The Plan for Harvard in Allston (Draft)

Executive Summary

January 2007

Created for Harvard University, Allston Development Group
By Cooper, Robertson & Partners, Gehry Partners, Olin Partnership, Ltd.

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Artist's rendering of the Plan for Harvard in Allston


DONGIK LEE / 2006 UD

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I. Introduction

In addressing the opportunities and challenges posed by the Allston Initiative, Harvard's planning process has been guided by a series of design principles and by a conceptual development program.

Illustrative Plan

Introduction

Seldom does an urban university have the opportunity to plan for decades of growth adjacent to its current campus and in the process also transform a neighborhood, enrich a local community, and contribute to the social, economic, and environmental development of a city.

This Plan for Harvard in Allston is Harvard University's response to this remarkable opportunity. With over 200 acres in Allston, just south of and adjacent to the existing campus in Cambridge, the University can envision its next fifty years and beyond as centered on an historic riverfront, rather than bordered by it. Harvard's goals range from the academic: creating new and better homes for both science and professional schools and nurturing the interdisciplinary inquiries that have begun to emerge on the boundaries of today's departments, to the environmental: creating a green and sustainable Allston in a place that is now a sea of surface parking and truck lots. The Plan for Harvard in Allston will improve the traffic and transit for pedestrians, cyclists and drivers, by creating new open spaces, sidewalks, bike paths, streets and river crossings and by strengthening the existing transportation infrastructure with an expanded shuttle system.

Harvard's future in Allston will therefore also be for Allston, and by extension for Boston, intertwining campus and community and enabling both to respond to the prospects of the coming century in an urban and urbane setting.

Allston today

Opportunity and Challenge

Allston is a unique opportunity for Harvard: no other urban institution has such extensive lands adjacent to two of its already most-vibrant elements (the Harvard Business School and Athletics); nor such capital resources; nor such intellectual force to engage an evolving academic future.

Harvard's development in Allston is also intended to provide a rare opportunity for the community. The University has for many years worked in good faith and on an ongoing basis with neighborhood leaders, and has sought to incorporate community goals within the overall Plan. These goals involve topics such as accessible open space, mixed public-oriented uses at Barry's Corner, improved streets, new housing to reduce pressure on the neighborhood, elimination of industrial uses incompatible with residential life, management of traffic cutting through the neighborhood, etc. Achieving community goals will require continued collaboration between the University and the Harvard Allston Task Force that has been established by the City of Boston. Harvard is fully committed to that process.

Existing conditions in Allston

However, at the beginning of every plan effort, there are more questions than answers. As the Allston work began, concerns arose that the new land was too far from the center of the existing campus, that Harvard's current approach to building for departments would not support the interdisciplinary inquiries of the future, that the University would come into conflict with the neighboring community, that science in Allston would be isolated from its counterparts in Cambridge and Longwood, and that a new place could never seem like home.

These questions (below) served as challenges to the design team, and the answers are incorporated throughout the Plan for Harvard in Allston:

How can Harvard create a vibrant and attractive campus where people want to come?
By introducing multiple activities, a lively street life and desirable open spaces throughout.

How can opportunities for interdisciplinary academic work be created and enhanced?
By clustering graduate schools together, in close proximity to welcoming outdoor spaces where people can meet informally.

How does the University develop a plan that benefits its neighbors in Allston?
By establishing a civic, cultural and retail center at Barry's Corner and providing facilities for shared use near the community.

How can Allston, Cambridge and the Longwood Medical area be connected?
By providing free, fast and frequent shuttles among Harvard's three campuses, and promoting public transit opportunities.

How will the University community still know it's Harvard?
By employing contemporary expressions of the cherished architectural and landscape devices, such as intimate scale, courtyard buildings and tree canopies.

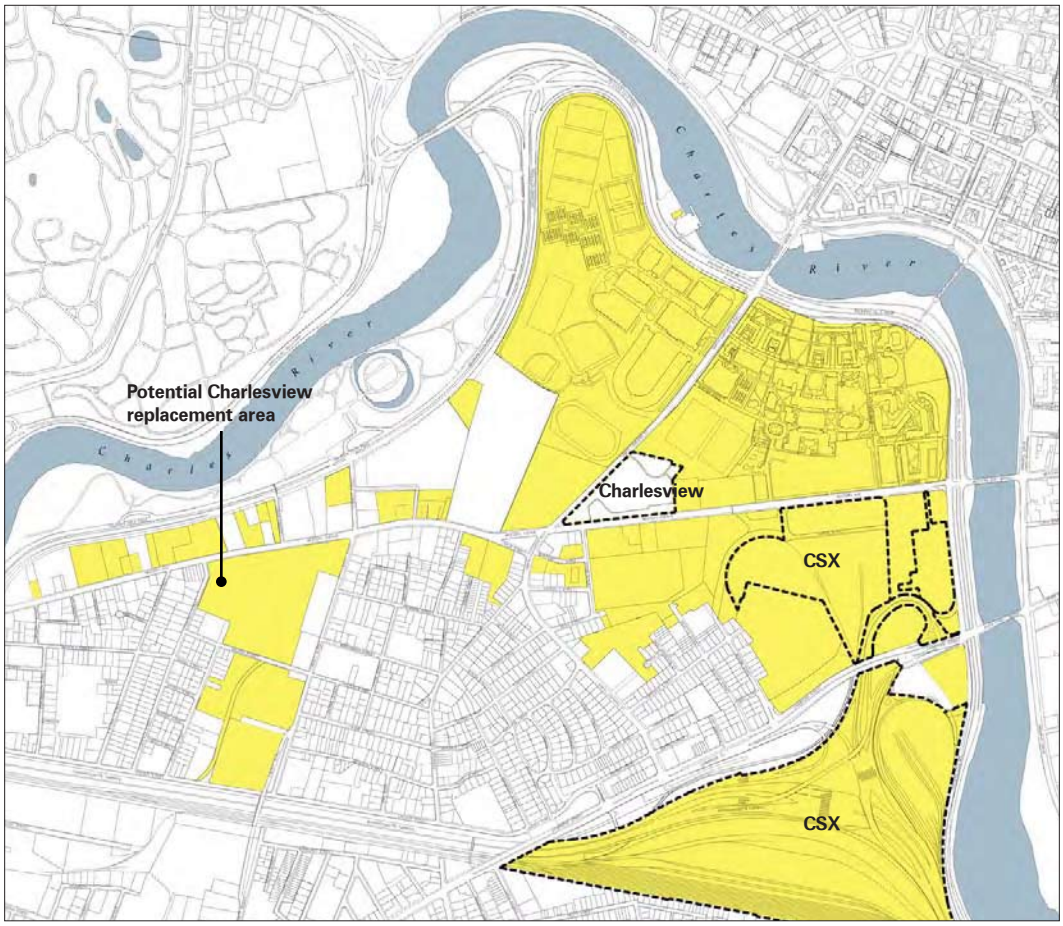
Transformation of the old MBTA railyard (left) on the Charles riverfront to the Kennedy Park and Harvard Kennedy School of Government (right); Harvard in Allston poses a similar opportunity.

The Land

Although Harvard's land ownership south of Western Avenue is extensive, parcels vary in their availability. For example, the CSX easement (see drawing below) is unavailable at the current time, and therefore projects and phasing have been organized to avoid that parcel in the first phase (20 years). North of Western Avenue, Harvard is in discussion with the Charlesview residential complex about relocation prospects; even if an agreement is soon reached, construction of a new Charlesview would be the first step, and so early Harvard projects in the Plan for Harvard in Allston also assume that this site is not available near-term.

Today, much of Harvard's land in Allston is unattractive – predominantly asphalt, a collection of parking lots and truck and rail yards (and therefore few jobs), no residents other than at Charlesview, with trucks dominating Western Avenue, and hardly a tree or a patch of green. What is needed is a transformation as seminal as Harvard's 1970s conversion of the MBTA Cambridge rail yards into the JFK Park and the Kennedy School of Government.

Harvard owned land



Land Ownership

The Process

Formal work on the Plan for Harvard in Allston began in 2003 with the appointment of four Task Forces – comprised of faculty, staff and students – to review Harvard's program needs in the years ahead. The design team was selected in May 2004, concurrent with the Task Forces' reports. A four-phase process of work followed – an Analysis period until November 2004, an Options phase that concluded in June 2005, an internal review and consideration phase that ran to April 2006, and the Plan phase, which concludes with the current draft of the proposed Plan for Harvard in Allston.

Throughout, the CRP/Gehry/Olin Collaboration has been assisted by highly qualified subconsultants (see "The Team," p. 69) and has benefited from advice from within the Harvard community from faculty, staff, and students individually as well as through designated review bodies. The Allston community also contributed substantially to the process, first through the foundation laid during the North Allston Neighborhood Strategic Framework's three years. Many of the ideas in this Plan for Harvard in Allston originated with that effort, which was shepherded by the Boston Redevelopment Authority. This Plan draws on the principles established in that Framework. Subsequently, there have been bi-monthly meetings with the Allston Neighborhood Task Force, and special sessions on specific topics, e.g., Barry's Corner, transportation, and open space. Interim reviews have also been held with the Boston Redevelopment Authority and various civic groups, such as the Charles River Watershed Association. The team's goal has been to identify and address both public and Harvard issues as early in the process as possible.

A community meeting at the Honan-Allston Library regarding the First Science complex

Design Principles

The initial, exploratory phase of the Plan work led Harvard and the design team to a series of Design Principles. These are given below, along with how each principle is reflected in the Plan.

Borrow the best from Cambridge

- Diversity of building types
- Traditional campus courtyards
- Interconnected open spaces

Massachusetts Avenue

Transform an industrial landscape

- Convert the area into a collegiate and community environment
- Create a lively public realm with gracious, walkable streets and paths
- Apply North Allston Neighborhood Strategic Framework principles

Parc Plantee District, Paris, France

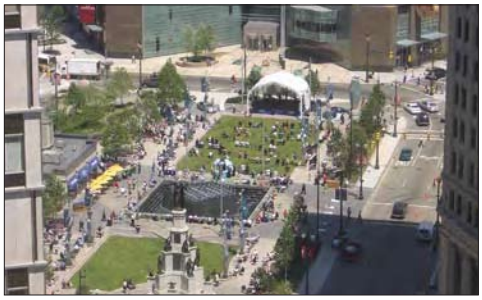
Celebrate the Charles River

- Create Larz Anderson pedestrian bridge
- Depress and cover Soldiers Field Road creating public access to the riverfront
- Renovate Weeks Bridge
- Create Longfellow Walk

Eliot House

Assemble a variety of uses in close proximity

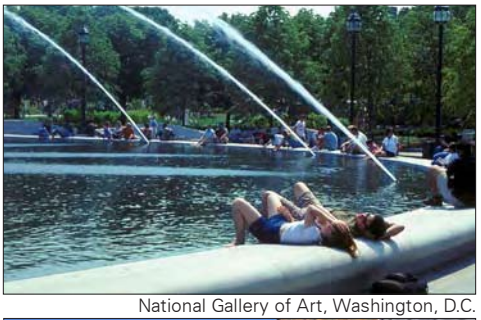
- Life sciences, Education, Public Health and Business
- Culture and Athletics
- Undergraduate and graduate housing



Campus Martius Park, Detroit, Michigan

Create active gathering places

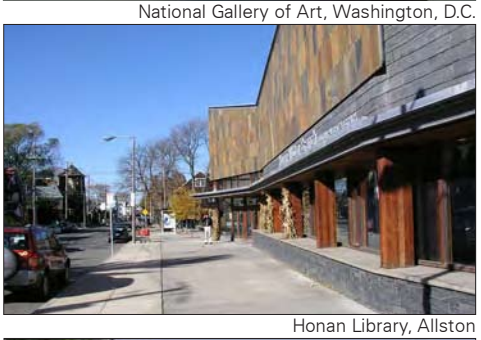
- Barry's Corner, with its mix of retail, recreation, cultural and civic activity
- South Yard, as an open space for faculty, students, and Allston residents, marked by a special public pavilion.



National Gallery of Art, Washington, D.C.

Plan for both campus and community

- Create pedestrian connections
- Introduce shared uses – retail, civic, culture - at intersections of town and gown.



Honan Library, Allston

Make connections to Cambridge and Longwood

- Implement a convenient, efficient shuttle system
- Promote public transit
- Reserve Urban Ring tunnel or surface right-of-way

Proposed shuttle bus traveling from Allston to LMA

Use "best practices" sustainable strategies

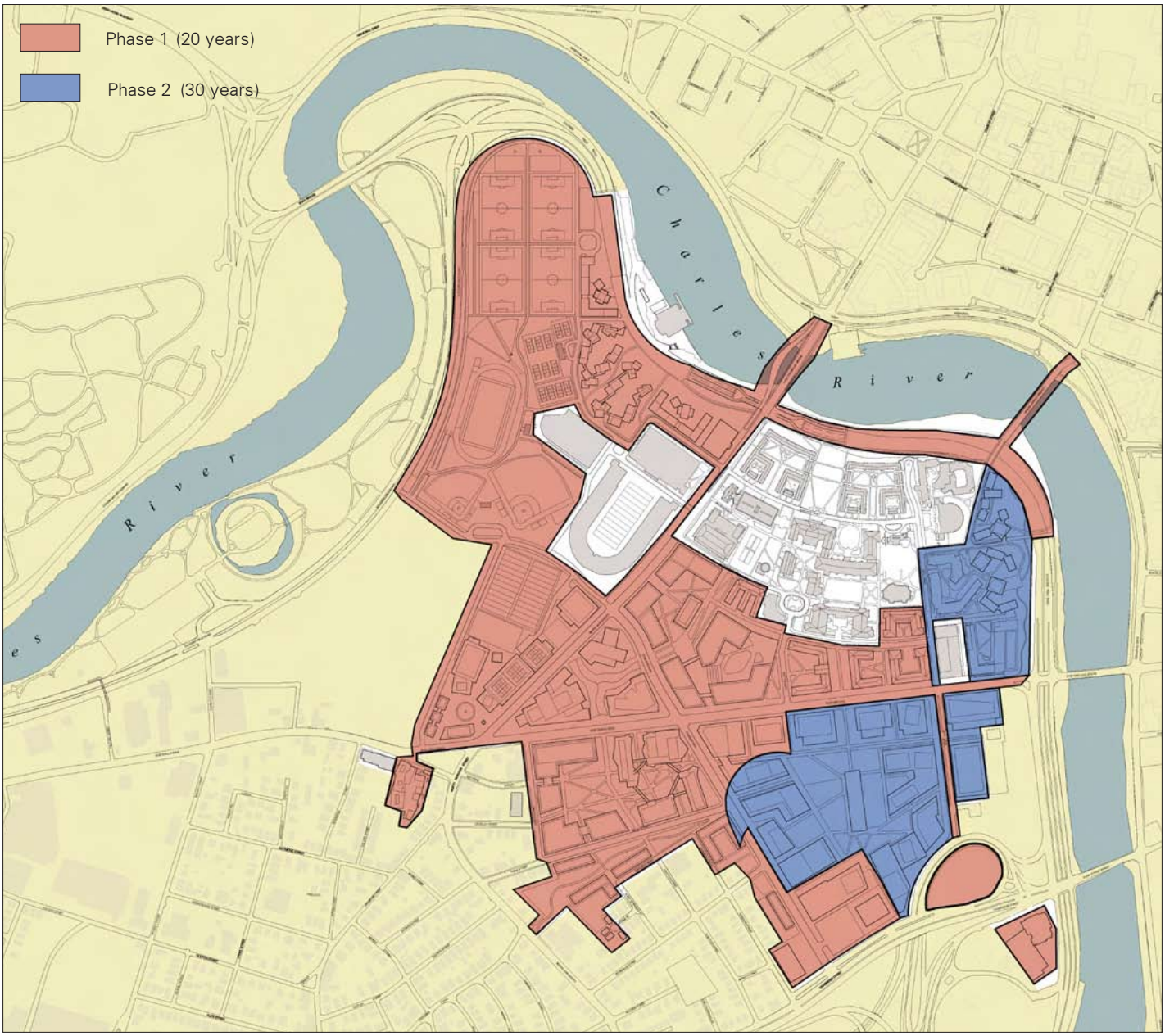
- Manage storm water
- Conserve energy
- Address seasonality with outdoor and indoor spaces
- Design buildings to meet LEED standards

Natural drainage system: Salt Lake City, Utah

Program and Phasing

By the time the design team had been assembled, Harvard had already spent a year considering desirable uses in Allston. The four Task Forces appointed by the President covered Professional Schools, Undergraduate Life, Allston Life and Science & Technology. They evaluated current Harvard facilities' conditions and space constraints, and in their May 2004 reports made program recommendations. The program shown in the chart below is in two phases (illustrated in the drawing on the facing page) of approximately four to five million square feet each. The first phase program (20 years) is derived directly from the Task Forces. The second phase (30 years) is necessarily more speculative: it looks to a full use of the land within an urban and urbane campus, and is not being proposed for city approval at this time.

	Phase I: 20 years	**Phase II: 30 years**
Science	1.5 M	2M
Graduate School of Education	300K	
School of Public Health	575K	
Undergraduate Houses	800K (4 houses)	400K + 400K renovate
Student Center	50K (renovate)	
Graduate Housing	350K (590 beds)	
Performing Arts	75K	
Museums	240K	
Retail	60K	50K
Academic		1.7M
Harvard Business School Academic and Housing	500K	
Administrative Support Space	100K	100K
Conference Center	220K (70K + 250 rooms)	
Athletics (150K replace)	50K	
(all numbers are rounded)	**4 - 5 M**	**4 - 5 M**
TOTAL:		**= 9 - 10M**



Phasing Diagram

If nine to ten million square feet were eventually built, it might be over a period of 50 years – two million square feet per decade is a bit ahead of the pace of Harvard's growth in the recent past. But the ever-changing educational landscape makes it prudent to assume that Phase I could fit into a 20-year window. The necessary public and infrastructure systems next discussed are organized to correspond to the program's two phases, especially with regard to transportation impacts.

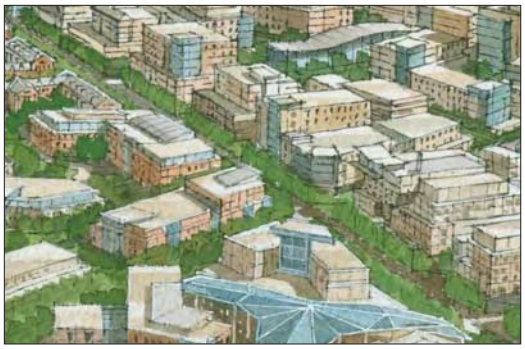
The drawing below shows a possible organization of uses within the Plan. Graduate schools are both clustered to ensure accessibility to colleagues, and integrated to foster interdisciplinary efforts at a time when, increasingly, new fields of inquiry are emerging that draw from a variety of today's individual disciplines. Science is centered south of Western Avenue.

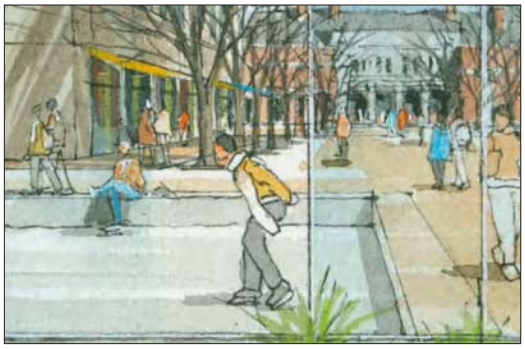
Some specific proposed locations in the Plan are a result of operational or policy considerations, e.g. athletics buildings are easier to operate if integrated or connected; mindful of community impact, and in support of convenience for student life, undergraduate houses are located at the river's edge, away from the neighborhood residential areas, while graduate housing can be a useful transition between the institution and the neighborhood; and it makes sense to provide more public uses – retail, theater, museums – where the community can best access them.

Uses Diagram

II. Planning Themes

The Plan has been driven by four broad themes, each of which is illustrated here: Interdisciplinary Teaching and Research, Place Making, Sustainability, and Economic Development.





Planning Themes

Since its founding more than three centuries ago, Harvard University has maintained a commitment to advancing knowledge to meet the evolving needs of a changing world. Today, this process continues as the University plans for the transformation of its property in Allston.

To meet the challenges of the 21st century, Harvard has been engaged for almost a decade in the most extensive academic and physical planning process in the University's history. That process has been inspired not only by the University's teaching and research mission, but also by the opportunity to create new places for the Harvard and public communities to meet, to develop a sustainable environment, and to generate economic benefits at the local and regional scale.

Transformation: Allston today (top), and in 2050 (bottom)

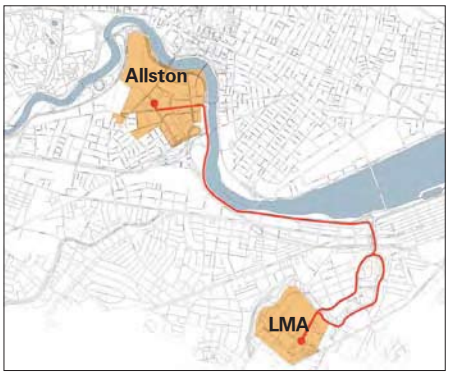
Interdisciplinary Teaching and Research

Harvard's initiative in Allston is evocative of past moments when far-sighted Harvard Presidents saw the need for the University to respond to emerging societal needs; in the late 19th century, when President Eliot responded to the industrial revolution by building science facilities in the University's North Yard; in the 1920s when President Lowell undertook the development of the River Houses, reinventing Harvard as a residential academic community; or in the early 1970s when President Bok oversaw the transformation of an obsolete rail yard as the Kennedy School of Government at a time of increasing interest in public service. Now Harvard is at another historic turning point.

The University's plan for its presence in Allston is not just about facilities, but about the future of the University as a whole. For example, Harvard seeks to enable scientists from diverse disciplines and different Schools and departments to share new kinds of space and collaborate on common problems. Allston development will integrate faculty spanning a range of disciplines, and together they will tackle problems at the interface of the life sciences, medicine, physical sciences and engineering.

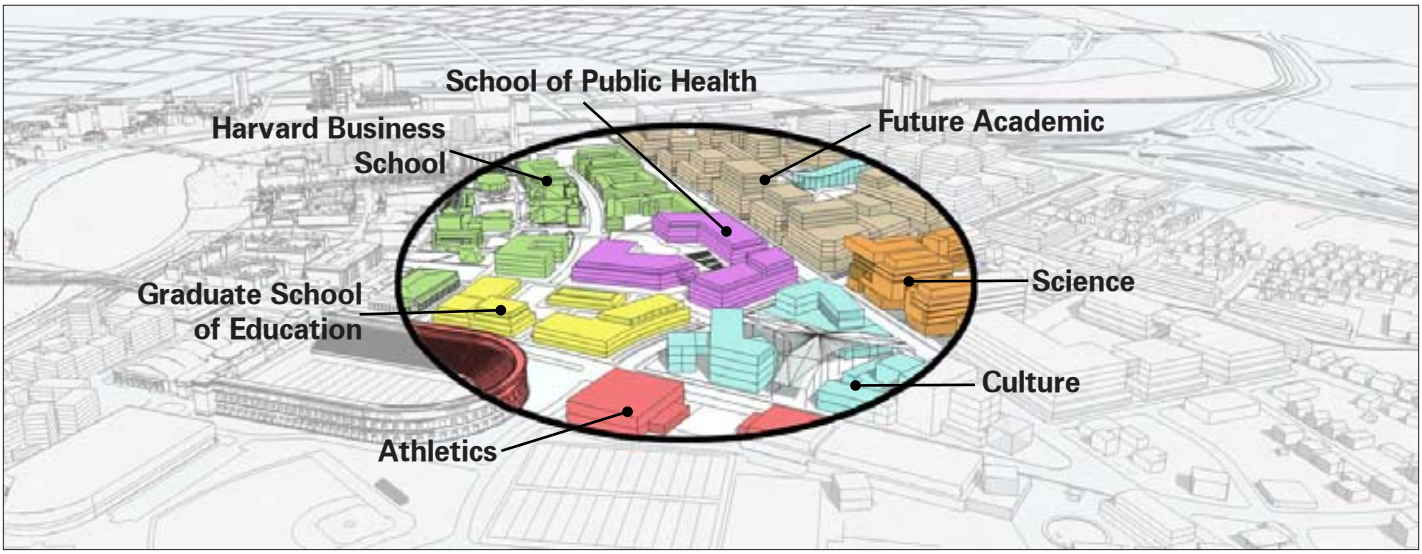
There is also great potential in the collaboration of Harvard schools that produce future generations of leaders in health, education and business. The Allston campus will serve as a crossroads at which faculty and students in fields such as Public Health, Education, Business, and Government can come together to focus on issues that touch on areas of shared interest.

A vibrant cultural component will be essential to success. Harvard is moving part of its Art Museums to Allston, and may move parts of its Museum of Natural History and its Peabody Museum to Allston as well. Harvard also plans to establish new arts and performance spaces in Allston. A strong arts and culture presence will enliven the campus and provide public activities for Allston residents and the greater public.



Connecting Allston to the Longwood Medical Area via shuttle

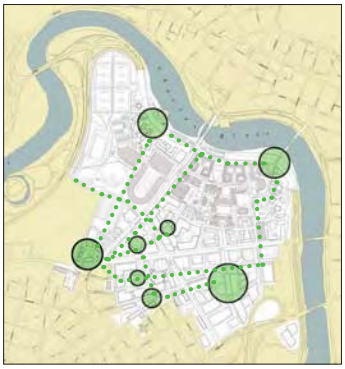

Harvard scientists and students at work



The Plan will create an interdisciplinary campus in Allston

Artist's rendering of completed Plan for Harvard in Allston

Place Making



Network of special places to be created in Allston, connected by streets and paths

Harvard's Allston land intended for campus development is largely an unattractive landscape marked by trucks and warehouses that abut a vibrant residential community. Harvard's Allston development will instead create a shared urban campus and community environment that offers more open green space, improvements to streetscapes, and a broad range of public amenities.

The University's vision for its future in Allston is fundamentally different from some of the conditions that exist today. Where hundreds of trucks now blight the edge of Western Avenue, Harvard sees an active urban boulevard. Where a sea of broken pavement now extends across the area, the University envisions a network of campus green space. And where old warehouses and open lots now send a message of underutilization, Harvard envisions an entirely new academic precinct.

Rather than creating an insular and homogeneous academic environment in Allston, the University seeks to develop a mix of complementary uses that foster a lively sense of urban community. Unlike more traditional collegiate settings that clearly delineate between campus and community zones, Harvard seeks to create an open relationship that integrates academic development with civic, neighborhood and public functions.

Harvard's plan for its Allston campus focuses on creating a diverse, inter-connected system of memorable and accessible places, each having a specific function and a distinct identity. For example, at the end of the Weeks Bridge, where a highway currently separates people from the Charles River, Harvard hopes to create a new public place by relocating Soldiers Field Road underground. The result could be a generous new riverfront environment accessible by foot or bike, which the Harvard community, the Allston neighborhood, Cambridge residents and the general public can enjoy together.

The Head of the Charles regatta passes under the Weeks Bridge

Currently, to cross the Charles River, one must climb up and down two separate pedestrian bridges. A seamless connection from Allston to Cambridge would be achieved by depressing and covering Soldiers Field Road and rebuilding the Weeks Bridge to accomodate pedestrians, bicyclists, and shuttles.

This proposed public, riverfront park on the Allston bank would be created by covering Soldiers Field Road, and by rebuilding the Weeks Bridge.

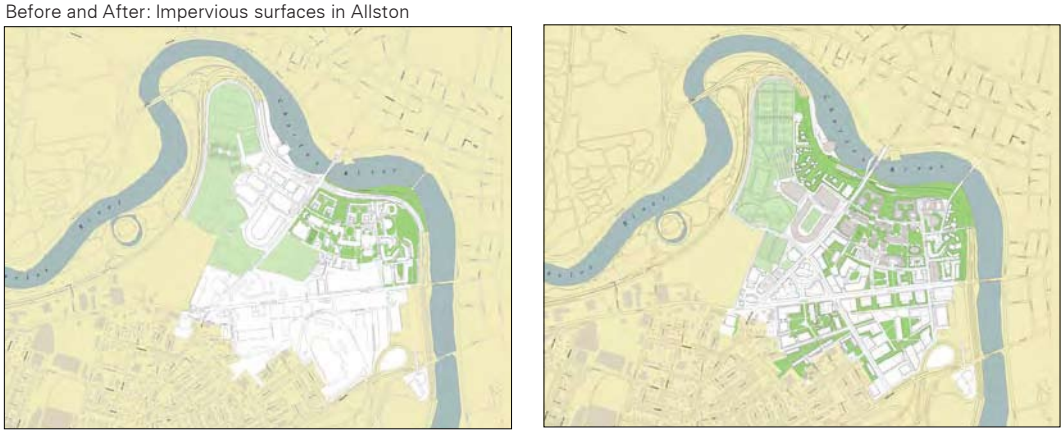
Sustainability

The development of a new Harvard campus in Allston constitutes a unique challenge in the realm of environmental responsibility. Harvard is already building a reputation as a leader in campus sustainability. Development of the Allston campus promises to be Harvard's strongest expression of its commitment to sustainability.

In Allston, Harvard will build structures that require less energy to heat and cool. Harvard is committed to protecting the quality and minimizing the quantity of water flowing from its property into the Charles River. Harvard will utilize forward-looking, sustainable storm water management strategies that protect, treat, and replenish groundwater. The consumption of potable water will be minimized. Effective transportation planning will lower greenhouse gas emissions, reduce smog and congestion, and promote a more livable community.

New buildings in Allston will meet high standards for sustainable design and construction. The Leadership in Energy and Environmental Design (LEED) Rating System provides a quantifiable way of evaluating building performance. In Allston, Harvard's sustainable design guidelines will help position all projects to achieve a high level of LEED certification. Harvard strives to be at the forefront of environmental responsibility, and the Allston Initiative will position the University to continue that position of leadership.

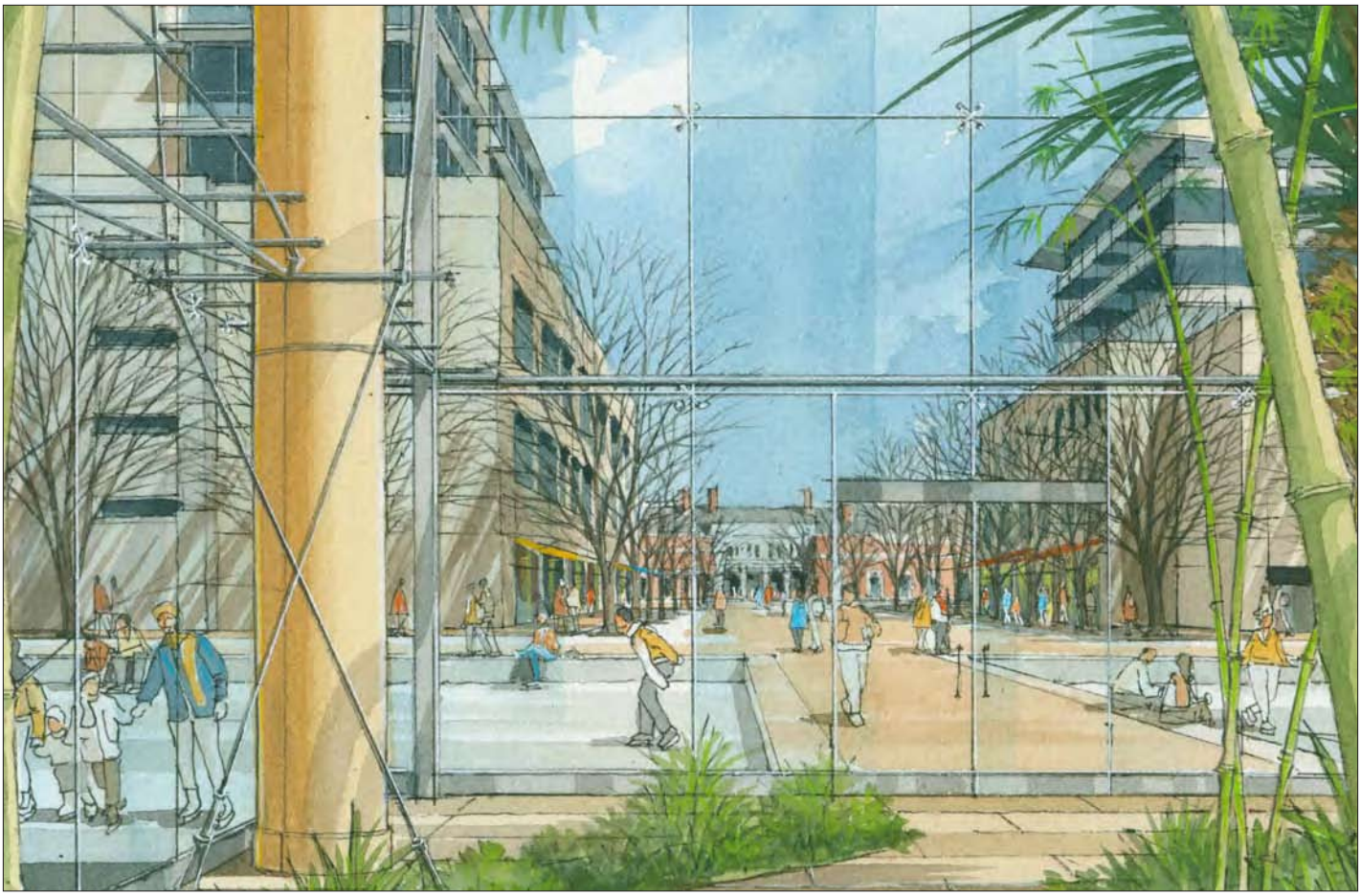
Before and After: Impervious surfaces in Allston



Before and After: Open spaces in Allston

Existing truck yard facing Spangler and the Harvard Business School campus

Winter scene of Bertram Walk in the South Yard



View from the proposed Wintergarden in the South Yard of the Plan, looking past ice skaters to the Spangler Center at Harvard Business School. This environment would replace the paved truck yards shown in the photograph above.

Economic Development

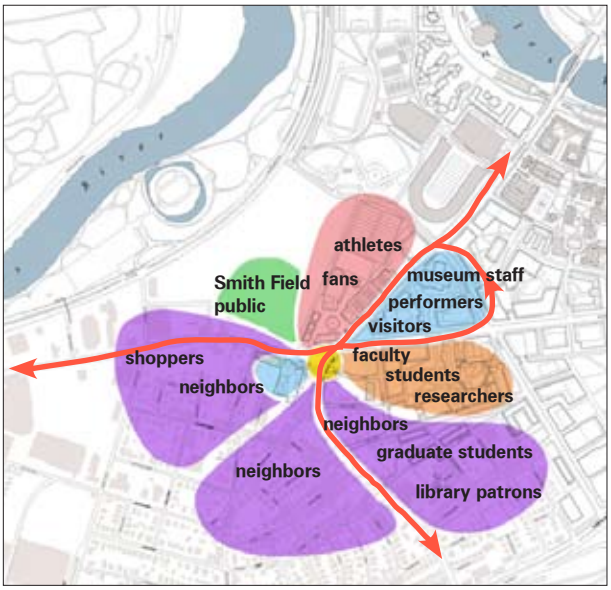
Harvard's Allston Initiative will also create a major new economic engine for the Boston region. The Boston area economy has evolved over time, shifting from early maritime trade to manufacturing, then to a finance and service economy, then to technology, and now to a knowledge-based economy. Today, the development of Harvard's teaching and research mission and the evolution of the region's economy are converging, with a focus on life sciences and interdisciplinary research.

Harvard's Allston Initiative will reinforce its leadership in the knowledge-based economy, and will strengthen its synergy with the area's large community of inter-related teaching and research institutions. Throughout the world, the activities of proximate research institutions have increasingly become inter-related. Faculty, staff, researchers and students regularly move between them, forming integrated clusters of research at the intersections of disciplines. In the global competition for leadership in scientific research, these clusters are critical components of a region's ability to succeed.

Economic development will also be generated at the local scale with the introduction of new retail establishments, restaurants, museums, and performance venues. These will generated new jobs and businesses and increase the level of economic activity in the neighborhood.

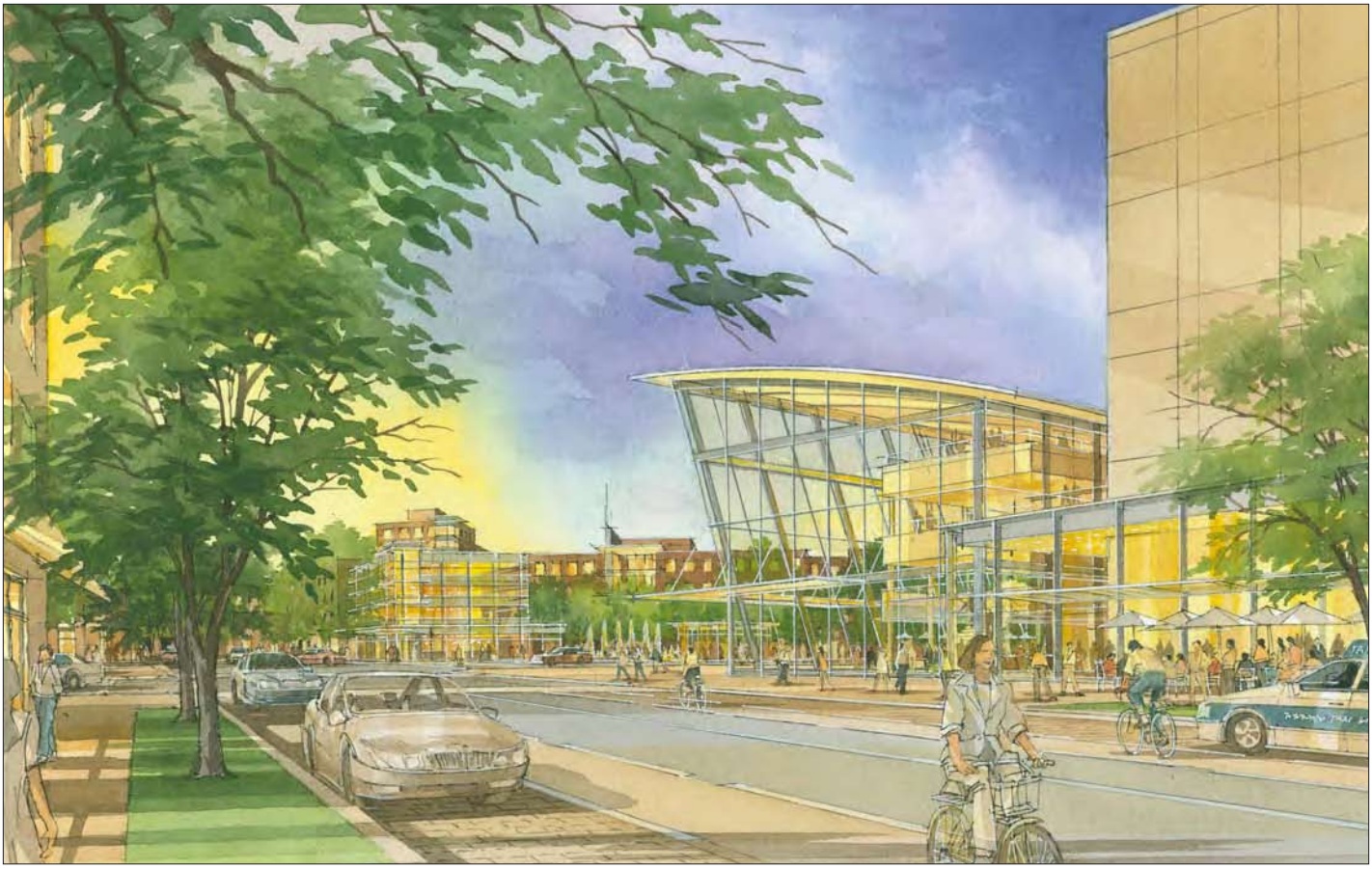
Overall, Harvard's Allston Initiative is expected to generate approximately 14,000 to 15,000 jobs over the next 50 years, with about 5,000 of those jobs created in the first 20-year phase. The construction of academic projects in Allston is expected to generate an average of 500 to 600 construction jobs per year for each of the estimated 50 years of development. The completed Allston development could generate on the order of 15 to 20 start-up businesses each year.

View of the future Allston campus from the neighborhood



A variety of groups meet at Barry's Corner, linked by transit

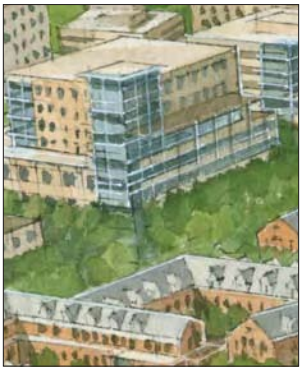
Existing conditions at North Harvard Street and Western Avenue

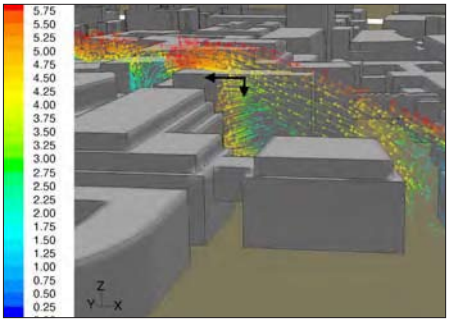


Barry's Corner retail, public plaza and performance center.

III. Frameworks

The Plan for Harvard in Allston is comprised of interrelated physical systems, or frameworks: Transportation, Open Space, Sustainability, Utilities and Development.





Frameworks

A university's plan for nine to ten million square feet, to be built over as many as 50 years, cannot be specific in all its parts; new academic endeavors will emerge that need flexible responses in their time. The Plan for Harvard in Allston is a strategic plan, providing a series of public and infrastructure frameworks that are the foundation of the Plan, with individual building parcels to be drawn on as academic opportunities and needs present themselves. The ongoing academic and physical planning of Harvard's individual schools will inevitably impact the evolution of this long-term development plan.

Below is discussion of each of the frameworks – transportation, open space, sustainability, utilities, and development. Included in the development framework is one illustration of possible building envelopes if the program was met using building types currently appropriate to each use. The building forms shown are not designs, which cannot be undertaken in advance of building programs being known, but rather are capacity studies, to understand in general an appropriate amount of square footage on a given site.

Transportation Framework

A University functions best as a single organism, with all of its parts seamlessly interconnected. For Harvard, one of the many challenges is to keep the new campus in Allston at one with Cambridge, and to facilitate faculty, researchers and students' trips back and forth among Cambridge, Allston, and the Longwood Medical Area. Facilitating movement for the University population must also minimize neighborhood traffic impacts.

Today, traffic between Allston and Cambridge flows across the Charles River via the Larz Anderson Bridge, and is impacted by heavy flows on Soldiers Field Road and Memorial Drive. That traffic, which is regional in nature and has little to do with Harvard, will continue in the future. As the University grows in Allston, connectivity would be greatly enhanced by another vehicular crossing of the Charles for transit. The transportation framework includes new streets proposed for Allston; an enhanced river crossing; the emphasis on transit to move people among Cambridge, Allston and Longwood; and parking on the periphery. These are very public issues; and so these proposals, while largely involving land now belonging to the university, need to be fully reviewed with the appropriate public agencies. Deliveries, also a transportation topic, is discussed under Utilities, below, because of the possibilities for conjoining utility and service tunnels.

MBTA Route 66 along Western Avenue


Existing Pedestrian Bridge over Soldiers Field Road

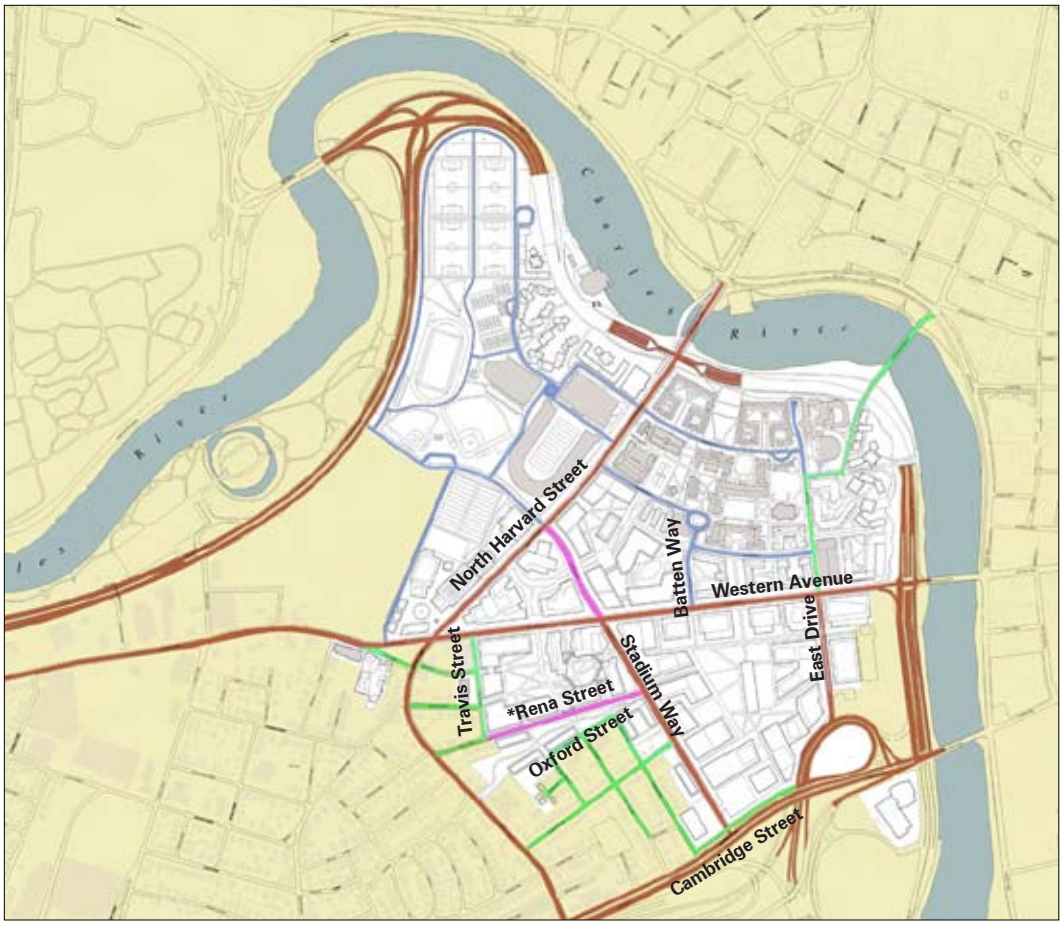
Mt. Auburn Street in Cambridge

The Streets

Streets are a key part of the public spaces and places in any campus or city. Allston today is defined by two main streets - North Harvard Street and Western Avenue - as well as the regional roads which bound it to the south (I-90) and north (Soldiers Field Road). The Plan for Harvard in Allston highlights North Harvard Street and Western Avenue and, utilizing Harvard property, adds two additional key streets - Stadium Way and the southward extension of East Drive - as well as other smaller streets.

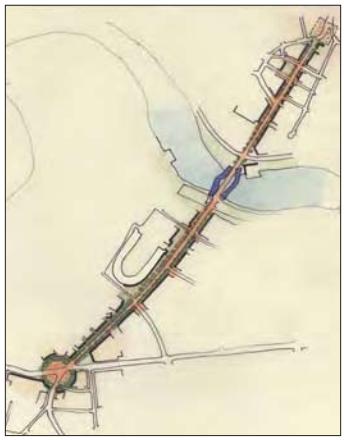
The streets in the Plan can be classified according to a basic hierarchy. *Collector streets* are the larger and busier streets that tie Allston to adjacent neighborhoods and regional roadways. Those streets that serve as links between the collector streets and the smaller neighborhood streets are *connector streets*. *Local streets* are primarily existing Allston streets that continue to serve their adjacent uses, and *institutional streets* are limited to internal Harvard vehicular circulation, and are shared by campus vehicles, including shuttles, and bicyclists and pedestrians.

Collector
Connector
Local
Institutional



*Plans for Rena Street will be developed in collaboration with neighborhood residents

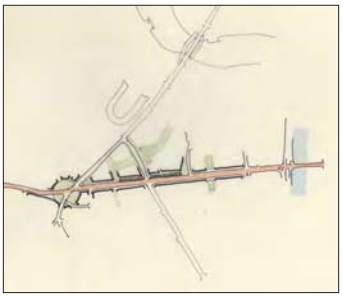
Street Hierarchy



Below is a description and purpose of each of the proposed and current streets in each category.

North Harvard Street (North of Western Avenue)
North Harvard Street, a collector street, along with the Larz Anderson Bridge and JFK Street, links the Cambridge and Allston campuses. If Charlesview is relocated, North Harvard would be predominately flanked by institutional uses north of Western Avenue. The Larz Anderson Bridge could be joined by a new pedestrian bridge to its west, and bicyclists and transit would have better access to the Larz Anderson bridge. A student center is proposed to mark the entry into Allston from Cambridge. Parking could be removed from North Harvard, replaced by transit-only lanes, requiring a widening of the cartway to the west. West of the roadway could be a widened sidewalk and a two-way bike lane, each lined with rows of trees, for a broad overall right-of-way between Soldiers Field Road and Western Avenue.

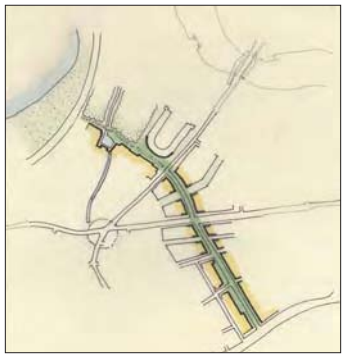
Proposed North Harvard Street



Western Avenue

Western Avenue runs east-west through Allston and continues beyond into other neighborhoods, crossing the Charles River twice. Western Avenue will continue to be a major urban street (collector) both for the community and the university, and will maintain its through-traffic function, much like Massachusetts Avenue in Cambridge. Its roadway would be widened to accommodate a bike lane in each direction for those bicyclists passing through Allston, as well as today's two travel and two parking lanes. As with every east-west street, it will have a shady south side, more attractive to the pedestrian in summer, and a sunnier north side, more comfortable in other seasons. The south sidewalk would be graced with trees, and the north sidewalk widened to include a two-way bike lane separated from the pedestrian way by a double row of trees. West of Stadium Way, the north side's bike lanes would be replaced by a wide pedestrian way.

Proposed Western Avenue



Stadium Way

A new street, Stadium Way, would run diagonally from North Harvard Street, cross Western Avenue and continue down to Cambridge Street. Created entirely within Harvard property, and replacing the existing Rotterdam Street, it will take today's through-traffic off of residential Windom Street, and provide one-minute access off I-90 via the Allston-Brighton off-ramp and Cambridge Street. Its right-of-way between North Harvard Street and Western Avenue includes two travel and two parking lanes, and a two-way bike lane continued from Western Avenue on the north side, as well as three rows of trees and sidewalks. This middle portion of Stadium Way is considered a connector street, and will be a major shuttle route. The Allston transit center will be located here, including the station for a potential future Urban Ring connection. The Urban Ring tunnel could be accommodated under Stadium Way, or a route could be accommodated at the surface. Stadium Way continues all the way through the Athletics area to Soldiers Field Road, but as a pedestrian-oriented institutional street. West of North Harvard Street the right-of-way narrows to accommodate just two travel lanes for shuttles and bikes to share.

Proposed Stadium Way

East Drive

In time, a transit/pedestrian/bike bridge could touch down near the existing landing of Weeks Bridge, and wind through the proposed houses to meet East Drive in the Harvard Business School campus. This portion of East Drive would not be a connector, but rather a local road for shuttles, bikes and pedestrians that connects Cambridge and Allston. Its right-of-way would consist of two travel lanes, and two treed sidewalks. East Drive would also be extended south of Western Avenue, as a connector road, to provide direct outbound access to I-90. That right-of-way would include a two-way off-road bike lane on the west side bordered by trees, and two travel lanes (no parking) separated by a landscaped median.

Rena Street (extended)

Today's Rena Street will keep its current scale and easterly direction, and neighborhood function. At Travis Street, it could become two-way as a connector street and could be widened to the north to provide parking on the south side, two travel lanes, and treed sidewalks. The south sidewalk would front on graduate housing in Rena Park (described below), while to the north would be Early Science. Ultimately, plans for Rena Street will be developed in collaboration with neighborhood residents.

Oxford Street

A new east-west local street, Oxford would run from Sorrento Street to Windom Street, south of Rena, with a right-of-way that would include one westbound travel and a parking lane on the north, as well as sidewalks.

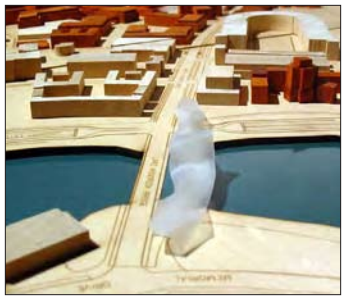
Travis Street

Travis will remain northbound, and its right-of-way would include a sidewalk on the west side, a travel lane, a parking lane, and a treed sidewalk on the east side.

Batten Way

Batten Way will remain with its current right-of-way, allowing for two sidewalks with trees, and two travel lanes.

Pedestrian entry to the existing Larz Anderson Bridge



Study of the proposed Larz Anderson pedestrian bridge

River Crossing

In addition to the Larz Anderson Bridge, a second river crossing for transit between Cambridge and Allston will eventually be required, after construction of the first phase's four to five million square feet.

Not only does the existing Weeks Bridge not accommodate transit, but its current configuration is not ADA compatible, and it affords a cumbersome pedestrian experience; to cross into Allston from Cambridge, a pedestrian must cross Weeks, and then climb up and down an additional pedestrian bridge to cross Soldiers Field Road. A single structure that allows for an easy walk or ride from Cambridge into Allston is proposed. Three options were considered to provide the necessary pedestrian, bike, and transit service (no cars or trucks):

- New bridge, to replace or in addition to Weeks
- Reconstruction of Weeks in place, ADA compatible
- Reconstruction and widening of Weeks, ADA compatible

All three were then considered with a depressed and covered Soldiers Field Road, and without.

No final recommendation is yet ready, but what is currently shown is a widening of Weeks to allow for two-way transit, pedestrians, and bikes. This can be accomplished within the current structural system. Soldiers Field Road would be covered, and access on the Allston side would be just east of McArthur Hall and then would tie into East Drive.

Existing bridge over Soldiers Field Road, leading to Weeks

Harvard Square T stop

Transit

In addition to encouraging more frequent service on MBTA lines (especially the 66 and 86), four new, free and frequent shuttle systems owned and operated by Harvard, with two perhaps open to the public, are proposed, with their proposed routes illustrated in the diagram on the following page:

Initial Shuttle: This shuttle will link the first academic and cultural projects together in Allston, as well as the proposed Harvard Art Museum site at Barry's Corner to the Harvard Art Museum site in Cambridge. It also connects the Cambridge and Allston Science complexes; this route will be open to the public, if feasible.

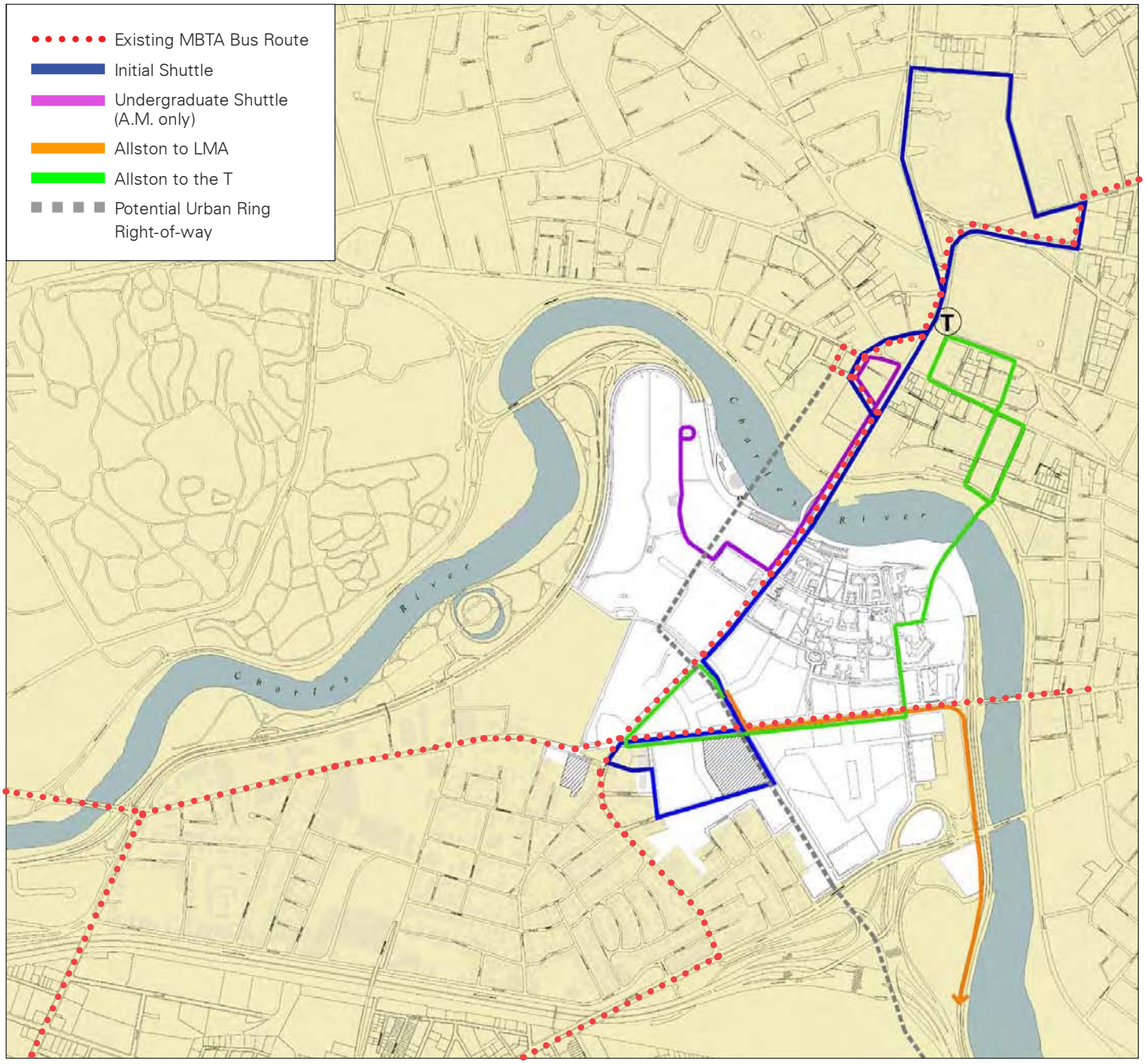
Undergraduate houses to the Square: A peak a.m. shuttle would run from the undergraduate houses located west of North Harvard Street to Harvard Square, to accommodate students in those dorms on their way to the first class of the day.

Allston to LMA: This shuttle would be in vehicles sized for Storrow Drive, and would connect the Sciences and the School of Public Health in Allston with the Longwood Medical Area.

Allston to the T: Upon completion of the second Charles River crossing, a shuttle would run from Allston to the Red Line MBTA stop at Harvard Square. This route would be open to the public, if feasible. Since the shuttle's northern terminus is the MBTA stop at Harvard Square, on the Cambridge side the access system is to turn left on Memorial Drive when coming from Allston, then right on Plympton to Massachusetts Avenue, and left on Massachusetts Avenue to the MBTA stop/Au Bon Pain. On the return trip, the shuttle would turn onto Dunster to Mount Auburn Street, left on Mount Auburn Street to DeWolfe Street, and right on DeWolfe Street to Memorial Drive.

The intermediate stops for each shuttle and their headway/frequency would evolve with demand. The shuttle system will use the Global Positioning System (GPS) to provide real-time arrival and departure information that will be available at the various shuttle stops, and accessible via wireless devices.

Urban Ring: There is a possible eventual fifth transit element: an extension of the proposed Urban Ring transit system into Cambridge via Allston. A sufficient right-of-way for a tunneled solution has been provided under Stadium Way or a route could be accommodated at the surface. Either a surface or an underground route (west of the Stadium) could tie into the Red Line in Cambridge.



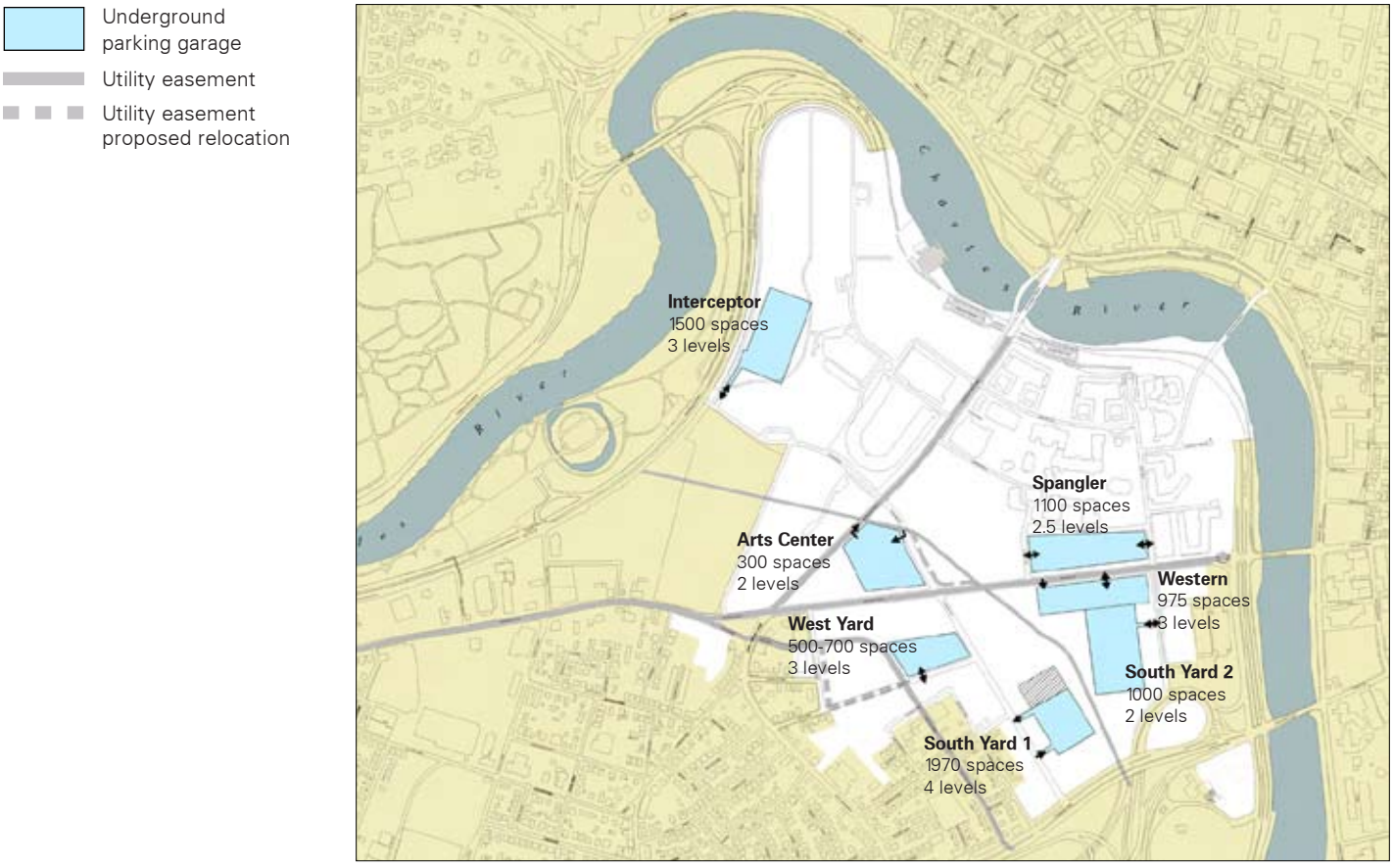
Proposed Shuttle Routes

Parking

The Plan for Harvard in Allston's parking layout derives from four principles:

- Aggressive modal split of only 40% private autos at build-out, stressing first the pedestrian, then bicycle and transit, and only last the automobile.
- Eventually, all parking will be underground, to provide the highest quality environment.
- Intercept locations for garages, to keep cars from the neighborhood streets and center of campus and to minimize traffic movements across and along Western Avenue and North Harvard Street.
- Existing surface parking opportunities to be employed in interim periods, provided they are consistent with the greening of Allston.

Unless significant new public transit service can be established in the area, the program could need 6,300-6,400 new spaces, if ten million square feet are eventually built. These are located as shown on the drawing below.



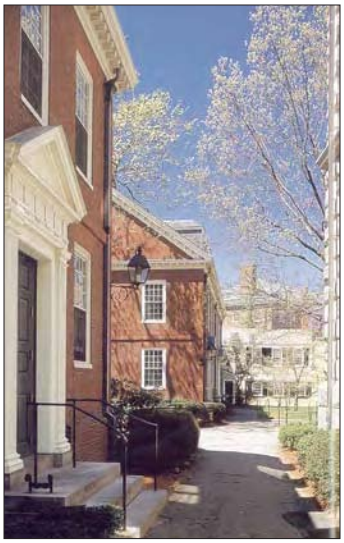
Proposed Parking Plan

Open Space Framework

Together with the streets, the open spaces proposed in the Plan for Harvard in Allston provide the public framework for the new campus and its connection with the North Allston neighborhood. Here, Harvard and the community will meet, relax, work, and play on a greened and welcoming system of public spaces vastly different from today's paved truck yards and fenced parking lots.

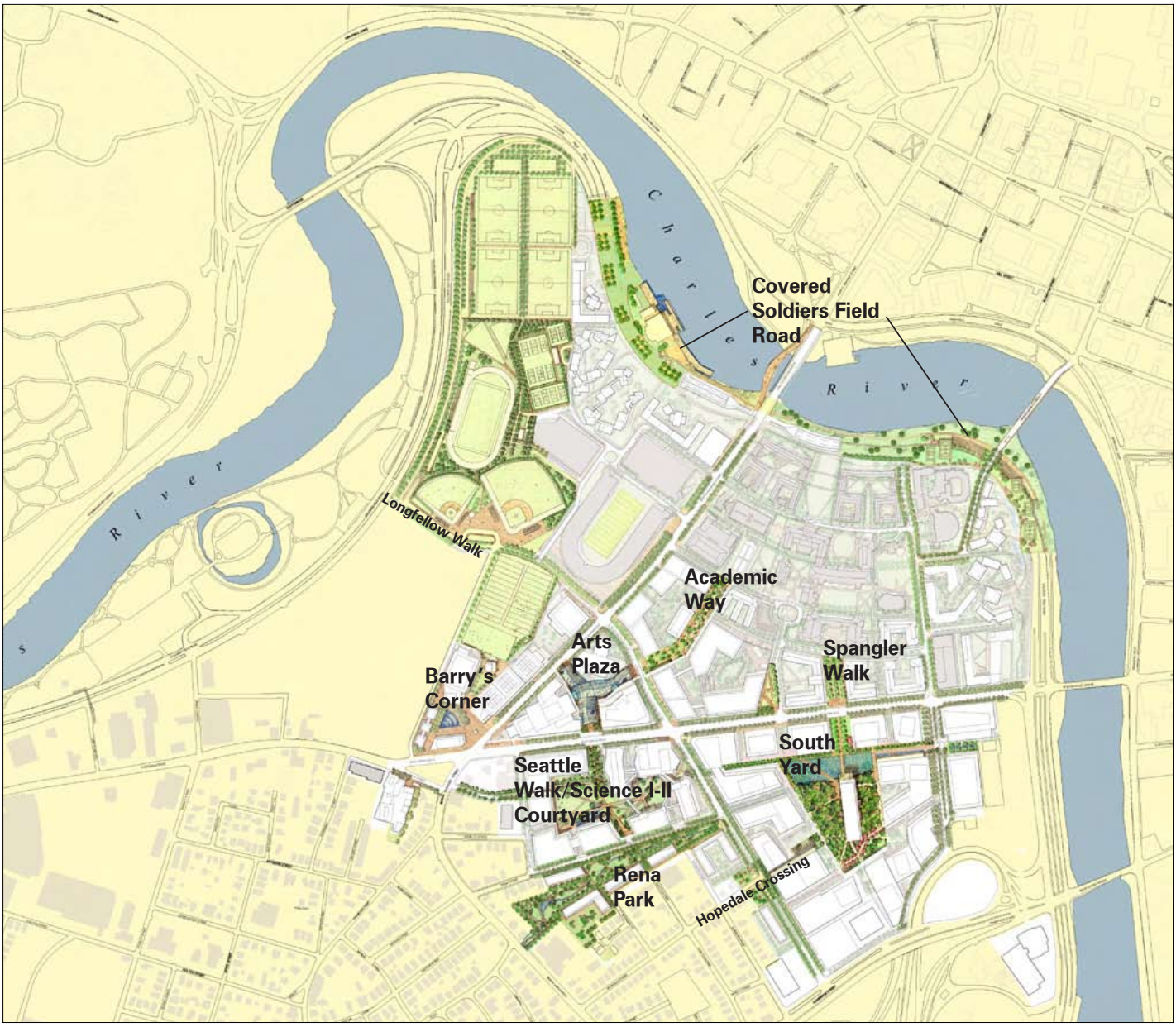
The Plan for Harvard in Allston mandates several specified "core open spaces" as focal points for recreation and relaxation. In addition, building groupings will create courtyards (such as at First Science), as a second tier in a three-part hierarchy. Third, generously landscaped paths are laid out to connect all of these open spaces, so that one can walk internally from any place on campus to any other and to Barry's Corner by crossing only one or two streets. As shown below, these types of open spaces can be found throughout the Cambridge campus. The Allston campus is to be open and welcoming, and there is intentional location of pathways into the campus as inviting extensions of neighborhood streets. Additionally, the Harvard athletics fields will be reconfigured and enhanced by use of field turf and lighting, and by including in the Athletics complex the parcel located northwest of Barry's Corner. The entire Open Space Framework is exhibited in the drawing on the following page, with emphasis placed on the core open spaces.

Core Open Space: Harvard Yard



Internal campus pathway

Courtyard created by buildings: Eliot House



Open Space Framework: Core Open Spaces

Barry's Corner

This is a new public square where the Allston community and Harvard meet. It is to be developed as a major urban space with diverse uses surrounding the intersection of North Harvard Street and Western Avenue. It will be urban, active, and when all the facilities are completed on its corners, a bustling scene. A central fountain could add to the amenity of planned cafes with outdoor tables and chairs throughout the plaza. There also would be tree plantings to provide shade in summer and seasonal interest all year.

The adjacent buildings framing the square on the west are proposed as residential with ground floor shops and cafés. To the south would be a mixed-use building with offices above ground-floor retail. To the north and northeast one would find entries to new athletic facilities for fitness, hockey, basketball, swimming, and rooftop tennis courts. On the eastern corner (the current Charlesview site), theaters and museums are proposed with a major entry facing the intersection. This corner also presents a remarkable opportunity for a major work of public art that could become a landmark in Allston.

Existing North Harvard and Western Avenue Intersection

Proposed Barry's Corner: Plan and 3D illustrative rendering

Today, the future entrance to Rena Park from North Harvard Street, just north of the library, is a dead end.

Rena Park

Rena Park will tie the community and Harvard together. Adjacent to the Allston library on North Harvard Street will be the largest open space in Rena Park, and off of this area will be smaller spaces which may include community gardens and more intimately scaled areas for seating.

The narrower portions of this park alongside Rena Street would have works of art, play structures, and perhaps a dog run. Seattle, Sorrento and Windom Streets reach north toward the southern boundary of the park and would be extended into the park in the form of pedestrian walkways, passing through the park and giving access to Barry's Corner and Western Avenue via walkways through the First Science site. Rena Park in total will be over three acres. Historically, a stream passed through this area leading to the Charles River on the east. It has been proposed and is being considered that a swale be constructed and that storm water from the park and adjacent areas be collected and directed in a designed 'stream' extending from west to east through the park with appropriate riparian plantings.

Plan of Rena Park

South Yard

This will be the most significant new landscape space in Harvard's Allston campus (excluding the redone athletic fields). It will be the major green heart and social center for the users of the academic and research facilities. It is to be designed to contain both topography and a major plantation of New England forest species. There is an opportunity for a glass pavilion or Winter Garden within this woodland setting as well as a major water element, which could extend the concept of the historic drainage way that is being considered for Rena Park. The most prominent path through the yard, Bertram Walk, will run parallel to Western Avenue, extending from the existing Bertram Street at Barry's Corner to the Charles River and crossing only Travis Street, Stadium Way, and East Drive, with a dedicated bike lane. This quadrangle will be over eight acres.

Plan of the South Yard

Initial study sketch of the South Yard

South Yard in the summer, with Wintergarden in background

Illustrative Winter Garden Section

Hopedale Crossing

This will be a direct path from the community extending the Hopedale right-of-way across Stadium Way into the center of the South Yard. Its minimum dimension is the Hopedale right-of-way. It is announced at the eastern end of Hopedale either by two boulders or by large trees so located to signal "no cars" but to welcome pedestrians. Also, at Stadium Way's western edge, there is a significant green buffer to the north and south of the Hopedale center line extended.

Arts Plaza

The heart of the current Charlesview site is proposed to become a paved court surrounded by theatres and museums. A paved piazza, this large urban room would be covered above while open to the climate on the sides in a manner similar to the great nineteenth century train sheds and gallerias. The lights, signs, and entries to the lobbies and shops of the museums and theaters would provide a lively urban scene.

Academic Way

A key north-south open space pathway in the Plan, Academic Way is proposed as a 100-foot wide green pedestrian way connecting the Arts Plaza and Stadium Way on the south to the Harvard Business School precinct on the north. Framed by professional schools, it will be a pedestrian sanctuary as well as a walk, shaded by canopy trees, useful for interdisciplinary meetings, conversation, and sitting.

Existing Charlesview site, aerial view

Existing Charlesview site, street level view

Model study of Arts Canopy

Seattle Walk

This will be another pedestrian greenway continuing the width of Academic Way located to the west of the First Science site. It will connect the residential area of Allston south of Rena Street to Western Avenue, the Arts Plaza and Barry's Corner.

Spangler Walk

This soft green pedestrian way will link the heart of the Harvard Business School to the heart of the South Yard. It will allow for a view corridor between Spangler's signature entrance and the proposed central glass pavilion in the South Yard.

Longfellow Walk

West of North Harvard Street, a campus drive and pedestrian way will extend Stadium Way across the Athletics area to a gate, intersection, and crossing at Soldiers Field Road that could give access to the Charles River and its parkland. The drive will be closed to traffic and will only accommodate shuttles serving an intercept garage, and Harvard service vehicles.

Science I and II Courtyard

This is a new medium-sized quad containing trees, shrubs, and lawn to be loosely bounded by buildings - with one entering between or through the buildings.

Before and After: From the steps of the Spangler Center, looking across Western Avenue, to the South Yard

Covering Soldiers Field Road

With the creation of Harvard's new campus in Allston, the Charles River will lie at the center of the University. A critical connection to this natural element of the site could result from the depression and covering of Soldiers Field Road for at least 400' in each of two locations: near Newell Boat House, and at the location of the landing of Weeks Bridge. To the west of North Harvard Street, the road would be depressed to allow for a direct connection between the four proposed River Houses (to replace the existing athletics buildings) and Newell Boathouse. This depression of the road would be covered with a paved promenade with trees and other plantings and would have stairs and ramps to the north that allow for access to the river's edge. This would create a new piece of landscaped riverfront for both the public and the University to enjoy.

To the north and east of the Harvard Business School campus, Soldiers Field Road would also be depressed to allow for a connection between existing Harvard Business School buildings and the proposed River Houses, and the Charles River. This connection would be more park-like in its design than the Promenade at the West Houses. At its north end would be a newly constructed Weeks Bridge that would carry shuttles, bicycles and pedestrians across the Charles River to Cambridge.

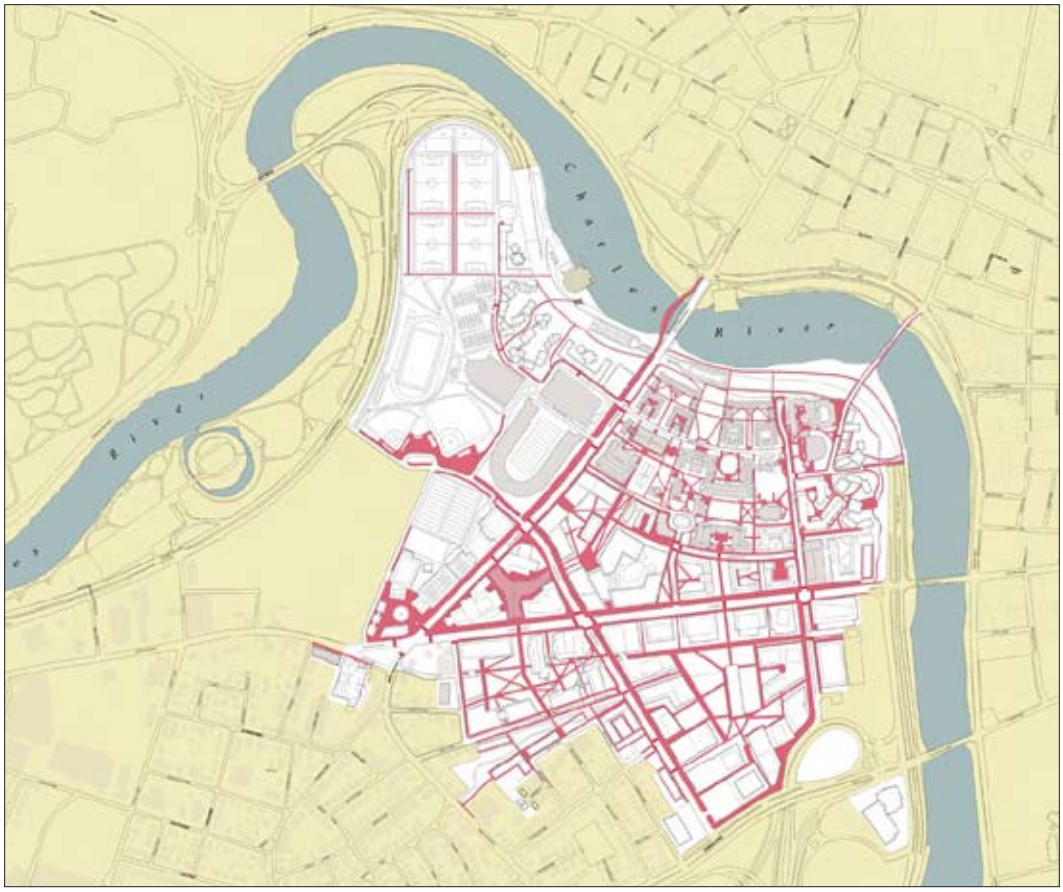
West River Promenade

Pedestrian paths in Harvard Yard

Pedestrians and Bicycles

The Plan for Harvard in Allston gives primacy to the pedestrian, then the bicyclist, then to transit, and last the automobile.

The pedestrian – whether from the community or the University– will be greeted by a network of linked open spaces: from the major spaces specified in the Plan, to the courtyards created by building groupings, to the paths that tie together the spaces described above. There are no proposed closed walls or gates to deter the community resident from strolling through the campus, and certain community streets' rights-of-way - Hopedale, Bertram and Seattle - will be extended into the campus greens.



Pedestrian Network

Bicycles parked at Harvard Athletics facility

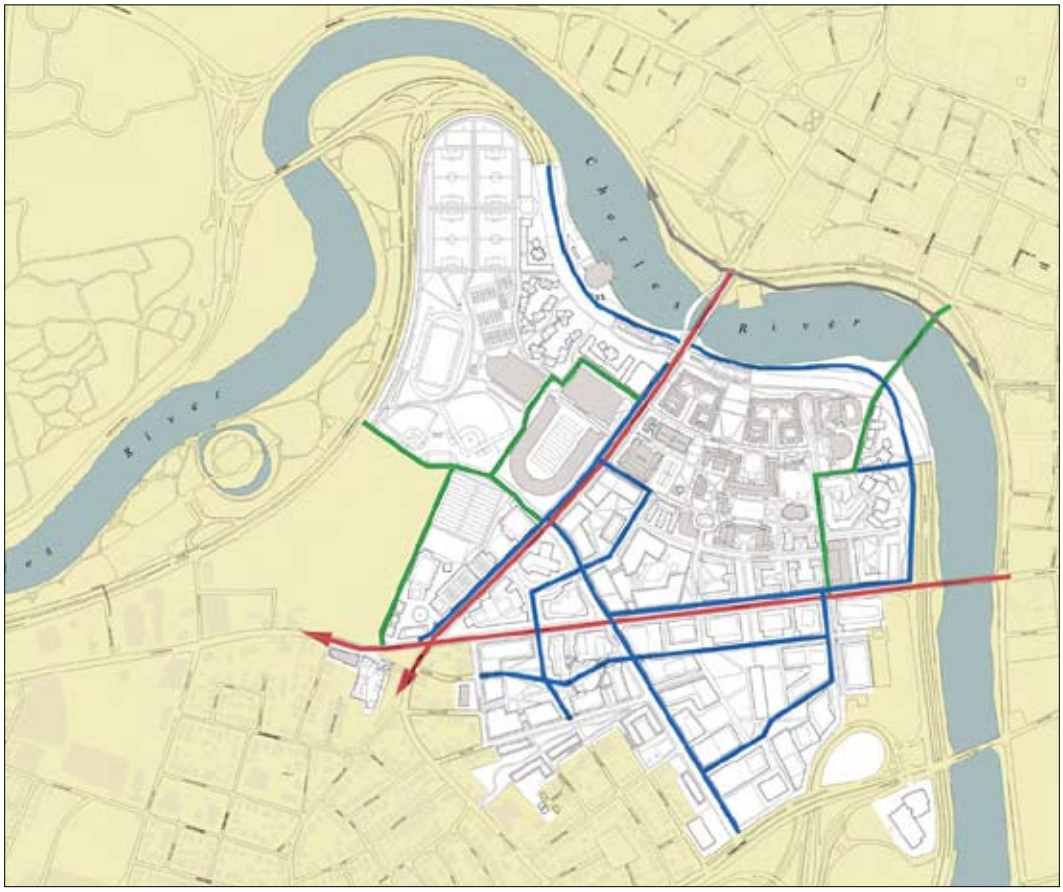
The bicyclist is also well-served. On Western Avenue there will be on-street lanes, most likely to be used by commuters who could be on their way from Watertown to Cambridge. The Plan also proposes a two-way, off-street bike lane on the north side of Western that ties into a similar system on North Harvard Street and Stadium Way, allowing a bicyclist to go anywhere around the new campus, safely paralleling the main roads. In addition, a separated bike route on the east-west pedestrian Bertram Way, coupled with on-street biking on the smallest streets, will allow the cyclist to reach the door of every new building intended for the campus. The accompanying sustainability design guidelines require bicycle storage in each building.

Two-way dedicated bike lane on-road

Two-way dedicated bike path off road

Bikes share road with cars

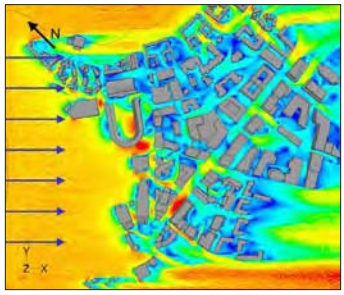
Other bike paths



Bicycle Network

Sustainability Framework

Photovoltaics on the roof of Shad Hall, Harvard Business School



Wind study by Transsolar

Wind energy is being explored to supplement Harvard's energy systems in Allston

The United Nations defines sustainability as the ability of one generation to meet its needs without detracting from the next generation's opportunity. That means using resources wisely and well, and minimizing impact. A new Allston campus offers a coherent opportunity to that end.

Harvard has worked hard to achieve such goals. The Harvard Green Campus Initiative and the Green Campus Loan Fund have ensured that sustainability is brought in as an early and essential component of the design process.

The Plan's goals for sustainability are evident in each of its frameworks. The following are some of these key goals:

Water

- Reduce storm water runoff
- Treat runoff to remove suspended solids
- Reduce potable water use
- Meet non-potable demand from non-potable sources

Energy

- Reduce growth in demand
- Generate energy with reduction of CO_2
- Explore co-generation
- Produce energy by on-site, off-site, and renewable sources
- Reduce greenhouse gas emissions

Transportation

- Minimize use of single occupant vehicles
- Promote public transit
- Enhance Harvard shuttle services
- Promote pedestrian and bicycle transportation

Landscape and Ecology

- Increase publicly accessible open spaces
- Reduce impervious surfaces
- Preserve and create healthy soils
- Establish a robust and bio-diverse landscape

Human Health and Productivity

- Provide visible and accessible natural environments
- Integrate campus environment with local community
- Reduce emissions

Utilities Framework

There are seven major utilities systems to consider as a new campus unfolds:

- Sanitary sewer
- Storm water
- Heating and Chilled water
- Service/Deliveries
- Water
- Electricity
- IT, phone, data

Sanitary Sewer

There is ample capacity in the two box sewers that run southeast through the project area. Harvard may apply to relocate a small element of each of those sewers, as noted in the parking drawing on p. 34.

Storm Water

Because much of this part of Allston was originally a salt hay marsh, the water table is very high, often causing the Athletics Fields to flood. In addition, it would be desirable to filter the storm water that reaches the Charles river. The goal will be to retain and recharge on-site, including the water element proposed for the major green spaces to be located south of Western Avenue.

Heating and Chilled Water

No excess capacity remains at Harvard's steam plant, and so the Allston campus must supply its own. Options considered have included one central facility. Current thinking leans toward one steam facility for science processing with a system of local hot water and chilled water capabilities, perhaps six to eight in total and linked to provide redundancy, as exhibited on the facing page. Building incrementally also enables new technologies to be introduced as they are developed.

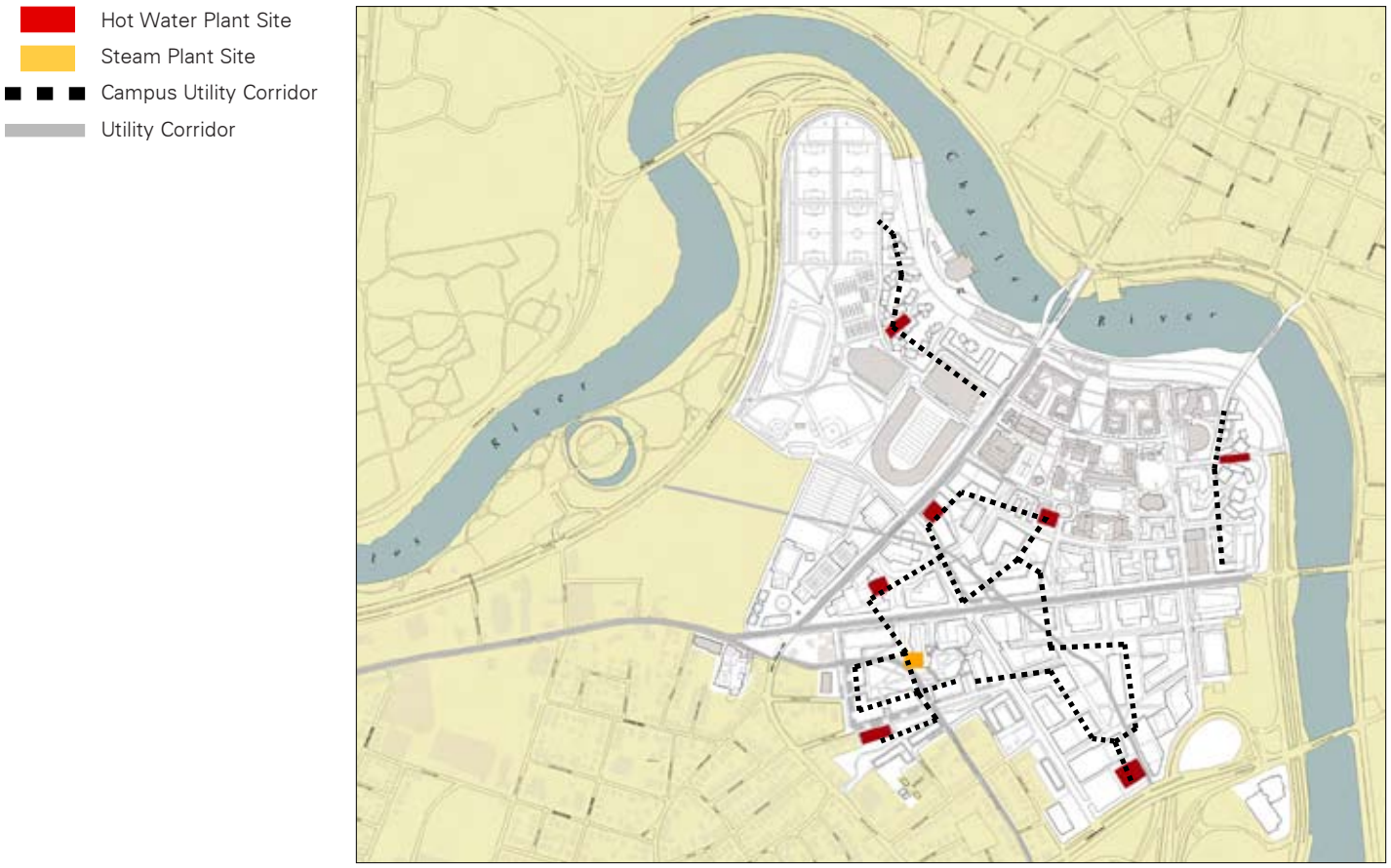
Service/Deliveries

One possible approach for new development in Allston is a central loading dock, most likely near Cambridge Street, with a tunnel system that could also include utility loops. There are two major box sewers inconveniently located – both horizontally and vertically – on the site that prevent some desired interconnections. An alternative approach is to group loading docks, for every two or three buildings, taking care that their curb cuts do not disrupt pedestrian circulation or traffic flow. Three methods of utility delivery and distribution are being evaluated: direct bury, trench, and tunnel. Life-cycle costs and phasing of each approach are being considered.

Water
There is an ample water supply available, including a 60 inch main in Western Avenue.

Electricity
Consideration is being given to two approaches: continuing to purchase, and to provide cogeneration for a majority of Allston's needs. Allowances have been made for a possible substation location. Wind power is also being considered.

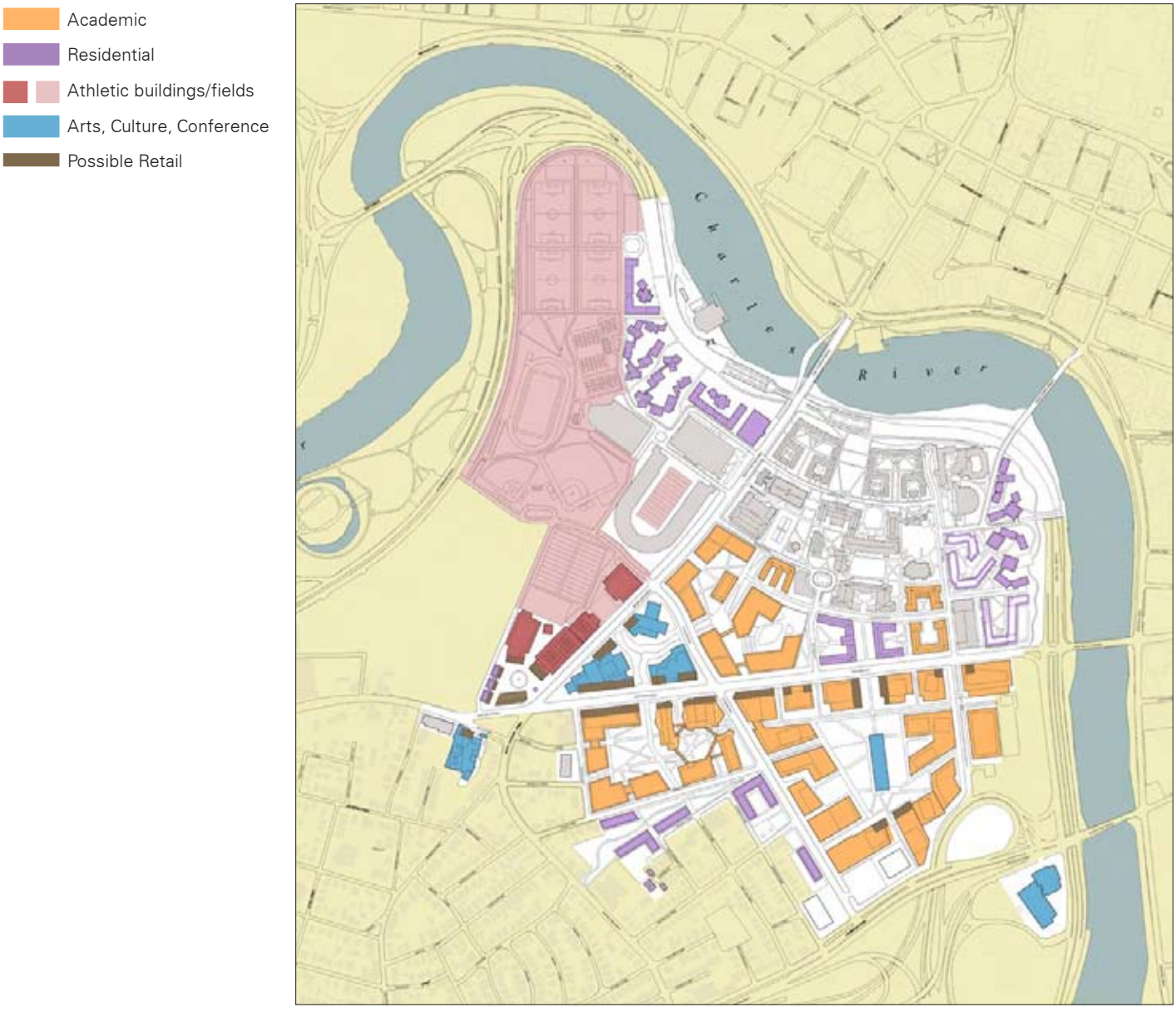
IT, Phone, Data
These can be done in concurrence with other utilities.



Preliminary Concept for Heating and Cooling Network

Development Framework

The drawing below shows development on the site categorized by use: academic, residential, athletic, cultural and civic, and retail. With the intent of bringing Harvard and the community together, the retail and civic uses are focused around or near Barry's Corner, close to neighborhood residential areas.



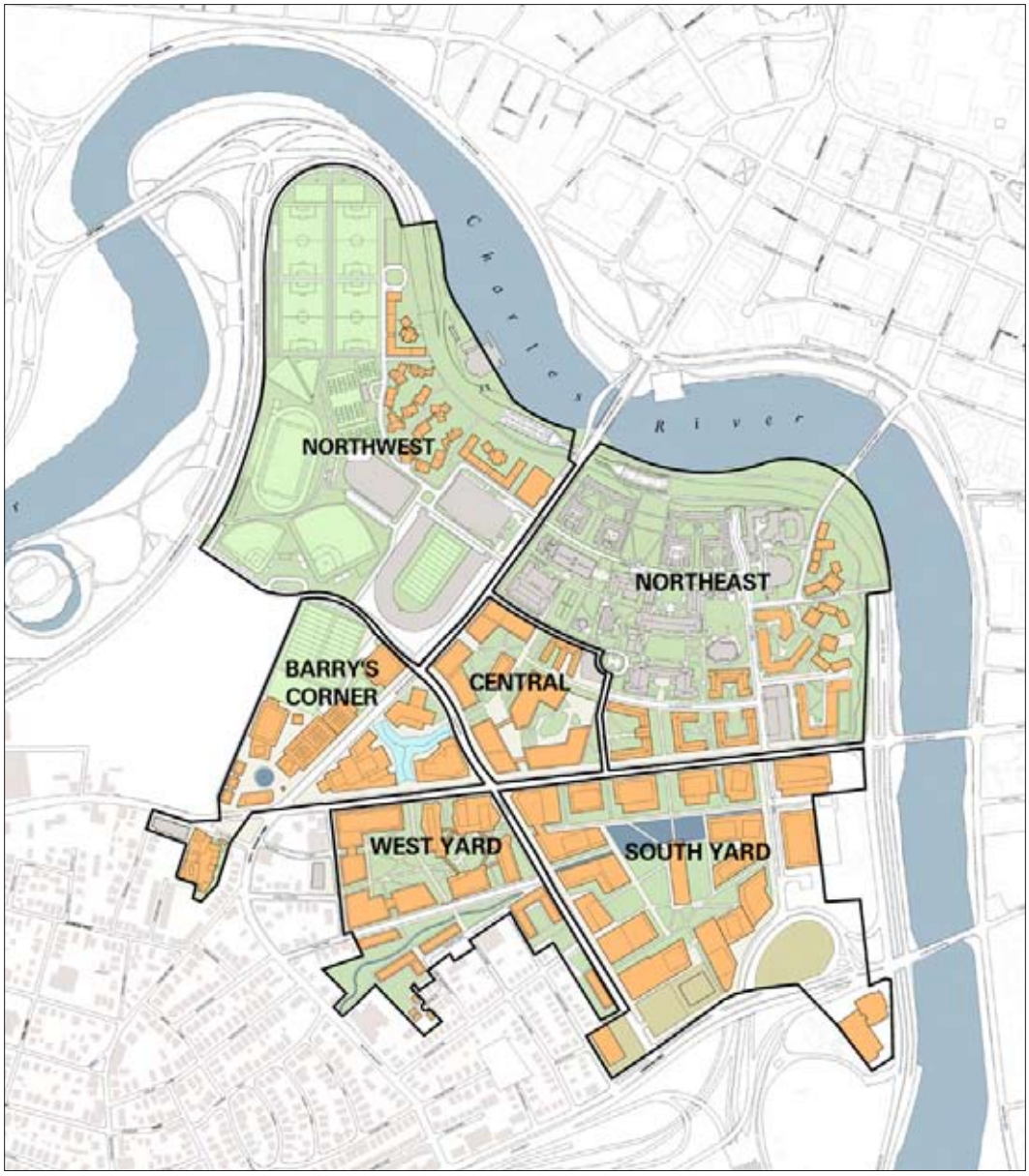
Development Framework

IV. Design Recommendations

Organized according to geographic area, included here are diagrammatic computer massing models that illustrate Harvard's development potential in Allston.

Six Districts

The Plan for Harvard in Allston divides naturally into the six districts shown below, each with its own mix of uses, building types and design intent. On the following pages are pairs of images for each district: a 3D aerial shot from a massing model showing illustrative, generalized building envelopes and an aerial photograph of the existing conditions today. As noted on page 25, the building forms shown are not designs, but rather are diagrammatic capacity studies for the available development sites.



Six Districts

Barry's Corner District

- Most public
- Greatest mix of uses, including arts and culture
- Community and institution meet
- Activity and oasis

Digital Model of Proposed Barry's Corner District

Existing Conditions

Northwest District

- Full of student activity
- River access for Harvard and community
- Athletics and housing
- Wind power

Digital Model of Proposed Northwest District

Existing Conditions

West Yard District

- Interconnected and interdisciplinary
- Community connections:
  - Seattle Walk
  - Bertram Walk
  - Rena Park
- Science and housing

Digital Model of Proposed West Yard District

Existing Conditions

Central District

- Transportation central
- Stadium Way
- Interdisciplinary academics
- Professional Schools
- Academic Way

Digital Model of Proposed Central District

Existing Conditions

Northeast District

- Transit and pedestrian access to the river
- Harvard Business School and housing

Digital Model of Proposed Northeast District

Existing Conditions

South Yard District

- Open and permeable:
  - Bertram Walk
  - Spangler Way
  - Hopedale Crossing
- Conservatory/Wintergarden
- Large water element
- The academic and science future

Digital Model of Proposed South Yard District

Existing Conditions

Design Guidelines

Design Guidelines for the six districts are being prepared in order to implement the Plan's vision about how the public realm functions, including vehicular access, servicing, and pedestrian circulation, and how its key public elements of streets and open spaces will be framed by the adjacent buildings. The Guidelines are not intended to replace city or neighborhood project review. Their purpose is to provide the University with a mechanism that can help an architect focusing on one future Harvard project to also make a contribution to the whole – a new Allston campus and community. They ensure that buildings are compatible with each other without overly constraining the architects in their approach to function and form. The guidelines will be administered by a Harvard design review group, which is empowered to waive guideline elements to achieve a better design result.

Design Guidelines will be specified for each of the districts described above, and will include an introduction discussing overall Use and Design Intent, followed by guidelines on Streets, Open Spaces, Parcels, Density, Building Entrances, Easements, Curb Cuts, Ground Floor Uses, Pedestrian and Bike Paths, and Height and Setback. In addition, there will be certain overall parameters as follows:

- A floor area (GSF above grade) maximum is given by district, but parcels within the district are shown in a range, recognizing that future program needs are not yet specified and that some individual parcels might eventually need to be underbuilt or overbuilt, while maintaining the district maximum.
- Heights are deliberately stepped down towards the community, and allowed to be higher near I-90 and along Western Avenue. Building elements may not exceed the listed height limit except for a single stack if required.
- Overall building coverage within a district is specified, though individual building coverage within the district may vary. Pervious surface would be further increased if green roofs are employed. Streets, the Athletics fields, and the current Harvard Business School building complex/campus are not included as site area for purposes of this calculation.
- The length of building elements fronting/facing a street is specified.
- All mechanical equipment, with the exception of the single stacks discussed above, must be screened by appropriate architectural treatment on all sides.
- Required easements are shown on the Parcel Summary drawing for each district.

The Design Guidelines will be an Appendix to the Plan for Harvard in Allston.

V. Conclusion

Artist's rendering of the Plan for Harvard in Allston

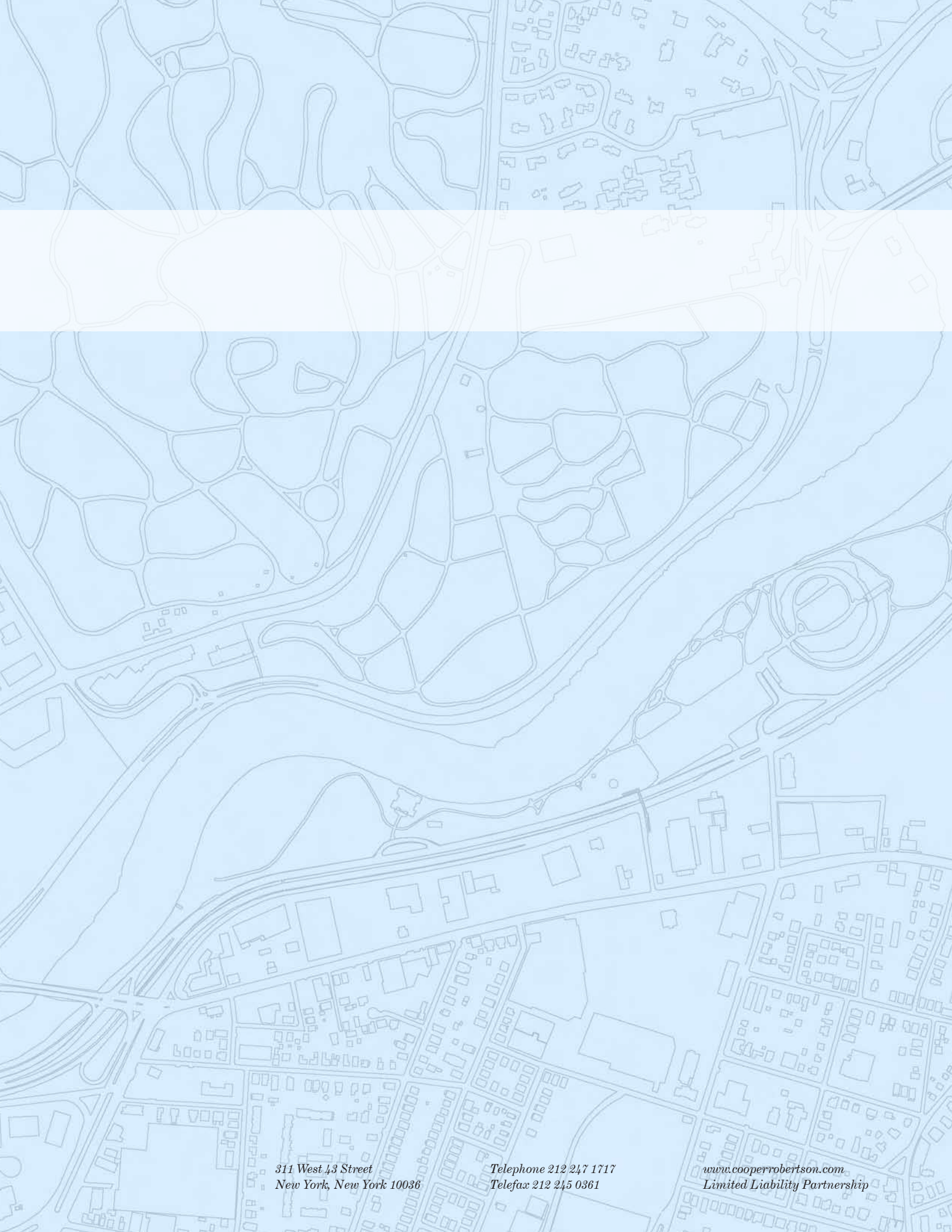
Conclusion

The Allston Initiative will enrich the lives of people from a wide variety of walks of life, including from the University, the neighborhood, the City of Boston, the surrounding region, and beyond. Harvard's development in Allston will provide an exciting crossroads for faculty, researchers, staff, local residents, worldwide visitors, performance patrons, art enthusiasts, children on museum tours, fans of Harvard sports teams, shoppers, diners, and many others. The mutual benefit created by this mix comprises the essence of the University experience and one of the most important contributions Harvard can provide to its surrounding community.

Many have contributed to this work. The core team throughout has been a collaboration among Cooper, Robertson & Partners, Gehry Partners and the Olin Partnership, assisted by four key subconsultants: Vanasse Hangen Brustlin for transportation, Nitsch Engineering Inc., for wet utilities, RMF Engineering for dry utilities, Hanscomb Faithful and Gould for cost estimation, and atelier ten for sustainability considerations. Haley & Aldrich has advised on geotechnical issues, and Parsons Brinckerhoff and DMJM on major infrastructure projects.

Important contributions were made by Chan Krieger & Associates who studied the public realm in Allston, and by the Project for Public Spaces who focused on animating Barry's Corner, including an all-day Saturday community session. Together, these two firms elicited from Harvard and community representatives many creative ideas for energizing street life in the new Allston, especially at the nexus of campus and community.

Harvard would also like to thank the many city officials and neighborhood representatives who provided guidance to the design team.



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