September 2019



Suffolk University 1 Court Street Residence Hall





SUBMITTED TO Boston Planning and Development Agency



1 Court Street Residence Hall

Boston, Massachusetts

Submitted to	Boston Redevelopment Authority, d/b/a Boston Planning and Development Agency One City Hall Square, 9 th Floor Boston, MA 02201
Proponent	Suffolk University 8 Ashburton Place Boston, MA 02108
Prepared by	VHB 99 High Street, 10 th Floor Boston, MA 02110
	In association with: NBBJ C3

September 2019

Table of Contents

Chapter 1: Project Description

1.1	Proposed Institutional Project Overview and Purpose1-1		
1.2	1.2 Institutional Master Plan Overview		1-2
	1.2.1	Consistency with the 2020 IMP	1-2
1.3	Site Co	ntext and Existing Conditions	1-2
	1.3.1	Existing On-site Uses	1-3
1.4	Project	Description	1-3
	1.4.1	Proposed Development Program	1-4
	1.4.2	Urban Design and Site Access	1-4
	1.4.3	Anticipated Project Schedule	1-4
1.5	Assessi	ment of Impacts	1-5
	1.5.1	Infrastructure	1-5
	1.5.2	Historic Resources	1-5
1.6	Summa	ary of Public Benefits	1-9
1.7	Community Outreach1-10		

Chapter 2: Regulatory Context and General Information

2.1	Regula	atory Context	2-1
	2.1.1	Conformance with Zoning	2-1
	2.1.2	Article 80B Large Project Review	2-2
	2.1.3	Article 37 Green Buildings	2-2
	2.1.4	Massachusetts Environmental Policy Act	2-2
	2.1.5	Massachusetts Historical Commission	2-3
	2.1.6	Boston Landmarks Commission	2-3
2.2	Anticip	pated Permits and Approvals	2-3
	2.2.1	Agency Outreach and Coordination	2-3
2.3	Project	t Team	2-5
	2.3.1	List of Development Team Members	2-5
		•	

3.1	Summ	ary of Key Findings and Benefits	3-1
3.2	Regula	atory Context	3-1
	3.2.1	Massachusetts Stretch Energy Code	3-1
	3.2.2	Article 37 – Green Buildings	3-2

	3.2.3 BPDA Climate Change Preparedness and Resiliency Policy	3-2
3.3	Sustainability at Suffolk University	3-2
	3.3.1 Project Approach to Sustainability and Resiliency	3-3
	3.3.2 Preliminary Green Building Evaluation	3-3
	3.3.3 Energy Conservation Approach	3-8
3.4	Climate Change Preparedness and Resiliency	3-8
	3.4.1 Sea Level Rise and Extreme Storms/Flooding	3-9
	3.4.2 Extreme Weather Conditions/Events	3-9
	3.4.3 Potential Resiliency Measures	3-9
Chap	pter 4: Transportation	
4.1	Summary of Key Findings & Benefits	4-1
4.2	Existing Transportation Conditions	4-1
	4.2.1 Roadways	4-1
	4.2.2 Pedestrian and Bicycle Environment	4-2
	4.2.3 Site Access, Loading and Circulation	4-3
	4.2.4 Existing Parking	4-3
	4.2.5 Public Transportation	4-3
4.3	Proposed Project	4-4
	4.3.1 Proposed Site Access	4-4
4.4	Trip Generation Estimate	4-4
	4.4.1 Methodology	4-4
	4.4.2 Unadjusted Project-Generated Trips	4-5
	4.4.3 Mode Share and Vehicle Occupancy	4-5
	4.4.4 Adjusted Trip Generation by Mode	4-6
4.5	Proposed Loading and Service	4-7
	4.5.1 Move-In/Move-Out Traffic Management Procedures	4-7
4.6	Transportation Demand Management Plan	4-7

APPENDICES

- A: Letter of Intent
- B: BPDA Checklists

List of Tables

<u>Table No.</u>	Description	Page
1-1	Historic Resources in the Vicinity of the Project Site	1-7
2-1	Anticipated Project Permits and Approvals	2-4
4-1	Project Program and Trip Generation Methodlogy	4-5
4-2	Unadjusted ITE Site-Generated Trips	4-5
4-3	Mode Shares	4-6
4-4	Vehicle and Non-Auto Site Trips	4-6

List of Figures

*Note: All supporting graphics are provided at the end of each chapter.

Figure No.	Description
•	•
1.1	Site Locus Map
1.2	Site Context and Existing Conditions
1.3	Existing Site Photos
1.4	Proposed Conditions Plan / Ground Floor Plan
1.5a	Building Floor Plans – 2nd & 3rd Floors
1.5b	Typical Flood Plans – from 4th to 14th level
1.6	Historic Resources
3.1	Preliminary LEED Scorecard
4.1	Existing Suffolk University Property Locations and Project Site
4.2	Existing Bicycle Facilities
4.3	Existing Site Access
4.4	Existing Off-Street Public Parking
4.5	Existing On-Street Curb Regulations
4.6	Existing Public Transit

Project Description

In accordance with Article 80B, Large Project Review of the City of Boston Zoning Code (the "Code"), Suffolk University ("Suffolk," or the "University") is submitting this Project Notification Form ("PNF") to the Boston Planning and Development Agency ("BPDA") for conversion of the Ames Boston Hotel, an existing 114-room hotel, into a Suffolk University undergraduate residence hall consisting of up to 280 beds (the "Proposed Project"). The Ames Boston Hotel is located in the historic Ames Building at 1 Court Street in downtown Boston (the "Project Site"). Refer to Figure 1.1 for a site locus map.

This chapter provides an overview of the existing site conditions and describes the Proposed Project, particularly regarding consistency with the University's 2020 Institutional Master Plan ("IMP"). This chapter also presents the anticipated project schedule, an assessment of impacts, a summary of the public benefits and community outreach efforts conducted to date on the Proposed Project.

1.1 Proposed Institutional Project Overview and Purpose

Suffolk University regards student housing as a critical component of its institutional mission. In the 2008 IMP, the University set a target of housing 50 percent of the full-time equivalent ("FTE") undergraduate student population by 2018. To date, the University continues its efforts to increase its student housing portfolio in order to meet this target. The University currently houses a total of 1,542 students, or approximately 30 percent of the FTE undergraduate student population. Suffolk's inventory consists of five residence halls, which offer a total capacity of 1,607 beds:

TOTAL	1,607 Beds	
> 1047 Commonwealth Ave	368 beds	Opened 2018
> 525 Washington Street	200 beds	Opened 2010
> 10 West Street	274 beds	Opened 2008
> 10 Somerset Street	345 beds	Opened 2003
> 150 Tremont Street	420 beds	Opened 1996

For the 2020 IMP, Suffolk will renew the commitment to the 50-percent target. As such, the Proposed Project represents the University's latest effort to secure long-term student housing over the next ten years.

1.2 Institutional Master Plan Overview

Suffolk University has recently submitted an Institutional Master Plan Notification Form ("IMPNF") commencing the 2020 IMP, which considers the next ten years of the University's growth and development through 2029. Suffolk University's current IMP, dated June 2008, was approved by the Boston Redevelopment Authority ("BRA"), now known as the BPDA, on June 24, 2008, and was adopted by the Boston Zoning Commission on July 23, 2008 for a ten (10) year term until July 24, 2018. The 2008 IMP was amended in January 2018 for a temporary student housing project (at 1047 Commonwealth Avenue). Since then, the University has embarked on a longterm strategic planning effort, which resulted in the approval of the Suffolk 2025 Strategic Plan in June 2019 (the "Strategic Plan"). The Strategic Plan will also help guide the development of the 2020 IMP.

The goals of the Suffolk University IMP are to:

- > Formalize an on-going effort to create a long-term strategic plan that will establish the University's physical growth needs over the next ten years;
- > Establish a stronger sense of campus, particularly through the expansion of student housing in Downtown Boston;
- > Nurture the working relationship with surrounding communities;
- Establish a trajectory for growth that builds on Suffolk's existing campus but sets forth new concentration areas for development. These areas (five in total) are referred to as 'clusters' which taken together form the Suffolk Crescent;
- > Seek opportunities for development where no one cluster has to share the burden of all of the University's space needs;
- Locate future uses in proximity to existing University assets without overwhelming any one cluster with a saturation of University-related uses; and
- > Identify sites where complementary programs can coexist and help bolster the existing context.

1.2.1 Consistency with the 2020 IMP

As discussed in Section 1.1, the Proposed Project represents the University's ongoing commitment to plan for long-term on-campus student housing. The student housing conversion project at the Ames Building will help replace the supply of on-campus beds once the lease of 1047 Commonwealth Avenue residences ends in May 2020. The net change to the housing inventory will remain at approximately 30 percent of the FTE undergraduate student population.

1.3 Site Context and Existing Conditions

Situated on the Shawmut Peninsula, the Project Site, or the Ames Building, is approximately 6,315 square foot parcel (or approximately 0.14 acre) and has frontage along Court Street and the Washington Mall. There are also three areaways, each extending approximately six feet from the building. Two of these areaways are along the Court Street frontage and the other is along the Washington Mall. The Washington Mall is a pedestrian way that connects Boston City Hall to the Old State House and Washington Street beyond that. Figures 1.2 and 1.3 provide details of the existing site conditions and photos, respectively.

The Project Site is located near the boundary of the Financial District and Government Center areas of Downtown Boston. The Ames Building is directly across from the State Street MBTA station, and within a 5-minute walk of the Government Center, Aquarium, and Bowdoin stations. It is at the transition point between State Street and Court Street, one of the major corridors in the downtown area, connecting the waterfront to Government Center and the Financial District. Refer to Figure 4.6 for details of public transportation surrounding the Project Site.

The Project Site immediately abuts two other parcels and structures at 17 Court Street and 1 Washington Mall, with party walls between them. Since 1993, the building has been designated an authorized landmark by the City of Boston, and was added to the National Register of Historic Places in 1974. It is the second-tallest masonry load-bearing structure in the world, behind only the Monadnock Building in Chicago.

Historically, the land occupied by the Ames Building was shoreline. However, the most recent FEMA National Flood Hazard map characterizes the parcel as an area of minimal flood hazard.

1.3.1 Existing On-site Uses

The Ames Building is considered one of Boston's architectural resources, often referred to as "Boston's first skyscraper." The building was designed in the Richardsonian Romanesque style, and construction was completed in 1889. The building structure is comprised of masonry and granite bearing exterior walls with interior steel framed columns and beams. Originally built as an office building, the conversion to its current hotel use was completed in 2009. An assessment recently conducted by Commercial Construction Consulting, Inc. (C3) indicated no excessive deflection or movement in the ground floor slabs, superstructures, and roof framing. The exterior is the original load-bearing granite and limestone block on the three sides visible from the street, while the fourth is a plain brick party wall.

The building's mechanical systems were updated during the conversion to current use between 2007 and 2009. As of July 2019, there were no open fire code violations for the building. The building is expected to remain in compliance with the Americans with Disabilities Act ("ADA") regulations, as it was updated during the 2009 renovation.

1.4 **Project Description**

The Proposed Project consists of converting the existing building from hotel use to student housing, providing students with suite-style rooms containing approximately 266 to 280 beds. No parking will be provided on-site.

The student housing conversion project at the Ames Building will help replace the supply of on-campus beds once the lease of 1047 Commonwealth Avenue residences terminates in May 2020. The net change to the housing inventory will maintain the current ratio of FTE undergraduate students housed at approximately 30 percent.

1.4.1 Proposed Development Program

The approximately 102,073-gross square foot building will primarily serve as student housing with support spaces for various student activities, campus meetings, and events. The ground floor level will provide key uses, including a publicly accessible retail/restaurant area, student housing reception area (secure), and a student lounge area (secure). In summary, the proposed uses for the Proposed Project include:

- > 114 student dorm rooms;
- > Approximately 266 to 280 student beds;
- Approximately 2,200 square feet of active ground floor uses, including approximately 1,512 square feet of retail/restaurant/café area accessible to the public, and approximately 708 square feet of secured student lounge area; and
- Other supporting uses, including a student housing reception area, laundry room, bike storage—all of which will be secure and accessible only to University students.

Figure 1.4 presents the proposed site conditions and ground floor plan, and figures 1.5a-b present the proposed building floor plans.

1.4.2 Urban Design and Site Access

The Project Site, its building, and structure will remain the same; the conversion to student housing requires only the minimal effort of furniture replacement and security upgrades. There will also be no major changes to site or building access, and service and loading areas. As described in Section 1.3, the building's existing site access will provide a great connection for students to and from Suffolk University's Downtown Campus. The BPDA Accessibility Checklist is provided in Appendix B.

Given the Proposed Project's proximity to City Hall Plaza, Suffolk University is committed to enhancing the pedestrian experience and public realm in the area surrounding the Proposed Project.

1.4.3 Anticipated Project Schedule

It is anticipated that the Proposed Project will be ready for students to move into in the Fall of 2020 for the 2020-2021 academic year.

1.5 Assessment of Impacts

Given that the Proposed Project will be located in an existing building, there will not be any change to the building's height or massing. As such, no new environmental impacts, including wind, shadow, or daylight, would result from the Proposed Project. The following sections describe the impacts resulting from the change in use, including infrastructure systems and historic resources.

1.5.1 Infrastructure

Water Demand

The student housing conversion at the Ames Building will result in an overall decrease of water usage. The existing water capacity is equal to approximately 4,370,000 gallons per year. The water usage based on the proposed development program will be approximately 3,835,000 gallons per year. This reduction is due to a decrease in the expected days of operation. All existing plumbing fixtures are to remain in operation; the existing cooling tower (installed in 2008) will also remain in use to serve the new residence hall.

Wastewater Generation

Wastewater generation for the Proposed Project will also decrease from 3,660,000 to 3,355,000 gallons per year compared to the existing hotel use. The decrease in wastewater generation is due to the decrease in days of occupancy. It should be noted that the difference in domestic water demand and the associated wastewater generation is a result of cooling tower evaporation and "drift." Both existing and proposed cases will realize an evaporation loss of 710,000 gallons per year and 10,000 gallons per year of drift.

1.5.2 Historic Resources

The Ames Building is historically significant for its architecture and engineering accomplishments. Designed by Shepley, Rutan and Coolidge, the successor firm of H. H. Richardson and a prominent national firm in its own right, the building incorporates several Richardsonian Romanesque features inspired by his legacy. It remains one of the tallest masonry load-bearing buildings in the country, bridging masonry construction and the emerging office tower designs from Chicago and New York City. It also represents the continuing relationship between Shepley, Rutan and Coolidge (and H. H. Richardson), the Norcross Brothers, and the Ames family – a partnership that produced several buildings commissions in the state. The building is a designated Boston Landmark (designated 1993) and is individually listed in the National and State Registers of Historic Places (BOS.1678, NR #74000382, listed 1974).

Sited at a highly-visible intersection, the building utilizes a three-part vertical façade arrangement that echoes the parts of a Classical column. The base floors of the building are visually distinct from the upper stories in scale, design, and material, which originally denoted the street-level banking function. The office levels that form the "shaft" of the building are capped by a massive overhanging cornice, analogous to a column capital. Richardsonian Romanesque features, including colossal Syrian arches, colonnades, large piers, and contrasting masonry provide further organization devices and ornament. The exterior of the building retains a high degree of integrity, and the most recent alteration in 2009 included the installation of windows and doors that replicate the original configurations.

Nearly all the properties in the vicinity of the Ames Building have been recorded in the Massachusetts Historical Commission's (MHC) *Inventory of Historical and Archaeological Assets of the Commonwealth* (Inventory) as a result of ongoing survey efforts undertaken by the Boston Landmarks Commission (BLC) for several decades. Several of these properties have received national, state, and/or local historic designations, individually and as part of historic districts. Together, these historic properties exemplify a broad range of resource types, styles, time periods, and associations with people and events that shaped national and local development.

Table 1-1 and Figure 1.6 show properties near the Ames Building that are listed in the State Register, including National Historic Landmarks and National Registerlisted properties, Boston Landmarks, buildings subject to a Preservation Restriction, and properties that have received a formal National Register determination of eligibility.

The Proposed Project will not adversely impact the Ames Building or nearby historic resources. Minimal alterations are required to convert the existing hotel use to student housing, consisting primarily of furnishing changes. Existing floor plans, circulation patterns, and interior and exterior finishes will remain. The Project will not require site improvements that alter the historic character of the Ames Building or nearby historic resources. Installation of new signage, intercom systems, lighting, or other exterior features, if needed, will require design review by the Boston Landmarks Commission and will not diminish the historic character of the Ames Building. Suffolk University anticipates consultation with local historic stakeholders, including the Freedom Trail Commission, during the planning process.

Table 1-1 Historic Resources in the Vicinity of the Project Site

		MHC Inventory	
Resource Name	Address	No.	Designation
Beacon Hill Historic District	N/A	BOS.BE	NRDIS, NHL, LL (roughly overlapping), includes several individually designated properties
Boston Common and Public Garden Historic District	N/A	BOS.BA	NRDIS; LL and NHL (Public Garden)
Park Street District	N/A	BOS.AS	NRDIS (wholly within Beacon Hill LHD)
Sears Crescent and Sears Block	N/A	BOS.AV	NRDIS
Newspaper Row (National Register)	N/A	BOS.AR	NRDIS
Temple Place Historic District	N/A	BOS.AW	NRDIS, includes LL
West Street Historic District	N/A	BOS.BK	NRDIS
Washington Street Theatre District	N/A	BOS.BJ	NRDIS, includes LL and PR
Piano Row Historic District	N/A	BOS.BL	NRDIS, includes LL and PR
Tremont Street Block between Avery and Boylston Streets	N/A	BOS.BP	NRDIS (wholly within Piano Row Historic District)
Commercial Palace Historic District	N/A	BOS.AM	DOE
Liberty Tree District	N/A	BOS.BM	NRDIS, includes LL
Textile District	N/A	BOS.AX	NRDIS
Custom House District	N/A	BOS.RF	NRDIS
Blackstone Block Historic District	N/A	BOS.AK	NRDIS
Blackstone Block Street Network	N/A	BOS.ZS	NRDIS, LL (wholly within Blackstone Historic District)
Boston National Historical Park	N/A	BOS.AY	NRDIS, discontiguous across several sites
Old Colony Trust Company Buildings	17-19 Court Street	BOS.1679	DOE
King's Chapel Burial Ground	Tremont St (north of King's Chapel)	BOS.803	NRIND, PR
King's Chapel	58 Tremont Street	BOS.2067	NHL, NRIND, PR, MHL
Parker House	60 Tremont Street	BOS.1973	DOE, pending LL
Tremont Temple Baptist Church	76-88 Tremont Street	BOS.2070	DOE
Publicity Building	40-44 Bromfield Street	BOS.1605	NRIND
I. J. Fox Building	407 Washington Street	BOS.2134	NRIND
Jewelers Building	371-379 Washington Street	BOS.2131	DOE, pending LL
Hutchinson Building	32-54 Province Street	BOS.1963	DOE, pending LL
Blake and Amory Buildings	59-65 Temple Place	BOS.2144/ BOS.2155	NRIND

Table 1-1 Historic Resources in the Vicinity of the Project Site (Continued)

		МНС	
Resource Name	Address	Inventory	Designation
St Paul's Church	136 Tremont Street	BOS 2082	
RH Stearns Building	140 Tremont Street	BOS 2083	
Old City Hall	41-45 School Street	BOS 1977	NHI NRIND
Weslevan Association Building	32-38 Bromfield Street	BOS 1604	DOF
Boston Edison Electric Illuminating Company	25-39 Boylston Street	BOS.2246	NRIND
Young Men's Christian Union	48 Boylston Street	BOS.2247	NRIND, LL
Boylston Building	2-22 Boylston Street	BOS.2245	NRIND, LL
Ballard Block	20-30 Bromfield Street	BOS.1603	LL
Locke-Ober Restaurant	3-4 Winter Place	BOS.2159	NRIND
Old Corner Bookstore	277-285 Washington Street	BOS.2127	NRIND, MHL, PR
Old South Meeting House	308 Washington Street	BOS.2113	NHL, NRIND, MHL, PR (included in Boston National Historical Park NRDIS)
Filene's Department Store	426 Washington Street	BOS.2119	NRIND, LL
Old State House	208 State Street	BOS.2107	NHL, NRIND, LL, PR
Old South Building	280-306 Washington Street	BOS.2112	Pending LL
Winthrop Building	276-278 Washington Street	BOS.2111	NRIND, LL
Boston City Hall	1 City Hall Plaza	BOS.1657	DOE, pending LL
Lindeman Center	25 Staniford Street	BOS.4203	DOE
Suffolk County Courthouse	1 Pemberton Square	BOS.1945	NRIND
Boston Transit Commission Building	15 Beacon Street	BOS.1553	NRIND
Second Brazer Building	25-29 State Street	BOS.2013	NRIND, LL
Quaker Lane	Quaker Lane	N/A	Pending LL
Worthington Building	31-33 State Street	BOS.2014	Pending LL
Monks Building - National Shawmut Bank Building	33-59 Congress Street	BOS.1669	DOE, pending LL
John W. McCormack Federal Building	5 Post Office Square	BOS.1960	NRIND, LL
Stock Exchange Building	53-65 State Street	BOS.2015	LL
International Trust Company Building	39-47 Milk Street	BOS.1890	NRIND, LL
NILLI NILL'ALL'ALL'ALL'ALL'ALL'ALL'ALL'ALL'ALL'			

NHL National Historic Landmark

NRDIS National Register of Historic Places, District

NRIND National Register of Historic Places, Individual Listing

LL Local Landmark (includes individual properties and districts)

MHL Massachusetts Historic Landmark

DOE Determination of Eligibility

PR Preservation Restriction

1.6 Summary of Public Benefits

This section summarizes many of the public benefits associated with the Proposed Project.

Public Benefits

 Suffolk University underscores its goal of "being a good neighbor" by maintaining a strong partnership with the New England Center for Homeless Veterans (adjacent to the Proposed Project) through a student-led Service After Hours program.

Public Realm Activation

- > Approximately 1,512 square feet of the ground floor use will be publicly accessible restaurant/retail/café.
- > Existing areaways and sidewalks will remain as-is to ensure a convenient and pedestrian-friendly environment around the Project Site.
- > The Proposed Project will remain connected to public transit, as well as to amenities surrounding the Project Site.

Transportation Benefits

- > With no on-site parking provided, all students living at this Project Site will have access to either public transportation, biking, or walking.
- > On-site bike storage will be provided.

Sustainability/Environmental Benefits

- > With minimal interior changes, no environmental impacts, including wind, shadow, or daylight would result from the Proposed Project.
- > The University will evaluate and incorporate sustainable/green building design, construction, and operational measures so that the Proposed Project is LEEDv4 certifiable, in compliance with Article 37, Green Buildings, of the Code.¹
- > The Project Team will evaluate and incorporate adaptation and resiliency measures to address future impacts associated with climate change.

Energy Conservation/GHG Emissions Reductions

- > The existing façade has an exceptional thermal mass value and will remain in place.
- > Existing windows will be resealed to eliminate infiltration.
- > The University will conduct retro-commissioning to assess enhanced energy efficiency opportunities.

City of Boston Article 37 submittal requirements require completing a Leadership in Energy and Environmental Design ("LEED[™]") credit scorecard to demonstrate that a project meets the minimum requirements to achieve a LEED Certified level (all LEED prerequisites and achieve at least 40 points) without requiring the project to be registered with or certified by with the Green Business Certification Inc. ("GBCI").

> The University currently participates in a green power purchase agreement to offset approximately 25 percent of the University's greenhouse gas emissions, and this program will be applicable to this Proposed Project.

Water Conservation

> There would be an overall decrease in the building's water demand and wastewater generation.

1.7 Community Outreach

Suffolk University is committed to continuing its public outreach with the Suffolk University Community Task Force (the "Task Force") and the community-at-large. The Task Force is comprised of representatives from various neighborhoods and civic organizations.

The first Task Force meeting was facilitated on September 5, 2019. During this meeting, the University provided an overview of changes to the physical campus, enrollment, and public benefits and contribution in the last 10 years, since approval of the 2008 IMP. The University also presented a preview of the 2020 IMP updates and the Proposed Project.



Figure 1.1 Site Location Map

Graphic Created by NBBJ



Figure 1.2 Site Context and Existing Conditions

Graphic Created by NBBJ



Front elevation.



View of main entrance along Court St.



Concrete sidewalk along Court St.



Side elevation.



Typical façade finishes.



Granite paved patio along Washington Mall.

Suffolk University Boston, Massachusetts Figure 1.3 Existing Site Photos



Figure 1.4 Proposed Conditions Plan/ Ground Floor Plan

Graphic Created by NBBJ

Graphic Created by NBBJ

Figure 1.5a **Building Floor Plans** 2nd & 3rd Floors



3RD FLOOR PLAN



2ND FLOOR PLAN

Graphic Created by NBBJ

Figure 1.5b Typical Floor Plans (from 4th to 14th level)



4th-14th FLOOR PLANS (PLANS DIFFER ONLY SLIGHTLY)

J:\BOS01\102196.00 Suffolk University IMP Update\04 Design Production\Maps\Suffolk_2.1.indd p17 08/26/19



Suffolk University Boston, Massachusetts Figure 1.6

Graphic Created by NBBJ

Historic Resources

2

Regulatory Context and General Information

This chapter summarizes the local planning and regulatory controls and anticipated permits and approvals applicable to the Proposed Project.

2.1 Regulatory Context

This section describes how the Proposed Project is consistent with the City of Boston zoning requirements and ordinances as well as any state review requirements, as applicable.

2.1.1 Conformance with Zoning

One Court Street (1-11 Court Street), Ward 3, Boston, Massachusetts (the "Property") consists of an existing 14-story building formerly used as a hotel with 114 rooms, function space and a ground floor restaurant with approximately 102,073 gross square feet of building area on a site containing approximately 6,315 square feet of land area. Suffolk University has proposed interior renovations to the building in order to change the occupancy from a hotel and restaurant to a new student residence hall with accessory retail/food service areas (the "Proposed Project").

The Property is located within the Government Center/Market Districts Zoning District identified on Map 1H of the Zoning District Maps of the City of Boston and is subject to Article 45 of the Boston Zoning Code (the "Code"). As referenced on Map 1H, the Property is located within the City Hall Medium Density Area Zoning Subdistrict and located adjacent to the Sears Crescent Protection Area Zoning Subdistrict. In addition, the Property is located within a Restricted Parking Overlay District.

Since the University will seek a change in use of a building greater than 50,000 gross square feet within a Downtown District and such use is classified as a High Impact Subuse of an Institutional Use, the Proposed Project will be subject to review and approval from both the Boston Planning & Development Agency ("BPDA") and the Boston Zoning Commission ("BZC") with respect to Large Project Review and Related Approvals under Article 80B and Institutional Master Plan Review under Article 80D.

To the extent that exterior work is proposed for the building, the Proposed Project may be subject to review by the Boston Civic Design Commission ("BCDC") pursuant to Article 28 of the Code. The Proposed Project's location could qualify as a project of special significance because it is a Landmark designated by the Boston Landmarks Commission ("BLC") on November 23, 1993 and is in visual proximity to and within 500 feet of another Landmark, the Old State House.

2.1.2 Article 80B Large Project Review

Due to the proposed change from hotel use to student housing in a building of 50,000 square feet or more, the Proposed Project requires Large Project Review by the BPDA pursuant to Article 80B, Large Project Review of the Code.

2.1.3 Article 37 Green Buildings

Article 37, Green Buildings, of the Code requires all projects subject to Article 80B, Large Project Review to meet LEED certification standards by either certifying the project or demonstrating that the project would meet the minimum requirements to achieve a LEED Certified level (all LEED Pre-requisites and at least 40 points on the LEED project checklist) without registering the project with the USGBC ("LEED certifiable"). The current version of the LEED rating system, version 4, effective October 31, 2016 ("LEEDv4") is required to demonstrate the Proposed Project is LEED certifiable. As presented in Chapter 3, *Sustainability/Green Building and Climate Change Resiliency*, the Proposed Project is anticipated to achieve a Certified level using the LEEDv4 for Existing Buildings ("LEED-EB") rating system as there will be no major new construction and the existing fixtures (plumbing, lighting, etc.) will remain the same.

2.1.4 Massachusetts Environmental Policy Act

The Property is located within the Government Center Urban Renewal Plan, Project No. R-35, dated April 3, 1963, as amended (the "Plan"). The Property is specifically referred to as Parcel 6 of Block 140 under the Plan. On April 12, 2001, the BPDA approved a minor modification of the Plan to allow for the hotel use and other allowed uses on the Property in connection with the original permitting of the Hotel Project. Although the Plan does allow for institutional uses within part of the Plan area, the use of Parcel 6 of Block 160 under Section 303 of the Plan is limited to general office use.

As a result of the proposed change to institutional use: student housing, the Proposed Project will require a minor modification (the "Minor Modification") of the Plan to allow for institutional use, including but not limited to student housingdormitory use. The Minor Modification will require approval by the BPDA Board.

In the event that BPDA staff determines that the change in the use under the Plan does not qualify for a minor modification of the Plan, and instead constitutes a major modification of the Plan, the University may be required to file an Environmental Notification Form ("ENF") with the Executive Office of Energy and Environmental Affairs ("MEPA") pursuant to 301 CMR 11.00, *et. seq.* Additionally, the Project may be a beneficiary of future Financial Assistance from the Massachusetts Development Financing Agency ("MDFA"), which is addressed under 301 CMR 11.03 with respect to project review thresholds. In order to be in compliance with all applicable MEPA requirements, the University may seek an advisory opinion from MEPA relative to compliance with MEPA regulations, including but not limited to the filing of an ENF.

2.1.5 Massachusetts Historical Commission

The Massachusetts Historical Commission (MHC) has review authority over projects requiring state funding, licenses, permits, or approvals, in order to evaluate potential direct or indirect impacts to properties listed in the State Register of Historic Places, in compliance with State Register Review requirements (M.G. L. Chapter 9, Sections 27-27c, as amended by Chapter 254 of the Acts of 1988). If a state action is required, the Proponent shall submit a Project Notification Form (PNF) to MHC to initiate review.

To the extent that financial assistance provided to Suffolk University by MFDA is considered to be state funding and involves the Project, a filing consisting of a PNF will be made with MHC to seek a determination of No Adverse Effect pursuant to 950 CMR 71.07. Suffolk University is confident that, considering the preservation of the existing building, and the lack of exterior modifications to the building, a determination of No Adverse Effect will be issued by the MHC.

2.1.6 Boston Landmarks Commission

The Ames Building is a designated Boston Landmark, and therefore alterations are subject to review by the Boston Landmarks Commission (BLC). The review purview of the BLC is limited to exterior changes, and includes features such as signage, awnings, intercom systems, and exterior lighting. Should the Project include the alteration or addition of exterior features, the Proponent will submit a Certificate of Appropriateness application to the BLC for review and approval prior to installation.

2.2 Anticipated Permits and Approvals

Table 2-1 below presents a list of federal, state, and local permits and approvals anticipated for the Proposed Project.

2.2.1 Agency Outreach and Coordination

The University has held the following meetings prior to filing this PNF:

- > BPDA pre-filing meeting held August 8th
- > Boston Transportation Department pre-filing meeting held August 27th

The Project Team will continue working with BPDA staff to coordinate with other departments, such as the Department of Neighborhood Development and the Boston Environment Department, as needed.

Table 2-1 Anticipated Project Permits and Approvals

Agency/Department	Permit/Approval/Action		
Federal			
Environmental Protection Agency	NPDES Construction / Stormwater General Permit		
Commonwealth of Massachusetts			
Massachusetts Department of Housing and Community Development (DHCD)	Approval of Minor Modification		
Massachusetts Environmental Policy Act	Environmental Notification Form / Certificate		
Massachusetts Historical Commission	Review / No Adverse Effect		
Department of Environmental Protection	Notification Prior to Construction or Demolition		
Massachusetts Development Finance Agency (MassDevelopment)	Tax exempt bonds		
City of Boston			
Boston Planning and Development Agency	Article 80B, Large Project Review – Certificate of Compliance		
	Article 80D Institutional Master Plan Amendment – Certificate of Consistency with IMP		
	Article 80 Project Agreements Minor Modification of Urban Renewal Plan		
	Article 37 – Green Buildings Review		
	Schematic Design Approval		
	Design Development Approval		
	Construction Document Approval		
Boston Civic Design Commission	Recommendation to the BPDA Board		
Boston Landmarks Commission	Certificate of Design Approval for Exterior Work		
Boston Zoning Commission	Institutional Master Plan Approval		
Boston Water and Sewer Commission	Site Plan Approval-connections		
Public Improvement Commission	Specific Repair Plan Approval – LMI Agreement		
Boston Inspectional Services Department	Building Permit		
	Certificate of Occupancy		
Boston Transportation Department	Transportation Access Plan Agreement		
	Construction Management Plan		
Boston Zoning Board of Appeals	Building Code Variances (if needed)		

2.3 Project Team

2.3.1 List of Development Team Members

The following provides a list of the members of the Development Team with contact information.

Proponent	Suffolk University 8 Ashburton Place Boston, MA 02108 617-573-8000 <i>Contact:</i> John Nucci, Senior VP for External Affairs
Architect	NBBJ One Beacon Street, Suite 5200 Boston, MA 02108 617-378-4847 <i>Contact:</i> Alex Krieger Chris Herlich
Legal Counsel	Rubin and Rudman LLP 53 State Street Boston, MA 02109 617-330-7000 <i>Contact:</i> James H. Greene
Permitting, Transportation, Cultural Resources Consultant	VHB 99 High Street, 10th Floor Boston, MA 02110 617-728-7777 <i>Contacts:</i> Ken Schwartz Lauren DeVoe Luke Mitchell Van Du David Black Nicole Benjamin-Ma
Mechanical, Electrical, and Plumbing Engineer, and Sustainable Design Consultant	Commercial Construction Consulting, Inc. (C3) 313 Congress Street Boston, MA 02210 617-330-9390 <i>Contacts</i> : John Bruzzese Jay Murray

3

Sustainability/Green Building and Climate Change Resiliency

The following chapter describes the overall approach to sustainable design and operation for the Proposed Project. Included is a preliminary assessment of green building design, in compliance with the requirements of Article 37 of the Boston Zoning Code relative to the City's Green Building policies and procedures (Article 37). This chapter also discusses the approach to preparing for predicted climate change, in accordance with the BPDA Climate Change Preparedness and Resiliency Policy (the "Resiliency Policy"). The required Climate Change Preparedness and Resiliency Checklist (the "Resiliency Checklist") has been completed for the Proposed Project and is provided in Appendix B.

3.1 Summary of Key Findings and Benefits

The key findings related to sustainability and climate change include:

- > Reuse of a previously developed structure in a dense urban setting resulting in no new construction and only minimal modifications to interior spaces/fit-out;
- > Target LEED Certified level by using the LEEDv4 rating system to demonstrate compliance with Article 37, Green Buildings, of the Code;
- > Optimize energy efficiency improvements by replacing existing lighting fixtures with LED and occupancy sensor technology;
- > Reduce overall annual water demand and wastewater generation; and
- > Explore opportunities to incorporate adaptation and resiliency measures to address future impacts associated with climate change.

3.2 Regulatory Context

3.2.1 Massachusetts Stretch Energy Code

As part of the Green Communities Act of 2008, Massachusetts developed the optional Stretch Energy Code that gives municipalities the option to enact a more strenuous energy performance code for buildings than the conventional state building code. The Stretch Energy Code increases the energy efficiency code requirements for new construction (both residential and commercial) and for major residential renovations or additions in municipalities that adopt it.

Effective January 1, 2017 the current Stretch Energy Code, as adopted by the City, requires projects to achieve, at minimum, a 10 percent energy efficiency

improvement when compared to the state's base energy code (the "Base Energy Code"). Projects may demonstrate the energy use savings by either meeting the performance standard of 10 percent better than ASHRAE 90.1-2013, or using a prescriptive methodology based on IECC 2015.

3.2.2 Article 37 – Green Buildings

Article 37 submittal requirements include completing a LEED scorecard to demonstrate that a project meets the minimum requirements to achieve a LEED Certified level (all LEED prerequisites and achieve at least 40 points) ("LEED certifiable"). With the LEED version 4, or "v4," rating system effective as of October 31, 2016, the BPDA requires initial Article 80 Large Project Review submissions on or after November 1, 2016 to demonstrate LEED certifiable status using LEEDv4. This latest iteration of the LEED rating system standards is measurably higher and more stringent in many categories.

The Boston Interagency Green Building Committee ("IGBC") advises the BPDA on a proposed project's compliance with the provisions of the article. The Committee consists of representatives of city agencies including the BPDA, BED, BTD, the Inspectional Services Department and the Mayor's Office.

Boston Green Building Credits

Appendix A of Article 37 lists Boston Green Building Credits, which are credits that may be included in the calculation toward achieving a LEED certifiable project. These credits were developed by the City and are intended to address local issues unique to development within Boston. The credits include the following categories: Modern Grid, Historic Preservation, Groundwater Recharge, and Modern Mobility.

3.2.3 BPDA Climate Change Preparedness and Resiliency Policy

In conformance with the Mayor's 2011 Climate Action Leadership Committee's recommendations, the BPDA requires projects subject to Boston Zoning Article 80 Large Project Review to complete the Resiliency Checklist to assess potential adverse impacts that might arise under future climate conditions, and any project resiliency, preparedness, and/or mitigation measures identified early in the design stage. The Resiliency Checklist is reviewed by the IGBC.

3.3 Sustainability at Suffolk University

Sustainability is a focus of Suffolk University's operations and construction programs. New construction and major renovation projects are required to comply with Article 37 of the Boston Zoning Code relative to the City's Green Building policies and procedures. Internally, various departments have established their own "Green Teams" to support sustainability efforts at the University. These sustainability champions also conduct research, develop, and implement sustainable practices across campus.

To date, the University has built and renovated spaces to LEED standards, including several that have received LEED Silver or Gold certifications. This dedication to green building principles and best practices will continue to be integrated into every project on campus. Refer to Chapter 10, *Sustainability at Suffolk University* of the 2019 IMPNF for additional information.

3.3.1 Project Approach to Sustainability and Resiliency

Building Re-use

The Ames Building has been in existence since 1893, primarily serving as an office building. In 2009, the property was converted to a hotel use. Aesthetically, the building represents a historical landmark with architectural features unique to buildings constructed over 100 years ago. This structure will be re-used for the purpose of housing Suffolk University students without any construction of new building elements and only minimal modifications to interior spaces/fit-out.

Exterior Envelope Improvements

The façade is in good condition with exceptional thermal mass properties given the type of construction during that era. There will only be minor envelope improvements planned at this time. These include cosmetic upgrades for the most part as opposed to replacement or enhancement of any façade features.

Energy Efficiency Improvements

The Project Team has explored options that include retro-commissioning and ASHREA level energy audits to enhance energy efficiency. The MEP systems are well within their useful life and are not in need of replacement for another 10 to 15 years.

Building System Improvements

The University will consider opportunities to optimize the existing mechanical systems. Comparative enthalpy technology will control both the cooling tower operation and ventilation. Occupancy schedules will also be reviewed and optimized in order to further enhance the overall efficiency of the building.

Lighting

The existing lighting will remain in place. All new lighting that is required will be LED type fixtures with occupancy sensor technology. This includes dwelling unit upgrades as well as back of house spaces.

3.3.2 Preliminary Green Building Evaluation

Article 37 of the Code requires proposed building projects to be designed to meet the compliance level of LEED certifiable using the LEEDv4 rating system as a guide.

The Proposed Project will strive to meet or exceed this requirement, specifically using the LEEDv4 for Operations & Maintenance: Existing Buildings.

The Preliminary LEEDv4 checklist (Figure 3.1) indicates a score of 45 with the possibility of an additional 11 "maybe" points, targeting a LEED Certified level. The narrative below summarizes the sustainable design compliance approach for the Proposed Project, in compliance with Article 37.

Location and Transportation

Alternative Transportation, 11 points

The Proposed Project is located on an urban site, within ¹/₄-mile walking distance of several bus stops and subway stops.

Sustainable Sites

SS Prerequisite: Site Management Policy

The University will develop and adopt a compliant Site Management Policy that employs best management practices to reduce harmful chemical use, energy waste, water waste, and other operational elements on the building and grounds.

Light Pollution Reduction, 1 point

The University will shield all exterior fixtures and/or install fixtures that do not directly emit light at a vertical angle more than 90 degrees from straight down.

Site Management, 1 point

The Project Team has assessed site conditions to evaluate sustainable options related to high-performance building operations and integration into the surrounding landscape.

Water Efficiency

WE Prerequisite: Indoor Water Use Reduction

The Proposed Project will reduce indoor water consumption, by utilizing indoor plumbing fixtures and fittings that meet the code requirements.

WE Building-Level Water Metering

The University will support water management and identify opportunities for additional water savings by tracking water consumption of the Proposed Project.

Indoor Water Use Reduction, 2 points

The Project Team will perform official calculation of existing plumbing fixtures flow rates. Early estimates point to 15 percent reduction from baseline.

Cooling Tower Water Use, 1 point

The Project Team will reduce the cooling tower blowdown cycles by instituting a new water treatment program that address the following:

Parameter	Maximum Level
Ca (as CaCO ₃)	1000 ppm
Total alkalinity	1000 ppm
SiO ₂	100 ppm
Cl	250 ppm
Conductivity	2000 µS/cm

Water Metering, 1 point

The existing building's blowdown and makeup water to the cooling tower is metered.

Energy and Atmosphere

EA Prerequisite: Energy Efficiency Best Management Practices

The Project Team will conduct an energy audit and ensure that energy-efficient operating strategies are maintained.

EA Prerequisite: Minimum Energy Performance

The Proposed Project will reduce the environmental and economic harms of excessive energy use by achieving a minimum level of operating energy performance.

EA Prerequisite: Building-Level Energy Metering

The Proposed Project will install building-level energy meters, or sub-meters that can be aggregated to provide building-level data representing total building energy consumption.

EA Prerequisite: Fundamental Refrigerant Management

The Proposed Project will not use chlorofluorocarbon (CFC)-based refrigerants in heating, ventilating, air-condition, and refrigeration systems.

Existing Building Commissioning - Analysis, 2 points

The Project Team will evaluate building performance, using the existing building commissioning process, to improve building operations, energy, and resource efficiency.

Optimize Energy Performance, 6 points

The Project Team will perform an energy modeling.

Renewable Energy and Carbon Offsets, 2 points

The University currently participates in a green power purchase agreement to offset approximately 25 percent of the University's greenhouse gas emissions, and this program will be applicable to the Proposed Project.

Materials and Resources

MR Prerequisite: Ongoing Purchasing and Waste Policy

The University will strive to reduce the environmental harm from materials purchased, used, and disposed of in the building operations by establishing an environmentally preferable purchasing policy.

MR Prerequisite: Facility Maintenance and Renovations Policy

The University has established green building principles that require all development, including facility maintenance and renovation, to incorporate LEED strategies as best practices.

Purchasing - Ongoing, Lamps, Renovations, 3 points

Building operations personnel will follow the LEED guidelines during the 12-month performance period to meet the purchasing requirements.

Solid Waste Management – Ongoing, 2 points

The University will work with building operations personnel will revamp the existing waste stream procedure to include the separation and documentation of recycling 50 percent of the ongoing waste and 75 percent of all durable waste streams during the 12-month performance period.

Indoor Environmental Quality

IEQ Prerequisite: Minimum Indoor Air Quality Performance

The Proposed Project will contribute to the comfort and well-being of the building occupants by establishing minimum standards for indoor air quality (IAQ).

IEQ Prerequisite: Environmental Tobacco Smoke Control

To prevent or minimize exposure of building occupants, indoor surfaces, and ventilation air distribution systems to environmental tobacco smoke, the building management will prohibit smoking inside and outside the building except in designated areas located at least 25 feet from all entries, outdoor air intakes, and operable windows.

IEQ Prerequisite: Green Cleaning Policy

The University partners with ABM, an integrated facilities management contractor, to use green cleaning products across campus through their ABM GreenCare Program. This program will be applicable to the Proposed Project.

Indoor Air Quality Management Program, 2 points

Building operations personnel will conduct an I-BEAM indoor air quality audit and address issues as necessary to adhere to the LEED requirements.

Thermal Comfort, 1 point

The Proposed Project will provide quality thermal comfort via heating, ventilating, air-conditioning systems, to help boost building occupants' productivity and wellbeing.

Daylight and Quality Views, 2 points

The Proposed Project will maintain quality views for all building occupants.

Green Cleaning - Custodial Effectiveness Assessment, 1 point

The University will perform routine inspection and monitoring to ensure green cleaning policy is implemented in the building.

Green Cleaning - Product and Materials, 1 point

The University will purchase green cleaning materials and products to reduce the environmental effects of these cleaning products.

Integrated Pest Management, 2 points

The University will have in place an integrated pest management plan (IPM) for the buildings and grounds within the Project Site.

Occupant Comfort Survey, 1 point

The University will administer at least one occupant comfort survey to assessment building occupants' comfort related to acoustics, building cleanliness, indoor air quality, lighting, and thermal comfort.

Innovation in Design

The Project Team will explore innovative approaches to operations and maintenance, including green building education program.

Regional Priority Credits

The following regional priority credit is applicable for the Proposed Project:

> Cooling tower water use (3-point threshold).

Boston Green Building Credits

The Project Team will continue evaluating potential opportunities to achieve any of the following Boston Green Building credits (Appendix A of Article 37): Modern Grid, Historic Preservation, Groundwater Recharge, and Modern Mobility.

3.3.3 Energy Conservation Approach

The Project Team will engage a third-party energy modeling consultant to complete a comprehensive model of the existing building. In concert with that will be an ASHRAE Level 1 energy audit to determine an energy cost saving measure that will result in lower energy consumption overall. The building management system will be modified and upgraded to enhance the current sequence of operations as well as equipment run times and set points through modified scheduling.

Preliminary Energy Model Results/GHG Emissions Reductions

The preliminary energy model results reflect an energy use intensity of approximately 28 KBTUs annually. This equates to a greenhouse gas (GHG) emissions of approximately 266 tons annually. The official energy model is in the process of completion.

Clean and Renewable Energy

The potential of onsite renewable energy is limited due to the lack of roof space and site space. The University currently participates in a green power purchase agreement to offset 25 percent of its total electricity. The program will be applicable to this Proposed Project.

Energy Efficiency Utility Incentives

The University will investigate all potential incentives regarding energy efficiency.

3.4 Climate Change Preparedness and Resiliency

As required by the BPDA for Large Project Review, the Proponent has begun to consider the projected impacts related to climate change in early stages of planning and design by completing the Resiliency Checklist (Appendix B). Climate change is expected to result in rising sea levels, more frequent extreme storms, and more extreme weather events. The following sections describe how climate change is anticipated to impact the Project, and the steps that will be taken to promote resilience during the Project's design life.

3.4.1 Sea Level Rise and Extreme Storms/Flooding

The 2016 Climate Ready Boston BRAG Report and the BPDA's Climate Resiliency Guidance document indicate that sea level in Boston will continue to rise throughout the century, with 4 to 8 inches of sea level rise (SLR) above 2000 sea levels by 2030; 7 inches to 1.5 feet by 2050; 1.3 to 3.1 feet by 2070, and 2.4 to 7.4 feet (with a maximum possible of 10.5 feet) by 2100. The implications of these scenarios are represented on the BPDA Sea Level Rise – Flood Hazard Area (SLR-FHA) map as a modeled one percent annual chance flood event with 40 inches of SLR by 2070. SLR is anticipated to impact much of Boston's low-lying shoreline. However, the Project Site is located far enough inland and at a high enough elevation that it is not located within either the currently effective one-percent annual chance floodplain or the BPDA SLR-FHA.

From 1958 to 2010 there was a 70 percent increase in the amount of precipitation that fell on the days with the heaviest precipitation. Currently, the 10-year, 24-hour design storm precipitation level is 5.25 inches. There is a significant probability that this will increase to at least 6 inches by the end of the century. Larger but less frequent storms are likely to occur, along with more frequent droughts. The Project Site is also outside the extent of projected long-term stormwater flooding as depicted on the Climate Ready Boston Map Explorer. Based on this information, the Project Site is not expected to experience flooding during the design life of the Proposed Project.

3.4.2 Extreme Weather Conditions/Events

According to the 2016 Climate Ready Boston Report and the BPDA's Climate Resiliency Guidance document, the annual average temperature in Boston increased by about 2°F in the past hundred years and will continue to rise due to climate change. By the end of the century the average annual temperature could increase to 56°F (compared to the current average of 46°F) and the number of days with temperatures above 90°F could rise to 90 days per year (compared to the current count of approximately 10 days per year).

Project-related resiliency measures aimed at addressing these potential events are discussed below.

3.4.3 Potential Resiliency Measures

To mitigate against higher temperatures in the future and the increased likelihood of heatwave events, the University will continue exploring opportunities to incorporate features such as:

- > Employing reflective roof materials when it is time to replace the existing roof;
- > Making all windows operable to help mitigate power disruptions, reduce reliance on mechanical ventilation systems, and also to increase natural ventilation;
- Maintaining an emergency generator that can operate independently to maintain indoor conditions at higher outdoor average temperatures even during power outages; and
- As part of the energy modeling process, analysis reflecting the predicted increase in temperature may be used to better understand how the building and its systems would perform under different climate conditions. This understanding may then be considered when undergoing upgrades of the building's overall HVAC systems.



LEED v4 for Operations & Maintenance: Hospitality

Project Checklist

Y ? N	eastion and Transportation	4.5		•		lua all a s		47
11 2 2 L		15	9	2	6	inaooi		1/
11 2 2 Cr	edit Alternative Transportation	15	Y		F	Prereq	Minimum Indoor Air Quality Performance	Required
		10	Y	,	F	Prereq	Environmental Tobacco Smoke Control	Required
2 0 7 S	ustainable Sites	10	Y		F	Prereq	Green Cleaning Policy	Required
Y Pr	Site Management Policy	Required		2		Credit	Indoor Air Quality Management Program	2
1 Cr	edit Site Development-Protect or Restore Habitat	2			2	Credit	Enhanced Indoor Air Quality Strategies	2
3 Cr	edit Rainwater Management	3	1			Credit		1
2 Cr		2			2	Credit		2
1 Cr	edit Light Pollution Reduction	1	2		2	Credit	Daylight and Quality Views	4
1 Cr	edit Site Management	1	1			Credit	Green Cleaning- Custodial Effectiveness Assessment	1
1 Cr	edit Site Improvement Plan	1	1			Credit	Green Cleaning- Products and Materials	1
			1		(Credit	Green Cleaning- Equipment	1
4 1 7 V	/ater Efficiency	12	2		(Credit	Integrated Pest Management	2
Y Pr	ereq Indoor Water Use Reduction	Required	1		(Credit	Occupant Comfort Survey	1
Y Pr	Building-Level Water Metering	Required			_			
2 Cr	edit Outdoor Water Use Reduction	2	3	1	2	Innova	ation	6
2 1 2 Cr	edit Indoor Water Use Reduction	5	2	1	2	Credit	Innovation	5
1 2 Cr	edit Cooling Tower Water Use	3	1		(Credit	LEED Accredited Professional	1
1 1 Cr	edit Water Metering	2						
			1	0	3	Regio	nal Priority	4
10 5 22 E	nergy and Atmosphere	38	1		(Credit	Regional Priority: Cooling Tower Water Use	1
Y Pr	ereq Energy Efficiency Best Management Practices	Required			1	Credit	Regional Priority:	1
Y Pr	ereq Minimum Energy Performance	Required			1	Credit	Regional Priority:	1
Y Pr	ereq Building-Level Energy Metering	Required			1	Credit	Regional Priority:	1
Y Pr	ereq Fundamental Refrigerant Management	Required						
2 Cr	edit Existing Building Commissioning— Analysis	2	45	11	52	ΤΟΤΑΙ	_S Possible Poir	nts: 110
2 Cr	edit Existing Building Commissioning—Implementation	2		(Certi	fied: 40	0-49 points, Silver: 50-59 points, Gold: 60-79 points, Platinum	1: 80+ points
2 Cr	edit Ongoing Commissioning	3						
6 2 12 Cr	edit Optimize Energy Performance	20						
2 Cr	edit Advanced Energy Metering	2						
3 Cr	edit Demand Response	3						
2 1 2 Cr	edit Renewable Energy and Carbon Offsets	5						
1 Cr	edit Enhanced Refrigerant Management	1						
5 0 3 N	laterials and Resources	8						
Y Pr	ereq Ongoing Purchasing and Waste Policy	Required						
Y Pr	ereq Facility Maintenance and Renovations Policy	Required						
1 Cr	edit Purchasing- Ongoing	1						
1 Cr	edit Purchasing- Lamps	1						
1 1 Cr	edit Purchasing- Facility Management and Renovation	2						
2 Cr	edit Solid Waste Management- Ongoing	2						
2 Cr	edit Solid Waste Management- Facility Management and Renovation	2						

Project Name: Suffolk University Student Housing at Ames Hotel Date: August 28, 2019

Figure 3.1 LEED Scorecard

Suffolk University Boston, Massachusetts

4

Transportation

This chapter presents an overview of the existing transportation systems and summary of the proposed residence hall from a transportation perspective including a trip generation estimate of the Project-generated trips expected to result from the conversion of the existing hotel at 1 Court Street to student housing.

4.1 Summary of Key Findings & Benefits

Key findings of the analysis include the following:

- > The Project enjoys an excellent transit-oriented location close to the heart of downtown Boston which will minimize the generation of auto trips by the Project.
- > The Project will eliminate the existing hotel use on the Project Site, converting it to a residence hall and contributing a net-decrease in vehicle trips by 10 vehicles during the morning peak hour and 21 vehicles during the evening peak hour.
- > Vehicle parking is not provided on the existing site and parking will not be provided to support the Project.
- Both long-term and short-term bicycle parking and supporting facilities will be provided to encourage the use of bicycles by employees and visitors through coordination with the Boston Transportation Department (BTD) on its upcoming revisions to bicycle parking guidelines.
- > Service and loading and drop-off/pick-up activity will continue to occur on-street on the north curb of Court Street as it does for the existing hotel.
- > The Proponent will implement a robust transportation demand management ("TDM") program to reduce single-occupant vehicle ("SOV") trips and enhance and encourage alternative modes of transportation.
- > Transportation improvements, including TDM, will be committed to through the execution of a Transportation Access Plan Agreement ("TAPA") and Construction Management Plan ("CMP") with BTD.

4.2 Existing Transportation Conditions

As shown in Figure 4.1, the Project Site is in Downtown Boston, north of Court Street, and just east of the majority of Suffolk University's campus buildings. This transit-oriented site at 1 Court Street is occupied by the existing Ames Hotel, conveniently located between the Government Center MBTA Station and the State Street MBTA Station. To the limited extent that the Proposed Project will rely on highway access for drop-off/pick-up vehicle trips (private cars, taxis and on-demand services such as Uber and Lyft) the Project Site is well located in relation to both local and regional routes, including I-93 and I-90.

4.2.1 Roadways

As shown in Figure 1.2, Court Street, which defines the southern boundary of the Project Site, provides one-way westbound access between Congress and Cambridge Streets. Congress Street, located east of the Project Site, provides north-south travel between the South Boston Waterfront and Haymarket Station. Cambridge Street, located west of the Project Site, provides east-west travel between Charles Circle in the west and Tremont Street (at Government Center) in the east. Tremont Street, located west of the Project Site, provides one-way southbound travel between Government Center in the north and Malcolm X Boulevard in the south.

Nearby the Project Site, limited on-street parking is provided on these roadways. Sidewalks are provided along both sides of all roadways and all intersections provide crosswalks.

4.2.2 Pedestrian and Bicycle Environment

Pedestrian accommodations are provided on public sidewalks that serve the general population of residents, workers, and visitors on the Project Site.

Located just one-tenth of a mile to the north of the Project Site, the City Hall Plaza Renovation¹ is a planned multi-phase project to improve the Plaza as a more accessible, sustainable, and comfortable shared space for its visitors. Some features of the concept plan presented by the Public Facilities Department in June 2019 include drop-off/pick-up areas, bus and bike amenities and accessible entries/exits.

Figure 4.2 summarizes the existing bicycle facilities on the roadways surrounding the Project Site. There are several bicycle accommodations including bike lanes provided on portions of Cambridge Street, a buffered/separated bicycle lane on portions of Congress Street, and bike lanes on Pearl, Franklin, Milk and Kilby streets. Sharrows (shared lane markings) are also provided on select roadways, including Court Street as it approaches the intersection of Tremont Street at Cambridge Street and Court Street.

4.2.3 Site Access, Loading and Circulation

All vehicular traffic accessing the Proposed Site travels westbound on one-way Court Street to access the north curb. The north curb located in front of the existing Ames Hotel serves two purposes. Located closer to the west on Court Street, about 80 feet of curb is designated for valet use only. Just east of this area, there is about 80 feet of curb designated for commercial loading only from 6:00 PM to 8:00 AM on weekdays (30-min limit). In the same location from 8:00 AM to 6:00 PM on weekdays (15-min limit), the curb is designated for pick-up drop-off activity only.

¹ https://www.boston.gov/departments/public-facilities/city-hall-plaza-renovation

Typical deliveries to the Ames Hotel require only small delivery vans. Since an offstreet loading dock is not provided at the existing site, delivery vehicles park onstreet and are brought through the gate and door located west of the existing building and through the front entrance.

Hotel patrons or employees who travel to and from the existing site using either a Traffic Network Company (TNC) or taxicab are often dropped-off or picked-up at the existing site using the designated space for drop-off pick-up activity. Existing site access is presented in Figure 4.3. Self-parking is not offered by the Ames Hotel. Hotel patrons or employees who need to park their vehicles can use the valet service at the front door of the hotel. Valet parking is offered for \$53 per day. The Ames Hotel is in a parking agreement with LAZ Parking Limited, LLC which operates their valet services. If patrons or employees choose to self-park, they may do so by parking in an available public parking garage in the area, but a self-parking agreement is not set forth through the Ames Hotel.

4.2.4 Existing Parking

The existing Ames Hotel has an agreement with LAZ Parking Limited, LLC to operate valet from its front door. Vehicles who use this service are valet parked in the garage located at nearby parking garages (Pi Alley Parking Garage and/or 1 Cornhill Street Parking Garage). Patrons and employees who self-park may choose to park elsewhere of their choosing.

Figure 4.4 identifies off-street parking facilities that are available in the area while Figure 4.5 presents the existing on-street curb regulations within a ¹/₄-mile of the Project Site.

4.2.5 Public Transportation

As shown in Figure 4.6, the Project Site is located within easy walking distance of all four rapid transit lines. The three MBTA subway stations closest to the Project Site provide access to all four rapid transit lines:

- > State Street Blue and Orange Lines
- > Downtown Crossing Red and Orange Lines
- > Government Center Blue and Green Lines

A detailed summary of the public transit services serving the Suffolk University campus is located in Section 9.2 (Chapter 9, *Transportation and Parking Management*) of the 2019 IMPNF including subway, several bus routes, commuter rail, and regional bus services.

4.3 Proposed Project

The Proposed Project consists of converting the existing building from hotel use to student housing, providing students with suite-style rooms containing approximately 266 to 280 beds. No parking will be provided.

The approximately 102,073-gross square foot building will primarily serve as a residence hall as well as the support spaces for various student activities, campus meetings and events. The approximately 2,200 gross square foot area on the ground floor level will provide key uses, including a publicly accessible restaurant/retail area, reception area (secure), and a student lounge area (secure). Figure 1.4 presents the Proposed Site conditions and ground floor plan. In summary, the proposed uses for the Proposed Project include:

- > 114 student dorm rooms;
- > Approximately 266 to 280 student beds;
- Approximately 2,200 square feet of active ground-floor use, including: approximately 1,512 square feet of retail/restaurant/café area accessible to the public, and approximately 708 square feet of secured student lounge area; and
- > Other supporting uses, including a student reception area, laundry room, bike storage—all of which will be secure and accessible only to University students.

4.3.1 Proposed Site Access

The Proposed Project is expected to operate in a very similar way to the existing hotel. Unlike the existing site, valet services will not be offered at the Proposed Project. The curb use in front of the building will all be used to serve commercial vehicles and drop-off/pick-up activity (private cars, taxis and on-demand services such as Uber and Lyft) during the designated time periods discussed in Section 4.2 above. Patrons and employees will be responsible for self-parking their vehicles.

4.4 Trip Generation Estimate

The net-new trips expected to be generated by the conversion from hotel to student housing land use were estimated by both adding the trips generated by the student housing land use and removing the trips generated by the hotel land use. This section describes the procedures used to develop the net-new Project-generated trips.

4.4.1 Methodology

The trip generation for the Project was based on standard Institute of Transportation Engineers ("ITE") trip rates published in ITE's Trip Generation, 10th Edition Manual, adjusted as necessary to reflect local transportation alternatives. The appropriate trip generation ITE Land Use Codes (LUC) for the existing and proposed uses of the Project Site are shown in Table 4-1.

Table 4-1 Project Program and Trip Generation Methodology

Land Use	Program	ITE Land Use Code (LUC)
Existing - Hotel	114 rooms	310 – Hotel ¹
Proposed - Student Housing	280 beds	225 – Off-Campus Student Apartment ²

LUC 310: Hotel – Rooms – Average rate

LUC 225: Off-Campus Student Apartment – Residents, 'Adjacent to Campus' – Fitted Curve

Note: 'Adjacent to Campus' refers to under ½-mile which accurately reflects the Project Site as it relates to the Suffolk University campus.

4.4.2 Unadjusted Project-Generated Trips

ITE rates produce unadjusted vehicle trips for weekday daily, morning, and evening peak hours (i.e., trips before adjustment for local transportation conditions, including availability of transit and alternative modes, that influence mode share and vehicle occupancy). Unadjusted trips are presented in Table 4-2 for both the Existing Hotel and the proposed Student Housing. It should be noted that the trips in Table 4-2 are un-adjusted for mode share and vehicle occupancy characteristics and are therefore equivalent to person trips for the existing and proposed uses on the site.

	ITE Unadjusted ¹ Trips		
	Morning Peak Hour	Evening Peak Hour	
Total Existing – Hotel	54	68	
In	32	35	
Out	22	34	
Total Proposed – Student Housing	42	90	
In	17	45	
Out	25	45	

Table 4-2 Unadjusted¹ ITE Site-Generated Trips

1 Project trips before adjustment for mode share and vehicle occupancy.

Unadjusted trips were converted into person trips by applying the national average vehicle occupancy ("AVO") of 1.67 (all purposes) for the Existing hotel and 1.18 for the proposed student housing as determined by the 2017 National Household Travel Survey.

4.4.3 Mode Share and Vehicle Occupancy

Area mode shares were used to allocate the calculated person-trips by various transportation modes including vehicle (drive) and walk/bike/transit. The mode shares for the existing hotel are based on the local hotel observations conducted by Howard Stein Hudson for the 150 Kneeland hotel PNF. Mode shares for the Proposed student housing are based on the Suffolk University 2018 MassDEP Rideshare Report. Mode shares are presented in Table 4-3.

Mode	Existing – Hotel AM Peak Hour	Existing – Hotel PM Peak Hour	Proposed – Student Housing
Vehicle	24%	39%	8%
Walk/Bike/Transit/Other	<u> 76</u> %	<u>61</u> %	<u>92</u> %
Total	100%	100%	100%

Table 4-3 Mode Shares

Sources:

Existing Hotel – 150 Kneeland Street PNF, local hotel observations conducted by Howard Stein Hudson Proposed Student Housing – Suffolk University 2018 MassDEP Rideshare Report

The mode shares shown in Table 4-3 were applied to the unadjusted Project trips to determine the adjusted Project trips by mode.

AVO ratios were applied to convert the person-trips to vehicle-trips for the vehicle trip generation. As local AVO data is not available for the existing hotel, national AVOs of 1.67 (all purposes) were utilized. For the proposed student housing, a local AVO of 1.41 was calculated from the Suffolk University 2018 MassDEP Rideshare Report.

4.4.4 Adjusted Trip Generation by Mode

The adjusted vehicle and non-auto trip generation for the existing and proposed uses on the Project Site is presented in Table 4-4 and 4-5 for the existing hotel and Proposed Project, respectively.

Table 4-4 Vehicle and Non-Auto Site Trips

	Num	Number of Vehicles		Non-Auto Trips (Walk/Bike/Transit)			
	Existing Hotel	Proposed Student Housing	Difference	Existing Hotel	Proposed Student Housing	Difference	
Morning Pea	ık Hour						
Enter	8	1	-7	41	20	-21	
Exit	<u>5</u>	<u>2</u>	-3	<u>28</u>	<u>27</u>	-1	
Total	13	3	-10	69	47	-22	
Evening Peal	k Hour						
Enter	14	3	-11	36	50	14	
Exit	<u>13</u>	<u>3</u>	-10	<u>34</u>	<u>49</u>	15	
Total	27	6	-21	70	99	29	

As shown in Table 4-4, the proposed student housing use is expected to reduce the number of vehicle trips generated by the Project Site by approximately 10 trips during the morning peak hour and approximately 21 trips during the evening peak hour compared to the existing Hotel use. Trips by other modes (walk/bike/transit) are expected to be reduced by approximately 22 trips during the morning peak hour and increased by approximately 29 trips during the evening peak hour.

4.5 Proposed Loading and Service

Typical deliveries to the Proposed Project will require only small delivery vans. The entire curb in front of the existing Ames Hotel is proposed to be designated for commercial loading from 6 PM to 8 AM on weekdays, which is expected to remain with the Proposed Project in place.

4.5.1 Move-in/Move-out Traffic Management Procedures

The University carefully controls the student move-in process into University residence halls. The University procedures have been successful in minimizing traffic and parking impacts during move-in periods at its existing residence halls. It will use the same general process at the proposed residence hall.

The existing move-in plan includes:

- Staggered move-in. This is a key feature of the move-in plan, since it helps minimize traffic in the residence hall area. The University schedules students to move in over a three-day period during Labor Day weekend. The University assigns each student a specific move-in date and time. The student is turned away if he or she arrives early. The University sends maps of the area to incoming students, describing and illustrating move-in procedures and showing the location of nearby parking where people accompanying the students (such as parents or guardians) can park after unloading so they can visit with the students.
- > **Police detail.** The University engages a police detail with BPD to manage traffic during the three-day move-in period.
- Systematic unloading. Drivers are required to form a queue near the residence hall and are summoned, one at a time, from the queue on State Street to drive up to the residence hall to unload the student's belongings. The University presently leases parking near 10 Somerset Street for temporary peak unloading. The University will explore similar lease opportunities for any new residence halls.
- > **Unloading assistance**. The University student assistants help students load their belongings into large, laundry-type hampers. Assistants then roll these hampers from the unloading area to the building's elevators.

These procedures have worked well at both 150 Tremont Street and 10 Somerset Street. Move-out periods do not require the same level of logistical support and assistance because final exams are often staggered and there is a generous grace period given to students to vacate the residence halls.

4.6 Transportation Demand Management Plan

The University provides a wide range of transportation demand management services as described in the following sections.

Preferential Carpool Parking

There are two designated parking spaces for carpool vehicles in the garage at 73 Tremont Street.

Transit Passes

Suffolk students and employees are able to purchase MBTA Semester Passes. These pre-paid passes provide discounted travel on any MBTA service. In an average semester, approximately 910 passes are sold to students.

Bicycle Incentives

The University encourages bicycle use by providing bicycle storage at the following locations:

Short-term Bicycle Parking:

- > 73 Tremont Street near Mildred Sawyer Library (20 spaces);
- > Sargent Hall in the garage (10 spaces);
- > 20 Somerset in the plaza (20 spaces);

Long-term Bicycle Parking:

- > Miller Hall (10 spaces);
- > 10 West Street Residence Hall- basement of the Fitness Center (15 spaces);
- > 1047 Commonwealth Ave Residence Hall (20 spaces)

Figure 4.2 illustrates the location of existing bicycle facilities available to the University community. Six Bluebikes stations are provided within a 1/4-mile of the Project Site including the station at 28 State Street providing 20 docks and located approximately 200 feet from the Proposed Project Site front door.

Currently, the Proposed Site plans does not show bicycle parking. Suffolk University understands that BTD is currently updating the City's bicycle parking guidelines. The University is committed to continuing to work with BTD and incorporate revised bicycle parking guidelines into campus planning when these are available.



Source: BPDA, MassGIS



Created by VHB

Figure 4.1

Existing Suffolk University Property Locations and Project Site

Suffolk University Boston, Massachusetts



Source: BPDA, MassGIS



Bicycle Lane

Buffered/Seperated Bicycle Lane

- Sharrow (Shared Lane)
 - BLUEbikes Station

Created by VHB

Figure 4.2 Existing Bicycle Facilities

Suffolk University Boston, Massachusetts



Source: BPDA, MassGIS

- Proposed Project
 Vehicular Access
- Pedestrian Access
- Loading Access
- (MBTA Subway Station

*Commercial loading curb use is designated during the weekdays from 6 PM to 8 AM while pick-up/drop-off curb use is designated during the weekdays from 8 AM to 6 PM.

Valet Curb Use

Commercial Loading &

Pick-up/Drop-off Curb Use*

Figure 4.3 Existing Site Access

Suffolk University Boston, Massachusetts

Created by VHB



\\vhb\gbl\proj\Boston\14268.00\graphics\FIGURES\PNF Figures_update_082719.indd p4 08/29/19

Source: BPDA, MassGIS

Proposed Project



Off-Street Public Parking Facility

Figure 4.4

Existing Off-Street Public Parking

Suffolk University **Boston, Massachusetts**



Source: BPDA, MassGIS



- Bus Stop Valet Parking
 - Cab Stand
 - Dedicated Use Only

Figure 4.5 Existing On-Street Curb Regulations

Suffolk University Boston, Massachusetts



MBTA Bus Routes

- MBTA Orange Line MBTA Red Line MBTA Green Line
 - MBTA Blue Line

Suffolk University

Existing Public Transit

Boston, Massachusetts

APPENDIX A: Letter of Intent



May 4, 2018

Brian P. Golden, Director Boston Planning & Development Agency One City Hall Square Boston, MA 02201

Re: Suffolk University Letter of Intent to file IMPNF for New Institutional Master Plan

Dear Director Golden:

Please accept this letter as a Letter of Intent submitted to the Boston Redevelopment Authority d/b/a Boston Planning and Development Agency ("BPDA") pursuant to the Executive Order entitled: "An Order relative to the provision of Mitigation by Development Projects in Boston" for the filing of an Institutional Master Plan Notification Form ("New IMPNF") for the new Suffolk University Institutional Master Plan ("Suffolk IMP") in accordance with the provisions of Article 80, Section 80D of the Boston Zoning Code ("Code") for a ten (10) year term until July 24, 2028.

The Suffolk University IMP was established by the following actions of the BPDA and the Boston Zoning Commission ("BZC"). In 2002 Suffolk University completed an Institutional Master Plan ("IMP"), effective February 25, 2002. The IMP was subsequently amended by a first amendment, effective April 14, 2005. The initial term of the IMP was for five years, subject to the renewal on or about February 25, 2007. In accordance with Section 80D of the Code, on February 7, 2007 Suffolk University submitted an Institutional Master Plan Notification Form ("IMPNF") for renewal without change for one year or until such time as a new IMP was effective. The renewal was approved by the BPDA Board on April 24, 2007.

In 2007, a comprehensive public process and review framework was started by Suffolk University with the assistance of the BPDA to develop the new ten year Institutional Master Plan for the University. The public process included the establishment of a Suffolk University Community Task Force which helped guide Suffolk in its planning efforts. The 18 member Task Force involved residents and business leaders from the North End, Downtown, Beacon Hill, West End and Upper Beacon Hill Neighborhood Associations, as well as concerned citizens.

The development of the 10 year Institutional Master Plan included reviewing the goals of Suffolk, existing and future student demographics, Suffolk's major program needs in several areas, the existing urban context surrounding the University and the plans for the 10 West Street Residence Hall project. Working together, the Task Force and Suffolk developed the concept of five clusters or development areas in which the suitability for various uses would be defined.

Brian P. Golden, Director May 4, 2018 Page 2

On January 11, 2008 Suffolk submitted an IMPNF for the Master Plan, which included two new institutional projects, the Modern Theatre redevelopment project and the 20 Somerset Street academic building project. On June 24, 2008, the BPDA approved the IMP and on July 23, 2008, the BZC approved the IMP for a ten (10) year term until July 24, 2018.

At this time, Suffolk wishes to undertake a new planning process for the new ten (10) year term of the Suffolk IMP. This new process will expand the 2007/2008 planning process which was focused for the most part on the Downtown, Beacon Hill and West End neighborhoods of Boston. Suffolk University has over the past years experienced a greater demand by its students for guaranteed residential accommodation for the first and second years of enrollment. Suffolk University believes it could enhance the experience of its students by offering a guarantee of housing for the first two years of undergraduate enrollment. The University currently offers 1,636 beds in its residence halls.

With the campus located in the heart of Boston, the longer-term strategy envisions Universitysponsored housing in areas well served by public transportation that offer convenient access to Suffolk. The University is currently engaged in a process of establishing criteria to meet housing needs on a longer-term basis as well as reviewing existing proposals and soliciting new proposals. Suffolk anticipates being able to discover attractive alternatives during the initial term of the IMP and to turn the best alternatives into University-sponsored housing offerings within the next several years. Suffolk University desires to undertake an immediate planning effort with the BPDA to explore other appropriate sites within the City's neighborhoods for student housing. As part of this effort, Suffolk has retained Colliers International to explore sites and facilities beyond the historic Boston Downtown core of the University.

Suffolk's goal in identifying additional sites for supervised student housing during the term of the new IMP is consistent with Mayor Walsh's housing plan: Housing a Changing City: Boston 2030. Suffolk agrees with Mayor Walsh that the creation of new student dormitories will relieve the pressures on the existing housing stock and will preserve and recapture housing units for Boston's workforce. As noted in Boston 2030: "An important part of Boston's workforce housing production strategy must include reducing the pressure students create in the rental housing market. Assuming stable enrollments, for every three additional students housed in dorm beds, approximately one unit of rental housing is returned to the workforce housing market. Therefore, student housing creation is a critical relief value for Boston's rental housing market."

The Mayor's goal is also Suffolk's goal and is reflected in the approval of its use by the BPDA on an interim temporary basis of the existing student residential facility at 1047 Commonwealth Avenue in Allston/Brighton. For example, based on current University statistics, there are approximately 180 Suffolk University students living in the Allston/Brighton neighborhood. The immediate availability of 1047 Commonwealth Avenue will have a positive impact in reducing the number of off-campus student housing units with on-campus housing units, and thus reduce the pressure on workforce housing, and Suffolk has agreed to offer to its Allston/Brighton students a preference in the selection of units at 1047 Brian P. Golden, Director May 4, 2018 Page 3

Commonwealth Avenue. When the BPDA Board approved on April 12, 2018 Suffolk's use of 1047 Commonwealth Avenue, the BPDA noted that the project was well-received at a community meeting with several comments in support and none in opposition. Both the BPDA and the Department of Neighborhood Development ("DND") determined that the 1047 project can help meet the city's goal of providing more housing for undergraduate students.

As part of the planning effort with the BPDA during the term of the new IMP, Suffolk intends to explore the possibility of encouraging off-campus students who might reside or do reside in Boston's neighborhoods to relocate into new approved Suffolk supervised student residential facilities, similar to the 1047 project. By planning and working with the BPDA, Suffolk is committed to a successful planning effort to alleviate pressure on neighborhood housing and create more University supervised residential facilities.

Although prior filings under Section 80D for the Suffolk IMP referenced specific projects, the new IMPNF may not specify a proposed project, but will include at least one potential site for student housing. As set forth in Section 80D-8.2 of the Code, the review and approval requirements for the renewal of an IMP are the same as those for the initial approval, except as set forth in Section 80D-5.2(e) and Section 80D-6 of the Code. Therefore, in accordance with the provisions of Section 80D-5.2 of the Code (Boston Redevelopment Authority Procedures for Institutional Master Plan Review), Suffolk intends to file a new IMPNF which will contain those elements identified in Sections 80D-3, including Mission and Objectives. Although a description of future projects is also referenced in Section 80D-3.4, the new IMPNF may not include a specific proposed project, but will establish the planning framework for the inclusion of one or more new project sites in the new IMP.

Suffolk looks forward to working with the BPDA in the IMP planning process. Thank you for your consideration of this Letter of Intent.

Very trul vour

John A./Nucci, Sr. Vice-President for External Affairs

JAN/ss

 cc: Robert Lamb, Chair, Board of Trustees Marisa Kelly, President Gerald Autler, Sr. Project Manager, BRA Teresa Polhemus, Executive Director/Secretary, BRA James H. Greene, Esq.

APPENDIX B: BPDA Checklists

Accessibility Checklist

Climate Change Preparedness and Resilience Checklist

Accessibility Checklist

Article 80 – Accessibility Checklist

A requirement of the Boston Planning & Development Agency (BPDA) Article 80 Development Review Process

The Mayor's Commission for Persons with Disabilities strives to reduce architectural, procedural, attitudinal, and communication barriers that affect persons with disabilities in the City of Boston. In 2009, a Disability Advisory Board was appointed by the Mayor to work alongside the Commission in creating universal access throughout the city's built environment. The Disability Advisory Board is made up of 13 volunteer Boston residents with disabilities who have been tasked with representing the accessibility needs of their neighborhoods and increasing inclusion of people with disabilities.

In conformance with this directive, the BDPA has instituted this Accessibility Checklist as a tool to encourage developers to begin thinking about access and inclusion at the beginning of development projects, and strive to go beyond meeting only minimum MAAB / ADAAG compliance requirements. Instead, our goal is for developers to create ideal design for accessibility which will ensure that the built environment provides equitable experiences for all people, regardless of their abilities. As such, any project subject to Boston Zoning Article 80 Small or Large Project Review, including Institutional Master Plan modifications and updates, must complete this Accessibility Checklist thoroughly to provide specific detail about accessibility and inclusion, including descriptions, diagrams, and data.

For more information on compliance requirements, advancing best practices, and learning about progressive approaches to expand accessibility throughout Boston's built environment. Proponents are highly encouraged to meet with Commission staff, prior to filing.

Accessibility Analysis Information Sources:

- 1. Americans with Disabilities Act 2010 ADA Standards for Accessible Design http://www.ada.gov/2010ADAstandards_index.htm
- 2. Massachusetts Architectural Access Board 521 CMR http://www.mass.gov/eopss/consumer-prot-and-bus-lic/license-type/aab/aab-rules-and-regulations-pdf.html
- 3. Massachusetts State Building Code 780 CMR http://www.mass.gov/eopss/consumer-prot-and-bus-lic/license-type/csl/building-codebbrs.html
- 4. Massachusetts Office of Disability Disabled Parking Regulations http://www.mass.gov/anf/docs/mod/hp-parking-regulations-summary-mod.pdf
- 5. MBTA Fixed Route Accessible Transit Stations <u>http://www.mbta.com/riding_the_t/accessible_services/</u>
- 6. City of Boston Complete Street Guidelines http://bostoncompletestreets.org/
- 7. City of Boston Mayor's Commission for Persons with Disabilities Advisory Board www.boston.gov/disability
- City of Boston Public Works Sidewalk Reconstruction Policy <u>http://www.cityofboston.gov/images_documents/sidewalk%20policy%200114_tcm3-41668.pdf</u>
 Other of Poston – Public Improvement Commission Sidewalk 20ff Policy
- 9. City of Boston Public Improvement Commission Sidewalk Café Policy <u>http://www.cityofboston.gov/images_documents/Sidewalk_cafes_tcm3-1845.pdf</u>

Glossary of Terms:

- 1. *Accessible Route* A continuous and unobstructed path of travel that meets or exceeds the dimensional and inclusionary requirements set forth by MAAB 521 CMR: Section 20
- 2. *Accessible Group 2 Units* Residential units with additional floor space that meet or exceed the dimensional and inclusionary requirements set forth by MAAB 521 CMR: Section 9.4
- 3. *Accessible Guestrooms* Guestrooms with additional floor space, that meet or exceed the dimensional and inclusionary requirements set forth by MAAB 521 CMR: Section 8.4
- 4. *Inclusionary Development Policy (IDP)* Program run by the BPDA that preserves access to affordable housing opportunities, in the City. For more information visit: <u>http://www.bostonplans.org/housing/overview</u>
- 5. *Public Improvement Commission (PIC)* The regulatory body in charge of managing the public right of way. For more information visit: <u>https://www.boston.gov/pic</u>
- 6. *Visitability* A place's ability to be accessed and visited by persons with disabilities that cause functional limitations; where architectural barriers do not inhibit access to entrances/doors and bathrooms.

1.	Project Information: If this is a multi-phased or mul	ti-building project,	fill out a separate Cl	necklist f	or each	n phase/building.
	Project Name:	1 Court Street Residence Hall				
	Primary Project Address:	1 Court Street, Boston MA 02108				
	Total Number of Phases/Buildings:	N/A				
	Primary Contact (Name / Title / Company / Email / Phone):	John Nucci, Senior VP for External Affairs Suffolk University jnucci@suffolk.edu 617-573-8000				
	Owner / Developer:	Suffolk University				
	Architect:	NBBJ				
	Civil Engineer:	СЗ				
	Landscape Architect:	N/A				
	Permitting:	VHB				
	Construction Management:	N/A				
	At what stage is the project at time	of this questionnaire	? Select below:			
		PNF / Expanded PNF Submitted	Draft / Final Project Report Submitted	Impact	BPDA E	Board Approved
		BPDA Design Approved	Under Construction		Constru	uction Completed:
	Do you anticipate filing for any variances with the Massachusetts Architectural Access Board (MAAB)? <i>If yes,</i> identify and explain.	No				
2.	Building Classification and Desc	ription:				
	This section identifies prelimin	ary construction in	formation about the	project i	includir	ng size and uses.
	What are the dimensions of the proj	ect? 102,073 sf	[
	Site Area:	<i>6,315 SF</i>	Building Area:			102, 073 GSF
	Building Height:	182 FT.	Number of Storie	es:		14
	First Floor Elevation:	36.5 Ft BCB	Is there below gr	ade spac	e:	Yes / No
	What is the Construction Type? (Sel	ect most appropriate	type)			
		Wood Frame	Masonry	Steel Fra	ame	Concrete
	What are the principal building uses	? (IBC definitions are	e below – select all apj	propriate	that app	oly)
		Residential – One - Three Unit	Residential - Multi-unit, Four +	Instituti	onal	Educational
		Business	Mercantile	Factory		Hospitality

Article 80 | ACCESSIBILTY CHECKLIST

	Laboratory / Medical	Storage, Utility and Other	
List street-level uses of the building:	Lobby/Utilities, Student Lounge, Restaurant/Retail/Cafe		
3. Assessment of Existing Infrastructure for Accessibility: This section explores the proximity to accessible transit lines and institutions, such as (but not limited to) hospitals, elderly & disabled housing, and general neighborhood resources. Identify how the area surrounding the development is accessible for people with mobility impairments and analyze the existing condition of the accessible routes through sidewalk and pedestrian ramp reports			
Provide a description of the neighborhood where this development is located and its identifying topographical characteristics:	The Project Site, or the Washington Ma approximately six for the Court Street fro Washington Mall is Old State House an relatively flat grade	the Ames Building, ha III. There are also three eet from the building. Intage and the other o a pedestrian way that d Washington Street b	as frontage along Court Street and e areaways, each extending Two of these areaways are along ne along the Washington Mall. The connects Boston City Hall to the beyond. The Project Site is on a
List the surrounding accessible MBTA transit lines and their proximity to development site: commuter rail / subway stations, bus stops:	SUBWAY: Blue/Orange Line: State Street (0.1 miles) Blue/Green Line C, D, E: Government Center: (0.1 miles) Red Line: Downtown Crossing (0.3 miles) COMMUTER RAIL: North Station (0.8 miles) South Station (0.6 miles) BUSES: 0.1 miles: 352 outbound, 354 outbound, 15 inbound, 4 outbound, 92 outbound, 93 outbound, 325 outbound 0.0 miles: 200 outbound, 450 inbound		s) hter: (0.1 miles) 15 inbound, 4 outbound, 92 7 inbound
List the surrounding institutions: hospitals, public housing, elderly and disabled housing developments, educational facilities, others:	Mass General, Shri Montessori School,	ners Hospital for Child Liberty High School.	ren, Suffolk University, Torit
List the surrounding government buildings: libraries, community centers, recreational facilities, and other related facilities:	Boston City Hall, Fa Old State House, Jo Boston Public Mark	neuil Hall Marketplace ohn F. Kennedy Federa ket.	e, Suffolk County Superior Court, al Building, New England Aquarium,

4. Surrounding Site Conditions – Existing:

This section identifies current condition of the sidewalks and pedestrian ramps at the development

site.

Is the development site within a	No.
historic district? <i>If yes,</i> identify	
which district:	

Article 80 | ACCESSIBILTY CHECKLIST

Are there sidewalks and pedestrian ramps existing at the development site? <i>If yes</i> , list the existing sidewalk and pedestrian ramp dimensions, slopes, materials, and physical condition at the development site:	Yes. All of the sidewalks are to remain as they are. There are no plans to revise these with the charge in use of the Ames Building.
Are the sidewalks and pedestrian ramps existing-to-remain? <i>If yes,</i> have they been verified as ADA / MAAB compliant (with yellow composite detectable warning surfaces, cast in concrete)? <i>If yes,</i> provide description and photos:	Yes, existing sidewalks and pedestrian ramps are to remain. However, they have been verified as ADA/MAAB compliant.

5. Surrounding Site Conditions – Proposed

This section identifies the proposed condition of the walkways and pedestrian ramps around the development site. Sidewalk width contributes to the degree of comfort walking along a street. Narrow sidewalks do not support lively pedestrian activity, and may create dangerous conditions that force people to walk in the street. Wider sidewalks allow people to walk side by side and pass each other comfortably walking alone, walking in pairs, or using a wheelchair.

Are the proposed sidewalks consistent with the Boston Complete Street Guidelines? <i>If yes</i> , choose which Street Type was applied: Downtown Commercial, Downtown Mixed-use, Neighborhood Main, Connector, Residential, Industrial, Shared Street, Parkway, or Boulevard.	Νο
What are the total dimensions and slopes of the proposed sidewalks? List the widths of the proposed zones: Frontage, Pedestrian and Furnishing Zone:	There are no proposed sidewalks. The sidewalks will remain as they exist.
List the proposed materials for each Zone. Will the proposed materials be on private property or will the proposed materials be on the City of Boston pedestrian right-of-way?	N/A
Will sidewalk cafes or other furnishings be programmed for the pedestrian right-of-way? <i>If yes,</i> what are the proposed dimensions of the sidewalk café or furnishings and what will the remaining right-of-way clearance be?	To be determined, as the final floorplan is being developed.

Article 80 | ACCESSIBILTY CHECKLIST

If the pedestrian right-of-way is on private property, will the proponent seek a pedestrian easement with the Public Improvement Commission (PIC)?	N/A
Will any portion of the Project be going through the PIC? <i>If yes,</i> identify PIC actions and provide details.	No.
6. Accessible Parking: See Massachusetts Architectura regarding accessible parking re Disabled Parking Regulations.	al Access Board Rules and Regulations 521 CMR Section 23.00 quirement counts and the Massachusetts Office of Disability –
What is the total number of parking spaces provided at the development site? Will these be in a parking lot or garage?	N/A – Parking will not be provided
What is the total number of accessible spaces provided at the development site? How many of these are "Van Accessible" spaces with an 8 foot access aisle?	N/A – Parking will not be provided
Will any on-street accessible parking spaces be required? <i>If yes,</i> has the proponent contacted the Commission for Persons with Disabilities regarding this need?	No. Parking will not be provided.
Where is the accessible visitor parking located?	N/A – Parking will not be provided.
Has a drop-off area been identified? <i>If yes,</i> will it be accessible?	No, a drop-off area has not been identified.
7. Circulation and Accessible Route The primary objective in designi to entryways and common spac visitability-with neighbors.	es: Ing smooth and continuous paths of travel is to create universal access res, which accommodates persons of all abilities and allows for
Describe accessibility at each entryway: Example: Flush Condition, Stairs, Ramp, Lift or Elevator:	The main entrance from Court Street is accessible via a set of steps. An MAAB variance was granted for this entrance in May 2016, as an accessible secondary entrance is provided on Court Street. The accessible entrance is flush with the sidewalk and has adequate pull clearance on the door. Once inside, there is an accessible route to the main lobby.
Are the accessible entrances and standard entrance integrated? <i>If</i>	No, it is technologically not feasible to make the main entrance accessible. An MAAB entrance was granted for this entrance in May 2016.

<i>yes,</i> describe. <i>If no</i> , what is the reason?	
<i>If project is subject to Large Project</i> <i>Review/Institutional Master Plan,</i> describe the accessible routes way- finding / signage package.	The signage system identifying Suffolk University has not yet been designed.
8. Accessible Units (Group 2) and G In order to facilitate access to h accessible units that are propos rooms.	Guestrooms: (If applicable) ousing and hospitality, this section addresses the number of sed for the development site that remove barriers to housing and hotel
What is the total number of proposed housing units or hotel rooms for the development?	114 student housing rooms.
<i>If a residential development,</i> how many units are for sale? How many are for rent? What is the breakdown of market value units vs. IDP (Inclusionary Development Policy) units?	N/A
<i>If a residential development,</i> how many accessible Group 2 units are being proposed?	There will be 7 Group 2 rooms.
<i>If a residential development,</i> how many accessible Group 2 units will also be IDP units? <i>If none</i> , describe reason.	There will be 0 IDP units because dormitories are exempt from this requirement.
<i>If a hospitality development,</i> how many accessible units will feature a wheel-in shower? Will accessible equipment be provided as well? <i>If</i> <i>yes,</i> provide amount and location of equipment.	N/A
Do standard units have architectural barriers that would prevent entry or use of common space for persons with mobility impairments? Example: stairs / thresholds at entry, step to balcony, others. <i>If yes</i> , provide reason.	No. All units are located on an accessible route, and elevators provide vertical transportation to all floors.
Are there interior elevators, ramps or lifts located in the development for access around architectural barriers and/or to separate floors? <i>If yes</i> , describe:	Yes. Vertical transportation is provided throughout the building via two passenger elevators.

9. Community Impact:

Accessibility and inclusion extend past required compliance with building codes. Providing an overall scheme that allows full and equal participation of persons with disabilities makes the development an asset to the surrounding community.

Is this project providing any funding or improvements to the surrounding neighborhood? Examples: adding extra street trees, building or refurbishing a local park, or supporting other community-based initiatives?	Approximately 1,512 square feet of the active ground floor will serve as a retail/restaurant/café area accessible to the public. To date, Suffolk University has established and maintained many positive programs and linkages with surrounding businesses. The University will continue to cooperate with its neighbors in extending the benefits it has to offer, as codified in the University's existing Cooperation Agreements with the BPDA.
What inclusion elements does this development provide for persons with disabilities in common social and open spaces? Example: Indoor seating and TVs in common rooms; outdoor seating and barbeque grills in yard. Will all of these spaces and features provide accessibility?	All dormitories are located on an accessible route. Accessible seating will be provided in the lobby and within the restaurant. There will be front loading washing machines and dryers in the laundry facility.
Are any restrooms planned in common public spaces? <i>If yes,</i> will any be single-stall, ADA compliant and designated as "Family"/ "Companion" restrooms? <i>If no</i> , explain why not.	There are two accessible restrooms located on the second floor near the fitness center. These are the only common restrooms within the building. Both restrooms have one accessible stall.
Has the proponent reviewed the proposed plan with the City of Boston Disability Commissioner or with their Architectural Access staff? <i>If yes,</i> did they approve? <i>If no,</i> what were their comments?	Not at this time.
Has the proponent presented the proposed plan to the Disability Advisory Board at one of their monthly meetings? Did the Advisory Board vote to support this project? <i>If no,</i> what recommendations did the Advisory Board give to make this project more accessible?	Not at this time.

10. Attachments

Include a list of all documents you are submitting with this Checklist. This may include drawings, diagrams, photos, or any other material that describes the accessible and inclusive elements of this project.

Provide a diagram of the accessible routes to and from the accessible parking lot/garage and drop-off areas to the development entry locations, including route distances.

Provide a diagram of the accessible route connections through the site, including distances.

Provide a diagram the accessible route to any roof decks or outdoor courtyard space? (if applicable)

Provide a plan and diagram of the accessible Group 2 units, including locations and route from accessible entry. - Locations of Group 2 units have not been determined at this time.

Provide any additional drawings, diagrams, photos, or any other material that describes the inclusive and accessible elements of this project.

Appendix B – Ground Floor Accessibility Diagram

This completes the Article 80 Accessibility Checklist required for your project. Prior to and during the review process, Commission staff are able to provide technical assistance and design review, in order to help achieve ideal accessibility and to ensure that all buildings, sidewalks, parks, and open spaces are usable and welcoming to Boston's diverse residents and visitors, including those with physical, sensory, and other disabilities.

For questions or comments about this checklist, or for more information on best practices for improving accessibility and inclusion, visit <u>www.boston.gov/disability</u>, or our office:

The Mayor's Commission for Persons with Disabilities 1 City Hall Square, Room 967, Boston MA 02201.

Architectural Access staff can be reached at:

accessibility@boston.gov | patricia.mendez@boston.gov | sarah.leung@boston.gov | 617-635-3682



Suffolk University Boston, Massachusetts

Appendix B Ground Level Accessibility Diagram

Graphic Created by NBBJ

Climate Change Preparedness and Resilience Checklist



NOTE: Project filings should be prepared and submitted using the online Climate Resiliency Checklist.

A.1 - Project Information

Project Name:	1 Court Street Residence Hall			
Project Address:	1 Court Street, Boston, MA 02108			
Project Address Additional:				
Filing Type (select)	Initial (PNF , EPNF, NPC or other substantial filing) Design / Building Permit (prior to final design approval), or Construction / Certificate of Occupancy (post construction completion)			
Filing Contact	John Nucci	Suffolk University	jnucci@suffolk.edu	617-573-8000
Is MEPA approval required	Yes/ No		Date: 9/26/2019	

A.3 - Project Team

Owner / Developer:	Suffolk University
Architect:	NBBJ
Engineer:	СЗ
Sustainability / LEED:	СЗ
Permitting:	VHB
Construction Management:	N/A

A.3 - Project Description and Design Conditions

List the principal Building Uses:	Student Housing/Dormitory
List the First Floor Uses:	Lobby/Utilities, Student Lounge, Restaurant/Retail/Cafe
List any Critical Site Infrastructure and or Building Uses:	N/A

Site and Building:

Site Area: 6,315 SF	
Building Height: 182 Ft	Buil
evation – Low: 34.8 Ft BCB	Existing Site Eleva
evation – Low: 34.8 Ft BCB	Proposed Site Eleva
Floor Elevation: 36.5 Ft BCB	Proposed First Floo

Building Area:	102,073 SF
Building Height:	14 Stories
Existing Site Elevation – High:	36.5 Ft BCB
Proposed Site Elevation – High:	36.5 Ft BCB
Below grade levels:	1 Stories

Article 37 Green Building:

LEED Version - Rating System : Proposed LEED rating:

LEED v4	
Certified	

v4	LEED Certification:	No	
ied	Proposed LEED point score:	45 Pts.	

Building Envelope

When reporting R values, differentiate between R discontinuous and R continuous. For example, use "R13" to show R13 discontinuous and use R10c.i. to show R10 continuous. When reporting U value, report total assembly U value including supports and structural elements.

Roof:	22 (R)	Exposed Floor:	N/A
Foundation Wall:	15 (R)	Slab Edge (at or below grade):	20 (R)
Vertical Above-grade Assemblies (%	's are of total vertical	area and together should total 100%):	
Area of Opaque Curtain Wall & Spandrel Assembly:	0%	Wall & Spandrel Assembly Value:	0.07 (U)
Area of Framed & Insulated / Standard Wall:	57%	Wall Value	25 (R)
Area of Vision Window:	41%	Window Glazing Assembly Value:	0.35 (U)
		Window Glazing SHGC:	0.27 (SHGC)
Area of Doors:	2%	Door Assembly Value:	0.76 (U)

Energy Loads and Performance

For this filing – describe how energy loads & performance were determined	Preliminary energy calculations were estimated based on existing mechanical systems, fenestration, and building usage. Carrier HAPP 5.1 software was utilized for inclusion of anticipated thermal load calculations.		
Annual Electric:	712,400 kWh	Peak Electric:	86 kW
Annual Heating:	2.1 MMbtu/hr	Peak Heating:	2.8 MMbtu
Annual Cooling:	258,500 Tons/hr	Peak Cooling:	272 Tons
Energy Use - Below ASHRAE 90.1 - 2013:	>15%	Have the local utilities reviewed the building energy performance?:	No
Energy Use - Below Mass. Code:	>10%	Energy Use Intensity:	28 kBtu/SF

Back-up / Emergency Power System

Electrical Generation Output:	600 kW
System Type:	Generator

Number of Power Units:	1
Fuel Source:	Diesel

Emergency and Critical System Loads (in the event of a service interruption)

450 kW

Electric:

Heating: N/A Cooling: N/A

B – Greenhouse Gas Reduction and Net Zero / Net Positive Carbon Building Performance

Reducing GHG emissions is critical to avoiding more extreme climate change conditions. To achieve the City's goal of carbon neutrality by 2050 new buildings performance will need to progressively improve to net carbon zero and positive.

B.1 – GHG Emissions - Design Conditions

For this Filing - Annual Building GHG Emissions:

298 Tons

For this filing - describe how building energy performance has been integrated into project planning, design, and engineering and any supporting analysis or modeling:

This is an existing hotel being converted into student housing. All mechanical infrastructures will remain in place. Energy performance enhancements will be made possible through an independent energy audit and retro-commissioning.

Describe building specific passive energy efficiency measures including orientation, massing, envelop, and systems:

The existing façade has an exceptional thermal mass value and will remain in place. Existing windows will be resealed to eliminate infiltration.

Describe building specific active energy efficiency measures including equipment, controls, fixtures, and systems:

Sequence of operation review and occupancy schedule optimization of the BMS and replace lighting with LED technology.

Describe building specific load reduction strategies including on-site renewable, clean, and energy storage systems:

The lack of site area and roof area does not lend itself to this, thus, no on-site renewable energy systems are proposed.

Describe any area or district scale emission reduction strategies including renewable energy, central energy plants, distributed energy systems, and smart grid infrastructure:

Green power purchase agreement consistent with the University's sustainability goals.

Describe any energy efficiency assistance or support provided or to be provided to the project:

Not at this time - The University will investigate all potential incentives regarding energy efficiency.

B.2 - GHG Reduction - Adaptation Strategies

Describe how the building and its systems will evolve to further reduce GHG emissions and achieve annual carbon net zero and net positive performance (e.g. added efficiency measures, renewable energy, energy storage, etc.) and the timeline for meeting that goal (by 2050):

Replacement of heat pumps scheduled for years 2 through 5 in capital budget plan. Upgrading existing building management system also under review.

C - Extreme Heat Events

Annual average temperature in Boston increased by about 2°F in the past hundred years and will continue to rise due to climate change. By the end of the century, the average annual temperature could be 56° (compared to 46° now) and the number of days above 90° (currently about 10 a year) could rise to 90.

C.1 – Extreme Heat - Design Conditions

Temperature Range - Low:	4 Deg.	Temperature Range - High:	95 Deg.
Annual Heating Degree Days:	5681	Annual Cooling Degree Days	747
What Extreme Heat Event characteristics will be / have been used for project planning			
Days - Above 90°:	11	Days - Above 100°:	2
Number of Heatwaves / Year:	3	Average Duration of Heatwave (Days):	4
Describe all building and site measures to reduce heat-island effect at the site and in the surrounding area:			
	There are no plans at this time to address this. The roof will need to be replaced in 8 to 10 years, white roof will replace existing black/dark-colored roof material.		

C.2 - Extreme Heat – Adaptation Strategies

Describe how the building and its systems will be adapted to efficiently manage future higher average temperatures, higher extreme temperatures, additional annual heatwaves, and longer heatwaves:

Upgrade front end system. Replace heat pumps with new over a 5-year span.

Describe all mechanical and non-mechanical strategies that will support building functionality and use during extended interruptions of utility services and infrastructure including proposed and future adaptations:

The 600-kW generator shall remain in operation.

D - Extreme Precipitation Events

From 1958 to 2010, there was a 70 percent increase in the amount of precipitation that fell on the days with the heaviest precipitation. Currently, the 10-Year, 24-Hour Design Storm precipitation level is 5.25". There is a significant probability that this will increase to at least 6" by the end of the century. Additionally, fewer, larger storms are likely to be accompanied by more frequent droughts.

D.1 – Extreme Precipitation - Design Conditions

10 Year, 24 Hour Design Storm:

5.25 inches

Describe all building and site measures for reducing storm water run-off:

Existing front entrance currently 3 steps (21") above curb level.

D.2 - Extreme Precipitation - Adaptation Strategies

Describe how site and building systems will be adapted to efficiently accommodate future more significant rain events (e.g. rainwater harvesting, on-site storm water retention, bio swales, green roofs):

Nothing new is currently planned from existing conditions at this time. Emergency generator will remain on the roof.
E – Sea Level Rise and Storms

Under any plausible greenhouse gas emissions scenario, sea levels in Boston will continue to rise throughout the century. This will increase the number of buildings in Boston susceptible to coastal flooding and the likely frequency of flooding for those already in the floodplain.

Is any portion of the site in a FEMA SFHA?	Yes / No	What Zone:	A, AE, AH, AO, AR, A99, V, VE
Currei	nt FEMA SFHA	Zone Base Flood Elevation:	Ft BCB
Is any portion of the site in a BPDA Sea Level Rise - Flood Hazard Area? Use the online <u>BPDA SLR-FHA Mapping Tool</u> to assess the susceptibility of the project site.	Yes / No		

If you answered YES to either of the above questions, please complete the following questions. Otherwise you have completed the questionnaire; thank you!

E.1 – Sea Level Rise and Storms – Design Conditions

Proposed projects should identify immediate and future adaptation strategies for managing the flooding scenario represented on the BPDA Sea Level Rise - Flood Hazard Area (SLR-FHA) map, which depicts a modeled 1% annual chance coastal flood event with 40 inches of sea level rise (SLR). Use the online <u>BPDA SLR-FHA Mapping Tool</u> to identify the highest Sea Level Rise - Base Flood Elevation for the site. The Sea Level Rise - Design Flood Elevation is determined by adding either 24" of freeboard for critical facilities and infrastructure and any ground floor residential units OR 12" of freeboard for other buildings and uses.

Sea Level Rise - Base Flood Elevation:	Ft BCB		
Sea Level Rise - Design Flood Elevation:	Ft BCB	First Floor Elevation:	Ft BCB
Site Elevations at Building:	Ft BCB	Accessible Route Elevation:	Ft BCB

Describe site design strategies for adapting to sea level rise including building access during flood events, elevated site areas, hard and soft barriers, wave / velocity breaks, storm water systems, utility services, etc.:

Describe how the proposed Building Design Flood Elevation will be achieved including dry / wet flood proofing, critical systems protection, utility service protection, temporary flood barriers, waste and drain water back flow prevention, etc.:

Describe how occupants might shelter in place during a flooding event including any emergency power, water, and waste water provisions and the expected availability of any such measures:

Describe any strategies that would support rapid recovery after a weather event:



E.2 – Sea Level Rise and Storms – Adaptation Strategies

Describe future site design and or infrastructure adaptation strategies for responding to sea level rise including future elevating of site areas and access routes, barriers, wave / velocity breaks, storm water systems, utility services, etc.:

Describe future building adaptation strategies for raising the Sea Level Rise Design Flood Elevation and further protecting critical systems, including permanent and temporary measures:

A pdf and word version of the Climate Resiliency Checklist is provided for informational use and off-line preparation of a project submission. NOTE: Project filings should be prepared and submitted using the online Climate Resiliency Checklist.

For questions or comments about this checklist or Climate Change best practices, please contact: <u>John.Dalzell@boston.gov</u>