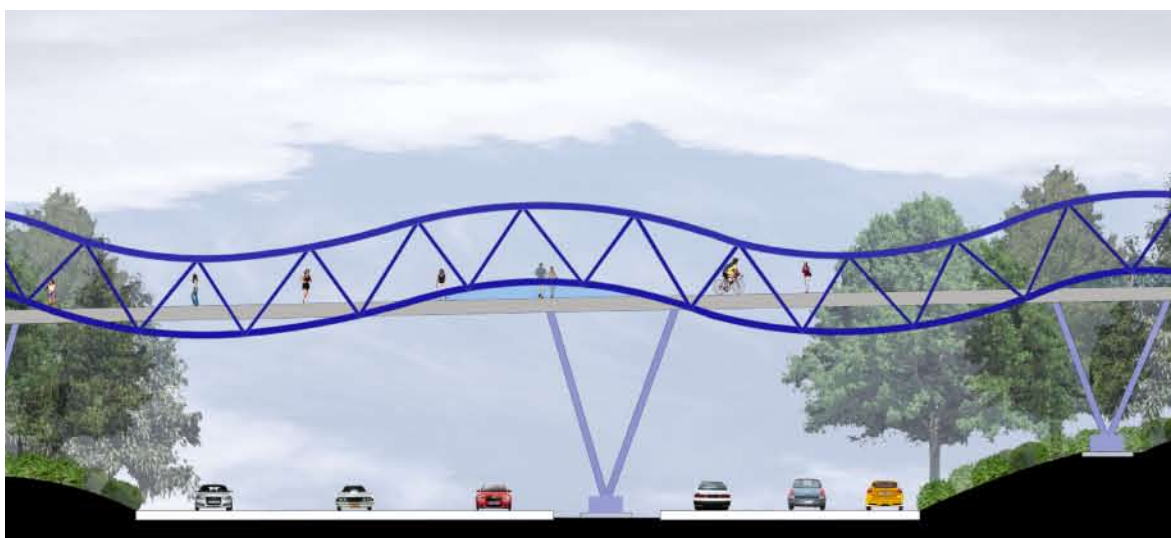


UMass Amherst Design Center
Department of Landscape Architecture & Regional Planning

Reconnecting People to Springfield's Riverfront: from the South End to Forest Park

Urban Design Studio Fall 2011
Frank Slegers, Assistant Professor
MLA, DIPL.- Landschaftsarchitekt
Elizabeth Thompson, Lecturer
MLA, Landscape Architect



Nate Bernard • Matt Gallagher • Amanda Hart • Kyle Jackson • Corey Lammerdring • Michael Naughton
Nick Petrouski • Jim Reicheld • Mike Ritacco • Matt Silveira • Rebecca Tran • Alisha Walls

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Contact:

Frank Slegers - slegers@larp.umass.edu

Assistant Professor
Dipl.-ING, MLA, ASLA, Registered Landscape Architect
Department of Landscape Architecture & Regional Planning
109 Hills North
University of Massachusetts
111 Thatcher Road , Ofc 1
Amherst, MA 01003-9357

phone: 413-577-0848
fax: 413-545-1772

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Acknowledgements

The Department of Landscape Architecture and Regional Planning and the UMass Amherst Design Center in Springfield were excited for continuing the successful collaboration with the Office of Planning and Economic Development of the City of Springfield in the fall of 2011. This studio had a prime task: Linking the South End and Forest Park to the edge of the Connecticut River as a place for people. Our proposals offer new planning and design strategies for this great location in Springfield. This studio builds on earlier urban design studios: In 2009, we submitted design concepts for the South End to support the City's achievements for creating a gateway to Downtown. In the fall of 2009 we worked in Springfield's North End and made proposals to engage the Riverfront. In 2010 we focused on the Central Business District Riverfront and linkages to the Riverfront and beyond. The outcomes of this studio contribute to the revived discussion of how to take more advantage of the inherent potentials of the area. The Urban Land Institute (ULI) held a symposium in the spring of 2009 to create ideas for the downtown area along the Connecticut River. In the spring of 2011 the riverscapes learning laboratory engaged in a discussion to link art, ecology and communities along the River from Turners Falls to Springfield and currently proposes an art installation on the edge of Riverfront Park. We think the Riverfront needs more tangible visions to mentally and physically connect to its people. We believe that it is important to engage in a process that will activate our imagination and create energizing pictures and new perceptions to give direction for decision makers and the general public. Our public presentations had again a great participation from many engaged citizens. The envisioning workshop at the Design Center helped us to investigate what people want to improve and strengthen at the Riverfront. We hope that we contributed with our research and creative work to support efforts for real physical outcomes.

We are grateful to Mayor Sarno to support this studio. We also thank the Springfield Department of Planning & Economic Development for their support and effort in coordinating this studio. We specially thank Scott Hanson for his untiring enthusiasm and great cooperation on this project. We also thank Michael Tully from the Springfield Parks Department for his useful input and engagement.

We thank the Director of the UMass Amherst Design Center Michael DiPasquale for exhibiting our work in Springfield. We are also thankful to the faculty of the Department of Landscape Architecture and Regional Planning for participating and contributing their valuable comments during our studio reviews. We thank all the students in this Urban Design Studio for their great work and creative ideas.

Special thanks to graduating student Mike Naughton for his initiative and energy in editing this report.

We hope our Senior Urban Design Studio could catalyze new planning and design efforts at the Riverfront to reconnect it to the people of Springfield.

Frank Slegers and Elizabeth Thompson,
Amherst, May, 2012

"...the conspicuous element of natural beauty in Springfield is the River." E.C..... Gardner Architect 1879

"The Riverfront area is one of the most attractive development locations in Western Massachusetts." RFP, April 16, 2009, Mayor Domenic J. Sarno

Studio Format, Goals and Objectives

1.0 Studio Project Area

To the north our area is defined by Broad Street just south of the new Basketball Hall of Fame at the I - 91 underpass. There the Hilton Garden Inn and the Pizzeria Uno restaurant are more recent businesses between Western Columbus Avenue and the edge of the railroad. They are oriented to Western Columbus Avenue and encourage access by car. This environment is extremely hostile to pedestrians and bicyclists. The FL Roberts gas station and a truck stop are remnants of industrial uses just north of the 1887 built York Street Jail that was demolished in 2008. An RFP (Request for proposal) to create new opportunities to use this great location on the riverfront was submitted in April 2009 but none of the submitted proposals was selected. To the south of the former 4 acre large jail site there are other auto-related uses. South of the former jail site is also the confluence of the Mill River into the Connecticut. The Mill River is visible as a narrow canal but mostly piped underground. An urban greenway along the Mill River could connect Watershops Pond to the Connecticut, had been studied exhaustively but has not yet been realized. This studio seeks to revive the discussion of the RFP in a visual and imaginative way with diverse design approaches for the riverfront. To the west our project area is defined by the banks of the Connecticut River and the Connecticut River Walk and Bikeway. The 3.7 mile River Walk and Bikeway dead ends in our area just 800 feet before the South End Bridge. A continuation of this greenway to the 1.7 mile segment in Agawam at the western side of the River was planned but not realized. Another challenge is the linkage of the River Walk and Bikeway to the South End neighborhood and to Forest Park. The railroad tracks and I - 91 are the most challenging physical barriers. There are no places in the area to physically get close to the water. Within our area there are only two underpasses for I - 91 but no connections over or under the railroad within close proximity. The closest overpass is located at the LA Fitness Center several hundred feet upstream. Another element that challenges the Riverfront is water pollution through various CSO outlets.

The south of our area ends just at the edge of Forest Park. Forest Park is the most prominent park in Springfield and with 735 acres one of the largest municipal parks in the United States. Possibilities are sought to better integrate this amenity to the River and the neighborhoods.

One possibility to achieve this is integrating Fort Pleasant Avenue as a pedestrian and bicycle friendly urban street to Main Street. There the area has challenges: some historic industrial buildings mingle with scattered one-story boxes that mostly contain car-dealerships on East Columbus Avenue. Our task is to redesign this gateway to downtown in a sensitive way.



The project area is located in two neighborhoods: The South End and Forest Park.

Studio Format, Goals and Objectives

2.0 Project goals

The primary goal of the project is to develop a vision to connect the neighborhoods of the South End and Forest Park to the Connecticut River and find imaginative ways to engage the southern waterfront of Springfield as a place for people and as a landscape where water-ecology has both a functional and a visual-aesthetic value. What is Springfield's Riverfront of tomorrow?

2.1 Physical design objectives

We will focus on the improvement of the physical environment to achieve our human goal. Five major design objectives can be identified:

1. Improving and creating dynamic physical and mental connections to and from the Riverfront. Encourage accessibility to the River with attention to the pedestrian and the bicyclist to create a coherent network from the City and its public open space system. Identify crucial barriers and make proposals to overcome them. Redesign West Columbus Avenue and East Columbus Avenue as corridors that are not considered as boundaries but pedestrian and bicycle-friendly seams. Propose design elements that increase the visibility and experience of the River.
2. Creating a new landscape experience along the Riverfront. Propose a path along the River that engages the water's edge and ties into the larger network of the Connecticut River Walk and Bikeway on both sides of the River and the Forest Park. Create an open space system that connects the existing and new parks and plazas.
3. Restoring and redesigning the ecology of the rivers. Propose a strategy to restore the ecological functions of the Connecticut River and the Mill River in respect to minimizing urban runoff, reducing impervious surfaces, creating wildlife habitat. Create an educational concept for visitors and residents to teach about the functions of the River.
4. Creating economies on the riverfront that support the physical environment of the river. Propose a land use concept including public open spaces that provides a long term framework and will guide crucial decisions for decision makers and the general public. Draw attention to possible economies that are directly dependent on the River. Be sensitive to existing businesses: Which existing activities should be reinforced? Which ones should be faded out or located elsewhere?

2.2 Larger project focus areas

First we developed a land use/open space proposals for the larger project area. The land use proposals are based on interviews, on-site observations, web research. They were supported by visual material from case studies/precedents to communicate and visualize design ideas. In a second step visionary design proposals were explored for three distinct focus areas:

1. From Broad Street to the South End Bridge

The Riverfront needs a long-term vision that pro actively responds to recent trends: Much of the newer developments along the Riverfront are based on easy access from and to I-91 but not on the Connecticut River as a natural element in the landscape. It negates the existence of the residential areas of the South End neighborhood. Thriving businesses along West Columbus Avenue do not spill over into this adjacent neighborhood. Other uses like car dealerships or gas stations are critical for the water quality through contamination by gasoline and greases from cars. The southern portion of Springfield's Riverfront is hardly used for outside recreation with exception of the River Walk and Bikeway. The landscape of the Riverfront with its steep banks does not serve as floodplain to buffer the seasonal fluctuations of the River. What is the appropriate answer to tackle climatic change?

Studio Format, Goals and Objectives

2. From Main Street and the Mill River to the Connecticut River

The I-91 corridor separates the neighborhoods from the River. What is the future of the Mill River in the South End neighborhood? How do we design the confluence to the Connecticut River? Can Main Street be the future gateway to and from the Riverfront?

3. From Forest Park to the Connecticut River

Forest Park is a most active municipal park that is situated on a high glacial terrace overlooking the River. Neighborhoods like Forest Park and Longmeadow are abutting this park that also attracts people from all over Springfield. Though it is not accessible from the Connecticut River: a connection could revive the Connecticut River Walk and Bikeway. It would encourage people to walk or bike safely from the south to Downtown without being bothered by cars. How can we bridge the gap?

3.0. Learning Objectives - Urban Design Studio as Public Service

The project began with a visioning workshop, conducted in order to engage community members in the shaping of project goals and objectives. Groups of students and representatives of the project area worked together to discuss preliminary design ideas and program elements for the designated design areas. Studio work included in-depth study, analysis and assessment of the project area through on-site exploration and observation, interviews, sketching, institutional document research, historic research, and analysis of aerial photographs. Specific case studies created a reference to support design proposals. Final design concepts and a vision plan were presented to the UMass community, to members of the South End and Forest Park community, and City planning officials. The design drawings were also be exhibited in the UMass Amherst Design Center in Springfield to further stimulate discussion within the community and to demonstrate a UMass presence in Springfield.

3.1 Learning Objectives: Analysis and Assessment / Understanding the Design Area

The following elements were analyzed and assessed to understand the design problem. Challenges and opportunities were identified and concluded the investigation. The design proposals reflect a comprehensive understanding of the area and address the findings of the conclusions in a compelling and unifying design idea.

1. Survey of stakeholders within the community. Observations, collages, and sketches.
2. Existing land use, activities, zoning, cultural milieu, power map of political structures and community dynamics
3. Public open space system
4. Street network and hierarchy, trails
5. Natural systems: topography, water, street trees and vegetation
6. Urban grain and structure
7. Public transportation network

3.1.1 Survey and Observations

- Execution of face-to-face interviews and collection of data through the visioning workshop. They develop an understanding of the social and political structure of the project area and the project's social context. On-site observations and sketches are first impressions to make an initial intuitive assessment of the project area.

Studio Format, Goals and Objectives

3.1.2 Cultural Milieu, Land Use, Zoning

- Analysis of the cultural milieu, including population trends, age, ethnic background, poverty, education, work force, stakeholders, formal/informal power structure.
- Analysis of the existing land uses and develop a robust mixed-use land use pattern that envisions future development with respect to the cultural milieu.
- Description of the specific uses of buildings. Identification of the names of businesses, institutions, and organizations associated with particular buildings.
- Proposal of new land uses and proposal of new zoning as planning tool.

3.1.3 Public open Space System

- Description analysis and assessment of the open space system of the project area and how it relates to the city context. Distinction between nodal and corridor elements of the system. In a coherent open space network, the nodal open spaces are connected by open space corridors. Nodal elements include: Public parks and plazas, cemeteries, public and school playgrounds, forested areas. Corridor elements include: Sidewalks, pathways, recreational and bike trails.
- Identification of missing links and connections. Observation of accessibility during different hours of the day.
- Creation of a hierarchy of open space nodes, and create a hierarchy of open space corridors.
- Identification of areas where the pedestrian system conflicts with or is in harmony with the vehicular system. Facilitation of pedestrian movement.
- Creation of a conceptual proposal for a renewed public open space system.

3.1.4 Street Network and Hierarchy, Parking

- Analysis of the street system:
City Arteries connect neighborhoods and cities to one another. They are the primary connections. Neighborhood Streets are secondary connections. They are important links within a neighborhood and create a permeable network. Neighborhood Roads are tertiary connections.

3.1.5 Natural Systems: Topography, Water, Vegetation

- Analysis and assessment of the topography of the project area.
- Analysis of the sewage and storm water systems of the area.
- Analysis and assessment of the permeable and impermeable surfaces.
- Analysis and assessment of the existing trees including street trees.
- Increasing of infiltration in the design proposals, identification of areas for street tree planting; creation of a universal design.

3.1.6 Urban Grain and Structure

- Analysis and assessment of the urban grain of the project area in figure-ground drawings. Understanding how urban grain reflects land use. Identification of empty lots.

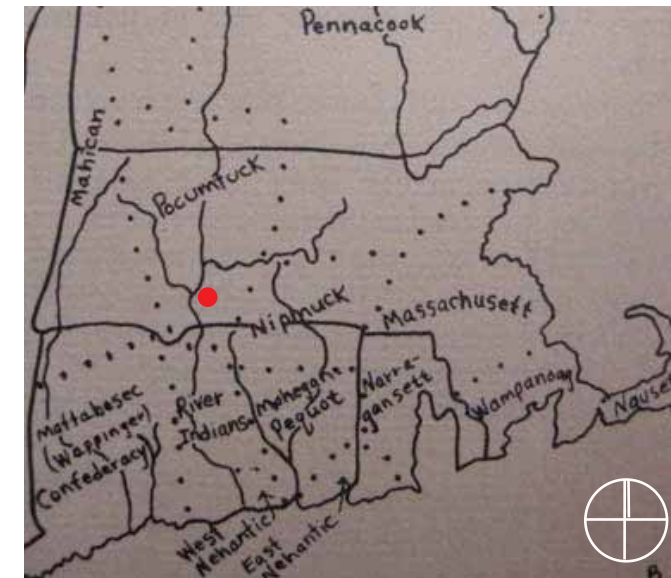
3.1.7 Transportation Network: Private Vehicular and Public Transportation

- Assessment and evaluation of the transportation network; including parking, bus lines and bus stops.
- Understanding of the transportation network and how it relates to existing land uses, including open space. Where do people live, where do they work, where do they go to school, where do they go out? How do they get there?
- Proposal of alternatives to improve public transportation.

Site Analysis and Assessment - Understanding the Southern Riverfront

History

Springfield has been settled by the River Indians and had been a fur trading outpost before it was colonized in 1635 by William Pynchon. Early maps show Main Street and State Street as dominant road corridors. Later this system was supported by smaller roads perpendicular to Main Street that connected to the Riverfront. Springfield became a well known New England city for its strong industrial history which began when the National Armory was opened by George Washington in 1794. The City became the primary supplier of firearms for the U.S. military until its closing in 1968. The railroad construction in 1839 was the first barrier that cut off direct access to the River. It is still the most significant barrier today because easements to cross the tracks are most difficult to obtain. In the 1960's, the construction of I-91 created another impediment to connect people to the River. - Today concrete walls or earthwork cut the entire City of Springfield off from the Connecticut River both as a physical and visual barrier. The highway corridor also displaced a number of family's and businesses in the South and North End.



Indian settlements in Massachusetts



Major street system in Springfield in the early 1800's before the construction of the railroad.



View from the City Tower in the late 1800's



Construction of Highway I-91 in the early 1960's

Site Analysis and Assessment - Understanding the Southern Riverfront

Assets and Cultural Attractions - Forest Park and Basketball Hall of Fame

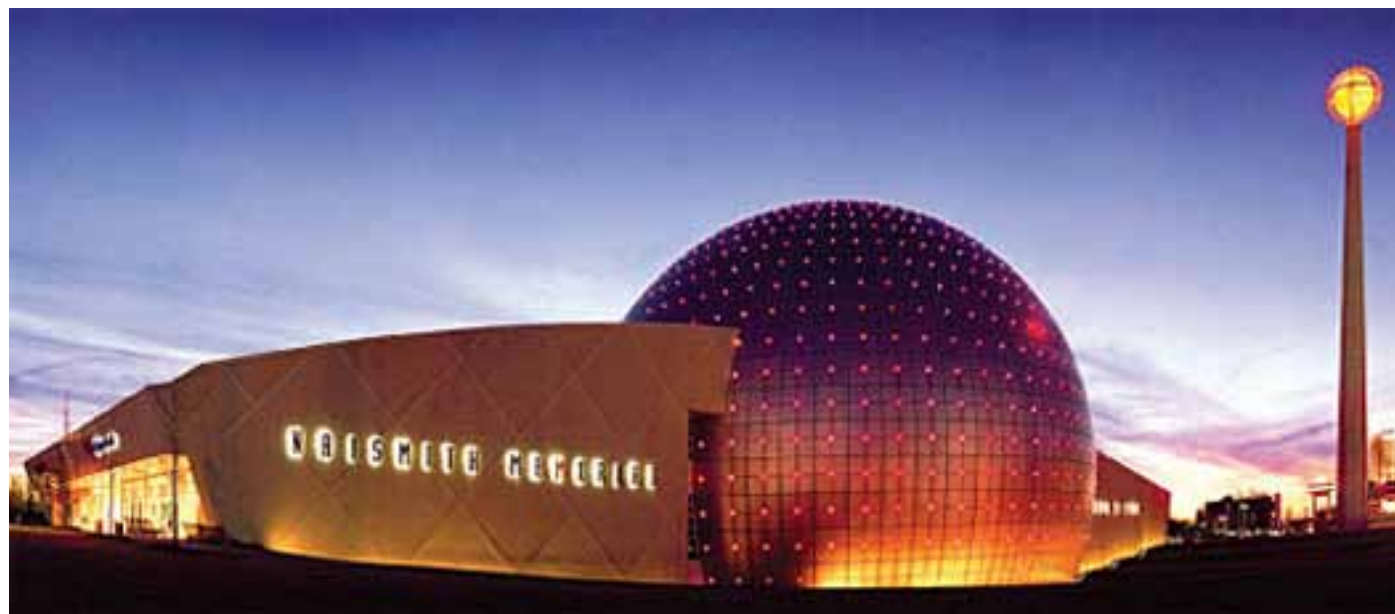
Forest Park is one of the largest urban parks in United States with a size of about 735 acres. Created in 1884, it offers a diversity of activities all year long. A zoo, numerous recreational fields, opulent flower beds, wooded areas and trails, ponds and streams create a resource for Springfield and the surrounding communities. Possibilities are sought to better integrate this prime public open space to the Connecticut River Walk and Bike Way and Riverfront Park. Just north of our project area lies the Naismith Memorial Basketball Hall of Fame. This attraction draws many people to the City. Our goal is to expand these commercial activities and direct them to engage the Riverfront more actively.



The zoo in Forest Park attracts 100,000 people yearly.



Recreational fields in Forest Park



The Basketball Hall of Fame on West Columbus Avenue attracted 630,000 visitors since 2002. Unfortunately the auto-oriented design does not engage connections to the Connecticut River

Street Network and Trails

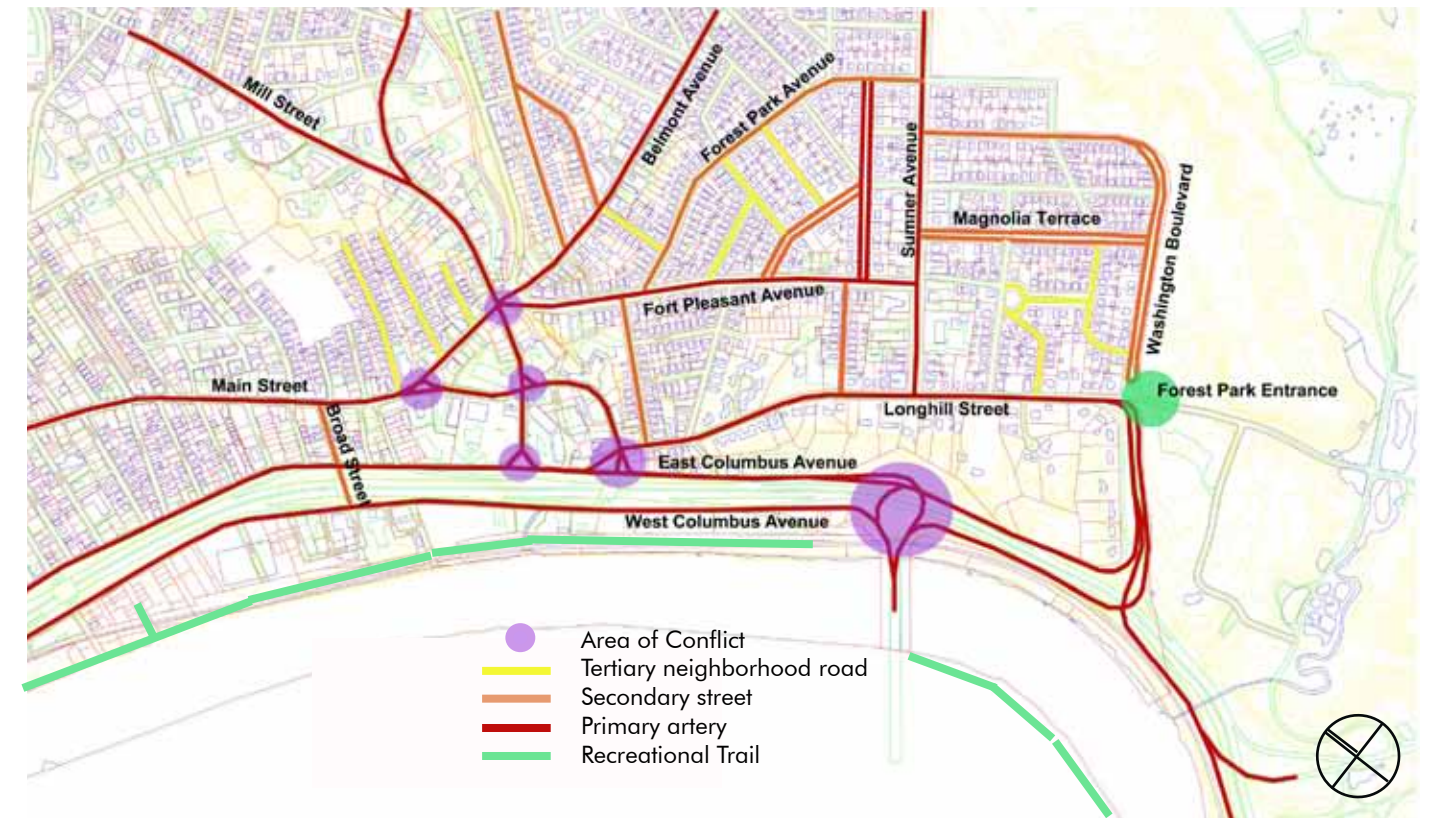
The Springfield Riverfront is separated from the rest of the city by I-91. The main arteries of East and West Columbus Avenues run parallel to either side of the highway and allow access both on and off of I-91 at multiple locations, this results in high speed traffic along these roads. These streets also lack tree plantings. The one-sided sidewalks are not continuous, too narrow and sometimes in a bad condition. Street intersections have large curb radii and are difficult to cross. The scale is not pedestrian-friendly and does not encourage walking. None of the streets in Springfield have bicycle lanes. We propose to create pedestrian and bicycle-friendly streets that connect to the Riverfront and Forest Park.



Looking north on East Columbus Avenue. The streetscape is not pedestrian friendly.



Connecticut River Walk and Bike Way facing south beyond the Basketball Hall of Fame.



South End and Forest Park street networks and the Connecticut Riverwalk and Bike Way as recreational trail

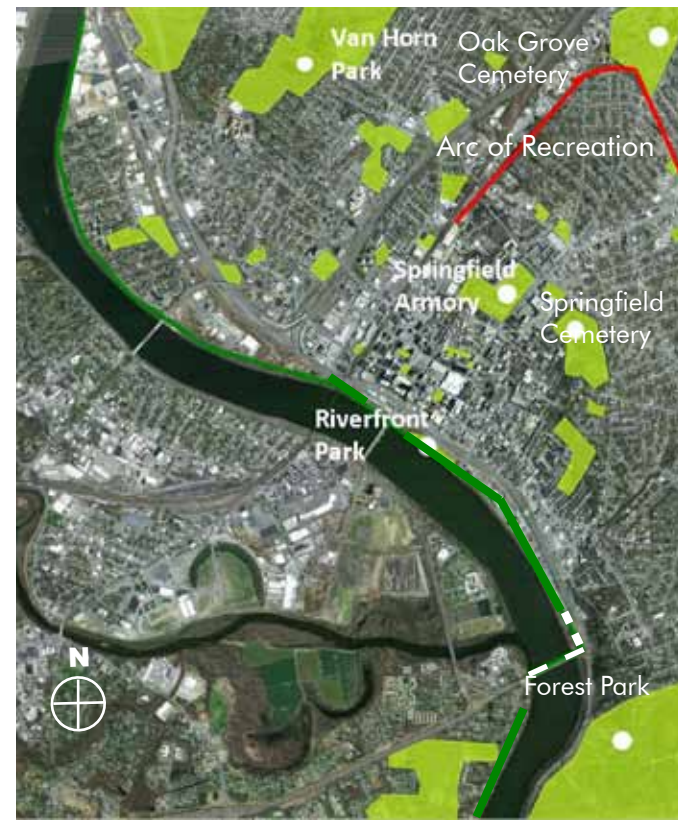
Site Analysis and Assessment - Understanding the Southern Riverfront

Regional and Municipal Public Open Space Network

The Connecticut Riverwalk and Bike Way has been implemented in Springfield and Agawam. Our task is to connect the Walk to the South End Bridge to make the connection to the 1.9 mile Agawam portion of the Riverwalk. In the municipal context it is important to connect the Riverwalk to the neighborhoods in the east. One potential is a connection to the proposed Arc of Recreation in the Mc Knight neighborhood. Another challenge is the connection to Forest Park to create a citywide loop system.



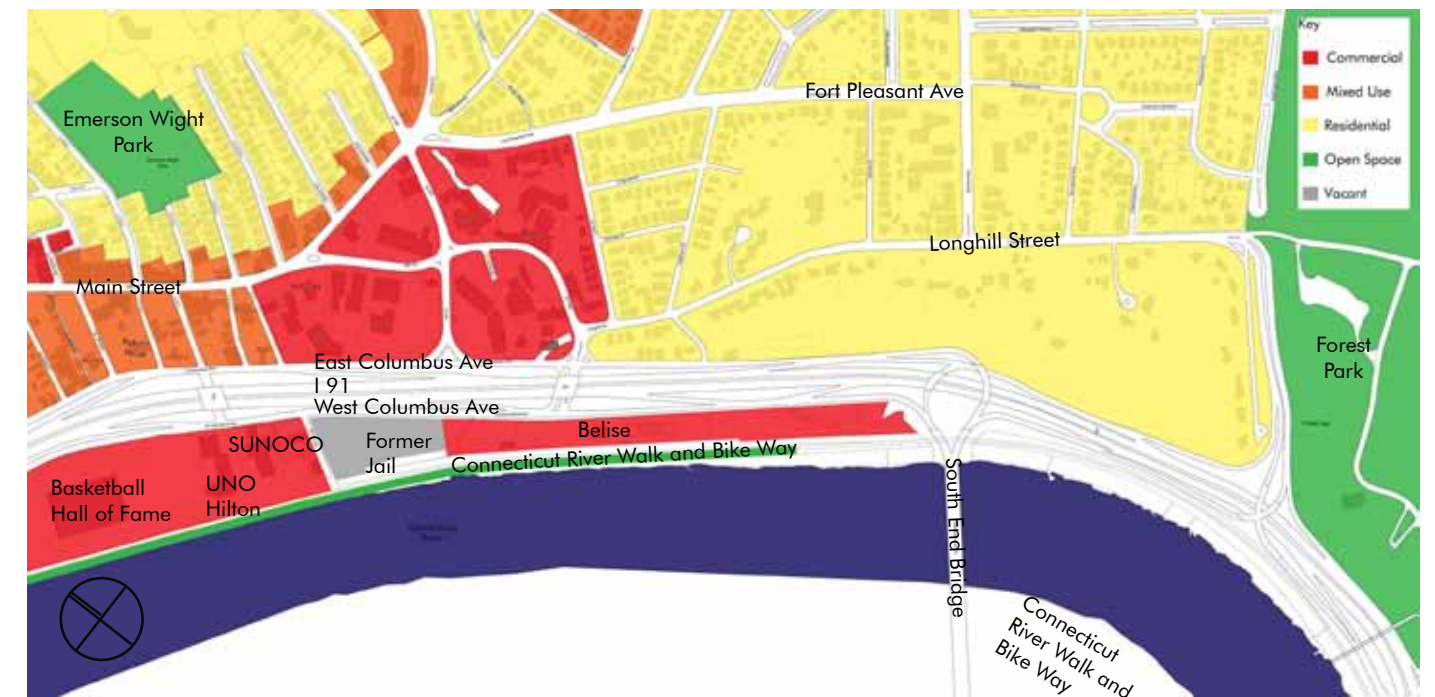
Existing and proposed Connecticut River Walk and Bikeway from Holyoke to Agawam.



Public open space in the larger downtown area of Springfield.

Land Use - Public Open Space within our area

The northern portion of our area is dominated by commercial and mixed-use development on both sides of I-91. This includes businesses which currently prevent public accessibility to the riverfront: the Basketball Hall of Fame, the Hilton, Unos Pizzeria, the truck stop and Sunoco station, and the Balise car dealership. An opportunity is the vacant former York Street Jail site. This site was part of an RFP proposal for future development. We see opportunities to dedicate this area to innovative stormwater retention, treatment and education. This use could combined with public open space uses as a stepping stone between Emerson Wight Park and Forest Park and a connecting space to the Connecticut Riverwalk and Bike Way. This 3.7 mile long path ends dead ends in our area. On the eastern side of I-91 the Forest Park neighborhood borders the highway with residential uses. This area is characterized by steep topography making pedestrian accessibility through this area very difficult.



Land use in project area

Site Analysis and Assessment - Understanding the Southern Riverfront

Existing and Proposed Connections

With our area Broad Street and the southern portion of Main Street offer highway underpasses. They are not inviting and do not facilitate pedestrian movement. Further south there is access to the South End Bridge along West Columbus Avenue. The sidewalk in this segment is in an extremely bad condition.

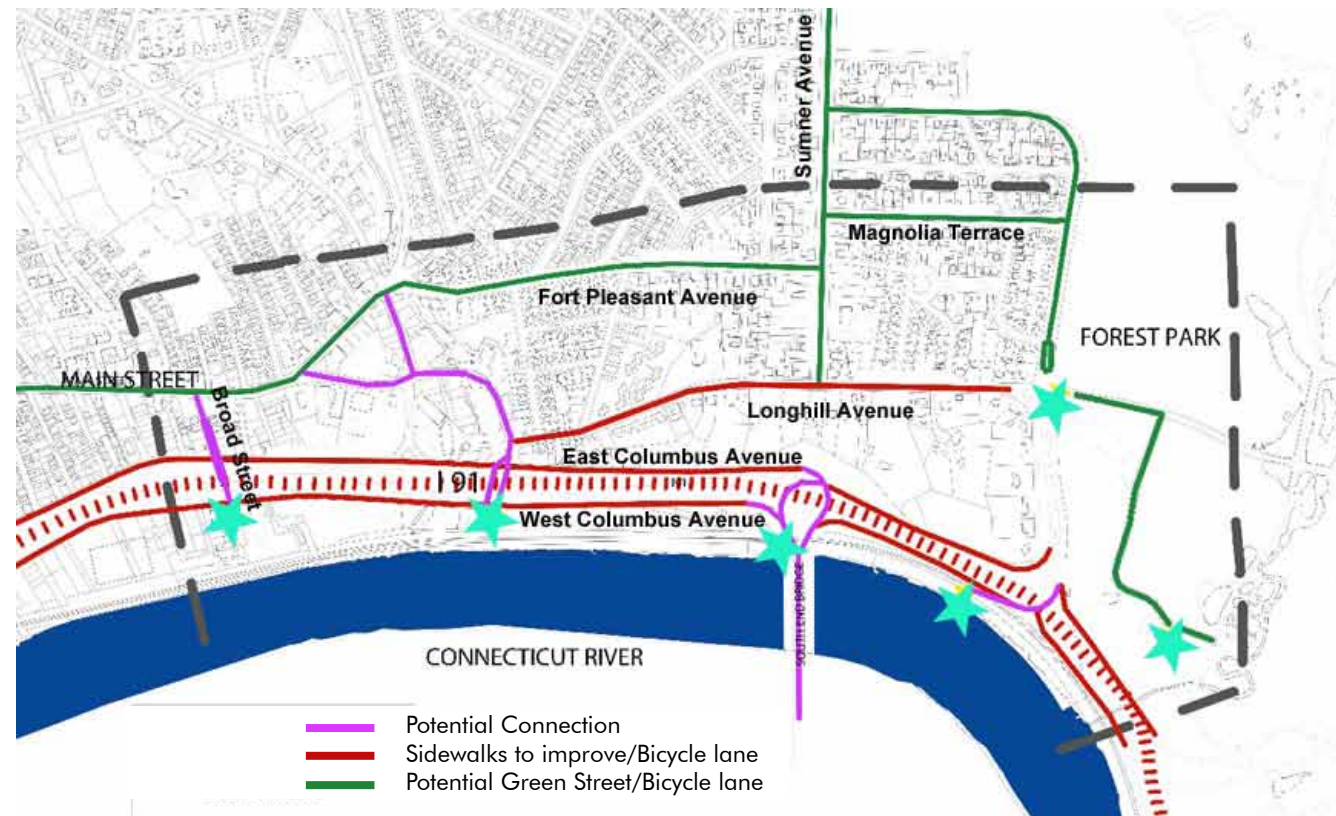
Along the Connecticut River towards Forest Park there are three possibilities for connections: The first one is to construct an attached lane on one of the highway overpasses. The second one is an underpass between the Barney Estate and the mausoleum. The third possibility is to create a bridge from the outlook at the Forest Park mausoleum.



I-91 underpass at Broad Street facing Main Street



Proposed connections to Forest Park

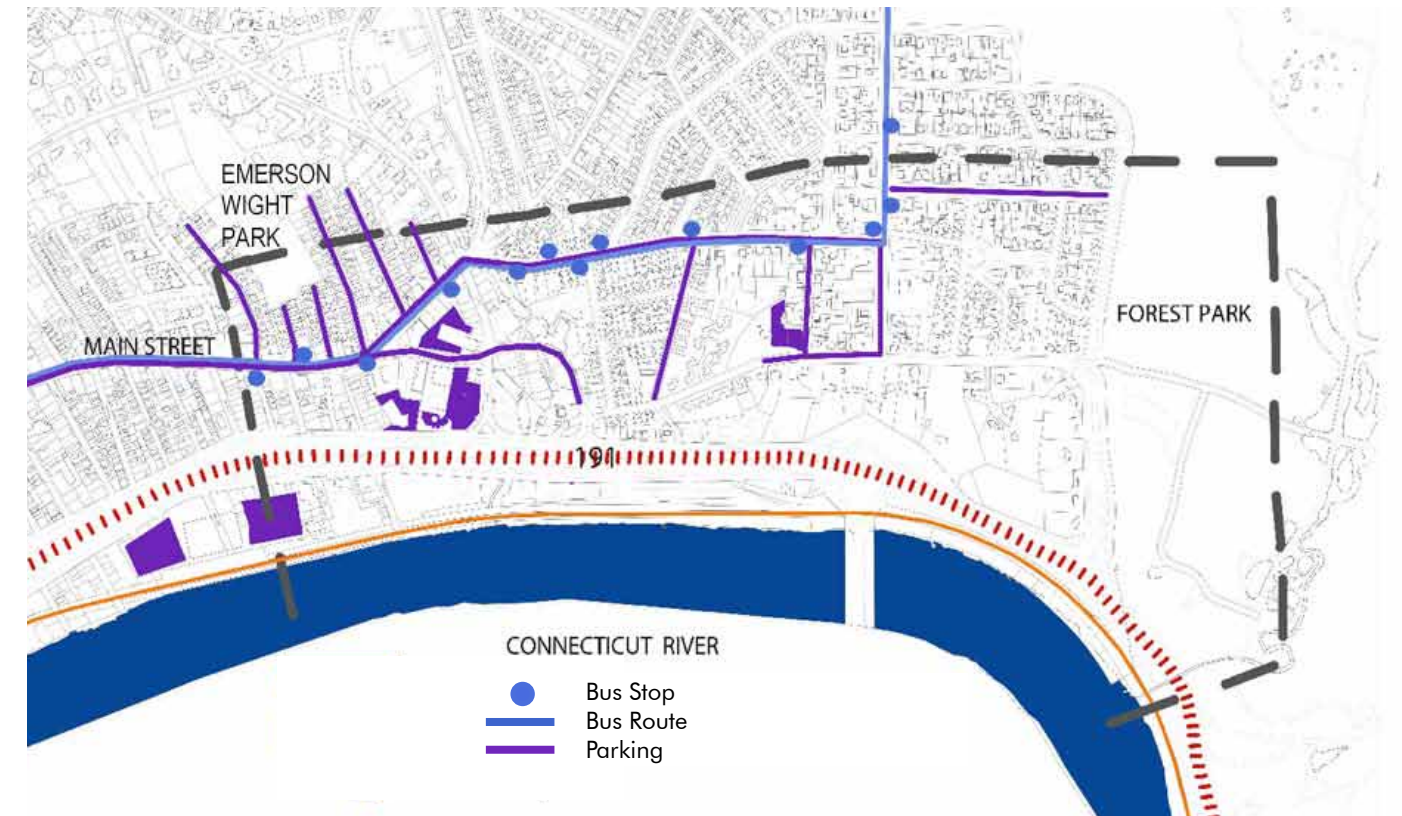


Existing and proposed connections

Public Transportation and Parking

The Pioneer Valley Transit Authority (PVT) is the major provider of transportation in downtown Springfield. Although the system is fairly quick system and runs every 20-40 minutes, it has short hours. The hours of the PVT are 6:00AM - 10:00PM during the weekdays and on weekends they work a reduced schedule of 6:00 AM - 6:00 PM. Not all of the buses run on Sundays. Many people living and working in the downtown also like to "play" downtown. The reduced schedule on weekends does not allow for easy public transportation after 10:00 PM. Events at the Basketball Hall of Fame and the adjacent bars and restaurants have activities running much later than 10:00 PM. The reduced bus schedule does not allow for a pedestrian friendly city and it leads to an increase of cars that are driven downtown.

There is no direct access to the riverfront with public transportation. Local buses are running along East and West Columbus Avenue but there are no bus stops on these streets. The next bus service is available from Main Street, about a quarter mile away. During the week days buses are running every 20 minutes from early morning to mid evening. On Sundays the bus service is limited - only five buses run on this day. There is also no late-night bus service on the weekends that could serve night time entertainment activities. There are ample parking opportunities at the Basketball Hall of Fame but there are no parking possibilities further south. East and West Columbus Avenue do not accommodate parking.



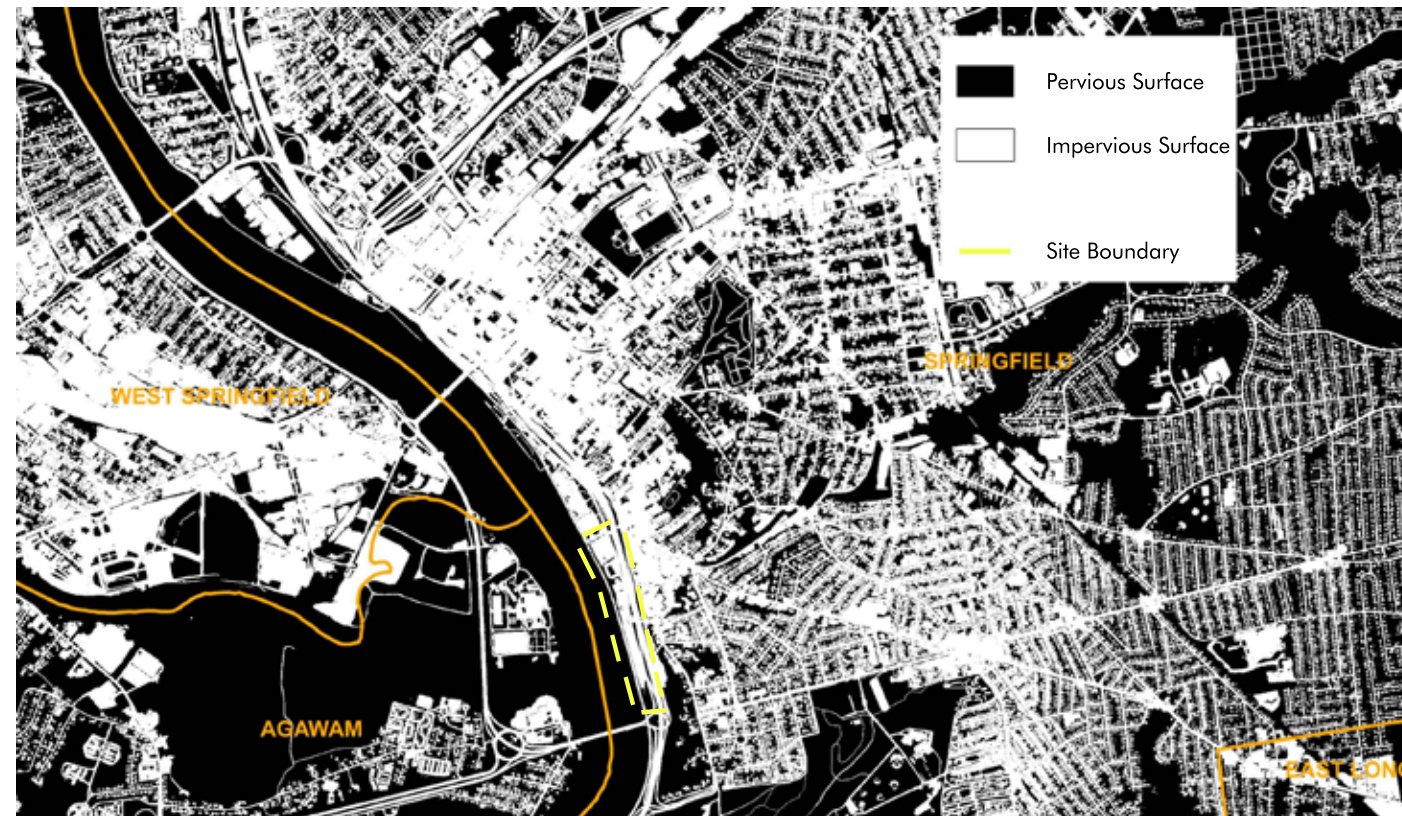
The buses run frequently during the daytime but service during the weekends and later than 7 PM is very limited. No bus stops along East and West Columbus Avenue. Parking is available next to the Basketball Hall of Fame.

Site Analysis and Assessment - Understanding the Southern Riverfront

Urban Watershed and Impervious Surfaces

The majority of our project area is part of the Mill River watershed. It has eight Combined Sewer Overflows (CSO'S) that seriously impact the water quality. Much of our design area has impermeable surfaces. Our proposals seek to reduce stormwater run-off on site via infiltration into the ground and reduction of impervious surfaces. The riverfront could be a suitable area where the sheet flow from the roads and rooftops could be infiltrated. Simultaneously it could reduce Springfield's problem of polluting its rivers and streams after heavy rain storm events.

The map of impervious and pervious surfaces depict the street system and major open spaces but also private gardens.



Impervious surfaces along riverfront.

Water Infrastructure and Water Quality

Within our primary design area of the riverfront site is the confluence of the Mill River and the Connecticut River. The Mill River is piped for 900 feet underneath some of the commercial properties and underneath I-91 where the structure then opens up in the Balise property. This structure continues underneath the railway and bike path where it then confluences into the Connecticut River. The water level in this structure can vary greatly. After and during large storm events excess stormwater and sewage in the underground systems overflows into the river. With this it releases a wide range of contaminants that impact the quality of the rivers.

Opportunities to reduce stormwater and runoff are:

- Creation of new water retention areas and on artificial wetlands on the riverfront
- Reduction of street sizes
- Increase on-site infiltration on private properties
- Increase infiltration on the streets through bio-swales and stormwater planters
- Adapt existing architecture with green roofs and other on-site strategies to reduce runoff
- Improve educational opportunities to maximize infiltration
- Creation of artificial wetlands within the Mill River corridor



The culverted section of the Mill River is daylighted through the Balise property.



The Mill River joins the Connecticut River via a concrete culvert that runs underneath the city.

Site Analysis and Assessment - Understanding the Southern Riverfront

Rails- with - Trails

In our research, we looked at a number of case studies that were found to be applicable to the Riverfront site. One that we found to be most beneficial in developing this site was the Rails- with - Trails model. This is shared-use path that is located on or directly adjacent to an active railroad or light-rail corridor. We saw this model used in a number of situations across the United States, and even worldwide. Reliable sources state that about 1,400 miles have been built in the United States so far (<http://www.railstotrails.org/ourwork/trailbuilding/toolbox/informationsummaries/rails-with-trails.html>).

Basically, this model keeps a railway corridor in active use by trains but also providing recreational trails along this corridor. This study was important to us in that it allowed these trails to exist without the use of fencing or any other blocking structure. The original study concluded that these trails were no more dangerous than a train running alongside a street. The use of this system could also allow for potential pedestrian crossings across the railway, which is also a critical issue on this site as very few currently exist. The controversy in this issue lies within the safety of the trail users with the potential of high speed trains using the railway in the near future.

We propose that the City of Springfield consults with the Pioneer Valley Planning Commission to propose a shared trail concept along the railroad corridor of the Connecticut River. This path would enhance perceived safety along the trail.



The need for fences is not necessary as pedestrians are kept a safe distance from passing trains.



Recreational trails alongside an active railway could provide a multi-use corridor in Springfield.

Community Participation - Envisioning Workshop

On September, 21 we held a public envisioning workshop at the Design Center in Springfield. We had been investigating the area through site visits, sketches, investigating GIS material, aerial photographs, plans and sections. We also had developed first concepts. Now we wanted to learn more from the local members of the South End and Forest Park neighborhoods. What is important to them? What are the main challenges in the area? We split into two smaller groups and discussed the potential opportunities. We also explored potential uses of the land in ways that would draw more people to the riverfront and how it would be possible to provide pedestrian and bicyclist connections between Forest Park, the Riverfront, and the South End. The community member's insight was very helpful in developing long term plans for the site.



Insight from community members helped gain a further understanding of the site..

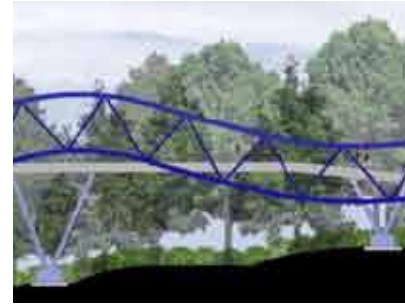


Potential opportunities for the Riverfront were explored in small groups



The challenges and opportunities discussed helped shape the design process. Notes were placed on the aerial photograph. Red dots display major challenges, yellow dots opportunities.

Team Work:



Riverfront Reconnection
Nate Bernard, Amanda Hart, Alisha Walls

22-35



Triple R Park
Nick Petrouski, Matt Silveira, Rebecca Tran

36-47



River Rise Park
Corey Lammerdring, Jim Reicheld, Mike Ritacco

48-61



River Reach
Matt Gallagher, Kyle Jackson, Michael Naughton

62-75

Riverfront Reconnection - Nate Bernard, Amanda Hart, Alisha Walls

The goal of this project was to reconnect the South End and Forest Park areas of Springfield to the Connecticut River. Since the construction of Interstate 91 and the railroad, Springfield has become disconnected from the waterfront. By proposing two main entrances to the park and an undulating bridge expanding over I-91, Springfield will be reconnected to the Connecticut River waterfront. We were inspired by the landmark bridges of West 8 landscape architects. Another important information for us was the "Rails - with - Trails" movement. We have six on-grade crossings over the railroad tracks. This allows us to connect to the existing Riverwalk and Bike Path in a elegant way. One major undulating path connects back and forth from Riverfront to West Columbus Avenue. On this path visitors experience five major design elements: The first one is Riverfront Gateway through the Broad Street underpass. An overdimensional public art installation interprets the river in a metaphorical way and gives guidance. Following this path we experience Mill River Remediation Park. The polluted water from the Mill River is retained and cleaned through sedimentation and biological processes. The next space is an amphitheater - a gateway from West Columbus Avenue, a space for outdoor performances and events and an outlook on the Connecticut River. Following the path you arrive at the Glade: this park offers spectacular views on the River again. The grand finale of our meandering path is a bridge over I-91 to Forest Park. This bridge closes the gap between City, the River and one of the most prominent parks in the State.



A proposed loop of green streets through Springfield's Forest Park, South End, and Emerson-Wight Park provide residents with easy access to the revived Connecticut River waterfront.



Riverfront Reconnection - Master Plan

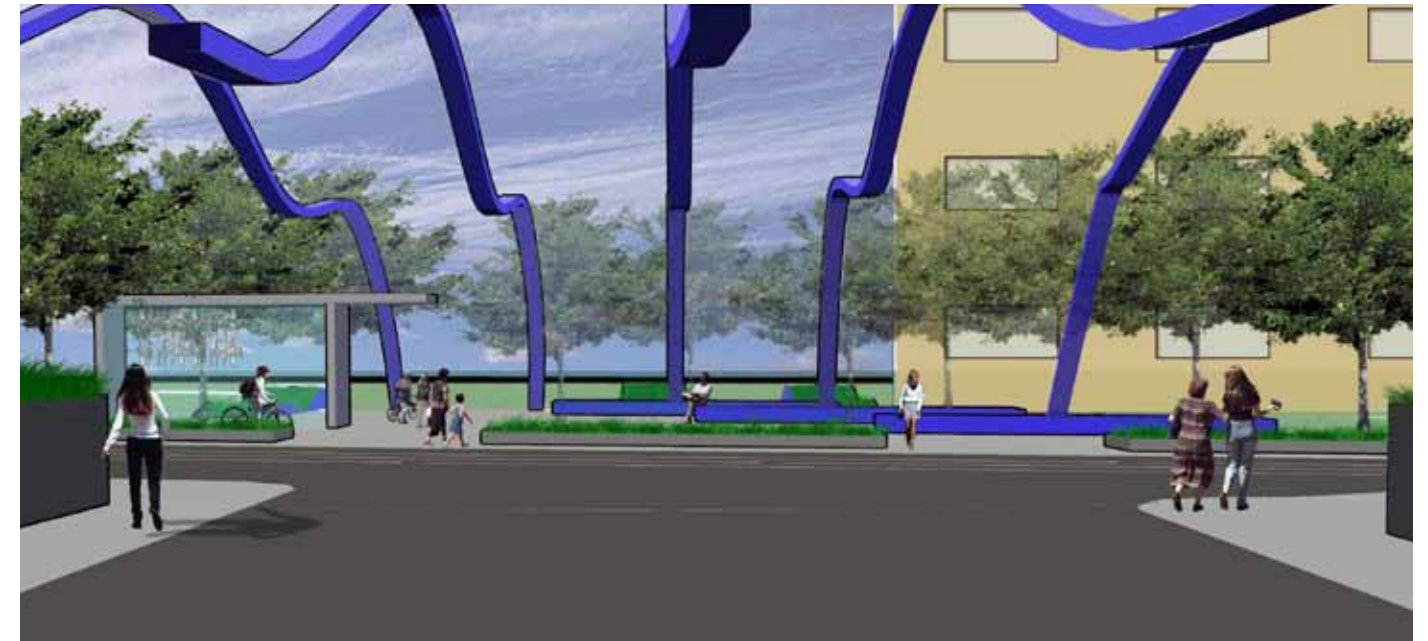


Riverfront Reconnection - Gateway Plaza on Broad Street - Nate Bernard

The Riverfront Gateway Plaza facilitates movement from Downtown to the River. It offers possibilities to sit and rest or take one of the bikes from the mobile rental station. From here people can explore the Springfield Riverfront and Forest Park. The Gateway is visible day and night through an over dimensional environmental art sculpture that is also holding light fixtures for the night.



A new Plaza at the intersection of West Columbus Avenue and Broad Street invites pedestrians and bicyclists.

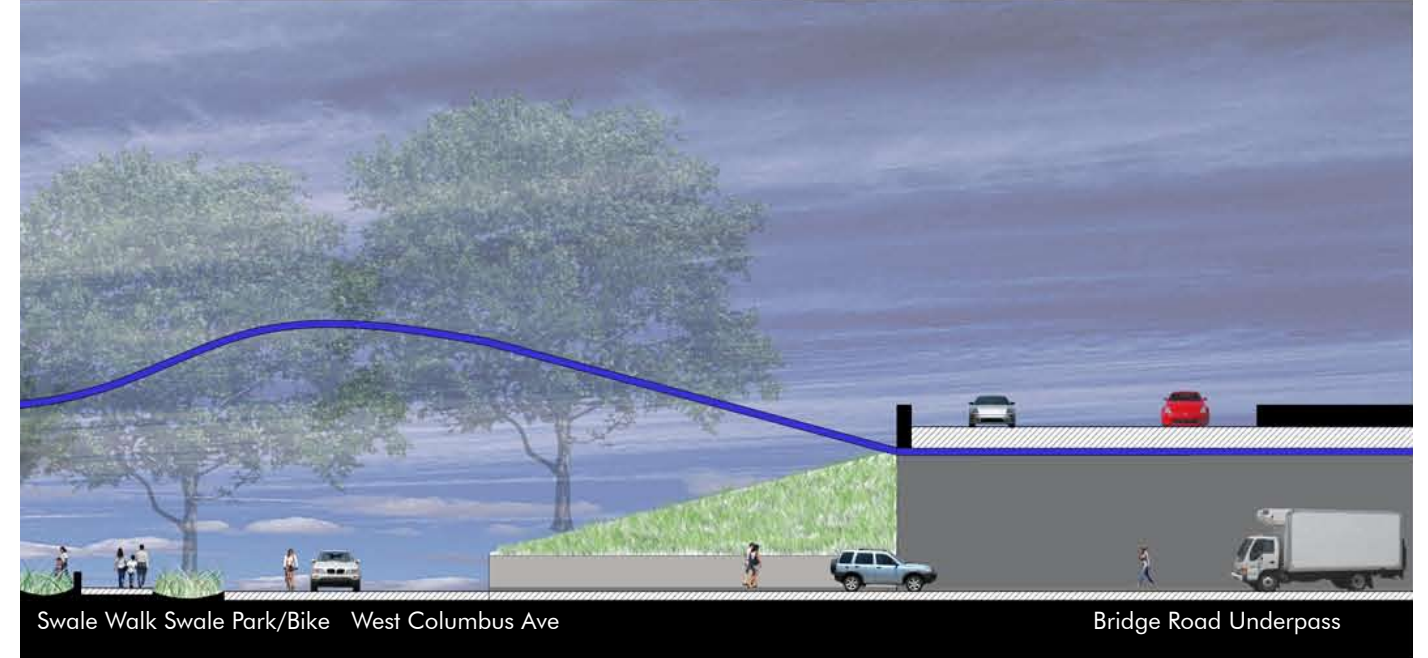
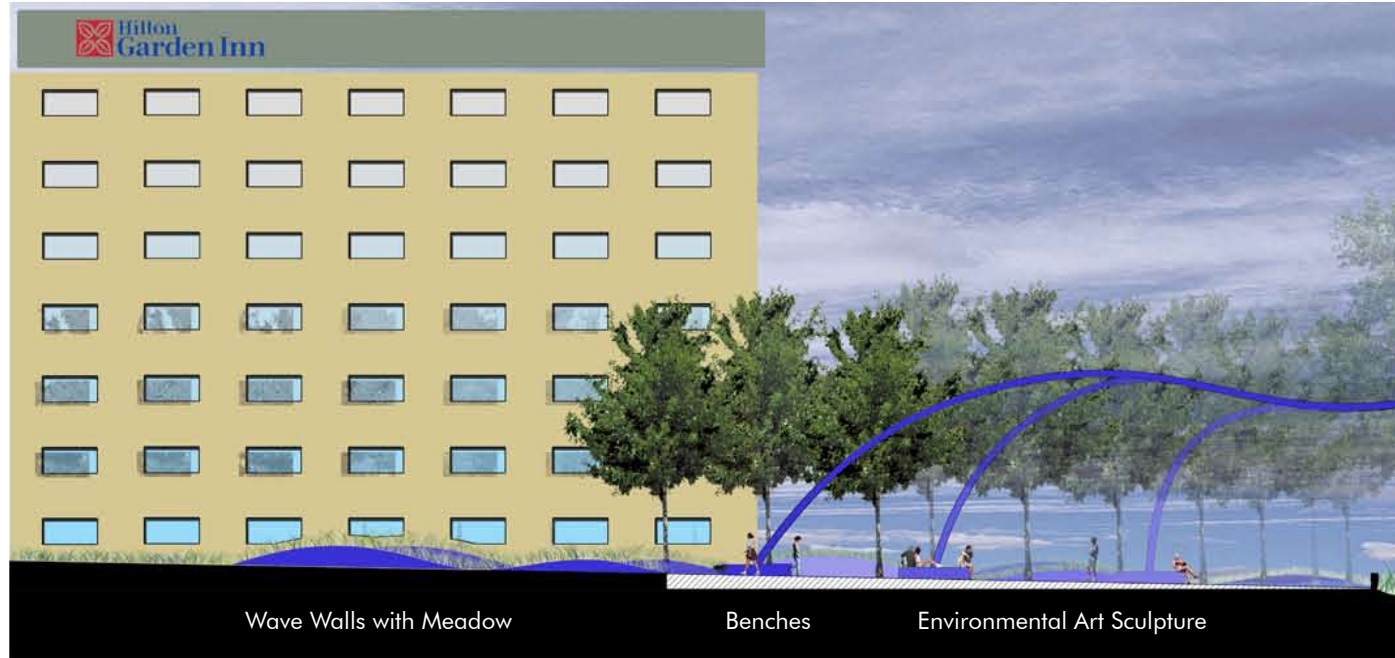


View from Broad Street to the Riverfront



Sectional elevation from Broad Street facing to the Connecticut River

Riverfront Reconnection - Gateway Plaza on Broad Street - Nate Bernard



An environmental art sculpture creates a legible gateway from Broad Street. The steel structure transforms into benches and waving walls



Night view of the Gateway Plaza on Broad Street

Riverfront Reconnection - Amphitheater - Amanda Hart

A proposed amphitheater space offers views of the Connecticut at 2 prospect spaces at each end. The area is enclosed to protect visitors from the noise of traffic along West Columbus Avenue and I-91. The amphitheater is also accessible through parallel parking on West Columbus Avenue.



A pedestrian ramp circles the space and allows on-grade movement over the train tracks. Grassy resting areas in between the amphitheater stands offer great places for people to sit and relax.



Sidewalk West Columbus Ave. Sidewalk Planted Island Seating Steps Main Path

Steps and Open Green Space



Ramp Ramp over Flood Wall Path on Grade Crossing Train Tracks

Planting Bike Path Planting Overlook Existing Slope Connecticut River

Sectional elevation facing south. Landform is screening the stage and open space.

Riverfront Reconnection - Amphitheater - Amanda Hart

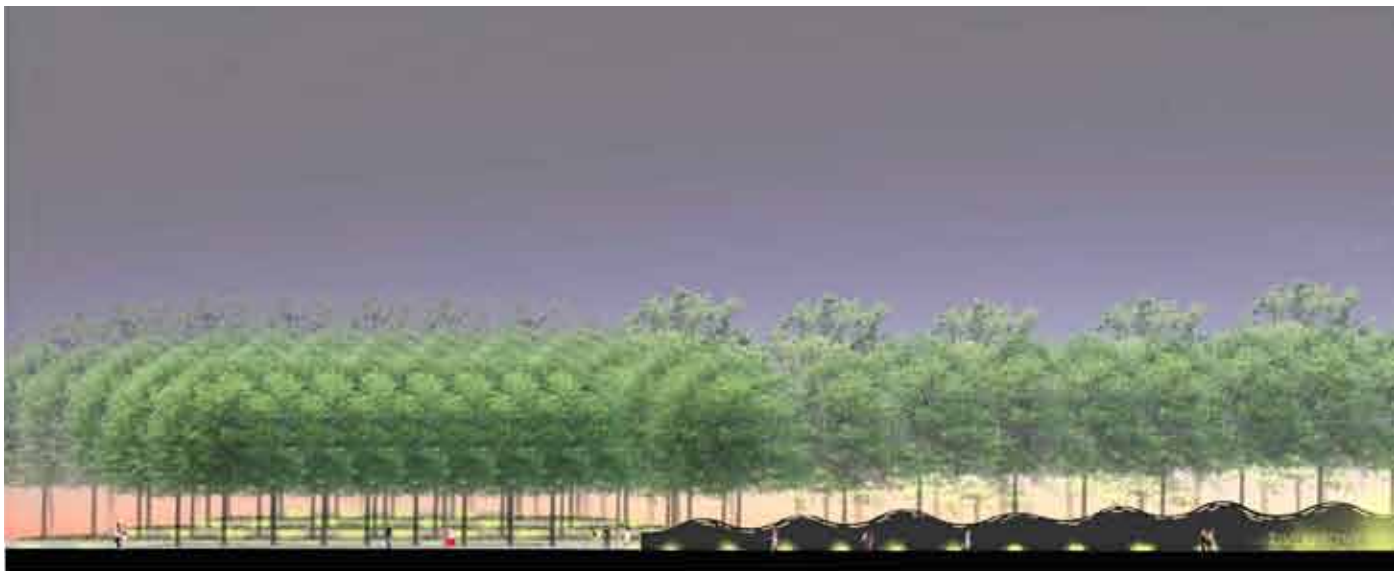


Wooded Slope Prospect Space Grass Seating



Amphitheater Grass Seating Prospect Space Wooded Slope

Section facing the Connecticut River



Lit Terrace

Section facing the Connecticut River from West Columbus Avenue. The terraces of the prospect spaces are lit for night time use.



Park Entrance Sign

Lit Terrace

The steel retaining wall features a sign with the park's name, Riverfront Reconnection which is also lit up to help make the park visible to passing vehicles and pedestrians

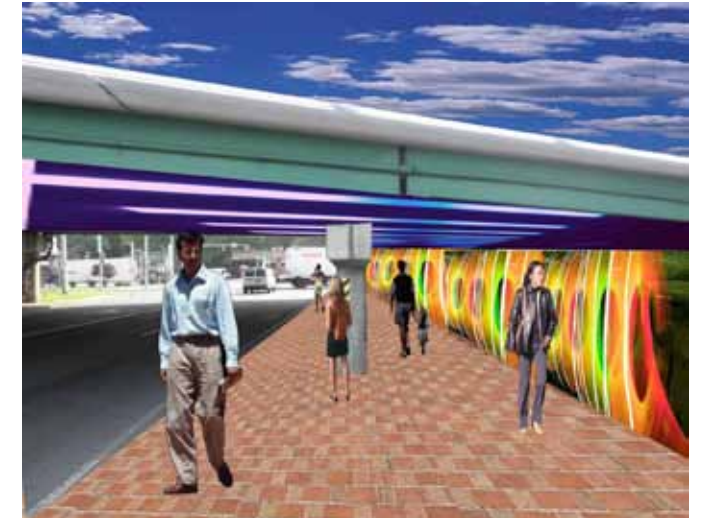
Riverfront Reconnection - The Glade and the Bridge - Alisha Walls



The Glade creates an overlook on the River close to the South End Bridge. Tree Plantings direct the views.



View Main Street underpass - existing conditions. The sidewalk is narrow.



Proposed: An open air gallery underneath I-91 and a widened sidewalk facilitates access to the River.

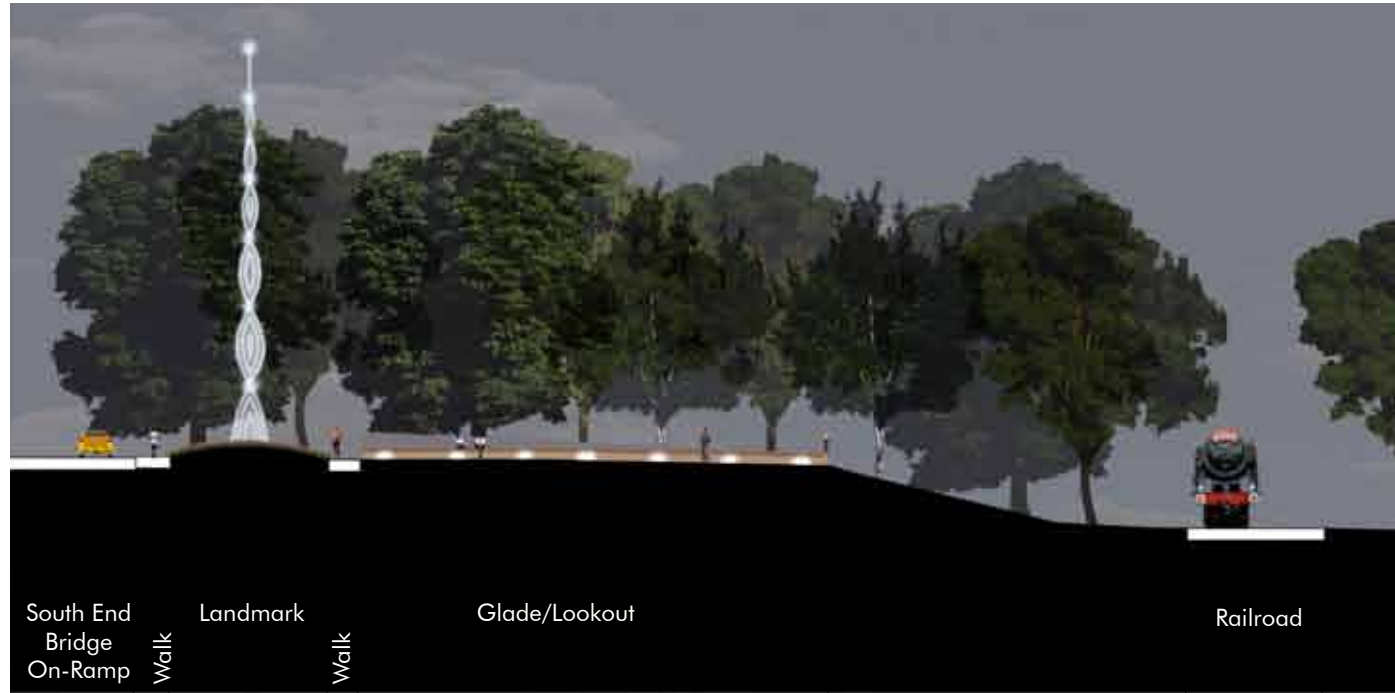


The Glade creates an overlook on the River close to the South End Bridge. Tree Plantings direct the views.



The undulating ramp connects to a boat dock on the River.

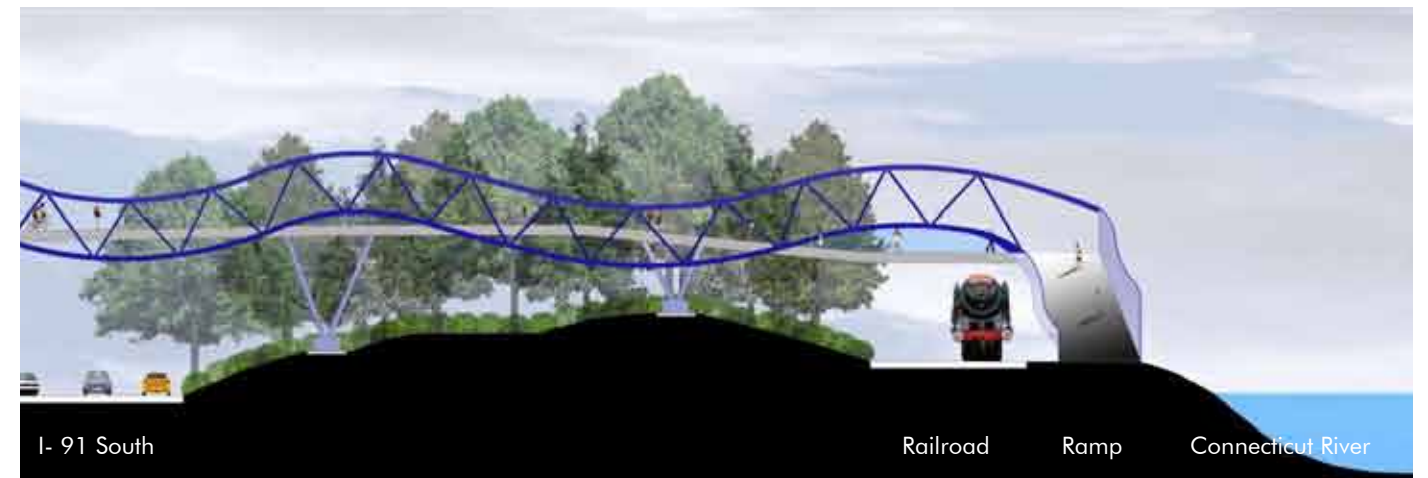
Riverfront Reconnection - The Glade and the Bridge - Alisha Walls



The Glade creates an overlook on the River close to the South End Bridge. Tree Plantings direct the views.



The undulating path is illuminated at night.



The Bridge is connecting the Riverfront with Forest Park just south of the Barney Estate. The undulating construction framework serves as a highly visible landmark.

Triple R Park - Nick Petrouski, Matt Silveira, Rebecca Tran

Our overall human goal is to easily connect people to the river through bridges, underpasses, boardwalks and spaces that loop through adjacent neighborhoods and Forest Park. Triple R. Park dedicates three locations on riverfront to active recreation on and next to the water. This activity is mixed with a landscape that performs water remediation to bring the original function of a floodplain back to the river's edge. This means that the majority of the existing impervious surfaces are turned into planted, pervious areas. To get better access to the River, our strategy is to create pedestrian/bicycle underpasses underneath the railroad that connect to the Riverwalk and Bikeway and to a newly created boardwalk loop. Starting at the intersection of Broad Street we propose to create a recreational indoor/outdoor center that builds on the successful commercial activities on the Riverfront in this sector and adds development to the hotel and restaurant. The second larger intervention is proposed as an extension of the underpass at Main Street. There we propose to create an inviting plaza that begins at West Columbus Avenue as an amphitheater, extends under the railroad and continues as open lawn that also serves as an overlook to engage the water. The third larger intervention is a boat house with directly access to the water. The adjacent skateboard area offers a unique and opportunity that is missing to date in Springfield.

Our major design objectives are:

- Create green streets for connections from the South End to Emerson-Wight Park and Forest Park
- Bridges and underpasses to scale interstate and railroad
- Activity center and public plaza to draw people from Basketball Hall of Fame and Main Street
- Bio-swales and wetlands to reveal to the public the cleansing of the Mill River
- Proposed public boat launch and boardwalk to allow for direct connection to River



Design precedent: Wetland as educational and recreational landscape



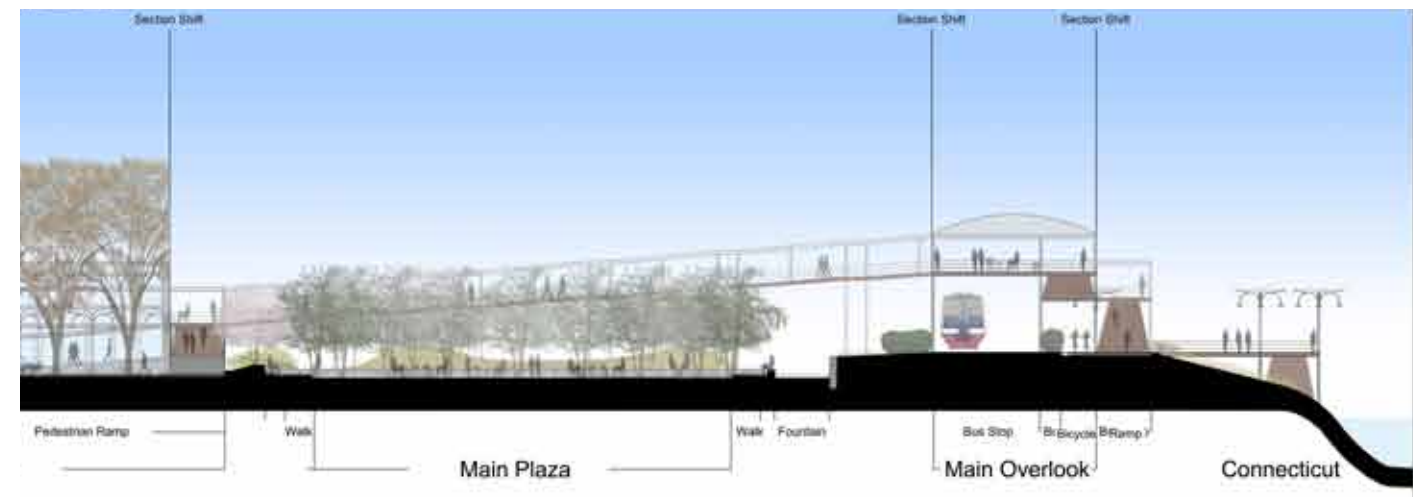
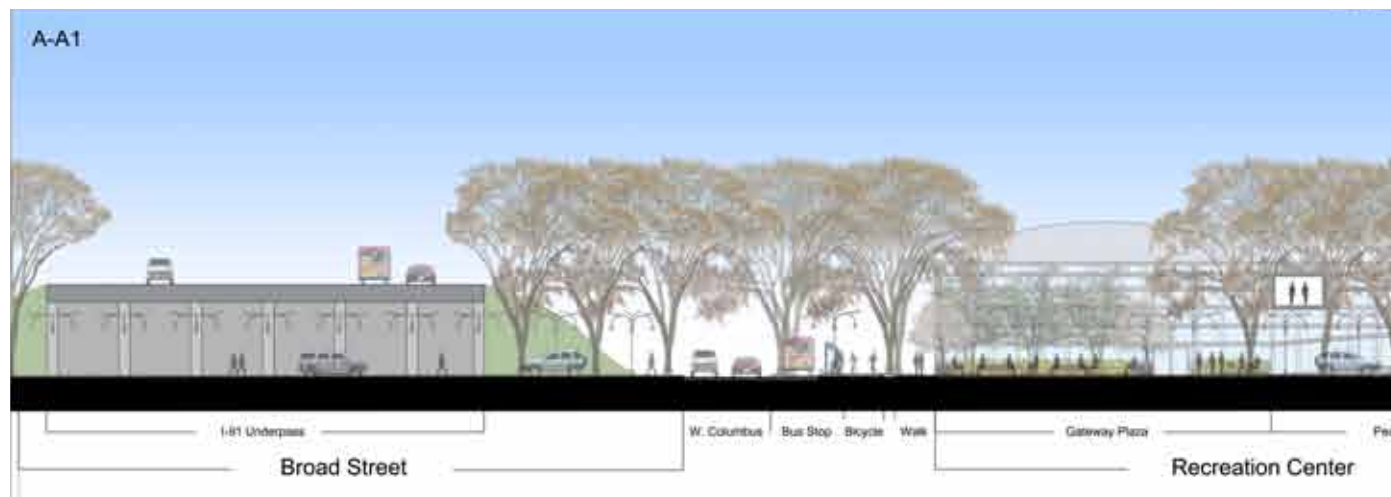
Triple R. - Master Plan



Triple R Park - Recreation Center and West Columbus Avenue - Matt Silveira



West Columbus Avenue - Before and after: West Columbus Avenue is designed as a pedestrian and bicycle friendly tree-planted boulevard.

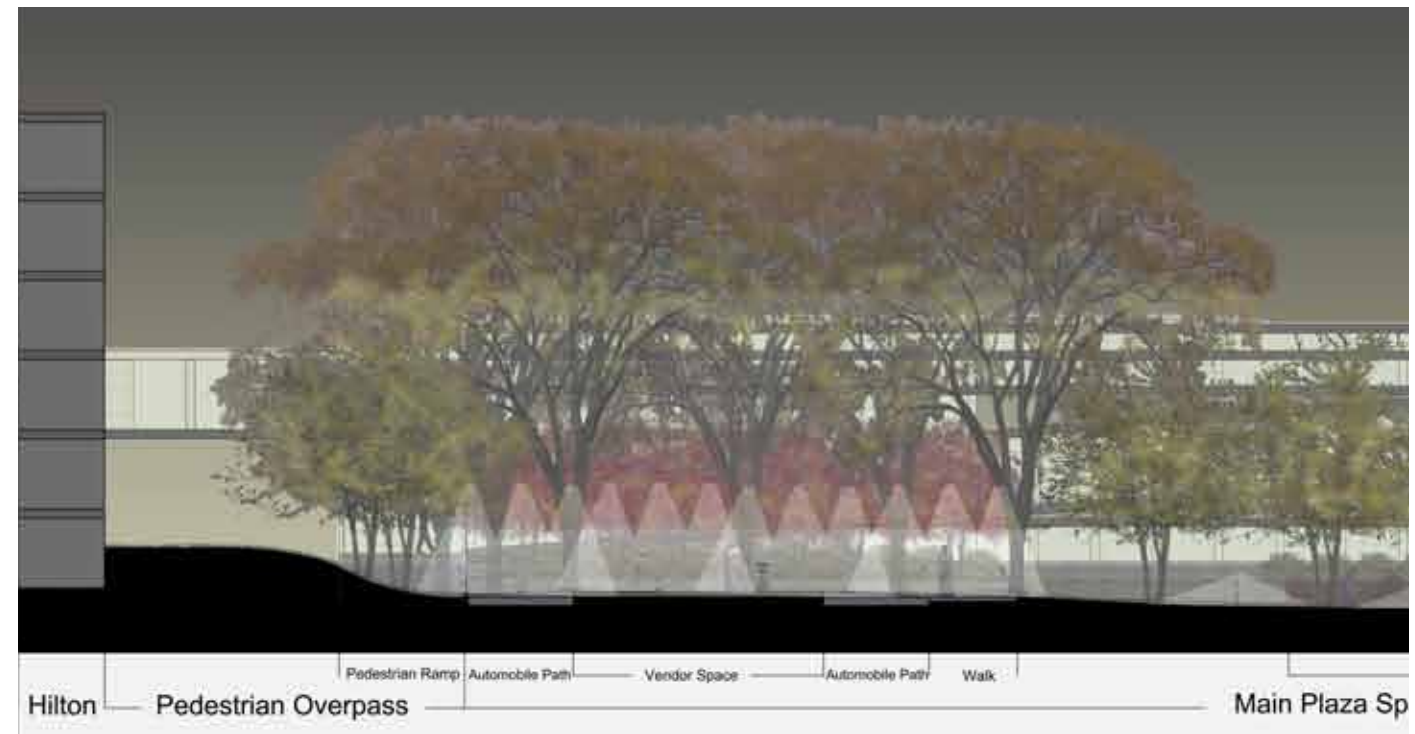


Sectional elevation from Broad Street to the Riverfront facing south. The riverfront is accessed through a ramp and outlook.

Triple R Park - Recreation Center - Matt Silveira

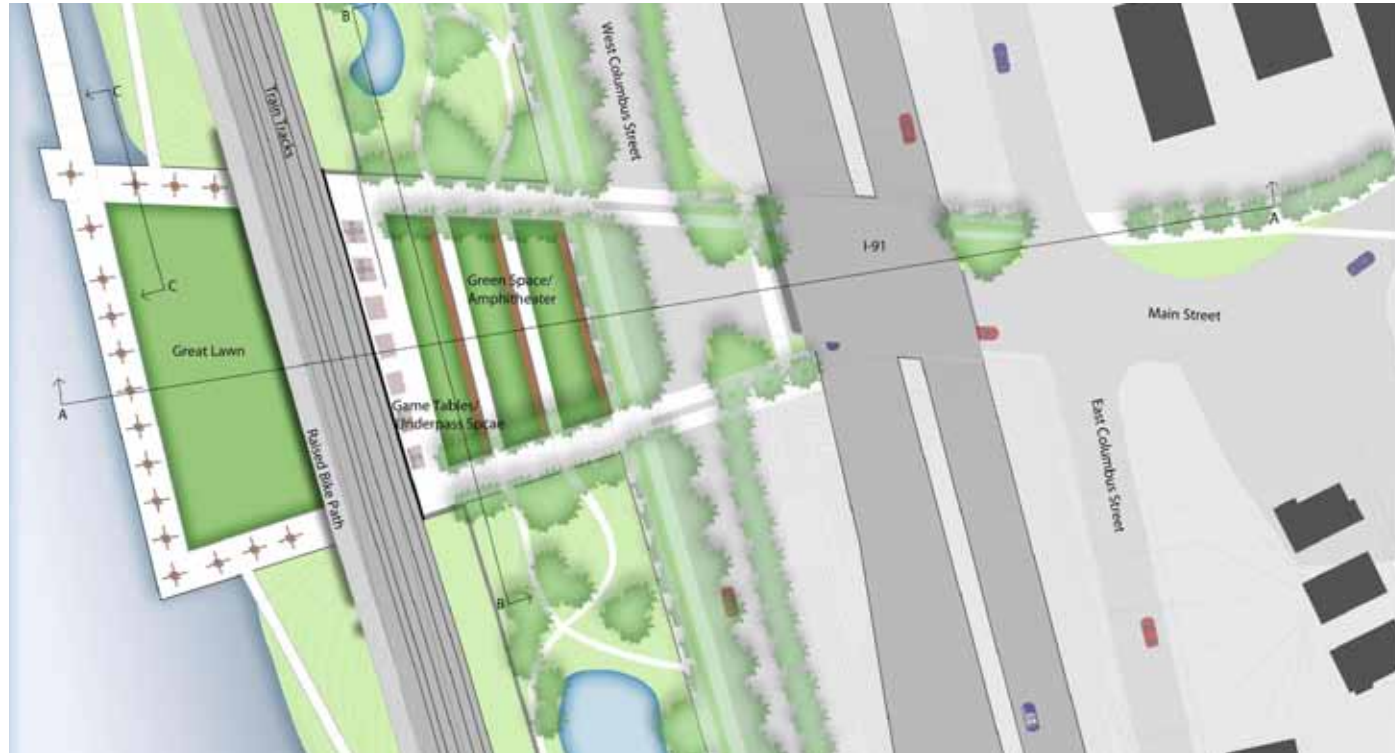


Sectional elevation through a gathering space behind the recreational center.



Sectional elevation - night view.

Triple R Park - The Great Lawn and Amphitheater- Rebecca Tran



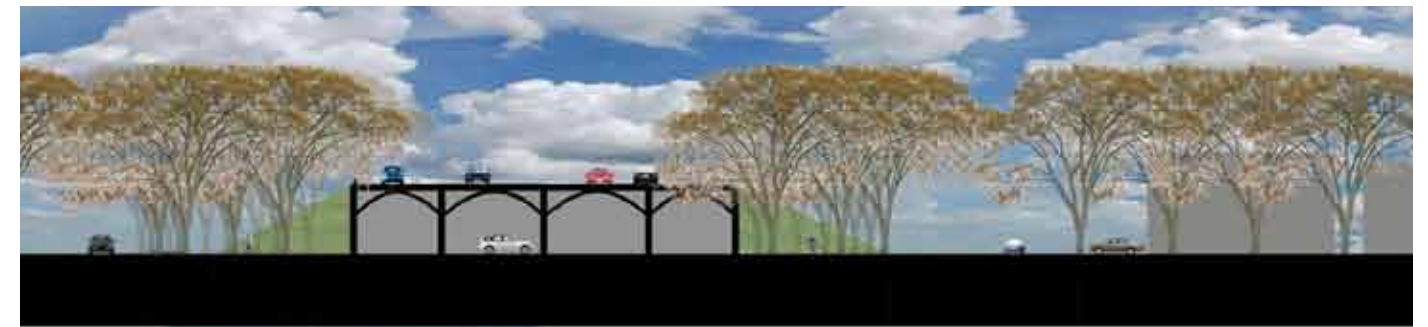
A wide open underpass is connecting the amphitheater to the Great Lawn at the water's edge.



Design precedent: Boardwalk along the water's edge



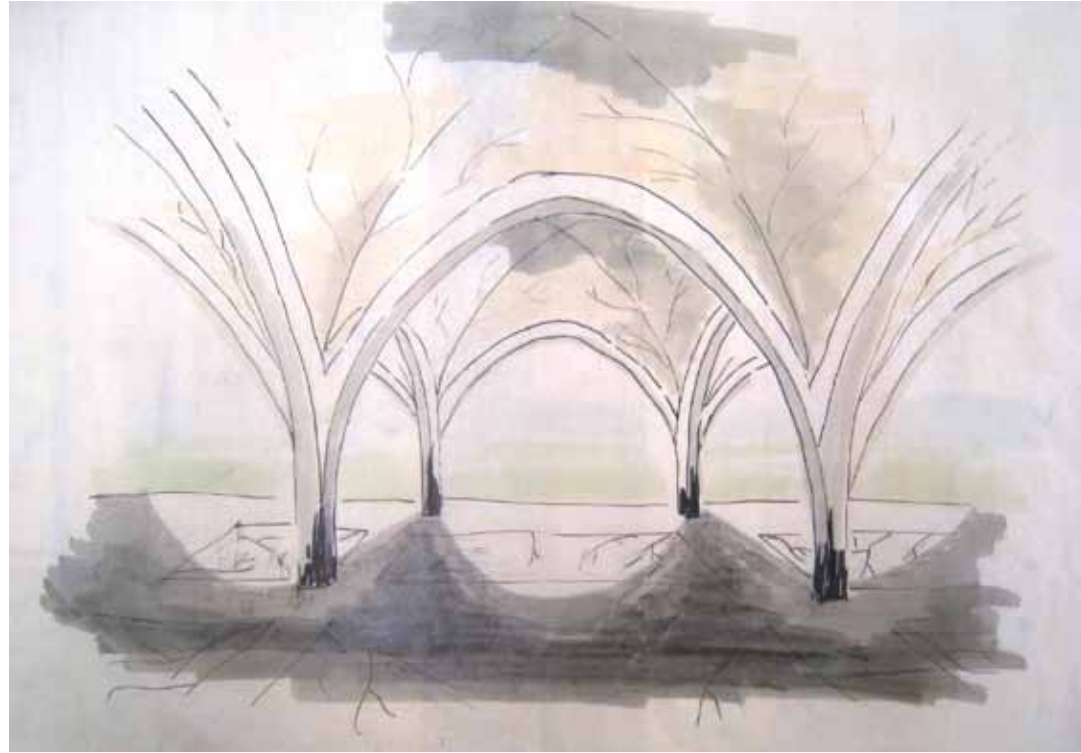
Great Lawn Underpass Amphitheater with Seating Walls Bike Path



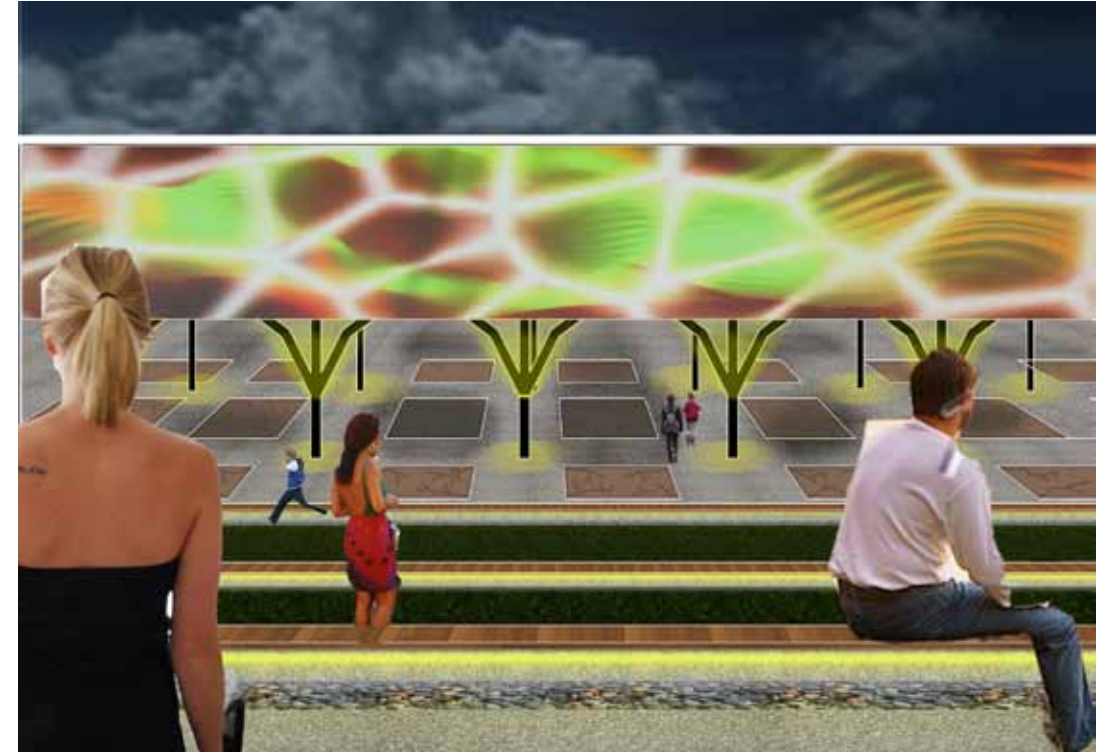
West Columbus I-91 Main Street Underpass East Columbus

Sectional elevation facing north along the Main Street underpass. The connection to the River becomes a pleasant journey that begins with East Columbus Avenue as planted boulevard.

Triple R Park - The Great Lawn and Amphitheater- Rebecca Tran



Design inspiration: Archways as structural elements are inspired by trees and become a unifying design element.



Outlook from the amphitheater underneath the railroad underpass. Public art engages the space.



Stairs/Ramps

Seating Terraces



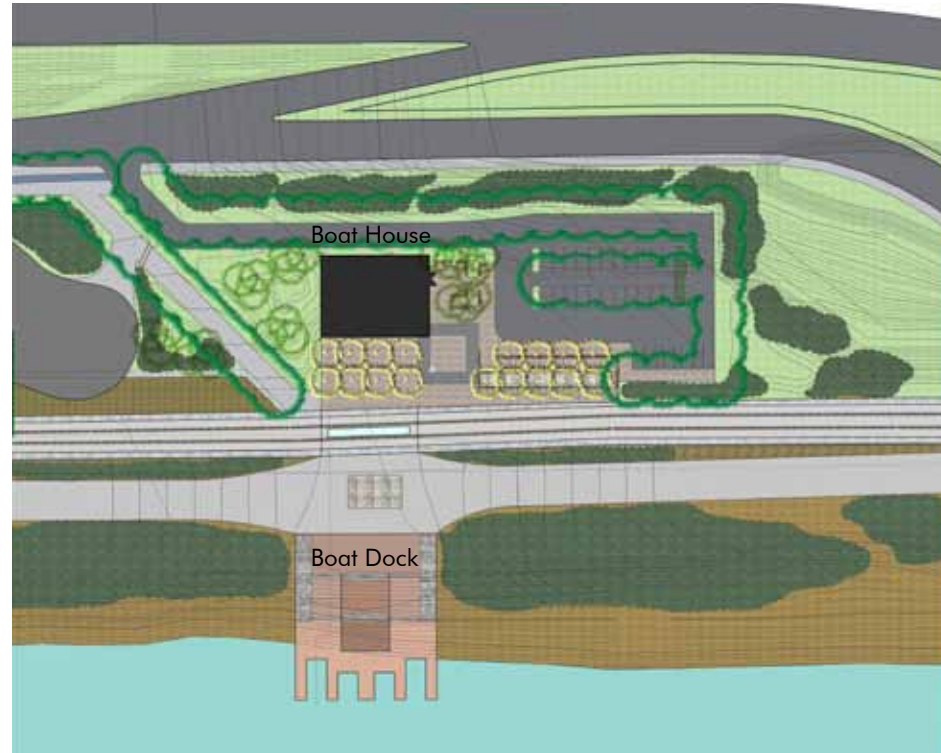
Stairs/Ramps

Remediation Pond

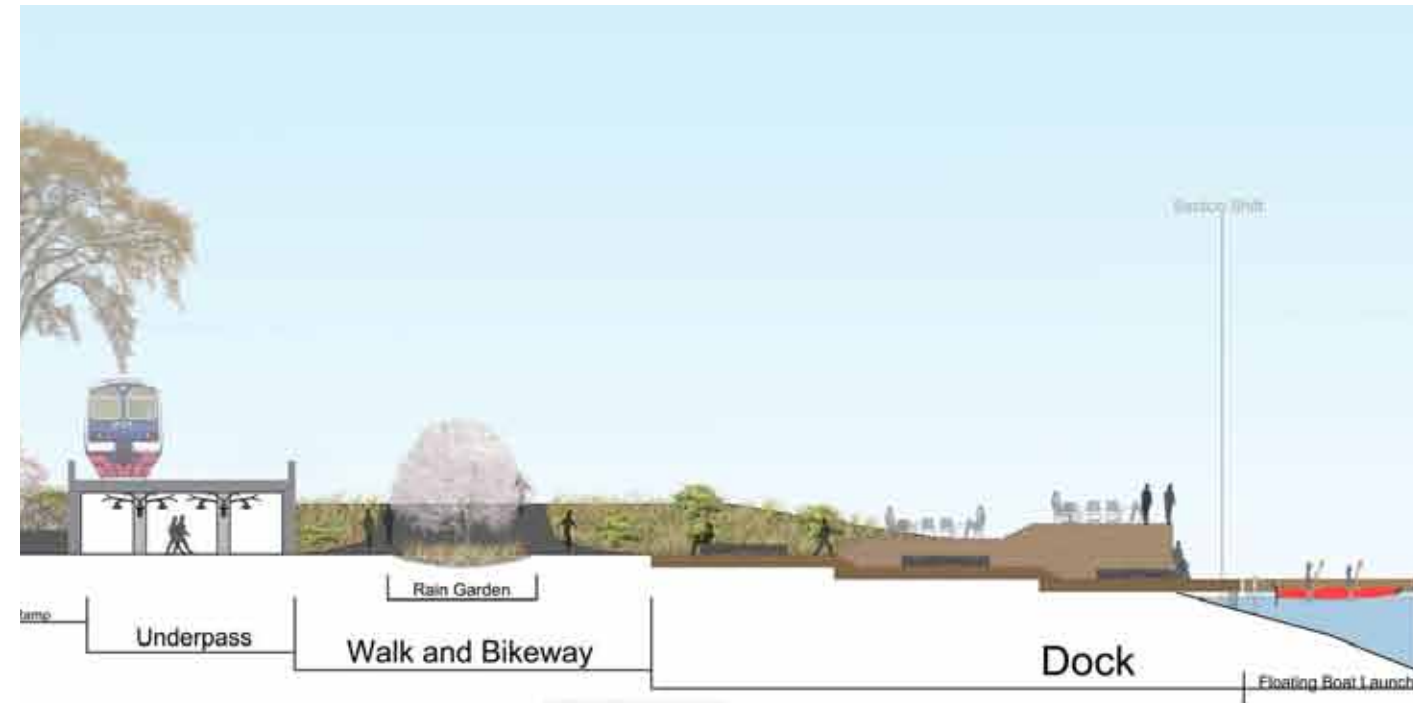
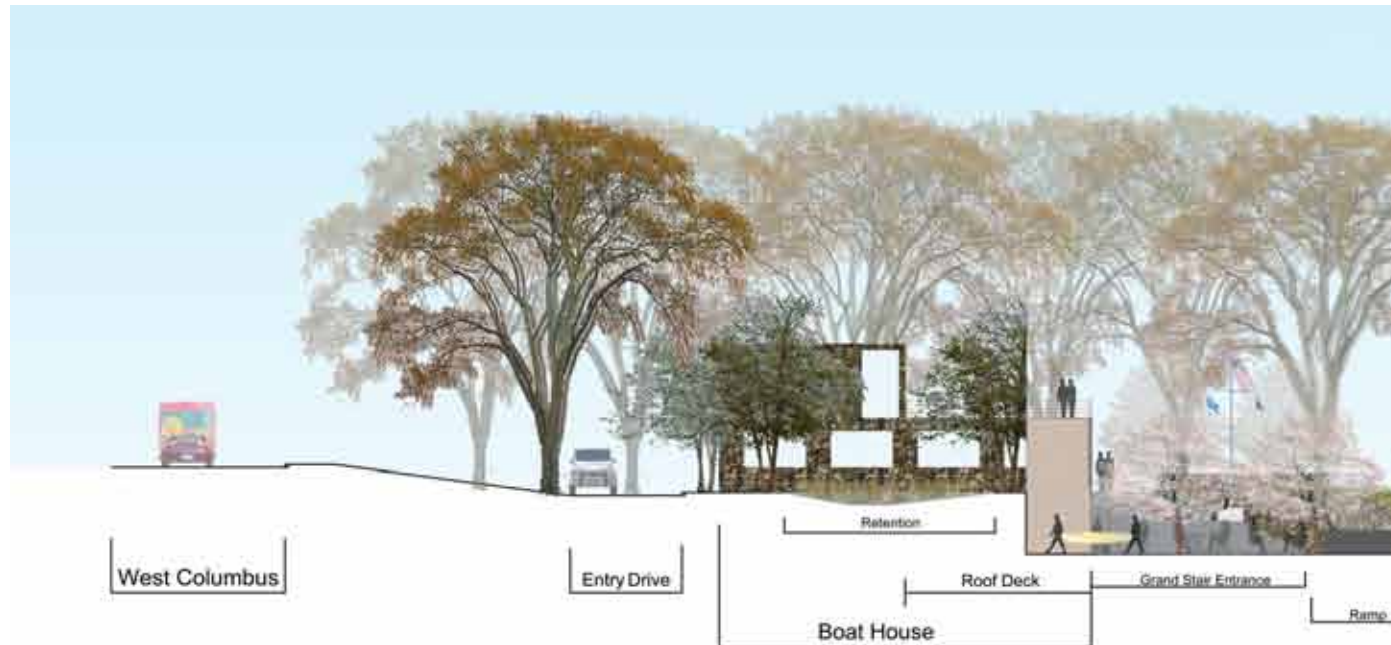
Sectional elevation facing I - 91 and West Columbus Avenue

Triple R Park - Boat House and Boat Dock - Nick Petrouski

This boat house and boat dock is proposed adjacent to the South Bridge. In this area we find relatively gentle slopes that make this an ideal location. It also adds another destination further south on the way to Forest Park. Boats can be stored in the first floor of the boat house. The upper floor can be used for a small bar or accommodate festivities. A wooden deck provides unique views on the River. The boats can be easily carried from the boat house of the parking lot to the docks on the River.



Sectional elevation from the River facing the boat house and the underpass.



Sectional elevation facing south. The boat house has storage capacities for canoes. Boats can be carried to the boat dock on the River.

River Rise Park - Corey Lammerdring, Jim Reicheld, Mike Ritacco

This proposal seeks to revitalize the southern riverfront with new development opportunities along West Columbus Avenue and the Riverfront. Starting at the Hilton Hotel we want to expand commercial activities around active indoor and out door recreation including a public swimming pool and beach on the Connecticut River. There the proposed commercial activities include an I-MAX cinema and new restaurants. These activities enlarge the very successful businesses around the Basket Hall of Fame. Our facilities also create a new gateway from Broad Street. Further down we propose to create new recreational outdoor fields that connect with the daylighted Mill River. There infiltration and remediation of stormwater serves educational and aesthetic purposes alike. The recreational fields and retention ponds will treat runoff from paved surfaces and rooftops. Continuing south, we propose high density mixed use commercial and office uses in alteration with urban pocket parks that connect to a raised walk along the River with spectacular views. The development takes advantage of the prime location at the river's edge and accessibility to I-91. Our proposal also enhances walkability along West- and East Columbus Avenue with tree plantings and on-street parking to slow traffic down and connect to the South End neighborhood. The Riverfront will be accessible through a railroad underpass at Broad Street, an overpass from Main Street and a ramp down from the South End Bridge. We also propose a new path directly on the River parallel to Connecticut Riverwalk and Bikeway from Broad Street to the South End Bridge to bring back the River back to the people and their minds.



Our proposed pedestrian circulation system connects the Riverfront with Forest Park and the South End neighborhood.



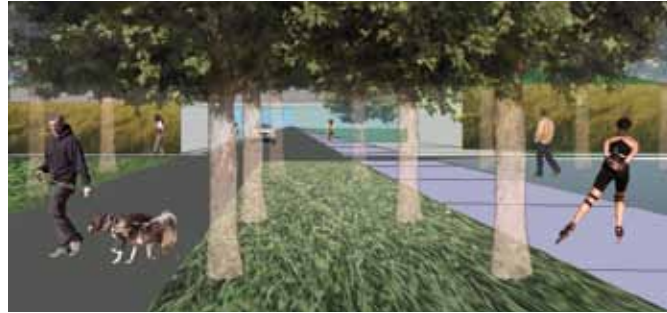
River Rise - Master Plan



River Rise Park - Recreation as Creative Economy - Jim Reicheld

The new pedestrian underpass of the train tracks allows residents access down to the waters edge. A new Riverwalk provides residents and visitors a different perspective on the Connecticut. Docks along the waters edge will allow residents new access into the water with a kayak rental shop. The Imax will give the people of Springfield a complementary attraction on the waterfront, pushing the nightlife and family activities.

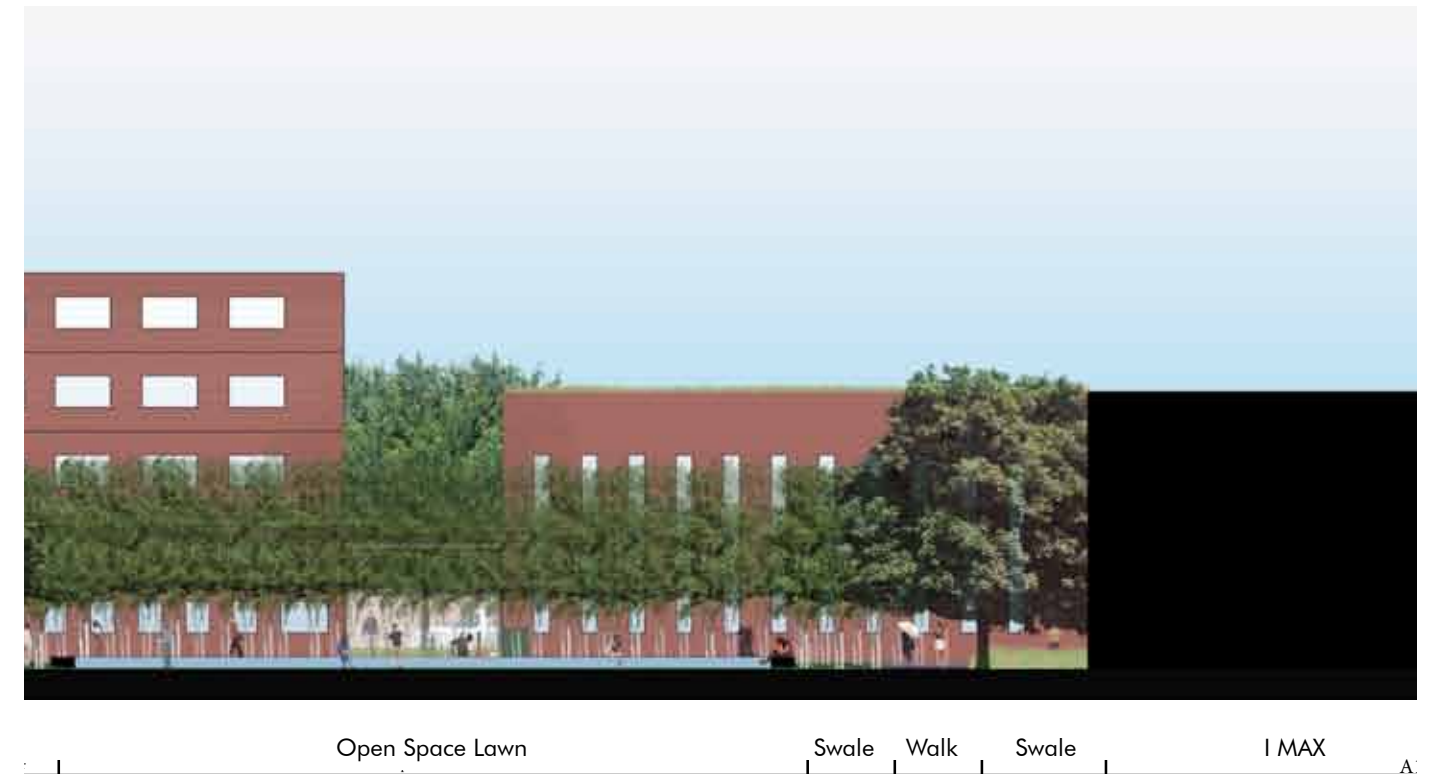
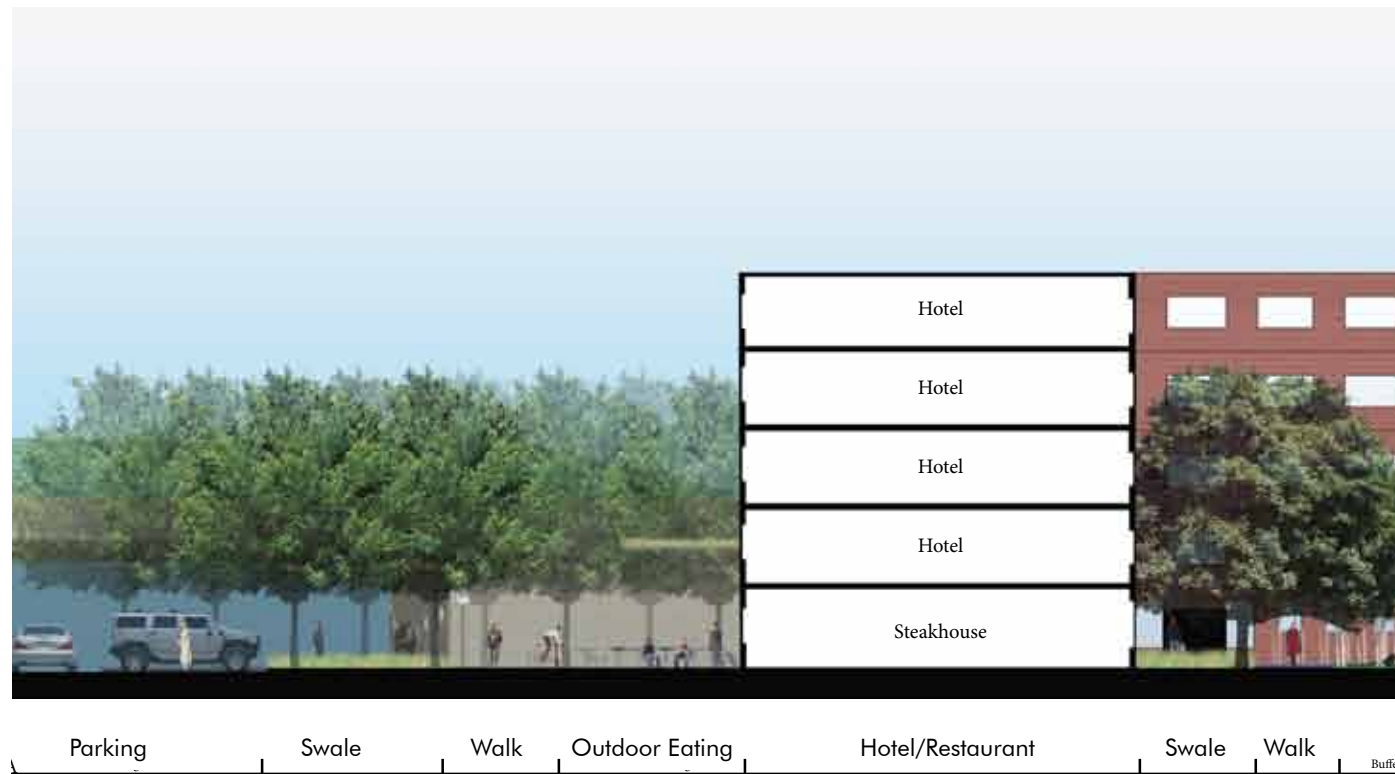
A new hotel and a restaurant build on the successful economical development on West Columbus Avenue. This focus area maintains the recreational initiative of the park, while giving ample opportunity for activities .



A new bike lane gives pedestrians a relaxed, separated walking experience through the underpass.

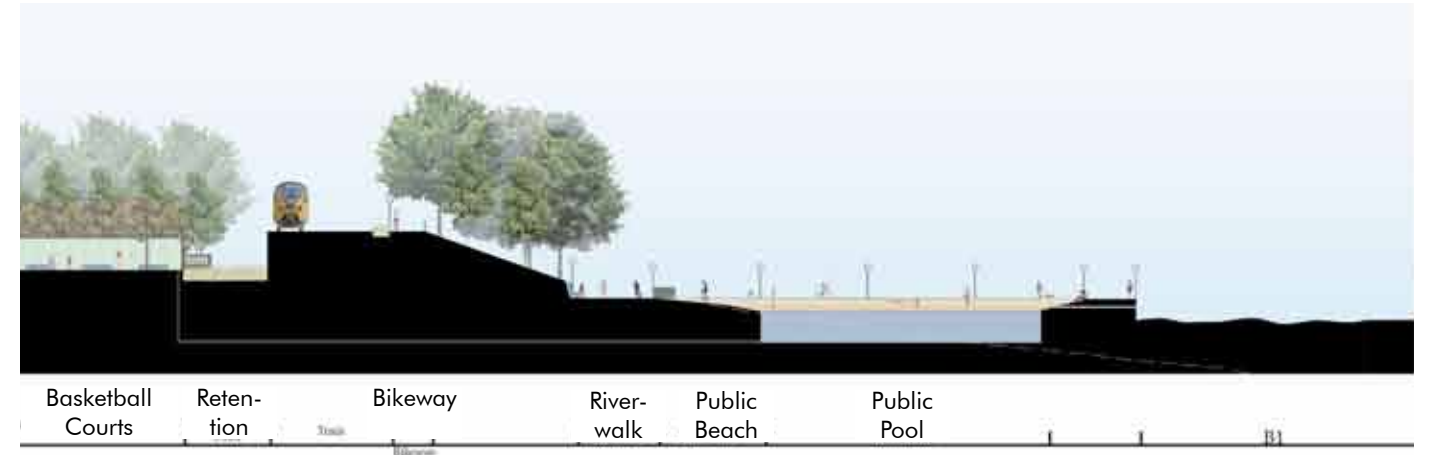
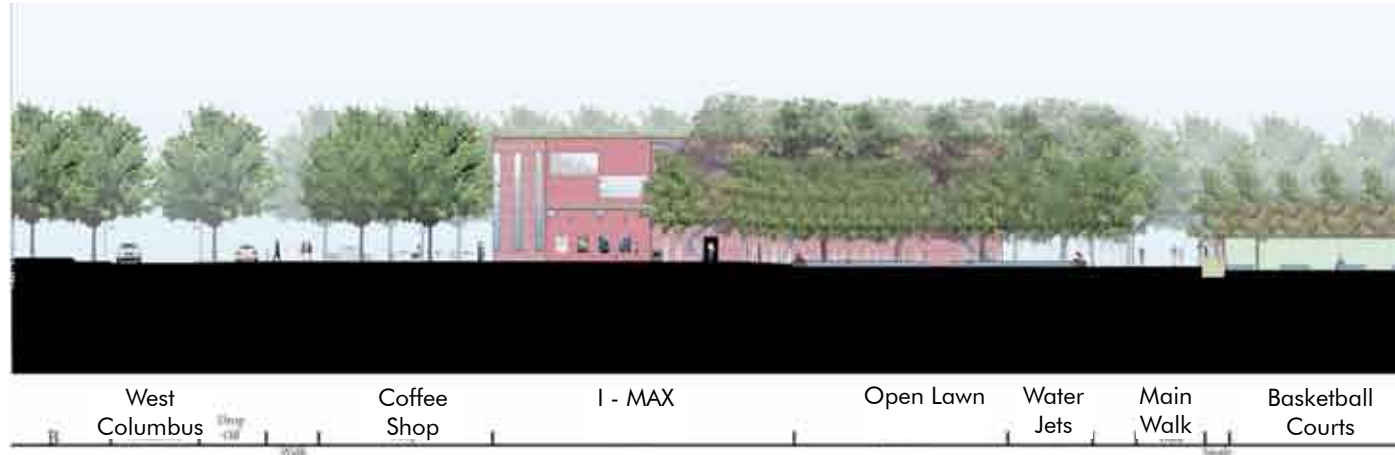


An urban beach and pool create a unique attraction on the Connecticut River.

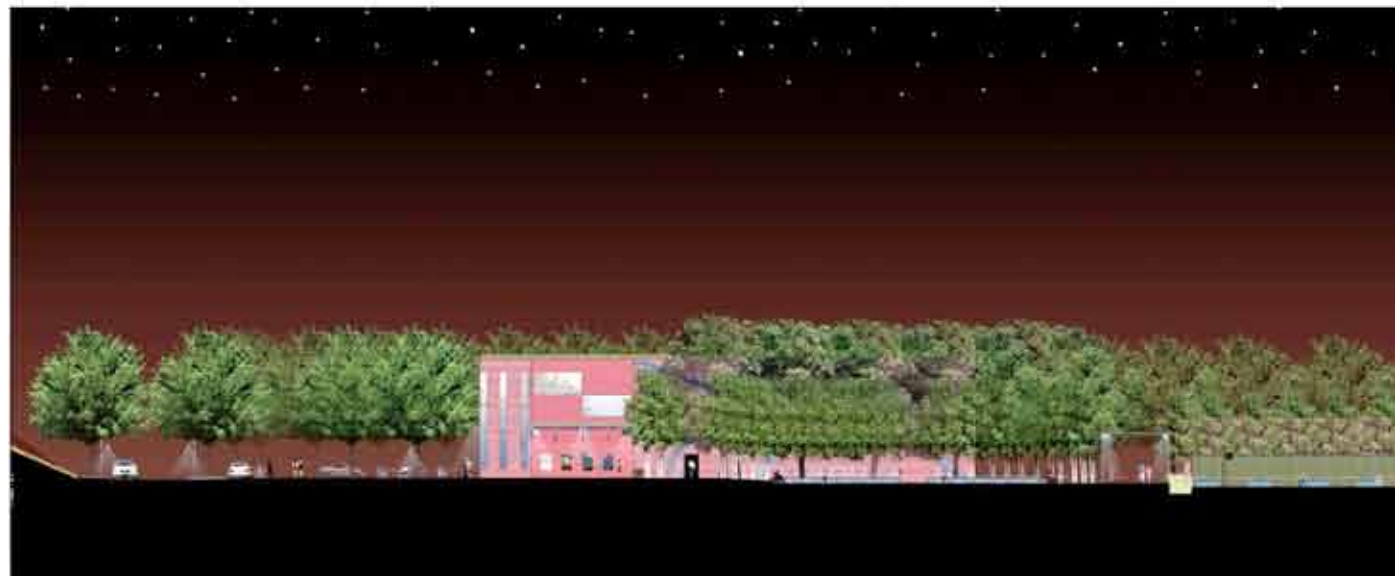


Sectional elevation through the entertainment courtyard facing West Columbus Avenue and I-91.

River Rise Park - Recreation as Creative Economy - Jim Reicheld



Sectional elevation facing south.



Sectional elevation facing south - night view.

River Rise Park - Recreational and Water Remediation - Corey Lammerding

Recreation, creative stormwater management and the remediation of Mill River create a new destination on West Columbus Avenue.



New England Science Center: ECOTARIUM Designed By: Michael Singer

- Located in Worcester Massachusetts
- A 60 acre site
- The design includes:
 - Extensive renovation
 - Newly constructed buildings
 - Museum store
 - Telecommunication Center
 - Multiple Exhibits
 - Major site and landscape improvements

The ECOTARIUM

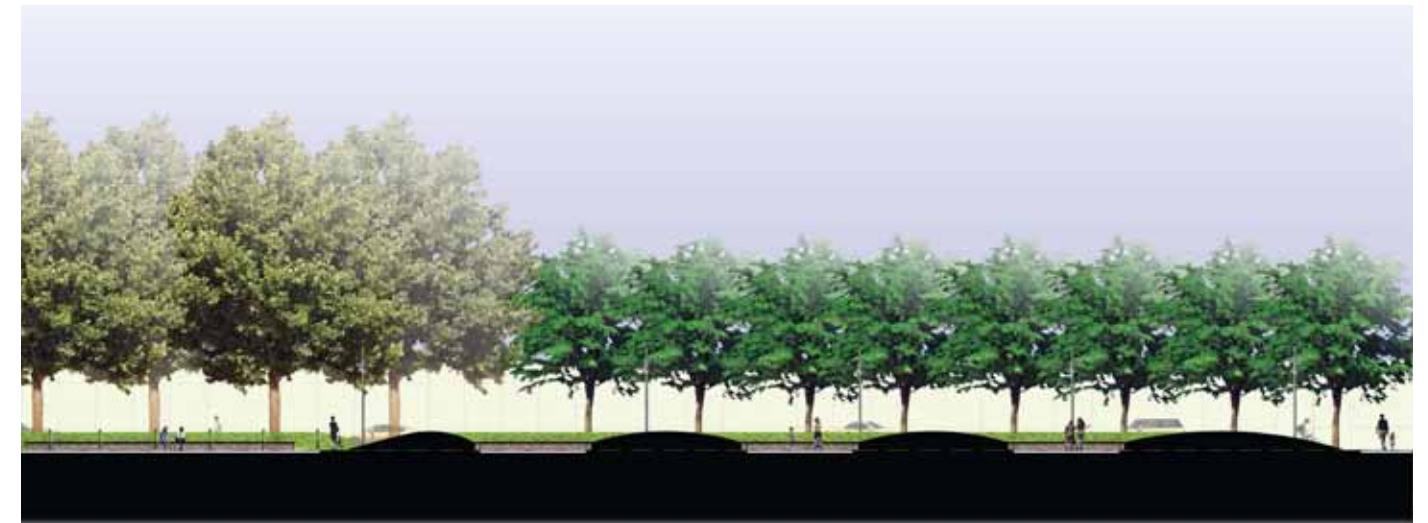
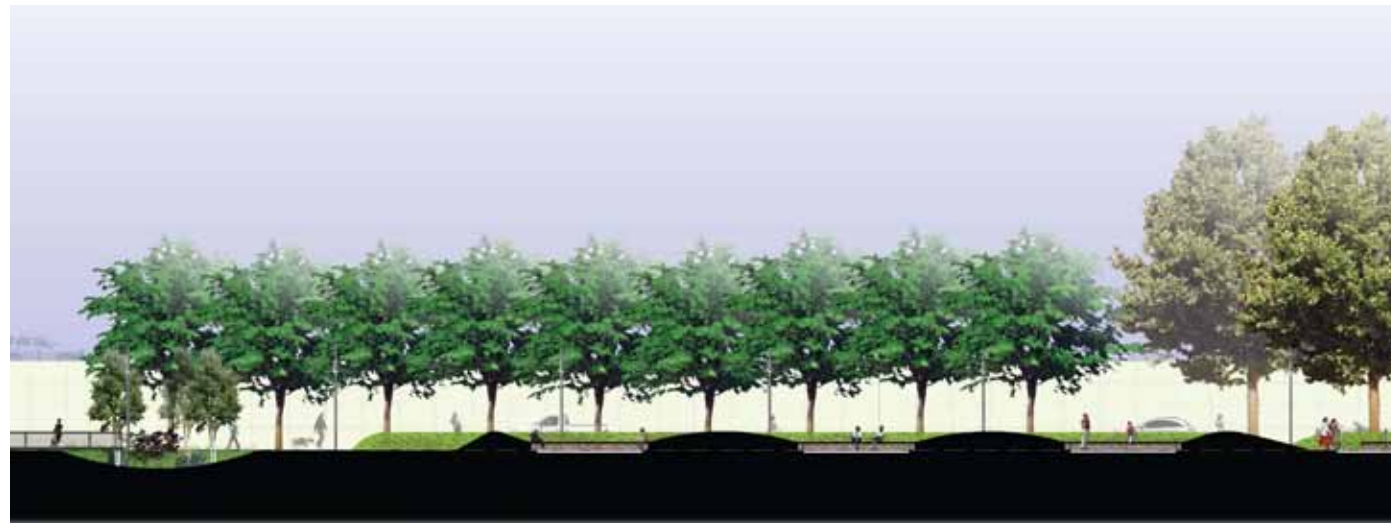
- Habitat creation
- Environmental education
- Recreation area
- Water preservation and infiltration
- Urban agriculture integrate into the site

The building was transformed by replacing a 60' X 40" concrete wall with glass, creating inviting indoor space and dramatically reorienting visitors toward the surrounding vista of nature.

Outdoor areas emphasize connections to natural features, and sustainably designed parking and infrastructure elements are displayed and interpreted as an educational opportunity.

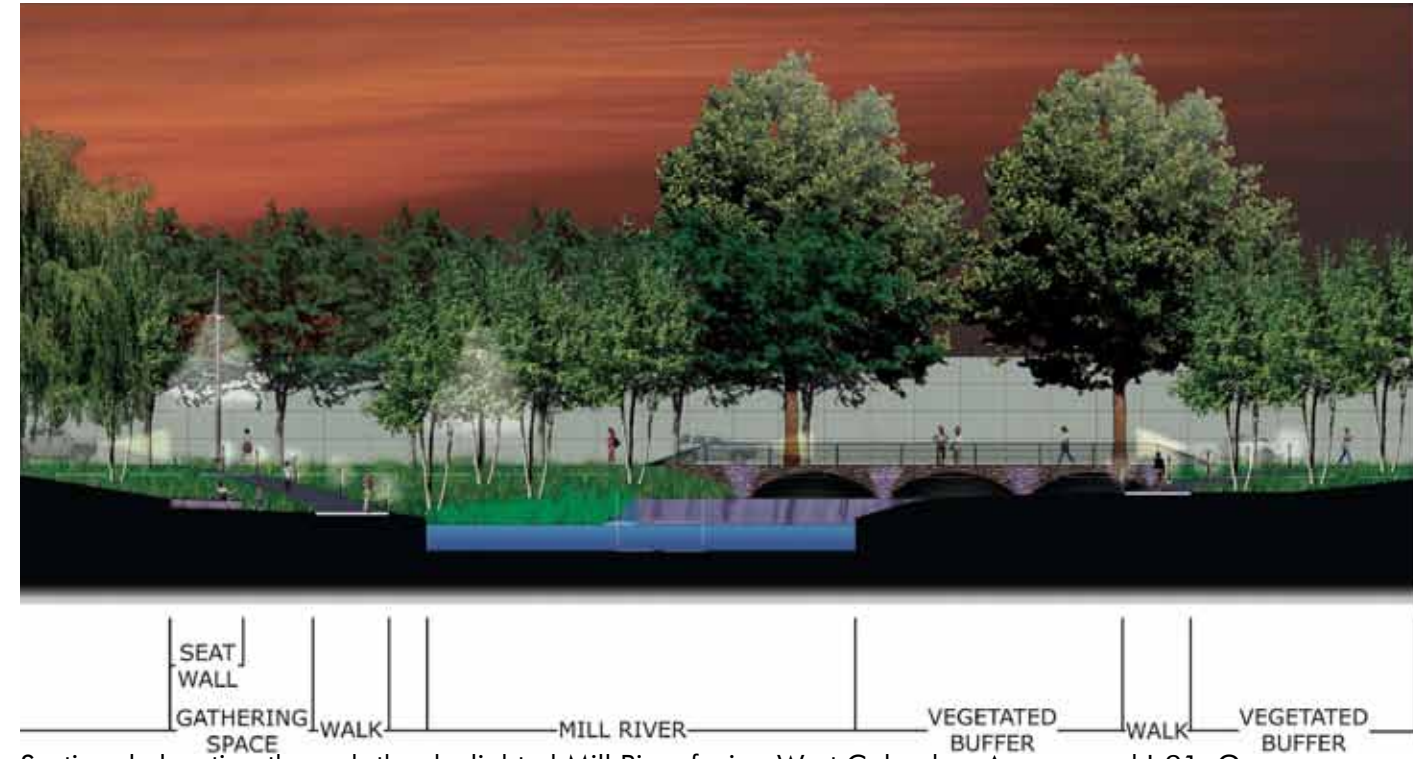
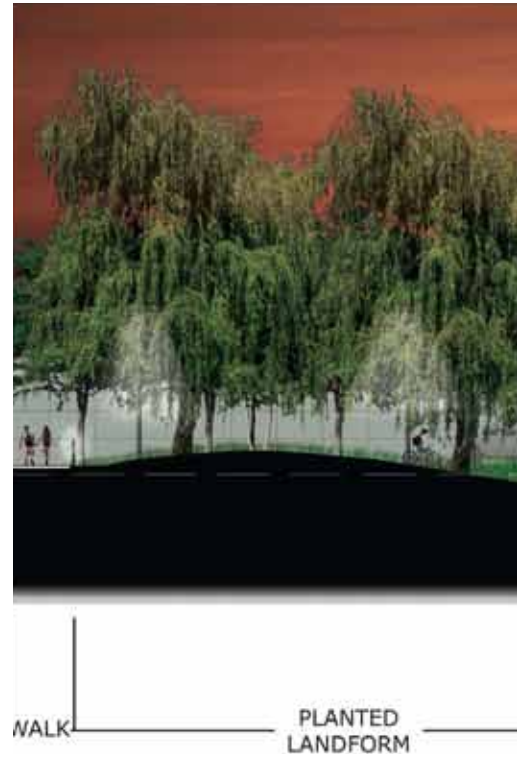
Poster By: Corey Lammerding

The New England Science Center, designed by Michael Singer serves as a model that integrates education and ecological restoration.

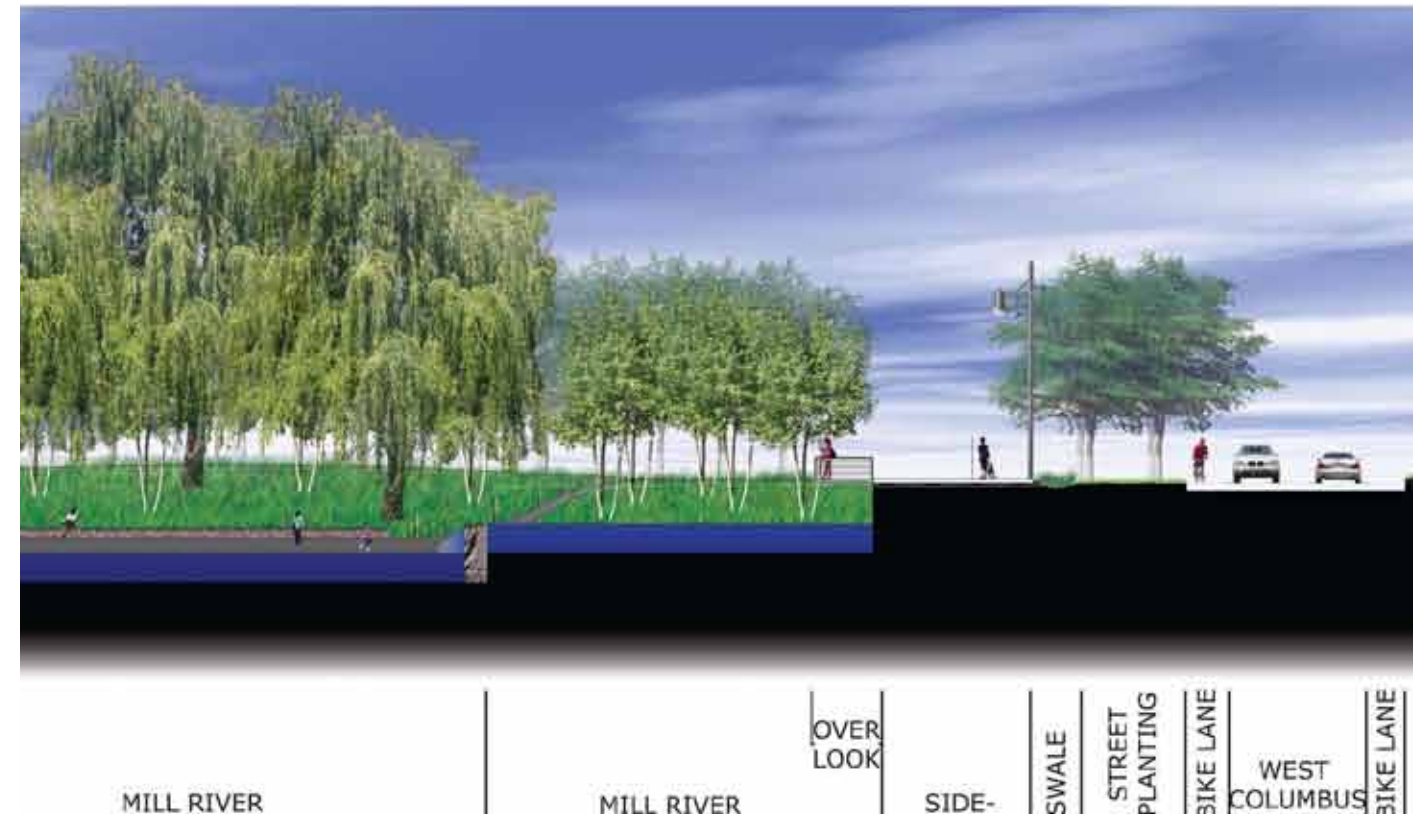
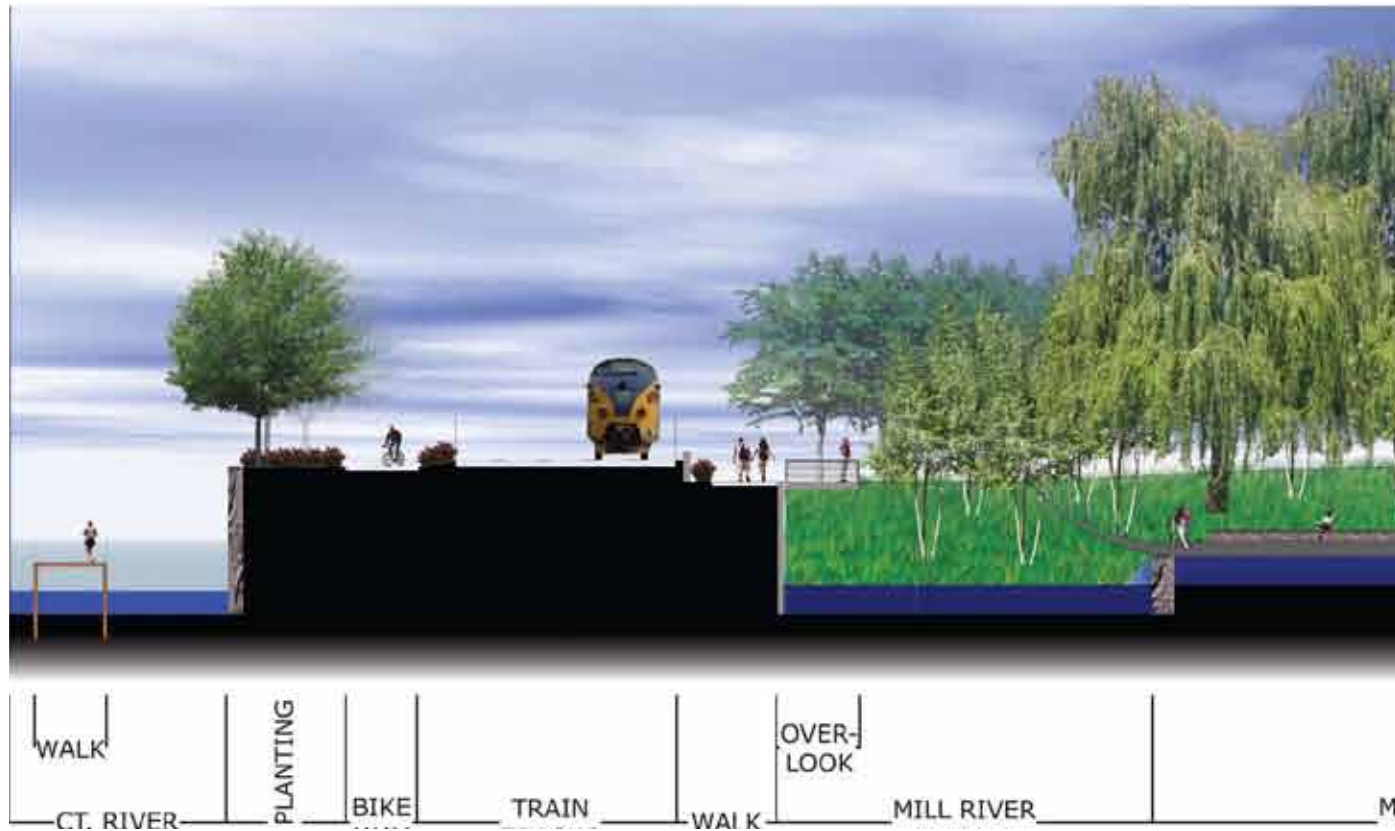


Recreational field facing West Columbus Avenue and I-91. This field is defined by a series of smaller gathering spaces along the street. A centrally located plaza serves as the gateway that invites the visitors.

River Rise Park - Recreational and Water Remediation - Corey Lammerdring



Sectional elevation through the daylighted Mill River facing West Columbus Avenue and I-91. Green infrastructure strategies are proposed to eliminate CSO overflows along the River.



Sectional elevation along the daylighted Mill River: The River flows through a series of terraces and can be viewed from the street's edge. A walk along the River is proposed to make this River a pleasant experience.

River Rise Park - Working and Recreation on the River - Mike Ritacco

The High Line in New York was a inspiration to connect the proposed new commercial and business activities to a unique pedestrian and bicycling system on the Riverfront. The elevated High Line in Springfield will connect to the third floor of the proposed new buildings and bridge over the railroad tracks. It connects also to a series of new pocket parks on West Columbus Avenue. They serve as gathering spaces for employees that work in the new mixed-use development.

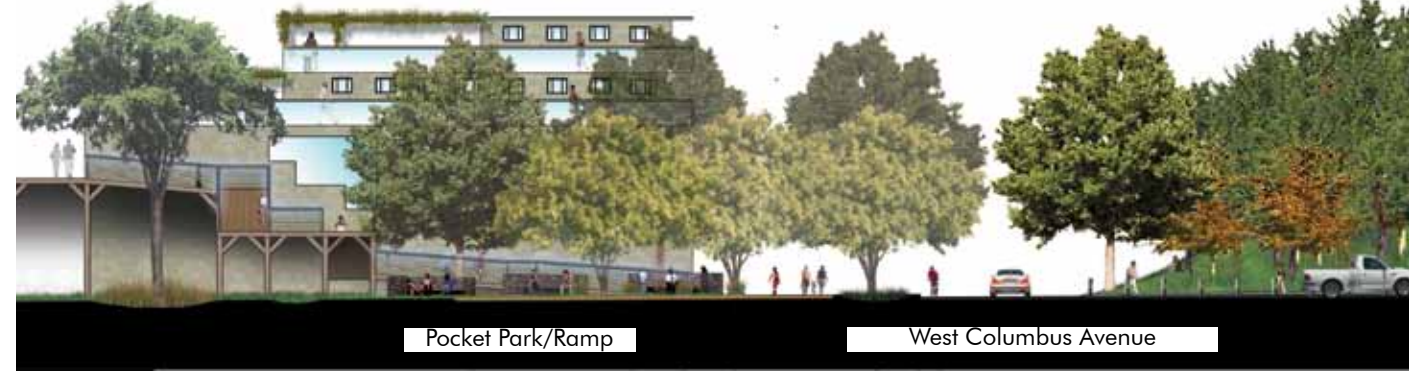
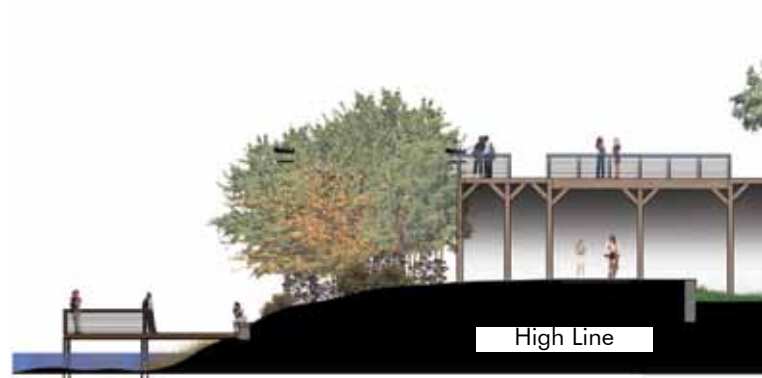


Detail Plan: Pocket Park on West Columbus Avenue



Sectional elevation along West Columbus Avenue facing the Connecticut River. Mixed use development is accessible from the street. Parking is accommodated in the rear of the first floor.

River Rise Park - Working and Recreation on the River - Mike Ritacco



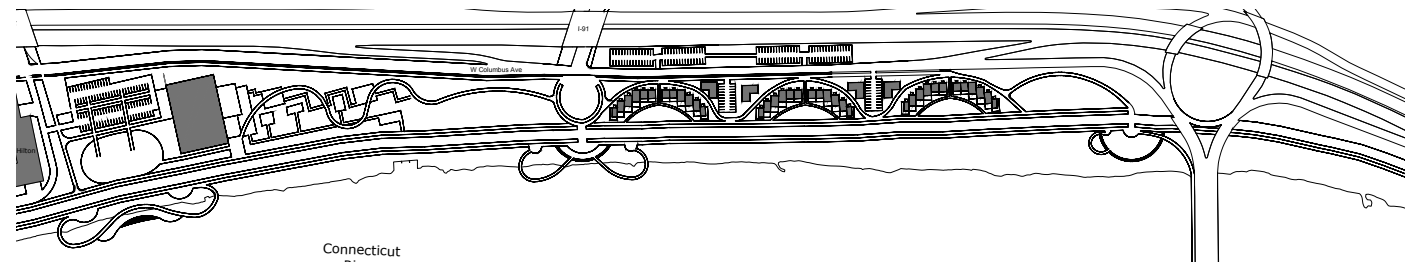
Sectional elevation facing north.



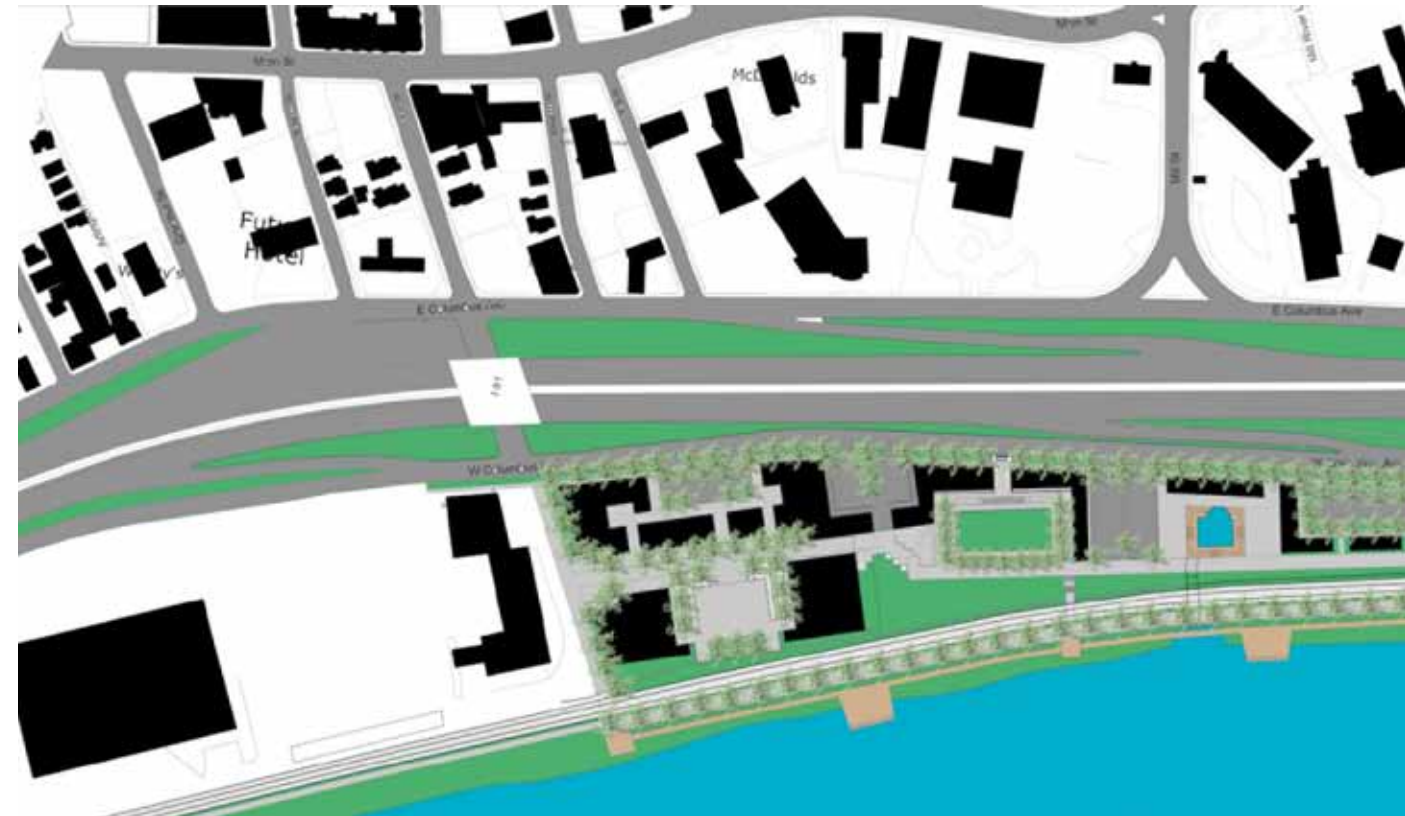
Sectional elevation facing north.

River Reach - Matt Gallagher, Kyle Jackson, Mike Naughton

Our design of Riverfront Reach strives to bring people directly to the Connecticut River waterfront. In order to do this we brought a diverse pallet of architecture and landscape spaces into the currently bleak site. The installment of residential condos insures that there will be people at all hours with eyes on the area. These residences shape private landscape spaces with gracious views to the Connecticut and Westfield River confluence. An emphasis on the historic Mill River shapes an urban plaza and allows for gathering in a public forum. A sunken lawn area surrounded by shade trees can be converted into a skating rink for the summer months. The other buildings on the site allow for commercial and mixed uses. These uses look to create an entertainment hub for the city on the waterfront to fit in with the Basketball Hall of Fame adjacent to the site. The project is also home to an improved Connecticut River Walk and Bikeway. The new promenade features a more spacious river walk with seating and plantings. The river walk now allows access to the river through ramping down to a lower river walk. Riverfront Reach links together Springfield's South End and Forest Park with a compact mixed-use riverfront development.



An alternative proposal involved daylighting the Mill River and providing a science center along with residential and commercial uses



River Reach - Master Plan



The proposed green street network connects to downtown, Forest Park and along the Connecticut River.



River Reach - The new Gateway - Matt Gallagher

One of the goal's of this design was extend the existing land uses from downtown Springfield across I-91 to the Riverfront site. We propose to introduce commercial and mixed-use development was on the northern section of our site. This area also includes one of the major entrances to the design area from Broad Street. By using commercial and mixed-use development here, additional visitors from the adjacent Basketball Hall of Fame, Hilton hotel, and Uno's restaurant will be encouraged to enter the site and explore the Riverfront area with a nearby underpass that allows people to cross under the railway to the Riverwalk



Commercial and mixed-use development expand the existing land uses both across I-91 and adjacent to the riverfront site.



The plaza provides a resting space for the park visitors, local residents, and visitors to the Basketball Hall of Fame and Hilton hotel. Sectional elevation facing I-91.

River Reach - The new Gateway - Matt Gallagher



A lower boardwalk along the banks of the Connecticut River allows people to get close to the river and experience it as part of Springfield.



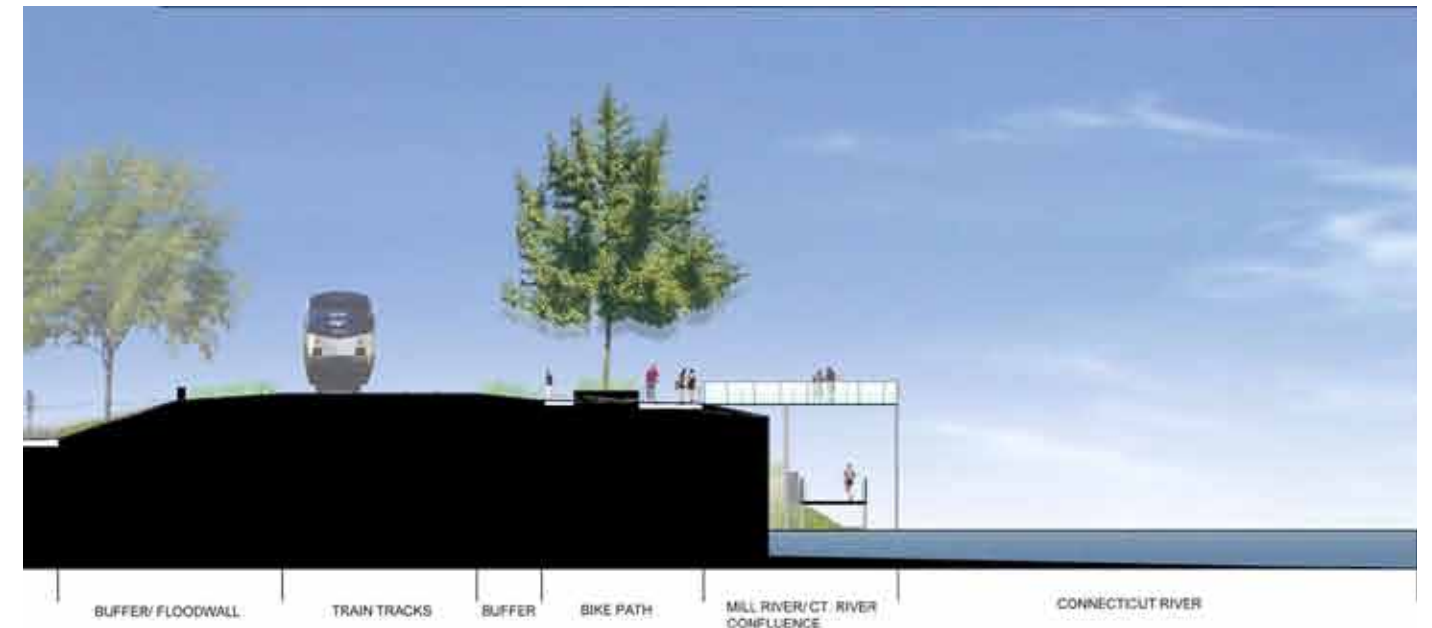
An underpass below the railway allows pedestrians to safely cross the train tracks to the riverfront.

River Reach - Main Street Plaza - Michael Naughton

The Main Street Plaza provides a welcoming gateway and arrival point to the Riverfront Reach Park for people entering the park from the Forest Park neighborhood. Mixed use development in this area provides an environment in which there are always people present, this resolves the issue regarding safety that currently exists as the existing riverwalk is underused and is currently viewed as being unsafe due to crime. The Mill River Concourse provides a space for people to relax on the amphitheater style seating surrounding the Mill River in which a portion of has been daylighted for residents and visitors to enjoy.



Main Street Plaza connects as an on-grade crossing of the railroad tracks to the River and provides great vistas. From here a ramp connects to the Mill River Confluence Overlook.

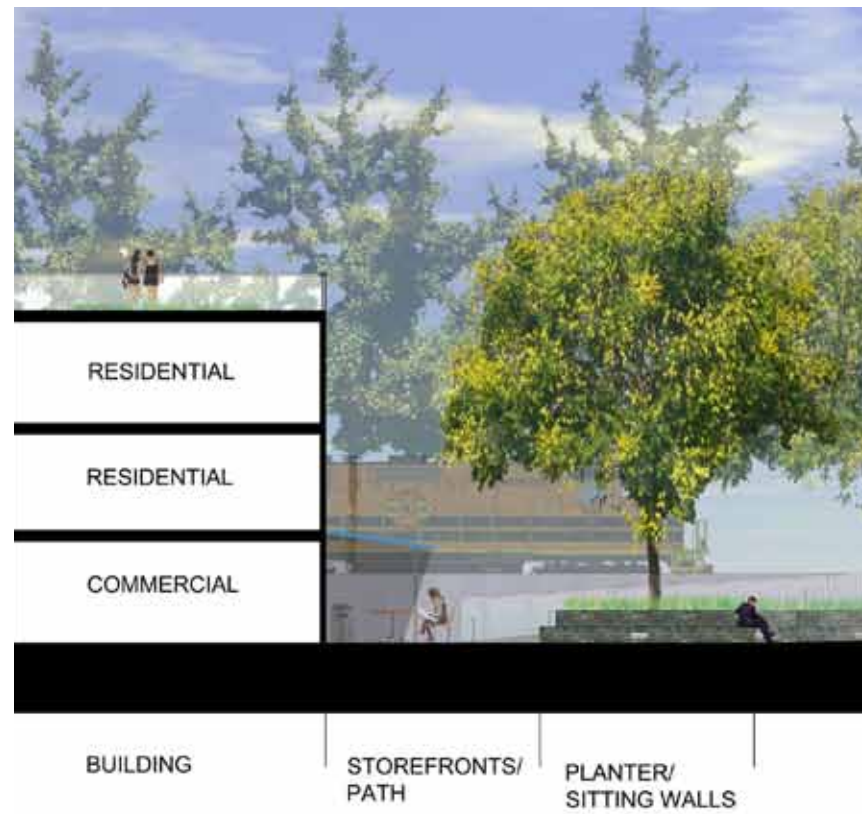


The Mill River Concourse provides an area people to rest on amphitheater style seating around the daylighted section of the Mill River.

River Reach - Main Street Plaza - Michael Naughton



Shops surrounding the Mill River Concourse turn this location into a destination in which people could go shopping or enjoy eating dinner above the Mill River.



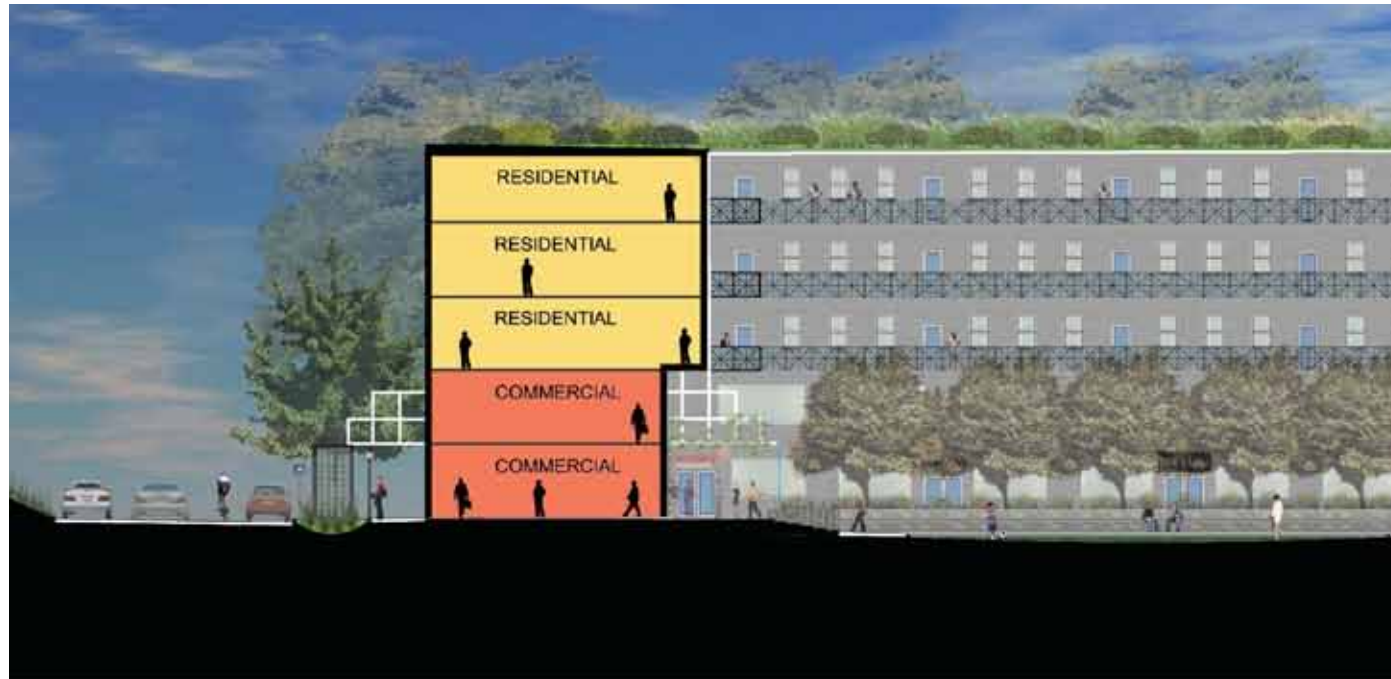
The Main Street Plaza provides a major gateway to the southern portion of the Riverfront site. An on grade railway crossing also provides another connection to the existing Riverwalk.

River Reach - Living on the River - Kyle Jackson

This portion of Riverfront Reach features an array of mixed use buildings. The first floor of these buildings include a variety of shops and restaurants that create a vibrant place. Residences are on the higher floors. They feature the spectacular views on the Connecticut River. The architecture encloses a large lowered lawn terrace in the middle of the space. This serves as a resting place with shaded seating and passive recreation with the lawn space. The terrace can be flooded in the winter months and when frozen is converted to an ice skating venue. A large artistic grid structure collects rain water from the roofs and transports it to a large bio-swales across the main path of the site. The main path that runs through this space connects the entire project along the length of the site and parallel to the Connecticut River Walk and Bikeway.



A lawn space provides an open area for recreational activities along the riverfront.

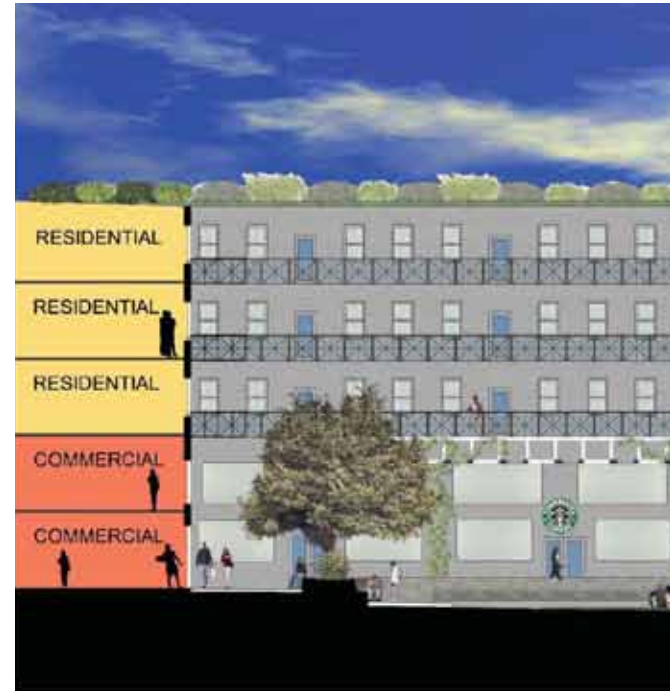


WEST COLUMBUS BUS STOP MIXED USE BUILDING LOWERED LAWN TERRACE



ERRACE MAIN WALK ON-GRADE CROSSING TRAIN TRACKS CT RIVER WALK AND BIKEW

A lawn space also provides a great amenity for bordering residents and businesses. Sectional elevation facing south.

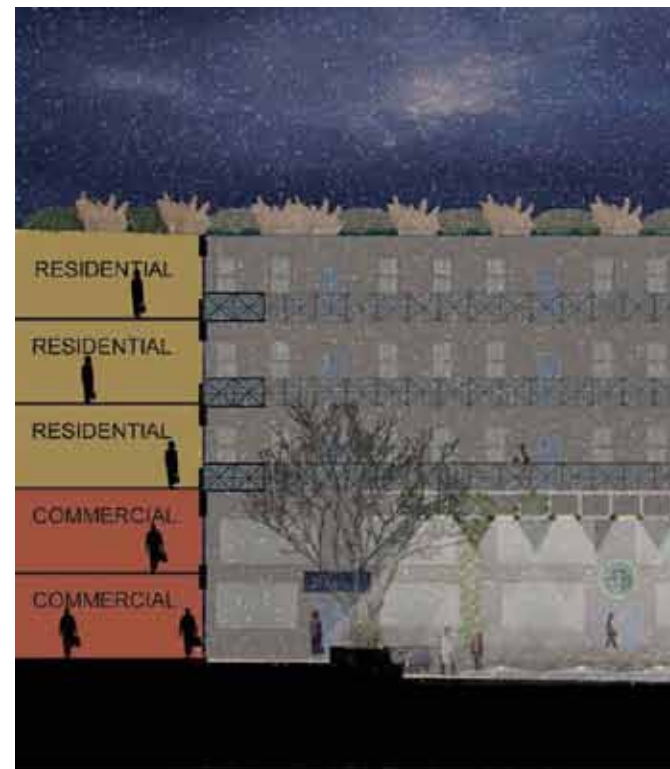


MIXED USE BUILDING SEATS AND PLANTER



LOWERED LAWN TERRACE SEATS AND PLANTER MIXED USE BUILDING

Businesses occupy the lower floors of the buildings. Therefore the riverfront site will have a much stronger presence of people in the area that allow the site to be used to its fullest extent.



MIXED USE BUILDING SEATS AND PLANTER



SEATS AND PLANTER MIXED USE BUILDING

At nighttime, proper lighting will help to ensure safety for residents and visitors.

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