30 January 2015
Connect Kendall Square: An Open Space Competition
City of Cambridge, Community Development Department
344 Broadway
Cambridge, Massachusetts, 02139

Dear Competition Jury,

It is with great pleasure that we submit our Stage III entry for the Connect Kendall Square competition. The process has been a fascinating research project for us; we have learned a great deal more about the neighborhood of Kendall Square, and more about the potential for an integrated landscape approach to transform an existing urban environment. We believe this submission is in compliance with all competition regulations and look forward to explaining more of our thinking to you at the jury presentation next month.

Sincerely yours,

Matthew Urbanski
Principal
Michael Van Valkenburgh Associates
We believe that a playful state of mind is essential to creativity and discovery, and that the remarkable creative activities in Kendall Square, which currently go on largely behind closed doors, will be boosted dramatically by a playful, connected public realm of memorable new landscape experiences. Connecting Kendall Square will be personal for all those that visit, live or work in the area, it will be a process of discovery, a creative endeavor, different every day, and changing through the seasons. It will be a vivid mental map in each person, a reflection of the memorable and excitingly programmed new landscapes, public art installations at key locations, and way-finding cues that will encourage and inspire people to explore, get some thinking done, and above all play a little. Discovery will be made on foot, by bike and online, whether consulting the Connect Kendall app to find out what is going on, taking a looping walk at lunchtime, a morning jog, a quick phone call in the park, or a sledding expedition.
In addition to the four park sites identified in the Connect Kendall Square brief, the MVVA team has included three other potential sites for open space creation in Kendall Square and beyond, which make up a longer term vision for the area: Fulkerson Street, Kendall Green at the Volpe Center, and the Charles River Basin. The addition of the Kendall Green allows for the creation of a significant landscape at the heart of Kendall Square; Fulkerson Park, which would include the future redevelopment of land to the west of Fulkerson Street expands the sports facilities at Ahearn Field to meet a long-recognized community need. Finally, the Charles River Basin is a much longer term idea that completes Charles Eliot’s century-old vision of strong landscape connections between Boston and Cambridge and a fully connected Charles River Basin. Our Charles River Basin ideas, including a landscape bridge over Memorial Drive, are not dependent on the proposals made within the core Connect Kendall Square study area. These ideas would require the long-term cooperation of the Cities of Boston and Cambridge, state agencies and major adjacent land owners, including MIT and the Museum of Science.
One of the starting points of our thinking for Connect Kendall Square is to provide the missing pieces of program in the area’s public spaces. Current public spaces have predominantly a passive program of lawns, trees and areas for relaxing, and are similar to each other in character. There are exceptions, including the canoe rental at Broad Canal, and the actively programmed Biomed Plaza, which draw large amounts of users, and are already well-recognized landmarks in Kendall Square.

Providing the missing pieces of program, tailored to each location, will create an integrated public realm that fully serves the diverse community. New program will range from a large event lawn and concert amphitheater at Kendall Green in the Volpe site to play fountains and café in a new plaza at Point Park, or quiet seating areas in a richly planted landscape at the First Street Triangle. Program predominantly serving the existing neighborhoods includes a dog park and community gardens at the Rogers Street Park, adventure play and a sledding hill at the Pork Chop, and new sports facilities at Fulkerson Park.
Each park in the framework plan is intended to be memorable and unique, from the bustling crossroads plaza of Point Park with chalk boards for sketching, to the intimately-scaled seating nooks of First Street Triangle Park tucked within rich, natural plantings that filter sound and views to the busy Land Boulevard. Each park will have a strong identity that allows them to compete through contrast with their densely built surroundings. These new parks will create strong, lasting impressions that will be vibrant markers on our mental maps of Kendall Square.

The parks are also designed with topographic high points and distinctive planting so they are visible from a distance and can become physical way-finding and way-making devices within the urban field. A central high point in Kendall Green acts as a beacon that is visible from Broad Canal and up Fifth Street. The First Street Triangle landscape is visible down Binney Street and marks the gateway to Kendall Square along Land Boulevard for pedestrians, cyclists, and motorists alike.
VIEW EAST DOWN BINNEY STREET

High reader of Triangle Park plays an important role in wayfinding and way-making along Binney Street

Tree-lined streets are vital, connective green spaces between open spaces

VIEW WEST DOWN BROAD CANAL

Kendall Green's high point is visible down Broad Canal, linking the heart of Kendall Square to the Charles River
Public art in Kendall Square is envisioned as a vibrant and vital aspect of the open space network, creating place and operating as way-finding and way-waking elements between parks, as well as enriching the parks themselves with installations that invite play, engage the landscape, and encourage the community to participate in their creation.

Just as a Wi-Fi signal can be boosted by repeaters, these art "boosters" extend the mental map network of the parks to achieve full coverage of Kendall Square, creating a clear and unique identity. We recommend an integrated approach to the curation and management of public art across Kendall Square, marshalling both public and private resources, and suggest that a "Kendall Square Conservancy" or similar body be considered as a way to achieve this goal. This approach is described in more detail on pages 52-55 of this report.
Improved connections to the Charles River Basin will allow the community to more fully engage with the waterfront, which is largely hidden from Kendall Square currently. The new gateway of First Street Triangle Park creates a strong connection to the river, both with the views of the river from its' high point, and by drawing people along Binney Street towards the river. Kendall Green is at the center of Kendall Square, and powerfully connected to the river visually and hydrologically through the Broad Canal.

A long-term vision of new parkland in the Charles River Basin creates opportunities for habitat creation, stormwater, treatment and recreation. In this vision, Cambridge and Boston will be connected through a series of island landscapes and bridges.
GREEN INFRASTRUCTURE AND SUSTAINABILITY

We recommend developing the proposed landscapes within Kendall Square as an integrated system that can capture and treat stormwater from the area. There are some unseparated CSOs in this part of the city, so reducing the volume of stormwater entering the system will reduce polluted water entering the Charles River. Capturing and treating stormwater in rain gardens, marshes and water features in the parks will improve water quality as well as providing opportunities for habitat creation. In the future these water systems within the parks could be connected, and could be a source of non-potable water for irrigation or toilet flushing.

The proposed landscapes in the Charles River Basin could include wetland habitat, which could be connected to stormwater outfalls to improve water quality in this often stagnant part of the river. The current hard-edged river basin on the Cambridge side would be transformed into a varied edge of rich habitat and recreational opportunities.
The elements of the Framework Plan described above are all in service of creating opportunity for those who live, work and play in Kendall Square to craft their own personal experience of place, and to write their own narratives. An early concept sketch (see bottom of page) shows Kendall Square activated by the daily wanderings and personal experience of residents, workers and visitors. Our proposed framework of unique and visible parks, variety and flexibility of program, and public art as way-finding and identity-building elements helps individuals to make their own “Connect Kendall Square” mental maps. People will link, combine and recombine the elements of the framework to give identity to Kendall Square. The concept sketch shown at right captures this idea of personal expression within Kendall Square, of infinite personal narratives, the infinite loops one can take. The question this competition process could pose to the people in the future might be “how will you Connect Kendall Square today?”
CONCEPT SKETCH

Kendall Square visitors write their own narratives of place by linking landmarks, landscapes, and experiences in loops through Kendall Square.
CONCEPT SKETCH
One person’s mental map of a portion of Kendall Square, with wayfinding/waymaking points of parks and public art forming the framework of an experience.
Response to Planning and Design Goals

1. DETERMINE A COHESIVE FRAMEWORK

A principal idea behind the MVVA team’s plan is that a series of memorable landscape experiences, boosted by public art, will allow those in Kendall Square to build vivid mental maps of the area. There is not a single narrative, but rather multitudes, and our goal is to provide a framework upon which these individual narratives can be built. The first step toward achieving this goal is to provide the experiences that are currently missing or under-represented in Kendall Square. Our plan proposes a sledding hill at the Pork Chop, a lawn amphitheater for movies and performances in Kendall Green, and many other new forms of program which are further described in this section and on pages 28-37. The second step is to create the landmarks and guideposts that will help individuals to make their own mental maps of Kendall Square. This requires taking currently empty parcels of land and energizing them with landscapes that are unique and memorable. The parks are designed with topographic high points or planting schemes that are visible from a distance and act as aids to navigation. Between the parks, signs and a suite of public art installations act as both way-finding and way-making devices, further strengthening the framework. These are described on pages 52-55.
2. PROVIDE INCREMENTAL FLEXIBILITY

In our proposal, the parks are part of a larger, integrated system, but each can stand alone and function independently. In each case park program is closely aligned with neighborhood context, so the construction of a single park will meet the immediate needs of its local constituency while adding to the robust offerings of the framework as a whole. All of this allows flexibility in how and when the parks are constructed, and in what order. Point Park could begin design as early as this year, while the ideas for the Charles River Basin could take several decades to be realized. Because of the complexity involved in implementing a vision as bold as Connect Kendall Square, we recommend further study to determine the advantages of a body to oversee the implementation process. This body could take the form of a "Kendall Square Conservation" bringing together private and public stakeholders with the aim of realizing the ideas of Connect Kendall Square over time, and then supporting and maintaining them for future generations.
3. PROMOTE COMPLIMENTARY UNIQUENESS

Our framework plan recognizes the need for diversity of experience in each of the new parks and places between. Variety encourages exploration and activity while meeting the needs of a wide range of users. To that end, each park is designed as a unique place with unique offerings. Kendall Green’s Event Lawn can hold 1,500 people while the adjacent Point Park is more intimately-scaled with community benches and cafe seating for 50 people. But it is not just program that differentiates these parks. Each has a different spirit, from the rocky nature of the Pork Chop to the sculpted landforms of Kendall Green. These parks are playful and full of wonder, each in their own way. They are relaxed or majestic, bustling or serene, organized or free-form. The range enlivens the senses and benefits all who visit Kendall Square.

### Kendall Green
- Heart of Kendall Square
- Event lawn with capacity for 1,500 people
- Stage with lawn seating for 800 people
- Barbecue grove
- High point vista/beacon
- Gathering lawns
- Walk/Jog loop
- Waterways for stormwater management

### Point Park
- Coffee kiosk
- Cafe seating
- Communal benches
- Fountain & water play
- Chalkboards
- Repurposed Galaxy sculpture

### First Street Triangle
- Seating nooks
- Richly planted nature garden
- High point vista/beacon
- Visible gateway to Kendall Square and Charles River

### The Pork Chop
- Rocky scramble
- Sand play areas
- BMX track
- Lawn bowl / sledding hill
- Connection to Bike Trail
- High point vista/beacon

### Rogers Street Park
- Dog run
- Play/event lawns
- Playground
- Strolling path
- Terraces/pavilion
- Community garden
- Marsh

### Fulkerson Park
- Tennis Courts
- Soccer Field
- Walk/Jog Loop
- Lawn for Spectators
- Connection to Bike Trail
Retail businesses, including restaurants, cafes, and hotels will benefit from the expanded open space proposed by the plan, and these businesses will in turn be a support network for the parks, offering food, bathrooms, and shelter from the elements. As the plan is implemented, careful attention should be paid to aligning support services with park needs. A portion of these services could be provided by adjacent, private spaces.

The atrium connection through the Marriot from Main Street to Broadway is a popular short-cut that would become more prominent if the proposed park at Kendall Green and the extension of Fifth Street are adopted. An enlarged, more generous atrium here would require collaboration between the city and building owners. A privately-owned public atrium at 75, 125 Binney Street provides a covered connection between Binney Street and Rogers Street Park, and has public restrooms. Elsewhere, private courtyards and small parks provide alternative ways to get from point A to B. These mid-block connections break down the scale of Kendall’s large research buildings and provide sheltered, shorter routes. A network of these mid-block connections could be planned and managed as a secondary form of circulation that complements the city streets and sidewalks.
5. ESTABLISH ACTIVATION STRATEGIES

The park designs are very program-focused and respond closely to adjacent uses. Playgrounds and smaller-scale lawn spaces adjacent to residential neighborhoods will be activated by local residents, for example; a coffee kiosk and moveable seating at Point Park will meet the needs of commuters and the lunch-time crowd, while a BMX bike track at Pork Chop will tie in to the future Grand Junction trail.

Program diversity encourages use at all times of day and year - The design of the proposed parks for Kendall Square are program-driven and create opportunities for different types of use and occupation at different times of day and year. Daily activities throughout the park network are diagrammed on the facing page.

In addition to designing parks around program that meets the users’ needs, strategies should be in place to program events and temporary uses. The Event Lawn at Kendall Green is scaled to accommodate large events of up to 1,500 people, while the Lawn Bowl can be a site for concerts and movie nights for around 800 people. Weekly or monthly markets of different sizes can be accommodated on the streets around Kendall Green or within Point Park. Kendall Green and Point Park are suited to programming collaborations between the city, residents and adjacent businesses. The Rogers Street Park has an neighborhood event lawn for around 1,000 people, Fulkerson Park is activated by sports program, the Pork Chop invites open-ended adventure play, and the First Street Triangle is the least active space, as a moment of respite in the city.
6. CELEBRATE COMMUNITY INCLUSIVITY

Our approach celebrates community inclusivity, both through programming the spaces, and through universal design. The sites and places in between that make up the Connect Kendall Square transformation will attract those living in the established neighborhoods of East Cambridge, Wellington Harrington and Area 4, those living, working and visiting Kendall Square itself, and students faculty and staff from MIT, particularly the East Campus. Our aim is to fill all the missing pieces of program in Kendall Square, and so attract a thoroughly inclusive a user group. These missing pieces include event lawns, a dog park, community gardens, adventure play, water play, and shading pergolas to name a few.

All the new parks, and places between will be designed for universal accessibility, no paths will be above 5% in gradient, so avoiding the need for ADA ramps. Paving materials will be smooth enough and have limited jointing to meet City of Cambridge guidelines, while maintaining a non-slip surface easy to clear of snow. The use of color contrast in paving will help those with limited sight navigate the public realm, particularly at street crossings, and the internal path networks of each landscape space will be coordinated with the sidewalk network and crosswalk locations. MVVA has particular interest in the tactile and olfactory quality of plants and landscape materials, adding dimensions to the experience of the new parks for those with various abilities. The use of public art, which is approachable, tactile and interactive will add to these experiences.

7. INTEGRATE SAFETY, OPERATIONS, AND MAINTENANCE

An approach to the safety of public open spaces in the city has to be built in at the early planning stage. We are experienced in the design of safe places that are durably constructed and straightforward to maintain.

For these new landscapes we suggest a range of ways to make them safe from good lighting, clear sightlines and carefully composed plantings that avoid hidden corners, to clustering residential development around the perimeter to provide a degree of surveillance or “eyes on the park.” Good programming and high quality maintenance also go towards making a park feel safe and welcoming.

We recommend that a Conservancy model is studied to bring a combination of public and private resources to operating and maintaining the new parks and public art as a whole system, bringing some of the existing public spaces into this “Kendall Square Conservancy” might be a good strategy to give a district-wide quality to the operations, maintenance and programming of these places.
8. CREATE A SUSTAINABLE FUTURE

Kendall Square’s location adjacent to the Charles River Basin offers an opportunity to address district-scale environmental issues through the area’s stormwater and redevelopment strategy. Today, stormwater runoff generated from this densely developed part of the city is captured partly in combined sewers and partly in separated storm drain systems, both of which contribute to the impairment of the River and larger watershed.

In our proposal the new landscape spaces in Kendall Square will include a variety of concepts that treat urban stormwater water in a fundamentally sustainable way. Instead of regarding stormwater as a nuisance to pipe away, we envision spaces that celebrate the movement and cleansing of water as a resource. We will capture stormwater from the open spaces themselves, the surrounding streets, surrounding development sites, and even re-direct stormwater from adjacent underground piping systems. Whether water is expressed at the surface or stored underground, Kendall Square’s open spaces provide opportunities to create neighborhood-scale water systems.
9. BUILD AN IDENTITY

We envision five distinctive ways that public art can serve to build Kendall Square’s identity:

**Waymaking:** Repeated forms that contribute to a sense of procession through the pedestrian ways, bikeways, plazas and green spaces.

**Iconic Sculpture:** Sculptural moments that are place-finding, enforcing one’s sense of location and which, ideally, would become landmarks for Kendall Square.

**Landform Artwork:** Sculpture or artwork embedded into the landscape, and which morph and change over time as they are acted upon by change of seasons and weather.

**Play:** Artworks that are functional play spaces. These not need to be limited to playgrounds or parks. Waymaking, Iconic, and Landform art can all incorporate elements of play into their design.

**Systems:** Installations that reiterate infrastructural systems and make them overt, visible. This could include expressing inputs and outputs of the proposed water collection and reuse system beneath Rogers Street Park, or visualizing the research and activity within Kendall Square buildings.
MVVA proposes to elevate the user experience through new landscapes at the core sites of Connect Kendall Square, and by broadening the vision to include longer-term ideas for the Charles River Basin and Kendall Green at the Volpe site. By broadening the range of landscape experiences and program beyond the narrow range of possibilities currently found in Kendall Square, the MVVA proposal gives users much more choice and variety than they currently enjoy. If people who have no other reason to come to Kendall Square do so simply to visit the new landscapes then we will have succeeded. If they then choose to stay and have a meal, see a show, or just grab a quick cup of coffee then the elevation of user experience will be a reality.

10. ELEVATE THE USER EXPERIENCE

As a long-term vision, a series of islands in the Charles River Basin provide habitat, recreation, and connections to the Museum of Science and Boston.

Kendall Green will be a brand new landscape for Kendall Square - expansive, open, and memorable.
Framework Details

Making Kids Welcome Everywhere

Places for Plants are Places for People

Building Vivid Mental Maps

Filling in the Missing Programs

Stimulating Creativity and Imagination

A Discovery Around Every Corner

Weaving Playfulness into Every Place

Taking Pleasure in the Seasons

Places for Two, Places for Two Thousand
KENDALL GREEN
The New Heart of Kendall Square

Kendall Green is at the physical center of Kendall Square, connected to the river by the Broad Canal, to the neighborhoods by Third Street, and to the rest of the city by Broadway. It will also be the social heart of the community, a common space that everyone can call their own. Kendall Green will be a dramatic landscape of hills, open lawns and water, a sun-filled and activity-filled park that also serves to cleanse urban stormwater before it flows to the Charles River.

A CONCERT IN THE LAWN AMPITHEATRE
**VOLPE SITE DEVELOPMENT STRATEGY**

Proposed Volpe Site development, compared to PUD-KS Rezoning Initial Proposal by City of Cambridge Community Development Department.

<table>
<thead>
<tr>
<th>Proposed Parcel Area (approx)</th>
<th>610,000 SF (14 acres)</th>
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<tbody>
<tr>
<td>Rezoning Requirements</td>
<td>675,000 SF (14 acres)</td>
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<tr>
<td>Maximum Commercial GFA</td>
<td>1,464,000 SF</td>
</tr>
<tr>
<td>Minimum Residential GFA (assuming Max. Retail GFA exempt)</td>
<td>1,268,800 SF + 976,000 SF (incl. inclusionary)</td>
</tr>
<tr>
<td>Max. Retail GFA (exempt)</td>
<td>128,421 SF (up to 5% of total)</td>
</tr>
<tr>
<td>Max. Innovation GFA (exempt)</td>
<td>73,200 SF (up to 5% of office)</td>
</tr>
<tr>
<td>Government GFA (exempt)</td>
<td>400,000 SF (approx.)</td>
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<tr>
<td>Max. Total GFA</td>
<td>3,334,421 SF (approx.)</td>
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<tr>
<td>Min. Open Space (Public + Publicly Beneficial)</td>
<td>5.65 Acre 40%</td>
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<tr>
<td>Min. Public Open Space (as part of total)</td>
<td>4.55 Acre 2.5 Acre</td>
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</tbody>
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**Legend**
- Volpe Parcel
- New Residential
- New Commercial (Retail & Innovation)
- New Federal Building
Whether meeting a friend at the corner of Broadway and Main, stopping for a quick coffee on the way to the station, or just hanging out just watching the crowd at lunchtime. Point Park is the epicenter of activity in Kendall, a crossroads with comfortable furniture, a gathering place framed by trees, where kids play in the fountains, while older kids play with ideas on the chalkboards. MVVA proposes to keep the existing Galaxy sculpture where it is, but to improve access to its beguilingly-textured and very touchable bronze surface by reimagining the fountain as jets of water rising from the pavement surface, thereby obviating the need for the barrier rings of piping.
FIRST STREET TRIANGLE
A Dramatic Landscape Gateway

For the thousands of commuters on Land Boulevard, this might be all they see of Kendall Square through their windshields. For those arriving by car this landscape of rich plantings and beautifully composed rocks is a gateway to the neighborhood. For the trainees at the College of Culinary Arts, or for workers in nearby research buildings, it is a place to find a tranquil nook for a lunchtime sandwich, a small pocket of nature in the city.
Beside the tracks, and connected to the future Grand Junction cycle trail, the Pork Chop is a place to get a little muddy. Scrambling over rocks, riding a BMX over the bumps, playing in the sand in a thicket of trees, children will come to explore, and maybe a few grown-ups too, although they may opt to sit in the shade of the huge cottonwood tree while the children run free. In winter the grassy slope becomes the only sledding hill in East Cambridge.
At the meeting point of East Cambridge and Kendall Square, people will come to Rogers Street Park to hang out with their friends and neighbors. The pleasures of the park are simple: talking under a shaded pergola, throwing a Frisbee, or taking a yoga class on the lawn, letting dogs run free in the dog park, or letting beans run free in the community garden. At the center of the park a large lawn will play host to neighborhood events and festivals.
Across the road from Ahearn Field, with its softball, street hockey and basketball courts, Fulkerson Park will provide sports program not currently found in the neighborhood, for example tennis courts, and a year-round turf soccer field. The location next to the Grand Junction cycle trail will make it safely accessible for those outside the immediate neighborhood.

FULKERSON PARK CONTEXT AND PROGRAM
Hi, my name is Adam, and I am trying to get my biotech start-up off the ground from one of the incubator spaces in the new Volpe Center. Yesterday afternoon I had to make a particularly tough call to one of our investors, so I headed over to Kendall Green, thinking that strolling through the park might help loosen me up and make a great pitch. Things seemed to be going well, despite the background rhythm of a jazz ensemble playing in the event bowl. I headed up to the top of the hill in the middle of the park, where it was quieter. As I got off the call, I took in the view all the way down the Broad Canal with a sliver of Beacon Hill visible in the distance. Things were looking good.
Hi, my name is Kedrick, and we have the coolest new thing in our neighborhood. Yesterday, I took a tube with my little brother to a sledding hill that they have built over by the tracks. On the way over there we built a snow "goalie" at Fulkerson Park, right in the soccer goal. The sledding hill is really cool, it winds down the hill with banked corners, so our tube went down really fast. There is a big tree at the bottom where the adults like to sit, we nearly hit it a couple of times. On the way back home we stopped for a cup of hot chocolate on the corner of Sixth Street.
Hi, my name is Britt and when I have finished teaching at the Foundry Building I have to get out and walk my dog Max. It is a good excuse for a bit of exercise, and the best way to clear my mind after a busy day. We go over to the dog park at Rogers Street Park, Max plays with his friends, and I chat to mine, it does us both a lot of good. We then go over to the river and on the way I see one of the students I know at the culinary school having a quiet moment amongst the plants and rocks at the First Street Triangle. We walk down the esplanade, and turn down the boardwalk at Broad Canal. We can see Kendall Green in the distance, and stop for a quick drink of water there before turning back towards the Foundry along Fifth Street.
Hi, my name is Lee, and I live in the new MIT graduate student housing right next to the Kendall T. When I come out of my building I can run through the new East Campus landscape, right up and over Memorial Drive on a land bridge, to the river without crossing any roads. My favorite loop is to jog over a new series of bridges and islands along the esplanade, and behind the Science Museum (still no roads to cross) and over to the Boston side. My urban design professor tells us it only took 110 years for Charles Eliot’s Charles River Basin Master Plan vision to be realized, but this morning my mind is focused on getting back over the bridge, grabbing a quick coffee at the kiosk in Point Park, and getting to class.
CHARLES RIVER BASIN

A Green Machine

The Charles River Basin plan is part of a long term vision that would be transformative along the waterfront, introducing new ecologies and habitat; stormwater mitigation opportunities; program and recreation; and connections to Boston and the Boston Harbor. The Charles River Basin plan is not dependent on the proposals made within the core Connect Kendall Square study area, nor are they dependent on it. It would require the co-operation of the Cities of Boston and Cambridge the MDC and major adjacent land owners, including MIT and the Museum of Science.
STORMWATER STRATEGY, APPROACH AND OPPORTUNITIES

We envision creating “sponges” and “storage hubs” for stormwater in both public open spaces and private open spaces (such as those at MIT and the Volpe Center property) the key will be getting a variety of land owners and regulatory bodies to work together to achieve a truly integrated system. The open space opportunities focus on addressing volume issues in the combined sewers and water quality issues in separated storm drains. Possible strategies include infiltration systems, rainwater harvesting systems, and wet meadows.

The Broad Canal and portions of the Charles River adjacent to Kendall Square suffer from additional water quality issues due to water stagnation. Our design suggests the re-oxygenation of these areas by circulating water from the canal through new treatment wetlands and a major new stormwater detention pond at Kendall Green.

Finally, we propose to use open space within newly created landscape areas along the Charles River to serve an ecological function by cleansing and cooling stormwater discharges, providing more habitat, and promoting circulation and re-oxygenation of stagnant areas within the River.
Our proposal envisions physical connections between the neighborhood-scale open spaces, including green infrastructure corridors, such as green streets, which would extend the “sponge” concept from site to site and space to space. We contemplate a future where a non-potable water network distributes reclaimed rainwater from storage hub to storage hub and provides the Kendall Square District with water for non-potable uses such as irrigation.

The City is continuously working to reduce or eliminate the combined sewer overflows using costly sewer separation projects. Our design suggests that public and private open space and interconnected green infrastructure strategies can be used to remove stormwater from the combined sewers while providing additional benefits to the district. Despite the dramatic reduction in combined sewer overflows over the past decades, the Charles River remains impaired during wet weather.

Kendall Square is the final point of conveyance for storm drainage catchment areas that extend from other areas of the City. Our design suggests that end-point strategies, such as created wetlands and wet meadows, could be implemented at the outfalls to provide a final cleansing for the polluted stormwater.
Connect Kendall Square’s new landscape spaces provide opportunities to create neighborhood-scale stormwater strategies. At Rogers Street Park we suggest a combination of passive and active recreation, with a portion of the park reserved as a wet marsh area. Given that the park would be anticipated to be highly pervious, it would not create a significant amount of stormwater runoff to sustain the wet marsh, however, stormwater from the surrounding streets, buildings, and the existing network of stormwater pipes can be diverted to feed the marsh. This urban stormwater will be infiltrated, cleansed and ultimately released to the river in lower quantities and higher quality than at present.

Within the park the stormwater will firstly be cleansed and stored in the wet marsh, then it will be diverted to an underground storage cistern and re-circulated to the wet marsh and other park water uses such as irrigation and toilet flushing. The visible and natural display of water in the park will support education about the Charles River and larger watershed. The stormwater cistern could be expanded for stormwater distribution to the neighborhood or larger district in the future.

We envision another example of a neighborhood-scale system at the Kendall Green on the Volpe site. The anticipated development area is expected to generate large volumes of stormwater runoff that could sustain a centralized water element. Given the proximity to the river via the Broad Canal, we see this site as an opportunity to forge a physical link to the river via technology. Since underground conflicts prevent physical extension of the Broad Canal, we conceptualized a circuit of overflow and re-circulation between the Kendall Green “pond” and the Broad Canal. The Kendall Green water feature would have a normal water level equal to that of the river with a pumped re-circulation system between the Pond and the Canal helping to circulate, oxygenate and filter the often stagnant canal water. Smart technology could be used to forecast pending rainfall and begin to release water from the pond, thereby creating storage capacity for stormwater runoff from surrounding streets and development sites.

KENDALL GREEN WATER STRATEGIES
Recirculated water from Broad Canal is cleansed in the Kendall Green landscape
BICYCLE AND PEDESTRIAN CONNECTIONS AT THE LONGFELLOW BRIDGE

One of the weakest points of pedestrian and bicycle connectivity in the Kendall Square area is in the infrastructural knot that entangles the western end of the Longfellow Bridge as it touches down in Cambridge. The recreational use of the Charles River Basin is in large part the jogging, walking and cycling circuits created by the trails on both banks and the bridge connections, and at this point they are currently squeezed to breaking point.

Our proposal is to convert one of the eastbound lanes of Memorial Drive as it passes under the Longfellow Bridge to a multiuse bicycle and pedestrian trail. Preliminary study of the traffic numbers by our engineers suggest that, given the considerable distance between this narrowing of the roadway and the next intersection, which is at Binney Street, there would be negligible negative impact to traffic flows.

Allied to this improvement to pedestrian and bicycle movement, we suggest two fully accessible 5% path connections between the Memorial Drive trail and the sidewalks of the Longfellow Bridge. To complete the connectivity we also recommend moving the existing crosswalks on Memorial Drive to align with the Broad Canal boardwalk. This will improve connections between the heart of Kendall Square and the river, as well as improving sight lines for east bound traffic to those using the crosswalk, and so improve pedestrian safety. We propose a study to determine the desirability of pedestrian activated signals at this crosswalk.
Program, Operations & Maintenance

One of the starting points of our thinking for Connect Kendall Square is to fill in the missing pieces of program in the area’s public spaces. Current public spaces have generally passive program, and similar to each other. There are exceptions, including the canoe rental at Broad Canal, and the actively programmed Biomed Plaza. The program of each new park in our proposal is varied and tailored to each location. The funding of each new space will be from various sources as described below, but we believe ongoing programing, operations and maintenance should be by a single entity, a "Kendall Square Conservancy" set up to oversee the new spaces as a single integrated system. We recommend further study be done to determine the desirability of establishing this type of Conservancy model.

KENDALL GREEN
- Event lawn with capacity for 1,500 people
- Stage with amphitheater for 800 people
- Barbecue grove
- Gathering lawns
- Stormwater management pond

As the new heart of Kendall Square, Kendall Green will be a common space that everyone can call their own. The program will focus on lawns and open areas of varying size, slope and solar aspect will support a range of program, from large gatherings of 1,500 people on the Event Lawn to movie night or a concert in the Amphitheater for up to 800. Streets to the north and west of the park can be closed to support events within the park or to host events of their own, such as farmers’ markets or art fairs.

The construction of Kendall Green should be funded by the Volpe developer, but commissioned and administered in conjunction with the "Kendall Square Conservancy" to ensure delivery of a project integrated with the other new parks.

POINT PARK
- Coffee kiosk
- Moveable tables and chairs
- Communal benches
- Interactive fountain and refurbished artwork
- Chalkboard walls

Point Park is at the confluence of major pedestrian and vehicular flows through Kendall Square. The expanded plaza will be an important meeting place, and an "urban living room" for people to hang-out, to see and be seen. A Coffee Kiosk and moveable tables and chairs will be a focus of activity, as will be the Galaxy sculpture, which will be brought ground, allowing people to touch the bronze, and surrounded with play fountains. Large benches with chalk boards will add a playful interactive program.

The construction will be funded by Boston Properties, but commissioned and administered in conjunction with the "Kendall Square Conservancy" to ensure delivery of a project integrated with the other new parks.
The First Street Triangle is primarily a visual landmark, a gateway to Kendall Square for those arriving by car from Land Boulevard. The landscape of rich naturalistic plantings and rocks is arranged to create a series of nooks for quiet seating either alone or with a friend, a moment of respite during a busy day. A central path winds up to an elevated viewpoint, from which the Charles River can be seen beyond Point Park.

The construction of The First Street Triangle will be funded by the City of Cambridge, but commissioned and administered in conjunction with the "Kendall Square Conservancy" to ensure delivery of a project integrated with the other new parks.

The Pork Chop is an Adventure Play landscape, where exploration is the key and the program is largely invented by the children who use it. The high point in the center of the park is approached by a rocky scramble, where children can get their hands dirty, and in the winter it becomes the departure point for the only sledding hill in East Cambridge. Sand play areas allow for open ended play, and a BMX track, linked to the Grand Junction cycle trail provides program found nowhere else in Cambridge.

The construction of the Pork Chop will be funded through the City of Cambridge, but commissioned and administered in conjunction with the "Kendall Square Conservancy" to ensure delivery of a project integrated with the other new parks.
Rogers Street Park is a neighborhood park, with a range of active programs that will be a focus of neighborhood life. At the center of the park a large lawn will accommodate events for up to 1,000 people, and Rogers Street could be closed to accommodate larger events. A series of smaller lawns will play host to smaller gatherings. Other program includes a Dog Park, long desired by the neighborhood, community gardens and a major new playground. Shaded pergolas and terraces will provide places for the older generation to enjoy.

The construction of the Rogers Street Park will be funded by the City of Cambridge, but commissioned and administered in conjunction with the "Kendall Square Conservancy" to ensure delivery of a project integrated with the other new parks.

Fulkerson Park is a neighborhood sports park with program that is not currently found in East Cambridge, including a year-round turf soccer field and tennis courts. The program is complementary to the softball field, basketball and street hockey courts at Ahern Field across Fulkerson Street.

The construction of Fulkerson Park will be funded by the redevelopment of nearby properties, but commissioned and administered in conjunction with the "Kendall Square Conservancy" to ensure delivery of a project integrated with the other new parks.
PUBLIC ART PROGRAM

Our vision is to incorporate public art into the warp and weft of Kendall Square, in the urban planning, hydrology and water remediation methodologies, play spaces, plazas, pedestrian/bikeways, and way-finding elements.

Ultimately, the public art plan would include:

- permanent sculpture
- designated areas for a temporary exhibits program of sculpture/site-based installations under the auspices of a Kendall Square Conservancy who would oversee the new public spaces, their operations and maintenance, and their public art program.

- innovative art installations that express the urban planning and attendant systems in direct and indirect ways.

We envision materials that warm and soften the character of Kendall Square, with its large-scaled buildings, its granite curbstones, and its hard-edged roads, plazas and pedestrian ways. Integrating organic materials and organic shapes will do much to relieve the insistent geometries of the area.

We envision some installations that will subtly change and transform over time through use by pedestrians / residents; through use as habitat for birdlife or as living walls; through the dynamics of weather and time.
Our recommendation for Kendall Square is to deploy public art which is at the convergence of art and science; specifically, in this instance, art and the environmental sciences, and art and the biosciences.

One of Cynthia Reeves’ recent projects was in collaboration with the Broad Institute of Genome Research at MIT/Harvard. Daniel Kohn, an artist with whom they have been working for over ten years, was the founding artist in residence at the Institute, and he was commissioned to address all seven floors of their flagship building on Main Street. The commissioned artwork was tied directly to the genomic research, and the artist’s intersection with the scientists at the Institute.

Methodologies by which public art could be incorporated into the Kendall Square urban space, including green spaces, pathways and bikeways, public/private plazas:

1. Percent for Art:

This program addresses a public/private partnership, whereby the private entity, for example a corporation, or academic institution etc., commit a percentage of their overall development budget to art. Typically this is in a range of 1 – 3%. The program addresses areas such as plazas adjacent to company’s facility; permanent site-based installations and sculpture in foyers and atrium
areas, glass corridors, parking areas, etc., specifically those sites that can be viewed both by staff and by passers-by. Thus, the artwork would contribute both to the building and the surrounding urban environment.

Maintenance would be the responsibility of the corporate or institutional partner.

Cynthia Reeves have recently completed a project in Philadelphia that was a Percent for Art project done in partnership with the Wexford Science Center in the new science complex on Market Street in Philadelphia. The project is a permanent installation of a suspended dichroic glass sculpture in the atrium of their new flagship building. As the gallery representative, they worked primarily with the Wexford Center, and coordinated directly with the Percent for Art curator and signed contracts with both entities.

2. Conservancy / Neighborhood Committee

We recommend studying the desirability of setting up a stand-alone committee that vets and curates public art for specific sites. Working as a committee, their responsibility would be to review artists’ submissions, negotiate terms, identify logistical constraints, ensure safe and viable installation and de-installation methodologies, reach out to the community to vet the program and selections; create a strong public relations around the art...
program, etc. We also recommend looking at the desirability of this conservancy or committee being part of the overall Kendall Square Conservancy that could oversee the commissioning, operations and maintenance and programming of the new open spaces in Kendall.

Funding sources are likely to be a hybrid of private funding from corporations in Kendall, members of the committee, a development team, and funding from the City. Typically, a revolving exhibition schedule follows a 6 – 12 month timeframe. Maintenance would be the responsibility of the Conservancy. Insurance is the responsibility of the artist/exhibitor.

Cynthia Reeves has done a succession of public art projects in New York City, for example, partnering with the New York Public Parks Department, the Federal Parks Department, as well as with the Hudson River Park Trust. The first entity is under the jurisdiction of the City; the second is a Federal property overseen by the NYC Parks in conjunction with a neighborhood association; and the third is an independent non-profit that oversees the development, renovation, programming and administration of the area along the Hudson from 57th Street to Tribeca. They have completed (3) projects with HRPT alone, and understand the dynamics both of how projects are vetted, and how funding is achieved.

In the instance of the NYC Parks Department, the Parks curator completes an initial project review to ensure that the art installation will meet the logistical and safety requirements of each site. The curator then makes recommendations to the independent neighborhood associations, which give final approvals. Typically, the associations assist in any public relations efforts in support of the art installations. Maintenance is the responsibility of the artist/exhibitor, as is the insurance.

3. Permanent sculpture / public art

Certain areas lend themselves to having an iconic sculpture or installation as a permanent acquisition. These options typically are vetted within the parameters of a proposal, such as the one being created now Connect Kendall; an ad hoc committee can be convened that includes the City members and neighborhood leaders to vet the candidates for permanent installation.

Establishment of a Conservancy or similar group to oversee the commissioning, operations and maintenance of the public spaces and public art for Connect Kendall Square will be a robust way of delivering and maintaining a high quality urban environment in the long term. It will be a community effort and will mark out Kendall Square as the special and progressive part of Cambridge that we believe it can become.
Team Members

Matthew Urbanski is a Principal of MVVA, where he has worked for over two decades. He has been part of the leadership team for almost every major project the firm has completed. He has planned and designed landscapes in the United States, Canada, and France, including waterfronts, plazas, parks, college campuses, courtyards, sculpture gardens, and private gardens.

Ken Greenberg has collaborated with MVVA on numerous projects, including Kendall Square and Northpoint in Cambridge, MA, Brooklyn Bridge Park, and Lower Don Lands in Toronto, Canada. In all of Ken’s projects and collaborations, creative problem-solving is applied to managing change in all aspects of city building and re-building including land use, built form and public space, municipal infrastructure, transportation and environment.

Peter Gray has conducted and published research in a wide range of fields, including neuroendocrinology, animal behavior, developmental psychology, anthropology, and education. He is most well known as an evolutionary psychologist with specialty in the roles of play in human development and evolution. He has authored nearly 60 articles and chapters in academic journals and books and is co-editor (and co-author) of the recent book, Ancestral Landscapes in Human Evolution: Culture, Childrearing and Social Wellbeing.

Long-time collaborators with MVVA, Nitsch Engineering specializes in providing civil engineering, land surveying, transportation engineering, sustainable site consulting, planning, and GIS services. Since 1989, we have worked with academic clients, developers, corporate and institutional owners, public agencies, architects, and other design professionals on major private development and public infrastructure projects in 18 states and five countries.

Chris Matthews is an Associate Principal and design leader at the Cambridge office of MVVA, which he joined in 2002. Chris has completed many projects in the Kendall Square area including North Point, Alexandria Center, the MIT East Campus Master Plan, and Harvard University’s Common Spaces Plan. He has taught as a Visiting Professor at Harvard’s GSD since 2010.

CYNTHIA-REEVES is a public art consultancy that has strategically pursued alternative platforms in the contemporary art world, with a specific focus on large-scale artworks, volumetric works, site-based installation, and public art. They have a strong focus on sculptural works, and are actively involved with public art projects in the United States and abroad, helping to facilitate installations of large-scale works in the public domain.

Winner of the 2011 Thiess International Riverprize for the Charles River, Charles River Watershed Association (CRWA) is an environmental research and advocacy group founded in 1965. Dedicated to restoring and protecting the Charles River, CRWA uses the Charles as the laboratory to develop practical, cost-effective and sustainable solutions for restoring urban watershed health. Led by an executive director, staff includes a hydrologist, engineer, environmental scientists, a planner, and an attorney.

Applied is an international design consultancy with a reputation for a considered, intelligent and effective output. They are based in London, Vancouver, New York and Seoul and run by five specialist partners who span the skills mix and share a common interest in information design. Their international teams consist of experts across environmental graphic design, digital design, urban and transport planning, copywriting and project management.
Exhibit Boards
CONNECTING KENDALL WITH LANDSCAPE EXPERIENCE

1. KENDALL GREEN
   The New Heart of Kendall Square

2. ROGERS STREET PARK
   A Recreational Neighborhood Link

3. FIRST STREET TRIANGLE
   A Commons Link and Journey

4. POINT PARK
   A Views and Dining Venue

5. THE PORK CHOP
   A Play and Play in Nature

6. CHARLES RIVER BASIN
   A Landscape Bridge for Connecting Boston

TWO BOARDS EXHIBIT
We believe that a playful state of mind is essential to creativity and discovery, and that the remarkable creative activities in Kendall Square, which currently go on largely behind closed doors, will be boosted dramatically by a playful, connected public realm. Connecting Kendall Square will be a personal thing, a process of discovery, a creative endeavor, different every day, and changing through the seasons. It will be a vivid mental map in all who live, work and study in Kendall, a reflection of the memorable and excitingly programmed new landscapes, public art installations at key locations, and wayfinding cues that will encourage and inspire people to explore, get some thinking done, and above all play a little. Discovery will be made on foot, by bike and online, whether consulting the Connect Kendall app to find out what is going on, taking a looping walk at lunchtime, a morning jog, a quick phone call in the park, or a sledding expedition.

A STIMULATING ENVIRONMENT TO ENRICH EVERYDAY LIFE

A MORNING RUN BEFORE CLASS
My name is Lee, and I'll be in the first year graduate student heading right now to the Kendall T. When I come out of my building I run through the north campus pedestrian right up and over Memorial Drive on a lea bridge, to the river without crossing any roads. My favorite loop is to improve a near section of bridges and roads along the esplanade, and behind the Institute of Modern Art we need to cross and over to the Boston side. My other distance professor tells us it only took 11.5 miles for Charles Eliot, the Charles Eliot, Harvard Museum Plan to be completed, but this morning my mind was focused on getting back over the bridge, grabbing a quick coffee at the Look in Paint Park, and getting to class.

A PHONECALL IN THE PARK
My name is Abiy, and I am trying to get your heart start up off the ground from one of the Rosebushes near the new Visitor Center. Yesterday afternoon I talked to a particularly rough call to one of our buyers and I need to work out the hesitation on the call because it is a great pitch. It seems to be going well, deep in the background rhythms of life. I was thinking about a proposal to paint the rose bush. I heard the top of the hill in the middle of the park, where it's expansive. As I got off the call, I took in the view all the way down the Brick Canal with a diver of Beacon Hill visible in the distance. Things were looking good.

A AFTERNOON WALK
My name is Ali, and when I finished teaching at the Foundry Building I have to get out and walk my dog Max. It's a good excuse for a walk of exercise, and the best way to clear my mind after a busy day. We go over to the dog park at Roger's Street Park. Max plays with his friends, and then it is mine. It does not feel bad. We then go across the river and see the river near one of the students house in the culinary school having a little moment amongst the plants and redate at the First Street Triangle. We walk down the esplanade, and then down the Fourth and at Brattle Canal. We can see into the park further distance, and stop for a quick slice of water there before having back towards the Foundry along Brattle Street.

A SLEDDING EXPEDITION
My name is Karen, and so far I still don't know what to do in our neighborhood. Yesterday, I took a ride with my little brother in a sled and fell into the water basin not far from the maple. On the way home we stopped in the Park to get some food. We got a hot dog and chips at Brattle Street. We had the sled down the hill with bashed covered, so our future will spend a lot. There is a big love of the people here. The people like to ski, even a small hill. A small hill of trees. On the way back home we stayed for a cup of hot chocolate on the corner of Brattle Street.

TWO BOARDS EXHIBIT
CONNECTING KENDALL WITH LANDSCAPE EXPERIENCE

1. Point Park - An Urban Living Room
   Where you meet a friend at the corner of Kendall and Broadway, sipping a coffee or a beer, while the sun shines on the building.

2. The Park Chip - A Place to Play in Nature
   The Park Chip is a place to get a little dirty, creating a natural area with a little bit of nature. Children will come to explore and maybe a few green thumbs will grow. Although they may not sit at the park, it's a great place to hang out while the children run free. If you're looking for a sledding hill, the city of Cambridge has one on the north slope.

3. First Street Triangle - A Downtown Landscape Gateway
   For the thousands of commuters on landlocked streets to the south, the First Street Triangle will welcome them into the city with a warm embrace. A series of green roofs will provide a visual barrier to the busy streets below.

4. Rogues Street Park - A Place for Neighborhood Life
   Adjacent to the Rogues Street Park, people will congregate in the shadow of buildings, socializing, and relaxing. The park will be a focal point for community events and gatherings.

5. Kendall Green - The Heart of Kendall Square
   Kendall Green will be the center of community life in Kendall Square. It will be a green space with benches, tables, and chairs, providing a place for residents to gather and socialize.

6. Kendall Square - A Place to Live, Work, and Play
   Kendall Square will be a vibrant and exciting place to live, work, and play. The square will feature a variety of amenities, including retail, dining, and entertainment options.

We believe that a playful state of mind is essential to creativity and discovery, and that the remarkable creative activities in Kendall Square, which currently go on largely behind closed doors, will be boosted dramatically by a playful, connected public realm. Connecting Kendall Square will be a personal thing, a process of discovery, a creative endeavor, different every day, and changing through the seasons. It will be a vivid mental map in all who live, work and study in Kendall, a reflection of the memorable and excitingly programmed new landscapes, public art installations at key locations, and wayfinding cues that will encourage and inspire people to explore, get some thinking done, and above all play a little. Discovery will be made on foot, by bike and online, whether consulting the Connect Kendall app to find out what is going on, taking a loopy walk at lunchtime, a morning jog, a quick phone call in the park, or a sledding expedition.
Places for Plants are Places for People

Making Kids Welcome

A Discovery Around Every Corner

Stimulating Creations

Filling in the Missing Programs
A STIMULATING ENVIRONMENT TO ENRICH EVERYDAY LIFE

A Sledding Expedition

Hi, my name is Kedrick, and we have the craziest new thing in our neighborhood. Yesterday, I took a tube with my little brother to a sledding hill that they have built over by the tracks. On the way over there we built a snow “goat-ski” at Fullerton Park, right in the soccer goal. The sledding hill is really cool. It winds down the hill with banked corners, so our tubes went down really fast. There is a big tree at the bottom where the adults like to sit, we nearly hit it a couple of times. On the way back home we stopped for a cup of hot chocolate at the corner of Sixth Street.

An Afternoon Dog Walk

Hi, my name is Brit and when I have finished teaching at the Foundry Building I like to get out and walk my dog Max. It is a good excuse for a bit of exercise, and the best way to clear my mind after a busy day. We go over to the dog park at Rogers Street Park. Max plays with his friends, and I chat to mine. It does us both a lot of good. We then go over to the river and on the way I see one of the students I know at the culinary school having a quiet moment amongst the plants and rocks at the First Street Triangle. We walk down the esplanade, and turn down the boardwalk at Broad Canal. We can see Volpe Park in the distance, and stop for a quick drink of water before turning back towards the Foundry along Fifth Street.

A Phone Call in the Park

Hi, my name is Adam, and I am trying to get my biotech start-up off the ground from one of the incubator spaces in the new Volpe Center. Yesterday afternoon I had to make a particularly tough call to one of our investors, so I headed over to Kendall Green, thinking that rolling through the park might help loosen me up and make a great pitch. Things seemed to be going well, despite the background rhythms of a jazz ensemble playing in the event bowl. I hiked up to the top of the hill in the middle of the park, where it was quiet. As I got off the call, I took in the view all the way down the Broad Canal with a slice of Beacon Hill visible in the distance. Things were looking good.

A Morning Run Before Class

Hi, my name is Leo, and I live in the new MIT graduate student housing right next to the Kendall T. When I come out of my building I can run through the new East Campus landscape, right up and over Memorial Drive on a board bridge, to the river without crossing any roads. My favorite loop is to jog over a new series of bridges and islands along the esplanade, and behind the Science Museum until it no roads to cross and over to the Boston side. My urban design professor tells us it only took 10 years for Charles Eliot’s Charles River Basin Master Plan vision to be realized, but this morning my mind is focused on getting back over the bridge, grabbing a quick coffee at the kiosk in Point Park, and getting to class.

SIX BOARDS EXHIBIT
Where Is Kendall Square?

What is the interrelationship between properties?

How can new parks complement the existing open spaces in Kendall Square to provide experiences, function and program that do not exist currently?
What is the visionary antidote to an incremental PUD approach?
Connect Kendall Square Mid-course Review
Michael Van Valkenburgh Associates, Inc.
20 November 2014

APPENDIX
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<td>Public Park</td>
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APPENDIX
Charles River Cycle Track and Promenade

New opewalks align with boardwalk at canal

5% connections between bridge and esplanade

Change one eastbound lane closest to river from vehicles to cycle track/pedestrian.

Trail continues
MIT Grad Student Goes for a Jog
30 minutes

Lab Technician Lunch Break Stroll
20 minutes
Stormwater and Drainage
Combined Sewer Opportunities
Connect Kendall Square Mid-course Review
Michael Van Valkenburgh Associates, Inc.
20 November 2014
APPROXIMATE CSO AREA (D01): 22,550,535 SF (0.8 SQUARE MILES, 518 ACRES)

CSO OUTFALL

STORM OUTFALL

CHARLES RIVER

MWRA

BOSTON

D03B

D03C

D02

D51

D04

D07

D05

D06

D09

D08

D10

COMBINED CATCHMENT AREA

SEPARATED CATCHMENT AREAS

D02: APPROX. 104 ACRES

D03B: APPROX. 10 ACRES

D03C: APPROX. 16 ACRES

D51: APPROX. 8.5 ACRES

D04: APPROX. 14.8 ACRES

D07: APPROX. 53 ACRES

D05: APPROX. 25 ACRES

D05: APPROX. 17 ACRES

D08: APPROX. 74 ACRES

D09: APPROX. 3.5 ACRES

D10: APPROX. 155 ACRES

APPROX. 37 ACRES

STORMWATER/OPEN SPACE OPPORTUNITIES

IN SEPARATED SEWER AREAS

* OPEN SPACE STORMWATER PROJECT OPPORTUNITY

POTENTIAL DRAINAGE CONTRIBUTION AREA

CONTRIBUTING DRAINAGE AREA = 16 ACRES

1" RUNOFF VOLUME = 72,000 CF = 518,800 GALLONS

CONTRIBUTING DRAINAGE AREA = 54 ACRES

1" RUNOFF VOLUME = 108,800 CF = 1.2 MILLION GALLONS

CONTRIBUTING DRAINAGE AREA (D04, D05, 306) = 56 ACRES

1" RUNOFF VOLUME = 168,000 CF = 1.2 MILLION GALLONS

CONTRIBUTING DRAINAGE AREA = 16 ACRES

1" RUNOFF VOLUME = 72,000 CF = 518,800 GALLONS

CONTRIBUTING DRAINAGE AREA = 34 ACRES

1" RUNOFF VOLUME = 120,000 CF = 890,000 GALLONS

CONTRIBUTING DRAINAGE AREA = 16 ACRES

1" RUNOFF VOLUME = 72,000 CF = 518,800 GALLONS

Waterfront Park
Connect Kendall Square Mid-course Review 2
December 17, 2014

Project Sites
- Kendall Common (Volpe Site)
- Point Park
- Adventure Park
- Sports Park
- Neighborhood Park
- Nature Park
- Charles River Park
View from Charles Park to Triangle Park

View south down Land Boulevard
View from Broad Canal to Volpe

View north along 5th Street
BMX Track with Sledding Hill in background

Researcher Loop
Tunnel entrance to Kendall Common

Kendall Common
Volpe Site
### Kendall Common

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The diagrams show the planned development areas:
- **New Residential**
- **New Commercial**
- **New Federal Building**

Kendall Common

Connect Kendall Square Mid-course Review 2
Michael Van Valkenburgh Associates, Inc.
16 December 2014
Picnic
Museum of Science
Sports Fields

CAMBRIDGE
Jogging
Birdwatching
Picnic
Boating

BOSTON
Kayaking
Sports Fields

Water and Land Routes

COOL
Filter
Oxygenate
Cleanse
Store

Connect Kendall Square Mid-course Review 2
Michael Van Valkenburgh Associates, Inc.
16 December 2014

HABITAT
Stormwater Opportunities
Public Art

Play

Waymaking/Wayfinding

Landform

Icons

Systems
**Play**

- Re-envisioning innovative projects by international artists
- Climbing sculptures that shelter, become entire environments
- Taking the language of Kendall Square: Replicating DNA forms and other modeling of genomic code to create exciting sculptural basis for play areas and climbing forms

**Waymaking**

- Landmarks that generate movement, impel.
- Activating pedestrian ways by providing links of connected visual movement
- Linking green spaces with nodal points in a system, and doing so with energetic and unexpected ways.

**Example:**
Boulders are envisioned as climbing rocks made of bronze or stainless steel that punctuate the walking areas/plazas. These become sites for children to climb and slide, meeting points, moments of repose for pedestrians.
Landform

- Artworks are integrated into the landforms and bodies of water; designed to complement the shapes and contours of the greenspace.
- Recycled materials are often used; in this instance, paper, which deteriorates slowly over decades, morphing with impact of rain and freezing temperatures.
Systems

- One role of public art is to manifest invisible, essential systems
- Kendall Square is built on what used to be the Charles River marshlands. The presence of the canal and its link to the riverway, along with the water and storm water pipes underground are all linked.
- Some of these sculptural forms can be functional, as in water towers, ways of directing runoff, living green forms, habitat for birds