



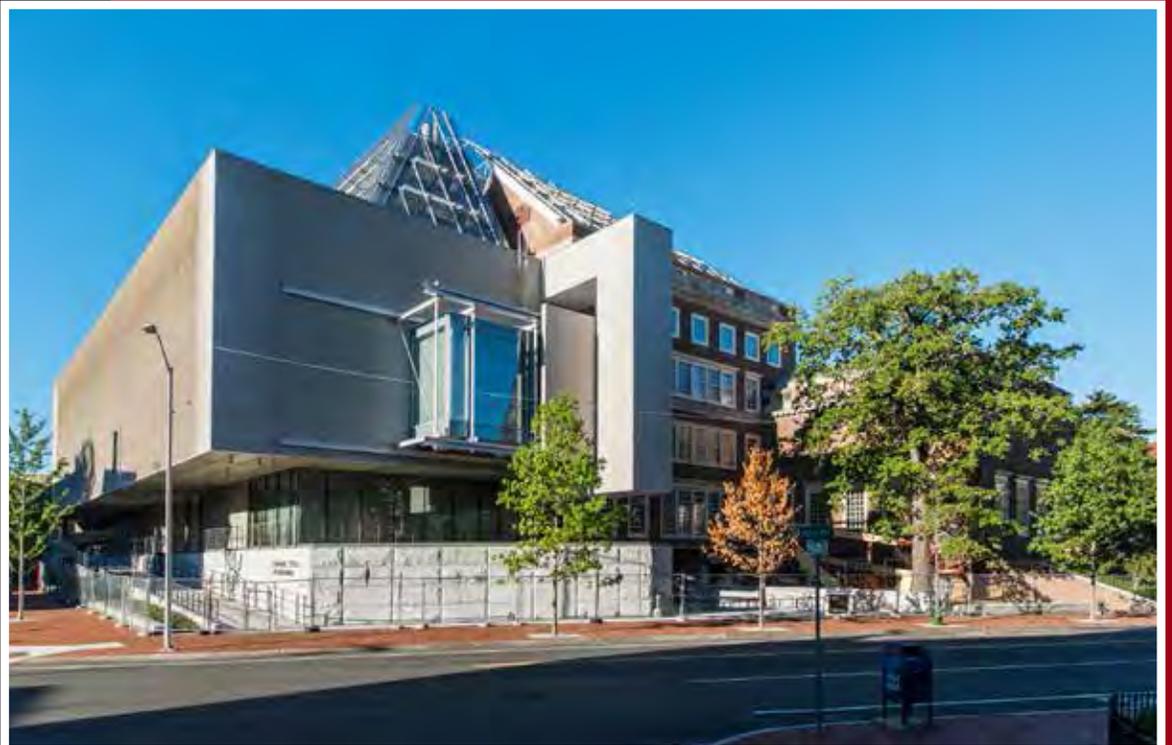
HARVARD UNIVERSITY

2014

Town Gown Report

for the
City of Cambridge

Submitted by:
Harvard Planning & Project Management



Cover Image: 32 Quincy Street, Harvard Art Museums by Peter Vanderwarker

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I. EXISTING CONDITIONS

A. FACULTY AND STAFF¹

	2010	2011	2012	2013	2014
Cambridge Based Staff					
Head Count	11,444	11,644	11,854	12,173	12,358
FTEs	9,146	9,300	9,507	9,549	9,744
Cambridge Based Faculty					
Head Count	1,715	1,755	1,823	1,938	2,010
FTEs	1,572	1,605	1,660	1,749	1,778
Number of Cambridge Residents Employed at Cambridge Facilities					
	3,927	3,897	3,903	4,039	4,088
Number of Cambridge Residents Employed at Boston Facilities					
	747	754	747	815	768

Ten-year projection

Harvard has not undertaken University-wide projections for faculty and staff counts.

¹ Employment figures are as of June 30, 2014 and March 30, 2014 and includes TA's, graduate students, postdoctoral scholars, interns and other staff.

B. STUDENTS AND POSTDOCTORAL SCHOLARS²

	2010	2011	2012	2013	2014
Total Undergraduate Degree Students	7,181	7,255	7,245	7,256	7,265
Day	6,655	6,641	6,657	6,659	6,671
Evening	[526]	[614]	[588]	[597]	[594]
Full Time	6,869 [219]	6,909 [276]	6,906 [254]	6,899 [248]	6,906 [247]
Part Time	312 [307]	346 [338]	339 [334]	357 [349]	359 [347]
Total Graduate Degree Students	10,191	10,211	10,163	10,328	10,205
Day	8,730	8,896	8,868	8,983	8,999
Evening	[1,461]	[1,315]	[1,295]	[1,281]	[1,206]
Full Time	8,767 [220]	8,868 [126]	8,823 [87]	9,139 [264]	9,128 [230]
Part Time	1,424[1,241]	1,343[1,189]	1,340[1,208]	1,125[1,017]	1,077 [976]
Total Non-degree Students	6,525	6,354	6,350	6,675	6,887
Day	285	322	313	274	331
Evening	[6,240]	[6,032]	[6,037]	[6,401]	[6,556]
Total Number of Students in Cambridge	23,897	23,820	23,758	24,259	24,357
Total Number of Postdoctoral Scholars³	891	969	1,012	1,030	990

Numbers in brackets represent students at the Extension School and are a subset of the total number of Full and Part Time students indicated.

Ten-year projection

As is the case with faculty and staff counts, Harvard has not undertaken University-wide projections of future student population.

2 Counts as of October 15, 2013 for 2014. Includes all non-degree students enrolled in day or evening classes, such as persons taking classes at Harvard Extension School.

3 Postdoctoral scholars are considered staff, therefore they are included in staff totals reported in Section A.

C. STUDENT RESIDENCES

	2010	2011	2012	2013	2014
Number of Undergraduate Students Residing in Cambridge					
In dormitories	6,566	6,363	6,545	6,113 ⁴	6,200
With cars garaged in Cambridge	22	12	15	8	7
In Harvard affiliate housing ⁵	0	0	4	440	398
In non-affiliate housing	109	162 ⁶	142	128	99
Number of Graduate Students Residing in Cambridge					
In dormitories	1,270	1,230	1,181	1,054	1,259
With cars garaged in Cambridge	156	177	172	134	117
In Harvard affiliate housing	1,706	1,731	1,625	1,574	1,551
In non-affiliate housing	3,279	3,447	3,437	3,749	3,476

Ten-year projection

Harvard has not undertaken University-wide projections of future student residences.

4 Beginning in 2013, the number of students residing in dormitories is reduced due to the construction of House Renewal projects that temporarily take some dormitory beds off-line.

5 Prior to 2012 this number was not available. Beginning in 2013, the number of undergraduate students residing in Harvard affiliate housing includes 10-20 DeWolfe Street and students temporarily residing in “swing housing” to accommodate the House Renewal program.

6 Prior to 2011, visiting undergraduate students, who are not eligible to live on campus, were not included.

D. FACILITIES & LAND OWNED

	2010	2011	2012	2013	2014
Acres (Tax Exempt) ⁷	201.59	202.68	190.4	190.4	190.4
Acres (Taxable) ⁷	24.61	24.97	23.1	23.1	23.1
Number of Buildings	388	390	391	391	392 ¹²
Dormitories					
Number of Buildings	80	74 ⁸	74	74	74
Number of Beds	7,918	8,287 ⁹	8,258	8,222	8,160
Size of Buildings (GSF)	15.5M	15.5M	15.9M ¹⁰	15.9M	15.9M
Assembly/ museum	997,167	987,520	972,554	972,554	976,088 ¹²
Athletic	210,780	210,780	210,780	210,780	210,780
Classroom	866,512	866,512	877,524	877,524	877,524
Commercial	282,045	282,045	282,045	185,453 ¹¹	185,453
Healthcare	77,155	77,155	77,155	77,155	77,155
Laboratory	2,546,699	2,546,699	2,587,479	2,587,479	2,587,479
Library	1,086,080	1,091,446	1,091,084	1,091,084	1,100,839 ¹³
Office	2,880,697	2,871,984	3,096,323 ¹⁰	3,121,737	3,085,661 ¹⁴
Residential	5,646,543	5,663,194	5,606,735	5,766,765 ¹¹	5,766,765
Support	881,041	881,041	1,104,054	1,071,830	1,071,830

7 Starting in 2012 the number reported for taxable and tax exempt land reflects a more accurate accounting of land that was partially taxable as of 7/1/2012.

8 The building number reported in 2010 included several buildings ancillary to dormitory residential buildings which have been excluded from the 2011 building count.

9 The overall increase in dormitory beds reflects a more accurate accounting of existing undergraduate student beds and does not represent an increase in the capacity to house students.

10 The increase in SF is due to the completion of Wasserstein Hall Caspersen Student Center and Clinical Wing and the Everett Street Garage in 2012.

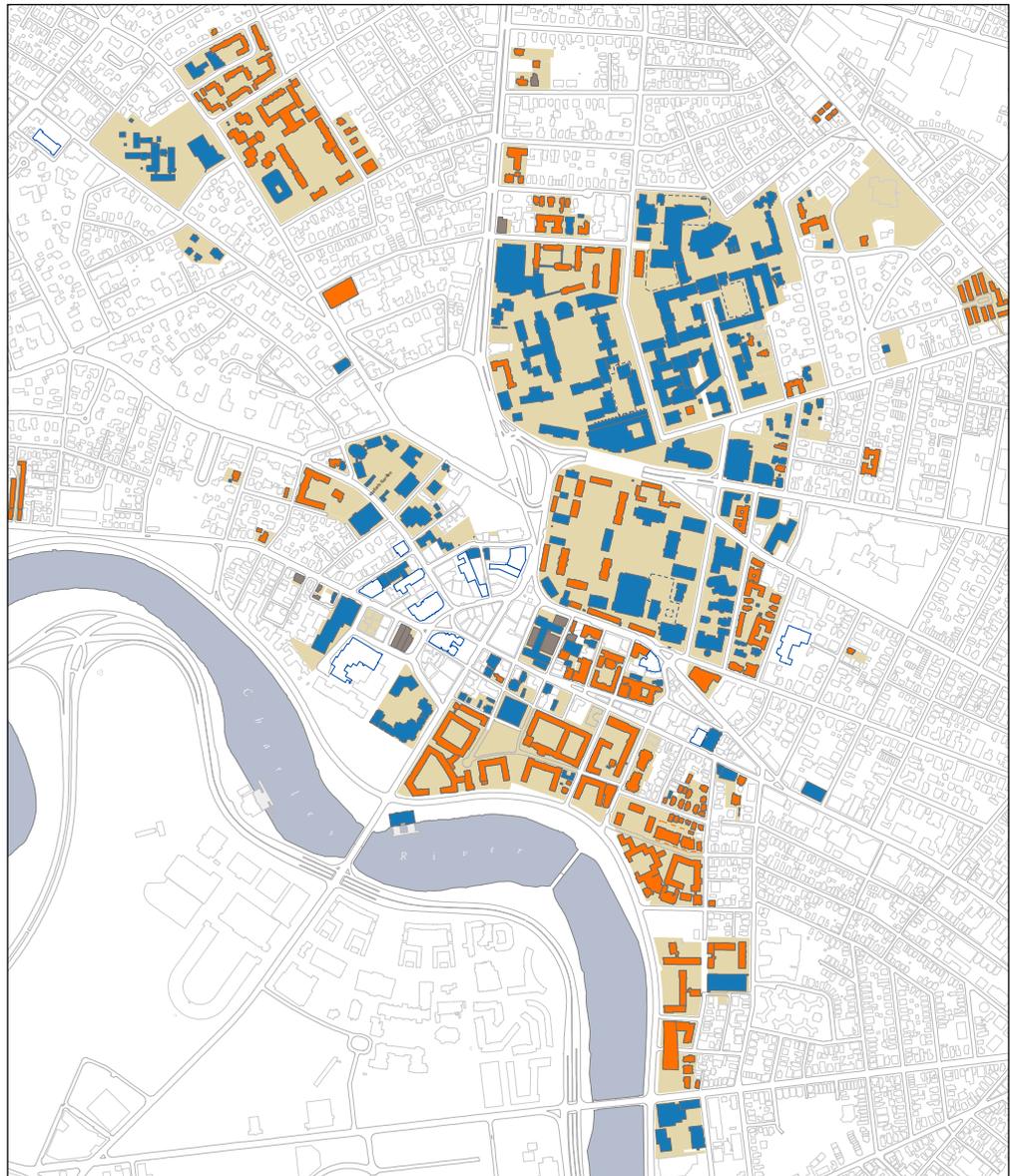
11 Change in area reflects the conversion of 1201 Massachusetts Avenue from hotel use to dormitory.

12 Increase reflects 32 Quincy Street returning to service.

13 Increase reflects Tozzer Anthropology Building renovation and addition.

14 GSF corrected to reflect partial Pound Hall demolition.

*Real Estate Owned
and Leased by
Harvard University*



Legend

Buildings by Ownership Status and Primary Use ⁽¹⁾

- Harvard Owned - Institutional ⁽²⁾
- Harvard Owned - Residential
- Harvard Owned - Other ⁽³⁾
- Leased ⁽⁴⁾ - Institutional ⁽⁵⁾

Land Parcels

- Harvard Owned

Notes:

- (1) Primary Use reflects predominant building use.
- (2) The Rowland Institute located at 100 Edwin Land Blvd is located outside the map coverage area.
- (3) Includes real estate leased to third party
- (4) Buildings may be leased by Harvard in whole or in part.
- (5) The following buildings leased by Harvard for Institutional Use are located outside the map coverage area:
155 Fawcett Street
625 Massachusetts Avenue
One Kendall Square

Parking Facilities

Harvard University owns and maintains 4,576 non-commercial parking spaces in the City of Cambridge. These spaces constitute the University's parking inventory and are used to support University operations and accommodate faculty, staff, student, and visitor parking. The inventory is updated and approved each December as part of Harvard's annual PTDM Progress Report.

Housing *(This table does not include information about dormitories.)*

	2010	2011	2012	2013	2014
Affiliate Housing - Tax Exempt					
Number of Units:	1,047	1,047	1,043	1,043	1,037
Number of Buildings:	12	12	12	12	12
Affiliate Housing - Taxable					
Number of Units:	889	890	891	892	892
Number of Buildings:	53	54	55	55	55
Other Housing - Tax Exempt					
Number of Units:	None	None	None	None	None
Number of Buildings:	None	None	None	None	None
Other Housing - Taxable					
Number of Units:	None	None	None	None	None
Number of Buildings:	None	None	None	None	None

Property Transfers

Cambridge properties purchased since filing previous Town Gown Report:

None

Cambridge properties sold since filing previous Town Gown Report:

None

Planned dispositions or acquisitions:

None

E. REAL ESTATE LEASED

Real Estate Leased by Harvard	Sq Feet	Tenant	Use
One Bow Street	19,011	FAS	Office
One Brattle Square	32,822	HKS/DCE/FAS	Office
One Kendall Square	27,000	HMS	Laboratory
One Story Street	6,125	DCE	Classroom
10 Ware Street	1,299	UIS	Office
104 Mt. Auburn Street	12,312	FAS	Office
104 Mt. Auburn Street	7,166	Provost	Office
125 Mt. Auburn Street	36,564	HLS	Office
1408-1414 Massachusetts Ave	50,000	FAS	Office
1430 Massachusetts Avenue	3,102	FAS	Office
155 Fawcett Street	34,000	FAS/ART	Warehouse
20 University Road	21,550	GSE	Office
25 Mt. Auburn Street	7,732	LASPAU	Office
44 Brattle Street	10,193	GSE/FAS	Office
50 Church Street	29,385	GSE/HUIT	Office
625 Massachusetts Avenue	41,141	FAS	Office
TOTAL	339,402		

F. PAYMENTS TO CITY OF CAMBRIDGE

	2010	2011	2012	2013	2014
Total Payments	\$14,282,663	\$15,987,554	\$14,216,649	\$14,120,766	\$14,023,666
Real Estate Taxes Paid:	\$5,065,482	\$5,165,704	\$5,336,783	\$5,662,893	\$5,829,731
Payment in Lieu of Taxes (PILOT):	\$2,575,890	\$2,709,788	\$2,783,151	\$2,845,406	\$2,968,227
Water & Sewer Fees Paid:	\$5,258,274	\$5,564,756	\$5,174,472	\$4,919,274	\$4,623,286
Other Fees & Permits Paid:	\$1,383,017	\$2,547,306	\$922,243	\$693,193	\$602,422

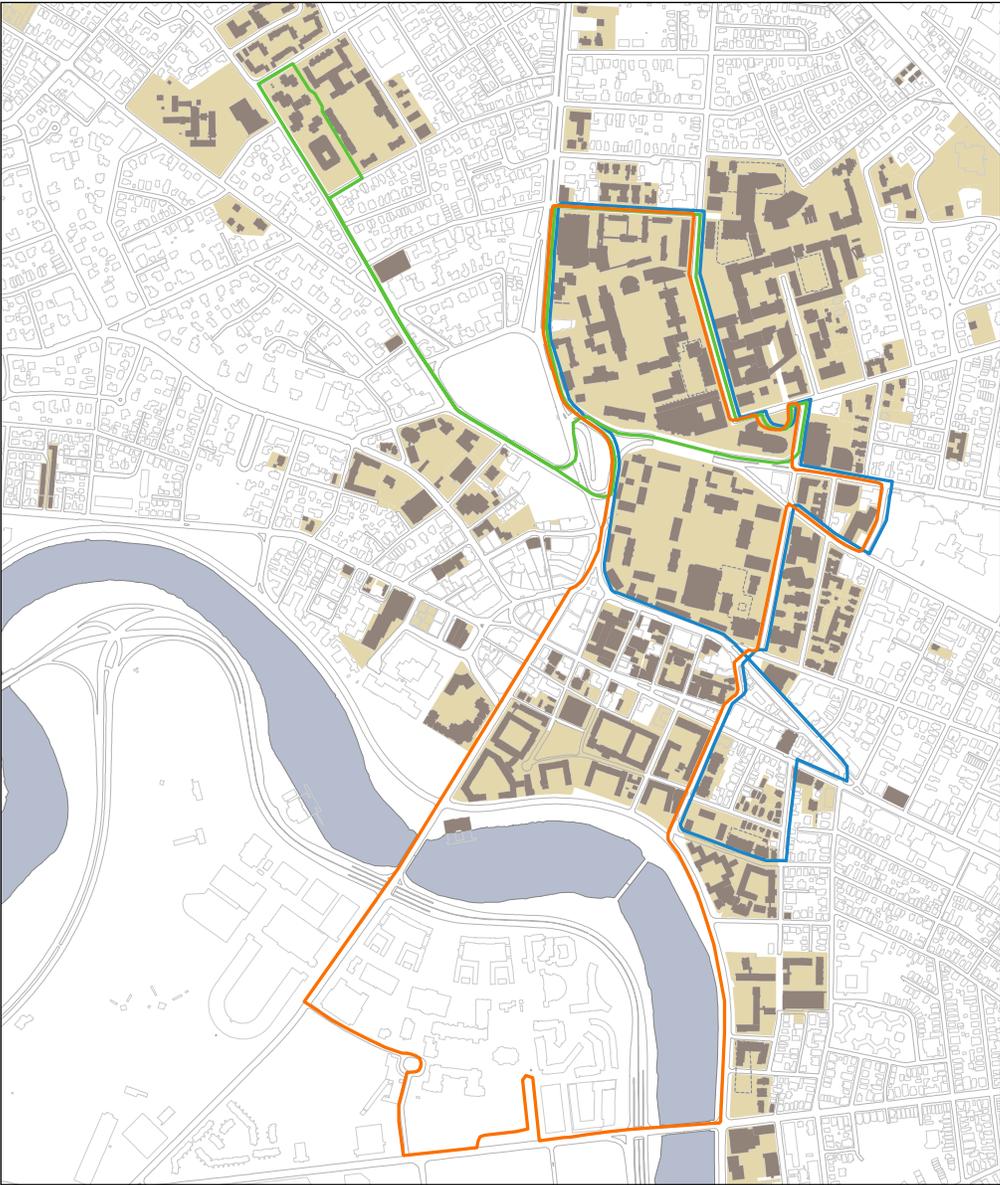
Ten-year projection:

In 2005 Harvard University and the City of Cambridge renewed the PILOT agreement for a fifty-year period with annual escalators.

G. INSTITUTIONAL SHUTTLE INFORMATION

Route Name	Description	Frequency	Hours of Operation
Weekday Service - Morning			
Radcliffe Quad (Stadium)	Quad, Square, River Houses, Allston Campus	30 minutes	5:30 am to 7:15 am
Quad, Square, River Houses, Allston			
Mather Express	River Houses through Square to Kirkland St.	10 minutes	7:30 am to 4:30 pm
River Houses through Square to Kirkland	Quad, Square, to Kirkland St.	10 minutes	7:30 am to 5:00 pm
Allston Campus Express	Allston Campus, Square, Mass. Ave., Oxford St., Square, Allston Campus	15 minutes	7:00 am to 4:00 pm
Weekday Service - Evenings			
Extended Overnight	River Houses through Square, up Garden St. to Kirkland St. to River Houses	30 minutes	7:30 pm to 4:00 am
Radcliffe Quad-Yard Express	Quad, Square, Quad (up Garden St.)	25 minutes	4:15 pm to 1:00 am
River Houses A, B, & C	River Houses through Square, up Garden St., to Kirkland St., to River Houses	35 minutes	4:15 pm to 1:00 am
Allston Campus Express	Allston Campus, Square, Mass. Ave., Oxford St., Square, Allston Campus	15 minutes	4:00 pm to 12:30 am
Weekend Service			
Crimson Campus Cruiser	River Houses through Square, up Garden St. to Kirkland St. to River Houses	35 minutes	8:30 am to 4:30 pm
1636'er	River Houses through Square, up Garden St., to Kirkland St., to River Houses	20 minutes	4:00 pm to 1:00 am
Allston Campus Weekend Express	Allston campus, Square, Quad, Square, Allston Campus	30 minutes	5:00 pm to 8:00 pm
Extended Overnight	River Houses thru Square, up Garden St., to Kirkland St., to River Houses	30 minutes	12:00 am to 5:00 am

Harvard Campus Shuttle Routes



Legend

- Mather Express
- Quad Express
- Allston Campus Express

Notes:

This map shows the three principal academic year day-time shuttle bus routes. Harvard also runs evening and weekend shuttle services that cover these routes but on a different schedule.

Harvard Transportation & Parking's Shuttle fleet includes seven 35-foot buses and five 29-foot buses (each of the twelve buses has a capacity of 37 passengers). During the academic year, two buses provide service for the River Houses area; three buses serve the Radcliffe Quad area; and two buses operate between Cambridge and Allston. In the summer, limited weekday Shuttle service is provided on the Allston Express route. Additionally, Harvard Transportation & Parking's Van fleet includes five, ten-seat passenger vans equipped with two wheelchair spaces. On weekdays, two of the vans run from 7:30 am – 7:00 pm; on weekends the vans run from 12:00 pm – 7:00 pm. These vans provide service to individuals with mobility impairments or medical conditions on an as-needed basis. On weeknights, an evening van service is designed to transport faculty, staff and students safely about the campus area as a supplement to the shuttle bus system. The service operates between 7:00 pm and 3:00 am, seven days a week throughout the academic year and 7:00 pm – 12:30 am during the summer.

All of the shuttle vehicles operate on B-20 biodiesel. Using biodiesel is considered a best practice in this industry and has reduced emissions by 15 percent. On an annual basis, emissions are reduced by approximately 96,725 lbs per bus fleet and 43,091 lbs per van fleet. Harvard Transportation & Parking keeps the fleet on a 7–10 year life cycle to ensure that the best technology available is being used and practices proactive maintenance on all vehicles.

Schedules are very precise and do not allow for more than three minutes of idling, less than the five minutes allowed by anti-idling regulations.

Ridership data and efforts both to coordinate shuttle system with other institutions and to streamline shuttle services.

Total passenger ridership for all Harvard shuttle routes in FY2014 was 891,264.

Harvard Transportation & Parking collaborates with the Cambridge Traffic, Parking and Transportation Department in the planning of University shuttle routes. Harvard also works closely with the Cambridge Department of Public Works during construction and events that may require re-routing of Harvard Shuttles.

Harvard has developed a productive working relationship with the Cambridge Police Department in dealing with the safety needs of the streets that we share and have been partners in mitigating issues such as over-crowding caused by tourist buses on Massachusetts Avenue.

The University has partnered with the MASCO shuttle bus and, in addition to providing financial support for this system, shares ShuttleTracker technology (a real-time tracking system developed for Harvard that shows the location of buses on their routes). This coordination has limited service overlap within Cambridge and eliminates the need for a dedicated Harvard shuttle traveling to the Medical Area in Boston.

II. FUTURE PLANS

A. DEVELOPMENT OVER THE PAST 5 YEARS

Projects completed in the past five years, both large and small, illustrate Harvard's ongoing commitment to the renewal of its buildings and campus and to innovation within each of the University's programmatic drivers.

Supporting Academic Programs and Research

A growing priority for the University is meeting the facility and space needs of the evolving landscape of higher education which impacts both the types of spaces required for teaching and research and the infrastructure which supports them.

SciBoxes

Highlighting the continuing evolution of teaching and learning spaces is the creation of several experimental "black-box" classrooms in the Science Center. The spaces – half-classroom, half-lab – feature moveable seating and furniture that students and instructors can quickly rearrange to best suit their needs.



Housing Harvard's Affiliates

The University's housing portfolio contains over 13,000 beds in 8,000 units, ranging from dormitories to fully furnished apartments. Recognizing that Harvard's residential portfolio provides more than housing, the University is also making investments that contribute to the social and academic life of its affiliate residents.



Graduate Commons

The Graduate Commons program has created spaces within several of Harvard's graduate residences for programming that fosters social interaction outside the classroom. The program seeks to provide a more integrated living experience and a greater sense of community for graduate students and their families.

*Enhancing the
Campus Experience*

Harvard continues to make significant investments in projects that contribute to the quality of campus life including enhancement of the campus landscape and improvements in non-academic facilities for students and affiliates.

Andover Lot – North Campus



This recently completed landscape project undertaken by the Harvard Divinity School, continues the transformation of the physical character of Harvard's north campus, an area with complex circulation patterns and a very fragmented landscape. The redesigned circulation path, which features an adjacent landscaped berm, provides a safer and more attractive travel route for pedestrians and cyclists.

*Promoting
Campus-Wide
Sustainability*

Through its many initiatives and programs Harvard continues to be a leader in sustainability and is continually identifying opportunities to make its facilities and campus greener.

Solar Installation – CSWR

The Harvard Divinity School recently completed the installation of a new solar array on the roof of the Center for the Study of World Religions (CSWR) on Harvard's north campus. The array, comprised of 70 photovoltaic panels will provide approximately 25% of the CSWR electricity needs.



Improving Campus Infrastructure

To support Harvard's expansive physical campus and the ever-changing needs of higher education, the University has continued to make major investments in critical campus infrastructure. Recent projects have included new and expanded systems to support campus development and upgrades to existing campus infrastructure.



Chilled Water Renewal

Harvard Engineering & Utilities recently completed an upgrade to the University's chilled water distribution system. The project, which extended supply and return pipes through Harvard Yard, was part of a reliability upgrade to the central chilled water system that supplies cooling for over 75 campus buildings.

B. CAPITAL PROJECTS

*Projects
Recently
Completed*

32 Quincy Street, Harvard Art Museums (Renovation and Expansion)



*Photo credit:
Peter Vanderwarker*

Architect:	Renzo Piano Building Workshop (Architect of record: Payette Associates)
Total Square Feet:	204,000 GSF (includes 50,000 GSF demolition, 104,000 GSF renovation, 100,000 GSF new construction)
Programmatic Driver:	Address facility deficiencies; expand and restore to meet Harvard Art Museums' programmatic needs
Green Attributes:	Targeting LEED Gold

Harvard Art Museums have completed the renovation and expansion of their facilities located at 32 Quincy Street and reopened in November 2014. The project brings together Harvard Art Museums' three constituent museums – the Fogg Museum, the Busch-Reisinger Museum, and the Arthur M. Sackler Museum – into one state-of-the-art facility. The new facility enhances the teaching and research mission of the Harvard Art Museums and creates far more accessibility to their renowned collections through additional exhibition space, as well as an expanded object-based Art Study Center. Visitor amenities such as a café and museum shop are also included. Spaces on the new lower level provide vibrant venues for public programs.

Architect Renzo Piano, with local design partner Payette Associates, developed a design that respectfully preserves the original 1927 building, including its historic façades on Broadway and Quincy Street and the iconic interior Calderwood Courtyard. The design required the removal of later additions to the original 1927 structure to allow for new construction that provides functional space for a world-class art institution.

The renovation and expansion project is designed to minimize impact upon the historic structure, is distinct in its architectural expression, and respects the residential neighborhood and the historic Carpenter Center. New landscaping also enhances the public realm with more usable green space, wider sidewalks, new street trees, and bicycle parking. The new Harvard Art Museums hosted a series of grand opening events in the fall, including a Cambridge Community Day, and offers free admission for Cambridge residents at all times.



Harvard Art Museums at 32 Quincy Street

Designed by architects Renzo Piano Building Workshop, the renovation and expansion of the Harvard Art Museums' landmark building at 32 Quincy Street in Cambridge brings the Fogg, Busch-Reisinger, and Arthur M. Sackler museums and their collections together under one roof for the first time. Far more than a building plan, this project is an essential reinvention and rethinking of the museums' role in the community and the place of the arts in an advanced education. The expansion is designed to provide far greater access to the museums' collections; create new resources for study, teaching, conservation, and exhibition; and invite students, faculty, scholars, and the public into one of the world's great institutions for arts scholarship and research.



Photo credit: Peter Vanderwarker

Calderwood Courtyard

The historic heart of the original 1927 building, the courtyard has been restored as the central point of circulation in the museums' new home, and will be open to the public without the purchase of admission. This iconic space is modeled after the façade of the canon's house of the 15th-century church of San Biagio, in Montepulciano, Italy. Architects Coolidge, Shepley, Bulfinch & Abbott reproduced this façade four times and turned it inward – an effect that suggests a variety of entrances through which the museums can be explored. The renovation and expansion project designed by Renzo Piano Building Workshop preserves both the design of the historic courtyard and its function as the center of activity and circulation. The design opens up all of the courtyard's ground-floor arcades, allowing visitors to move freely through the new facility, from galleries in the original Fogg Museum structure to the Busch-Reisinger Museum and the Arthur M. Sackler Museum galleries in the new addition. The upper-level courtyard arcades provide a connection and central orientation point for visitors to galleries and the Art Study Center. The new glass rooftop allows controlled natural light to illuminate the upper levels of the facility and filter into the courtyard below.



Photo credit: Zak Jensen

Expanded Exhibition Galleries

The renovation and expansion of the Harvard Art Museums will bring the Fogg, Busch-Reisinger, and Arthur M. Sackler museums and their collections together under one roof for the first time, providing opportunities to exhibit these collections in ways that create dialogue and juxtaposition between objects from different cultures, time periods, and media. Total exhibition space has increased by 40 percent, including far more space for special exhibitions and for three university galleries which are programmed in consultation with students and faculty to support specific coursework.



Photo credit: Zak Jensen

Lightbox Gallery

This new gallery space on the top level of the Harvard Art Museums will showcase the intersections of art and technology. The Lightbox Gallery also offers a unique perspective on key spaces and functions, from oblique views into conservation labs, to close-up perspectives on the technical aspects of the glass roof, including its louvers and shades, to a bird's-eye view down through the building into the historic Calderwood Courtyard.



Photo credit: Antoinette Hocbo

Art Study Center

Only a small percentage of the museums' collections can be displayed in public gallery spaces at any given time. Designed to offer an environment for individual study, the Art Study Center will provide distinct learning opportunities for students, faculty, and the public through the close examination of original works of art from the collections of the Fogg, Busch-Reisinger, and Arthur M. Sackler museums. Each of the three museums has its own dedicated art study center offering access to thousands of works of art across all media. Visits can be arranged through advance appointment. The Art Study Center inhabits the fourth floor of the new facility, making it unique in size and scale among U.S. museums.



Photo credit: Zak Jensen

Lecture Halls and Seminar Rooms

A 300-seat lecture hall for presentations, performances, and events has been created on the new lower level. This and other lecture and classroom spaces will be activated by Harvard faculty and students as well as through public programs and events.



Photo credit: Zak Jensen

Straus Center for Conservation and Technical Studies

The Harvard Art Museums are home to the first fine arts conservation, research, and training facility established in the United States. Visitors can gain a glimpse of the conservation and research activity under way in the glass-walled Straus Center, located on the building's uppermost level.

Tozzer Anthropology Building (Renovation and Addition)



Architect:	Kennedy & Violich Architecture
Total Square Feet:	35,000 GSF
Programmatic Driver:	Consolidation of Anthropology Department
Green Attributes:	Targeting LEED Gold

The Faculty of Arts and Sciences completed its renovation and addition project at the Tozzer Anthropology Building in the spring of 2014. Tozzer's new copper clad roof form is a distinctive addition to the Divinity Avenue streetscape which complements the architectural character of adjacent campus buildings.

The project included the full renovation of the building and a one-and-one-half story addition. The building serves as the new home for the Anthropology Department, consolidating departmental space previously housed in three separate locations across the Harvard campus. The consolidation has created a vibrant center for the Department of Anthropology which fosters the integration of departmental teaching and research activities. The renovated building also provides additional department-wide resources, including improved teaching facilities, graduate student workspaces, and a dramatic sky-lit central atrium space that serves as a common departmental gathering space.

In addition to its academic space, the building also provides a new accessible entrance and connection with the adjacent Peabody Museum. This welcoming, new connector features displays and information on the museum's collections.

Semitic Museum
(Elevator addition at rear)



Architect: Symmes Maini & McKee Associates
Total Square Feet: 1,000 GSF
Programmatic Driver: Building Accessibility
Green Attributes: Efficient elevator design

The Faculty of Arts and Sciences has completed an external elevator addition at the east facade of the Semitic Museum located at 6 Divinity Avenue. The new elevator provides access to all floors of the Museum and significantly improves accessibility within the building. The project has also improved site and building access by reorganizing landscape elements at the rear of the site. The Semitic Museum was constructed in 1903 and houses public exhibits, collections and associated work areas, classrooms and offices for the Department of Near Eastern Languages and Civilizations and the Center for Jewish Studies.

House Renewal

The long-planned system-wide effort to renew Harvard's undergraduate Houses is well underway. The House system forms one of the most distinctive and important features of a Harvard College education. In the late 1920's, President A. Lawrence Lowell envisioned a House system that would serve students of different backgrounds, resulting in learning that extended beyond the classroom. Today, more than 98 percent of Harvard College students live on campus. First-year students live in freshman dorms, located in and around Harvard Yard. The overwhelming majority of sophomores, juniors, and seniors live in one of twelve undergraduate Houses, which are located alongside the Charles River or at the Radcliffe Quad, along Garden Street.



The House Renewal program will focus first on the original Neo-Georgian Houses along the Charles, most of which were constructed in the 1920s and '30s and have been little upgraded since. The Houses were also built at a time when building standards and the needs of the student body were different. A comprehensive physical assessment of the Houses indicates that they have been well-maintained over the years, but require significant renovation. The intent of the House Renewal program is to preserve the historic character of these buildings and to sustain President Lowell's original vision of the Houses, while simultaneously transforming them to support a twenty first-century intergenerational learning community that meets the needs of today's students.

Construction on the first two House Renewal test projects, Stone Hall and McKinlock Hall, was completed in the past two summers. Dunster House is currently being renewed, and is expected to reopen in August 2015, with renewal of Winthrop House to follow. The pace and sequence of House Renewal is subject to periodic review.

McKinlock Hall – *House Renewal*
(Renovation)



Architect:	KieranTimberlake
Total Square Feet:	100,800 GSF
Programmatic Driver:	Renew undergraduate House life
Green Attributes:	Targeting LEED Gold

Leverett House’s McKinlock Hall is the second completed project in Harvard’s House Renewal program. This renovation and restoration project, completed in summer 2014, was guided by the fundamental goals of House Renewal – preserving the Houses’ historic character; revitalizing House life; connecting spaces and nurturing community; and providing modern accommodations and sustainable operations. In addition to creating new and renewed spaces, the renovation project eliminated walk-through bedrooms, addressing privacy and egress issues. The addition of elevators and horizontal internal corridors connecting the traditional vertical entryways provide accessible routes through the building and meet current accessibility and egress codes.

While the interior has been fundamentally reconfigured, great care was taken to enhance McKinlock’s distinctive character, building upon its architectural design, history, and traditions. The Old Library Theater has been restored and enhanced with state-of-the-art electronics and lighting, and the dining hall and the House’s traditional common rooms were also carefully restored.

The renovation also included the innovative conversion of an alleyway to create a light court. The light court, covered by a glass roof, serves as a common space that can accommodate overflow from the dining hall, and provides additional areas for meeting, studying, or socializing. The new lobby and light court serve as a main entry and meeting place for students to McKinlock Hall, facilitating social interactions and informal gatherings.

1201 Massachusetts Avenue - *House Renewal*
(Renovation)



Architect: Beyer Blinder Belle
Total Square Feet: ~90,000 GSF
Programmatic Driver: Support undergraduate House life
Green Attributes: Targeting LEED Gold

Harvard has completed the renovation of 1201 Massachusetts Avenue, formerly the Inn at Harvard, to transform it into the hub of “swing housing” for students temporarily displaced by House Renewal construction. This interior renovation was completed in July 2014, and students moved in for the fall semester. To serve as a central hub for students displaced by House Renewal, the building now includes a kitchen and dining hall in the central atrium space, a variety of meeting and study rooms, common spaces, music practice rooms, and student bedrooms. The facility ensures that students will continue to be fully integrated into their House community while living in swing housing, with access to similar types of facilities, programs, and opportunities. The Cambridge Planning Board approved this project in June 2013.

Hutchins Center / The Cooper Gallery (Renovation)



Architect:	Adjaye Associates
Total Square Feet:	4,000 SF renovated space
Programmatic Drivers:	Creation of new research center and art gallery
Green Attributes:	Lighting and HVAC system controls to optimize energy use

The Faculty of Arts and Sciences has completed renovation of existing leased space in Harvard Square to provide an urban presence for the new Hutchins Center for African and African American Research, located on the upper floors of 104 Mt. Auburn Street. The Hutchins Center houses several leading research institutes and programs dedicated to the creation of cutting-edge knowledge in the field of African and African-American research, including the W.E.B. Du Bois Research Institute. The center is also home to several new entities, among them the Ethelbert Cooper Gallery of African and African American Art.

The Cooper Gallery occupies space on the ground floor of 102 Mt. Auburn Street. The gallery features contemporary African and African American art in exhibitions and installations and offers programming such as workshops, artist talks and lectures. The opening of the Hutchins Center and the Cooper Gallery in September 2014 added a dynamic new cultural institution to Harvard Square.

As part of the project, the existing store front at 102 Mt. Auburn Street was renovated to provide a welcoming new entry for the Hutchins Center and Cooper Gallery. The new entry façade features an elegant curtain wall comprised of timber and glass integrating the Center's name in bronze lettering.

*Projects
Currently in
Construction*

Longfellow Hall
(Renovation and Addition)



- Architect:** Baker Design Group
Total Square Feet: 14,250 GSF renovation, 4,600 GSF addition
Programmatic Driver: Improve building infrastructure and accessibility, relocation of academic programs
Green Attributes: Targeting LEED Gold

The Harvard Graduate School of Education (HGSE) is nearing completion of the partial renovation and addition to Longfellow Hall, located at 13 Appian Way. The building was constructed in 1929 and houses classrooms, offices and meeting spaces. The project is upgrading the mechanical, electrical, plumbing, and life safety systems for much of the building and making significant accessibility improvements. The renovation also includes the re-programming of the 4th floor and the addition of a new penthouse, which will create additional space for the School's programs. The project will enable the HGSE to relocate research and administrative programs currently housed in leased space to Longfellow Hall, which will further the School's goal of creating a more cohesive campus centered on Appian Way.

The penthouse addition has been designed to be complementary to the existing building in its scale, façade organization and materials, and to be in keeping with the character of neighboring buildings in Radcliffe Yard. Construction is expected to be completed in early 2015.

Dunster House – *House Renewal*
(Renovation)



Architect:	Kieran Timberlake
Total Square Feet:	170,000 GSF
Programmatic Driver:	Renew undergraduate House life
Green Attributes:	Targeting LEED Gold

Dunster House, the first full House renovation project in the House Renewal program, is currently midway through construction. The Dunster renewal reflects many of the design principles tested in the first two projects, Stone Hall and McKinlock Hall.

While the exterior of this neo-Georgian building will be carefully restored, the interior will be reconfigured and reinvigorated. Dunster will have new and expanded social and common spaces, including a technologically equipped “smart” seminar room, an art studio with a pottery kiln, music-practice spaces, and a lounge connected to the courtyard. Space for recreation, fitness, and exercise facilities will be created by converting existing squash courts to the new uses. New horizontal corridors will improve circulation and access, allowing students to move across the building without having to exit into the courtyard and then re-enter the building. The renovation will also meet modern accessibility and egress codes and eliminate privacy and overcrowding issues. The historical feel and character of the House will be preserved in traditional spaces such as the library, dining hall and junior common room. Construction on the project will be complete in summer 2015.

Renewal will prioritize energy-efficient technology and water conservation, with the plan for Dunster to be a LEED Gold certified building. A water retention system will be installed, while better-insulated walls and windows will have the dual benefit of reducing energy use and improving student comfort.

Winthrop House – House Renewal
(Renovation)



Architect:	Beyer Blinder Belle
Total Square Feet:	180,000 GSF
Programmatic Driver:	Renew undergraduate House life
Green Attributes:	Targeting LEED Gold

Harvard is in the process of planning the renewal and expansion of Winthrop House, the second full House to be renovated as part of Harvard's House Renewal program. Located between Mill Street and Memorial Drive, Standish Hall and Gore Hall were originally constructed in 1913 as freshman dormitories; later, they were programmatically unified to become Winthrop House in 1931.

Consistent with recent House renewal projects, Harvard envisions undertaking a comprehensive renovation project which will focus on restoring the building's historic character while updating it to the contemporary requirements. This project also includes a proposal to construct a new wing for Gore Hall at the corner of Mill and Plympton Streets. The proposed addition would provide much needed residential and common space for this undergraduate residence. The proposal to add a new wing to Gore Hall at Mill and Plympton Streets requires approval from the Board of Zoning Appeals. If approved, construction of the new wing will begin in fall 2015.

The renewal of Standish and Gore Halls will entail preliminary work in summer 2015, and will formally commence in June 2016 and be completed for an opening in the fall of 2017. In addition, Harvard will repair and restore the wood-frame building at 111 Plympton Street for residential space and will connect the 111 Plympton building to Gore Hall as well.

Harvard Kennedy School (New Construction)



Architect:	Robert A.M. Stern Architects
Total Square Feet:	91,000 GSF
Programmatic Driver:	Foster interaction and collaboration; improve physical campus and facility functionality
Green Attributes:	Targeting LEED Gold

The Harvard Kennedy School (HKS) is advancing the planning and design of a significant new addition to its campus that will create a more physically cohesive campus, improve the central courtyard as a campus amenity, and enhance campus circulation and pedestrian connections to Harvard Square and the Charles River. The project has been reviewed by the Cambridge Planning Board and a Project Review Special Permit was approved in November 2014.

The proposed project will provide additional and improved teaching and study space, the creation of an environment that supports greater collaboration and active learning, and will also address key physical shortcomings in the existing HKS campus, including conflicts in vehicular and pedestrian circulation, compromised off-street loading facilities, and limited campus services such as a kitchen and dining facilities.

The project includes infill construction at the perimeter of the campus, maintaining the open landscaped courtyard at its center. New construction will connect the campus' four existing buildings, and add approximately 91,000 gross square feet of new space in three additions:

- The “Gateway Building,” a two-level addition connecting the existing Taubman Building and Belfer Center at the 3rd and 4th Floors, will contain a student lounge, meeting spaces and faculty offices. The design features extensive glazing to increase

the transparency of the building facing Eliot Street. A two-story opening beneath this addition will create a vastly improved new pedestrian access point to the HKS campus from Eliot Street;

- The “West Pavilion,” a four-level addition connecting the existing Taubman Building with the David Rubenstein Building, containing classrooms, meeting spaces, faculty offices, and building support spaces. This addition will also create a new pedestrian access point to the campus from the JFK Park pedestrian connector; and
- The “South Pavilion,” a four-level addition which will connect the existing Littauer Building and the proposed “West Pavilion.” This addition will contain classrooms, meeting spaces, new campus kitchen and dining facilities, and building support space.

In addition to the proposed infill construction, a major component of the project is to raise the level of most of the existing central courtyard to generally align with the grade level of adjacent streets at key pedestrian access points (at Eliot Street beneath the proposed Gateway Building and at the west side from the JFK Park pedestrian connector). The raised courtyard will preserve the central campus green space while creating a new lower level that contains a below-grade loading facility, additional program space and building mechanical space.

The project will seek approval from the Board of Zoning Appeals in early 2015. Construction is expected to begin in the spring of 2015.

Richard A. and Susan F. Smith Campus Center
(Renovation)



Architect: Hopkins Architects (Design)
Bruner/Cott (Executive Architect)

Total Square Feet: TBD

Programmatic Driver: Interior Common Spaces

Green Attributes: TBD

Harvard is planning a renovation of three floors within the Richard A. Smith and Susan F. Smith Campus Center to create a common space for the Harvard community, fostering new connections and collaboration. The campus center will serve as a welcoming area for the community; a vibrant space for informal gatherings, collaborative meetings, events, and dining; and a hub of activity for all in Harvard Square.

Approvals will be required from the Cambridge Historical Commission and the Board of Zoning Appeals. The project will also be reviewed by the Harvard Square Advisory Committee. Construction is anticipated to begin in Spring 2016.

Cabot Science Library/Atrium (Renovation)



Architect:	Mack Scogin and Merrill Elam
Total Square Feet:	22,500 GSF (Renovation)
Programmatic Driver:	Transform existing spaces in the Harvard Science Center into a collaborative learning environment
Green Attributes:	Targeting LEED Gold

The Faculty of Arts and Sciences is planning a project to reprogram and redesign key public spaces on the main floor of the Harvard Science Center to respond to the changing learning activities, collaborative work patterns, and related social interactions of today's students. The project also seeks to transform the Cabot Library from a traditional collections-based science library into an innovative digital teaching and learning hub for all disciplines.

This project will leverage and enhance the building's significance as a campus crossroads of undergraduate life and connect more expansively to the recently completed Plaza above the Cambridge Street tunnel. The Cabot Science Library/Atrium project is expected to begin construction in the summer of 2016.

9 Ash Street (Renovation)



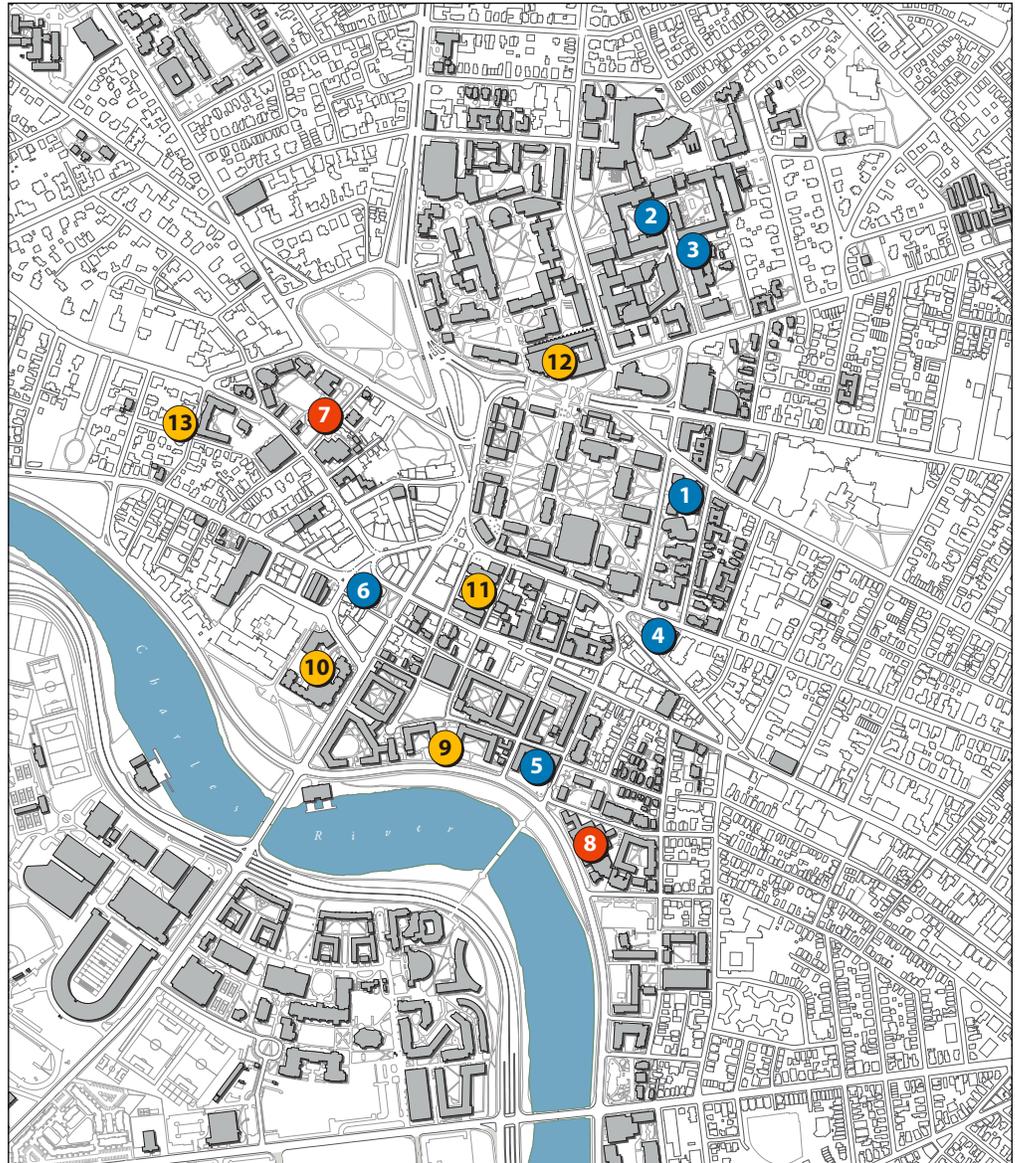
Architect:	Thomas Pfifer and Partners
Total Square Feet:	1,200 GSF (Renovation)
Programmatic Driver:	Restore historic house
Green Attributes:	TBD

The Harvard Graduate School of Design (GSD) is planning a restoration of 9 Ash Street, a small, one story, single family house, designed by renowned modernist architect, Philip Johnson. When Johnson was a student at the GSD in the early 1940s, he purchased this empty plot of land, which eventually became the site of the first house he designed and built, and was ultimately submitted as his graduate thesis. Johnson's design was comprised of two parts: a rectangular house with a courtyard enclosed by a high perimeter fence that corresponded in height to the house's walls. The main door opens from the street into the private courtyard which is separated from the interior with a glass and steel façade. Johnson lived in the house while he continued his studies at the GSD.

The GSD's initial focus for the property was on undertaking careful historic documentation on the building as well as repair and stabilization work, which was a much more extensive project than initial assessments indicated. However, with much care to the integrity of the building, the repairs have been completed. Now the GSD is planning a comprehensive restoration of the building to restore its original appearance and architectural integrity while improving its functionality and durability. Construction is anticipated to begin in 2015. Harvard has been consulting closely with the Cambridge Historical Commission on this project.

1. PROJECT MAP

*Projects Completed,
in Construction,
and in Planning*



● Recently Completed **● Currently in Construction** **● In Planning**

- | | | |
|--|--------------------|---------------------------------------|
| 1. 32 Quincy Street
(Harvard Art Museums) | 7. Longfellow Hall | 9. Winthrop House |
| 2. Tozzer Anthropology
Building | 8. Dunster House | 10. Harvard Kennedy School |
| 3. Semitic Museum | | 11. Smith Campus Center |
| 4. 1201 Massachusetts
Avenue | | 12. Cabot Science Library /
Atrium |
| 5. McKinlock Hall | | 13. 9 Ash Street |
| 6. Hutchins Center -
The Cooper Gallery | | |

2. PROJECT LIST

Project	Programmatic Goal	Green Attributes
● Recently Completed		
1. 32 Quincy Street (Harvard Art Museums)	<p>Improve access to collections, promote outreach to new audiences, foster collaboration and interdisciplinary work across the university, and enhance the museums' role in Harvard's undergraduate curriculum educational mission.</p> <p>Improve access to collections, promote outreach to new audiences, foster collaboration and interdisciplinary work across the university, and enhance the museums' role in Harvard's undergraduate curriculum educational mission</p>	<p>LEED registered; targeting Gold</p> <p>Recycle demolition debris</p> <p>Reduction in use of potable water and complete rainwater harvesting</p> <p>Energy-efficient building envelope</p> <p>Automated systems to balance natural lighting and improve energy efficiency</p> <p>Heating and cooling systems with heat recovery to reduce energy consumption</p> <p>24/7 building management system to respond immediately to changing weather and occupancy</p> <p>Custom designed and energy-efficient gallery lighting systems</p> <p>Use of certified renewable lumber</p>
2. Tozzer Anthropology Building	Consolidation of Anthropology Department	Targeting LEED Gold; energy efficient building systems; energy recovery system; passive lighting and cooling and ventilation
3. Semitic Museum	Improve building accessibility	Energy efficient equipment
4. 1201 Massachusetts Ave	Support undergraduate House life	LEED registered; targeting Gold
5. McKinlock Hall	Renew undergraduate House life	<p>LEED registered; targeting Gold</p> <p>Recycle demolition and construction debris</p> <p>Building and material reuse</p> <p>Recycled and regional materials, including certified lumber</p> <p>Low VOC emitting adhesives, sealants, paints, wood and agrifiber products</p> <p>Low lighting power density</p> <p>Regenerative drive elevators</p> <p>Reduction in use of potable water for irrigation via rainwater harvesting</p> <p>Reduced storm water run-off</p> <p>Ventilation system with heat recovery to reduce energy consumption</p> <p>24/7 building management system to respond immediately to changing weather and occupancy</p> <p>Water efficient plantings</p> <p>Low-flow/dual-flush plumbing fixtures</p> <p>Ceiling fans and natural ventilation in lieu of air conditioning</p> <p>Enhanced commissioning, measurement and verification of systems</p> <p>District chilled water system for McKinlock Hall & Dunster House</p> <p>Enhanced emission controls for emergency generator</p>

(Continued on next page)

*Project List
(cont'd)*

Project	Programmatic Goal	Green Attributes
● Recently Completed (cont'd)		
6. Hutchins Center - The Cooper Gallery	Creation of new research center and art gallery	Lighting control systems Building Automation System to optimize energy utilization Low flow plumbing fixtures Low VOC paints and flooring materials Project commissioning 75% construction waste diversion
● Currently in Construction		
7. Longfellow Hall	Improve building infrastructure and accessibility, relocation of academic programs	Targeting LEED Gold
8. Dunster House	Renew undergraduate House life	LEED registered; targeting Gold Recycle demolition and construction debris Building and material reuse Recycled and regional materials, including certified lumber Low VOC emitting adhesives, sealants, paints, wood and agrifiber products Low lighting power density Regenerative drive elevators Reduction in use of potable water and rainwater harvesting Reduced storm water run-off Ventilation system with heat recovery to reduce energy consumption 24/7 building management system to respond immediately to changing weather and occupancy Water efficient plantings Low-flow/dual-flush plumbing fixtures Ceiling fans and natural ventilation in lieu of air conditioning Enhanced commissioning, measurement and verification of systems Envelope commissioning
● In Planning		
9. Winthrop House	Renew undergraduate House life	Targeting LEED Gold
10. Harvard Kennedy School	Foster interaction and collaboration; improve physical campus and facility function	Targeting LEED Gold
11. Smith Campus Center	Foster collegial interaction; improve physical campus and facility function	TBD
12. Cabot Science Library	Transform existing science library and adjacent space into collaborative learning environment	TBD
13. 9 Ash Street	Restore historic house	TBD

C. OTHER PLANNING PRIORITIES

Allston Update

Since last year's approval of Harvard's Institutional Master Plan (IMP) for Allston, the University has advanced several capital projects and planning initiatives. Much of the recent activity has been focused within the Harvard Business School campus, and around Barry's Corner (at the intersection of Western Avenue and North Harvard Street).

Projects Completed or Under Construction

Bright-Landry Hockey Center – Harvard recently completed an addition/renovation project that included the creation of an infill arcade of approximately 18,300 square feet of space between the Bright-Landry Hockey Center and Gordon Track facilities.

Ruth Mulan Chu Chao Center (Harvard Business School) – Construction has commenced on the Chao Center a new 75,000 square foot executive education facility. The building will include dining, meeting and classroom spaces as well as new outdoor landscaped courtyards and walkways.

Barry's Corner – Harvard University's real estate partner, Samuels and Associates, began construction of the Continuum development in 2014. The project includes 325 market-rate housing units and ground floor retail. Completion is estimated for the fall of 2015.

Charlesview Apartments – Interior demolition has commenced, and structural demolition is anticipated to take place over the winter. Site restoration will follow, including construction of a new street "Academic Way North."

Projects in Planning

Science – The University continues development of the building program and conceptual design for the Allston Science project. The project includes laboratory and teaching space for the School of Engineering and Applied Sciences, as well as a significant amount of flexible lab space dedicated to cross-faculty collaborations and experiments.

Greenway – Harvard is in conversations with the City of Boston and Allston neighborhood about planning for Rena Park, an early phase of the Greenway, a network of green spaces for the campus and community.

Harvard Stadium – Harvard continues to examine options for the renovation and addition to Harvard Stadium. The project is in the early phases of design, but is envisioned to include new program space, improved accessibility for visitors with disabilities, renovated visitor amenities, and repairs and restoration of key components of the existing structure.

Klarman Hall (Harvard Business School) – Design and permitting for a new classroom and academic building will take place in 2015. The project, containing 140,000 square feet, is currently envisioned to replace Burden Hall, just south of the existing building. Construction is expected to start in 2016.

Other Planning Activities

Expanded Shuttle Service – With the occupancy of the Continuum development anticipated in the fall of 2015, a new shuttle service, the Harvard Square Express, will

be introduced between Barry's Corner and Harvard Square via North Harvard Street and JFK Street. The route is expected to use existing stops along those streets with the addition of a new stop in Barry's Corner. Harvard will coordinate the route plan with the City of Cambridge and review the need for other potential improvements.

In support of Allston Science project, the existing Allston Express loop will be altered to extend service further west along Western Avenue to a new stop on Academic Way. This bus route will continue to travel along the same streets and utilize existing stops in Cambridge.

Soldiers Field Road Crossing Study – Harvard is working with the Department of Conservation and Recreation (DCR), and the City of Boston to study pedestrian and bicycle crossings along Soldiers Field Road between Market Street and the Eliot Bridge.

MassDOT Allston I-90 Interchange Improvement Project – MassDOT has assembled a task force team consisting of residents, business owners, and other local stakeholders with the goal to work through all details associated with the project. Harvard has a representative seat on the task force. The project is currently in the Concept Design stage. For additional information see:

<http://www.massdot.state.ma.us/highway/HighlightedProjects/AllstonI90InterchangeImprovementProject.aspx>

Proposed West Station – Harvard continues to support the construction of West Station as a new intermodal center along the Framingham-Worcester branch of the MBTA commuter rail system. Harvard has made a commitment to share the construction cost of the station. This is in addition to providing the necessary easements on Harvard property for the station, its tracks and access roads. MassDOT will permit and design the station as part of its Allston Interchange project. MassDOT estimates that construction of the Allston Interchange project will begin in mid-2017 and will be ongoing until the end of 2020.

Planning for Bicycle Facilities

Cycling is recognized as an integral component of the University's transportation system and is part of the University's commitment to building a healthy, more sustainable campus. The University continues to make significant investments in new bicycle facilities on campus and in the collaborative planning and implementation of local and regional cycling initiatives.

New Bicycle Facilities

Over the past several years Harvard has made considerable improvements and enhancements to bike facilities on the Cambridge campus. Recent investments include:

- **Sheltered bike-parking:** In recent years, Harvard has created new bike parking facilities across its campus which provide more than 400 sheltered parking spaces.
- **Bike rack survey:** In the Summer of 2014 Harvard Planning & Project Management and CommuterChoice undertook a comprehensive bike rack survey of the Cambridge campus. Survey information such as capacity and rack condition will help inform planning for additional bike parking and the improvement of existing spaces.

- **Bicycle repair stations:** This year, two additional stations were installed at the Francis Ave Bike Shelter and Gund Hall (Harvard Design School). There are now a total of five repair stations on the Cambridge campus.

An interactive map of all existing bike facilities on Harvard’s Cambridge campus is available on the CommuterChoice website (www.commuterchoice.harvard.edu). The map provides locational information on bike routes, parking areas, and key attributes such as rack type and whether parking is sheltered.

Bike Sharing Programs

Harvard’s Cambridge campus is served by several bike sharing programs which provide cycling transportation alternatives without owning a bicycle. These programs include:

Hubway

Harvard continues to collaborate closely with the cities of Cambridge and Boston to support the regional bike-sharing program, Hubway, around its main campuses. The University supports seven Cambridge stations, at Peabody Terrace, the River Houses, the Kennedy School, the Law School, the School of Engineering and Applied Sciences, Gund Hall and the Radcliffe Quad.

Hubway provides an alternative to driving between the Cambridge, Allston, and Longwood campuses, enhances transit options for areas of the Harvard campus not as well served by existing transit facilities, and improves connections between existing public and private transit modes. The system also contributes to the University’s sustainability goals by reducing inter- and intra-campus vehicle trips.

Harvard’s support for Hubway includes offering its affiliates a 40% discount on annual membership. Since this program was launched in May 2013, over 1,700 people in the Harvard community have taken advantage of this program.

CrimsonBikes

This student-initiated bike sharing program had its inception in 2009. Since that time it has evolved to become Harvard’s first campus-wide bike share network utilizing multiple checkout stations throughout campus that are supported by a website which monitors reservations at any time of day.

Departmental Bike Program

CommuterChoice offers a subsidy to University departments for the purchase of one or more bicycles to support department members’ travel around campus. The program also assists with purchasing of bike accessories, coordinating regular maintenance, registering bikes with the Harvard University Police Department (HUPD), and establishing departmental bike monitoring systems.

CommuterChoice Cycling Initiatives

The University’s CommuterChoice Program also sponsors several initiatives that promote cycling at Harvard. These efforts include:

- **Bike Week** – As part of Bike Week activities in 2014, 166 Harvard cyclists rode 4,536 miles as part of the Mass Commute Challenge, which encourages bike

commuting during the week. Other events included the CommuterChoice Bike Breakfast, which attracted over 250 cyclists and featured free bike safety checks, a raffle for cycling equipment, and giveaways including Hubway memberships.

- **LOOK Campaign** – This initiative, launched in Spring 2014 by HUPD and the Harvard Transportation Department, works to remind motorists, bicyclists and pedestrians to be alert and aware of their surroundings. As part of promotional events held during the Spring and Fall, 100 free helmet certificates were distributed to bicyclists, and side mirror stickers designed to combat “dooring” and increase awareness of cyclists were distributed to motorists throughout the Harvard community.
- **Bicycle Safety and Repair** – CommuterChoice offers reimbursement to employees for expenses associated with taking bicycle safety or repair classes at local bike shops. It also encourages affiliates to participate in classes held through the City of Cambridge focusing on urban cycling, bike repair and maintenance techniques, and women-powered cycling.
- **Discounted Helmets** – Through funding from the Boston Public Health Commission, Harvard offers \$10.00 helmets for sale at the CommuterChoice office. Over 350 were sold in 2014, nearly doubling helmet sales from the previous year.
- **Bike Benefit Program** – This new initiative established in 2013 provides a benefit of up to \$240/year for the purchase, repair, maintenance or storage of a bicycle for eligible employees. The new benefit has proven to be extremely popular, with 241 employees participating in the first year.

Planning for Cycling Networks

Harvard continues to support the improvement and growth of local and regional bike networks that connect the campus with the City of Cambridge and the greater Boston area. These efforts include:

- Examining Harvard’s existing bicycle network on the central campus and identifying areas for potential improvements.
- Collaborating with the City of Cambridge on municipal bicycle planning initiatives.
- Working with the City of Boston on the installation of bike lanes on Allston roadways that connect the Allston and Cambridge campuses and extend the bike network to the south and west.
- Advocating for the inclusion of new bike lanes on the river bridges that connect Boston and Cambridge as part of planning for MassDOT bridge renovation projects.

D. SUSTAINABILITY

Creating a Healthier, More Sustainable Campus

Harvard recognizes that the challenges of climate change and environmental degradation pose a serious threat to the future – and, increasingly, to our present. These global problems require a bold, clear response from organizations, governments, and businesses. In addition to the University’s path-breaking energy and environment-related research and teaching, Harvard is committed to modeling an institutional pathway to a more sustainable campus community.



A science-based goal established in 2008 to reduce greenhouse-gas emissions 30 percent by 2016, is the University’s most ambitious sustainability commitment to date. University-wide Green Building Standards originally adopted in 2009 were upgraded in 2014. Sustainability Principles, adopted in 2004, provide a broad vision to guide University-wide sustainability efforts. Harvard’s first University-wide Sustainability Plan, released in October 2014, builds on this progress by aligning the University’s Schools and departments around a holistic framework, goals, and priorities for a healthier, more sustainable campus.

Harvard’s sustainability initiative is focused on institutionalizing best practices in sustainable operations and translating our research into practice by using our campus to tackle real world challenges. We also have a deeper mandate that goes to the heart of the University’s mission: to educate and empower our students while on campus to become leaders who will use their knowledge to create sustainable impact in service to the world. The centerpiece of this strategy is scaling sustainable change for maximum impact. We aim to empower the Harvard community to innovate on the local level and then identify those solutions that can be replicated and scaled up across the University for maximum impact. These replicable models are also shared with our peers in the business, higher education, and government sectors to scale change beyond the boundaries of our campus.

Turning Research Into Practice

The University has a unique ability to leverage the intellectual capacity of its students and faculty to pilot innovative sustainability solutions on their campus. The Office for Sustainability, in collaboration with Harvard’s Schools and departments, facilitates opportunities to turn research into action on Harvard’s campus to envision the ideas and innovations that will lead to a better future. For example, Student Sustainability Grants provide students with seed funding to act on their creative ideas, and Harvard’s undergraduate River Houses have been incorporated into a study at the Harvard T.H. Chan School of Public Health exploring how environmental factors impact health, comfort, and sleep.

Fostering Collaboration and Shared Solutions

Lasting solutions come from collaboration and strong partnerships across sectors. Harvard is taking a leadership role in a wide range of community partnerships to drive collaborative change across the region.

City of Cambridge Partnerships: Harvard is proud to be a founding signatory and active partner in the Cambridge Compact for a Sustainable Future. In addition, University leaders serve on the Net Zero Task Force, and faculty are playing an active role advising on the City's Climate Change Vulnerability Assessment.

Green Labs Symposium: In March 2014, Harvard, in partnership with the Boston Green Ribbon Commission, hosted a regional Green Labs Symposium for higher education and health care leaders to highlight best practices in sustainable lab operations.

International Sustainability Conference: In June 2014, Harvard and MIT co-hosted the annual conference of the International Sustainable Campus Network. The conference was an opportunity for higher education leaders to examine today's emerging critical issues for sustainability and explore strategies that push boundaries toward new innovations, identify new opportunities for collaboration, and amplify our measurable impacts globally.

Roadmap to a Sustainable Community

As part of the University's ongoing and evolving commitment to sustainability, in October 2014 the Office for Sustainability released Harvard's first University-wide Sustainability Plan. The Plan unites Harvard's decentralized campus around a holistic vision and sets clear University-wide goals and priorities based on the innovations and solutions that have been developed at individual Schools and central administration departments.

The Plan was developed after a comprehensive, year-long stakeholder engagement process that sought input from hundreds of faculty, students, and staff across the University. It was informed by the latest in sustainability science from Harvard's leading faculty experts. In addition to the existing climate goal, three additional sustainability goals are laid out in the Plan and set specific targets within a set timeframe:

Waste: Reduce waste per capita 50 percent by 2020 from a 2006 baseline, with the goal of becoming a zero-waste campus.



Water: Reduce University-wide water use 30 percent by 2020 from a 2006 baseline, including process, irrigation, and potable water use.

Landscaping: Maintain at least 75 percent of the University's landscaped areas organically by 2020.



The Plan also establishes and requires compliance with operational standards in the areas of green building, green cleaning, green IT, climate preparedness, procurement, and healthful food. Finally, Harvard set out 32 commitments and recommendations for future research and action in areas ranging from sustainable procurement requirements for vendors, to governance and engagement programs designed to build a culture of sustainability across the University.

Emissions and Energy

Harvard has developed a comprehensive, community-driven energy and emissions reduction strategy focused on energy efficient buildings and a cleaner energy supply. As a result, University-wide emissions have been reduced 21 percent through Fiscal Year 2013. Excluding growth in square footage, emissions have dropped 31 percent.

Energy reduction: As the result of an energy management planning initiative in place since 2008, all energy intensive space in the University has been audited and over 1,300 energy efficiency measures have been implemented, saving an estimated \$9 million a year.

Renewable energy: Harvard has over 1 MW of installed solar capacity on campus, including the University's newest array on the roof of the Harvard Divinity School's Center for the Study of World Religions. The 70 solar panels are expected to produce enough energy to cover 25 percent of the Center's electricity needs.

District energy: The greenhouse gas emissions reductions resulting from fuel-switching at Harvard Blackstone Steam Plant have contributed to more than 25% of the University's progress towards its greenhouse gas reduction goal. In addition, boiler upgrades, a 5 MW back pressure turbine, and upgrades to the chilled water facilities have further increased efficiency and reduced emissions. The combined heat and power (cogeneration) project currently underway in 2014-2015 is expected to produce an additional 7 MW of electricity, resulting in a reduction of emissions by approximately 9,000 MTCDE.

Green Revolving Fund: Harvard's \$12 million green revolving fund has accelerated the adoption of over 200 cost-effective energy efficiency projects that have resulted in a projected \$5.4 million annual utility savings and 14,000 annual reduction of metric tons of carbon dioxide equivalent.



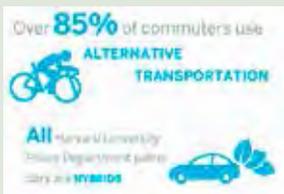
Campus Facilities and Operations

The University is an international leader in green building with more LEED certified building projects than any other higher education institution in the world according to the U.S. Green Building Council. To date, there are 89 LEED certified and 23 LEED registered building projects on campus. In Cambridge alone, there are 65 LEED certified and 17 registered projects, including the recent renovation of the Harvard Art Museums.

Green Building Standards: In 2014, Harvard revised its University-wide Green Building Standards that apply to all capital projects on campus. The updated Standards align the University's approach with internationally recognized best practices in green building and technology, and, for the first time, include:

- Requirement for a feasibility analysis of Net-Zero and Living Building Challenge.
- Consideration of healthy materials and requirement for health impact disclosure from vendors to inform further research, understanding of, and action on healthy building materials.
- Requirement for specifically targeting energy reduction strategies in energy-intensive laboratory and data center (IT) spaces, including co-location of heat generating equipment and use of national standard for Power Usage Effectiveness.

In 2014, the first completed project in Harvard College's House Renewal initiative, Stone Hall, received a LEED Platinum rating, the highest rating possible. Sustainability improvements included energy-efficiency upgrades to reduce costs and curb greenhouse gas emissions, use of nontoxic building materials, improved lighting, reuse of existing materials, and installation of a rainwater harvesting system to reduce irrigation water usage by 61 percent. Similar measures will be an important part of the other House Renewal projects now underway and in the future.



Climate Preparedness and Campus Resilience: Harvard faculty actively participate in the City of Cambridge's Climate Change Vulnerability Assessment. The University is also working with the cities of Cambridge and Boston to coordinate development of a unified set of vulnerability models to inform preparedness planning across the region. In addition, an internal Harvard University Climate Preparedness Working Group is expected to develop standards for climate preparedness and campus resilience by 2016 that will apply to new and existing building design and critical infrastructure. A University-wide Climate Preparedness and Campus Resiliency Plan is due to be delivered by 2020.

Waste Reduction: The University's aggressive waste reduction campaign focus on reuse first, and then recycling and composting. In 2014, Harvard began composting in all freshman dormitories in Harvard Yard as a result of a student-led initiative. The composting initiative provides freshman with a tangible opportunity to act for a healthier planet. Harvard's new waste vendor picks up recycling, composting, and waste in low-emission trucks fueled by natural gas.

Transportation: Over 85% of Harvard's commuters use alternative transportation options. In addition, all Harvard University Police Department patrol vehicles are fuel-efficient Ford Fusion hybrids, there are 14 electric vehicle charging stations across campus, and the University continues to support 12 Hubway stations across the region.

Green Cleaning: *Green Seal* certified green cleaning services are used on more than 10 million square feet of campus space. Harvard has committed to achieve University-wide compliance with Green Cleaning Standards by 2020. 75% of the University is already compliant with these Standards.

Nature and Ecosystems: The University continues its strong commitment to incorporate sustainability goals into its planning activities. Organic landscaping practices are in use on over 90 acres of campus landscape, including Harvard Yard.



Health and Well-Being

Harvard understands that the vitality of our University depends on the health of our people and we are working to develop cutting-edge programs that will enhance the health and well-being of all our students, faculty, and staff.

Personal Well-Being: The Healthy Harvard and Harvard on the Move initiatives promote well-being and an active lifestyle for students, faculty, and staff across the University. In addition, Harvard is launching an initiative to study and reduce exposure to toxic chemicals with a focus on the natural and built environment, indoor air quality, furnishings, and cleaning products.

Food: As of January 2014, all of Harvard's undergraduate dining halls have earned Green Restaurant Association 2- or 3-star certification for their ongoing efforts to operate efficiently and source sustainable products. Harvard University Dining Services partnered with National Geographic fellow and nationally-recognized

chef Barton Seaver to create a model institutional seafood purchasing program that balances cost, sustainability, and health. In addition, Harvard students and staff maintain two community gardens in Cambridge at the Harvard Divinity School and on Mt. Auburn Street, and Harvard Faculty Club chefs grow local food and herbs in a community garden on their property for use in meals prepared for their guests.



Food Better Campaign

Over the 2013-2014 academic calendar, Harvard undertook a year-long outreach campaign and community-wide dialogue about the food system and how to improve it – how to grow better, eat better, shop better, conserve better... how to Food Better. The Food Better Campaign is a collaboration between Harvard Law School's Food Law and Policy Clinic, Harvard University Dining Services, and the Office for Sustainability.

The Harvard Innovation Lab is also hosting a year-long Deans' Food System Challenge, in which students from across the University are invited to develop innovative solutions to make our food system more healthy and sustainable.

Culture and Learning

Cross-Disciplinary Research and Teaching: Harvard's teaching and research – in climate science, engineering, law, public health, policy, design, and business – is accelerating the progression from non-renewable to renewable sources of energy. With over 260 courses offered on energy, sustainability, or the environment, and more than 225 faculty affiliated with the Harvard University Center for the Environment, Harvard faculty and students are playing key roles in generating solutions to climate change and a more sustainable future. In 2014, President Faust launched a \$20 million Climate Change Solutions Fund to catalyze research specifically focused on shaping the transition to a sustainable energy system.

In 2014, Harvard launched a new Center for Green Buildings and Cities hosted by the Harvard Graduate School of Design (GSD). The Center, located at 20 Sumner Road, aims to disseminate findings and continue to explore the role that building efficiency plays in the larger urban context of sustainability. By strongly emphasizing innovation and multi-disciplinary collaboration, the new Center will work to promote holistic change within the built environment, namely the creation and continued improvement of sustainable, high performance buildings and cities. The Center's Inaugural Challenge Conference convened visionaries from diverse disciplines to articulate the global environmental challenge of climate change and new strategies for sustainable building and planning.



Community Action: Over 3,500 employees have been engaged in the more than 200 offices recognized through the University's Green Office Program. 40 students are hired every year to manage peer-to-peer outreach and education campaigns in dorms and living spaces, including all Harvard University Housing properties. More than 183 student, staff and faculty campus innovators have been recognized at Harvard's Green Carpet Awards since 2010.

III. TRANSPORTATION DEMAND MANAGEMENT

Harvard University remains a leader among Cambridge's large employers for consistently reducing its exceptionally low Single Occupancy Vehicle (SOV) rate. According to the latest PTDM survey results, Harvard's SOV rate has continued to remain low and is now at 11.2% for Cambridge-based employees and graduate students. Harvard's proactive Transportation Demand Management programs and incentives offered by the CommuterChoice Program continue to provide the incentive necessary to encourage commuters to leave their cars at home. CommuterChoice Program offerings include: MBTA monthly pass subsidy and pre-tax savings.

CommuterChoice Program

- 50% MBTA monthly pass subsidy and pre-tax savings.
- 50-75% Carpool and vanpool subsidy and partner matching.
- Preferential parking for carpools and low-emission vehicles.
- Emergency Ride Home Program for green commuters.
- Discounted annual Zipcar membership.
- Discounted annual Hubway membership.
- Bicycle Commuter Benefit.

Highlights from the past year include:

- Sold an average of 7,200 subsidized MBTA monthly passes each month.
- Implemented pre-tax parking program for transit commuters with over 230 participants.
- Increased Zipcar membership to over 11,000 registered participants.
- Awarded Gold Level Bicycle Friendly University status by the League of American Bicyclists.
- Named a Workplace Charging Challenge partner by the United States Department of Energy.

Parking and Transportation Demand Management Plan

Harvard's Parking and Transportation Demand Management (PTDM) Plan, approved by the City of Cambridge in 2003, provides a baseline assessment of Harvard's parking supply and management of vehicle trips through the transportation demand measures and strategies offered by the CommuterChoice Program.

The PTDM Plan describes the transportation services and financial incentives that Harvard offers its students, staff, and other affiliates. Harvard's PTDM programs, which are administered by CommuterChoice, are having a direct positive effect on greenhouse gas emissions by reducing employee and student automobile trips to campus.

A copy of Harvard University's PTDM Plan is available at: <http://home.hppm.harvard.edu/pages/reports>. Harvard submits annual PTDM updates which are on file with the City's Community Development Department.

IV. ANTENNA INSTALLATIONS

Harvard, like all institutions of higher education in the 21st century, must continue to provide and upgrade the technological infrastructure that supports its teaching and research mission. The increasing use of wireless, web-based, and remote platforms for instruction and collaborative research across the University has meant growing demand for cellular and wireless services, and the need for improved coverage, signal strength and capacity.

Because cellular and wireless services are provided by individual service providers, each with their own communication networks and technologies, there is an ongoing need to improve coverage and expand capacity across multiple carriers. This has resulted in a growing number of antenna installations required to meet the communication needs of cellular and wireless users who are served by different carriers.

Distributed Antenna System (DAS)

To address the proliferation of cellular installations, Harvard has recently begun implementation of a neutral host Distributed Antenna System or DAS that will enable the University to not only provide better coverage within its buildings and immediately surrounding campus areas, but also to coordinate antenna installations and system improvements among multiple service providers.

The DAS establishes a network of strategically located antenna nodes that are connected to a common signal source which accommodates multiple service providers. Each antenna node or “host site” distributes carrier signals to clusters of campus buildings, providing high quality micro level coverage to the University’s end users.

The DAS network provides the ability to limit exterior equipment installations to a smaller number of campus nodes that can serve multiple carriers. This significantly reduces the number of antenna installations that would typically be required to provide high-quality coverage across multiple wireless communications providers’ systems.

Minimizing Visual Impacts

Where exterior antenna and equipment installations are required, Harvard and its DAS consultants have worked to minimize their visual impacts to the greatest extent possible. As a general rule, Harvard has sought to exclude antenna installations from its most architecturally significant and iconic campus buildings. Where possible, existing building elements are used to conceal or minimize the visibility of exterior equipment. This can include mounting antennas against mechanical penthouses, chimneys, vents or other



existing rooftop elements. For such installations, equipment is typically painted to match the background location as closely as possible.

In some instances, antennas and other required equipment utilize a “stealth” treatment that camouflages the equipment to better visually blend in with its surroundings. This can include creating the appearance of brick or other desired background material on antenna panels; creating false chimneys, vents or other roof top elements that simulate those already present on the building to enclose equipment; or screening the equipment in visual extensions of existing mechanical penthouses.

In meeting its regulatory obligations for antenna installations, Harvard and its consultants work with City of Cambridge planning and design staff to review proposed installations to identify appropriate locations and visual treatment options. Where applicable, installations proposed within historic districts or neighborhood conservation districts are reviewed with the staff of the Cambridge Historical Commission.

V. INSTITUTION SPECIFIC INFORMATION REQUESTS

1. **Provide an update on plans for Harvard’s Allston campus and any anticipated impacts on the City of Cambridge.**

See Allston Update page 36.

2. **Describe your involvement with the Massachusetts Department of Transportation on the I-90 Allston Interchange Project and plans for commuter rail and the West Station.**

See Allston Update page 36.

3. **What is Harvard’s strategy in selecting tenants for retail sites? How is retail used to enhance the urban experience. Describe plans for properties currently held by the University on or abutting Massachusetts Avenue. Particular attention should be paid to a description of the uses intended for the ground floor of these sites, as related to community concerns about maintaining an active retail environment.**

Harvard shares the community’s interest in maintaining a unique retail environment in Harvard Square. When selecting tenants for available retail spaces, Harvard seeks tenants that will have active ground floor uses, offer goods or services that complement the retail mix in Harvard Square, and that are compatible with other University uses in the building. Harvard’s ongoing commitment to maintaining a vibrant Harvard Square is illustrated by its leases with over 30 businesses in the Square, including long-time independent retailers such as the Grolier Book Shop, Leavitt & Peirce, and Harvard Bookstore.

Most of the campus properties that are located on or which abut Massachusetts Avenue are expected to continue in their current institutional academic and residential uses. Harvard is continuing planning for the Richard A. and Susan F. Smith Campus Center to be located in the former Holyoke Center (see Smith Campus Center discussion). The project will seek to preserve ground floor uses that enhance street level activity on Massachusetts Avenue, Holyoke Street and Dunster Street.

Other Massachusetts Avenue properties located in commercial areas in Harvard Square (for example those across from Harvard Yard) contain ground floor retail uses with housing for Harvard affiliates on upper stories. Harvard will continue to seek active retail or service uses on the ground floor of these buildings.

4. Discuss planning for bicycle facilities on campus, including Hubway stations.

See Planning for Bicycle Facilities page 37.

5. Provide more detail on the House Renewal Program, particularly where it involves converting graduate student housing, affiliate housing, or other facilities, including the Inn at Harvard, to temporary undergraduate housing. Discuss the long term plans for such temporary facilities, after the House Renewal Program is complete.

Harvard is using existing University-owned buildings in and around Harvard Square to provide temporary accommodations to students displaced by House Renewal construction. The central hub of the “swing house” is 1201 Massachusetts Avenue, the former Inn at Harvard, which now accommodates the dining, meeting, social, academic, and a portion of the residential spaces for the House. The building at 1201 Massachusetts Avenue is particularly well suited to this role given its pre-existing layout as a hotel and its location adjacent to Harvard Yard and close to the other Harvard Houses. Several Harvard-owned residential buildings in the area also supplement 1201 Massachusetts Avenue, providing residential space for displaced students: 8 Plympton Street, 1306 Massachusetts Avenue, 65 Mt. Auburn Street, 20-20A and 22-24 Prescott Street. The House Master’s temporary accommodations are located at 8 Prescott Street. Together, these properties meet the program needs of all the Houses, even those with the largest student populations. During academic years when these buildings are not needed for swing use, they will be used as residences for other Harvard affiliates.

Harvard houses 99% of the undergraduate population on campus, promoting a residential campus as part of the core educational mission. In recent years Harvard has added nearly 1,000 beds in Cambridge and Boston, increasing the University’s capacity to house 50% of the graduate, professional, and medical students. This increased capacity will help to mitigate the temporary reduction of up to 240 beds available to graduate students during the House Renewal program. Upon completion of the House Renewal program, the five Harvard-owned residential buildings will continue their long-standing role in providing housing to Harvard’s students, faculty, and staff. The long term use of 1201 Massachusetts Avenue has not yet been determined, but it is anticipated to remain in institutional use.

6. Provide an updated on the Fogg Museum Project, with particular attention to effects on the surrounding community and streetscape.

See 32 Quincy Street, Harvard Art Museums page 15.

7. Provide an update on the remediation efforts for the commercial parcel at Everett Street and Massachusetts Avenue, as well as Harvard's planning for the future use of that site.

Harvard's remediation activities continue. As has been previously noted, this is an iterative process that involves testing and treatment cycles; therefore, it is not possible to provide a definitive time frame for achieving a permanent solution for the site. The remediation is complicated by the physical constraints of the current building slab and its relationship to the location of the primary source area.

As part of the remediation process, Harvard continues to evaluate the building's future. Due to the limitations that the building places on the remediation process and the fact that some of the building materials have been compromised by contamination, there is a strong possibility that the building will need to be demolished. If that occurs, Harvard understands the desire of the abutting neighborhoods to see retail as part of any future use on the site and, the University will engage with Agassiz-Baldwin, Neighborhood Nine and the City of Cambridge on any plans. In the meantime, Harvard will continue to work to enliven the site; recent efforts have included installing colorful pictures that cover the entire window surface.



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