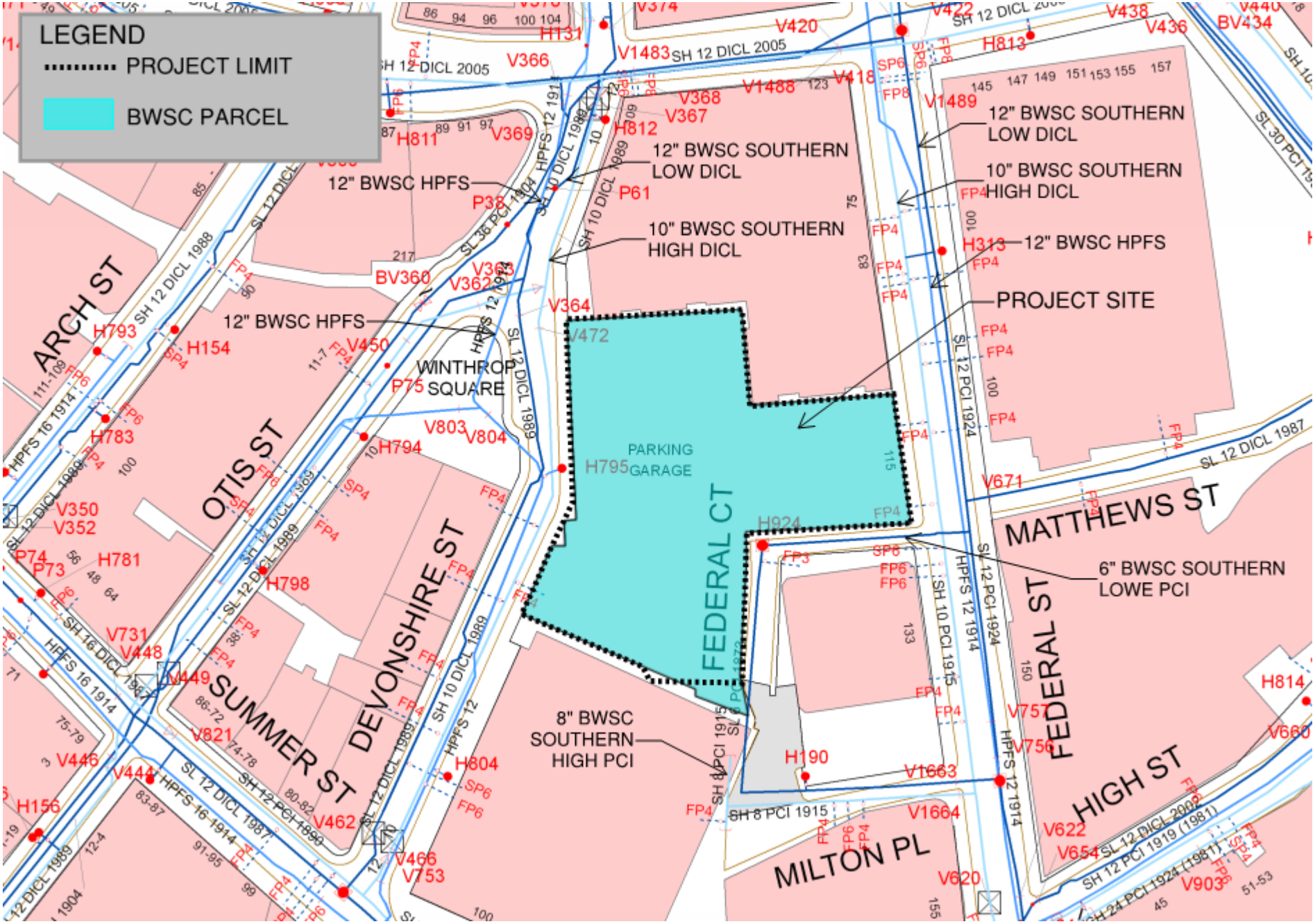
- There is a 10-inch southern high water main, a 12-inch southern low water main and a 12-inch high pressure fire service main beneath Devonshire Street;
- There is a 10-inch southern high water main, a 12-inch southern low water main and a 12-inch high pressure fire service main beneath Federal Street; and
- There is an 8-inch southern high water main and a 6-inch southern low water main beneath Federal Court.

The existing water system is illustrated in Figure 9-1.

There is a water service from the existing garage that connects to the 10-inch southern high main in Devonshire Street. There are also two water services that connect to the 10-inch southern high main in Federal Street. These water services have been previously cut and capped at the main as part of the garage demolition. All cut and caps of existing water infrastructure have been reviewed as part of the BWSC's site plan review process for the Project.

9.1.2 Estimated Project Water Use

The water demand estimate for domestic services is based on the Project's estimated sewage generation, described below. A conservative factor of 1.1 (10 percent) is applied to the estimated average daily wastewater flows calculated with 310 CMR 15.00 values to account for consumption, system losses,



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Figure 9-1

Existing Water System

and other usages to estimate an average daily water demand. In addition, it has been determined that the cooling towers will require a peak daily water demand of approximately 2,700 gpd. Abatement meters will be provided for cooling tower makeup water. A rainwater reclamation system is sized to capture 29,840 gallons of rainwater for reuse over a three day period, when available, to reduce the peak daily water demand. The Project will require approximately 198,726 gpd of domestic water, including the cooling tower demand. This number will be updated once the Article 80 process is complete and the program finalized. The water for the Project will be supplied by the BWSC system. Peak water demand will be determined during the design phase based on the final plumbing fixture count and the make-up water needs of the mechanical systems in the building, and will be submitted to BWSC as part of the site plan approval process.

9.1.3 Project Connections and Impacts

BWSC performed hydrant flow testing on the mains surrounding the Project site. The results are shown in Table 9-1.

Table 9-1 Hydrant Flow Testing Results

Flow Hydrant Number	*Date of Test*	*Static Pressure (psi)*	*Residual Pressure (psi)*	*Total Flow (gpm)*	*Flow (gpm) at 20 psi*	*Flow (gpm) at 10 psi*
H803	10/25/2016	67	62	2,004	6,720	7,458
H807	10/25/2016	105	101	2,126	11,075	11,760
H811	10/31/2016	108	104	2,456	13,036	13,816
H812	10/25/2016	69	66	2,652	11,985	13,249

The proposed domestic water services for the Project will connect to the 12-inch southern low water main in Devonshire Street. The Project will be considered a high-rise, and will require two redundant fire protection services. A gate valve will be installed on the main between the two fire protection services to create the required isolation between the services. Fire protection services for the proposed Project will connect to the 10-inch southern high water main in Devonshire Street.

The domestic and fire protection water service connections required by the Project will meet the applicable City and State codes and standards, including cross-connection backflow prevention. Compliance with the standards for the domestic water system service connection will be reviewed as part of BWSC's Site Plan Review Process. This review includes, but is not limited to, sizing of

domestic water and fire protection services, calculation of meter sizing, backflow prevention design, and location of hydrants and siamese connections that conform to BWSC and Boston Fire Department requirements.

No water capacity problems are anticipated within the BWSC system as a result of the proposed Project.

9.1.4 Infrastructure Improvements and Water Conservation

The State Building Code requires the use of water-conserving plumbing fixtures, and all efforts to reduce water consumption will be made. Water conservation measures such as low-flow toilets and restricted-flow faucets will help reduce the domestic water demand on the existing distribution system. The installation of sensor-operated sinks with water-conserving aerators and sensor-operated toilets in all the commercial area restrooms will be incorporated into the design plans for the Project. Exterior landscaping will consist of native and drought tolerant plants and a high-efficiency irrigation system. Rainwater will also be collected for reuse within the office and public restrooms.

The Project intends to collect rooftop rainwater run-off for re-use in toilet flushing in the lower levels of the commercial portions of the building. The rainwater will be collected, treated, stored, and distributed to the public bathrooms in the commercial occupancy. Individual tenant domestic water metering is not being provided to the commercial or residential tenants, based on the vertical water distribution. If a significant water demand is required by a commercial tenant, tenant water metering may be implemented at that time. Individual tenant HVAC hot and chilled water metering will be provided for commercial tenants from the heating/cooling plant.

All new water services will be installed in accordance with the latest Local, State, and Federal codes and standards. Backflow preventers will be installed at both domestic and fire protection service connections. Abatement meters will be provided at the cooling towers and stormwater reused system. New meters will be installed with Meter Transmitter Units (MTUs) as part of the BWSC's Automatic Meter Reading (AMR) system.

9.2 Wastewater

9.2.1 Existing Wastewater System

There are existing BWSC combined sewer mains located in Devonshire Street and Federal Street adjacent to the Project site:

- There is a 16-inch x 24-inch combined sewer beneath Devonshire Street which flows in a northerly direction; and

- There is a 24-inch x 36-inch combined sewer beneath Federal Street which flows in a northerly direction.

Both combined sewers adjacent to the Project site flow through the Financial District, eventually emptying into the New East Side Interceptor and ultimately to the Deer Island Waste Water Treatment Plant.

The existing sewer service for the garage was previously cut and capped as part of the garage demolition. The existing sewer system is illustrated in Figure 9-2.

9.2.2 Estimated Project Wastewater Generation

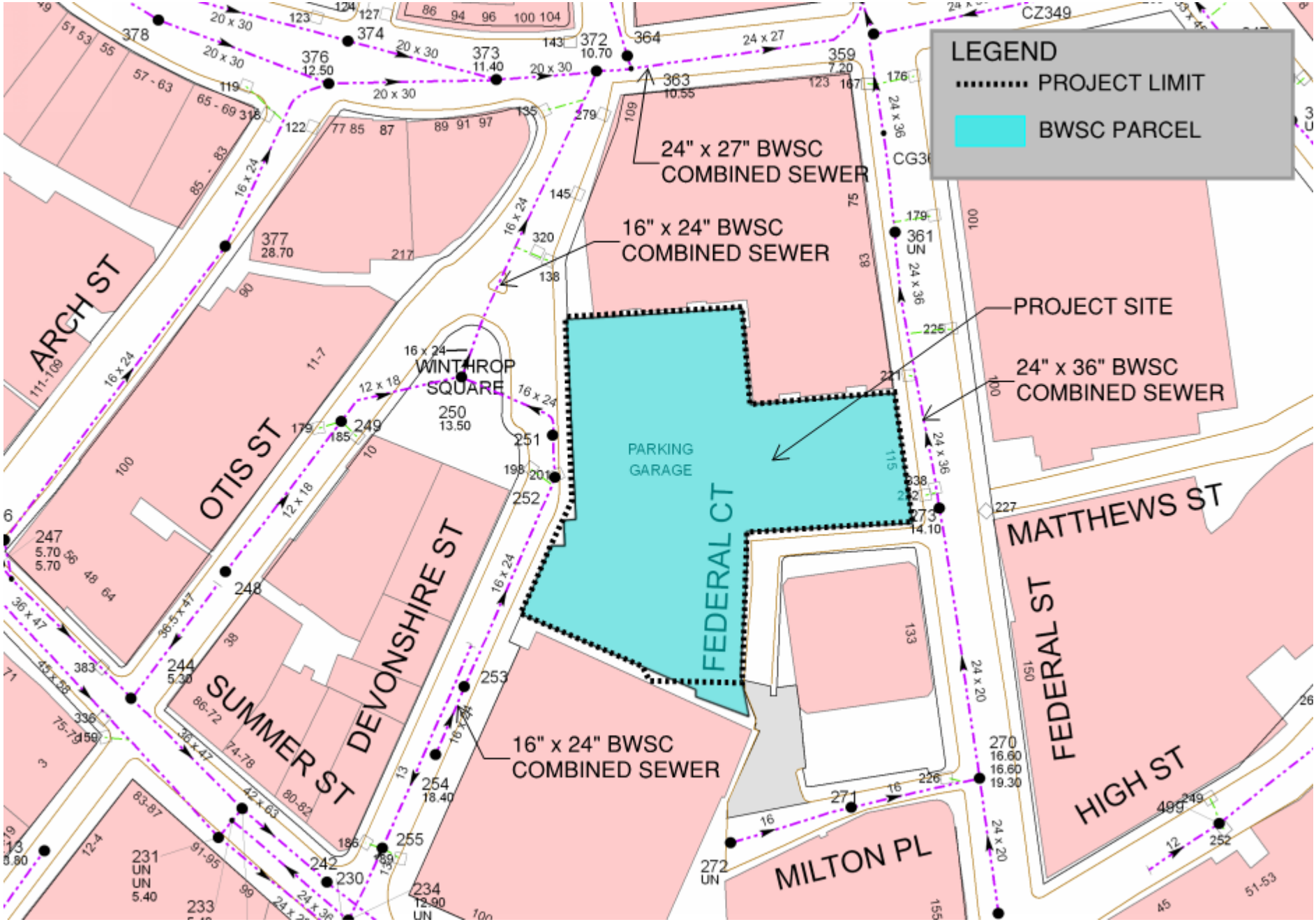
The Project's sewage generation rates, shown in Table 9-2, were estimated using 310 CMR 15.00, The State Environmental Code Regulating Septic Systems (Title 5). 310 CMR 15.203 lists the typical generation values reflected in the sewage generation calculations for the proposed uses. Typical generation values are generally conservative values for estimating the sewage flows from new construction.

Table 9-2 Proposed Project Wastewater Generation

Room Use	*Size*		*310 CMR Value (gpd/unit)*		*Total Flow (gpd)*
Residential	920	bedrooms	110	/bedroom	101,200
Office	750,000*	sf	75	/1,000 sf	56,250
Function Hall	350**	persons	15	/seat	5,250
Restaurant	275	seats	35	/seat	9,625
Fast Food	50	seats	20	/seat	1,000
Retail	5,000	sf	50	/1,000 sf	250
Amenities Space					
Lounge	120	seats	20	/seat	2,400
Auditorium	500	seats	3	/seat	1,500
Pool	13	people	10	/person	130
Health Club	6,000	sf	100	/1,000 sf	600
				Proposed Sewer Flows (gpd):	178,205

* Includes Office amenities.

** Occasional events in the Great Hall (Function Hall) could be catered affairs for larger groups.



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Figure 9-2

Existing Sewer System

9.2.3 Sewage Capacity and Impacts

The Proponent analyzed the Project's likely impact on the existing BWSC systems in Devonshire Street and Federal Street. The existing sewer system capacity calculations are presented in Table 9-3.

Table 9-3 Sewer Hydraulic Capacity Analysis

Manhole (BWSC Number)	*Distance (feet)*	*Invert Elevation (up)*	*Invert Elevation (down)*	*Slope (%)*	*Diameter (inches)*	*Manning's Number*	*Flow Capacity (cfs)*	*Flow Capacity (MGD)*
253 to 251	160	17.1	14.70	1.5%	20	0.013	17.04	11.01
251 to 250	128	14.70	13.40	1.0%	20	0.013	14.02	9.06
250 to 372	250	13.40	10.60	1.1%	20	0.013	14.72	9.52
273 to 361	204	10.30	9.70	0.3%	30	0.013	22.24	14.38

Note: 1. Manhole numbers taken from BWSC Sewer System GIS
2. Flow Calculations based on Manning Equation
3. All pipes assumed to be vitrified clay, to be conservative

The adjacent roadway sewer system in Devonshire Street and Federal Street and potential building service connections to the sewer system were analyzed.

Results shown in Table 9-3 indicate the hydraulic capacity of the sewer systems located near the Project. The minimum hydraulic capacity is 9.06 million gallons per day (MGD), or 14.02 cubic feet per second (cfs), for the 16-inch by 24-inch system in Devonshire Street. Based on average daily flow estimate for the Project of 178,205 GPD (or 0.28 cfs), and with a factor of safety of 10 (total estimate = 0.28 cfs x 10 = 2.8 cfs), no capacity problems are expected within either the Devonshire Street or Federal Street systems. The existing sewer systems will be video inspected to confirm their condition.

9.2.4 Proposed Conditions and Infrastructure Improvements

The Proponent will coordinate with BWSC on the design and capacity of the proposed connections to the sewer system. The Project is expected to generate new wastewater flows of approximately 178,205 gpd. Approval for the net increase in flow will come from BWSC.

Sewer services for the Project will connect to either the 16-inch x 24-inch combined sewer in Devonshire Street or the 24-inch by 36-inch combined sewer in Federal Street.

This Project will result in a net increase in flows of greater than 15,000 gpd, and will therefore be required to contribute an Inflow and Infiltration (I/I) fee to BWSC. The sewer flows indicated in this document will be modified as the Project progresses. This fee will be finalized during the BWSC site plan review process based on the building program at that time. The Project will comply with the BWSC 4:1 I/I mitigation program.

All improvements and connections to BWSC infrastructure will be reviewed as part of the BWSC's site plan review process. This process includes a comprehensive design review of the proposed service connections, an assessment of Project demands and system capacity, and the establishment of service accounts.

9.3 Stormwater Management

9.3.1 Existing Conditions

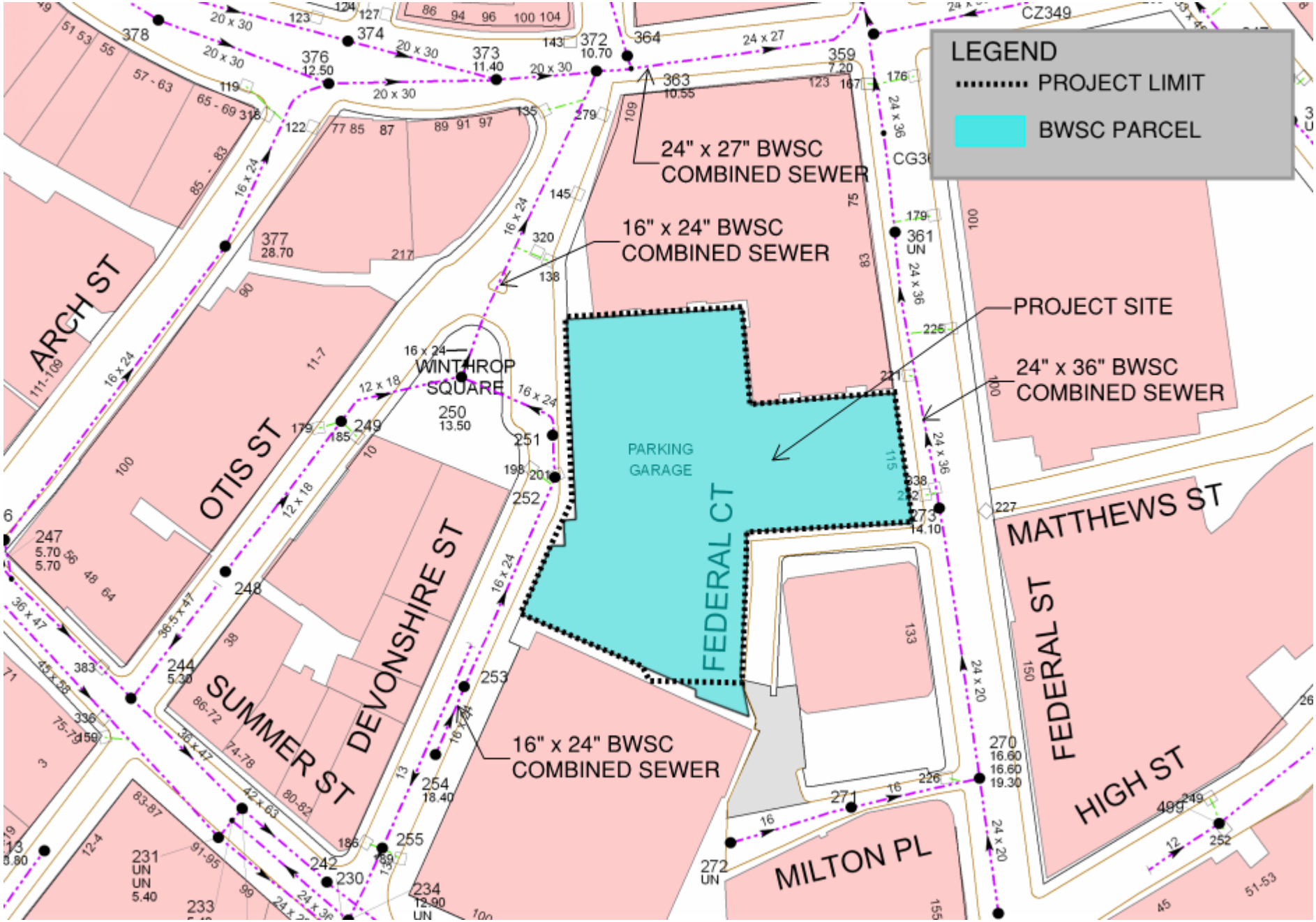
The existing BWSC combined sewer mains located in Devonshire Street and Federal Street adjacent to the Project site and there is no separate stormwater infrastructure in the streets adjacent to the Project site.

Stormwater from the former parking structure is collected through roof drains and likely directed out to the combined sewers in Devonshire Street and Federal Street.

The existing BWSC combined sewer system adjacent to the Project site discharges to the Deer Island Waste Water Treatment Plant. If this system were separated in the future, the site would fall in the Boston Harbor watershed. The existing BWSC storm drain system is illustrated in Figure 9-3.

9.3.2 Proposed Stormwater Management

The Project will result in no net increase or decrease in impervious area. The Project site under existing and proposed conditions is 100 percent impervious. The Project will maintain the existing peak rates and volumes of runoff. No significant stormwater rate or volume mitigation is anticipated, although the one-inch volume over the Project site's impervious area will be captured and is planned to be reused through a graywater system. This system will capture the total volume of approximately 90 percent of storms that impact the site.



115 Winthrop Square **Boston, Massachusetts**

Nitsch Engineering

Figure 9-3

Existing Drain System

The design will comply fully with the BWSC requirement to store and recharge stormwater into the ground or reuse/recycle. The Project roof will consist of both green roof and standard roof areas. The Project will capture the required rainfall from all building roof areas, and plans to recycle it through a greywater system.

All improvements and connections to BWSC infrastructure will be reviewed as part of BWSC's site plan review process. This process includes a comprehensive design review of the proposed service connections, assessment of project demands and system capacity, and establishment of service accounts.

9.3.3 Compliance with MassDEP Stormwater Management Standards

In March 1997, the Massachusetts Department of Environmental Protection (MassDEP) adopted a new Stormwater Management Policy to address non-point source pollution. In 1997, the MassDEP published the Massachusetts Stormwater Handbook as guidance on the Stormwater Policy, which was revised in February 2008. The Policy prescribes specific stormwater management standards for development projects, including urban pollutant removal criteria for projects that may impact environmental resource areas. Compliance is achieved through the implementation of Best Management Practices (BMPs) in the stormwater management design. The Policy is administered locally pursuant to MGL Ch. 131, s. 40.

A brief explanation of each Policy Standard and the system compliance is provided below:

Standard #1: No new stormwater conveyances (e.g., outfalls) may discharge untreated stormwater directly to or cause erosion in wetlands or waters of the Commonwealth.

Compliance: The Project's design will comply with this Standard. No new untreated stormwater will be directly discharged to, nor will erosion be caused to wetlands or waters of the Commonwealth as a result of stormwater discharges related to the Project.

Standard #2: Stormwater management systems must be designed so that post-development peak discharge rates do not exceed pre-development peak discharge rates.

Compliance: The proposed design will comply with this Standard. The existing discharge rate will be met or decreased as a result of the improvements associated with the Project.

Standard #3: Loss of annual recharge to groundwater should be minimized through the use of infiltration measures to the maximum extent practicable. The annual recharge from the post development site should approximate the annual recharge from the pre-development or existing site conditions, based on soil types.

Compliance: The Project will comply with this standard to the maximum extent practicable.

Standard #4: For new development, stormwater management systems must be designed to remove 80 percent of the average annual load (post-development conditions) of Total Suspended Solids (TSS). It is presumed that this standard is met when: Suitable nonstructural practices for source control and pollution prevention are implemented; Stormwater management best management practices (BMPs) are sized to capture the prescribed runoff volume; and Stormwater management BMPs are maintained as designed.

Compliance: The proposed design will comply with this standard. Within the Project's limit of work, there will be mostly roof and pedestrian areas. Any paved areas that would contribute unwanted sediments or pollutants to the existing storm drain system will be collected by deep sump, hooded catch basins and conveyed through water quality units before discharging into the BWSC system.

Standard #5: For land uses with higher potential pollutant loads, source control and pollution prevention shall be implemented in accordance with the Massachusetts Stormwater Handbook to eliminate or reduce the discharge of stormwater runoff from such land uses to the maximum extent practicable. If, through source control and/or pollution prevention, all land uses with higher potential pollutant loads cannot be completely protected from exposure to rain, snow, snow melt, and stormwater runoff, the proponent shall use the specific structural stormwater BMPs determined by the Department to be suitable for such uses as provided in the Massachusetts Stormwater Handbook. Stormwater discharges from land uses with higher potential pollutant loads shall also comply with the requirements of the Massachusetts Clean Waters Act, M.G.L. c. 21, §§ 26-53 and the regulations promulgated there under at 314 CMR 3.00, 314 CMR 4.00 and 314 CMR 5.00.

Compliance: The proposed design will comply with this standard. The Project is not associated with Higher Potential Pollutant Loads (per the Policy, Volume I, page 1-6). The Project complies with this standard.

Standard #6: Stormwater discharge to critical areas must utilize certain stormwater management BMPs approved for critical areas. Critical areas are Outstanding Resource Waters (ORWs), shellfish beds, swimming beaches, cold-water fisheries and recharge areas for public water supplies.

Compliance: The proposed design will comply with this Standard. The Project will not discharge untreated stormwater to a critical area.

Standard #7: A redevelopment project is required to meet the following Stormwater Management Standards only to the maximum extent practicable: Standard 2, Standard 3, and the pretreatment and structural stormwater best management practice requirements of Standards 4, 5, and 6. Existing stormwater discharges shall comply with Standard 1 only to the maximum extent practicable. A redevelopment project shall also comply with all other requirements of the Stormwater Management Standards and improve existing conditions.

Compliance: The Project is a redevelopment. The proposed design will comply with this Standard. The Project complies with the Stormwater Management Standards as applicable to the development.

Standard #8: Erosion and sediment controls must be implemented to prevent impacts during construction or land disturbance activities.

Compliance: The Project will comply with this standard. Sedimentation and erosion controls will be incorporated as part of the design of the project. These controls will be constructed and maintained as part of the construction logistics of the Project.

Standard 9: A Long-Term Operation and Maintenance (O&M) Plan shall be developed and implemented to ensure that stormwater management systems function as designed.

Compliance: The Project will comply with this standard. An O&M Plan including long-term BMP operation requirements will be prepared for the Project by the civil engineer and will assure proper maintenance and functioning of the stormwater management system.

Standard 10: All illicit discharges to the stormwater management system are prohibited.

Compliance: The Project will comply with this Standard. There will be no illicit connections associated with the Project.

9.4 Anticipated Energy Needs

9.4.1 Natural Gas Service

The existing site is serviced by two existing gas lines: (1) an 18-inch line in Devonshire Street; and (2) a 6-inch line in Federal Street. The existing low pressure gas mains can not support the proposed development and the anticipated volume of connected gas being proposed (approximately 85,000 to 100,000 cfh).

The proposed National Grid natural gas service to this Project site will consist of a services line extension of the intermediate pressure (IP) gas main to the Project site. The IP gas line is approximately 1,000 feet from the site and located at the intersection of Summer and Purchase Streets. Continued coordination with National Grid and MCAF Winthrop LLC is ongoing.

9.4.2 Electrical Service

The proposed building will be served underground from Federal Street; Eversource will determine the point of service to minimize the impact on the current area network. The electric infrastructure in the Project area is adequate for the proposed development, which will access existing electrical conduits. The Proponent has been coordinating with Eversource, and the utility is currently evaluating projected loads for the Project to determine how best to serve the Project with minimum impact to the surrounding area. Electrical utility metering will be provided for both commercial tenants and individual residential units to meter electric power consumption.

9.4.3 Telecommunications

The Proponent will select private telecommunications companies to provide telephone, cable, and data services. There are several potential candidates with substantial Boston networks capable of providing service. Upon selection of a provider or providers, the Proponent will coordinate service connection locations and obtain appropriate approvals.

Chapter 10

Greenhouse Gas Analysis

10.0 GREENHOUSE GAS ANALYSIS

This section contains a greenhouse gas (GHG) analysis that complies with the MEPA Greenhouse Gas Emissions Policy and Protocol (GHG Policy) of May 2010.

10.1 Introduction and Project Overview

10.1.1 MEPA Greenhouse Gas Emissions Policy and Protocol

This section addresses GHG emissions generated by operation of the 115 Winthrop Square Project and associated traffic, and options that may reduce those emissions in accordance with the MEPA GHG Policy. The GHG Policy requires, for certain projects undergoing review by the MEPA Office and required to prepare an EIR, that GHG emissions be quantified and measures to avoid, minimize, or mitigate such emissions be identified. The GHG Policy requires proponents to quantify the impact of proposed mitigation in terms of energy savings and GHG emissions.

On December 6, 2016, the Proponent and Project team met with the MEPA Office and the Massachusetts Department of Energy Resources (DOER) to outline the methodology and mitigation expectations for the Project. This analysis follows the process outlined in that meeting and the follow-up communication.

The analysis provided herein focuses on emissions of carbon dioxide (CO_2). As noted in the GHG Policy, although there are other GHGs, CO_2 is the predominant contributor to global warming. Furthermore, CO_2 is by far the predominant GHG emitted from the types of sources related to this Project, and CO_2 emissions can be calculated for these source types with readily available data.

GHG emissions sources can be categorized into two groups: (1) stationary sources, or emissions related to activities that are stationary on the site; and (2) mobile sources, or emissions related to transportation. Activities on the site can be further broken down into direct sources and indirect sources; direct sources include GHG emissions from fuel combustion, while indirect sources include GHG emissions associated with electricity and other forms of energy that are imported from off-site power plants via the regional electrical grid or local steam distribution system for use on-site.

The GHG Policy requires the Proponent to calculate and compare the GHG emissions for two cases, each of which considers stationary source and transportation components.

10.1.2 Stationary Sources

Case 1 is the baseline from which progress in energy use and GHG emissions reductions is measured. Per the GHG Policy, the baseline is a building designed to meet the applicable state building code (Code) that is in effect at the time the ENF is filed. That edition of the Code will remain the baseline for all future development energy modeling for GHG Policy compliance. The baseline is a reference point from which to measure the effectiveness of energy efficiency improvements in the proposed development.

The Code at the time of filing the ENF was the 8th edition, amended to incorporate the building energy provisions of International Energy Conservation Code (IECC) 2015. This, together with the guidance of the modeling protocol of ASHRAE 90.1 2013 Appendix G, defines the baseline for this GHG analysis.

For the stationary sources component, Case 2 presents the Project including GHG mitigation measures anticipated to be incorporated into the building design.

The City of Boston has elected to include the state's optional Stretch (Energy) Code in its building requirements. The Stretch Code is equal to a 10% reduction of energy use from a baseline of IECC 2015 (ASHRAE 90.1-2013). At a minimum, the building will achieve this performance.

10.1.3 Mobile Sources

The transportation study (see Section 4.0 and Attachment D) includes the entire Project area.

Transportation-related emissions for the Baseline case are modeled for the "build without mitigation" condition, which does not include roadway improvements. The analysis was developed using the standard methodology outlined in the current Transportation Impact Assessment (TIA) Guidelines (MassDOT, March 13, 2004). The analysis is based on a study year of 2023.

The transportation analysis for the proposed case includes the effects of any TDM program elements as well as any roadway and signalization improvements proposed by the Proponent.

10.1.4 Project Overview

Elementally, the building is a traditional "tower on a podium." The Tower, composed of residential units, is lozenge-shaped and oriented along the north-south axis. The podium, containing retail, restaurants, and office space, is dramatically punctuated by the Great Hall, a major public space linking Federal Street to Winthrop Square.

The proposed Project consists of approximately 1.592 million square feet of mixed-use space, including residential space, retail/restaurant amenity and Great Hall space, office space, and a below-ground parking garage. The residential units will be for-sale condominium units situated within the Tower. As the building is still at an early level of design, the program may change slightly.

10.1.5 Project GHG Mitigation Technologies

The GHG Policy requires the Proponent to identify, evaluate, and discuss measures that could reduce GHG emissions. Because this Project is in the early stages of planning, many of the GHG mitigation measures cannot be analyzed or committed to at this time. A large part of the description in the remainder of this section is devoted to evaluating and analyzing these GHG mitigation measures or potential alternatives.

The various mitigation measures available for use in a new building project are identified in Table 10-1 and are organized into the following subsections: Energy Use Reduction, Energy Generation, and Other Related. This GHG analysis addresses nearly 40 stationary source GHG mitigation measures involving design parameters, technologies, and construction and operating parameters, which are generally referred to herein as "technologies" for convenience. Each of these technologies is discussed in detail in Section 10.2.

In Table 10-1, each building type is represented and the applicability of each technology is characterized as:

- P – included in the design and building energy modeling of the Proposed case;
- A – an alternative that is preliminarily evaluated in this analysis;
- S – to be studied later as building designs progress; or
- X – rejected as a technology that is either not applicable to the use or is deemed to be technically or economically infeasible.

Table 10-1 Mitigation Matrix

Mitigation Measure/Technology	Tower				Remarks
Space Type	Office	Residential	Retail	Garage	
Energy Use Reduction					
Building Orientation	X	X	X	X	
High performance building envelope	P	P	P	P	
Green roof/podium areas	P	X	X	X	
Light or reflective roof	P	P	X	X	Exclusive of amenity space
Exterior shading devices	X	X	X	X	
Premium electric motors	P	P	P	P	
Radiant heat	X	S	X	X	
Under-floor air distribution/displacement	S	X	X	X	
Heat or energy recovery	P	P	S	X	
Demand-controlled Ventilation	S	X	X	P	Where required by code
Room occupancy sensor, lighting	P	S	S	S	Back-of-house, common spaces, Garage
Natural lighting	P	P	P	X	
Daylighting Controls	P	X	X	X	
Reduced LPD interior	P	P	S	P	
High performance lighting, exterior	P	P	P	P	
Energy-Star appliances	P	S	S	X	
Advanced elevators	P	P	P	P	
High efficiency mechanical equipment	P	P	P	P	
Energy Generation					
Cogeneration, CHP	A	A	A	X	
District heating/cooling	X	X	X	X	
Fuel cell	X	X	X	X	
Solar hot water generation	S	S	S	X	
PV - roof	A	A	A	X	
3rd Party PV	S	S	S	X	
PV-ready construction	S	S	S	X	
Ground source heat pumps	X	X	X	X	
Wind turbines	S	S	S	X	
Purchased Green Energy	P	P	P	P	
Other Related (not quantified)					
LEED target	Platinum	Platinum	Platinum	Platinum	(Target)
Owner Influence on tenant	P	P	P	P	
Rainwater harvesting	P	P	P	P	Rainwater Commercial Space Reuse
Low flow fixtures, water conservation	P	P	P	P	
Recycling collection areas	P	P	P	P	
Enhanced refrigerant management	P	P	P	P	
Energy management system	P	P	P	P	
Enhanced building commissioning	P	P	P	P	
Construction waste recycling	P	P	P	P	
Recycled content materials	P	P	P	P	
Regional materials	P	P	P	P	

10.1.6 Organization of the Remainder of this Section

Section 10.2 presents the designs of the building, and includes:

- A summary of mitigation technologies included in the proposed development;
- A modeling description and results or methodology and results of energy use estimation; and
- A discussion of mitigation technologies not currently included in the designs and the reasoning behind their exclusion.

Transportation-related GHG emissions and the Project's mitigation measures are analyzed in Section 10.3.

Section 10.4 includes a summation of the Project's GHG emissions and a listing of the Proponent's GHG emissions mitigation commitments.

Supporting technical analyses, such as the Modeler's Report, detailed building modeling reports, and analyses of certain potential alternatives are provided in Attachment N.

10.2 Stationary Sources

10.2.1 Current Design and Mitigation Measures

The various mitigation technologies available for use in a new building are identified in Table 10-1 and are organized into the following subsections: Energy Use Reduction, Energy Generation, and Other Related. This section, which describes the mitigation technologies that are included in the design at the present time, is similarly organized.

10.2.1.1 Energy Use Reduction

High Performance Building Envelope

Minimizing the energy intensity of buildings is an important component of the design process. A high-efficiency building shell includes insulation values of walls and roof that exceed Code requirements, while being cost-effective. Glazing that combines functionality and higher insulating properties, while reducing solar heat gain and simultaneously providing adequate natural lighting, adds to the shell's performance.

A high-efficiency building envelope will be utilized for the proposed Project. U-factors of roof, walls, and glazing will all equal or exceed IECC 2015 standards. To support the engineer's decision–making process, multiple envelope alternatives were analyzed. Please refer to Attachment N for the Mechanical Design Report, Modeling Input Tables, and selected modeling output.

Green Roof

Green roofs slightly improve the insulation value of the roof and are commonly used to aid in rainfall runoff control and for aesthetic reasons. A green roof is planned for a portion of the office roof.

Light or Reflective Roofs

Light or reflective roofing materials will be applied to the building. Light roofing does not produce a significant energy use reduction in the northeast, as has been demonstrated by modeling in other projects previously submitted to MEPA, but does reduce a building's contribution to the urban heat island effect in the summertime.

Premium Electric Motors and Variable Frequency Drives

It is expected that premium motors will be used in the mechanical, electrical, and plumbing (MEP) systems and other mechanical equipment such as elevators (where applicable). Variable frequency drives (VFDs) increase the efficiency of motors operating at partial load, and are generally applied to heating, ventilation, and air conditioning (HVAC) and water pump motors greater than 5 horsepower.

Heat or Energy Recovery

Heat and energy recovery ventilators (HRV and ERV) recover energy from building exhausts, transferring it to the inlet air and thus minimizing energy losses associated with ventilation. HRVs recover sensible heat, whereas ERVs recover sensible and latent heat. Energy Recovery has been included in the office and residential models at this time.

Demand-Controlled Ventilation (DCV)

Ventilation systems with variable speeds controlled by temperature or carbon monoxide sensors are often used in large spaces with high densities of occupants, such as auditoriums, theaters, or enclosed (e.g., below-grade) parking garages. DCV is planned for the parking garage.

Room Occupancy Sensors

Occupancy sensors for lighting have become standard practice in common areas and utility spaces such as meeting rooms, storage rooms, offices, and public restrooms. Occupancy sensors will be applied to certain residential Project spaces.

Natural Lighting

The current design includes glazing and natural lighting appropriate to the building type.

Daylighting Controls

Daylighting is the practice of controlling interior lighting by photoelectric cells that measure the amount of natural light entering the room. Daylighting controls are expected to be used in the office portion of the proposed building. Continuous dimming switches may be employed, as well as effective daylighting design that allows daylight to penetrate into the full depth of the 15-foot perimeter zones of the commercial spaces. Daylighting is not a practical application for residential spaces.

Reduced Lighting Power Density

High-performance lighting fixtures such as high-efficiency fluorescent or light-emitting diode (LED) lighting is expected to be used throughout the Project, reducing installed lighting power as indicated in Attachment N.

High Performance Exterior Lighting

As LED-based exterior lighting applications broaden, many designers are incorporating this technology into external signs, area lighting, and other uses. Exterior signs and area lighting are expected to be LED-based.

Energy Star Appliances

Energy Star appliances use up to 40% less energy than other models of the same function. The Proponent will specify Energy Star appliances where applicable.

Advanced Elevators

Advanced elevator technologies such as machine-roomless elevators (MREs) use less energy than conventional tractor designs. The elevators are expected to be high-efficiency, machine room-less.

High Efficiency Mechanical Equipment

HVAC systems and equipment will be designed with design ratings and efficiencies that are equal to or better than Code. Please refer to the Mechanical Systems report and model input tables presented in Attachment N for system details.

10.2.1.2 Energy Generation

Purchased Green Energy

Green Energy is a term used to describe electricity generated from renewable resources such as wind and photovoltaic (PV) cells. Most utilities offer customers the opportunity to purchase Green Energy for some or all of the customers' needs; rates vary with utility and the class of customer. The Proponent expects to enter into a green energy purchasing contract.

10.2.1.3 Other Related

There are a number of additional measures and design features that, while included for a variety of non-GHG reduction reasons, may have the indirect effect of reducing GHG emissions. While many of these are expected to be included in the design and plans for the proposed building, the GHG impacts are both difficult to quantify with any degree of accuracy and small in comparison to the measures described above. Therefore, GHG reductions related to these measures have not been included in this analysis.

LEED Target

At this time, the Project is targeting LEED Platinum Certification.

Proponent Influence on Tenant

The Proponent or its affiliate plans to maintain ownership of the office component of the project, the residential component will be a condominium and ownership will therefore revert to the unit owners at some point. The Proponent intends to work with tenants of the office component to design and construct all office spaces within the Project, and will build out all the residential units. The responsibility for submitting the post-construction self-certifications demonstrating compliance with the commitments made in the MEPA process will be the Proponent's. Any further fit-up of commercial tenant spaces will be mandated to be equal to or better than specified elements in term of energy performance. Each tenant space (residential and commercial), will likely be individually metered for electricity. This will encourage tenants to employ conservation techniques.

The Proponent will supply commercial tenants with the EIRs and related Certificates to ensure they are aware of both the commitments that have been made in the MEPA process and also the assumptions/basis upon which they were made (e.g., building energy modeling inputs and assumptions, considerations of alternatives).

The Proponent will prepare Green Development Guidelines for the commercial tenants, which will include language both requiring and encouraging tenant fit-up to employ economically feasible sustainable design techniques. These Guidelines will be written as part of the Proponent's leasing and marketing efforts.

Rainwater Harvesting

The Project intends to collect rainwater run-off for re-use in the lower levels of the commercial portions of the building for toilet flushing.

Low Flow Fixtures

The building will employ low-flow, water-conserving plumbing fixtures.

Recycling Collection Areas

Areas will be set aside in appropriate spaces in the building to participate in separation and recycling of packaging and other recyclable materials. An area has been set aside in the commercial loading and delivery area for recycling. The Proponent will support a comprehensive recycling program, which will be supplemented with tenant education programs.

Enhanced Refrigerant Management

The Proponent intends to pursue the Enhanced Refrigerant Management LEED Credit.

Energy Management System

While not a GHG reduction technology, an Energy Management System (EMS) or Building Management System (BMS) can ensure that a building's systems are installed and operating properly. The proposed building's design includes an EMS.

Enhanced Building Commissioning

Enhanced building commissioning begins the commissioning process earlier in the design stage, and includes a post-occupancy follow-up visit to ensure that building systems have been operating properly in both the heating and cooling seasons. It is an additional measure to ensure that HVAC, lighting, domestic hot water and renewable energy systems have been installed as designed and perform as expected. The Project intends to pursue the Enhanced Building Commissioning LEED Credit.

Construction Waste Recycling

The site developer will work with the construction manager to outline, develop, and implement a comprehensive construction plan, part of which will involve creating a comprehensive construction waste management plan.

Recycled Content Materials

The Project intends to pursue the Recycled Content Materials LEED Credit. The use of recycled-content materials will be encouraged during the procurement stage for the building. The Proponent desires sustainable design and is encouraging the specification of recycled-content materials wherever practical. Concrete aggregate and cement, wood, glass and glazing products, metals, masonry, and drywall are typically evaluated for cost effectiveness of recycled-content alternatives.

Regional Materials

The Project intends to pursue the Regional Materials LEED Credit. The Proponent will encourage the specification of regionally-sourced materials wherever possible.

10.2.2 Building Energy Modeling

Building energy modeling was performed by the building design engineer, WSP. Modeling was conducted using IES VE version 2016, the latest version of this IRS-approved building design modeling software, and followed the protocol of ASHRAE 90.1, Appendix G. WSP's model inputs are presented in Attachment N. Selected IES VE output tables for each case along with a summary spreadsheet are provided in Attachment N.

10.2.2.1 Methodology

The Baseline cases represent the building built to the standards of IECC 2015 (ASHRAE 90.1-2013) and other parameters as required by ASHRAE 90.1, Appendix G. The Proposed case represents the representative buildings with the features described in Section 10.2. Modeling input for the proposed case is included in the Mechanical Design Report, in Attachment N.

Modeling results are summarized in Table 10-2. Compared to a Code-compliant building, the proposed Project is expected to decrease GHG emissions by approximately 22%, or approximately 1,577 tons/year.

Energy Use Intensity (EUI) is a measure of annual building energy use per square foot of conditioned space. EUI values for the building are presented in Table 10-2. A 21% reduction from Baseline is indicated for the building.

Table 10-2 Energy Use and GHG Emissions, Proposed and Alternative Cases

Whole Building + Parking							
Modeled Conditioned space	1,763,888	sf					
Design Conditioned space	1,763,888	sf					
Factor	1.0			Alternative 1	Alternative 2	Alternative 3	
		Baseline	Proposed	Improved Glazing	Improved Wall	Improved Energy Recovery	Cumulative (1+2+3)
DIRECT (NATURAL GAS)		MMBtu/yr	MMBtu/yr	MMBtu/yr	MMBtu/yr	MMBtu/yr	MMBtu/yr
Space Heating		13,785	11,822	6,841	8,251	11,748	3,913
Service Water Heating		8,542	6,834	6,834	6,834	6,834	6,834
	subtotal	22,327	18,656	13,675	15,085	18,582	10,747
INDIRECT (ELECTRICITY)		MWh/yr	MWh/yr	MWh/yr	MWh/yr	MWh/yr	MWh/yr
Space Cooling		2,856	654	676	715	649	680
Space Heating		0	0	0	0	0	0
Fans Interior		2,855	1,450	1,216	1,281	1,505	1,245
Fans Parking		144	143	143	143	143	143
Pumps		255	30	63	67	30	73
Heat Rejection		751	1,307	993	1,016	1,265	1,059
Internal Lighting		4,727	4,160	4,160	4,160	4,160	4,160
Elevators		49	49	49	49	49	49
Receptacle Equipment		4,767	4,859	4,859	4,859	4,859	4,859
	subtotal	16,404	12,652	12,159	12,290	12,660	12,268
ENERGY USE INDEX	PNNL reference[3]	kBtu/sf/yr	kBtu/sf/yr	kBtu/sf/yr	kBtu/sf/yr	kBtu/sf/yr	kBtu/sf/yr
	47.6	44.4	35.1	31.3	32.3	35.0	29.8
	(compared to baseline)		**-21%**	**-30%**	**-27%**	**-21%**	**-33%**
GHG EMISSIONS		tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr
Direct	Gas-burning	1,306	1,091	800	882	1,087	629
Indirect	Electricity	5,955	4,593	4,414	4,461	4,596	4,453
	Total	7,261	5,684	5,214	5,344	5,683	5,082
	Diff, tpy		**-1,577**	**-2,047**	**-1,917**	**-1,578**	**-2,179**
Diff, % (compared to baseline)			**-22%**	**-28%**	**-26%**	**-22%**	**-30%**
CO_2 Emission Factors:							
Electricity [1]	726	lb/MWh					
Natural Gas [2]	117	lb/MMBtu					

[1] 2014 New England Electric Generator Air Emissions Report, Table 1.1, 2014 value

[2] EIA Fuel Emissions Factors, Weighted National Average (1029 Btu/scf)

[3] Pacific Northwest National Laboratory study, Massachusetts Zone 5A, ASHRAE 90.1-2013, Mid-Rise Apartment

10.2.2.2 Alternatives Analysis

Alternatives have been developed that incorporate Passive House principles. They include Triple-glazed windows (U-0.22, SHGC-0.25), thermally broken super high-performance envelope (R-18), and high-efficient HVAC energy recovery (80% Sensible). Please refer to the Mechanical Design Report, in Attachment N for a detailed alternatives analysis.

The improved alternatives may, ultimately, be implemented. As the building is in very early design, the Proponent cannot commit to these improved design elements at this time. As the design develops and various input are tested and cost analyzed, the design team and Proponent will determine the most effective means to achieve the building's aggressive energy targets.

As the building is designed, alternative mechanical systems are constantly being evaluated for efficacy. In addition, combined heat and power has been analyzed. CHP demonstrated a slight increase in energy use. Please refer to the CHP Analysis in Attachment N for details and in Section 10.3.2.2 below. Alternative technologies will continue to be examined as design progresses, with cost and incentive information applied to the decision-making process when available, as design progresses.

10.2.3 Mitigation Strategies Not Currently Included

Some potential candidates for additional mitigation technologies are addressed in this section. The Proponent is committed to aggressive GHG reduction. However, the Proponent cannot commit to the use of additional specific building design technologies at this early design stage of development.

Mitigation technologies not included in the current Project fall into three general categories:

- Technologies that may be applicable, but for which an applicability determination must include specifics of proposed building design and use, yet to be designed;
- Technologies that are generally considered technically or economically infeasible; and
- "Other Related" technologies that are expected to be used to varying degrees, but for which the GHG emissions effects are not quantified herein.

10.2.3.1 Energy Use Reduction

Building Orientation

The building is oriented to existing street geography.

Exterior Shading Devices

Exterior shading devices are not appropriate for a building of this height.

Radiant Heat

A radiant heating system is being evaluated for the portions of individual units within the residential portion of the building.

Under-floor Air Distribution

Underfloor air distribution would not be as efficient as the air handing system being planned for the building.

10.2.3.2 Energy Generation

Combined Heat and Power

Combined heat and power systems, also known as cogeneration, burn natural gas to generate electricity and useful thermal energy in a single, integrated system. CHP systems are most advantageous for facilities that have a hot water demand year-round. Traditionally CHP applications include uses such as lab. The hot water demand for the office portion of the Project is small, but the residential areas may provide sufficient opportunity for a smaller sized CHP system which could power the base hot water load of the building. This system would primarily provide domestic hot water while also connecting to the heating plant. Based on an initial analysis, a CHP system can provide approximately 4.3% of the total electricity use and meet 55.8% of the annual hot water heating load. Since CHP produces electricity using less expensive natural gas, but generates usable heat less efficiently than a conventional natural gas boiler, the net impact of this system could be a 1.7% increase in energy use and a 2.3% decrease in energy costs.

The opportunity to utilize a CHP system to serve as the emergency generator has been discussed. In the past this has not been allowed by the fire department. Additionally, the size of the generator load far exceeds the demand for HW that would be provided from a CHP sized to meet the emergency load. This would require the waste heat to be exhausted and not used making the system undesirable.

The Proponent has contacted the utility and, due to the Project location, has been told the connection of an alternative power source is not allowed due to the potential back feeding of power in the electrical grid. As design progresses, space, program, and utility service will continue to be analyzed to determine appropriateness of a CHP system for this Project.

Please refer to Attachment N for a detailed CHP Analysis.

District Heating and Cooling

There is a Veolia steam loop nearby. Historically, steam is an inefficient heating system due to generation inefficiencies and high thermal distribution losses. Compared to building-level condensing boilers in the proposed design, conventional steam is less efficient and would not support the Proponent's sustainability goals for the Project.

Fuel Cells

Fuel cells use methane (natural gas) in an electro-chemical process operating at low temperature to generate electricity. High-grade or low-grade waste heat recovery, or both, can make these units into a CHP technology.

Fuel cells have been used in limited applications for continuous power generation, but they are very expensive. Although the cost has decreased in recent years, it appears to remain well above competing technologies. Even with tax incentives and the potential availability of Alternative Energy Renewable Energy Credits, the cost of fuel cells is considered to be too high for likely application.

Solar Hot Water

Solar Hot Water can be an effective GHG mitigation technique where there is a significant hot water demand. While the building will have a significant hot water demand, the feasibility of generating thermal energy from solar thermal was assessed and rejected for the following reasons: competing roof area for mechanical equipment, window washing equipment, vegetated roofs, and amenities; and roof area is very small relative to high hot water demands in the residential portion of the building. For these reasons, solar hot water is not considered a viable technology for this Project.

Photovoltaic (PV)

The Proponent will evaluate all PV alternatives when sufficient building design and load information becomes available and will base the economic evaluation on then-current utility costs, incentives, and other factors.

PV-ready

At this time, a portion of the building's lower office roof has been designed to be PV-ready. Currently, this space is designed as a green roof. This roof will be PV ready to allow future PV if the green roof program changes. The Project's upper roof has limited potential for deploying traditional rooftop PV due to its large volume and small roof area as well as competing space for window washing and mechanical equipment. Assuming at minimum 50% of roof area will be needed to accommodate other building systems, only 9,800 square feet is available for roof-mounted PV installations. Building Integrated Photovoltaics (BIPV) were investigated to increase the area available to PV generation by allowing for vertical integration within the spandrel façade systems on the residential Tower's east, south, and west elevations. Due to shading of adjacent buildings as well as the complexity of the glazing and opaque walls, this system is not being further evaluated. The Proponent will concentrate efforts on maximizing the efficiency and energy savings on the thermal characteristics of the envelope.

Rooftop

As previously stated, there is little room on the building's upper roof for a PV system. The lower roof will be designed to be PV ready. The Proponent and designer are committed to evaluating all PV options as design progresses.

Photovoltaic (PV) – Canopy

There will not be any significant surface parking on-site, it is all below grade.

Third Party PV

As previously stated, there is little room on the building's upper roof for a PV system. The Proponent and designer are committed to evaluating all PV options as design progresses, including third party PV.

Ground Source Heat Pumps

It is unknown if existing geologic conditions are suitable to accommodate vertical boreholes. Given the dense urban nature of the Project area, extensive underground drilling is not feasibile to meet the demand of the system. The viability of ground source heat pumps may be explored in the future; however, for this type of application, it is unlikely to be employed.

Wind Turbines

Building-integrated wind turbines include small turbines (generally less than 1 kW to about 5 kW) mounted on building roofs or parapets or otherwise attached to a building. In spite of some manufacturers' claims that certain building-

integrated designs, such as vertical turbines, are less sensitive to building wake turbulence, there is insufficient experience with these units for most developers to have sufficient confidence that all such issues are resolved.

Larger wind turbines are not viable in this dense urban location.

10.2.4 Utility Coordination

The Proponent has initiated discussion with local utilities regarding available incentive programs. The Proponent and mechanical designer have met with National Grid and Eversource and are in the process of developing National Grid and Eversource-approved modeling for use in the utility's rebate program. The Proponent will continue further discussion with all relevant utilities and entities regarding rebates and incentives as design develops.

10.2.5 Passive House Design

The Proponent and design team are evaluating Passive House design principles. These include advanced envelope, HVAC and systems design. These alternatives have been evaluated and will continue to be considered as design progresses, as discussed in Section 10.2.2.2. Please refer to Section 6.2 and Attachment N for additional details.

10.3 Mobile Source Emissions

As part of the GHG evaluation, emissions of carbon dioxide from regional traffic associated with the Project were evaluated.

10.3.1 Traffic GHG Analysis

In accordance with the MEPA GHG Policy, GHG emissions were estimated for mobile sources within the transportation study area (see Section 4.0 for the transportation analysis). For mobile source GHG emissions, the methodology follows the same methodology that is outlined in MassDEP guidance for mesoscale analyses.[1] The analysis includes a comparison of the future Build conditions to the No-Build condition. If emissions are greater for the Build conditions, reasonable and feasible mitigation measures will be evaluated. The methodology and parameters for the mesoscale analysis follow methodology approved by MassDEP.

[1] MassDEP, Guidelines For Performing Mesoscale Analysis Of Indirect Sources, May 1991.

The mesoscale analysis performed for these Projects predicts the change in regional CO_2 emissions due to the proposed Project. The total vehicle pollutant burden was estimated for the 2016 Existing conditions and the No-Build and Build conditions for the year 2023. Traffic conditions are described in more detail in Section 4.0.

The EPA's MOVES computer program was adopted in 2013 to supersede Mobile 6.2 for traffic emissions analysis. In April 2014, MassDEP provided the state-specific inputs to be able to run MOVES, completing the transition. MOVES was used to estimate motor vehicle emission factors of CO_2 on the roadway network in the Project area. A peak travel day (estimated to be a weekday in March) was used in MOVES. Daily and yearly emission estimates were calculated using the vehicle count data, mileage between intersections, modeled signalized intersection delay times, and emission factors.

The traffic volumes provided in Section 4.0 form the basis of the study. Peak hour traffic volumes were provided by the transportation consultant, and estimates of Average Daily Trips (ADT) were made from the peak hour volumes assuming a 10% K-Factor. Average speeds were assumed for all roadways. Distances for the links were estimated with mapping software.

Average per-vehicle idle times were based on delay times reported in the SYNCHRO intersection modeling output reports provided by the transportation consultant (see Section 4.0) to calculate emissions from idling vehicles.

All related calculations, including the 2016 and 2023 emissions estimates, are presented in Attachment H.

10.3.2 Traffic GHG Analysis Results

Table 10-3 represents the difference between the Existing case and the future No-Build case (i.e., traffic expected without the addition of the Project to the area). Anticipated improvements in vehicle engine and emissions technologies, which are expected to reduce the per-vehicle emission rates, typically reduce future emissions. This results in a 19% decrease between years 2016 and 2023.

Table 10-3 Regional Traffic GHG Emissions Analysis Summary (No-Build)

Pollutant	*CO_2e (lbs/day)*	*CO_2e (tons/yr)*
2016 Existing	17791.4	3246.9
2023 No-Build	14407.1	2629.3
Difference *Difference (%)*	-3384.3 *-19%*	-617.6 *-19%*

Table 10-4 represents the difference between the No-Build case and the Build case (i.e., traffic associated with the addition of the Project to the area, including integral elements of Proponent-proposed TDM, but without any Proponent-proposed physical/operational mitigation).

As shown, the 2023 Build condition exhibits an increase of carbon dioxide-equivalent (CO_{2e}) emissions compared to 2023 No-Build conditions. This is due to an increase in vehicular traffic and subsequent increased delay times at area intersections due to the Project. It is also due to the creation of two new site driveway intersections. This increased traffic results in increases of approximately 18% of CO_{2e} emissions in the Build condition compared to the No-Build condition.

Table 10-4 Regional Traffic GHG Emissions Analysis Summary (Build)

Pollutant	*CO_2e (lbs/day)*	*CO_2e (tons/yr)*
2023 No-Build	14407.1	2629.3
2023 Build	17040.5	3109.9
Difference	2633.4	480.6
Difference (%)	18%	18%

10.3.3 Traffic Mitigation and Effects on GHG

As discussed in Section 4.0, transportation mitigation measures include various methods to reduce vehicle trips to and from the Project area. These include programs emphasizing public transit, walking, and bicycle modes, and by improving walking and bicycling infrastructure in the area. This trip reduction mitigation is referred to as "transportation demand management (TDM)" and has been included in the Build case.

The GHG mobile source analysis relies on data included in the transportation analysis to quantify emissions. Since TDM mitigation is already included in the Build Case transportation analysis and not analyzed as part of a separate case without TDM, the reduction in GHG emissions attributable to TDM is already reflected in the Base Case.

Traffic mitigation often involves physical improvements to local intersections. These typically include traffic signal installations, signal timing revisions, and physical lane improvements (including dedicated turn lanes). Although these improvements do not reduce vehicle trips, they do reduce emissions by reducing congestion and improving the efficiency of the vehicle traffic in the area. Traffic mitigation is described in detail in Section 4.0.

For this Project, the Mitigated Build Case includes traffic mitigation in the form of revised signal timing, which is incorporated at eleven of the fifteen modeled intersections. The signal timings are adjusted to improve flow and reduce delay and therefore reduce idling times.

Table 10-5 represents the difference between the Build Case and the Mitigated Build Case (i.e., traffic associated with the addition of the Project to the area with Proponent-proposed mitigation).

As shown, the 2023 Mitigated Build Case exhibits a decrease of CO_2e emissions compared to 2023 Build conditions. This is due to a decrease in delay times at area intersections due to the Project. This decreased idling traffic results in decreases of approximately 3% of CO_2e emissions in the Mitigated Build condition compared to the Build condition.

Table 10-5 Regional Traffic GHG Emissions Analysis Summary (Mitigated Build)

Pollutant	*CO_2e (lbs/day)*	*CO_2e (tons/yr)*
2023 Build	17040.5	3109.9
2023 Mitigated Build	16519.1	3014.7
Difference	-521.3	-95.1
Difference (%)	-3%	-3%

10.3.4 Summary

Table 10.-6 shows the details of the GHG analysis from case to case. Changes are based on the prior case. Vehicle miles traveled (VMT) represents the approximate mileage of all vehicles traveling on the modeled roadway network, and the net VMT change represents the difference from the prior case. A zero change in VMT means there are no vehicles added or removed from the network for that case. Net delay represents the time sum of all idle traffic at all network intersections over the course of a day. Increases in intersection volumes without any revisions to the signal network tend to increase idling for vehicles waiting for signal lights to change. Typically, mitigation includes adjusting these signals to better handle traffic flow, and in turn reducing delay times and, as a result, idling emissions.

Table 10-6 Regional Traffic GHG Emissions Analysis Summary

	units	*2016 Existing*	*2023 No-Build*	*2023 Build*	*2023 Mitigated Build*
Daily VMT	miles/day	15324.8	16086.4	18111.9	18111.9
Net VMT Change	miles/day	-	761.6	2025.5	0.0
Net Delay	hrs/day	428.0	463.3	647.4	563.9
Net Delay Change	hrs/day	-	35.3	184.1	-83.5
Roadway CO_2e	tpy	2658.8	2350.1	2372.0	2372.0
Intersection CO_2e	tpy	588.2	712.3	737.9	642.8
Net CO_2e Emissions	tpy	3246.9	3062.4	3109.9	3014.7
Net CO_2e Change	tpy	-	433.2	480.6	-95.1
Percent Change		-	-19%	18%	-3%

GHG emissions reductions through mitigation are measured against the emissions attributable to the Project without mitigation. Therefore, for mobile source GHG emissions, the emissions due to background traffic must be removed. Table 10-7 shows the net emissions with the 2023 No-Build case removed from both the Build and Mitigated Build cases.

When compared in this fashion, the Project's planned mitigation contributes to a 20% decrease in emissions from the unmitigated Build case.

Table 10-7 Project Traffic GHG Emissions Analysis Summary

	units	*Case 1 2023 Build minus 2023 No-Build*	*Case 2 2023 Mitigated Build minus 2023 No-Build*
Roadway CO_2e	tpy	270.8	270.8
Intersection CO_2e	tpy	209.8	114.7
Total CO_2e Emissions	tpy	480.6	385.5
Net CO_2e Change	tpy	-	-95.1
Percent Change		-	-20%

10.4 Summary and Mitigation Commitments

10.4.1 Project GHG Summary

Table 10-8 presents a composite of the building GHG emissions profiles of the Baseline and Proposed cases. As explained in Section 10.3, mobile source emission reductions from siting of the Project have been included in the Baseline and reductions from the TDM program have not been quantified.

Table 10-8 Project GHG Emissions Summary

Project GHG Emissions Summary

	Baseline	Proposed	Difference	
	tons/yr			%
Stationary Sources	7,261	5,684	-1577	-22
Mobile Sources	481	386	-95	-20

10.4.2 Proponent's Commitments to GHG Reduction

The Proponent has detailed its commitments to mitigate Project GHG emissions. Additional mitigation measures have not been quantified, primarily because the degree of accuracy or the reliability of the quantification method is uncertain.

The Proponent is committed to environmental stewardship, and as design develops further, the Proponent expects that additional technologies described previously, or possibly new technologies developed in the interim period, may be adopted that will further decrease GHG emissions; however, these technologies are not yet ripe for selection. The Proponent will encourage the continued evaluation of energy efficiency and renewable energy measures throughout the life of the Project.

The Proponent is committed to the following mitigation elements for the Project:

- High performance building envelope;
- Green Roofs;
- Light or reflective roofs;
- Energy Recovery;
- Daylighting Controls in the Office Areas;
- Reduced lighting power densities;
- High performance exterior lighting;
- Energy Star appliances in the Office areas;
- Advanced/ Destination Dispatch Elevators;
- High-efficiency HVAC equipment;
- Purchasing Green Energy;
- Low-flow plumbing fixtures;

- Recycling collection areas;
- Enhanced Refrigerant Management
- Energy Management System;
- Enhanced Building Commissioning; and
- Construction waste recycling.

The Proponent has included in the design of the building, all feasible GHG emissions mitigation in order to avoid, reduce, minimize, or mitigate damage to the environment.

The Proponent is committed to implementing the energy efficiency and GHG emission reduction measures presented in this analysis, but must retain an amount of design flexibility to allow for changes that will inevitably occur as design progresses. If, during the course of design for the building, a specific combination of design strategies proves more advantageous from an engineering, economic, or space utilization perspective, the design of the building may vary from what has been described herein. Energy performance minima and associated GHG emission reductions will be adhered to.

At Project completion, the Proponent will submit a self-certification to the MEPA Office, prepared in accordance with the GHG Policy. This certification will identify the GHG mitigation measures incorporated into the building and will illustrate the degree of GHG reductions from a Baseline case, as Baseline is defined herein, and how such reductions are achieved. Details of the Proponent's implementation of operational measures will also be included.

Chapter 11

Public Benefits Analysis

11.0 PUBLIC BENEFITS ANALYSIS

In November 2007, the Massachusetts House and Senate passed An Act Relative to the Licensing Requirements for Certain Tidelands (HB 4324), which was signed by Governor Patrick on November 15, 2007 (Chapter 168 of the Acts of 2007), the "Landlocked Tidelands Legislation." The legislation, among other things, names the Secretary of Energy and Environmental Affairs (the Secretary) as the "administrator of tidelands," and requires the Secretary to conduct a "public benefit review" for projects located on tidelands, and to issue a written determination (the "Public Benefit Determination"). The Secretary *must* conduct a public benefit review for any proposed project located on tidelands or on landlocked tidelands that requires an Environmental Impact Report, pursuant to MEPA.

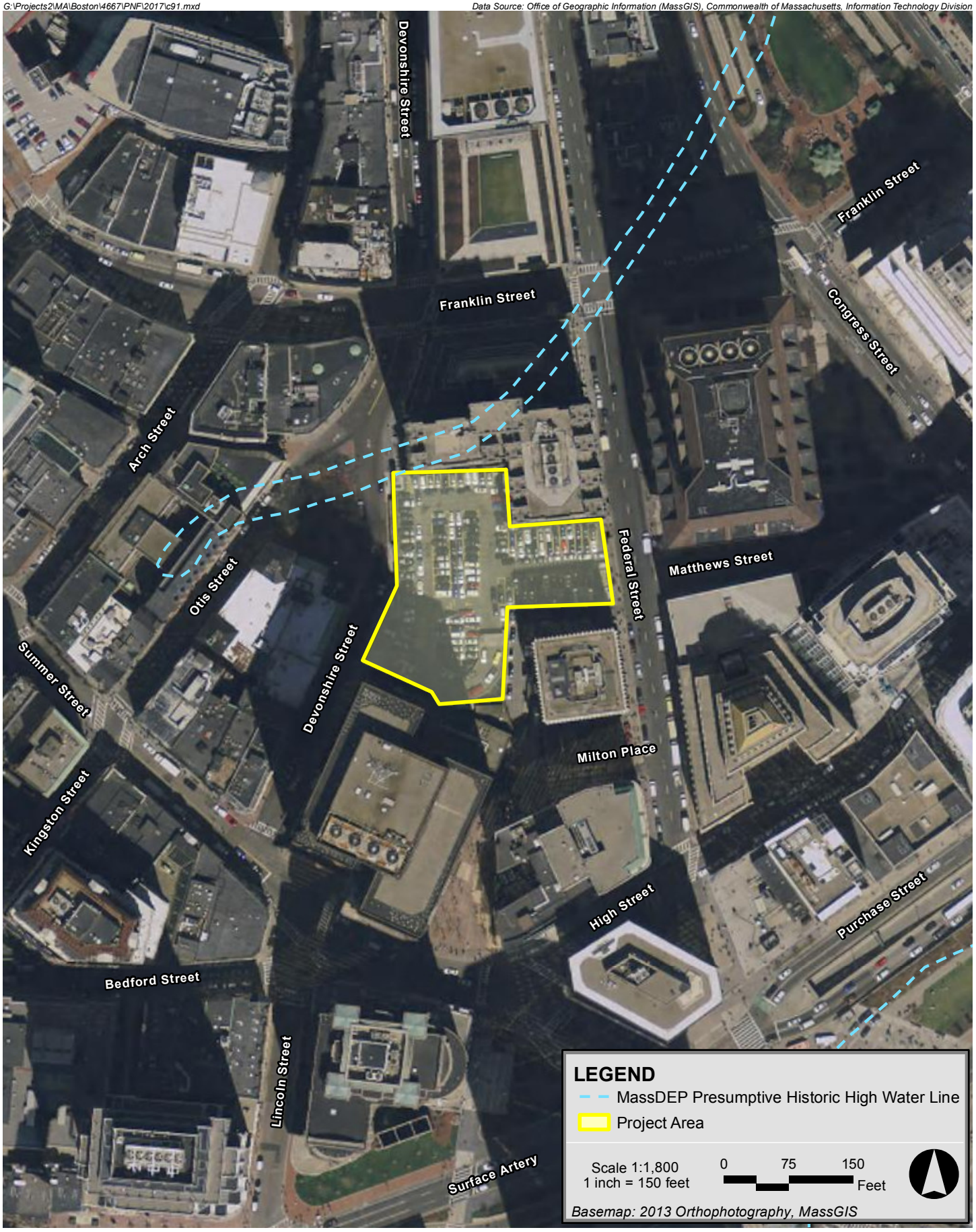
As shown on Figure 11-1, a very small portion of the northwest corner of the Project site contains "landlocked tidelands," that is, filled tidelands which on January 1, 1984 were entirely separated by a public way or by interconnected public ways from any flowed tidelands, are not within 250 feet of the high water mark of flowed tidelands, and are not within any Designated Port Area. The changes to the Chapter 91 legislation outlined above require analysis of a Project's impacts on the public's rights to access, use and enjoy tidelands that are protected by Chapter 91, and identification of measures to avoid, minimize, and mitigate and adverse impacts on such rights.

The sections below provide the required explanation with reference to the points that the Secretary is required to address in making the Public Benefit Determination. A more detailed discussion of public benefits is provided in Section 2.2.3.

11.1 Purpose and Effect of the Development

The Metropolitan Area Planning Council's (MAPC's) MetroFuture Plan predicts moderate economic growth across the region in the coming years. Development of the Project will support growth in the area by creating new office and commercial space in a developed area, and will provide new space that will encourage new business ventures and bring new revenue to Boston. The Project will also create new housing in close proximity to public transit, consistent with MetroFuture's goals of creating new housing in urban areas and close to job centers.

Under the MetroFuture Plan, population growth will be concentrated in municipalities already well served by infrastructure, with slower growth in less developed areas where infrastructure is more limited. The location of this Project fulfills the Plan's objective by siting new commercial, office, and residential development in a dense urban center that is already well-served by public transit, regional roadways, and utility infrastructure. The Project is proximate to



115 Winthrop Square Boston, Massachusetts

Epsilon Associates Inc.

Figure 11-1

MassDEP Presumptive Historic High Water Line

public transportation and the dense urban development pattern of downtown Boston, and as a result is expected to generate relatively high levels of walking, public transit use, and bicycle trips. Existing water and wastewater infrastructure are adequate to accommodate the proposed uses, and the Project will improve stormwater infrastructure (see Section 9.0). All Project activities will occur on previously-disturbed and developed land, and the Project will not result in any adverse impacts to wetlands or rare species or their habitat.

The MetroFuture Plan directs over 60 percent of commercial and housing growth to previously developed areas to minimize loss of open space. The Project will provide several new uses on an underutilized, previously developed space, in keeping with this goal. It will also improve open space connections for pedestrians in the area through the Great Hall's open, active, commercial and civic midblock link between Federal Street and Devonshire Street.

11.2 Project Impacts

The Project will redevelop the site of a vacant four-story public parking garage into a vibrant mix-used project which, through its design, is intended to foster direct connections with the surrounding community. The Project will activate an underutilized site with enhanced connectivity for pedestrians through the ground-floor Great Hall that will connect streets, culture, ideas, and people. In addition to providing retail and restaurants to serve as pedestrian attractions, the Great Hall will improve the pedestrian experience more broadly in the area by becoming part of a larger pattern of midblock pedestrian open space links. Specifically, through improvements to the streetscape, sidewalks, and the Winthrop Square open space, the Project will provide a pedestrian-accessible space for walking between the Great Hall and the adjacent 100 Summer Street Plaza and the open terrace areas at 133 Federal Street. Section 7.0 provides more detailed information about the Project's urban design elements.

The Proponent anticipates an active, hands-on role to help address the City's housing affordability crisis. Importantly, the Project will also meet the Mayor of Boston's most recently updated Inclusionary Development Policy (IDP) for affordable housing. In this effort, the Proponent is collaborating with Asian Community Development Corporation, to explore opportunities to create affordable housing in Boston's Chinatown neighborhood.

11.3 Enhancement to the Property

The Project site was the location of a decaying approximately 1,125 vehicle parking garage that was closed in 2013 due to safety concerns and which has been for generations an impediment to a cohesive public realm in the area. The garage structure is in the process of being razed. The Project will activate an underutilized site with enhanced connectivity for pedestrians through the ground-floor Great Hall that will connect streets, culture, ideas, and people.

The Project is consistent with smart-growth and transit-oriented development principles. The Project site is well served by existing public transportation, including major regional rapid transit and commuter rail lines that provide easy access to the Project site from the Greater Boston region. With the Project site's central location and close proximity to public transportation as well as shared vehicular and biking options, the Project will need less parking relative to other projects of its size. The addition of residential uses to an underutilized site that is adjacent to new, more active uses will support the expansion of retail, office, and residential uses in the neighborhood.

11.4 Benefits to the Public Trust Rights in Tidelands or Other Associated Rights

The benefits to public trust rights in tidelands as well as the entire Project site will include the following:

- **Economic Benefits:** Strengthen economic vitality in the area by replacing the deteriorated garage with an active mixed use Project, which by providing housing units in the financial district will promote 24-hour life in this area of the City.

- **Public Realm:** Create an important space in the Great Hall designed to provide the operational structure and architectural scaffolding to implement and accommodate a variety of programmed educational, civic, performance and cultural experiences available for the public as they may change throughout the day, with the seasons, and as they are reimagined over time.

- **Creative and Productive Spaces that Work:** Create innovative state-of-the-art commercial office space in an environmentally sustainable high density environment in the commercial core of the City and with it and other property owners reestablish the Downtown area's preeminence as the region's commercial core.

- **Adding Good Jobs to the Economy:** Provide space or directly create approximately 2,670 permanent jobs, and directly create over 2,800 construction jobs. The Proponent is dedicated to high standards in

Economic Opportunity and Inclusion for the City of Boston that represent new higher goals and new initiatives, including a construction workforce consisting of 51% City of Boston Residents, 40% minority, and 12% female workers. The Proponent will seek out Minority and Women Owned businesses to participate in the Project's capital structure at market terms.

- **Enhancement of the Downtown Public Realm**: The Proponent is working to design, in consultation with the BPDA, the Boston Civic Design Commission, and other interested parties, a new landmark in the City Boston Improve Winthrop Square, and the surrounding sidewalks and streetscapes, making a new public realm anchor connecting Downtown Crossing, Post Office Square and Dewey Square. The Project will activate an underutilized site with enhanced connectivity for pedestrians through the ground-floor Great Hall that will connect streets, culture, ideas, and people. By providing housing units in the financial district, the Project will promote 18-hour life in this area of the City. In addition to providing retail and restaurants to serve as pedestrian attractions, the Great Hall will improve the pedestrian experience more broadly in the area by becoming part of a larger pattern of midblock pedestrian open space links. Section 7.0 provides more detailed information about the Project's urban design elements.

- **Sustainable Development for the Future**: The Proponent is committed to making the Project a shining model of sustainability and resiliency. The Proponent will focus on integrating sustainable design seamlessly into all aspects of the Project, from the early concept, through construction, and into operation and post-occupancy. The Project will strive to achieve LEED Platinum Certifiability and adopt the principles of Passive House in the office component. Passive House principles promote reduction in energy consumption, greenhouse gas emissions, and the health and wellness of its occupants. In addition, the Proponent is also designing the Project to meet the more extreme weather conditions anticipated in the future. Section 6.3 includes more detailed information.

- **Smart Growth/Transit-Oriented Development**: The Project is consistent with smart-growth and transit-oriented development principles by being well served by existing public transportation, including major regional rapid transit and commuter rail lines that provide easy access to the Project site from the Greater Boston region. With the Project site's central location and close proximity to public transportation as well as shared vehicular and biking options, the Project will need less parking relative to other projects of its size. The addition of residential uses to an underutilized site that is adjacent to new, more active uses will support the expansion of retail, office, and residential uses in the neighborhood.

- **Improving Bicycle Accommodations**: The Project will seek to enhance accessibility via bicycle in both the site plan and its interface with the surrounding roadway network. Secure on-site bicycle parking will be provided for both office employees and residents complemented by short-term bicycle parking in the public realm around the site. The design of Winthrop Square and Federal Street in the vicinity of the Project will be developed in close coordination with the Boston Transportation Department (BTD) to incorporate "Complete Streets" design elements that embrace the importance of bicycle access for the Project.

- **Affordable Housing**: The Proponent anticipates an active, hands-on role to help address the City's housing affordability crisis. The Project will comply with the City's Inclusionary Development Policy. To do so, the Proponent is collaborating with the Asian Community Development Corporation (Asian CDC) to explore opportunities to create affordable housing in Boston's Chinatown neighborhood.

- **New Property Tax**: The Project will put a significant property on the tax rolls for the City of Boston, generating more than an estimated $14 million and growing in property taxes annually upon stabilization.

  Additional Revenue to the City: The Proponent will pay the City of Boston $166 million, ($152,790,000 plus additional $13,210,000 subject to final residential sales square footage) as part of the $1.3 billion, for the proposed Project for the land as contractually required with the City of Boston as follows: $10 million has already been paid; $92 million is due and payable upon the issuance of the final construction permits for the Project; and approximately $64 million payable at the sale of each residential unit in the amount of $100 per square foot of residential space as identified in the unit deeds.

11.5 Community Activities on the Development Site

The Great Hall will be a space where Bostonians can meet, work, collaborate, pass through, or just reflect in a beautiful urban setting. Also, while distinctly different than the Winthrop Square open space, opportunities for the Great Hall and the open space to merge the public's experience will be explored. The mission of the Great Hall is to provide the operational structure and architectural scaffolding to accommodate and implement a variety of programmed educational, civic, performance and cultural experiences available for the public as they may change throughout the day, with the seasons, and as they are reimagined over time. Both active and passive programming will take place daily. Like a well-managed public pedestrian zone, most pedestrian circulation will be maintained when all but the largest events take place. This mission

complements the current endeavors to enhance the public's experience in the area most notably on the Greenway, in Downtown Crossing and in Post Office Square.

The Proponent recognizes that the success of the Great Hall requires early and regular operational and programmatic collaboration with civic minded and talented people and groups from across the City and welcomes their participation. In particular, the Proponent welcomes the collaboration with the Downtown Business Improvement District.

11.6 Environmental Protection and Safety

The Proponent is committed to making the Project a shining model of sustainability and resiliency. The Proponent will focus on integrating sustainable design seamlessly into all aspects of the Project, from the early concept, through construction, and into operation and post-occupancy. The Project will strive to achieve LEED Platinum Certifiability and adopt the principles of Passive House in the office component. Passive House principles promote reduction in energy consumption, greenhouse gas emissions, and the health and wellness of its occupants. In addition, the Proponent is also designing the Project to meet the more extreme weather conditions anticipated in the future. Section 6.3 includes more detailed information.

11.7 Public Health and Safety

The Project site was the location of a decaying approximately 1,125 vehicle parking garage that was closed in 2013 due to safety concerns and which has been for generations an impediment to a cohesive public realm in the area. The garage structure is in the process of being razed. The replacement of this vacant four-story public parking garage with a substantial increase in residential and office activity will promote and increase public safety. Streetscape improvements, including lighting, landscaping, generous sidewalks, and bicycle accommodations, will encourage walking and cycling, helping to improve both public health and safety in the neighborhood.

The Project will strive to achieve LEED Platinum Certifiability and adopt the principals of Passive House in the office component. Passive House principles promote reduction in energy consumption, greenhouse gas emissions, and the health and wellness of its occupants. In addition, the Proponent is also designing the Project to meet the more extreme weather conditions anticipated in the future.

Chapter 12

Proposed Section 61 Findings & Mitigation Summary

12.0 PROPOSED SECTION 61 FINDINGS & MITIGATION SUMMARY

12.1 Introduction

M.G.L.c.30, s.61 requires that "[a]ll authorities of the Commonwealth ... review, evaluate, and determine the impact on the natural environment of all works, projects or activities conducted by them and ... use all practicable means and measures to minimize [their] damage to the environment. ... Any determination made by an agency of the Commonwealth shall include a finding describing the environmental impact, if any, of the project and a finding that all feasible measures have been taken to avoid or minimize said impact." Each state agency that issues a permit for the Project shall issue a Section 61 Finding in connection with permit issuance, identifying mitigation that is relied upon to satisfy the Section 61 requirement. A proposed Section 61 Finding is provided in Section 12.3, and a table of mitigation measures is included as part of the Section 61 Finding. All mitigation will be the responsibility of the Proponent. Section 2.2.3 includes a description of the Project Benefits.

12.2 Anticipated State Permits and Approvals

Table 12-1 identifies the Agencies that are expected to take Agency Action on the proposed Project and, therefore, issue Section 61 Findings. It also identifies the Agency Actions anticipated to be required.

Table 12-1 Agency Actions Required for the Project

Agency Name	*State Action / Permit*
Boston Planning and Development Agency	Land Transfer
Massachusetts Historical Commission	Determination of No Adverse Effect / Memorandum of Agreement
Massachusetts Water Resources Authority	Construction Dewatering Permit

12.3 Proposed Section 61 Finding

Project Name:	Winthrop Square
Project Location	Boston, MA
Project Proponent	MCAF Winthrop LLC
EEA Number	15610
Date Noticed in Monitor	November 23, 2016

The potential environmental impacts of the Project have been characterized and quantified in the ENF dated November 15, 2016 and the DEIR dated January 2, 2018 which are incorporated by reference into this Section 61 Finding. Throughout the planning and environmental review process, the Proponent has been working to develop measures to mitigate significant impacts of the Project. With the mitigation proposed and carried out in cooperation with state agencies, the [Agency] finds that there are no significant unmitigated impacts.

The Proponent recognizes that the identification of effective mitigation, and implementation of that mitigation throughout the life of the Project, is central to its responsibilities under the Massachusetts Environmental Policy Act (MEPA). The Proponent has accordingly prepared the annexed Table of Impacts and Mitigation Measures that specifies, for each potential state permit category, the mitigation that the Proponent will provide.

Now, therefore, [Agency], having reviewed the MEPA filings for the Project, including the mitigation measures itemized on the annexed Table of Impacts and Mitigation Measures, finds pursuant to M.G.L. C. 30, S. 61, that with the implementation of the aforesaid measures, all practicable and feasible means and measures will have been taken to avoid or minimize potential damage from the Project to the environment.

_____

[Agency]

_____

By

_____

[Date]

Table 12-2 describing the measures to be implemented to mitigate the effects of the Project related to the required state actions and the schedule for implementation.

Table 12-2 Summary of Mitigation Measures

Mitigation	*Schedule*	*Cost*
Overall Project Impacts on the Community		
The Project's proposed public benefits, which will be determined through consultation with the Boston Planning and Development Agency and community, are in acknowledgement of the Project's proposed impacts on its surroundings.	During design, construction and operation	Included in overall Project costs
Transportation		
The proposed TDM plan aims to reduce drive-alone trips, or single occupancy vehicles, by encouraging employees, residents and visitors to use alternative modes of transportation. The following general TDM measures apply to both residential and commercial Project components: 1. Designate a Transportation Coordinator to oversee all transportation-related operational matters at each Project component, including vehicular operations, servicing and loading, parking and implementation of the TDM Plan. The Transportation Coordinator will act as the contact and liaison for the City, local Transportation Management Association and tenants/residents of the Project. 2. Post and make available transit maps, schedules and other information relevant to commuting options in the office and residential building lobbies. 3. Provide real-time transportation information in all new lobbies within each Project component using Transit Screen or other similar products including online platforms. 4. Provide preferential parking to carpool and vanpool participants. 5. Assignment of Car Sharing spaces in garage subject to demand. 6. Electric vehicle charging stations for up to 28 vehicles (5% of parking capacity) and EV -ready parking for up to 83 vehicles (15% of parking capacity) 7. Join A Better City TMA which provides a variety of commuter benefits including, but not limited to: ♦ Guaranteed Ride Home; ♦ Ride Matching; ♦ Cash incentives to try out particular MBTA services; and ♦ Carpool and Vanpool Subsidies. 8. On-site transportation fairs and commuter related events.	During operation	Included in overall Project costs

Table 12-2 Summary of Mitigation Measures (Continued)

Mitigation	*Schedule*	*Cost*
Transportation		
9. Long-term covered secure, and short-term public realm, bicycle spaces (numbers of spaces to be determined based on demand and in collaboration with BTD) 10. Commitment to providing additional bike parking in response to demand. 11. On-site "Fix-it" bike station. Charliecard subsidies (various types). 12. Charging for residential parking separately from condo unit purchases. 13. Passing cost of parking along to tenants in Project 14. Hubway and/or Car-sharing memberships. 15. Consolidated package delivery		
The Proponent is committed to conducting a Transportation Monitoring Program	During operation	Included in overall Project costs
The Proponent will develop a detailed evaluation of potential short-term construction-related transportation impacts including construction vehicle traffic, parking supply and demand, and pedestrian access. The Construction Management Plans require BTD approval prior to construction commencement, and will detail construction phasing, vehicle routing, area updates, staging, road closures and pedestrian detours.	During construction	Included in overall Project costs
Signal timing mitigation is anticipated to reduce idle times at area intersections	Prior to or immediately construction completion	$75,000 estimated
Striping and signage improvements in the Congress Street corridor to assist lane assignments and weaving maneuvers and improve traffic operations	Prior to or immediately after construction completion	$75,000 estimated
Air Quality		
Transportation-related adverse air quality impacts are not anticipated. The TDM program will minimize transportation-related air quality impacts.	During operation	Included in overall Project costs

Table 12-2 Summary of Mitigation Measures (Continued)

Mitigation	*Schedule*	*Cost*
Noise		
Signal timing mitigation is anticipated to reduce idle times at area intersections resulting in an approximately 1 percent reduction in both VOC and NOx emissions. The primary focus of intersection mitigation is to alleviate traffic and keep intersections operating smoothly.	Following Construction	Included in overall Project costs
The Project will include high efficiency mechanical equipment that will minimize impacts on air quality.	During construction and operation	Included in overall Project costs
The Project will comply with the City of Boston Zoning District Noise Standards, the MassDEP Noise Policy, and the U.S. Department of Housing and Urban Development Environmental Criteria and Standards (24 CFR Part 51), Subpart B – Noise Abatement and Control. The Project will include mitigation (e.g., acoustical louvers, silencers, etc.) on mechanical equipment to ensure compliance with the noted standards. At this time, mechanical equipment and noise controls are conceptual in nature and, during final Project design, will be specified to meet the applicable City of Boston, MassDEP, and HUD noise limits. Additional mitigation may include the selection of quieter units, acoustical louvers, silencers, or equipment enclosures as needed.	During operation	Included in overall Project costs
Historic and Archaeological Resources		
It is anticipated that an MOA will be developed and executed that will outline specific measures the Proponent will implement to mitigate the Project's potential impacts on historic resources. Potential mitigation measures may include some or all of the following, as well others: ♦ Photographic documentation of the Project site, its context and the downtown Boston skyline prior to, and after, the construction of the Project; ♦ Construction monitoring of adjacent historic properties before, during and after construction of the construction of the Project; and ♦ Contributions of $125,000 per year for 40 years following the completion of the Project to the Friends of the Public Garden for maintenance and enhancement of the Boston Common and the Boston Public Garden; ♦ $28 million for improvements to Boston Common; and ♦ $11 million toward finishing the Emerald Necklace park system by connecting Franklin Park to Moakley Park in South Boston.	During design, construction and operation	More than $44 million

Table 12-2 Summary of and Mitigation Measures (Continued)

Mitigation	*Schedule*	*Cost*
Water Use		
Aeration fixtures and appliances will be chosen for water conservation qualities, conserving potable water. Low flow toilets and restricted flow faucets will be used and exterior landscaping will consist of native and drought tolerant plants and a high efficiency irrigation system. Rainwater will also be collected for reuse within the office and public restrooms.	During operation	Included in overall Project costs
Wastewater Generation		
The Project will contribute to the BWSC Inflow and Infiltration program.	At construction completion	Included in overall Project costs
All improvements and connections to BWSC infrastructure will be reviewed as part of the BWSC's site plan review process. This process includes a comprehensive design review of the proposed service connections, an assessment of Project demands and system capacity, and the establishment of service accounts.	During design	Included in overall Project costs
Stormwater		
The Project will be designed to reduce the existing peak rates and volumes of stormwater runoff from the site, and promote runoff recharge to the greatest extent practicable. The Project will increase the pervious area on the site, utilize green roofs, permeable paving products, and collect rainwater in on-site cisterns for reuse.	During design and operation	Included in overall Project costs
Solid/Hazardous Waste		
The Proponent will use the soil testing conducted to characterize and classify the soil within the proposed excavation limits, for off-site removal to appropriate facilities, and to characterize any remaining soil for risk assessment purposes.	During construction	Included in overall Project costs
Winthrop Square will have state of the art equipment for dealing with solid wastes produced by its occupants. The residential tower will have a recycling component to the trash chute, allowing residents the ease of recycling in the same manner they deal with their other household refuse. Office tenants will have collection bin and areas for pick up as well as access to a cardboard baler for more efficient recycling of cardboard.	During operation	Included in overall Project costs

Table 12-2 Summary of Mitigation Measures (Continued)

Mitigation	*Schedule*	*Cost*
Greenhouse Gas Emissions and Climate Change		
The Proposed case will result in 22% and 20% lower CO_2 emissions than the Baseline case for stationary sources and mobile sources, respectively. The Proponent is committed to the following mitigation elements for the Project: ♦ High performance building envelope; ♦ Green Roofs; ♦ Light or reflective roofs; ♦ Energy Recovery; ♦ Daylighting Controls in the Office Areas; ♦ Reduced lighting power densities; ♦ High performance exterior lighting; ♦ Energy Star appliances in the Office areas; ♦ Advanced/ Destination Dispatch Elevators; ♦ High-efficiency HVAC equipment; ♦ Purchasing Green Energy; ♦ Low-flow plumbing fixtures; ♦ Recycling collection areas; ♦ Enhanced Refrigerant Management ♦ Energy Management System; ♦ Enhanced Building Commissioning; and ♦ Construction waste recycling.	During operation	Included in overall Project costs
A self-certification signed by an appropriate professional will be provided to the MEPA Office indicating all of the required mitigation measures, or their equivalent, have been completed.	Following construction	Included in overall Project costs
LEED --striving for Platinum certifiability	During design and construction	Included in overall Project costs
The number of days in Massachusetts with temperatures greater than 90°F is increasing. The Project design will include measures to adapt to higher temperatures, including use of highly-reflective roof materials, planting shade trees/shrubs, utilizing green roofs, and constructing a high performance envelope.	During design and operation	Included in overall Project costs

Table 12-2 Summary of Mitigation Measures (Continued)

Mitigation	*Schedule*	*Cost*
Greenhouse Gas Emissions and Climate Change		
To mitigate against more frequent and intense storms, the Proponent will take measures to minimize storm water runoff and protect the Project's mechanical equipment, as necessary. The Project will be designed to reduce the existing peak rates and volumes of storm water runoff from the site, and promote runoff recharge to the greatest extent practicable. The Project will increase the pervious area on the site, utilize green roofs, permeable paving products, and collect rainwater in on-site cisterns for reuse.	During operation	Included in overall Project costs
To minimize the Project's susceptibility to drought conditions, the landscape design is expected to include native and adaptive plant materials, and a high efficiency irrigation system will be installed. Aeration fixtures and appliances will be chosen for water conservation qualities, conserving potable water. Gray water will also be collected for reuse within the office and public restrooms.	During operation	Included in overall Project costs
The Proponent is aware of the potential sea level rise impacts for this site, which is roughly 22' above mean sea level, and will continue to analyze future studies that show the impacts of sea level rise on the site in the future, and will incorporate mitigation measures if necessary.	During design and operation	Included in overall Project costs
Construction		
The Proponent will follow City and MassDEP guidelines which will direct the evaluation and mitigation of construction impacts. As part of this process, the Proponent and construction team will evaluate the Commonwealth's Clean Air Construction Initiative. A CMP will be submitted to BTD for review and approval prior to issuance of a Building Permit. The CMP will include detailed information on specific construction mitigation measures and construction methodologies to minimize impacts. The CMP will also define truck routes which will help in minimizing the impact of trucks on City and neighborhood streets. Construction truck routes to and from the site for contractor personnel, supplies, materials, and removal of excavations required for the development will be coordinated with BTD.	During construction	Included in overall Project costs
Secure fencing, signage, and covered walkways may be employed to ensure the safety and efficiency of all pedestrian and vehicular traffic flows. In addition, sidewalk areas and walkways near construction activities will be well marked and lighted to protect pedestrians and ensure their safety.	During construction	Included in overall Project costs

Table 12-2 Summary of Mitigation Measures (Continued)

Mitigation	*Schedule*	*Cost*
Construction		
The construction contract will provide for a number of strictly enforced measures to be used by contractors to reduce potential emissions and minimize impacts. These measures are expected to include: ♦ Using wetting agents on area of exposed soil on a scheduled basis; ♦ Using covered trucks; ♦ Monitoring of actual construction practices to ensure that unnecessary transfers and mechanical disturbances of loose materials are minimized; ♦ Minimizing storage of debris on the site; and ♦ Periodic street and sidewalk cleaning with water to minimize dust accumulations. ♦ Limit maximum travel speeds on unpaved areas; and ♦ Provide wheel wash stations to limit trackout of soil during the excavation phase.	During construction	Included in overall Project costs
Every reasonable effort will be made to minimize the noise impact of construction activities, including: ♦ Instituting a proactive program to ensure compliance with the City of Boston noise limitation policy; ♦ Using appropriate mufflers on all equipment and ongoing maintenance of intake and exhaust mufflers; ♦ Muffling enclosures on continuously running equipment, such as air compressors and welding generators; ♦ Replacing specific construction operations and techniques by less noisy ones where feasible; ♦ Selecting the quietest of alternative items of equipment where feasible; ♦ Scheduling equipment operations to keep average noise levels low, to synchronize the noisiest operations with times of highest ambient levels, and to maintain relatively uniform noise levels; ♦ Turning off idling equipment; and ♦ Locating noisy equipment at locations that protect sensitive locations by shielding or distance.	During construction	Included in overall Project costs
All means and methods for performing work at the site will be evaluated for potential vibration impacts on adjoining property, utilities, and adjacent existing structures. Acceptable vibration criteria will be established prior to construction, and vibration will be monitored, if required, during construction to ensure compliance with the agreed-upon standard.	During construction	Included in overall Project costs

Table 12-2 Summary of Mitigation Measures (Continued)

Mitigation	*Schedule*	*Cost*
Construction		
Erosion and sediment control measures will be implemented during construction to minimize the transport of site soils to offsite areas and BWSC storm drain systems. During construction, existing catch basins will be protected with filter fabric, hay bales and/or crushed stone, to provide for sediment removal from runoff. These controls will be inspected and maintained throughout the various construction phases until all areas of disturbance have been stabilized.	During construction	Included in overall Project costs
Wind		
Potential wind control elements, such as wind screens and landscaping, are being considered and further designed. Wind tunnel studies have indicated that these wind control elements can mitigate wind impacts.	During design and operation	Included in overall Project costs
Shadow		
As the Project design evolves, the Project team will continue to study measures to minimize shadow impacts on the surrounding open spaces. The Project's proposed public benefits, which will be determined through consultation with the Boston Planning and Development Agency and community, are in acknowledgement of the Project's proposed impacts on its surroundings.	During design	Included in overall Project costs

Chapter 13

Response to Comments

13.0 RESPONSE TO COMMENTS

The Project has gone through an extensive community review process including over 50 meetings with public agencies, elected officials, abutters, interested parties, advocacy groups and others. The BPDA and MEPA received well over 700 comment letters from city and state agencies as well as the public. The comment letters addressed everything from public benefits including affordable housing, increased activity and safety, vibrancy, walkability, job creation and training, taxes, payments for open spaces, parks and programs throughout the city provided by the Project to design, an alternatives analysis, economic vitality, transportation, sustainability, and environmental impacts. Environmental impacts mentioned included shadows on the Common, the Garden, as well as others. The Draft EIR/PIR is structured in response to the Secretary's Certificate on the ENF and the BPDA's Scoping Determination on the PNF. Copies of the Certificate and the Scoping Determination are included in this section.

This section responds to comment letters from government agencies, private organizations and others received on the ENF submitted on November 15, 2016. Each letter has been assigned an abbreviation; the MEPA Certificate and related comment letters are listed below in Table 13-1. The comment letters are reprinted in this section, and specific comments within each letter are noted in the margin with an abbreviation and a sequential numbering. Following the letter is a listing of the comments accompanied by a response to each.

Table 13-1 Secretary's Certificate and Comment Letters

Commenter	*Abbreviation*
EEA Secretary's Certificate on the ENF	MEPA
Massachusetts Department of Environmental Protection	DEP
Massachusetts Department of Energy Resources	DOER
Massport	MPT
Massachusetts Historical Commission	MHC
Massachusetts Water Resources Authority	MWRA
Boston Water and Sewer Commission	BWSC
Metropolitan Area Planning Council	MAPC
Beacon Hill Civic Association	BHCA
Boston Preservation Alliance	BPA
Fenway Civic Association	FCA
Friends of the Public Garden	FPG
Garden Club of the Back Bay	GCBB
Neighborhood Association of the Back Bay	NABB
David Friend	DF
Paula Griswold	PG

Table 13-1 Secretary's Certificate and Comment Letters (Continued)

Commenter	*Abbreviation*
Warren Johnson	WJ
Elliott Laffer	EL
Lisa Leary	LL
Beatrice Nessen	BN
Peter Papesch	PP
Susan Prindle	SP
Martyn Roetter	MR
Jacqueline Royce of NABB	JR
Marty Walz	MW
Post-Comment Period Letters	
Emerald Necklace Conservancy	ENC
City of Everett Mayor, Carlo DeMaria, Jr.	CDJ
Light Boston	LB
Massachusetts Historical Commission, February 28, 2017 Letter	MHC
Lisa Leary, January 19, 2017 Letter	LL
Mary Ryan	MAR
Sarah Freeman	SF

In total, the BPDA received letters from 719 commenters, and well over half were in support of the Project. Comment letters from agencies, the Impact Advisory Group (IAG) and interest groups, are individually identified in Table 13-2, and each comment is addressed in Section 13.2. The subject matters raised in the majority of individuals' comment letters as listed in Appendix B of the BPDA Scoping Determination are also identified in Table 13-2, and the relevant sections of this filing are referenced. In addition, Section 13.2.4 includes a list of the individual commenters, topics of interest, and references to the relevant sections of this filing. Annotated comments from individuals that do not fit within issue areas identified on Table 13-2 are included in Section 13.2.5.

Table 13-2 BPDA Scoping Determination and Comment Letters

Commenter	*Abbreviation*
BPDA Scoping Determination	BPDA
Public Agencies, BPDA Staff and Elected Officials' Comment Letters	
Bill Linehan (Boston City Councilor, District 2)	BL
Josh Zakim (Boston City Councilor, District 8)	JZ

Table 13-2 BPDA Scoping Determination and Comment Letters (Continued)

Commenter	*Abbreviation*
Boston Water and Sewer Commission	same as MEPA comments above (see Table 13-1)
Katie Pedersen of the BPDA	KP
Mayor's Commission for Persons with Disabilities	MCPD
Massachusetts Port Authority	same as MEPA comments above (see Table 13-1)
David Carlson	DC
Boston Parks and Recreation Department	BPRD
Boston Transportation Department	BTD
Impact Advisory Group Members' Comment Letters	
Rosemarie Sansone (IAG Member)	RS
Jerry Rubin (IAG Member)	RUB
Karen Firestone (IAG Member)	KF
Tony Ursillo (IAG Member)	TU
Edward Lennon (IAG Member)	EL
Thomas Conway (IAG Member)	TC
George E. Coorssen, Jr. (IAG Member)	GEC
Allan E. Taylor (IAG Member)	AET
Ben Starr (IAG Member)	BS
Laura Jasinski (IAG Member)	LJ
Interest Group/Community Group Comment Letters	
Art Resource Collaborative for Kids	ARCK
Bay Village Neighborhood Association	BVNA
Beacon Hill Civic Association	BHCA
Beacon Hill Garden Club	BHGC
Black Economic Council of Massachusetts	BECMA
Boston Preservation Alliance, January 11, 2017 Letter	BPA (January 11)
Boston Preservation Alliance, February 24, 2017 Letter	BPA (February 24)
Ellis South End Neighborhood Association	ESNA
Emerald Necklace Conservancy	ENC
Fenway Civic Association Matthew A. Brooks	FCA MAB
Fenway Civic Association, Tim Horn	FCA TH
Friends of Post Office Square	FPOS
Friends of the Public Garden	FPG

Table 13-2 BPDA Scoping Determination and Comment Letters (Continued)

Commenter	*Abbreviation*
Garden Club of the Back Bay	Same as MEPA comments above (see Table 13-1)
LIGHT Boston, Inc.	Same as MEPA comments above (see Table 13-1)
LivableStreets Alliance Advocacy Committee	LSA
Metro District Garden Club Federation of Massachusetts	MDGC
Neighborhood Association of the Back Bay	NABB
St. Francis House	SFH
WalkBoston	WB
YouthBuild Boston	YBB
Issues raised in individuals' comment letters	
Alternatives	see Section 3.0
Affordable Housing	see Section 1.1 and response to AET 02 04
Economic Vitality	see Sections 1.0 and 2.2.3
Great Hall	see Section 2.2
Public/Green Space	see Section 2.2.2 and 7.3
Shadow	see Section 5.2
Transportation and Parking	see Section 4.0
Accessibility	See Attachment K
Air Traffic/Height	See Section 1.1
Infrastructure	See Section 9.0

13.1 MEPA Certificate and Associated Comment Letters

The Commonwealth of Massachusetts
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January 6, 2017

CERTIFICATE OF THE SECRETARY OF ENERGY AND ENVIRONMENTAL AFFAIRS
ON THE
ENVIRONMENTAL NOTIFICATION FORM

PROJECT NAME	: 115 Winthrop Square
PROJECT MUNICIPALITY	: Boston
PROJECT WATERSHED	: Boston Harbor
EEA NUMBER	: 15610
PROJECT PROPONENT	: MCAF Winthrop LLC
DATE NOTICED IN MONITOR	: November 23, 2016

Pursuant to the Massachusetts Environmental Policy Act (MEPA; M.G. L. c. 30, ss. 61-62I) and Sections 11.03 and 11.06 of the MEPA regulations (301 CMR 11.00), I have reviewed the Environmental Notification Form (ENF) and hereby determine that this project **requires** an Environmental Impact Report (EIR). The Proponent should submit a Draft EIR (DEIR) in accordance with the Scope below. Because the project is subject to Article 80 review by the Boston Planning and Development Agency (BPDA), I encourage the Proponent to file a joint DEIR/Draft Project Impact Report (DPIR) that satisfies the requirements of both MEPA (Section 11.09 (4)(c)) and the BPDA and will support and facilitate public comment on the project.

I have received comments from the Massachusetts Port Authority (Massport) which express concerns regarding the height of the proposed building on airport operations. I have also received comments from the Metropolitan Area Planning Council (MAPC), the Massachusetts Historical Commission (MHC), and a number of community and non-profit organizations (including Garden Club of Back Bay, Friends of the Public Garden, Neighborhood Association of the Back Bay, Beacon Hill Civic Association, Boston Preservation Alliance, and the Fenway Civic Association), and many residents that express concerns about the project's proposed design

and impact upon the surrounding neighborhood, including its potential wind and shadow impacts. Specifically, these comments express concern that the project will cast new shadows on the Boston Common and Boston Public Garden in violation of Chapter 362 of the Acts of 1990 and Chapter 384 of the Acts of 1992, respectively. Wind and shadow impacts were discussed at the MEPA site visit on December 7th and identified by the Proponent at public meetings during the BPDA review process.

A core principle of MEPA is to ensure public disclosure of the potential environmental impacts of a project. I am requiring the Proponent to provide information and analysis regarding building height and shadow to disclose potential impacts and respond to concerns expressed by State Agencies and other stakeholders. I note that the State laws which protect the Boston Common and Boston Public Garden from new shadow applies by its terms to approvals by the City of Boston, but does not address approvals by State Agencies or MEPA. While the MEPA process will serve to disclose potential impacts, the City of Boston (the City) through its review and permitting will address the project's consistency with these laws.

Project Description

This project consists of demolition of a parking garage and construction of a 1.1 to 1.5 million square foot (sf) mixed-use high rise building with a maximum height of 775 feet (ft). The building will contain residential units within a tower located on a podium comprised of retail, restaurants, and office uses. The podium will also contain a large public space referred to as the "great hall" which will act as a pedestrian connection between Federal Street and Winthrop Square. As the building programming will continue to evolve through market analyses and discussions with the City of Boston, the ENF provided a range of minimum and maximum sizes for the proposed uses as follows: residential (570,000 – 780,000 sf; 290 – 460 units and 580 – 920 bedrooms), office[1] (463,000 – 663,000 sf), retail and restaurant (35,000 – 60,000 sf), and great hall (10,000 – 15,000 sf). The project will be served by an underground parking garage which will provide 400 – 550 parking spaces.

Project Site

The approximately 1.1-acre (47,962 sf) project site is located within the Financial District neighborhood at 115 Winthrop Square. It is generally bounded by 75-101 Federal Street to the north, Federal Street to the east, 100 Summer Street to the south, and Devonshire Street to the west. A private way (Federal Court) is located between the property and the adjacent building located at 1333 Federal Street southeast of the site. The entire project site is impervious and contains a dilapidated four-story parking structure which has been vacant since 2013 and will be demolished. The perimeter of the site is fenced. The project will be constructed on land owned by the BPDA. The Proponent's proposal for the site was selected by BPDA after a lengthy public process involving community review.

The project site is located in close proximity to several Massachusetts Bay Transportation Authority (MBTA) public transit routes and transportation hubs, with nearby South Station,

[1]This figure includes general office (450,000 – 635,000 sf), office club (10,000 – 20,000 sf), and accelerator office (3,000 – 8,000 sf) uses.

Downtown Crossing, and State Street stations offering service to the Silver, Orange, Green, Red, and Blue lines for MBTA rapid transit system, along with the MBTA commuter rail and Amtrak service. The area is also served by numerous MBTA bus routes.

The site does not contain any structures listed in the State Register of Historic Places or the Massachusetts Historical Commission's (MHC) Inventory of Historic and Archaeological Assets of the Commonwealth. There are a number of structures listed in the State and National Registers of Historic Places located within the project vicinity.

Environmental Impacts and Mitigation

The ENF indicates that the environmental impact analysis is conservative because it is based on the maximum square footage for each proposed use. Potential environmental impacts of the project will include generation of a maximum of 17,837 new unadjusted average daily vehicle trips (adt), generation of an additional 194,025 gallons per day (gpd) of wastewater, and an increase in demand of 213,428 gpd of domestic water. The project will generate greenhouse gas (GHG) emissions associated with the project's energy use (heating, cooling, etc.) and transportation-related emissions.

Measures to avoid, minimize, and mitigate project impacts include: redevelopment of an existing site in close proximity to transit; design of a building that can be certified at the Platinum Level by the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) program; streetscape improvements to improve pedestrian and bicycle access and safety; development of a Transportation Demand Management (TDM) program; and development of a large public access and event space (the great hall).

Jurisdiction and Permitting

The project is undergoing MEPA review and requires preparation of a mandatory EIR pursuant to 301 CMR 11.03(6)(a)(6) because it requires a Land Transfer and will generate 3,000 or more unadjusted new adt. The project also exceeds the ENF wastewater generation threshold at 301 CMR 11.03(5)(b)(4). The project requires a Construction Dewatering Permit from the Massachusetts Water Resources Authority (MWRA) and may require an Air Plan Approval from the Massachusetts Department of Environmental Protection (MassDEP). The project is subject to the MEPA Greenhouse Gas Emissions Policy and Protocol.

The project requires a National Pollutant Discharge Elimination System (NPDES) construction permit from the U.S. Environmental Protection Agency (EPA) and a Determination of No Hazard to Air Navigation from the Federal Aviation Administration (FAA). It will be subject to review by several City of Boston agencies, including, but not limited to: Article 80 review by BPDA, Site Plan Review by the Boston Water and Sewer Commission (BWSC), and Demolition Review by the Boston Landmarks Commission. An Impact Advisory Group (IAG), consisting of community members, was appointed to provide input to the BPDA during its review of the project. The Proponent will prepare and submit a Transportation Access Plan Agreement (TAPA) and Construction Management Plan in coordination with the Boston Transportation Department (BTD). The Proponent has indicated that they intend to apply to the

City for the creation of a Planned Development Area (PDA) and Approval of a PDA Development Plan in connection with the Project.

Because the Proponent is seeking a Land Transfer in the form of acquiring fee title to the property from the BPDA, MEPA jurisdiction is broad and extends to all aspects of the project within the area subject to the Land Transfer that are likely, directly or indirectly, to cause Damage to the Environment. As the entirety of the project site is included within the Land Transfer, broad scope jurisdiction extends to the entirety of the project site.

SCOPE

General

The DEIR should follow Section 11.07 of the MEPA regulations for outline and content, as modified by this Scope. Because the project is subject to Article 80 review, the planning for this project would be well served by a coordinated review and the submission of a single set of documents to satisfy the requirements of both MEPA (Section 11.09 (4)(c)) and the BPDA (Section 80–6). I encourage the Proponent to submit a joint DEIR/DPIR to support and facilitate public comment on the project. MEPA comment and review periods may be adjusted to align with the BPDA deadlines. MEPA 01

Project Description and Permitting

The DEIR should include a detailed description of the existing and proposed conditions and describe any changes to the project since the filing of the ENF. Each section of the DEIR should contain an executive summary that identifies the specific revisions to project design or analyses that have occurred since the filing of the ENF. MEPA 02

The DEIR should include updated site plans for existing and post-development conditions at a legible scale. The plans should clearly identify impervious areas, publicly accessible open space, roadway layout and ownership, easement areas (if applicable), pedestrian and bicycle accommodations, and stormwater and utility infrastructure. These conceptual plans should include on-site work and any proposed off-site work for transportation or utility (water/sewer) improvements. MEPA 03

The DEIR should provide a brief description and analysis of applicable statutory and regulatory standards and requirements, and describe how the project will meet those standards. MEPA 04

The DEIR should address the project's consistency with Chapter 362 of the Acts of 1990 and Chapter 384 of the Acts of 1992 regarding the Boston Common and the Boston Public Garden, respectively (referred to herein as the "Boston Common and Boston Public Garden Shadow Acts"). It should identify whether legislative approval will be required to provide relief from these Acts. If the Proponent, and/or the City acting on its behalf, propose amendments to the law or new legislation, the DEIR should identify such efforts and the related review process. The DEIR should include a list of required federal, state, and local permits and approvals and provide an update on the status of each permit and/or approval. MEPA 05

The DEIR should include an updated building program (including an updated summary of floor area by use, number of residential units and bedrooms, and overall number of stories and maximum height) and accompanying narrative that identifies changes to the building program, describes the process and timeframe for further building program refinements, and addresses whether the building program will be more refined by the conclusion of the MEPA process. MEPA 06

Alternatives Analysis

Alternative sites and land uses were not considered as the developer responded to a Request for Proposals (RFP) for a specific site and the RFP identified preferred building uses. The Proponent's proposal was selected by the BPDA among six proposals submitted in response to the RFP. The goals of the RFP were as follows: 1) demonstration of an innovative economic development strategy; 2) dramatic enhancement of the downtown public realm; and 3) achievement as a model for sustainable development. According to the ENF, the five alternative options for the site included variations on a mixed-use tower of 675-ft or greater in height, with combinations of residential, office, commercial, and hotel uses; as well as a multi-tower design dependent on involvement of other properties in the area. As described in the ENF, the BPDA determined the Proponent best met the goals of the RFP and offered the best set of public benefits through its program, design, and investment. The ENF asserts that significant reductions to the project's programming and design would not be consistent with the City's goals as articulated in the RFP process; however it did not include a supporting narrative or plans to describe how the project evolved during the design process to meet these goals.

At the MEPA site visit, the Proponent indicated that the DEIR would include analysis of an alternative that would comply with the Boston Common and Boston Public Garden Shadow Acts and noted that this alternative would likely not prove to be economically feasible. Comments from Massport indicate that the project, as currently proposed (775-ft), could result in significant adverse noise and operational impacts at Logan Airport by interfering with airspace. The DEIR should consider height and massing alternatives to reduce potential impacts to airspace and shadow and wind impacts on the surrounding area, including the Boston Common, Public Garden, and nearby historic resources. I encourage the Proponent to consult with MHC, Massport, and other stakeholders during preparation of the alternatives analysis. MEPA 07

Specifically, the DEIR should include an alternatives analysis that evaluates a No-Build Alternative, an alternative that complies with the existing Boston Common and Boston Public Garden Shadow Acts, and the Preferred Alternative in order to enable members of the public to understand and compare the potential impacts of these development scenarios. MEPA 08 The DEIR should also identify whether a building constructed in compliance with current zoning would cast new shadow on the Boston Common and/or Boston Public Garden. MEPA 09 I encourage the Proponent to initiate the FAA review process and to evaluate an alternative development scenario with a maximum height of 710-ft above mean sea level. MEPA 10 The DEIR should identify each alternative's impacts on traffic generation, parking, water use and wastewater and compliance with the Boston Common and Boston Public Garden Shadow Acts. This comparison should be provided in a tabular format with supporting narrative and conceptual site plans. MEPA 11 The DEIR should also describe the process employed to identify the proposed orientation of the building on the site and how the design of the Preferred Alternative was developed to minimize impacts. MEPA 12

The DEIR should include the shadow analysis and other data prepared in accordance with Article 80 requirements for BPDA review for the purposes of evaluating the Preferred Alternative's potential impacts to airspace and wind and shadow impacts on the surrounding area, including the Boston Common, Public Garden, and nearby historic resources. MEPA 13

Massport has expressed concern with the height of the Preferred Alternative and MHC has requested additional information (including renderings and wind and shadow studies) to support its assessment of the Preferred Alternative's visual impact on historic resources. I encourage the Proponent to develop a single analysis of the potential impacts of the Preferred Alternative that addresses the State and local review requirements; however, if this is not feasible the analysis prepared for the BPDA can be supplemented to address this Scope. MEPA 14

Traffic and Transportation

According to the ENF, the project will generate approximately 17,704 – 17,837 new unadjusted adt or 4,530 – 4,554 new adjusted adt. The adjusted trip generation calculations reflect credits for internal capture and mode share based on the BTD guidelines for this location. The DEIR should establish aggressive mode share goals supported by a robust TDM program with clearly defined goals and monitoring to ensure and preserve a favorable mode share balance. MEPA 15

The ENF indicates that trip generation was derived from the Institute of Transportation Engineer's (ITE) Trip Generation manual using land use codes (LUC) 230 (Residential Condominium/Townhouse), 710 (General Office), 820 (Shopping Center), 931 (Quality Restaurant), and 932 and 933 (both High-Turnover, Sit-Down Restaurant). The project will include amenities for pedestrians and bicyclists, including a mid-block pedestrian connector via the Great Hall, and secure bike storage and sidewalks throughout the project site. The project site is located within 0.25-miles of the MBTA South Station and Downtown Crossing MBTA transit hubs. The project will generate a significant level of additional transit users. The DEIR should identify the number of transit trips associated with proposed uses and identify how those trips will be distributed among transit stations. I encourage the Proponent to consult with MassDOT and the MBTA to identify potential impacts on MBTA assets, including the proximate transit train and bus service and stations, and degrade capacity during certain peak periods, facilities, and routes for accessing the site using transportation modes other than SOV. MEPA 16

The ENF indicates that the project will not impact State-jurisdictional roadways, nor are there any roadway-related State permits required for the project. The DEIR should include data prepared in accordance with BTD requirements for BPDA review for the purposes of evaluating the project's potential impacts on traffic and transportation resources and identifying appropriate mitigation measures. I expect that this data will include a comprehensive TDM Program that evaluates all feasible measures to reduce trip generation associated with the project and identifies all existing and planned services. MEPA 17

The project includes a maximum of 550 parking spaces which will be located in a below-grade parking structure. The DEIR should identify how parking supply for the Preferred Alternative was determined. The DEIR should compare the proposed parking supply to ITE's *Parking Generation* guidance and to the City of Boston requirements. The DEIR should identify MEPA 18 MEPA 19

the location of any proposed pick-up/drop-off parking areas and bus or tractor-trailer parking spaces within the project site. In addition, the DEIR should include graphics (and supporting narrative) depicting circulation patterns (vehicles, pedestrian, and bicycles) and connection points to adjacent land uses and roadways.

Greenhouse Gas Emissions

The project is subject to review under the May 5, 2010 MEPA Greenhouse Gas Emissions Policy and Protocol ("the Policy"). The DEIR should include an analysis of GHG emissions and mitigation measures in accordance with the standard requirements of this Policy. The Policy requires projects to quantify carbon dioxide (CO_2) emissions and identify measures to avoid, minimize or mitigate such emissions. The analysis should quantify the direct and indirect CO_2 emissions associated with the project's energy use (stationary sources) and transportation-related emissions (mobile sources). Direct stationary source CO_2 emissions include those emissions from the facility itself, such as boilers, heaters, and internal combustion engines. Indirect stationary source CO_2 emissions result from the consumption of electricity, heat, or other cooling from off-site sources, such as electrical utility or district heating and cooling systems. Mobile CO_2 emissions include those emissions associated with vehicle use by employees, vendors, visitors, and others. The DEIR should identify and commit to mitigation measures to reduce GHG emissions. MEPA 20

Stationary Sources

The DEIR should include a GHG analysis that calculates and compares GHG emissions associated with 1) a Base Case corresponding to the 9th Edition of the Massachusetts Building Code; and 2) a Mitigation Alternative that incorporates additional energy saving measures which, at a minimum, demonstrate compliance with the Stretch Energy Code (SC). The 9th Edition of the Building Code incorporates the building energy provisions of the International Energy Conservation Code (IECC) 2015, which references the American Society of Heating, Refrigeration, and Air-Conditioning Engineers (ASHRAE) 90.1-2013 standards. MEPA 21

I note that the City of Boston is a designated Green Community under the provisions of the *Green Communities Act of 2008*. As such, the City has adopted the Commonwealth of Massachusetts' Stretch Code (SC). Therefore, the project will be required to meet the applicable version of the SC in effect at the time of construction. The SC increases the energy efficiency code requirements for new construction (both residential and commercial) in municipalities that adopt it. The SC requires that projects demonstrate a 10-percent better energy efficiency than the State's base energy code by either meeting the standard of 10-percent better than ASHRAE 90.1-2013 Appendix G (energy only), or by using a prescriptive energy code.

As applicable, project elements will also be required to be LEED certifiable in accordance with Article 37 of the Boston Zoning Code. The ENF indicated that the building will be LEED certifiable at the Platinum level and included preliminary LEED checklists for commercial spaces (LEED 2009 checklist for Core and Shell Development) and residential spaces (LEED 2009 checklist for New Construction and Major Renovations) which identify 92 and 88 possible points (respectively) in the following eight categories: Sustainable Sites, Water

Efficiency, Energy and Atmosphere, Materials and Resources, Indoor Environmental Quality, Innovation in Design Process and the additional Regional Priority Credits. The ENF also indicated that the project will incorporate "passive house" principles which seek to reduce energy consumption and GHG emissions.

The GHG analysis should clearly demonstrate consistency with the objectives of MEPA review, one of which is to document the means by which Damage to the Environment can be avoided, minimized and mitigated to the maximum extent feasible. The Proponent should identify the model used to analyze GHG emissions, clearly state modeling assumptions, explicitly note which GHG reduction measures have been modeled, and identify whether certain building design or operational GHG reduction measures will be mandated by the Proponent to future occupants or merely encouraged for adoption and implementation. The DEIR should include the modeling printout for each alternative and emission tables that compare base case emissions in tons per year (tpy) with the Preferred Alternative showing the anticipated reduction in tpy and percentage by emissions source (direct, indirect and transportation). This information should be provided for each building in a format similar to the example table provided in DOER's comment letter. MEPA 22 MEPA 23

The Proponent has demonstrated a strong commitment to energy efficiency and sustainability in building design. As such, I expect that the Proponent will consider additional feasible measures that could achieve greater reductions in energy use and GHG emissions than required by the Building Code and SC provisions. The DEIR should present an evaluation of mitigation measures identified in the GHG Policy Appendix and as further specified in the comments from the Department of Energy Resources (DOER). In particular, the feasibility of each of the mitigation measures outlined below should be assessed for each of the major project elements, and if feasible, GHG emissions reduction potential associated with major mitigation elements should be evaluated to assess the relative benefits of each measure. The DEIR should explain, in reasonable detail, why certain measures that could provide significant GHG reductions were not selected – either because it is not applicable to the project or is deemed technically or financially infeasible. At a minimum, the DEIR should consider the following GHG mitigation measures: MEPA 24

- Minimize energy use through building orientation and evaluate its impacts on energy usage, including solar gain, day-lighting and viability of solar photovoltaic (PV) systems;
- Use of high-albedo roofing materials;
- Install high-efficiency HVAC systems and adequate numbers of thermal zones to support temperature controls;
- Reduce energy use through peak shaving or load shifting strategies;
- Maximize interior day-lighting through floor-plates, increased building perimeter and use of skylights, clerestories and light wells;
- Incorporate envelope and glazing improvements to balance and optimize daylighting, heat loss and solar heat gain performance and evaluate, per DOER's recommendation, at least two above-code envelope/glazing scenarios;
- Incorporate roof and wall insulation to minimize heat loss and minimize uncontrolled infiltration through the building envelope;

- Incorporate lighting motion sensors, climate control and building energy management systems;
- Install energy efficient lighting, both exterior (including below-grade parking lots and streetlights) and interior, and incorporate reduced lighting power density (LPD), per DOER's recommendation evaluate use of LED lights for exterior lighting;
- Evaluate additional measures to reduce project plug loads, including the use of more efficient equipment, consider energy consumption as a factor in the selection of special equipment, and consider power management techniques;
- Low-flow plumbing fixtures and water conservation measures;
- Machine-roomless energy efficient elevators;
- Purchase of green power;
- Develop a tenant manual to encourage energy and water conservation, recycling, and use of Energy Star rated appliances to reduce plug loads; and
- Use of Combined Heat and Power (CHP) and Combined Heat, Cooling and Power (CHCP);
- Use of Air-Source, Water-Source and/or Variable Refrigerant Flow (VRF) heat pumps;
- Consider the development of a "green lease" program whereby tenants agree to pay the landlord recovery costs for energy efficiency improvements based on predicted cost savings to the tenant.

The project may lend itself to implementation of renewable energy technologies to reduce project-related GHG emissions. As recommended by DOER, at a minimum, the DEIR should analyze the use of on-site renewable or cogeneration technologies including rooftop solar PV, solar thermal, and CHP/CHCP. The solar feasibility analysis should consider the benefits of varying ownership structures (i.e., outright ownership or third party lease). The Proponent should contact the MEPA office or the DOER for recently updated data on solar installation costs and a solar financial modeling spreadsheet to develop this analysis. The analysis should: MEPA 25

- Include an estimate of available roof area for development of solar PV and/or solar thermal;
- Include a cost analysis to determine the overall financial feasibility of installation of solar, including potential payback periods;
- Propose an installation that can be supported by the maximum available roof area (excluding areas dedicated for mechanical equipment) on all buildings;
- State the assumed panel efficiency;
- Estimate electrical or thermal output of the potential system; and
- Estimate annual GHG reductions due to the use of renewable energy versus electricity or natural gas.

The analysis should include a narrative and data to support the Proponent's adoption (or dismissal) of solar PV or solar thermal systems as a feasible measure to avoid, minimize or mitigate project-related GHG emissions and Damage to the Environment. At a minimum, building roofs should be "solar ready" to facilitate future installation of PV systems.

As recommended by DOER, the Proponent should consider the use of CHP/CHCP systems for the residential components of the project. Beyond providing efficient power for MEPA 26

lighting and heating, these systems can also create greater reliability for electricity, greater control over uncertainties associated with energy prices, and produce off-grid power in the event of a black-out. At a minimum, the DEIR should analyze the feasibility of employing one or more CHP/CHCP systems and should document the associated energy savings and reduction in GHG emissions. The DEIR should provide a conceptual analysis of a CHP/CHCP system to serve the project based upon projected thermal and electrical loads used in conjunction with the GHG analysis. The DEIR should describe and evaluate several different sized systems to allow for comparison of benefits or disadvantages associated with system efficiencies and overall demand requirements. The DEIR should include an analysis of utility company incentives, Alternative Energy Credits (AEC), and other incentives for implementing on-site renewable energy generation and evaluate the applicability of the incentive programs to the project. As recommended by DOER, the DEIR should also thoroughly analyze the feasibility and benefits of incorporating air source heat pumps (ASHP) with variable refrigerant flow (VRF), evaluate incorporating water source heat pumps, and document the expected energy savings and reduction in GHG emissions from each technology. MEPA 27

The DEIR should clarify which uses or areas of the building will be fitted-out by the Proponent and which uses or areas of the building will be fitted out by future tenants. The DEIR should indicate if building systems (i.e., HVAC, etc.) will be completed as part of core and shell improvements or left to the tenant or future owner for installation. While I encourage the Proponent to adopt those GHG reduction measures that are integrated into the building's core, shell and infrastructure, I understand that some measures may be transient or dependent on operational procedures implemented by the future occupants. In those instances, the Proponent should consider reasonable measures to educate and create incentives for the tenants to adopt energy efficiency/renewable generation measures. The DEIR should address the Proponent's commitment to providing energy efficiency consulting services and information and developing a tenant manual that requires or strongly supports GHG reduction measures. MEPA 28 MEPA 29

As noted by MassDEP, the Proponent should consider adoption of additional sustainable design measures for which GHG reductions cannot be easily quantified, such as construction waste recycling, recycling areas, and recycled content/regional materials. Additional GHG reductions can be achieved through effective materials management during the design, construction, and operations phases of the project. The DEIR should also respond to MassDEP's recommendations regarding incorporation of recycling and source reduction measures into the project design. MEPA 30

Mobile Sources

The GHG analysis should include an evaluation of the potential GHG emissions of the project's mobile emissions sources using the EPA MOVES emissions model. The DEIR should follow the guidance provided in the Policy for Indirect Emissions from Transportation and use data gathered as part of the traffic study to determine mobile emissions for Existing Conditions, and future No-Build, Build, and Build with Mitigation Conditions. This project will be a large traffic generator. The Proponent should thoroughly explore means to improve traffic operations and reduce SOV trips. The GHG analysis in the DEIR should also demonstrate that mobile source GHG emissions can be avoided, minimized and mitigated to the maximum extent feasible MEPA 31 MEPA 32

through establishment of aggressive mode share goals supported by: strong transit user incentives (e.g. transit subsidies, shuttle services, etc.), right-sized parking supply, safe and convenient access and services for bicyclists and pedestrians, and a robust TDM program with clearly defined goals and monitoring. The Build with Mitigation model should incorporate roadway improvements, if proposed, and TDM measures implemented by the project and document the reductions in GHG emissions associated with the mitigation.

Mitigation

The DEIR should include a commitment to provide a self-certification to the MEPA Office at the completion of the project. It should be signed by an appropriate professional (e.g. engineer, architect, transportation planner, general contractor) indicating that all of the GHG mitigation measures, or equivalent measures that are designed to collectively achieve identified reductions in stationary source GHG emission and transportation-related measures, have been incorporated into the project. The Proponent should refer to the Policy for additional guidance on the GHG analysis. MEPA 33

Climate Change Adaptation

The DEIR should discuss potential effects of climate change to the project site. The DEIR should identify site elements that will be designed to minimize the potential impacts of extreme heat waves and limit the potential impact of more frequent and intense storm precipitation including, but not limited to: MEPA 34

- Ecosystem-based adaptation measures, such as integration of tree canopy cover, rain gardens, low impact development LID stormwater management techniques, to reduce the heat island effect and mitigate stormwater runoff.
- Use of on-site renewable energy or CHP systems may provide added resiliency during periods of power loss during storms. Storm response actions and resiliency measures could be incorporated into leasing agreements or Tenant Manuals and be considered as part of guidance related to tenant fit-out of commercial space.
- Incorporation of natural ventilation into residential units.
- Protection of emergency generator fuel supplies from effects of extreme weather and flood proofing.
- Expansion of the size of emergency generators (beyond the 8-10 hour run time) to allow for select common areas and other emergency and life safety systems to remain operational for a period of time beyond code requirements, specifically in residential buildings.

I encourage the Proponent to include a copy of the BPDA's Climate Change Preparedness and Resiliency Checklist in the DEIR which will be required as part of the Article 80 review process. To assist in the evaluation of climate change resiliency and adaptation measures the Proponent should review the City of Boston's *Climate Ready Boston: Final Report* (December 2016)[2] and EOEEA's *Climate Change Adaptation Report* (September 2011)[3]. MEPA 35

[2] Available at: https://www.boston.gov/environment-and-energy/climate-ready-boston
[3] Available at: http://www.mass.gov/eea/docs/eea/energy/cca/eea-climate-adaptation-report.pdf

Stormwater

According to the ENF, the project site is currently 100-percent impervious and the amount of impervious area will not change. The DEIR should indicate whether proposed landscaping or streetscape enhancements will reduce overall impervious area. Although the project is not subject to the stormwater management standards (SMS) provisions of the Wetlands Protection Act, it is subject to review by the Boston Water and Sewer Commission (BWSC), which will likely influence system design and selection of stormwater best management practices (BMPs). I refer the Proponent to BWSC's comment letter which identifies additional information to be provided during their permitting processes. MEPA 36

The DEIR should describe the proposed stormwater management system, including connection points to off-site stormwater conveyance infrastructure, BMPs, and applicable Total Maximum Daily Load (TMDL) compliance requirements (if applicable). The DEIR should describe BMPs proposed to retain and/or recharge stormwater on-site in accordance with BWSC requirements. The DEIR should identify specific stormwater BMPs to be used in the parking garages to mitigate stormwater runoff, particularly oil separators or similar BMPs. MEPA 37

I note that the City of Boston's Complete Streets Initiative requires the incorporation of green infrastructure into street design. The DEIR should discuss opportunities to provide low impact design stormwater management measures including, but not limited to, porous hardscape surfaces, rain gardens, vegetative swales, infiltration basins, and tree box filters. The DEIR should discuss opportunities to incorporate these measures into project design and explain, in reasonable detail why certain measures, which could promote infiltration while reducing impervious surface were not selected. MEPA 38

Public Benefit Determination

The ENF indicates that a small portion of the northwest corner of the project may be comprised of tidelands subject to the provisions of *An Act Relative to Licensing Requirements for Certain Tidelands* and the Public Benefit Determination regulations (301 CMR 13.00). The DEIR should clarify the jurisdictional status of this area. If the area is subject to the Public Benefit Determination regulations, the DEIR should describe the nature and total area of work that is proposed to occur within the tidelands. The DEIR should provide a narrative that explains the project's impact on the public's right to access, use, and enjoy the landlocked tidelands and describes the avoidance, minimization, and mitigation measures proposed to address said impacts. The narrative should describe the public benefits of the project as required in the Public Benefit Determination regulations. Additionally, the DEIR should identify whether the project is located in an area of low groundwater and if so, should identify and commit to taking measures to avoid, minimize, or mitigate any adverse impacts on groundwater levels in accordance with 301 CMR 11.05(4)(b). MEPA 39 MEPA 40

Water Supply/Wastewater

The DEIR should provide supporting documentation or data to demonstrate the water and wastewater systems have sufficient capacity to accommodate the proposed project. The DEIR MEPA 41

should discuss how proposed connections to combined sewer mains can be avoided, or if they cannot be avoided, explain why. The ENF indicates the project will require a MWRA Construction Dewatering Permit because it is located in a combined sewer area. I refer the Proponent to MWRA's comment letter for additional guidance on this process.

The project will generate approximately 194,025 gpd of wastewater flow. I note that comments from MassDEP request a complete break out of the wastewater estimates based on design flows in Title 5 (310 CMR 15.203) as these flow rates account for the variations in flows from the diverse building uses. The project will be required to fully offset new sanitary flows into the regional wastewater system. The DEIR should discuss how the project intends to meet the requirement to offset new flows on a 4:1 basis in accordance with MassDEP, MWRA, and BWSC policies and requirements. I recommend that the Proponent work with MassDEP, MWRA, and the BWSC to develop a plan to meet these mitigation requirements. The DEIR should discuss the outcome of these consultations, describe the proposed I/I mitigation commitments, and identify any sewer system deficiencies within the sanitary sewer system serving the project site. Comment letters from MWRA, MassDEP, and BWSC provide additional guidance on this issue. MEPA 42

The project will consume approximately 213,428 gpd of potable water. The DEIR should describe water conservation efforts to be incorporated into the project, including, but not limited to, installation of low-flow fixtures, use of captured rainwater or reclaimed wastewater for irrigation purposes or cooling tower water make-up, use of drought-tolerant native landscaping, and individual tenant water metering and water usage payment for each dwelling unit. I refer the Proponent to BWSC's comment letter which identifies additional information to be provided during permitting. MEPA 43

Solid/Hazardous Waste

The ENF indicates that the project has not been regulated under the Massachusetts Contingency Plan (MCP; 310 CMR 40.0000)/MGL c21E. I remind the Proponent that excavating, removing and/or disposing of contaminated soil, pumping of contaminated groundwater, or working in contaminated media must be done under the provisions of MGL c.21E (and, potentially, c.21C). MassDEP comments indicate that an evaluation of contaminant concentrations in soil should be completed to determine potential human health risks during construction activities and also note the close proximity of a number of disposal sites which could be a source of contaminated groundwater migration onto the site. MassDEP has noted that all relevant site data such as contaminant concentrations in soil and groundwater, depth to groundwater, and soil gas concentrations should be evaluated to determine the potential for indoor air impacts to existing or proposed buildings. The DEIR should include an update on any soil sampling or site assessment activities that have occurred since the ENF was filed and should propose mitigation measures as appropriate. MEPA 44

Historic Resources

The project must complete the State Register Review consultation process with the Massachusetts Historical Commission (MHC). The MHC comment letter identifies concern with

the size, scale and massing of the project on the character and setting of historic properties. MHC has requested that additional information be provided in a DEIR to support its assessment of the project's impact, including wind and shadow studies and renderings that support a visual analysis of the project's impact on historic resources. The DEIR should identify impacts to nearby historic resources associated with demolition, construction and the design of the project. As noted previously, the DEIR should include the shadow analysis and other data prepared in accordance with Article 80 requirements for BPDA review for the purposes of evaluating the Preferred Alternative's potential impacts to nearby historic resources, including but not limited to the Boston Common and Public Garden. I encourage the Proponent to consult with MHC and to provide a substantive response to the MHC comment letter in the DEIR. MEPA 45 MEPA 46 MEPA 47

Air Quality

The project exceeds MassDEP's review threshold requiring the Proponent to conduct an air quality mesoscale analysis comparing project Build and No-Build conditions. The Proponent should conduct this mesoscale analysis using the EPA MOVES emissions model and present its results in the DEIR. The purpose of the mesoscale analysis is to determine whether and to what extent the proposed project will increase the amount of volatile organic compounds (VOCs) and nitrogen oxides (NO_x,) emissions in the project area. The mesoscale analysis should be used to meet the GHG Policy requirement to quantify project-related CO_2 emissions and identify measures to avoid, minimize, and mitigate these emissions. The mesoscale analysis will also be used to determine if the project will be consistent with the Massachusetts State Implementation Plan (SIP). Emission increases due to the project must be mitigated and any subsequent environmental impact analysis should include the Proponent's commitment to implement these mitigation measures. Implementation of a TDM program will provide an opportunity for additional air quality improvements through vehicular trip reduction. TDM measures and their ability to reduce vehicular trip generation rates will be evaluated in the DEIR as part of the GHG and transportation analysis. MEPA 48

Depending on the parking garage design (i.e., open air, enclosed, etc.), the DEIR should provide additional information on the proposed location of parking garage emission vents and other combustion sources. The DEIR should demonstrate that these exhaust areas will not conflict with pedestrian routes or public gathering spaces. EPA's AERMOD model should be used to estimate potential ground-level impacts of parking garages and combustion source emissions (i.e., boilers, generators, etc.). MEPA 49 MEPA 50

The MassDEP comment letter identifies potential certifications and permits that may be required for on-site energy sources such as boilers, stationary turbines, emergency generators, etc. The DEIR should identify certification and/or permits that likely will be required for proposed project elements. MEPA 51

Construction Period

Project construction is anticipated to occur from fall 2017 through winter 2020. According to the ENF, the project will be constructed in a single phase with varying timelines for occupancy of the building. The ENF indicates the following measures will be employed to

minimize construction period impacts: implementation of a parking and commuting plan for construction employees; scheduling of trucking and deliveries; protection of existing utilities; maintenance of fire access; control of noise and dust; maintenance of a secure perimeter around the site; and development of a Construction Management Plan (CMP) for review by BTD.

The DEIR should describe potential construction period impacts (including but not limited to traffic management, materials management, parking, air quality and noise impacts, and other items as they related to the construction period) and outline feasible measures that can be implemented to eliminate or minimize these impacts in a draft CMP. The draft CMP should identify truck traffic routes associated with construction traffic, staging areas, and how safe pedestrian, bicycle and vehicle access around the project site will be maintained throughout the construction period. The DEIR should also address notification and construction protocols to be implemented if contamination is encountered at the site during construction and potential construction-period dewatering activities and related permitting requirements. MEPA 52

Because this project is located in a dense urban area, I strongly encourage the Proponent to ensure contractors install emission control devices on all off-road vehicles in an effort to reduce emissions of volatile organic compounds (VOCs), carbon monoxide (CO) and particulate matter (PM) from diesel-powered equipment. Off-road vehicles are required to use ultra-low sulfur diesel fuel (ULSD). MEPA 53

Mitigation and Draft Section 61 Findings

The DEIR should include a separate chapter summarizing proposed mitigation measures. This chapter should also include draft Section 61 Findings for each State Agency that will issue permits for the project. The DEIR should contain clear commitments to implement mitigation measures, estimate the individual costs of each proposed measure, identify the parties responsible for implementation, and contain a schedule for implementation. If appropriate, the mitigation implementation schedule should clearly note how mitigation will be provided in relation to project phasing; tying commitments to either completion of project square footages or generation of a specific number of traffic trips based upon project build out. To ensure that all GHG emissions reduction measures adopted by the Proponent in the Preferred Alternative are actually constructed or performed by the Proponent, I require Proponents to provide a self-certification to the MEPA Office indicating that all of the required mitigation measures, or their equivalent, have been completed. The commitment to provide this self-certification in the manner outlined above should be incorporated into the draft Section 61 Findings. MEPA 54

Responses to Comments

The DEIR should contain a copy of this Certificate and a copy of each comment letter received. In order to ensure that the issues raised by commenters are addressed, the DEIR should include direct responses to comments to the extent that they are within MEPA jurisdiction. This directive is not intended to, and shall not be construed to enlarge the Scope of the DEIR beyond what has been expressly identified in this certificate. I recommend the Proponent employ an indexed response to comments format, supplemented as appropriate with direct narrative response. MEPA 55

Circulation

In accordance with Section 11.16 of the MEPA Regulations and as modified by this Certificate, the Proponent should circulate a hard copy of the DEIR to each State Agency from which the Proponent will seek Permits. The Proponent must circulate a copy of the DEIR to all other parties that submitted individual written comments. Per 301 CMR 11.16(5), the Proponent may circulate copies of the EIR to these other parties in CD-ROM format or by directing commenters to a project website address. However, the Proponent should make available a reasonable number of hard copies to accommodate those without convenient access to a computer and distribute these upon request on a first-come, first-served basis. The Proponent should send correspondence accompanying the CD-ROM or website address indicating that hard copies are available upon request, noting relevant comment deadlines, and appropriate addresses for submission of comments. A copy of the DEIR should be made available for review at the Boston Public Library - Central Library in Copley Square. The DEIR submitted to the MEPA office should include a digital copy (e.g., CD-ROM, USB drive) of the complete document. MEPA 56

January 6, 2017
Date

Matthew A. Beaton

Comments received:

12/01/16 Martyn Roetter
12/12/16 Boston Water and Sewer Commission (BWSC)
12/12/16 Massachusetts Water Resources Authority (MWRA)
12/13/16 Massachusetts Department of Environmenal Protection - Northeast Regional Office (MassDEP)
12/14/16 Metropolitan Area Planning Council (MAPC)
12/14/16 Warren A. Johnson
12/19/16 Jacqueline Royce
12/20/16 Marty Walz
12/20/16 Massachusetts Historical Commission (MHC)
12/21/16 Elliott Laffer
12/22/16 Massachusetts Port Authority (Massport)
12/22/16 Peter Papesch
12/22/16 Friends of the Public Garden
12/22/16 Beatrice Nessen
12/23/16 Garden Club of the Back Bay
12/23/16 Department of Energy Resources (DOER)
12/26/16 Lisa Leary

12/26/16 Susan D. Prindle
12/26/16 David Friend
12/27/16 Beacon Hill Civic Association (BHCA)
12/27/16 Boston Preservation Alliance
12/27/16 Neighborhood Association of the Back Bay (NABB)
12/27/16 Paula Griswold
12/27/16 Fenway Civic Association

MAB/PRC/prc

SECRETARY'S CERTIFICATE ON THE ENF

MEPA 01 **I encourage the Proponent to submit a joint DEIR/DPIR to support and facilitate public comment on the project. MEPA comment and review periods may be adjusted to align with the BPDA deadlines.**

As recommended, this document is a joint Draft EIR/PIR, however, the Proponent requests that the MEPA review period conform to the MEPA regulations of a 30 day comment period from publication of Environmental Monitor.

MEPA 02 **The DEIR should include a detailed description of the existing and proposed conditions and describe any changes to the project since the filing of the ENF. Each section of the DEIR should contain an executive summary that identifies the specific revisions to project design or analyses that have occurred since the filing of the ENF.**

Existing conditions are described in Section 2.1, the proposed conditions are described in Section 2.2, and Section 1.3 identifies all changes in the Project since the ENF/PNF filings.

MEPA 03 **The DEIR should include updated site plans for existing and post-development conditions at a legible scale. The plans should clearly identify impervious areas, publicly accessible open space, roadway layout and ownership, easement areas (if applicable), pedestrian and bicycle accommodations, and stormwater and utility infrastructure. These conceptual plans should include on-site work and any proposed off-site work for transportation or utility (water/sewer) improvements.**

A survey is included in Attachment C, and pedestrian accommodations are shown in Figures 1-3, 2-12 and in Figure 1 of Attachment K and Figure 4-8 shows existing bicycle accommodations. Stormwater and utility infrastructure are shown on Figures 9-1 through 9-3.

MEPA 04 **The DEIR should provide a brief description and analysis of applicable statutory and regulatory standards and requirements, and describe how the project will meet those standards... The DEIR should include a list of required federal, state, and local permits and approvals and provide an update on the status of each permit and/or approval.**

Anticipated permits, reviews, and approvals are identified in Table 1-1.

MEPA 05 **The DEIR should address the project's consistency with Chapter 362 of the Acts of 1990 and Chapter 384 of the Acts of 1992 regarding the Boston Common and the Boston Public Garden, respectively (referred to herein as the "Boston Common and Boston Public Garden Shadow Acts"). It should identify whether legislative approval will be required to provide relief from these Acts. If the Proponent, and/or the City acting on its behalf, propose amendments to the law or new legislation, the DEIR should identify such efforts and the related review process.**

Please see Sections 1.1 and 3.2 for an update on the Massachusetts state laws governing new shadows from new structures on the Boston Public Garden and Boston Common. The Project complies with Chapter 362 of Acts of 1990 and Chapter 384 of the Acts of 1992, each as amended by Chapter 57 of the Acts of 2017, "An Act Protecting Sunlight and Promoting Economic Development in the City of Boston" which govern new shadows from new structures on Boston Common and the Public Garden.

MEPA 06 **The DEIR should include an updated building program (including an updated summary of floor area by use, number of residential units and bedrooms, and overall number of stories and maximum height) and accompanying narrative that identifies changes to the building program, describes the process and timeframe for further building program refinements, and addresses whether the building program will be more refined by the conclusion of the MEPA process.**

The proposed development program is defined in Section 2.2, and changes to the Project since the ENF/PNF filings are identified in Section 1.4. The Project will continue to evolve through the design process and consultations with the BPDA.

MEPA 07 **The DEIR should consider height and massing alternatives to reduce potential impacts to airspace and shadow and wind impacts on the surrounding area, including the Boston Common, Public Garden, and nearby historic resources. I encourage the Proponent to consult with MHC, Massport, and other stakeholders during preparation of the alternatives analysis.**

The alternatives analysis in Section 3.0 includes various height and massing variations, and the wind analysis presented in Section 5.1 describes potential wind impacts from the as of right alternative and the Project as well as mitigation measures to minimize wind impacts. On February 10, the Proponent sent correspondence to MHC requesting consultation regarding the Project, including the alternatives analysis; MHC responded

and declined that request for a meeting. Subsequent requests were sent to MHC on October 11, 2017 but a meeting date was unable to be arranged.

The Project's zoning height of approximately 664 feet (710' AMSL) is consistent with the operating guidelines provided by Massport and the technical review provided by the Federal Aviation Administration which has set various points of the Project site at 701-720 feet AMSL. The Project's height fits within this upper limit to avoid any operational changes in departures or arrivals at Logan International Airport. The FAA is currently conducting its public review period for this Aeronautical Study (See Attachment A).

A shadow study is included in Section 5.2 and includes an analysis of the as-of right, an alternative based on previous shadow law and the proposed Project.

MEPA 08 **The DEIR should include an alternatives analysis that evaluates a No-Build Alternative, an alternative that complies with the existing Boston Common and Boston Public Garden Shadow Acts, and the Preferred Alternative in order to enable members of the public to understand and compare the potential impacts of these development scenarios.**

The requested alternatives analysis is provided in Section 3.0.

MEPA 09 **The DEIR should also identify whether a building constructed in compliance with current zoning would cast new shadow on the Boston Common and/or Boston Public Garden.**

An as-of-right zoning alternative would have a zoning height of 202 feet, and hence would not cast new shadow on the Boston Common or Boston Public Garden. Section 5.2 includes a shadow analysis of the as-of-right alternative. The alternatives analysis provided in Section 3.0 includes an as-of-right alternative.

MEPA 10 **I encourage the Proponent to initiate the FAA review process and to evaluate an alternative development scenario with a maximum height of 710-ft above mean sea level.**

The Project's zoning height of approximately 664 feet (710' AMSL) is consistent with the operating guidelines provided by Massport and the technical review provided by the Federal Aviation Administration which has set various points of the Project site at 701-720 feet AMSL. The Project's height fits within this upper limit to avoid any operational

changes in departures or arrivals at Logan International Airport. The FAA is currently conducting its public review period for this Aeronautical Study (See Attachment A).

MEPA 11 **The DEIR should identify each alternative's impacts on traffic generation, parking, water use and wastewater and compliance with the Boston Common and Boston Public Garden Shadow Acts. This comparison should be provided in a tabular format with supporting narrative and conceptual site plans.**

The alternatives analysis in Section 3.0 includes this tabular comparison (see Table 3-1).

MEPA 12 **The DEIR should also describe the process employed to identify the proposed orientation of the building on the site and how the design of the Preferred Alternative was developed to minimize impacts.**

The building orientation was established to maximize views, daylight, and to provide a continuation of existing urban fabric and street walls. A description of Urban Design is provided in Section 7.0, and the Project's Sustainable Design is addressed in Section 6.0.

MEPA 13 **The DEIR should include the shadow analysis and other data prepared in accordance with Article 80 requirements for BPDA review for the purposes of evaluating the Preferred Alternative's potential impacts to airspace and wind and shadow impacts on the surrounding area, including the Boston Common, Public Garden, and nearby historic resources.**

A wind analysis is provided in Section 5.1, and a shadow analysis is provided in Section 5.2. Historic resources are discussed in Section 8.0. Please see the response to MEPA 07 regarding airspace.

MEPA 14 **Massport has expressed concern with the height of the Preferred Alternative and MHC has requested additional information (including renderings and wind and shadow studies) to support its assessment of the Preferred Alternative's visual impact on historic resources. I encourage the Proponent to develop a single analysis of the potential impacts of the Preferred Alternative that addresses the State and local review requirements; however, if this is not feasible the analysis prepared for the BPDA can be supplemented to address this Scope.**

An analysis of Project-related impacts to historic resources, including shadow, is provided in Section 8.0. Although not required, the Proponent has performed façade studies on a number of historic resources to

thoroughly assess Project-related shadow impacts to historic resources. The alternatives analysis provided in Section 3.0 includes various alternatives with shorter heights.

The Project's zoning height of approximately 664 feet (710' AMSL) is consistent with the operating guidelines provided by Massport and the technical review provided by the Federal Aviation Administration which has set various points of the Project site at 701-720 feet AMSL. The Project's height fits within this upper limit to avoid any operational changes in departures or arrivals at Logan International Airport. The FAA is currently conducting its public review period for this Aeronautical Study (See Attachment A).

MEPA 15 **The DEIR should establish aggressive mode share goals supported by a robust TDM program with clearly defined goals and monitoring to ensure and preserve a favorable mode share balance.**

The Project's TDM program and mode share goals are discussed in Section 4.8.

MEPA 16 **The DEIR should identify the number of transit trips associated with proposed uses and identify how those trips will be distributed among transit stations. I encourage the Proponent to consult with MassDOT and the MBTA to identify potential impacts on MBTA assets, including the proximate transit train and bus service and stations, and degrade capacity during certain peak periods, facilities, and routes for accessing the site using transportation modes other than SOV.**

A detailed analysis of the Project's potential transit impacts is presented in Section 4.6.

MEPA 17 **The DEIR should include data prepared in accordance with BTD requirements for BPDA review for the purposes of evaluating the project's potential impacts on traffic and transportation resources and identifying appropriate mitigation measures. I expect that this data will include a comprehensive TDM Program that evaluates all feasible measures to reduce trip generation associated with the project and identifies all existing and planned services.**

A comprehensive transportation analysis conducted in accordance with BTD requirements, is presented in Section 4.0, including the Project's TDM program in Section 4.11.

MEPA 18 **The DEIR should identify how parking supply for the Preferred Alternative was determined. The DEIR should compare the proposed parking supply to ITE's *Parking Generation* guidance and to the City of Boston requirements.**

A parking evaluation for the Project is included in Section 4.4.8.

MEPA 19 **The DEIR should identify the location of any proposed pick-up/drop-off parking areas and bus or tractor-trailer parking spaces within the project site. In addition, the DEIR should include graphics (and supporting narrative) depicting circulation patterns (vehicles, pedestrian, and bicycles) and connection points to adjacent land uses and roadways.**

Site access and circulation are discussed in Section 4.4.10. Existing vehicle circulation patterns are shown in Figure 4-1. Proposed vehicle circulation patterns are shown in Figure 2-13. Existing pedestrian volumes are shown in Figures 4-10a and 4-10b. Proposed pedestrian circulation patterns are shown in Figure 1-3. Existing bicycle volumes are shown in Figures 4-9a and 4-9b. Existing on-street bicycle accommodations are shown in Figure 4-8. No pattern changes are proposed.

MEPA 20 **The DEIR should include an analysis of GHG emissions and mitigation measures in accordance with the standard requirements of this Policy… The analysis should quantify the direct and indirect CO_2 emissions associated with the project's energy use (stationary sources) and transportation-related emissions (mobile sources)… The DEIR should identify and commit to mitigation measures to reduce GHG emissions.**

The requested GHG analysis is provided in Section 10.0.

MEPA 21 **The DEIR should include a GHG analysis that calculates and compares GHG emissions associated with 1) a Base Case corresponding to the 9th Edition of the Massachusetts Building Code; and 2) a Mitigation Alternative that incorporates additional energy saving measures which, at a minimum, demonstrate compliance with the Stretch Energy Code.**

The requested GHG analysis is provided in Section 10.0.

MEPA 22 **The GHG analysis should clearly demonstrate consistency with the objectives of MEPA review, one of which is to document the means by which Damage to the Environment can be avoided, minimized and mitigated to the maximum extent feasible. The Proponent should identify the model used to analyze GHG emissions, clearly state modeling assumptions, explicitly note which GHG reduction measures have been**

modeled, and identify whether certain building design or operational GHG reduction measures will be mandated by the Proponent to future occupants or merely encouraged for adoption and implementation.

The GHG analysis provided in Section 10.0 and the Mechanical Report provided in Attachment N include this requested content.

MEPA 23 **The DEIR should include the modeling printout for each alternative and emission tables that compare base case emissions in tons per year (tpy) with the Preferred Alternative showing the anticipated reduction in tpy and percentage by emissions source (direct, indirect and transportation). This information should be provided for each building in a format similar to the example provided in DOER's comment letter.**

Modeling results and GHG reduction numbers are provided in Section 10.2.2of the GHG analysis.

MEPA 24 **The DEIR should present an evaluation of mitigation measures identified in the GHG Policy Appendix and as further specified in the comments from the DOER… At a minimum, the DEIR should consider the following GHG mitigation measures: [see Certificate for complete list].**

Section 10.1.5 addresses Project GHG mitigation technologies, and the various mitigation measures available for use in a new building project are identified in Table 10-1.

MEPA 25 **As recommended by DOER, at a minimum, the DEIR should analyze the use of on-site renewable or cogeneration technologies including rooftop solar PV, solar thermal, and CHP/CHCP. The solar feasibility analysis should consider the benefits of varying ownership structures (i.e., outright ownership or third party lease)… The analysis should: [see Certificate for complete list]… The analysis should include a narrative and data to support the Proponent's adoption (or dismissal) of solar PV or solar thermal systems as a feasible measure to avoid, minimize or mitigate project-related GHG emissions and Damage to the Environment. At a minimum, building roofs should be "solar ready" to facilitate future installation of PV systems.**

An analysis of energy generation as well as energy use is included in Section 10.2 of the GHG analysis.

MEPA 26 **As recommended by DOER, the Proponent should consider the use of CHP/CHCP systems for the residential components of the project… At a minimum, the DEIR should analyze the feasibility of employing one or more CHP/CHCP systems and should document the associated energy savings and reduction in GHG emissions. The DEIR should provide a conceptual analysis of a CHP/CHCP system to serve the project based upon projected thermal and electrical loads used in conjunction with the GHG analysis. The DEIR should describe and evaluate several different sized systems to allow for comparison of benefits or disadvantages associated with system efficiencies and overall demand requirements. The DEIR should include an analysis of utility company incentives, Alternative Energy Credits (AEC), and other incentives for implementing on-site renewable energy generation and evaluate the applicability of the incentive programs to the project.**

CHP is discussed in Section 10.2.3.2 of the GHG analysis, and a preliminary CHP analysis is included in Attachment N.

MEPA 27 **The DEIR should also thoroughly analyze the feasibility and benefits of incorporating air source heat pumps (ASHP) with variable refrigerant flow (VRF), evaluate incorporating water source heat pumps, and document the expected energy savings and reduction in GHG emissions from each technology.**

Stationary sources are described in Section 10.2 of the GHG analysis and detailed in Attachment N.

MEPA 28 **The DEIR should clarify which uses or areas of the building will be fitted-out by the Proponent and which uses or areas of the building will be fitted out by future tenants. The DEIR should indicate if building systems (i.e., HVAC, etc.) will be completed as part of core and shell improvements or left to the tenant or future owner for installation.**

These items are addressed in the GHG analysis Section 10.2.1.3.

MEPA 29 **The DEIR should address the Proponent's commitment to providing energy efficiency consulting services and information and developing a tenant manual that requires or strongly supports GHG reduction measures.**

Proponent influence on tenants is addressed in Section 10.2.1.3.

MEPA 30 **The Proponent should consider adoption of additional sustainable design measures for which GHG reductions cannot be easily quantified, such as construction waste recycling, recycling areas, and recycled content/regional materials… The DEIR should also respond to MassDEP's recommendations regarding incorporation of recycling and source reduction measures into the project design.**

There are a number of measures and design features that, while included for a variety of non-GHG reduction reasons, may have the indirect effect of reducing GHG emissions but in a manner that is difficult to quantify.

These are discussed in Section 10.2.1.3 of the GHG analysis. In addition, construction waste management is described in Section 5.10.10, and operational Project recycling is described in Section 5.8.

MEPA 31 **The GHG analysis should include an evaluation of the potential GHG emissions of the project's mobile emissions sources using the EPA MOVES emissions model. The DEIR should follow the guidance provided in the Policy for Indirect Emissions from Transportation and use data gathered as part of the traffic study to determine mobile emissions for Existing Conditions and future No-Build, Build, and Build with Mitigation Conditions.**

GHG emissions produced by mobile sources are addressed in Section 10.3.

MEPA 32 **The Proponent should thoroughly explore means to improve traffic operations and reduce SOV trips. The GHG analysis in the DEIR should also demonstrate that mobile source GHG emissions can be avoided, minimized and mitigated to the maximum extent feasible through establishment of aggressive mode share goals supported by: strong transit user incentives (e.g., transit subsidies, shuttle services, etc.), right-sized parking supply, safe and convenient access and services for bicyclists and pedestrians, and a robust TDM program with clearly defined goals and monitoring. The Build with Mitigation model should incorporate roadway improvements, if proposed, and TDM measures implemented by the project and document the reductions in GHG emissions associated with the mitigation.**

GHG emissions produced by mobile sources are addressed in Section 10.3. Because TDM is effectively an integral part of the Build case, the Baseline Build case largely reflects the reduced GHG benefits of TDM. The Build with Mitigation case reflects further reduced mobile source GHG as a result of physical/operational changes. However, while TDM is already

largely included in the Build case, it is anticipated there may be additional improvements in the Build with Mitigation condition as a result of an aggressive TDM plan. TDM measures are described in detail in Section 4.11.

MEPA 33 The DEIR should include a commitment to provide a self-certification to the MEPA Office at the completion of the project.

This commitment is included in the GHG analysis provided in Section 10.0.

MEPA 34 The DEIR should discuss potential effects of climate change to the project site. The DEIR should identify site elements that will be designed to minimize the potential impacts of extreme heat events and limit the potential impact of more frequent and intense storm precipitation including, but not limited to: [see Certificate for complete list].

The Project's climate change adaptability and resiliency is described in Section 6.3, and stormwater management is discussed in Section 9.2. Renewable energy as well as ventilation considerations are discussed in the context of the GHG analysis in Section 10.0. The emergency generator is located on the 23rd floor and is sized with an associated diesel fuel system, located on the B-1 level to serve the life safety requirements for a runtime of twelve hours.

The Project will increase the pervious area on the site, utilize green roofs, permeable paving products, and collect rainwater in on-site cisterns for reuse. (See Section 6.3.2). Light or reflective roofing materials will be applied to the building and can reduce a building's contribution to the urban heat island effect in the summertime. On-site solar PV is being studied. In addition, combined heat and power has been analyzed. Please refer to the CHP Analysis in Attachment N for details and in Section 10.3.2.2. Section 6.0 also includes a LEED checklist and a copy of the BPDA's Climate Change Preparedness and Resiliency Checklist is provided in Attachment I.

Each tenant space (residential and commercial), will likely be individually metered for electricity. This will encourage tenants to employ conservation techniques. The Proponent will prepare Green Development Guidelines for the commercial tenants, which will include language both requiring and encouraging tenant fit-up to employ economically feasible sustainable design techniques. These Guidelines will be written as part of the Proponent's leasing and marketing efforts. Please see Section 10.2.1.3.

The residential space will be mechanically ventilated and will contain operable windows for occupant comfort.

MEPA 35 **I encourage the Proponent to include a copy of the BPDA's Climate Change Preparedness and Resiliency Checklist in the DEIR…**

A copy of the BPDA's Climate Change Preparedness and Resiliency Checklist is provided in Attachment I.

MEPA 36 **The DEIR should indicate whether proposed landscaping or streetscape enhancements will reduce overall impervious area.**

The landscape design will comply with the intentions of the City of Boston's Complete Streets Initiative to increase permeability and planting within the streetscape. Green infrastructure including permeable paving, street trees, and other planting will be incorporated within the design of the streetscape and/or redesign of Winthrop Square. In addition, a green roof is planned for a portion of the office roof and the Project will collect rainwater in on-site cisterns for reuse.

MEPA 37 **The DEIR should describe the proposed stormwater management system, including connection points to off-site stormwater conveyance infrastructure, BMPs, and applicable TMDL compliance requirements (if applicable). The DEIR should describe BMPs proposed to retain and/or recharge stormwater on-site in accordance with BWSC requirements. The DEIR should identify specific stormwater BMPs to be used in the parking garages to mitigate stormwater runoff, particularly oil separators or similar BMPs.**

As described in Section 9.3, the Project is in the Boston Harbor watershed, where current stormwater flows to combined sewers which ultimately flow to the Deer Island Waste Water Treatment Plant. In the event that the drainage system were separate in the future, the site would drain to Boston Harbor. The Project will likely be required to collect the first inch of runoff over the site's impervious area to meet BWSC standards. This water may then be infiltrated and/or reused. These options will be further evaluated as design progresses, but could potentially include porous pavement, recharge wells, and/or a rainwater collection and reuse system. Any runoff collected in garages will be directed through an oil/water separator before being discharged through a sanitary sewer service.

MEPA 38 **The DEIR should discuss opportunities to provide low impact design stormwater management measures including, but not limited to, porous hardscape surfaces, rain gardens, vegetative swales, infiltration basins, and tree box filters. The DEIR should discuss opportunities to incorporate these measures into project design and explain, in reasonable detail, why certain measures, which could promote infiltration while reducing impervious surface, were not selected.**

The Project site is in the middle of an urban area, and the proposed building will cover approximately the entire site. As such, many LID measures are impractical on this site. Individual LID measures will be evaluated as design progresses. Stormwater management is discussed in Section 9.3.

MEPA 39 **The ENF indicates that a small portion of the northwest corner of the project may be comprised of tidelands subject to the provisions of *An Act Relative to Licensing Requirements for Certain Tidelands* and the Public Benefit Determination regulations (301 CMR 13.00). The DEIR should clarify the jurisdictional status of this area. If the area is subject to the PBD regulations, the DEIR should describe the nature and total area of work that is proposed to occur within the tidelands. The DEIR should provide a narrative that explains the project's impacts on the public's right to access, use, and enjoy the landlocked tidelands and describes the avoidance, minimization, and mitigation measures proposed to address said impacts. The narrative should describe the public benefits of the project as required in the PBD regulations.**

A review of the Massachusetts Coastal Zone Management maps of the historic coastline (the "presumptive line") indicates that a now-filled tidal creek once extended into the Winthrop Square area of Boston, including what appears to be a small portion of the northwest corner of the Project site. This portion of the Project site is landlocked tidelands as defined in the 310 CMR 9, as it constitutes filled tidelands which on January 1, 1984 were entirely separated by a public way (many public ways, in fact) and are not presently located within 250 feet of the high water mark or within any Designated Port Area. Accordingly, this portion of the Project site does not require licensing or permitting by the Department of Environmental Protection under the Waterfront Protection Act (Chapter 91) or associated regulations (310 CMR 9), but does necessitate that the Secretary of Energy and Environmental Affairs make a Public Benefit Determination pursuant to 301 CMR 13 because it is partially located in

landlocked tidelands. The Proponent filed an Environmental Notification Form after November 15, 2007 and is filing an environmental impact report. To aid in such determination, a Public Benefits Analysis pursuant to 301 CMR 13 is provided in Section 11.0.

MEPA 40 **The DEIR should identify whether the project is located in an area of low groundwater and if so, should identify and commit to taking measures to avoid, minimize, or mitigate any adverse impacts on groundwater levels in accordance with 301 CMR 11.05(4)(b).**

The Project site is not located in the City of Boston Groundwater Conservation Overlay District, and as such the Project site is not identified as an area of low groundwater. Infiltration systems will be evaluated for the Project to determine their impact on local groundwater levels.

MEPA 41 **The DEIR should provide supporting documentation or data to demonstrate the water and wastewater systems have sufficient capacity to accommodate the proposed project. The DEIR should discuss how proposed connections to combined sewer mains can be avoided, or if they cannot be avoided, explain why.**

Sections 9.1 and 9.2 evaluate the impacts of the proposed Project on the BWSC water and wastewater systems, respectively. No water capacity problems are anticipated within this system as a result of Project construction. In addition, no sewage capacity problems are expected within the Devonshire Street or Federal Street systems.

Connections to combined sewers are unavoidable, since the entire site and surrounding streets drain to combined sewers.

MEPA 42 **The DEIR should discuss how the project intends to meet the requirement to offset new flows on a 4:1 basis in accordance with MassDEP, MWRA, and BWSC policies and requirements... The DEIR should discuss the outcome of [any consultations with MassDEP, MWRA, and BWSC], describe the proposed I/I mitigation commitments, and identify any sewer system deficiencies within the sanitary sewer system serving the project site.**

A commitment to I/I mitigation is discussed in Section 9.2.4.

MEPA 43 **The DEIR should describe water conservation efforts to be incorporated into the project, including, but not limited to, installation of low-flow fixtures, use of captured rainwater or reclaimed wastewater for irrigation**

purposes or cooling tower water make-up, use of drought-tolerant native landscaping, and individual tenant water metering and water usage payment for each dwelling unit.

Water conservation measures are described in Section 9.1.4.

MEPA 44 **MassDEP has noted that all relevant site data such as contaminant concentrations in soil and groundwater, depth to groundwater, and soil gas concentrations should be evaluated to determine the potential for indoor air impacts to existing or proposed buildings. The DEIR should include an update on any soil sampling or site assessment activities that have occurred since the ENF was filed and should proposed mitigation measures as appropriate.**

Please see Section 5.9.1.1 for an update.

MEPA 45 **MHC has requested that additional information be provided in a DEIR to support its assessment of the project's impact, including wind and shadow studies and renderings that support a visual analysis of the project's impact on historic resources.**

Please see Section 8.0 for a full analysis of impacts.

MEPA 46 **The DEIR should identify impacts to nearby historic resources associated with demolition, construction and the design of the project.**

Please See Section 8.0 for a thorough analysis of impacts on historic resources.

MEPA 47 **The DEIR should include the shadow analysis and other data prepared in accordance with Article 80 requirements for BPDA review for the purposes of evaluating the Preferred Alternative's potential impacts to nearby historic resources, including but not limited to the Boston Common and Public Garden.**

A comprehensive shadow analysis is provided in Section 5.2, and an additional analysis of Project-related impacts to historic resources, including shadow, is provided in Section 8.0.

MEPA 48 **The project exceeds MassDEP's review threshold requiring the Proponent to conduct an air quality mesoscale analysis comparing project Build and No-Build conditions. The Proponent should conduct this mesoscale analysis using the EPA MOVES emissions model and present its results in the DEIR.**

A mesoscale analysis using MOVES is presented in Section 5.5.3.

MEPA 49 **Depending on the parking garage design (i.e., open air, enclosed, etc.), the DEIR should provide additional information on the proposed location of parking garage emission vents and other combustion sources. The DEIR should demonstrate that these exhaust areas will not conflict with pedestrian routes or public gathering spaces.**

The design has taken into account public spaces and pedestrian routes. All combustion sources, including parking garage exhaust louvers, are located in compliance with all applicable codes, and discharge 10 feet above grade and generally along Federal Court.

MEPA 50 **EPA's AERMOD model should be used to estimate potential ground-level impacts of parking garages and combustion source emissions (i.e., boilers, generators, etc.).**

An impact analysis of emissions from stationary sources, including boilers, generators, garage vents, etc. is presented in Section 5.5.4.

MEPA 51 **The MassDEP comment letter identifies potential certifications and permits that may be required for on-site energy sources such as boilers, stationary turbines, emergency generators, etc. The DEIR should identify certification and/or permits that likely will be required for proposed project elements.**

The air permits and/or certifications expected to be required for the installed stationary sources are presented in Section 5.5.4.

MEPA 52 **The DEIR should describe potential construction period impacts (including but not limited to traffic management, materials management, parking, air quality and noise impacts, and other items as they related to the construction period) and outline feasible measures that can be implemented to eliminate or minimize these impacts in a draft CMP. The draft CMP should identify truck traffic routes associated with construction traffic, staging areas, and how safe pedestrian, bicycle and vehicle access around the project site will be maintained throughout the**

construction period. The DEIR should also address notification and construction protocols to be implemented if contamination is encountered at the site during construction and potential construction-period dewatering activities and related permitting requirements.

Section 5.10 includes a detailed discussion of construction impacts and mitigation. Construction management and maintenance of public safety and traffic flow is described in Section 5.10.1 and 5.10.6. Construction-period stormwater management and water quality concerns are addressed in Section 5.10.10. Construction-period soil management is described in Section 5.10.15.

MEPA 53 **I strongly encourage the Proponent to ensure contractors install emission control devices on all off-road vehicles in an effort to reduce emissions of volatile organic compounds (VOCs), carbon monoxide (CO) and particulate matter (PM) from diesel-powered equipment. Off-road vehicles are required to use ultra-low sulfur fuel (ULSD).**

Construction-period air quality, including a discussion related to construction vehicles, is discussed in Section 5.10.7.

MEPA 54 **The DEIR should include a separate chapter summarizing proposed mitigation measures. This chapter should also include draft Section 61 Findings for each State Agency that will issue permits for the project. The DEIR should contain clear commitments to implement mitigation measures, estimate the individual costs of each proposed measure, identify the parties responsible for implementation, and contain a schedule for implementation.**

Section 12.0 contains proposed Section 61 Findings for each State Agency that will issue permits for this Project, and also contains summaries of mitigation measures the Proponent is committed to for the Project.

MEPA 55 **The DEIR should contain a copy of this Certificate and a copy of each comment letter received… The DEIR should include direct responses to comments to the extent that they are within MEPA jurisdiction.**

This section contains a copy of the Secretary's Certificate on the ENF and a copy of each comment letter submitted on the ENF. This section contains responses to each comment.

MEPA 56 **In accordance with Section 11.16 of the MEPA Regulations and as modified by this Certificate, the Proponent should circulate a hard copy of the DEIR to each State Agency from which the Proponent will seek Permits. The Proponent must circulate a copy of the DEIR to all other parties that submitted individual written comments. Per 301 CMR 11.16(5), the Proponent may circulate copies of the EIR to these other parties in CD-ROM format or by directing commenters to a project website address... A copy of the DEIR should be made available for review at the Boston Public Library – Central Library in Copley Square.**

A Circulation List adhering to these requirements is provided as Attachment O.

Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection
Northeast Regional Office • 205B Lowell Street, Wilmington MA 01887 • 978-694-3200

Charles D. Baker
Governor

Karyn E. Polito
Lieutenant Governor

Matthew A. Beaton
Secretary

Martin Suuberg
Commissioner

December 13, 2016

Matthew A. Beaton, Secretary
Executive Office of
Energy & Environmental Affairs
100 Cambridge Street
Boston MA, 02114

RE: Boston
115 Winthrop Square
115 Winthrop Square
EEA # 15610

Attn: MEPA Unit

Dear Secretary Beaton:

The Massachusetts Department of Environmental Protection Northeast Regional Office (MassDEP-NERO) has reviewed the Environmental Notification Form (ENF) submitted by the MCAF Winthrop LLC to demolish an existing, four-story parking garage in order to construct a mixed-use residential building totaling 1.1 million to 1.5 square feet (sf) on a 1.1 acre site in the financial district in Boston (EEA #15610). The project design is in discussion with the City of Boston. The ENF has provided a range of sizes for the residential, office, retail and restaurant space, including up to 780,000 sf of residential (460 units), 635,000 of office space, 20,000 sf of Office Club space, 8,000 sf of Accelerator Office, and 60,000 sf of space for a Great Hall (public and event space). In addition, parking for 400 - 550 vehicles is proposed. The project is categorically included for the preparation of an environmental impact report. MassDEP provides the following comments.

Wastewater

The ENF reports that there is sufficient capacity in the existing collection system to accommodate the estimated 194,025 gallons per day (gpd) of sanitary sewage of wastewater flow that would be generated by the project. As of April 25, 2014, the sewer regulations changed and the requirements for self-certification or a sewer connection/extension permit from MassDEP were eliminated. Under the terms of the new regulations at 314 CMR 12.04(2)(d), MassDEP requires sewer authorities with permitted combined sewer overflows, including the Boston Water & Sewer Commission (BWSC), to require removal of four gallons of infiltration and inflow (I/I) for each gallon of new wastewater flows generated for any new connection where greater than 15,000 gallons per day of new wastewater flows will be generated. The EIR should identify any deficiencies in the wastewater system serving the project site and demonstrate the proponent's DEP 01

commitment to addressing deficiencies, consistent with the City of Boston Water and Sewer Commission's I/I removal program.

Although the ENF indicated that the wastewater estimate was based on the maximum build out, the EIR should provide a complete break out of the wastewater estimates which should be based on MassDEP recommended design flows in Title 5 (310 CMR 15.203) since these flow rates account for the variations in flows from the diverse building uses. DEP 02

Recycling

The project includes demolition and construction that will generate a significant amount of construction and demolition (C&D) waste. MassDEP encourages the project proponent to make a specific commitment to recycling and sustainable practices in the EIR rather than the ENF commitment which is undefined. DEP 03

Waste Ban Regulation – 310 CMR 19.017

Section 310 CMR 19.017 *Waste Bans* of the Massachusetts Solid Waste regulations prohibit the disposal of certain wastes in Massachusetts. These wastes include, but are not limited to, recyclable paper (including cardboard). On October 1, 2014, the Massachusetts Organics Waste Ban on the disposal of commercial organic wastes by businesses and institutions takes effect. It prohibits the disposal of organic wastes from businesses and institutions that generate a ton or more of organic materials per week, which necessitates the composting, conversion (such as anaerobic digestion), recycling or reuse of organic the waste.

As the lead state agencies responsible for helping the Commonwealth achieve its waste diversion goals, MassDEP and EEA have strongly supported voluntary initiatives by the private sector to institutionalize source reduction and recycling into their operations. Adapting the design, infrastructure, and contractual requirements necessary to incorporate reduction, recycling and recycled products into existing large-scale developments has presented significant challenges to recycling proponents. Integrating those components into developments such as the Parcel Q1 project at the planning and design stage enable the project's management and occupants to establish and maintain effective waste diversion programs. For example, facilities with minimal obstructions to trash receptacles and easy access to main recycling areas and trash chutes allow for implementation of recycling programs and have been proven to reduce cleaning costs by 20 percent to 50 percent. Other designs that provide sufficient space and electrical services will support consolidating and compacting recyclable material and truck access for recycling material collection.

By incorporating recycling and source reduction into the design, the proponent has the opportunity to join a national movement toward sustainable design. Sustainable design was endorsed in 1993 by the American Institute of Architects with the signing of its *Declaration of Interdependence for a Sustainable Future.* The project proponent may be aware of organizations that provide additional information and technical assistance, including Reuse Marketplace (http://www.reusemarketplace.org/), USEPA's WasteWise Program (www.epa.gov/wastewise/), and MassRecycle (http://www.massrecycle.org/). The listed organizations and programs are notable for offering valuable and effective waste reduction and recycling assistance, web-based resources, case studies, and tools for C&D projects.

Massachusetts Contingency Plan (MCP)/M.G.L. c.21E

Contaminated Soil and Groundwater: Although the ENF indicates that the project has not been regulated under the MCP/MGL c21E, the proponent is reminded that excavating, removing and/or disposing of contaminated soil, pumping of contaminated groundwater, or working in contaminated media must be done under the provisions of MGL c.21E (and, potentially, c.21C) and OSHA. If permits and approvals under these provisions are not obtained beforehand, considerable delays in the project can occur. The project proponent cannot manage contaminated media without prior submittal of appropriate plans to MassDEP, which describe the proposed contaminated soil and groundwater handling and disposal approach, and health and safety precautions. If contamination at the site is known or suspected, the appropriate tests should be conducted well in advance of the start of construction and professional environmental consulting services should be readily available to provide technical guidance to facilitate any necessary permits. If dewatering activities are to occur at a site with contaminated groundwater, or in proximity to contaminated groundwater where dewatering can draw in the contamination, a plan must be in place to properly manage the groundwater and ensure site conditions are not exacerbated by these activities. Dust and/or vapor monitoring and controls are often necessary for large-scale projects in contaminated areas. The need to conduct real-time air monitoring for contaminated dust and to implement dust suppression must be determined prior to excavation of soils, especially those contaminated with compounds such as metals and PCBs. An evaluation of contaminant concentrations in soil should be completed to determine the concentration of contaminated dust that could pose a risk to health of on-site workers and nearby human receptors. If this dust concentration, or action level, is reached during excavation, dust suppression should be implemented as needed, or earthwork should be halted.

DEP 04

DEP 05

DEP 06

Potential Indoor Air Impacts: MassDEP is aware of a number of nearby disposal sites which could be a source of contaminated groundwater migration onto the project site. Parties constructing and/or renovating buildings in contaminated areas should evaluate whether chemical or petroleum vapors in subsurface soils and/or groundwater could impact the indoor air quality of the buildings. All relevant site data, such as contaminant concentrations in soil and groundwater, depth to groundwater, and soil gas concentrations should be evaluated to determine the potential for indoor air impacts to existing or proposed building structures. Particular attention should be paid to the vapor intrusion pathway for sites with elevated levels of chlorinated volatile organic compounds such as tetrachloroethylene (PCE) and trichloroethylene (TCE). MassDEP has additional information about the vapor intrusion pathway on its website at http://www.mass.gov/dep/cleanup/laws/vifs.htm.

DEP 07

New Structures and Utilities: Construction activities conducted at a disposal site shall not prevent or impede the implementation of likely assessment or remedial response actions at the site. Construction of structures at a contaminated site may be conducted as a Release Abatement Measure if assessment and remedial activities prescribed at 310 CMR 40.0442(3) are completed within and adjacent to the footprint of the proposed structure prior to or concurrent with the construction activities. Excavation of contaminated soils to construct clean utility corridors should be conducted for all new utility installations.

DEP 08

Air Quality

Pre-installation approval from MassDEP, pursuant to regulation 310 CMR 7.02, is required if the project will include any boiler regulated under 310 CMR 7.26(30)-(37), inclusive. Natural gas or distillate fuel oil-fired boilers with an energy input capacity less than 10,000,000 British thermal units per hour (Btu/hr) are exempt from the above listed regulations. In addition, if the project will be equipped with emergency generators equal to or greater than 37 kW, then each of those emission units must comply with the regulatory requirements in 310 CMR 7.26(42). DEP 09

The MassDEP appreciates the opportunity to comment on this proposed project. Please contact Kevin.Brander@state.ma.us , at (978) 694-3236 for further information on the wastewater issues. If you have any general questions regarding these comments, please contact Nancy.Baker@state.ma.us, MEPA Review Coordinator at (978) 694-3338.

Sincerely,

This final document copy is being provided to you electronically by the Department of Environmental Protection. A signed copy of this document is on file at the DEP office listed on the letterhead.

John D. Viola
Deputy Regional Director

cc: Brona Simon, Massachusetts Historical Commission
Kevin Brander, Heidi Davis, MassDEP-NERO

MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP)

DEP 01 **The EIR should identify any deficiencies in the wastewater system serving the project site and demonstrate the proponent's commitment to addressing deficiencies, consistent with the City of Boston Water and Sewer Commission's I/I removal program.**

The existing wastewater system is described in Section 9.2.1, and proposed conditions and infrastructure improvements are discussed in Section 9.2.4.

DEP 02 **Although the ENF indicated that the wastewater estimate was based on the maximum build out, the EIR should provide a complete break out of the wastewater estimates which should be based on MassDEP-recommended design flows in Title 5 (310 CMR 15.203) since these flow rates account for the variations in flows from the diverse building uses.**

A complete breakout of the wastewater estimates is provided in Section 9.2.2.

DEP 03 **MassDEP encourages the project proponent to make a specific commitment to recycling and sustainable practices in the EIR rather than the ENF commitment which is undefined.**

Operational waste and recycling is described in Section 5.9.2 and Section 6 is Sustainable Design.

DEP 04 **If [soil or groundwater] contamination at the site is known or suspected, the appropriate tests should be conducted well in advance of the start of construction and professional environmental consulting services should be readily available to provide technical guidance to facilitate any necessary permits.**

Please see Section 5.9 1.1.

DEP 05 **If dewatering activities are to occur at a site with contaminated groundwater, or in proximity to contaminated groundwater where dewatering can draw in the contamination, a plan must be in place to properly manage the groundwater and ensure site conditions are not exacerbated by these activities.**

Please see Section 5.9.1.1.

DEP 06 **Dust and/or vapor monitoring and controls are often necessary for large-scale projects in contaminated areas. The need to conduct real-time air monitoring for contaminated dust and to implement dust suppression must be determined prior to excavation of soils, especially those contaminated with compounds such as metals and PCBs. An evaluation of contaminant concentrations in soil should be completed to determine the concentration of contaminated dust that could pose a risk to health of on-site workers and nearby human receptors. If this dust concentration, or action level, is reached during excavation, dust suppression should be implemented as needed, or earthwork should be halted.**

Dust and/or vapor monitoring is not considered a potential concern at this site because no volatile or petroleum-based constituents were detected in groundwater or in soil above applicable MCP Reportable Concentrations.

DEP 07 **Parties constructing and/or renovating buildings in contaminated areas should evaluate whether chemical or petroleum vapors in subsurface soils and/or groundwater could impact the indoor air quality of the buildings. All relevant site data, such as contaminant concentrations in soil and groundwater, depth to groundwater, and soil gas concentrations should be evaluated to determine the potential for indoor air impacts to existing or proposed building structures. Particular attention should be paid to the vapor intrusion pathway for sites with elevated levels of chlorinated volatile organic compounds such as tetrachloroethylene (PCE) and trichloroethylene (TCE).**

Vapor intrusion is not considered a potential concern at this site because no volatile or petroleum-based constituents were detected in groundwater. No volatile or petroleum-based constituents were detected in soil above applicable MCP Reportable Concentrations. Therefore, no vapor intrusion pathway has been identified which could negatively impact the indoor air quality of future buildings.

DEP 08 **Excavation of contaminated soils to construct clean utility corridors should be conducted for all new utility installations.**

Any contaminated soil within corridors for new utility installations will be removed.

DEP 09 **Pre-installation approval from MassDEP, pursuant to regulation 310 CMR 7.02, is required if the project will include any boiler regulated under 310 CMR 7.26(30)-(37), inclusive… In addition, if the project will be equipped with emergency generators equal to or greater than 37 kW, then each of those emission units must comply with the regulatory requirements in 310 CMR 7.26(42).**

Boiler and generator exhaust flues are located in compliance with all applicable codes and regulatory requirements, and re-entrainment studies are underway to further inform the design. The air permits and/or certifications expected to be required for the installed stationary sources are identified in Section 5.5.4.

COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF
ENERGY AND ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENERGY RESOURCES
100 CAMBRIDGE ST., SUITE 1020
BOSTON, MA 02114
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Charles D. Baker
Governor

Karyn E. Polito
Lt. Governor

Matthew A. Beaton
Secretary

Judith F. Judson
Commissioner

23 December 2016

Matthew Beaton, Secretary
Executive Office of Energy & Environmental Affairs
100 Cambridge Street
Boston, Massachusetts 02114

Attn: MEPA Unit

RE: 115 Winthrop Square, Boston, Massachusetts, EEA #15610

Cc: Arah Schuur, Director of Energy Efficiency Programs, Department of Energy Resources
Judith Judson, Commissioner, Department of Energy Resources

We've reviewed the Environmental Notification Form for the above-referenced project. We understand the planned downtown office project includes up to 1.5 million square feet of office, residential, and retail. The project has the scale and density to warrant significant evaluations of efficiency and renewable alternatives to avoid GHG emissions.

We are pleased to see the project embrace both LEED Platinum and, for the office portion of the development, "Passive" standards. The Passive approach utilizes a design principle that stresses embracing high-performing envelope to significantly reduce energy consumption. See the attached for an informative article about a Passive office tower which reduced energy consumption by 80%: https://passivehouseplus.ie/blogs/world-s-first-passive-house-office-tower-certified.

We would anticipate that achieving Passive standard would result in significant progress toward GHG reduction.

Recommendations for Future Submissions

Future submissions should demonstrate that the project is taking all feasible measures to *avoid, minimize and mitigate* GHG emissions. The GHG Policy and supporting documentation is available at http://www.mass.gov/eea/agencies/mepa/greenhouse-gas-emissions-policy-and-protocol-generic.html

For project Baseline, use ASHRAE 90.1 2013 with applicable stretch code provisions. Indicate which two C406.1 options are being selected as part of the baseline. Updated code information is here: http://www.mass.gov/eopss/consumer-prot-and-bus-lic/license-type/buildings/amendments-to-780-cmr-effective-august-12-2016.html DOER 01

At a minimum, we recommend future submissions evaluate the following:

- *Envelope and Glazing:* For all buildings, envelope and glazing improvements are usually effective strategies toward GHG reduction and Zero Energy. We recommend at least two above-code envelope/glazing improvement scenarios be investigated. DOER 02

- *Energy Recovery; High Efficiency Equipment:* Where not already required by code, we recommend energy recovery options be investigated. Above code heating, cooling, pumping, and fan equipment also typically provide effective GHG reduction approaches. DOER 03

- *CHP/CHCP*: The size of the development, coupled with the residential program, create a potentially valuable CHP/CHCP opportunity. We recommend a thorough evaluation of combined heat and power (CHP) and combined heat, cooling and power (CHCP). DOER 04

  The following link provides useful guidance on the significant CHP incentives available: http://www.masssave.com/~/media/Files/Business/Applications-and-Rebate-Forms/A-Guide-to-Submitting-CHP-Applications-for-Incentives-in-Massachusetts.pdf

- *Air Source Heat Pump and VRF Systems:* Air source heat pumps and/or VRF systems may be an effective strategy. Space heating with such approaches may be eligible for thermal Alternative Energy Credits (AECs). Guidelines on details of AEC eligibility and estimates are available here: http://www.mass.gov/eea/energy-utilities-clean-tech/renewable-energy/renewable-thermal/renewable-heating-and-cooling-alternative-portfolio-std.html DOER 05

- *Water Source Heat Pump:* Water source heat pumps may be an effective, providing highly efficient cooling and heating and also enabling trading of concurrent heating and cooling. DOER 06

- *Building Lighting:* We recommend a thorough examination of reduced lighting power densities for both interior and exterior lighting attached to the buildings. (Below-grade parking lighting and street lighting also offer emissions reduction possibilities, noted below). DOER 07

- *LED Parking and Exterior Lighting:* LED lighting for the below-grade parking lots and street lights is usually an effective GHG mitigation strategy. We recommend this scenario be investigated. DOER 08

- *Restaurant Equipment:* If restaurants are planned, equipment loads will likely make up a majority of building energy consumption for the restaurant. We recommend a thorough examination of reduced equipment loads. DOER 09

- *Responsive Systems and Controls:* Responsive HVAC systems, where not already required by Code, such as economizers and demand controlled ventilation usually are effective GHG mitigation strategies which we recommend be investigated. DOER 10

- *Solar PV and Solar Thermal:* Provide an estimate of usable roof area for development of solar PV and/or solar thermal. Based on that evaluation, estimate the associated greenhouse gas reduction. Consider all taxes and incentives when evaluating financial performance. DOER 11

When evaluating above, consider financial benefits as part of the evaluation. These include renewable energy credits, alternative energy credits, whole building energy performance incentives from the utility program administrators, and prescriptive grants and incentives.

Other Recommendations for Submission:

In order to expedite the DOER review, we recommend the following accompany the submission: DOER 12

- A table similar to the example below should be included:

Measure/Area	**2013 90.1 App. G**	**Proposed**	**% Change**	**Comment**
Roof Assembly U-value (Btu/hr-Ft^2-f)				
Bldg 1	0.032	0.028	13%	
Bldg 2	0.032	0.028	13%	
Wall Assembly U-value (Btu/hr-Ft^2-f)				
Bldg 1	0.051	0.040	21%	
Bldg 2	0.055	0.040	27%	
Area Window/Area Wall (%)				
Bldg 1	0.40	0.40	0%	
Bldg 2	0.40	0.55	-38%	
Window U-value (Btu/hr-Ft^2-f)				
Bldg 1	0.32	0.25	22%	
Bldg 2	0.32	0.25	22%	
AC Efficiency (EER)				
Bldg 1	13.5	14.5	7%	
Bldg 2	11.7	14.9	27%	
ERV Effectiveness (%)				
Bldg 1	none	none	–	
Bldg 2	none	none	–	
Boiler (% efficiency)				
Bldg 1	0.8	0.93	16%	
Bldg 2	0.8	0.93	16%	
LPD (Watts/sq ft)				
Bldg 1	1.0	0.7	30%	

Bldg 2	0.9	0.8	11%	
(continue to include service water, equipment, etc)				

Notes on table:
1. Values and proposed measures are examples, populate with proposed values and measures
2. Table shows examples of 2 buildings. Adjust the rows to the actual number of proposed buildings and/or building programming sections
3. If all buildings will have same mitigation, just one may be shown

- A description of the proposed building envelope assembly: report both component R-values and whole assembly U-factor. Utilize the pre-calculated relationships between R-Value and U-factor contained in Appendix A of the applicable. DOER 13

  Baseline buildings' total wall (and roof) assemblies shall match the applicable U value as required in Appendix G, table G3.1 part 5b of the code

- Submit the following: DOER 14
  - A description of the building energy simulation model and procedures utilized.
  - A detailed and complete table of modeling inputs showing the item and the input value for both the base and as-designed scenarios. The area of the building should be included.
  - The output of the model showing the monthly and annual energy consumption, totalized and by major end use system.
  - Baseline (as defined above) energy use intensity and proposed mitigated building energy use intensity.
  - Project modeling files are to be submitted to the DOER with the submittal on a flash drive or may be transmitted via electronic file transfer to paul.ormond@massmail.state.ma.us.
  - Separate "side calculations" may be required for non-building energy consuming site improvements which are not included in the building energy modeling software (e.g. parking lot lighting).

- A description of the proposed project building usage and size, including a site plan and elevation views, should be included. DOER 15

- Provide a summary of discussions with MassSave. DOER 16

- We recommend cross-examining produced model results' total and individual end uses with representative, prototype buildings developed by Pacific Northwest National Labs/Department of Energy found here: DOER 17

- https://www.energycodes.gov/sites/default/files/documents/BECP_901_2013_Progress_Indicator_0_0.pdf
- http://www.energycodes.gov/sites/default/files/documents/2013EndUseTables.zip
- https://www.energycodes.gov/commercial-energy-cost-savings-analysis

Sincerely,



Paul F. Ormond, P.E.
Energy Efficiency Engineer
Massachusetts Department of Energy Resources

MASSACHUSETTS DEPARTMENT OF ENERGY RESOURCES

DOER 01 **For project Baseline, use ASHRAE 90.1 2013 with applicable stretch code provisions. Indicate which two C406.1 options are being selected as part of the baseline.**

C406.1 options are not required to be modeled as part of the Baseline.

DOER 02 **For all buildings, envelope and glazing improvements are usually effective strategies toward GHG reduction and Zero Energy. We recommend at least two above-code envelope/glazing improvement scenarios be investigated,**

Above-code envelope, glazing and HVAC alternatives have been detailed in Section 10.2.2 and Attachment N.

DOER 03 **Where not already required by code, we recommend energy recovery options be investigated. Above code heating, cooling, pumping, and fan equipment also typically provide effective GHG reduction approaches.**

Above-code envelope, glazing and HVAC alternatives have been detailed in Section 10.2.2 and Attachment N.

DOER 04 **The size of the development, coupled with the residential program, create a potentially valuable CHP/CHCP opportunity. We recommend a thorough evaluation of combined heat and power (CHP) and combined heat, cooling and power (CHCP).**

CHP is discussed in Section 10.2.3.2. and Attachment N.

DOER 05 **Air source heat pumps and/or VRF systems may be an effective strategy. Space heating with such approaches may be eligible for thermal Alternative Energy Credits (AECs).**

Stationary sources are described in Section 10.2 of the GHG analysis.

DOER 06 **Water source heat pumps may be effective, providing highly efficient cooling and heating and also enabling trading of concurrent heating and cooling.**

Stationary sources are described in Section 10.2 of the GHG analysis.

DOER 07 **We recommend a thorough examination of reduced lighting power densities for both interior and exterior lighting attached to the buildings.**

The Proponent's commitment to reduced lighting power densities is discussed in Sections 10.2.1.1 and 10.4.2.

DOER 08 **LED lighting for the below-grade parking lots and street lights is usually an effective GHG mitigation strategy. We recommend this scenario be investigated.**

Lighting is discussed in Sections 10.2.1.1 and 10.4.2.

DOER 09 **If restaurants are planned, equipment loads will likely make up a majority of building energy consumption for the restaurant. We recommend a thorough examination of reduced equipment loads.**

Restaurant equipment is considered a process load, and as such, is excluded from building energy modeling.

DOER 10 **Responsive HVAC systems, where not already required by Code, such as economizers and demand controlled ventilation usually are effective GHG mitigation strategies which we recommend be investigated.**

HVAC systems are discussed in Section 10.2.1.1.

DOER 11 **Provide an estimate of usable roof area for development of solar PV and/or solar thermal. Based on that evaluation, estimate the associated GHG reduction. Consider all taxes and incentives when evaluating financial performance.**

PV alternatives and solar thermal are discussed in Section 10.2.3.2.

DOER 12 **In order to expedite the DOER review, we recommend the following accompany the submission [see letter for table].**

The GHG analysis provided in Section 10.0 provides the requested information.

DOER 13 **[The EIR should include] a description of the proposed building envelope assembly: report both component R-values and whole assembly U-factor. Utilize the pre-calculated relationships between R-Value and U-factor contained in Appendix A.**

Please refer to the GHG analysis presented in Section 10.

DOER 14 **Submit the following:**

- **A description of the building energy simulation model and procedures utilized.**
- **A detailed and complete table of modeling inputs showing the item and the input value for both the base and as-designed scenarios. The area of the building should be included.**
- **The output of the model showing the monthly and annual energy consumption, totalized and by major end use system.**
- **Baseline (as defined above) energy use intensity and proposed mitigated building energy use intensity.**
- **Project modeling files are to be submitted to the DEOR with the submittal on a flash drive or may be transmitted via electronic file transfer to paul.ormond@massmail.state.ma.us.**
- **Separate "side calculations" may be required for non-building energy consuming site improvements which are not included in the building energy modeling software (e.g. parking lot lighting).**

The requested information is provided the GHG analysis presented in Section 10.0.

DOER 15 **A description of the proposed project building usage and size, including a site plan and elevation views, should be included.**

A thorough Project description, accompanied by a site plan and elevation views, is provided in Section 2.0.

DOER 16 **Provide a summary of discussions with MassSave.**

Discussions with local utilities regarding available incentive programs are described in Section 10.2.4.

DOER 17 **We recommend cross-examining produced model results' total and individual end uses with representative, prototype buildings developed by Pacific Northwest National Labs/Department of Energy…**

Please refer to the GHG analysis presented in Section 10.

Massachusetts Port Authority
One Harborside Drive, Suite 200S
East Boston, MA 02128-2090
Telephone (617) 568-5950
www.massport.com

December 22, 2016

Secretary Matthew A. Beaton
Executive Office of Energy & Environmental Affairs
Attn: MEPA Office
Anne Canaday, EEA #15598
100 Cambridge Street, Suite 900
Boston, MA 02114

Subject: 115 Winthrop Square ENF (EEA #15610)

Dear Secretary Beaton:

On behalf of the Massachusetts Port Authority (Massport), thank you for the opportunity to submit comments on the Environmental Notification Form (ENF) filing for the 115 Winthrop Square Project. The Project seeks to build a 775 foot tall, 1.1-1.5 million sf mixed use building at 115 Winthrop Square in Boston. As stated in the ENF, the project exceeds a mandatory Environmental Impact Review (EIR) threshold and thus comments on this filing will be used in the development of the Draft EIR Scope.

Massport supports new development projects that strengthen our economy and provide employment opportunities to its residents. Our main aviation priority is to ensure aircraft are able to operate in a safe and efficient manner in and around Logan Airport. In that context, Massport strongly objects to the proposed tower height of 775 feet at the 115 Winthrop Square site. The proposed tower exceeds the height limit of 710 feet above mean sea level (AMSL) as defined by the *Boston- Logan International Airport Composite Map of Critical Airspace Surfaces* (Logan Airspace Map, attached). Note that the 710 AMSL limit will apply to the tallest point(s) of the proposed structure above sea level including mechanical units, antennas, etc. We have had initial discussions with the proponent and expect to continue the dialogue.

A building height greater than 710 feet MSL at the 115 Winthrop Square location would have the following impacts on Logan Airport operations:

- **Significantly impact Runway 27 Departures**. The proposed structure will penetrate the Federal Aviation Administration's (FAA) existing Runway 27 departure corridor. A building taller than 710' AMSL at this location would significantly reduce the capacity of the remaining airspace.
- **Lead airlines to shift departures from Runway 27 to Runway 33L**. This would reduce the efficiency of flight departure configurations in a Northwest wind condition
- **Shift overflights and associated noise** from communities south of Boston to communities west and north of Boston
- **Restrict existing FAA Circle-to-Land operations** to all runways, reducing flexibility of Logan FAA Air Traffic Control Tower to manage close-in flights

Therefore, Massport urges MCAF Winthrop LLC to explore alternative designs that meet the same project goals without exceeding the height of the 710 feet AMSL that would cause significant adverse Logan Airport operational and noise impacts. MPT 01

About the Logan Airspace Map

The Logan Airspace Map defines the critical airspace around Boston Logan International Airport to protect the flight corridors in and out of the airport. It was created by Massport with input from airlines, pilots, city officials, and the Federal Aviation Administration (FAA) to help guide developers and regulatory authorities on building heights. The map aids developers in their planning and assists the FAA in its review of individual projects to determine if they present a potential hazard to air navigation. It was widely distributed to among the development agencies including BPDA and the developer communities and is available at: http://www.massport.com/media/11778/BOS_COMPOSITE_Ver2pt0_dec201_small.pdf. Note that the Logan Air Space Map is based on the NAVD 88 datum and is different from Boston City Base Datum.

Massport is committed to collaborating with the MCAF Winthrop LLC to ensure that the Project complies with the Airspace Map and can be completed in a timely manner. Massport will work with the Proponent from the beginning of the design and permitting process and during construction to minimize the impact of the cranes on Logan airspace.

Complying with the Airspace Map does not relieve proponents of the responsibility of complying with the FAA 7460 review process. MCAF Winthrop LLC will be required to file the 7460 forms no later than 45 days prior to construction but we encourage that this be filed as early as possible to avoid delays. Separate forms have to be filed for the building and the construction cranes. MPT 02

Thank you for your consideration of our comments. Please feel free to contact me at (617) 568-3524 or at sdalzell@massport.com if you wish to discuss any of our concerns.

Sincerely,

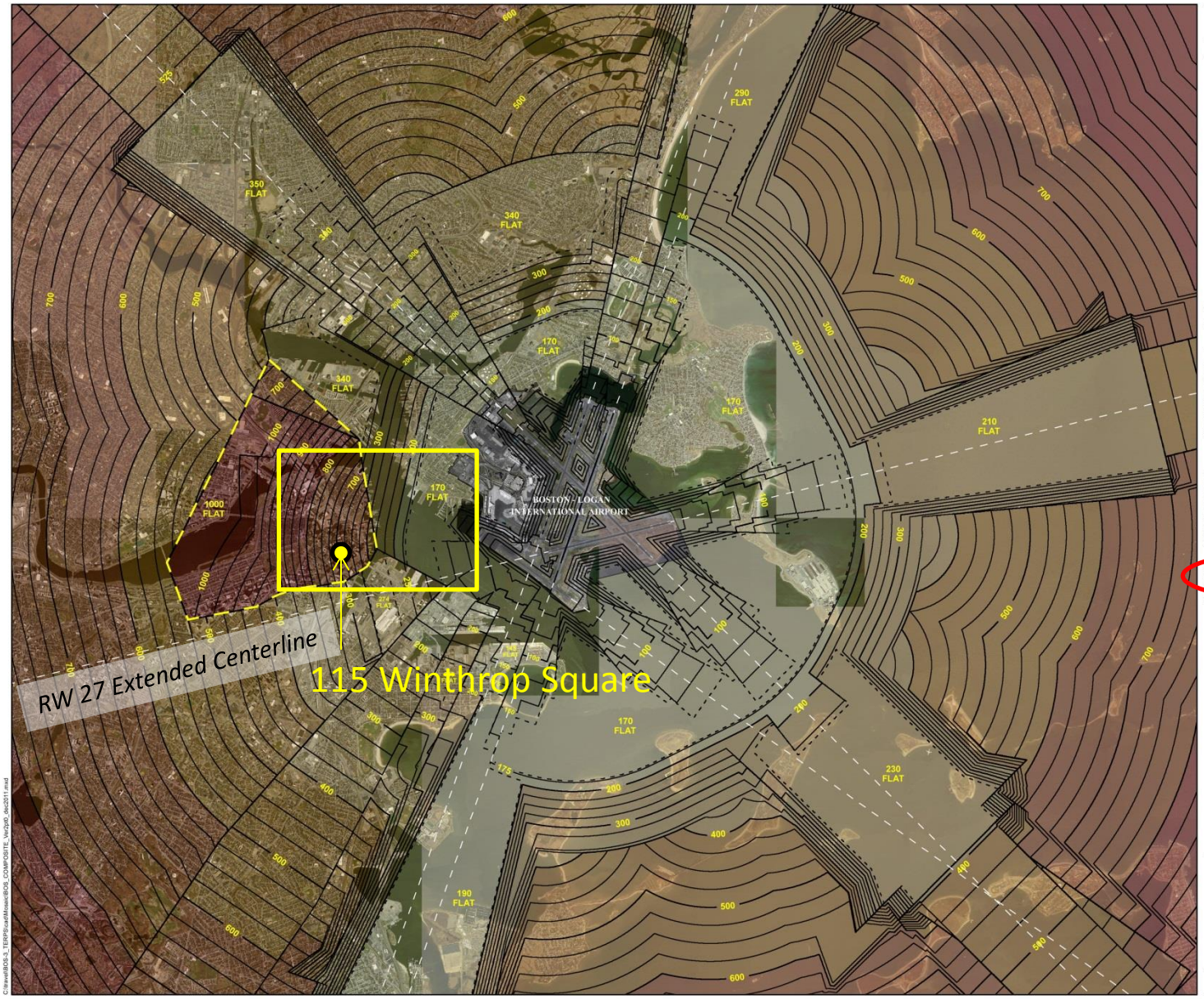
Massachusetts Port Authority

Stewart Dalzell, Deputy Director
Environmental Planning and Permitting

Cc: T. Glynn, E. Freni, J. Doolin, J. Pranckevicius, H. Morrison, F. Leo, S. Gongal/Massport
M. Walsh/FAA
J. Larkin/Millennium Partners
C. Tracy/BPDA
C. Schlessinger/Epsilon Associates

Enclosures:
Boston-Logan International Airport Composite of Critical Airspace Surfaces Map, and details of 115 Winthrop Square location

Logan Airspace Map



Boston – Logan International Airport
Composite of Critical Airspace Surfaces

Legend

Surface Elevations (MSL)

- 801' to 1,000'
- 601' to 800'
- 401' to 600'
- 201' to 400'
- up to 200'
- Downtown Zone Area

Dashed lines identify transition from "Flat" to "Sloping" surface.

Contour Interval = 25 FT

Notes:

1. This Composite Map is intended for informational and conceptual planning purposes only and does not represent actual survey data nor should it be used in the development of a FAA Form 7460. Massport does not certify the accuracy, information or title to the properties contained in this plan nor make any warranties of any kind, express or implied, in fact or by law, with respect to boundaries, easements, restrictions, claims, overlaps, or other encumbrances affecting such properties.

2. This Composite Map does not replace the FAA's 7460 review process. Consistency with the surfaces shown on this map does not ensure that the proposal will be acceptable to the FAA and air carriers. Massport reserves the right to re-assess, review and seek modifications to projects that may be consistent with this Composite Map but that through the FAA 7460 process are found to have unexpected impacts to Boston Logan's safety or efficiency.

3. Surface elevations are referenced in feet Above Mean Sea Level (AMSL - NAVD88)

COMPOSITE MAP PARAMETERS

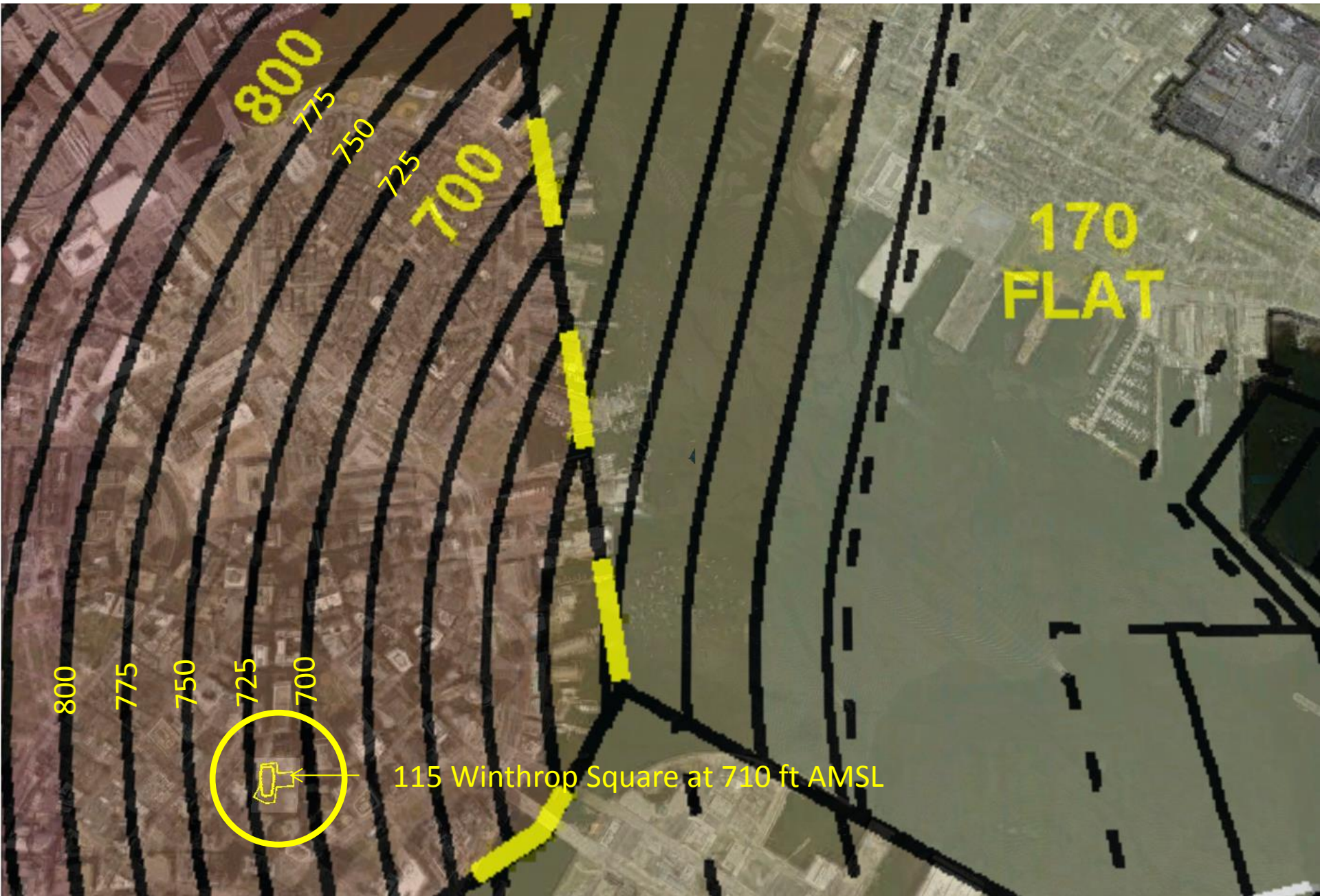
SURFACE TYPES	RUNWAYS
CIRCLE-TO-LAND	ALL RUNWAYS (EXCEPT 14)
ICAO/AC ONE ENGINE INOP.	4R, 4L, 9, 14, 15R, 22L, 22R, 27, 33L
IFR STND DEPARTURE	4R, 9, 14, 15R, 22L^, 22R^, 27^, 33L
IFR NON-STND DEPARTURE	4L
ILS APPROACH	4R, 15R, 22L, 27, 33L
ILS MISSED APPROACH	4R*, 15R, 22L, 27, 33L*^^
LOCALIZER APPROACH**	4R, 15R, 22L, 27, 33L
LNAV APPROACH**	4R, 15R, 22L, 27, 32, 33L
LNAV MISSED APPROACH	4R, 15R, 22L, 27, 32, 33L
PART 77 - STANDARD	EAST OF 4R/22L
PART 77 - VFR ONLY	WEST OF 4R/22L (N. OF DOWNTOWN)
VISIBILITY (CIRCLING)	ALL RUNWAYS (EXCEPT 14)
VISIBILITY (STRAIGHT-IN)	4R, 15R, 22L, 27, 32, 33L
VNAV APPROACH	4R, 15R, 27, 33L
VNAV MISSED APPROACH	4R, 15R, 27, 33L

* INCLUDES TRANSITION FROM PREVIOUS CRITERIA
* CAT 1 AND CAT 3
** CAT 3 SHIFTED 200'NW
^ ACCOUNTS FOR 7:1 DRIFT DOWN

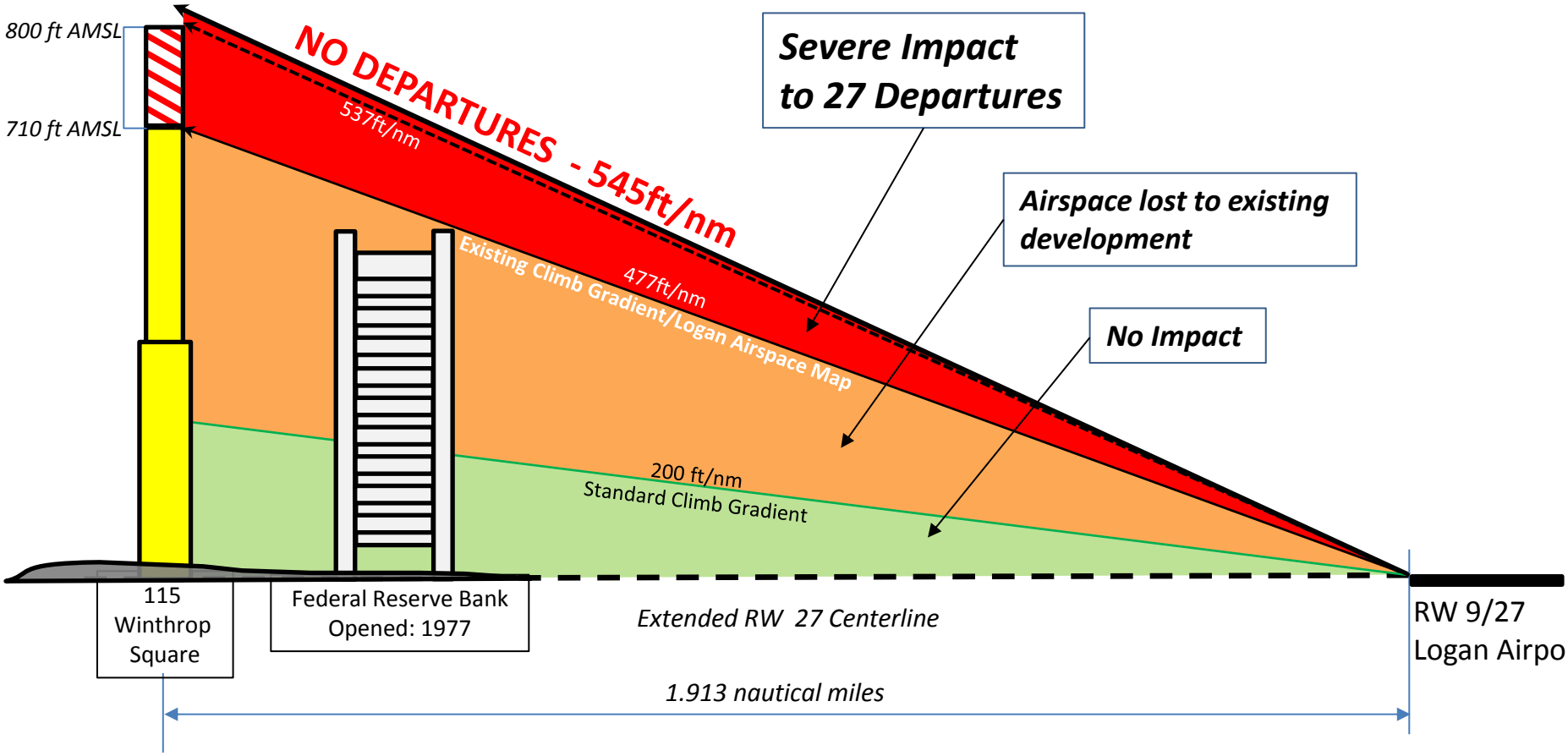
massport

VERSION 2.0 December 2011

115 Winthrop Square overlay on Logan Airspace Map



RW 27 climb gradient is already compromised more than twice the standard. Building taller than 710’ AMSL will significantly degrade remaining airspace



Note: *This graphic has been simplified to illustrate the issues in layman terms. Please refer to FAA AC 8260.3C Fig: 2-1-4 for more details.*

NOT TO SCALE

MPT 01 **Massport strongly objects to the proposed tower height of 775 feet at the 115 Winthrop Square site. The proposed tower exceeds the height limit of 710 feet above mean sea level as defined by the *Boston-Logan International Airport Composite Map of Critical Airspace Surfaces* (Logan Airspace Map)... A building height greater than 710 feet MSL at the 115 Winthrop Square location would have the following impacts on Logan Airport operations... Significantly impact Runway 27 Departures..., Lead airlines to shift departures from Runway 27 to Runway 33L..., Shift overflights and associated noise from communities south of Boston to communities west and north of Boston, [and] Restrict existing FAA Circle-to-Land operations... Therefore, Massport urges MCAF Winthrop LLC to explore alternative designs that meet the same project goals without exceeding the height of the 710 feet AMSL that would cause significant adverse Logan Airport operational and noise impacts.**

The Project's zoning height of approximately 664 feet (710' AMSL) is consistent with the operating guidelines provided by Massport and the technical review provided by the Federal Aviation Administration which has set various points of the Project site at 701-720 feet AMSL. The Project's height fits within this upper limit to avoid any operational changes in departures or arrivals at Logan International Airport. The FAA is currently conducting its public review period for this Aeronautical Study (See Attachment A).

MPT 02 **Complying with the Airspace Map does not relieve proponents of the responsibility of complying with the FAA 7460 review process. MCAF Winthrop LLC will be required to file the 7460 forms no later than 45 days prior to construction but we encourage that this be filed as early as possible to avoid delays. Separate forms have to be filed for the building and the construction cranes.**

The Proponent has filed FAA Form 7460 and the FAA has initiated the public notice period for the Project. The Proponent and its contractor are aware and familiar with the crane requirements required by the FAA and Massport.

The Commonwealth of Massachusetts

William Francis Galvin, Secretary of the Commonwealth
Massachusetts Historical Commission

December 20, 2016

Secretary Matthew A. Beaton
Executive Office of Energy & Environmental Affairs
100 Cambridge Street, Suite 900
Boston, MA 02114

ATTN: Page Czepiga – MEPA Unit

RE: 115 Winthrop Square, Boston (Downtown), MA; MHC# RC.61229; EEA# 15610

Dear Secretary Beaton:

Staff of the Massachusetts Historical Commission (MHC) have reviewed the Environmental Notification Form (ENF) that was submitted by Epsilon Associates for the project referenced above. The staff of the MHC has the following comments.

The proposed project consists of the demolition of the existing public parking garage and the construction of a mixed-use high-rise building. The building will have a traditional "tower on a podium" design. The proposed tower is lozenge-shaped and oriented along the north-south axis. The podium is proposed to contain a distinctive gathering place known as the Great Hall. The proposed building also contains a mid-rise wing.

The area of potential effect presented in the ENF was limited to ¼ mile study and the identified historic resources list was not comprehensive and therefore inadequate. The ENF is incomplete for MHC's review pursuant to 950 CMR 71.07(2)). The MHC notes that the project meets a categorical threshold for filing an Environmental Impact Report (EIR) through MEPA. MHC recommends that the EIR be fully scoped to identify and disclose project effects to historic properties and to seek comments from the public. The EIR should extend the historic resources study to include all impacted historic resources.

MHC requests that the following studies be scoped for the Environmental Impact Report:

- Shadow studies, overlaid on a historic resources map, which illustrates the current and new shadows from the proposed tower. The map should not be limited to a specific radius, but should show all new shadow on all of the historic resources in the shadow impact area. The shadow studies should be based on the currently designed form of the tower and not by standard massing. The shadow studies are needed in order to assist in determining the effects of the shadows on historic resources. The shadow studies should not be limited to Boston Common and Garden. MHC 01

220 Morrissey Boulevard, Boston, Massachusetts 02125
(617) 727-8470 • Fax: (617) 727-5128
www.sec.state.ma.us/mhc

- Wind studies that provide anticipated measurements near historic resources in the impacted area. MHC 02

- Visual impact studies to determine the potential effect of size, scale and massing of the proposed building on the character and setting of State Register properties. MHC requests pedestrian-level perspectives of the proposed building on the character and setting of State Register properties and districts in order to assist the MHC in determining what effect the size, scale, and massing will have on the nearby historic properties. The visual impact studies should illustrate the proposed tower from various historic resources throughout city. The MHC requests that the studies include, but not limited to, historic resources in the Back Bay, Beacon Hill, Downtown, North End, Bay Village, South End, South Boston, and Chinatown. MHC 03

These comments are offered to assist in compliance with M.G.L. Chapter 9, sections 26-27C (950 CMR 71.00), and MEPA (301 CMR 11). Please do not hesitate to contact Elizabeth Sherva of my staff if you have any questions.

Sincerely,

Brona Simon

Brona Simon
State Historic Preservation Officer
Executive Director
Massachusetts Historical Commission

xc: Joseph Larkin, MCAF Winthrop LLC c/o Millennium Partners
Cindy Schlessinger, Epsilon Associates
Marianne Connolly, MWRA
DEP-NERO
David Carlson, Boston Planning & Development Agency
Rosanne Foley, Boston Landmarks Commission
Michael Creasey, Boston National Historical Park
Greg Galer, Boston Preservation Alliance
Liz Vezza, Friends of the Public Garden
Bob Sloane, Walk Boston
Neighborhood Association of the Back Bay
Beacon Hill Civic Association

MASSACHUSETTS HISTORICAL COMMISSION, DECEMBER 20, 2016

MHC 01 **[MHC requests] shadow studies, overlaid on a historic resources map, which illustrates the current and new shadows from the proposed tower. The map should not be limited to a specific radius, but should show all new shadow on all of the historic resources in the shadow impact area. The shadow studies should be based on the currently designed form of the tower and not by standard massing.**

Historic resources are discussed in Section 8.0, and figures illustrating Project-related shadow impacts on historic resources are provided as Attachment M.

MHC 02 **[MHC requests] wind studies that provide anticipated measurements near historic districts in the impacted area.**

A comprehensive wind analysis is provided in Section 5.1 and impacts to Historic Resources are discussed in Section 8.0.

MHC 03 **[MHC requests] visual impact studies to determine the potential effect of size, scale and massing of the proposed building on the character and setting of State Register properties. MHC requests pedestrian-level perspectives of the proposed building on the character and setting of State Register properties and districts in order to assist the MHC in determining what effect the size, scale, and massing will have on the nearby historic properties. The visual impact studies should illustrate the proposed tower from various historic resources throughout the city. The MHC requests that the studies include, but not be limited to, historic resources in the Back Bay, Beacon Hill, Downtown, North End, Bay Village, South End, South Boston, and Chinatown.**

Visual impacts to historic resources are discussed in Section 8.0 and visual impact studies are included in Attachment L.

MASSACHUSETTS WATER RESOURCES AUTHORITY

Charlestown Navy Yard
100 First Avenue, Building 39
Boston, MA 02129

Frederick A. Laskey
Executive Director

Telephone: (617) 242-6000
Fax: (617) 788-4899
TTY: (617) 788-4971

December 12, 2016

Matthew A. Beaton, Secretary
Executive Office of Energy and Environmental Affairs
100 Cambridge St, Suite 900
Attn: MEPA Office, Anne Canaday
Boston, MA 02114

Subject: EOEEA #15610 - Environmental Notification Form
Winthrop Square, Boston, MA

Dear Secretary Beaton:

The Massachusetts Water Resources Authority (MWRA) appreciates the opportunity to comment on the Environmental Notification Form (ENF) for 115 Winthrop Square (the "Project") located at 115 Winthrop Square (Federal Street), Boston. The approximately 47,962 square-foot site is bounded by 75-101 Federal Street to the north, 100 Summer Street to the South, Devonshire Street to the west, and Federal Street to the east. The project consists of a 1,100,000 to 1,500,000-sf mixed-use high rise building (775-ft max height) with residential (750 maximum units), retail, restaurant, public, and office space uses. It will generate approximately 213,428 gallons per day (gpd) of wastewater and consume approximately 194,025 gpd of water.

MWRA comments focus on issues related to stormwater and wastewater flows emphasizing the need for infiltration and inflow ("I/I") removal, and discharge permitting from the Toxic Reduction and Control (TRAC) Group.

Stormwater and Wastewater

The Project site is served by combined sewers owned by the Boston Water and Sewer Commission (BWSC). These sewers will continue to collect combined sanitary sewage and stormwater from the Project site for conveyance to MWRA's wastewater system. There is no separate stormwater infrastructure in the streets adjacent to the Project site. The ENF reports that there are existing BWSC combined sewer mains located in Devonshire Street and Federal Street adjacent to the Project site. Stormwater from the existing parking structure is collected through roof drains and likely directed to the combined sewers in Devonshire Street and Federal Street. The ENF reports that the project will result in no net increase or decrease in impervious area; the existing and proposed Project site conditions are 100 percent impervious. The Project will maintain the existing peak rates and volume of stormwater runoff leaving the site. All on-site sanitary and stormwater improvements and connections to BWSC's infrastructure will be reviewed by BWSC as part of its site plan approval process.

The ENF reports that the Project will generate approximately 194,025 gallons per day of new wastewater flow. The ENF states that the Project will likely have multiple connections to the existing sewer infrastructure in the adjacent streets, including a 24-inch by 36-inch BWSC combined sewer in Federal Street and a 16-inch by 24-inch BWSC combined sewer in Devonshire Street. According to the BWSC storm drain and sewer maps, both combined sewer mains connect to a 28-inch by 40-inch BWSC combined sewer at the intersection of Franklin and Federal Streets, eventually tying into BWSC's New East Side Interceptor which, together with BWSC's New Boston Main Interceptor, carries flows to

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MWRA's Columbus Park Headworks for transport to the Deer Island Treatment Plant. The BWSC combined sewers include combined sewer overflow (CSO) regulators that allow the system to overflow to Fort Point Channel at BWSC CSO outfalls when system capacity is exceeded in large storms.

To ensure that the Project's wastewater flow does not increase system surcharging or CSOs in large storms, the Proponent should continue to work with BWSC to develop a plan for ensuring a 4:1 offset of the Project's wastewater flow in accordance with BWSC policy and in compliance with Massachusetts Department of Environmental Protection regulation. That is, removing four gallons of stormwater and/or infiltration and inflow (I/I) from a hydraulically related sewer system(s) for every gallon of new wastewater flow. Increasing wastewater flow to the BWSC sewer system without the offset can compromise the sewer system and harbor water quality benefits of MWRA's $907 million region-wide CSO control plan, including water quality improvement in Fort Point Channel. MWRA 01

TRAC Discharge Permitting

The ENF states that the Project requires an MWRA Construction Dewatering Permit because it is located in a combined sewer area. For assistance in obtaining this permit, both the Proponent and the Contractor (the individual that will conduct the construction) should contact Mr. George Riley, Industrial Coordinator within the TRAC Department at (617) 305-5664. The Dewatering Permit must be issued by both the MWRA and BWSC prior to any groundwater discharge into the sanitary sewer system.

The Project must also comply with 360 C.M.R. 10.016, if it intends to install gas/oil separator(s) in the proposed parking garage. In addition to complying with 360 C.M.R. 10.000, the Proponent shall conform to the regulations of the Board of State Examiners of Plumbers and Gas Fitters, 248 C.M.R. 2.00 (State Plumbing Code), and all other applicable laws. The installation of the proposed gas/oil separator(s) will require MWRA approval and may not be back filled until inspected and approved by the MWRA and the Local Plumbing Inspector. For assistance in obtaining an inspection, a Project representative should contact Mr. Stephen Howard, Source Coordinator within the TRAC Department at (617) 305-5675. MWRA 02

Sincerely,

Marianne Connolly

Marianne Connolly
Senior Program Manager
Environmental Review and Compliance

cc: Solomon Wondimu, MWRA E&C
David Kubiak, MWRA E&C
Kattia Thomas, MWRA TRAC
Adam Horst, BWSC
Kevin Brander, DEP

C:MEPA:15610WinthropSquareBostonENF.doc

MASSACHUSETTS WATER RESOURCES AUTHORITY

MWRA 01 **To ensure that the Project's wastewater flow does not increase system surcharging or CSOs in large storms, the Proponent should continue to work with BWSC to develop a plan for ensuring a 4:1 offset of the Project's wastewater flow in accordance with BWSC policy and in compliance with MassDEP regulation.**

Please see the response to MEPA 42. A commitment to I/I mitigation is discussed in Section 9.2.4

MWRA 02 **The Project must comply with 360 CMR 10.016 if it intends to install gas/oil separators in the proposed parking garage.**

All gas/oil separators for the Project will be designed in accordance with 360 CMR 10.016 and 248 CMR.

Boston Water and Sewer Commission

980 Harrison Avenue
Boston, MA 02119-2540
617-989-7000

RECEIVED
DEC 14 2016
MEPA

December 12, 2015

Secretary Matthew Beaton
Executive Office of Energy and Environmental Affairs (EEA)
Attn: MEPA Office
Page Czepiga, EEA 15610
100 Cambridge Street, Suite 900
Boston, MA 02114

and

Christopher Tracy
Senior Project Manager
Boston Planning and Development Agency
Boston City Hall
One City Hall Square
Boston, MA 02201

Re: 115 Winthrop Square / 115 Federal Street, Boston
Environmental Notification Form
Project Notification Form

Dear Secretary Beaton and Mr. Tracy:

The Boston Water and Sewer Commission (Commission) has reviewed the Environmental Notification Form (ENF) and the Project Notification Form (PNF) for the 115 Winthrop Square / 115 Federal Street project. This letter provides the Commission's comments on the ENF / PNF.

The proposed project is located at 115 Winthrop Square / 115 Federal Street in downtown Boston. The site is approximately 47,962 square feet and bounded by 75-101 Federal Street to the north, 100 Summer Street to the south, Devonshire Street to the west, and Federal Street to the east.

The project consists of demolition of an existing four-story vacant parking garage and construction of a new approximately 1.1 to 1.5 million square foot, mixed-use tower containing residential, office, retail, restaurant, parking and commercial space. The building will be approximately 775 feet tall and there will be approximately 400 to 550 parking spaces in a below-grade parking garage.

For water service, the site is served by a 12-inch low service and a 10-inch high service main on Federal Street, a six-inch low service main on Federal Court and a 12-inch low service and a 10-inch high service main on Devonshire Street. The Commission also maintains a 12-inch high pressure fire service pipe in Federal Street and Devonshire Street.

For sewer and storm drainage service, the site is served by a 24x36-inch combined sewer on Federal Street and a 16x24-inch combined sewer on Devonshire Street.

The ENF / PNF states that the proposed project will use approximately 213,428 gallons per day (gpd) of water and generate approximately 194,025 gpd of wastewater.

The Commission has the following comments regarding the ENF / PNF.

General

1. Prior to demolition of the buildings, all water, sewer and storm drain connections to the buildings must be cut and capped at the main pipe in accordance with the Commission's requirements. The Developers, MCAF Winthrop, LLC must then complete a Termination Verification Approval Form for a Demolition Permit, available from the Commission and submit the completed form to the City of Boston's Inspectional Services Department before a demolition permit will be issued. BWSC 01

2. All new or relocated water mains, sewers and storm drains must be designed and constructed at MCAF Winthrop, LLC's. They must be designed and constructed in conformance with the Commission's design standards, Water Distribution System and Sewer Use Regulations, and Requirements for Site Plans. The site plan should include the locations of new, relocated and existing water mains, sewers and drains which serve the site, proposed service connections, as well as back flow prevention devices in the facilities that will require inspection. BWSC 02

3. As mentioned in the ENF / PNF, the Department of Environmental Protection (DEP), in cooperation with the Massachusetts Water Resources Authority and its member communities, are implementing a coordinated approach to flow control in the MWRA regional wastewater system, particularly the removal of extraneous clean water (e.g., infiltration/ inflow (I/I)) in the system. In April of 2014, the Massachusetts DEP promulgated new regulations regarding wastewater. The Commission has a National Pollutant Discharge Elimination System (NPDES) Permit for its combined sewer overflows and is subject to these new regulations [314 CMR 12.00, section 12.04(2)(d)]. This section requires all new sewer connections with design flows exceeding 15,000 gpd to mitigate the impacts of the development by removing four gallons of infiltration and inflow (I/I) for each new gallon of wastewater flow. In this regard, any new connection or expansion of an existing connection that exceeds 15,000 gallons per day of wastewater BWSC 03

shall assist in the I/I reduction effort to ensure that the additional wastewater flows are offset by the removal of I/I. Currently, a minimum ratio of 4:1 for I/I removal to new wastewater flow added. The Commission supports the policy, and will require proponent to develop a consistent inflow reduction plan. The 4:1 requirement should be addressed at least 90 days prior to activation of water service and will be based on the estimated sewage generation provided on the project site plan.

4. The design of the project should comply with the City of Boston's Complete Streets Initiative, which requires incorporation of "green infrastructure" into street designs. Green infrastructure includes greenscapes, such as trees, shrubs, grasses and other landscape plantings, as well as rain gardens and vegetative swales, infiltration basins, and paving materials and permeable surfaces. The proponent must develop a maintenance plan for the proposed green infrastructure. For more information on the Complete Streets Initiative see the City's website at http://bostoncompletestreets.org/ BWSC 04

5. MCAF Winthrop, LLC should be aware that the US Environmental Protection Agency issued a draft Remediation General Permit (RGP) for Groundwater Remediation, Contaminated Construction Dewatering, and Miscellaneous Surface Water Discharges. If groundwater contaminated with petroleum products, for example, is encountered, MCAF Winthrop, LLC will be required to apply for a RGP to cover these discharges. BWSC 05

6. It is MCAF Winthrop, LLC's responsibility to evaluate the capacity of the water, sewer and storm drain systems serving the project site to determine if the systems are adequate to meet future project demands. With the site plan, MCAF Winthrop, LLC must include a detailed capacity analysis for the water, sewer and storm drain systems serving the project site, as well as an analysis of the impacts the proposed project will have on the Commission's water, sewer and storm drainage systems. BWSC 06

Water

1. MCAF Winthrop, LLC must provide separate estimates of peak and continuous maximum water demand for residential, commercial, industrial, irrigation of landscaped areas, and air-conditioning make-up water for the project with the site plan. Estimates should be based on full-site build-out of the proposed project. MCAF Winthrop, LLC should also provide the methodology used to estimate water demand for the proposed project. BWSC 07

2. As stated in the ENF/PNF, MCAF Winthrop, LLC will explore opportunities for implementing water conservation measures in addition to those required by the State Plumbing Code. In particular, MCAF Winthrop, LLC should consider outdoor landscaping which requires minimal use of water to maintain. If MCAF Winthrop, LLC plans to install in-ground sprinkler systems, the Commission recommends that timers, BWSC 08

soil moisture indicators and rainfall sensors be installed. The use of sensor-operated faucets and toilets in common areas of buildings should be considered.

3. MCAF Winthrop, LLC is required to obtain a Hydrant Permit for use of any hydrant during the construction phase of this project. The water used from the hydrant must be metered. MCAF Winthrop, LLC should contact the Commission's Meter Department for information on and to obtain a Hydrant Permit. BWSC 09

4. The Commission is utilizing a Fixed Radio Meter Reading System to obtain water meter readings. For new water meters, the Commission will provide a Meter Transmitter Unit (MTU) and connect the device to the meter. For information regarding the installation of MTUs, MCAF Winthrop, LLCs should contact the Commission's Meter Department.

Sewage / Drainage

1. In conjunction with the Site Plan, MCAF Winthrop, LLC will be required to submit a Stormwater Pollution Prevention Plan. The plan must: BWSC 10

   - Identify specific best management measures for controlling erosion and preventing the discharge of sediment, contaminated stormwater or construction debris to the Commission's drainage system when construction is underway.

   - Include a site map which shows, at a minimum, existing drainage patterns and areas used for storage or treatment of contaminated soils, groundwater or stormwater, and the location of major control structures or treatment structures to be utilized during the construction.

   - Specifically identify how the project will comply with the Department of Environmental Protection's Performance Standards for Stormwater Management both during construction and after construction is complete.

2. The discharge of dewatering drainage to a sanitary sewer is prohibited by the Commission. MCAF Winthrop, LLC is advised that the discharge of any dewatering drainage requires a Drainage Discharge Permit from the Commission. If the dewatering drainage is contaminated with petroleum products, the proponent will be required to obtain a Remediation General Permit from the Environmental Protection Agency (EPA) for the discharge. BWSC 11

3. MCAF Winthrop, LLC must fully investigate methods for retaining stormwater on-site before the Commission will consider a request to discharge stormwater to the Commission's system. The site plan should indicate how storm drainage from roof drains will be handled and the feasibility of retaining their stormwater discharge on-site. Under no circumstances will stormwater be allowed to discharge to a sanitary sewer. BWSC 12

4. Sanitary sewage must be kept separate from stormwater and separate sanitary sewer and storm drain service connections must be provided. The Commission requires separate stormwater and sanitary sewer service connections. BWSC 13

5. The Commission requests that MCAF Winthrop, LLC install a permanent casting stating "Don't Dump: Drains to Boston Harbor" next to any catch basin created or modified as part of this project. MCAF Winthrop, LLC should contact the Commission's Operations Division for information regarding the purchase of the castings. BWSC 14

6. If a cafeteria or food service facility is built as part of this project, grease traps will be required in accordance with the Commission's Sewer Use Regulations. MCAF Winthrop, LLC is advised to consult with the Commission's Operations Department with regards to grease traps. BWSC 15

7. The enclosed floors of a parking garage must drain through oil separators into the sewer system in accordance with the Commission's Sewer Use Regulations. The Commission's Requirements for Site Plans, available by contacting the Engineering Services Department, include requirements for separators. BWSC 16

Thank you for the opportunity to comment on this project.

Yours truly,

John P. Sullivan, P.E.
Chief Engineer

JPS/cj

c: J. Larkin, MCAF Winthrop, LLC
K. MacNeill, MCAF Winthrop, LLC
C. Schlessinger, Epsilon Associates, Inc.
K. Pedersen, BRA
M. Zlody, BED
P. Larocque, BWSC

BOSTON WATER AND SEWER COMMISSION

BWSC 01 **Prior to demolition of the buildings, all water, sewer and storm drain connections to the buildings must be cut and capped at the main pipe in accordance with the Commission's requirements. The Developers, MCAF Winthrop, LLC must then complete a Termination Verification Approval Form for a Demolition Permit, available from the Commission and submit the completed form to the City of Boston's Inspectional Services Department before a demolition permit will be issued.**

The proposed Project will comply with this requirement.

BWSC 02 **All new or relocated water mains, sewers and storm drains must be designed and constructed at MCAF Winthrop, LLC. They must be designed and constructed in conformance with the Commission's design standards, Water Distribution System and Sewer Use Regulations, and Requirements for Site Plans. The site plan should include the locations of new, relocated and existing water mains, sewers and drains which serve the site, proposed service connections, as well as backflow prevention devices in the facilities that will require inspection.**

If it is determined that new BWSC infrastructure is required for this Project, the proposed Project will comply with this requirement.

BWSC 03 **[A]ll new sewer connections with design flows exceeding 15,000 gpd [must] mitigate the impacts of the development by removing four gallons of infiltration and inflow (I/I) for each new gallon of wastewater flow. In this regard, any new connection or expansion of an existing connection that exceeds 15,000 gpd of wastewater shall assist in the I/I reduction effort to ensure that the additional wastewater flows are offset by the removal of I/I… The 4:1 requirement should be addressed at least 90 days prior to activation of water service and will be based on the estimated sewage generation provided on the project site plan.**

Please see the response to MEPA 42. A commitment to I/I mitigation is discussed in Section 9.2.4

BWSC 04 **The design of the project should comply with the City of Boston's Complete Streets Initiative, which requires incorporation of "green infrastructure" into street designs. Green infrastructure includes greenscapes, such as trees, shrubs, grasses and other landscape plantings, as well as rain gardens and vegetative swales, infiltration basins, and paving materials and permeable surfaces. The proponent must develop a maintenance plan for the proposed green infrastructure.**

The landscape design will comply with the intentions of the City of Boston's Complete Streets Initiative to increase permeability and planting within the streetscape. Green infrastructure including permeable paving, street trees, and other planting will be incorporated within the design of the streetscape and/or redesign of Winthrop Square.

It is anticipated that the Proponent will assume maintenance of the green infrastructure and will undertake a License, Maintenance and Indemnification (LMI) Agreement with the City of Boston.

BWSC 05 **MCAF Winthrop, LLC should be aware that the US EPA issued a draft Remediation General Permit (RGP) for Groundwater Remediation, Contaminated Construction Dewatering, and Miscellaneous Surface Water Discharges. If groundwater contaminated with petroleum products, for example, is encountered, MCAF Winthrop, LLC will be required to apply for an RGP to cover these discharges.**

Sampling and testing of the groundwater is planned in the future under the direction of an LSP. Based on results of the testing, appropriate permits will be filed for construction dewatering.

BWSC 06 **It is MCAF Winthrop, LLC's responsibility to evaluate the capacity of the water, sewer and storm drain systems serving the project site to determine if the systems are adequate to meet future project demands. With the site plan, MCAF Winthrop, LLC must include a detailed capacity analysis for the water, sewer and storm drain systems serving the project site, as well as an analysis of the impacts the proposed project will have on the Commission's water, sewer and storm drain systems.**

Water, wastewater, and stormwater infrastructure are discussed in Sections 9.1, 9.2, and 9.3, respectively.

BWSC 07 **MCAF Winthrop, LLC must provide separate estimates of peak and continuous maximum water demand for residential, commercial, industrial, irrigation of landscaped areas, and air-conditioning make-up water for the project with the site plan. Estimates should be based on full-site build-out of the proposed project. MCAF Winthrop, LLC should also provide the methodology used to estimate water demand for the proposed project.**

Water infrastructure and Project demand are described in Section 9.1. Peak water demand will be determined during the design phase based on the fixture count of the building, and will be submitted to BWSC as part of the site plan approval process.

BWSC 08 **MCAF Winthrop, LLC should consider outdoor landscaping which requires minimal use of water to maintain. If MCAF Winthrop, LLC plans to install in-ground sprinkler systems, the Commission recommends that timers, soil moisture indicators and rainfall sensors be installed. The use of sensor-operated faucets and toilets in common areas of buildings should be considered.**

Water conservation measures are described in Section 9.1.4.

BWSC 09 **MCAF Winthrop, LLC is required to obtain a Hydrant Permit for use of any hydrant during the construction phase of this project. The water used from the hydrant must be metered.**

The proposed Project will comply with this requirement.

BWSC 10 **In conjunction with the site plan, MCAF Winthrop, LLC will be required to submit a SWPPP. The plan must:**

- **Identify specific best management measures for controlling erosion and preventing the discharge of sediment, contaminated stormwater or construction debris to the Commission's drainage system when construction is underway.**
- **Include a site map which shows, at a minimum, existing drainage patterns and areas used for storage or treatment of contaminated soils, groundwater or stormwater, and the location of major control structures or treatment structures to be utilized during the construction.**
- **Specifically identify how the project will comply with MassDEP's Performance Standards for Stormwater Management both during construction and after construction is complete.**

The proposed Project will comply with this requirement.

BWSC 11 **MCAF Winthrop, LLC is advised that the discharge of any dewatering drainage requires a Drainage Discharge Permit from the Commission. If the dewatering drainage is contaminated with petroleum products, the proponent will be required to obtain a Remediation General Permit from the EPA for the discharge.**

The proposed Project will comply with this requirement.

BWSC 12 **MCAF Winthrop, LLC must fully investigate methods for retaining stormwater on-site before the Commission will consider a request to discharge stormwater to the Commission's system. The site plan should indicate how storm drainage from roof drains will be handled and the feasibility of retaining their stormwater discharge on-site. Under no circumstances will stormwater be allowed to discharge to a sanitary sewer.**

Proposed stormwater management is described in Section 9.3.

BWSC 13 **Sanitary sewage must be kept separate from stormwater and separate sanitary sewer and storm drain service connections must be provided. The Commission requires separate stormwater and sanitary sewer service connections.**

Wastewater and stormwater management are described in Sections 9.2 and 9.3, respectively.

BWSC 14 **The Commission requests that MCAF Winthrop, LLC install a permanent casting stating "Don't Dump: Drains to Boston Harbor" next to any catch basin created or modified as part of this project. MCAF Winthrop, LLC should contact the Commission's Operations Division for information regarding the purchase of the castings.**

The proposed Project will comply with this requirement.

BWSC 15 **If a cafeteria or food service facility is built as part of this project, grease traps will be required in accordance with the Commission's Sewer Use Regulations. MCAF Winthrop, LLC is advised to consult with the Commission's Operations Department with regards to grease traps.**

The proposed Project will comply with this requirement.

BWSC 16 **The enclosed floors of a parking garage must drain through oil separators into the sewer system in accordance with the Commission's Sewer Use Regulations. The Commission's Requirements for Site Plans, available by contacting the Engineering Services Department, include requirements for separators.**

The proposed Project will comply with this requirement.

December 14, 2016

Matthew A. Beaton, Secretary
Executive Office of Energy & Environmental Affairs
Attention: MEPA Office – Paige Czepiga, MEPA #15610
100 Cambridge Street, Suite 900
Boston, MA 02114

RE: 115 Winthrop Square, MEPA #15610

Dear Secretary Beaton:

The Metropolitan Area Planning Council (MAPC) regularly reviews proposals deemed to have regional impacts. The Council reviews proposed projects for consistency with *MetroFuture*, the regional policy plan for the Boston metropolitan area, the Commonwealth's Sustainable Development Principles, consistency with Complete Streets policies and design approaches, as well as impacts on the environment.

MAPC has a long-term interest in alleviating regional traffic and environmental impacts, consistent with the goals of *MetroFuture*. The Commonwealth also has established a mode shift goal of tripling the share of travel in Massachusetts by bicycling, transit and walking by 2030. Additionally, the Commonwealth has a statutory obligation to reduce greenhouse gas emissions (GHG) by 25% from 1990 levels by 2020 and by 80% from 1990 levels by 2050. In May 2016, the Massachusetts Supreme Judicial Court released a unanimous decision in *Kain vs. Massachusetts Department of Protection (DEP)* ordering the state's DEP to take additional measures to implement the 2008 Global Warming Solutions Act. Specifically, the Court held that DEP must impose volumetric limits on the aggregate greenhouse gas emissions from certain types of sources and that these limits must decline on an annual basis. This recent ruling reasserts the state's obligation to meet these goals.

115 Winthrop Square (the Project) proposes to develop an approximate 47,962 square foot site bounded generally by Summer Street to the south, Federal Street to the east, and Devonshire Street to the west in Boston. Specifically, MCAF Winthrop LLC (the Proponent) proposes to construct a mixed-use building that will include approximately 1.1 to 1.5 million square feet (sf). The Project is anticipated to generate between 4,530 to 4,554 daily vehicle trips.

While the Environmental Notification Form (ENF) states that the allocation of specific uses will be determined during the design process, the approximate minimum and maximum project elements include:

Project Element	Approximate Minimum	Approximate Maximum
Residential	290 Units	460 Units
Office	463,000 sf	663,000 sf
Retail and Restaurant	35,000 sf	60,000 sf
Great Hall	10,000 sf	15,000 sf

The Proponent indicates that between 400 to 550 parking spaces will be constructed. However, it is important to note that the Project site includes approximately 1,000 parking spaces. It is unclear whether, and to what extent, these parking spaces will be included as part of the Project and whether the existing parking garage will be retained. This should be clarified in the Environmental Impact Report (EIR). MAPC 01

In order to minimize adverse impacts and to keep the Commonwealth on track in meeting its regulatory and statutory goals, MAPC respectfully requests that you require the Proponent to clearly indicate the MAPC 02

proposed number of parking spaces for each project element. In addition to implementing a shared parking program with nearby uses, if feasible, the number of parking spaces in the Project itself should be reduced to the fullest possible extent, particularly for the residential component. A reduced parking supply will encourage and reinforce the use of the many available alternative modes of transportation in this transit-rich location.

The *Perfect-Fit Parking Initiative: Phase 1 Report* now being completed by MAPC, and expected to be released by early January, has studied 80 multifamily developments in 5 urbanized communities north of Boston, demonstrating that 26% of spaces are vacant at night. Our conclusion is that parking at multifamily developments is routinely overbuilt, and that extra parking tends to generate more cars and increased traffic. We therefore routinely suggest that efforts be made to minimize parking at new multifamily developments.

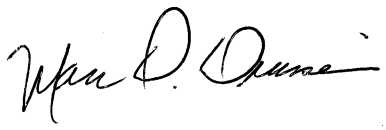
On another matter, we expect the Environmental Impact Report (EIR) will indicate the number of affordable housing units, the level of affordability, and the bedroom distribution of both affordable and market-rate units. This is an environmental as well as a housing issue, because there is strong evidence that lower-income households own fewer cars, use less parking, and generate less traffic. According to the study, *Maintaining Diversity in America's Transit Rich Neighborhoods*[1], "people of color, low-income households and renters are all more likely to use transit than the average American" (p. 2). MAPC 03

It is important to call attention to the fact that significant concerns have been expressed regarding the shadow impacts this Project may create, specifically over Boston Common and the Public Garden. Specifically, concerns have been raised that the shadows this Project will generate could violate a state law that prevents new buildings in most of central Boston from casting additional shadows on either park for more than one hour a day. It has been reported that the proposed Project could extend shadows for as long as 90 minutes in the morning over the parks, possibly reaching the start of the Commonwealth Avenue Mall, a mile away, at certain times of year[2]. MAPC expects that the Project's EIR will contain information about the building's height, a comprehensive shadow analysis, and address whether this Project affects existing laws regarding shadow impacts. MAPC 04

The intent of these recommendations is to encourage a greater shift of auto trips to transit, bicycling, and walking, which will minimize the adverse impacts of this Project and help to keep the Commonwealth on track to meet its statutory and regulatory goals. MAPC respectfully requests that the Secretary incorporate these recommendations into the Certificate defining the scope of the Project's EIR.

Thank you for the opportunity to comment on this Project.

Sincerely,



Marc D. Draisen
Executive Director

cc: John Barros, Chief of Economic Development, MAPC Representative
Andrew Grace, MAPC Alternate Representative
Brian Golden, BRA
Gina Fiandaca, BTD
David Mohler, MassDOT

[1] Prepared by the Dukakis Center for Urban and Regional Policy; Stephanie Pollack, Barry Bluestone, Chase Billingham; October 2010.
http://www.northeastern.edu/dukakiscenter/transportation/transit-oriented-development/maintaining-diversity-in-americas-transit-rich-neighborhoods

[2] *Tall Tower is Planner in Boston. What Shadow will it Cast?*, Boston Globe, November 1, 2016.

METROPOLITAN AREA PLANNING COUNCIL

MAPC 01 **The Proponent indicates that between 400 and 550 parking spaces will be constructed. However, it is important to note that the Project site includes approximately 1,000 parking spaces. It is unclear whether, and to what extent, these parking spaces will be included as part of the Project and whether the existing parking garage will be retained.**

None of the existing parking will be retained for the proposed Project. As described in the context of the Project program in Section 2.0, the Project includes parking for approximately 550 vehicles.

MAPC 02 **MAPC respectfully requests that you require the Proponent to clearly indicate the proposed number of parking spaces for each project element. In addition to implementing a shared parking program with nearby uses, if feasible, the number of parking spaces in the Project itself should be reduced to the fullest possible extent, particularly for the residential component.**

Total proposed parking on-site will include approximately 550 vehicles, including approximately 250 vehicles for the commercial component of the Project. A more detailed discussion of parking is included in Section 4.7.

MAPC 03 **We expect the EIR will indicate the number of affordable housing units, the level of affordability, and the bedroom distribution of both affordable and market-rate units.**

The Proponent will comply with the Mayor's executive order regarding Inclusionary Development Policy. Please see Section 2.2.3, Public Benefits.

MAPC 04 **MAPC expects that the Project's EIR will contain information about the building's height, a comprehensive shadow analysis, and address whether this Project affects existing laws regarding shadow impacts.**

A comprehensive shadow analysis is provided in Section 5.2.

BEACON HILL CIVIC ASSOCIATION

Neighbors Helping Neighbors

74 Joy Street
Boston
MA 02114
617.227.1922
info@bhcivic.org
www.bhcivic.org

December 27, 2016

Secretary Matthew A. Beaton
Executive Office of Energy and Environmental Affairs (EEA)
Attn: Page Czepiga, MEPA Office
100 Cambridge Street, Suite 90
Boston MA 02114

Re: **115 Winthrop Square, Boston**
EEA No. 15610

Dear Secretary Beaton:

The Beacon Hill Civic Association has strived since 1922 to improve the quality of life on Beacon Hill and to represent the interests of Beacon Hill residents in matters of urban planning.

Thank you for the opportunity to comment on the Environmental Notification Form submitted by MCAF Winthrop LLC (Millennium) and on the scope of environmental review to be undertaken by Millenium pursuant to the Massachusetts Environmental Policy Act.

The proposed project, with between 1.1 million and 1.5 million square feet of floor area, is one of the largest development projects proposed for development in Massachusetts. Accordingly, it is appropriate to require an Environmental Impact Report (EIR) pursuant to 301 CMR 11.06.

In documents filed with the Boston Planning and Development Agency (BPDA), Millenium represented that the project is subject to MEPA review on account of the disposition of the project site by BPDA and the necessity for permits and approvals from several state agencies. We understand that the agreement for disposition of the project site by BPDA includes or will include pricing and design parameters that require a minimum project size that relates physically to many environmental impacts of interest to residents of downtown neighborhoods, including Beacon Hill.

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BHCA respectfully requests that the scope of the EIR include all relevant environmental impacts, with particular attention to impacts on public transportation systems and impacts on the Commonwealth's historic resources, especially the Boston Common and Public Garden. BHCA 01

The EIR should address specifically the additional shadows that the proposed project will cast on the Boston Common and Public Garden. Although not identified by Millenium among the state approvals required, the project will require legislation from the General Court to relieve the project from the limitations of Chapter 362 of the Acts of 1990, as amended (Public Commons Shadow Act) which protects the Boston Common and Public Garden from the environmental effects of shadows cast by new buildings. To our knowledge, there is no legislation pending to provide such relief. Whether the Public Commons Shadow Act will be amended to allow the project to be constructed is not known. BHCA 02

To evaluate a draft EIR without considering specific existing environmental statutes would not be consistent with MEPA. Accordingly, when selecting alternative development options to consider in an EIR, Millennium should also be directed to evaluate the environmental impacts of a building that would comply with existing statutes, including the Public Commons Shadow Act.

Thank you for considering our comments on the Environmental Notification Form. We look forward to reviewing and commenting on the EIR for the project.

Sincerely,



Mark Kiefer
Chairman of the Board

cc:
Governor Charles Baker
Senator William Brownsberger
Senator Joseph Boncore
Representative Jay Livingstone
Representative Aaron Michlewitz
Representative Byron Rushing
Mayor Marty Walsh
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City Councilor Michelle Wu
City Councilor Josh Zakim
Brian Golden, Director, Boston Planning and Development Agency
Christopher Tracy, Boston Planning and Development Agency

BEACON HILL CIVIC ASSOCIATION

BHCA 01 **BHCA respectfully requests that the scope of the EIR include all relevant environmental impacts, with particular attention to impacts on public transportation systems and impacts on the Commonwealth's historic resources, especially the Boston common and Public Garden.**

The Draft EIR/PIR includes analyses of relevant environmental impacts included in Sections 4 through 10.

BHCA 02 **The EIR should address specifically the additional shadows that the proposed project will cast on the Boston Common and Public Garden.**

A comprehensive analysis of Project-related shadow is provided in Section 5.2.

BOSTON PRESERVATION ALLIANCE

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December 27, 2016

Secretary Matthew A. Beaton
Executive Office of Energy & Environmental Affairs
100 Cambridge Street, Suite 900
Boston, MA 02114

Attn: Page Czepiga – MEPA Unit
Re: 115 Winthrop Square, Boston; EEA# 15610

Dear Secretary Beaton:

The Boston Preservation Alliance is Boston's primary, non-profit advocacy organization that protects and promotes the use of historic buildings and landscapes in all of the city's neighborhoods. With 40 Organizational Members, 98 Corporate Members, and a reach of 35,000 friends and supporters we represent a diverse constituency advocating for the thoughtful evolution of the city and celebration of its unique character. We appreciate the opportunity to offer comments on projects that impact the historic character of the city.

The Alliance commends the City of Boston for actively pursuing redevelopment of the abandoned parking structure at 115 Winthrop Square and for encouraging proposals with vibrant street engagement, public amenities, and mixed use. We were pleased that the City did not select a proposal that required the demolition of the adjacent, architecturally-significant mid-century Paul Rudolph Blue Cross Blue Shield Building.

While we feel there are notable benefits associated with Millennium Partners' proposal, we join many of our partners and members in expressing concern that the planned 750' tower violates state laws that protect the historic Boston Common and Public Garden from shadow (c. 362 of the Acts of 1990 and c. 385 of the Acts of 1993) without sufficient justification for the bold request to change state law. We worry about unprecedented action to weaken state laws to accommodate one project and the many potential long-term consequences of modification of laws intended to protect our treasured places. All other development has adhered to the laws since their creation, and we feel the proponent must demonstrate why this proposal is so particularly unique as to require a change offered to no other, with the potential precedents created by opening the door for future changes to protective laws. BPA 01

The Alliance feels strongly that this proposal, as well as alternatives that allow redevelopment of the site without requiring these alterations to state law, need to be fully understood before consideration of support. BPA 02

The Otis House
141 Cambridge Street
Boston, MA 02114
617.367.2458
bostonpreservation.org

In addition to our concern about an amendment of the state law, we anticipate a complete and thorough Environmental Impact Report with a scope that fully evaluates the impacts of such a large structure at this site. In particular, we request that the EIR scope include:

- Complete shadow studies: Shadow studies that demonstrate the complete shadow created by the proposed structure as well as comparative analysis of a structure that would not violate the state shadow law. These studies should not be limited to ¼ mile and should highlight all historic resources impacted. The analysis should not be limited to shadows that violate the existing state regulations, although highlighting those impacts is important as well. BPA 03

  Not only do shadows impact the pedestrian experience and the health of plants and parks, shadows can also have significant effects on the physical health of historic buildings, creating new microclimates that cause ice dams, biological growth, and deterioration of structures designed to benefit from the drying effects of sunlight. The integrity and longevity of our precious historic resources can be impacted by shadow, and landmarks in Boston suffer today due to lack of consideration of these effects in past developments.

- Visual impact analysis: Analysis of the broader visual impacts of the proposal and its relationship to historic resources both in the immediate vicinity and beyond. There are many buildings in the Winthrop Square area with historic and architectural significance, and we need more information about how the proposal would interact with these buildings. We need to know the impact of the proposal on the visibility of the sky, particularly in downtown. Canyonization and the decreased sky background and context for our unique historic city need to be considered and better understood. BPA 04 BPA 05

  We therefore request the visual impact of this proposal be studied carefully with a wide variety of renderings from real perspectives of pedestrians rather than birds-eye views that are never actually experienced. Such renderings should be from many perspectives and not limited to those in the Winthrop Square neighborhood. We also request that the same views be rendered for both an as-of-right option and one of maximum height that does not violate existing shadow laws for comparison. The proponent should be sure to demonstrate views which include their proposed structure with significant historic resources in the foreground.

We look forward to continuing the dialogue as the project evolves.

Sincerely,



Greg Galer
Executive Director

Cc: Senator William Brownsberger
Senator Joseph Boncore
Representative Jay Livingstone
Representative Aaron Michlewitz
Representative Byron Rushing
Brona Simon, Massachusetts Historical Commission
Brian Golden, Director, Boston Planning and Development Agency
City Councilor Frank Baker
City Councilor Andrea Campbell
City Councilor Mark Ciommo
City Councilor Anissa Essaibi George
City Councilor Michael Flaherty
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City Councilor Bill Linehan
City Councilor Timothy McCarthy
City Councilor Matt O'Malley
City Councilor Ayanna Pressley
City Councilor Michelle Wu
City Councilor Josh Zakim
Kathleen MacNeil, Millennium Partners
Cindy Schlessinger, Epsilon Associates
David Carlson, Boston Planning and Development Agency
Rosanne Foley, Boston Landmarks Commission
Elizabeth Vizza, Friends of the Public Garden
Wendy Landman, Walk Boston
Howard Kassler, Neighborhood Association of the Back Bay
Patricia Tully, Beacon Hill Civic Association

BOSTON PRESERVATION ALLIANCE

BPA 01 **We worry about unprecedented action to weaken state laws to accommodate one project and the many potential long-term consequences of modification of laws intended to protect our treasured places. All other development has adhered to the laws since their creation, and we feel the proponent must demonstrate why this proposal is so particularly unique as to require a change offered to no other, with the potential precedents created by opening the door for future changes to protective laws.**

Please see Sections 1.1 and 3.2 for an update on the Massachusetts state laws governing new shadows from new structures on the Boston Public Garden and Boston Common -- Chapter 362 of Acts of 1990 and Chapter 384 of the Acts of 1992, each as amended by Chapter 57 of the Acts of 2017, "An Act Protecting Sunlight and Promoting Economic Development in the City of Boston".

BPA 02 **The Alliance feels strongly that this proposal, as well as alternatives that allow redevelopment of the site without requiring these alterations to state law, need to be fully understood before consideration of support.**

A thorough alternatives analysis is provided in Section 3.0.

BPA 03 **[The EIR should include] shadow studies that demonstrate the complete shadow created by the proposed structure as well as comparative analysis of a structure that would not violate the state shadow law. These studies should not be limited to ¼ mile and should highlight all historic resources impacted. The analysis should not be limited to shadows that violate the existing state regulations, although highlighting those impacts is important as well... Shadows can have significant effects on the physical health of historic buildings, creating new microclimates that cause ice dams, biological growth, and deterioration of structures designed to benefit from the drying effects of sunlight.**

A comprehensive shadow analysis is provided in Section 5.2. Section 8.0 includes an analysis of shadow impacts on historic resources. Project-related shadow impacts on historic resources are provided as Attachment M.

BPA 04 **[The EIR should include] analysis of the broader visual impacts of the proposal and its relationship to historic resources both in the immediate vicinity and beyond. There are many buildings in the Winthrop Square area with historic and architectural significance, and we need more**

information about how the proposal would interact with these buildings... We therefore request the visual impact of this proposal be studied carefully with a wide variety of renderings from real perspectives of pedestrians rather than birds-eye views that are never actually experienced. Such renderings should be from many perspectives and not limited to those in the Winthrop Square neighborhood. We also request that the same views be rendered for both an as-of-right option and one of maximum height that does not violate existing shadow laws for comparison. The proponent should be sure to demonstrate views which include their proposed structure with significant historic resources in the foreground.

Attachment L includes a visual impact study.

BPA 05 **We need to know the impact of the proposal on the visibility of the sky, particularly in downtown. Canyonization and the decreased sky background and context for our unique historic city need to be considered and better understood.**

A daylight analysis is provided in Section 5.3.

Fenway Civic Association – P.O. Box 230435 – Astor Station – Boston, MA 02123

December 27th, 2016

Via Email

Page Czepiga, Environmental Analyst
MEPA Office
100 Cambridge Street Sujite 900
Boston, MA 02114

Re: 115 Winthrop Square Plan Notification Form, Legislative protection of Boston Common from Shadows & State Parkway Protections
Project #15610

Dear Page,

The Fenway Civic Association is a 55 year old all-volunteer organization formed to preserve and protect the livability of Boston's Fenway neighborhood. Fenway residents view their surrounding historic parks as a major contributor to their quality of life. Like our own Emerald Necklace Parks, the Boston Common and Public Garden are an amazing public legacy that can never be replaced.

Upon review of the 115 Winthrop Square (the project) Plan Notification Form (PNF) submitted by Millennium Partners (Millennium, the developer) on November 8th, 2016, the Fenway Civic Association (FCA) offers the following comment:

The FCA normally does not comment on projects outside our neighborhood. However while reviewing the PNF filing for 115 Winthrop Square to make a request related to public realm improvements, we noted a troubling deficiency with the filing: Millennium Partners initially did not disclose that the proposed project would be in violation of state law that protects the Boston Common and Public Garden from additional shadows. In a supplemental presentation to the IAG shortly thereafter, they did disclose some of the shadow violations in detail.

In our neighborhood, we are seeing a similar approach by the proposed developer of a tower project whose PNF omitted any reference to the historic Parks & Parkway Protection laws that their project would violate. If projects such as these are not initially vetted by the BPDA for compliance with state and local laws, the assumption is the laws are viewed as negotiable. We find this troubling.

The Winthrop Square proposal does not comply with the law, yet the project has been allowed to go forward with the intent of petitioning the legislature for an amendment to the law to permit the project. In exchange, the developer has proposed offering millions of dollars to the City for earmarked projects. As members of the public for whom these parks and open space protection laws were written, we object to such a practice. Allowing the rewriting of law with the writing of a check erodes the value of legislative protections, undermines the fundamental concept of the rule of law, and the notion of equal public protection under the law for the general public lacking such ample affluence to influence.

The Fenway Civic Association strongly supports adherence to and respect for the hard-fought park protection laws and ordinances meant to preserve our valuable public resources for everyone in perpetuity. We encourage the same from our public officials. FCA 01

Thank you for the opportunity to offer this comment.

Tim Horn
President, Fenway Civic Association

CC: Rep. Byron Rushing
Rep. Jay Livingstone
Senator William Brownsberger

FENWAY CIVIC ASSOCIATION

FCA 01 **The Fenway Civic Association strongly supports adherence to and respect for the hard-fought park protection laws and ordinances meant to preserve our valuable public resources for everyone in perpetuity.**

Please see Section 1.1 for a discussion on the shadow laws and recent amendment.

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December 22, 2016

Mr. Matthew Beaton
Secretary, Executive Office of Energy and Environmental Affairs
100 Cambridge Street, Suite 900
Boston, MA 02114
Attention: Page Czepiga, Environmental Analyst, MEPA Office

RE: EEA No. 15610 - 115 Winthrop Square

Dear Secretary Beaton:

The Friends of the Public Garden is a not for profit advocacy organization that works to protect and improve Boston's first public parks — the Boston Common, the Public Garden, and the Commonwealth Avenue Mall. Since 1970, the Friends has worked in close partnership with the Boston Parks Department, supporting ongoing improvements to the parks and serving as staunch advocates to protect the parks from misuse and encroachment.

The Friends of the Public Garden appreciates the opportunity to comment on the pending Environmental Notification Form for the proposed 115 Winthrop Square development, which, as currently proposed, clearly violates the existing state laws, c. 362 of the Acts of 1990 and c. 385 of Acts of 1993, that limit the amount of new shadows allowable on the Boston Common and the Public Garden. We do not oppose development on the City-owned parcel in Winthrop Square, but do oppose any effort to weaken the existing laws which have protected these two historic parks without impeding new growth in downtown Boston for the past 26 years.

As background, a former concept for this site in 2006 by TNT for a 1000' tower was never developed into a formal proposal, and the Friends never took a position on that project.

We recommend that the scope for the EIR for this project include:

- Shadow analysis for as-of-right zoning, a 400' building as well as the 775' maximum height proposed in the ENF. The shadow analysis for these three alternatives should document every exceedance of the limits set in both the 1990 and 1993 shadow laws in terms of the date and hour, the duration of the new shadow, as well as the square footage of the new shadow and include figures clearly delineating new additional shadows versus existing shadows. FPG 01

- According to the developer's statement at a public meeting of the Impact Advisory Group on December 13, the best views for residential units occur from 400' and above and that the revenue from the residential component provides the highest return on investment. This implies that a motivation for amending the state's protection of these parks is economic benefit to the developer. The EIR should clearly demonstrate why it is in the public's interest to weaken protections for the country's oldest public park, the Boston Common, and nation's first botanical garden, the Boston Public Garden, both of which are landmarked and on the National Register of Historic Places. These parks are beloved by all who live, work and visit the city, the sites of countless events and public gatherings, and proven assets that raise real estate values as well as help to drive tourism and the dollars it generates. FPG 02

We wish to reiterate that State shadow laws provide protection from additional new shadows to be cast on both these parks. Unfortunately the Commonwealth Avenue Mall, which will also be shaded from the Winthrop Square project, is not statutorily protected from new shadows. These parks already are shaded by buildings that pre-date the State laws or are exempt from their jurisdiction. We are attaching excerpts from the shadows studies of two projects to illustrate existing shadow cover on the parks on December 21. (South Station Air Rights Notice of Project Change, 7/29/2016; and171 Tremont Street PNF 7/14, 2015).

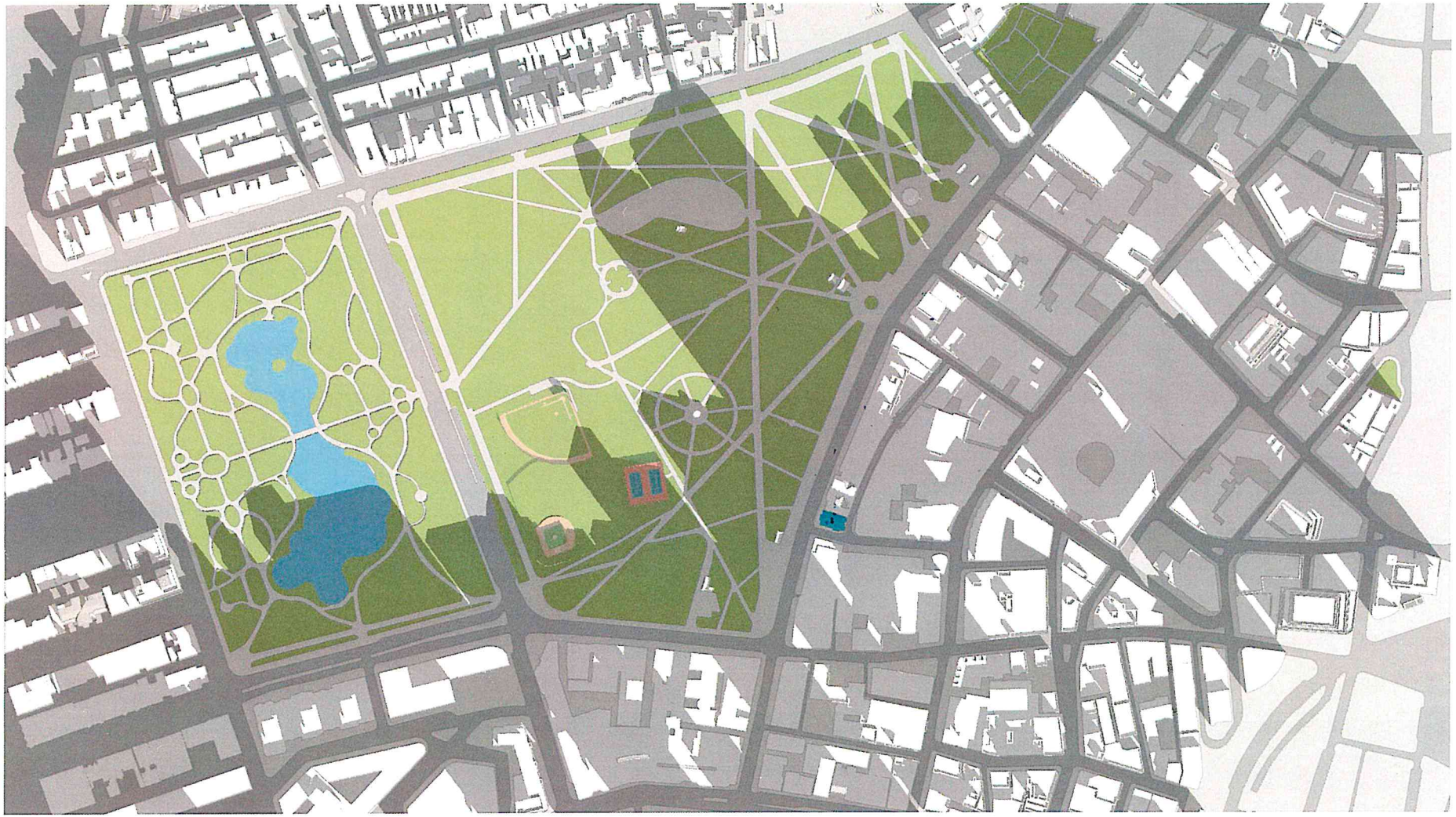
Thank you for your consideration of our comments.

Sincerely,

Elizabeth Vizza

Executive Director

cc:
Governor Charles Baker
Senator William Brownsberger
Senator Joseph Boncore
Representative Jay Livingstone
Representative Aaron Michlewitz
Representative Byron Rushing
Brian Golden, Director, Boston Planning and Development Agency
City Councilor Frank Baker
City Councilor Andrea Campbell
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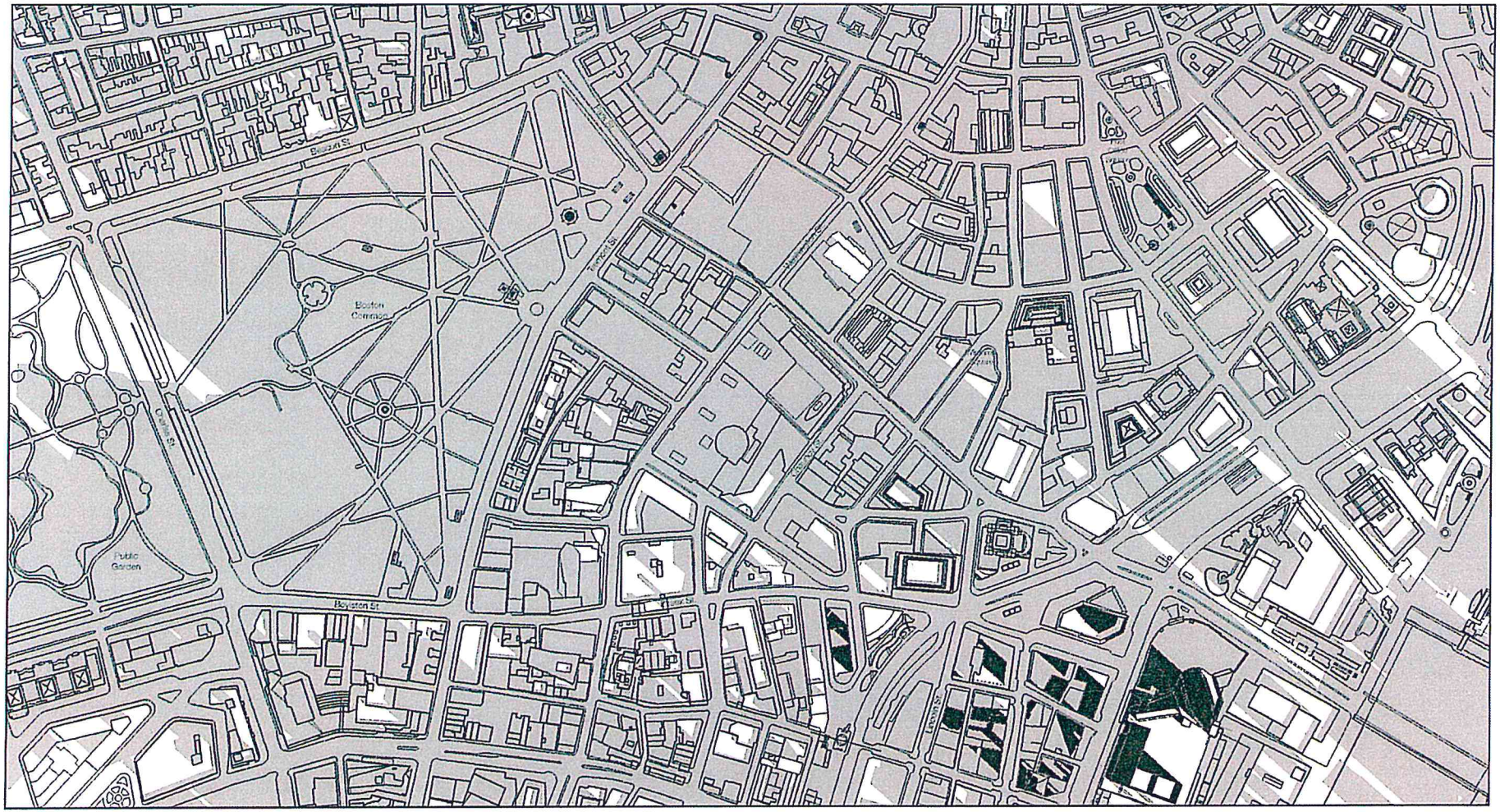
171 TREMONT STREET

FIGURE B-12

SHADOW STUDY - DECEMBER 21, 9:00 AM

ELKUS | MANFREDI
ARCHITECTS

Vanasse Hangen Brustlin, Inc.



South Station Air Rights Boston, Massachusetts

Pelli Clarke Pelli Architects © 2016

Figure 31

Boston Common Shadow Study: December 21, 8:00 a.m..

FRIENDS OF THE PUBLIC GARDEN

FPG 01 **[We recommend the EIR contain a] shadow analysis for as-of-right zoning, a 400-foot building as well as the 775-foot maximum height proposed in the ENF. The shadow analysis for these three alternatives should document every exceedance of the limits set in both the 1990 and 1993 shadow laws in terms of the date and hour, the duration of the new shadow, as well as the square footage of the new shadow and include figures clearly delineating new additional shadows versus existing shadows.**

A comprehensive shadow analysis performed pursuant to the BPDA Scoping Determination is provided in Section 5.2; and an alternatives analysis is provided in Section 3. Please also see response to comment BPA 01 (MEPA Letter).

FPG 02 **The EIR should clearly demonstrate why it is in the public's interest to weaken protections for the country's oldest public park, the Boston Common, and the nation's first botanical garden, the Boston Public Garden, both of which are landmarked and on the National Register of Historic Places.**

Please see Section 1.1 for a discussion on the shadow laws and recent amendment.

Czepiga, Page (EEA)

From: Jolinda Taylor <jolinda.taylor@gmail.com>
Sent: Friday, December 23, 2016 8:13 AM
To: christopher.tracy@boston.gov; mayor@boston.gov; Czepiga, Page (EEA); michelle.Wu@boston.gov; Bill.linehan@boston.gov; Josh.Zakim@Boston.gov; Ayanna.Presley@boston.gov; A.E.George@boston.gov; Tito.Jackson@boston.gov; Salvatore.Lamattina@boston.gov; Michael.F.Flaherty@boston.gov; Andrea.Campbell@boston.gov; Frank.Baker@boston.gov; Timothy.McCarthy@boston.gov; Matthew.O'Malley@boston.gov; Mark.Ciommo@boston.gov; byron.rushing@mahouse.gov; jay.livingstone@mahouse.gov; aaron.michlewitz@mahouse.gov; william.brownsberger@masenate.gov; joseph.boncore@masenate.gov
Cc: dtcnabb@nabbonline.com
Subject: 115 Winthrop Square
Attachments: GCBB shadow letter 121516.docx

Dear Mr. Tracy,

We are writing to urge that the existing State shadow laws be upheld. If an exception is made for Winthrop Square, we believe other projects would also seek exceptions. Why wouldn't they be granted as well? GCBB 01

Once sunshine is blocked from the Boston Common and the Public Garden, it will be blocked forever. Not many decisions can have such a lasting and deleterious effect. The Boston Common is a mere 49 acres of green space in the heart of Boston. It is heavily used by citizens, workers and visitors for free. One of the reasons for its popularity is its beauty – grass, trees, and views across the City unencumbered by buildings, electric lines, roads, and shadows. We must protect this space against well-meaning projects that serve a slice of the community at the expense of the whole community.

The Mission of the Garden Club of the Back Bay is to protect and care for City trees. Trees in the Common, the Public Garden and the Commonwealth Avenue are irreplaceable and need constant protection from incursions on the space and sunshine they need to survive. Our 140 members are counting on you and our government representatives to uphold the shadow laws.

Respectively submitted,

Jolinda Taylor Sherley Smith

Jolinda Taylor, Co-President of the Garden Club of the Back Bay
Sherley Gardner-Smith, Co-President of the Garden Club of the Back Bay

Cc: Mayor Walsh, Page Czepiga, Michelle Wu, Bill Linehan, Josh Zakim, Ayanna Pressley, A.F. George, Tito Jackson, Salvatore Lamattina, Michael F. Flaherty, Andrea Campbell, Frank Baker, Timothy McCarthy, Matthew O'Malley, Mark Ciommo, Byron Rushing, Jay Livingstone, Aaron Michlewitz, William Brownsberger, Joseph Boncore

GARDEN CLUB OF THE BACK BAY

GCBB 01 **We are writing to urge that the existing State shadow laws be upheld. If an exception is made for Winthrop Square, we believe other projects would also seek exceptions.**

Please see response to Comment BPA 01. (MEPA Letter)

Czepiga, Page (EEA)

From: Neighborhood Association of the Back Bay <info@nabbonline.com>
Sent: Tuesday, December 27, 2016 3:59 PM
To: Czepiga, Page (EEA)
Subject: Winthrop Square Letter

December 27, 2016

Secretary Matthew A. Beaton
Executive Office of Energy and Environmental Affairs
Attn. MEPA Office, Page Czepiga Environmental Analyst, page.czepiga@state.ma.us
100 Cambridge Street, Suite 900
Boston, MA 02114

Project: # 15610 115 Winthrop Square
Subject: Environmental Notification Form ENF

Dear Secretary Beaton:
The Neighborhood Association of the Back Bay welcomes the review of development projects with potential negative impacts. Our comments here pertain to the Environmental Notification Form for the proposed Millennium Development project at 115 Winthrop Square. The potential impact of this project is considerable and would be long lasting for all Bostonians, and thousands of visitors from around the world,

The ENF included no mention of the fact that the project as currently proposed is **illegal** until and unless existing 26 year old state laws protecting the Boston Common and Public Garden from additional shadows are amended. These laws were put in place precisely to afford the public protection from shadows that could not be provided through zoning laws or basic planning.

In addition, the proximity of the proposed building to the airport requires Federal Aviation (FAA) approval. The two proposed heights may not be approved when the FAA considers specific flight paths of airplanes and helicopters. There is discussion of allowing GE to construct a helipad. The approved site for GE headquarters is very nearby.

To clarify the limits of the proposal we would strongly request that in the Scope for a Draft Environmental Impact Report (DEIR) you will issue, you will include requirements to deliver responses to the concerns raised in this letter about the impact of this project, noting that it is illegal under current legislation. We understand that you currently anticipate issuing the DEIR Scope on January 6, 2017.

Given the importance of this project, its long- term impacts and the need for clarification, we are somewhat dismayed and mystified by the rush to push this through.

We anticipate the next project submission to include detailed studies of the placement of shadow cast by the building. Sunlight and its absence (shadow) are important influences on the quality of the environment we experience, as are water, wind, air quality, noise etc. They have a direct effect on all of us at all times and on the condition of our habitat over time. For example the extent of the presence or absence of sunlight, especially at certain periods of the year, e.g. spring, is significant for the flourishing of plants. And, the actual temperature of the ground as influenced by morning shadow will influence what could and could not be planted and what will survive. NABB 01

The kind of information to be provided in these results (this is not necessarily exhaustive) should include as a minimum:

Shadows:

- Identification of shadows on all parks and the facades of historic structures.
- Presentation of a building that meets all legal and air space requirements.
- Detailed description of the assumptions of the shadow analysis and the technology to show shadow profiles.
- For the Common and the Public Garden map and tables to show:
    - The longest duration of illegal shadows during the year and their dates;
    - The numbers of days during the year and their dates when the duration of an illegal shadow will exceed 15, 30 and 60 minutes respectively;
    - Identification of places within the protected areas covered by the illegal shadows that are particularly popular and well frequented in the early morning hours or include plants (partial preliminary information on shadows I have seen elsewhere indicates that there will only be illegal shadows before about 9:30 am, and that the periods of maximum duration of illegal shadows occur around the spring and fall equinoxes).

Wind:

- This site is reportedly almost as windy as the area around the Hancock Tower. Accurate wind studies and verified mitigation measures at ground level and upper occupied outdoor levels are essential. The agency should accept wind studies only from companies that have had at least one large-project wind study independently validated by field operations post-construction, the results of which are or will be publicly available. What is the deviation from the test to actual conditions? We recommend your requesting validation for the source of the information, not just photos from the wind tunnel test space. An independent validation of the means methods, and results should be forthcoming. We also strongly recommend a required post construction independent correlation between the predictions and actual conditions at pedestrian level paying special attention to the efficacy of any mitigation measures. Your office can make a big difference over time on this issue in establishing for example the likely margins of error or level of accuracy of predicted compared to actual wind levels. NABB 02

Historic Resources:

- This site is surrounded by many historic structures. We look forward to input from the Massachusetts Historic Commission on the impact of the proposed 115 Winthrop Square building on these structures.

Again, we recommend that the DEIR Scope ENF be resubmitted to include requirements for this updated and expanded information without which an adequate understanding of the full environmental impact of Millennium's proposed project at 115 Winthrop Square is not possible.

Thank you very much for your consideration.

Vicki C. Smith
Chair, NABB

Neighborhood Association of the Back Bay
160 Commonwealth Avenue #L-8
Boston, Massachusetts 02116-2749
E-mail: info@nabbonline.com
Web: www.nabbonline.com
Tel: 617-247-3961

NEIGHBORHOOD ASSOCIATION OF THE BACK BAY

NABB 01 **We anticipate the next project submission to include detailed studies of the placement of shadow cast by the building… The kind of information to be provided in these results… should include as a minimum:**

- **Identification of shadows on all parks and the facades of historic structures;**
- **Presentation of a building that meets all legal and air space requirements;**
- **Detailed description of the assumptions of the shadow analysis and the technology to show shadow profiles;**
- **For the Common and Public Garden map and tables to show: the longest duration of illegal shadows during the year and their dates, the numbers of days during the year and their dates when the duration of an illegal shadow will exceed 15, 30, and 60 minutes, respectively, identification of places within the protected areas covered by the illegal shadows that are particularly popular and well frequented in the early morning hours or include plants.**

A comprehensive shadow analysis performed pursuant to the BPDA Scoping Determination is presented in Section 5.2, and a façade study regarding shadow on historic resources is provided in Section 8.0. Section 3.0 includes an alternatives analysis.

The Project's zoning height of approximately 664 feet (710' AMSL) is consistent with the operating guidelines provided by Massport and the technical review provided by the Federal Aviation Administration which has set various points of the Project site at 701-720 feet AMSL. The Project's height fits within this upper limit to avoid any operational changes in departures or arrivals at Logan International Airport. The FAA is currently conducting its public review period for this Aeronautical Study (See Attachment A).

Please see Attachment P for additional information regarding impacts on trees in the Boston Common and Public Garden.

The Project complies with Chapter 362 of the Acts of 1990 and Chapter 384 of the Acts of 1992, each as amended by Chapter 57 of the Acts of 2017, "An Act Protecting Sunlight and Promoting Economic Development

in the City of Boston" signed by the Governor of the Commonwealth on July 24, 2017, which govern new shadows from new structures on Boston Common and the Public Garden.

NABB 02 **Accurate wind studies and verified mitigation measures at ground level and upper occupied outdoor levels are essential… An independent validation of the means methods, and results should be forthcoming. We also strongly recommend a required post construction independent correlation between the predictions and actual conditions at pedestrian level paying special attention to the efficacy of any mitigation measures.**

An analysis of Project-related wind is presented in Section 5.1.

The objective of the pedestrian wind comfort study is to assess the effects the proposed development has on local conditions in pedestrian areas around the study site and provide recommendations for minimizing adverse effects if applicable. The benefit of wind tunnel testing allows for comparative tests to be done that evaluate both the existing and proposed configurations using a set of industry standard evaluation tools. The same wind tunnel methodology has been adopted by all major Codes and Standards worldwide for issues such as the design of building facades and the wind induced structural performance of towers.

With respect to conducting tests to compare wind tunnel tests to full scale conditions, in selected cases this has been done by the Project's wind consultant, RWDI, as well as other wind engineering firms and research institutions. In general there is very good agreement between the two methods. There are numerous published papers in refereed journals on this subject. The key issues or challenges with carrying out a full scale experiment is that data is typically collected for a long time in order to acquire the alignment of conditions in the field in both speed and direction to those simulated in the wind tunnel to make a relevant comparison. Most of the time conditions are relatively calm, it is when there is a strong wind event that allows for a meaningful comparison to be developed. Hence, the instrumentation may be sitting for a prolonged period before a strong wind event from each of the important directions occurs. Moreover, there are significant practical limitations too with carrying out full-scale tests such as where to put the instrumentation, how many wind instruments can be deployed, and will the instrumentation be damaged or vandalized. When conducting a wind tunnel test such items are not relevant because of the nature of the testing and instrumentation. In other words, the wind tunnel tests can incorporate a large number of sensors to evaluate the wind conditions in the proposed configuration, and then carryout exactly the same test without the new building in place

for the existing configuration. Placing a velocity sensor in the middle of an intersection or on a neighboring building in the wind tunnel model is completely reasonable, but may not be practical in the real world environment.

With the above in mind though, RWDI is currently working with Millennium Properties to measure the wind comfort conditions at the base of the newly constructed Millennium Tower. Two velocity sensors or "wind heads" are deployed during strong wind conditions only, in order to obtain meaningful readings and avoid low, calm wind measurements. The sensors are setup at the corner of Washington Street and Shopper's Plaza and adjacent to Franklin and Hawley streets. Data collection started in the fall and will carry through to the spring of 2018. Although a limited sample size both RWDI and Millennium felt it was reasonable to proceed with such a program in an attempt to answer the question above. RWDI will continue analyzing various storms over the winter and early spring when winds are expected to be high.

Czepiga, Page (EEA)

From: David Friend <dfriend@bluearchive.com>
Sent: Monday, December 26, 2016 6:30 PM
To: Czepiga, Page (EEA); christopher.tracy@boston.gov
Cc: dtcnabb@nabbonline.com; Michelle.Wu@boston.gov; Bill.Linehan@boston.gov; Josh.Zakim@boston.gov; Ayanna.Pressley@boston.gov; A.E.George@boston.gov; Tito.Jackson@boston.gov; Salvatore.Lamattina@boston.gov; Michael.F.Flaherty@boston.gov; Andrea.Campbell@boston.gov; Frank.Baker@boston.gov; Timothy.McCarthy@boston.gov; Matthew.OMalley@boston.gov; Mark.Ciommo@boston.gov; byron.rushing@mahouse.gov; jay.livingstone@mahouse.gov; Aaron.M.Michlewitz@mahouse.gov; william.brownsberger@masenate.gov; Joseph.Boncore@masenate.gov
Subject: 115 Winthrop Square

I am writing to express my opposition to any development that casts a shadow on the Public Garden or the Commons that is not in compliance with the current laws.

Allowing a "one time exception" to the current laws will probably open the flood gates for other developers to seek similar exemptions. As I understand it, other developers had proposed shorter buildings for this site that were in compliance with the current laws, but the Mayor seems to favor the one that brings in more money. DF 01

In 20 or 50 years, the extra money will long be forgotten, but the shadows and their ill effects on plant life and human enjoyment will be there forever. Please preserve what sunlight is left for the thousands of tourists and citizens from every neighborhood in the city. The proposed tower in Winthrop Square tower does not need to be 75 stories tall.

40 stories is enough. Stop it there, and preserve the laws that everyone fought so hard for. DF 02

David Friend
40 Commonwealth Ave.

David Friend, CEO
BlueArchive, Inc.
m: 617-230-5446
Note: Phasing out my Carbonite email.
Please use: dfriend@bluearchive.com

DAVID FRIEND

DF 01 **Allowing a "one time exception" to the current laws will probably open the flood gates for other developers to seek similar exemptions.**

Please see Response to Comment BPA 01 (MEPA letter)

DF 02 **40 stories is enough.**

Please see Section 3.0 for a discussion of Project alternatives.

Czepiga, Page (EEA)

From: Paula Griswold <PGriswold@macoalition.org>
Sent: Tuesday, December 27, 2016 5:56 PM
To: Czepiga, Page (EEA)
Cc: 'dtcnabb@nabbonline.com'
Subject: #15610 Winthrop Square

Page Czepiga
Environmental Analyst
100 Cambridge Street, Suite 900
Boston, MA 02114

Re: #15610 Winthrop Square - Strongly supporting the existing shadow laws, together with the Neighborhood Association of the Back Bay.

I want to express my strong disagreement with changing the law to allow additional shadows on the Boston Common and Public Garden for this project or any future project.

PG 01

It is completely unacceptable to me that the city would essentially sell for private use the sunlight that should be available to all the public on these jewels of the Emerald Necklace, the Common and Public Garden. **It is extremely important to preserve without exception the state legislation regarding shadows**. Sunlight is crucial to people's physical and emotional well-being, especially in Boston, at this northern latitude with cold winters, the sun low in the sky, and short days, for so many months of the year.

It is inconceivable to me that the city would sell this sunlight to a private organization, and deprive Massachusetts natives of the enjoyment of any hours of sunlight. It also seems foolhardy to further limit tourists' enjoyment of sunlight in these two quintessential Boston parks, especially through a sale to private interests.

Again, I completely oppose such a change in the law. Thank you for your attention to these crucial concerns.

Paula Griswold
329 Beacon St Unit 1
Boston 02116

PAULA GRISWOLD

PG 01 **It is completely unacceptable to me that the city would essentially sell for private use the sunlight that should be available to all the public on these jewels of the Emerald Necklace, the Common and Public Garden.**

A comprehensive shadow analysis is presented in Section 5.2.

Warren A. Johnson
16 Harcourt Street - #7B
Boston, Massachusetts
02116-6491

December 14, 2016

Mr. Christopher Tracy
Boston Planning and Development Agency
Ms. Page Czepiga
Executive Office of Energy and Environmental Affairs

Dear Sir/Madam:

I write in opposition to the development as currently proposed at 115 Winthrop Square and in particular to waiving the requirements of limited shadow impact on the Common and Public Garden. These spaces are vital public resources that must be protected and preserved.

The prohibition against shadow encroachment has served Boston well and the possibility of exceptions would have grave consequences. If an exception is made for this building, developers will be lined up to erect still more towers that will make sunshine on the Common problematic. WJ 01

It would be a serious mistake to allow the first such encroachment. We need to stand fast against such changes and keep the prohibition intact.

Very truly yours,

/S/ Warren A. Johnson

cc: Rep. Byron Rushing
Sen. William Brownsberger

WARREN JOHNSON

WJ 01 **The prohibition against shadow encroachment has served Boston well and the possibility of exceptions would have grave consequences. If an exception is made for this building, developers will be lined up to erect still more towers that will make sunshine on the Common problematic.**

Please see Response to Comment BPA 01 (MEPA letter)

90 Commonwealth Ave

Boston, MA 02116

Matthew A. Beaton, Secretary

Executive Office of Energy and Environmental Affairs

Attn: MEPA Office

Page Czepiga, EEA #15610

100 Cambridge St, Suite 900

Boston, MA 02114

Subject: 115 Winthrop Square, Boston, MA

Dear Secretary Beaton:

Thank you for the opportunity to comment on the Environmental Notification Form for the 115 Winthrop Square project.

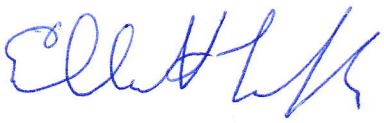
While this large project claims to offer many benefits to Boston and the Commonwealth, I was disappointed to note that the ENF doesn't mention that, in order to be built as proposed, it will require a change in state law. The project proponents have admitted in materials filed with the Boston Planning and Development Agency that the shadows cast by the proposed tower will violate the law protecting the Boston Common for more than half the days of the year and that protecting the Boston Public Garden for a substantial number of days as well. These laws were purposely written without means to circumvent them in order to prevent the temptation to consider projects that promise short term economic gains while permanently diminishing the recreational value of these iconic parks that are enjoyed by millions of those who live, work, and visit in Boston. EL 01

These laws have stood the test of time and have clearly not stopped the construction of the many high rise buildings that have been built around the city in the years since they were adopted. In fact, many projects have been shaped specifically to assure that they would meet the requirements of these laws. Because this project violates that standard, I ask that you either stop the review process from going forward or require that all studies be of a project that is compliant with the shadow laws.

Boston is a vibrant place to live, work, and play, whose strong economy helps to drive that of the Commonwealth. The Common and the Garden are vital components of that successful economy.

Please help to assure that their ability to play that role is not compromised by the intrusion of additional shadow.

Very truly yours,



Elliott Laffer

ELLIOTT LAFFER

EL 01 **The project proponents have admitted in materials filed with the Boston Planning and Development Agency that the shadows cast by the proposed tower will violate the law protecting the Boston Common for more than half the days of the year and that protecting the Boston Public Garden for a substantial number of days as well. These laws were purposely written without means to circumvent them in order to prevent temptation to consider protects that promise short term economic gains while permanently diminishing the recreational value of these iconic parks…**

Please see Response to Comment BPA 01 (MEPA letter).

Czepiga, Page (EEA)

From: Lisa <pepsildl@aol.com>
Sent: Monday, December 26, 2016 3:39 PM
To: Czepiga, Page (EEA)
Subject: #15610 Winthrop Square

December 26, 2016

Page Czepiga
Environmental Analyst
Executive Office of Energy and Environmental Affairs
100 Cambridge Street, Suite 900| Boston, MA 02114

Dear Page:

I have outlined my position on #15610 Winthrop Square project for your review.

I do not support an exception to the existing shadow laws. Further, I would like the state to review strengthening the existing shadow laws so that they apply to structures bordering the Common and Public Garden. I would also like the State to consider opening a dialogue on a new building height limit for the city of Boston. I have highlighted the key reasons below:

Health: Sunlight is critical to physical and mental health. Buildings that block the sun from reaching our parks, open spaces, and sidewalks contribute to these public health issues.

In a recent study published in the *Journal Dermato-Endocrinology*, world-renowned researchers have concluded that insufficient sun exposure is an emerging public health problem. Americans suffer from vitamin D deficiencies and other serious health conditions caused by lack of sun.1

Another public health issue is slip and falls on ice. Boston's northern climate and extended winter contribute to the problem. Over the 15 years I have lived in Back Bay, I have observed that walkways within the Common and Public Garden, and city sidewalks that receive sufficient sun exposure during the day do not have ice while those sidewalks in shadow remain icy. If it rains, the shady sidewalks remain moist often freezing at night to invisible black ice.

A study from researchers out of Brigham Young University found increased mental health distress during periods of reduced sun time hours. The study was published in the October 2016 *Journal of Affective Disorders*. A surprising finding was mental distress applies to the general population not just those individuals diagnosed with Seasonal Affective Disorder.2 It is critical during times with shorter daylight for residents and commuters to be exposed to as much sun as possible.

LL 01

The height of the proposed building at 115 Winthrop Square creates new shadows on the Common and Public Garden as well as on our city sidewalks. These new shadows will impact the health of both residents and commuters.

Preserve our Unique City: Boston is one of the oldest cities in the United States. Our city's greatness is reflective in our small scale -- historic neighborhoods, comprised mostly of five-story buildings, along with our extensive park system, provide a clear view of the horizon and allow people to relate to their environment. This is unique and sets our world-class city apart drawing millions of visitors each year and bolstering our economy. In 2014, Suffolk County received $8.3 billion in domestic travel expenditures accounting for nearly 50% of the state total, and local government tax revenue was 154.9 million.3.

Diversified Housing Stock: The inclusion of 25 million for affordable housing is commendable, however, the project does not address the desperate issue of affordable housing for middle income singles and families. In

addition, I am concerned that the proposed project will exacerbate the oversupply of luxury homes in Boston[4] and I am concerned about the impact of having vacant rental properties. For example, investors bought into Millennium Tower and immediately placed the units on the rental market with prices ranging from $17,500 to $2000 (median is $5625) per month. According to listing on one upscale real estate agency web site, there are 43 units, approximately 10% of the total number of condos in the building, currently on the rental market.[5]

Wind: I walk by the John Hancock tower everyday. It 60 stories creates wind tunnels on the ground level of the streets surrounding it. During high winds, I am pushed back so that I can barely cross the street. At times I have been thrown toward traffic. Boston doesn't need another building to create unpleasant walking conditions for residents, tourists, and commuters.

Thank you for time and consideration. If you have any questions, feel free to email me at PepsiLDL@aol.com or call 617-833-8588.

Regards,

Lisa Leary
275 Beacon Street 3A
Boston, MA 02116

Citations

1. David G. Hoel, Marianne Berwick, Frank R. de Gruijl & Michael F. Holic (2016) *The risks and benefits of sun exposure 2016*, Dermato-Endocrinology, 8:1, e1248325, DOI: 10.1080/19381980.2016.1248325

2. Mark E. Beecher et al, Sunshine on my shoulders: Weather, pollution, and emotional distress, *Journal of Affective Disorders* (2016). DOI: 10.1016/j.jad.2016.07.02

3.The Economic Impact Of Travel on Massachusetts Counties 2014; A Study Prepared for the Massachusetts Office of Travel and Tourism By the Research Department of the U.S. Travel Association; Washington, D.C.; October 2015

4. Boston Herald Luxury glut stalls Simon Company, October 29, 2016 http://www.bostonherald.com/business/real_estate/2016/10/luxury_glut_stalls_simon_copley_tower

5. Campion and Company http://www.campionre.com/

LISA LEARY

LL 01 **The height of the proposed building at 115 Winthrop Square creates new shadows on the Common and Public Garden as well as on our city sidewalks. These new shadows will impact the health of both residents and commuters… Visitors Bolster economy…The Project does not address the desperate issue of affordable housing for middle income singles and families… [And] Boston doesn't need another building to create unpleasant walking conditions [due to wind].**

An analysis of Project-related wind is provided in Section 5.1, and a comprehensive shadow analysis is provided in Section 5.2. Economic benefits to the City including the provision of affordable housing are described in Section 2.2.3.

RECEIVED
DEC 28 2016
Executive Office of Energy
& Environmental Affairs

Beatrice Nessen
19 Charles River Sq.
Boston, MA 02114

December 22, 2016

Mr. Matthew Beaton
Secretary, Executive Office of Energy and Environmental Affairs
100 Cambridge Street, Suite 900
Boston, MA 02114
Attention: Page Czepiga, Environmental Analyst, MEPA Office

RE: EEA No. 15610 - 115 Winthrop Square

Dear Secretary Beaton:

As a longtime resident of Boston who has seen the city evolve from the static growth era of the 1960s to today's booming economy and development, I believe it is important that the scope for 115 Winthrop Square project ensure that the EIR is thorough and provides proper information and data concerning environmental impacts.

The 115 Winthrop Square proposal violates the State's two shadow laws, Chapter 362 of the Acts of 1990 regarding the Boston Common and Chapter 384 of the Acts of 1992 regarding the Public Garden. In order for the project to be legal, the City must obtain an amendment to these laws, which have protected the Common and Public Garden for the past two decades without stifling or hindering Boston's downtown growth. I question how an EIR can be complete without knowing whether or not the project complies with state laws. I recommend that at a minimum, the project proponent be required to evaluate the shadow impacts and all other environmental impacts of two alternatives to their proposal: as-of-right zoning and a proposed building height that does not violate the state laws. BN 01

In regard to as-of-right zoning, the project proponent should provide a clear and full explanation of what the Downtown Interim Overlay District zoning allows. The proponent states in its Project Notification Form submitted to the Boston Planning and Development Agency that it will apply for designation as a Planned Development Area (PDA) and approval of a Development Plan. Without knowing whether or not or when such a designation will be approved and what the Development Plan is, how can the environmental impacts be fully presented in the EIR? BN 02

In addition, I submit the following comments on the benefits outlined in Millennium's ENF:

- I concur that the development of this site, replacing the closed and dilapidated City parking garage, will benefit Boston. I do not agree that the current proposal is in the best interest of Boston, its residents, its working force, and visitors because it will result in the degradation of the city's historic parks, the Common and Public Garden, both of which have City and Federal landmark designations. Both provide not only much needed open space but play important roles. The Common has from its inception through today served as the community gathering place both for moments of celebration and commemoration. It is very heavily used and in spite of increasing amount of investment, such intense use constantly stresses its horticulture. The Public Garden is Boston's botanical jewel providing its users with a respite of beauty and calm, an oasis in the middle of an active urban environment. The Winthrop Square site can be developed without adding new shadows to the Common and Public Garden. What is at stake is a balance between protection of the city's iconic parks and economic gain for a private entity. BN 03
- The ENF discusses the benefits of the Great Hall as a place open to activity 18 hours a day, 52 weeks of the year. The EIR should include a plan for activation such as, who will be responsible for programming this space, including the paying for such programming and how will it be managed. Such information is necessary to be assured that this public space will fulfill the promises of the ENF. BN 04
- The project proponent has discussed its plans to provide affordable housing, only off-site in Chinatown. While this is commendable given the great need for affordable housing in that neighborhood which not only houses many immigrants but also is under gentrification pressures, why is no affordable housing being provided on site at 115 Winthrop Square? The project will provide luxury housing for an elite class of people, many of whom may never participate or contribute to the city's life. How will this actually serve as a benefit to the city's urban character and vitality? BN 05

Thank you for your consideration of my comments and scoping recommendations.

Yours truly,

Beatrice Nessen

BEATRICE NESSEN

BN 01 **I recommend that at a minimum, the project proponent be required to evaluate the shadow impacts and all other environmental impacts of two alternatives to their proposal: as-of-right zoning and a proposed building height that does not violate the state laws.**

A comprehensive shadow analysis is provided in Section 5.2 including the Project, an as-of-right alternative and an alternative based on the previous shadow law. The wind analysis considered the Project as well as the as-of-right alternative. In addition, a thorough alternatives analysis is provided in Section 3.0.

BN 02 **The project proponent should provide a clear and full explanation of what the Downtown Interim Overlay District zoning allows.**

Sections 2.2.4.4 and 3.3 include a discussion of zoning.

BN 03 **The site can be developed without adding new shadows to the Common and Public Garden. What is at stake is a balance between protection of the city's iconic parks and economic gain for a private entity.**

An Alternatives Analysis is included in Section 3.0, and Section 2.2.3 includes a discussion of the Project's numerous public benefits.

BN 04 **The ENF discusses the benefits of the Great Hall as a place open to activity 18 hours a day, 52 weeks of the year. The EIR should include a plan for activation such as, who will be responsible for programming this space, including the paying for such programming and how it will be managed.**

The Great Hall is described in detail in Section 2.2.1.

BN 05 **Why is no affordable housing being provided on site at 115 Winthrop Square? The Project will provide luxury housing for an elite class of people, many of whom may never participate or contribute to the city's life. How will this actually serve as a benefit to the city's urban character and vitality?**

Please see Sections 1.1 and 2.2.3 for a discussion of affordable housing.

Czepiga, Page (EEA)

From: Peter Papesch <papesch@mac.com>
Sent: Thursday, December 22, 2016 4:21 PM
To: mayor@boston.gov; christopher.tracy@boston.gov; Czepiga, Page (EEA)
Cc: Jacqueline M. Royce; dtcnabb@nabbonline.com; Michelle.Wu@boston.gov; Bill.Linehan@boston.gov; Josh Zakim; Ayanna.Pressley@boston.gov; A.E.George@boston.gov; Tito.Jackson@boston.gov; Salvatore.Lamattina@boston.gov; Michael.F.Flaherty@boston.gov; Andrea.Campbell@boston.gov; Frank.Baker@boston.gov; Timothy.McCarthy@boston.gov; Matthew.OMalley@boston.gov; Mark.Ciommo@boston.gov; Byron Rushing; Jay D. Livingstone; aaron.michlewitz@mahouse.gov; William Brownsberger; joseph.boncore@masenate.gov
Subject: #15610 Winthrop Square

Mr. Mayor:

Millennium Partners is proposing to develop the site with a 775 ft. tower. This proposal violates existing state shadow laws that have protected the Public Garden and the Common for decades. I understand the project is starting a fast paced Article 80 process and that the Project Notification Form has already been posted WITHOUT ANY SHADOW OR WIND STUDIES. PP 01

Please ensure

a. that the city doesn't become liable for permitting a project to proceed when the project fails to meet State legal requirements, and (more importantly) that
b. our precious Boston Common and Boston Public Garden are properly protected for the health and enjoyment of your voters and their successors.

Peter Papesch, AIA

PETER PAPESCH

PP 01 **I understand the project is starting a fast paced Article 80 process and that the Project Notification Form has already been posted without any shadow studies or wind studies.**

A comprehensive analysis of shadows is provided as Section 5.2, and a thorough wind analysis is provided as Section 5.1.

Susan D. Prindle
140 Marlborough St.
Boston, MA 02116

December 26, 2016

Secretary Matthew A. Beaton
Executive Office of Energy and Environmental Affairs
Attn. MEPA Office, Page Czepiga Environmental Analyst, page.czepiga@state.ma.us
100 Cambridge Street, Suite 900
Boston, MA 02114

Project: # 15610 115 Winthrop Square
Subject: Environmental Notification Form ENF

Dear Secretary Beaton,

As a long-time resident of Boston, I appreciate the role your office plays in overseeing the impacts of major development projects in our city. With regards to the 115 Winthrop Square proposal, I would like to register my **opposition** to the project as currently envisioned, and point out a significant omission in the Environmental Notification Form submitted by the proponent.

On page 30 of the ENF, in the Historic and Archaeological Resources section, your office poses several questions that are pertinent to the Winthrop Square proposal. Because the site itself is not an historic structure or within an historic district, the impact on adjacent historic structures is understated. The proponent states that "Attachment D includes a summary of historic resources within the Project's vicinity." That summary includes no less than 38 historic structures. However, because the study area is defined as a circle with ¼ mile radius, important impacts on the Common and Public Garden are omitted. Given the proposed height of the building, I believe that the area of impact should be enlarged to include these two valuable parks. SP 01

Further, because the proponent was required to disclose only on-site historic and archaeological resources, he was not required to complete two critical sections of the questionnaire concerning the impacts of this project and its relation to existing city and state policies:

> II. Impacts: Describe and assess the project's impacts, direct and indirect, on listed or inventoried historical and archaeological resources
> III. Consistency: Describe measures that the proponent will take to comply with federal, state, regional, and local plans and policies related to preserving historical and archaeological resources

I believe that, because of the size of the proposed project, its impact will go far beyond the immediate site, and urge your office to require that these questions be addressed by the proponent.

I am particularly concerned that the ENF included no mention of the fact that the project as currently proposed is **illegal** under state laws protecting the Boston Common and Public Garden.
In 1990 the State Legislature enacted the Boston Common Shadow Law (362 of the Acts of 1990), limiting the amount of new shadow that could be cast after 7 am and establishing a" shadow bank" that

would allow limited shadows cast by buildings in the Midtown Cultural District. A similar law was subsequently enacted to protect the Public Garden (385 of Acts of 1993).

These state laws were put in place precisely to afford the protection from shadows that could not be assured by city zoning laws or planning. They have not prevented the redevelopment of the Park Square area or the Downtown or Theater Districts, both of which have undergone significant redevelopment since their adoption. In choosing to ignore their limitations, I believe that the city, despite its best intentions, is endangering a significant resource in the interest of short-term profit. I believe it is the state's responsibility to take the longer view, to ensure that our historic resources are protected for future generations. SP 02

The developers' presentation at the most recent public meeting indicated that the Common will be shadowed by 115 Winthrop Square in the early morning **264 days a year**. For 2/3 of that time, the shadow will be over 20 minutes in duration. The impact on the Public Garden will occur before 8 am, 120 days a year, and will be a maximum of 29 minutes. While this may not seem significant, there is concern that the shadows will occur during the spring and fall growing seasons. Further, allowing this exception to the law will constitute a troubling precedent. There is good reason to expect that, if this exception is granted, other developments will soon follow, to the detriment of these historic greenspaces. SP 03

The Common, the Garden and Commonwealth Avenue are an integral part of what makes Boston such a special city. Our parks are used and enjoyed by residents from all parts of the city as well as by visitors from throughout Massachusetts, the nation and beyond. These visitors make significant contributions to the City's and the Commonwealth's economy—a recent survey cited tourism as the 4th largest sector of the Massachusetts economy. Keeping them vibrant and attractive for visitors is good public policy as well as good business.

To allow large developments to jeopardize our parks in the name of progress is short sighted in the extreme. Risking their health for short-term gain could permanently damage vital parts part of a heritage that has been given to us in trust by previous generations. I believe that we need to treat this gift more responsibly.

To this end, I request that your office require the applicant to present a project that complies with the existing shadow laws (400', as I understand it), as part of his next submission. SP 04

Thank you for your attention to this important matter.

Sincerely,



Susan D. Prindle

cc. Senator Will Brownsberger
Representative Jay Livingstone
NABB

SUSAN PRINDLE

SP 01 **Because the site itself is not an historic structure or within an historic district, the impact on adjacent historic structures is understated. The proponent states that "Attachment D includes a summary of historic resources within the Project's vicinity." That summary includes no less than 38 historic structures. However, because the study area is defined as a circle with ¼ mile radius, important impacts on the Common and Public Garden are omitted. Given the proposed height of the building, I believe that the area of impact should be enlarged to include these two valuable parks.**

An analysis of Project-related impacts on historic resources is provided in Section 8.0.

SP 02 **These state laws were put in place precisely to afford the protection from shadows that could not be assured by city zoning laws or planning… There is good reason to expect that, if this exception is granted, other developments will soon follow, to the detriment of these historic greenspaces.**

Please see Response to Comment BPA 01 (MEPA letter).

SP 03 **There is concern that the shadows will occur during the spring and fall growing seasons.**

The comprehensive shadow analysis in Section 5.2 addresses potential shadow-related impacts to tree growth. See Attachment P for a letter regarding impacts on the trees of Boston Common and the Public Garden.

SP 04 **Require the applicant to present a project that complies with the existing shadow laws.**

The alternatives analysis provided in Section 3.0 evaluates an alternative that would comply with shadow laws as they existed at the time the ENF was filed.

Czepiga, Page (EEA)

From: Martyn Roetter <mroetter@gmail.com>
Sent: Thursday, December 01, 2016 10:21 PM
To: Czepiga, Page (EEA); christopher.tracy@boston.gov
Cc: Livingstone, Jay - Rep. (HOU); Will Brownsberger; Rushing, Byron - Rep. (HOU); Aaron Michlewitz; michelle.wu; Josh Zakim; Annissa Essaibi-George; Ayanna.Pressley; Bill.Linehan; michael.flaherty@boston.gov; NABB Development and Transportation Committee
Subject: Comments on ENF -115 Winthrop Square, MEPA #1610, filed on November 15 2016

Dear Page and Christopher,

I appreciate the opportunity to submit comments on the Environmental Notification Form for the proposed Millennium Development project at 115 Winthrop Square. The potential impact of this project is considerable and would be long lasting for all of Boston

This project raises many concerns given its size and location. However I am struck in particular by one glaring omission in the ENF. There is no mention of the fact that the project as currently proposed is **illegal** until and unless existing 26 year old state laws protecting the Boston Common and Public Garden from additional shadows are amended.

Yet sunlight and its absence (shadow) are important influences on the quality of the environment we experience, as are water, wind, air quality, noise etc. They have a direct effect on all of us at all times and on the condition of our habitat over time. For example the extent of the presence or absence of sunlight, especially at certain periods of the year, e.g. spring, is significant for the flourishing of plants.

Neglect of consideration of the illegal shadows cast by the proposed project means that the ENF must be resubmitted with complete information on its environmental impact which the current ENF does not provide. Thorough studies of the project's impact on the coverage and duration of shadows in the protected areas of the Boston Common and Public Garden must be undertaken. The results should be made widely available, with adequate time for evaluation by residents and others as the project is being reviewed. The kind of information to be provided in these results (this is not necessarily exhaustive) should include as a minimum: MR 01 MR 02

- Presentation of the profiles of illegal (according to current laws) shadow profiles over the year for different tower heights at say 25 feet intervals beginning at the maximum height of a tower that would not cast any additional shadows on the protected areas (400 feet or thereabouts) up to the maximum proposed height of 775 feet, identifying separately for the Boston Common and the Public Garden:
    - The longest duration of illegal shadows during the year;
    - The numbers of days during the year and their dates when the duration of an illegal shadow will exceed 15, 30 and 60 minutes respectively;

- Identification of places within the protected areas covered by the illegal shadows that are particularly popular and well frequented in the early morning hours or include plants (partial preliminary information on shadows I have seen elsewhere indicates that there will only be illegal shadows before about 9:30 am, and that the periods of maximum duration of illegal shadows occur around the spring and fall equinoxes).

I look forward to seeing the ENF resubmitted or updated with this information without which an adequate understanding of the full environmental impact of Millennium's proposed project at 115 Winthrop Square is not possible.

Thank you for your attention.

--
Martyn Roetter
144 Beacon Street
Boston, MA 02116-1449 USA
tel: +1 617 820-5205
fax: +1 617 820-5223
Cell: +1 617 216 1988
Twitter@mroetter
Skype ID: martynroetter

MARTYN ROETTER

MR 01 **Thorough studies of the project's impact on the coverage and duration of shadows in the protected areas of the Boston Common and Public Garden must be undertaken.**

A comprehensive analysis of Project-related shadow is provided in Section 5.2.

MR 02 **[The shadow analysis] should include as a minimum: Presentation of the profiles of illegal (according to current laws) shadow profiles over the year for different tower heights at say 25-foot intervals beginning at the maximum height of a tower that would not cast any additional shadow on the protected areas (400 feet or thereabouts) up to the maximum proposed height of 775 feet, identifying separately for the Boston Common and the Public Garden:**

- **the longest duration of illegal shadows during the year;**
- **the numbers of days during the year and their dates when the duration of an illegal shadow will exceed 15, 30, and 60 minutes; and**
- **identification of places within the protected areas covered by the illegal shadows that are particularly popular and well frequented in the early morning hours or include plants.**

A comprehensive shadow analysis performed pursuant to the BPDA Scoping Determination is presented in Section 5.2, and a façade study regarding shadow on historic resources is provided in Section 8.0. Section 3.0 includes an alternatives analysis.

The Project's zoning height of approximately 664 feet (710' AMSL) is consistent with the operating guidelines provided by Massport and the technical review provided by the Federal Aviation Administration which has set various points of the Project site at 701-720 feet AMSL. The Project's height fits within this upper limit to avoid any operational changes in departures or arrivals at Logan International Airport. The FAA is currently conducting its public review period for this Aeronautical Study (See Attachment A).

The Project complies with Chapter 362 of the Acts of 1990 and Chapter 384 of the Acts of 1992, each as amended by Chapter 57 of the Acts of 2017, "An Act Protecting Sunlight and Promoting Economic Development in the City of Boston" signed by the Governor of the Commonwealth on July 24, 2017, which govern new shadows from new structures on Boston Common and the Public Garden.

Please see Attachment P for additional information regarding shadow impacts on the trees of Boston Common and the Public Garden.

Czepiga, Page (EEA)

From: jacqueline royce <jackie.s.royce@gmail.com>
Sent: Monday, December 19, 2016 2:54 PM
To: mayor@boston.gov; christopher.tracy@boston.gov; Czepiga, Page (EEA)
Cc: dtcnabb@nabbonline.com; Michelle.Wu@boston.gov; Bill.Linehan@boston.gov; Josh.Zakim@boston.gov; Ayanna.Pressley@boston.gov; A.E.George@boston.gov; Tito.Jackson@boston.gov; Salvatore.Lamattina@boston.gov; Michael.F.Flaherty@boston.gov; Andrea.Campbell@boston.gov; Frank.Baker@boston.gov; Timothy.McCarthy@boston.gov; Matthew.OMalley@boston.gov; Mark.Ciommo@boston.gov; byron.rushing@mahouse.gov; Rep. Jay Livingstone; aaron.michlewitz@mahouse.gov; William Brownsberger; joseph.boncore@masenate.gov
Subject: #15610 Winthrop Square

TO: Mayor Marty Walsh

Christopher Tracy, Senior Project Manager, Boston Planning & Development Agency (BPDA)

Page Czepiga, Environmental Analyst, Executive Office of Energy and Environmental Affairs (MEPA)

DATE: December 19, 2016

RE: 115 Winthrop Square

I am writing to you as a Board Member of the Neighborhood Association of the Back Bay (NABB) and a member of NABB's Green Committee as well as Co-Chair of the Environmental Affairs Committee of the Prudential Center Residents Association (Avalon Apartments) to express my deep concerns about the proposed Winthrop Square Garage site in downtown Boston.

JR 01

My understanding is that Millennium Partners is proposing to develop the site with a 775 ft. tower. This proposal violates existing state shadow laws that have protected the Public Garden and the Common for decades. I understand the project is starting a fast paced Article 80 process and that the Project Notification Form has already been posted WITHOUT ANY SHADOW OR WIND STUDIES. JR 02

I joined NABB in voting unanimously to support the existing shadow laws.

We need everyone's help to assure that our beautiful, fragile, precious parks are protected for the health and welfare of future generations. It is the responsibility of all of us to be careful stewards of our open spaces today to protect this legacy for those who come after us.

With sincere appreciation for your thoughtful consideration of this critical opportunity to plan wisely.

Jacqueline Royce, PhD
780 Boylston St.
Boston, MA 02199
617-266-3608
Board of Directors, Neighborhood Association of Back Bay (NABB)
and Member, NABB Green Committee
Co-Chair, Environmental Affairs Committee, Prudential Center Residents Association

JACQUELINE ROYCE (OF NABB)

JR 01 **This proposal violates existing state shadow laws that have protected the Public Garden and the Common for decades... [As a Board member of the NABB], I joined NABB in voting unanimously to support the existing shadow laws.**

Please see Response to Comment BPA 01 (MEPA Letter).

JR 02 **...the PNF has already been posted without any shadow or wind studies.**

Sections 5.1 and 5.2 of the Draft EIR/PIR include detailed wind and shadow studies, respectively.

Holly Carlson

To: Czepiga, Page (ENV)
Subject: RE: Project #15610, 115 Winthrop Square

From: Marty Walz [mailto:martywalz@yahoo.com]
Sent: Tuesday, December 20, 2016 8:10 PM
To: Czepiga, Page (EEA)
Cc: Livingstone Jay - Rep. (HOU); Byron Rushing; Aaron Michlewitz; Senator Will Brownsberger; Joseph.Boncore@masenate.gov; Josh Zakim; Michelle Wu; Ayanna Pressley; Flaherty Michael (City Council); salvatore.lamattina@boston.gov; bill.linehan@boston.gov; a.e.george@boston.gov; frank.baker@boston.gov; andrea.campbell@boston.gov; timothy.mccarthy@boston.gov; matthew.omalley@boston.gov; tito.jackson@boston.gov; mark.ciommo@boston.gov
Subject: Project #15610, 115 Winthrop Square

Dear Secretary Beaton:

I am writing in connection with the Environmental Notification Form submitted by Millennium Partners for the development of 115 Winthrop Square.

I am a former state Representative for the 8th Suffolk District, which includes the Boston Common and Public Garden. Two state laws protect these historic parks, Chapter 362 of the Acts of 1990 regarding the Boston Common and Chapter 384 of the Acts of 1992 regarding the Public Garden. Since the state legislature approved these laws, the City of Boston, generally and particularly in the areas near these two parks, has experienced tremendous growth, whether measured by new construction, new jobs, or an increase in population. For 26 years, we have both protected our parks and fueled an economic engine. We should be proud of achieving both goals simultaneously, something other cities have failed to do.

The proposed project at Winthrop Square would cast new shadows on the Common and Garden in violation of these state laws. As a result, in the Draft EIR, Millennium Partners should be required to evaluate a building that does not violate either law. Based on information provided by the developer, it appears that a building of approximately 425 feet could be built on the site in full compliance with current laws. That is a large building by any measure, so it is clear that substantial construction can occur at this location while our parks continue to be protected. MW 01

These are not ordinary parks. The Boston Common is the oldest public park in the United States, and the Public Garden is the first public botanical garden in the nation. Each is designated as a National Historic Landmark as well as a Boston Landmark.

I note that Millennium Partners has developed other properties in the area (One Charles, Millennium Place, and the Ritz Carlton Hotel and Residences), all smaller than what is proposed at Winthrop Square. This is a company that knows how to develop economically successful buildings in downtown Boston that strike an appropriate balance MW 02

between the quality of life for those who live in the downtown neighborhoods and economic development. We should have the same expectations for a building at 115 Winthrop Square.

Thank you for your consideration.

Sincerely,

Marty Walz
250 Commonwealth Avenue
Boston, MA 02116

MARTY WALZ

MW 01 **Millennium Partners should be required to evaluate a building that does not violate either [shadow] law. Based on information provided by the developer, it appears that a building of approximately 425 feet could be built on the site in full compliance with current laws.**

The alternatives analysis provided in Section 3.0 evaluates an alternative that would comply with shadow laws as they existed at the time the ENF was filed.

MW 02 **This is a company that knows how to develop economically successful buildings in downtown Boston that strike an appropriate balance between the quality of life for those who live in downtown neighborhoods and economic development.**

See Section 2.2 for a description of many of the Project's public benefits.

13.1.1 Post-Comment Period MEPA Comment Letters

Emerald Necklace
CONSERVANCY

Connecting People and Parks and Conserving the Emerald Necklace

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Fenway CDC
Fenway Garden Society
Franklin Park Coalition
Franklin Park Zoo/ Zoo New England
Friends of Jamaica Pond
Friends of Leverett Pond
Friends of the Muddy River
Garden Club Federation of Massachusetts
Isabella Stewart Gardner Museum
Jamaica Hills Association
Jamaica Pond Association
MASCO
Museum of Fine Arts, Boston

PC

RECEIVED
JAN 23 2016
MEPA

January 20, 2017

Page Czepiga, Environmental Analyst
MEPA Office
100 Cambridge St, Suite 900
Boston, MA. 02114

Re: 115 Winthrop Square Plan Notification Form, Legislative protection of Boston Common from Shadows & State Parkway Protections, Project #15610

Dear Ms. Czepiga:

This proposal for a building at the proposed height would cast a permanent shadow on two centuries old iconic public parks that attract hundreds of thousands of visitors each year for their scenic beauty, rich history and lively programming. These parks, used by residents and visitors alike, must be protected. In fact, this sentiment is not new, it is enshrined in existing state law limiting shadow in the park and upheld for over two decades.

Today Boston is in the middle of significant growth and in need of both park improvement and affordable housing funding. This project seems to promise both. As the Emerald Necklace Conservancy, we see any major infusion of funds into Boston's parks as exciting and desperately needed. We wholeheartedly support investment in our city's parks - and Franklin Park in particular – at the same time, we must ensure that this investment is not at the long-term expense of another park.

For these reasons, the project should be reduced in scale so that it is in compliance with existing state laws. We believe that the tremendous value this project would produce at a reduced size could still provide significant park and other public funding and not require a price to be paid by another park. Moreover, we are concerned about the precedent this would set, allowing these two state laws to be revisited. ENC 01

It is not a surprise that Boston is growing, and it is because of the wise actions, protections and investments of those that came before us. We all need to preserve and extend that legacy.

Sincerely Yours,

Karen Mauney-Brodek
President

125 The Fenway | Boston, Massachusetts 02115 | TEL: 617.522.2700 | FAX: 617.522.2770 | www.emeraldnecklace.org

EMERALD NECKLACE CONSERVANCY

ENC 01 **The project should be reduced in scale so that it is in compliance with existing shadow laws. We believe that the tremendous value this project would produce at a reduced size could still provide significant park and other public funding and not require a price to be paid by another park. Moreover, we are concerned about the precedent this would set, allowing these two state laws to be revisited.**

Please see Response to Comment BPA 01 (MEPA Letter).

CITY OF EVERETT
Office of the Mayor

Carlo DeMaria, Jr.
Mayor

Everett City Hall
484 Broadway
Everett, MA 02149-3694
Phone: (617) 394-2270
Fax: (617)381-1150

August 16, 2017

Secretary Matthew A. Beaton
Executive Office of Energy & Environmental Affairs
Attn: MEPA Office, Anne Canaday, EEA #15598
100 Cambridge Street, Suite 900
Boston, MA 02114

Re: 115 Winthrop Square ENF (EEA #15610)

Dear Secretary Beaton,

Thank you for the opportunity to offer comment on the Environmental Notification Form filing for the 115 Winthrop Square Project located in Boston.

My understanding is that the height of the proposed tower, 775 feet, would disrupt air traffic patterns around Logan Airport. Specifically, air traffic departures would be diverted from Runway 27 to Runway 33L, and this would consequently increase overflight noise in communities north of Boston, such as the City of Everett.

The City of Everett is certainly familiar with what can happen with increased overflight noise when air traffic is diverted from established patterns. Beginning this past May, when the reconstruction of one of the airport's main, 10,000 foot runways commenced, the City experienced a sharp increase in the number of resident complaints about the noise generated by new flight patterns over the city. Much of the noise occurred in the overnight hours, causing significant quality of life issues for a number of residents. While the reconstruction of that main runway is now substantially complete, the City is very concerned about the possibility of a project that would once again necessitate new flight patterns and generate increased noise pollution in our sky.

Therefore, we hope that the project would explore alternative designs that do not disrupt existing air traffic patterns or negatively impact neighboring communities. CE 01

Thank you very much for your consideration.

Sincerely,



Carlo DeMaria
Mayor

CITY OF EVERETT MAYOR, CARLO DEMARIA, JR.

CE 01 **We hope that the project would explore alternative designs that do not disrupt existing air traffic patterns or negatively impact neighboring communities.**

Please see Section 1.1.

LIGHT Boston
Illuminating Our City's Unique Future, History and Culture

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January 20, 2017

Matthew Beaton, Secretary
Executive Office of Energy and Environmental Affairs
Attn: MEPA Office, Analyst: Page Czepiga
100 Cambridge Street, Suite 900, Boston. MA 02114
matthew.beaton@state.ma.us, page.czepiga@state.ma.us

Casey Hines, Senior Project Manager - Development Review
Boston Planning & Development Agency, Boston City Hall
One City Hall Square, Boston, MA 02201
casey.a.hines@boston.gov

Re: **COMMENT - 115 Winthrop Square PNF and EIR Certificate**
MEPA 15610

Dear Reviewing Agencies:

LIGHT Boston is a 501(c)3, which has been advocating for more than two decades for the improved nighttime illumination of our city's built environment, heritage and public realm. We have completed projects successfully in concert with your departments as well as the City's DPW, Parks Department, other State agencies and the National Park Service. We work in concert with related non-profits - Walk Boston, Friends of the Public Garden, Charles River Conservancy, etc. - as well as notable private institutions and individuals within the City.

We have reviewed the 115 Winthrop Square PNF and the EIR Certificate, and have these comments:

1. Noticeably missing - exterior lighting and nighttime aspect
The Article 80 review seems not to require a proponent to address the whole subject of exterior illumination in any direct way. The Certificate makes only a single, and hardly comprehensive, note advising the use of LEDs for energy conservation. Hence contributions to the reality of Boston as an attractive after-dark destination with its economic ramifications, creation of a desirable nighttime public realm surrounding the project itself, nighttime safety (pedestrian and vehicular), environmental effects from "over-lighting", as well as wayfinding and Dark Skies concerns are nowhere addressed. This is a significant ("glaring", even) oversight which we suggest needs to be corrected in both the Article 80 and the MEPA processes. LB 01

2. Image of the building
Since upper level signage is generally prohibited in downtown Boston (the Prudential, Sheraton and Union Oyster House being grandfathered), the lighting of the building exterior itself becomes the cityscape identifier, frequently resulting in a sort of added-on lighting "crown", not always successful. Hence presentation of this overall design aspect, especially for such a notably tall building as proposed, with its opportunity for a

remarkable contribution (or potentially lessening) of the quality of our skyline, merits review. We ask that the proposal for lighting the exterior be shared with the public for comment before approval is granted. LB 02

3. Accessibility - Lighting a critical component

Good exterior lighting is a fundamental element in making the area around a building accessible to individuals with low vision and to senior citizens. By setting the lighting standard based on aiding those with low vision, the property and its surrounds work for all individuals who walk to or only by the building. We ask that exterior lighting of the sidewalks and surrounding area be reviewed and approved by the Mayor's Commission for Persons with Disabilities and the non-profit WalkBoston. LB 03

4. Interior lighting of public spaces - renderings not described in commentary

The lighting of public spaces *within* the project are shown in renderings. However, there is only very general written discussion of the lighting results to be achieved, and type, quantity, placement, control or flexibility for special events enumerated. We ask that the specifics of interior lighting for areas intended for public use and amenity be provided before approval of the project proceeds. LB 04

5. Potentials for the larger public realm

Again, the renderings and illustrative ground floor plan show that some kind of treatment is intended at either end of the arcade. But the possibilities (indeed responsibility) for the proponent to take an active role in the improvement and long-term maintenance of the adjacent Winthrop Square "public room", which adds such value to the project in the first place, be developed for nighttime place-making and presented. So too, the Federal Street streetscape across into Matthews Street. These are central to the success not only of the project but also to the neighborhood being created by the expansion of residential building to the Federal Street area. We ask that the reviewing agencies ensure these elements are appropriately addressed before permission is granted. LB 05

Boston is a city which aspires to maintaining and expanding its vibrant nightlife as well as providing a safe and accessible after-dark reality. Hence LIGHT Boston believes that the nighttime aspects of the public realm fall well within the purview of public agencies responsible for our city's health and well-being. We would welcome the opportunity to discuss with both of you the issue of civic illumination as it relates to this project and to the larger realm of city design. Thank you for your attention.

Sincerely yours,

Todd Lee, FAIA - President, LIGHT Boston, Inc.

copies:
Kathryn Quigley, Mayor's Commission for Persons with Disabilities
Wendy Landman, Walk Boston

LIGHT BOSTON

LB 01 **The Article 80 review seems not to require a proponent to address the whole subject of exterior illumination in any direct way. The Certificate makes only a single, and hardly comprehensive, note advising the use of LEDs for energy conservation. Hence contributions to the reality of Boston as an attractive after-dark destination with its economic ramifications, creation of a desirable nighttime public realm surrounding the project itself, nighttime safety (pedestrian and vehicular), environmental effects from "over-lighting", as well as wayfinding and Dark Skies concerns are nowhere addressed. This is a significant ("glaring", even) oversight which we suggest needs to be corrected in both the Article 8- and the MEPA processes.**

An exterior lighting package will be established as the Project design progresses. Environmental impacts, as well as pedestrian safety, accessibility, and comfort, will be studied.

LB 02 **We ask that the proposal for lighting the exterior be shared with the public for comment before approval is granted.**

Please see the response to LB 01.

LB 03 **We ask that exterior lighting of the sidewalks and surrounding area be reviewed and approved by the Mayor's Commission for Persons with Disabilities and the non-profit WalkBoston.**

Please see the response to LB 01. The Proponent plans to meet with the Commission for Persons with Disabilities.

LB 04 **We ask that the specifics of interior lighting for areas intended for public use and amenity be provided before approval of the project proceeds.**

Lighting and lighting power density are described in Section 10.2.1.1.

LB 05 **Again, the renderings and illustrative ground floor plan show that some kind of treatment is intended at either end of the arcade. But the possibilities (indeed responsibility) for the proponent to take an active role in the improvement and long-term maintenance of the adjacent Winthrop Square "public room", which adds such value to the project in the first place, be developed for nighttime place-making and presented. So too, the Federal Street streetscape across into Matthews Street. These are central to the success not only of the project but also the neighborhood**

being created by the expansion of residential building to the Federal Street area. We ask that the reviewing agencies ensure these elements are appropriately addressed before permission is granted.

Please see response to LB 01.

RECEIVED
MAR 06 2017
MEPA

February 28, 2017

Doug Kelleher
Epsilon Associates
3 Mill & Main Place
Maynard, MA 01754

The Commonwealth of Massachusetts

William Francis Galvin, Secretary of the Commonwealth
Massachusetts Historical Commission

RE: 115 Winthrop Square, Boston (Downtown), MA; MHC# RC.61229; EEA# 15610

Dear Mr. Kelleher:

Staff of the Massachusetts Historical Commission (MHC) have reviewed the correspondence that you submitted, received at this office on February 13, 2017, requesting a meeting to review the alternatives analysis for the proposed building at 115 Winthrop Square.

The proposed project at 115 Winthrop Square is subject to review under M.G.L. Chapter 9, sections 26-27C (950 CMR 71.00). As noted in MHC's December 20, 2016 letter, MHC staff determined that the project Environmental Notification Form was incomplete for the purposes of MHC review (950 CMR 71.07(2)). MHC's December 20, 2016 comments to MEPA itemized the information required by MHC to adequately document the project submittal per (950 CMR 71.07(2)) for MHC's review of this project under the procedures in MHC's review regulations, 950 CMR 71.00. MHC 01

Your request for a consultation meeting is premature. The MHC requires the previously requested information in order to fully understand the project and to conduct MHC's review in compliance with 950 CMR 71.00. Within 30 days of the submittal of an adequately documented PNF or ENF, the MHC shall provide comments pursuant to 950 CMR 71.07(2).

These comments are offered to assist in compliance with M.G.L. Chapter 9, sections 26-27C (950 CMR 71.00), and MEPA (301 CMR 11). Please do not hesitate to contact Elizabeth Sherva of my staff if you have any questions.

Sincerely,

Brona Simon
State Historic Preservation Officer
Executive Director
Massachusetts Historical Commission

xc: Joseph Larkin, MCAF Winthrop LLC c/o Millennium Partners
Page Czepiga, MEPA Unit - EEA
Cindy Schlessinger, Epsilon Associates
Marianne Connolly, MWRA
DEP-NERO
David Carlson, Boston Planning & Development Agency
Rosanne Foley, Boston Landmarks Commission
Michael Creasey, Boston National Historical Park
Greg Galer, Boston Preservation Alliance
Liz Vezza, Friends of the Public Garden
Bob Sloane, Walk Boston
Neighborhood Association of the Back Bay
Beacon Hill Civic Association

MASSACHUSETTS HISTORICAL COMMISSION, FEBRUARY 28, 2017

MHC 01 **The proposed project at 115 Winthrop Square is subject to review under M.G.L. Chapter 9, sections 26-27C (950 CMR 71.00). As noted in MHC's December 20, 2016 letter, MHC staff determined that the project Environmental Notification Form was incomplete for the purposes of MHC review (950 CMR 71.07(2)). MHC's December 20, 2016 comments to MEPA itemized the information required by MHC to adequately document the project submittal per (950 CMR 71.07(2)) for MHC's review of this project under the procedures in MHC's review regulations, 950 CMR 71.00.**

Section 8 provides the information requested in MHC's December 20, 2016 and February 28, 2017 letters. Additional detail on visual impacts are provided in Attachment L and shadow impacts in Attachment M.

Czepiga, Page (EEA)

From: Lisa <pepsildl@aol.com>
Sent: Thursday, January 19, 2017 2:57 PM
To: casey.a.hines@boston.gov; casey.hines@boston.gov
Cc: jonathan.greeley@boston.gov; Josh.Zakim@boston.gov; jay.livingstone@mahouse.gov; william.brownsberger@masenate.gov; Czepiga, Page (EEA)
Subject: Comments on 115 Winthrop Square Project

Casey Hines, Senior Project Manager
Boston Planning & Development Agency
One City Hall Square | Boston, MA 02201

Casey:

I attended the public meetings on Monday, December 5, 2016 at Suffolk University Law School and January 5, 2017 at 101 Federal Street. I appreciate the opportunity to hear all viewpoints and ask my questions about the project.

I do not support an exception to the existing shadow laws. I have concerns around public health, preserving the unique character of our city, diversified housing stock, and wind. I have outlined details below along with my feedback on the open space and building architecture.

Further, I would like the state to move forward with strengthening the existing shadow laws (Bill H.715) - with public comment - so that they apply to structures bordering the Common and Public Garden. I would also like the state and city to open a dialogue on a new building height limit for the City of Boston.

Public Health: Sunlight is critical to physical and mental health. The height of the proposed building at 115 Winthrop Square creates new shadows on the Common and Public Garden as well as on our city sidewalks. Based on the *Preliminary Study of Shadow Duration - Boston Common*, the greatest impact of net new shadows is during late winter, early spring and fall. There is more than an hour of additional shade for several months during the coldest times of the year causing significant public health issues for residents, commuters, and tourists. LL 01

In a recent study published in the *Journal Dermato-Endocrinology*, world-renowned researchers have concluded that insufficient sun exposure is an emerging public health problem. Americans suffer from vitamin D deficiencies and other serious health conditions caused by lack of sun.[1]

Researchers out of Brigham Young University found increased mental health distress during periods of reduced sun time hours. The study was published in the October 2016 *Journal of Affective Disorders*. A surprising finding was mental distress applies to the general population not just those individuals diagnosed with Seasonal Affective Disorder.[2] It is critical during times with shorter daylight for residents and commuters to be exposed to as much sun as possible.

Another public health issue is slip and falls on ice. I have observed over 15 years living in Back Bay that wet sidewalks and walkways within the Common and Public Garden that are in shadow remain icy while those in the sun dry out.

Preserve our Unique City: Boston is one of the oldest cities in the United States. Our city's greatness is reflective in our small scale -- historic neighborhoods along with our extensive park system, provide a clear view of the horizon and allow people to relate to their environment. This is unique and sets our world-class city apart drawing millions of visitors each year and bolstering our economy. In 2014, Suffolk County received $8.3 billion in domestic travel expenditures accounting for nearly 50% of the state total, and local government tax revenue was 154.9 million.[3]

Diversified Housing Stock: The inclusion of 25 million for affordable housing is commendable. The project does not address the desperate issue of affordable housing for middle income singles and families. LL 02

I am also concerned that the proposed project will exacerbate the oversupply of luxury homes in Boston[4] and the impact of having vacant rental properties. For example, investors bought into Millennium Tower and immediately placed the units on the rental market with prices ranging from $17,500 to $2000 (median is $5625) per month. According to listing on one upscale real estate agency web site, there are 43 units, approximately 10% of the total number of condos in the building, currently on the rental market.[5]

Wind: I walk by the John Hancock tower everyday. It 60 stories creates wind tunnels on the ground level of the streets surrounding it. During high winds, pedestrians are pushed back so it is difficult to cross the street. At times I have seen pedestrians thrown toward traffic. The proposed height of Winthrop Square building will create unpleasant walking conditions for commuters, residents, and tourists. LL 03

Winthrop Square Open Space and Building Architecture Comments:
It is unique to have a space like the 240 Devonshire Street parking garage become available for development. It provides many opportunities for improvement as summarized below:

Create a New Square: Create a true square, similar to a European square, allowing pedestrians to walk freely along the building front without having to watch for traffic. This will create a vibrant, engaging and safe street level experience for pedestrians. LL 04

Reconfigure Streets: As currently configured, traffic is still able to pass on Devonshire street. This is an opportunity to reconfigure Devonshire Street and create a new road to Federal Street via Federal Court and the space available from tearing down the garage. This will eliminate confusion of approaching traffic having Devonshire be one way when they reach Franklin Street. This new road will still provide traffic the option to turn left on Franklin while creating a new direct route to Milk Street. LL 05

Eliminate Great Hall: I do not believe that an additional public/private space is needed. There are many nearby theaters and parks e.g. Rose Fitzgerald Kennedy Greenway, that could host events. LL 06

Architecture: The handout (115 Winthrop Square) available during the January 5, 2017 public meeting includes an image of the building. It looks like the architects have created a building entrance level to the height of the One Winthrop Square historic building. I think it is important feature to make the area feel contiguous. The image also shows white arcs that are reminiscent of Millennium Partners 10 St. James Avenue building (272 ft high section). I think many of Millennium Partners buildings are striking, elegant and beautiful but this particular feature looks sterile and inexpensive.

Thank you for time and consideration. If you have any questions, feel free to email me at PepsiLDL@aol.com or call 617-833-8588.

Regards,

Lisa Leary
275 Beacon Street 3A
Boston, MA 02116

Citations

1. David G. Hoel, Marianne Berwick, Frank R. de Gruijl & Michael F. Holic (2016) *The risks and benefits of sun exposure 2016*, Dermato-Endocrinology, 8:1, e1248325, DOI: 10.1080/19381980.2016.1248325

2. Mark E. Beecher et al, Sunshine on my shoulders: Weather, pollution, and emotional distress, *Journal of Affective Disorders* (2016). DOI: 10.1016/j.jad.2016.07.02

3.The Economic Impact Of Travel on Massachusetts Counties 2014; A Study Prepared for the Massachusetts Office of Travel and Tourism By the Research Department of the U.S. Travel Association; Washington, D.C.; October 2015

4. Boston Herald Luxury glut stalls Simon Company, October 29, 2016 http://www.bostonherald.com/business/real_estate/2016/10/luxury_glut_stalls_simon_copley_tower

5. Campion and Company http://www.campionre.com/

LISA LEARY, JANUARY 19, 2017

LL 01 **Sunlight is critical to physical and mental health. The height of the proposed building at 115 Winthrop Square creates new shadows on the Common and Public Garden as well as on our city sidewalks. Based on the Preliminary Study of Shadow Duration – Boston Common, the greatest impact of net new shadows is during late winter, early spring and fall. There is more than an hour of additional shade for several months during the coldest times of the year causing significant public health issues for residents, commuters, and tourists.**

A comprehensive shadow analysis is provided in Section 5.2.

LL 02 **The inclusion of 25 million for affordable housing is commendable. The project does not address the desperate issue of affordable housing for middle income singles and families.**

The Proponent's commitment to providing affordable housing is described in Section 1.1 and 2.2.3.

LL 03 **The proposed height of Winthrop Square building will create unpleasant walking conditions for commuters, residents, and tourists.**

An analysis of Project-related wind is provided in Section 5.1.

LL 04 **Create a true square, similar to a European square, allowing pedestrians to walk freely along the building front without having to watch for traffic. This will create a vibrant, engaging and safe street level experience for pedestrians.**

Sections 7.3 and 2.2.2 contain a description of the Project's Urban Design and Winthrop Square.

LL 05 **As currently configured, traffic is still able to pass on Devonshire Street. This is an opportunity to reconfigure Devonshire Street and create a new road to Federal Street via Federal Court and the space available from tearing down the garage. This will eliminate confusion of approaching traffic having Devonshire be one way when they reach Franklin Street. This new road will still provide traffic the option to turn left on Franklin while creating a new direct route to Milk Street.**

A full analysis of traffic operations is presented in Section 4.5. Any confusion associated with the area where Devonshire Street becomes two-way in Winthrop Square will be improved by the proposed roadway and public realm improvements proposed as part of the Project. A new

roadway connection through the Project site is not feasible, as it would undermine the viability of the site plan and urban design. Any options of roadway closure of new roadway links are a matter for consideration of BTD.

LL 06 **I do not believe that an additional public/private space is needed. There are many nearby theaters and parks e.g. Rose Fitzgerald Kennedy Greenway, that could host events.**

Please see a description of the Great Hall in Sections 2 and 7.

Czepiga, Page (EEA)

From: Mary Ryan <ryansquad@gmail.com>
Sent: Wednesday, January 11, 2017 9:14 AM
To: Michelle.Wu@boston.gov; Bill.Linehan@boston.gov; Josh.Zakim@boston.gov; Ayanna.Pressley@boston.gov; A.E.George@boston.gov; Tito.Jackson@boston.gov; Salvatore.Lamattina@boston.gov; Michael.F.Flaherty@boston.gov; Andrea.Campbell@boston.gov; Frank.Baker@boston.gov; Timothy.McCarthy@boston.gov; Matthew.OMalley@boston.gov; Mark.Ciommo@boston.gov; byron.rushing@mahouse.gov; jay.livingstone@mahouse.gov; aaron.michlewitz@mahouse.gov; william.brownsberger@masenate.gov; joseph.boncore@masenate.gov; mayor@boston.gov; Czepiga, Page (EEA); info@friendsofthepublicgarden.com; info@nabbonline.com; dtcnabb@nabbonline.com
Subject: YES preserve our shadow laws

Those of us who reside in Boston, love Boston as it is, with its beautiful vibrant downtown, city parks and quaint lovely business districts and urban neighborhoods! Any amendment to the Massachusetts State Shadow Law would set a precedent for future development that could put into play precedents that would irradiate our Boston and the Boston ambience that we all know and love! We implore you to NOT overturn the Massachusetts State Shadow Laws that have protected out city, our neighborhoods and our parks for so many years.

MAR 01

Please do not sell out to Millennium Partners! The sum of 153 million is considerable but it is a small sum when taken in the light of the fact that it could eventually bring demise to the nature of our city as we know it. These exceedingly tall buildings need to stay in New York! **They are not what Boston is about and would work to undercut our city, it's beauty, it's historic ambience, it's green space and it's vibrant walkable neighborhoods and businesses.**

thank you,

Mary M Ryan

6 Arlington St. Apt. 2M

Boston, MA 02116

MARY RYAN

MAR 01 **We implore you to not overturn the Massachusetts State Shadow Laws that have protected our city, our neighborhoods and our parks for so many years.**

Please see Response to Comment BPA 01 (MEPA Letter).

Page Czepiga, Environmental Analyst
MEPA Office
100 Cambridge St., Suite 900
Boston, MA 02114

Re: 115 Winthrop Square Plan, Legislative Protection of Boston Common from Shadows & State Parkway Protections, Project #15610

Dear Ms. Czepiga,

The following comments regarding the Winthrop Sq. proposal were submitted last Thursday.

Date: 1/20/17 2:38 PM (GMT-05:00)
To: casey.a.hines@boston.gov
Subject: Winthrop Sq. Garage - Propsed Project

RECEIVED
JAN 26 2016
MEPA

To whom it may concern:

I am writing about the proposed project at the Winthrop Sq. Garage site.

I feel very conflicted about this project. I support smart & green development. I am aware that the City has been seeking to improve this site for several years, and this proposal would potentially provide significant funds for parks (Boston Common & Franklin Park), housing, jobs etc., which I don't want to jeopardize. SF 01

However, I'm very troubled by the fact that the BPDA & the developer have worked together on a project that does not comply with existing legislation (re: shadows). This legislation has protected our historic parks - Boston Common, the Public Garden & Commonwealth Ave. Mall - for decades.

It is backwards logic to knowingly design a project that does not comply with the law, and then to expect the law to be changed to accommodate it.

This is a precedent-setting decision and sets the stage for similar challenges in the future. Being put in this position damages the public trust and sets an adversarial tone between the BPDA and many residents and organizations.

This would also be an example of a "slippery slope" - if this project moves forward as proposed, where do you draw the line for subsequent projects?

Rather than changing the legislation, I hope a way can be found to change the building's design to comply with existing laws. Such a compromise would benefit park visitors - residents and tourists - and pave the way for planning in a climate of mutual respect rather than distrust.

Thank you for considering these comments.
Sarah Freeman, 22 Arborway, Jamaica Plain, MA 02130

Sarah E. Freeman

SARAH FREEMAN

SF 01 **I feel very conflicted about this project. I support smart & green development. I am aware that the City has been seeking to improve this site for several years, and this proposal would potentially provide significant funds for parks (Boston Common & Franklin Park), housing, jobs, etc., which I don't want to jeopardize. However, I'm very troubled by the fact that the BPDA & the developer have worked together on a project that does not comply with existing legislation (re: shadows). This legislation has protected our historic parks – Boston Common, the Public Garden & Commonwealth Ave. Mall for decades.**

Please see Response to Comment BPA 01 (MEPA Letter).

13.2 BPDA Scoping Determination and Associated Comment Letters

boston planning & development agency

April 11, 2017

Joseph Larkin
Millennium Partners
7 Water Street, Suite 200
Boston, MA 02109

Re: Scoping Determination for proposed 115 Winthrop Square Project

Dear Mr. Larkin:

Please find enclosed the Scoping Determination for the proposed 115 Winthrop Square project located at 115 Winthrop Square, also known as 115 Federal Street, in the Downtown Neighborhood of Boston. The Scoping Determination describes information required by the Boston Redevelopment Authority d/b/a the Boston Planning & Development Agency in response to the Project Notification Form, which was submitted under Article 80B of the Boston Zoning Code on November 8, 2016. Additional information may be required during the course of review of the proposal.

If you have any questions regarding the Scoping Determination or the review process, please contact me at (617) 918.4244.

Sincerely,

Casey A. Hines
Senior Project Manager

CC: Brian Golden, BPDA
Sara Myerson, BPDA
Jonathan Greeley, BPDA
Lauren Shurtleff, BPDA
Jerome Smith, ONS
Kathleen MacNeil, Millennium Partners

BOSTON REDEVELOPMENT AUTHORITY
D/B/A BOSTON PLANNING & DEVELOPMENT AGENCY

SCOPING DETERMINATION
115 WINTHROP SQUARE

SUBMISSION REQUIREMENTS
FOR DRAFT PROJECT IMPACT REPORT (DPIR)

PROPOSED PROJECT:	115 WINTHROP SQUARE
PROJECT SITE:	115 WINTHROP SQUARE, ALSO KNOWN AS 115 FEDERAL STREET, LOCATED BETWEEN DEVONSHIRE STREET AND FEDERAL STREET IN DOWNTOWN BOSTON
PROPONENT:	MCAF WINTHROP, LLC C/O MILLENNIUM PARTNERS 7 WATER STREET, SUITE 200 BOSTON, MASSACHUSETTS 02109
DATE:	April 10, 2017

The Boston Redevelopment Authority ("BRA") d/b/a the Boston Planning & Development Agency ("BPDA") is issuing this Scoping Determination pursuant to Section 80B-5.3 of the Boston Zoning Code (the "Code") in response to and based on the review of the Project Notification Form ("PNF") for the 115 Winthrop Square project (the "Proposed Project"), which MCAF Winthrop, LLC (the "Proponent") submitted to the BPDA on November 8, 2016. Notice of the receipt by the BPDA of the PNF was published in the *Boston Herald* on November 8, 2016, which initiated a public comment period with a closing date of December 26, 2016; the public comment period was subsequently extended until January 16, 2017. The Scoping Determination requires the Proponent to respond to comments received from City and State agencies, elected officials, the Mayorally appointed Impact Advisory Group (the "IAG"), and the public.

On November 2, 2016, the Proponent filed a Letter of Intent in accordance with the Executive Order regarding Provision of Mitigation by Development Projects in Boston for a proposal including the demolition of the existing vacant parking

garage and the construction of a new approximately 1.1 to 1.5 million square foot mixed-use tower containing residential, office, retail, restaurant, parking and other commercial uses along with a robust and inclusive Great Hall space.

On November 2, 2016, letters soliciting nominations to the IAG for the Proposed Project were delivered to City Councilor Bill Linehan, City Councilor Josh Zakim, State Senator Joseph Boncore, State Representative Aaron Michlewitz, and State Representative Jay Livingstone. Additional letters seeking recommendations were delivered to the Office of Neighborhood Services and the At-Large City Councilors. Nominations were also sought from the BPDA.

Thirteen (13) individuals were appointed to the IAG and have been invited to participate in advising BPDA staff on the determination and consideration of the impacts and appropriate mitigation regarding the Proposed Project. The following list includes the names of the IAG members:

1. Stephen Chapman, *neighborhood resident*
2. Father Tom Conway, *St. Anthony's Shrine*
3. George Coorsen, *neighborhood resident*
4. Karen Firestone, *Aureus Asset Management*
5. Debbie Ho, *Chinatown Neighborhood Council*
6. Laura Jasinski, *Rose Kennedy Greenway Conservancy*
7. Ed Lennon, *neighborhood resident*
8. Jerry Rubin, *JVS Center for Economic Opportunity*
9. Rosemarie Sansone, *Downtown Boston Business Improvement District*
10. Rishi Shukla, *Midtown Cultural District Neighborhood Association*
11. Ben Starr, *neighborhood resident*
12. Allan Taylor, *Friends of the Public Garden*
13. Tony Ursillo, *neighborhood resident*

The BPDA appreciates the efforts of the IAG and the members should be applauded for their commitment to the review of the Proposed Project.

The notice of receipt by the BPDA of the PNF and the PNF were sent to the City's public agencies pursuant to Section 80A-2 of the Code, as well as to the IAG members. Pursuant to Section 80B-5.3 of the Code, a scoping session was held on December 16, 2016 with the City of Boston's public agencies at which time the Proposed Project was reviewed and discussed. Members of the IAG were also invited to attend the scoping session.

Two (2) IAG working sessions were held on November 28, 2016 and December 13, 2016 at 290 Congress Street in the Fort Point Room. Two (2) publicly advertised public meetings were held on December 5, 2016 and January 5, 2017. The first public meeting was held at Suffolk Law School, 120 Tremont Street in the Moot Court Room and was organized in a 'town hall' format. The second public meeting was held at 101 Federal Street and was organized in an 'open house' format. The public meetings were advertised in the *Boston Sun* as well as through the BPDA website and Twitter handle.

Written comments in response to the PNF received by the BPDA from City of Boston agencies and elected officials are included in **Appendix A** and must be answered in their entirety. Written comments in response to the PNF received by the BPDA from the public are included in **Appendix B** and must be answered in their entirety. Written comments in response to the PNF received by the BPDA from the IAG are included in **Appendix C** and must be answered in their entirety. The Draft Project Impact Report ("DPIR") should include complete responses to all comments included in **Appendices A, B and C** within the framework of the criteria outlined in the Scoping Determination. BPDA 01

Comments received by the BPDA from agencies and departments of the City of Boston are included in **Appendix A** and must be answered in their entirety.

Specifically, they are from:

- City Councilor, Bill Linehan, District 2
- City Councilor, Josh Zakim, District 8
- John Sullivan, Chief Engineer, Boston Water and Sewer Commission
- Kathleen Pedersen, Senior Land Use Planner/Sustainability Specialist & Environmental Review Specialist, BPDA
- Kristen McCosh, Commissioner, Mayor's Commission for Persons with Disabilities
- Salwart Dalzell, Deputy Director Environmental Planning and Permitting, Massport
- David Carlson, Corey Zehngebot, and Lauren Shurtleff, BPDA Planning and Urban Design staff
- Christopher Cook, Commissioner, Boston Parks and Recreation Department
- Josh A Weiland, Transportation Planner, Boston Transportation Department

Public comments received by the BPDA during the comment period are included in **Appendix B** and must be answered in their entirety.

An alphabetical list, by first name, of each individual who contributed comments precedes the comment letters in ***Appendix B****.*

Comments from IAG members that were received by the BPDA during the comment period are included in **Appendix C** and must be answered in their entirety.

Specifically, they are from:

- Rosmarie Sansone, IAG Member
- Jerry Rubin, IAG Member
- Karen Firestone, IAG Member
- Tony Ursillo, IAG Member
- Edward Lennon, IAG Member
- Thomas Conway, IAG Member
- George Coorsen, IAG Member
- Allan Taylor, IAG Member
- Ben Starr, IAG Member
- Laura Jasinski, IAG Member

The Scoping Determination requests information that the BPDA requires for its review of the Proposed Project in connection with Article 80 of the Code, Development Review and Approval and other applicable sections of the Code.

In addition to the specific submission requirements outlined in the sections below, the following points are highlighted for additional emphasis and consideration:

- Throughout the initial phase of review, the Proponent has taken steps to meet with local residents, elected officials, abutters, and City and State agencies. These conversations must continue, ensuring that the project that is presented in the DPIR is beneficial to the adjacent neighborhoods and the City of Boston as a whole. BPDA 02

- It is clear in reading through the comment letters that the Proposed Project has simultaneously generated excitement and concern. While many of the letters show that there is desire to see the redevelopment of the 115 Winthrop Square site, numerous individuals request that additional studies occur in order to evaluate the potential impacts of a project of this magnitude, as well as the potential benefits. In order to minimize and BPDA 03

mitigate the Proposed Project's impacts, the BPDA encourages the Proponent to continue to work with those parties, including the IAG and community, who have expressed concern.

- Much of the discussion during the development review process has been centered on shadows, and the two state laws that govern shadow impacts on the Boston Common and the Public Garden. The BPDA encourages the Proponent to share all required shadow studies with all interested community members and stakeholders, and requires such studies be part of the DPIR submission. The studies shared with all interested community members and stakeholders should be in a format in which the methodology of the studies is clear and understandable. BPDA 04

- A greater understanding of design and programming for Winthrop Square must be a part of the DPIR filing. The Proposed Project will have an immediate impact on Winthrop Square and the general Downtown Crossing area, therefore, the relationship between the Proposed Project, specifically the Great Hall, and Winthrop Square must be given thoughtful consideration. BPDA and BTD staff encourage the Proponent to use Federal Court and Milton Place for all access, if possible, to ensure that the redesign of the square results in a successful, pedestrian-friendly open space. The Proposed Project, especially the open space, has the potential to serve as a new anchor for the Financial District by knitting together Downtown Crossing, Dewey Square and Post Office Square. BPDA 05

- Further study is necessary to better understand how the tower portion of the Proposed Project relates to the podium, Winthrop Square, and the city skyline. The DPIR must include skyline views from all directions of the Proposed Project. The design of the Proposed Project should be further developed with an emphasis on both shape and glazing. BPDA 06

- The public's experience of the Proposed Project from the ground floor will weigh heavily on the design and programming of the Great Hall. The DPIR should include further details on how the Great Hall can fully utilize this tremendous opportunity for civic/cultural space. BPDA 07

- All development projects have construction impacts. As with any urban development, there needs to be a balance of construction related inconveniences with the daily activities that will continue to occur adjacent to the project site. A detailed approach to the construction management must BPDA 08

be included in the DPIR.

- Special attention should be given to the comment letters. The letters represent the opinions of the active residents, business leaders and elected officials of the community in which the Proponent intends to develop the Proposed Project. BPDA 09

These are just a few of the questions and areas that the Proponent must fully explore in the DPIR.

I. PROJECT SITE AND DESCRIPTION

Project Site
115 Winthrop Square is currently occupied by a four-story parking garage with a footprint of approximately 47,738 square feet located adjacent to Winthrop Square in the heart of the City of Boston's ("City") Financial District (the "Project Site"). The Project Site is bounded by 75-101 Federal Street to the north, 100 Summer Street to the south, Devonshire Street to the west and Federal Street to the east. Federal Court, a private way, lies between the Project Site and the parcel located at 133 Federal Street. The current street address of the Project Site is 115 Federal Street.

The Project Site historically was owned by the City of Boston and presently consists of a dilapidated closed parking garage (when last operational, the parking was approximately 1,125 vehicles). The garage has been closed and all access points have been fenced off since May 2013.

In 2014, the City requested the BRA's assistance in acquiring and developing the Project Site and on February 11, 2015, the BRA issued a Request for Interest ("RFI") for the purpose of soliciting ideas and plans for the redevelopment of the Project Site. The BRA issued a subsequent Request for Proposals ("RFP") on March 9, 2016 and responses were due to the BRA on April 21, 2016. The RFP included a detailed set of requirements and criteria in the areas of urban design, transportation, financial matters, public realm, as well as other areas. The BRA received six (6) responses to the RFP, which were reviewed and evaluated by a twelve (12) member interagency review committee, comprised of senior staff from both City departments and the BRA, representing areas of experience and expertise such as development, urban design, finance, sustainability and the environment, economic development, affordable housing, transportation and the arts (collectively, the "Review Committee").

After a complete review by the Review Committee of all six (6) of the RFP submissions, the Review Committee unanimously recommended selecting the proposal submitted by Millennium Partners. On November 1, 2016, the BRA Board granted Tentative Designation status to Millennium Partners for the redevelopment of the Project Site.

Project Description
Millennium Partners' proposal consists of the construction of a 1,100,000 to 1,500,000 square-foot, 775 feet tall mixed-use project containing residential and commercial uses and a below-grade parking garage. The project, as proposed in the PNF, is anticipated to contain a maximum of approximately 780,000 square feet of residential floor area and a maximum of 460 residential units as well as a maximum of approximately 635,000 square feet of gross floor area of commercial office space, a maximum of approximately 60,000 square feet of retail space, and a 15,000 square feet publicly-accessible Great Hall component. The proposal also includes a maximum of approximately 550 parking spaces.

As a direct result of an anticipated total purchase price of $152.7 million dollars (which includes a fixed purchase price portion and a project participation purchase portion), the Proponent has been working with the BPDA and City staff on a robust Community Benefits Package, which currently is comprised of the following community/public benefits:

Open Space
- $28 Million allocated to Boston Common for various upgrades
- $28 Million allocated to Franklin Park for creating more access for surrounding neighborhoods, upgraded baseball fields and other facilities improvements
- $11 Million allocated to the Emerald Necklace towards completing the Emerald Necklace

Public Housing Investments
- $25 Million allocated to Old Colony in South Boston
- $10 Million allocated to Orient Heights in East Boston for improvements

Inclusionary Development Policy (Workforce Housing)
- $25 Million

Linkage Payment- $4 Million

- $3.336 Million for Housing ($8.34/SF less 100,000 SF)
- $668,000 for Jobs ($1.67/SF less 100,000 SF)

Annual Tax Revenue
- $12 Million per year

Project Mitigation (yet to be finalized) - $10 Million
- Public Realm
- Transportation Improvements
- Winthrop Square Park Improvements
- Community Benefits to local organizations TBD

II. PREAMBLE

The Proposed Project is being reviewed pursuant to Article 80, Development Review and Approval, which sets forth a comprehensive procedure for project review of the following components: transportation, environmental protection, urban design, historic resources, infrastructure systems, site plan, tidelands, and Development Impact Project, if any. The Proponent is required to prepare and submit to the BPDA, a DPIR that meets the requirements of the Scoping Determination by detailing the Proposed Project's impacts and proposed measures to mitigate, limit or minimize such impacts. The DPIR shall contain the information necessary to meet the specifications of Section 80B-3 (Scope of Large Project Review; Content of Reports) and Section 80B-4 (Standards for Large Project Review Approval), as required by the Scoping Determination. After submitting the DPIR, the Proponent shall publish notice of such submittal as required by Section 80A-2. Pursuant to Section 80B-5.4(c) (i) (3), the BPDA shall issue a written Preliminary Adequacy Determination ("PAD") within ninety (90) days. Public comments, including the comments of public agencies, shall be transmitted in writing to the BPDA no later than fifteen (15) days prior to the date by which the BPDA must issue its PAD. The PAD shall indicate the additional steps, if any, necessary for the Proponent to satisfy the requirements of the Scoping Determination. If the BPDA determines that the DPIR adequately describes the Proposed Project's impacts and, if appropriate, proposed measures to mitigate, limit or minimize such impacts, the PAD will announce such a determination and that the requirements of further review are waived pursuant to Section 80B-5.4(c) (iv). Section 80B-6 requires the Director of the BPDA to issue a Certification of Compliance indicating the successful completion of the Article 80 development review requirements before the Commissioner of Inspectional Services can issue any building permit for the Proposed Project.

III. REVIEW/SUBMISSION REQUIREMENTS

In addition to full-size scale drawings, 15 copies of a bound booklet and an electronic copy (PDF format) containing all submission materials reduced to size 8-1/2" x 11", except where otherwise specified are required. The electronic copy should be submitted to the BPDA via the following website: https://attachments.bostonredevelopmentauthority.org/. The booklet should be printed on both sides of the page. In addition, an adequate number of copies must be available for community review. A copy of this Scoping Determination should be included in the booklet for reference. BPDA 10 BPDA 11

A. GENERAL INFORMATION

1. Applicant/Proponent Information BPDA 12
   a. Development Team
      (1) Names
         (a) Proponent (including description of development entity and type of corporation, and the principals thereof)
         (b) Attorney
         (c) Project consultants and architects
      (2) Business address, telephone number, FAX number and email, where available for each
      (3) Designated contact for each
   b. Legal Information BPDA 13
      (1) Legal judgments or actions pending concerning the Proposed Project
      (2) History of tax arrears on property owned in Boston by Applicant
      (3) Evidence of site control over Project Site, including current ownership and purchase options, if any, for

all parcels in the Proposed Project, all restrictive covenants and contractual restrictions affecting the Proponent's right or ability to accomplish the Proposed Project, and the nature of the agreements for securing parcels not owned by the Applicant.

(4) Nature and extent of any and all public easements into, through, or surrounding the site.

2. Project Site BPDA 14

a. An area map identifying the location of the Proposed Project
b. Description of metes and bounds of Project Site or certified survey of the Project Site.
c. Current zoning

3. Project Description and Alternatives

a. The DPIR shall contain a full description of the Proposed Project and its components, including, its size, physical characteristics, development schedule, costs, and proposed uses. This section of the DPIR shall also present analysis of the development context of the Proposed Project. Appropriate site and building plans to illustrate clearly the Proposed Project shall be required. BPDA 15
b. A description of alternatives to the Proposed Project that were considered shall be presented and primary differences among the alternatives, particularly as they may affect environmental and traffic/transportation conditions, shall be discussed. BPDA 16

4. Public Benefits BPDA 17

a. Anticipated employment levels including the following:
   (1) Estimated number of construction jobs
   (2) Estimated number of permanent jobs
b. Current and/or future activities and program which benefit adjacent neighborhoods of Boston and the city at large, such as, child care programs, scholarships, internships, elderly

services, education and job training programs, etc.

c. Other public benefits, if any, to be provided.

5. Community Process BPDA 18

a. A list of meetings held and proposed with interested parties, including public agencies, abutters, and business and community groups.

b. Names and addresses of project area owners, abutters, and any community or business groups which, in the opinion of the applicant, may be substantially interested in or affected by the Proposed Project. BPDA 19

B. REGULATORY CONTROLS AND PERMITS

An updated listing of all anticipated permits or approvals required from other municipal, state or federal agencies, including a proposed application schedule shall be included in the DPIR.

A statement on the applicability of the Massachusetts Environmental Policy Act ("MEPA") should be provided. If the Proposed Project is subject to MEPA, all required documentation should be provided to the BPDA, including, but not limited to, a copy of the Environmental Notification Form, decisions of the secretary of Environmental Affairs, and the proposed schedule for coordination with BPDA procedures. BPDA 20

C. TRANSPORTATION COMPONENT

In addition to the information required to meet the specifications of Section 80B-3 and Section 80B-4 of the Code the analysis included in the DPIR must utilize as its framework the scope as outlined in the comments of the Boston Transportation Department ("BTD"), dated March 6, 2017 and included in ***Appendix A.*** *These comments are incorporated herein by reference and made a part hereof and must be addressed in their entirety in the DPIR.*

Site Access

The PNF states that the Proponent's initial research indicates that limiting access to and from Federal Court/Milton Place may not be possible due to those streets' potential status as private ways. Considering the project's proposed enhancement of the public realm at Winthrop Square, and the capacity of Federal Street, BTD BPDA 21

encourages the proponent to continue researching the possibility of all access from Federal Court/Milton Place in order to make Winthrop Square as pedestrian-oriented and friendly as possible.

All access points should limit as far as possible conflict points, especially on any pedestrianized plaza on Winthrop Square. Access points should also take into account traffic and bus queueing/delay on Federal Street. If Federal Court/Milton Place is not available due to legal restrictions, the proponent should explore implications of creating a new access point at the northern end of the Federal Street edge of the site. BPDA 22

Parking

The area around the project is extensively served by MBTA transit service. As part of the DPIR, BTD would like the proponent to discover how many publically available parking spaces are within a quarter mile, and whether any spaces might be made available through agreement, thereby lessening the need for parking at this location. BPDA 23

The Boston Transportation Department ("BTD") policy maximum for Downtown is 0.4 for office use and 0.5-1.0 for residential uses; because of the project's transit-oriented location, BTD would recommend a maximum parking ratio at the lower end of this scale. The proponent should spell out how these spaces would be distributed, and whether they would be bundled with units or sold / rented separately for residential uses, and whether office parking would be bundled, and whether parking cash out would be offered. BTD encourages the project to consider shared parking solutions to limit the number of parking spaces. Having commercial and residential access points combined would make this sharing easier. The proponent should spell out how parking spaces are to be assigned to various uses so that the precise parking ratio can be understood. BPDA 24

BTD will require the project to work with a car share provider to dedicate some of the spaces to car share. BPDA 25

The project should describe bicycle parking included in the project, and the locations of that parking. BTD notes that the City of Boston Bicycle Parking Guidelines spell out the City's policy for development provision of secure/covered bicycle parking, on-street bicycle parking, shower/change facilities for employees and bike share provision. Any bicycle repair facilities proposed should be spelled out as well. Parking that is internal to the building should be located in an area that is convenient for bicyclists so as to make this as attractive an option as possible. BPDA 26

The proponent should spell out how it plans to meet the City's Electric Vehicle BPDA 27

Charging standards, which include that at a minimum 5% of all spaces must be EV spaces, and that at least 15% of spaces must be constructed with EV-ready electrical capacity.

Loading

The DPIR should lay out the number of loading bays as well as the truck type to be accommodated, as well as any separate trash rooms. BTD foresees a need for at least three loading bays that will accommodate WB-50 trucks and a separate trash room; rational for anything different should be spelled out in the DPIR. BPDA 28

In addition, the DPIR should include a strategy of how urban packages delivery, which has seen a huge increase in small truck trips, will be accommodated. Will delivery companies be locating local pick up "warehouses" in the development?

Transportation Mitigation

BTD looks forward to working with the proponent on developing an appropriate transportation mitigation package, which should be informed by the trips generated as well as peak hour mode share. BTD encourages the proponent to analyze transit services in the area based not only upon what services are supplied, but also peak capacity, and how the projects generated transit trips will impact that supply. If the proponent's trips will impact a transit, pedestrian or bicycle facility, the proponent should assess options to facilitate safe, convenient and attractive access. This may include (but is not limited to) sidewalks, crossings, bus stops, bike facilities and/or subway stops. BPDA 29

Transportation Demand Management

BTD encourages the project to look into whether the developer can join a Transportation Management Association on behalf of the entire building, and if possible to do so. We also encourage the project to require office and retail tenants to subsidize transit, bike share and car share membership for employees, as well as to bundle subsidized transit, bike share and car share membership for residents through residential leases, as well as for the first year of any condo sales. Finally, BTD encourages the proponent to propose inclusion of real-time transportation (transit, bikeshare, carshare, transportation network services, wayfinding, walk/bike distance) display technology in all lobbies and near the entrances to the Great Hall. BPDA 30

Public Realm

The project has proposed a robust enhancement of the public realm, especially Winthrop Square; BTD looks forward to working with the proponent to create an outstanding place. BTD encourages the proponent to consider how to make the connections to the Downtown Crossing Pedestrian Zone great public spaces as well, especially along Franklin Street (Tontine Crescent), Winthrop Lane and Summer BPDA 31

Street. Any long-term maintenance by the proponent of the plaza, greenery and trees in Winthrop Square should be spelled out, as well as and street furniture (eg benches) proposed for the abutting sidewalk. The DPIR should provide details on the width of the proposed sidewalk around the site, including widths of pedestrian zones, furniture zones and/or curbs.

If general traffic is proposed to be allowed on either or both of Otis and Devonshire streets in the area that will be have non-standard surfacing (and considering that many buses use Otis Street), the durability of the surfacing should be spelled out to confirm that it will handle vehicular traffic. The proponent should spell out any long-term maintenance of that surfacing. BPDA 32

Any proposals for improving bus facilities should be spelled out, such as bus waiting areas at Franklin/Devonshire and Otis/Summer, and/or repainting of the Essex Street bus lane. BPDA 33

Pedestrian Crossings

A rendering in the Proponent's Boston Civic Design Commission PNF Filing Presentation (slide 29) shows a mid-block crosswalk across Federal Street. While BTD agrees that this is an important pedestrian connection to make, safety issues concerning a multi-lane crosswalk on a one-way street have to be addressed. Is there warrant for curb extensions? A crossing beacon? What are the traffic implications of the crossing? BPDA 34

Curbside

The DPIR should spell out both the existing and any proposed changes to curbside use on Devonshire, Franklin and Otis Streets. BPDA 35

MBTA currently has bus stops and layover on Otis at Summer, on Federal at Franklin, and a bus stop on Franklin at Devonshire. The proponent should work with BTD and the MBTA to make sure bus operations are considered in the Proponent's plans, and these plans should be spelled out in the DPIR

There are currently State Police parking spaces around Winthrop Square. The proponent should work with BTD and the State Police to find a location for that parking should their proposal remove parking from the location. The proponent could look into providing parking in their garage for the State Police. BPDA 36

The proponent should spell out its valet plan, and how it will accommodate all valet internally. BPDA 37

Traffic

The PNF mentions that the proponent will explore using either BTD mode splits or US Census/National Household Travel Survey (NHTS) data for the corresponding census tract. Please include a discussion of what each mode split is and how you make this decision. Take into consideration that much federal data does not have non-commute data, so explain how you will account for non-commute trips in your mode split if you use Census/NHTS data. BPDA 38

The DPIR should show the full impact of all potential directionality changes on Devonshire and Otis Streets. If southbound traffic is proposed for Devonshire, the DPIR should investigate how lefts onto Summer Street will work, especially considering the current stop line for the Summer/Lincoln/Bedford intersection. If any of Devonshire and/or Otis would be closed to traffic, how will 100 Summer Street handle loading and parking? BPDA 39

BTD requests the study area include the following intersections: BPDA 40

- Any proposed driveways
- Franklin/Hawley
- Franklin/Devonshire/Otis
- Franklin/Federal
- Franklin/Congress
- Matthews/Federal
- Matthews/Congress
- Summer/Hawley
- Summer/Otis/Kingston
- Summer/Devonshire
- Summer/Bedford/Lincoln
- Summer/High
- Summer/Purchase/I-93 Ramp
- High/Federal
- High/Congress
- Essex/Lincoln/Surface
- Purchase/Congress
- Congress/Milk
- Arch/Franklin

Site Plan

The proponent needs to submit an engineered site plan within the context of the surrounding roadways at 1:20 scale depicting: BPDA 41

- Vehicular access and circulation
- Parking layout and circulation
- Pedestrian access and circulation
- Bicycle access and circulation
- Area shuttle/van pool pickup and drop-off
- Parking spaces for car sharing services
- Service and loading*
- Roadways and sidewalks

- Building layout
- Bicycle parking locations and types (covered, indoor, bike share, etc)
- Transit stops and connections
- Electric vehicle charging stations and ev-ready spaces

*Trash compactors/dumpsters need to be depicted as well.

Construction Management Plan
As the project in the DPIR advances, the proponents will be required to develop and submit a detailed Construction Management Plan (CMP) to BTD for review and approval. The CMP will address TDM measures for construction workers, proposed street occupancies, equipment staging, sidewalk and bike-lane relocations and hours of construction work. BTD will work with the proponents to execute the CMP. BPDA 42

The issues raised above should be addressed in the DPIR. BTD looks forward to working collaboratively with the proponents and the community in the review of these projects and to address any outstanding concerns in the permitting process.

D. ENVIRONMENTAL PROTECTION COMPONENT

The DPIR must address the comments of the Katie Pedersen, Senior Land Use Planner/Sustainability Specialist, BPDA, dated January 5, 2017, included in ***Appendix A*** *and must include the most up to date documents required by the Article 37/Interagency Green Building Committee. These comments are incorporated herein by reference and made a part hereof and must be addressed in their entirety in the DPIR.*

Wind
A quantitative (wind tunnel) analysis of the potential pedestrian level wind impact shall be required, as the proposed building is designed to be 775 feet in height. The analysis shall determine potential pedestrian level winds adjacent to and in the vicinity of the Proposed Project and shall identify wind velocities that are expected to exceed acceptable levels, including the Boston Planning and Development Agency's (the "BPDA") guideline of an effective gust velocity of 31 miles per hour (mph) not to be exceeded more than 1% of the time. BPDA 43

Particular attention shall be given to public and other areas of pedestrian use, including, but not limited to, entrances to the Proposed Project and existing and proposed buildings in the vicinity of the Proposed Project, the existing and proposed sidewalks and walkways within and adjacent to the Proposed Project and

existing and proposed plazas, park areas and other open space areas within and in the vicinity of the Proposed Project, including but not limited to, the Boston Common, the Boston Public Garden, the Post Office Square Park and the Rose Kennedy Greenway.

The wind impact analysis shall evaluate the following conditions: BPDA 44

1. No-Build - the existing condition of the Proposed Project site and environs to establish the baseline condition.

2. Build Condition – the Proposed Project as described in the PNF

3. As-of-Right – the Zoning Compliant Configuration

4. Alternative Build Condition – any alternative development concepts to the Preferred Build Condition required to be studied

Wind speeds shall be measured in miles per hour (mph) and for areas where wind speeds are projected to be dangerous or to exceed acceptable levels, measures to reduce wind speeds and to mitigate potential adverse impact(s) shall be identified and, if appropriate, tested. BPDA 45

Shadow

The Proponent shall be required to conduct a shadow analysis for the existing (no-build) and build conditions for the hours of 9:00 a.m., 12:00 noon, and 3:00 p.m. for the vernal equinox, summer solstice, autumnal equinox, and winter solstice and for 6:00 p.m. in the summer and fall. BPDA 46

The shadow impact analysis shall examine the existing shadows and the incremental effects of the Proposed Project on existing and proposed public open spaces, including but not limited to Boston Common, the Boston Public Garden, the Post Office Square Park and Rose Kennedy Greenway, as well as sidewalks and pedestrian walkways adjacent to and in the vicinity of the Proposed Project site.

The shadow impact analysis shall evaluate the following conditions: BPDA 47

1. No-Build - the existing condition of the Proposed Project site and environs to establish the baseline condition.

2. Build Condition – the Proposed Project as described in the PNF.

3. As-of-Right – the Zoning Compliant Configuration.

4. Alternative Build Condition – any alternative development concepts to the Preferred Build Condition required to be studied.

The shadow analysis results shall be provided in both animation and graphic representations, so as to best understand the extent to which shadows from the Proposed Project are anticipated to affect the overall shadow conditions within the surrounding area. BPDA 48

Solar Glare

The Proponent shall be required to conduct a solar glare analysis. The analysis shall measure potential reflective glare from the Proposed Project onto potentially affected streets and public open spaces including but not limited to Boston Common, the Boston Public Garden, Post Office Square and the Rose Kennedy Greenway as well as the sidewalk areas in order to determine the likelihood of visual impairment or discomfort due to reflective spot glare. Mitigation measures to eliminate any adverse reflective glare shall be identified. BPDA 49

The shadow impact analysis shall evaluate the following conditions: BPDA 50

1. No-Build - the existing condition of the Proposed Project site and environs to establish the baseline condition

2. Build Condition – the Proposed Project as described in the PNF

3. As-of-Right – the Zoning Compliant Configuration

4. Alternative Build Condition – any alternative development concepts to the Preferred Build Condition required to be studied

Daylight

(Please refer to Urban Design's comments)

Air Quality

The Proponent shall be required to perform a microscale analysis, which shall predict localized carbon monoxide concentrations, including identification of any locations projected to exceed the National and/or Massachusetts Ambient Air Quality Standards. The analysis is required for projects for which: BPDA 51

1) Project traffic would impact intersections or roadway links currently operating at Level of Service ("LOS") D, E, or F or would cause LOS to decline to D, E, or F;

2) Project traffic would increase traffic volumes on nearby roadways by 10% or more (unless the increase in traffic volume is less than 100 vehicles per hour); or,

3) The project will generate 3,000 or more new average daily trips on roadways providing access to a single location.

Emissions from the Proposed Project parking garage and from the Proposed Project's heating and mechanical systems shall be estimated. In addition, carbon monoxide monitors shall be installed in the parking garage and a description of the proposed ventilation system shall be provided. Building/garage air intake and exhaust systems and specifications and an analysis of the impact of exhausts on pedestrians and any sensitive receptors shall be identified and. Finally, if deemed necessary, mitigation measures to minimize or avoid any violation of state or federal ambient air quality standards shall be included and a description provided. BPDA 52

Noise

Noise impacts from the Proposed Project shall be analyzed, including rooftop mechanical equipment and other noise sources (e.g., emergency generators), demonstrating compliance with the City of Boston noise regulations and applicable state and federal regulations and guidelines. Due to the close proximity to residential buildings, the Proponent shall be required to evaluate and demonstrate compliance with the Interior Design Noise Level (not to exceed day night average sound level of 45 decibels) established by the U.S. Department of Housing and Urban Development (Subpart B Noise Abatement and Control of 24 CFR Part 51). If deemed necessary, mitigation measures designed to reduce excessive noise levels to acceptable limits shall be included and a description provided. BPDA 53

Sustainable Design/Green Buildings

Article 37 to the Boston Zoning Code requires any proposed project which is subject to or shall elect to comply with Section 80B of Zoning Code of the City of Boston,

Large Project Review, shall be subject to the requirements of Article 37. Proposed Projects shall be "certifiable" under the most appropriate United States Green Building Counsel (USGBC) Leadership in Energy and Environmental Design (LEED) Rating System. The purpose of Article 37 is to ensure that major building projects are planned, designed, constructed, and managed to minimize adverse environmental impacts; to conserve natural resources; to promote sustainable development; and to enhance the quality of life in the City of Boston. BPDA 54

The PNF indicates that the Proposed Project will use the LEED 2009 Core and Shell Rating System for the office portion and shows the intent to achieve LEED Platinum with 84 points and will use LEED 2009 for New Construction and Major Renovations for the residential portion of the Proposed Project and shows the intent to achieve LEED Platinum with 81 points.

Prior to the Inspectional Services Department's (ISD) issuance of a building permit, all proposed projects must demonstrate compliance with Article 37 and have obtained approval of the requisite submissions from the Interagency Green Building Committee (IGBC). In order to demonstrate compliance, the IGBC requires the submission of a Draft Green Building Report (Draft Report), Energy Model and Design Affidavit. The Draft Report shall provide a comprehensive narrative describing the proposed strategies and paths that will be used to meet all LEED prerequisites and achieve the selected credits.

The DPIR must address the comments of the Boston Parks and Recreation Department, dated April 4, 2017 and included in ***Appendix A.*** *These comments are incorporated herein by reference and made a part hereof and must be addressed in their entirety in the DPIR.*

The Boston Parks and Recreation Department ("BPRD") is challenged by the reality of maintaining and improving beloved but aging infrastructure. The Winthrop Square project would provide millions of dollars needed for maintenance, capital improvements and endowments for Boston Common and Franklin Park as highlighted in Imagine Boston 2030 and Boston Open Space and Recreation Plan 2015-2021 as well as detailed on various internal planning documents at BPRD.

As America's first park, Boston Common has over 1.5 million unique visitors a year which impacts the park far more than its current maintenance budget can restore. The improvements to the Boston Common that would be enabled would provide a net improvement to people's experience of that open space. As with all BPRD capital projects, these funds would go through a community process regarding BPDA 55

their expenditure. Items to be considered are pathway improvements, irrigation systems, Frog Pond infrastructure, turf repair and more. BPRD strongly feels that some of these funds should be endowed and restricted for a maintenance fund for the park.

Improvements to the jewel of the Emerald Necklace, Franklin Park, have been deferred for over a century. Representing the largest investment in the park since its creation, these funds would be allocated through a community process and could include pathways, tree care, lighting, security, the renovation of the overlook ruins and Elma Lewis bandstand and more. As with the Common, BPRD strongly feels that certain funds be restricted for a maintenance endowment.

The Winthrop Square project provides an opportunity to care for these parks in perpetuity.

E. URBAN DESIGN/PLANNING COMPONENT

In addition to the information required to meet the specifications of Section 80B-3 and Section 80B-4 of the Code, the Proponent must address the comments outlined by the BPDA's Urban Design Planning Departments, included in ***Appendix A****. These comments are incorporated herein by reference and made a part hereof and must be addressed in their entirety in the DPIR.*

Alternatives Analysis

Based on consultation with other departments and agencies, and the feedback received thus far from the Impact Advisory Group (IAG) and the public, BPDA staff requests that the following alternative massings be analyzed, to facilitate comparison: BPDA 56

- A no-build scenario.
- A PNF scenario, showing the Proposed Project as described in the PNF.
- An "as-of-right" scenario, under the existing B-10 zoning, that shows the maximum height achievable without triggering shadow impacts to the Boston Common or Public Garden. (Note: the zoning for this parcel will be pursued through a Planned Development Area. This mechanism is allowed by right within the existing zoning. For the purposes of comparison, we ask that a massing under the B-10 regulations be studied.)
- An FAA/Massport compliant scenario, as expressed in the March 2016 Request for Proposals. BPDA Staff anticipated that this would represent a building height of 725', with the caveat that the maximum height allowed on the site will be ultimately

be determined by the negotiated FAA/Massport ceiling. The actual FAA compliant height may be under 700'.

- A massing scenario that shifts some of the bulk of the residential density to the east, over the Office Solaria.

We encourage, through the above analysis, the development of a preferred alternative. We expect that mitigations or positive urban benefits will result from this Project and, in balance, will far outweigh any negative impact. Specific shadow and wind investigations will be requested - a separate category in this scoping - to determine what the impacts are regarding the Boston Common, Public Garden, and Rose Kennedy Greenway, among others. We will expect that the Proposed Project as represented in the DPIR will have taken into account any necessary mitigating factors, for scenarios with densities and heights beyond those alternatives listed above, discovered as a result of environmental and other studies by the Proponent. BPDA 57

Tower Architecture

The City has asked for, and the Proponent has submitted, an arresting and potentially iconic tower. Consider its role in contributing to the skyline of the Downtown area - in particular, how does it relate formally to other recently constructed tall buildings? How does it denote its place in the City? How is it evocative of Boston's innovative spirit? Part of this answer will lie in the compilation of skyline views from all directions, most obviously perhaps from the Boston Common, but from many other points as well - see an initial suggested list in the standard Urban Design submission requirements listed below. View vignettes from an array of historic resources identified as within a certain view range in that section are suggested as well. From some of the area open spaces, the Proposed Project's role as an urban backdrop will be an aspect of its skyline impacts. BPDA 58 BPDA 59

The relationship of the tower and office podium massing on both sides, but particularly to Winthrop Square, is worth studying further. The tower is emulating certain aspects of nearby art deco towers. A strategy to improve the relationship of its massing to the group of older buildings that frame much of Winthrop Square might trade on that initial concept, so that the scale of the Winthrop Square space is not overwhelmed, but each element, space and tower, work together to create a more coherent dialogue. One classic example of space and tower working in tandem of course is Rockefeller Center. See more questions about Winthrop Square below. BPDA 60

Work on the shaping of the tower is needed for several different reasons. One for the podium is noted above. Another is suggested in the Alternatives Analysis - shifting the residential element more dramatically may provide a narrower profile to both Winthrop Square and parts further east. The overall shaping of the tower might be considered further; it appears very rectilinear in some of the early views, and although the facade might be considered more elegant in its treatment than some, it joins a rather rectilinear larger, and older, family. It is worth considering this tower's relationship to the most recent Millennium Tower, at a similar height and by the same hand. Given the aspirations for this site, the 115 Winthrop Tower should arguably be different - that is, more architecturally distinctive, and we would like to discuss more of an evolution along these general lines. BPDA 61

Develop and present more information on the facade and glazing system(s) to be utilized. We encourage and applaud the strong initial consideration of PassivHaus and LEED Platinum goals, and would like to understand more about the facade factors that contribute. As to the pleating strategy that is embedded throughout the facade - can the pleats themselves, those details and materials, lend themselves to: ameliorate shadow impacts, harvest energies, help diminish wind impacts, express or imply the structural system in a subtle way that ties with the more expressive structural system used in the Great Hall, or act as a conceptual design tool to further shape the building? Investigation of these questions may enrich the Project. BPDA 62

A portion of the tower that relies less on the pleating treatment is the Federal Street wing, with its Solaria. Provide more information on their role in, and contribution to PassivHaus rating. Are the Solaria functioning as more of an enticement to prospective tenants? Is it possible to include one as an aspect of the 'accelerator' program space? Is it possible to make one a public or quasi-public space or showcase? BPDA 63

<u>Great Hall</u>

Although the broader impacts of the building to the Boston Common and Public Garden are under review, further definition is needed for both the design and programming of the Great Hall, as well as the relationship with and the impacts to Winthrop Square. The BPDA strongly supports the creation of a multi-story, publicly-accessible space or civic program on the ground level(s) of the 115 Winthrop Tower. There is a tremendous opportunity for the Great Hall to function as an important civic - and perhaps cultural - space in downtown Boston, but there are many questions given the Hall's as yet inchoate form. Most of those questions BPDA 64

can be answered through programming and design, which the BPDA looks forward to discussing with the proponent during the next phase of the project.

The 115 Winthrop Tower will be experienced primarily at two scales. The public will experience the Tower from a distance as a prominent building on Boston's skyline, but also more tangibly at the ground level. The experience of moving through the Great Hall on foot is paramount to the success of the project. The Hall will become part of the network of POPs (privately owned public spaces) in the city - and potentially one of the most attractive examples.

As currently designed, the Great Hall space resembles a transit hub, but absent any transit connections. There are both local examples (Back Bay Station, South Station), as well as international examples (Brookfield Place in Toronto and the similarly-named Brookfield Place connected to New York's World Trade Center, as well as recent improvements to St. Pancras Station in London) with similarities in either scale or design. Scale comparisons of these and possibly other comparable spaces would be useful as the proponent continues to develop the Great Hall, but mindful that retail uses alone do not achieve the distinction of a great civic amenity. A common element in many of the listed spaces is the clear and convincing relationship of the framing structure to the space it forms. Provide more information on the nature of the structure you are employing to define the Great Hall space. BPDA 65

Given this preliminary stage, it may be desirable to consider alternate or complementary uses to those being proposed. Information supplied by the proponent suggests a seasonal approach to programming, but no year-round "anchor tenant." A seasonal programming approach will require active and ongoing management, and it is unclear who will shoulder that responsibility in perpetuity. More specificity on the primary uses of the Great Hall will be helpful in refining the design of the Great Hall, but with the understanding that the space should be "public" in its essence. BPDA 66

In addition, it is unclear how the programming might enhance or detract from similar outdoor activities on the Summer Street mall in Downtown Crossing or on Dewey Square near South Station, activities that are facilitated by the Downtown Crossing Business Improvement District (BID) and the Rose Kennedy Greenway Conservancy, respectively. The Downtown Crossing BID has been transformative in this area during the past six years, and the Proponent should see them as an early-stage collaborator and active partner as they consider improvements to Winthrop Square, as well as with programming strategies for the Great Hall. BPDA 67

While the Great Hall offers a publicly-accessible space of 10,000-15,000 SF, finding other spaces higher up in the building that can be made public may be appropriate. The Solaria and other roofdeck areas may be an opportunity to provide a range of different public or quasi-public spaces. Winthrop Square, as conceived as an "urban room," is a complementary strategy to the idea of providing a range of different public experiences within the larger context of the 115 Winthrop Tower. BPDA 68

While a through-block connection from Federal Street to Winthrop Square is desirable, and the BPDA generally applauds efforts to encourage pedestrian connectivity downtown, a balance between circulation space and amenities must be sought. Additionally, the alignment of the through-block connection should also be further studied to ensure that meaningful physical and visual connections are being made to amenities beyond the project boundary. For example, the currently proposed hall has a linear alignment and a consistent width. The portal that opens on to the Devonshire Street end focuses on a retail corner rather than making a direct visual and physical connection with the Winthrop Square open space. The portal that opens on to Federal Street focuses on a parking ramp and a security booth and lands very close to the street edge, which does not provide enough of a forecourt for the scale of the portal opening meeting the public realm. Perhaps an arc or "folded" alignment, that introduces a variable width, would provide for a more dynamic interior space and portals better positioned to connection to amenities and public realm just outside the building. BPDA 69

There is an existing and proximate through-connection at 75-101 Federal Street, and it is unclear how the Great Hall relates to that and other nearby pedestrian shortcuts. Some analysis of pedestrian desire lines is warranted given this and other pre-existing shortcuts through buildings. While the retail character may be differentiated quite easily, the challenge remains of balancing circulation space with the potential uses like public speaking or events. BPDA 70

Winthrop Square

The potential for the 115 Winthrop Tower to transform Winthrop Square is enormous. Given the latent possibilities of this smaller, more intimate park space in the heart of the Financial District, the design of Winthrop Square is equivalent in importance to the Great Hall. The proponent nee not look far to Shoppers Plaza or Post Office Square for examples of successful open space typologies that work in concert with the surrounding context. BPDA 71

The proponent must articulate a clear identity for Winthrop Square that harmonizes with the Great Hall or other ground floor uses, but can also stand on its own. Is the space predominantly quiet and passive or actively programmed? A flexible, one-size-fits-all approach to the open space may not be appropriate given the constrained dimensions of the park. Winthrop Square already operates as an "urban room." The addition of the Tower should not demote scarce open space downtown to overflow space for the Great Hall.

Again, working with the Downtown Crossing BID is important, as Winthrop Square has been the focus of prior planning, including a wayfinding study, within the larger context of the BID boundary. The preliminary ideas for Winthrop Square did not include the redevelopment of the garage, so it is appropriate to revisit the initial recommendations and strategies that emerged from the report. BPDA 72

Regardless, the threshold - both actual and perceived - between the square and tower must be considered and well-designed. The current Great Hall entrance on the Winthrop Square side is diminutive relative to the scale of the office podium, but large in respect to space of the square. Calibrating the entrance size and its impacts on Winthrop Square is important for the successful redesign of the square. Currently, the entrance height on the Federal Street elevation appears more to scale than on the Winthrop Square side. Further exploration of the Federal Street entry is also warranted. Are there design strategies that allow for increased visibility to the park from the Federal Street or cues to the park space beyond?

The landscape design of Winthrop Square should include significant shade trees and function as a complementary open space within a larger open space network downtown. The landscape mounds are understood to function as a tree preservation strategy within a curbless roadway condition. The design of the roadway and landscape is still very preliminary, but the BPDA supports exploring novel strategies for balancing roadway and curbside uses with landscape design. BPDA 73

Providing sections through the Great Hall and Winthrop Square is a necessary starting point for exploring the interrelationship and scale between these two spaces. The initial strategy appears to be a continuous spatial treatment, but the scales of the two ending 'frames' could not be more different. Consider a more graduated or episodic approach, which could include a variation on the structural composition, and consider too the very different nature of the Federal Street and Winthrop Square/Devonshire Street beginning/end points. During the next phase, the BPDA looks forward to continued exploration of this urban cross-section, and BPDA 74

impacts to smaller existing moments in the adjacent urban fabric, such as Winthrop Lane.

Vehicular & Loading Access

As articulated in the RFP, the City (BPDA/BTD), strongly prefer that all parking and loading access utilize the existing Federal Court/Milton Place private ways. If additional access points are needed we prefer that they be located off of Federal Street, and on the northern edge of the site (opposite Federal Court) to preserve and maximize the proposed Great Hall dimension. BPDA 75

The current site plan creates two impactful curb cuts on Devonshire that should be reconsidered. To this end, we appreciate the premise that the below-grade parking could later be converted to different uses. Considering the higher ceiling heights this will require, we request that the proponent make every effort to relocate all of its loading activities to within the parking garage layout. This will allow for shared access with parking and would eliminate the need for a separate curb cut. We support the concept of pedestrianizing Devonshire Street and reducing traffic and eliminating curb cuts on this street will further this goal. The concept as proposed of converting a portion of Devonshire to 2-way to allow 100 Summer Street traffic to head to Summer Street, thereby reducing traffic along Winthrop Square and in front of the site is supported and should be further explored. BPDA 76

Parking and Curbside Management

The parking entries or entry courts themselves must be thoughtfully considered so as to avoid any vehicular interference with pedestrians. Any new vehicular access points should ramp up from the street to allow sidewalks to cross at the same grade (thereby eliminating the need for pedestrian ramps at driveways) The parking and loading design should be forward-thinking, allowing different modes of transportation arrival for dropoff and pickup, including Bridj, uber, etc. Any parking access should be subservient to the pedestrian flow volumes coming through the Great Hall. BPDA 77

The currently proposed range of parking spaces is on the high side for such a transit rich location. As the program becomes more refined we expect to work with the proponent to reduce and refine these ratios for specific uses as well as find opportunities to share parking spaces and creatively and efficiently manage supply and demand through progressive pricing approaches. BPDA 78

Transportation Network Impact Analysis and Mitigation

We expect the project to fully articulate its impacts on all modes of the transportation system. Appropriate modal network improvements will be required to mitigate the project's impacts, particularly on the transit system. BPDA 79

Shadow

See Katie Pedersen's January 5, 2017 Scoping Memo regarding Shadow, which asks for the standard shadow analysis in both graphic and animation form. These should clearly delineate new shadows cast by use of a strongly differentiated graphic technique, such as color. The Proponent has developed considerable information on shadow impacts, much of it displayed in public meetings, with particular emphasis on the impacts relative to the two legislative covenants (Chapter 362 of the Acts of 1990 and Chapter 384 of the Acts of 1992, respectively) that govern shadow impacts on the Boston Common and on the Public Garden. This information - which includes all days of the year any impacts are recorded, and overall duration by area (Boston Common, Public Garden) - should be organized, refined, and presented in the DPIR. In addition, please develop more information regarding point durations on these two open spaces. BPDA 80 BPDA 81

Some of the concern expressed over the additional shadow on the Boston Common may come from a general concern about the health of the aging tree community on the Common. While it is difficult to quantify the actual effects of additional shadow of any duration on the Common, what is perhaps more important is that some potential negative effect is possible over time. Some study regarding this potential impact and suggestions regarding the protection, preservation, and maintenance of the Common's elder statesmen is requested. BPDA 82

We suggest, where animation studies indicate some new shadow coverage times on sensitive areas, that specific timeframes/durations be identified, with a clear presentation methodology to be agreed upon with BPDA staff. This request would only apply to larger open space areas such as the Greenway and Post Office Square Park. BPDA 83

We reserve the right to add additional concerns during the course of the process of combined BPDA Staff, IAG, and BCDC review, which may affect the responses detailed in the DPIR. The following urban design materials for the Proposed Project's schematic design must be submitted for the DPIR:

1. Written description of program elements and space allocation (in square feet) for each element, as well as Project totals. BPDA 84

2. Neighborhood plan, elevations and sections at an appropriate scale (1"=100' or larger as determined by the BPDA) showing relationships of the proposed project to the neighborhood context: BPDA 85

a. Massing
b. Building height
c. Scaling elements
d. Open space
e. Major topographic features
f. Pedestrian and vehicular circulation
g. Land use

3. Color, or black and white 8"x10" photographs of the site and neighborhood. BPDA 86

4. Sketches and diagrams to clarify design issues and massing options. BPDA 87

5. Eye-level perspective (reproducible line or other approved drawings) showing the proposal (including main entries and public areas) in the context of the surrounding area. Views should display a particular emphasis on important viewing areas such as key intersections, pathways, or public parks/attractions. A few of such viewpoints have already been used in presentations to the public. Long-ranged (distanced) views of the proposed project must also be studied to assess the impact on the skyline or other view lines. At least one bird's-eye perspective should also be included. All perspectives should show (in separate comparative sketches) at least both the build and no-build conditions; any alternatives proposed should be compared as well. The BPDA should approve the view locations before analysis is begun. We suggest at least the following viewpoints: up and down Devonshire, Federal, and Franklin Streets; Post Office Square; the Greenway (Dewey Square at a minimum); the Public Garden and Boston Common; the Charles River viewshed (Mass Ave Bridge or Memorial Drive); the North End; Government Center; from the south entering the city; from the Harbor; and, from the Back Bay and South End neighborhoods. View studies should be cognizant of light and shadow, massing and bulk. BPDA 88

6. Additional aerial or skyline views of the project, if and as requested.

7. Site sections at 1"=20' or larger (or other scale approved by the BPDA) showing relationships to adjacent buildings and spaces. BPDA 89

8. Site plan(s) at an appropriate scale (1"=20' or larger, or as approved by the BPDA) showing: BPDA 90

a. General relationships of proposed and existing adjacent buildings and open spaces
b. Open spaces defined by buildings on adjacent parcels and across streets

c. General location of pedestrian ways, driveways, parking, service areas, streets, and major landscape features
d. Pedestrian, handicapped, vehicular and service access and flow through the parcel and to adjacent areas
e. Survey information, such as existing elevations, benchmarks, and utilities
f. Phasing possibilities
g. Construction limits
9. Massing model (ultimately in basswood) at 1":40'0" for use in the Agency's Downtown Model. BPDA 91
10. Study model(s) at 1" = 16' or 1" = 20' showing preliminary concept of setbacks, cornice lines, fenestration, facade composition, etc. are recommended. BPDA 92
11. Drawings at an appropriate scale (e.g., 1":16'0", or as determined by BPDA) describing architectural massing, facade design and proposed materials including: BPDA 93
a. Building and site improvement plans
b. Neighborhood elevations, sections, and/or plans showing the
c. Development in the context of the surrounding area
d. Sections showing organization of functions and spaces, and relationships to adjacent spaces and structures
e. Preliminary building plans showing ground floor and typical upper floor(s).
f. Phasing, if any, of the Proposed Project
12. A written and/or graphic description of the building materials and its texture, color, and general fenestration patterns is required for the proposed development. BPDA 94
13. Electronic files describing the site and Proposed Project. BPDA 95
14. Full responses, which may be in the formats listed above (and more), to any urban design-related issues raised in preliminary reviews or specifically included in the BPDA scoping determination, preliminary adequacy determination, or other document requesting additional information leading up to BPDA Board action, inclusive of material required for Boston Civic Design Commission review. BPDA 96
15. Proposed schedule for submission of all design or development-related materials. BPDA 97
16. Diagrammatic sections through the neighborhood (to the extent not covered in item #2 above) cutting north-south and east-west at the scale and distance indicated above. BPDA 98
17. True-scale three-dimensional graphic representations of the area indicated above either as aerial perspective or isometric views showing all buildings, streets, parks, and natural features. BPDA 99

<u>Daylight Component</u>

A daylight analysis for both build and no-build conditions shall be conducted by measuring the percentage of skydome that is obstructed by the Proposed Project building(s) and evaluating the net change in obstruction. If alternative massing studies are requested (which see above) or result as part of the Article 80 development review process, daylight analysis of such alternatives shall also be conducted for comparison. The study should treat three elements as controls for data comparisons: existing conditions, the 'as-of-right' massing, and context examples. The areas of interest include Federal and Devonshire Streets, and Winthrop Square itself. Daylight analyses should be taken for each major building facade fronting these public ways / spaces. The midpoint of each public roadway, and a reasonably centered point in the Winthrop Square space, should be taken as the study points. The BRADA program must be used for this analysis. BPDA 100

If a Proponent wishes to substitute a more contemporary computer program for the 1985 BRADA program, its equivalency must first be demonstrated to the satisfaction of BPDA staff before it is utilized for inclusion in the DPIR, and it must be commonly available to Boston development team users.

Infrastructure Systems Component

An infrastructure impact analysis must be performed.

The discussion of Proposed Project impacts on infrastructure systems should be organized system-by-system as suggested below. The applicant's submission must include an evaluation of the Proposed Project's impact on the capacity and adequacy of existing water, sewerage, energy (including gas and steam), and electrical communications (including telephone, fire alarm, computer, cable, etc.) utility systems, and the need reasonably attributable to the proposed project for additional systems facilities. BPDA 101

Any system upgrading or connection requiring a significant public or utility investment, creating a significant disruption in vehicular or pedestrian circulation, or affecting any public or neighborhood park or streetscape improvements, comprises an impact which must be mitigated. The DPIR must describe anticipated impacts in this regard, including specific mitigation measures, and must include nearby Proposed Project build-out figures in the analysis. The standard scope for infrastructure analysis is given below: BPDA 102

1. Utility Systems and Water Quality

a. Estimated water consumption and sewage generation from the Proposed Project and the basis for each estimate. Include separate calculations for air conditioning system make-up water BPDA 103

b. Description of the capacity and adequacy of water and sewer systems and an evaluation of the impacts of the Proposed Project on those systems; sewer and storm drain systems should include a tributary flow analysis as part of this description BPDA 104

c. Identification of measures to conserve resources, including any provisions for recycling or 'green' strategies, including green roofs BPDA 105

d. Description of the Proposed Project's impacts on the water quality of Boston Harbor or other water bodies that could be affected by the Project, if applicable BPDA 106

e. Description of mitigation measures to reduce or eliminate impacts on water quality BPDA 107

f. Description of impact of on-site storm drainage on water quality BPDA 108

g. Information on how the Proposed Project will conform to requirements of the Ground Water Trust under Article 32, if applicable, by providing additional recharge opportunities BPDA 109

h. Detail methods of protection proposed for infrastructure conduits and other artifacts, including the MBTA tunnels and station structures, and BSWC sewer lines and water mains, during construction BPDA 110

i. Detail the energy source of the interior space heating; how obtained, and, if applicable, plans for reuse of condensate. BPDA 111

Thorough consultation with the planners and engineers of the utilities will be required, and should be referenced in the Infrastructure Component section. BPDA 112

2. <u>Energy Systems</u>

a. Description of energy requirements of the project and evaluation of project impacts on resources and supply BPDA 113

b. Description of measures to conserve energy usage and consideration of the feasibility of including solar energy provisions or other on-site energy provisions, including wind, geothermal, and cogeneration. BPDA 114

Additional constraints or information required are described below. Any other system (emergency systems, gas, steam, optic fiber, cable, etc.) impacted by this development should also be described in brief.

The location of transformer and other vaults required for electrical distribution or ventilation must be chosen to minimize disruption to pedestrian paths and public improvements both when operating normally and when being serviced, and must be described. BPDA 115 If necessary, storm drain and sewage systems should be separated or separations provided for in the design of connections. BPDA 116

The Proponent should investigate energy strategies that take advantage of this scale of construction, including those that incorporate green roof strategies as well as solar orientation and materials/systems that maximize efficiencies, daylighting strategies, wind, solar, and geothermal systems, and cogeneration. Given the PassiveHouse and LEED standards sought, we expect robust information regarding any infrastructure-related aspects of those rating systems. BPDA 117

Excerpted from the minutes of the BCDC meeting of February 7, 2017:

The next item was a presentation of the **115 Winthrop Square Project**. Kathy MacNeil (KM) of Millennium Partners introduced the Project, noting the selection process for the City-owned garage parcel. KM noted the review process: We have had several public meetings; this will be part of the BPDA PNF review and scoping process. Blake Middleton (BM) of Handel Architects presented the design, starting with photos of the area and Winthrop Square. BM: We looked at notions of how to reinforce the space, using European piazzas as precedents. We're trying to preserve the honey locusts (shows a landscape detail, then an 1860 photo of the Winthrop Square space with cobbles) with the idea of reestablishing a continuous space as a better connection for the area. We're thinking bollards, continuous tabling, slowing the traffic down. The Great Hall is the foundation of our public realm contribution. It's a connector, linking spaces, even uses, with inspiration from many spaces (Gallerias, etc.). There are limited routes for loading and parking access (indicates). We want to activate the main space 18 hours a day - Boston's Living Room, a versatile space. Grab'n'Go below, dining above. The structure

shown, actually *is* structural; the ends are as permeable as possible, with air hangar doors (shows views of the two openings). The material of the building comes all the way to the ground. The form of the building follows the street edge in Winthrop Square, while on Federal Street, the strategy is different. (Shows an axon, then a diagram of the massing elements.) We have a pleated facade, an idea drawn from the nearby Art Deco buildings of the Financial District, and old silversmithing traditions - catching the light. (Notes an axonometric program diagram, with a breakaway section which clarifies.) The form is driven by office and residential planning, and the cores. The office allows a fair amount of density. The Solaria form a pavilion-like 'bustle,' something of the scale of the Rudolph building. We are doing a LEED Platinum building, and taking that designation for the office a little further, to PassiveHouse (US) standards. (Shows sections of the whole building. Notes the parking below has stacker systems.) There's a grade change through the site, which may require steps and ramps to achieve our purpose. (Riffs through a series of slides, noting the proportions of the Great Hall, the ground floor plan, the programming, the upper floors. Notes the nickel silver facade, the Art Deco pleating detail. Shows a night view.) The deep fissures at the top are illuminated at night.

AL: I want to understand the ground plane. Do you have an elevation? BM showed the Winthrop Square view, noting the residential lobby to the left, a *porte cochere* beyond, the office lobby to the right, and the Great Hall entry. AL: And the facade - how do the windows work? BM: It's a glass wall with angled fins, which change angles as they move up. MD: I would like to understand better how the stack of lower public floors works. The section through.... LE: It becomes the street. MD: ...How one goes through/between the levels. PM: And you have escalators as well? BM: We might - it depends on volume, if the uses require more people moving between. MD: The resolution of the Great Hall back on Federal Street is very successful. It seems lost on the Winthrop Square side. AL: We've all seen a lot of images of this. How you brought the ground plane in, the use of the bustle - is really intelligent. There's a beauty to the idea of the texture of the building. But all the images did not prepare me for the sheerness of the facade. Winthrop Square could feel dwarfed by something that close, and that tall. To me, that's the biggest concern, not the 75' scale you reference. It's about the massing, not the height, per se. I'd like to know what else you've studied. BM: This is one of the rare opportunities in the City with a space. Shoppers' Park at Filene's is close to this space. AL: Could the top peel back more? BM: Maybe. We have early reports from the wind engineers, which will inform how we develop the scheme.

DC: It was shocking to me to see the model. Even the Great Hall seems diminutive. It's great to have an indoor room; it's a great amenity. I am concerned about the shadow impacts. Once done, there's no undoing. It's also about vegetation, the impact there. PM: Where does the shadow stand? Joe Larkin (JL) of Millennium spoke briefly about the proposed legislation, limiting impacts to this one Project and possibly eliminating the remaining shadow 'bank.' DC: The issue is really that some of the really old trees may not be able to tolerate more shadow. JL: I can tell you, what we have so far, is that the consideration is an exception for this site only, with some offsets. MD: The RFP requested that height, right? JL: Yes. All respondents were in the 675-750' range. LE: I'd like to know more about Winthrop Square. I think the bollards detract; can you do without them? PM: They make the space more constrictive. LE: More on the scale of the space, the historic plantings. I realize that the height of the 'frame' of the Great Hall picks up the average height of the other buildings in the Square. It feels resolved on Federal Street, but not on the other side. Do you need the structure? The frame appeals to me. It feels like a modern entry - with a thing inside. AL: It's functioning differently. By the way, the 2-story studios (Solaria) are great. There's something - the imposing wall. Think of the planes, how they lift. This is the side (Winthrop Square) that's hardest. Look at heights, angles, displacement (setback) to give some air to the Square.

DC: Did you consider spill-out programming? BM: Yes. MD: A closer level of analysis about how the space(s) operate. We recently looked at North Station.... I would love to see this function. I'm very convinced by the gesture, but I want to be sure it works. BM: Millennium takes the [curatorship] of the space very seriously. The more versatility, the less particularity. Bryant Park is an example of curated outdoor space. It's much different than the North Station problem. AL: Is it open or closed? BM: Seasonal. AL: The canopy at Les Halles, in Paris - they do not close it; it's absolutely public. Think about that openness.

MD opened to public comment. Martin Roetter of NABB: I'm in opposition, not only because of shadows on the Public Garden, but because the Project was conceived from the get-go to modify the legislation, and that might impact many other sites. You do not change the law to suit. Fritz Casselman of NABB: I'm glad we talked about aspects of the Great Hall. Folks with disabilities should be able to take in the experiences equally, like the Louvre. BM: This is the time for us to incorporate that thinking. A 3-story spread. MD: That stack of public spaces. Greg Galer of the Boston Preservation Alliance: I want to thank the Commission for their concern about Winthrop Square and its historic properties. One issue of timing - I have concerns about moving forward with the Project without checking all the environmental impacts. A lot of folks feel these issues should have been expressed

before. MD: We'd prefer not to get out ahead. AM: This is an incredible Project for the City, and I hope it moves forward. With that, the 115 Winthrop Square Project was sent to Design Committee.

F. INFRASTRUCTURE SYSTEMS COMPONENT

The DPIR must address the comments of the Boston Water and Sewer Commission, dated December 12, 2016 and included in ***Appendix A.***

G. DEVELOPMENT IMPACT PROJECT COMPONENT

Based on the square footage and uses outlined in the Project Notification Form, the Proposed Project will be subject to and be required to enter into a Development Impact Project ("DIP or Linkage") agreement. A full analysis of square footage and uses should be submitted in the DPIR. BPDA 118

H. PUBLIC NOTICE

The Proponent will be responsible for preparing and publishing in one newspaper of general circulation in the City a Public Notice of the submission of the DPIR to the BPDA as required by Section 80A-2. This Public Notice shall be published within five (5) days after the receipt of the DPIR by the BPDA. Therefore, public comments shall be transmitted to the BPDA within seventy five (75) days of the publication of this Public Notice. A sample form of the Public Notice are attached as **Appendix D**. BPDA 119

Following publication of the Public Notice, the Proponent shall submit to the BPDA a copy of the published Public Notice together with the date of publication.

I. INCLUSIONARY DEVELOPMENT POLICY/ AFFORDABLE HOUSING COMPONENT

As indicated in the PNF, the Proposed Project will comply with the Executive Order regarding the Inclusionary Development Policy executed on December 10, 2015 ("IDP"). The Proponent intends to meet its affordable housing obligation by collaborating with the Asian Community Development Corporation to create affordable housing in the Chinatown neighborhood. The DPIR should include units counts and income limits in accordance with or exceeding the IDP. BPDA 120

J. ACCESSIBILITY CHECKLIST

As part of the DPIR, the Proponent must include an up to date and completed Article 80 Accessibility Checklist for the Proposed Project. An Accessibility Checklist is attached to **Appendix E**. BPDA 121

BPDA SCOPING DETERMINATION (BPDA)

BPDA 01 **Written comments in response to the PNF received by the BPDA from City of Boston agencies and elected officials are included in Appendix A and must be answered in their entirety. Written comments in response to the PNF received by the BPDA from the public are included in Appendix B and must be answered in their entirety. Written comments in response to the PNF received by the BPDA from the IAG are included in Appendix C and must be answered in their entirety. The Draft Project Impact Report ("DPIR") should include complete responses to all comments included in Appendices A, B and C within the framework of the criteria outlined in the Scoping Determination.**

This section includes direct responses to all comment letters submitted to the BPDA from agencies, elected officials, interest groups, and IAG members. In addition, the Proponent reviewed all letters submitted by members of the public, and identified the suite of interest areas raised in those letters. Table 13-2 references where in this document questions involving those interest areas are answered. In addition, Section 13.2.4 includes a list of the individual commenters, topics of interest, and references to the relevant sections of this filing. Annotated comments from individuals that do not fit within issue areas identified on Table 13-2 are included in Section 13.2.5.

BPDA 02 **Throughout the initial phase of review, the Proponent has taken steps to meet with local residents, elected officials, abutters, and City and State agencies. These conversations must continue, ensuring that the project that is presented in the DPIR is beneficial to the adjacent neighborhoods and the City of Boston as a whole.**

Section 1.7 includes information regarding the Proponent's outreach. Attachment B includes a detailed list of outreach meetings.

BPDA 03 **In order to minimize and mitigate the Proposed Project's impacts, the BPDA encourages the Proponent to continue to work with those parties, including the IAG and community, who have expressed concern.**

Section 2 includes detailed information regarding public benefits, Sections 4 through 10 include detailed impact analyses, Section 12 includes a summary of mitigation, and Section 1.8 includes a discussion of Public Participation.

In addition, the Proponent has had over 50 meetings with public agencies, elected officials, abutters, interested parties, advocacy groups, and others to address concerns and mitigation of impacts.

BPDA 04 **The BPDA encourages the Proponent to share all required shadow studies with all interested community members and stakeholders, and requires such studies to be part of the DPIR submission. The studies shared with all interested community members and stakeholders should be in a format in which the methodology of the studies is clear and understandable.**

A detailed analysis of Project-related shadows is provided in Section 5.2.

BPDA 05 **A greater understanding of design and programming for Winthrop Square must be a part of the DPIR filing. The Proposed Project will have an immediate impact on Winthrop Square and the general Downtown Crossing area, therefore, the relationship between the Proposed Project, specifically the Great Hall, and Winthrop Square must be given thoughtful consideration. BPDA and BTD staff encourage the Proponent to use Federal Court and Milton Place for all access, if possible, to ensure that the redesign of the square results in a successful, pedestrian-friendly open space. The Proposed Project, especially the open space, has the potential to serve as a new anchor for the Financial District by knitting together Downtown Crossing, Dewey Square and Post Office Square.**

The Proponent has carefully considered access to and from the building from all adjacent streets and ways. The narrowness of Federal Court and lack of legal access to Milton Place prevent the Project from using those two points as consistent access to the building. See Sections 2.2.2 and 7.0 for additional information on Winthrop Square and the Project.

BPDA 06 **Further study is necessary to better understand how the tower portion of the Proposed Project relates to the podium, Winthrop Square, and the city skyline. The DPIR must include skyline views from all directions of the Proposed Project. The design of the Proposed Project should be further developed with emphasis on both shape and glazing.**

Refer to Section 7.1 for a description of the Project Massing and Design. Skyline views can be found in Attachment J.

BPDA 07 **The public's experience of the Proposed Project from the ground floor will weigh heavily on the design and programming of the Great Hall. The DPIR should include further details on how the Great Hall can fully utilize this tremendous opportunity for civic/cultural space.**

Please see Sections 2.2 and 7.1 for more detailed information on the Great Hall.

BPDA 08 **All development projects have construction impacts. As with any urban development, there needs to be a balance of construction related inconveniences with daily activities that will continue to occur adjacent to the project site. A detailed approach to the construction management must be included in the DPIR.**

Construction management and construction-related impacts are described in Section 5.10.

BPDA 09 **Special attention should be given to the comment letters. The letters represent the opinions of the active residents, business leaders and elected officials of the community in which the Proponent intends to develop the Proposed Project.**

Please see the response to BPDA 01.

BPDA 10 **In addition to full-size drawings, 15 copies of a bound booklet and an electronic copy (PDF format) containing all submission materials reduced to size 8-1/2" x 11", except where otherwise specified are required… The booklet should be printed on both sides of the page. In addition, an adequate number of copies must be available for community review.**

The Proponent will comply with these submission requirements as part of the on-going design review process.

BPDA 11 **A copy of this Scoping Determination should be included in the booklet for reference.**

This section (Section 13) of the Draft EIR/PIR contains a copy of the BPDA Scoping Determination.

BPDA 12 **Applicant/Proponent Information.**

Section 1.8 contains information about the Proponent.

BPDA 13 **Legal Information**

Legal information is provided in Section 1.6.

BPDA 14 **Project Site.**

The existing Project site is described in Section 2.1.

BPDA 15 **The DPIR shall contain a full description of the Proposed Project and its components, including its size, physical characteristics, development schedule, costs, and proposed uses. This section of the DPIR shall also present analysis of the development context of the Proposed Project. Appropriate site and building plans to illustrate clearly the Proposed Project shall be required.**

Section 2.0 contains a detailed Project description, including its development context and site plans.

BPDA 16 **A description of alternatives of the Proposed Project that were considered shall be presented and primary differences among alternatives, particularly as they may affect environmental and traffic/transportation conditions, shall be discussed.**

A thorough alternatives analysis is provided in Section 3.0.

BPDA 17 **Public Benefits.**

Section 2.2.3 contains a discussion of the Project's public benefits.

BPDA 18 **Community Process: A list of meetings held and proposed with interested parties, including public agencies, abutters, and business and community groups.**

Public participation in the Project, including a list of meetings, is described in Section 1.7.

BPDA 19 **Names and addresses of project area owners, abutters, and any community or business groups which, in the opinion of the applicant, may be substantially interested in or affected by the Project. An updated listing of all anticipated permits or approvals required from other municipal, state or federal agencies, including a proposed application schedule shall be included in the DPIR.**

Anticipated permits and approvals are identified in Table 1-1 (see Section 1.5).

BPDA 20 **A statement of the applicability of the Massachusetts Environmental Policy Act ("MEPA") should be provided. If the Proposed Project is subject to MEPA, all required documentation should be provided to the BPDA, including, but not limited to, a copy of the Environmental Notification Form, decisions of the secretary of Environmental Affairs, and the proposed schedule for coordination with BPDA procedures.**

The Project's review process, including the applicability of MEPA, is described in Section 1.2. A copy of the MEPA Certificate is also included in this Section.

BPDA 21 **The PNF states that the Proponent's initial research indicates that limiting access to and from Federal Court/Milton Place may not be possible due to those streets' potential status as private ways. Considering the project's proposed enhancement of the public realm at Winthrop Square, and the capacity of Federal Street, BTD encourages the proponent to continue researching the possibility of all access from Federal Court/Milton Place in order to make Winthrop Square as pedestrian-oriented and friendly as possible.**

Please see the response to BTD 01.

BPDA 22 **All access points should limit as far as possible conflict points, especially on any pedestrianized plaza on Winthrop Square. Access points should also take into account traffic and bus queuing/delay on Federal Street. If Federal Court/Milton Place is not available due to legal restrictions, the proponent should explore implications of creating a new access point at the northern end of the Federal Street edge of the site.**

Please see the response to BTD 02.

BPDA 23 **The area around the project is extensively served by MBTA transit service. As part of the DPIR, BTD would like the proponent to discover how many publically available parking spaces are within a quarter mile, and whether any spaces might be made available through agreement, thereby lessening the need for parking at this location.**

Please see the response to BTD 03.

BPDA 24 **The Boston Transportation Department ("BTD") policy maximum for Downtown is 0.4 for office and 0.5-1.0 for residential uses; because of the project's transit-oriented location, BTD would recommend a maximum parking ratio at the lower end of this scale. The proponent should spell out how these spaces would be distributed, and whether they would be bundled with units or sold/rented separately for residential uses, and whether office parking would be bundled, and whether parking cash out would be offered. BTD encourages the project to consider shared parking solutions to limit the number of parking spaces... The proponent should spell out how parking spaces are to be assigned to various uses so that the precise parking ratio can be understood.**

Please see the response to BTD 04.

BPDA 25 **BTD will require the project to work with a car share provider to dedicate some of the spaces to car share.**

Please see the response to BTD 06.

BPDA 26 **The project should describe bicycle parking included in the project, and the locations of that parking. BTD notes that the City of Boston Bicycle Parking Guidelines spell out the City's policy for development provision of secure/covered bicycle parking, on-street bicycle parking, shower/change facilities for employees and bike share provision. Any bicycle repair facilities proposed should be spelled out as well. Parking that is internal to the building should be located in an area that is convenient for bicyclists so as to make this as attractive an option as possible.**

Please see the response to BTD 07.

BPDA 27 **The proponent should spell out how it plans to meet the City's Electrical Vehicle Charging standards, which include that at a minimum 5% of all spaces must be EV spaces, and that at least 15% of spaces must be constructed with EV-ready electrical capacity.**

Please see the response to BTD 08.

BPDA 28 **The DPIR should lay out the number of loading bays as well as the truck type to be accommodated, as well as any separate trash rooms. BTD foresees a need for at least three loading bays that will accommodate WB-50 trucks and a separate trash room; rational for anything different should be spelled out in the DPIR.**

Please see the response to BTD 09.

BPDA 29 **BTD looks forward to working with the proponent on developing an appropriate transportation mitigation package, which should be informed by the trips generated as well as peak hour mode share. BTD encourages the proponent to analyze transit services in the area based not only upon what services are supplied, but also peak capacity, and how the projects generated transit trips will impact that supply. If the proponent's trips will impact a transit, pedestrian or bicycle facility, the proponent should assess options to facilitate safe, convenient and attractive access. This may include (but is not limited to) sidewalks, crossings, bus stops, bike facilities and/or subway stops.**

Please see the response to BTD 11.

BPDA 30 **BTD encouragers the project to look into whether the developer can join a Transportation Management Association on behalf of the entire building, and if possible to do so. We also encourage the project to require office and retail tenants to subsidize transit, bike share and car share membership for employees, as well as to bundle subsidized transit, bike share and car share membership for residents through residential leases, as well as for the first year of any condo sales. Finally, BTD encourages the proponent to propose inclusion of real-time transportation (transit, bikeshare, carshare, transportation network services, wayfinding, walk/bike distance) display technology in all lobbies and near the entrances to the Great Hall.**

Please see the responses to BTD 12 and BTD 13.

BPDA 31 **The project has proposed a robust enhancement of the public realm, especially Winthrop Square... BTD encourages the proponent to consider how to make the connections to the Downtown Crossing Pedestrian Zone great public space as well, especially along Franklin Street (Tontine Crescent), Winthrop Lane and Summer Street. Any long-term maintenance by the proponent of the plaza, greenery and trees in Winthrop Square should be spelled out, as well as street furniture (e.g. benches) proposed for the abutting sidewalk. The DPIR should provide details on the width of the proposed sidewalk around the site, including widths of pedestrian zones, furniture zones and/or curbs.**

Please see the response to BTD 14.

Refer to Sections 7.3, 7.4 and 7.5 for a description of all urban connections and maintenance. Section 2.2.2 includes additional information about Winthrop Square. See Site Plan - Pedestrian Access Diagram and Context Plan (Figures 1-3 and 2-4) for additional information on design.

BPDA 32 **If general traffic is proposed to be allowed on either or both of Otis and Devonshire streets in the area that will have non-standard surfacing (and considering that many buses use Otis Street), the durability of the surfacing should be spelled out to confirm that it will handle vehicular traffic. The proponent should spell out any long-term maintenance of that surfacing.**

Please see the response to BTD 15.

BPDA 33 **Any proposals for improving bus facilities should be spelled out, such as bus waiting areas at Franklin/Devonshire and Otis/Summer, and/or repainting of the Essex Street bus lane.**

Please see the response to BTD 16.

BPDA 34 **A rendering in the Proponent's Boston Civic Design Commission PNF Filing Presentation (slide 29) shows a mid-block crosswalk across Federal Street. While BTD agrees that this is an important pedestrian connection to make, safety issues concerning a multi-lane crosswalk on a one-way street have to be addressed. Is there a warrant for curb extensions? A crossing beacon? What are the traffic implications of the crossing?**

Please see the response to BTD 17.

BPDA 35 **The DPIR should spell out both the existing and any proposed changes to curbside use on Devonshire, Franklin and Otis Streets… The Proponent should work with BTD and the MBTA to make sure bus operations are considered in the Proponent's plans, and these plans should be spelled out in the DPIR.**

Please see the responses to BTD 18 and BTD 19.

BPDA 36 **There are currently State Police parking spaces around Winthrop Square. The Proponent should work with BTD and the State Police to find a location for that parking should their proposal remove parking from the location. The proponent could look into providing parking in their garage for the State Police.**

Please see the response to BTD 20.

BPDA 37 **The Proponent should spell out its valet plan, and how it will accommodate all valet internally.**

The valet plan is described in Section 4.8.4.

BPDA 38 **The PNF mentions that the Proponent will explore using either BTD mode splits or US Census/National Household Travel Survey (NHTS) data for the corresponding census tract. Please include a discussion of what each mode split is and how you make this decision. Take into consideration that much federal data does not have non-commute data, so explain how you will account for non-commute trips in your mode split if you use Census/NHTS data.**

Please see the response to BTD 21.

BPDA 39 **The DPIR should show the full impact of all potential directionality changes on Devonshire and Otis streets. If southbound traffic is proposed for Devonshire, the DPIR should investigate how lefts onto Summer Street will work, especially considering the current stop for the Summer/Lincoln/Bedford intersection. If any Devonshire and/or Otis would be closed to traffic, how will 100 Summer Street handle loading and parking?**

Please see the response to BTD 22.

BPDA 40 **BPDA requests the study area include the following intersections:**

- **Any proposed driveways**
- **Franklin/Hawley**
- **Franklin/Devonshire/Otis**
- **Franklin/Federal**
- **Franklin/Congress**
- **Matthews/Federal**
- **Matthews/Congress**
- **Summer/Hawley**
- **Summer/Otis/Kingston**
- **Summer/Devonshire**
- **Summer/Bedford/Lincoln**
- **Summer/High**
- **Summer/Purchase/I-93 Ramp**
- **High/Federal**
- **High/Congress**
- **Essex/Lincoln/Surface**
- **Purchase/Congress**
- **Congress/Milk**
- **Arch/Franklin**

Please see the response to BTD 23.

BPDA 41 **The Proponent needs to submit an engineered site plan within the context of the surrounding roadways at 1:20 scale depicting:**

- **Vehicular access and circulation**
- **Parking layout and circulation**
- **Pedestrian access and circulation**
- **Bicycle access and circulation**
- **Area shuttle/van pool pickup and drop-off**
- **Parking spaces for car sharing services**

- **Service and loading***
- **Roadways and sidewalks**
- **Building layout**
- **Bicycle parking locations and types (covered, indoor, bike share, etc.)**
- **Transit stops and connections**
- **Electric vehicle charging stations and ev-ready spaces**

***Trash compactors/dumpsters need to be depicted as well.**

Please see the response to BTD 24. Vehicle access and circulation are shown on 2-13. Parking layout and circulation is identified on Figure 2-15. Pedestrian access and circulation is shown in Figure 1-3. Service and loading is shown on Figure 2-5 and truck diagrams are included in Attachment D. Roadways and sidewalks and building layout are shown on Figure 2-5. Transit stops and connections are shown in Figure 4-7.

BPDA 42 **As the project in the DPIR advances, the proponents will be required to develop and submit a detailed Construction Management Plan (CMP) to BTD for review and approval.**

Please see the response to BTD 25.

BPDA 43 **A quantitative (wind tunnel) analysis of the potential pedestrian level wind impact shall be required, as the proposed building is designed to be 775 feet in height. The analysis shall determine potential pedestrian level winds adjacent to and in the vicinity of the Proposed Project and shall identify wind velocities that are expected to exceed acceptable levels, including the Boston Planning and Development Agency's ("BPDA") guideline of an effective gust velocity of 31 miles per hour (mph) not to be exceeded more than 1% of the time.**

Particular attention shall be given to public and other areas of pedestrian use, including, but not limited to, entrances to the Proposed Project and existing and proposed buildings in the vicinity of the Proposed Project, the existing and proposed sidewalks and walkways within and adjacent to the Proposed Project and existing and proposed plazas, park areas and other open space areas within and in the vicinity of the Proposed Project, including but not limited to, the Boston Common, the Boston Public Garden, the Post Office Square Park and the Rose Kennedy Greenway.

An analysis of potential Project-related wind impacts is provided in Section 5.1. Attention was paid to pedestrian areas along major streets such as Franklin and Devonshire streets as well as public spaces such as Winthrop Square itself. Based on RWDI's experience, the wind impact of the Project located in a heavily built-up environment can influence spaces up to a

maximum distance of 1,000 feet from the study site. The extent and distribution of the wind measurement locations reflects this experience, with particular attention to historical buildings located within a 1,000 foot radius of the Project site. Based on RWDI's analysis the trend in the data indicates that the wind impact on buildings located beyond two to three city blocks is expected to be negligible. Hence, due to their distance from the Project site, wind impacts in the Boston Common, Public Garden, Post Office Square and Rose Kennedy Greenway will be minimal.

BPDA 44 **The wind impact analysis shall evaluate the following conditions:**

1. **No-Build – the existing condition of the Proposed Project site and environs to establish the baseline condition.**

2. **Build Condition – the Proposed Project as described in the PNF**

3. **As-of-Right – the Zoning Compliant Configuration**

4. **Alternative Build Condition – any alternative development concepts to the Preferred Build Condition required to be studied.**

The wind analysis provided in Section 5.1 evaluates the conditions defined above.

BPDA 45 **Wind speeds shall be measured in miles per hour (mph) and for areas where wind speeds are projected to be dangerous or to exceed acceptable levels, measures to reduce wind speeds and to mitigate potential adverse impact(s) shall be identified and, if appropriate, tested.**

Please see Section 5.1 for a detailed wind analysis.

BPDA 46 **The Proponent shall be required to conduct a shadow analysis for the existing (no-build) and build conditions for the hours of 9:00 a.m., 12:00 noon, and 3:00 p. for the vernal equinox, summer solstice, autumnal equinox, and winter solstice and for 6:00 p.m. in the summer and fall. The shadow impact analysis shall examine the existing shadows and the incremental effects of the Proposed Project on existing and proposed public open spaces, including but not limited to Boston Common, the Boston Public Garden, the Post Office Square Park and Rose Kennedy Greenway, as well as sidewalks and pedestrian walkways adjacent to and in the vicinity of the Proposed Project site.**

The shadow analysis provided in Section 5.2 addresses the dates and times defined above, and includes impacts to public spaces, sidewalks, and transit stops.

BPDA 47 **The shadow impact analysis shall evaluate the following conditions:**

1. **No Build – the existing condition of the Proposed Project site and environs to establish the baseline condition.**
2. **Build Condition – the Proposed Project as described in the PNF.**
3. **As-of-Right – the Zoning Compliant Configuration.**
4. **Alternative Build Condition – any alternative development concepts to the Preferred Build Condition required to be studied.**

The shadow analysis provided in Section 5.2 evaluates No Build, the proposed Project, and the as-of-right alternative as well as an alternative based on the previous shadow law.

BPDA 48 **The shadow analysis results shall be provided in both animation and graphic representations, so as to best understand the extent to which shadows from the Proposed Project are anticipated to affect the overall shadow conditions within the surrounding area.**

The shadow analysis provided in Section 5.2 is accompanied by graphics depicting potential Project-related shadow. A link to the shadow animation is also included.

BPDA 49 **The Proponent shall be required to conduct a solar glare analysis. The analysis shall measure potential reflective glare from the Proposed Project onto potentially affected streets and public open spaces including but not limited to Boston Common, the Boston Public Garden, Post Office Square and the Rose Kennedy Greenway as well as the sidewalk areas in order to determine the likelihood of visual impairment or discomfort due to reflective spot glare. Mitigation measures to eliminate any adverse reflective glare shall be identified.**

A solar glare analysis is provided in Section 5.4.

BPDA 50 **The shadow impact analysis shall evaluate the following conditions:**

1. **No Build – the existing condition of the Proposed Project site and environs to establish the baseline condition.**
2. **Build Condition – the Proposed Project as described in the PNF.**
3. **As-of-Right – the Zoning Compliant Configuration.**

4. **Alternative Build Condition – any alternative development concepts to the Preferred Build Condition required to be studied.**

Please see the response to BPDA 47.

BPDA 51 **The Proponent shall be required to perform a microscale analysis, which shall predict localized carbon monoxide concentrations, including identification of any locations projected to exceed the National and/or Massachusetts Ambient Air Quality Standards.**

Section 5.5.2 includes a microscale analysis. Results of the microscale analysis show that all predicted carbon monoxide (CO) concentrations are well below one-hour and eight-hour NAAQS.

BPDA 52 **Emissions from the Proposed Project parking garage and from the Proposed Project's heating and mechanical systems shall be estimated. In addition, carbon monoxide monitors shall be installed in the parking garage and a description of the proposed ventilation system shall be identified. Building/garage air intake and exhaust systems and specifications and an analysis of the impact of exhaust on pedestrians and any sensitive receptors shall be identified. Finally, if deemed necessary, mitigation measures to minimize or avoid any violation of state or federal ambient air quality standards shall be included and a description provided.**

Impacts from the proposed Project's parking garage and mechanical equipment are presented in Section 5.5.4, Stationary Source Analysis. Impacts are shown to be below all applicable NAAQS.

The installation of garage CO monitors and mechanical ventilation is planned.

BPDA 53 **Noise impacts from the Proposed Project shall be analyzed, including rooftop mechanical equipment and other noise sources (e.g. emergency generators), demonstrating compliance with the City of Boston noise regulations and applicable state and federal regulations and guidelines. Due to the close proximity to residential buildings, the Proponent shall be required to evaluate and demonstrate compliance with the Interior Design Noise Level (not to exceed day night average sound level of 45 decibels) established by the U.S. Department of Housing and Urban Development… If deemed necessary, mitigation measures designed to reduce excessive noise levels to acceptable limits shall be included and a description provided.**

Please reference Section 5.6.6 of the Draft EIR/PIR for conclusions derived from the noise analysis.

BPDA 54 **Proposed Projects shall be "certifiable" under the most appropriate United States Green Building Counsel (USGBC) LEED Rating System….**

Section 6 includes a discussion of compliance with Article 37, a LEED checklist and description of other sustainable design and Green Building measures.

BPDA 55 **As America's first park, Boston Common has over 1.5 million unique visitors a year which impacts the park far more than its current maintenance budget can restore. The improvements to the Boston Common that would be enabled would provide a net improvement to people's experience of that open space. As with all BPRD capital projects, these funds would go through a community process regarding their expenditure Items to be considered are pathway improvements, irrigation systems, Frog Pond infrastructure, turf repair and more. BPRD strongly feels that some of these funds should be endowed and restricted for a maintenance fund for the park.**

Improvements to the jewel of the Emerald Necklace, Franklin Park, have been deferred for over a century. Representing the largest investment in the park since its creation, these funds would be allocated through a community process and could include pathways, tree care, lighting, security, the renovation of the overlook ruins and Elma Lewis bandstand and more. As with the Common, BPRD strongly feels that certain funds be restricted for a maintenance endowment.

The Winthrop Square project provides an opportunity to care for these parks in perpetuity.

Please see Section 2.2.3 for a list of benefits. The Proponent and the Friends of the Public Garden entered into a Memorandum of Agreement in which the Proponent agreed to contribute $125,000 per year for 40 years following the completion of the Project to be used by the Friends for maintenance and enhancement of the Boston Common and the Boston Public Garden.;

BPDA 56 **Based on consultation with other departments and agencies, and the feedback received thus far from the Impact Advisory Group (IAG) and the public, BPDA staff requests that the following alternative massings be analyzed, to facilitate comparison:**

- **A no-build scenario.**
- **A PNF scenario, showing the Proposed Project as described in the PNF.**
- **An "as-of-right" scenario, under the existing B-10 zoning, that shows the maximum height achievable without triggering shadow impacts to the Boston Common or Public Garden.**
- **An FAA/Massport compliant scenario, as expressed in the March 2016 Request for Proposals.**
- **A massing scenario that shifts some of the bulk of the residential density to the east, over the Office Solaria.**

An alternatives analysis is provided in Section 3.0, and the Proponent has reviewed the alternatives contained in this analysis with the BPDA.

The Project's zoning height of approximately 664 feet (710' AMSL) is consistent with the operating guidelines provided by Massport and the technical review provided by the Federal Aviation Administration which has set various points of the Project site at 701-720 feet AMSL. The Project's height fits within this upper limit to avoid any operational changes in departures or arrivals at Logan International Airport. The FAA is currently conducting its public review period for this Aeronautical Study (See Attachment A).

BPDA 57 **We encourage, through the above analysis, the development of a preferred alternative. We expect that mitigations or positive urban benefits will result from this Project and, in balance, will far outweigh any negative impact. Specific shadow and wind investigations will be requested – a separate category in this scoping – to determine what the impacts are regarding the Boston Common, Public Garden, and Rose Kennedy Greenway, among others. We will expect that the Proposed Project as represented in the DPIR will have taken into account any necessary mitigating factors, for scenarios with densities and heights beyond those alternatives listed above, discovered as a result of environmental and other studies by the Proponent.**

The design as proposed in this Draft EIR/PIR is the preferred alternative for the Project. Project-related impacts, such as those related to shadow and wind, are assessed herein, as are proposed mitigation measures to avoid and minimize Project-related impacts.

BPDA 58 **The City has asked for, and the Proponent has submitted, an arresting and potentially iconic tower. Consider its role in contributing to the skyline of the Downtown area - in particular, how does it relate formally to other recently constructed tall buildings? How does it denote its place in the City? How is it evocative of Boston's innovative spirit? Part of the answer will lie in the compilation of skyline views from all directions, most obviously perhaps from the Boston Common, but from many other points as well see an initial suggested list in Urban Design submission requirements.**

Please see Response to Comment BPDA 06.

BPDA 59 **View vignettes from an array of historic resources identified as within a certain view range in that section are suggested as well.**

Please see Attachment L.

BPDA 60 **The relationship of the tower and office podium massing on both sides, but particularly to Winthrop Square, is worth studying further. The tower is emulating certain aspects of nearby art deco towers. A strategy to improve the relationship of its massing to the group of older buildings that frame much of Winthrop Square might trade on that initial concept, so that the scale of the Winthrop Square space is not overwhelmed, but each element, space and tower, work together to create a more coherent dialogue.**

Refer to Section 7.1 for a description of the Project Massing and Design.

BPDA 61 **Work on the shaping of the tower is needed for several different reasons. One for the podium is noted above. Another suggested in the Alternatives Analysis – shifting the residential element more dramatically may provide a narrower profile to both Winthrop Square and parts further east. The overall shaping of the tower might be considered further; it appears very rectilinear in some of the early views, and although the façade might be considered more elegant in its treatment than some, it joins a rather rectilinear larger, and older, family. It is worth considering this tower's relationship to the most recent Millennium Tower, at a similar height and by the same hand. Given the aspirations for this site, the 115 Winthrop Tower should arguably be different – that is, more architecturally distinctive, and we would like to discuss more of an evolution along these general lines.**

Refer to Section 7.1 for a description of the Project Massing and Design.

BPDA 62 **Develop and present more information on the façade and glazing system(s) to be utilized. We encourage and applaud the strong initial consideration of PassivHaus and LEED Platinum goals, and would like to understand more about the façade factors that contribute. As to the pleating strategy that is embedded throughout the façade – can the pleats themselves, those details and materials, lend themselves to: ameliorate shadow impacts, harvest energies, help diminish wind impacts, express or imply the structural system in a subtle way that ties with the more expressive structural system used in the Great Hall, or act as a conceptual design tool to further shape the building?**

The exterior façade details and construction will continue to be evaluated and studied. The Proponent will continue to review the pleating stategy and the overall façade design with the BPDA and the BCDC as the project moves through the process. The Proponent continues to analyze potential options to choose the best construction system feasible. See also Section 6 Sustainable Design and Section 10 Greenhouse Gas Analysis.

BPDA 63 **A portion of the tower that relies less on the pleating treatment is the Federal Street wing, with its Solaria. Provide more information on their role in, and contribution to PassivHaus rating. Are the Solaria functioning as more of an enticement to prospective tenants? Is it possible to include one as an aspect of the 'accelerator' program space? Is it possible to make one a public or quasi-public space or showcase?**

The nature of the solaria has changed. Refer to Section 7.1 for a description of the Project Massing and Design.

BPDA 64 **Although the broader impacts of the building to the Boston Common and Public Garden are under review, further definition is needed for both the design and programming of the Great Hall, as well as the relationship with and the impacts to Winthrop Square. The BPDA strongly supports the creation of a multi-story, publicly accessible space or civic program on the ground level(s) of the 115 Winthrop Tower. There is tremendous opportunity for the Great Hall to function as an important civic - and perhaps cultural - space in downtown Boston, but there are many questions given the Hall's as yet inchoate form. Most of those questions can be answered through programming and design, which the BPDA looks forward to discussing with the proponent during the next phase of the project**

Please see Section 2.2.1 for detailed information about the Great Hall.

BPDA 65 **As currently designed, the Great Hall space resembles a transit hub, but absent any transit connections... Scale comparisons..would be useful as the proponent continues to develop the Great Hall, but mindful that retail uses alone do not achieve the distinction of a great civic amenity. A common element in many of the listed spaces is the clear and convincing relationship to the framing structure to the space it forms. Provide more information on the nature of the structure you are employing to define the Great Hall space.**

Refer to Section 7.1 for a description of the Project Massing and Design and associated site diagrams.

BPDA 66 **Given this preliminary stage, it may be desirable to consider alternate or complementary uses to those being proposed. Information supplied by the proponent suggests a seasonal approach to programming, but no year round "anchor tenant". A seasonal programming approach will require active and ongoing management, and it is unclear who will shoulder the responsibility in perpetuity.**

The Great Hall and its proposed uses are described in Section 2.2.1.

BPDA 67 **In addition, it is unclear how the programming might enhance or detract from similar outdoor activities on the Summer Street mall in Downtown Crossing or on Dewey Square near South Station, activities that are facilitated by the Downtown Crossing Business Improvement District (BID) and the Rose Kennedy Greenway Conservancy, respectively. The Downtown Crossing BID has been transformative in this area...and the Proponent should see them as an early-stage collaborator and active partner as they consider improvements to Winthop Square, as well as with programming strategies for the Great Hall.**

Please see Section 2.2.1 for a discussion of the Great Hall.

BPDA 68 **While the Great Hall offers a publicly-accessible space of 10,000-15,000 sf, finding other spaces higher up in the building that can be made public made be appropriate. The Solaria and other roofdeck areas may be an opportunity to provide a range of different public or quasi-public space.**

Please see Section 2.2.2 for a discussion of Project Open Space.

BPDA 69 **While the through-block connection from Federal Street to Winthrop Square is desirable, and the BPDA generally applauds efforts to encourage pedestrian connectivity downtown, a balance between circulation space and amenities must be sought. Additionally, the**

alignment of the through-block connection should also be further studied to ensure that meaningful physical and visual connections are being made to amenities beyond the project boundary… [see rest of comment]

Refer to Section 7.1 for a description of the Project Massing and Design and associated site diagrams. The program of the Great Hall will continue to be developed in conjunction with the BPDA as the Project progresses.

BPDA 70 **There is an existing and proximate through-connection at 75-101 Federal Street, and it is unclear how the Great Hall relates to that and other nearby pedestrian shortcuts. Some analysis of pedestrian desire lines is warranted given this and other pre-existing shortcuts through buildings. While the retail character may be differentiated quite easily, the challenge remains of balancing circulation space with the potential uses like public speaking or events.**

Refer to Section 7.1 for a description of the Project Massing and Design and associated site diagrams. The program of the Great Hall will continue to be developed in conjunction with the BPDA as the Project progresses.

BPDA 71 **The proponent must articulate a clear identity for Winthrop Square that harmonizes with the Great Hall or other ground floor uses, but can also stand on its own. Is the space predominantly quiet and passive or actively programmed? A flexible one-size-fits-all approach to the open space may not be appropriate given the constrained dimensions of the park. Winthrop Square already operates as an "urban room." The addition of the Tower should not demote scarce open space downtown to overflow space for the Great Hall.**

Refer to Sections 7.1 for a description of the Project Massing and Design and associated site diagrams and Sections 7.3, 2.2.1 and 2.2.2 for descriptions of the Great Hall and Winthrop Square. The program of the Great Hall will continue to be developed in conjunction with the BPDA as the Project progresses.

BPDA 72 **Again, working with the Downtown Crossing BID is important, as Winthrop Square has been the focus of prior planning, including a wayfinding study, within the larger context of the BID boundary. The preliminary ideas for Winthrop Square did not include the redevelopment of the garage, so it is appropriate to revisit the initial recommendations and strategies that emerged from the report.**

Regardless, the threshold – both actual and perceived – between the square and the tower must be considered and well-designed… The current Great Hall entrance on the Winthrop Square side is diminutive relative to the scale of the office podium, but large in respect to space of the square. Calibrating the entrance size and its impacts on Winthrop Square is important for the successful redesign of the square. Currently, the entrance height on the Federal Street elevation appears more to scale than on the Winthrop Square side. Further exploration of the Federal Street entry is also warranted. Are there design strategies that allow for increased visibility to the park from Federal Street or cues to the park space beyond?

Refer to Section 7.1 for a description of the Project Massing and Design and associated site diagrams.

BPDA 73 **The landscape design of Winthrop Square should include significant shade trees and function as a complementary open space within a larger open space network downtown. The landscape mounds are understood to function as a tree reservation strategy within a curbless roadway condition. The design of the roadway and landscape is still very preliminary, but the BPDA supports exploring novel strategies for balancing roadway and curbside uses with landscape design.**

Please see Sections 2.2.2 and 7.3 for descriptions of Winthrop Square.

BPDA 74 **Providing sections through the Great Hall and Winthrop Square is a necessary starting point for exploring the interrelationship and scale between these two spaces. The initial strategy appears to be a continuous spatial treatment, but the scales of the two ending "frames" could not be more different. Consider a more graduated or episodic approach, which could include a variation on the structural composition, and consider too the very different nature of the Federal Street and Winthrop Square/Devonshire Street beginning/end points.**

Refer to Section 7.1 for a description of the Project Massing and Design and associated sections and elevations.

BPDA 75 **As articulated in the RFP, the City (BPDA/BTD), strongly prefer that all parking and loading access utilize the existing Federal Court/Milton Place private ways. If additional access points are needed we prefer that they be located off of Federal Street, and on the northern edge of the site (opposite Federal Court) to preserve and maximize the proposed Great Hall dimension.**

The Proponent has completed extensive studies with regards to parking and loading. Please see Section 4.0. Milton Place is a private way that the Proponent has no legal rights to and Federal Court does not have the width required for required access.

BPDA 76 **The current site plan creates two impactful curb cuts on Devonshire that should be reconsidered. To this end, we appreciate the premise that the below-grade parking could later be converted to different uses. Considering the higher ceiling heights this will require, we request that the proponent make every effort to relocate all of its loading activities to within the parking garage layout.**

The Proponent has completed extensive studies with regards to parking and loading, and these are included in the transportation analysis provided as Section 4.0.

BPDA 77 **The parking entries or entry courts themselves must be thoughtfully considered so as to avoid any vehicular interference with pedestrians. Any new vehicular access points should ramp up from the street to allow sidewalks to cross at the same grade. The parking and loading design should be forward-thinking, allowing different modes of transportation arrival for drop-off and pickup, including Bridj, Uber, etc. Any parking access should be subservient to the pedestrian flow volumes coming through the Great Hall.**

The Proponent has completed extensive studies with regards to access and vehicle/pedestrian conflict in order to respect the important function of the Great Hall. The Proponent looks forward to working with the BPDA and BTD to refine the site and public realm plan.

BPDA 78 **The currently proposed range of parking spaces is on the high side for such a transit rich location. As the program becomes more refined we expect to work with the proponent to reduce and refine these ratios for specific uses as well as find opportunities to share parking spaces and creatively and efficiently manage supply and demand through progressive pricing approaches.**

Please see Section 4.8 for a comprehensive analysis of parking demand and supply, including a discussion of the minimization of parking supply to reflect the transit-oriented location of the site.

BPDA 79 **We expect the project to fully articulate its impacts on all modes of the transportation system. Appropriate modal network improvements will be required to mitigate the project's impacts, particularly on the transit system.**

A comprehensive analysis of all transportation modes, including transit, and mitigation to address potential impacts, is presented in Section 4.0.

BPDA 80 **See Katie Pedersen's January 5, 2017 Scoping Memo regarding Shadow, which asks for the standard shadow analysis in both graphic and animation form. These should clearly delineate new shadows cast by use of a strongly differentiated graphic technique, such as color.**

The shadow analysis provided in Section 5.2 is accompanied by graphics illustrating potential Project-related shadow as well as a link to the shadow animation.

BPDA 81 **The Proponent has developed considerable information on shadow impacts, much of it displayed in public meetings, with particular emphasis on the impacts relative to the two legislative covenants that govern shadow impacts on the Boston Common and on the Public Garden. This information should be organized, refined, and presented in the DPIR. In addition, please develop more information regarding point durations on these two open spaces.**

A thorough shadow analysis is provided in Section 5.2; potential Project-related shadow impacts to Boston Common and the Public Garden are specifically addressed in Section 5.2.

BPDA 82 **Some of the concern expressed over the additional shadow on the Boston Common may come from a general concern about the health of the aging tree community on the Common… Some study regarding this potential impact and suggestions regarding the protection, preservation, and maintenance of the Common's elder statesmen is requested.**

Please see Attachment P concerning potential Project-related shadow impacts on the health of trees on Boston Common and the Public Garden.

BPDA 83 **We suggest, where animation studies indicate some new shadow coverage times on sensitive areas, that specific timeframes/durations be identified, with a clear presentation methodology to be agreed upon with BPDA staff. This request would only apply to larger open space areas such as the Greenway and Post Office Square Park.**

Section 5.2 includes a link to the shadow animation showing shadows on Boston Common and the Public Garden.

BPDA 84 **Written description of program elements and space allocation (in square feet) for each element, as well as Project totals.**

The Project program is defined in Section 2.2.

BPDA 85 **Neighborhood plan, elevations, and sections at an appropriate scale (1"=100' or larger as determined by the BPDA) showing relationships of the proposed project to the neighborhood context:**

- **Massing;**
- **Building height;**
- **Scaling elements;**
- **Open Space;**
- **Major topographic features;**
- **Pedestrian and vehicular circulation; and**
- **Land use**

See diagrams in Sections 2.0 and 7.0.

BPDA 86 **Color, or black and white 8"x10" photographs of the site and neighborhood.**

Photos of the site are included in Figures 2-1 and 2-2.

BPDA 87 **Sketches and diagrams to clarify design issues and massing options.**

See diagrams in Sections 2.0 and 7.0.

BPDA 88 **Eye-level perspective (reproducible line or other approved drawings) showing the proposal (including entries and public areas) in the context of the surrounding area. Views should display a particular emphasis on important viewing areas such as key intersections, pathways, or public parks/attractions. A few of such viewpoints have already been used in presentations to the public. Long-ranged (distanced) views of the proposed project must also be studied to assess the impact on the skyline or other view lines. At least one bird's-eye perspective should also be included. All perspectives should show (in separate comparative sketches) at least both the build and no-build conditions; any alternatives**

proposed should be compared as well. The BPDA should approve the view locations before analysis is begun. We suggest at least the following viewpoints: up and down Devonshire, Federal, and Franklin Streets; Post Office Square; the Greenway (Dewey Square at a minimum); the Public Garden and Boston Common; the Charles River viewshed (Mass Ave Bridge or Memorial Drive); the North End; Government Center; from the south entering the city; from the Harbor; and, from the Back Bay and South End neighborhoods. View studies should be cognizant of light and shadow, massing and bulk.

See Attachment J for skyline views.

BPDA 89 **Site sections at 1"=20' or larger (or other scale approved by the BPDA) showing relationships to adjacent buildings and spaces.**

The above graphics will be provided to the BPDA through the design review process.

BPDA 90 **Site plan(s) at an appropriate scale (1"=20' or larger, or as approved by the BPDA) showing:**

a) General relationships of proposed and existing adjacent buildings and open spaces

b) Open spaces defined by buildings on adjacent parcels and across streets

c) General location of pedestrian ways, driveways, parking, service areas, streets, and major landscape features

d) Pedestrian, handicapped, vehicular and service access and flow through the parcel and to adjacent areas

e) Survey information, such as existing elevations, benchmarks, and utilities

f) Phasing possibilities

g) Construction limits

The above graphics to the extent not provided herein will be provided to the BPDA through the design review process.

BPDA 91 **Massing model (usually in basswood) at 1": 40'0" for use in the Agency's Downtown Model.**

A massing model will be provided to the BPDA.

BPDA 92 **Study model(s) at 1"=16' or 1"=20' showing preliminary concept of setbacks, cornice lines, fenestration, façade composition, etc. are recommended.**

Study models will be provided to the BPDA.

BPDA 93 **Drawings at an appropriate scale (e.g., 1":60'0", or as determined by BPDA) describing architectural massing, façade design and proposed materials including:**

a) Building and site improvement plans

b) Neighborhood elevations, sections, and/or plans showing the

c) Development in the context of the surrounding area

d) Sections showing organization of functions and spaces, and relationships to adjacent spaces and structures

e) Preliminary building plans showing ground floor and typical upper floor(s)

f) Phasing, if any, of the Proposed Project

The above graphics if not provided herein will be provided to the BPDA through the design review process.

BPDA 94 **A written and/or graphic description of the building materials and its texture, color, and general fenestration patterns is required for the proposed development.**

Refer to Section 7.2.

BPDA 95 **Electronic files describing the site and Proposed Project.**

Electronic files will be provided to the BODA through the design review process.

BPDA 96 **Full responses, which may be in the formats listed above (and more), to any urban design-related issues raised in preliminary reviews or specifically included in the BPDA scoping determination, preliminary**

adequacy determination, or other document requesting additional information leading up to BPDA Board action, inclusive of material required for Boston Civic Design Commission review.

Full responses will be provided through the design review process.

BPDA 97 **Proposed schedule for submission of all design or development-related materials.**

Design review will continue with the BPDA throughout the months of January and February.

BPDA 98 **Diagrammatic sections through the neighborhood (to the extent not covered… above) cutting north-south and east-west at the scale and distance indicated above.**

Additional diagrammatic sections will be provided to the BPDA through the design review process.

BPDA 99 **True-scale three-dimensional graphic representations of the area indicated above either as aerial perspective or isometric views showing all buildings, streets, parks and natural features.**

The Proponent will continue to provide additional graphics and 3D renderings as part of the ongoing design review with the BPDA.

BPDA 100 **A daylight analysis for both build and no-build conditions shall be conducted by measuring the percentage of skydome that is obstructed by the Proposed Project building(s) and evaluating the net change in obstruction. If alternative massing studies are requested (which see above) or result as part of the Article 80 development review process, daylight analysis of such alternatives shall also be conducted for comparisons, the "as-of-right" massing, and context examples. The areas of interest include Federal and Devonshire Streets, and Winthrop Square itself. Daylight analyses should be taken from each major building façade fronting these public ways/spaces. The midpoint of each public roadway, and a reasonably centered point in the Winthrop Square space, should be taken as study points. The BRADA program must be used for this analysis.**

Section 5.3 includes a detailed daylight analysis based on the BRADA program and includes Existing Conditions, Proposed Conditions, an As-of-right Alternative and the context area.

BPDA 101 **The applicant's submission must include an evaluation of the Proposed Project's impact on the capacity and adequacy of existing water, sewerage, energy (including gas and steam), and electrical communications (including telephone, fire alarm, computer, cable, etc.) utility systems, and the need reasonably attributable to the proposed project for additional systems facilities.**

Section 9.0 addresses the Project's anticipated energy needs as well as existing and proposed infrastructure for water, sewer, and stormwater.

BPDA 102 **Any system upgrading or connection requiring a significant public or utility investment, creating a significant disruption in vehicular or pedestrian circulation, or affecting any public or neighborhood park or streetscape improvements, comprises an impact which must be mitigated. The DPIR must describe anticipated impacts in this regard, including specific mitigation measures, and must include nearby Proposed Project build-out figures in the analysis.**

The infrastructure discussion provided in Section 9.0 describes utility system upgrades.

BPDA 103 **Estimated water consumption and sewage generation from the Proposed Project and the basis for each estimate. Include separate calculations for air conditioning system make-up water.**

Estimated water consumption and sewage generation from the proposed Project are discussed in Section 9.0.

The estimated make-up water required for the HVAC system is approximately 147 gpm.

BPDA 104 **Description of the capacity and adequacy of water and sewer systems and an evaluation of the impacts of the Proposed Project on those systems; sewer and storm drain systems should include a tributary flow analysis as part of this description.**

A description of the existing water and sewer systems and the impacts of the proposed Project can be found in Section 9.0.

BPDA 105 **Identification of measures to conserve resources, including any provisions for recycling or 'green' strategies, including green roofs.**

Sustainable design measures and the Project's adaptability and resiliency to climate change are discussed in Section 6.0 (Sustainable Design and Climate Change) and Section 10 (Greenhouse Gas Analysis).

BPDA 106 Description of the Proposed Project's impacts on the water quality of Boston Harbor or other water bodies that could be affected by the Project, if applicable.

Proposed stormwater management is described in Section 9.3.2, and compliance with compliance with MassDEP Stormwater Management Standards is demonstrated in Section 9.3.3.

BPDA 107 Description of mitigation measures to reduce or eliminate impacts on water quality.

Proposed stormwater management is described in Section 9.3.2, and compliance with compliance with MassDEP Stormwater Management Standards is demonstrated in Section 9.3.3.

BPDA 108 Description of impact of on-site storm drainage on water quality.

Proposed stormwater management is described in Section 9.3.2, and compliance with compliance with MassDEP Stormwater Management Standards is demonstrated in Section 9.3.3.

BPDA 109 Information on how the Proposed Project will conform to requirements of the Ground Water Trust under Article 32, if applicable, by providing additional recharge opportunities.

As described in Section 5.8.8, the Project site is not located within the Groundwater Conservation Overlay District (GCOD) as established by Article 32 of the City of Boston Zoning Code. Although the provisions of Article 32 do not apply to the Project site, the BWSC-mandated stormwater recharge from the Project will meet the Article 32 requirements or be recycled. Proposed stormwater management is described in Section 9.3.2.

BPDA 110 Detail methods of protection proposed for infrastructure conduits and other artifacts, including the MBTA tunnels and station structures, and BSWC sewer lines and water mains, during construction.

Utility protection during construction is discussed in Section 5.10.12.

BPDA 111 Detail the energy source of the interior space heating; how obtained, and, if applicable, plans for reuse of condensate.

Energy source for HVAC system is natural gas fired condensing boilers. Condensate is treated and discharged to sanitary drains.

BPDA 112 **Thorough consultation with the planners and engineers or the utilities will be required, and should be referenced in the Infrastructure Component section.**

Coordination with BWSC as well as Eversource and National Grid is described in Section 9.0.

BPDA 113 **Description of energy requirements of the project and evaluation of project impacts on resources and supply.**

The Project's energy needs are described in Section 9.4.

BPDA 114 **Description of measures to conserve energy usage and consideration of the feasibility of including solar energy provisions or other on-site energy provisions including wind, geothermal, and cogeneration.**

Sustainable design measures are described in Section 6.0, and measures specifically pertaining to energy and GHG emissions are discussed in the GHG analysis in Section 10.0.

BPDA 115 **The location of transformer and other vaults required for electrical distribution or ventilation must be chosen to minimize disruption to pedestrian paths and public improvements both when operating normally and when being serviced, and must be described.**

Utility transformers are located in the B-1 parking levels. Ventilation shall be by louvers located above the mezzanine level a minimum 10 feet above grade.

BPDA 116 **If necessary, storm drain and sewage systems should be separated or separations provided for in the design of connections.**

Separate sewer and storm services will be provided from the Project site. The proposed Project will contribute to the BWSC inflow and infiltration program based on final proposed sewer flows.

BPDA 117 **The Proponent should investigate energy strategies that take advantage of this scale of construction, including those that incorporate green roof strategies as well as solar orientation and materials/systems that maximize efficiencies, daylighting strategies, wind, solar, and geothermal systems, and cogeneration. Given the PassivHaus and LEED standards sought, we expect robust information regarding any infrastructure-related aspects of those rating systems.**

Sustainable design measures are described in Section 6.0, and measures specifically pertaining to energy and GHG emissions are discussed in the GHG analysis in Section 10.0.

BPDA 118 Development Impact Project Component – ...the Proposed Project will be subject to and be required to enter into a Development Impact Project agreement.

The Proponent will enter into a DIP Agreement.

BPDA 119 Public Notice – The proponent will be responsible for preparing and publishing in one newspaper of general circulation in the City a Public notice of the submission of the DPIR to the BPDA....within five days after the receipt of the DPIR by the BPDA.

A notice will be placed in the Boston Herald when the Draft EIR/PIR is filed.

BPDA 120 Inclusionary Development Policy The Proponent intends to meet its affordable housing obligation by collaborating with the Asian Community Development Corporation to create affordable housing in the Chinatown neighborhood. The DPIR should include units counts and income limits in accordance with or exceeding IDP.

See Sections 1.1 and 2.2.3.

BPDA 121 Accessibility Checklist

The Accessibility Checklist is included in Attachment K.

13.2.1 Comments from BPDA Staff, Public Agencies/Departments, and Elected Officials

BILL LINEHAN
BOSTON CITY COUNCILOR
DISTRICT 2

December 13, 2016

Brian P. Golden
Boston Planning & Development Agency
One City Hall Square
Boston, MA 02201

RE: Art Resource Collaborative for Kids (ARCK), Boston, Massachusetts

Dear Mr. Golden,

I am writing in support for the Art Resource Collaborative for Kids (ARCK) to have the opportunity to receive a 115 Winthrop Square Development space totaling in 2000+ square feet. ARCK is a non-profit corporation currently located in a small office on Bromfield Street. The additional space will provide an opportunity for artists, local professionals, and underserved students to collaborate on creative projects to realize and utilize their potential. BL 01

ARCK is interested in expanding the program into a makerspace and innovative center in Downtown, Boston to grow with more Boston Public Schools; currently serves more than 1,000 Boston Public School students. The organization utilizes art as a vehicle to reach students' greatest potential, integrating creative learning with each partnering school's academic goals. ARCK hopes to move into Downtown so they can have a larger space to offer underserved and underperforming high school students the guidance they need before graduating. This space given to ARCK would be an investment to our city to help break down economic barriers and empower youth.

I support ARCK on getting a 115 Winthrop Square Development space donated and ask that you give this request your fullest consideration.

Sincerely,

Bill Linehan

Bill Linehan
District 2 City Councilor

BOSTON CITY HALL, ONE CITY HALL SQUARE, BOSTON, MASSACHUSETTS, 02201
617-635-3203 FAX: 617-635-4203 William.Linehan@cityofboston.gov

PRINTED ON RECYCLED PAPER

BILL LINEHAN

BL 01 **I am writing in support for the Art Resource Collaborative for Kids (ARCK) to have the opportunity to receive a 115 Winthrop Square Development space totaling in 2000+ square feet. ARCK is a non-profit corporation currently located in a small office on Bromfield Street. The additional space will provide an opportunity for artist, local professionals, and undeserved students to collaborate on creative projects to realize and utilize their potential.**

As the retail needs of the Project and other ground floor and podium program spaces are detailed, this request will be evaluated.

JOSH ZAKIM
BOSTON CITY COUNCILOR
DISTRICT 8

January 19, 2017

Casey Hines, Senior Project Manager
Boston Planning and Development Agency
One City Hall Square
Boston, MA 02201

Dear Ms. Hines:

I am writing today to express some of my concerns with Millennium Partners' current proposal for the 115 Winthrop Square site. As the proposal currently stands, Millennium's tower could reach up to 750 feet high - at this height the tower would cast significant new shadows on the Boston Common and Public Garden in violation of state law. Studies by Millennium Partners indicate that a building of this size would extend new shadows across the Common and Public Garden, and could even reach the Commonwealth Avenue Mall. These new shadows would negatively impact our precious parks and greenspace for generations. While there are many creative solutions available to combat issues such as droughts or insect infestations, there is no viable substitute for the natural sunlight that this building would block in these public parks. Therefore I must again request that Millennium provide, in addition to its current all-or-nothing proposal, a plan for a building with a more appropriate height that would not require changes to the state shadow laws. Such a plan would allow for critical development to take place without sacrificing the welfare of some of our city's most beloved parks. JZ 01 JZ 02

I hope that you and your colleagues take the issues I have outlined into consideration, and I urge you to work with Millennium Partners to explore alternative, smaller-scale options for the 115 Winthrop Square development project. Please do not hesitate to contact me at 617-635-4225 or josh.zakim@boston.gov with any questions.

Sincerely,

Josh Zakim

Boston City Hall - One City Hall Square - Boston, MA 02201
josh.zakim@boston.gov

JOSH ZAKIM

JZ 01 **I am writing today to express some of my concerns with Millennium Partners' current proposal for the 115 Winthrop Square site. As the proposal currently stands, Millennium's tower could reach up to 750 feet high – at this height the tower would cast significant new shadows on the Boston Common and Public Garden in violation of state law.**

The height of the proposed Tower has been reduced to 664 feet (as defined by zoning). A comprehensive shadow analysis is provided in Section 5.2.

JZ 02 **While there are many creative solutions available to combat issues such as droughts or insect infestations, there is no viable substitute for the natural sunlight that this building would block in these public parks. Therefore, I must again request that Millennium provide, in addition to its current all-or-nothing proposal, a plan for a building with a more appropriate height that would not require changes to the state shadow laws.**

The comprehensive shadow analysis in Section 5.2 includes a discussion of shadow on Boston Common and the Public Garden. Please also see Attachment P for additional information regarding impact on the health of trees in Boston Common and the Public Garden.

Boston Water and Sewer Commission

980 Harrison Avenue
Boston, MA 02119-2540
[redacted]

December 12, 2015

Secretary Matthew Beaton
Executive Office of Energy and Environmental Affairs (EEA)
Attn: MEPA Office
Page Czepiga, EEA 15610
100 Cambridge Street, Suite 900
Boston, MA 02114

and

Christopher Tracy
Senior Project Manager
Boston Planning and Development Agency
Boston City Hall
One City Hall Square
Boston, MA 02201

Re: 115 Winthrop Square / 115 Federal Street, Boston
Environmental Notification Form
Project Notification Form

Dear Secretary Beaton and Mr. Tracy:

The Boston Water and Sewer Commission (Commission) has reviewed the Environmental Notification Form (ENF) and the Project Notification Form (PNF) for the 115 Winthrop Square / 115 Federal Street project. This letter provides the Commission's comments on the ENF / PNF.

The proposed project is located at 115 Winthrop Square / 115 Federal Street in downtown Boston. The site is approximately 47,962 square feet and bounded by 75-101 Federal Street to the north, 100 Summer Street to the south, Devonshire Street to the west, and Federal Street to the east.

The project consists of demolition of an existing four-story vacant parking garage and construction of a new approximately 1.1 to 1.5 million square foot, mixed-use tower containing residential, office, retail, restaurant, parking and commercial space. The building will be approximately 775 feet tall and there will be approximately 400 to 550 parking spaces in a below-grade parking garage.

For water service, the site is served by a 12-inch low service and a 10-inch high service main on Federal Street, a six-inch low service main on Federal Court and a 12-inch low service and a 10-inch high service main on Devonshire Street. The Commission also maintains a 12-inch high pressure fire service pipe in Federal Street and Devonshire Street.

For sewer and storm drainage service, the site is served by a 24x36-inch combined sewer on Federal Street and a 16x24-inch combined sewer on Devonshire Street.

The ENF / PNF states that the proposed project will use approximately 213,428 gallons per day (gpd) of water and generate approximately 194,025 gpd of wastewater.

The Commission has the following comments regarding the ENF / PNF.

General

1. Prior to demolition of the buildings, all water, sewer and storm drain connections to the buildings must be cut and capped at the main pipe in accordance with the Commission's requirements. The Developers, MCAF Winthrop, LLC must then complete a Termination Verification Approval Form for a Demolition Permit, available from the Commission and submit the completed form to the City of Boston's Inspectional Services Department before a demolition permit will be issued.

2. All new or relocated water mains, sewers and storm drains must be designed and constructed at MCAF Winthrop, LLC's. They must be designed and constructed in conformance with the Commission's design standards, Water Distribution System and Sewer Use Regulations, and Requirements for Site Plans. The site plan should include the locations of new, relocated and existing water mains, sewers and drains which serve the site, proposed service connections, as well as back flow prevention devices in the facilities that will require inspection.

3. As mentioned in the ENF / PNF, the Department of Environmental Protection (DEP), in cooperation with the Massachusetts Water Resources Authority and its member communities, are implementing a coordinated approach to flow control in the MWRA regional wastewater system, particularly the removal of extraneous clean water (e.g., infiltration/ inflow (I/I)) in the system. In April of 2014, the Massachusetts DEP promulgated new regulations regarding wastewater. The Commission has a National Pollutant Discharge Elimination System (NPDES) Permit for its combined sewer overflows and is subject to these new regulations [314 CMR 12.00, section 12.04(2)(d)]. This section requires all new sewer connections with design flows exceeding 15,000 gpd to mitigate the impacts of the development by removing four gallons of infiltration and inflow (I/I) for each new gallon of wastewater flow. In this regard, any new connection or expansion of an existing connection that exceeds 15,000 gallons per day of wastewater

shall assist in the I/I reduction effort to ensure that the additional wastewater flows are offset by the removal of I/I. Currently, a minimum ratio of 4:1 for I/I removal to new wastewater flow added. The Commission supports the policy, and will require proponent to develop a consistent inflow reduction plan. The 4:1 requirement should be addressed at least 90 days prior to activation of water service and will be based on the estimated sewage generation provided on the project site plan.

4. The design of the project should comply with the City of Boston's Complete Streets Initiative, which requires incorporation of "green infrastructure" into street designs. Green infrastructure includes greenscapes, such as trees, shrubs, grasses and other landscape plantings, as well as rain gardens and vegetative swales, infiltration basins, and paving materials and permeable surfaces. The proponent must develop a maintenance plan for the proposed green infrastructure. For more information on the Complete Streets Initiative see the City's website at http://bostoncompletestreets.org/

5. MCAF Winthrop, LLC should be aware that the US Environmental Protection Agency issued a draft Remediation General Permit (RGP) for Groundwater Remediation, Contaminated Construction Dewatering, and Miscellaneous Surface Water Discharges. If groundwater contaminated with petroleum products, for example, is encountered, MCAF Winthrop, LLC will be required to apply for a RGP to cover these discharges.

6. It is MCAF Winthrop, LLC's responsibility to evaluate the capacity of the water, sewer and storm drain systems serving the project site to determine if the systems are adequate to meet future project demands. With the site plan, MCAF Winthrop, LLC must include a detailed capacity analysis for the water, sewer and storm drain systems serving the project site, as well as an analysis of the impacts the proposed project will have on the Commission's water, sewer and storm drainage systems.

Water

1. MCAF Winthrop, LLC must provide separate estimates of peak and continuous maximum water demand for residential, commercial, industrial, irrigation of landscaped areas, and air-conditioning make-up water for the project with the site plan. Estimates should be based on full-site build-out of the proposed project. MCAF Winthrop, LLC should also provide the methodology used to estimate water demand for the proposed project.

2. As stated in the ENF/PNF, MCAF Winthrop, LLC will explore opportunities for implementing water conservation measures in addition to those required by the State Plumbing Code. In particular, MCAF Winthrop, LLC should consider outdoor landscaping which requires minimal use of water to maintain. If MCAF Winthrop, LLC plans to install in-ground sprinkler systems, the Commission recommends that timers,

soil moisture indicators and rainfall sensors be installed. The use of sensor-operated faucets and toilets in common areas of buildings should be considered.

3. MCAF Winthrop, LLC is required to obtain a Hydrant Permit for use of any hydrant during the construction phase of this project. The water used from the hydrant must be metered. MCAF Winthrop, LLC should contact the Commission's Meter Department for information on and to obtain a Hydrant Permit.

4. The Commission is utilizing a Fixed Radio Meter Reading System to obtain water meter readings. For new water meters, the Commission will provide a Meter Transmitter Unit (MTU) and connect the device to the meter. For information regarding the installation of MTUs, MCAF Winthrop, LLCs should contact the Commission's Meter Department.

Sewage / Drainage

1. In conjunction with the Site Plan, MCAF Winthrop, LLC will be required to submit a Stormwater Pollution Prevention Plan. The plan must:

   - Identify specific best management measures for controlling erosion and preventing the discharge of sediment, contaminated stormwater or construction debris to the Commission's drainage system when construction is underway.

   - Include a site map which shows, at a minimum, existing drainage patterns and areas used for storage or treatment of contaminated soils, groundwater or stormwater, and the location of major control structures or treatment structures to be utilized during the construction.

   - Specifically identify how the project will comply with the Department of Environmental Protection's Performance Standards for Stormwater Management both during construction and after construction is complete.

2. The discharge of dewatering drainage to a sanitary sewer is prohibited by the Commission. MCAF Winthrop, LLC is advised that the discharge of any dewatering drainage requires a Drainage Discharge Permit from the Commission. If the dewatering drainage is contaminated with petroleum products, the proponent will be required to obtain a Remediation General Permit from the Environmental Protection Agency (EPA) for the discharge.

3. MCAF Winthrop, LLC must fully investigate methods for retaining stormwater on-site before the Commission will consider a request to discharge stormwater to the Commission's system. The site plan should indicate how storm drainage from roof drains will be handled and the feasibility of retaining their stormwater discharge on-site. Under no circumstances will stormwater be allowed to discharge to a sanitary sewer.

4. Sanitary sewage must be kept separate from stormwater and separate sanitary sewer and storm drain service connections must be provided. The Commission requires separate stormwater and sanitary sewer service connections.

5. The Commission requests that MCAF Winthrop, LLC install a permanent casting stating "Don't Dump: Drains to Boston Harbor" next to any catch basin created or modified as part of this project. MCAF Winthrop, LLC should contact the Commission's Operations Division for information regarding the purchase of the castings.

6. If a cafeteria or food service facility is built as part of this project, grease traps will be required in accordance with the Commission's Sewer Use Regulations. MCAF Winthrop, LLC is advised to consult with the Commission's Operations Department with regards to grease traps.

7. The enclosed floors of a parking garage must drain through oil separators into the sewer system in accordance with the Commission's Sewer Use Regulations. The Commission's Requirements for Site Plans, available by contacting the Engineering Services Department, include requirements for separators.

Thank you for the opportunity to comment on this project.

Yours truly,

John P. Sullivan, P.E.
Chief Engineer

JPS/cj

c: J. Larkin, MCAF Winthrop, LLC
K. MacNeill, MCAF Winthrop, LLC
C. Schlessinger, Epsilon Associates, Inc.
K. Pedersen, BRA
M. Zlody, BED
P. Larocque, BWSC

BOSTON WATER AND SEWER COMMISSION

Please see MEPA comment letter (see Table 13-1).

Boston Planning and Development Agency Memorandum

TO: Casey Hines

FROM: Katie Pedersen

DATE: January 5, 2017

RE: 115 Winthrop Square
Boston, Massachusetts
Project Notification Form

I have reviewed the Project Notification Form (the "PNF") dated November 8, 2016 and submit the following comments for the Environmental Protection component. MCAF Winthrop LLC c/o Millennium Partners (the "Proponent") proposes the redevelopment of 240 Devonshire Street, which includes the demolition of the existing vacant parking garage and the construction of an approximately 1.1 to 1.5 million square foot mixed-use tower containing residential, office, retail, commercial, restaurant and 550 parking spaces (the "Proposed Project").

Wind

A quantitative (wind tunnel) analysis of the potential pedestrian level wind impact shall be required, as the proposed building is designed to be 775 feet in height. The analysis shall determine potential pedestrian level winds adjacent to and in the vicinity of the Proposed Project and shall identify wind velocities that are expected to exceed acceptable levels, including the Boston Planning and Development Agency's (the "BPDA") guideline of an effective gust velocity of 31 miles per hour (mph) not to be exceeded more than 1% of the time. KP 01

Particular attention shall be given to public and other areas of pedestrian use, including, but not limited to, entrances to the Proposed Project and existing and proposed buildings in the vicinity of the Proposed Project, the existing and proposed sidewalks and walkways within and adjacent to the Proposed Project and existing and proposed plazas, park areas and other open space areas within and in the vicinity of the Proposed Project, including but not limited to, the Boston Common, the Boston Public Garden, the Post Office Square Park and the Rose Kennedy Greenway. KP 02

The wind impact analysis shall evaluate the following conditions: KP 03

1. No-Build - the existing condition of the Proposed Project site and environs to establish the baseline condition.

2. Build Condition – the Proposed Project as described in the PNF

3. As-of-Right – the Zoning Compliant Configuration

4. Alternative Build Condition – any alternative development concepts to the Preferred Build Condition required to be studied

Wind speeds shall be measured in miles per hour (mph) and for areas where wind speeds are projected to be dangerous or to exceed acceptable levels, measures to reduce wind speeds and to mitigate potential adverse impact(s) shall be identified and, if appropriate, tested. KP 04

Shadow

The Proponent shall be required to conduct a shadow analysis for the existing (no-build) and build conditions for the hours of 9:00 a.m., 12:00 noon, and 3:00 p.m. for the vernal equinox, summer solstice, autumnal equinox, and winter solstice and for 6:00 p.m. in the summer and fall. KP 05

The shadow impact analysis shall examine the existing shadows and the incremental effects of the Proposed Project on existing and proposed public open spaces, including but not limited to Boston Common, the Boston Public Garden, the Post Office Square Park and Rose Kennedy Greenway, as well as sidewalks and pedestrian walkways adjacent to and in the vicinity of the Proposed Project site. KP 06

The shadow impact analysis shall evaluate the following conditions: KP 07

1. No-Build - the existing condition of the Proposed Project site and environs to establish the baseline condition.

2. Build Condition – the Proposed Project as described in the PNF.

3. As-of-Right – the Zoning Compliant Configuration.

4. Alternative Build Condition – any alternative development concepts to the Preferred Build Condition required to be studied.

The shadow analysis results shall be provided in both animation and graphic representations, so as to best understand the extent to which shadows from the Proposed Project are anticipated to affect the overall shadow conditions within the surrounding area. KP 08

Solar Glare

The Proponent shall be required to conduct a solar glare analysis. The analysis shall measure potential reflective glare from the Proposed Project onto potentially affected streets and public open spaces including but not limited to Boston Common, the Boston Public Garden, Post Office Square and the Rose Kennedy Greenway as well as the sidewalk areas in order to determine the likelihood of visual impairment or discomfort KP 09

due to reflective spot glare. Mitigation measures to eliminate any adverse reflective glare shall be identified.

The shadow impact analysis shall evaluate the following conditions:

1. No-Build - the existing condition of the Proposed Project site and environs to establish the baseline condition

2. Build Condition – the Proposed Project as described in the PNF

3. As-of-Right – the Zoning Compliant Configuration

4. Alternative Build Condition – any alternative development concepts to the Preferred Build Condition required to be studied

Daylight KP 10

(Please refer to Urban Design's comments)

Air Quality

The Proponent shall be required to perform a microscale analysis, which shall predict localized carbon monoxide concentrations, including identification of any locations projected to exceed the National and/or Massachusetts Ambient Air Quality Standards. The analysis is required for projects for which: KP 11

1) Project traffic would impact intersections or roadway links currently operating at Level of Service ("LOS") D, E, or F or would cause LOS to decline to D, E, or F;

2) Project traffic would increase traffic volumes on nearby roadways by 10% or more (unless the increase in traffic volume is less than 100 vehicles per hour); or,

3) The project will generate 3,000 or more new average daily trips on roadways providing access to a single location.

Emissions from the Proposed Project parking garage and from the Proposed Project's heating and mechanical systems shall be estimated. In addition, carbon monoxide monitors shall be installed in the parking garage and a description of the proposed ventilation system shall be provided. Building/garage air intake and exhaust systems and specifications and an analysis of the impact of exhausts on pedestrians and any sensitive receptors shall be identified and. Finally, if deemed necessary, mitigation measures to minimize or avoid any violation of state or federal ambient air quality standards shall be included and a description provided. KP 12

Noise

Noise impacts from the Proposed Project shall be analyzed, including rooftop mechanical equipment and other noise sources (e.g., emergency generators), demonstrating compliance with the City of Boston noise regulations and applicable state and federal regulations and guidelines. Due to the close proximity to residential buildings, the Proponent shall be required to evaluate and demonstrate compliance with the Interior Design Noise Level (not to exceed day night average sound level of 45 decibels) established by the U.S. Department of Housing and Urban Development (Subpart B Noise Abatement and Control of 24 CFR Part 51). If deemed necessary, mitigation measures designed to reduce excessive noise levels to acceptable limits shall be included and a description provided. KP 13

Sustainable Design/Green Buildings

Article 37 to the Boston Zoning Code requires any proposed project which is subject to or shall elect to comply with Section 80B of Zoning Code of the City of Boston, Large Project Review, shall be subject to the requirements of Article 37. Proposed Projects shall be "certifiable" under the most appropriate United States Green Building Counsel (USGBC) Leadership in Energy and Environmental Design (LEED) Rating System. The purpose of Article 37 is to ensure that major building projects are planned, designed, constructed, and managed to minimize adverse environmental impacts; to conserve natural resources; to promote sustainable development; and to enhance the quality of life in the City of Boston.

The PNF indicates that the Proposed Project will use the LEED 2009 Core and Shell Rating System for the office portion and shows the intent to achieve LEED Platinum with 84 points and will use LEED 2009 for New Construction and Major Renovations for the residential portion of the Proposed Project and shows the intent to achieve LEED Platinum with 81 points.

Prior to the Inspectional Services Department's (ISD) issuance of a building permit, all proposed projects must demonstrate compliance with Article 37 and have obtained approval of the requisite submissions from the Interagency Green Building Committee (IGBC). In order to demonstrate compliance, the IGBC requires the submission of a Draft Green Building Report (Draft Report), Energy Model and Design Affidavit. The Draft Report shall provide a comprehensive narrative describing the proposed strategies and paths that will be used to meet all LEED prerequisites and achieve the selected credits. KP 14 KP 15

KATIE PEDERSEN

KP 01 **A quantitative (wind tunnel) analysis of the potential pedestrian level wind impact shall be required, as the proposed building is designed to be 775 feet in height. The analysis shall determine potential pedestrian level winds adjacent to and in the vicinity of the Proposed Project site and shall identify wind velocities that are expected to exceed acceptable levels, including the BPDA's guideline of an effective gust velocity of 31 miles per hour (mph) not to be exceeded more than 1% of the time.**

Please see Section 5.1 for a complete wind analysis.

KP 02 **Particular attention shall be given to public and other areas of pedestrian use, including, but not limited to, entrances to the Proposed Project and existing and proposed buildings in the vicinity of the Proposed Project, the existing and proposed sidewalks and walkways within and adjacent to the Proposed Project and existing and proposed plazas, park areas and other open areas within and in the vicinity of the Proposed Project, including but not limited to, the Boston Common, the Boston Public Garden, the Rose Kennedy Greenway, Dewey Square Park, the Norman Leventhal Park, the China Gate Plaza Park and the Commonwealth Avenue Mall. Specific locations to be evaluated shall be determined in consultation with the BPDA.**

Please see Section 5.1 for a complete wind analysis.

KP 03 **The wind impact analysis shall evaluate the following conditions:**

- **<u>No Build</u> – the existing condition of the Proposed Project site and environs to establish the baseline conditions.**
- **<u>Build Condition</u> – the Proposed Project as described in the PNF.**
- **<u>As-of-Right</u> – the Zoning Compliant Configuration.**
- **<u>Alternative Build Condition</u> – any alternative development concepts to the Preferred Build Condition required to be studied.**

Please see Section 5.1 for a complete wind analysis.

KP 04 **Wind speeds shall be measured in miles per hour (mph) and for areas where wind speeds are projected to be dangerous or to exceed acceptable levels, measures to reduce wind speeds and to mitigate potential adverse impact(s) shall be identified and, if appropriate, tested.**

Please see Section 5.1 for a complete wind analysis.

KP 05 **The Proponent shall be required to conduct a shadow analysis for the existing (no-build) and build conditions for the hours of 9:00 a.m., 12:00 noon, and 3:00 p.m. for the vernal equinox, summer solstice, autumnal equinox, and winter solstice and for the 6:00 p.m. in the summer and fall.**

Please see Section 5.2 for a complete shadow analysis.

KP 06 **The shadow impact analysis shall examine the existing shadow and illustrated the incremental effects of the Proposed Project on existing and proposed public open spaces, including but not limited to Boston Common, the Boston Public Garden, the Rose Kennedy Greenway, Dewey Square Park, the Norman Leventhal Park, the China Gate Plaza Park, the Commonwealth Avenue Mall, sidewalks and pedestrian walkways adjacent to and in the vicinity of the Proposed Project.**

A comprehensive shadow analysis is provided in Section 5.2. This analysis also includes discussion of the Project-related shadow impacts specific to Boston Common and the Boston Public Garden.

KP 07 **The shadow impact analysis shall evaluate the following conditions:**

- **No Build – the existing condition of the Proposed Project site and environs to establish the baseline condition.**
- **Build Condition – the Proposed Project as described in the PNF**
- **As-of-Right – the Zoning Compliant Configuration**
- **Alternative Build Condition – any alternative development concepts to the Preferred Build Condition required to be studied.**

Please see the response to BPDA 47.

KP 08 **The shadow analysis results shall be provided in both animation and graphic representations, so as to best understand the extent to which shadows from the Proposed Project are anticipated to affect the overall shadow conditions within the surrounding area.**

The shadow analysis provided in Section 5.2 has accompanying graphics. A link to the animation study is also included in Section 5.2.

KP 09 **The Proponent shall be required to conduct a solar glare analysis. The analysis shall measure potential reflective glare from the Proposed Project onto potentially affected streets and public open spaces including but not limited to Boston Common, the Boston Public Garden, the Rose Kennedy Greenway, Dewey Square Park, the Norman Leventhal Park, the China Gate Plaza Park, the Commonwealth Avenue Mall and sidewalk areas in order to determine the likelihood of visual impairment or discomfort due to reflective spot glare. Mitigation measures to eliminate any adverse reflective glare shall be identified.**

A solar glare analysis is provided in Section 5.4.

KP 10 **Daylight – please refer to Urban Design's comments.**

A daylight analysis is provided in Section 5.3.

KP 11 **The Proponent shall be required to perform a microscale analysis, which shall predict localized carbon monoxide concentrations, including identification of any locations projected to exceed the National and/or Massachusetts Ambient Air Quality Standards.**

A microscale air quality analysis is presented in Section 5.5.2.

KP 12 **Emissions from the Proposed Project parking garage and from the Proposed Project's heating and mechanical systems shall be estimated. In addition, carbon monoxide monitors shall be installed in the parking garage and a description of the proposed ventilation system shall be provided. Building/garage air intake and exhaust systems and specifications and an analysis of the impact of exhausts on pedestrians and any sensitive receptors shall be identified. Finally, if deemed necessary, mitigation measures to minimize or avoid any violation of state or federal ambient air quality standards shall be included and a description provided.**

An impact analysis of emissions from stationary sources, including boilers, generators, garage vents, etc. is presented in Section 5.5.4.

KP 13 **Noise impacts from the Proposed Project shall be analyzed, including rooftop mechanical equipment and other noise sources (e.g. emergency generators), demonstrating compliance with the City of Boston noise regulations and applicable state and federal regulations and guidelines. Due to the close proximity to residential buildings, the Proponent shall be required to evaluate and demonstrate compliance with the Interior Design Noise Level (not to exceed day night average sound level of 45 decibels)**

established by the U.S. Department of Housing and Urban Development (Subpart B Noise Abatement and Control 24 CFR Part 51). If deemed necessary, mitigation measures designed to reduce excessive noise levels to acceptable limits shall be included and a description provided.

Please see Section 5.6.6 of the Draft EIR/PIR for conclusions derived from the noise analysis.

KP 14 **Sustainable Design/Green Buildings – Prior to the Inspectional Services Department's (ISD) issuance of a building permit, all proposed projects must demonstrate compliance with Article 37 and have obtained approval of the requisite submissions from the Interagency Green Building Committee (IGBC). In order to demonstrate compliance, the IGBC requires the submission of a Draft Green Building Report (Draft Report), Energy Model and Design Affidavit.**

Sustainable design is described in Section 6.0, and is discussed in the context of GHG emissions in Section 10.0. The Proponent will submit the documentation as required by Article 37.

KP 15 **The Draft Report shall provide a comprehensive narrative describing the proposed strategies and paths that will be used to meet all LEED prerequisites and achieve the selected credits.**

Section 6.0 contains a discussion of the Project's sustainability design, and Section 6.1 specifically addresses LEED. The Proponent will submit the documentation as required by Article 37.

Mayor's Commission for Persons with Disabilities

Martin J. Walsh, Mayor

January 17th 2016

RE: 115 Winthrop Square, Boston, MA 02110
Project Notification Form
Boston Planning and Development Agency

The Disability Commission has reviewed the Project Notification Form that was submitted for 115 Winthrop Square in Downtown Boston. Since the proposed project is planned to be a vibrant destination area for housing, office, retail and assembly for the Downtown area, I would like to encourage a scheme MCPD 01 that allows full and equal participation of persons with disabilities through *ideal design which meets as well as exceeds compliance* with accessibility building code requirements. It is crucial that the site layout, buildings, open spaces, parking, and circulation routes be developed with access in mind.

Therefore, in order for my Commission to give its full support to this project, I would like to ask that the following accessibility issues be considered and/or explained:

- **Accessible Group 2 Units:**
  - We support the inclusion of accessible Group 2 units in the proposed unit breakdown to provide a scheme that is universally inclusive. MCPD 02

- **Accessible Parking:**
  - We support the inclusion of separate self-parking accessible parking spaces in the garage, as some vehicles have accessibility-modifications. MCPD 03

- **Accessible Route and Entry:**
  - The renderings showing the reconstruction of the abutting sidewalks and roads, depict the use of unit pavers as the main paving material for the public-right-of-way. We support the use of cast-in-place concrete for sidewalks and crosswalks, to ensure that the surface texture is smooth and continuous (minimize joints) and for the ease of maintenance. MCPD 04
  - We support the reconstructed sidewalks to conform to requirements set forth by the Boston Complete Street Guidelines for Downtown Commercial/Downtown Mixed-Use street type.
  - Please provide detail on all walkways and plazas within the Site, including unit paving and decking materials, dimensions and slopes. MCPD 05
  - Please describe the accessible route from the office floors to the office solaria areas. MCPD 06
  - We encourage the Proponent to meet with architectural staff, prior to Public Improvement Commission hearings. MCPD 07

- **Sidewalk Café Requirements:**
  - Should the installation of a Sidewalk Café be proposed, please confirm that the proposed location will meet or exceed the dimensional requirements set by the City of Boston Sidewalk Café Design Regulations and Guidelines, Boston Complete Streets (if in the public right-of-way) and MAAB 521 CMR Section 35.00. MCPD 08

- **Community Benefits:**
  - The civic nature of the ground floor program requires measures that reflect an inclusive culture. Please describe any funding or improvements to the surrounding neighborhood. MCPD 09
  - What inclusion elements does this development provide for persons with disabilities in common social and open spaces? MCPD 10
  - Are the restrooms planned in common public spaces, to be single-stall, gender neutral, and/or designated as "Family"/"Companion"? MCPD 11
  - Have you considered making other connections to landmarks around the site (to Downtown Crossing, South Station, St. Anthony's Church, etc.) MCPD 12

- **Wayfinding:**
  - Do you have a Wayfinding Package to better understand wayfinding strategies within the scope of the proposed project? MCPD 13

- **Variances:**
  - Do you anticipate filing for any variances with the Massachusetts Architectural Access Board? If so, please identify and explain. MCPD 14

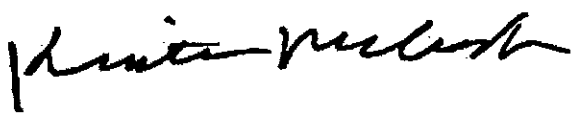
Commission's General Statement on Access:

The Mayor's Commission for Persons with Disabilities supports barrier-free design and construction in all buildings throughout Boston, including renovation projects as well as new structures. We work with City departments and developers to ensure compliance with local, state, and federal building codes including Boston Complete Streets, Massachusetts Architectural Access Board (MGL, 521 CMR) and the Americans with Disabilities Act (ADAAG, 28 CFR). Designing or constructing structures that are non-compliant with these requirements is a violation of the law unless it can be demonstrated that it would be structurally infeasible to do so.

Priorities for accessibility other than building design and construction include: ensuring maintenance and upkeep of accessibility features; posting signage for way-finding; utilizing compliant barricades throughout construction; designating appropriate location and amount of accessible parking spaces; and removing barriers in existing buildings wherever "readily achievable" (*"easily accomplishable and able to be carried out without much difficulty or expense"*).

Proponents are encouraged to meet with Commission staff who are available for technical assistance and design review to help achieve accessibility compliance and to ensure that all buildings, sidewalks, parks, and open spaces are usable and welcoming to all of Boston's diverse residents, including those with physical, sensory, intellectual, and communication disabilities. MCPD 15

Thank You.



Kristen McCosh, Commissioner
Mayor's Commission for Persons with Disabilities
kristen.mccosh@boston.gov
617-635-3682

Reviewed by:

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MAYOR'S COMMISSION FOR PERSONS WITH DISIBILITIES

MCPD 01 **Since the proposed project is planned to be a vibrant destination area for housing, office, retail and assembly for the Downtown area, I would like to encourage a scheme that allows full and equal participation of persons with disabilities through ideal design *which meets as well as exceeds compliance* with accessibility building code requirements. It is crucial that the site layout, buildings, open spaces, parking, and circulation routes be developed with access in mind.**

The proposed building will meet or exceed accessibility-related building code requirements. The Accessibility Checklist in Attachment K provides additional information.

MCPD 02 **We support the inclusion of accessible Group 2 units in the proposed unit breakdown to provide a scheme that is universally inclusive.**

Please see the Accessibility Checklist, Attachment K

MCPD 03 **We support the inclusion of separate self-parking accessible parking spaces in the garage, as some vehicles have accessibility modifications**

On-site parking will be provided in the below-grade garage with valet assistance available to provide accessibility for all visitors. Please see the Accessibility Checklist, Attachment K.

MCPD 04 **We support the use of cast-in-place concrete for sidewalks and crosswalks, to ensure that the surface texture is smooth and continuous (minimize joints) and for the ease of maintenance. We support the reconstructed sidewalks to conform to requirements set forth by the Boston Complete Street Guidelines for Downtown Commercial/Downtown Mixed-Use street type.**

The designated Street Types are Downtown Commercial and Downtown Mixed-use.

MCPD 05 **Please provide detail on all walkways and plazas within the site, including unit paving and decking materials, dimensions and slopes.**

These details will be developed as the Project design progresses. The Project team has met with and will continue to meet with City officials to ensure that exterior portions of the site are accessible.

MCPD 06 **Please describe the accessible route from the office floors to the office solaria areas.**

Access will be provided via the central elevator cores.

MCPD 07 **We encourage the Proponent to meet with architectural staff, prior to Public Improvement Commission hearings.**

The Proponent will meet with architectural staff and the BPDA prior to the PIC.

MCPD 08 **Should the installation of a Sidewalk Café be proposed, please confirm that the proposed location will meet or exceed the dimensional requirements set by the City of Boston Sidewalk Café Design Regulations and Guidelines, Boston Complete Streets (if in the public right-of-way) and MAAB 521 CMR Section 35.00.**

Should a sidewalk café be proposed, it will comply with all dimensional requirements set by the City and will undergo the PIC hearing and approval process.

MCPD 09 **The civic nature of the ground floor program requires measures that reflect an inclusive culture. Please describe any funding or improvements to the surrounding neighborhood.**

The Accessibility Checklist in Attachment K contains information regarding improvements to the neighborhood.

MCPD 10 **What inclusion elements does this development provide for persons with disabilities in common social and open spaces?**

All public spaces will provide accessibility (see the Accessibility Checklist provided in Attachment K).

MCPD 11 **Are the restrooms planned in common public spaces, to be single-stall, gender neutral, and/or designated as "Family"/"Companion"?**

It is the design intent to provide public restrooms, the details of which (including quantity) will be established as Project design progresses.

MCPD 12 **Have you considered making other connections to landmarks around the site (to Downtown Crossing, South Station, St. Anthony's Church, etc.)**

The Proponent is working with the City of Boston and the BID to improve the Tontine Crescent and reduce the width of Franklin Street from Arch Street to Hawley Street, thus creating wider sidewalks and possible green space as well as a dedicated bike lane. Connections to Arch St and St. Anthony's Shrine exist via Winthrop Lane. This connection will be emphasized with the improvements to Winthrop Square. The Urban Design description provided in Section 7.0 addresses Project connections.

MCPD 13 Do you have a Wayfinding Package to better understand wayfinding strategies within the scope of the proposed project?

As discussed in the Accessibility Checklist in Attachment K, wayfinding and signage will be developed as the Project design progresses.

MCPD 14 Do you anticipate filing for any variances with the Massachusetts Architectural Access Boston? If so, please identify and explain.

Please see the Accessibility Checklist provided as Attachment K.

MCPD 15 Proponents are encouraged to meet with Commission staff.

The Proponent plans to meet with Commission staff.

Massachusetts Port Authority
One Harborside Drive, Suite 200S
East Boston, MA 02128-2090
Telephone (617) 568-5950
www.massport.com

December 22, 2016

Secretary Matthew A. Beaton
Executive Office of Energy & Environmental Affairs
Attn: MEPA Office
Anne Canaday, EEA #15598
100 Cambridge Street, Suite 900
Boston, MA 02114

Subject: 115 Winthrop Square ENF (EEA #15610)

Dear Secretary Beaton:

On behalf of the Massachusetts Port Authority (Massport), thank you for the opportunity to submit comments on the Environmental Notification Form (ENF) filing for the 115 Winthrop Square Project. The Project seeks to build a 775 foot tall, 1.1-1.5 million sf mixed use building at 115 Winthrop Square in Boston. As stated in the ENF, the project exceeds a mandatory Environmental Impact Review (EIR) threshold and thus comments on this filing will be used in the development of the Draft EIR Scope.

Massport supports new development projects that strengthen our economy and provide employment opportunities to its residents. Our main aviation priority is to ensure aircraft are able to operate in a safe and efficient manner in and around Logan Airport. In that context, Massport strongly objects to the proposed tower height of 775 feet at the 115 Winthrop Square site. The proposed tower exceeds the height limit of 710 feet above mean sea level (AMSL) as defined by the *Boston- Logan International Airport Composite Map of Critical Airspace Surfaces* (Logan Airspace Map, attached). Note that the 710 AMSL limit will apply to the tallest point(s) of the proposed structure above sea level including mechanical units, antennas, etc. We have had initial discussions with the proponent and expect to continue the dialogue.

A building height greater than 710 feet MSL at the 115 Winthrop Square location would have the following impacts on Logan Airport operations:

- **Significantly impact Runway 27 Departures.** The proposed structure will penetrate the Federal Aviation Administration's (FAA) existing Runway 27 departure corridor. A building taller than 710' AMSL at this location would significantly reduce the capacity of the remaining airspace.
- **Lead airlines to shift departures from Runway 27 to Runway 33L.** This would reduce the efficiency of flight departure configurations in a Northwest wind condition
- **Shift overflights and associated noise** from communities south of Boston to communities west and north of Boston
- **Restrict existing FAA Circle-to-Land operations** to all runways, reducing flexibility of Logan FAA Air Traffic Control Tower to manage close-in flights

Therefore, Massport urges MCAF Winthrop LLC to explore alternative designs that meet the same project goals without exceeding the height of the 710 feet AMSL that would cause significant adverse Logan Airport operational and noise impacts.

About the Logan Airspace Map

The Logan Airspace Map defines the critical airspace around Boston Logan International Airport to protect the flight corridors in and out of the airport. It was created by Massport with input from airlines, pilots, city officials, and the Federal Aviation Administration (FAA) to help guide developers and regulatory authorities on building heights. The map aids developers in their planning and assists the FAA in its review of individual projects to determine if they present a potential hazard to air navigation. It was widely distributed to among the development agencies including BPDA and the developer communities and is available at: http://www.massport.com/media/11778/BOS_COMPOSITE_Ver2pt0_dec201_small.pdf. Note that the Logan Air Space Map is based on the NAVD 88 datum and is different from Boston City Base Datum.

Massport is committed to collaborating with the MCAF Winthrop LLC to ensure that the Project complies with the Airspace Map and can be completed in a timely manner. Massport will work with the Proponent from the beginning of the design and permitting process and during construction to minimize the impact of the cranes on Logan airspace.

Complying with the Airspace Map does not relieve proponents of the responsibility of complying with the FAA 7460 review process. MCAF Winthrop LLC will be required to file the 7460 forms no later than 45 days prior to construction but we encourage that this be filed as early as possible to avoid delays. Separate forms have to be filed for the building and the construction cranes.

Thank you for your consideration of our comments. Please feel free to contact me at (617) 568-3524 or at sdalzell@massport.com if you wish to discuss any of our concerns.

Sincerely,

Massachusetts Port Authority

Stewart Dalzell, Deputy Director
Environmental Planning and Permitting

Cc: T. Glynn, E. Freni, J. Doolin, J. Pranckevicius, H. Morrison, F. Leo, S. Gongal/Massport
M. Walsh/FAA
J. Larkin/Millennium Partners
C. Tracy/BPDA
C. Schlessinger/Epsilon Associates

Enclosures:
Boston-Logan International Airport Composite of Critical Airspace Surfaces Map, and details of 115 Winthrop Square location

MASSPORT

Please see MEPA comment letter (see Table 13-1).

BPDA Planning and Urban Design Scoping Comments:

To: MCAF Winthrop LLC (c/o Millennium Partners)
Date: April 6, 2017
Subject: 115 Winthrop Square Project Scoping Comments

The first line in the Request for Proposals (RFP) issued by the City of Boston and Boston Redevelopment Authority in March of 2016 asked for "a bold design in the development of 115 Winthrop Square...that is emblematic of the future of Boston's Downtown." It was hoped that the "proposed building will be one of the most notable structures within Boston's downtown skyline," expressive of innovation, and expected "to function physically and aesthetically as a working part of the local urban system," which includes Winthrop Square itself as the closest of the network of spaces, alleys, and connections that define the character of Boston's Financial District. This site, at the heart of the Financial District, and at the intersection of the High Spine and downtown area of robust transportation access, is the right place for a high density tower. The City's Selection Committee agreed that the Proposal selected and now currently under review best met all of the criteria listed in Section 4 (and more) of the RFP, including the above. These comments are intended to push the Proponent team to develop a DPIR response that exceeds all expectations, and produces an iconic tower that enhances the skyline of the City. DC 01

MCAF Winthrop LLC (c/o Millennium Partners) submitted a Project Notification Form (PNF) on November 8, 2016, and have since held a scoping session and several Impact Advisory Group (IAG) and public meetings. A mixed-use project totaling approximately 1.3 million SF is proposed, including up to ~635,000 SF of office, ~780,000 SF (460 units) of residential, and 60,000 SF of retail. (These figures are all maxima in their category.) The Project includes the notion of a 'Great Hall,' a connecting public and social space running between Devonshire and Federal Streets, as well as improvements to Winthrop Square itself. The architects are Handel Architects LLP as lead, with D/R/E/A/M Collaborative LLC, and Ground, Inc. as landscape architects. The initial PNF design is essentially the RFP response, with modest embellishment and more information. The Boston Civic Design Commission (BCDC) saw an initial presentation on February 7, 2017; the Project was referred to Design Committee for further discussion. The excerpted minutes from that date are appended at the end of this Memo.

Alternatives Analysis

Based on consultation with other departments and agencies, and the feedback received thus far from the Impact Advisory Group (IAG) and the public, BPDA staff requests that the following alternative massings be analyzed, to facilitate comparison:

- A no-build scenario.
- A PNF scenario, showing the Proposed Project as described in the PNF.

- An "as-of-right" scenario, under the existing B-10 zoning, that shows the maximum height achievable without triggering shadow impacts to the Boston Common or Public Garden. (Note: the zoning for this parcel will be pursued through a Planned Development Area. This mechanism is allowed by right within the existing zoning. For the purposes of comparison, we ask that a massing under the B-10 regulations be studied.)
- An FAA/Massport compliant scenario, as expressed in the March 2016 Request for Proposals. BPDA Staff anticipated that this would represent a building height of 725', with the caveat that the maximum height allowed on the site will be ultimately be determined by the negotiated FAA/Massport ceiling. The actual FAA compliant height may be under 700'.
- A massing scenario that shifts some of the bulk of the residential density to the east, over the Office Solaria.

We encourage, through the above analysis, the development of a preferred alternative. We expect that mitigations or positive urban benefits will result from this Project and, in balance, will far outweigh any negative impact. Specific shadow and wind investigations will be requested - a separate category in this scoping - to determine what the impacts are regarding the Boston Common, Public Garden, and Rose Kennedy Greenway, among others. We will expect that the Proposed Project as represented in the Draft Project Impact Report (DPIR) will have taken into account any necessary mitigating factors, for scenarios with densities and heights beyond those alternatives listed above, discovered as a result of environmental and other studies by the Proponent.

Tower Architecture

The City has asked for, and the Proponent has submitted, an arresting and potentially iconic tower. Consider its role in contributing to the skyline of the Downtown area - in particular, how does it relate formally to other recently constructed tall buildings? How does it denote its place in the City? How is it evocative of Boston's innovative spirit? Part of this answer will lie in the compilation of skyline views from all directions, most obviously perhaps from the Boston Common, but from many other points as well - see an initial suggested list in the standard Urban Design submission requirements listed below. View vignettes from an array of historic resources identified as within a certain view range in that section are suggested as well. From some of the area open spaces, the Proposed Project's role as an urban backdrop will be an aspect of its skyline impacts.

The relationship of the tower and office podium massing on both sides, but particularly to Winthrop Square, is worth studying further. The tower is emulating certain aspects of nearby art deco towers. A strategy to improve the relationship of its massing to the group of older buildings that frame much of Winthrop Square might trade on that initial concept, so that the scale of the Winthrop Square space is not overwhelmed, but each element, space and tower, work together to create a more coherent dialogue. One classic example

of space and tower working in tandem of course is Rockefeller Center. See more questions about Winthrop Square below.

Work on the shaping of the tower is needed for several different reasons. One for the podium is noted above. Another is suggested in the Alternatives Analysis - shifting the residential element more dramatically may provide a narrower profile to both Winthrop Square and parts further east. The overall shaping of the tower might be considered further; it appears very rectilinear in some of the early views, and although the facade might be considered more elegant in its treatment than some, it joins a rather rectilinear larger, and older, family. It is worth considering this tower's relationship to the most recent Millennium Tower, at a similar height and by the same hand. Given the aspirations for this site, the 115 Winthrop Tower should arguably be different - that is, more architecturally distinctive, and we would like to discuss more of an evolution along these general lines.

Develop and present more information on the facade and glazing system(s) to be utilized. We encourage and applaud the strong initial consideration of PassivHaus and LEED Platinum goals, and would like to understand more about the facade factors that contribute. As to the pleating strategy that is embedded throughout the facade - can the pleats themselves, those details and materials, lend themselves to: ameliorate shadow impacts, harvest energies, help diminish wind impacts, express or imply the structural system in a subtle way that ties with the more expressive structural system used in the Great Hall, or act as a conceptual design tool to further shape the building? Investigation of these questions may enrich the Project.

A portion of the tower that relies less on the pleating treatment is the Federal Street wing, with its Solaria. Provide more information on their role in, and contribution to PassivHaus rating. Are the Solaria functioning as more of an enticement to prospective tenants? Is it possible to include one as an aspect of the 'accelerator' program space? Is it possible to make one a public or quasi-public space or showcase?

Great Hall

Although the broader impacts of the building to the Boston Common and Public Garden are under review, further definition is needed for both the design and programming of the Great Hall, as well as the relationship with and the impacts to Winthrop Square. The BPDA strongly supports the creation of a multi-story, publicly-accessible space or civic program on the ground level(s) of the 115 Winthrop Tower. There is a tremendous opportunity for the Great Hall to function as an important civic - and perhaps cultural - space in downtown Boston, but there are many questions given the Hall's as yet inchoate form. Most of those questions can be answered through programming and design, which the BPDA looks forward to discussing with the proponent during the next phase of the project.

The 115 Winthrop Tower will be experienced primarily at two scales. The public will experience the Tower from a distance as a prominent building on Boston's skyline, but also more tangibly at the ground level. The experience of moving through the Great Hall on foot is paramount to the success of the project. The Hall will become part of the network of POPs (privately owned public spaces) in the city - and potentially one of the most attractive examples.

As currently designed, the Great Hall space resembles a transit hub, but absent any transit connections. There are both local examples (Back Bay Station, South Station), as well as international examples (Brookfield Place in Toronto and the similarly-named Brookfield Place connected to New York's World Trade Center, as well as recent improvements to St. Pancras Station in London) with similarities in either scale or design. Scale comparisons of these and possibly other comparable spaces would be useful as the proponent continues to develop the Great Hall, but mindful that retail uses alone do not achieve the distinction of a great civic amenity. A common element in many of the listed spaces is the clear and convincing relationship of the framing structure to the space it forms. Provide more information on the nature of the structure you are employing to define the Great Hall space.

Given this preliminary stage, it may be desirable to consider alternate or complementary uses to those being proposed. Information supplied by the proponent suggests a seasonal approach to programming, but no year-round "anchor tenant." A seasonal programming approach will require active and ongoing management, and it is unclear who will shoulder that responsibility in perpetuity. More specificity on the primary uses of the Great Hall will be helpful in refining the design of the Great Hall, but with the understanding that the space should be "public" in its essence.

In addition, it is unclear how the programming might enhance or detract from similar outdoor activities on the Summer Street mall in Downtown Crossing or on Dewey Square near South Station, activities that are facilitated by the Downtown Crossing Business Improvement District (BID) and the Rose Kennedy Greenway Conservancy, respectively. The Downtown Crossing BID has been transformative in this area during the past six years, and the Proponent should see them as an early-stage collaborator and active partner as they consider improvements to Winthrop Square, as well as with programming strategies for the Great Hall.

While the Great Hall offers a publicly-accessible space of 10,000-15,000 SF, finding other spaces higher up in the building that can be made public may be appropriate. The Solaria and other roofdeck areas may be an opportunity to provide a range of different public or quasi-public spaces. Winthrop Square, as conceived as an "urban room," is a complementary strategy to the idea of providing a range of different public experiences within the larger context of the 115 Winthrop Tower.

While a through-block connection from Federal Street to Winthrop Square is desirable, and the BPDA generally applauds efforts to encourage pedestrian connectivity downtown, a balance between circulation space and amenities must be sought. Additionally, the alignment of the through-block connection should also be further studied to ensure that meaningful physical and visual connections are being made to amenities beyond the project boundary. For example, the currently proposed hall has a linear alignment and a consistent width. The portal that opens on to the Devonshire Street end focuses on a retail corner rather than making a direct visual and physical connection with the Winthrop Square open space. The portal that opens on to Federal Street focuses on a parking ramp and a security booth and lands very close to the street edge, which does not provide enough of a forecourt for the scale of the portal opening meeting the public realm. Perhaps an arc or "folded" alignment, that introduces a variable width, would provide for a more dynamic interior space and portals better positioned to connection to amenities and public realm just outside the building.

There is an existing and proximate through-connection at 75-101 Federal Street, and it is unclear how the Great Hall relates to that and other nearby pedestrian shortcuts. Some analysis of pedestrian desire lines is warranted given this and other pre-existing shortcuts through buildings. While the retail character may be differentiated quite easily, the challenge remains of balancing circulation space with the potential uses like public speaking or events.

Winthrop Square

The potential for the 115 Winthrop Tower to transform Winthrop Square is enormous. Given the latent possibilities of this smaller, more intimate park space in the heart of the Financial District, the design of Winthrop Square is equivalent in importance to the Great Hall. The proponent nee not look far to Shoppers Plaza or Post Office Square for examples of successful open space typologies that work in concert with the surrounding context.

The proponent must articulate a clear identity for Winthrop Square that harmonizes with the Great Hall or other ground floor uses, but can also stand on its own. Is the space predominantly quiet and passive or actively programmed? A flexible, one-size-fits-all approach to the open space may not be appropriate given the constrained dimensions of the park. Winthrop Square already operates as an "urban room." The addition of the Tower should not demote scarce open space downtown to overflow space for the Great Hall.

Again, working with the Downtown Crossing BID is important, as Winthrop Square has been the focus of prior planning, including a wayfinding study, within the larger context of the BID boundary. The preliminary ideas for Winthrop Square did not include the redevelopment of the garage, so it is appropriate to revisit the initial recommendations and strategies that emerged from the report.

Regardless, the threshold - both actual and perceived - between the square and tower must be considered and well-designed. The current Great Hall entrance on the Winthrop Square side is diminutive relative to the scale of the office podium, but large in respect to space of the square. Calibrating the entrance size and its impacts on Winthrop Square is important for the successful redesign of the square. Currently, the entrance height on the Federal Street elevation appears more to scale than on the Winthrop Square side. Further exploration of the Federal Street entry is also warranted. Are there design strategies that allow for increased visibility to the park from the Federal Street or cues to the park space beyond?

The landscape design of Winthrop Square should include significant shade trees and function as a complementary open space within a larger open space network downtown. The landscape mounds are understood to function as a tree preservation strategy within a curbless roadway condition. The design of the roadway and landscape is still very preliminary, but the BPDA supports exploring novel strategies for balancing roadway and curbside uses with landscape design.

Providing sections through the Great Hall and Winthrop Square is a necessary starting point for exploring the interrelationship and scale between these two spaces. The initial strategy appears to be a continuous spatial treatment, but the scales of the two ending 'frames' could not be more different. Consider a more graduated or episodic approach, which could include a variation on the structural composition, and consider too the very different nature of the Federal Street and Winthrop Square/Devonshire Street beginning/end points. During the next phase, the BPDA looks forward to continued exploration of this urban cross-section, and impacts to smaller existing moments in the adjacent urban fabric, such as Winthrop Lane.

Vehicular & Loading Access

As articulated in the RFP, the City (BPDA/BTD), strongly prefer that all parking and loading access utilize the existing Federal Court/Milton Place private ways. If additional access points are needed we prefer that they be located off of Federal Street, and on the northern edge of the site (opposite Federal Court) to preserve and maximize the proposed Great Hall dimension.

The current site plan creates two impactful curb cuts on Devonshire that should be reconsidered. To this end, we appreciate the premise that the below-grade parking could later be converted to different uses. Considering the higher ceiling heights this will require, we request that the proponent make every effort to relocate all of its loading activities to within the parking garage layout. This will allow for shared access with parking and would eliminate the need for a separate curb cut. We support the concept of pedestrianizing Devonshire Street and reducing traffic and eliminating curb cuts on this street will further

this goal. The concept as proposed of converting a portion of Devonshire to 2-way to allow 100 Summer Street traffic to head to Summer Street, thereby reducing traffic along Winthrop Square and in front of the site is supported and should be further explored.

Parking and Curbside Management

The parking entries or entry courts themselves must be thoughtfully considered so as to avoid any vehicular interference with pedestrians. Any new vehicular access points should ramp up from the street to allow sidewalks to cross at the same grade (thereby eliminating the need for pedestrian ramps at driveways). The parking and loading design should be forward-thinking, allowing different modes of transportation arrival for drop-off and pickup, including Bridj, Uber, etc. Any parking access should be subservient to the pedestrian flow volumes coming through the Great Hall.

The currently proposed range of parking spaces is on the high side for such a transit rich location. As the program becomes more refined we expect to work with the proponent to reduce and refine these ratios for specific uses as well as find opportunities to share parking spaces and creatively and efficiently manage supply and demand through progressive pricing approaches.

Transportation Network Impact Analysis and Mitigation

We expect the project to fully articulate its impacts on all modes of the transportation system. Appropriate modal network improvements will be required to mitigate the project's impacts, particularly on the transit system.

Shadow

See Katie Pedersen's January 5, 2017 Scoping Memo regarding Shadow, which asks for the standard shadow analysis in both graphic and animation form. These should clearly delineate new shadows cast by use of a strongly differentiated graphic technique, such as color. The Proponent has developed considerable information on shadow impacts, much of it displayed in public meetings, with particular emphasis on the impacts relative to the two legislative covenants (Chapter 362 of the Acts of 1990 and Chapter 384 of the Acts of 1992, respectively) that govern shadow impacts on the Boston Common and on the Public Garden. This information - which includes all days of the year any impacts are recorded, and overall duration by area (Boston Common, Public Garden) - should be organized, refined, and presented in the DPIR. In addition, please develop more information regarding point durations on these two open spaces.

Some of the concern expressed over the additional shadow on the Boston Common may come from a general concern about the health of the aging tree community on the

Common. While it is difficult to quantify the actual effects of additional shadow of any duration on the Common, what is perhaps more important is that some potential negative effect is possible over time. Some study regarding this potential impact and suggestions regarding the protection, preservation, and maintenance of the Common's elder statesmen is requested.

We suggest, where animation studies indicate some new shadow coverage times on sensitive areas, that specific timeframes/durations be identified, with a clear presentation methodology to be agreed upon with BPDA staff. This request would only apply to larger open space areas such as the Greenway and Post Office Square Park.
We reserve the right to add additional concerns during the course of the process of combined BPDA Staff, IAG, and BCDC review, which may affect the responses detailed in the DPIR. The following urban design materials for the Proposed Project's schematic design must be submitted for the DPIR:

1. Written description of program elements and space allocation (in square feet) for each element, as well as Project totals.
2. Neighborhood plan, elevations and sections at an appropriate scale (1"=100' or larger as determined by the BPDA) showing relationships of the proposed project to the neighborhood context:

a. Massing
b. Building height
c. Scaling elements
d. Open space
e. Major topographic features
f. Pedestrian and vehicular circulation
g. Land use

3. Color, or black and white 8"x10" photographs of the site and neighborhood.
4. Sketches and diagrams to clarify design issues and massing options.
5. Eye-level perspective (reproducible line or other approved drawings) showing the proposal (including main entries and public areas) in the context of the surrounding area. Views should display a particular emphasis on important viewing areas such as key intersections, pathways, or public parks/attractions. A few of such viewpoints have already been used in presentations to the public. Long-ranged (distanced) views of the proposed project must also be studied to assess the impact on the skyline or other view lines. At least one bird's-eye perspective should also be included. All perspectives should show (in separate comparative sketches) at least both the build and no-build conditions; any alternatives proposed should be compared as well. The BPDA should approve the view locations before analysis is begun. We suggest at least the following viewpoints: up and down Devonshire, Federal, and Franklin Streets; Post Office Square; the Greenway (Dewey Square at a minimum); the Public Garden and Boston Common; the Charles River viewshed (Mass Ave Bridge or Memorial Drive); the North End; Government Center; from the south entering the city; from the Harbor; and, from the Back Bay and South End neighborhoods. View studies should be cognizant of light and shadow, massing and bulk.

6. Additional aerial or skyline views of the project, if and as requested.
7. Site sections at 1"=20' or larger (or other scale approved by the BPDA) showing relationships to adjacent buildings and spaces.
8. Site plan(s) at an appropriate scale (1"=20' or larger, or as approved by the BPDA) showing:
a. General relationships of proposed and existing adjacent buildings and open spaces
b. Open spaces defined by buildings on adjacent parcels and across streets
c. General location of pedestrian ways, driveways, parking, service areas, streets, and major landscape features
d. Pedestrian, handicapped, vehicular and service access and flow through the parcel and to adjacent areas
e. Survey information, such as existing elevations, benchmarks, and utilities
f. Phasing possibilities
g. Construction limits
9. Massing model (ultimately in basswood) at 1":40'0" for use in the Agency's Downtown Model.
10. Study model(s) at 1" = 16' or 1" = 20' showing preliminary concept of setbacks, cornice lines, fenestration, facade composition, etc. are recommended.
11. Drawings at an appropriate scale (e.g., 1":16'0", or as determined by BPDA) describing architectural massing, facade design and proposed materials including:
a. Building and site improvement plans
b. Neighborhood elevations, sections, and/or plans showing the
c. Development in the context of the surrounding area
d. Sections showing organization of functions and spaces, and relationships to adjacent spaces and structures
e. Preliminary building plans showing ground floor and typical upper floor(s).
f. Phasing, if any, of the Proposed Project
12. A written and/or graphic description of the building materials and its texture, color, and general fenestration patterns is required for the proposed development.
13. Electronic files describing the site and Proposed Project.
14. Full responses, which may be in the formats listed above (and more), to any urban design-related issues raised in preliminary reviews or specifically included in the BPDA scoping determination, preliminary adequacy determination, or other document requesting additional information leading up to BPDA Board action, inclusive of material required for Boston Civic Design Commission review.
15. Proposed schedule for submission of all design or development-related materials.
16. Diagrammatic sections through the neighborhood (to the extent not covered in item #2 above) cutting north-south and east-west at the scale and distance indicated above.
17. True-scale three-dimensional graphic representations of the area indicated above either as aerial perspective or isometric views showing all buildings, streets, parks, and natural features.

Daylight Component

A daylight analysis for both build and no-build conditions shall be conducted by measuring the percentage of skydome that is obstructed by the Proposed Project building(s) and evaluating the net change in obstruction. If alternative massing studies are requested (which see above) or result as part of the Article 80 development review process, daylight analysis of such alternatives shall also be conducted for comparison. The study should treat three elements as controls for data comparisons: existing conditions, the 'as-of-right' massing, and context examples. The areas of interest include Federal and Devonshire Streets, and Winthrop Square itself. Daylight analyses should be taken for each major building facade fronting these public ways / spaces. The midpoint of each public roadway, and a reasonably centered point in the Winthrop Square space, should be taken as the study points. The BRADA program must be used for this analysis.
If a Proponent wishes to substitute a more contemporary computer program for the 1985 BRADA program, its equivalency must first be demonstrated to the satisfaction of BPDA staff before it is utilized for inclusion in the DPIR, and it must be commonly available to Boston development team users.

Infrastructure Systems Component
An infrastructure impact analysis must be performed.
The discussion of Proposed Project impacts on infrastructure systems should be organized system-by-system as suggested below. The applicant's submission must include an evaluation of the Proposed Project's impact on the capacity and adequacy of existing water, sewerage, energy (including gas and steam), and electrical communications (including telephone, fire alarm, computer, cable, etc.) utility systems, and the need reasonably attributable to the proposed project for additional systems facilities.
Any system upgrading or connection requiring a significant public or utility investment, creating a significant disruption in vehicular or pedestrian circulation, or affecting any public or neighborhood park or streetscape improvements, comprises an impact which must be mitigated. The DPIR must describe anticipated impacts in this regard, including specific mitigation measures, and must include nearby Proposed Project build-out figures in the analysis. The standard scope for infrastructure analysis is given below:
1. Utility Systems and Water Quality
a. Estimated water consumption and sewage generation from the Proposed Project and the basis for each estimate. Include separate calculations for air conditioning system make-up water
b. Description of the capacity and adequacy of water and sewer systems and an evaluation of the impacts of the Proposed Project on those systems; sewer and storm drain systems should include a tributary flow analysis as part of this description
c. Identification of measures to conserve resources, including any provisions for recycling or 'green' strategies, including green roofs
d. Description of the Proposed Project's impacts on the water quality of Boston Harbor or other water bodies that could be affected by the Project, if applicable

e. Description of mitigation measures to reduce or eliminate impacts on water quality
f. Description of impact of on-site storm drainage on water quality
g. Information on how the Proposed Project will conform to requirements of the Ground Water Trust under Article 32, if applicable, by providing additional recharge opportunities
h. Detail methods of protection proposed for infrastructure conduits and other artifacts, including the MBTA tunnels and station structures, and BSWC sewer lines and water mains, during construction
i. Detail the energy source of the interior space heating; how obtained, and, if applicable, plans for reuse of condensate.
Thorough consultation with the planners and engineers of the utilities will be required, and should be referenced in the Infrastructure Component section.

2. Energy Systems

a. Description of energy requirements of the project and evaluation of project impacts on resources and supply
b. Description of measures to conserve energy usage and consideration of the feasibility of including solar energy provisions or other on-site energy provisions, including wind, geothermal, and cogeneration.

Additional constraints or information required are described below. Any other system (emergency systems, gas, steam, optic fiber, cable, etc.) impacted by this development should also be described in brief.

The location of transformer and other vaults required for electrical distribution or ventilation must be chosen to minimize disruption to pedestrian paths and public improvements both when operating normally and when being serviced, and must be described. If necessary, storm drain and sewage systems should be separated or separations provided for in the design of connections.

The Proponent should investigate energy strategies that take advantage of this scale of construction, including those that incorporate green roof strategies as well as solar orientation and materials/systems that maximize efficiencies, daylighting strategies, wind, solar, and geothermal systems, and cogeneration. Given the PassiveHouse and LEED standards sought, we expect robust information regarding any infrastructure-related aspects of those rating systems.

Excerpted from the minutes of the BCDC meeting of February 7, 2017:

The next item was a presentation of the **115 Winthrop Square Project**. Kathy MacNeil (KM) of Millennium Partners introduced the Project, noting the selection process for the City-owned garage parcel. KM noted the review process: We have had several public meetings; this will be part of the BPDA PNF review and scoping process. Blake Middleton (BM) of Handel Architects presented the design, starting with photos of the area and Winthrop Square. BM: We looked at notions of how to reinforce the space, using European piazzas as precedents. We're trying to preserve the honey locusts (shows a landscape detail, then an 1860 photo of the Winthrop Square space with cobbles) with the idea of reestablishing a continuous space as a better connection for the area. We're thinking bollards, continuous tabling, slowing the traffic down. The Great Hall is the foundation of our public realm contribution. It's a connector, linking spaces, even uses, with inspiration from many spaces (Gallerias, etc.). There are limited routes for loading and parking access (indicates). We want to activate the main space 18 hours a day - Boston's Living Room, a versatile space. Grab'n'Go below, dining above. The structure shown, actually *is* structural; the ends are as permeable as possible, with air hangar doors (shows views of the two openings). The material of the building comes all the way to the ground. The form of the building follows the street edge in Winthrop Square, while on Federal Street, the strategy is different. (Shows an axon, then a diagram of the massing elements.) We have a pleated facade, an idea drawn from the nearby Art Deco buildings of the Financial District, and old silversmithing traditions - catching the light. (Notes an axonometric program diagram, with a breakaway section which clarifies.) The form is driven by office and residential planning, and the cores. The office allows a fair amount of density. The Solaria form a pavilion-like 'bustle,' something of the scale of the Rudolph building. We are doing a LEED Platinum building, and taking that designation for the office a little further, to PassiveHouse (US) standards. (Shows sections of the whole building. Notes the parking below has stacker systems.) There's a grade change through the site, which may require steps and ramps to achieve our purpose. (Riffs through a series of slides, noting the proportions of the Great Hall, the ground floor plan, the programming, the upper floors. Notes the nickel silver facade, the Art Deco pleating detail. Shows a night view.) The deep fissures at the top are illuminated at night.

AL: I want to understand the ground plane. Do you have an elevation? BM showed the Winthrop Square view, noting the residential lobby to the left, a *porte cochere* beyond, the office lobby to the right, and the Great Hall entry. AL: And the facade - how do the windows work? BM: It's a glass wall with angled fins, which change angles as they move up. MD: I would like to understand better how the stack of lower public floors works. The section through.... LE: It becomes the street. MD: ...How one goes through/between the levels. PM: And you have escalators as well? BM: We might - it depends on volume, if the uses require more people moving between. MD: The resolution of the Great Hall back on Federal Street is very successful. It seems lost on the Winthrop Square side. AL: We've all seen a lot of images of this. How you brought the ground plane in, the use of the bustle - is really intelligent. There's a beauty to the idea of the texture of the building. But all the images

did not prepare me for the sheerness of the facade. Winthrop Square could feel dwarfed by something that close, and that tall. To me, that's the biggest concern, not the 75' scale you reference. It's about the massing, not the height, per se. I'd like to know what else you've studied. BM: This is one of the rare opportunities in the City with a space. Shoppers' Park at Filene's is close to this space. AL: Could the top peel back more? BM: Maybe. We have early reports from the wind engineers, which will inform how we develop the scheme.

DC: It was shocking to me to see the model. Even the Great Hall seems diminutive. It's great to have an indoor room; it's a great amenity. I am concerned about the shadow impacts. Once done, there's no undoing. It's also about vegetation, the impact there. PM: Where does the shadow stand? Joe Larkin (JL) of Millennium spoke briefly about the proposed legislation, limiting impacts to this one Project and possibly eliminating the remaining shadow 'bank.' DC: The issue is really that some of the really old trees may not be able to tolerate more shadow. JL: I can tell you, what we have so far, is that the consideration is an exception for this site only, with some offsets. MD: The RFP requested that height, right? JL: Yes. All respondents were in the 675-750' range. LE: I'd like to know more about Winthrop Square. I think the bollards detract; can you do without them? PM: They make the space more constrictive. LE: More on the scale of the space, the historic plantings. I realize that the height of the 'frame' of the Great Hall picks up the average height of the other buildings in the Square. It feels resolved on Federal Street, but not on the other side. Do you need the structure? The frame appeals to me. It feels like a modern entry - with a thing inside. AL: It's functioning differently. By the way, the 2-story studios (Solaria) are great. There's something - the imposing wall. Think of the planes, how they lift. This is the side (Winthrop Square) that's hardest. Look at heights, angles, displacement (setback) to give some air to the Square.

DC: Did you consider spill-out programming? BM: Yes. MD: A closer level of analysis about how the space(s) operate. We recently looked at North Station.... I would love to see this function. I'm very convinced by the gesture, but I want to be sure it works. BM: Millennium takes the [curatorship] of the space very seriously. The more versatility, the less particularity. Bryant Park is an example of curated outdoor space. It's much different than the North Station problem. AL: Is it open or closed? BM: Seasonal. AL: The canopy at Les Halles, in Paris - they do not close it; it's absolutely public. Think about that openness.

MD opened to public comment. Martyn Roetter of NABB: I'm in opposition, not only because of shadows on the Public Garden, but because the Project was conceived from the get-go to modify the legislation, and that might impact many other sites. You do not change the law to suit. Fritz Casselman of NABB: I'm glad we talked about aspects of the Great Hall. Folks with disabilities should be able to take in the experiences equally, like the Louvre. BM: This is the time for us to incorporate that thinking. A 3-story spread. MD: That stack of public spaces. Greg Galer of the Boston Preservation Alliance: I want to thank

the Commission for their concern about Winthrop Square and its historic properties. One issue of timing - I have concerns about moving forward with the Project without checking all the environmental impacts. A lot of folks feel these issues should have been expressed before. MD: We'd prefer not to get out ahead. AM: This is an incredible Project for the City, and I hope it moves forward. With that, the 115 Winthrop Square Project was sent to Design Committee.

DAVID CARLSON

DC 01 **The site, at the heart of the Financial District, and at the intersection of the High Spine and downtown area of robust transportation access, is the right place for a high-density tower. The City's Selection Committee agreed that the Proposal selected and now currently under review best met all of the criteria listed in Section 4 (and more) of the RFP, including the above.**

The Proponent agrees with this assessment.

BOSTON

Martin J. Walsh, Mayor

April 4, 2017

Ms. Teresa Polhemus
Boston Redevelopment Authority
One City Hall Square
Boston, MA 02201

RE: 115 Winthrop Square

Dear Ms. Polhemus:

The Boston Parks and Recreation Department (BPRD) has reviewed the *Article 80 Project Notification Form* for the proposed project at 115 Winthrop Square, also known as 115 Federal Street in Downtown Boston. The proposed development includes the construction of a tower that will be up to 775 feet in height, with 1.1 to 1.5 million square feet of mixed use.

The City has agreed to sell the site to Millennium Partners for approximately $153 million. Of that sum, $56 million will be provided for improvements to Boston Common and Franklin Park.

Location

This project is located across from Winthrop Square, a small passive plaza that is part of the public way, and is not a property under the jurisdiction of BPRD. The project is not subject to review of the Parks Commission under Municipal Code Section 7-4.11. Proposed improvements to Winthrop Square will require approval of the Public Improvements Commission (PIC).

The project is located in proximity to public open spaces such as the Rose Kennedy Greenway, as well as the Boston Common and the Public Garden, which anchor the Emerald Necklace.

Zoning

The project is located in a B-10 Retail Business and Office District of the Boston Zoning Code. The proponent intends to apply for the creation of a Planned Development Area (PDA), and approval of a PDA Development Plan, to permit construction of the project.

Open Space Impacts

The PNF notes that the project will include 290 – 460 residential units with 580 - 920 bedrooms total. It can therefore be estimated that 290 - 1200 people will reside at this location. This development will add demand to existing public open spaces in order to meet the outdoor recreation needs of its residents - particularly for active uses, play spaces for children, and accommodations for pet owners.

Boston Parks and Recreation Department
1010 Massachusetts Ave., Boston, MA 02118 / Tel.: 617-635-4505 / Fax: 617-635-3173

This project has proposed to make improvements to Winthrop Square which is a small, passive open space across the street. These improvements will provide a public amenity to the project.

Shadow Impacts

The proposed development currently includes the construction of a 775' tall tower. The PNF notes that "the site is located in a densely built urban area and the proposed project will be surrounded by and adjacent to existing structures that cast shadows on public roads and spaces. Most new shadow will occur in the immediately surrounding area."

Two State laws regulate shadows on the Boston Common and the Public Garden. The Boston Common (Ch. 362, 1990) and Public Garden (Ch. 384, 1993) Shadow Laws restrict new shadows on the parks to the first hour after sunrise or 7:00 a.m. (whichever is later), or the last hour before sunset, cast by buildings located outside of the Midtown Cultural District. The shadow laws created a "shadow bank" from which the City could allow developers to "withdraw" for shadows cast for longer than the allowed exemption.

This project needs statuary relief from these laws as the Winthrop Square project would cast shadow onto the parks beyond the allowed timeframe. However, according to shadow studies provided by the project proponent, this new shadow is gone by 9:30 am on its most impactful day. One hundred days of the year, there is no new shadow generated by the project.

Benefits

BPRD is challenged by the reality of maintaining and improving beloved but aging infrastructure. The Winthrop Square project would provide millions of dollars needed for maintenance, capital improvements and endowments for Boston Common and Franklin Park as highlighted in *Imagine Boston 2030* and *Boston Open Space and Recreation Plan 2015-2021* as well as detailed in various internal planning documents at BPRD.

As America's first park, Boston Common has over 1.5 million unique visitors a year which impacts the park far more than its current maintenance budget can restore. The improvements to the Boston Common that would be enabled would provide a net improvement to people's experience of that open space. As with all BPRD capital projects, these funds would go through a community process regarding their expenditure. Items to be considered are pathway improvements, irrigations systems, lighting, Frog Pond infrastructure, turf repair and more. BPRD strongly feels that some of these funds should be endowed and restricted for a maintenance fund for the park. BPRD 01

Improvements to the jewel of the Emerald Necklace, Franklin Park, have been deferred for over a century. Representing the largest investment in the park since its creation, these funds would be allocated through a community process and could include pathways, tree care, lighting, security, the renovation of the overlook ruins and Elma Lewis bandstand and more. As with the Common, BPRD strongly feels that certain funds be restricted for a maintenance endowment. BPRD 02

The Winthrop Square project provides an opportunity to care for these parks in perpetuity.

Please contact me if you have questions.

Sincerely,

Christopher Cook, Commissioner
Boston Parks and Recreation Department

cc: Austin Blackmon, Chief, Environment, Energy, and Open Space Cabinet
Brian Golden, Boston Planning and Development Agency
Jon Greeley, Boston Planning and Development Agency
Casey Hines, Boston Planning and Development Agency

BOSTON PARKS AND RECREATION DEPARTMENT

BPRD 01 **As America's first park, Boston Common has over 1.5 million unique visitors a year which impacts the park far more than its current maintenance budget can restore. The improvements to the Boston Common that would be enabled would provide a net improvement to people's experience of that open space. As with all BPRD capital projects, these funds would go through a community process regarding their expenditure. Items to be considered are pathway improvements, irrigation systems, lighting, Frog Pond infrastructure, turf repair and more. BPRD strongly feels that some of these funds should be endowed and restricted for a maintenance fund for the park.**

Please see Response to BPDA 55.

BPRD 02 **Improvements to the jewel of the Emerald Necklace, Franklin Park, have been deferred for over a century. Representing the largest investment in the park since its creation, these funds would be allocated through a community process and could include pathways, tree care, lighting, security, the renovation of the overlook ruins and Elma Lewis bandstand and more. As with the Common, BPRD strongly feels that certain funds be restricted for a maintenance endowment.**

Please see Response to BPDA 55.

BOSTON
TRANSPORTATION
DEPARTMENT

ONE CITY HALL SQUARE • ROOM 721
BOSTON, MASSACHUSETTS 02201
617-635-4680 • FAX 617-635-4295

March 6, 2017

Brian Golden, Director
Boston Planning & Development Agency
One City Hall Square, 9th Floor
Boston, MA 02201

RE: Project Notification Form: 115 Winthop Square

Dear Mr. Golden,

Thank you for the opportunity to comment on the 115 Winthrop Square Project Notification Form (PNF). The project includes the development of approximately 1,100,000 to 1,500,000 square gross square feet of residential, office, office club, accelerator office, retail, restaurant and great hall development. While the exact program is yet to be determined, the development project includes between 290 and 460 residential units, 450,000 to 635,000 square feet of office and 35,000 to 60,000 square feet of retail/restaurant. The project proposes between 400 and 550 parking spaces.

Due to the complexity of the project, BTD supports the PNF's proposal to prepare a Draft Project Impact Report (DPIR) and provide new information and analysis as described below.

Site Access

The PNF states that the Proponent's initial research indicates that limiting access to and from Federal Court/Milton Place may not be possible due to those streets' potential status as private ways. Considering the project's proposed enhancement of the public realm at Winthrop Square, and the capacity of Federal Street, BTD encourages the proponent to continue researching the possibility of all access from Federal Court/Milton Place in order to make Winthrop Square as pedestrian-oriented and friendly as possible. BTD 01

All access points should limit as far as possible conflict points, especially on any pedestrianized plaza on Winthrop Square. Access points should also take into account traffic and bus queueing/delay on Federal Street. If Federal Court/Milton Place is not available due to legal restrictions, the proponent should explore implications of creating a new access point at the northern end of the Federal Street edge of the site. BTD 02

Parking

The area around the project is extensively served by MBTA transit service. As part of the DPIR, BTD would like the proponent to discover how many publically available parking spaces are within a quarter mile, and whether any spaces might be made available through agreement, thereby lessening the need for parking at this location. BTD 03

The Boston Transportation Department (BTD) policy maximum for Downtown is 0.4 for office use and 0.5-1.0 for residential uses; because of the project's transit-oriented location, BTD would recommend a maximum parking ratio at the lower end of this scale. The proponent should spell out how these spaces would be distributed, and whether they would be bundled with units or sold / rented separately for residential uses, and whether office parking would be bundled, and whether parking cash out would be offered. BTD encourages the project to consider shared parking solutions to limit the number of parking spaces. Having commercial and residential access points combined would make this sharing easier. The proponent should spell out how parking spaces are to be assigned to various uses so that the precise parking ratio can be understood. BTD 04 BTD 05

BTD will require the project to work with a car share provider to dedicate some of the spaces to car share. BTD 06

The project should describe bicycle parking included in the project, and the locations of that parking. BTD notes that the City of Boston Bicycle Parking Guidelines spell out the City's policy for development provision of secure/covered bicycle parking, on-street bicycle parking, shower/change facilities for employees and bike share provision. Any bicycle repair facilities proposed should be spelled out as well. Parking that is internal to the building should be located in an area that is convenient for bicyclists so as to make this as attractive an option as possible. BTD 07

The proponent should spell out how it plans to meet the City's Electric Vehicle Charging standards, which include that at a minimum 5% of all spaces must be EV spaces, and that at least 15% of spaces must be constructed with EV-ready electrical capacity. BTD 08

Loading

The DPIR should lay out the number of loading bays as well as the truck type to be accommodated, as well as any separate trash rooms. BTD foresees a need for at least three loading bays that will accommodate WB-50 trucks and a separate trash room; rational for anything different should be spelled out in the DPIR. BTD 09

In addition, the DPIR should include a strategy of how urban packages delivery, which has seen a huge increase in small truck trips, will be accommodated. Will delivery companies be locating local pick up "warehouses" in the development? BTD 10

Transportation Mitigation

BTD looks forward to working with the proponent on developing an appropriate transportation mitigation package, which should be informed by the trips generated as well as peak hour mode share. BTD encourages the proponent to analyze transit services in the area based not only upon what services are supplied, but also peak capacity, and how the project's generated transit trips will impact that supply. If the proponent's trips will impact a transit, pedestrian or bicycle facility, the proponent should assess options to facilitate safe, convenient and attractive access. This may include (but is not limited to) sidewalks, crossings, bus stops, bike facilities and/or subway stops. BTD 11

Transportation Demand Management

BTD encourages the project to look into whether the developer can join a Transportation Management Association on behalf of the entire building, and if possible to do so. We also encourage the project to require office and retail tenants to subsidize transit, bike share and car share membership for employees, as well as to bundle subsidized transit, bike share and car share membership for residents through residential leases, as well as for the first year of any condo sales. Finally, BTD encourages the proponent to propose inclusion of real-time transportation (transit, bikeshare, carshare, transportation network services, wayfinding, walk/bike distance) display technology in all lobbies and near the entrances to the Great Hall. BTD 12 BTD 13

Public Realm

The project has proposed a robust enhancement of the public realm, especially Winthrop Square; BTD looks forward to working with the proponent to create an outstanding place. BTD encourages the proponent to consider how to make the connections to the Downtown Crossing Pedestrian Zone great public spaces as well, especially along Franklin Street (Tontine Crescent), Winthrop Lane and Summer Street. Any long-term maintenance by the proponent of the plaza, greenery and trees in Winthrop Square should be spelled out, as well as and street furniture (eg benches) proposed for the abutting sidewalk. The DPIR should provide details on the width of the proposed sidewalk around the site, including widths of pedestrian zones, furniture zones and/or curbs. BTD 14

If general traffic is proposed to be allowed on either or both of Otis and Devonshire streets in the area that will be have non-standard surfacing (and considering that many buses use Otis Street), the durability of the surfacing should be spelled out to confirm that it will handle vehicular traffic. The proponent should spell out any long-term maintenance of that surfacing. BTD 15

Any proposals for improving bus facilities should be spelled out, such as bus waiting areas at Franklin/Devonshire and Otis/Summer, and/or repainting of the Essex Street bus lane. BTD 16

Pedestrian Crossings

A rendering in the Proponent's Boston Civic Design Commission PNF Filing Presentation (slide 29) shows a mid-block crosswalk across Federal Street. While BTD agrees that this is an important pedestrian connection to make, safety issues concerning a multilane crosswalk on a one-way street have to be addressed. Is there warrant for curb extensions? A crossing beacon? What are the traffic implications of the crossing? BTD 17

Curbside

The DPIR should spell out both the existing and any proposed changes to curbside use on Devonshire, Franklin and Otis Streets. BTD 18

MBTA currently has bus stops and layover on Otis at Summer, on Federal at Franklin, and a bus stop on Franklin at Devonshire. The proponent should work with BTD and the MBTA to make sure bus operations are considered in the Proponent's plans, and these plans should be spelled out in the DPIR BTD 19

There are currently State Police parking spaces around Winthrop Square. The proponent should work with BTD and the State Police to find a location for that parking should their proposal remove parking from the location. The proponent could look into providing parking in their garage for the State Police. BTD 20

The proponent should spell out its valet plan, and how it will accommodate all valet internally.

Traffic

The PNF mentions that the proponent will explore using either BTD mode splits or US Census/National Household Travel Survey (NHTS) data for the corresponding census tract. Please include a discussion of what each mode split is and how you make this decision. Take into consideration that much federal data does not have non-commute data, so explain how you will account for non-commute trips in your mode split if you use Census/NHTS data. BTD 21

The DPIR should show the full impact of all potential directionality changes on Devonshire and Otis Streets. If southbound traffic is proposed for Devonshire, the DPIR should investigate how lefts onto Summer Street will work, especially considering the current stop line for the Summer/Lincoln/Bedford intersection. If any of Devonshire and/or Otis would be closed to traffic, how will 100 Summer Street handle loading and parking? BTD 22

BTD requests the study area include the following intersections: BTD 23

- Any proposed driveways
- Franklin/Hawley
- Franklin/Devonshire/Otis
- Franklin/Federal
- Franklin/Congress
- Matthews/Federal
- Matthews/Congress
- Summer/Hawley
- Summer/Otis/Kingston
- Summer/Devonshire
- Summer/Bedford/Lincoln
- Summer/High
- Summer/Purchase/I-93 Ramp
- High/Federal
- High/Congress
- Essex/Lincoln/Surface
- Purchase/Congress
- Congress/Milk
- Arch/Franklin

Site Plan

The proponent needs to submit an engineered site plan within the context of the surrounding roadways at 1:20 scale depicting: BTD 24

- Vehicular access and circulation
- Parking layout and circulation
- Pedestrian access and circulation
- Bicycle access and circulation
- Area shuttle/van pool pickup and drop-off
- Parking spaces for car sharing services
- Service and loading*
- Roadways and sidewalks
- Building layout
- Bicycle parking locations and types (covered, indoor, bike share, etc)
- Transit stops and connections
- Electric vehicle charging stations and ev-ready spaces

*Trash compactors/dumpsters need to be depicted as well.

Construction Management Plan

As the project in the DPIR advances, the proponents will be required to develop and submit a detailed Construction Management Plan (CMP) to BTD for review and approval. The CMP will address TDM measures for construction workers, proposed street occupancies, equipment staging, sidewalk and bike-lane relocations and hours of construction work. BTD will work with the proponents to execute the CMP. BTD 25

The issues raised above should be addressed in the DPIR. BTD looks forward to working collaboratively with the proponents and the community in the review of these projects and to address any outstanding concerns in the permitting process.

Sincerely,

Joshua A. Weiland
Transportation Planner
Boston Transportation Department

Cc: Vineet Gupta, Director of Policy and Planning
John DeBenedictis, Director of Engineering

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BOSTON TRANSPORTATION DEPARTMENT

BTD 01 **The PNF states that the Proponent's initial research indicates that limiting access to and from Federal Court/Milton Place may not be possible due to those streets' potential status as private ways. Considering the project's proposed enhancement of the public realm at Winthrop Square, and the capacity of Federal Street, BTD encourages the proponent to continue researching the possibility of all access from Federal Court/Milton Place in order to make Winthrop Square as pedestrian-oriented and friendly as possible.**

The Proponent has completed extensive studies with regards to vehicle access and the pedestrian environment, which are reflected in the Project site plan as well as in Section 4.0. A site plan is presented in Section 2.0.

BTD 02 **All access points should limit as far as possible conflict points, especially on any pedestrianized plaza on Winthrop Square. Access points should also take into account traffic and bus queuing/delay on Federal Street. If Federal Court/Milton Place is not available due to legal restrictions, the proponent should explore implications of creating a new access point at the northern end of the Federal Street edge of the site.**

As described in Section 2.0, and evaluated in the transportation analysis in Section 4.0, the site plan has been designed to minimize any potential traffic conflicts or impacts. Because Federal Court is not available, a new access point is provided at the northern end of the Federal Street edge of the site.

BTD 03 **The area around the project is extensively served by MBTA transit service. As part of the DPIR, BTD would like the proponent to discover how many publically available parking spaces are within a quarter mile, and whether any spaces might be made available through agreement, thereby lessening the need for parking at this location.**

Public parking facilities within a quarter mile radius of the site are presented in Figure 4-4.

BTD 04 **The Boston Transportation Department (BTD) policy maximum for Downtown is 0.4 for office use and 0.5-1.0 for residential uses; because the project's transit-oriented location, BTD would recommend a maximum parking ratio at the lower end of this scale. The proponent should spell out how these spaces would be distributed, and whether they would be**

bundled with units or sold/rented separately for residential uses, an whether office parking would be bundled, and whether parking cash out would be offered.

The parking plan for the Project, which is presented in Section 4.8, reflects the transit-oriented location of the site and BTD's parking ratios. Parking management strategies are discussed in the Transportation Demand Management plan in Section 4.11.

BTD 05 **BTD encourages the project to consider shared parking solutions to limit the number of parking spaces. Having commercial and residential access points combined would make this sharing easier. The proponent should spell out how parking spaces are to be assigned to various uses so that the precise parking ratio can be understood.**

The parking plan for the Project, which includes sharing by commercial and residential users, is described in Section 4.8.

BTD 06 **BTD will require the project to work with a car share provider to dedicate some of the spaces to car share.**

As discussed in Section 4.11, the TDM plan includes a commitment to work with car share providers to accommodate car-share spaces.

BTD 07 **The project should describe bicycle parking included in the project, and the locations of that parking. BTD notes that the City of Boston Bicycle Parking Guidelines spell out the City's policy for development provision of secure/covered bicycle parking, on-street bicycle parking, shower/change facilities for employees and bike share provision. Any bicycle repair facilities proposed should be spelled out as well. Parking that is internal to the building should be located in an area that is convenient for bicyclists so as to make this as attractive an option as possible.**

Bicycle parking is discussed in Section 4.9. The Proponent looks forward to working with BTD to refine the bike-parking plan.

BTD 08 **The proponent should spell out how it plans to meet the City's Electrical Vehicle Charing standards, which include that at a minimum 5% of all spaces must be EV spaces, and that at least 15% of spaces must be constructed with EV-ready electrical capacity.**

Please refer to the TDM plan in Section 4.11.1 regarding provisions for EV vehicles.

BTD 09 **The DPIR should lay out the number of loading bays as well as the truck type to be accommodated, as well as any separate trash rooms. BTD foresees a need for at least three loading bays that will accommodate WB-50 trucks and a separate trash room; rational for anything different should be spelled out in the DPIR.**

Please refer to Section 4.10 for a description of loading accommodations, including a discussion of trash removal. The largest truck needed to support the Project is a WB-40.

BTD 10 **In addition, the DPIR should include a strategy of how urban packages delivery, which has seen a huge increase in small truck trips, will be accommodated. Will delivery companies be locating local pick up "warehouses" in the development?**

As described in Section 4.10.3, centralized package delivery will be provided.

BTD 11 **BTD encourages the proponent to analyze transit services in the area based not only upon what services are supplied, but also peak capacity, and how the project's generated transit trips will impact that supply. If the proponent's trips will impact transit, pedestrian or bicycle facility, the proponent should assess options to facilitate safe, convenient and attractive access. This may include (but is not limited to) sidewalks, crossings, bus stops, bike facilities, and/or subway stops.**

A detailed analysis of potential transit impacts is presented in Section 4.6. Public realm improvements to enhance non-auto accessibility are presented in Sections 2.0 and 7.0

BTD 12 **BTD encourages the project to look into whether the developer can join a Transportation Management Association on behalf of the entire building, and if possible to do so. We also encourage the project to require office and retail tenants to subsidize transit, bike share and car share membership for employees, as well as to bundle subsidized transit, bike share and car share membership for residents through residential leases, as well as for the first year of any condo sales.**

A TDM plan is presented in Section 4.11.1, which includes a commitment to TMA membership, and other strategies to encourage non-auto modes of travel. The Proponent looks forward to refining the TDM plan in collaboration with BTD.

BTD 13 **Finally, BTD encourages the proponent to proposed inclusion of real-time transportation (transit, bikeshare, carshare, transportation network services, wayfinding, walk/bike distance) display technology in all lobbies and near the entrances to the Great Hall.**

The TDM plan presented in Section 4.11.1 includes a provision of real-time transportation information.

BTD 14 **The project has proposed a robust enhancement of the public realm, especially Winthrop Square… BTD encourages the proponent to consider how to make the connections to the Downtown Crossing Pedestrian Zone great public spaces as well, especially along Franklin Street (tontine Crescent), Winthrop Lane and Summer Street. Any long-term maintenance by the proponent of the plaza, greenery and trees in Winthrop Square should be spelled out, as well as street furniture (e.g. benches) proposed for the abutting sidewalk. The DPIR should provide details on the width of the proposed sidewalk around the site, including widths of pedestrian zones, furniture zones and/or curbs.**

Refer to Sections 7.3, 7.4 and 7.5 for a description of all urban connections and maintenance. Section 2.2.2 includes additional information about Winthrop Square. See Site Plan - Pedestrian Access Diagram and Context Plan (Figures 1-3 and 2-4) for additional information on design.

BTD 15 **If general traffic is proposed to be allowed on either or both of Otis and Devonshire streets in the area that will have non-standard surfacing (and considering that many buses use Otis Street), the durability of the surfacing should be spelled out to confirm that it will handle vehicular traffic. The proponent should spell out any long-term maintenance of that surfacing.**

The type of surfacing for these areas has not been determined. The Proponent looks forward to working with BTD to determine the most appropriate approach in this regard.

BTD 16 **Any proposals for improving bus facilities should be spelled out, such as bus waiting areas at Franklin/Devonshire and Otis/Summer, and/or repainting of the Essex Street bus lane.**

The Proponent looks forward to continuing discussions with MBTA and BTD regarding potential improvements for bus facilities and locations of stops.

BTD 17 **A rendering in the Proponent's Boston Civic Design Commission PNF Filing Presentation (slide 29) shows a mid-block crosswalk across Federal Street. While BTD agrees that this is an important pedestrian connection to make,**

safety issues concerning a multi-lane crosswalk on a one-way street have to be addressed. Is there a warrant for curb extensions? A crossing beacon? What are the traffic implications of the crossing?

The Proponent's evaluation has identified a strong desire for a cross-walk on Federal Street at the Great Hall entrance. This would not necessarily be a mid-block crossing as it could be incorporated in intersection improvements at Matthews Street. The Proponent shares any concerns about pedestrian safety, and looks forward to working with BTD and BPDA to progress the most appropriate design for improvements at this location and on Devonshire Street.

BTD 18 **The DPIR should spell out both the existing and proposed changes to curbside use on Devonshire, Franklin and Otis streets.**

The existing curbside regulation in the vicinity of the site are shown on Figure 4-5. The proposed curbside uses are shown in the site plan on Figure 2-5 and 2-13. As currently envisaged, the existing State Police parking spaces on Devonshire Street would be relocated and the redesign of the roadway would incorporate drop-off areas along the site frontage. Any changes on Otis Street would depend on the redesign for Winthrop Square, which the Proponent looks forward to progressing in collaboration with BTD and BPDA.

BTD 19 **MBTA currently has bus stops and layover on Otis at Summer, on Federal at Franklin, and a bus stop on Franklin at Devonshire. The proponent should work with BTD and the MBTA to make sure bus operations are considered in the Proponent's plans, and these plans should be spelled out in the DPIR.**

The Proponent has had preliminary discussions with the MBTA regarding bus operations, and looks forward to coordinating further with the MBTA and BTD.

BTD 20 **There are currently State Police parking spaces around Winthrop Square. The proponent should work with BTD and the State Police to find a location for that parking should their proposal remove parking from the location. The proponent could look into providing parking in their garage for the State Police.**

The State Police parking spaces around Winthrop Square will need to be relocated during the construction stage.

BTD 21 **<u>Traffic.</u> The PNF mentions that the proponent will explore using either BTD mode splits or US Census/National Household Travel Survey (NHTS) data for the corresponding census tract. Please include a discussion of what each mode split is and how you many this decision. Take into consideration that much federal data does not have non-commute data, so explain how you will account for non-commute trips in your mode split if you use Census/NHTS data.**

Mode splits for the Project are presented in Section 4.4.1.2, including a discussion of the data sources.

BTD 22 **The DPIR should show the full impact of all potential directionality changes on Devonshire and Otis Streets. If southbound traffic is proposed for Devonshire, the DPIR should investigate how lefts onto Summer Street will work, especially considering the current stop line for the Summer/Lincoln/Bedford Intersection. If any of Devonshire and/or Otis would be closed to traffic, how will 100 Summer Street handle loading and parking?**

As described in Section 4.1.1, to eliminate the need for service vehicles to exit through Winthrop Square, it is proposed to convert the section of Devonshire Street between the service area curb-cut and Summer Street to two-way traffic operation. This will also enable cars and trucks exiting the garage driveway and loading dock at the rear of 100 Summer Street to depart directly to Summer Street as an alternative to passing through Winthrop Square as they must do under the existing circulation. An evaluation of this proposal was presented to BTD in a memorandum dated December 4, 2017 which is included in Attachment D.

BTD 23 **BTD requests the study area include the following intersections:**

- **Any proposed driveways;**
- **Franklin/Hawley;**
- **Franklin/Devonshire/Otis;**
- **Franklin/Federal;**
- **Matthews/Federal;**
- **Matthews/Congress;**
- **Summer/Hawley;**

- **Summer/Otis/Kingston;**
- **Summer/Devonshire;**
- **Summer/Bedford/Lincoln;**
- **Summer/High;**
- **Summer/Purchase/I-93 Ramp;**
- **High/Federal;**
- **High/Congress;**
- **Essex/Lincoln/Surface;**
- **Purchase/Congress;**
- **Congress/Milk;**
- **Arch/Franklin**

As described in Section 4.2.1.2, the study area includes all of the requested intersections.

BTD 24 **<u>Site Plan</u>. The proponent needs to submit an engineered site plan within the context of the surrounding roadways at 1:20 scape depicting:**

- **Vehicular access and circulation;**
- **Parking layout and circulation;**
- **Pedestrian access and circulation;**
- **Area shuttle/van pool pickup and drop-off;**
- **Parking spaces for car sharing services;**
- **Service and loading;**
- **Roadways and sidewalks;**
- **Building layout;**
- **Bicycle parking locations and types (covered, indoor, bike share, etc.);**

- **Transit stops and connections;**
- **Transit stops and connections;**
- **Electric vehicle charging stations and ev-ready spaces**

Vehicle access and circulation are shown on Figure 2-13. Parking layout and circulation is identified on Figure 2-15. Pedestrian access and circulation is shown in Figure 1-3. Service and loading is shown on Figure 2-5 and truck diagrams are included in Attachment D. Roadways and sidewalks and building layout are shown on Figure 2-5. Transit stops and connections are shown in Figure 4-7.

BTD 25 **Construction Management Plan. As the project in the DPIR advances, the proponents will be required to develop and submit a detailed Construction Management Plan (CMP) to BTD for review and approval. The CMP will address TDM measures for construction workers, proposed street occupancies, equipment staging, sidewalk and bike-lane relocations and hours of construction work. BTD will work with the proponents to execute the CMP.**

Construction management and construction-related impacts are discussed in Section 5.10. The Proponent looks forward to working with BTD to execute a CMP.

13.2.2 Comments from the Impact Advisory Group

Downtown Boston
Business Improvement District
Corporation

January 20, 2017

Ms. Casey Hines
Senior Project Manager
BPDA
One City Hall Sq.
Boston, MA 02201

Dear Ms. Hines:

As part of the public review process for the 115 Winthrop Square development, I am writing as a member of the Impact Advisory Group (IAG) and as President and CEO of the Downtown Boston Business Improvement District (DBBID). I am also writing as one who has witnessed and been a part of the transformation and renaissance of the downtown neighborhood for over four decades. At the outset, I would like to commend the BPDA for extending the comment period in response to the IAG's request.

The Downtown Boston BID, established as part of this renaissance, is a private non-profit organization made up of hundreds of property and business owners. Our mission is to significantly improve the experience of all who work, live, visit, shop and go to school in our 34-block area. Since the BID began full operations in spring 2011, it has invested nearly $27 million in the area. The BID's 350+ commercial property owner members have contributed an additional $2.465 billion in assessed property value since 2011, from $4.597 billion in FY12 to $7.062 billion in FY17. They will pay $179.1 million in property taxes in FY17, nearly $32.4 million more than FY12. As a result of BID members' new developments and investments, hundreds of new businesses and thousands of new residents now call this district their home.

As stewards of this 34-block area, we provide supplemental services to keep the streets and sidewalks clean, upgrade the aesthetic appearance of the district and make people feel welcomed and safe. Our work is to promote and foster an energetic and thriving business climate in the area and serve as a voice and advocate for our members. Our neighborhood is the hub of the transit system, we welcome over 4.2 million visitors a year and we have the busiest pedestrian area in New England. Our mission is to continue to maximize the district's full potential as a premier and vibrant destination in the heart of Boston.

I believe Millennium Partners' proposal for the 115 Winthrop Square development will continue the unprecedented transformation and investment in downtown which is in keeping with the mission of the Downtown Boston BID. Already, Downtown Boston has been enhanced by three of Millennium Partners' successful and transformative development projects--the Ritz-Carlton hotel/residences complex (2000); Millennium Place (2014); and the Burnham Building renovation/Millennium Tower redevelopment (2016). In each case, blocks have been re-imagined and revitalized. For nearly two decades, Millennium Partners' investment has been a catalyst for Boston, encouraging others to invest both in the downtown area and surrounding neighborhoods. RS 01

Here in downtown, Millennium Partners has renovated sidewalks and streets; added new trees and lights; installed security cameras; and created open spaces for the public to enjoy. Their retail tenants have added to the vibrancy of the downtown streetscape, with Legal Crossing, Caffè Nero, Roche Bros., and SIP Wine Bar and Kitchen creating much-welcomed street activity. In addition, Millennium Partners renovated two of downtown's MBTA entrances (the Orange Line portals at Downtown Crossing and Chinatown) and added the stadium steps and performance space at the corner of Washington and Franklin streets.

During the next phase of development review, I would like to see further study and public input regarding the following areas of concern:

1.) In spring 2016, following up on a preliminary communication the BID sent to the BPDA regarding the dilapidated Winthrop Square Garage, nine abutters to the site met to discuss their concerns about its deteriorating and unsafe status. This group of property owners represented properties totaling 3.1 million square feet of commercial real estate and $1.7 billion in assessed value. The meeting generated a letter to Brian Golden, Director of the BPDA, highlighting the abutters' concerns. Unfortunately, most of these negative conditions remain problems, and thus the abutters' concerns continue. They would like to see the demolition occur during the earliest possible phase of the project. RS 02

2.) The project proposes significant changes to the traffic circulation in Winthrop Square. The project site is adjacent to, and will have a major impact on, MBTA bus routes and public transportation. Further study and public discussion of these changes should happen during the next phase. RS 03

3.) The 115 Winthrop Square development will initiate a much-needed redesign of, and reinvestment in, the surrounding public areas. To ensure that this investment is protected, well-maintained and coordinated with other public realm investments, the BID would like to participate in and be part of the discussions involving choice of materials and management operations. RS 04

4.) The Great Hall and attendant public uses proposed for 115 Winthrop Square will bring a vitality and liveliness to this area, as the design seeks to make the space a major pedestrian destination. The design of the Great Hall, and its role as a connector between Federal Street and Winthrop Square, creates the potential for a great new "urban room" that will enhance historic Winthrop Square. Thoughtful landscape and architectural design can integrate new elements while paying attention to the historic integrity and tradition of the space and adjacent buildings.

Per the development proposal, the Great Hall is intended to be "a distinctive gathering place active through all seasons and a focal point for activity from morning into the evening." To help the project achieve this goal, the BID would like to see an operating plan for the Great Hall space. As a new pedestrian element in the City's most highly trafficked pedestrian area, the BID would also like to see the space include public restrooms, which are sorely needed in the district. This space has enormous potential, and further exploration is recommended to help it become a special place unlike any other in the country. RS 05 RS 06

5.) And finally--but by no means least--improvements to streets and sidewalks continue to be a top priority for the district. The BID would like to see City capital match Millennium Partners' private investment in Winthrop Square streets and sidewalks. The streets and sidewalks of the Downtown Crossing Pedestrian Zone, such as Winter Street, which is a major gateway to downtown, have not received significant City investment in years. This dedicated allocation will ensure that sidewalks and roadways throughout the BID area--which has one of the highest pedestrian counts in all of New England--are upgraded, accessible and welcoming.

Thank you for your attention to this matter. I look forward to continuing to work with the BPDA, abutting BID property owner members, and other stakeholder communities on this vitally important redevelopment project in the heart of downtown Boston.

Sincerely,

Rosemarie E. Sansone

Rosemarie E. Sansone
President & CEO
Downtown Boston Business Improvement District

ROSEMARIE SANSONE

RS 01 **I believe Millennium Partners' proposal for the 115 Winthrop Square development will continue the unprecedented transformation and investment in downtown which is in keeping with the mission of the Downtown Boston BID.**

The Proponent appreciates this statement of support for the Project.

RS 02 **In spring 2016, following up on a preliminary communication with the BID sent to the BPDA regarding the dilapidated Winthrop Square Garage, nine abutters to the site met to discuss their concerns about its deteriorating and unsafe status… The meeting generated a letter to Brian Golden, Director of the BPDA, highlighting the abutters' concerns. Unfortunately, most of these negative conditions remain problems, and thus the abutters' concerns continue. They would like to see the demolition occur during the earliest possible phase of the project.**

Demolition is currently underway and expected to be completed early 2018.

RS 03 **The project site is adjacent to, and will have a major impact on, MBTA bus routes and public transportation. Further study and public discussion of these changes should happen during the next phase.**

A detailed analysis of potential impacts to transit is presented in Section 4.6. The Proponent is continuing to discuss any changes with the MBTA and BTD.

RS 04 **The Winthrop Square development will initiate a much-needed redesign of, and reinvestment in, the surrounding public areas. To ensure that this investment is protected, well-maintained and coordinated with other public realm improvements, the BID would like to participate in and be part of the discussions involving choice of materials and management operations.**

The Proponent plans to continue discussions with the BID as it moves through the design process and a management plan is developed.

RS 05 **Per the development proposal, the Great Hall is intended to be "a distinctive gathering place active through all seasons and a focal point for activity from morning into evening." To help the project achieve this goal, the BID would like to see an operating plan for the Great Hall space.**

The Proponent plans to continue discussions with the BID as it moves through the design process and a management plan is developed. The Great Hall is described in detail in Sections 2.2.1 and 7.1.

RS 06 **As a new pedestrian element in the City's most highly trafficked pedestrian area, the BID would also like to see the space include public restrooms, which are sorely needed in this district.**

The Project will include public restrooms, which will be open to the public during Great Hall events.

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JVS SKILLS . JOBS . CAREERS

January 12, 2017

Boston Planning and Development Agency
Boston City Hall
1 City Hall Square
Boston, MA 02201

To the Boston Planning and Development Agency:

I am writing as a member of the IAG for the Winthrop Square development project. I was selected to serve on the IAG because the organization that I run, Jewish Vocational Service (JVS), a non-profit provider of adult education, training and employment services, occupies the entire third floor and part of the second floor of 75-101 Federal Street and is therefore an immediate abutter to the development site and will be significantly impacted by the project. As the President and CEO of JVS, the largest workforce development organization in the region, I believe I also represent on the IAG the voice of access to employment and the economic opportunity represented by this proposed development project. I am also a resident of the Jamaica Plain neighborhood of Boston, have been a resident of the City of Boston for nearly 40 years, and care deeply about the future and success of our city.

I will address five issues in my comments: 1. The overall development; 2. The impact on immediate abutters; 3. Permanent employment for Boston residents; 4. Winthrop Square design, including pedestrian access; and 5. The proposed "Great Hall" and its management and use.

1. **The Overall Development**

After hearing presentations by the developers, residents, and commercial abutters of the site, I have reached the conclusion that the benefits of Millennium's proposed development of the publicly owned Winthrop Square site to the entirety of Boston residents outweigh the negative impacts of the proposed project.

RUB 01

The negative impacts of the development project appear to be limited to modest increased shadows on the public assets of the Boston Common and Boston Public Garden, as well as construction period and permanent impacts on immediate abutters (see below).

The benefits of the development project appear to be removal of a blighted public parking garage, significant infusion of economic activity in the Financial District, significant improvement to the public streetscape and public activity in

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the Financial District and Winthrop Square areas, significant permanent jobs (see below), significant revenues for the city of Boston and its residents through the sale of this public asset and construction-related linkage, and substantial affordable housing.

In a sense, the IAG has been asked to consider the potential impacts on or from two public assets, the Boston Common/Public Garden and the Winthrop Square Garage site. Comparing the potential negative impacts to the potential positive impacts, I feel confident that the positives far outweigh the negatives.

2. Employment for Boston Residents

One of the key benefits of the proposed project is the creation of hundreds of permanent positions both for building operations as well as for tenants of the building. These jobs include a wide range of skill level, from janitorial and security, to food service, to legal and financial positions. I strongly recommend that the developer be encouraged to pursue a realistic and meaningful plan RUB 02
to make these positions available to Boston residents, and combine recruitment, job training, and placement services to ensure that as many Boston residents as possible can attain the positions.

Given that JVS, the largest regional workforce development provider in the Boston area and the operator of the Downtown Boston One-Stop Career Center, is located immediately adjacent to the Winthrop Square project, the developer and the City of Boston have a unique opportunity to more comprehensively and effectively leverage effective recruitment, training, and placement of Boston residents for this development than is typically done in downtown development projects. JVS stands ready to work closely with the BPDA, the Mayor's Office of Workforce Development, and Millennium Partners to provide recruitment, training, and placement services for Boston residents and other Boston-area job seekers to ensure that the permanent jobs benefits of the project accrue to Boston residents so that they can share in the exciting growth of the downtown economy.

I urge that the BPDA and Millennium Partners work closely with JVS to ensure that revenues RUB 03
from the sale of the garage and/or related linkage payments are made available to adequately fund these recruitment, training, and placement services so that we can ensure that Boston residents fully benefit from the employment opportunities of this development project.

3. Impact Upon Immediate Abutters

A development project of this scale will undoubtedly have significant impact on abutters in the Winthrop Square area. These impacts can be divided into two categories: construction period impacts and permanent impacts. The developers have begun to address many of the construction period impacts such as traffic, noise, dust/debris, and utility interruptions. It is important that the BPDA work closely with Millennium and immediate abutters to review construction period mitigation plans more closely and create an ongoing committee to monitor the effectiveness of mitigation efforts.

One particular concern is noise. JVS operates numerous classrooms on the third floor of 75-101 RUB 04
Federal Street which provide education, training, and employment services for Boston and Boston-area residents. These classrooms are located inches from the proposed building and appropriate noise mitigation efforts will need to be in place to ensure that the important services

in these classrooms are not interrupted. This will be an issue for any of the tenants of 75-101 Federal Street that have offices on that side of the building. Permanent impacts from the proposed

development project include increased traffic, significant loss of natural light for immediate abutters, and loss of natural light for all Winthrop Square abutters. Traffic in Winthrop Square is likely to increase significantly as a result of this project, and the current configuration of the square and its incoming and outgoing streets is not adequate to handle this new traffic. I would urge that the developers and the City of Boston carefully consider a re-configuration of the traffic flow of the Square to minimize negative impacts. RUB 05

The current design plans for the proposed building appear to have the section of the building immediately adjacent to 75-101 Federal Street built within inches of the existing building, thereby blocking natural light from all offices on that side of the building. I would urge the BPDA and the developer to consider setting the building back from the 75-101 façade at enough of a distance to allow some natural light into those offices. In the case of Jewish Vocational Service, we built new classrooms as part of our new Center for Economic Opportunity on that side of the building which serve low-income and immigrant residents of Boston. $6 million of philanthropic dollars was raised to build this beautiful and impactful space. The new classrooms were designed and built to be "inspirational and aspirational" spaces and include large windows with substantial natural light. These well-lighted classrooms are continuously highlighted by students and instructors as one of the most attractive and motivational features of JVS's new Center for Economic Opportunity. Under the current design of the new Winthrop Square development project, this important feature would be lost. I strongly recommend that either the building be set back further, or that this very negative impact be mitigated in some other fashion to the benefit of the Boston residents who use this important space. RUB 06

The proposed Winthrop Square development project, and its very large mass, will also have a substantial impact on Winthrop Square itself, which already is a relatively dark square, with little access to natural light. I will address this issue in the next section.

4. Winthrop Square Design

The proposed Winthrop Square development project, and its very large mass, will have a substantial impact on Winthrop Square itself, which already is a relatively dark square, with little access to natural light. I recommend that Millennium consider two possible approaches to mitigating this impact. First, the developers and the BPDA should explore the expansion of the Winthrop Square park to the maximum degree possible, both maintaining existing trees if possible, and adding additional trees, seating, and other park amenities. The design of the park should be integrated into the Winthrop Square side of the new development entrance ways, with similar design features, and if possible, matching open space at the entrance of the proposed Great Hall that would greatly expand the public park-like feeling of Winthrop Square. Winthrop Square is an urban gem, and I would urge the BPDA and Millennium to put substantial attention and resources to improving this important space. RUB 07

Winthrop Square is also an important pedestrian pathway from the nearby MBTA stations across the adjacent alley. At present, pedestrians are faced with a dangerous "free-for-all" crossing to

75-101 Federal Street and other nearby buildings, which will only get worse as many new commuters use this pathway to the new development. It is critically important that Winthrop RUB 08

Square improvements that result from the new development include well-marked, well-lit, and safe pedestrian crossings from the alley to the square.

Finally, I would urge Millennium to consider putting aside resources for programming in the RUB 09
Winthrop Square park which could be coordinated with programming in the "Great Hall" (see below). This would allow the park to become, in a sense, the outdoor portion of the "Great Hall" and truly create an active, vibrant, and exciting public space in Winthrop Square and the Financial District overall.

5. The Proposed "Great Hall"

Millennium has proposed the creation of a public "Great Hall" in the new development. While I RUB 10
am intrigued by this idea, I have several concerns about it. First, as it is currently proposed, the "Great Hall" runs the risk of becoming a very large food court, such as the large atrium space at International Place. To avoid this will require both careful design, which I have not yet seen, as well as dedicated and consistent programming and a permanent fund to support such programming. These types of public spaces that are tied to food and other retail uses can work, but the examples are few and far between. I strongly recommend that this aspect of the proposed development receives a great deal more attention.

Sincerely,

Jerry Rubin
President, CEO
Jewish Vocational Service

JERRY RUBIN

RUB 01 **I have reached the conclusion that the benefits of Millenium's proposed development of the publicly owned Winthrop Square site to the entirety of Boston residents outweigh the negative impacts of the proposed project.**

The Proponent appreciates this statement of support.

RUB 02 **I strongly recommend that the developer be encouraged to pursue a realistic and meaningful plan to make these positions available to Boston residents, and combine recruitment, job training, and placement services to ensure that as many Boston residents as possible can attain the positions.**

The Proponent plans to continue its outreach to ensure a diverse and equitable workforce at the Project.

RUB 03 **I urge that the BPDA and Millennium Partners work closely with JVS to ensure that revenues from the sale of the garage and/or related linkage payments are made available to adequately fund these recruitment, training, and placement services so that we can ensure that Boston residents fully benefit from the employment opportunities of this development project.**

The Proponent looks forward to further conversations with JVS to explore job opportunities.

RUB 04 **One particular concern is noise. JVS operates numerous classrooms on the third floor of 75-101 Federal Street which provide education, training, and employment services for Boston and Boston-area residents. These classrooms are located inches from the proposed building and appropriate noise mitigation efforts will need to be in place to ensure that the important services in these classrooms are not interrupted.**

At this time, some of the Project's noise sources are located on the 3rd and 4th levels, adjacent to 75-101 Federal Street. It is anticipated that many excessive noise operations will be performed off hours such as the demolition. The Proponent and its contractor will meet with the neighboring abutters to address individual concerns.

RUB 05 **Traffic in Winthrop Square is likely to increase significantly as a result of this project, and the current configuration of the square and its incoming and outgoing streets is not adequate to handle this new traffic. I would urge**

that the developers and the City of Boston carefully consider a re-configuration of the traffic flow of the Square to minimize negative impacts.

Changes in traffic volumes in Winthrop Square as a result of the Project are shown in Figures 4-13a and 4-13b. A detailed analysis of traffic operations is presented in Section 4.5, including the effects of Project traffic.

RUB 06 **The current design plans for the proposed building appear to have the section of the building immediately adjacent to 75-101 Federal Street built within inches of the existing building, thereby blocking natural light from all offices on that side of the building. I would urge the BPDA and the developer to consider setting the building back from the 75-101 façade at enough of a distance to allow some natural light into those offices... I strongly recommend that either the building be set back further, or that this very negative impact be mitigated in some other fashion to the benefit of the Boston residents who use this important space.**

Please see Section 7.0 for a discussion of the design of the Project.

RUB 07 **The developers and the BPDA should explore the expansion of the Winthrop Square park to the maximum degree possible, both maintaining existing trees if possible, and adding additional trees, seating, and other park amenities. The design of the park should be integrated into the Winthrop Square side of the new development entrance ways, with similar design features, and if possible, matching open space at the entrance of the proposed Great Hall that would greatly expand the public park-like feeling of Winthrop Square.**

Please see Sections 2.2.2 and 7.3 for information regarding Winthrop Square.

RUB 08 **It is critically important that Winthrop Square improvements that result from the new development include well-marked, well lit, and safe pedestrian crossings from the alley to the square.**

The Proponent is continuing to refine the improvements in Winthrop Square in collaboration with BPDA and BTD. Pedestrian accommodations and safety are a priority.

RUB 09 **I urge Millennium to consider putting aside resources for programming in the Winthrop Square park which could be coordinated with programming in the "Great Hall."**

Please see Sections 2.2.1 and 2.2.2 for information about the Great Hall and Winthrop Square, respectively.

RUB 10 **Millennium has proposed the creation of a public "Great Hall" in the new development. While I am intrigued by this idea, I have several concerns about it. First, as it is currently proposed, the "Great Hall" runs the risk of becoming a very large food court, such as the large atrium space at International Place. To avoid this will require both careful design, which I have not yet seen, as well as dedicated and consistent programming and a permanent fund to support such programming. These types of public space that are tied to food and other retail uses can work, but the examples are few and far between. I strongly recommend that this aspect of the proposed development receives a great deal more attention.**

The Great Hall is described in detail in Section 2.2.1.

AUREUS
ASSET MANAGEMENT

ONE WINTHROP SQUARE
BOSTON, MA 02110

January 18, 2017

Comment from Impact Advisory Group (IAG) Member for 115 Winthrop Square

For the past eleven years, my company, Aureus Asset Management, has been headquartered in Winthrop Square. As I spend my working hours there, I take a strong interest in this location. I have worked in the Financial District since 1977 and was born in Boston, so I am very familiar with the neighborhood. City Council President Michelle Wu asked if I would like to join the IAG for 115 Winthrop Square, and I was very pleased to do so. I have long believed that the Winthrop Street Garage could be put to a better use for the neighborhood and the entire city. I am grateful for the opportunity to contribute to the public discussion of this important city project and appreciate the Boston Planning & Development Agency's (BPDA) consideration of my comments.

While I am a great believer in the potential of this site as a major new development for Boston, I wish to share the following concerns about the project as proposed.

1. The BPDA will receive many comments about the shadows on the Boston Common and Boston Public Garden. I strongly support those who want to maintain the shadow law and am opposed to either overturning that long-established law or providing this developer with an exemption. Further, as those familiar with the area can attest, very little sunlight reaches Winthrop Square and that which remains will be substantially lost after the tower is built. The developer has shown sunny illustrations of proposed outdoor space at Winthrop Square, which are unrealistic, given both the limited sun exposure of the square and the proposed construction. KF 01

2. The developer has not fully addressed the issues surrounding the increased level of car and foot traffic around Winthrop Square, particularly if Devonshire Street, which is well used at both ends of the day, is closed off to cars. KF 02

3. We all remember the problem with wind at the Hancock Tower and the glass panes falling out. The Devonshire side of the tower is one of the windiest places in the city and the Impact Advisory Group received no indication that the developer has done simulations of wind effect on the proposed tower. KF 03

4. Turning to the appropriateness of the size of the building, we should consider whether new construction of a one million square-foot tower in downtown is strategically additive for Boston at this time. As highlighted by several recent articles[1], the enormous growth in luxury apartment construction in many cities is reaching a level of saturation and, potentially, overcapacity. With thousands of high-end residential units having been added in Boston, particularly the Seaport but also in the South End, South Boston, Ladder District, and Financial District, BPDA may be adding high-end residential units at exactly the wrong time. Given that 30-40% of units in several new residential buildings have been purchased by foreign owners, and that Millennium forecasts similar purchase patterns, we much weigh the costs and benefits to the community against the benefits to absentee owners. KF 04

[1] See, e.g., http://www.wsj.com/articles/luxury-apartment-boom-looks-set-to-fizzle-in-2017-1483358401

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5. The IAG has also heard significant concerns about excess supply of commercial space. The *Boston Globe* article from Dec 25, 2016, describes how the vacancy rate has risen for high end space in both the Back Bay and Financial District as Seaport space has grown.[2] Seaport space has increased 55% over the past 5 years and there are over 825,000 additional square feet soon to open. Without commitments for commercial occupancy, the scale of the building's commercial footage presents an additional challenge for Downtown Crossing. KF 05

Millennium Partners has claimed that it must build at Winthrop Square what will become the city's tallest building in order to justify the costs associated with its bid, including a commitment of $153 million in payments to Boston. The IAG heard testimony that Millennium Partners offered a bid that was 50% higher than the next closest builder. Many IAG and community members believe that if Millennium trapped itself into an unaffordable commitment, that remains Millennium's challenge, and not the city's to bear. In fact, the developer demanding a variance on height and shadow restrictions to build a tower higher than any other in Boston, strikes many as inconsistent with the charge to design a building that would contribute to the resurgent neighborhood of Downtown Crossing. If Millennium offered a financially irresponsible bid, future generations of Bostonians should not shoulder the cost of that mistake. KF 06

Finally, I would like to draw the BPDA's attention to a couple of points within the marketing book and documents that Millennium sent to the members of the IAG. The developer has written on pages 1-7 of the proposal that "the Project will create approximately 2,670 permanent jobs." I asked for clarification of those numbers because I could only come up with about 200 new jobs when adding up the security, maintenance, cleaning, and retail professionals directly associated with the project..

Many members of the IAG were shocked to discover that the in reaching it's "job creation" estimates, the developer is counting each of the estimated 2,500 people who might eventually work in the building's commercial office space.. Because we all know that most buildings are filled with firms that move from other locations, the developer's claim that all jobs inside 115 Winthrop Sq are thanks to this new structure is, at the very least, seriously misleading. [3] KF 07

In summary, I am fully confident in Millennium Partners' capacity to work with the city on a building that is beautiful, architecturally-significant, beneficial to the financial and social health of the city, and economically-viable. With such a rare parcel, the city and its residents should not be required to make the compromises demanded by the current proposal. It is simply too risky. Optimistic about a reasonable accommodation of these broadly-shared concerns, I urge the mayor, the BPDA, and the City Council to reduce the project's scale.

Sincerely,

Karen Firestone

Karen Firestone
Chairman & CEO

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[2] https://www.bostonglobe.com/business/2016/12/25/top-floor-space-financial-district-not-attractive-some-companies-seaport/4YnG7LO2XXLGdsQDyHU7MN/story.html.

KAREN FIRESTONE

KF 01 **The developer has shown sunny illustrations of proposed outdoor space at Winthrop Square, which are unrealistic, given both the limited sun exposure of the square and the proposed construction.**

Please see Sections 2.2.2 and 7.3 for information about Winthrop Square.

KF 02 **The developer has not fully addressed the issues surrounding the increased level of car and foot traffic around Winthrop Square, particularly if Devonshire Street, which is well used at both ends of the day, is closed off to cars.**

Section 4.6 presents an analysis of increases in traffic due to the Project, and pedestrian improvements are described in Section 2.0.

KF 03 **The Devonshire side of the tower is one of the windiest places in the city and the Impact Advisory Group received no indication that the developer has done simulations of wind effect on the proposed tower.**

Please see Section 5.1 for a detailed analysis of wind conditions surrounding the Project site. Wind conditions were measured along Devonshire Street.

KF 04 **Turning to the appropriateness of the size of the building, we should consider whether new construction of a one million square-foot tower in downtown is strategically additive for Boston at this time.**

The Project and associated benefits are described in Sections 1.1, 2.2.3, and 7.0.

KF 05 **The IAG has also heard about significant concerns about excess supply of commercial space. The *Boston Globe* article from Dec 25, 2016, describes how the vacancy rate has risen for high end space in both the Back Bay and Financial District as Seaport Square space has grown… Without commitments for commercial occupancy, the scale of the building's commercial footage presents an additional challenge for Downtown Crossing.**

See Section 1.1.

KF 06 **The IAG heard testimony that Millennium Partners offered a bid that was 50% higher than the next closest builder. Many IAG and community members believe that if Millennium trapped itself into an unaffordable commitment, that remains Millennium's challenge, and not the city's to**

bear. In fact, the developer demanding a variance on height and shadow restrictions to build a tower higher than any other in Boston, strikes many as inconsistent with the charge to design a building that would contribute to the resurgent neighborhood of Downtown Crossing.

See Section 1.1 and 2.2.3.

KF 07 **Many members of the IAG were shocked to discover that the in reaching it's "job creation" estimates, the developer is counting each of the estimated 2,500 people who might eventually work in the building's office space… Because we all know that most buildings are filled with firms that move from other locations, as the developer's claim that all jobs inside 115 Winthrop Sq are thanks to this new structure is, at the very least, seriously misleading.**

See Section 2.2.3 for a list of Project benefits.

January 16, 2017

Boston Planning and Development Agency
ATTN: Ms. Casey A. Hines
One City Hall Square, 9th floor
Boston, MA 02201

Re: Proposed development of 115 Winthrop Square by Millennium Partners

Dear Director Golden and Ms. Hines,

I greatly appreciate the opportunity to offer my comments on Millennium Partners' project proposal for 115 Winthrop Square. It has been a privilege to serve as a member of the 115 Winthrop Square Impact Advisory Group, and I appreciate the importance of this project to the city and various other constituents of Boston. I look forward to participating in additional constructive discussions going forward.

I have taken the time to read and absorb the PNF, as well as various other pieces of information offered by Millennium Partners as it relates to the project, including the shadow law implications. I have also attended both IAG meetings and one public meeting and engaged numerous members of the neighborhood, both residents and business owners, to understand their perspectives. Finally, I live at 45 Province, which is just a few blocks from the site, and I work at One Financial Center, which is also just a few blocks from the site. So I am intimately familiar with the Winthrop Square area in the context of its potential impact to the Financial District and Downtown Crossing. It is with this base of knowledge that I offer my feedback on the 115 Winthrop Square proposal.

At this point, I am generally supportive of the proposal. I view it as having numerous positive attributes. TU 01
Namely, I see the following as key in supporting my positive view:

- **Increase in the residential density of the area, inviting further investment.** Downtown Crossing and the Historic Ladder District neighborhood have seen thousands of new residents in the past five years. As the community has seen, this growth in residents has attracted meaningful investment in the form of new restaurants and retail establishments. However, there remains the opportunity for more residents in this part of town in a project that makes sense. To me, that means one that assimilates itself into the immediate neighborhood and is not meaningfully disruptive to the people who already live in the area or is a threat to pedestrian safety. The 115 Winthrop Square proposal seems to qualify along those lines. I believe that continuing to extend this residential progress toward the Financial District would invite further investment in the area.
- **Serving as a connector to bring continuity, community and vibrancy to the area.** The Historic Ladder District neighborhood and broader Downtown Crossing area have seen a robust revival over the past two years and now enjoy healthy pedestrian activity at all hours of the day as well as on weekends. The Financial District is thriving during weekday hours while the nearby stretch of the Greenway is making steady progress as both a social and artistic space. However, sitting in between these parts of town is somewhat of a "dead zone." Little activity takes place in the area including and surrounding Winthrop Square after work or on weekends. With new energy from residences, a Great Hall, and the Accelerator concept, the proposal has the potential to serve as a bridge connecting these areas and adding continuity that the city and its residents would benefit from.
- **Working to create more affordable housing in Chinatown.** It has been clear from other project proposals I've witnessed that Chinatown is under stress to remain affordable for its population of residents. As opposed to just donating to a generic effort, the Proponent's stated intention to address this pain point for a unique and treasured section of town stands out in my view.
- **Inclusion of below grade parking.** I commend Millennium Partners for continuing its practice of building below grade parking, as it did with the Ritz condo towers, Millennium Place, and Millennium Tower. While constructing such parking is more expensive than above grade, I think it is undeniably better for building aesthetics and the streetscape, and I feel that all new construction should conform to this best practice.

Again, I think there is a lot to be excited about with respect to the potential of the 115 Winthrop Square proposal. With that said, I have two concerns that I would like to express:

- **Shadow impact and implications of changing the law:** As is well-advertised at this point, the building as proposed would be in violation of the "shadow law" (Chapters 362 and 384 as distributed at the first IAG meeting). What has been broadly proposed is to make a one-time alteration of the law to allow a special exception for 115 Winthrop Square to cast a shadow on both the Common and the Garden outside of what is currently legally allowed. My concern relates to setting an uneasy precedent in two respects:
    1. I believe the current law, which was thoughtfully considered at the time, has worked well for more than 25 years to allow for reasonable development while protecting a precious, fixed resource that is a universal draw for residents and visitors. Changing such an agreeable provision to accommodate a single project naturally opens the door for further infringement on the Common and Garden despite what sounds like the best intentions of the Proponent, the BPDA, and the City to insure that any such change is indeed a one-time exception. TU 02
    2. While such a change to the shadow law may indeed prove to be one-time in nature, taking this action invites other developers to ask for their own one-time exceptions as it relates to other laws, whether they be zoning height limits, road access and usage, permitted zoning uses, etc. Laws are not created lightly and I don't think they should be viewed as readily fungible in an effort to accommodate for-profit enterprises.

  With that said, I do view the 115 Winthrop Square project as being exceptional in nature. The structure that exists on the site today is unusable in its current state, so it should certainly be replaced. The proposal from Millennium Partners offers many city-wide benefits. I would like to see the City and the community continue to work to find a solution that would produce an agreeable outcome for everyone. I will concede that from what was described, the infringement on the Garden seems minimal in terms of time of day and duration. Infringement on the Common is more objectionable. It is not entirely clear to me if a negotiable trade-off can be made between what shadows would be cast by this proposal and what shadow currently remains in the "Shadow Bank." Separately, perhaps the Proponent can offer other accommodations that can be made to address the health and enjoyment of the Common and the Garden in return for the shadow impact that would occur from this project. TU 03

- **Traffic flow:** I feel strongly that there should be no restrictions put on passenger or commercial vehicle access to Devonshire St. or Otis St. My understanding from speaking with the representatives of Millennium Partners and their traffic consultant VHB is that there is no such intention to do so at this time. They do plan to make the area surrounding Winthrop Square more pedestrian friendly through methods such as signage, crosswalks, traffic bumps, and topographical changes to the street. That makes sense and would be advisable. But the city and the developer should appreciate that Devonshire St. is a critical passageway for existing residents of nearby buildings such as The Devonshire, Millennium Tower, and 45 Province as well as many who work in the immediate vicinity. And Otis St. serves as an outlet for numerous buses that serve thousands of commuters as well as commercial vehicles that cannot comfortably use other nearby streets en route to their destinations. So maintaining open access to these streets should be a requirement of any finalized plan for the project. As I have given more thought to the traffic challenges of the project, it occurred to me that the city should consider the opportunity to make the stretch of Summer Street between Otis St. and Arch St. a two-way section. It is a very wide road – just as wide as the two-way stretch between Devonshire St. and Otis St. Converting this to two-way traffic would serve as a release valve to funnel some traffic away from Devonshire St. and the proposed project by offering vehicles more convenient access to Arch St., which can very comfortably handle the modest additional traffic activity. I urge the Proponent and the DBRA to work with related agencies such as the BTD to consider incorporation of such a change into its broader consideration of this project. TU 04 TU 05 TU 06

Again, I am generally favorable on the project as it is proposed. I welcome the opportunity to work alongside Millennium Partners and the BPDA to work through whatever issues need to be resolved in order to reach a successful outcome for everyone.

Sincerely,

Tony Ursillo
IAG member, 115 Winthrop Square
45 Province Street, #2402
Boston, MA 02108

TONY URSILLO

TU 01 **I am generally supportive of the proposal. I view it as having numerous positive attributes….Increase in the residential density of the area, inviting further investment; serving as a connector to bring continuity, community and vibrancy to the area; working to create more affordable housing in Chinatown; and inclusion of below grade parking;**

The Proponent appreciates this statement of support for the proposed Project.

TU 02 **I feel the current law, which was thoughtfully considered at the time, has worked well for more than 25 years to allow for reasonable development while protecting a precious, fixed resource that is a universal draw for residents and visitors. Changing such an agreeable provision to accommodate a single project naturally opens the door for further infringement on the Common and Garden despite what sounds like the best intentions of the Proponent, the BPDA and the City to insure that any such change is indeed a one-time exception.**

Please see the response to BPA 01 (MEPA comment letter).

TU 03 **The structure that exists on the site today is unusable in its current state, so it should certainly be replaced. The proposal from Millennium Partners offers many city-wide benefits. I would like to see the community continue to work to find a solution that would produce an agreeable outcome for everyone. I will concede that from what was described, the infringement on the Garden seems minimal in terms of time of day and duration… Separately, perhaps the Proponent can offer other accommodations that can be made to address the health and enjoyment of the Common and the Garden in return for the shadow impact that would occur from this project.**

The garage is currently being demolished. Section 5.2 includes a detailed shadow analysis. Please also see Section 2.2.3 for a discussion of the Project benefits.

TU 04 **I feel strongly that there should be no restrictions put on passenger or commercial vehicle access to Devonshire Street or Otis Street.**

No restrictions to vehicle traffic are proposed for Devonshire Street or Otis Street as part of the Project.

TU 05 **They do plan to make the area surrounding Winthrop Square more pedestrian friendly through methods such as signage, crosswalks, traffic bumps and topographical changes to the street. That makes sense and would be advisable. But the City and the developer should appreciate that Devonshire Street is a critical passageway for existing residents of nearby buildings such as The Devonshire, Millennium Tower, and 45 Province as well as many who work in the immediate vicinity… So maintaining open access to these streets should be a requirement of any finalized plan for the project.**

No restrictions or constraints to pedestrian access are proposed as part of the Project. Indeed, substantial enhancements of the public realm and pedestrian accommodations are proposed, which will benefit both existing and future new pedestrians.

TU 06 **As I have given more thought to the traffic challenges of the project, it occurred to me that the city should consider the opportunity to make the stretch of Summer Street between Otis St. and Arch St. a two-way section… Converting this to two-way traffic would serve as a release valve to funnel some traffic away from Devonshire St. and the proposed project by offering vehicles more convenient access to Arch St., which can very comfortably handle the modest additional traffic activity. I urge the Proponent and the DBRA to work with related agencies such as the BTD to consider incorporation of such a change into its broader consideration of this project.**

The Proponent would be happy to collaborate on potential circulation changes, but such changes are a matter for BTD and BPDA.

January 16, 2017

Boston Planning & Development Agency
ATTN: Director Gordon, Casey Hines
One City Hall Square, 9th floor
Boston, MA 02201

Re: Proposed development of 115 Winthrop Square by MCAF Winthrop LLC / Millennium Partners

Dear Director Golden and Ms. Hines,

I thank you for the opportunity to offer my comments on MCAF Winthrop LLC / Millennium Partners proposal for the development at 115 Winthrop Square. It has been a privilege to serve as a member of the 115 Winthrop Square Impact Advisory Group. I appreciate the BPDA's commitment to the Article 80 process and seriously considering feedback from the public and the IAG. I look forward to participating in additional constructive discussions moving forward.

Over the past two months, I have read the PNF and the article 80 process to educate myself on the project and the process the BPDA uses on large project review. I have also taken the time to engage numerous members of the neighborhood, both residents and business owners to solicit feedback on the proposed project. I have attended the IAG and public meetings to hear the feedback and concerns of the public. It is with this knowledge that I offer my feedback on the 115 Winthrop Square project proposal.

I want to begin with some background information about me and my understanding of the neighborhood that surrounds the proposed location. In 2010 I moved my organization to downtown Boston. We began an office search in 2009, there was an abundance of vacant commercial space in the downtown financial district. At the end of our search we decided to purchase a commercial condominium located at 185 Devonshire Street. We moved one of our offices to Devonshire st in the early months of 2010. In 2012 my wife and I decided to move our residence into Boston. We purchased a condominium in the 45 Province Street development. My wife and I purchased our home there because we were attracted to how centrally located 45 Province is, both to my place of employment and to the restaurants, concerts, and city events we enjoy attending. There were many vacant store fronts and the entire area was closed for business after 6pm and weekends. We were optimistic about the location. In late 2016 we moved from 45 Province Street to Millennium Tower and currently reside there today. I'm thrilled with how quickly the neighborhood has matured and developed. A welcome mix of retail, commercial, and residential investments has created a vibrancy to the neighborhood and we have all seen our quality of life improve greatly because of it. I offer this information to compliment my understanding of the downtown Boston neighborhood including the Financial District where the proposed project is to be built if permitted.

From that perspective, I have carefully weighed the positive and negative impact the 115 Winthrop Square project will have on the neighborhood, members of the community and local businesses. I would like to highlight the following comments on the project in no specific order of importance.

1) **The building design and area of development.** The proposed 750 foot tower is large to say the least. If this building was proposed to be built in any other part of Boston other than the financial district I would adamantly oppose the height and size of this proposal. The fact that the proposed building is in the financial district with the vast concentration of tall buildings I don't believe the overall scope of the project will look out of place among the many tall buildings it will abut. Winthrop square is a quaint little area that could offer serenity in the middle of a very fast paced financial district. I often walk my dogs around the area at 6am, 1pm, 6pm and late evening 10/11pm. Currently it serves as a hangout for bike messengers and homeless people. Since the closing of the public garage the proposed development site and surrounding area is a black hole in the middle of the financial district. Unlike surrounding public areas such as Post Office Square and Boston Common there are few if any residents or local business employees utilizing this area as a relaxing place to eat lunch, read a book or generally enjoy an outdoor park in the city. This area would greatly benefit from the development of this site and some investment in the cleanup and reconfiguration of Winthrop Square. During the public meetings, I observed many people from Back Bay and Charlestown who commented on the Great Hall proposed in

EL 01

this project. The consensus from these comments was they did not care for nor think it was necessary for the building to house a public space such as the great hall. Many of the residence and business owners who live and work in this area did not agree with such comments. People at the public meetings who live in different areas of the city and spend little if any time in the financial district don't understand the needs or wants of the area residents and employees of local businesses. There is very little activity in the Winthrop Square area after 6pm on weekdays and on the weekends. I heard from people in the area I spoke with about the proposed project and the addition of the Great Hall. The conclusion I gathered from these comments was positive and many believe some type of public space would bring new life to the area and offer residence, people who work in the area and visitors a space they can enjoy.

2) **New traffic on already congested streets.** There were a few comments on creating more traffic in the area of Devonshire street heading toward Franklin. There is no doubt there will be more traffic in this area. After reading through the traffic study and understanding the flow of commercial traffic will come from the Federal street side of the building I feel civilian and residential traffic impact could be mitigated with use of the surrounding streets. The existing public garage housed close to one thousand parking spaces. The garage while in operation was often close to capacity, I parked there for years prior to moving to Boston. The proposed development has about one third of the spaces the public garage had while in operation. One way to minimize some of the traffic coming down Devonshire may be to make the last block of Summer Street two ways so you could take a right-on Hawley St. This would alleviate traffic going to Millennium Tower and Arch Street garage from having to travel down Devonshire Street to Franklin St. The developer could also look at using Federal St as the entrance to parking and loading docks. Federal St is one of the most underutilized streets in downtown Boston. This would eliminate the traffic from Devonshire Street. EL 02 EL 03

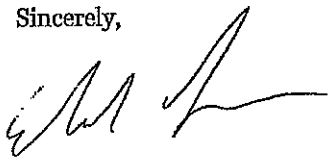
3) **Economic impact of the proposed project.** The proposed project has a very positive economic impact for the city and residents of Boston. The sale of the property will bring a much-needed injection of revenue stated to be $152,790,000. This money can be used in many ways to benefit the residents of the City of Boston. The building will continue to provide revenue to the City in the form of residential and commercial taxes. This will not only help fund city services but through commercial assessments there will be more funding for the Boston Improvement District programs. BID has been critical to the cleanliness, safety and security of the downtown area. One of the most critical impacts the project will make is the creation of affordable housing in the Chinatown district. Listening to feedback in the public meetings and from residents creating affordable housing in Chinatown is a necessity for the people and the culture. With the rising rents and limited affordable housing I feel the benefits of the affordable housing will make a major impact in Chinatown for years to come. Another positive impact would be jobs. Although I think the statistics in the PNF were overstated the fact is the project will create thousands of temporary construction jobs and hundreds if not thousands of permanent jobs for years to come. The construction workers, residential and commercial tenants/owners will contribute to the local economy through spending at local restaurants and shops, many that have recently opened and need support from the local community. EL 04

4) **Shadow on the Common and Changing the law.** As we are well aware the height of the building will create a new shadow on the Boston Common. This was by far the most contested issue at the public and IAG meetings. I believe laws are enacted for the greater good of society and we need to carefully consider the pros and cons of changing the law to allow for a proposed development. The precedent this could set for future projects is a major concern. The proponent of the project detailed out the impacts created by the proposed project and provided the shadow study video for public review. I spend a lot of time in Boston Common and have never thought about the impact of a shadow. It came to my attention for the first time last year while attending the public meeting for the proposed One Broomfield project. Since then I have spent a lot of time observing the shadows and thinking about the impact of this issue. I have also spent time reviewing the shadow study video submitted by the proponent of the 115 Winthrop Square project. The videos show in detail the additional shadow created by the proposed development. The proposed building violates the law for a portion of the year but had little to no impact for the rest of the year. Considering the comments at public meetings and speaking to residents there is an obvious split leaning toward amending the law for the proposed project. EL 05

As a member of the Impact Advisory Group I will offer my conclusion on the pros and cons of this project. Without a doubt the shadow issues appears to be the most contested issue with the proposed development. If we take the shadow issue off the table for just a minute, we can look at the other impacts the project will have on the area and the city to see if the pros outweigh the cons. There is no doubt this project is large in scale but it also in the right area of Boston to support its size and scope. If this were in Back Bay or Beacon Hill the size would be more of a concern. The proposed site is owned by the city so there must be careful consideration by the city when amending the shadow law. I would suggest a give and take possibly strengthening the law in other aspects making this a onetime exception. The proposed project will generate much needed immediate revenue of $150+ million dollars and ongoing tax revenue of approximately $12 million a year. The project will create much needed affordable housing Chinatown is in desperate need of. The project will create jobs and generate business for local merchants. There will be thousands of construction workers and hundreds if not thousands of people who will work in the commercial area of the building once completed. The project will create public space and new business opportunities for local area merchants. The project will revive a neglected area of the financial district and downtown and bring life to this area post 6pm and on the weekends. We can now look at the shadow and traffic issues. The developer and the city could creatively address the traffic issue. The building will create a shadow at 775, 750 or 650 feet. The shadow issue doesn't go away unless the building is around 400 feet, per the developer. At this height, the land is not worth $150 plus million dollars and the tax base would drastically decrease. The affordable housing requirements would decrease considerably and the whole project begins to lose economic value to the City. The shadow law is violated for only part of the year and the extent of the new shadow is minimal in comparison to the net benefits of this project to the City.

There are additional issues I have no doubt will be voiced by others. The issues I mentioned above were the most serious in my view and the feedback I received. As an IAG member we are tasked with helping the City understand the impact this project will have on the community. I hope my comments were both constructive and helpful to the BPDA on their review of the 115 Winthrop Square project.

Sincerely,



Edward Lennon
IAG member, 115 Winthrop Square

EDWARD LENNON

EL 01 **This area would greatly benefit from the development of this site and some investment in the cleanup and reconfiguration of Winthrop Square…. There is very little activity in the Winthrop Square area after 6pm on weekdays and on the weekends. I heard from people in the area I spoke with about the proposed project and the addition of the Great Hall. The conclusion I gathered from these comments was positive and many believe some type of public space would bring new life to the area and offer residence, people who work in the area and visitors a space they can enjoy.**

The Proponent appreciates this statement of support for the proposed Project and the Great Hall.

EL 02 **One way to minimize some of the traffic coming down Devonshire may be to make the last block of Summer Street two ways so you could take a right on Hawley Street. This would alleviate traffic going to Millennium Tower and Arch Street garage from having to travel down Devonshire Street to Franklin Street.**

The Proponent would be happy to collaborate on potential circulation changes, but such changes are a matter for BTD and BPDA.

EL 03 **The developer could also look at using Federal Street as the entrance to parking and loading docks. Federal Street is one of the most underutilized streets in downtown Boston. This would eliminate the traffic from Devonshire Street.**

The Proponent has completed extensive studies with regards to vehicle access, including the feasibility of locating loading docks on Federal Street, which are reflected in the Project site plan and description presented in Section 2.0.

EL 04 **The proposed project has a very positive economic impact for the city and residents of Boston. The sale of the property will bring a much-needed injection of revenue stated to be $152,790,000….**

The Proponent appreciates this statement of support for the proposed Project. Please see Section 2.2.3 for a description of many of the public benefits provided by the Project.

EL 05 **As we are well aware the height of the building will create a new shadow on the Boston Common. This was by far the most contested issue at the public and IAG meetings. I believe laws are enacted for the greater good of society and we need to carefully consider the pros and cons of changing the law to allow for a proposed development. The precedent this could set for future projects is a major concern……..The shadow law is violated for only part of the year and the extent of the new shadow is minimal in comparison to the net benefits of this Project to the City.**

Please see the response to BPA 01 (MEPA comment letter). A comprehensive shadow analysis is provided in Section 5.2.

January 20, 2017

Boston Planning & Development Agency (BPDA)
One City Hall Square
Boston, MA 02201

Dear BPDA,

As an appointed member of the Impact Advisory Group for the 115 Winthrop Square project, I respectfully make the following observations.

I begin with the arguments **against** the proposal, with the strongest argument first.

We are designing a project and then changing State and City laws to conform to the design. This is a very fair critique and obviously not ideal public policy. Regardless of the outcome of this particular project, this approach needs to be changed. Frankly, the necessity to change both State and City laws at this late juncture of the planning process is somewhat disturbing.

This opens the door to future shadow infringements on the park space. This is a fair critique. On what basis should future developers expect an exception, and what is the price tag that the City puts on that? In terms of public policy, I suggest that the City create a significant monetary cost, paid by developers, for the privilege of creating a shadow infringement. The greater the shadow, the more you pay. Similarly, there should be a financial benefit for someone eliminating a shadow on this space. In this way, the City incentivizes the behavior it wants while not squelching development altogether. TC 01

The project casts a shadow on the Common and the Public Garden. There is indeed a measurable shadow cast by this project, but I might suggest that it is not proportional to the public outcry on the matter. Everyone should carefully review the shadow animation on the BPDA website. My experience is that people introduced to this study are surprised that the amount of public space impacted is smaller than that which is being portrayed in the media. TC 02

The following are the arguments **in favor** of the proposal, with the strongest one first.

This project helps the working poor and middle class. It creates new entry-level jobs, both during the construction phase and afterward. It also has an affordable housing component. Advocates for the poor support this proposal. The City should encourage proposals like this one which are mutually beneficial to the rich and the poor. I am somewhat fearful that the shadow argument is a debate which meaningfully engages only the wealthy and the more-wealthy.

There are tremendous economic benefits to the City and its residents in this proposal.

Impairment of the park space notwithstanding, there are significant positive environmental aspects to the proposal. One of the benefits is the creation of a very energy-efficient building.

The local Winthrop Square neighborhood will be much improved. The current site is an eyesore and a health and safety hazard. The people invested in living, working, volunteering and worshiping in this neighborhood deserve better.

Sincerely,

Fr. Thomas Conway, OFM
Executive Director, St. Anthony Shrine
100 Arch Street
Boston MA 02110

THOMAS CONWAY

TC 01 **This opens the door to future shadow infringements on the park space.**

Please see the response to BPA 01 (MEPA comment letter).

TC 02 **There is indeed a measurable shadow cast by this project, but I might suggest that it is not proportional to the public outcry on the matter. Everyone should carefully review the shadow animation on the BPDA website. My experience is that people introduced to this study are surprised that the amount of public space impacted is smaller than that which is being portrayed in the media.**

The Proponent appreciates this support. A comprehensive shadow analysis is provided in Section 5.2.

Boston Planning & Development Agency [DPDA]

One City Hall Square

Boston, MA 02201 1/20/17 115 Winthrop Square Project

Dear DPDA,

As an IAG member I have attended all relevant meetings and talked to many individuals and groups, all through the lens of my 50 year work experience in the Financial District and 40 year residency along the Boston Common. It is my opinion that this project would be an important GEC 01 part of the culture, economy, skyline and future of the City of Boston. In particular it would transform and enhance Winthrop Square, provide a modern and powerful residential and economic contribution to the Financial District and thereby connect the Boston Common, the State House, the Greenway and the Seaport. The entire City would be rewarded.

There are many issues, details, negatives and positives in this project which I won't list here, as they have been noted by many already. Those details can be worked out. It is more important for me to use the context of the past, the present and a projection of the future in my recommendation.

In the past, I remember my first job in the Financial District at the State Street Bank Building in 1966, just after it rose above much shorter buildings and rivaled the Custom House Tower. It was exciting. In 1972 I moved into Tremont on the Common when it was then one of the largest apartment buildings and on the very edge of the Combat Zone. It is now a condominium and I still live there. It was and is very exciting. Boston has grown and now we have GE, just headquartered in the exploding growth in the Seaport District. That is the future and it is all extremely exciting.

The above is chronology, but during that time I have been a Trustee of 151 Tremont St., an active member of probably every neighborhood committee from Chinatown to Beacon Hill, as well as parks committees, and work with the Boston Police Department. I am also a founding member of the Downtown Boston Residents Assoc.

I think there is a way to make this project happen, if everyone makes an effort. I hope so!

Respectively,

George E. Coorssen, Jr.

Resident: 151 Tremont St.

IAG Member

GEORGE E. COORSSEN, JR.

GEC 01 **It is my opinion that this project would be an important part of the culture, economy, skyline and future of the City of Boston. In particular, it would transform and enhance Winthrop Square, provide a modern and powerful residential and economic contribution to the Financial District and thereby connect the Boston Common, the State House, the Greenway and the Seaport. The entire City would be rewarded.**

The Proponent appreciates this statement of support for the proposed Project.

ALLAN E. TAYLOR
115 Myrtle Street
Boston, MA 02114

January 20, 2017

BY ELECTRONIC MAIL

Casey Ann Hines, Senior Project Manager
Boston Planning & Redevelopment Agency
One City Hall Square
Boston, MA 02201

Re: Comment Letter
115 Winthrop Square Project

Dear Ms. Hines:

As you know, I am a member of the Impact Advisory Group appointed for this Project; and I have been a Boston resident for over forty years. What follows are my comments regarding the Project, to which I am vigorously opposed in its current design.

The Project is in gross violation of the shadow laws enacted by the Massachusetts legislature to protect the Boston Common and the Boston Public Garden, two iconic treasures of priceless historical and cultural value to the City. Moreover, the manner in which the Project contravenes those laws is not a minor, technical violation; rather, the Project would cast an enormous shadow across both parks all the way to the Commonwealth Avenue Mall adversely affecting the parks' valued horticulture and the quality of life of the thousands of residents and visitors who enjoy these parks every day of the year. These parks are among the City's most important assets and the overwhelming public interest demands they be protected, which was the thoughtful rationale behind the enactment of the shadow laws over twenty-five years ago. That public interest is, if anything, even stronger today in this period of rapid development than it was then.

Section 1.3 of the Project Notification Form for the Project lists a number of "Public Benefits" the Project supposedly offers, yet the characterization of many of these items as real "Public Benefits" is dubious at best, particularly when weighed against the enormous importance to the City of the protection of the Common and the Public Garden. Indeed, supposed "Benefits" from the Project listed in the Project Notification Form like "The Accelerator: Keeping Innovation in Boston," "Creative and Productive Spaces that Work," "Enhancement of the Downtown Public Realm," and "Sustainable Development for the Future" are little more than public relations fluff; and the miniscule benefit a few additional high-end restaurants and shops that the Project's highly touted "Great Hall" will supposedly add to the vicinity pales in comparison to the detrimental effect the Project will have on two of Boston's cultural treasures.

Moreover, *not a single one of the supposed "Public Benefits" listed in the Project Notification Form would be lost or eliminated if the Project were designed in compliance with the current laws.* True, less money may flow to the City from a design that is in compliance with the law, but when the incremental difference is calculated, any argument that the public interest of the residents of the City of Boston is better served by the construction of this Project in its current design as opposed to an alternative design protecting the Common and the Public Garden defies all logic and is remarkably short-sighted. Even more short-sighted is the notion that the value of the additional number of short-term construction jobs required to build the Project in its current design as opposed to a structure that complies with the law somehow outweighs the permanent detrimental effect the Project will have on these two treasured parks, particularly in a period when unemployment is low and construction in the City is flourishing with many more projects in the pipeline. Development in the City has prospered over the past several decades while staying within both the letter and the spirit of the shadow laws, and there is no reason to make an exception for this Project.

Construction of this Project in its current form will require not simply a zoning variance but an actual change in the Massachusetts General Laws by the legislature, an extraordinary remedy that will set an alarming precedent. At the same time, there are a myriad of alternative uses that could be made of the garage property on which this Project is proposed to be built, including construction of an office and residence complex of lesser height, that would be within the law and still provide great benefit to the City.

I am also concerned that the affordable housing component of the Project will not be developed on the site of the Project itself. This circumstance clearly undercuts the notion that the Project will provide a significant public benefit to City residents as a whole.

Apparently, the developer also expects that it should be allowed to cast an enormous shadow over these two iconic parks *for free*. What the developer in fact seeks is what amounts to a permanent easement over these two unique, treasured properties, yet there is no provision in the Project Notification Form for the developer to pay a single dime for this extraordinary easement. Nor does it seem plausible to argue that the value of this easement is included in the purchase price for the property where the developer has admitted publicly it was not even aware of the shadow issue when it submitted its bid, the Project Notification Form makes no mention of it as a "Public Benefit," and nowhere in the Project Notification Form is there an explanation as to what portion of the purchase price is supposedly allocated to this easement. Certainly, one would think given the easement would be permanent that its value by today's standards would be astronomical.

Nor is there any provision in the Project Notification Form for the developer to undertake to pay for any damage to the horticulture of the parks the Project may cause over the next hundred years or more whether currently known or unknown. The overwhelming public interest dictates that no developer should be allowed to build a project that is detrimental to the City's priceless public assets, but if the public interest is to be ignored in this instance and the Project is to be allowed to go forward in its current design, at the very least the developer should be required to pay a fair price not simply for the land but also for the permanent detrimental effects the Project will have on those priceless assets.

Accordingly, I ask that the developer be directed to provide the following in its Project Impact Report:

- A comprehensive environmental study of the impact of the Project from a 360 degree perspective to determine the Project's impact not only on the Common and the Public Garden but also on other historical sites and parks in the City, such as but not limited to the Commonwealth Avenue Mall, the Old State House, the current State House, City Hall and City Hall Plaza, the park in Post Office Square, the Custom House and the Greenway. AET 01

- A calculation of the financial impact on the Project by the inclusion of affordable housing units on the site itself, and an explanation as to why no units of this type will be included in the Project. AET 02

- A calculation of the financial impact on the Project of a reduction in its height in 100 foot increments down to 400 feet together with the impact each such incremental reduction will have on the shadow the Project will cast. AET 03

- A detailed explanation of how it calculates the monetary value of the permanent right it seeks to cast the shadows that the Project is projected to cast on the Common and the Public Garden, and any of the City's other priceless public landmarks, and whether and how it intends to compensate the City for receiving the benefit of this extraordinary right. AET 04

- What it estimates to be the additional cost of repairing any and all damage these shadows may cause to the horticulture in the two parks over the next hundred years whether known or unknown, and whether and how it is prepared to fund those costs. AET 05

Not long ago, in the public debate over whether the City should bid to host the Summer Olympics, much of the discussion centered on Boston's status as a world class city. Boston is, and will continue to be, a world class city because of its many historic and cultural assets like the Common and the Public Garden, but not because of projects like this one.

Thank you for your consideration.

Very truly yours,

Allan E. Taylor

cc: byron.rushing@mahouse.gov
joseph.boncore@masenate.gov
aaron.michlewitz@mahouse.gov
william.brownsberger@masenate.gov
jay.livingstone@mahouse.gov
michelle.wu@boston.gov

ALLAN E. TAYLOR

AET 01 **I ask that the developer be directed to provide the following in its Project Impact Report: A comprehensive environmental study of the impact of the Project from a 360 degree perspective to determine the Project's impact not only on the Common and the Public Garden, but also on other historical sites and parks in the City, such as but not limited to the Commonwealth Avenue Mall, the Old State House, the current State House, City Hall and City Hall Plaza, the park in Post Office Square, the Custom House and the Greenway.**

The content in this Draft EIR/PIR provides a comprehensive analysis of the Project-related benefits as well as impacts, including but not limited to those associated with wind, shadow, noise, historic impacts, and traffic.

AET 02 **A calculation of the financial impact on the Project by the inclusion of affordable housing units on the site itself, and an explanation as to why no units of this type will be included in the Project.**

The Project will meet the most current Inclusionary Development Policy of the City of Boston. By locating the units in Chinatown and working with their community partner Asian CDC and, as outlined in the policy, the Proponent has a real opportunity to create more quality affordable homes helping more people than would otherwise be helped. Unit type is only one of the many factors that affect overall value cost and feasibility and it is not possible to isolate one variable and come up with a meaningful result.

AET 03 **A calculation of the financial impact on the Project of a reduction in its height in 100 foot increments down to 400 feet together with the impact each such incremental reduction will have on the shadow the Project will cast.**

The Alternatives Analysis as prescribed by the BPDA Scoping Determination and the MEPA Certificate required detailed shadow studies including the shadow impacts of the proposed Project, a project of 340 feet (an alternative based on the previous shadow law) and an as of right alternative. The information provides an accurate understanding of the shadow impacts of alternative heights. Height is only one of the many factors that affect value, cost and feasibility and it is not possible to isolate one variable and come up with a meaningful result.

AET 04 **A detailed explanation of how it calculates the monetary value of the permanent right it seeks to cast the shadows that the Project is projected to cast on the Common and the Public Garden, and any of the City's other priceless landmarks, and whether and how it intends to compensate the City for receiving the benefit of this extraordinary right.**

The Project offers the City an extraordinary level of Public Benefits, informed through an open and competitive process, as outlined in this document and in particular Section 2.2.3, because of the extraordinary opportunity that this Project offers on many fronts including the height of the building.

AET 05 **What it estimates to be the additional cost of repairing any and all damage these shadows may cause to the horticulture in the two parks over the next hundred years whether known or unknown, and whether and how it is prepared to fund these costs.**

The comprehensive shadow analysis in Section 5.2 includes a discussion of shadow on Boston Common and the Public Garden. Please see Attachment P for additional information regarding potential impacts to trees in the Public Garden and Boston Common and Section 2.2.3 on contribution to the Friends of the Public Garden. As a group that appreciates these parks, the Proponent and its successor have agreed to contribute $125,000 annually for 40 years to the Friends of the Public Garden, Inc. entirely toward the maintenance and enhancement of Boston Common, the Public Garden and Commonwealth Avenue Mall.

January 17, 2017

Brian P. Golden
Director
Boston Planning & Development Agency
City Hall, 9th Floor
One City Hall Square
Boston MA 02201

Re: **115 Winthrop Square, Boston**
Project Notification Form

Dear Director Golden:

I write as a member of the Institutional Advisory Group appointed for the above referenced proposed development but also as someone who has lived opposite the Boston Common at 49 Beacon Street for the past eighteen years. As such, I appreciate the opportunity to comment on the Project Notification Form (PNF) submitted by MCAF Winthrop LLC (Millennium) initiating BPDA Large Project Review under Article 80 of the Boston Zoning Code.

The proposed project is one of the largest and most significant development projects proposed in Boston. It is a development that has the potential to bring tremendous benefits not only to the neighborhood where it will reside but also has the potential to produce jobs and mitigation dollars to communities in Boston far from Winthrop Square. Moreover, the developer has a track record second to none in the downtown neighborhoods.

However, both the BPDA and the developer have been clear that the project, at its current proposed height, violates the Public Commons Shadow Law (1990) and the Public Garden Shadow Law (1993) which protect the Boston Common and Public Garden from the negative effect of new shadows cast onto these resources. In that there has not been any stated solution to this violation of the laws protecting these two unique assets which, in tandem, act as the social and physical center of gravity for all of Greater Boston, I am regretfully left with no

option but to oppose further review of the project until one is proposed.

Thank you for considering my comments on the Project Notification Form. I truly believe that this project can be great for all residents of our city but not without solving for the violation of the "shadow laws" prior to pushing forward with the Article 80 Large Project Review process.

Sincerely,

Ben Starr
[redacted]

Cc: Mayor Marty Walsh
Senator Joseph Boncore
Senator Will Brownsberger
Representative Aaron Michlewitz
Representative Jay Livingstone
City Councilor Joshua Zakim
City Councilor Bill Linehan
City Councilor Tim McCarthy
City Councilor Tito Jackson
City Councilor Matt O'Malley
City Councilor Michael Flaherty
City Councilor Frank Baker
City Councilor Mark Ciommo
City Councilor Sal LaMattina
City Councilor Andrea Campbell
City Councilor Annissa Essaibi-George
City Councilor Michelle Wu
City Councilor Ayanna Pressley
Jonathan Greeley, BPDA Director of Development Review
Casey Hines, BPDA Project Manager
Joe Larkin, Millenium Partners

BEN STARR

BS 01 **... both the BPDA and the developer have been clear that the project, at its current proposed height, violates the Public Commons Shadow Law (1990) and the Public Garden Shadow Law (1993) which protect the Boston Common and Public Garden from the negative effect of new shadows cast onto these resources. In that there has not been any stated solution to this violation of the laws protecting these two unique assets which, in tandem, act as the social and physical center of gravity for all of Greater Boston, I am regretfully left with no option but to oppose further review of the project until one is proposed.**

Please see Response to Comment BPA 01 (MEPA Letter).

Rose Kennedy Greenway Conservancy
185 Kneeland Street
Boston, MA 02111

January 20, 2017

Casey Hines
Senior Project Manager
Boston Planning and Development Agency
One City Hall Square
Boston, MA 02201

Re: Rose Kennedy Greenway Conservancy Comments 115 Winthrop Square Proposal

Dear Ms. Hines,

The Rose Kennedy Greenway Conservancy has been pleased to participate as a member of the Impact Advisory Group for the 115 Winthrop Square Development proposed by Millennium Partners. We appreciate being involved by the Boston Planning and Development Agency.

Since the Greenway Conservancy assumed responsibility for The Greenway in 2009, the Greenway District has seen several new developments – including the Radian and Atlantic Wharf – as well as numerous other projects currently underway or under review, such as Boulevard on The Greenway (110 Broad Street), 55 India Street, Hook Lobster, The Harbor Garage, Haymarket Hotel (Parcel 9), the Government Center Garage, and more. This flurry of development in due in no small measure to Central Artery/Tunnel project and the success of the Greenway, which has brought workers, residents and visitors into the heart of downtown and reconnected the City's downtown to its waterfront. The 115 Winthrop Square project provides further confirmation of this evolution and, given its scale and complexity, is a particularly important site for the neighborhood and the city as a whole.

Each of these projects merits a robust public process to review future impacts and to make necessary adjustments to the plans. As it relates to The Greenway, our experience has shown that large nearby developments in a dense urban core have meaningful impacts on public parks and we expect 115 Winthrop Square to be no different. The most significant impact is also likely to be the most welcome: people. The Greenway's Dewey Square Park and Fort Point Channel Parks each sit just 0.3 miles from the proposed development and The Greenway's Chinatown Park is just 0.2 miles away. With The Greenway just steps from Winthrop Square, the park will welcome all of its workers, residents and visitors to enjoy the organic horticulture, public art, fitness classes, fountains, food trucks and over 400 free public programs. However, heavier traffic in the park very clearly equates to more wear on The Greenway. This is particularly important as the park's infrastructure approaches ten years of use and capital replacement needs increase. We encourage Millennium Partners and the BPDA to recognize this inevitability and contribute financially to enable The Greenway to create and sustain vibrant public experiences. LJ 01

In addition to added use of the park, the potential for new shadow impacts that influence the park experience on The Greenway are not fully understood at this time. Attention thus far has been paid to the height of the proposed building as it relates to aviation and shadow impacts on public spaces to the LJ 02

west, and The Greenway is interested in obtaining more information on the potential impact on public spaces to the east. As the stewards of public land that saw over 1.3 million trackable visitors in 2016, we understand the real impacts that increased shadows have on horticulture and, more importantly, the public experience. A stroll through a sunny path in April is a much different experience than the same walk on a shaded route. We encourage the City not to take this lightly. At the very least, it should be made clear to the IAG what building height would avoid or mitigate new hours of shade on any public space and all efforts should be made to make development feasible at that scale.

From recent presentations, it is clear that Millennium Partners values well-programmed civic spaces and we applaud them for using the Great Hall as the foundation of the 115 Winthrop Square building program. With years of experience programming The Greenway, the Conservancy is uniquely positioned to offer comments on the necessary ingredients for successful activation and offers the following feedback on the current design on the building's public realm:

- **Scale:** The human-scaled details are typically un-finalized in the conceptual design phase of large projects. However, entrance dimensions, textures and tone of facades and incorporation of plantings are all critical components of humanizing a space. Currently, the design of the building's exterior and the interior Great Hall reads as monumental and austere, rather than welcoming. Thinking early about how to address these details will play a large role in the space's success. LJ 03
- **Connection:** Similarly, physical connection cues are important to signal the public intent of the Great Hall. Scale contributes to this, as does the articulation of thresholds and signage. These can and should be used to invite people into the space rather than mask it. Programmatic connection is equally important. 115 Winthrop Square is situated between well-used public spaces like Norman Leventhal Park, Boston Common, and The Greenway. It should both *pull* from the successes of these spaces through co-produced events and *push* people to nearby offerings with thoughtful wayfinding elements. LJ 04
- **Flexibility:** Perhaps the biggest lesson from The Greenway is the importance of flexibility. Public spaces evolve over time and the infrastructure needs to adapt to new needs and preferences. This applies to indoor spaces as much as outdoor. The office component of 115 Winthrop Square recognizes this market phenomenon and is being designed accordingly. The public realm of the building should as well. LJ 05

We look forward to continued collaboration with the Millennium Partners and the City to ensure that this important site receives a development worth of its prominent location.

Sincerely,

Laura Jasinski
Director of Programs and Planning
Rose Kennedy Greenway Conservancy

Cc:
Jesse Brackenbury
Jim Kalustian

LAURA JASINSKI

LJ 01 **With The Greenway just steps from Winthrop Square, the park will welcome all of its workers, residents and visitors to enjoy the organic horticulture, public art, fitness classes, fountains, food trucks and over 400 free public programs. However, heavier traffic in the park very clearly equates to more wear on The Greenway. This is particularly important as the park's infrastructure approaches ten years of use and capital replacement needs increase. We encourage Millennium Partners and the BPDA to recognize this inevitability and contribute to enable The Greenway to create and sustain vibrant public experiences.**

It is expected that the City of Boston as a result of the sale of this site will enter into an agreement with the Greenway to contribute $5 million to its maintenance.

LJ 02 **In addition to added use of the park, the potential for new shadow impacts that influence the park experience on The Greenway are not fully understood at this time. Attention thus far has been paid to the height of the proposed building as it related to aviation and shadow impacts on public space to the west, and The Greenway is interested in obtaining more information on the potential impact on public spaces to the east.**

A comprehensive shadow analysis is provided in Section 5.2, and an Alternatives Analysis is included in Section 3.0.

LJ 03 **The human-scale details are typically un-finalized in the conceptual design phase of large projects… Currently, the design of the building's exterior and the Interior Great Hall reads as monumental and austere, rather than welcoming. Thinking early about how to address these details will play a large role in the space's success.**

Section 7.1 contains a description of the Project and its urban design. Design will continue to be considered and refined through the review process with the BPDA.

LJ 04 **Similarly, physical connection cues are important to signal the public intent of the Great Hall… 115 Winthrop Square is situated between well-used public spaces like Norman Leventhal Park, Boston Common, and The Greenway. It should both *pull* from the successes of these spaces through co-produced events and *push* people to nearby offerings with thoughtful wayfinding elements.**

Section 7.1 contains a thorough description of the Project's Urban Design. A wayfinding package will be completed as the Project design progresses.

LJ 05 **Perhaps the biggest lesson from The Greenway is the importance of flexibility… The office component of 115 Winthrop Square recognizes this market phenomenon and is being designed accordingly. The realm of the building should as well.**

Sections 2.2 and 7.0 contain descriptions of the Project design and its intended uses. Design will continue to be considered and refined through the review process with the BPDA.

13.2.3 Comments from Interest Groups

arck

Art Resource
Collaborative for Kids

December 7, 2016

Brian P. Golden
Boston Planning & Development Agency
One City Hall Square
Boston, MA 02201

Dear Brian,

I am writing to request space at 115 Winthrop Square. ARCK - Art Resource Collaborative for Kids is a 501(c)(3) non-profit corporation that I founded after a successful 2011-12 pilot arts program at Boston's Josiah Quincy Elementary School. I developed the program upon discovering the absence of arts programming due to Boston Public Schools' budget cuts. Five years later we have served more than 1,000 underserved Boston public school students. ARCK trains teaching artists to teach in-class with classroom teachers, implementing interdisciplinary and innovative curriculum. ARCK has collaborated with the MIT D-Lab and Harvard Arts & Education students on STEAM (STEM + Art) programming. ARCK uses art as a vehicle to reach students' greatest potential, integrating creative learning with each partner school's academic goals. We are currently in the Blackstone Innovation School in the South End and Gardner Pilot Academy in Allston. We hope to grow to many more Boston public schools.

In addition to growing our core program, I am interested in expanding ARCK's current program into a "makerspace" and innovative center in downtown Boston for a Community Benefit Package. We are proposing to expand ARCK to bridge opportunities for artists and our youth to come to a place like ARCK. Currently we are in a small office on Bromfield Street. We teach at Boston public schools in-class during the day. We hope to move to a larger office (center) in downtown so we can offer a makerspace for students from underserved and underperforming schools, welcoming students from 7th or 8th grade or giving a gap year to students who do not know what they are going to do after high school. Students will attend workshops based on ARCK's innovative curriculum that is based on

engineering, art, and design. Students will be at ARCK for as long as a trimester or six weeks to join artists and engineers to create, and learn necessary foundational skills that are vital for our challenging creative economy. This innovative programming will also develop respect and compassion in promoting inclusion and diversity and will help underserved students realize their full potential and allow them be successful in college. Providing this unique opportunity will engage both students and the community by being a catalyst to improving the creative dynamics of the Downtown Boston area. It will provide opportunities for artists, local professionals, and underserved students to collaborate on creative projects.

In addition to benefiting individual students and the downtown community, ARCK's work benefits the the city as a whole. ARCK provides support for the Boston Public Schools education system making it feasible to bring art education into a system that otherwise cannot afford it. In order to keep families in the city and supports Boston's trajectory toward becoming a world-class city, it is paramount that the city continue investing its resources in elementary and middle school public education. Breaking down economic barriers will help in a fragmented educational system where families often leave the city for the lack of great schools.

The Winthrop Square development would provide an ideal location for our makerspace and administrative offices. We respectfully request the opportunity to receive Boston Planning & Development Agency (BPDA) community benefit funds and support from the Millennium Partners-Boston in the form of space at the 115 Winthrop Square development so we can realize our goals for a makerspace and office expansion. In order to facilitate our programming, we will need space totaling 2000+ square feet. We would also be grateful for an additional BPDA investment in ARCK to help us continue to serve the city and deserving students. Providing us with space at Winthrop Square and an additional investment will help us continue to break down economic barriers and empower our youth.

ARCK 01

With gratitude,

Sara Mraish Demeter
ARCK Founder and Director

A 36 Bromfield Street Suite #301 Boston, MA 02108 P 857.265.2156 E info@arckboston.org W arckboston.org F arckboston

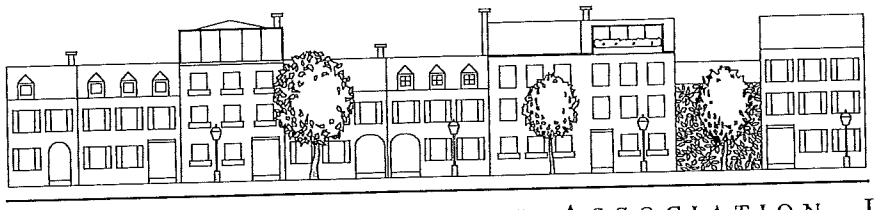
CC: Mr. Christopher Tracy

A 36 Bromfield Street Suite #301 Boston, MA 02108 P 857.265.2156 E info@arckboston.org W arckboston.org F arckboston

ART RESOURCE COLLABORATIVE FOR KIDS

ARCK 01 **We respectfully request the opportunity to receive Boston Planning & Development Agency (BPDA) community benefit funds and support from the Millennium Partners-Boston in the form of space at the 115 Winthrop Square development so we can realize our goals for a makerspace and office expansion… In order to facilitate our programming, we will need space totaling 2000+ square feet.**

This request will be evaluated as the final retail, Great Hall and podium program is finalized.



BAY VILLAGE NEIGHBORHOOD ASSOCIATION, INC.

January 17th 2017

Honorable Mayor Martin Walsh
One City Hall Square
Room 200
Boston, MA 02201

Re: 115 Winthrop Square Project

Dear Mayor Walsh:

The Executive Committee of the Bay Village Neighborhood Association voted at its most recent meeting to oppose attempts by the BPDA to amend the existing state shadow legislation protecting the Boston Common and Public Garden in order to benefit a single project, specifically 115 Winthrop Square.

The BVNA believes that to amend the shadow law as currently written on a project-specific basis would set a dangerous precedent opening the floodgates for other developers to request comparable changes in laws to approve their projects on an ad-hoc basis. Claims that this is "the only shadow exemption the BPDA will ever need" are essentially misguided: this project will surely set precedent for all future developments in the city despite any assurances that this would be a one-time exception. And while your administration may make sincere promises to honor this as a "one-time" exemption, such statements would be non-binding on future administrations and leave the City at risk. BVNA 01

This law protecting public parks in Boston was won at considerable effort and was put in place precisely to afford critical public spaces protection from an increase in shadows demanded by real estate developers, as is the case now. The exemption of the proposed development of 115 Winthrop Square from current laws protecting parks in Boston is trade of a precious public good for minor and inconsequential gains: there is no compelling civic or economic need for this project to be so tall. The Common and Public Garden are two iconic public spaces in Boston enjoyed by all residents of Boston, as well as by millions of visitors every year. The preservation of these

P.O. Box 171066♦Back Bay Annex♦Boston, MA 02117♦
(617)542-2862

spaces must override the economically unnecessary demands of a single developer, and we ask that you respect the law and the intent of the law as it was written.

For over three decades, the Bay Village Neighborhood Association has worked to preserve and enhance the residential quality of life in and around the Bay Village neighborhood of Boston. The Association has approximately 300 current dues-paying members, who represent a majority of the households in Bay Village.

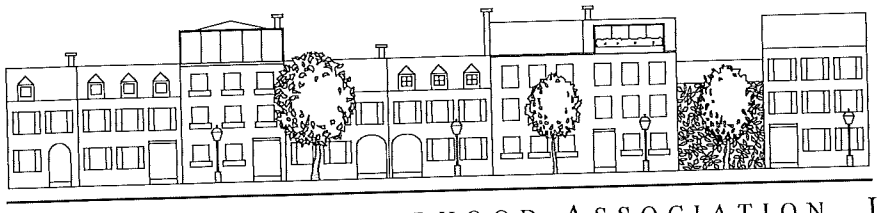
Best Regards,

Nancy Morrisroe
Sr. Vice President
Bay Village Neighborhood Association
[redacted]

Via e-mail

CC:

Casey.a.hines@boston.gov;
Michelle.Wu@boston.gov;
Bill.Linehan@boston.gov;
Josh.Zakim@boston.gov;
Ayanna.Pressley@boston.gov;
A.E.George@boston.gov;
Tito.Jackson@boston.gov;
Salvatore.Lamattina@boston.gov;
Michael.F.Flaherty@boston.gov;
Andrea.Campbell@boston.gov;
Frank.Baker@boston.gov;
Timothy.McCarthy@boston.gov;
Matthew.OMalley@boston.gov;
Mark.Ciommo@boston.gov;
byron.rushing@mahouse.gov;
jay.livingstone@mahouse.gov;
aaron.m.michlewitz@mahouse.gov;
william.brownsberger@masenate.gov;
Joseph.Boncore@masenate.gov;



BAY VILLAGE NEIGHBORHOOD ASSOCIATION, INC.

dtcnabb@nabbonline.com;
president@bayvillage.net;

P.O. Box 171066♦Back Bay Annex♦Boston, MA 02117♦
(617)542-2862

BAY VILLAGE NEIGHBORHOOD ASSOCIATION

BVNA 01 **The BVNA believes that to amend the shadow law as currently written on a project-specific basis would set a dangerous precedent opening the floodgates for other developers to request comparable changes in laws to approve their projects on an ad-hoc basis. Claims that this is "the only shadow exemption the BPDA will ever need" are essentially misguided: this project will surely set precedent for all future developments in the city despite any assurances that this would be a one-time exemption.**

Please see the response to BPA 01 (MEPA comments).

BEACON HILL CIVIC ASSOCIATION

Neighbors Helping Neighbors

January 19, 2017

74 Joy Street

Boston

MA 02114

617.227.1922

info@bhcivic.org

www.bhcivic.org

Brian P. Golden
Director
Boston Planning & Development Agency
City Hall, 9th Floor
One City Hall Square
Boston MA 02201

Re: **115 Winthrop Square, Boston**
Project Notification Form

Dear Director Golden:

The Beacon Hill Civic Association has strived since 1922 to improve the quality of life on Beacon Hill and to represent the interests of Beacon Hill residents in matters of urban planning.

Thank you for the opportunity to comment on the Project Notification Form (PNF) submitted by MCAF Winthrop LLC (Millennium) initiating BPDA Large Project Review under Article 80 of the Boston Zoning Code.

The proposed project, with between 1.1 million and 1.5 million square feet of floor area, is one of the largest development projects proposed for development in Boston. Accordingly, it is appropriate to require a full Draft Project Impact Report (DPIR) and Final Project Impact Report (FPIR) pursuant to Section 80B-5 of the Zoning Code.

BHCA respectfully requests that the scope of the DPIR include all relevant environmental impacts, with particular attention to impacts on the City's historic resources, especially the Boston Common and Public Garden and to how funds derived from the sale of the site to Millennium will mitigate the environmental impacts of the project. BHCA 01

We are especially concerned that the project will violate Chapter 362 of the Acts of 1990 and Chapter 384 of the Acts of 1993, as amended (Shadow Acts) which protect the Boston Common and Public Garden from the environmental effects of shadows cast by new buildings. BHCA 02

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EXECUTIVE DIRECTOR Patricia Tully

The scope for a DPIR should therefore address specifically the additional shadows that the proposed project will cast on the Boston Common and Public Garden.

We are likewise very concerned that the project as proposed would require legislation from the General Court to relieve it from the limitations of the Shadow Acts, and there is evidently no legislation pending to provide such relief. Whether the Shadow Acts will in fact be amended to allow the project to be constructed is unknown, and we are concerned about the prospect of any weakening of the existing shadow laws. Without any articulation of how this issue would be resolved, and the mitigation that might be contemplated as part of such legislative relief, it is impossible for a DPIR to evaluate adequately the full costs and benefits of the project as proposed. In hindsight, the RFP process was flawed to the extent that it prompted developers to submit proposals that did not comply with existing state laws or Federal Aviation Administration (FAA) height limits.

Moreover, to evaluate a DPIR without considering specific existing environmental statutes would not be consistent with a transparent review process. Accordingly, when selecting alternative development options to consider in a DPIR, Millennium should be directed to evaluate the environmental impacts of a building that would comply with existing statutes, including the Shadow Acts and FAA limits. BHCA 03

In the PNF and public announcements, Millennium has placed emphasis on the public benefits that will be available from funds to be received by BPDA on the sale of the site. We request that Millennium and BPDA provide particular information on how much in sale proceeds will be available for each of the alternate development options presented in the DPIR, and how those amounts are determined. BHCA 04 Since the sale proceeds appear to be a primary component of the project's environmental mitigation, we request specific information on how the sale proceeds will be allocated at different funding levels and specifically how the funds will be used. BHCA 05

Thank you for considering our comments on the Project Notification Form. We look forward to reviewing and commenting on the DPIR for the project.

Sincerely,

Mark Kiefer
Chairman of the Board

BEACON HILL CIVIC ASSOCIATION

BHCA 01 **BHCA respectfully requests the scope of the DPIR include all relevant environmental impacts, with particular attention to impacts on the City's historic resources, especially the Boston Common and Public Garden and to how funds derived from the sale of the site to Millennium will mitigate the environmental impacts of the Project.**

The Draft EIR/PIR includes detailed environmental analyses in Sections 4.0 through 10.0, including Section 8.0, Historic Resources. Section 2.2.3 includes a discussion of many of the Project's public benefits and Section 12.0 includes a description of the mitigation.

BHCA 02 **We are especially concerned that the project will violate Chapter 362 of the Acts of 1990 and Chapter 384 of the Acts of 1993, as amended (Shadow Acts) which protect the Boston Common and Public Garden from the environmental effects of shadows cast by new buildings.**

Please see the response to BPA 01 (MEPA comments). A comprehensive shadow analysis is provided in Section 5.2.

BHCA 03 **Accordingly, when selecting alternative development options to consider in the DPIR, Millennium should be directed to evaluate the environmental impacts of a building that would comply with existing statutes, including the Shadow Acts and FAA limits.**

The Project complies with Chapter 362 of the Acts of 1990 and Chapter 384 of the Acts of 1992, each as amended by Chapter 57 of the Acts of 2017, "An Act Protecting Sunlight and Promoting Economic Development in the City of Boston" signed by the Governor of the Commonwealth on July 24, 2017, which govern new shadows from new structures on Boston Common and the Public Garden.

Chapter 3 includes an alternatives analysis including an alternative based on the previous shadow law.

The Project's zoning height of approximately 664 feet (710' AMSL) is consistent with the operating guidelines provided by Massport and the technical review provided by the Federal Aviation Administration which has set various points of the Project site at 701-720 feet AMSL. The Project's height fits within this upper limit to avoid any operational changes in departures or arrivals at Logan International Airport. The FAA is currently conducting its public review period for this Aeronautical Study (See Attachment A).

BHCA 04 **We request that Millennium and BPDA provide particular information on how much in sale proceeds will be available for each of the alternate development options presented in the DPIR, and how those amounts are determined.**

See Section 3.0, Alternatives, which provides the alternative options reviewed for the site. These do not provide for the same level of acquisition price for the land.

BHCA 05 **Since the sale proceeds appear to be a primary component of the project's environmental mitigation, we request specific information on how the sale proceeds will be allocated at different funding levels and specifically how the funds will be used.**

See Section 2.2.3.

Casey Hines <casey.a.hines@boston.gov>

Winthrop Square Development Proposal

1 message

Jeanne Burlingame [redacted] Fri, Jan 13, 2017 at 5:26 PM
To: Joseph.boncore@masenate.gov, aaron.michlewitz@mahouse.gov, jay.livingstone@mahouse.gov, josh.zakim@boston.gov, mayor@boston.gov, salvatore.lamattina@cityofboston.gov, tito.jackson@boston.gov, william.brownsberger@masenate.gov, michelle.wu@boston.gov, casey.a.hines@boston.gov

Dear Ms. Hynes, Mayor Walsh, Massachusetts Senators and Congressmen and women:

I am writing on behalf of the Beacon Hill Garden Club to express our concern over Millennium Partners proposal for the development of Winthrop Square. Our mission includes the cultivation, preservation and improvement of the urban landscape through education and direct financial support. In fact, our club donated $55,000 in the fall of 2011 for the planting of 11 Homestead Elms in partnership with the Friends of the Public Garden for the redesign of the Brewer Fountain on the Boston Common. Though the sunlight is more limited than optimum for these trees, they are thriving and we are very concerned about the effect of more shadow on them and, indeed, the rest of the Common, the Public Garden and the Commonwealth Mall.

BHGC 01

I encourage you to uphold the law and/or do everything possible to reach a solution that will limit to the fullest extent possible, the extremed proposed height of the Winthrop Square Development that causes shadows on our vital and historic green spaces.

Thank you for your consideration.

Sincerely,

Jeanne Fiol Burlingame, President
Beacon Hill Garden Club

BEACON HILL GARDEN CLUB

BHGC 01 **I am writing on behalf of the Beacon Hill Garden Club to express our concern over Millennium Partners proposal for the development of Winthrop Square. Our mission includes the cultivation, preservation and improvement of the urban landscape through education and direct support... Though sunlight is more limited than optimum for these trees, they are thriving and we are very concerned about the effect of more shadow on them, and, indeed, the rest of the Common, the Public Garden and the Commonwealth Mall**

A thorough shadow analysis is provided in Section 5.2. Please also see Attachment P for a discussion of the Project's potential shadow-related impacts to trees in Boston Common and the Public Garden.

Casey Hines <casey.a.hines@boston.gov>

Support letter for Winthrop Square Development Project

1 message

Reginald Nunnally [redacted] Wed, Jan 25, 2017 at 6:55 AM
To: Michelle.Wu@boston.gov, Michael.F.Flaherty@boston.gov, A.E.George@boston.gov, ayanna.pressley@boston.gov, salvatore.lamattina@boston.gov, bill.linehan@boston.gov, frank.baker@boston.gov, andrea.campbell@boston.gov, timothy.mccarthy@boston.gov, matthew.omalley@boston.gov, tito.jackson@boston.gov, josh.zakim@boston.gov, mark.ciommo@boston.gov
Cc: christopher.tracey@boston.gov, johnathan.greeley@boston.gov, casey.a.hines@boston.gov, Glynn Lloyd [redacted], Teri Williams [redacted] Darryl Settles [redacted] Richard Taylor <rlt444865@gmail.com>, "Black Economic Justice Institute, Inc" <bejii2014@gmail.com>, gus santos [redacted], Carole Montgomery [redacted] callowaygraphix.com" <Jobs@callowaygraphix.com>, Malia Lazu <malia@futureboston.com>, Ronia Stewart [redacted] Tracy Litthcut [redacted], Charran Fisher [redacted] Reginald Nunnally [redacted]

Dear City Councilors,

My name is Reggie Nunnally and I am the Executive Director for the Black Economic Council of Massachusetts (BECMA). The Millennium Developers embrace the BECMA procurement policy, supporting economic inclusion, equity sharing, job training and a commitment to local, long term employment opportunities. Attached you will find our letter of support for this important development project in downtown Boston

The need for a new and focused agenda on Black economic development and accountability for those responsible in its achievement is widely supported and the time for out of the box solutions is now.

BECMA believes that we can work collaboratively with Millennium partners to advance the economic initiatives and community programs to become a best practice model for real estate development in the city of Boston and throughout the Commonwealth of Massachusetts. BECMA 01

If you have any questions or need further information please do not hesitate to contact me.

Reginald A. Nunnally
[redacted]

BECMA Millennium Partners support letter .docx
104K

BLACK ECONOMIC COUNCIL OF MASSACHUSETTS

BECMA 01 **BECMA believes that we can work collaboratively with Millennium partners to advance the economic initiatives and community programs to become a best practice model for real estate development in the city of Boston and throughout the Commonwealth of Massachusetts.**

We look forward to a discussion with BECMA.

BOSTON PRESERVATION ALLIANCE

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Executive Director
Gregory J. Galer, Ph.D.

January 11, 2017

Ms. Casey Hines
Boston Planning and Development Agency
One City Hall Square
Boston, MA 02201
Via email: casey.a.hines@boston.gov

Re: 115 Winthrop Square

Dear Ms. Hines,

The Boston Preservation Alliance is Boston's primary, non-profit advocacy organization that protects and promotes the use of historic buildings and landscapes in all of the city's neighborhoods. With 40 Organizational Members, 98 Corporate Members, and a reach of 35,000 friends and supporters we represent a diverse constituency advocating for the thoughtful evolution of the city and celebration of its unique character. We appreciate the opportunity to offer comments on projects that impact the historic character of the city.

The Alliance commends the City of Boston for actively pursuing redevelopment of the abandoned parking structure at 115 Winthrop Square and for encouraging proposals with vibrant street engagement, public amenities, and mixed use. We were pleased that the City did not select a proposal that required the demolition of the adjacent, architecturally-significant mid-century Paul Rudolph Blue Cross Blue Shield Building.

While we feel there are notable benefits associated with Millennium Partners' proposal, we join many of our partners and members in expressing concern that the planned 750' tower violates state laws that protect the historic Boston Common and Public Garden from shadow (c. 362 of the Acts of 1990 and c. 385 of the Acts of 1993) without sufficient justification for the bold request to change state law. We worry about unprecedented action to weaken state laws to accommodate one project and the many potential long-term consequences of modification of laws intended to protect our treasured places. All other development has adhered to the laws since their creation, and we feel the proponent must demonstrate why this proposal is so particularly unique as to require a change offered to no other, with the potential precedents created by opening the door for future changes to this and possibly other protective laws. BPA 01

Furthermore, we are disappointed that the City chose to pursue a process that encouraged submissions that blatantly violate standing state law without an open, public process to discuss the merits and challenges to such a pursuit. While we

The Otis House
141 Cambridge Street
Boston, MA 02114
617.367.2458
bostonpreservation.org

understand the theory that having a specific proposal may appear to facilitate this dialogue, the violation should have been clearly identified to the citizens of Boston with opportunity to publicly debate it before the City condoned a project that violates existing state laws. Doing so would have resulted in a more inclusive dialogue with the public and would have demonstrated that the "new" BPDA has in fact found that full transparency is in everyone's best interest. The methods pursued here only reinforce decades-old stereotypes of the agency.

If the City believes the current shadow law is somehow inappropriate or requires updating and modification to best benefit the residents of Boston in the long term, there should have been a focused analysis, dialogue, and public process before any specific project was proposed. This would have alleviated the impression that protection provided by state laws or other regulations can effectively be purchased away by developers. The process pursued here is unfair to the citizens of Boston, those pursuing this project, and to other property owners and developers who adhere to existing regulations.

The Alliance feels strongly that this proposal, as well as alternatives that allow redevelopment of the site without requiring these alterations to state law, need to be fully understood before action to pursue changes to the state shadow laws continue. BPA 02

In addition to our concern about an amendment of the state law, we anticipate a complete and thorough Project Impact Report with a scope that fully evaluates the impacts of such a large structure at this site. In particular, we request that the DPIR scope include: BPA 03

- Complete shadow studies: Shadow studies that demonstrate the complete shadow created by the proposed structure as well as comparative analysis of a structure that would not violate the state shadow law. These studies should not be limited to ¼ mile and should highlight all historic resources impacted. The analysis should not be limited to shadows that violate the existing state regulations, although highlighting those impacts is important as well.

  Not only do shadows impact the pedestrian experience and the health of plants and parks, shadows can also have significant effects on the physical health of historic buildings, creating new microclimates that cause ice dams, biological growth, and deterioration of structures designed to benefit from the drying effects of sunlight. The integrity and longevity of our precious historic resources can be impacted by shadow, and landmarks in Boston suffer today due to lack of consideration of these effects in past developments.

- Visual impact analysis: Analysis of the broader visual impacts of the proposal and its relationship to historic resources both in the immediate vicinity and beyond. There are many buildings in the Winthrop Square area with historic and architectural significance, and we need more information about how the

proposal would interact with these buildings. We need to know the impact of the proposal on the visibility of the sky, particularly in downtown. Canyonization and the decreased sky background and context for our unique historic city need to be considered and better understood.

We therefore request the visual impact of this proposal be studied carefully with a wide variety of renderings from real perspectives of pedestrians rather than birds-eye views that are never actually experienced. Such renderings should be from many perspectives and not limited to those in the Winthrop Square neighborhood. We also request that the same views be rendered for both an as-of-right option and one of maximum height that does not violate existing shadow laws for comparison. The proponent should be sure to demonstrate views which include their proposed structure with significant historic resources in the foreground. BPA 04 BPA 05 BPA 06

We look forward to continuing the dialogue as the project evolves.

Sincerely,



Greg Galer
Executive Director

Cc: Governor Charlie Baker
Senator William Brownsberger
Senator Joseph Boncore
Representative Jay Livingstone
Representative Aaron Michlewitz
Representative Byron Rushing
Brona Simon, Massachusetts Historical Commission
Mayor Martin J. Walsh
Brian Golden, Director, Boston Planning and Development Agency
City Councilor Frank Baker
City Councilor Andrea Campbell
City Councilor Mark Ciommo
City Councilor Anissa Essaibi George
City Councilor Michael Flaherty
City Councilor Tito Jackson
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City Councilor Bill Linehan
City Councilor Timothy McCarthy

City Councilor Matt O'Malley
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City Councilor Michelle Wu
City Councilor Josh Zakim
Kathleen MacNeil, Millennium Partners
Cindy Schlessinger, Epsilon Associates
David Carlson, Boston Planning and Development Agency
Rosanne Foley, Boston Landmarks Commission
Elizabeth Vizza, Friends of the Public Garden
Wendy Landman, Walk Boston
Howard Kassler, Neighborhood Association of the Back Bay
Patricia Tully, Beacon Hill Civic Association

BOSTON PRESERVATION ALLIANCE, JANUARY 11, 2017

BPA 01 **While we feel there are notable benefits associated with Millennium Partners' proposal, we join many of our partners and members in expressing concern that the planned 750' tower violates state laws that protect the historic Boston Common and Public Garden from shadow… without sufficient justification for the bold request to change state law.**

Please see Response to Comment BPA 01 (MEPA Letter).

BPA 02 **The Alliance feels strongly that this proposal, as well as alternatives that allow redevelopment of the site without requiring these alterations to state law, need to be fully understood before action to pursue changes to the state shadow laws continue.**

The Project complies with Chapter 362 of the Acts of 1990 and Chapter 384 of the Acts of 1992, each as amended by Chapter 57 of the Acts of 2017, "An Act Protecting Sunlight and Promoting Economic Development in the City of Boston" signed by the Governor of the Commonwealth on July 24, 2017, which govern new shadows from new structures on Boston Common and the Public Garden.

The alternatives analysis in Section 3.0 includes an alternative that complies with the previous shadow laws.

BPA 03 **In addition to our concern about an amendment of the state law, we anticipate a complete and thorough Project Impact Report with a scope that fully evaluates the impacts of such a large structure at this site. In particular, we request that the DPIR scope include:**

- **Complete shadow studies: Shadow studies that demonstrate the complete shadow created by the proposed structure as well as comparative analysis of a structure that would not violate the state shadow law.**
- **Visual impact analysis: Analysis of the broader visual impacts of the proposal and its relationship to historic resources both in the immediate vicinity and beyond.**

A comprehensive analysis of Project-related shadow impacts is provided in Section 5.2. The discussion of historic resources in Section 8.0 addresses visual impacts.

BPA 04 **We therefore request the visual impact of this proposal be studied carefully with a wide variety of renderings from real perspectives of pedestrians rather than birds-eye views that are never actually experienced. Such renderings should be from many perspectives and not limited to those in the Winthrop Square neighborhood.**

Graphics for an analysis of visual impacts are provided in Attachments J and L.

BPA 05 **We also request that the same views be rendered for both an as-of-right option and one of maximum height that does not violate existing shadow laws for comparison.**

Please see Attachment L.

BPA 06 **The proponent should be sure to demonstrate views which include their proposed structure with significant historic resources in the foreground.**

Please see Attachment L.

BOSTON PRESERVATION ALLIANCE

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Executive Director
Gregory J. Galer, Ph.D.

The Otis House
141 Cambridge Street
Boston, MA 02114
617.367.2458
bostonpreservation.org

February 24, 2017

Mr. Brian Golden
Boston Planning and Development Agency
One City Hall Square
Boston, MA 02201
Via email: brian.golden@boston.gov

Re: 115 Winthrop Square

Dear Mr. Golden,

The Boston Preservation Alliance is Boston's primary, non-profit advocacy organization that protects and promotes the use of historic buildings and landscapes in all of the city's neighborhoods. With 40 Organizational Members, 98 Corporate Members, and a reach of 35,000 friends and supporters we represent a diverse constituency advocating for the thoughtful evolution of the city and celebration of its unique character. We appreciate the opportunity to offer comments on projects that impact the historic character of the city.

As the Boston Planning and Development Agency (BPDA) moves forward with plans to redevelop the Winthrop Square site, the Alliance joins many other voices in expressing concern. At this time, our concerns include the status of the DPIR and the pending initiative to alter state laws to accommodate an existing project proposal.

In a previous comment letter we noted a wide variety of potential impacts of the proposed tower – shadow on the Public Garden and Boston Common being just one element – and requested analysis of the proposal to allow a more comprehensive assessment of both its positive and negative effects on the city. To our knowledge that analysis has yet to be completed and made available to the public. The Alliance therefore strongly urges the BPDA to pause further action to facilitate the current 115 Winthrop Square proposal until the City's Draft Project Impact Report (DPIR) and State's Environmental Impact Report (EIR) have been completed and the public has had ample time to comment. By ensuring a thorough public process, the BPDA can utilize this opportunity to demonstrate the reformed agency's promise to be transparent and cooperative. BPA 01

We feel that modifying state laws that have successfully protected some of the city's most important historic resources and public amenities without a full and public review is poor precedent. We are particularly concerned that in a desire to enable this lucrative project the City inadvertently weakens other protective regulations, establishing a model where future project proponents can effectively buy their way out BPA 02

of rules that others have successfully lived with for decades. This scenario sets revenue to the City as the priority in decision making when many other factors should be given equal weight.

Furthermore, we feel that it was inappropriate for the BPDA to solicit proposals for the Winthrop Square site that violate state laws without providing opportunity for public comment on the significant policy change now under consideration. If the BPDA believed the shadow laws were unnecessarily restrictive for downtown growth, a study and public process should have been conducted to explore broad modifications, without the pressure of one particular proposal skewing the outcome. Such an analysis is still needed and should not focus on a specific proposal but the cumulative effects of altering the protective state laws.

I urge the BPDA, elected-officials, and other decision makers involved not to focus on the false dichotomy created by the way this process has evolved – that we must accept this project or no project at all at the Winthrop Square site. We should not simply measure the success of a proposal by the financial contributions it provides to the city, and there is insufficient information at the current time to measure the full impact of this proposal.

It is possible that revisions can be made to the state shadow laws that maintain the important protections for our historic resources and allow for more development downtown. However, these revisions should be made only after the necessary independent studies have been conducted and the public has had adequate time to review and comment. Furthermore, a comprehensive planning effort for all of downtown should be initiated immediately to gauge the impacts of current development trends that may threaten the character and inherent value of Boston's downtown neighborhoods in order to avoid this situation in the future.

The Alliance joined several other organizations in asking for specific information from Millennium Partners in their DPIR/DEIR and we eagerly await the results of their comprehensive analyses. **No effort to alter the state shadow laws should proceed until the complete DPIR/EIR is submitted and the public has had an opportunity to review and comment.**

We look forward to continuing the dialogue as the project evolves.

Sincerely,



Greg Galer
Executive Director

Cc: Governor Charlie Baker
Senator William Brownsberger
Senator Joseph Boncore
Representative Jay Livingstone
Representative Aaron Michlewitz
Representative Byron Rushing
Brona Simon, Massachusetts Historical Commission
Mayor Martin J. Walsh
City Councilor Frank Baker
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City Councilor Josh Zakim
Kathleen MacNeil, Millennium Partners
Cindy Schlessinger, Epsilon Associates
David Carlson, Boston Planning and Development Agency/BCDC
Rosanne Foley, Boston Landmarks Commission
Elizabeth Vizza, Friends of the Public Garden
Wendy Landman, Walk Boston
Vicki Smith, Neighborhood Association of the Back Bay
Patricia Tully, Beacon Hill Civic Association

BOSTON PRESERVATION ALLIANCE, FEBRUARY 24, 2017

BPA 01 **In a previous comment letter we noted a wide variety of potential impacts of the proposed tower – shadow on the Public Garden and Boston Common being just one element – and requested analysis of the proposal to allow a more comprehensive assessment of both its positive and negative effects on the city. To our knowledge that analysis has yet to be completed and made available to the public.**

The analyses provided in this Draft EIR/PIR, which include a comprehensive shadow analysis (see Section 5.2), allow for a thorough assessment of the proposed Project.

BPA 02 **We feel that modifying the state laws that have successfully protected some of the city's most important historic resources and public amenities without a full and public review is poor precedent.**

Please see the response to BPA 01 (MEPA comment letter).

Casey Hines <casey.a.hines@boston.gov>

115 Winthrop Square - Comment

1 message

Betsy Hall [redacted] Sun, Jan 15, 2017 at 5:42 PM

To: Casey.A.Hines@boston.gov

Cc: mayor@boston.gov, Michelle Wu <Michelle.Wu@boston.gov>, Bill.Linehan@boston.gov, Josh.Zakim@boston.gov, Ayanna.Pressley@boston.gov, A.E.George@boston.gov, Tito.Jackson@boston.gov, Salvatore.Lamattina@boston.gov, Michael.F.Flaherty@boston.gov, Andrea.Campbell@boston.gov, Frank.Baker@boston.gov, Timothy.McCarthy@boston.gov, Matthew.OMalley@boston.gov, Mark.Ciommo@boston.gov, "Byron - Rep. (HOU)" <byron.rushing@mahouse.gov>, jay.livingstone@mahouse.gov, aaron.m.michlewitz@mahouse.gov, william.brownsberger@masenate.gov, Joseph.Boncore@masenate.gov

The ELLIS SOUTH END NEIGHBORHOOD ASSOCIATION

January 13, 2017

Dear Mr. Tracy, Esteemed Elected Officials, and other interested parties,

It is the position of the Ellis South End Neighborhood Association to agree with and support the cogent position of the Neighborhood Association of the Back Bay (NABB) regarding the "shadow law" change proposed by Millennium. The existing law respects the open spaces of our City and should be maintained without change, change which would create a dangerous and undesirable precedent going forward. ESNA 01

Sincerely yours,

Betsy Hall
President

Betsy Hall
President
Ellis South End Neighborhood Association
2 Clarendon Street
[redacted]
www.ellisneighborhood.org

ELLIS SOUTH END NEIGHBORHOOD ASSOCIATION

ESNA 01 **It is the position of the Ellis South End Neighborhood Association to agree with and support the cogent positon of the Neighborhood Association of the Back Bay (NABB) regarding the "shadow law" change proposed by Millennium. The existing law respects the open spaces of our City and should be maintained without change, change which would create a dangerous and undesirable precedent going forward.**

Please see the response to BPA 01 (MEPA comment letter).

Emerald Necklace
CONSERVANCY

Connecting People and Parks and Conserving the Emerald Necklace

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Fenway CDC
Fenway Garden Society
Franklin Park Coalition
Franklin Park Zoo/ Zoo New England
Friends of Jamaica Pond
Friends of Leverett Pond
Friends of the Muddy River
Garden Club Federation of Massachusetts
Isabella Stewart Gardner Museum
Jamaica Hills Association
Jamaica Pond Association
MASCO
Museum of Fine Arts, Boston

January 20, 2017

Page Czepiga, Environmental Analyst
MEPA Office
100 Cambridge St, Suite 900
Boston, MA. 02114

Re: 115 Winthrop Square Plan Notification Form, Legislative protection of Boston Common from Shadows & State Parkway Protections, Project #15610

Dear Ms. Czepiga:

This proposal for a building at the proposed height would cast a permanent shadow on two centuries old iconic public parks that attract hundreds of thousands of visitors each year for their scenic beauty, rich history and lively programming. These parks, used by residents and visitors alike, must be protected. In fact, this sentiment is not new, it is enshrined in existing state law limiting shadow in the park and followed upheld for over two decades.

Today Boston is in the middle of significant growth and in need of both park improvement and affordable housing funding. This project seems to promise both. As the Emerald Necklace Conservancy, we see any major infusion of funds into Boston's parks is exciting and desperately needed. We wholeheartedly support investment in our city's parks - and Franklin Park in particular – at the same time, we must ensure that this investment is not at the long-term expense of another park.

For these reasons, the project should be reduced in scale so that it is in compliance with existing state laws. We believe that the tremendous value this project would produce at a reduced size could still provide significant park and other public funding and not require a price to be paid by another park. Moreover, we are concerned about the precedent this would set, allowing these two state laws to be revisited.

It is not a surprise that Boston is growing, and it is because of the wise actions, protections and investments of those that came before us. We all need to preserve and extend that legacy.

Sincerely Yours,

Karen Mauney-Brodek
President

125 The Fenway | Boston, Massachusetts 02115 | TEL: 617.522.2700 | FAX: 617.522.2770 | www.emeraldnecklace.org

EMERALD NECKLACE CONSERVANCY

Please see MEPA comment letter (see Table 13-1).

Fenway Civic Association – P.O. Box 230435 – Astor Station – Boston, MA 02123

December 21st, 2016

Via Email

Christopher Tracy
Senior Project Manager
Boston Planning and Development Agency
One City Hall Square
Boston, MA 02201

Re: 115 Winthrop Square Plan Notification Form

Dear Mr. Tracy,

The Fenway Civic Association is the Fenway neighborhood's oldest and all-volunteer neighborhood group that accepts no public or developer funds. Founded in 1961, our mission is to promote a safe and vital neighborhood that serves the interest of its residents.

Millennium Partners is proposing an extensive revamp of the public park and streetscape within Winthrop Square as part of this project. The Fenway Civic Association requests that Millennium Partners sponsor a new installation of public art so that the statue of Robert Burns in Winthrop Square can be returned to its original location in the Fenway near the Johnson Memorial Gates entrance to the Back Bay Fens. FCA MB 01

The Robert Burns Statue created by renown sculptor Henry Hudson Kitson to commemorate the 18th Scottish literary figure, was originally situated not far from another renown sculptor Daniel Chester French's memorial to, arguably Ireland's famous 19th century poet, John Boyle O'Reilly. The juxtaposition of two of the preeminent sculptors' works and honors to Scottish and Irish literary figures was deliberate .

Chester French and Kitson were contemporary masters and it was, and could be once again, a unique opportunity to have their masterpieces on public display within a block of each other. The pastoral setting of the Back Bay Fens was, and remains, in keeping with the pastoral setting of both literary figure's works. Notably Peterborough and Kilmarnock Street, in the adjacent West Fenway, are named after locations in Burn's works. As Fenway is a vibrant neighborhood, home to the Museum of Fine Arts, Gardner Museum, Fenway Studios, Boston Arts Academy, Museum of Fine Arts School, Massachusetts College of Art, Kaji Aso Studio Institute for the Arts, and several other institutions with programs dedicated to educating in or performance of various genres of art, it is an appropriate cultural hub to display the statue.

The Robert Burns statue was taken from the Fenway in 1975, with no notice or public process, for the benefit of a private developer. Since then, the neighborhood has worked tirelessly to revitalize itself and reclaim & restore the Back Bay Fens from a half century of neglect. Returning the statue is an opportunity for 21st century Boston to atone for a 20th century misdeed and return a cultural jewel to its rightful place in the Emerald Necklace.

Thank you for the opportunity to make this request,

Matthew A. Brooks, Fenway Civic Association

CC: City Councilor Josh Zakim
City Councilor Tito Jackson
City Councilor Michelle Wu
Chief Julie Burros, Boston Department of Arts & Culture
Commissioner Christopher Cook, Boston Parks & Recreation
Director Margaret Dyson, Boston Historic Parks
Director Brian Golden, Boston Planning & Development Agency
Jacob Wessel, Mayor's Office of Neighborhood Services
Yissel Guerrero, Mayor's Office of Neighborhood Services
Mayor Martin Walsh

FENWAY CIVIC ASSOCIATION, MATTHEW A. BROOKS

FCA MAB 01 The Fenway Civic Association requests that Millennium Partners sponsor a new installation of public art so that the statue of Robert Burns in Winthrop Square can be returned to its original location in the Fenway near the Johnson Memorial Gates entrance to the Back Bay Fens.

The Proponent is open to discussions on returning the Robert Burns statue to its original location.

Fenway Civic Association – P.O. Box 230435 – Astor Station – Boston, MA 02123

January 17, 2017

Via Email: (casey.a.hines@boston.gov)

Ms. Casey Hines
Boston Planning & Development Agency
Boston City Hall
Boston, MA 02201

Re: 115 Winthrop Square Project Notification Form

Dear Ms. Hines:

The Fenway Civic Association ("FCA") is a 55 year old all-volunteer organization formed to preserve and protect the livability of Boston's Fenway neighborhood. Fenway residents view their surrounding historic parks as a major contributor to their quality of life. Like our own Emerald Necklace Parks, the Boston Common and Public Garden are an amazing public legacy that can never be replaced.

FCA TH 01

The FCA normally does not comment on projects outside our neighborhood. However, from our review of the Winthrop Square Project Notification Form ("PNF"), we understand that the proposed Winthrop Square project would violate state law that protects our historic Boston Common and Public Garden from additional shadows. There was no direct mention of this noncompliance in the PNF. We understand that the developer intends to address the noncompliance by petitioning the Legislature for an amendment to the law to permit the project. In exchange, the developer has proposed offering millions of dollars to the City for earmarked projects.

As members of the public for whom our parks and open space protection laws were written, we object to such a practice as a matter of policy. Allowing the rewriting of law in exchange for the writing of a check not only degrades the value of our public parks and the legislation enacted to protect them, but fundamentally undermines the community's faith in its public policy makers and their ability to apply the law fairly to all parties.

The Fenway Civic Association strongly supports adherence to and respect for the hard-fought park protection laws and ordinances meant to preserve our valuable public resources for everyone in perpetuity. We expect the same from our public officials.

Thank you for the opportunity to offer this comment.

Tim Horn

President, Fenway Civic Association

CC: Jonathan Greeley, Director of Development Review (BPDA)
Rep. Byron Rushing
Rep. Chyna Tyler
Rep. Jay Livingstone
Senator William Brownsberger
Boston City Council

FENWAY CIVIC ASSOCIATION, TIM HORN

FCA TH 01 **The Fenway Civic Association strongly supports adherence to and respect the hard-fought park protection laws and ordinances meant to preserve our valuable public resources for everyone in perpetuity.**

Please see the response to BPA 01 (MEPA comment letter).

FRIENDS
OF
POST OFFICE
SQUARE

50 FEDERAL STREET
BOSTON, MA 02110

TEL: 617-423-1500
FAX: 617-423-0507

Pamela C. Messenger
direct line [redacted]

January 12, 2017

Boston Planning & Development Agency
One City Hall Square
Boston, MA 02201
ATTN: Casey Hines, Senior Project Manager

Re: 115 Winthrop Square, Project Notification Form presented by MCAF Winthrop LLC (the "PNF") – Public Comment Submission

Ladies and Gentlemen:

More than 30 years ago, Friends of Post Office Square was designated as redeveloper of a former municipal parking garage which was demolished and developed into a highly praised and much honored project that transformed the financial district into a more welcoming neighborhood, which began the movement to create more accessible open space downtown. As a close neighbor, business advocate and park overseer, Friends wears many hats in reviewing the PNF for the proposed tower at 115 Winthrop Square. Friends remains a vigilant steward of Post Office Square, first, while advocating for a healthier and more vibrant downtown.

It is time to demolish the Winthrop Square Garage. The site should be developed for 21st century Boston, with care to minimizing adverse impact on traffic, carbon footprint, wind and shadows. I have read the PNF, attended the BPDA public meetings and spoken with representatives from the proponent and its consultants. I have been told that no shadow study exists to determine if the project will cast additional afternoon shadows on the Norman B. Leventhal Park in Post Office Square. We have specifically requested such a shadow study from the proponent, and until the study is forthcoming, Friends lacks the information to determine if the shadow impact on our beloved open space outweighs any positive impact of the project. FPOS 01 FPOS 02

Sincerely,

Pamela C. Messenger

Pamela C. Messenger
General Manager

FRIENDS OF POST OFFICE SQUARE

FPOS 01 **It is time to demolish the Winthrop Square Garage. The site should be developed for 21st century Boston, with care to minimizing adverse impact on traffic, carbon footprint, wind and shadows.**

A transportation analysis is provided in Section 4.0, a GHG analysis is provided in Section 10.0, and wind and shadow analyses are provided in Sections 5.1 and 5.2, respectively. In addition, the Proponent has commenced demolition of the existing garage located on the Project Site.

FPOS 02 **I have been told that no shadow study exists to determine if the project will cast additional afternoon shadows on the Norman B. Leventhal Park in Post Office Square. We have specifically requested such a shadow study from the proponent, and until the study is forthcoming, Friends lacks the information to determine if the shadow impact on our beloved open space outweighs any positive impact of the project.**

A comprehensive shadow analysis is provided in Section 5.2.

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January 20, 2017

Ms. Casey Hines
Senior Project Manager, Development Review
Boston Planning & Development Agency
One City Hall, 9th Floor
Boston, MA 02201

Dear Ms. Hines:

The Friends of the Public Garden has worked in partnership with the Boston Parks and Recreation Department for over four decades. As one of the oldest parks advocacy groups in the nation, we are committed partners in our mission to maintain and enhance Boston's landmark historic parks, and to protect them from damage and encroachment. The Boston Common, Public Garden, and Commonwealth Avenue Mall have been the sites of countless events, public gatherings and private moments. These parks have been an integral part of Boston's identity for generations, and contribute to Boston's reputation as a City with exceptional quality of life. They are essential to the City's tourism industry and the dollars it generates. They are also proven assets that raise commercial, retail, hospitality, and residential real estate taxes.

One of the achievements of the legal protections enacted in the 1990s to safeguard the Boston Common and Public Garden is that the Common and Public Garden shadow laws have worked successfully in tandem with robust development throughout the city over the decades since they became law. The proposed Winthrop Square development violates both of these laws.

The Project Impact Report for 115 Winthrop Square should reflect a meticulous analysis of the environmental impacts of the current proposed design on America's oldest park and first public botanical garden. There is a one-time financial gain from the sale of the Winthrop Square property, but the shadow damage is permanent.

The shadow laws were enacted to protect the public interest. While we recognize that redevelopment of the Winthrop Square garage site can be of benefit to the City, we do not support the current proposal because:

1. An amendment to the shadow laws must be filed in order to make the project legal, creating a blueprint for other developers and future mayors. While Millennium and the City are making assurances that an amendment would be specifically written to allow only the Winthrop Square project, it will nonetheless set a precedent for future developers offering large financial enticements to approve further weakening of the laws.

2. There are timing issues concerning the Home Rule Petition that will likely be filed before the Project Impact Report, with its more detailed shadow analysis, is submitted and finalized. Without full information, the City is asking to make an exception for a development's shadow that is yet to be precisely defined (area, extent, and duration).
3. Millennium states it will be applying for a Planned Development Area (PDA) designation, but has yet to submit the Development Plan. PDA designation enables tailoring on a site by site basis for projects being built on one acre or more, including greater height. Zoning offers little protection for the parks. State law is the only strong protector.
4. There will be short-term advantages in construction and promised affordable housing, but lasting effects of shadows from condos for the very few super-rich on the quality of life of the thousands of residents and visitors who utilize and enjoy the parks every day of the year.

We have requests and questions for the developer to answer in the DPIR:

1. Provide a shadow analysis that delineates the total area (sq. ft.) of shadow at its peak for all three parks. FPG 01
2. Provide a shadow analysis for Boston Common, Public Garden, and Commonwealth Avenue Mall individually showing how much new shadow will be cast on each park. FPG 02
3. Show a building at a height that does not cast shadows, including mechanicals. FPG 03
4. Why is there no affordable housing component on-site? FPG 04

We urge the City to slow down this fast-track project in order to create a comprehensive development policy for downtown that allows Boston to continue to grow while safeguarding our irreplaceable greenspaces. As a strong advocate for the parks, the Friends appreciates the opportunity to comment on the project and the scope of the DPIR.

Sincerely,

Elizabeth Vizza
Executive Director

cc:
Mayor Martin Walsh
Brian Golden, Director, Boston Planning and Development Agency
City Councilor Frank Baker
City Councilor Andrea Campbell
City Councilor Mark Ciommo
City Councilor Anissa Essaibi George
City Councilor Michael Flaherty
City Councilor Tito Jackson
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City Councilor Ayanna Pressley
City Councilor Michelle Wu
City Councilor Josh Zakim
Senator William Brownsberger
Senator Joseph Boncore
Representative Jay Livingstone
Representative Aaron Michlewitz
Representative Byron Rushing

FRIENDS OF THE PUBLIC GARDEN

FPG 01 **Provide a shadow analysis that delineates the total area (sq. ft.) of shadow at its peak for all three parks.**

A comprehensive shadow analysis is provided in Section 5.2.

FPG 02 **Provide a shadow analysis for Boston Common, Public Garden, and Commonwealth Avenue Mall individually showing how much new shadow will be cast on each park.**

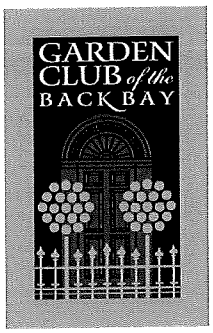
A comprehensive shadow analysis is provided in Section 5.2.

FPG 03 **Show a building at a height that does not cast shadows, including mechanicals.**

The alternatives analysis in Section 3.0 includes an alternative that complies with current shadow laws and an alternative based on the previous shadow law is included in Section 5.2.

FPG 04 **Why is there no affordable housing component on-site?**

See Section 2.2.3.



December 15, 2016

Mr. Christopher Tracy, Senior Project Manager
Boston Planning and Development Agency (BPDA)
One City Hall Square
Boston, MA 02201

Re: Winthrop Square Project

Dear Mr. Tracy,

We are writing to urge that the existing State shadow laws be upheld. If an exception is made for Winthrop Square, we believe other projects would also seek exceptions. Why wouldn't they be granted as well? GCBB 01

Once sunshine is blocked from the Boston Common and the Public Garden, it will be blocked forever. Not many decisions can have such a lasting and deleterious effect. The Boston Common is a mere 49 acres of green space in the heart of Boston. It is heavily used by citizens, workers and visitors for free. One of the reasons for its popularity is its beauty – grass, trees, and views across the City unencumbered by buildings, electric lines, roads, and shadows. We must protect this space against well-meaning projects that serve a slice of the community at the expense of the whole community.

The Mission of the Garden Club of the Back Bay is to protect and care for City trees. Trees in the Common, the Public Garden and the Commonwealth Avenue are irreplaceable and need constant protection from incursions on the space and sunshine they need to survive. Our 140 members are counting on you and our government representatives to uphold the shadow laws.

Respectively submitted,

Jolinda Taylor Sherley Smith

Jolinda Taylor, Co-President of the Garden Club of the Back Bay
Sherley Gardner-Smith, Co-President of the Garden Club of the Back Bay

Cc: Mayor Walsh, Page Czepiga, Michelle Wu, Bill Linehan, Josh Zakim, Ayanna Pressley, A.F. George, Tito Jackson, Salvatore Lamattina, Michael F. Flaherty, Andrea Campbell, Frank Baker, Timothy McCarthy, Matthew O'Malley, Mark Ciommo, Byron Rushing, Jay Livingstone, Aaron Michlewitz, William Brownsberger, Joseph Boncore

GARDEN CLUB OF THE BACK BAY

GCBB 01 **We are writing to urge that the existing State shadow laws be upheld. If an exception is made for Winthrop Square, we believe other projects would also seek exceptions.**

Please see the response to BPA 01 (MEPA comment letter).

LIGHT Boston
Illuminating Our City's Unique Future, History and Culture

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MaryLee Halpin - *Program Director*

January 20, 2017

Matthew Beaton, Secretary
Executive Office of Energy and Environmental Affairs
Attn: MEPA Office, Analyst: Page Czepiga
100 Cambridge Street, Suite 900, Boston. MA 02114
matthew.beaton@state.ma.us, page.czepiga@state.ma.us

Casey Hines, Senior Project Manager - Development Review
Boston Planning & Development Agency, Boston City Hall
One City Hall Square, Boston, MA 02201
casey.a.hines@boston.gov

Re: **COMMENT - 115 Winthrop Square PNF and EIR Certificate**
MEPA 15610

Dear Reviewing Agencies:

LIGHT Boston is a 501(c)3, which has been advocating for more than two decades for the improved nighttime illumination of our city's built environment, heritage and public realm. We have completed projects successfully in concert with your departments as well as the City's DPW, Parks Department, other State agencies and the National Park Service. We work in concert with related non-profits - Walk Boston, Friends of the Public Garden, Charles River Conservancy, etc. - as well as notable private institutions and individuals within the City.

We have reviewed the 115 Winthrop Square PNF and the EIR Certificate, and have these comments:

1. Noticeably missing - exterior lighting and nighttime aspect
The Article 80 review seems not to require a proponent to address the whole subject of exterior illumination in any direct way. The Certificate makes only a single, and hardly comprehensive, note advising the use of LEDs for energy conservation. Hence contributions to the reality of Boston as an attractive after-dark destination with its economic ramifications, creation of a desirable nighttime public realm surrounding the project itself, nighttime safety (pedestrian and vehicular), environmental effects from "over-lighting", as well as wayfinding and Dark Skies concerns are nowhere addressed. This is a significant ("glaring", even) oversight which we suggest needs to be corrected in both the Article 80 and the MEPA processes.

2. Image of the building
Since upper level signage is generally prohibited in downtown Boston (the Prudential, Sheraton and Union Oyster House being grandfathered), the lighting of the building exterior itself becomes the cityscape identifier, frequently resulting in a sort of added-on lighting "crown", not always successful. Hence presentation of this overall design aspect, especially for such a notably tall building as proposed, with its opportunity for a

remarkable contribution (or potentially lessening) of the quality of our skyline, merits review. We ask that the proposal for lighting the exterior be shared with the public for comment before approval is granted.

3. Accessibility - Lighting a critical component
Good exterior lighting is a fundamental element in making the area around a building accessible to individuals with low vision and to senior citizens. By setting the lighting standard based on aiding those with low vision, the property and its surrounds work for all individuals who walk to or only by the building. We ask that exterior lighting of the sidewalks and surrounding area be reviewed and approved by the Mayor's Commission for Persons with Disabilities and the non-profit WalkBoston.

4. Interior lighting of public spaces - renderings not described in commentary
The lighting of public spaces *within* the project are shown in renderings. However, there is only very general written discussion of the lighting results to be achieved, and type, quantity, placement, control or flexibility for special events enumerated. We ask that the specifics of interior lighting for areas intended for public use and amenity be provided before approval of the project proceeds.

5. Potentials for the larger public realm
Again, the renderings and illustrative ground floor plan show that some kind of treatment is intended at either end of the arcade. But the possibilities (indeed responsibility) for the proponent to take an active role in the improvement and long-term maintenance of the adjacent Winthrop Square "public room", which adds such value to the project in the first place, be developed for nighttime place-making and presented. So too, the Federal Street streetscape across into Matthews Street. These are central to the success not only of the project but also to the neighborhood being created by the expansion of residential building to the Federal Street area. We ask that the reviewing agencies ensure these elements are appropriately addressed before permission is granted.

Boston is a city which aspires to maintaining and expanding its vibrant nightlife as well as providing a safe and accessible after-dark reality. Hence LIGHT Boston believes that the nighttime aspects of the public realm fall well within the purview of public agencies responsible for our city's health and well-being. We would welcome the opportunity to discuss with both of you the issue of civic illumination as it relates to this project and to the larger realm of city design. Thank you for your attention.

Sincerely yours,

Todd Lee, FAIA - President, LIGHT Boston, Inc.

copies:
Kathryn Quigley, Mayor's Commission for Persons with Disabilities
Wendy Landman, Walk Boston

LIGHT BOSTON

Please see MEPA comment letter (see Table 13-1).

LivableStreets Rethinking urban transportation

LivableStreets Alliance 70 Pacific St. / @Sidney Cambridge MA 02139 T: 617.621.1746 F: 617.716.2085 info@livablestreets.info livablestreets.info

To: Casey Hines
Boston Planning & Development Agency
From: LivableStreets Alliance Advocacy Committee
Re: 114 Winthrop Square

January 16, 2017

Dear Ms. Hines,

Thank you for the opportunity to comment on the 114 Winthrop Square development project. LivableStreets Alliance is generally impressed with the building design and believes that the addition of the Great Hall will add vitality and community to the downtown area. Of concern to LivableStreets advocates is the project's high parking to unit ratio and the PNF's cursory mention of bicycle parking. Furthermore, the PNF does not mention whether parking spaces will be available for car share services and does not appear to plan for large volumes of drop-offs from ride-sharing services (e.g. Uber, Lyft) and delivery vehicles (e.g. Amazon). Finally, LivableStreets would be interested in receiving more information about the redesign of adjacent streets based on Complete Streets guidelines.

Consider reducing parking to unit ratios to 0.5 or less
Given the building's proximity to multiple transit and mode options offering parking spots to all residents appears to be counter the project's stated goals of being:

1. A market leader in sustainability and resiliency
2. Consistent with smart-growth and transit-oriented development principles

As per the PNF, the minimum parking scenario shows a parking to unit ratio of more than 1 spot per unit, with 300 parking spaces for 290 units. The maximum scenario proposes 350 spaces for 460 units, or a ratio of 0.75. Both ratios are high given the abundance of transportation options in this neighborhood, the proximity of the Roche Brothers supermarket, and the presence of many retailers such as Macy's. This ratio is higher than at other Boston developments located in Downtown and in areas with fewer transportation options:

- The Residences at Forest Hills is offering 0.56 units per unit
- One Bromfield street in Downtown also includes 0.56 spots per unit
- The BPDA's recent JP/Rox development proposal recommends a maximum of 0.75 parking spots per unit for large projects close to transit (page 96 of Plan: JP/Rox, 1.09.17) in an area that is not as well serviced by transit as Downtown.

Given the abundance of alternatives to personal vehicle transportation in Downtown, we recommend a maximum parking to unit ratio of 0.5. LSA 01

Dedicate a healthy share of spaces to car share companies
We hope the developers will earmark a healthy share of parking spaces to car share companies such as ZipCar and Enterprise CarShare to maximize the value of parking LSA 02

spaces to building tenants and to provide them with an alternative to car ownership. In addition, the BPDA could recommend that the developers entice a car rental company to open a branch on-site to address car transportation for multi-day trips.

Include Designs for Indoor and Outdoor Bike Parking

The building should offer residents, employees, and visitors ample bike parking. The BPDA's most recent Commuter Flows study shows that more than half of Downtown residents bike or walk to work and many residents in other parts of Boston, such as Jamaica Plain, commute to the downtown area by bike. While the PNF specifies that there will be short-and long-term bicycle parking accommodations, the design and capacity details are not included. LivableStreets expects the project to provide at least one secure/covered bicycle parking space per unit located in an easily accessed dedicated storage area, per the City of Boston's Bicycle Parking Guidelines. Furthermore, the guidelines specify that one covered/secured bike parking space should be available for 10% of the planned part-and full-time worker occupancy. The project should also plan for outside bicycle parking, ideally covered, for 20% of the units and 2.5% of patrons and visitors to the building. LSA 03 LSA 04 LSA 05

Plan for drop-offs from ride-sharing services and deliveries

Because residents, visitors and employees will be heavy users of ride-sharing services and taxis, the designs should include a large enough area to accommodate multiple, simultaneous curbside drop-offs /pick-ups and minimize double parking. Project designers should consider evaluating the traffic flow from ride sharing and delivery services (e.g. Amazon, local restaurants) at comparable buildings in the area to determine the appropriate space. LSA 06

In summary

- By offering a near 1 to 1 parking to apartment unit ratio, developers are not well aligned with Boston 2030's goals of reducing the number of trips involving single passengers and decreasing greenhouse gas emissions. We hope the BPDA will ask the developers to revise and/or add more specificity to the parking scenarios (i.e. share of spots dedicated to car share and rental) in line with our comments above.
- The designs should include ample space for bike parking, indoors and outdoors. Given the large and growing share of Downtown residents and Boston-area workers who bike to commute and/or for recreation, LivableStreets recommends offering one bicycle parking spot per unit and bike parking space for 10% of anticipated part-and full-time workers.
- Double parking creates congestion and safety concerns for pedestrians and bikers. The project should ensure that there is enough space to accommodate drop-offs from ride-sharing services and delivery vehicles to manage double parking.

Thank you for your attention and for considering our comments and recommendations.

Sincerely,

Sophie Schmitt, on behalf of the LivableStreets Alliance Advocacy Committee

LivableStreets Rethinking urban transportation
LivableStreets Alliance 70 Pacific St. / @Sidney Cambridge MA 02139 T: 617.621.1746 F: 617.716.2085 info@livablestreets.info livablestreets.info

LIVABLESTREETS ALLIANCE ADVOCACY COMMITTEE

LSA 01 **Given the abundance of alternatives to personal vehicle transportation in Downtown, we recommend a maximum parking to unit ratio of 0.5.**

Parking ratios are discussed in Section 4.8.

LSA 02 **We hope the developers will earmark a healthy share of parking spaces to car share companies such as ZipCar and Enterprise CarShare to maximize the value of parking spaces to building tenants and to provide them with an alternative to car ownership.**

As described in Section 4.8, the Proponent is committed to allocating parking spaces for use by car-sharing companies.

LSA 03 **The building should offer residents, employees, and visitors ample bicycle parking.**

Bicycle accommodations are described in Section 4.9.

LSA 04 **LivableStreets expects the project to provide at least one secure/covered bicycle parking space per unit located in an easily accessed dedicated storage area, per the City of Boston's Bicycle Parking Guidelines. Furthermore, the guidelines specify that one covered/secure bike parking space should be available for 10% of the planned part- and full-time worker occupancy.**

Bicycle accommodations are described in Section 4.9.

LSA 05 **The project should also plan for outside bicycle parking, ideally covered, for 20% of the units and 25% of patrons and visitors to the building.**

Bicycle accommodations are described in Section 4.9.

LSA 06 **Because residents, visitors and employees will be heavy users of ride-sharing services and taxis, the designs should include a large enough area to accommodate multiple, simultaneous curbside drop-offs/pick-ups and minimize double parking. Project designers should consider evaluating the traffic flow from ride sharing and deliver services (e.g. Amazon, local restaurants) at comparable buildings in the area to determine the appropriate space.**

Curbside drop-off/pick-up accommodations is shown on Figures 2-5.

Casey Hines <casey.a.hines@boston.gov>

NO shadows on our parks.

1 message

Ruth Kenworthy [redacted] Fri, Jan 13, 2017 at 11:29 AM
To: casey.a.hines@boston.gov

Dear Ms. Hines,

I am writing on behalf of the Metro District of the Garden Club Federation to protest the building of any structure that would cast shadows on Boston's iconic, historical parks which are a source of pride for our residents, our region and our nation. Furthermore, the Winthrop Square proposal violates the State's shadow laws. To amend these shadow laws would set a precedent for future developers to seek exemptions. There should be a comprehensive, long term development policy in place that is enforceable - no question. MDGC 01

I have been in touch with those in authority to make our collective voices heard to prevent shadows from being cast on our parks and plantings.

Thank you for taking our viewpoint into account.

Ruth Kenworthy Ecker
Metro District Director, Garden Club Federation of MA

METRO DISTRICT GARDEN CLUB FEDERATION OF MASSACHUSETTS

MDGC 01 **I am writing on behalf of the Metro District of the Garden Club Federation to protest the building of any structure that would cast shadows on Boston's iconic, historical parks which are a source of pride for our residents, our region and out nation. Furthermore, the Winthrop Square proposal violates the State's shadow laws. To amend these shadow laws would set a precedent for future developers to seek exemptions. There should be a comprehensive, long term development policy in place that is enforceable – no question.**

Please see the response to BPA 01 (MEPA comment letter).

Neighborhood
Association *of the*
Back Bay

N A B B

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Susan Baker
Vice Chairman
Tracy Pesanelli
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Sheri Olans Wright
Vice President
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Jacqueline Royce
Steven Sayers
Susan Shafer
Peter Sherin
Barry Solar
Elaine Sullivan
Anne Swanson
Jack Wallace
Michael Weingarten
Marvin Wool
Jacquelin Yessian

To: <mayor@boston.gov>, <casey.a.hines@boston.gov>
Cc: <Michelle.Wu@boston.gov>, <Bill.Linehan@boston.gov>, <Josh.Zakim@boston.gov>, <Ayanna.Pressley@boston.gov>, <A.E.George@boston.gov>, <Tito.Jackson@boston.gov>, <Salvatore.Lamattina@boston.gov>, <Michael.F.Flaherty@boston.gov>, <Andrea.Campbell@boston.gov>, <Frank.Baker@boston.gov>, <Timothy.McCarthy@boston.gov>, <Matthew.OMalley@boston.gov>, <Mark.Ciommo@boston.gov>, <byron.rushing@mahouse.gov>, <jay.livingstone@mahouse.gov>, <aaron.m.michlewitz@mahouse.gov>, <william.brownsberger@masenate.gov>, <Joseph.Boncore@masenate.gov>, <dtcnabb@nabbonline.com>
Subject: Opposition to the 115 Winthrop Square Project as currently proposed

Dear Ms. Hines:

The Neighborhood Association of the Back Bay is opposed to amending the existing state shadow legislation for the sole purpose of securing approval of the currently illegal Winthrop Square Garage site building proposed by Millennium Partners, which is the BPDA's tentatively designated developer.

NABB is fully aware of the history of efforts to develop this site over the past ten years, as well as the contents of the long standing shadow laws in force since the early 1990s. Over the past quarter century remarkable and impressive development has taken place in Boston that has respected the conditions and constraints of these laws. As indicated below NABB believes that this site can be developed in combination with others for the benefit of the city without having to enact amendments to these laws, which will have long term harmful consequences.

The Board of NABB has voted unanimously against any amendments of the existing shadow laws designed to protect the Boston Common and Public Garden in order to accommodate the building proposed by Millennium, which as noted is illegal under this legislation. The reasons for taking this position are simple, robust, fundamental, and founded on durable principles as follows:

- **Amendment of the shadow laws on a site- and/or project-specific basis would set a precedent opening the floodgates to other developers to request comparable changes in laws to obtain approval for their projects.** Assurances that such an amendment would be a one time exception cannot be binding on future administrations, and might be vulnerable to challenges on the grounds of discrimination, i.e. undue favoritism towards one company; NABB 01
- **Amendment to long-standing laws that have not hindered substantial development in the city during their lifetime would harm and diminish the value of two iconic public spaces in Boston.** They are enjoyed by all residents of Boston as well as by millions of visitors every year from NABB 02



throughout the Commonwealth, the nation and the world. These visitors make significant contributions to the city's economy that would be impaired should these public spaces become less attractive. Moreover the perception that Boston considers that demands of developers linked to the construction of luxury residences should override preservation of the value of these spaces - our heritage - could reduce the willingness of private donors to help fund their upkeep. City funds would then have to be found to overcome any shortfall in the outlays needed to maintain and improve them.

- **The precedent of an amendment to the shadow laws would signal an ad hoc attitude towards for development in Boston**. It would frustrate efforts to ensure the pursuit of a coherent and balanced vision for the future of the city in the interest of all its residents, businesses, and institutions as well as its economy and social climate; NABB 03
- **Amendment of the shadow laws on behalf of one developer is bad public policy. It violates the principle behind the rule of law that everyone is subject to law, including lawmakers themselves, as opposed to being subject to contingent or opportunistic decisions of individual government officials.** Millennium Partners expects the City to have state laws amended so that it can achieve an acceptable return on a perceived investment opportunity. NABB 04
- **The process leading to the tentative designation of Millennium Partners for this project was inherently flawed.** The RFP (Request for Proposals) encouraged the bidders to offer buildings in violation of existing laws without consideration of alternative structures that would respect them; NABB 05
- **The benefits claimed for this project are not unique.** They can be achieved through alternative solutions for improving and generating value from the city-owned Winthrop Garage property. These alternatives have not been investigated at this point. They can be implemented without the irreversible harmful consequences inevitably generated by the Millennium solution. This project contains no on-site affordable housing and the affordable housing in Chinatown is no more than required of any developer. Moreover, under this plan $50 Million would not be paid until all units were sold, which could be in a decade. The $100 Million received by the City for property paid for by taxpayers would be allocated with no input from the public, or our representatives on the City Council, circumventing an open, participatory process. NABB 06

NABB would ask that you suspend the Article 80 process until there is a project which can legally be built.

Neighborhood Association *of the* Back Bay, Inc.
160 Commonwealth Avenue L8, Boston, MA 02116-2749 Tel 617.247.3961 info@nabbonline.com www.nabbonline.com

Neighborhood Association *of the* Back Bay

N A B B

We thank your for your consideration and look forward to working with you to create a solution which respects current law and allows appropriate development while protecting our historic and iconic parks for future generations.

With every good wish,

Vicky C. Smith

Neighborhood Association *of the* Back Bay, Inc.
160 Commonwealth Avenue L8, Boston, MA 02116-2749 Tel 617.247.3961 info@nabbonline.com www.nabbonline.com

NEIGHBORHOOD ASSOCIATION OF THE BACK BAY

NABB 01 **Amendment of the shadow laws on a site- and/or project-specific basis would set a precedent opening the floodgates to other developers to request comparable changes in laws to obtain approval for their projects.**

Please see the response to BPA 01 (MEPA comment letter).

NABB 02 **Amendment to long-standing laws that have not hindered substantial development in the city during their lifetime would harm and diminish the value of two iconic public spaces in Boston**

Please see the response to BPA 01 (MEPA comment letter).

NABB 03 **The precedent of an amendment to the shadow laws would signal an ad hoc attitude towards for development in Boston.**

Please see the response to BPA 01 (MEPA comment letter).

NABB 04 **Amendment of the shadow laws on behalf of one developer is bad public policy. It violates the principle behind the rule of law that everyone is subject to law, including lawmakers themselves, as opposed to being subject to contingent or opportunistic decisions of individual government officials.**

Please see the response to BPA 01 (MEPA comment letter).

NABB 05 **The process leading to the tentative designation of Millennium Partners for this project was inherently flawed.**

The Proponent followed the requirements set forth in the City-issued RFP.

NABB 06 **The benefits claimed for this project are not unique.**

See Section 2.2.3 for a discussion of Project benefits.

January 5, 2017

To: *Christopher Tracy & Jonathan Greeley*, Boston Planning & Development Agency
Regarding: *115 Winthrop Square Public Meeting #2*

*Please return comments to BPDA table

From: Karen LaTrazza, President & CEO
Affiliation/Address: St. Francis House
39 Boylston Street, Boston 02116
Email/Phone: [redacted]

Comments:

St. Francis House strongly supports the proposed development. While no project is without a downside and the impact of additional shadows on the Common & the Garden is a negative, the benefits far outweigh this consequence. The city is in desperate need of affordable housing, people in the city are in need of good jobs, the city has ambitious plans and increased tax revenues that can be invested in the schools, parks & infrastructure will add to the vitality of our city. The project itself takes a "shadowy" part of the city and brings it into the light. Millenium has a long history in Boston of revitalizing desolate areas. Their investments in the City have improved the quality of life for everyone, including people who are homeless. They have not practiced a strategy of displacement but one of investment and filling in the negative spaces of the city and bringing those who live in the shadows into the light. Please support this project.

SFH 01

SFH 02

Comments can also be emailed to: christopher.tracy@boston.gov or
jonathan.greeley@boston.gov

ST. FRANCIS HOUSE

SFH 01 **St. Francis House strongly supports the proposed development. While no project is without a downside and the impact of additional shadow on the Common and the Garden is a negative, the benefits for outweigh this consequence.**

The Proponent appreciates the support.

SFH 02 **The city is in desperate need of affordable housing, people in the city are in need of good jobs! The city has ambitious plans and increased tax revenues that can be invested in the schools, parks and infrastructure will add to the vitality of our city.**

Sections 1.1 and 2.2.3 include detailed information about many of the public benefits provided by the Project.

walkBoston™

Casey Hines, Senior Project Manager
Boston Planning and Development Agency
Boston City Hall
One City Hall Square
Boston, MA 02201

Re: 115 Winthrop Square PNF

Dear Ms. Hines:

WalkBoston is Massachusetts' leading pedestrian advocacy organization. We have reviewed the Project Notification Form for this project and believe that it will provide benefits to the economic strength and vitality of downtown Boston by replacing a dilapidated parking garage that has blighted the Winthrop Square neighborhood for decades. We also believe that there are several issues that require further evaluation and improvement.

1. The Great Hall that has been proposed has the potential to be an exciting gathering place that attracts people from both downtown and Boston's neighborhoods. We urge that the Great Hall be open to the public 18 hours a day, 52 weeks a year and that it be given programming that goes well beyond a food and shopping court. The ground floor of the building (both as part of the Great Hall and also adjacent to the Great Hall) should have rooms and spaces for talking, working or observing. Programs to encourage use of the space will be essential. The proponent should clarify the plan for activating this space, including the types of programs and the agency or individuals who will be assigned the task of programming and managing the space. We urge the Proponent to provide a description of the mix of uses, the cost to users (for events that are open to the public), and the anticipated intensity of programming that is to be provided in the Great Hall. WB 01

2. Because of its prominent, strategic location, the Great Hall will also be a walking connection between Federal and Devonshire Streets that adds to Downtown's rich tradition of publicly accessible lanes and alleys. The balance between circulation space and usable public space should be carefully studied and described. WB 02

3. Wind studies of the building should identify its impacts on pedestrians using adjacent streets and sidewalks. Wind may also be a factor in the design of the Great Hall, where pedestrians and users of the space should be protected from gusts or periodic and protracted winds around the building. WB 03

4. Pedestrian scale lighting should be designed to enhance the usefulness and attractiveness of both interior and exterior portions of the building with attention to creation of a sense of place, traffic safety at street crossings and personal safety. WB 04

5. We urge the Proponent to explore building shapes, heights and orientations to reduce or eliminate shadow impacts on the Common and Public Garden. WB 05

6. We also urge the City and the Proponent to work with the many organizations and individuals who are deeply concerned that the project will set a precedent that allows shadow impacts on the Common and Public Garden. Prior to approval of the project, the City should describe permanent and binding protections for the Common and the Public Garden from further shadow impacts. WB 06

Thank you very much for your consideration of our comments.

Sincerely,



Wendy Landman
Executive Director

Cc Senator William Brownsberger
Senator Joseph Boncore
Representative Jay Livingstone
Representative Aaron Michlewitz
Representative Byron Rushing
City Council President Michelle Wu
Elizabeth Vizza, Friends of the Public Garden
Howard Kassler, Neighborhood Association of the Back Bay
Patricia Tully, Beacon Hill Civic Association
Greg Galer, Boston Preservation Alliance
Todd Lee, LightBoston
Kathleen MacNeil, Millennium Partners
Cindy Schlessinger, Epsilon Associates

WALKBOSTON

WB 01 **We urge that the Great Hall be open to the public 18 hours a day, 52 weeks a year and that it be given programming that goes well beyond a food and shopping court. The ground floor of the building (both as part of the Great Hall and also adjacent to the Great Hall) should have rooms and spaces for talking, working or observing. Programs to encourage use of the space will be essential. The proponent should clarify the plan for activating this space, including the types of programs and the agency or individuals who will be assigned the task or programming and managing the space. We urge the Proponent to provide a description of the mix of uses, the cost to users (for events that are open to the public), and the anticipated intensity of programming that is to be provided in the Great Hall.**

The Great Hall is described in detail in Sections 2.2.1 and 7.1.

WB 02 **Because of its prominent, strategic location, the Great Hall will also be a walking connection between Federal and Devonshire Streets that adds to Downtown's rich tradition of publicly accessible lanes and alleys. The balance between circulation space and usable public space should be carefully studied and described.**

The Great Hall is described in detail in Section 2.2.1 and 7.1.

WB 03 **Wind studies of the building should identify its impacts on pedestrians using adjacent streets and sidewalks. Wind may also be a factor in the design of the Great Hall, where pedestrians and users of the space should be protected from gusts or periodic and protected winds around the building.**

A comprehensive wind analysis provided in Section 5.1 and includes an analysis of wind impacts along adjacent streets to the Project site. Wind measurements were also taken in and adjacent to the Great Hall. The doors at the Great Hall will provide mitigation for the occasional uncomfortable wind conditions in the Great Hall.

WB 04 **Pedestrian scale lighting should be designed to enhance the usefulness and attractiveness of both interior and exterior portions of the building with attention to creation of a sense of place, traffic safety at street crossings and personal safety.**

A lighting study will be completed as the Project design progresses.

WB 05 **We urge the Proponent to explore building shapes, heights and orientations to reduce or eliminate shadow impacts on the Common and Public Garden.**

A comprehensive shadow analysis is provided in Section 5.2. Please also see response to MEPA 12.

WB 06 **We also urge the City and the Proponent to work with the many organizations and individuals who are deeply concerned that the project will set a precedent that allows shadow impacts on the Common and Public Garden.**

Please see the response to BPA 01 (MEPA comment letter).

January 5, 2017

To: *Christopher Tracy & Jonathan Greeley*, Boston Planning & Development Agency
Regarding: *115 Winthrop Square Public Meeting #2*

***Please return comments to BPDA table**

From: Kenneth G. Smith
Affiliation/Address: 27 Centre Street
Boston MA 02119
Email/Phone: [redacted]

Comments: YouthBuild Boston supports this project because it provides work force opportunities to our constituents. The young people who participate in our program have access to meaningful employment, and are better able to navigate a pathway to success. We have work with Millenium Partners in the past and they have created opportunities for organizations to serve as a sub contractor on the Tower project. This was a very innovative act that required collaboration with unions sub contractors and general contractors. These practices serve as a model to other developers

Comments can also be emailed to: christopher.tracy@boston.gov or
jonathan.greeley@boston.gov

Via email. from Michael Chavez

Dear City Councilor Michelle Wu:

I am writing today in support of the 115 Winthrop project as proposed by Millennium Partners. YBB 01

This project is one of the only private developments stepping up to support the Mayor's agenda on Economic Inclusion Equity sharing, job training and a commitment to local, long term employment opportunities. Millennium Partners' track record in the City of Boston implementing challenging and difficult projects speaks for itself in the many successful projects that have enlivened our City, especially in the downtown area. The fact that Millennium is executing a Memorandum regarding Economic Opportunity and Inclusion and accepting the challenge to make its development more equal and accepting of the needed cultural shift that our City needs to make to be sustainable for all Bostonians is an important part of this project that has been under-emphasized by the press and public.

The goals of the project include:

- Minority participation in the investment capital of the project and a participation in its returns.
- 15% of the Value of Construction Contracts awarded to MBE/WBE Contractors
- 15% of Architecture & Engineering Consultant Contracts awarded to MBE/WBE firms
- 51% of Permanent Employees on the Project to be City of Boston Residents
- 50% of Permanent Building Contractor jobs to WBE/MBE
- Participation in the anticipated new goals for Construction work force – 51% City of Boston Residents, 40% Minority and 12% Female.

Millennium has offered to include YouthBuild Boston, Inc. on its project site and provide opportunities for trainees to work alongside their subcontractors as part of their training experience and provide job placement opportunities once those trainees have graduated from our program. YBB 02

This project also provides much needed cash infusion to other City owned assets including Franklin Park, Boston Common, Orient Heights and Old Colony housing; and the creation of affordable housing in Chinatown; demonstrating its impact to the City as a whole not just the site location. YBB 03

I urge you to support the redevelopment of this under-utilized City parcel and support taking positive steps to make Boston a model City for Economic Equity + Inclusion.

Sincerely,



Ken Smith, Executive Director
YouthBuild Boston, Inc.
27 Centre St
Roxbury, MA 02119

Cc: Christopher Tracey- BPDA (christopher.tracey@boston.gov)
Casey A. Hines (casey.a.hines@boston.gov)
Jonathan Greeley (jonathan.greeley@boston.gov)

YOUTHBUILD BOSTON

YBB 01 **I am writing today in support of the 115 Winthrop project as proposed by Millennium Partners. The project is one of the only private developments stepping up to support the Mayor's agenda on Economic Inclusion Equity sharing, job training and a commitment to local, long-term employment opportunities.**

The Proponent appreciates the support.

YBB 02 **Millennium has offered to include YouthBuild Boston, Inc. on its project site and provide opportunities for trainees to work alongside their subcontractors as part of their training experience and provide job placement opportunities once those trainees have graduated from our program.**

The Proponent plans to utilize Youth Build for contract work onsite, similiar to its involvement with Youth Build at the Millennium Tower project and if feasible, more involvement.

YBB 03 **This project also provides much needed cash infusion to other City owned assets including Franklin Park, Boston Common, Orient Heights and Old Colony housing; and the creation of affordable housing in Chinatown; demonstrating its impact to the City and a whole not just the site location.**

Please see Section 2.2.3 for a discussion of Project benefits.

APPENDIX B

COMMENTS FROM THE GENERAL PUBLIC

115 Winthrop Sq.-Comments-by first name
A.F. Morous
Abbey Flores
Abby Bristol Hafler
Abdizzok Ali
Abdulahi
Abdullahi Farah
Abdullahi Gurhan
Abdullahi Jama
Abigail Mason
Adam Brinch
Adam Geragosian
Adam Ladd
Adam T. Kurth
Ahmed Isse
Al VamRankst
Alecia Manning
Alex Bain
Alex Blythe
Alex Danais
Alex Merrifield
Alex Monteiro
Alex Perd
Alexandra Malonis
Alexandra Mitropoulos
Alexandra Watkins
Alice Boelter
Alison Powers
Alison Rosenblum
Allan E. Taylor
Allan Hodges
Alvin Nunez
Alysha Griffiths
Ame Ahse Bonistalli

Amy Lunde-Whitler
Amy Murphy
Amy Usen
Andrea Vayda
Andrew Baird
Andrew Davis and Florence Bourgeois
Andrew Huynh
Andy Hoar
Angela Ferrari
Ann Beha
Ann Hershfang
Ann Teixeira
Anne Swanson
Anne Van Nostrand
Annsley McAleer
Anonymous- Can't read name 1
Anonymous- Can't read name 2
Anonymous- Can't read name 3
Anonymous- Can't read name 4
Anonymous- Can't read name 5
Anonymous- Can't read name 6
Anonymous- Can't read name 7
Anonymous- Can't read name 8
Anonymous- Can't read name 9
Anonymous- Can't read name 10
Anonymous- Can't read name 11
Anonymous- Can't read name 12
Anonymous- Can't read name 13
Anonymous- Can't read name 14
Anonymous- Can't read name 15
Anthony Morris
Arthur D. Clarke
Ashley Mahanama
Atusa Fattahi

Audrey and James Foster
Austin McClintock
Baily Dent
Barbara L Nee
Barry Solar
Bart Alvanjo
Beatrice Nessen
Becky Dwyer
Becky Kidder Smith
Ben Anderson
Ben Starr
Ben Stoigers
Benjamin Thomas
Benjamin Wigren
Benjamin Winters
Bernard Borman
Beth Terrana
Betsy Hall/Ellis SENA
Bill Clendamel
Bill Linehan
Bob Joyce
Bob Oppenheim
Bol Riiny
Boris Perlovsky
Brad Mclaughlin
Brendan Price
Brett Mensinger
Brian Canerano
Brian Clark
Brian Grossman
Brian Harris
Brian Luke
Brian Maloney
Brian McPherson

Briana Gilvarg
Candace Young
Candido Nunez
Carlton Conley
Carol Alper
Caroline C Barone
Carolyn Osteen
Carolyn Wheatley
Catherine Bordon
Catherine Iacobo
Celeste Day
Chase Chevalier
Chaton Green
Cheryl Camintti
Cheryl Jonas
Chris Damian
Chris His
Chris Reid
Chris Remeiha
Christi Fried
Christina Morris
Christine Nguyen
Christopher Patzke
Christopher Pirro
Christy Puls
Claire Corcoran
Claire Willis
Claudia Ravaschiere
Clearon M.
Coleman McDonagh
Curtis Cole
D Gipson
D. Carlson
Dan Murphy

Dan Murray
Daniel Taylor
Daniel Wong
Darryl Settles
Daryl Popper
David Fitzgerald
David Friend
David Howard
David Silverstein
David Wiener
Dean Seavers
Deb Blair
Deb Thayer
Deborah and David Douglas
Deborah Babson
Deborah Hale
Deborah Reef
Deindre Rosenberg
Derek Papagianopoulos
Derek Taff
Desow Nii
Diana Coldren
Diana Govern
Diane Britton
Diane Gibson
Donna Harilis
Doug Standbridge
Drew Freedman
Drew Volpe
Edaor Bacceora
Edward Hou
Edward Lennon
Edwina Yezierski
Elaine M. Sullivan

Elena Krupennikova
Elisabeth Nyman
Elise Brandt
Elizabeth Anderson
Elizabeth Johnson
Elizabeth M. Fahey
Elizabth Vizza/Friends of the Public Garden
Elliot Laffer
Emily Gallup
Emily Harding
Emmanuel Apanisile
Eric Gordon
Eric McGrath
Eric O'Brien
Erin O-Fallon
Etson Alves
Evelyn Kimber
Faith Justice
Faith Perkins
Fordos
Frank and Susan Bomba
Frank Duncan
Frank Monteforte
Franklin R. Medinas
Frederick Putnam
Gabriel Gunsberg
Gail Laffer
Gale Morgan
Gang Huang
Gene Bauer
George E. Coorssen, Jrs
George Straele
Greg Costa
Greg Galer/Boston Preservation Alliance

Greg Selloe
Gretchen Novak
Gudrun Seward
Hakeem Coleman
Haley Cutter
Ham Hon Ho
Hamilton Hu
Hannah Kanstroom
Hannah Vigneron
Harry Johnston
Heather Keane
Heidi Moesinger
Hong Xie
Hope McDermott
Hou Grant
Huiming Guo
Ivey St. John
J Dayne Lamb
Jack Brennan
Jack Greggs
Jackie Mignone
Jacquelin Yessian
Jacqueline Blombach
Jacqueline Royce
Jame Kelly
James Healey
James Labeck
James Pishkin
James Simpson
Jan Beaven
Jane Coleman
Jane Dimitry
Jane Kelley
Janet Hurwitz

Jared Freed
Jason Chambers
Jason Kulik
Jason Post
Jason Weldon
Jaymeson McIntosh
Jean Bachovchin
Jean O'Neil
Jeanne Fiol Burlingame/BH Garden Club
Jeanne Stanton
Jeannine Randolph
Jeff McCarthy
Jeffrey L. Thompson
Jeffrey Shuman
Jennie Zheng
Jennifer Iles
Jerry Rubin
Jessica Schmitz
Jie Lzan Liang
Jill Barry
Jillian Bargar
Jim Xiang
Jiny Toch
Joan and Joseph Patton
Joan Bragen
Joan E. Korb
Joan Hass
Joann Robinson
Joe Govern
Joe O'Brien
Joe Pearce
Joerg Ladny
Joh Ciolfi
John C. Butti II

John Carmona
John H Spurr, Jr.
John H.
John Hennessey
John Lagasse
John Luciano
John McL
John McL
John McLachlan
John Murad
John Newhall
John P. Sullivan/ Boston Water and Sewer
John R. Carroll
John Schiffman
John Sullivan/ BWSC
John Wadlington
Jolinda Taylor/Sherley Smith/ Garden Club of Back Bay
Jon Hamilton
Jonathon Freni
Jonathon R
Jorg Ladmy
Jose Sequeria
Joseph McCue
Josh Zakim
Joshua Butler
Joyce Stevens Roetter
Joyce Tallent
Judy & Phil Tedeschi
Julie Lannon
Justin Nadolney
Justine Harrision
Karen Maunery Broderick- Emerald Necklace
Karen Firestone
Karen Garvin

Karen Gregg
Karen LaFranzia
Karen Shine
Karen Smith
Karen Vachon
Karla Rojas
Kate Enroth
Kathie O'Dowd
Kathleen and Stephen Young
Kathleen Fox
Kathleen Koplik
Kathleen McIntyre
Kathleen Young
Kathy Pattison
Kathy Plazak
Katie Fagan
Katie Pederson
Katie Weigmann
Kavieen Herbst
Keith Lagreze
Ken Smith
Kenneth G. Smith
Kevin Greene
Kevin Leary
Kevin McCaskill
Kevin O'Connor
Kim Devine
Kristen McCosh
Kristin Field
Kristin Garcia
Kyra LeRoy Haydock
Larissa Jones
Larry Baxter
Larry Post

Laura Chassaigne
Laura Grover
Laura Haime
Laura Jasinski
Lauren Axell
Lauren Pfizenmaier
Lauren Phelan Lipscomb
Lauren Thomas
Legia Pisinski
Len Thomas
Leonard Rosen
Leslie Adam
Lia Poorvu
Lily Tang
Lin Sasman
Linchul Shin
Linda McLaughlin
Linda Whitehead
Lisa Ireland
Lisa Leary
Logan Bergeron
M.J. Kennedy
Madolyn Sullivan
Marc Harris
Marcus Baker
Margaret Anteblian
Margaret Pokorny
Margaret Shepherd
Maria Del Tufo
Maria Hilliard
Mariel Lacina
Marjorie Greville
Mark Kiefer/Beacon Hill Civic Association
Mark Slater

Mark Tavitian
Mark Vachon
Mark Yessian
Martha Gefter
Marty Walz
Martyn Roetter
Marvin Wool
Mary Fitzsimmons
Mary Kaba
Mary Nada
Mary Vogel
Matt Badger
Matt Fallon
Matt Fenlon
Matt Giffune
Matt M
Matt Twist
Matthew Brooks/Fenway Civic
Matthew Kay
Maureen O'Hara
May Lui
Meredith Christensen
Merloyd Lawrence
Michael & Elisabeth Lay
Michael Behnke
Michael Cappellano
Michael Caricri
Michael Hess
Michael Hines
Michael McCord
Michael Samuelian
Michael Taylor
Michael Weiss
Michelle Otey

Miguel Rosales
Mike Cappellano
Mike Freedbeua
Mike George
Mohamad Aden
Mohamad Arepasul
Mohamed Ismail
Mohamed Warfa
Mohamed Warfa
Mohamed Wausamc
Mohammad Qureshi
Molly H. Sherden
Mona Sadler
Moniqua Williams
Nai Ko
Nancy Gertner
Nancy Marttila
Nancy Morristoe/Bay Village Neighborhood Association
Nancy Reynolds
Nancy Roberts
Nancy Tavitian
Nate Thomas
Nicholas Chiaelli
Nicholas Mattra
Nick Kast
Nick Litton
Nicole Blanchard
Nicole Yonke
Osman Moh'ud
Osmei Yusuf
Osmon Aden
P. Beauregard
Pam Jackson
Pamela C. Messenger- Friends of Post Office Square

Pamela Hart
Pamela Oswald Louis
Pamela Stahl
Pat M. Dermott
Patricia Noyes-Corrigan
Patrick A Cavanagh
Patrick Cutter
Patrick Lue
Paul Chan
Paul Greenfield
Paul Miller
Paul Reinsmith
Paul Sweeney
Paula Furst
Paula Griswald
Peni Garber
Peter Coxe
Peter Davidow
Peter Dominski
Peter Muqfad
Peter Nessen
Peter Papesch
Peter Saradjian
Peter Thomson
Philip Wright
Polly Timken
Qiang Huang
R.W Lopez
Rebecca Brooks
Rebecca G. Mulzer
Reginald Nunnally
Richard Beal
Richard Chin
Richard Mertens

Richaro Nojoruo
Rieta Bobb
Rob Radloff
Robert & Priscilla Hayes
Robert Fitzgerald
Robert Ross
Robert Smith
Robert Wulff
Robert Zec
Roberta Crowley Gottlieb
Robertvtone Goodridge
Robin Weinberger
Ronald Gacicia
Rosemarie E. Sansone- Downtown Boston Business Imp Dist
Rosma Catizone
Ruth Kenworthy Ecker/Metro District of the Garden Club Federation
Ruth Sherman
Ryan Pavao
Sally and Jim Fitzpatrick
Sally Reyering
Sally Taylor
Sam
Sam Albertson
Sam Perry
Sandra Gilpatrick
Sandra Kyon
Sandra Ourusoff
Sandy Yeung
Sara D. McCammond
Sara Demeter
Sara Ferino
Sara Pouladian
Sara Wragge
Sarah Freeman

Sasha T. Fernandes
Sean and Rachel Robertson
Sean Dacey
Shannon Kelly
Shari Loessberg & Christopher Smart
Sharon Guandago
Sharon Lewis
Sharon Lincoln
Sharon Malt
Sharon Miller
Sharon Zetiro-Nourse
Shaun Shields
Shawn Halloran
Shayne and Sharpe Rather
Sheila Patterson
Sheri Olans Wright
Sherif Nada
Sherley Smith, Garden Club
Shiran Weber
Shondy Geryl
Sidney Kenyon
Sonja Yates
Sophie Schmitt- Livable Streets
Stalwart Dalzell/Massport
Stephanie Fletcher
Stephanie Flynn
Stephen Jerome
Steve Burtman
Steve Hollinger
Steve Young
Steven Kunian
Steven Sayers
Susan and George Dumolky
Susan Ashbrook

Susan Baker
Susan Bianchi
Susan Clare
Susan Morris
Susan Prindle
Susan Probolus
Susan Shafer
Suzanne Brown
Sydney Leonard
Tabia Gustave
Tabylor Newhall
Tamar Frieze
Taylor Lane
Terry Joseph
Theodore Touloukian
Thomas Cabarle
Thomas Conway
Thomas Fletcher
Thomas Jones
Thomas Loring
Thomas Loring/Karen Tenney
Thomas Meade
Tim Higgins
Tim Horn/ Fenway Civic Association
Tim Howe
Tim Ian Mitchell
Tim Mckenzie
Timothy Paul Buttner
Todd Lee- Light Boston
Tom Iannotti
Tom Ward
Tony Fusco
Tony Ursillo
Tracy Pesonelli

Tucker Durant
Tuuyen Dao
Tyrone Kendall Sr.
Vicki Smith
Vicki Smith/NABB
Victor Brogna
Victoria
Victoria C. Kay
Victoria Cumings
Victoria Sepowich
Vien Nguyen
Vincent Fanuele
Vincent J. Miles
Virgina Morse
Vivian Le
Walter Hyde
Walter Kuemmerle
Warren Johnson
Wendy Landman- Walk Boston
Wenyin Cao
William Crean- CBRE
William French
William Loomis
William Muse
Willian E. Foreman
Xavier Ruiz
Xiru Zhang
YanJing Huang
Yared Bedasso
Ying Lu Lin check
Yinkong Yang
Yolanda Sweeting
Zach Harentmian
Zahid Siddigui

Zena Savage-Aird
Zul

Received after comment period
Reggie Lewis
James King
Joseph Addesa
Brian Doherty
Sholla Muudesa
Bar O
Muheller Ug
Jonathan Cy
Jepsel Gomes Medina
Eber Orantes
Marcus Merritt
Dawan Glover
Ryan Tusi
Sean Goughan
Ryan Herlihy
Jean Robert Orne
Kamal Wallace
Deeo Santus
Jakeen Cobb
Derrick Rogers
Carlos Rodriguez
Robert Santo
Pedro Lopez
Eduardo Lopez da Gama
Yarmi Cofield
Kevin Mason
Jeffrey Robertson
Sheldon Jackson Jr
Frederick Lewis Jeune
Nathaniel Price

Ciana Carter
Melvin Saunders
Erico V. Frederico
Marlon Kerr
Joseph Gallagher
Renessa Conely
De Los Santos
Powell Simpson
Derek Saunders
Jesus E. Martinez
Kenneth Davis
Hung Lam
Eric Bickford
Alicia Mitchell
Mark Mullaly
Lorne Johnson
Derrick Hobson
Raymond Pizarro
Ignaccio Blanco
Malik Roderick
Tony Lai
Lieng Tran
John Young
Jillian Yebba
Gregory Price
Andrew Ray
Desmond Roach
Thomas Petersen
David Evans
Michael Ferrara
Conor Flaherty
Bernard Johnson
Michael Lauro
David McCarthy

Donald Milley
Harry Minucci
Dennis Missett
Kevin Rosher
John Russell
Orlando Stallworth
Patrick Wallace
Sergio Weber
Andrick Wilkins
William Anderson
Alphonse Beasley
Edward Bonsu
John Britt, III
David Brown
William Burchill
Jared Coakley
Mark Corbett
Angel DeJesus
Sean Dooley
Andy Durity
Grady Eason
David Evans
Michael Ferrara
Conor Flaherty
Tim Cook
M.J. Kennedy
Zamawa Arenas
Ia Nguyen
Alan Streetin
Karen Brown Holmes
Brian Kelly
Aaron Nevers
Marinho Rodriguez
Tai Nguyen

Don Tran
Jerome Hobson
Janice Murphy
Susan Ponsetto
Sheila Leavitt
Local Union 550 Gibbons/Fortune
Tadhg Brosnan
Andrew Lichtman
Patricia Quinn
James Holske
Shariff Green
Mynor Perez
Josh Weiland
Chris Cook
BPDA Urban Design/Planning

Public comments available on BPDA website. Links below:

Public Comments Part A
Public Comments Part B-C
Public Comments Part D-E
Public Comments Part F-H
Public Comments Part I-J
Public Comments Part K-L
Public Comments Part M
Public Comments Part N-Q
Public Comments Part R-S
Public Comments Part -Z
Public Comments Post 1.16.17

*Hard copies available upon request

13.2.4 List of Individual Commenters

Table 13-3 presents the individual commenters as listed in Appendix B of the BPDA Scoping Determination, the discussion topics raised in the individuals' comment letters, and references to the relevant sections within this filing. The topics discussed in the individuals' comment letters are also included in Table 13-2, above.

The letters assigned to a topic are not necessarily favorable or unfavorable. The letters noted as favorable were clearly favorable and did not express a topic of concern.[1]

Table 13-3 Individual Comment Letters Discussion Topics

Commenter Name	Subject Matter(s)	DEIR/DPIR Section
A.F. Morous	Shadow	5.2
Abbey Flores	Shadow	5.2
Abby Bristol Hafler	Shadow	5.2
Abbdizzok Ali	Favorable Letter	
Abdulahi	Favorable Letter	
Abdullahi Farah	Favorable Letter	
Abdullahi Gurhan	Favorable Letter	
Abdullah Jama	Favorable Letter	
Abigail Mason	Shadow	5.2
Adam Brinch	Favorable Letter	
Adam Geragosian	Favorable Letter	
Adam Ladd	Favorable Letter	
Adam T. Kurth	Favorable Letter	
Ahmed Isse	Favorable Letter	
Al VamRankst	Shadow	5.2
Alecia Manning	Shadow	5.2
Alex Bain	Favorable Letter	
Alex Blythe	Favorable Letter	
Alex Danais	Favorable Letter	
Alex Merrifield	Favorable Letter	
Alex Monteiro	Favorable Letter	
Alex Perd	Favorable Letter	
Alexandra Malonis	Favorable Letter	
Alexandra Mitropoulos	Favorable Letter	

[1] Some comment letters were not legible.

Table 13-3 Individual Comment Letters Discussion Topics (Continued)

Commenter Name	Subject Matter(s)	DEIR/DPIR Section
Alexandra Watkins	Shadow	5.2
Alice Boelter	Shadow	5.2
Alison Powers	Favorable Letter	
Alison Rosenblum	Shadow	5.2
Allan E. Taylor	Shadow/Affordable Housing	5.2/2.2.3
Allan Hodges	Shadow	5.2
Alvin Nunez	Favorable Letter	
Alysha Griffiths	Shadow	5.2
Ame Ahse Bonistalli	Favorable Letter	
Amy Lunde-Whitler	Shadow	5.2
Amy Murphy	Shadow	5.2
Amy Usen	Favorable Letter	
Andrea Vayda	Shadow	5.2
Andrew Baird	Favorable Letter	
Andrew Davis and Florence Burgeois	Shadow	5.2
Andrew Huynh	Favorable Letter	
Andrew Hoar	Favorable Letter	
Angela Ferrari	Favorable Letter	
Ann Beha	Shadow	5.2
Ann Hershfang	Shadow	5.2
Ann B. Teixeira	Shadow	5.2
Anne Swanson	Shadow	5.2
Anne Von Nostrand	Public Green Space	2.2
Annsley McAleer	Shadow	5.2
Anthony Morris	Shadow	5.2
Arthur D. Clarke	Shadow	5.2
Ashley Mahanama	Shadow	5.2
Atusa Fattahi	Shadow	5.2
Audrey and James Foster	Shadow	5.2
Austin McClintock	Shadow	5.2
Baily Dent	Favorable Letter	
Barbara Nee	Favorable Letter	
Barry Solar	Shadow	5.2
Bart Alvanjosha	Favorable Letter	
Beatrice Nessen	Shadow	5.2
Becky Dwyer	Shadow	5.2
Becky Kidder Smith	Shadow	5.2

Table 13-3 Individual Comment Letters Discussion Topics (Continued)

Commenter Name	Subject Matter(s)	DEIR/DPIR Section
Ben Anderson	Favorable Letter	
Ben Starr	Shadow	5.2
Ben Stoigers	Favorable Letter	
Benjamin Thomas	Favorable Letter	
Ben Wigren	Favorable Letter	
Benjamin Winters	Shadow	5.2
Bernard Borman	Shadow	5.2
Beth Terrana	Shadow	5.2
Betsy Hall	Shadow	5.2
Bill Clendamel	Shadow	5.2
Bill Linehan	Favorable Letter	
Bob Joyce	Favorable Letter	
Robert Oppenheim	Shadow	5.2
Bol Riiny	Favorable Letter	
Boris Perlovsky	Public Green Space	2.2
Brad McLaughlin	Favorable Letter	
Brendan Price	Shadow	5.2
Brett Mensinger	Favorable Letter	
Brian Camerano	Favorable Letter	
Brian Clark	Favorable Letter	
Brian Grossman	Favorable Letter	
Brian Harris	Favorable Letter	
Brian Luke	Favorable Letter	
Brian Maloney	Favorable Letter	
Brian McPherson	Favorable Letter	
Briana Gilvarg	Favorable Letter	
Candace Young	Public Green Space	2.2
Candido Nunez	Favorable Letter	
Conley Carlton	Shadow	5.2
Carol Alper	Shadow	5.2
Caroline C. Barone	Favorable Letter	
Carolyn Osteen	Shadow	5.2
Carolyn Wheatley	Favorable Letter	
Catherine Bordon	Shadow	5.2
Catherine Iacobo	Shadow	5.2
Celeste Day	Shadow	5.2
Chase Chevalier	Favorable Letter	
Chaton Green	Favorable Letter	

Table 13-3 Individual Comment Letters Discussion Topics (Continued)

Commenter Name	Subject Matter(s)	DEIR/DPIR Section
Cheryl Camintti	Favorable Letter	
Cheryl Jonas	Shadow	5.2
Chris Damian	Favorable Letter	
Chris His	Transportation/Parking	4.0
Chris Reid	Favorable Letter	
Chris Remeiha	Favorable Letter	
Christi Fried	Shadow	5.2
Christina Morris	Favorable Letter	
Christine Nguyen	Favorable Letter	
Christopher Patzke	Shadow	5.2
Christopher Pirro	Favorable Letter	
Christy Puls	Favorable Letter	
Claire Corcoran	Shadow	5.2
Claire Willis	Shadow	5.2
Claudia Ravaschiere	Shadow	5.2
Clearon M	Favorable Letter	
Coleman McDonagh	Favorable Letter	
Curtis M. Cole	Favorable Letter	
D. Gipson	Shadow	5.2
D. Carlson	Shadow	5.2
Daniel Murphy	Favorable Letter	
David Howard	Favorable Letter	
Dan Murray	Favorable Letter	
Daniel A. Taylor	Favorable Letter	
Daniel Wong	Favorable Letter	
Darryl Settles	Favorable Letter	
Daryl Popper	Favorable Letter	
David Fitzgerald	Favorable Letter	
David Friend	Shadow	5.2
David Silverstein	Shadow	5.2
David Weiner	Favorable Letter	
Dean Seavers	Favorable Letter	
Deb Blair	Favorable Letter	
Deb Taylor	Favorable Letter	
Deborah and David Douglas	Shadow	5.2
Deborah Babson	Shadow	5.2
Deborah C. Hale	Public Green Space	2.2

Table 13-3 Individual Comment Letters Discussion Topics (Continued)

Commenter Name	Subject Matter(s)	DEIR/DPIR Section
Deborah Reef	Shadow	5.2
Deirdre Rosenberg	Shadow	5.2
Derek Papagianopoulos	Favorable Letter	
Derek Taff	Shadow	5.2
Desow Nii	Favorable Letter	
Diana Coldren	Shadow	5.2
Diana Govern	Meeting comment	N/A
Diane Britton	Shadow	5.2
Diane Gipson	Affordable Housing	2.2.3
Donna Harilis	Favorable Letter	
Doug Standbridge	Favorable Letter	
Drew Freedman	Favorable Letter	
Drew Volpe	Shadow	5.2
Edaor Bacceora	Favorable Letter	
Edward Hou	Favorable Letter	
Edward Lennon	Economic Vitality/Transportation/Shadow	2.2/4.0/5.2
Edwina Yezierski	Shadow	5.2
Elaine Sullivan	Shadow	5.2
Elena Krupennikova	Favorable Letter	
Elisabeth Nyman	Favorable Letter	
Elizabeth Anderson	Affordable Housing	2.2
Elizabeth Johnson	Shadow	5.2
Elizabeth M. Fahey	Shadow	5.2
Elizabeth Vizza	Shadow	5.2
Elliott Laffer	Shadow	5.2
Emily Gallup	Shadow	5.2
Emily Harding	Favorable Letter	
Emmanuel Apanisile	Favorable Letter	
Eric Gordon	Favorable Letter	
Eric McGrath	Favorable Letter	
Eric O'Brien	Shadow	5.2
Erin O'Fallon	Favorable Letter	
Etson Alves	Favorable Letter	
Elise Brandt	Favorable Letter	
Evelyn Kimber	Shadow	5.2
Faith Justice	Shadow	5.2
Faith Perkins	Shadow	5.2

Table 13-3 Individual Comment Letters Discussion Topics (Continued)

Commenter Name	Subject Matter(s)	DEIR/DPIR Section
Fordos	Favorable Letter	
Frank and Susan Bomba	Shadow	5.2
Frank Duncan	Shadow	5.2
Frank Monteforte	Favorable Letter	
Franklin R. Medinas	Favorable Letter	
Frederick Putnam	Shadow	5.2
Gabriel Gunsberg	Shadow	5.2
Gail Laffer	Shadow	5.2
Gale Morgan	Shadow	5.2
Gang Huang	Favorable Letter	
Gene Bauer	Shadow	5.2
George Coorssen	Economic Vitality	2.2
George Straehle	Favorable Letter	
Greg Costa	Favorable Letter	
Greg Galer	Shadow	5.2
Greg Selloe	Favorable Letter	
Gretchen Novak	Shadow	5.2
Gudrun Seward	Shadow	5.2
Hakeem Coleman	Favorable Letter	
Haley Cutter	Favorable Letter	
Ham Hon Ho	Favorable Letter	
Hannah Kanstroom	Favorable Letter	
Hannah Vigneron	Favorable Letter	
Harry Johnston	Favorable Letter	
Heather Keane	Shadow	5.2
Heidi Moesinger	Shadow	5.2
Hong Xie	Favorable Letter	
Hope McDermott	Shadow	5.2
Hou Grant	Favorable Letter	
Huiming Guo	Favorable Letter	
Ivey St. John	Shadow	5.2
J. Dayne Lamb	Shadow	5.2
Jack Brennan	Shadow	5.2
Jack Greggs	Accessibility	Attachment K
Jackie Mignone	Great Hall	2.2
Jacqueline Blombach	Shadow	5.2
Jacqueline Royce	Shadow	5.2
Jame Kelley	Shadow	5.2

Table 13-3 Individual Comment Letters Discussion Topics (Continued)

Commenter Name	Subject Matter(s)	DEIR/DPIR Section
Jacquelin Yessian	Shadow	5.2
James Healy	Shadow	5.2
James Labeck	Shadow	5.2
James Pishkin	Favorable Letter	
James Simpson	Shadow	5.2
Jan Beaven	Shadow	5.2
Jane Coleman	Shadow	5.2
Jane Dimitry	Shadow	5.2
Jane Kelley	Shadow	5.2
Janet Hurwitz	Shadow	5.2
Jared Freed	Favorable Letter	
Jason Chambers	Favorable Letter	
Jason Kulik	Favorable Letter	
Jason Post	Shadow	5.2
Jason Weldon	Favorable Letter	
Jaymeson McIntosh	Favorable Letter	
Jean Bachovchin	Shadow	5.2
Jean O'Neil	Shadow	5.2
Jean Fiol Burlingame	Shadow	5.2
Jeanne Stanton	Shadow	5.2
Jeannine Randolph	Shadow	5.2
Jeffrey and Cynthia McCarthy	Shadow	5.2
Jeffrey Thompson	Favorable Letter	
Jeffrey Shuman	Favorable Letter	
Jennie Zheng	Favorable Letter	
Jennifer Iles	Favorable Letter	
Jerry Rubin	Economic Vitality/Transportation/Public Green Space/Great Hall	2.2/4.0/2.2/2.2
Jessica Ferri Schmitz	Shadow	5.2
Jie Lzan Liang	Favorable Letter	
Jill Barry	Favorable Letter	
Jillian Bargar	Favorable Letter	
Jun Xiang	Favorable Letter	
Jiny Toch	Favorable Letter	
Joan and Joseph Patton	Shadow	5.2
Joan Bragen	Shadow	5.2
Joan E. Korb	Shadow	5.2

Table 13-3 Individual Comment Letters Discussion Topics (Continued)

Commenter Name	Subject Matter(s)	DEIR/DPIR Section
Joan Hass	Shadow	5.2
JoAnn Robinson	Shadow	5.2
Joe Govern	Shadow	5.2
Joe O'Brien	Favorable Letter	
Joe Pearce	Favorable Letter	
Joerg Ladny	Favorable Letter	
Joh Ciolfi	Favorable Letter	
John C. Butti	Favorable Letter	
John H. Spur Jr.	Favorable Letter	
John H	Favorable Letter	
John McL	Shadow	5.2
John Hennessey	Favorable Letter	
John Lagasse	Favorable Letter	
John Luciano	Favorable Letter	
Johnny Carmona	Favorable Letter	
John McLachlan	Favorable Letter	
John P. Sullivan	Infrastructure - Water/Sewer	9
John Murad	Shadow	5.2
John Newhall	Favorable Letter	
John R. Carroll	Shadow	5.2
John Schiffmann	Favorable Letter	
John Wadlington	Shadow	5.2
Jolinda Taylor	Shadow	5.2
Jon Hamilton	Shadow	5.2
Jonathan Freni	Favorable Letter	
Jonathan R	Favorable Letter	
Jorge Ladmy	Transportation/Parking	4
Jose Sequeira	Favorable Letter	
Joseph McCue	Favorable Letter	
Josh Zakim	Shadow	5.2
Joshua Butler	Favorable Letter	
Joyce Stevens Roetter	Shadow	5.2
Joyce Tallent	Shadow	5.2
Judy and Phil Tedeschi	Shadow	5.2
Julie Lannon	Favorable Letter	
Justin Nadolney	Favorable Letter	
Justine Harrison	Favorable Letter	
Karen Maunery Borderick	Shadow	5.2

Table 13-3 Individual Comment Letters Discussion Topics (Continued)

Commenter Name	Subject Matter(s)	DEIR/DPIR Section
Karen Firestone	Shadow/Building Size/Transportation/Economic Vitality	5.2/1.1/4.0/2.2
Karen Garvin	Shadow	5.2
Karen Gregg	Shadow	5.2
Karen LaFranzia	Favorable Letter	
Karen Shine	Shadow	5.2
Karen Smith	Shadow	5.2
Karen Vachon	Shadow	5.2
Karla Rojas	Shadow	5.2
Kate Enroth	Shadow	5.2
Kathie O'Dowd	Public Green Space/Pets	2.2/13.2.5
Kathleen and Stephen Young	Shadow	5.2
Kathleen Fox	Shadow	5.2
Kathleen Koplik	Shadow	5.2
Kathleen McIntyre	Shadow	5.2
Kathy Pattison	Shadow	5.2
Kathy Plazak	Shadow	5.2
Katie Fagan	Shadow	5.2
Katie Pedersen	Shadow, Wind, Daylight	
Katie Weigmann	Favorable Letter	
Kavieen Herbst	Favorable Letter	
Keith Lagreze	Favorable Letter	
Kenneth G. Smith	Favorable Letter	
Ken Smith	Favorable Letter	
Kevin Greene	Favorable Letter	
Kevin Leary	Favorable Letter	
Kevin McCaskill	Favorable Letter	
Kevin O'Connor	Favorable Letter	
Kim Devine	Favorable Letter	
Kristin McIntosh	Accessbility	1.1
Kristin C. Field	Shadow	5.2
Kristin Garcia	Favorable Letter	
Kyra LeRoy Haydock	Shadow	5.2
Larry Baxter	Favorable Letter	
Larry Post	Favorable Letter	
Larissa Jones	Favorable Letter	
Laura Chassaigne	Shadow	5.2

Table 13-3 Individual Comment Letters Discussion Topics (Continued)

Commenter Name	Subject Matter(s)	DEIR/DPIR Section
Laura Grover	Shadow	5.2
Laura Haime	Favorable Letter	
Laura Jasinski	Traffic/Public Green Space	4.0/2.2
Lamarr Axell	Favorable Letter	
Laureen Pfizenmaier	Shadow	5.2
Lauren Phelan Lipscomb	Favorable Letter	
Lauren Thomas	Shadow	5.2
Legla Pisinski	Favorable Letter	
Len Thomas	Shadow	5.2
Leonard Rosen	Height	1.1
Leslie Adam	Shadow	5.2
Lia Poorvu	Shadow	5.2
Lin Cheney Sasman	Shadow	5.2
Linchul Shin	Favorable Letter	
Linda McLaughlin	Favorable Letter	
Linda Whitehead	Shadow	5.2
Lisa Ireland	Shadow	5.2
Lisa Leary	Great Hall	2.2
Lily Tang	Affordable Housing	2.2
Logan Bergeron	Favorable Letter	
M.J. Kennedy	Shadow	5.2
Madolyn Sullivan	Shadow	5.2
Marc Harris	Favorable Letter	
Marcus Baker	Favorable Letter	
Margaret Anteblian	Shadow	5.2
Margaret Pokorny	Shadow	5.2
Margaret Shepherd	Shadow	5.2
Marie Del Tufo	Favorable Letter	
Maria Hilliard	Favorable Letter	
Mariel Lacina	Favorable Letter	
Marjorie Greville	Shadow	5.2
Mark Kiefer	Shadow	5.2
Mark Slater	Shadow	5.2
Mark Tavitian	Shadow	5.2
Mark Vachon	Shadow	5.2
Mark Yessian	Shadow	5.2
Martha Gefter	Shadow	5.2
Marty Walz	Shadow	5.2

Table 13-3 Individual Comment Letters Discussion Topics (Continued)

Commenter Name	Subject Matter(s)	DEIR/DPIR Section
Martyn Roetter	Shadow	5.2
Marvin Wool	Shadow	5.2
Mary Fitzsimmons	Shadow	5.2
Mary Kaba	Favorable Letter	
Mary Nada	Shadow	5.2
Mary Vogel	Favorable Letter	
Matt Badger	Favorable Letter	
Matt Fallon	Favorable Letter	
Matt Fenlon	Favorable Letter	
Matt Giffune	Favorable Letter	
Matt M	Favorable Letter	
Matt Twist	Shadow	5.2
Matthew Brooks	Favorable Letter	
Matthew Kay	Favorable Letter	
Maureen O'Hara	Shadow	5.2
May Lui	Favorable Letter	
Meredith Christensen	Favorable Letter	
Merloyd Lawrence	Shadow	5.2
Michael and Elisabeth Lay	Shadow	5.2
Michael Behnke	Shadow	5.2
Michael Cappellano	Favorable Letter	
Michael Caricri	Favorable Letter	
Michael Hess	Favorable Letter	
Michael Hines	Shadow	5.2
Michael McCord	Shadow	5.2
Michael Samuelian	Shadow	5.2
Michael Taylor	Favorable Letter	
Michael Weiss	Favorable Letter	
Michelle Otey	Favorable Letter	
Miguel Rosales	Shadow	5.2
Mike Cappellano	Favorable Letter	
Mike Freedbeua	Shadow	5.2
Mike George	Shadow	5.2
Mohammed Aden	Favorable Letter	
Mohamed Arepasul	Favorable Letter	
Mohamed Ismail	Favorable Letter	
Mohamed Warfa	Favorable Letter	
Mohamed Warfa	Favorable Letter	

Table 13-3 Individual Comment Letters Discussion Topics (Continued)

Commenter Name	Subject Matter(s)	DEIR/DPIR Section
Mohamed Wausame	Favorable Letter	
Mohamed Qureshi	Favorable Letter	
Molly H. Sherden	Shadow	5.2
Mona Sadler	Shadow	5.2
Moniqua Williams	Favorable Letter	
Nai Ko	Shadow	5.2
Nancy Gertner	Shadow	5.2
Nancy Marttila	Shadow	5.2
Nancy Merristoe	Shadow	5.2
Nancy S. Reynolds	Shadow	5.2
Nancy Roberts	Shadow	5.2
Nancy Tavitlan	Shadow	5.2
Nate Thomas	Favorable Letter	
Nicholas Chiarelli	Favorable Letter	
Nicholas Mattra	Favorable Letter	
Nicholas Kast	Shadow	5.2
Nick Litton	Favorable Letter	
Nicole Blanchard	Favorable Letter	
Nicole Yonke	Favorable Letter	
Osman Moh'ud	Favorable Letter	
Osmei Yusuf	Favorable Letter	
Osman Aden	Favorable Letter	
P. Beauregard	Favorable Letter	
Pam Jackson	Shadow	5.2
Pam C. Messenger	Shadow	5.2
Pamela Hart	Shadow	5.2
Pamela Oswald Louis	Shadow	5.2
Pamela Stahl	Shadow	5.2
Pat McDermott	Favorable Letter	
Pat Noyes-Corrigan	Shadow	5.2
Patrick Cavanagh	Favorable Letter	
Patrick Cutter	Favorable Letter	
Patrick Lue	Favorable Letter	
Paul Chan	Favorable Letter	
Paul S. Greenfield	Shadow	5.2
Paul Miller	Shadow	5.2
Paul Reinsmith	Favorable Letter	
Paul Sweeney	Shadow	5.2

Table 13-3 Individual Comment Letters Discussion Topics (Continued)

Commenter Name	Subject Matter(s)	DEIR/DPIR Section
Paula Furst	Shadow	5.2
Paula Griswold	Shadow	5.2
Peni Garber	Shadow	5.2
Peter Coxe	Shadow	5.2
Peter Davidow	Shadow	5.2
Peter Dominski	Favorable Letter	
Peter Muqfad	Favorable Letter	
Peter Nessen	Shadow	5.2
Peter Papesch	Shadow	5.2
Peter Saradjian	Shadow	5.2
Peter Thomson	Shadow	5.2
Philip Wright	Shadow	5.2
Polly Timkien	Shadow	5.2
Qiang Huang	Favorable Letter	
RW Lopez	Favorable Letter	
Rebecca Brooks	Shadow	5.2
Rebecca G. Mulzer	Shadow	5.2
Reginald A. Nunnally	Favorable Letter	
Ricardo Nojoruo	Favorable Letter	
Richard Beal	Favorable Letter	
Richard Chin	Favorable Letter	
Richard Koch	Shadow	5.2
Richard Mertens	Shadow	5.2
Rieta Bobb	Favorable Letter	
Rob Radloff	Shadow	5.2
Robert and Priscilla Hayes	Shadow	5.2
Robert Fitzgerald	Favorable Letter	
Robert Ross	Shadow	5.2
Robert Smith	Shadow	5.2
Robert Wulff	Shadow	5.2
Robert Zec	Favorable Letter	
Roberta Crowley Gotlieb	Shadow	5.2
Robertvtone Goodridge	Opposed - No Reason	
Robin S. Weinberger	Shadow	5.2
Ronald Gacicia	Shadow	5.2
Rosemarie Sansone	Economic Vitality/Transportation/Public Green Space/Great Hall	2.2/4.0/2.2/2.2

Table 13-3 Individual Comment Letters Discussion Topics (Continued)

Commenter Name	Subject Matter(s)	DEIR/DPIR Section
Rosma Catizone	Favorable Letter	
Ruth Kenworthy Ecker	Shadow	5.2
Ruth Sherman	Shadow	5.2
Ryan Pavao	Favorable Letter	
Sally & Jim Fitzpatrick	Shadow	5.2
Sally Reyering	Shadow	5.2
Sally C. Taylor	Shadow	5.2
Sam	Favorable Letter	
Sam Albertson	Shadow	5.2
Sam Perry	Shadow	5.2
Sandra Gilpatrick	Shadow	5.2
Sandra Kyon	Favorable Letter	
Sandra Ourusoff	Shadow	5.2
Sandra Yeung	Favorable Letter	
Sara D. McCammond	Shadow	5.2
Sara Demeter	Favorable Letter	
Sara Ferino	Favorable Letter	
Sara Pouladian	Favorable Letter	
Sara Wragge	Shadow	5.2
Sarah Freeman	Shadow	5.2
Sashya T. Fernandez	Favorable Letter	
Sean and Rachel Robertson	Shadow	5.2
Sean Dacey	Favorable Letter	
Shannon Kelly	Favorable Letter	
Shari Loessberg & Christopher Smart	Shadow	5.2
Sharon Guadagno	Shadow	5.2
Sharon I. Lewis	Shadow	5.2
Sharon C. Lincoln	Shadow	5.2
Sharon Malt	Shadow	5.2
Sharon Miller	Shadow	5.2
Sharon Zetiro-Nourse	Favorable Letter	
Shawn Halloran	Favorable Letter	
Lt. Shaun Shields	Favorable Letter	
Shane and Sharpe Rather	Favorable Letter	
Sheila Patterson	Shadow	5.2
Sheri Olans Wright	Shadow	5.2
Sherif Nada	Shadow	5.2

Table 13-3 Individual Comment Letters Discussion Topics (Continued)

Commenter Name	Subject Matter(s)	DEIR/DPIR Section
Sherley Gardner-Smith	Shadow	5.2
Shiran Weber	Favorable Letter	
Shondy Geryl	Favorable Letter	
Sidney Kenyon	Shadow	5.2
Sophie Schmitt	Transportation	4
Stewart Dalzell	Transportation	4
Sonja Yates	Shadow	5.2
Stephanie Fletcher	Shadow	5.2
Stephanie Flynn	Favorable Letter	
Stephen Jerome	Shadow	5.2
Steve Burtman	Favorable Letter	
Steve Hollinger	Shadow/Great Hall/Economic Vitality	5.2/2.2/2.2
Steve Young	Meeting comment	N/A
Steven Kunian	Shadow	5.2
Steve M. Sayers	Shadow	5.2
Susan and George Domolky	Shadow	5.2
Susan Ashbrook	Shadow	5.2
Susan Baker	Shadow	5.2
Susan Bianchi	Shadow	5.2
Susan Clare	Shadow	5.2
Susan Morris	Shadow	5.2
Susan Prindle	Shadow	5.2
Susan Probolus	Shadow	5.2
Susan Shafer	Shadow	5.2
Suzanne Brown	Favorable Letter	
Sydney Leonard	Shadow	5.2
Tabia Gustave	Favorable Letter	
Tabylor Newhall	Favorable Letter	
Tamar Frieze	Favorable Letter	
Taylor Lane	Favorable Letter	
Terry Joseph	Favorable Letter	
Theodore Touloukian	Favorable Letter	
Thomas Cabarle	Favorable Letter	
Thomas Conway	Shadow/Economic Vitality	5.2/2.2
Thomas Fletcher	Shadow	5.2
Thomas M. Jones	Favorable Letter	
Thomas Loring	Shadow	5.2

Table 13-3 Individual Comment Letters Discussion Topics (Continued)

Commenter Name	Subject Matter(s)	DEIR/DPIR Section
Thomas Loring/Karen Tenney	Shadow	5.2
Thomas Meade	Favorable Letter	
Tim Higgins	Favorable Letter	
Tim Horn	Shadow	5.2
Tim Howe	Favorable Letter	
Tim Ian Mitchell	Shadow	5.2
Tim McKenzie	Favorable Letter	
Timothy Paul Buttner	Favorable Letter	
Todd Lee	Lighting	13.2
Tom Iannotti	Shadow	5.2
Tom Ward	Favorable Letter	
Tony Fusco	Shadow	5.2
Tony Ursillo	Economic Vitality/Affordable Housing/Shadow/Transportation	2.2/2.2/5.2/4.0
Tracy Pesonelli	Shadow	5.2
Tucker Durent	Favorable Letter	
Tuuyen Dao	Favorable Letter	
Tyrone Kendell Sr.	Favorable Letter	
Vicki Smith	Shadow	5.2
Victor Brogna	Shadow	5.2
Victoria	Meeting	N/A
Victoria C. Kay	Favorable Letter	
Victoria Cumings	Shadow	5.2
Victoria Sepowich	Favorable Letter	
Vien Nguyen	Great Hall	2.2
Vincent Fanuele	Economic Vitality	2.2
Vin Miles	Shadow	5.2
Virginia Morse	Shadow	5.2
Vivian Le	Economic Vitality	2.2
Walter Hyde	Economic Vitality	2.2
Walter Kuemmerle	Shadow	5.2
Warren A. Johnson	Shadow	5.2
Wendy Landman	Great Hall/Transportation	4.0/2.2
Wenyin Cao	Affordable Housing	2.2
William J. Crean	Favorable Letter	
William French	Shadow	5.2
William Loomis	Shadow	5.2

Table 13-3 Individual Comment Letters Discussion Topics (Continued)

Commenter Name	Subject Matter(s)	DEIR/DPIR Section
William Muse	Favorable Letter	
William E. Foreman	Shadow	5.2
Xavier Ruiz	Favorable Letter	
Xiru Zhang	Favorable Letter	
YanJing Huang	Meeting	N/A
Yared Bedasso	Favorable Letter	
Ying Lu Lin	Favorable Letter	
Yinkong Yang	Favorable Letter	
Yolanda Sweeting	Favorable Letter	
Zach Harentmian	Transportation	4
Zahid Siddigui	Favorable Letter	
Zena Savage-Aird	Favorable Letter	
Zul Yasaf	Favorable Letter	
Post Comment Period Commenters		
Reggie Lewis	Favorable Letter	
James King	Favorable Letter	
Joseph Addesa	Favorable Letter	
Brian Dougherty	Favorable Letter	
Sholla Muudesa	Favorable Letter	
Bar O	Favorable Letter	
Muheller Ug	Favorable Letter	
Jonathan Cy	Favorable Letter	
Jepsel Gomes Medina	Favorable Letter	
Eber Orantes	Favorable Letter	
Marcus Merritt	Favorable Letter	
Dawan Glover	Favorable Letter	
Ryan Tusi	Favorable Letter	
Sean Goughan	Favorable Letter	
Ryan Herlihy	Favorable Letter	
Jean Robert Orne	Favorable Letter	
Kamal Wallace	Favorable Letter	
Deeo Santus	Favorable Letter	
JakeenCobb	Favorable Letter	
Derrick Rogers	Favorable Letter	
Carlos Rodriguez	Favorable Letter	
Robert Santo	Favorable Letter	
Pedro Lopez	Favorable Letter	

Table 13-3 Individual Comment Letters Discussion Topics (Continued)

Commenter Name	Subject Matter(s)	DEIR/DPIR Section
Eduardo Lopez da Gama	Favorable Letter	
Yarmi Cofield	Favorable Letter	
Kevin Mason	Favorable Letter	
Jeffery Robertson	Favorable Letter	
Sheldon Jackson Jr.	Favorable Letter	
Frederick Lewis Jeune	Favorable Letter	
Nathaniel Price	Favorable Letter	
Ciana Carter	Favorable Letter	
Melvin Saunders	Favorable Letter	
Erico V. Frederico	Favorable Letter	
Marlon Kerr	Favorable Letter	
Joseph Gallagher	Favorable Letter	
Renessa Conely	Favorable Letter	
Robin E. de Los Santos	Favorable Letter	
Powell Simpson	Favorable Letter	
Derek Saunders	Favorable Letter	
Jesus E. Martinez	Favorable Letter	
Kenneth Davis	Favorable Letter	
Hung Lam	Favorable Letter	
Eric M. Bickford	Favorable Letter	
Alicia Mitchell	Favorable Letter	
Mark Mullaly	Favorable Letter	
Lorne Johnson	Favorable Letter	
Derrick Hobson	Favorable Letter	
Raymond Pizarro	Favorable Letter	
Ignacio Blanco	Favorable Letter	
Malik Roderick	Favorable Letter	
Tony Lai	Favorable Letter	
Lieng Tran	Favorable Letter	
John Young	Favorable Letter	
Jillian Yebba	Favorable Letter	
Gregory Price	Favorable Letter	
Andrew Ray	Favorable Letter	
Desmond Roach	Favorable Letter	
Thomas Petersen	Favorable Letter	
David Evans	Favorable Letter	
Michael Ferrara	Favorable Letter	
Conor Flaherty	Favorable Letter	

Table 13-3 Individual Comment Letters Discussion Topics (Continued)

Commenter Name	Subject Matter(s)	DEIR/DPIR Section
Bernard Johnson	Favorable Letter	
Michael Lauro	Favorable Letter	
David McCarthy	Favorable Letter	
Donald Milley	Favorable Letter	
Harry Minucci	Favorable Letter	
Dennis Missett	Favorable Letter	
Kevin Rosher	Favorable Letter	
John Russell	Favorable Letter	
Orlando Stallworth	Favorable Letter	
Patrick Wallace	Favorable Letter	
Sergio Weber	Favorable Letter	
Andrick Wilkins	Favorable Letter	
William Anderson	Favorable Letter	
Alphonse Beasley	Favorable Letter	
Edward Bonsu	Favorable Letter	
John Britt III	Favorable Letter	
David Brown	Favorable Letter	
William Burchill	Favorable Letter	
Jared Coakley	Favorable Letter	
Mark Corbett	Favorable Letter	
Angel DeJesus	Favorable Letter	
Sean Dooley	Favorable Letter	
Andy Durity	Favorable Letter	
Grady Eason	Favorable Letter	
Tim Cook	Shadow	5.2
M.J. Kennedy	Shadow	5.2
Zamawa Arenas	Favorable Letter	
Ia Nguyen	Favorable Letter	
Alan Streetin	Favorable Letter	
Karen Brown Holmes	Favorable Letter	
Brian Kelly	Favorable Letter	
Aaron Nevers	Favorable Letter	
Martinho Rodrigues	Favorable Letter	
Tai Nguyen	Favorable Letter	
Don Tran	Favorable Letter	
Jerome Hobson	Favorable Letter	
Janice Murphy	Favorable Letter	
Susan Ponsetto	Favorable Letter	

Table 13-3 Individual Comment Letters Discussion Topics (Continued)

Commenter Name	Subject Matter(s)	DEIR/DPIR Section
Sheila Leavitt	Favorable Letter	
Local Union 550 Gibbons	Favorable Letter	
Tadhg Brosnan	Favorable Letter	
Andrew Lichtman	Favorable Letter	
Patricia Quinn	Favorable Letter	
James Holske	Favorable Letter	
Shariff Green	Favorable Letter	
Mynor Perez	Favorable Letter	
Josh Weiland	Transportation	4
Chris Cook	Shadow	5.2
BPDA Urban Design/Planning	Great Hall/Transportation/Shadow	13.2

13.2.5 Annotated Comments That Do Not Fit within Issue Areas Identified at the End of Table 13-2

ANNOTATED COMMENTS

Jack Gregg

I am a realtor in Boston. I have a client looking for 1 and 2 bedroom market priced ADA compliant condos in Boston. Is this a building out option for your preconstruction sales offering?

The Project will include ADA compliant condominiums.

Kathie O'Dowd

… I wonder about the additional pets coming to Boston, and hope the city can take a leadership role in planning in advance for the impact of additional pets moving into the city with their owners. There are already severely limited fenced pet play areas Downtown. The pet relief area outside Millennium Tower is wholly inadequate. There is already a need to balance the number of pets/people safely and costs in the Common off-leash areas.

The Project will contain a pet daycare program within the project for its residents and the office tenants/employees.

Lisa Leary

Create a true square, similar to a European square, allowing pedestrians to walk freely along the building front without having to watch for traffic. This will create a vibrant, engaging and safe street level experience for pedestrians.

Sections 7.3 and 2.2.2 contain a description of the Project's Urban Design and Winthrop Square.