



Boston University Medical Campus

Boston, Massachusetts

Institutional Master Plan Notification Form
2020 - 2030 Institutional Master Plan

March 2, 2020

submitted to the **Boston Planning & Development Agency**

submitted by **Trustees of Boston University**

prepared by **Fort Point Associates, Inc.**

in association with
AECOM



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Chapter 1

INTRODUCTION AND OVERVIEW

CHAPTER 1: INTRODUCTION AND OVERVIEW

Boston University Medical Campus (BU Medical Campus) is comprised of three of Boston University's health science schools – the School of Medicine (BUSM), the Henry M. Goldman School of Dental Medicine (GSDM), and the School of Public Health (BUSPH). Located in Boston's South End neighborhood, the BU Medical Campus is renowned for the quality of teaching, research, and service to the community demonstrated at each school.

The BU Medical Campus is currently guided by an Institutional Master Plan (IMP) approved by the Boston Planning & Development Agency in 2010. With this IMP set to expire in 2020, Trustees of Boston University ("the University") is pleased to submit this Institutional Master Plan Notification Form (IMP NF), thereby initiating the BPDA Article 80 Institutional Master Plan review process for the upcoming BU Medical Campus 2020-2030 Institutional Master Plan (the "BU Medical Campus IMP").

1.1 BOSTON UNIVERSITY MEDICAL CAMPUS

One of Boston University's three campuses, the BU Medical Campus is located in Boston's South End and comprises the BUSM, the GSDM, and the BUSPH. See Figure 1-1, Locus Map. Through these institutions, more than 1,400 full-time equivalent faculty provide 3,400 full and part-time students education and training with a focus on underserved and indigent populations.

The BU Medical Campus has a longstanding tradition of high-quality research and service to the public. With over 1,417 research projects totaling \$186.2 million underway in Fiscal Year 2019, the BU Medical Campus is at the forefront of developing innovative solutions to today's medical challenges. The campus's BUSM is now home to one of the largest and most rapidly growing research programs of medical schools in the United States in the areas of basic science, clinical investigation, and public health and health services.

1.2 INSTITUTIONAL MASTER PLAN HISTORY

In 2000, Boston University filed a joint Institutional Master Plan with Boston Medical Center (BMC), the primary teaching affiliate of the BUSM, under the umbrella of the "Boston University Medical Center." The Boston University Medical Center 2000 Institutional Master Plan (the "2000 IMP") described the two institutions' shared objectives, existing property, and future development plans over a ten-year duration and was approved by the Boston Redevelopment Authority (BRA), now Boston Planning & Development Agency (BPDA), in May 2000.

In July 2009, the 2000 IMP was renewed for a 2-year term. In January 2010 the BRA approved an amendment to the IMP to include a 1.7-acre site (the “Albany Fellows Site”) and the construction of a proposed project known as the Graduate Student Housing Project. The subsequent 2010 Institutional Master Plan Renewal (the “2010 IMP”), approved by the BRA on June 22, 2010, documented joint programmatic and facility improvements to support the ongoing goals of BMC and BU Medical Campus. The University did not identify Proposed Institutional Projects (PIPs) in the 2010 IMP, although it did incorporate further build-out of the approved Albany Fellows Site as an anticipated future project. During the 2010 IMP term, the University advanced a new renovation and expansion project at the GSDM, which was approved in the Second IMP Amendment in 2017 (the “2017 Amendment”).

The 2010 IMP does not include the area known as BioSquare, which is comprised of property owned or leased by the University and BMC and is subject to a separate Planned Development Area Master Plan. See Figure 1-2, BU Medical Campus Properties.

1.3 APPROACH TO THE BU MEDICAL CAMPUS INSTITUTIONAL MASTER PLAN

The purpose of this IMPNF is to initiate the BPDA Article 80D Institutional Master Plan review process for the creation of the BU Medical Campus IMP. With this IMPNF and the concurrently filed BMC IMPNF, the current BUMC IMP will be dissolved into two separate and distinct IMPs for each institution. The University will henceforth inventory its properties and plan expansions independent from BMC. The creation of separate IMPs and Community Task Forces will allow greater autonomy and improved communication channels when developing new institutional projects.

Through the new BU Medical Campus IMP, the University may best address its buildings, public safety, transportation, academic programs, and infrastructure planning in pursuit of evolving healthcare and academic trends.

1.3.1 PUBLIC REVIEW PROCESS

On October 9, 2018 a Letter of Intent (LOI) was submitted to the BPDA by the University and BMC. The LOI outlined a proposal to submit an IMPNF for renewal of the 2010 IMP and separation of the two institutions with the creation of two 2020-2030 IMPs. Since the submittal of the LOI, the University has been working with the BPDA to develop a framework for the bifurcation and submittal of this IMPNF.

A scoping session and a community meeting are expected to occur during the public comment period of the IMPNF and prior to the BPDA’s issuance of a Scoping Determination. The University looks forward to continued collaboration with the BPDA, the community, and the City of Boston for this document.

Boston University Medical Campus Task Force

Concurrent with the submission of this IMPNF to the BPDA, the University will meet with BPDA staff to present the planned IMP to a BU Medical Campus Task Force (the “Task Force”) and to members of the public. The Task Force is currently comprised of the following representatives from areas surrounding the BU Medical Campus:

- Jerome Branch
- Michael Crowley
- Caroline Foscatto
- Stephen Fox
- Jeffrey Gates
- Matthew LeFrancois
- Desmond Murphy
- L. Fernando Requena

1.4 SHARED SERVICES AT BOSTON UNIVERSITY MEDICAL CAMPUS

Currently, the University and BMC participate in several coordinated activities that are common to their respective communities. Efforts are underway to effectuate either the continuation or the separation of these shared activities in the future, which will be further described during the development of the BU Medical Campus IMP. The following services are currently shared between the University and BMC.

1.4.1 TRANSPORTATION DEMAND MANAGEMENT AND PARKING

In support of the joint efforts to manage transportation demand, the University and BMC continue to share responsibility for and use of certain services and facilities through TransComm, a transportation management association. These efforts are further described in Section 5.8, Transportation Demand Management.

1.4.2 SIGNAGE AND WAYFINDING PLAN

The BUMC campus is currently guided by a comprehensive signage and wayfinding plan. Adopted prior to the 2010 BUMC IMP, the goals of the plan were to strengthen existing signage programs in coordination with Federal, State, and City authorities; to implement a program of gateway, direction, and street name signing; and to coordinate and strengthen private signing to clarify the identity of each member institution. The plan emphasizes a program focused on off-site signing, on-site signing, area identification, and inner and outer loop campus signing. Building identifiers

currently distinguish between BMC and BU Medical Campus buildings with blue and silver leaf signage and red and gold leaf signage, respectively.

Parking area identification is standardized with a “P” parking symbol, as BMC, BU Medical Campus, and BioSquare share the same parking facilities. The name of the institution served by the parking facility is listed at the entrance of each facility. For pedestrians, map retainer displays are located at key points on the BUMC Campus. The maps identify each institution and display information regarding roadways, transportation routes, landmarks, public transportation, parking, and other public amenities.

Modifications to signage and wayfinding will be addressed during the development of the BU Medical Campus IMP.

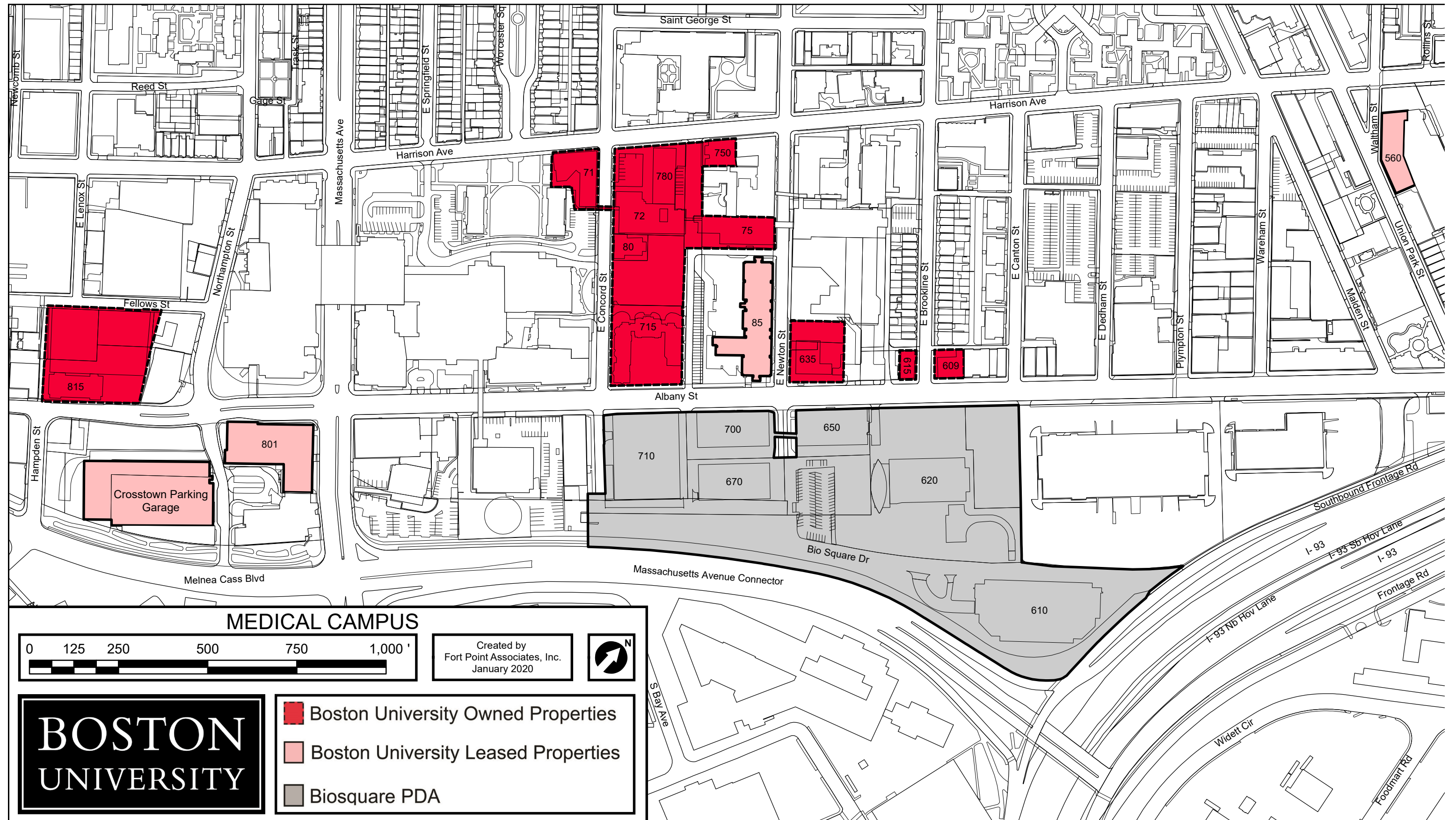
1.5 PROJECT TEAM

The primary contacts from the project team can be found below:

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Chapter 2

MISSION AND OBJECTIVES

CHAPTER 2: MISSION AND OBJECTIVES

The BU Medical Campus has a rich history dating back to 1848, when its School of Medicine began as the New England Female Medical College: the first institution in the world to offer medical education to women and the first to graduate a black woman physician. In 1873, the medical college merged with Boston University, becoming the first coeducational medical school in the nation. This development of a medical school in the area was complemented by the opening of Boston City Hospital in 1864, which was the first municipal hospital in the US, and the relocation to the area of the Massachusetts Homeopathic Hospital in 1874. Early partnerships with these hospitals set the foundation for the School of Medicine's strong commitment to community health care.

In addition to the School of Medicine, the BU Medical Campus is also comprised of the Henry M. Goldman School of Dental Medicine and the School of Public Health. Together, the schools train a diverse group of 3,400 students and employ 1,400 full time equivalent faculty members, many of whom are leading experts in their fields.

Renowned for the quality of their teaching and research, these three schools provide education and training in the most current techniques and approaches within their disciplines. Service to the community is a hallmark throughout the programs located at the BU Medical Campus, with a particular focus on serving disadvantaged, underserved, and indigent populations.

2.1 BOSTON UNIVERSITY SCHOOL OF MEDICINE

The BUSM is dedicated to the educational, professional, and personal development of a diverse group of exceptional students, trainees, and faculty who are deeply committed to the study and practice of medicine. BUSM places great value on excellence, integrity, service, social justice, collegiality, equality of opportunity, and interdisciplinary collaboration. Many faculty exemplify these values through their membership in the Boston University Medical Group, an integrated and multi-disciplinary faculty practice that focuses on clinical care, research, and teaching through its affiliation with BMC.

The BUSM is committed to serving a diverse population of patients in Boston and to providing quality medical care in international communities. Together with colleagues at BMC and the other 20 institutions with which they partner, BUSM students work in interdisciplinary research teams at the forefront of scientific and medical knowledge to discover new ways to diagnose and treat the most devastating human diseases through far-ranging clinical experiences.

Among the many research programs that hold a leading role in their field is the Alzheimer's Disease Center. It is one of only 30 centers across the country funded by the National Institutes of Health and is jointly based at the VA BMC. The Center was established in 1996 and played a leading role in recognizing the growing prominence of long-term brain injuries

in the early 2000s. Since 2008, the Center's investigation of the relationship of Chronic Traumatic Encephalopathy (CTE) to repetitive brain trauma in athletes and military personnel has been able to foster and support high-impact and innovative research in the field. Continuing research in this area is leading to advances in early diagnoses of CTE as well as several neurodegenerative diseases, including Alzheimer's.

2.2 HENRY M. GOLDMAN SCHOOL OF DENTAL MEDICINE

The University established the School of Graduate Dentistry in 1963 from a department in the BUSM, making it the country's only program devoted solely to specialty education in dentistry. The program focused on post-doctoral education and provided dynamic teaching activities, enrollment, and research. In 1972, the pre-doctoral program was established to train future leaders in the pursuit of a Doctor of Dental Medicine degree.

The GSDM prides itself on its patient-oriented care. The on-site clinic serves some 33,000 patients through 147,000 patient visits. The addition and renovation of the building, approved in the 2017 IMP Amendment and now underway, will improve the patient experience and services received. This expansion, further described in Section 3.2.2, Henry M. Goldman School of Dental Medicine, will allow the GSDM to continue to provide patients, who are often among the most underserved populations in Boston, with the best oral healthcare possible and ensure the GSDM's students are graduating with the appropriate skills and knowledge to be leading practitioners in the digital dental era.

The GSDM has a vibrant research program, including its Department of Health Policy and Health Services Research, which offers a multifaceted program of research, teaching, population-based care, and community service focused on evidence-based practice. The GSDM has taken a leadership role in the burgeoning area of translational dental medicine. This effort promotes the translation of research findings to the patient's treatment center. Early initiatives include the Head and Neck Cancer Program and the Oral Cancer Atlas, undertaken in collaboration with Brigham & Women's Hospital.

2.3 SCHOOL OF PUBLIC HEALTH

The BUSPH was founded in 1976 as a department within the School of Medicine. Today, it is regarded as one of the top 10 schools in the nation for the study of public health. BUSPH confers master and doctoral degrees in interdisciplinary programs of study that bring together law, ethics, statistics, and others.

In 2015, BUSPH revitalized its core purpose to elevate its three roles: generating research and scholarship, teaching it to students, and translating this scholarship into meaningful action that protects and improves the health of all populations. These goals are captured within the school's core purpose, "Think. Teach. Do. For the health of all."

Through longstanding collaborations with such institutions as the Massachusetts Department of Public Health, the Boston Public Health Commission, and the Veterans Affairs Administration, and international alliances with the Red Cross, the Peace Corps, and foreign governments, the students, faculty, and alumni draw on their own diverse backgrounds to carry out the BUSPH's mission in a variety of settings.

The Framingham Heart Study is an interdisciplinary research project jointly managed by the National Heart, Lung, and Blood Institute; the BUSM; and the BUSPH. The study began in 1948 and is the country's oldest cohort study on cardiovascular disease.

2.4 ENROLLMENT

Overall enrollment on the BU Medical Campus in fall 2009 was 3,254 students, of which 2,663 were full-time students and 591 students were part-time. Since then, overall enrollment increased slightly to 3,409 students in fall 2019. Approximately 2,903 students attended full time, and 506 students attended part time. This represents an increase of 155 students, a 4.8% increase. Significant changes to the current enrollment numbers are not expected.

2.5 EMPLOYMENT

In addition to educating future healthcare professionals, the schools of the BU Medical Campus extend employment and professional development opportunities to residents of Boston and the surrounding communities and help to fuel the local economy by purchasing goods and services.

The University employs approximately 2,857 full-time equivalent employees and 418 part-time employees at the BU Medical Campus. Of these, 968 total employees are Boston residents. Approximately 6.8% (222 employees) reside in the core neighborhoods. Employment at the BU Medical Campus is expected to increase in proportion to moderate increases in student enrollment and the development of research programs.

Table 2-1, BU Medical Campus Employment (2019)

	Full-Time		Part-Time		Total	
	Faculty	Staff	Faculty	Staff	Faculty	Staff
Total	1,409	1,448	308	110	1,717	1,558
Residents of Boston	408	465	66	29	474	494
Core Neighborhoods*	126	77	14	5	140	82

*Zip codes: 02110, 02111, 02118, 02119, 02120, 02121

The University offers a variety of workforce development and educational opportunities for BU Medical Campus employees. The University's Office of Human Resources offers frequent professional development seminars to BU Medical Campus employees from September

through June. The seminars offer a wide array of workshops to improve current skills and give employees the opportunity to develop new skills.

BU Medical Campus employees additionally have access to a variety of mentorship and leadership programs. Through the Early Career and Mid-Career Faculty Leadership programs, faculty participate in peer and senior networking and mentorship, interdisciplinary collaboration, and strategic leadership skills to enhance their career trajectories. A range of programs are offered specifically based on needs identified by women faculty and under-represented racial and ethnic groups in medicine (URG) at BU Medical Campus through the Women's Leadership Program and the URG Leadership Program. Individual career consultations and CV reviews are available to all BU Medical Campus faculty regardless of rank.

The University conducts employment presentations and workshops at social services agencies and attends other similar career events addressing and presenting job search related topics such as resume writing and interviewing skills. As a participant in the Year Up internship program, Boston University hired seven local high school students in 2019 and four students in 2020.

In 2019, Boston University employment professionals attended the following area job fairs:

- Latino Career Expo 2019 at the Marriott Courtyard Boston, sponsored by El Mundo on March 28, 2019.
- Office of Federal Contract Compliance Programs/Massachusetts Rehabilitation Commission Hiring Event at the State Transportation Building at 10 Park Plaza, sponsored by OFCCP – MRC on April 30, 2019.
- Hiring our Heroes – Fenway Park Military Hiring Event at 400 on the Fenway, sponsored by Hiring our Heroes on May 14, 2019.
- Jobs Rebuild Boston Community Conference and Career Fair at the Reggie Lewis Track & Field Center, sponsored by the Urban League of Eastern Massachusetts on June 6, 2019.
- Asian American Peace Officers Conference in the Seaport, sponsored by Asian American Peace Officers Association on August 20, 2019.
- Salary Negotiation Workshop at Goodwill Roxbury, sponsored by the Boston Women's Workforce Council on September 6, 2019.
- Work Without Limits Raise the Bar Hiring Event at Partners Healthcare in Somerville, sponsored by MRC on September 20, 2019.
- Disability Mentoring Day at the Massachusetts State House, sponsored by MRC on October 16, 2019.

Chapter 3

PROGRESS ON THE 2010 INSTITUTIONAL MASTER PLAN

CHAPTER 3: PROGRESS ON THE 2010 INSTITUTIONAL MASTER PLAN

3.1 INTRODUCTION

Substantial progress has been made to advance the goals identified in the 2010 IMP. However, as described in Section 1.2, Institutional Master Plan History, the University did not identify Proposed Institutional Projects (PIPs) in the 2010 IMP. While the majority of the PIPs were related to BMC buildings, the University did incorporate the previously approved Albany Fellows Site, of which two parcels remain to be developed, as a future project. The current status of the previously approved projects, as well as anticipated future projects, are described in the following sections.

3.2 PROGRESS ON PROPOSED BU MEDICAL CAMPUS INSTITUTIONAL PROJECTS

While the majority of the projects identified as PIPs in the 2010 IMP were primarily related to BMC buildings, the 2017 Amendment identified a new PIP to allow for the expansion and renovation of the GSDM on the BU Medical Campus. Progress on the BU Medical Campus Institutional Projects included in the 2010 IMP as amended are described below.

3.2.1 ALBANY FELLOWS

The Albany Fellows site is approximately 1.7 acres consisting of three parcels: Parcel 1 contains approximately 15,324 sf; Parcel 2A contains approximately 38,920 sf; and Parcel 2B contains approximately 20,766 sf. The total approved development program includes 442,800 sf of gross floor area.

In 2012, the University completed a nine story, 102,126 sf building on Parcel 2A, providing 104 housing units for 208 BU Medical Campus graduate students. The building additionally features approximately 12,000 sf of landscaped open space and includes approximately 5,000 sf of ground floor retail space, now occupied by a child-care (daycare) provider.

3.2.2 HENRY M. GOLDMAN SCHOOL OF DENTAL MEDICINE

Through careful consideration, it became evident during the term of the 2010 IMP that only by increasing the size and improving the condition of the existing facility would the School of Dental Medicine be able to achieve the vision outlined in its strategic plan. The 2017 Amendment was submitted to the BPDA in August 2017 to

create a 41,900 gross floor area (GFA) addition and a 53,100 GFA renovation to the existing 84,200 GFA building. The project was approved by the BPDA in October 2017. Construction began in February 2018 and will be completed in May 2021.

The project will provide quality spaces for the GSDM's educational and clinical needs. Instructional space, both classrooms and labs, will increase by 40%. The Simulation Learning Center will be brought into the building from another location and be equipped with state-of-the-art simulators and top-end technologies for teaching and learning.

For patients, the new space will bolster the GSDM's efforts to offer care and an experience on par with the best dental practices. While there is only a minor increase in the number of chairs, from 169 to 175, the clinical area will increase by more than 60%, making treatment environments more comfortable and flexible. Specialized services will now be available in the clinic, rather than distributed on other floors of the building, and will be equipped with the latest digital-dentistry technology.

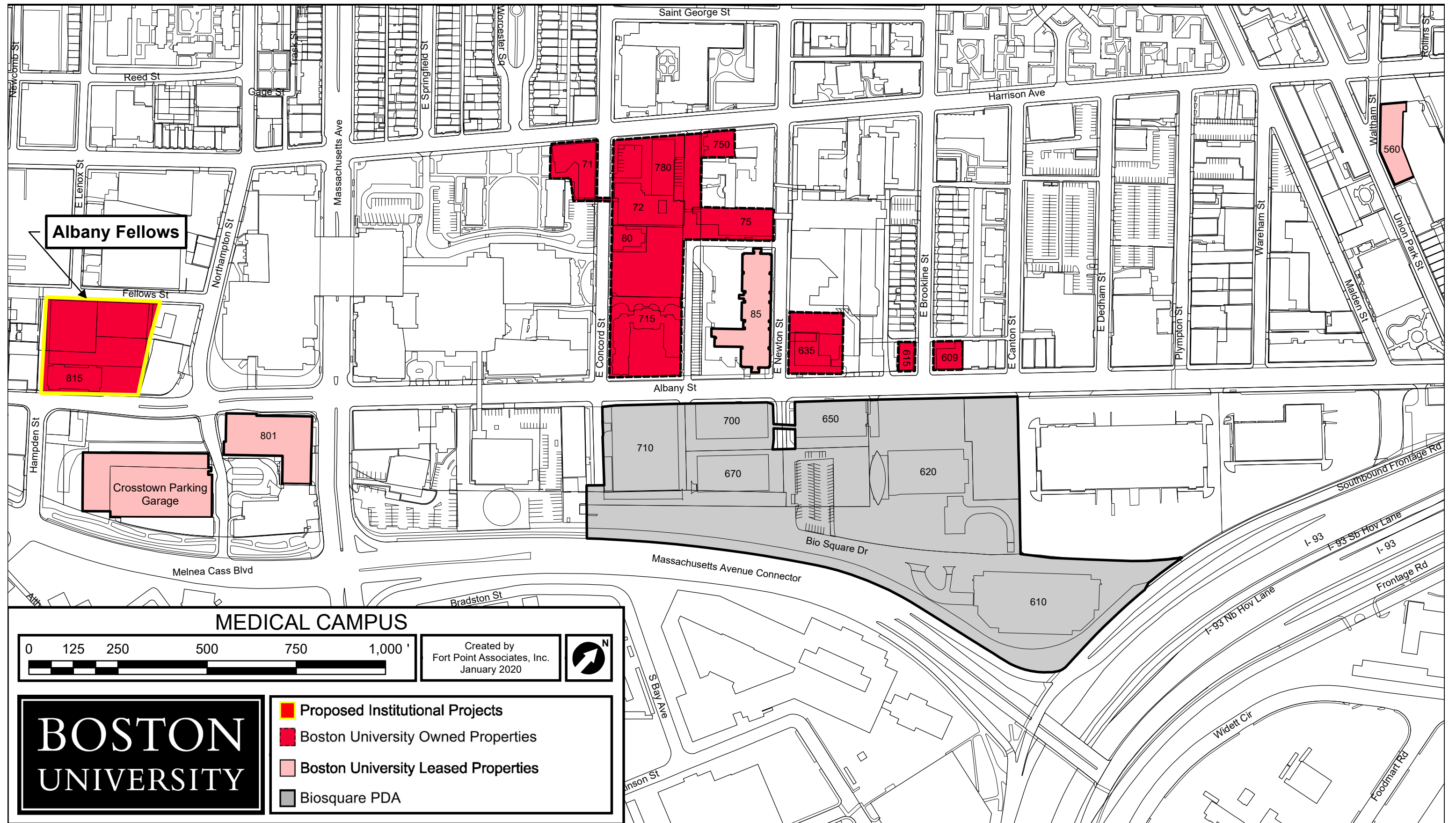
Finally, the project supports the entire GSDM community by providing more collaborative spaces for students and residents to gather, reflect, and relax. Faculty and staff will benefit from improved spaces for teaching and administrative support, along with a layout designed to make interactions with students and patients both easier and more frequent.

3.3 FUTURE PROJECTS

The University has no current plans to advance specific future projects on the BU Medical Campus. Should the desire or need for new PIPs arise, such projects will be described in the 2020-2030 IMP or addressed in future IMP Amendments.

3.3.1 ALBANY FELLOWS

As described in Section 3.2.1, the University has utilized approximately 23% of the approved development capacity on the Albany Fellows site by constructing the 102,106 sf graduate student housing facility. Additional phases of the project will be included as a PIP in the BU Medical Campus IMP. See Figure 3-1, Proposed Institutional Projects.



Chapter 4

EXISTING PROPERTY AND USES

CHAPTER 4: EXISTING PROPERTY AND USES

4.1 OWNERSHIP, LEASED SPACE, AND USES

Land and buildings owned or leased by the University on the BU Medical Campus are listed below in Table 4-1, BU Medical Campus Properties.

Table 4-1, BU Medical Campus Properties

Facility	Principal Uses	Stories	Building Area (GSF)	Land Area (SF)	Own/Lease
815 Albany Street, (Albany Fellows Parcel 2A)	Student Residences/ Commercial	b + 9 + p	102,126	38,920	Own
18-20 Fellows Street (Albany Fellows Parcel 1)	Land	0	0	15,324	Own
16 Fellows Street (Albany Fellows Parcel 2B)	Land	0	0	20,766	Own
609 Albany Street, Dermatology ("J") Building	Academic/ Administrative/ Research	b + 7	35,033	6,567	Own
615 Albany Street, Naval Blood ("N") Building	Academic/ Administrative/ Research	b + 5	20,124	7,350	Jointly Owned with BMC
72 East Concord Street, Medical School Instructional ("L") Building	Academic/ Administrative/ Research	b + 14	228,801	50,012	Own
80 East Concord Street, Medical School ("A") Building	Academic/ Administrative/ Research	b + 5	26,526	40,000	Own
715 Albany Street, Talbot ("T") Building	Administrative/ Academic/Research	b + 5	83,097	41,624	Own
85 East Newton Street, Solomon Carter Fuller Mental Health ("M") Building	Academic/ Administrative/ Research	N/A	43,589	N/A	Lease
75 East Newton Street, Evans ("E") Building	Academic/ Administrative/ Research	b + 8 + p	180,380	25,224	Own
635 Albany Street, Goldman Dental School ("G") Building	Academic/ Administrative/ Clinical/Research	b + 7	144,380 post- renovation	25,490	Own
560 Harrison Ave	Administrative/ Research	N/A	15,144	N/A	Lease

Facility	Principal Uses	Stories	Building Area (GSF)	Land Area (SF)	Own/Lease
750 Harrison Ave, Robinson ("B") Building	Academic/ Administrative/ Research	b + 7	57,486	15,462	Own
780 Harrison Ave, Housman ("R") Building	Academic/ Administrative/ Research	b + 10	123,072	10,103	Own
71 East Concord St, Conte ("K") Building	Academic/ Administrative/ Research	b + 7	82,707	16,649	Own
801 Mass Ave, Crosstown Center	Academic/ Administrative/ Research	N/A	101,114	N/A	Lease
Crosstown Parking	Parking	N/A	N/A*	N/A	Lease

b = basement, p = penthouse

*Boston University leases parking spaces at Crosstown Parking, rather than square footage.

In addition to the properties listed above, students, faculty, and researchers at BU Medical Campus utilize research, academic, and administrative space at the state-of-the-art BioSquare research park. These properties, listed in Table 4-2, University Properties in the BioSquare Research Park PDA, are subject to a separate Planned Development Area (PDA) Master Plan. These properties have been included in this chapter for the purpose of describing the full scope of properties in use by the University on the BU Medical Campus. See Figure 1-2, BU Medical Campus Properties.

Table 4-2, University Properties in the BioSquare Research Park PDA

Facility	Principal Uses	Stories	Building Area (GSF)	Land Area (SF)	Own/Lease
620 Albany Street, NEIDL Building	Research	7	174,706	150,741	Own
700 Albany Street, Center for Advanced Biomedical Research ("W") Building	Academic/ Administrative/ Commercial/ Research	9 + p	200,730	35,178	Own
650 Albany Street, Evans Biomedical Research Center ("X") Building	Academic/ Administrative/ Research	b + 8 + p	196,459	31,872	Jointly Owned with BMC
670 Albany Street	Academic/ Administrative/ Research	8 + p	180,787	33,070	Leased
610 Albany Street	Parking Garage	9	497,342	210,500	Jointly Owned with BMC
710 Albany Street	Parking Garage	6	315,865	81,075	Jointly Owned with BMC

Facility	Principal Uses	Stories	Building Area (GSF)	Land Area (SF)	Own/Lease
630 Albany Street ("E") Parcel	Land	0	0	39,970	Jointly Owned with BMC
600 Albany Street ("G") Parcel	Land	0	0	43,069	Jointly Owned with BMC

4.2 OPEN SPACE

BU Medical Campus offers a network of open spaces featuring various nodes where the campus and community come together. The primary open spaces used by the BU Medical Campus are concentrated in the block between East Newton Street and East Concord Street between Albany Street and Harrison Avenue. In particular, the lawn between the Talbot Building and the BUSM enables multi-purpose programming for campus events and accommodates pedestrians, bicycles, and vehicles. A recreational field is also available at the Medical Student Residence at 815 Albany Street, and improved landscaping will be a feature of the renovated GSDM building.

The BU Medical Campus is bordered by Harrison and Albany Avenues, which are in the process of a City-led redesign to generate streetscape and public realm improvements. Landscaped areas are additionally present in the BioSquare area.

4.3 CAMPUS IMPROVEMENT PROJECTS

At the time of the 2017 Amendment approval, the University made streetscape and lighting improvements to East Newton Street and Albany Street, with a \$60,000 contribution provided to the City to support improvements to the Albany Street corridor, including a protected bicycle lane.

The University seeks to align its PIPs with the vision and goals established in the Final Harrison Albany Corridor Strategic Plan (HACSP). Released by the BRA in 2012 to guide future growth within the area, the HACSP prioritizes improvements to the public realm, roadway network changes to improve multimodal access and circulation, and zoning changes to establish redevelopment standards for building height and density. The University will continue to collaborate with the City of Boston to support projects along Albany Street that align with the HACSP vision for pedestrian realm improvements, thereby contributing to a unified streetscape that will enhance the character of the street.

Chapter 5

TRANSPORTATION AND PARKING

CHAPTER 5: TRANSPORTATION AND PARKING

5.1 INTRODUCTION

BU Medical Campus is located in the South End neighborhood of Boston, with regional vehicular access to the campus via the north and south provided directly from the Massachusetts Avenue Connector (the “Connector”). At Massachusetts Avenue, the Connector joins Melnea Cass Boulevard, which provides a direct connection to the Longwood Medical and Academic Area. Local vehicular access is primarily from Harrison Avenue, Massachusetts Avenue, and Albany Street. East Concord Street and East Newton Street provide connections from the primary campus parking facilities (the 710 Albany Street and 610 Albany Street garages) to other facilities within the campus.

5.2 PEDESTRIAN ACCOMMODATIONS

With its clinical and academic functions, BU Medical Campus generates a significant number of pedestrian trips throughout the area, including trips along and across many City streets and campus paths. In general, sidewalks are provided along all roadways throughout the BU Medical Campus and are in good condition. Most sidewalks are 8–10 feet wide. Crosswalks are provided at all intersections. Pedestrian signal equipment is provided at the signalized study area intersections.

5.3 BICYCLE ACCOMMODATIONS

The existing pathways along Melnea Cass Boulevard (South Bay Harbor Trail) and the Southwest Corridor Park provide bicycle access to and from the medical area. The City of Boston has created marked bike lanes and marked shared-travel bike lanes on Massachusetts Avenue and Albany Street. Albany Street, Massachusetts Avenue, Harrison Avenue, and East Newton Street are generally considered on-street bicycle routes in this area. In addition, the South Bay Harbor Trail connects from Albany Street to the South Boston Waterfront and provides an off-road route to and from the north of the medical area.

Through its membership in TranSComm (Transportation Solutions for Commuters, Inc.) – a transportation management association incorporated in 1991 to serve the lower South End neighborhood – the University provides a secure bicycle cage with ID access, bicycle racks throughout the campus, subsidized Bluebikes memberships, discounted bike helmets, free bike lights, and other promotional activities for bicycling.

5.4 BICYCLE, MOTORCYCLE, AND MOTOR SCOOTER PARKING

Bicycles must be parked in a bicycle rack or cage and are not allowed in any buildings on the BU Medical Campus. TranSComm offers sheltered and secured bicycle parking in one bike cage with 240 spaces located behind the 710 Albany Street Garage. Currently, 250 cyclists are registered to use this bike cage. Users pay a \$20 annual fee to TranSComm for use of the bike cage.

Motorcycles and motor scooters are not permitted inside campus or hospital buildings. Motorcycles and motor scooters must be registered with the BU Parking and Transportation Services (PTS) office and parked in one of the motorcycle-designated parking areas in the parking facility. Motorcycles and gas-powered scooters are not permitted at bicycle racks adjacent to buildings.

Parking for four gas-powered scooters is provided in the 610 Albany Street Garage. Electric-powered scooters can be parked in the bike cage located behind the 710 Albany Street garage. Gas-powered scooters are required to have a sticker issued by TranSComm for use of storage racks at 610 Albany Garage. The current fee for this sticker, as well as the parking fee for electric scooters, is \$20 per year.

5.5 PUBLIC TRANSPORTATION

Several public transportation services are offered through the BU Medical Campus area, including MBTA bus service, Silver Line, and Commuter Rail Service, as well as TranSComm Shuttle Services.

5.5.1 MBTA SERVICES

Five MBTA bus routes currently provide public transit service to the BU Medical Campus area. Major bus stops with shelters are located on East Newton Street, East Concord Street, Albany Street, Massachusetts Avenue, and Harrison Avenue.

Boston's first Bus Rapid Transit service, the "Silver Line," has two routes within a quarter-mile walk from the campus on Washington Street at East Newton Street: SL4 and SL5. Both routes have a terminal at Dudley Square, with the SL4 continuing to South Station and the SL5 to Downtown Crossing.

The closest existing MBTA Commuter Rail stations are found at Back Bay Station and NewMarket Station, both approximately one mile from the BU Medical Campus area. South Station and Ruggles Station, which also offer commuter rail services, are located approximately 1.5 miles from the area. Back Bay, Ruggles, and South stations offer other services in addition to the commuter rail: Back Bay and Ruggles stations have access to the Subway Orange Line, and South Station allows access to the Subway Red Line and bus services. The closest subway stops are Andrew and Broadway (Red

Line) and Massachusetts Avenue (Orange Line). Each is approximately one mile from the BU Medical Campus.

MBTA services located at the Medical Campus are summarized in Table 5-1.

Table 5-1, MBTA Bus Service and Silver Line Bus Rapid Transit

Bus Route	Origin–Destination	Rush-hour Frequency (min)
CT #3	Beth Israel Hospital or BU Medical Campus–Andrew Station	20
1	Harvard Square - Dudley	9-10
8	Harbor Point/UMass–Kenmore	15–30
10	City Point–Copley Square	20-30
47	Central Square (Cambridge)–Broadway Station	10-15
SL4	Dudley Station–South Station	9-12
SL5	Dudley Station–Downtown Crossing	8

Sources: www.mbt.com, 2019 System Map

5.5.2 TRANSCOMM SHUTTLE SERVICES

TransComm provides frequent and accessible shuttle transportation to the BU Medical Campus community and provides information on transportation services in the area. Schedules are readily available at: www.bumc.bu.edu/transcomm/shuttle-buses. The BU Medical Campus community has access to the following shuttles free of charge:

- VA Shuttles for employees and students traveling from Boston Veterans Administration Hospital in Jamaica Plain to BU Medical Campus and BMC;
- Evening Transit “T” Shuttle operates Monday through Friday on request from a central stop at 710 Albany Street to MBTA subway stations at Broadway, Ruggles, Back Bay, and Copley stations, nearby South End neighborhood locations within a mile radius, and BU Medical Campus parking lots and garages; and
- The Boston University Shuttle (BUS) operates a free shuttle service that connects the Charles River Campus to the BU Medical Campus and provides service to the BU students and faculties of both campuses. The BUS operates on weekdays every 10 minutes and Saturdays every 30 minutes on a loop between 33 Harry Agganis Way and 710 Albany Street.

5.6 BIKE SHARING SERVICES

BU Medical Campus is located in close proximity to bicycle sharing locations. Bluebikes, formerly known as Hubway, is Metro Boston's public bike share program. Hubway was launched in 2011, and the name was changed to Bluebikes in the Spring of 2018. Bluebikes now consists of more than 2,500 bikes at over 260 stations across Boston, Brookline, Cambridge, Somerville, and Everett.

Four Bluebikes stations are located within the BU Medical Campus area. The location of the Bluebikes stations are listed below.

- Boston Medical Center – E. Concord St. at Harrison Ave (19 docks);
- Albany St. at E. Brookline St. (13 docks);
- Washington St. at Rutland St. (21 docks); and
- Washington St. at Lenox St. (13 docks).

As a "Bronze Sponsor" of Bluebikes, TranSComm provides discounted and subsidized Bluebikes memberships for all BU Medical Campus employees and students. With the discount/subsidy, an annual membership is \$52.50 (normally \$99.00) and entitles members to unlimited Bluebikes trips up to 45 minutes in duration.

5.7 PARKING

BU Medical Campus is served by approximately 2,742 spaces in 3 garages and 3 surface lots. Approximately 24 of these spaces are owned by the University, 2,516 spaces are owned in partnership with BMC, and 202 spaces are leased. Most parking (2,638 spaces) is provided in on-site garages.

On-street parking in the quarter-mile surrounding BU Medical Campus consists primarily of metered and resident permit parking only (See Figure 5-1, On-Street Parking Supply). Several areas around the campus are restricted to MBTA bus stops and loading zones. Table 5-2, Parking Facilities, and Figure 5-2, Off-Street Parking Supply, provide an overview of the ownership of off-street parking facilities.

Table 5-2, Parking Facilities

Address	Number of Parking Spaces	Ownership
610 Albany Street (Biosquare)	1,400	Jointly Owned with BMC
650 Albany Street (Biosquare)	80	Jointly Owned with BMC
710 Albany Street (Biosquare)	1,036	Jointly Owned with BMC
72 East Concord Street	22	Own
1 Evans Way	2	Own
801 Massachusetts Avenue	202	Lease
TOTAL	2,742	

Sources: BU Parking and Transportation Services (PTS)

The University's history of strong transportation demand management, in addition to a city-wide decline in parking availability and rise in parking fees, has contributed to a steady decrease in parking demand. By encouraging employees and students to change their commuting habits and incorporate alternative modes of transportation, the University has been able to preserve its most convenient parking spaces at the BU Medical Campus for patients and visitors. The University will work to strategically manage parking stock and address efforts to decrease demand through measures such as:

- Increasing fees to single occupant, employee parkers;
- Coordinating with City and State agencies to implement pedestrian improvements and bicycle connections;
- Continuing incentives for use of non-single occupancy vehicle (SOV) transportation modes; and
- Continuing to provide alternative mode choices to users of BU Medical Campus facilities.

5.7.1 BOSTON UNIVERSITY RECIPROCAL PARKING

Boston University's Charles River Campus (CRC) and Medical Campus have a reciprocal parking arrangement that allows faculty and staff based on one campus to park their vehicles in designated areas on the opposite (non-home-based) campus, provided they hold one of the applicable permit types provided by BU. The reciprocal parking agreement does not allow unlimited parking or overnight parking on the opposite campus and limits use to a maximum of three times per week per user. BU Medical Campus permit holders can use reciprocal parking benefits at the attended CRC parking facilities, and CRC permit holders can use the benefit at the 710 Albany Street Garage.

5.7.2 CAR SHARING SERVICES

Nearby car sharing services at the BU Medical Campus enable easy access to short-term vehicular transportation and reduce the need for private vehicle ownership. Vehicles are rented on an hourly or daily basis, and all vehicle costs (gas, maintenance, insurance, and parking) are included in the rental fee. Vehicles are given a designated location for pick-up and drop-off, which are typically located in existing parking lots or other parking areas throughout neighborhoods as a convenience to users of the services. There are currently four Zipcar locations on or near the BU Medical Campus. Two to three cars are available at each location.

5.8 TRANSPORTATION DEMAND MANAGEMENT

TransComm and the University have won several awards in recent years for their efforts to sustainably manage transportation demand, including the 2016 Mayor’s Silver Award for Bike Friendly Business, a Bicycle Friendly University Award from The League of American Bicyclists, and the “Pinnacle Award” for the Massachusetts Excellence in Commuter Options (ECO Awards).

Due to the TDM efforts, existing employees and students at BU Medical Campus have an SOV mode use rate of 23%. This is notably lower than the BTM SOV mode share rate of 28% for the South End and reflects the strong transportation demand management program in effect. The remaining BU Medical Campus mode splits further emphasize the TDM program’s effectiveness at promoting alternatives to SOV use and are summarized in Table 5-3.

Table 5-3, BU Medical Campus Mode Shares

Primary Travel Mode	Percent by Mode
Drive Alone (SOV)	23%
Commuter Rail	12%
Subway	21%
Bus (MBTA)	14%
Bus (Private)	1%
Carpool	3%
Walk	8%
Bike	9%
Other	9%
TOTAL	100%

Source: 2018 DEP Rideshare Reporting for BU Medical Campus

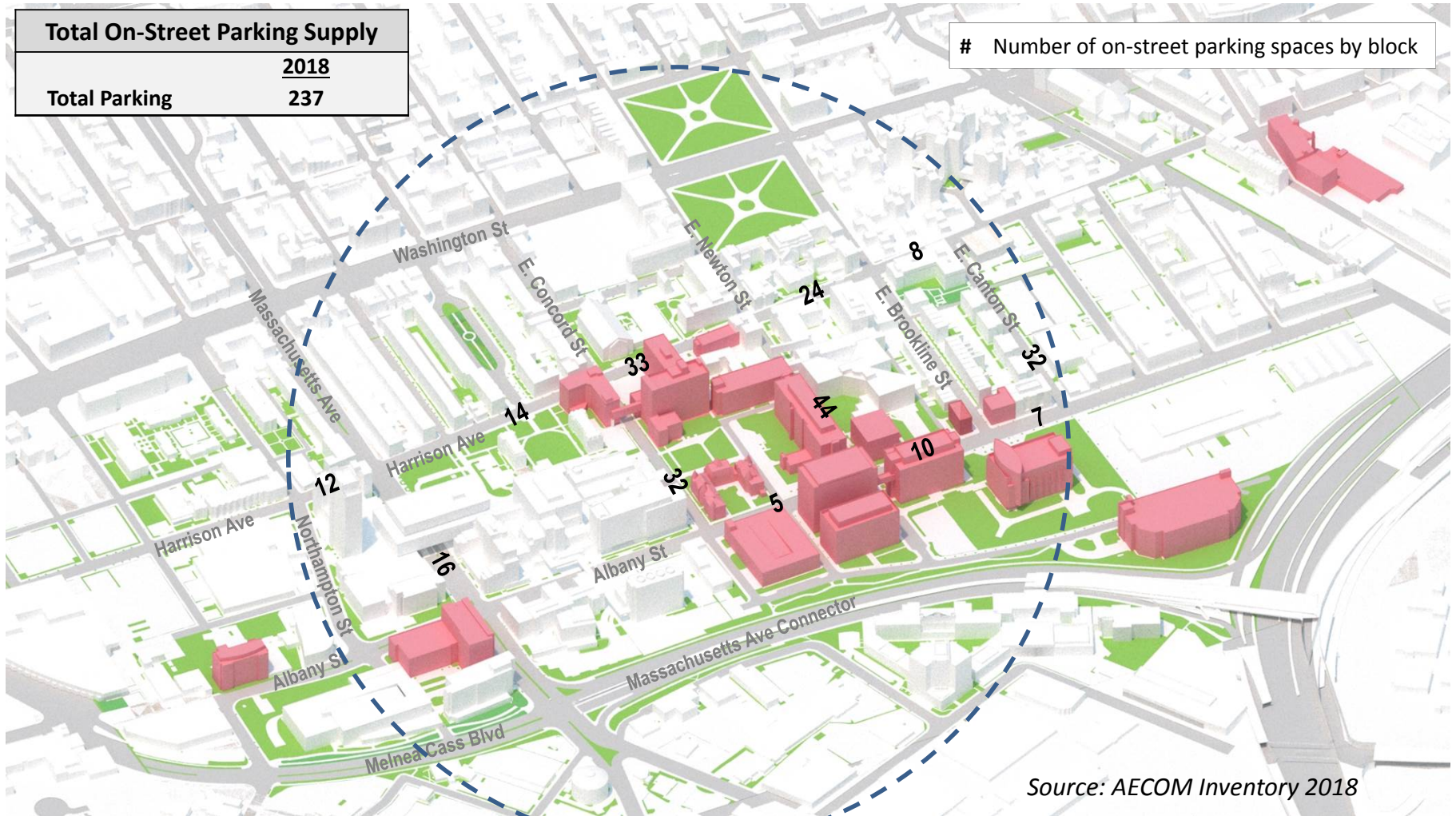
Through TransComm, the University will continue to encourage and assist its employees and students, as well as patients and visitors, to use many of the demand management and trip reduction programs offered at the BU Medical Campus:

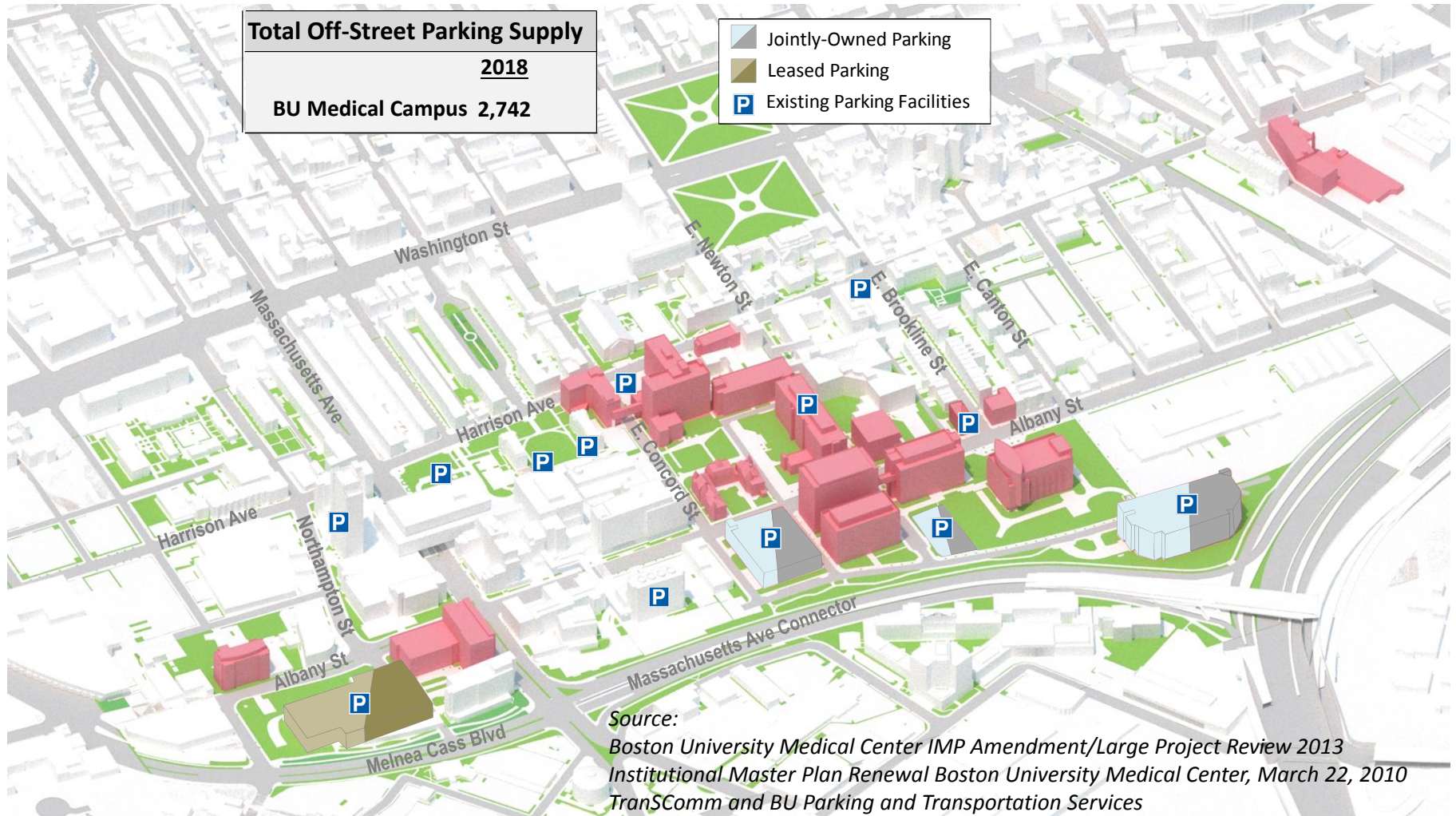
- Boston University students can enroll in the 11% discounted MBTA's semester pass program through TranSComm.
- Full-time University employees who work at the BU Medical Campus and do not currently have parking permits may sign up for a monthly MBTA pass pre-tax and a 50% transit subsidy program through payroll deduction. BU Medical Campus employees who order an MBTA pass through BU Medical Campus are eligible for pre-tax parking benefits when parking at MBTA transit stations. Employees can set aside up to \$132.50 pre-tax dollars per month from their paycheck and the University will match the employee election dollar-for-dollar.
- MBTA and shuttle schedules are posted in transportation kiosks in all three schools of the BU Medical Campus (BUSM, GSDM, and the BUSPH).
- On-line transit and rideshare information is provided on the TranSComm Website: <http://www.bumc.bu.edu/transcomm/>
- Transit rider "Reading & Riding Library," Lending Umbrellas, and Bike Locks programs are provided for commuters in the TranSComm office through the Borrowed Belongings Program.
- TranSComm works with the MBTA and BTD to improve bus service, wayfinding, and pedestrian safety around the campus.
- TranSComm works with Vision Zero Boston to improve traffic safety.
- TranSComm provides discounted \$5 bike helmets and free bike lights at its office to promote bicycle safety.
- Staff and students at the BU Medical Campus have access to four free shuttle services:
 - VA/Medical Center Shuttle;
 - Evening Shuttle to T stations and neighborhoods within one mile;
 - Boston University Shuttle (the BUS), a ten-minute weekday service and thirty-minute Saturday service; and
 - 610 – 710 Albany Street Shuttle, which makes a loop between the two employee parking garages for 4 hours in AM (5-9 AM) and PM (4-8 PM).
- Since June 2007, preferential parking has been provided for Vanpool, Carpool, and Hybrid/Electric Vehicle program participants on the first level of the 610 Albany Garage.

- TranSComm launched a new Emergency Ride Home (ERH) program for vanpoolers, carpoolers, and MBTA pass program participants in 2016, ensuring that vanpool, carpoolers, and transit users will have a ride home in case of emergency.
- TranSComm participates in the Bay State Commute program, a free website and tool provided by MassDOT to reward travelers for taking “green” trips – i.e. walk, bike, telecommute, carpool, vanpool, subway, train, bus, or ferry trips, or even working a compressed week:
 - Travelers log their transit, bus, or walk trips to work on the website and are rewarded with discounts to stores, restaurants, entertainment, etc. Bay State Commute also serves as the Commonwealth’s rideshare database for finding vanpool and carpool partners. (Bay State Commute is currently being replaced by a more sophisticated trip tracking and ride matching reward system built by Ride Amigos.)
- Gas-powered scooter parking for four scooters is provided in the 610 Albany Street Garage bike racks. Electric-powered scooters can be parked in the bike cages located behind the 710 Albany Street garage.
- TranSComm offers sheltered and secured bicycle parking at a secured bike cage. There are approximately 250 cyclists registered to use this cage.
- TranSComm participates in and organizes the Annual MassCommute Bike Challenge Week, a free Cyclists’ Luncheon, free Bike Safety Checkups and Workshops, and free Cyclists’ Breakfasts.
- TranSComm offers a bicycle commuter reimbursement benefit to University employees. Eligible faculty and staff may claim a \$25 reimbursement each “qualified bicycle-commuting month” (up to \$300 per calendar year) for expenses related to commuting by bicycle to and from BU Medical Campus.
- The University provides a student discount for an on-site car-sharing service (Zipcar) with two dedicated parking spaces for shared-use vehicles on the BU Medical Campus. Additional shared-use vehicles are available at three locations within two blocks of the BU Medical Campus.
- In early 2017, four dual 240-volts stations were installed in the 610 Albany Street garage. TranSComm also received funding to install and upgrade four dual 240-volt electric vehicle (EV) charging stations on the ground floor of the 710 Albany Street Garage in December 2016. Each station can accommodate two vehicles for a total of eight in each garage. In both 610 and 710 Albany Garages, the BMC/BU Medical Campus community can charge vehicles by paying \$0.25 per hour for the first four hours and by paying \$6 per hour after the four hours of charging. The stations are also

used by patients and visitors at the 710 garage. The public can use the charging stations by paying hourly parking rates to gain access to the 710 Albany parking garage.

- In 2014, TranSComm entered into Bluebikes (formerly known as Hubway) Corporate Partner program at bronze level and now offers a discounted rate at \$52.50 (regular rate \$99) per year for employees and students who sign up for Bluebikes Corporate Membership.
- The University, through TranSComm, holds events to encourage its BU Medical Campus employees and students to use the alternative commuter transportation system. TranSComm also contributes a column in the MassCommute newsletters.





Chapter 6

SUSTAINABILITY

CHAPTER 6: SUSTAINABILITY

6.1 INTRODUCTION

Approved by the Boston University Board of Trustees in December 2017, Boston University's Climate Action Plan (the "Plan"), which applies to both the Charles River and Medical Campuses, has five major commitments:

- Prepare the University for the impacts from climate change that can no longer be avoided,
- Reduce greenhouse gas emissions to operate the University to net zero by 2040,
- Develop a plan to reduce indirect emissions,
- Integrate climate change into the University's education and research mission and,
- Integrate the Climate Action Plan with the University's Strategic Plan.

While the Plan is specific to Boston University, it was developed in the context that climate change is a global problem that extends beyond the University's campuses. Implementing the Plan will elevate the University's position as a leader by addressing the challenges of climate change in its educational programs, research, operations, finance, and community engagement. Specific goals include:

- Reduce building energy use 31% by 2032, including growth,
- Match 100% of electrical demand with renewables beginning in 2020 through a power purchase agreement for wind power in South Dakota (the project is now under construction), and
- Shift to fossil fuel free heating and cooling.

Calendar Year 2018 was a pivotal year for the University's sustainability efforts, kicking off the implementation of the University's Plan. The year's work provided the foundation to position the University as a leader in climate action and sustainability by building capacity to implement, manage, engage, and communicate around the Plan.

Boston University's Sustainability Program comprises a broad range of stakeholder groups throughout the University's campuses to provide a diversity of representation and opinion. The program is administered by *sustainability@BU*, whose mission is to lead the University in a more sustainable direction and integrate sustainability into the culture and structure of Boston University. Through this effort, the University will reduce its use of natural

resources, strategically manage operating costs, and improve environmental and social impacts. Engagement efforts include a long-standing monthly communications campaign, a robust student internship program, staff and faculty Sustainability Liaisons, student organizations, Green Office Certification, Move In waste diversion program, Goodwill Not Landfill Move Out donation program, the Sustainability Festival, Earth Week+, and the *sustainability@BU* mobile app. As detailed in the Plan, the University has already made significant progress in reducing CO₂ emissions and energy use, as well as reductions in water use and wastewater generation, an overall reduction in waste generation coupled with an increased recycling rate, and almost 100% use of green cleaning products.

Operational efforts are primarily focused on seven key areas: Energy Conservation, Climate Action Planning, Green Building Design, Zero Waste Planning, Community Engagement, Communications, Food, and Transportation. Specific sustainability efforts as they relate to the Medical Campus are described in Section 6.2.

6.2 SUSTAINABILITY AT THE BU MEDICAL CAMPUS

At the BU Medical Campus, *sustainability@BU* implements the above programming as well as a polystyrene recycling program to address the volume of foam coolers generated by the labs. Even before *sustainability@BU* existed, the Medical Campus had coalesced a Sustainability Committee (the “Committee”) that was tasked with identifying, communicating, and promoting best practices in energy reduction measures, waste management, and sustainability at BU Medical Campus. The Committee’s work is now part of *sustainability@BU*, whereby many of the most dedicated employees from the Committee now serve as Sustainability Liaisons.

Sustainability Liaisons represent every school and college. They meet quarterly with *sustainability@BU* to improve communication on campus sustainability issues, discuss potential projects within individual schools, and share challenges, solutions, and successes. They also facilitate the main outreach and education effort with faculty and staff, known as the Green Office Certification program. Through a partnership between *sustainability@BU*, Sustainability Liaisons, and Facilities Management and Operations, the Trash Buddy waste reduction program has been implemented in all offices on the Charles River Campus and is underway at the Medical Campus.

The Climate Action Plan Task Force established for the 2017 Climate Action Plan was broken into working groups that presented the University’s priorities and challenges in early 2017 at public forums on both the Charles River and the Medical Campuses. *sustainability@BU* oversees the direction, development, and implementation of sustainable programs and policies throughout both campuses as one Boston University program.

6.2.1 SUSTAINABLE TRANSPORTATION

The University has worked both as an individual institution and through TransComm to reduce the number of drive-alone trips to the medical area and to promote sustainable transportation modes at the BU Medical Campus. As described in Chapter 5, Transportation, these efforts have resulted in a significantly lower auto use than the BTD mode share rates at 23% (as compared to 28%). Through TransComm and its own efforts, the University will continue programs to encourage transportation demand management and improve transportation-related sustainability on its campus, including:

- Discounted MBTA semester passes for students and a 50% transit subsidy program through payroll deduction for full-time employees;
- Ample, secure bicycle storage;
- Bicycle commuter reimbursement and free safety workshops and events;
- Electric car charging stations; and
- Preferential parking for vanpool, carpool, and hybrid/electric vehicle program participants.

Throughout the term of the IMP, the University, through the Article 80 Large Project review process, will carefully evaluate the impact of any new buildings on the existing transportation network and seek to mitigate any undue impacts at BU Medical Campus. The University will continue to coordinate with the City of Boston on the Harrison-Albany Corridor Strategic Plan to carefully guide future growth and improve roadway network conditions.

6.3 LEED GOLD CERTIFICATION

The University began Leadership in Energy and Environmental Design (LEED) certification for major projects in 2008 and has over 1,000,000 square feet of LEED certified space to date, 92% of which has achieved LEED Gold. LEED certification provides a process and system that integrates sustainable design strategies to support the Plan's objectives and bring the Plan to fruition. The Plan established the following LEED criteria:

- LEED Gold minimum (while striving for Platinum) for new construction and major building renovations over 5,000 sf or \$10 million;
- LEED Gold for renovations and interior projects over 5,000 sf or \$2.5 million;

- Seek design firms and construction companies with deep experience in green building certification and measured energy performance showing a successful track record of meeting or exceeding the Architecture 2030 Challenge;
- Provide staff training and occupant education on building systems to enable high performance buildings to operate at their potential; and
- Explore and pilot Zero Net Energy certification by 2025.

Designed before the Plan was approved, the GSDM Renovation and Expansion, currently under construction, is targeting a LEED Silver certification. The project involves materials specifically chosen for their high solar reflectance index, reduction of indoor and outdoor water use, and relocation of critical power equipment to the roof penthouse in anticipation of future flood events. Although a number of challenges exist for the energy-intensive uses of the building and the renovation of a cast in place concrete structure, the University seeks to reduce energy use and provide roof area for photovoltaic panels where possible.

6.4 BU WIND

In 2018, the University executed a Power Purchase Agreement (PPA) for a wind project in South Dakota to match 100% of the University's electricity demand. The project is designed to generate an average of 205,000 MWh of electricity each year from 48.6 MWs of generation capacity. This represents approximately 20 wind turbines and will provide a 53% reduction in Boston University's carbon footprint for campus operations beginning in 2020 when the project comes online.

The University has additionally hosted several workshops on large-scale renewable energy purchasing to enable other institutions and organizations to accelerate their own procurement processes. These workshops have been conducted in collaboration with the Boston Green Ribbon Commission and the Association for the Advancement of Sustainability in Higher Education (AASHE).

6.5 SOLAR INITIATIVE

The University has engaged solar energy and structural engineers to conduct a campus-wide solar feasibility study. The study, which is expected to be completed in late 2020, is exploring a total of 29 buildings and sites across all the University's three campuses. With a maximum potential installed generation capacity of approximately 2.3 MW, it is the University's intention to aggregate these projects into a PPA.

6.6 GROUNDWATER RECHARGE

Portions of the University's campus sit within the Groundwater Conservation Overlay District. The University has worked with the City to ensure that groundwater levels are

maintained where its properties are protected by the district. Groundwater recharge is also incorporated in all new major construction projects through environmentally sensitive site design and best practices in stormwater management.

6.7 CITY OF BOSTON PROGRAMS

The University participates in several programs that are advanced by the City. These include:

- Green Ribbon Commission: Boston University has been a member and supporter of the City of Boston's Green Ribbon Commission since its inception. President Brown sits on the Green Ribbon Commission and the Carbon Free Boston Working Group. The University is also actively participating in the Commission's Higher Ed Working Group, a collaborative body of Boston area academic institutions convening around emerging and best practices on energy efficiency, large scale renewables procurement, climate preparedness, green labs, etc.
- Carbon Free Boston: Boston University's Institute for Sustainable Energy developed the process and implemented the analysis and reporting for Carbon Free Boston to help the City understand the policies and programs that need to be put in place if the City is going to meet its goal to be carbon free by 2050.
- Zero Waste Advisory Committee: The University participated in the City of Boston's Zero Waste Advisory Committee to make recommendations for nineteen Zero Waste options for implementation in the short-, medium- and long-term.

Chapter 7

PUBLIC AND COMMUNITY BENEFITS

CHAPTER 7: PUBLIC AND COMMUNITY BENEFITS

7.1 INTRODUCTION TO COMMUNITY BENEFITS

While renowned for its quality of teaching and research, and for providing education and training aligned with the most current thinking and techniques in the field, the BU Medical Campus prides itself on a legacy of service to the community, particularly service to the most disadvantaged, underserved, and indigent populations.

Utilizing resources provided by BU Medical Campus administration, each of its three schools offers a wide variety of community programs, resources, and services related to their respective concentrations and specialties. In addition to these University-sponsored community programs, BU Medical Campus plays an important role in the economic vitality of both the city and the state, attracting and training a diverse group of more than 3,400 students, and employing more than 1,400 full-time equivalent faculty members, many of whom are leading experts in their fields. Beyond its direct employment impact, BU Medical Campus creates and supports more than 6,400 jobs and generates approximately \$700 million in economic impact in Massachusetts each year.

7.2 A TRADITION OF COMMUNITY SERVICE

Over a hundred years ago, Boston University's third president described the University as an institution "in the heart of the city, in the service of the city." This description rings truer today than ever, and it serves as the basis for Boston University's extensive and ever-growing array of community benefits and services.

In addition to the University's status as the long-standing leader in PILOT (payment in lieu of taxes) contributions to the City of Boston each year – totaling \$6.3 in FY19 – the University's signature community benefit is its Boston Scholars Program. A multi-faceted scholarship program benefitting graduates of Boston Public Schools (BPS), it includes the Thomas M. Menino Scholarship Program and the Community Service Scholarship Program and is the largest and longest-running program of its kind in the country.

7.2.1 THOMAS M. MENINO SCHOLARSHIP PROGRAM

The Thomas M. Menino Scholarship Program was previously known as the Boston High School Scholarship Program and was renamed for Mayor Tom Menino in June 2013 to celebrate the late Mayor's involvement in the program and his passion for education. The Menino Scholarship Program is the longest-running and largest scholarship program of its kind. Each year, 25 or more exceptional Boston Public

High School seniors are awarded four-year, full-tuition merit scholarships to Boston University. Since the program's inception in 1973, nearly 2,000 students have received more than \$170 million in full-tuition scholarship funding.

7.2.2 BOSTON UNIVERSITY COMMUNITY SERVICE SCHOLARSHIP PROGRAM

In 2009, in an effort to further expand scholarship opportunities for local students, the University committed to meeting the full financial need (without loans) of any Boston Public School graduate admitted to Boston University through the creation of the Community Service Scholarship. The Boston University Community Service Scholars constitute the only cohort of students anywhere for which the University makes this uncapped, no-loan commitment of financial aid. Since the program's inception in 2009, over 500 BPS students have received more than \$60 million in scholarship funding.

7.2.3 SCHOLARSHIP PROGRAM EXPANSION – BPS TRANSFER STUDENTS

In December 2017, Mayor Martin Walsh and Boston University announced the expansion of its Community Service Scholarship program, which had previously been limited to incoming freshman, to include incoming transfer students who are BPS high school graduates beginning in the fall semester of 2017. All transfer students who graduated from a Boston Public High School are eligible, including those who have attended a two-year community college program and are looking to transfer to a four-year institution. This expansion builds on Mayor Walsh's commitment to expanding higher education opportunities for all BPS students.

7.3 COMMUNITY PROGRAMS

Beyond these signature institutional community benefits programs, the BU Medical Campus' longstanding tradition of community service has led to the development of programs and services that are now fixtures within the community. These programs, which continue to thrive under BU Medical Campus' long-term support and investment, have become dependable sources of care and information for community members.

7.3.1 SMART SMILES IN BOSTON PUBLIC SCHOOLS

Since 2004, GSDM, through its Smart Smiles in Boston Public Schools program, has provided dental health education, oral screenings, fluoride varnish applications, and dental sealants to thousands of children in 31 Boston public elementary schools, including: Beethoven, Boston Teachers Union, Clap, Conley, Dudley Charter, EDCO Youth Alternative, English High, Everett, Grew, Hale, Haley, Henderson Lower, Higginson-Lewis, Holmes, Hurley, Kilmer Lower, Kilmer Upper, Lyndon, Mason, McKay, McCormack Middle School, Mission Hill, Mozart, Orchard Gardens, Perkins, Roosevelt Lower, Roosevelt Upper, Sumner, Trotter, Winthrop, and Young Achievers.

7.3.2 ALZHEIMER'S DISEASE CENTER

The Alzheimer's Disease Center is one of 31 federally funded Alzheimer's Disease Centers nationwide. Its goal is to help reduce the human and economic costs associated with Alzheimer's disease through the advancement of knowledge. The center provides educational and clinical resources to patients, aging control subjects, and caregivers while charting the course of the disease and age-related changes in the research groups followed by the center. In addition, the center provides state-of-the-art diagnostic services and a collection of well-prepared brain material appropriate for the research requirements of local and national research efforts.

7.3.3 BOSTON UNIVERSITY ARTHRITIS CENTER

Boston University Arthritis Center is an internationally recognized center in research, patient care, and education. The Center was established in 1983 to advance basic, clinical, and epidemiological research in rheumatology and to translate laboratory findings into new therapeutic strategies. The Center unifies extensive basic, translational, and clinical research; medical education; and patient care. Arthritis Center faculty include those in general rheumatology and within focused programs in scleroderma, vasculitis, and clinical epidemiology. The University's multidisciplinary programs in scleroderma and vasculitis are highly integrated with experts in many specialties, including those in pulmonary/pulmonary hypertension. Clinical care is provided in state-of-the-art out and in-patient facilities. The Center's clinical research teams have been at the forefront of developing new approaches to study and test new treatments for scleroderma, osteoarthritis, vasculitis and other autoimmune disorders.

7.3.4 BOSTON UNIVERSITY AREA HEALTH EDUCATION CENTER

Since 1978, the Boston University Area Health Education Center (BU AHEC) has sought to foster an interest in primary care careers for medical students and residents, and to support the practice and teaching of primary care medicine in the community. The center works to increase the training of medical students in community-based practices and has developed many office practices of family physicians as teaching sites, established the Tufts Family Medicine Residency Program, and built the framework for the new Department of Family Medicine at BUSM. Additionally, the BU AHEC is one of eight Regional AHECs around Massachusetts that supports the entry of minority youth into health careers and interpreter training and offers continuing education programs for health professionals.

7.3.5 BOSTON UNIVERSITY GERIATRIC SERVICES

Sponsored jointly by BUSM and BMC, this program is the oldest continuously operating home-medical service in the United States. Boston University Geriatric

Services provides an array of health services for Boston's elderly, including medical care for patients in their own homes. The program makes approximately 5,000 home visits to 800 elders each year, thus enabling many patients who would otherwise require placement in nursing homes to remain independent. No patient is ever denied service for lack of ability to pay. Since 1875, physicians and medical students have been delivering healthcare to patients in their homes, where they feel most comfortable.

7.3.6 BOSTON HEALTHCARE FOR THE HOMELESS PROJECT

The BUSPH, along with BMC, assists the Boston Health Care for the Homeless Program in the development of methods to improve strategic planning, especially for funding. Department faculty assist with developing data on the use of sub-acute medical care provided to Boston's homeless population at the program's two respite centers in Boston. The School of Public Health assists by gathering data and demonstrating how the utilization of these respite centers reduces hospital admissions, readmissions, and emergency utilization, thereby impacting the costs of care.

7.3.7 REFUGEE AND IMMIGRANT HEALTH PROGRAM

Since 1996, the Refugee and Immigrant Health Program, a joint project of BUSM, BUSPH, BMC, and Global Lawyers and Physicians, has actively cared for the medical, psychological, legal, and social needs of over 500 clients from over 50 countries annually. The multidisciplinary program provides services for refugees and survivors of torture and related trauma who currently live in the Boston area. These services include: primary health care, mental health services, referrals for medical specialties, neuropsychiatric evaluation, dental evaluations, physical therapy, referral and consultation for legal services, social services, English classes, creative therapies, and vocational rehabilitation. The program also offers a clothing bank, access to the BMC Food Pantry, and ethnic community support groups.

7.3.8 FRAMINGHAM HEART STUDY

Undertaken in 1948, the renowned Framingham Heart Study is the longest-running prospective epidemiological study in history. The study has produced important discoveries related to the major risk factors associated with cardiovascular disease, which is the leading cause of death and serious illness in the United States. The study is run in partnership with the BUSPH and the BUSM.

7.3.9 BLACK WOMEN'S HEALTH STUDY

The Black Women's Health Study is the largest follow-up study on the health of African American women. Since 1995, the study's main aim has been to identify the

causes of cancer and the factors that contribute to the disproportionate impact that many illnesses, including hypertension, breast cancer at young ages, diabetes, stroke, and lupus have on black women.

7.3.10 BOSTON UNIVERSITY SCHOOL OF PUBLIC HEALTH STUDENT PRACTICUM

The BUSPH Office of Public Health Practice facilitates connections between BUSPH, local practice partners, and the national and international public health community in order to promote sound public health practice. BUSPH students participate in a practicum, which allows them to integrate and apply classroom learning in a public health work environment. Students devote hundreds of hours working at local public health agencies contributing to solutions to public health problems and developing practical skills and personal confidence as public health professionals. These local partnerships foster collaboration between Boston University and neighboring communities and provide students with important opportunities for professional growth through service to their community.

7.4 ANNUAL PROPERTY TAXES/PILOT

Although much of the BU Medical Campus property is tax-exempt, the University contributes annually to the City of Boston's Payment in Lieu of Taxes (PILOT) Program. Since 2013, Boston University has paid nearly \$35 million in real estate property taxes and linkage payments to the City of Boston and over \$42 million in lieu of taxes for its three campuses.

Table 7-1, Real Estate Tax and PILOT Payments

Year	Real Estate Tax	Payment in Lieu of Taxes	Linkage Payments	Total
FY19	\$3,885,591	\$6,300,000	\$0	\$10,185,591
FY18	\$4,682,263	\$6,100,000	\$202,521	\$10,984,784
FY17	\$4,802,364	\$6,100,000	\$0	\$10,902,364
FY16	\$4,190,441	\$6,100,000	\$1,067,489	\$11,357,930
FY15	\$3,933,972	\$6,043,376	\$1,150,931	\$11,128,279
FY14	\$4,003,865	\$6,043,376	\$206,706	\$10,253,947
FY13	\$5,048,113	\$6,043,373	\$1,584,472	\$12,675,958
Total	\$30,546,609	\$42,730,125	\$4,212,119	\$77,488,853

7.5 ADDITIONAL ECONOMIC BENEFITS

Boston University is the fourth largest private research university in the nation and the third largest private employer in the City of Boston. With over 35,000 students and 10,000 faculty and staff, the University generates approximately \$3 billion annually in economic activity by spending dollars in the region; supplying jobs to individuals in research, teaching, and staff capacities; spending by visitors to the area; and, at the BU Medical Campus in particular, the

groundbreaking academic medical research that is translated into practice by researchers, physicians, and students.