HARVARD UNIVERSITY

2012Town Gown Report

for the
City of Cambridge

Submitted by: Harvard Planning & Project Management



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I. EXISTING CONDITIONS

A. FACULTY & STAFF 1

	2008	2009	2010	2011	2012
Cambridge Based Staff					
Head Count	12,017	12,027	11,444	11,644	11,854
FTEs	9,725	9,761	9,146	9,300	9,507
Cambridge Based Faculty					
Head Count	1,760	1,783	1,715	1,755	1,823
FTEs	1,590	1,621	1,572	1,605	1,660
Number of Cambridge Residents Employed at Cambridge Facilities	4,166	4,105	3,927	3,897	3,903
Number of Cambridge Residents Employed at Boston Facilities	732	720	747	754	747

Ten-year projection

Growth projections are influenced by many factors and no central University department has undertaken such projections for faculty and staff counts.

^{1.} Employment figures are as of June 30, 2012.

B. STUDENT BODY²

	2008	2009	2010	2011	2012
Total Undergraduate Degree Students	7,081	7,156	7,181	7,255	7,232
Day	6,648	6,678	6,655	6,641	6,657
Evening	[433]	[478]	[526]	[614]	[575]
Full Time	6,837 [196]	6,890 [223]	6,869 [219]	6,909 [276]	6,904 [252]
Part Time	244 [237]	266 [255]	312 [307]	346 [338]	328 [323]
Total Graduate Degree Students	9,238	9,486	10,191	10,211	10,086
Day	8,538	8,557	8,730	8,896	8,880
Evening	[700]	[929]	[1,461]	[1,315]	[1,206]
Full Time	8,495 [147]	8,485 [126]	8,767 [220]	8,868 [126]	8,816 [74]
Part Time	743 [553]	1,001 [803]	1,424[1,241]	1,343[1,189]	1,270[1,132]
Total Non-degree Students	5,653	6,172	6,525	6,354	6,350
Day	353	313	285	322	313
Evening	[5,300]	[5,859]	[6,240]	[6,032]	[6,037]
Total Number of Students in Cambridge	21,972	22,814	23,897 ³	23,820	23,668 4

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, no central University department has undertaken projections regarding future student population.

^{2.} Counts as of October 15, 2011 for 2012. Includes all non-degree students enrolled in day or evening classes, such as persons taking classes at Harvard Extension School.

^{3.} Growth is primarily attributable to increases in students attending Harvard Extension School.

^{4.} Counts starting in 2012 are unduplicated. Students enrolled in more than one program at Harvard are counted only once.

C. STUDENT RESIDENCES

	2008	2009	2010	2011	2012	
Number of Undergraduate Students Residing in Cambridge						
In dormitories ⁵	6,485	6,566	6,566	6,363	6,545	
With cars garaged in Cambridge	33	17	22	12	15	
In off-campus affiliate housing ⁶	0	0	0	0	4	
In off-campus non-affiliate housing	112	115	109	162 ⁷	142	
Number of Graduate Students Residin	g in Cambr	idge				
In dormitories	1,164	1,181	1,270	1,230	1,181	
With cars garaged in Cambridge	132	208	156	177	172	
In off-campus affiliate housing	1,546	1,7478	1,706	1,731	1,625	
In off-campus non-affiliate housing	3,347	3,333	3,279	3,447	3,437	

Ten-year projection

No central University department has undertaken projections regarding future student residences.

^{5.} Prior to 2011 the figures reported were beds available for undergraduate students. Beginning in 2011 the number of undergraduate students residing in Cambridge dormitories is reported. Includes undergraduates housed at 10-20 DeWolfe Street.

^{6.} Prior to 2012 this number was not available.

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

^{8.} The completion of 10 Akron Street and three wood frame houses on Hingham Street and Western Avenue increased the availability of affiliate housing for graduate students in Cambridge.

D. FACILITIES & LAND OWNED

	2008	2009	2010	2011	2012
Acres (Tax Exempt) 9	201.59	201.59	201.59	202.68	190.4
Acres (Taxable) 9	24.61	24.61	24.61	24.97	23.1
Number of Buildings ¹⁰	395	395	388	390	391 ¹¹
Dormitories					
Number of Buildings	77	80	80	74 ¹²	74
Number of Beds	7,791	7,917	7,918	8,287 ¹³	8,258
Size of Buildings (GFA)	15.1M	15.5M ¹⁴	15.5M	15.5M	15.9M ¹⁵
Assembly/ museum	884,536	884,536	997,167	987,520	972,554
Athletic	225,761	225,761	210,780	210,780	210,780
Classroom	482,330	866,512	866,512	866,512	877,524
Commercial	282,045	282,045	282,045	282,045	282,045
Healthcare	77,155	77,155	77,155	77,155	77,155
Laboratory	2,861,537	2,485,937	2,546,699	2,546,699	2,587,479
Library	1,122,453	1,154,716	1,086,080	1,091,446	1,091,084
Office	2,496,780	2,882,301	2,880,697	2,871,984	3,096,323
Residential	5,713,873	5,714,655	5,646,543	5,663,194	5,606,735
Support	923,487	886,349	881,041	881,041	1,104,054

Harvard did not acquire or dispose of land in Cambridg in 2012. The 2012 number for taxable
and tax exempt land reflects a more accurate accounting of land that is partially taxable as of
7/1/2012.

^{10.} The number of buildings reported reflects all of Harvard's Cambridge buildings, both taxable and tax-exempt, as of 7/1/2012.

^{11.} Wasserstein Hall Caspersen Student Center and Clinical Wing and the Everett Street Garage were added in 2012. The adjusted number reflects the removal of one building (University Green, 130 Mt. Auburn St.) in which Harvard owns a condominium unit.

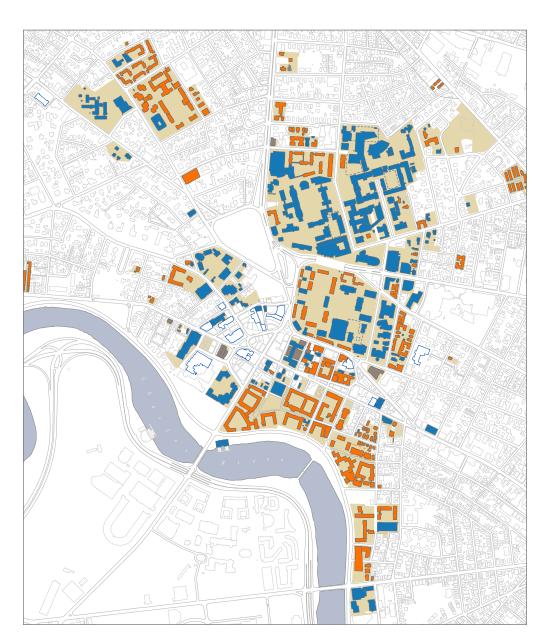
^{12.} The building number reported in 2010 included several buildings ancillary to dormitory residential buildings which have been excluded from the 2011 building count.

^{13.} 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.

^{14.} The majority of the apparent increase in SF is due to the reclassification of 124 Mount Auburn Street (370,381 SF) and 14 Story Street (26,056 SF) to "owned assets." Harvard holds long-term leases on these two buildings with ownership transferring to Harvard at the end of the lease term. These two buildings previously were included in the University's "leased assets" inventory and, therefore, not reported as owned buildings in earlier Town Gown reports.

^{15.} 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.

Real Estate Owned and Leased by Harvard University



Legend

Buildings by Ownership Status and Primary Use $^{(1)}$



Land Parcels

Harvard Owned

Notes:

- (1) Primary Use reflects predominant building use.
- (2) The Rowland Institute located at 100 Edwin Land Blvd is located outsite 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 as part of Harvard's annual PTDM Progress Report. Harvard updates the parking inventory annually in December.

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

	2008	2009	2010	2011	2012
Affiliate Housing - Tax Exempt					
Number of Units:	878	1,047 16	1,047	1,047	1,043 17
Number of Buildings:	8	12 ¹⁶	12	12	12
Affiliate Housing - Taxable					
Number of Units:	891	889	889	890 ¹⁸	891 ¹⁹
Number of Buildings:	53	53	53	54 ¹⁸	55 ¹⁹
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

^{16.} The increase in the number of exempt affiliate units and buildings from 2008 is due to the construction of new buildings and units at 10 Akron Street, 28 Hingham Street, 30 Hingham Street, and 387 Western Avenue. (Two basement units were removed at other locations.)

^{17.} The number of tax exempt affiliate units was reduced as a result of a reorganization of units at Peabody Terrace to create a new Facility Director Suite and to provide office space for the Peabody Terrace daycare.

^{18.} The number of taxable affiliate buildings and units has been corrected to add 11 Kirkland Place, which was left out of previous reports.

^{19.} The increase in the number of taxable affiliate buildings and units reflects the addition of 15 Hawthorn Street to the affiliate housing portfolio.

Property Transfers

Cambridge properties purchased since filing previous Town Gown Report:

None

Cambridge properties sold since filing previous Town Gown Report:

1791 Massachusetts Avenue

Planned dispositions or acquisitions:

Harvard is exploring the possibility of selling the Putnam Square Apartments at 2 Mount Auburn Street. If Harvard sells, it will require that any new owner commit to the long-term preservation of the property as affordable housing and will do so in a manner that will not impact who is eligible to live there or how the rents are calculated.

E. REAL ESTATE LEASED

Real Estate Leased by Harvard	Sq Feet	Tenant	Use
One Bow Street	19,011	FAS	Office
One Brattle Square	18,737	HKS	Office
One Kendall Square	27,000	HMS	Laboratory
One Story Street	6,125	DCE	Classroom
10 Ware Street	2,000	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	Office
50 Church Street	22,680	GSE	Office
625 Massachusetts Avenue	41,141	FAS	Office
TOTAL	319,313		

F. PAYMENTS TO CITY OF CAMBRIDGE

	2008	2009	2010	2011	2012
Total Payments	\$13,388,612	\$13,366,092	\$14,282,663	\$15,987,554	\$14,216,649
Real Estate Taxes Paid:	\$4,806,268	\$4,906,603	\$5,065,482	\$5,165,704	\$5,336,783
Payment in Lieu of Taxes (PILOT):	\$2,173,492	\$2,248,730	\$2,575,890	\$2,709,788	\$2,783,151
Water & Sewer Fees Paid:	\$5,159,149	\$4,994,405	\$5,258,274	\$5,564,756	\$5,174,472
Other Fees & Permits Paid:	\$1,249,703	\$1,216,354	\$1,383,017	\$2,547,306	\$922,243

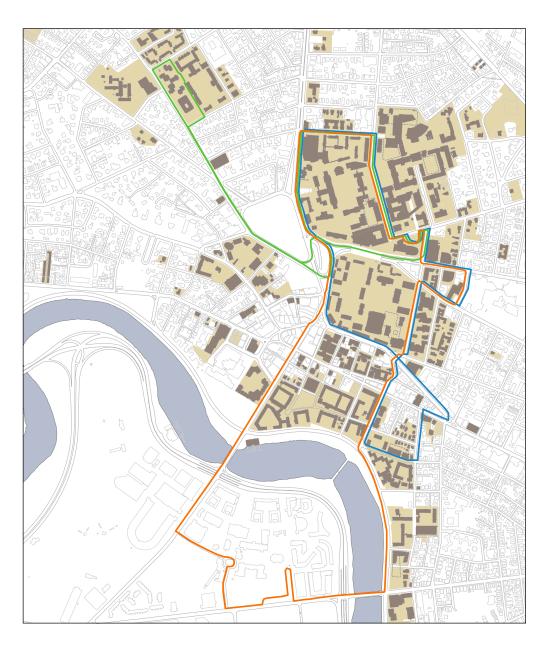
Ten-year projection:

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 - Morn	ing					
Radcliffe Quad (Stadium)	Quad, Square, River Houses, Allston Campus	30 minutes	5:30 am to 7:15 am			
Soldiers Field Park (II)	Allston Campus, Square, Quad, Square, Allston Campus	20 minutes	7:15 am to 10:30 am			
Weekday Service – All Day						
Mather Express	River Houses through Square to Kirkland St.	10 minutes	7:30 am to 4:30 pm			
Radcliffe Quad (Express)	Quad, Square to Kirkland St.	10 minutes	7:30 am to 5:00 pm			
Allston Campus	Allston Campus, Square, Mass Ave, Oxford St, Square, Allston Campus	15 minutes	7:50 am to 4:00 pm			
Weekday Service - Eveni	ings					
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			
Soldiers Field Park (III)	Allston Campus, Square, Kirkland St., Square, Allston Campus	35 minutes	4:00 pm to 9:00 pm			
Allston Campus	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	12:00 pm 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			
Soldiers Field Park (I)	Allston campus, Square, Quad, Square, Allston Campus	30 minutes	4:30 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's Passenger Transport 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 Soldiers Field Park route. Additionally, Harvard's Passenger Transport Van fleet includes five, ten-seat passenger vans and two wheelchair passenger vans. On weekdays, two of the vans run from 7:30 am-7pm; on weekends the vans run from 12pm-7pm. 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 evening service operates between 7pm and 3am, seven days a week throughout the academic year and 7pm-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 96,725 lbs per bus fleet and 43,091 lbs per van fleet. Harvard's Transport Service Department practices proactive maintenance on all vehicles and keeps the fleet on a short life cycle to ensure that the shuttles use the best technology available.

Schedules are very precise and do not allow for more than three minutes of idling, less than the five minutes is 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 FY2012 was 831,447.

Harvard's Passenger Transport Service (PTS) Department 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. Most recently, during the re-design of Harvard Square, several Harvard shuttle routes were altered in order to help alleviate traffic delays and congestion in the area. Harvard and the City work together during snow events to clear shuttle stops.

Harvard has developed a good 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 PTS 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. Opportunities for collaboration with other institutions have been limited due to the liability of having non-Harvard affiliated passengers riding on our vehicles.

II. FUTURE PLANS

A. DEVELOPMENT OVER THE PAST 5 YEARS

Harvard's development activity over the past five years has been focused on projects that advance the University's academic mission and improve quality of life on campus. A high priority for facilities improvements across the Cambridge campus is to address basic capital needs, which is reflected in ongoing maintenance and repair activities, major upgrades of building systems and campus infrastructure, accessibility improvements and projects which improve energy efficiency and sustainability.

The primary programmatic drivers of physical planning and development on the Cambridge campus continue to be: supporting academic programs and research; housing Harvard affiliates; enhancing the campus experience; promoting campus sustainability; and improving campus infrastructure.

Supporting Academic Programs and Research Support for academic and research programs continues to be the foremost driver for Harvard's physical planning and development. The past several years have seen sustained investment in new and renovated facilities that support core academic programs and research. A major focus has been the renovation of science and engineering facilities to advance research and teaching in the life sciences, chemistry, and bio-engineering. Recent development has also resulted in new and renovated facilities for graduate schools and professional programs. Significant projects include:

- Wyss Institute Renovation and fit-out of laboratories in buildings on the Cambridge campus for researchers at the Wyss Institute for Biologically Inspired Engineering.
- Gutman Library Transformation of the library's first floor into a new collegial space for members of the Harvard Graduate School of Education community.
- 32 Quincy Street Major renovation and expansion to create a consolidated stateof-the-art facility supporting the teaching and research mission of the Harvard Art Museum.

Housing Harvard's Affiliates

Harvard's total housing portfolio has over 13,000 beds in 8,000 units, ranging from dormitories to fully furnished apartments, which requires continual re-investment to maintain housing for students and affiliates. Across the housing portfolio, the University has prioritized projects that focus on life safety and building system upgrades, and interior renovations. Most recently, Harvard initiated a program for the renewal of its undergraduate Houses. Significant projects include:

- Old Quincy (Mather Hall) Harvard has commenced the first project in the comprehensive renewal program for the undergraduate houses.
- **Peabody Terrace** Harvard is undertaking a phased façade restoration of this residential complex and has made other targeted building and site improvements.
- **Riverside Housing** Creation of 500 beds of graduate student and affiliate housing in multiple buildings.

Enhancing the Campus Experience

Harvard has continued to implement projects over the past several years that contribute to the quality of campus life for students, faculty and staff. Projects have included improvements in non-academic facilities for students and affiliates, investments in the campus' artistic and cultural resources, and the enhancement of the campus landscape. Significant projects include:

- Radcliffe Yard Landscape Improvements Final phase of implementation of Radcliffe Landscape Master Plan focusing on the iconic central Yard and creation of new area for landscape and public art installations.
- Cambridge Street Overpass Landscape and pedestrian circulation improvements in coordination with City repairs to the Cambridge Street Tunnel.
- Pound Hall Landscaping project to create a "Crossroads" fro the Harvard Law School campus.

Promoting Campus-Wide Sustainability

In order to address the challenges of global climate change and environmental sustainability, Harvard has committed itself to integrating sustainability into the University's culture. Across campus, the Harvard community is dedicated to reducing its environmental footprint and building a healthier, more sustainable and efficient place to live, work, and learn. Key indicators of this ongoing commitment include:

- Greener, More Efficient Buildings Harvard has more LEED certified building
 projects than any higher education institution in the world. In 2012, Harvard
 reached a new milestone with over 2.5 million square feet of certified green building
 space. University-wide Green Building standards include life cycle costing, integrated
 design and energy modeling for capital projects.
- Energy and Emissions Harvard continues to make progress in meeting the University's goal of 30% Greenhouse Gas (GHG) reduction by 2016, by reducing building energy use and improving the efficiency of its energy supply.
- Culture Change Harvard's entire community of students, faculty and staff has
 continued to build a culture of sustainability. The University's comprehensive
 approach to institutional change has provided the tools, training, resources and
 programs that encourage collaborative problem solving and which advance Harvard's
 sustainability objectives.

Improving Campus Infrastructure

Over the last five years the University has made a significant investment in critical campus infrastructure including the following projects:

- Blackstone Steam Plant Multiple projects that have upgraded equipment, making steam production more energy efficient and enabling electric cogeneration.
- **Steam Distribution System** Tunnel repairs and upgrades and improved control, monitoring and metering systems for the Cambridge campus central steam system.
- **Electric Distribution System** Upgrades and expansion of campus electrical distribution system to meet future needs and new metering systems.

B. CAPITAL PROJECTS

Projects Recently Completed **Fay House** (Renovation)



Architect: Venturi Scott Brown and Associates

Total Square Feet: 20,600 GSF

Programmatic Driver: Improvement of administrative space

Green Attributes: Targeting LEED Gold

The Radcliffe Institute for Advanced Study completed the comprehensive renovation of Fay House in Spring 2012. The project included a complete interior renovation, accessibility improvements, an update of building systems, and exterior repairs and restoration. All of the project work was undertaken within a framework of maintaining the building's historic character. The renovated Fay House will continue to be the home of many of the Institute's administrative offices.

Gutman Library - First and Second Floors

(Interior Renovation)



Architect: Baker Design Group

Total Square Feet: 36,000 GSF

Programmatic Driver: Re-purpose first floor space to create a campus focus and

gathering space

Green Attributes: Targeting LEED Gold

The Harvard Graduate School of Education (HGSE) completed the transformation of the first floor of Gutman Library into a campus center serving the HGSE community. The renovated space now features a new campus café, seating areas, a reading room/art gallery that doubles as a large flexible community event space, and spaces for collegial collaboration and interaction.

The project also included the renovation of the second floor to create an open and collaborative office suite for the Library and features new Circulation and Reference Areas as well as additional quiet study rooms, doctoral student offices, and computer stations.

15 Hawthorn Street

(Restoration and Renovation)



Architect: Boyes-Watson Architects

Total Square Feet: 6,800 GSF

Programmatic Driver: Housing Harvard's affiliates
Green Attributes: LEED Gold for Homes

In 2008, Harvard received the property at 15 Hawthorn Street (1896) as a gift to the University. In spring 2012, Harvard completed its work to fully restore the exterior of the building with minor changes and to renovate and reconfigure the interior spaces for use as a single family residence. The project received a Certificate of Appropriateness from the Cambridge Historical Commission in July 2011.

Radcliffe Yard (Landscape Improvements)



Architect: Stephen Stimson Associates

Total Square Feet: Approximately 1.2 acres of landscape **Programmatic Driver:** Improvement of campus open space

Green Attributes: Improved site drainage, maintenance of existing tree canopy

The Radcliffe Institute for Advanced Study recently completed the final phase in the implementation of its Landscape Master Plan that included improvements to Radcliffe Yard. The completed project improves site drainage and addresses soil compaction; enhances the character of the transition areas between the perimeter path and building entrances; and clarifies way finding for visitors to Radcliffe Yard. The project also creates a new area for changing landscape and public art installations adjacent to the Radcliffe Yard.

32 Quincy Street, Harvard Art Museums

(Renovation and Expansion)

Projects
Currently in
Construction



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' project to renovate and expand 32 Quincy Street is making significant progress. The project will bring together Harvard Art Museums' three constituent museums—the Fogg Museum, the Busch-Reisinger Museum, and the Arthur M. Sackler Museum—in one state-of-the-art facility. The new facility will enhance the teaching and research mission of the Art Museums and create far more accessibility to their renowned collections through additional exhibition space, as well as an expanded object-based study center complex where visitors can view and study works of art that are not on display. Visitor amenities such as a café and museum shop will also be included.

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 will provide functional space for a world-class art institution and

support its new program. A new gallery addition is being constructed along Prescott Street that will provide the community with a second entrance of equal significance to the existing entrance on Quincy Street. A new glass rooftop addition will allow important natural light to filter into the museums' conservation labs and the study center complex, as well as the courtyard below.

The expansion is designed to minimize impact upon the historic structure, is distinct in its architectural expression, and respects the surrounding residential neighborhood and the historic Carpenter Center. New landscaping will also enhance the public realm with more usable green space and bicycle parking.

Construction began at the site in 2010 with selective demolition and abatement. Since that time, the restoration of the historic elements of the building was finished, while at the same time massive excavation was completed along Prescott Street, making way for the steel super structure that was erected over the summer for the new Piano addition. In the fall, the glass and metal structure that sits atop the building was installed, and the building is now winter tight. Work on the interior of the building will continue through 2013.

Skanska USA Building Inc. is managing construction of the project. Removal of material from demolition has been achieved with a recycling rate of 97%. The project is designed to follow the University's sustainability initiatives with the intention of attaining LEED Gold certification.

Pound Hall (Partial Demolition and Crossroads Project)



Architect: Finegold Alexander & Associates, Inc.

Total Square Feet: 39,000 GSF demolition

Programmatic Driver: Create campus gathering space

Green Attributes: Incorporating sustainable materials and methods

Harvard Law School is currently undertaking exterior modifications to Pound Hall as part of a major re-landscaping effort to create a "Crossroads" for the Harvard Law School campus. This project re-envisions what was passive, residual space into a vibrant, active landscape that functions both as a major campus pedestrian route as well as a centering gathering space. This project was conceived as part of the larger Harvard Law School campus master plan, planned to begin upon completion of the adjacent Wasserstein Hall Caspersen Student Center Clinical Wing (WCC) building. Collectively the project aims to create a new "heart" of the Harvard Law School campus as part of a series of linked landscaped areas connecting Massachusetts Avenue to the route to Harvard Yard through the interior of the campus.

To accommodate the programming goals and better facilitate the Crossroads' connections to the surrounding buildings, the project calls for the partial demolition of approximately one-third of Pound Hall's east wing. The classroom and meeting spaces eliminated through the removal of this wing have been replaced in the WCC. A new façade designed to complement the distinct modernist architecture of the building will re-clad Pound Hall's remaining east wing and will incorporate a new entry to the building. Together with the entries for the WCC, this new entry to Pound Hall will front the Crossroads directly, activating its role as a campus hub. The project began in February 2012 and is scheduled to be completed by late 2012.

House Renewal

Harvard has launched the long-planned systemwide effort to renew its undergraduate House system, which 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 on the Radcliffe Quad, along Garden Street.





House Renewal, as the program is known on campus, 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. Further, the Houses were 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 balance the need to preserve the historic character of these buildings and to sustain President Lowell's original vision of the Houses, while simultaneously transforming these spaces to support a twenty first-century intergenerational learning community that addresses the needs of today's students.

When planning for House Renewal began, Harvard convened the House Program Planning Committee (HPPC), which included student, faculty, and staff representatives, to develop the principles by which House Renewal was guided. The HPPC vision undergirds the programming and design of each House, while also considering the individual layout, history, and character of each House on its own merits.

A first test project is already underway on the Old Quincy section of Quincy House and another is slated to begin in June 2013, with construction on the McKinlock Hall section of Leverett House. Harvard is planning for the renewal of the first full House — Dunster House — beginning in June 2014. Harvard also plans to use the Harvard-owned facility at 1201 Massachusetts Avenue which now contains the Inn at Harvard as the hub of "swing housing" for students temporarily displaced by construction on their particular House. The pace and sequence of House renewal is subject to periodic review.

Old Quincy (Mather Hall) - House Renewal



Architect: KieranTimberlake
Total Square Feet: 58,000 GSF

Programmatic Driver: Renew undergraduate House life

Green Attributes: Targeting LEED Gold

As the first test project of the House Renewal program, Harvard is currently undertaking a comprehensive renovation of Old Quincy (Mather Hall), a 5-story, brick dormitory that is part of the larger Quincy House. Old Quincy's size and neo-Georgian architecture will provide valuable lessons that can be applied to other House buildings.

KieranTimberlake, the project architect, developed designs that will preserve and sustain the historic character and culture of the House, while renewing the House life experience as part of a twenty-first century education. Changes to Old Quincy include the elimination of walk-through bedrooms; the creation of single rooms; the addition of elevators for accessibility; vertical entryways connected horizontally by internal corridors; new seminar rooms and music practice spaces; and the addition of a large community room that will lead to an open-air terrace. In addition to being fully accessible, the building will be LEED Gold certified as environmentally friendly.

Construction on Old Quincy began in June 2012 and is anticipated for completion in summer 2013.

Cambridge Street Overpass

(Surface Treatment)



Landscape Architect: StossLU

Total Square Feet: Approx. 52,000 SF

Programmatic Driver: Improvement of landscape and pedestrian circulation **Green Attributes:** Studying options including storm water management

As part of the ongoing coordination with the City's repairs to the Cambridge Street tunnel, the University is in the process of refurbishing the plaza outside Harvard's Science Center, with the goal of transforming the site into a vibrant meeting space for students, faculty, staff, and the surrounding community.

The project includes the planting of a grove of trees, and a hard paved surface throughout, which will allow for a variety of programming options. New seating and tables will be installed. Lighting will be improved, and enhancements for the safety and access of pedestrians and bicyclists will be made.

In addition to the visible improvements, the project includes repairs to the roof of the Cambridge Street tunnel, including drainage enhancements and the replacement of the waterproof membrane. At the same time, the City of Cambridge is performing maintenance in the tunnel. The timing of these projects was planned to minimize disruption to the area.

Major construction began last June, with the project's completion expected by the summer of 2013.

Gannett House

(Renovation)



Architect: Austin Architects

Total Square Feet: 8,660 GSF

Programmatic Driver: Improve building infrastructure and accessibility

Green Attributes: To be determined

Harvard Law School is planning for a renovation of Gannett House, a three-story Greek Revival house built in 1830. The project is primarily intended to address a number of deferred maintenance issues including envelope stabilization and updated building systems. The project will also result in improvements to the building's overall accessibility and sustainability. Upon completion of the renovation, Gannett House will continue as the home of the Harvard Law Review, as it has been since 1925. Construction of this project will begin in December 2012 and is expected to be completed by Fall 2013.

Tozzer Library

(Renovation and Addition)



Architect: KVA

Total Square Feet: 35,000 GSF

Programmatic Driver: Consolidation of Anthropology Department

Green Attributes: Targeting LEED Gold

The Faculty of Arts and Sciences has initiated construction on a project that will fully renovate Tozzer Library and add a one-and-one-half story addition. The project will enable the consolidation of the programs of the Anthropology Department that are currently located in three separate locations across the Harvard campus. The project allows the Social Anthropology program and the Archaeology program to be located in proximity to one another in Tozzer Library and to the adjoining Peabody Museum. The relocation will create a vibrant center for the Department of Anthropology and foster the creative integration of departmental teaching and research activities. In addition to accommodating the relocation of the Social Anthropology program, the project will provide additional department-wide resources including improved teaching facilities, graduate student workspaces and a central collegial space.

The project recognizes the Tozzer Library's physical relationship to the adjoining Peabody Museum building and the project's design, massing, and materials will result in a building more consistent with the context of neighboring Harvard buildings located along Divinity Avenue. Planned landscape improvements will significantly enhance the immediate building site and Museum courtyard, and provide a more welcoming entry point for visitors to the Peabody Museum. The project was reviewed by the Planning Board and approved by the Board of Zoning Appeal in 2012. Construction is expected to be completed by the summer of 2014.

Semitic Museum

(Elevator addition at rear)



Architect: SMMA

Total Square Feet: 1,000 GSF

Programmatic Driver: Improve accessibility **Green Attributes:** Efficient elevator design

The Faculty of Arts and Sciences has initiated a project to improve accessibility at the Semitic Museum, located at 6 Divinity Avenue. The Semitic Museum, constructed in 1903, 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. The building's three floors and basement currently have no accessible means of vertical circulation. This project will provide access to all floors with an external elevator addition at the rear of the building.

The addition has been designed to complement the character of the building and retain key architectural features. Although the addition will coincide with the central bay of windows on the east (rear) façade, the design retains the existing window openings by converting them into doorways at the access points for each level from the elevator landing, and the glass link between the east façade and the elevator cab preserves the visual presence of the historic facade. The project will also improve site and building access by reorganizing landscape elements at the rear of the site. Completion is planned for the summer of 2013.

McKinlock Hall - House Renewal

(Renovation)

Projects in Planning



Architect: KieranTimberlake
Total Square Feet: 100,800 GSF

Programmatic Driver: Renew undergraduate House life

Green Attributes: Targeting LEED Gold

Harvard's second House Renewal test project will be the forthcoming renovation of McKinlock Hall of Leverett House. This five-story Neo-Georgian dormitory, built in 1925 and 1930, is located along Memorial Drive and is a key component of the iconic view of the Houses from the Charles River.

Working with architect Kieran Timberlake, Harvard is in the process of designing a full renovation of the building. The project intent will be to improve the residential, dining, and social and academic spaces for today's needs while preserving their essential historic character. Similar to Old Quincy, the project at McKinlock calls for new room layouts and dramatically improved circulation through new elevators and internal corridors. Underutilized spaces will be transformed into student social and academic spaces for the residents. Upon completion, McKinlock Hall will be a more comfortable, accessible, and environmentally sustainable dormitory.

Construction on McKinlock Hall is anticipated to begin in June 2013, with completion planned for summer 2014.

Dunster - House Renewal

(Renovation)



Architect: KieranTimberlake
Total Square Feet: 170,000 GSF

Programmatic Driver: Renew undergraduate House life

Green Attributes: Targeting LEED Gold

Constructed in 1930, Dunster House is one of the earliest of the seven Houses built during President A. Lawrence Lowell's tenure. This six-story brick and limestone building has a tall clock tower and dome that forms a key element of the House presence along the Charles River. Dunster House is one of the smallest and oldest neo-Georgian river Houses, which makes it a good candidate to be the first full House slated for renewal.

Harvard is currently in the early stages of design for this comprehensive renovation project, which will focus on restoring the building's historic character while updating it to meet the requirements of a twenty-first century living and learning community. Under the plan, Dunster would be taken offline for 15 months (one academic year and two summers), beginning in June 2014. Harvard is also planning to undertake advance construction in the summer of 2013.

1201 Massachusetts Avenue – House Renewal



Architect: Beyer Blinder Belle

Total Square Feet: 90,000 GSF

Programmatic Driver: Support undergraduate House life

Green Attributes: To be determined

Harvard is planning a renovation of 1201 Massachusetts Avenue, currently the Inn at Harvard, to transform it into the hub of "swing housing" for students temporarily displaced by House Renewal construction. The first students will move into the facility in the fall of 2014.

When constructed in 1991, the Inn at Harvard facility was intended to be used temporarily as a hotel until it was converted to University use. Consistent with that plan, the hotel, which is owned by the University and currently operated by an independent contractor, will close by July 2013. To prepare 1201 Mass. Ave. to serve as a central hub for students displaced by House Renewal, alterations will be made to the facility during the following year to enable it to support students, including student beds, a dining hall, and other social and program spaces that are integral parts of every House. The intent is to ensure that students living in swing housing continue to be fully integrated into their House community, with access to similar types of facilities, programs, and opportunities. Harvard will seek Cambridge Planning Board approval for this proposed project in 2013.

9 Ash Street (Renovation)



Landscape Architect: Thomas Pfifer and Partners

Total Square Feet: 1,200 GSF

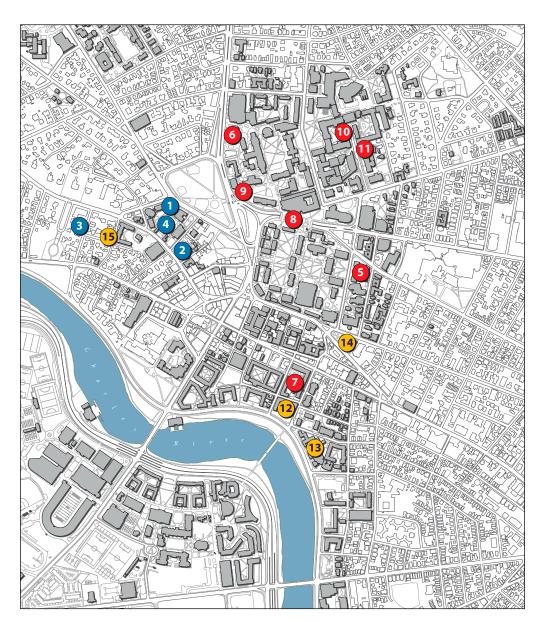
Programmatic Driver: Restore historic house **Green Attributes:** To be determined

In 2010, the Harvard Graduate School of Design (GSD) acquired 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 and used it frequently as a social gathering space for students and faculty.

The goal for the property is documentation followed by repair, restoration and safeguarding of its architectural integrity. To this end, a thorough historic structures report was completed by a preservationist. The University has hired an architect who has begun work on the next phase of repair and stabilization. Harvard has been consulting closely with the Cambridge Historical Commission on this work.

1. PROJECT MAP

Projects Completed, in Construction, and in Planning





Recently Completed

- 1. Fay House renovation (RIAS)
- 2. Gutman Library First Floor
- 3. 15 Hawthorn Street
- 4. Radcliffe Yard Landscape

Currently in Construction

- 5. 32 Quincy Street (Harvard Art Museums)
- 6. Pound Hall
- 7. Old Quincy Renovation
- 8. Cambridge Street Overpass
- 9. Gannett House
- 10. Tozzer Library
- 11. Semitic Museum



In Planning

- 12. McKinlock Hall
- 13. Dunster House
- 14. 1201 Massachusetts Avenue
- 15. 9 Ash Street

2. PROJECT LIST

Project		Programmatic Goal	Green Attributes
	Recently Completed		
1.	Fay House	Improvement of RIAS administrative space	Targeting LEED Gold; Re-use of existing building fabric, new energy efficient building systems; use of sustainable building materials
2.	Gutman Library – First and Second Floors	Improve student spaces	Targeting LEED Gold
3.	15 Hawthorn Street	Provide affiliate housing	Achieved LEED Gold for Homes
4.	Radcliffe Yard Landscape	Improvement of campus open space	Improved site drainage, maintenance of existing tree canopy
	Currently in Constructi	on	
5.	32 Quincy Street (Harvard Art Museums)	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.	LEED registered; targeting Gold Recycle demolition debris Reduction in use of potable water and complete rainwater harvesting Energy-efficient building envelope Automated systems to balance natural lighting and improve energy efficiency Heating and cooling systems with heat recovery to reduce energy consumption 24/7 building management system to respond immediately to changing weather and occupancy Custom designed and energy-efficient gallery lighting systems Use of certified renewable lumber
6.7.	Pound Hall Old Quincy (Mather Hall)	Improvement of campus open space	Recycled landscaping materials Water efficient plantings Reduced storm water run-off Increased rainwater infiltration, Low-flow/dual-flush plumbing fixtures Sub-metered utilities to monitor energy use Low VOC emitting adhesives, sealants, paints, wood and agrifiber products. 75% of construction waste recycled or reused 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

(Continued on next page)

Project List (cont'd)

	Project	Programmatic Goal	Green Attributes
7.	Old Quincy (Mather Hall) (Cont'd)	Renew undergraduate House life	Reduction in use of potable water and complete 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
3.	Cambridge Street Overpass	Improvement of landscape and pedestrian circulation	Reduction in use of potable water and complete rainwater harvesting
			Reduced storm water run-off
			Reclaimed porcelain aggregate in pavers
			FSC-certified Alaskan Yellow Cedar for benches
			Energy-efficient LED lighting
			Improved and expanded bicycle parking facilities
			Improved storm water management
			Low-maintenance plantings w/ minimal irrigation requirements
 9.	Gannett House	Improve academic experience	Energy efficient HVAC systems
			Improved thermal performance
			Reduced lighting power density
			Occupancy controls for lighting
			High efficiency/low-flow plumbing fixtures
			Low VOC-emitting sealants, paints, adhesives, and wood products
			Energy Star appliances
10.	Tozzer Library	Consolidation of Anthropology Department	Targeting LEED Gold; energy efficient building systems; energy recovery system; passive lighting and cooling and ventilation
 11.	Semitic Museum	Improve building accessibility	Energy efficient equipment
	In Planning		
12.	McKinlock Hall	Renew undergraduate House life	Targeting LEED Gold
		-	
•••••		Renew undergraduate House life	Targeting LEED Gold
13.	Dunster House		
13. 14.			TBD

C. OTHER PLANNING PRIORITIES

Allston Planning

In October 2012, Harvard filed the Institutional Master Plan Notification Form (IMPNF) for Allston with the Boston Redevelopment Authority, marking the first step of a public review process.

The IMPNF details nine building and renovation projects that the University aims to complete over the next 10 years. Most of the projects will happen internally on the Harvard Business School (HBS) campus or athletics areas. Included among the nine projects are the renovation of historic Harvard Stadium and the construction of a new basketball facility on North Harvard Street, adjacent to Barry's Corner. Several major projects will take place at HBS, which plans to replace Kresge and Burden Halls, build a new facility to house faculty and administrative offices, and undertake major renovations to Baker Hall. In addition, the University will renovate the Soldiers Field Park graduate student housing on Soldiers Field Road. The plan includes a new hotel and conference center fronting Western Avenue near the intersection with Soldiers Field Road, and a mixed use/institutional building on a portion of the site where the Charlesview apartments stand today.

Within the 10-year time frame of this IMPNF, there are a number of other relevant projects being developed on Harvard-owned land. From a technical regulatory point of view, these are not included as "Proposed Institutional Projects" in the IMPNF because they are being reviewed through another regulatory mechanism, they are already approved, or they are noninstitutional uses.

Harvard's Science Center, though not listed as a project in the IMPNF because of its status as a previously approved project, remains a key component of Allston development. The University is currently engaged in a space-planning process that will lead to an architectural review of the building. Early site work is expected in 2013, with construction anticipated in 2014.

A second major development project, the residential and retail commons proposed for Barry's Corner, is also being permitted separately from projects included in the IMPNF. The University has partnered with Samuels & Associates, a Boston real estate developer, to bring the noninstitutional, mixed-use project to fruition.

The plan details new roadways and traffic patterns, wider sidewalks to accommodate an expected increase in pedestrian activity, and sustainability improvements that will make the area greener and more inviting.

The IMPNF is the culmination of years of outreach and discussions within Harvard, with the city of Boston, and with members of the Allston community. The plan draws from the Allston Work Team recommendations, drafted by a committee of Harvard deans, faculty members, and development experts in light of the shifted economic landscape. The recommendations, issued in June 2011, proposed a path forward in Allston, including resumed construction on the science site, housing, and a future Enterprise Research Campus. The University adopted those recommendations in September 2011.

For additional information on Allston planning visit http://evp.harvard.edu/allston.

Planning for Bicycle Facilities

Cycling is recognized as an integral component of the University's transportation system and is part of our commitment to building a healthy, more sustainable campus. Harvard's twelve Schools and various administrative units have long supported the strengthening of the cycling network and facilities across our campuses. 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 last five years Harvard has made considerable improvements and enhancements to bike facilities on the Cambridge campus. Recent investments include:

- Sheltered bike-parking facilities in the North Yard (Francis Avenue), Harvard Law School, Broadway Garage, Harvard Graduate School of Design, and Riverside housing. These stations provide more than 400 sheltered parking spaces.
- New or improved bike racks, throughout the Cambridge campus that allow
 cyclists to lock their bikes while at class or work. Recently, 58 bike racks (for
 a total of 116 spaces) were installed at the Science Center by Transportation
 Services in conjunction with the Faculty of Arts and Sciences.
- Bicycle repair station located at Pound Hall (Harvard Law School) which
 allows cyclists from across the Harvard community to pump air into their tires,
 make adjustments and perform minor bike repairs. Bicyclists can also utilize the
 recently installed bicycle repair station at the i-lab in Allston as well as the city
 owned station at the corner of Eliot and Brattle Street, midway between two
 Harvard supported stations.

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 of bike routes, parking areas, and key attributes such as rack type and whether parking is sheltered.

Bicycle Facility Guidelines

Harvard University's Cambridge Campus Transportation Guidelines (2006) include considerations for the provision of bicycle parking and other facilities as part of Harvard's commitment to strengthening its campus bicycle network. The University works with individual campus project proponents and broader groups of stakeholders to implement recommendations for:

- Siting of bicycle facilities as part of Harvard's overall campus transportation network.
- Provision of long and short-term bicycle parking.
- Provision of covered or weather protected parking where feasible.
- Appropriate bike rack design consistent with the City of Cambridge standards.
- Provision of building amenities such as interior bike parking and changing, locker and shower rooms to encourage bicycle commuting.

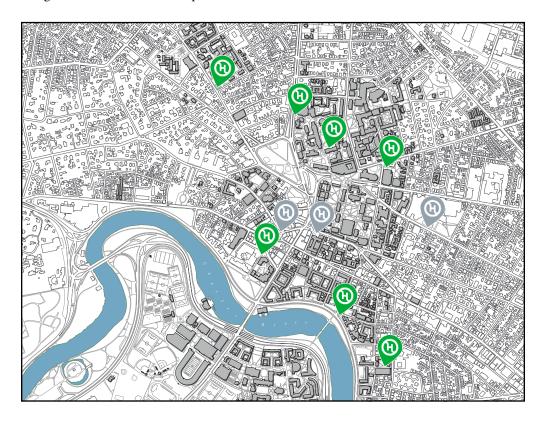
Bike Sharing Programs

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 bring the regional bike-sharing program, Hubway, to Harvard's main campuses. On August 8, 2012, Harvard celebrated the Cambridge expansion of Hubway with a rolling launch party. The University now 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 which is yet to be installed. Boston supported stations include four along Western Avenue at Soldiers Field Park, the i-lab, Barry's Corner and at the Brighton Mills Shopping Plaza and one in the Longwood Medical Area Campus.

- Hubway Locations
 in Cambridge
 Supported by
 Harvard
- Other Hubway
 Locations in
 Cambridge



The Hubway bike-sharing system provides an exciting new transportation alternative for faculty, staff, students and visitors. The 12 Harvard supported stations along with the 100+ stations in the network connect all of Harvard's undergraduate and graduate Schools, providing an alternative to driving between the Cambridge, Allston, and Longwood campuses as well as destinations across Boston, Cambridge, Somerville and Brookline. The system provides Harvard the ability to better connect areas of the campus not as well served by existing transit systems and enable more transit connections between existing public and private transit modes for Harvard affiliates and the general public. This program will also help to contribute to the University's sustainability goals by reducing inter- and intra-campus vehicle trips.

CrimsonBikes

This student-initiated bike sharing program began operating as LevBikes in 2009 with a modest fleet of six bikes at Leverett House using a simple honor-based checkout system. In May 2010 LevBikes was awarded a grant from Harvard University's Office for Sustainability that provided necessary capital for development of the program including the creation of a website that enabled and monitored reservations at any time of day. These changes greatly increased its usage.

In 2010 LevBikes and VeriFast Cycles, a bike-share program piloted by Harvard's Environmental Action Committee, merged their efforts to create CrimsonBikes. CrimsonBikes was Harvard's first campus-wide bike share, testing an innovative model through the set-up of multiple checkout stations throughout campus.

Read & Ride Bikeshare

A collaborative effort of the Harvard Law School Library and the HLS Green Living Program, the Read & Ride Bikeshare, run through CrimsonBikes, is an innovative program that provides free short- and long-term bike loans to all HLS community members.

The program was envisioned by HLS library staff looking for a way to help their document delivery assistants get around campus more easily. Recognizing that they could use existing library loan technology to loan out bikes the same way they loan out books, the vision was expanded to provide a bike sharing service to the entire HLS community.

The current fleet of 4 bikes (all donated by graduating students) can be checked out for 3-hour or 24-hour periods at the Langdell Library circulation desk. The program is supported and co-maintained by students in the HLS Green Living Program who encourage using bikes as an emissions-free transportation alternative for getting around campus and Harvard Square.

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 in an environmentally sustainable and healthy manner during the work day. CommuterChoice orders bikes, registers them with the Harvard University Police Department (HUPD) and labels them with the department name. The program also assists with purchasing needed accessories, coordinating regular maintenance, and establishing a monitoring system for the bikes.

CommuterChoice Cycling Initiatives

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

• Bike Week – Harvard participates annually in this event. As part of Bike Week activities in 2012, 133 Harvard cyclists rode over 3,500 miles as part of the Mass Commuter Challenge, a friendly competition between Massachusetts businesses, institutions and municipalities to encourage bike commuting during the week. Other events included the CommuterChoice Bike Breakfast inside the Holyoke Center Arcade, which attracted 255 cyclists and featured free bike safety checks,

- a raffle for cycling equipment, and giveaways such as leg bands, safety lights, bike safety brochures, and bike maps.
- Safety Classes From May October 2012 CommuterChoice offered monthly Safe Cycling Classes and Bicycle Repair Clinics to the Harvard community. The two-hour Safe Cycling Classes prepared 13 bicyclists for riding in an urban environment, focusing on rules of the road and riding safely and legally in traffic. The Bicycle Repair Clinic taught 22 participants how to maintain and repair their bicycles in a one hour hands on session.
- Discounted Helmets Through funding from the Boston Public Health Commission, Harvard, in an effort to encourage safe cycling, offers \$7.50 helmets for sale at the CommuterChoice office. Over 180 have been sold this year alone.

Planning for Cycling Networks

Harvard continues to support the improvement and growth of local and regional bike networks that connect our 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

D. SUSTAINABILITY

To address the global challenges of climate change and environmental sustainability, Harvard is committed to integrating sustainability into the University's culture. This effort, which began decades ago has shifted the culture of the institution, resulting in a campus that operates more efficiently, conserves resources, curbs greenhouse gas emissions, and reduces the University's overall environmental footprint.

Harvard's sustainability efforts continue to be driven by three over-arching University-wide commitments, administered through the Office for Sustainability and in partnership with the Schools and Central Administration:

- Greenhouse Gas (GHG) Reduction Goal to reduce GHG emissions 30% below a 2006 baseline by 2016, including growth (adopted in 2008).
- Comprehensive **Green Building Standards** for capital projects, renovations and building system upgrades \$100,000 and above. (Adopted 2009, building on the 2007 Green Building Guidelines).
- **Campus-wide Sustainability Principles** that provide a broad vision to guide University operations and planning (adopted in 2004).

Sustainability Impact Report

On October 22, 2012, Harvard's Office for Sustainability released the first-ever university-wide Sustainability Impact Report. The report, available online at green.harvard.edu/report, is an interactive online resource that shows the progress the Harvard community has made toward reducing the University's environmental footprint.

The Sustainability Impact Report, developed in partnership with Harvard's twelve Schools and administrative departments, is designed to:



- Provide a baseline for future reporting and benchmarking by collecting and displaying sustainability performance data across the University.
- Display the breadth and depth of the University community's commitment to sustainability in order to educate and inspire others inside and outside Harvard.
- Encourage an open and honest conversation about the challenges faced in implementing Harvard's sustainability goals, and to advance solutions that help the University move forward.

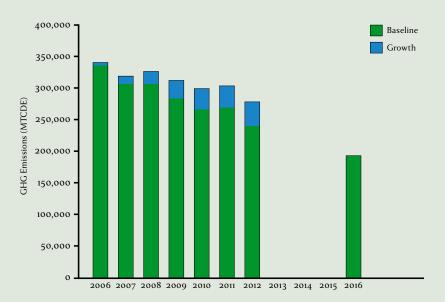
As an interactive resource, the report features:

- Interactive infographics that display a wide range of sustainability data, including
 information on greenhouse gas emissions, transportation, water consumption, and
 waste reduction efforts.
- A timeline that allows visitors to explore videos and pictures of the sustainability
 milestones reached and the creative ideas developed by teams across the University.
- Specific sustainability solutions, case studies, and lessons learned that can be applied
 by visitors to further change habits and practices.

Greenhouse Gas Reduction Goal and Progress

Between FY 2006 and FY 2012 Harvard reduced net GHG emissions by 16%, despite building portfolio growth of approximately 3 million square feet. Excluding growth and taking data from the base buildings alone, GHG emissions fell by 24%. The reduction in GHG emissions is the result of action in three core areas:

- Reducing energy demand from buildings and occupants.
- **Improving efficiency of energy supply** from campus utility plants and purchased energy.
- **Institutionalizing sustainability and individual behavior change** in every aspect of campus life and operations.



More Efficient Buildings and Energy Supply

• Energy Conservation Measures (ECMs). Heating, cooling and power for buildings accounts for a significant component of Harvard's GHG emissions, and the University continues to implement ECMs across its building portfolio. Harvard has set a goal to perform energy audits on 100% of the campus and has already audited or commissioned all of the highest-emitting buildings. The audits have resulted in the implementation of approximately 1,000 energy conservation measures to date.

- Schools and central administrative units also integrate energy conservation measures over \$100,000 in their annual Capital Plan submissions, thereby incorporating GHG reduction planning into the University's capital planning process.
- Demand Management. Harvard is also focused on reducing energy consumption through effective demand management during peak periods of electricity demand. For example, despite the extreme high temperatures experienced on Thursday June 21, 2012, Harvard saw a campus-wide reduction in electricity demand of approximately 10% without adversely impacting the University's teaching and research activities. As part of a comprehensive demand response program set in place by Campus Services, schools and departments cut energy use by turning off unnecessary lights, closing window blinds, shutting off computer monitors and scaling back air conditioning.
- Campus Utilities. Harvard continues to improve the efficiency of on-campus utilities in order to reduce greenhouse gas emissions. The Blackstone Steam Plant is 31% less GHG intensive in FY12 compared to FY06. At the Blackstone plant, Harvard has invested in a new boiler, fuel-switching and a 5MW turbine-generator that produces electric power as a byproduct of steam production. The University has also invested in its central chilled water system by adding a new has added a new plant which includes free cooling heat exchangers, upgraded older chillers at the existing plant with new high efficiency units, and optimized dispatch between the two locations, resulting in the two chilled water plants being 23% less GHG intensive in FY2012 compared to FY06.
- Renewable Energy. Harvard University commits to using renewable energy alternatives in two ways: through our power purchasing decisions and by investing in on-site renewable energy installations. 23% of Harvard's electricity is now generated from renewable or alternative energy sources. This includes over 1MW of installed solar energy capacity across the University. For a complete list of on-campus renewable energy projects visit: www.green.harvard.edu/renewable-energy

Greener, Healthier Buildings

Harvard's comprehensive Green Building Standards for capital projects, renovations and building system upgrades require a smart design process incorporating life cycle costing, integrated design, energy modeling when applicable and other elements. This ensures that all sustainable design and operations opportunities are fully assessed and that performance requirements are achieved in a cost-effective manner. The Standards require, at a minimum, Leadership in Environmental and Energy Design (LEED) Gold certification.

Harvard continues to be a green building leader, with more LEED certified projects than any higher education institution in the world, according to the US Green Building Council. In September 2012 Harvard had more than 2.5 million square feet of LEED certified green building space on campus. As of October 2012, 101 Harvard projects, 74 of them in Cambridge, have received or are seeking certification with the USGBC (60 Cambridge projects have achieved LEED certification). The Harvard Green

Building Services team posts case studies for each LEED certified project on the Green Building Resource website at: green.harvard.edu/theresource/. The website also provides resources and tools to the Harvard community and the community at-large to support implementation of Green Building Standards.

Green Labs



Photo: B. D. Colen/Harvard Staff

A two-year renovation project to accommodate the Stem Cell and Regenerative Biology Department has transformed the Sherman Fairchild Building into one of the University's greenest and most efficient laboratory spaces.

Laboratories account for 23% of the University's building square footage and 48% of its energy consumption. In addition to meeting LEED standards in new and renovated lab spaces, Harvard is actively partnering with laboratories to develop targeted outreach campaigns and programs that reduce energy consumption and conserve resources. Examples of these efforts include:

- **Shut the Sash Program** which seeks to make the use of exhaust hoods more energy efficient.
- Preventive maintenance program for lab freezers which is designed to extend
 freezer longevity, achieve energy savings, improve lab sample security, and reduce the
 risk of freezer failure.
- Green Lab Certification program which brings lab members together in a
 collaborative process to identify opportunities for energy efficiency and waste
 reduction in the lab without adversely impacting research quality.
- Lab-oriented Freecycle events encourage labs to donate and reuse unwanted equipment.
- **Use of reusable glassware** in a single FAS lab reduced operating costs and prevented 2600 disposable plastic bottles from going into the waste stream in the first seven months of operation.
- **Styrofoam recycling program** at the HMS Longwood campus recovered more than 3,000 cubic feet of Styrofoam packaging in just two months.

Reducing the Environmental Footprint of Campus Operations

Waste Reduction

Harvard's commitment to waste reduction goes beyond recycling and composting in buildings and during events, the University is also committed to reducing waste through reuse and using less. As a result, the per capita trash generated every day per capita on campus has dropped 60% since FY96 to .84 lbs a person/day in FY11.

- Food Waste in undergraduate dining halls has dropped 46% since Spring 2005. In addition, pre and post-consumer composting occurs in dining halls and at major University events such as Commencement. Several schools, including Harvard Law School, the Graduate School of Education, Divinity School and the Longwood campus, all have composting programs, and in 2012, freshman College students implemented a vermiculture pilot in Thayer Hall with the help of a Student Sustainability Grant.
- Reuse of surplus or unwanted material is encouraged through Freecycle events, an
 online re-use list, move-out donation boxes, and a Recycling and Surplus Center.
 Surplus materials are donated to community and non-profit organizations, and in
 FY11 alone, Harvard's surplus program donated over 2.5 million dollars worth of
 products to over 200 charities. Every fall, Harvard for Habitat sells back donated

- materials from move-out to incoming students at its popular Stuff Sale, raising thousands of dollars for charity.
- E-waste recycling programs have expanded through outreach to students and staff, and in participation in the national Recyclemania event. Semi-New Computers www.semi-newcomputers.com/, based on Harvard's Allston campus, takes used PC's from the Harvard waste stream and refurbishes them for re-sale, offering our neighbors a substantial discount.

Green Cleaning

Harvard's Facilities Maintenance
Operations (FMO) Custodial Services,
which provides Custodial Services to
portions of the Cambridge campus, is the
only cleaning service in Massachusetts to
have achieved Green Seal™ certification,
an industry mark of sustainable cleaning
practices. In addition, the Campus
Services group is currently the only in-

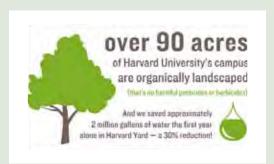


house cleaning service in all higher education to be so certified.

Organic Landscaping

Harvard University's Facilities Maintenance Operations (FMO) group has developed a highly successful Organic Landscaping Program currently implemented across over 90 acres of University landscape -- including the highly visible and heavily used Harvard Yard.

The program replaces chemical fertilizers, pesticides, herbicides, and fungicides with specially brewed organic teas. These liquid biological amendments are specifically



designed to restore the natural nutrient cycling system. Results typically include reduced maintenance costs, increased root growth of 3-5 inches, a significant reduction in irrigation requirements due to enhanced moisture retention, and increased levels of beneficial nitrogen. To learn more, visit www.uos.harvard.edu/fmo/landscape.

Health and Wellness

The two community gardens on the Cambridge campus promote healthy food, community and education. The student-managed Harvard Community Garden was created with the support of a Student Sustainability Grant and is a collaboration between students and over eight academic and administrative organizations. The Harvard Divinity School Garden brings staff and students together to follow the work ethic that "weeding is a form of spirituality."

The Food Literacy Project (FLP) at Harvard University Dining Services organizes special events and cooking classes, runs Harvard's two Farmer's Markets, and employs

18 students to do special projects in each dorm. Education focuses on food and society, sustainability, nutrition, food preparation and community. More than 30% of the FY12 budget for food served in dining halls was spent on locally manufactured, locally grown, fair trade or organic foods.

Transportation Programs

A key component of Harvard's sustainability strategy is programs which encourage sustainable modes of transportation. These efforts, including those managed by Campus Services' CommuterChoice Program, provide the Harvard community the opportunity to drive less, reducing congestion by encouraging carpooling/car sharing, bicycling, walking and transit use among faculty, staff and students. Recent efforts include investment in additional and improved bike facilities, with strong institutional support for the Hubway regional bike share program that has seven Harvard sponsored stations in Cambridge (See page 37). Additional information onCommuterChoice initiatives can be found in the Transportation Demand section of the report.

Building a Culture of Sustainability

Central to Harvard's sustainability strategy is building a culture of sustainability that brings about lasting change in behaviors. Programs such as the Green Office Program, Green Teams, Student Sustainability Grants, and Green Carpet Awards supported by the Office for Sustainability, and other University initiatives encourage individual actions that advance campus sustainability.



- Recent highlights include:
- The Green Office Program has engaged over 2,400 employees in 145 offices to make their workplaces more sustainable by reducing energy consumption and conserving resources.
- Harvard Thinks Green speaker series, open to the public, featured six all-star
 Harvard faculty speaking for 10 minutes each about their big green ideas. Videos
 and audio from the event are available at green.harvard.edu/thinksgreen.
- Harvard employees serve on Cambridge Climate Protection Action Committee and Cambridge Department of Public Works Recycling Advisory Committee.
- As a result of the Green Cup Competition, undergraduate Houses have a 63% recycling rate and have reduced electricity use by 4.3% over the past three years on average.
- Student Sustainability Grant program (www.green.harvard.edu/grants) has funded over 20 projects across the University that provide students with seed funding to develop and implement creative and innovative projects that reduce Harvard's environmental impact and contribute to the University's GHG reduction goal.

III. TRANSPORTATION DEMAND MANAGEMENT

Harvard University remains a leader among Cambridge's large employers for consistently reducing its exceptionally low Single Occupany Vehicle (SOV) rate. When it was approved in 2003, Harvard's Parking and Transportation Demand Management (PTDM) Plan targeted a goal of reducing the University's Single Occupancy Vehicle (SOV) rate by 10% (from 27.4% to 24.7%). This goal was surpassed the following year when Harvard achieved an SOV rate of 17.0%. According to the latest PTDM survey results Harvard's SOV rate has continued to remain low and is now at 13.2% 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. Harvard's low SOV rate and the reduction of trips to Cambridge reflect the University's ongoing commitment to the programs and measures contained in Harvard's PTDM Plan. Harvard's CommuterChoice Program tracks and monitors the transportation demand management programs and incentives that it provides, and is committed to improving the University's programs based on annual survey data and program feedback. CommuterChoice Program offerings include:

CommuterChoice Program

- MBTA monthly pass subsidy and pre-tax savings.
- Pre-tax savings on purchase of private transit passes and commuter checks.
- Carpool partner matching and carpool registration.
- Assistance with vanpool formation.
- Discounted and preferential parking for carpools and vanpools.
- Emergency Ride Home Program for carpoolers and vanpoolers.
- Discounted Zipcar[™] membership.
- Information on safe bicycle routes and general bicycle safety.
- Departmental Bike Program: http://www.commuterchoice.harvard.edu/bicycling/
- Walk to Work programs and information.
- HarvardWalks a walking map of the Harvard campus (3rd printing).
- Information on local transit options.
- Assistance with transportation information as it relates to moving to the area or relocation.
- Park and Ride information.
- Outreach to the University's Transportation Coordinators, representing all of the University's Departments.

Highlights from the past year include:

T Pass Program

• Sold on average 7,000 MBTA monthly passes each month.

Ridesharing/Car-Sharing

- Promoted Zimride, on-line ride matching software for carpools and one-time rides.
- Increased Zipcar membership to approximately 10,000 registered participants.
- Promoted Zipcar for Harvard affiliates under 21 years of age first university in Greater Boston.
- Added 8 Zipcars to Harvard's fleet (totaling 28) including a van.
- Supported RelayRides, neighbor-to-neighbor carsharing, by dedicating spaces on campus.
- Partnered with MassRIDES to offer NuRide, a rewards program for sustainable travel.
- Installed Electric Charging Stations (ECS).

Bicycles

- Supported Hubway Regional Bike Share expansion into Cambridge with 7 stations.
- Produced a *How to Use the Hubway Bike Share Program* video.
- Installed 58 new bicycle racks at the Science Center for a total capacity of 116.
- Taught Safe Cycling Classes: One hour of in-class instruction and one hour of onthe-road practice.
- Offered discounted bike helmets for purchase.
- Held Bicycle Repair clinics.

Commuting Awards

- Awarded 2012 Boston Bike Friendly Business Gold Level Award.
- Participated in Bay State Bike Week with 133 Commuter Challenge registrants.
- Won MassRIDES Car Free Week Commuter Challenge (Sept. 2011) with approximately 520 participants.
- Awarded a Massachusetts Excellence in Commuter Options (ECO) Award, Pinnacle Level.

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://www.upo.harvard.edu. Harvard submits annual PTDM updates which are on file with the City's Community Development Department.

IV. 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 Future Plans narrative page 35.

2. Provide an update on the Fogg Museum project, with particular attention of possible effects on the surrounding community and streetscape.

See Future Plans narrative page 19.

3. 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.

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. As part of its House Renewal plan, the Inn at Harvard is being converted from hotel use to serve as a swing house enabling ongoing House Renewal projects. See page 30.

Other properties located in commercial areas in Harvard Square (for example those across Massachusetts Avenue from Harvard Yard) contain ground floor retail uses with housing for Harvard affiliates on upper stories. Harvard continues to lease space to over 30 businesses in the Square, including many long-time independent retailers such as the Grolier Book Shop, Leavitt & Peirce, Harvard Bookstore, and Bartley's Burger Cottage. Harvard shares the community's interest in continuing such uses which contribute to a unique retail environment in Harvard Square.

Harvard's newest building on Massachusetts Avenue is Wasserstein Hall Caspersen Student Center Clinical Wing (WCC) at the Harvard Law School. The development of this new academic and student center for the Law School campus has resulted in significant landscape improvements along Massachusetts Avenue. The new building houses the Harvard Law School COOP (the Law School's bookstore) at the corner of Everett Street, and nearby, the school's public service legal clinic also generates new activity along this section of Massachusetts Avenue.

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

See Future Plans narrative page 36.

5. Provide information on the extent to which Harvard students make use of city parks, in particular the Cambridge Common, and the extent to which Harvard-affiliated groups reserve city-owned fields for their use.

Harvard accommodates all of its varsity sports, intramural athletics programs, recognized sports clubs and other sponsored recreational activities in the University's expansive athletics facilities.

The use of City of Cambridge parks by other Harvard-affiliated groups for sports and other organized recreational activities is very limited. According to the City of Cambridge Recreation Department, in 2012 these activities were limited to the use of the Cambridge Common for summer softball and Danehy Park for an annual softball tournament.

6. Include in your discussion a review of the extent to which open spaces on the Harvard campus are permeable to the public. Provide information on open spaces on your campus that are open to public use. Indicate the times when these spaces are accessible to the public and the range of activities that are permitted.

Harvard's open space provides a connective organizational structure to the campus. This open space is comprised of a diverse collection of quadrangles, courtyards, gardens, and pathways that not only connect Harvard's buildings and facilities but provide a great natural amenity within Harvard Square. As such, many campus open spaces are commonly visited by the public including Harvard Yard, Radcliffe Yard, and the Radcliffe Quadrangle. These open spaces are usually open and accessible to the public, although access may be limited from time to time, as is the case during Harvard's annual Commencement ceremonies. Some spaces, such as the courtyards and gardens associated with Harvard's residential Houses, have limited access given the specialized nature of their use by students who reside in the Houses, and are generally not open to the public.

Because most of the campus open spaces are passive in nature, and are surrounded by academic, residential and other institutional uses, organized recreational activities or other high intensity uses are not generally appropriate to these spaces. Exceptions include the seasonal farmers' market which was most recently located in open space along Oxford Street near the Harvard Museums.

Harvard recognizes the importance of its campus open space to Harvard Square and the broader Cambridge community and has sought to improve such spaces particularly where they abut surrounding city neighborhoods. Recent improvements include the Hammond Street frontage at the Northwest Science Building, the quadrangle at Harvard Divinity School and the current project being undertaken in coordination with the City of Cambridge to refurbish the surface of the Cambridge Street Overpass. As part of the agreement between the City and Harvard that enabled the University to construct housing in the Riverside neighborhood, Harvard provided an open-space easement for the Riverside Community Park along the Charles River.

7. Provide an update on renovation of the Harvard residential houses.

See Future Plans narrative page 22.

8. Provide information on the timing for the planned change in use of the Inn at Harvard.

See Future Plans narrative page 30.



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