



Planning and Preliminary Design for Erie Harbor Park Master Plan

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Erie Harbor Park Master Plan



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Division of Coastal Resources (with funds provided under Title 11 of the
Environmental Protection Fund)

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■ Project Overview

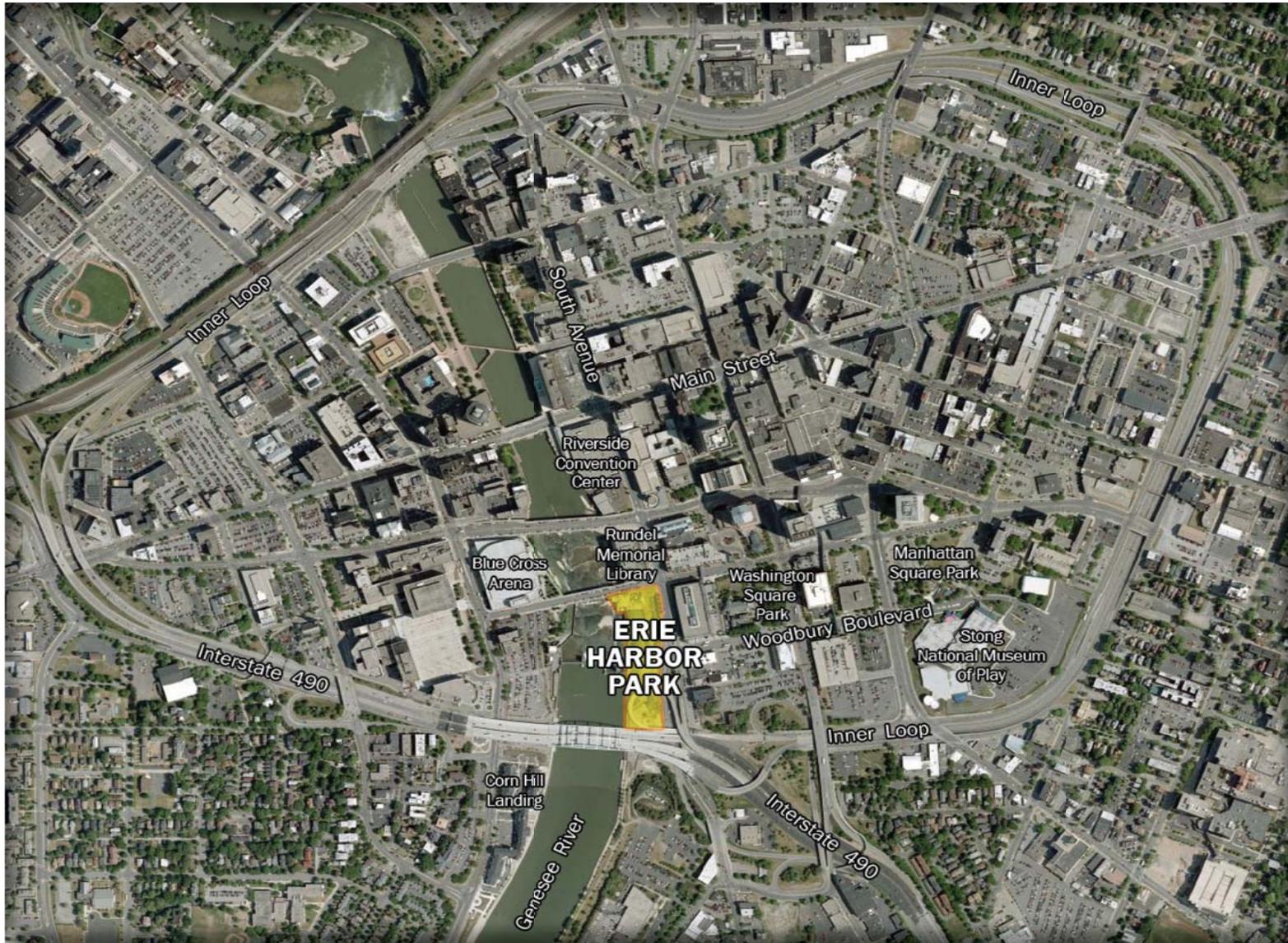
Over the past several years, the City of Rochester has aggressively pursued opportunities to strengthen the economic vitality, recreational use, and scenic beauty of the Genesee River corridor. In 2009, the City received a matching grant from the New York State Department of State, Division of Coastal Resources (with funds provided under Title 11 of the Environmental Protection Fund) to retain a consultant that would conduct the planning and preliminary design for a site known as Erie Harbor Park, located on the east bank of the Genesee River, just north of Interstate 490 in downtown Rochester.

This document, the result of City and State funding, creates a vision for the currently underutilized Erie Harbor Park site, and showcases its potential to be a valuable community asset. The planning process included extensive research of the site history, an inventory and analysis of existing conditions, creation of a Project Advisory Committee (PAC), and two public meetings, which resulted in the formation of a phased implementation plan for public improvements on the site.

Rochester is fortunate to have an extensive park system, most of which centers in the Genesee River, a significant north-south natural corridor through the City. Rochester's park system was established in the 1880s, and was designed by Frederick Law Olmsted, considered to be "the father of the landscape architecture profession". Olmsted is famous for designing such parks as Central Park and Prospect Park in New York City; however, Rochester, along with Boston, Buffalo, and Louisville is one of only four U.S. cities for which Olmsted designed a full park system. In the late nineteenth century, Rochester's Board of Park Commissioners wanted to focus on the development of elegant park-like boulevards, but it was Olmsted who instead recommended they focus of acquiring large tracts of open space to be set aside for parks, and to create a park system which embraced what he considered to be Rochester's greatest natural asset, the Genesee River.



View of Genesee River looking towards downtown from the existing river promenade



Rochester's Center City is defined primarily by I-490 and the Inner Loop and divided into quadrants by Main Street and the Genesee River

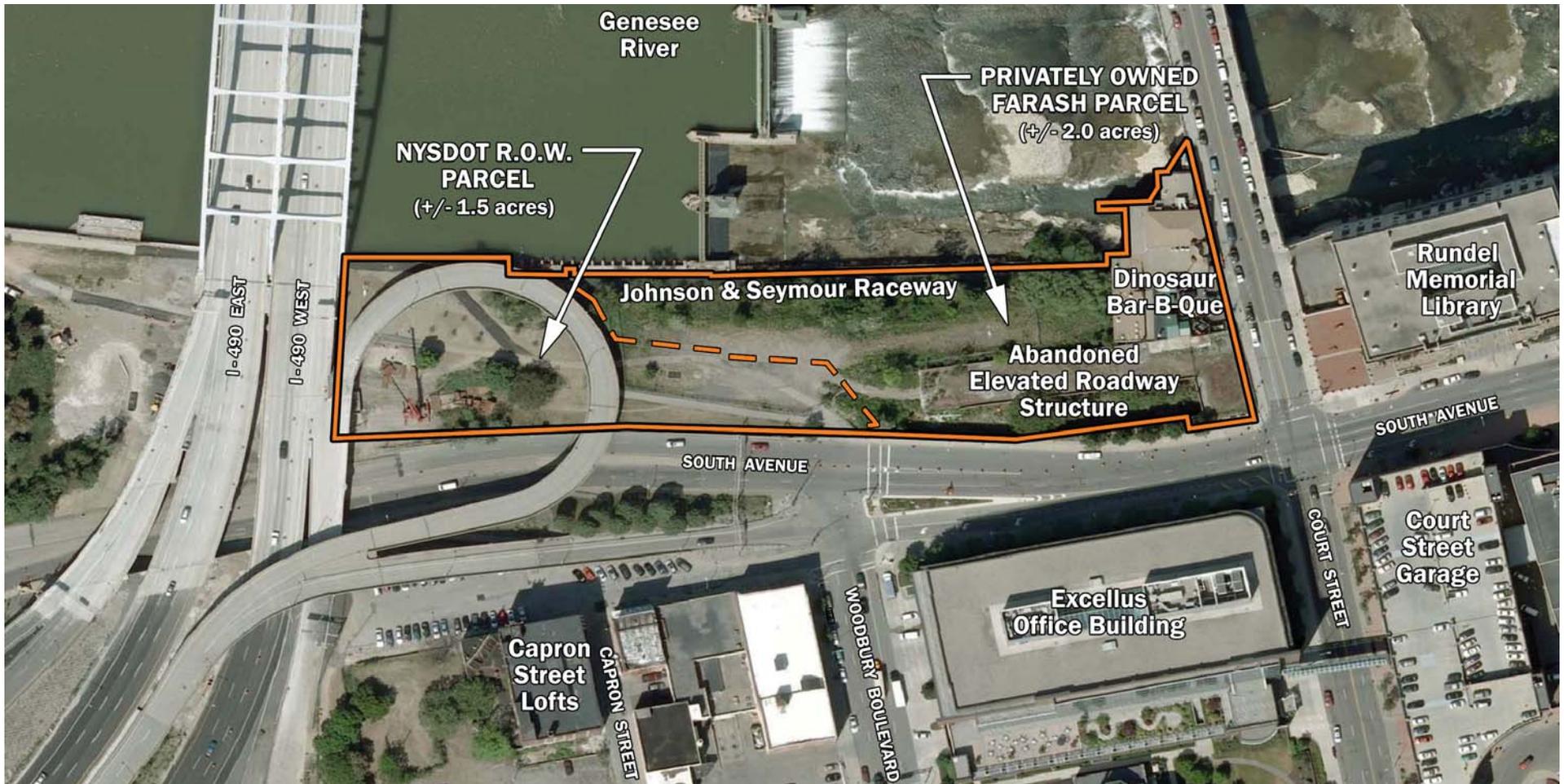


The parks Olmsted designed for Rochester (Highland Park, Seneca Park, and Genesee Valley Park) serve to this day as tremendous neighborhood and regional assets, and since their creation, many more parks have been added to the City's park system. In recent decades, the City of Rochester has also focused on bringing to fruition a longtime goal of creating an uninterrupted Genesee Riverway Trail that runs along the river corridor between the Erie Canal at the City's southern boundary to Lake Ontario at the City's northern limit. The Riverway Trail, however, still requires some extensions, especially once it reaches downtown Rochester (often referred to as the Center City) before it will be completely contiguous from the canal to the lake.

The City has also placed considerable emphasis on strategies for economic development, including the potential for increasing the residential presence within the Center City. After more than 50 years of suburban sprawl in the Rochester region, developers have once again started focusing on downtown as a place with tremendous development potential. Since the 1990s, a national trend has become evident which points to the market for urban living. Many young professionals and empty nesters are looking to urban centers for residential options that are in close proximity to parks, cultural destinations, and nightlife. This trend is clearly evident in Rochester, and several large mixed-use projects incorporating residential units have been developed in and around the Center City over the past 10 years.

Two recent private development projects, both of which take advantage of the Genesee River as a backdrop, are Corn Hill Landing on the west bank of the Genesee River south of Center City, and Brooks Landing also located on the west bank of the river, across from the University of Rochester's river campus. Corn Hill Landing is a three story mixed-use development which includes restaurants and retail space on its ground floor, and 127 rental apartments above, centered on a public river promenade with boat docking accommodations. The project has been wildly successful, and takes full advantage of its river frontage, and dramatic views of the Center City skyline. Brooks Landing, located a couple miles south of Corn Hill Landing, includes a newly constructed Staybridge Suites hotel and is also centered on a wide river promenade with docking accommodations. Future phases of the development project include a six story building with a restaurant on the ground floor and student housing above to be located north of the hotel, and a residential building with market rate units south of the hotel. Brooks Landing has sparked economic development with the adjacent neighborhood and also includes significant public improvements to the surrounding streetscape and to a portion of Genesee Valley Park, located just south of the development site.

With Corn Hill Landing and Brooks Landing, a public/private partnership was essential in order to bring the public infrastructure such as the river promenade and streetscape improvements, and private development construction to fruition. Public amenities were installed ahead of, or in conjunction with, the planned private development projects to maximize the overall economic benefit to each development and the surrounding neighborhoods.



The Erie Harbor Park site spans from I-490 to Court Street (north is to the right). The portion of the site owned by Farash Corp is bounded in orange.



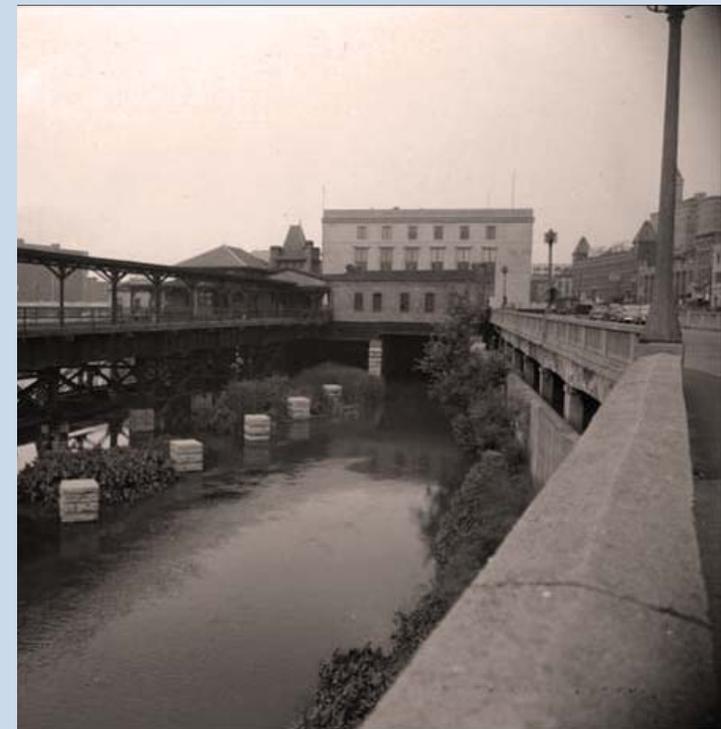
A similar public/private development concept could easily be realized for Erie Harbor Park. The site encompassing Erie Harbor Park is approximately 3.5 acres in size, and falls under the ownership or control of two separate entities, one private and one public. Farash Corporation, a local real estate company that has developed and managed properties for over 50 years, owns approximately 2 acres of the Erie Harbor Park site under the name Lehigh Station, LLC. The Farash owned portion of the site (SBL #s 121.31-01-19.2 & 121.31-01-33) include an existing historic building, the former Lehigh Valley Railroad passenger station, currently leased by a restaurant (Dinosaur Bar-B-Que). The remainder of the site area falls within the New York State Department of Transportation (NYSDOT) right-of-way for I-490 and the adjacent on-ramp.

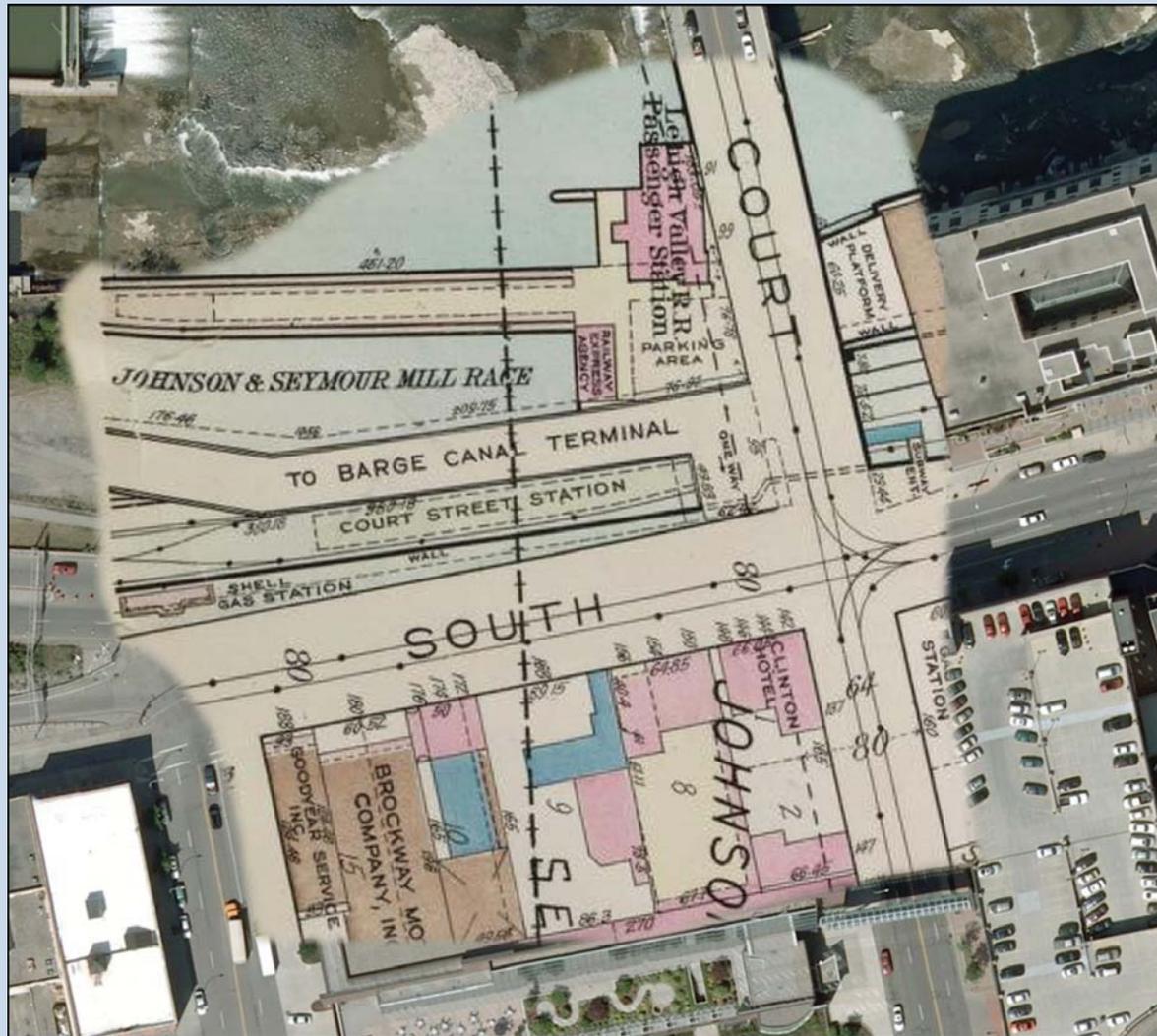


View looking north down the Genesee River towards downtown and the Erie Harbor Park site

■ Site History

Several manmade structures can be found on the site, all of which are relics of Rochester’s transportation past. Stone piers located in the raceway once held an elevated train track that served the Lehigh Valley Railroad passenger station. The tracks are long gone, but the passenger station is still in existence. A portion of an elevated street, once called Harbor Boulevard, is also a prominent site feature, however, it is in poor condition and in various stages of deterioration. Remnants of the old Court Street Station subway platform is also still visible, though the Rochester Subway has been defunct since 1956. The Genesee River defines the western boundary of the site, Court Street is to the north, South Avenue is to the East, and a prominent feature to the south of the site is the circular on-ramp to I-490 east.





This map from 1935 overlaid on a current aerial photo offers a glimpse at what the site would have been like with the Lehigh Valley Railroad and Rochester Subway still in operation.

Johnson and Seymour Raceway

This mill race was one of the first private capital works undertaken in Monroe County, and dates back to 1817 when it was opened by Elisha Johnson to serve milling operations on the east bank of the Genesee River. A dam that predates the current Court Street Dam allowed water to flow into the Johnson and Seymour Raceway from the Genesee River. By 1820, an oil mill, saw mill, paper mill, and flower mill could be found along the race, and by 1855, there were at least six flour mills using water power from the race. The Rochester, Fitzhugh, and Carroll Raceway mirrored the Johnson and Seymour, on the western bank of the Genesee River, and has since been filled in, making the Johnson and Seymour the only remaining raceway from Rochester's early industrial days that still flows in downtown.

Another unique aspect of the Johnson and Seymour race is that it has been incorporated into the sub-basements of two downtown buildings which were constructed over the waterway. When the Art Deco Rundel Memorial Library building was constructed in the 1930s, the raceway was incorporated into the architecture in a dramatic way. The library was built on a series of columns straddling the raceway. A series of arched spillways were incorporated into the river facade of the library in order to allow some of the race water to return to the river. The race water spills through these portals to this day, and is also used to help cool the building and making the race not only important as a historic and aesthetic resource, but also functional. The second building which incorporates the race is Rochester Gas & Electric Station 6, located on the east bank of the river, just north of the Rundel Library. The building has a deep sub-basement which includes abandoned wheel pits from one of Rochester's first mills built by Elisha Johnson. The building serves as a functioning sub-station for Rochester Gas & Electric; however, deep within the basement the Johnson and Seymour Raceway falls in a cascade into the old wheel pits before emptying back into the Genesee River.



Johnson & Seymour Race and the Genesee River circa 1912



The Johnson & Seymour Raceway spilling into the river below the library



Water from the race also flows through the sub-basement of RG&E Station 6 (red brick building) before returning to the river bed



Erie Canal

Opened in 1825 the Erie Canal is often described as being responsible for making Rochester the first inland American boomtown. The opening of the canal provided a cheap and efficient means of transporting goods between the Great Lakes and New York City, and as a result, cities like Rochester flourished. The present day site of Erie Harbor Park was at one point simultaneously home to both the Johnson Seymour Raceway and the Erie Canal, which were separated only by a narrow canal tow path. There was also once a canal weigh lock located on the site which was used to weigh canal packet boats, as the toll for shipping goods on the canal was based upon weight.

The Erie Canal has proven to be one of the most successful and influential manmade waterways in North America. It shaped the settlement of the Northeast, Midwest and Great Plains, and became a central element in forging the nation's identity. One of the most important works of civil engineering in the nation, its 363 miles length, twice the length of any canal in Europe, spans from Buffalo to New York Harbor. The canal influenced the construction of other massive transportation efforts in the country, and became an economic engine that fostered nationally significant social reform and religious movements. Historians believe that it had a direct bearing on the outcome of the Civil War by allowing the transportation of goods to flow between the eastern seaboard and the Midwest, instead of on the Mississippi River via New Orleans. The movement of free expression and independence gained strength in the waters of the Erie Canal. The Erie Canal was once considered a wonder of the new world, and inspired a nationwide canal building boom for 25 years following its completion. Such an impact was felt by construction of the canal that, to this day, 73% of New York State residents live within 2 miles of the New York State Canal System waterways.

Recently, the City of Rochester has developed a master plan to create what will be known as Rochester's Historic Canal District, encompassing the portion of downtown where the Erie Canal originally flowed. The plan represents a strategic new beginning for a currently underutilized quarter of downtown, and creates a vision for the future of the district through rediscovering its past and its essence: the Genesee River and the Erie Canal. The plan looks to establish a significant public realm enhanced and defined by water; creating a new distinctive identity for the district. The rediscovered watercourse of the Erie Canal will become the heart of the new Canal District, and the linear framework of public improvements the cohesive link between existing and planned public improvements. Erie Harbor Park is a natural complement to the Canal District plan.



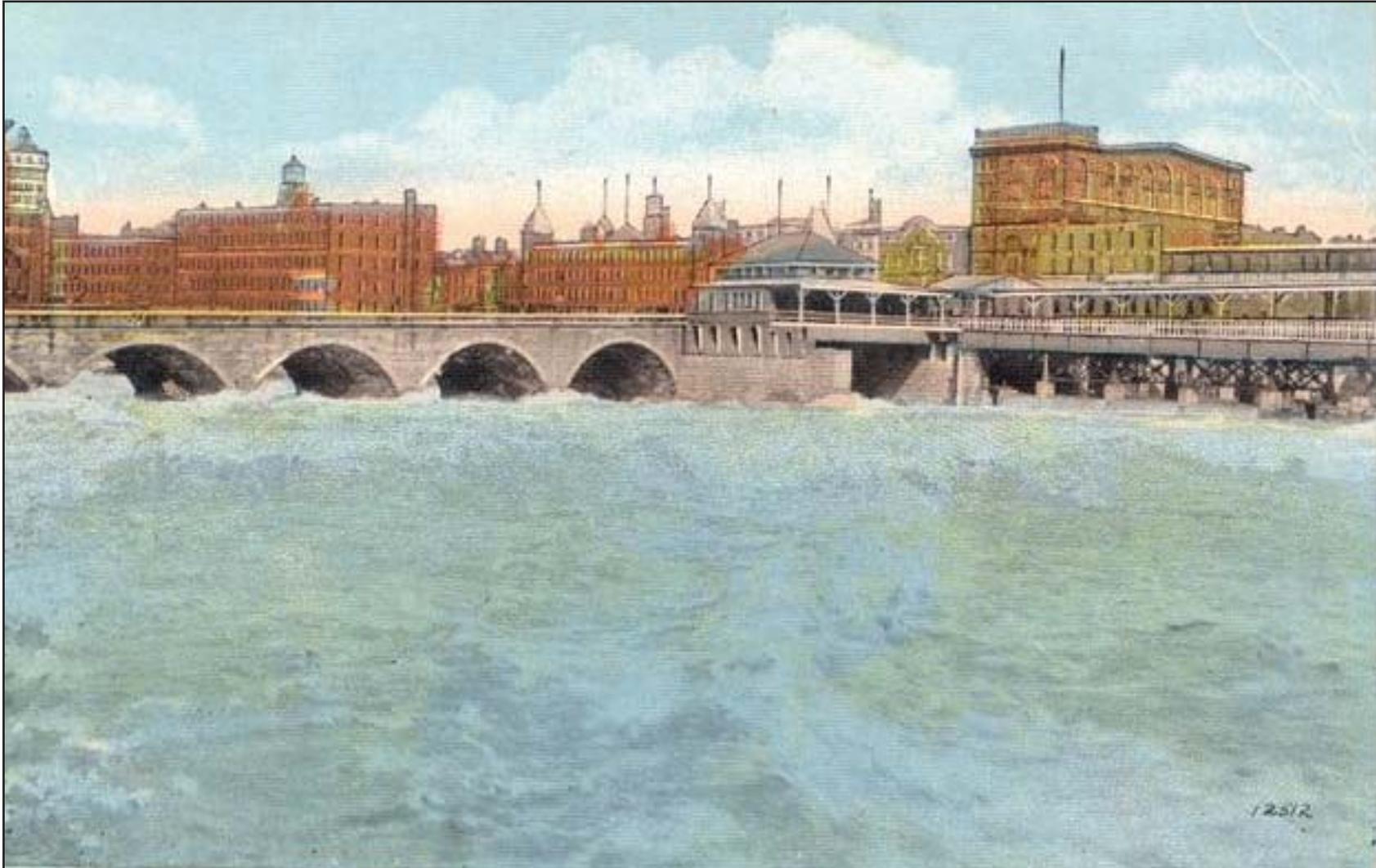
Erie Canal and weigh lock behind South Avenue Buildings



Court Street Bridge

The Genesee River, which flows from northern Pennsylvania through New York State to Lake Ontario, bisects the City of Rochester at its center. A series of arched stone bridges were constructed at various times throughout the nineteenth century in order to tie together the two sides of the Genesee River, and allow for greater expansion of the central business district. These bridges remain in use to this day, and include crossings at Andrews Street, Main Street, Broad Street (which was originally constructed as an aqueduct to allow the Erie Canal to cross the river without intersecting it), and Court Street.

The Court Street Bridge defines the northern edge of the Erie Harbor Park site, and its stone arches were constructed in 1893. Two of its eight arches were built to span the Erie Canal and Johnson and Seymour Raceway, while the remaining six span the river. The bridge was added to the National Register of Historic Places in 1984, and continues to function as a major east-west connection in downtown Rochester.



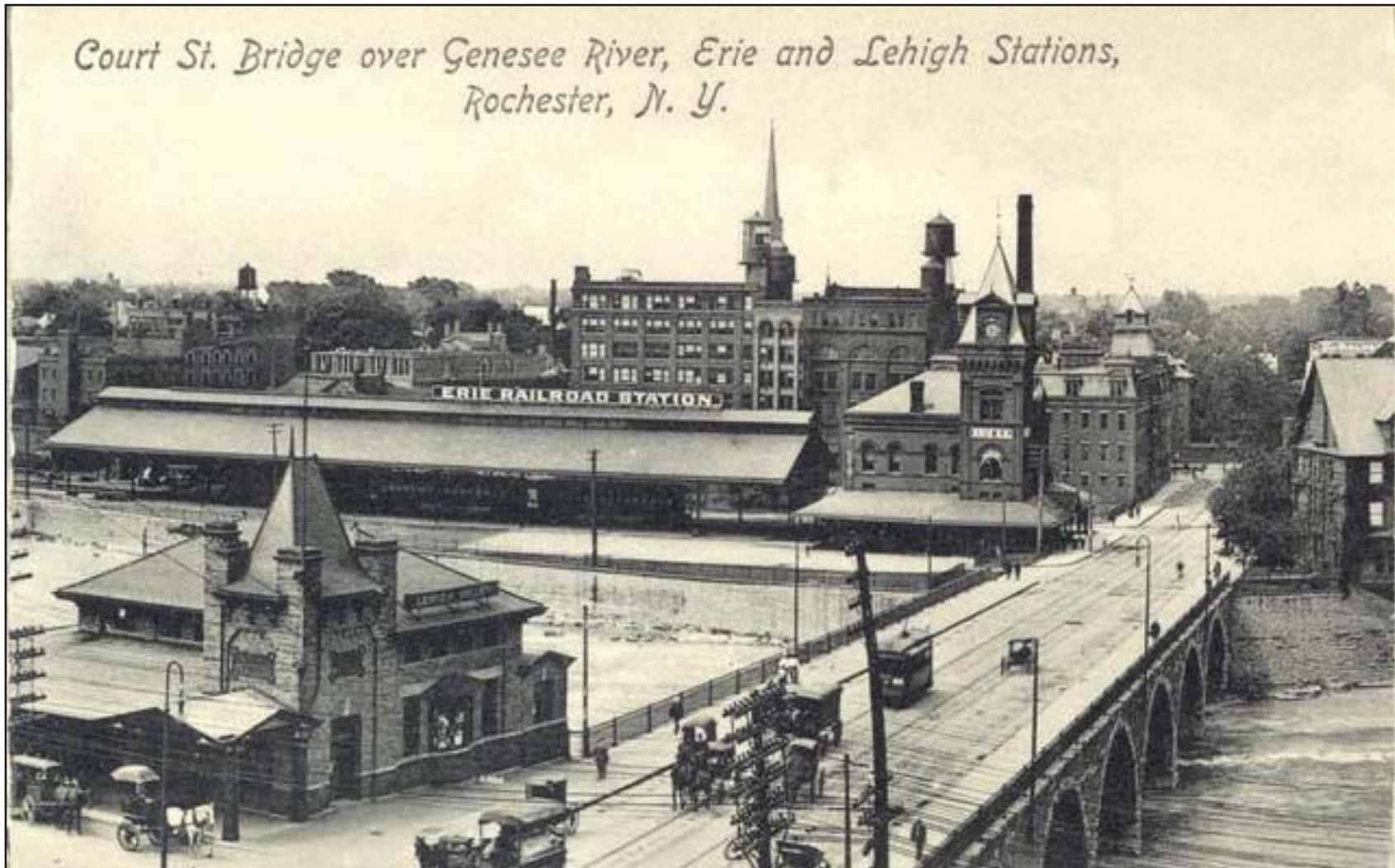
Post Card image of the Court Street Bridge over the river



Lehigh Valley Railroad

The Lehigh Valley Railroad operated from the 1850s until the 1950s, its tracks terminating in downtown Rochester on the east bank of the Genesee River at Court Street. A passenger station was constructed in 1905 at Court Street and South Avenue, dramatically cantilevered over the Genesee River and the Johnson and Seymour race by way of stone piers and steel trusses. The passenger station is composed of brick with a hipped roofed, and includes French Renaissance style influences. The building was added to the National Register of Historic Places in 1985, and has been rehabbed for use as a restaurant.

Tracks leading to the Lehigh Valley Railroad passenger station were elevated on stone piers, and while the tracks have been removed, the piers are still in place along the edge of the Johnson and Seymour mill race, and Genesee River. The historic passenger station building is particularly significant, as it is the only remaining example of an early twentieth century railroad passenger building left in downtown. In the golden era of rail travel, a passenger station for the Erie Railroad stood across the river from the Lehigh Valley Railroad station, and the New York Central Railroad had an even grander passenger station at the northern edge of downtown. Both the Erie Railroad passenger station and the New York Central passenger station were razed in the middle part of the twentieth century due to a decline in passenger rail use and rising maintenance costs.



Postcard of the Lehigh Valley Railroad terminal in foreground



Rochester Subway

In the mid 1920s, the City of Rochester converted the segment of the former canal bed running through the City into a subway line which essentially consisted of tracks running along the bottom of the original canal bed, taking advantage of the below grade elevation which existed once the canal had been drained. The decision to create a subway in Rochester was based on the desire to create an interconnection, or belt line, between the various railroad companies serving the City, and to remove heavy interurban electric trolley cars from the surface streets.

While the majority of the five mile or so length of the subway ran in the open trench left by the canal, a roughly two mile segment of the line was placed in a tunnel from Brown Street southeast to Court Street. The roof of the tunnel was turned into a surface street for automobile use, and was named Broad Street. The subway ran from 1927 to 1956, however, pressures from the great depression caused financial hardship for operations, and capital maintenance was forgone. Further pressure came from constraints placed upon the subway system after 1945 by suburban sprawl and proliferation of private automobile ownership. The two mile tunnel existing below Broad Street has been used little since the subway was closed in 1956. The tunnel structure receives yearly maintenance, however, deterioration of some segments of the upper road deck has continued. The southern portal of the tunnel structure was located at the corner of Court Street and South Avenue, and is still visible at the Erie Harbor Park site.



Elevated roadway over the subway tracks at South Avenue



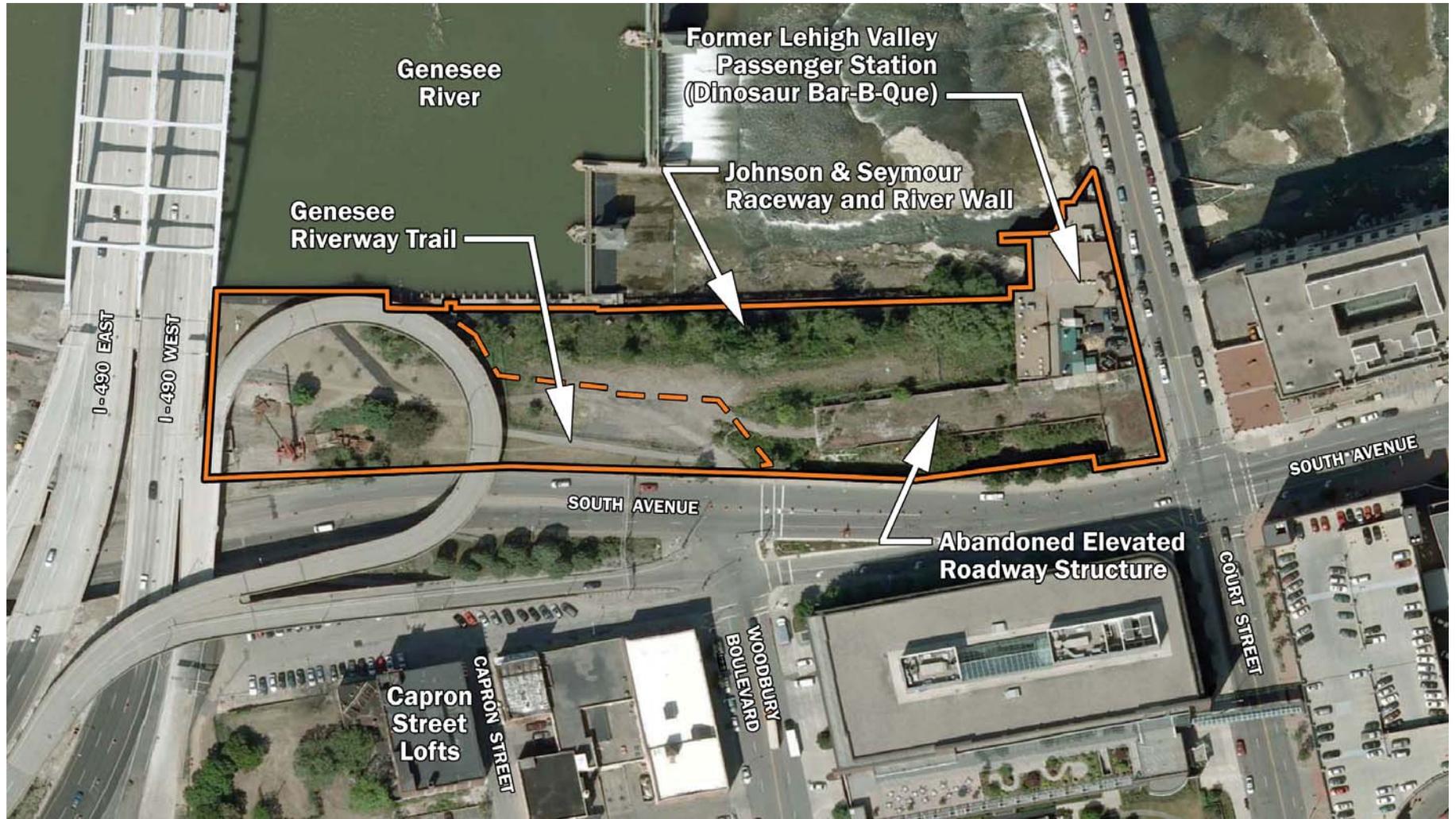
South Avenue

In the late nineteenth century to early twentieth century, a row of commercial buildings lined South Avenue on what is now the Erie Harbor Park site. The buildings faced South Avenue, and the Erie Canal flowed at a lower elevation behind. After the Erie Canal was rerouted away from downtown, and the canal corridor was converted to subway use, much of the area between South Avenue and the river was used as a rail yard. Boats from the new Barge Canal (which is what the Erie Canal became known as after it was rerouted and enlarged in 1917) could still reach downtown Rochester by way of the Genesee River, as the Barge Canal intersected with the River at Genesee Valley Park. Boats traveled north on the Genesee towards downtown, and delivered goods at the newly built Barge Canal Terminal Building which was constructed on the river, just south of the Court Street Dam. In order for vehicles to access the Terminal Building, an elevated roadway was constructed to avoid conflict with the at-grade rail yard. In order to build this structure, the buildings along the west side of South Avenue between Court Street and Woodbury Boulevard were razed, and the new roadway was constructed over the tracks below. This elevated roadway, sometimes referred to as Harbor Boulevard, remained in use for several decades, until the construction of I-490 east of the river, which cut across the rail yards, and included a circular on-ramp just south of the Erie Harbor Park site. The State of New York acquired a large area for highway right-of-way at this time, and the elevated Harbor Boulevard was truncated and closed.



Commercial building lining South Avenue in the early 1900s





Aerial photo of the Erie Harbor Park Site depicting the major existing site features

■ Existing Site Conditions

While many traces of the site’s industrial past can still be seen today, the Erie Harbor Park parcel is largely closed off to the public by a chain link fence, which secures the portion of the site which is private owned. Much of the site is in an overgrown state, however, the public can access the site just south of the chain link fence, as an asphalt path ties the South Avenue sidewalk to the existing Genesee Riverway Trail.

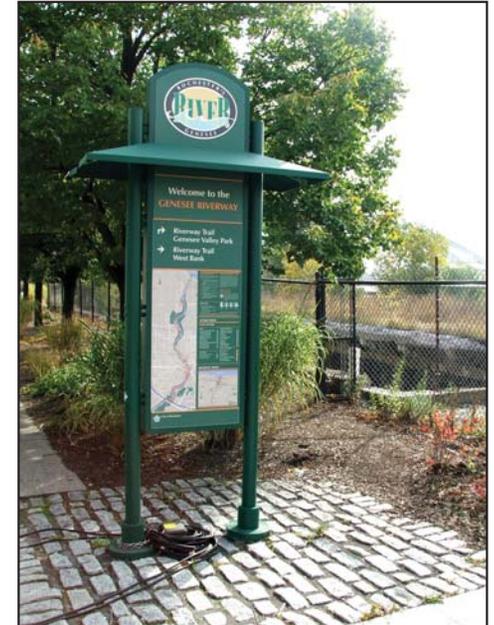
Genesee Riverway Trail

This north-south urban trail has won national awards for its design, and is in ongoing state of expansion whenever opportunities for improved connectivity are presented. The riverway trail ties together various development sites along the river. Currently, one can travel along the Riverway Trail south of the Center City uninterrupted on both sides all the way to the Erie Canal and Genesee Valley Park. North of the Center City, the trail follows the river gorge all the way to the Port of Charlotte and Lake Ontario, however, in some places one must use City streets where trail connections are currently not possible due to private ownership of land and steep topography.

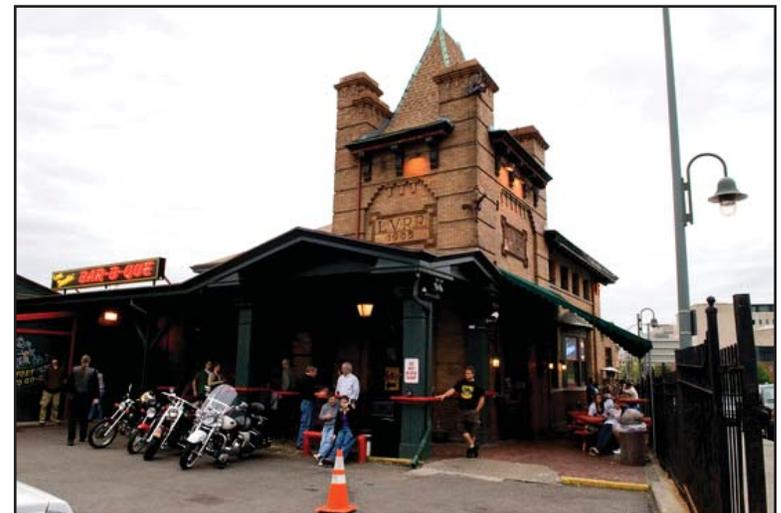
It is within the Center City core that the Genesee Riverway Trail meets the largest number of obstacles. In many locations buildings were built to the river’s edge. This practice is no longer allowed by code in order to ensure public access along the riverfront. There have been several proposals for extending the Riverway Trail in these locations by way of cantilevered walkways or bridge-like structures using piers in the river bed. Connecting the disjointed parts of the Genesee Riverway Trail in downtown will help further the goal of an uninterrupted trail system along the entire Genesee River corridor.

Lehigh Valley Railroad Passenger Station

For several years now the former Lehigh Valley Railroad passenger terminal building at the north end of the Erie Harbor Park site has housed the popular restaurant, Dinosaur Bar-B-Que. The restaurant leases the building from Farash Corporation, and established a loyal following. The lack of off-street parking has not deterred customers from patronizing the restaurant, as parking is available along Court Street, and a large parking garage is located nearby at the northeast corner of Court Street and South Avenue. While Dinosaur Bar-B-Que has brought considerable activity to the corner of Court Street and South Avenue, the segment of South Avenue below Court Street has little pedestrian activity along it, with the exception of the existing connection to the Genesee Riverway Trail.



Entrance to Genesee Riverway Trail at South Ave



Dinosaur Bar-B-Que continues to be a popular downtown restaurant in the former Lehigh Valley station

Abandoned Elevated Roadway Structure

This structure is a small remnant from what was once an elevated roadway, allowing vehicles to traverse the at-grade Lehigh Valley Railroad rail yard which was located south of the current Erie Harbor Park site. The elevated roadway was decommissioned and truncated when Interstate I-490 was constructed in order to make room for necessary on-ramps to the highway. Since that time, the remaining segment of the abandoned elevated roadway has considerably deteriorated. The road deck is supported on a series of cast concrete piers, and includes a concrete road deck with brick road surface.

Tunnel Access

The tunnel which runs through downtown Rochester under Broad Street, and once housed the Rochester Subway, is occasionally accessed by the City of Rochester and Farash Corporation at the Court Street tunnel portal, located on the Erie Harbor Park site. Tunnel access is needed at for routine maintenance and repairs of the tunnel structure, as well as accessing the under structures of the Court Street Bridge, Rundel Library, Broad Street Bridge, and nearby Rochester Gas & Electric sub-station 6. The tunnel portal is accessed via a dirt road running under the abandoned elevated roadway structure where the tunnel begins under the former Lehigh Valley Passenger Station, and runs north beneath the Rundel Memorial Library after which it makes a sharp turn westward under West Broad Street.



View of the abandoned elevated road structure looking north toward the former Lehigh Valley Railroad Passenger Station and Rundel Memorial Library



View of the tunnel entrance at Court Street depicting the old stair which was used for pedestrian access to the Court Street Station stop of the Rochester Subway



The abandoned elevated roadway structure on site covers a dirt road which leads into the tunnel through downtown Rochester under Broad Street (former Erie Canal path, later Rochester Subway path)

Johnson & Seymour Raceway

One of the most historic site elements, the Johnson and Seymour Raceway, is almost completely obscured from view. Heavy tree and shrub growth has occurred along the edge the raceway embankment, and in summer the leaf canopy blocks sight lines to the water. A considerable amount of fill material was also placed on the site at some point in the past, such that one now enters the site at the same elevation as South Avenue, and the topography falls gradually toward the raceway approximately 20 feet below.



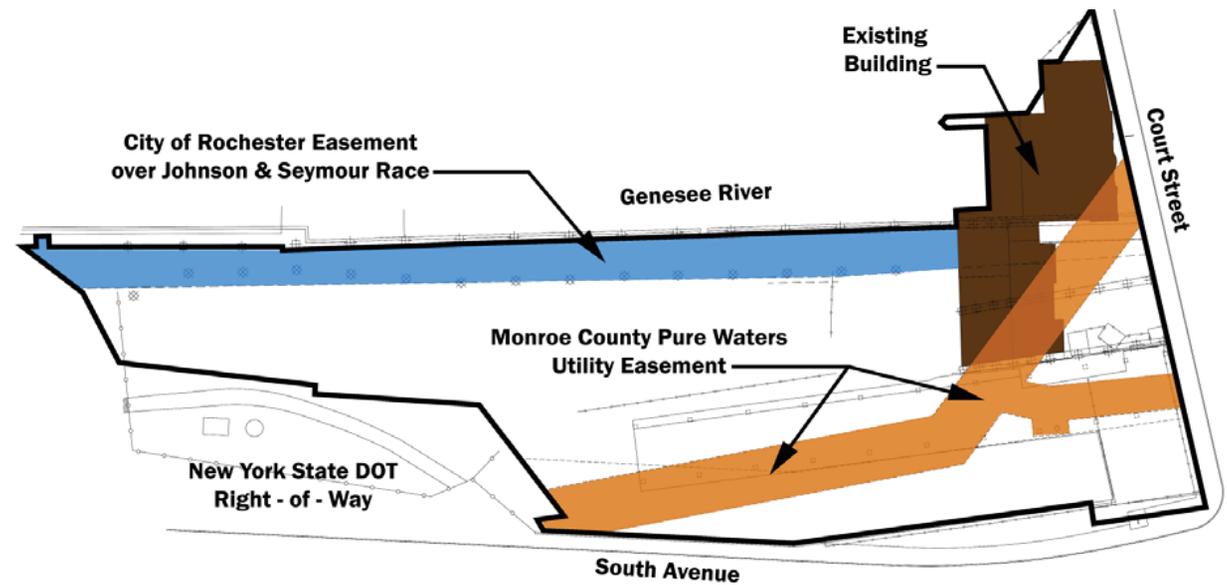
View of the Johnson & Seymour Raceway

River Wall

The river wall is composed of stone and concrete; however is currently in need of repair as water from the Johnson & Seymour Raceway leaks through the stonework.

Site Easements

Farash had a survey of the site completed in September of 2009 which documented the location of their property boundary, easements over the site, and the location of existing utilities and structures. Three easements are located within the boundaries of the Erie Harbor Park site area which include a NYSDOT right-of-way for the adjacent on-ramp to I-490. The NYSDOT also maintains a limited access easement along the South Avenue frontage of the site. Within the two acre portion of the Erie Harbor Park site owned privately by Farash, a Monroe County Pure Waters utility easement runs through the northeast portion, and the City of Rochester controls an easement over the historic Johnson & Seymour Raceway, and an access easement to the tunnel.



Map depicting the easements which exist on the site

Surrounding Neighborhoods

The Erie Harbor Park site is in close proximity to some of the most densely built-out blocks in Rochester's Center City. Just north of the site, across Court Street is the Rundel Memorial Library, the main branch of the Monroe County Library System, and one block further north is the Rochester Riverside Convention Center. The Blue Cross Arena, site of various events and the Rochester Americans Hockey League, is just across the river from the site, and the Geva Theater Center is one block east. Over 800,000 visits per year are made to the Rundel Library, and 1.1 million per year are made to the Blue Cross Arena, underscoring the potential of capitalizing on adjacent regional attractions. Several office buildings are also located in the area, including the Rochester headquarters of Excellus Blue Cross, Blue Shield, which occupies a full city block between Court Street and Woodbury Boulevard. Downtown Rochester maintains an employee base approximately 50,000 workers on weekdays, and downtown housing projects continue to add to the growing numbers of Center City residents.

An emerging residential neighborhood is beginning to take hold south of Woodbury Boulevard with two residential conversion projects along South Avenue with 250 South Avenue, the conversion of a formerly vacant commercially building into a mix of offices and apartments, and the Capron Street Lofts, conversion of a vacant commercial building into 19 owner occupied condominiums.

Across the river from the site, Corn Hill Landing was completed in 2006, and includes 127 apartments ranging in size from studios to three bedroom units. There has been considerably interest from developers in the last few years in the potential of developing residential projects along the river. Building on the success seen at Corn Hill Landing, a new residential development to be called Erie Harbor is planned approximately half a mile south of the Erie Harbor Park site. The location of the Erie Harbor development is a site formerly occupied by a subsidized housing project built in the 1970s, which for many years has marred the riverfront due to its uninspired design and poor condition of maintenance. Known as River Park Commons, the aging buildings have been razed, and will be replaced by the Erie Harbor development which will incorporate 20 percent subsidized units among the market rate apartments it will offer. The style of architecture will also be much more sensitive to that of the surrounding neighborhood, and will maintain viewsheds to and from the river. The Erie Harbor Park site has tremendous potential for similar development, and the City's form based zoning code will help guide the look, scale, and form of future developments.



View from the river looking towards downtown and the Capron Street Lofts project currently under construction



View looking across the river to the apartments/restaurants at Corn Hill Landing

Existing Site Access and Area Roadway Conditions

Currently, a small curb-cut on the western edge of South Avenue at the intersection with Woodbury Boulevard provides motorized access to the site. This curb-cut is primarily used for maintenance vehicles which occasionally need to access the former subway tunnel with the access drive left gated unless maintenance vehicles are on the premises.

One of the goals of the master planning process is to address the need for improved and formalized motorized access to the site. Public vehicular access will need to be designed so as to not compromise the safety of pedestrians and bicyclists also accessing the site at this intersection. Since this segment of South Avenue provides access to two different on-ramps to I-490 east, the roadway falls under the jurisdiction of the New York State Department of Transportation (NYSDOT), and changes within the right-of-way will need to be approved through that office. Any roadway improvements also need to be reviewed by the Monroe County Department of Transportation (MCDOT), as MCDOT provides traffic engineering services for the City of Rochester. A meeting was held with the NYSDOT very early on in the master planning process in order to keep them in the loop with regard to potential roadway and access improvements that may be developed as part of the master plan

The segment of South Avenue between Court Street and Woodbury Boulevard is a wide, busy street that currently does not have ideal accommodations for pedestrians or bicyclists. South Avenue operates as a one-way street southbound, and is six lanes wide where it intersects at Woodbury Boulevard, serving as both a through street and an access portal to I-490 east. Of the six lanes, the eastern most lane serves as a left turn only lane for access to Woodbury Boulevard, the lane adjacent to that provides access to an on-ramp for I-490 east. These two lanes are separated from the remaining four lanes by a small planted island in the roadway. The next two lanes accommodate through traffic heading to the South Wedge neighborhood (an urban mixed-use neighborhood just south of downtown), and the western most two lanes provide access to a second on-ramp to I-490 east. Given the existing conditions of the roadway, a pedestrian attempting to cross South Avenue at Woodbury Boulevard finds a wide, busy roadway devoid of non-motorized accommodations (such as high visibility crosswalks), and encounters vehicles typically moving at speeds higher than the posted 30 miles per hour, as motorists tend to speed up as they approach highway on-ramps and the limited access street has a highway-like feel. While the intersection of South Avenue and Woodbury Boulevard is signalized, and includes pedestrian crossing signals, there are many opportunities to improve non-motorized access to Erie Harbor Park, and the river corridor beyond.



South Avenue looking south from Woodbury Blvd. to the I-490 on-ramps

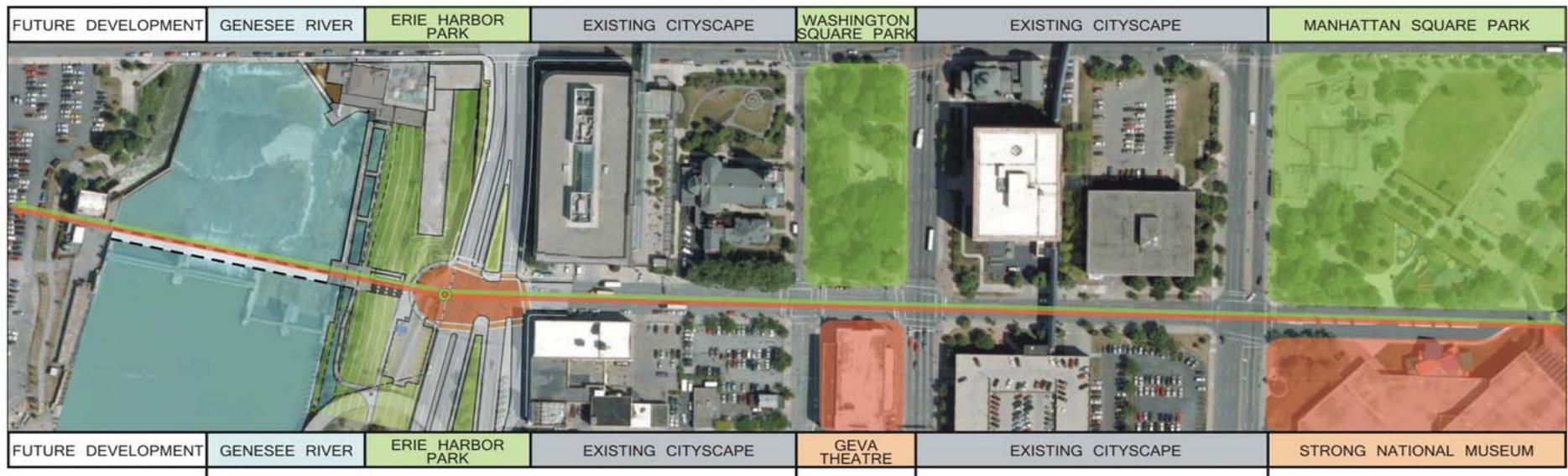


South Avenue Looking north from Court Street



Existing pedestrian crossings at South Avenue and Woodbury Blvd.

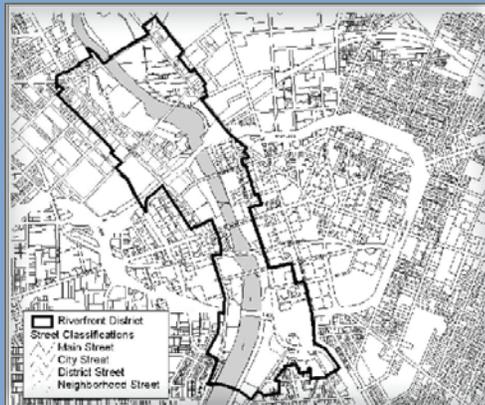
Aerial view of the Woodbury Boulevard Corridor which terminates at the Erie Harbor Park site



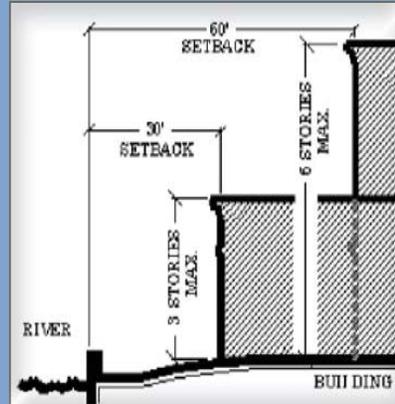
Only three blocks in length, Woodbury Boulevard runs east-west through downtown from Chestnut Street to South Avenue. One of the project goals developed by the City of Rochester is to promote Woodbury Boulevard as a “green corridor” which ties the south east portion of downtown to the Genesee River. The eastern end of Woodbury Boulevard is anchored by the Strong National Museum of Play (a highly used cultural destination) and Manhattan Square Park (designed by well known landscape architect Lawrence Halprin in the 1970s), currently undergoing significant upgrades by the City. At the midpoint of Woodbury Boulevard exists another cultural and open space pairing the Geva Theatre Center, and Washington Square Park (designed by Frederick Law Olmsted in the late nineteenth century). An obvious opportunity exists for Erie Harbor park to provide a significant anchor to the western end Woodbury Boulevard, capitalizing on the rich history of the site and a connecting to the riverfront. There is also potential to improve the vehicular circulation of the existing road network around Erie Harbor Park, particularly on South Avenue. Motorists currently heading west on Woodbury Boulevard arrive at the intersection with South Avenue, and are unable to take a right to head back into the downtown core due to South Avenue functioning as a one-way street. Drivers heading west on Woodbury Boulevard are given two options, which include getting on I-490 east, or heading south South Avenue into the South Wedge Neighborhood, both which involve funneling cars away from Center City.

■ Form Based Code

The objective of a form based zoning code is to guide development and redevelopment projects specifically with regard to the size, scale, massing, etc., of building form rather than prescribing specific land uses. Rochester's Center City form based code has a series of overlay districts which further specify building requirements for various districts within downtown.



City of Rochester River Corridor Overlay District Map



River Corridor Design Guidelines

Center City Code:

The site falls within the Riverfront District of the Center City zoning code, which establishes development parameters such as the setback of buildings from the river, the maximum height of buildings, landscape and lighting requirements, etc. The Riverfront District also ensures uninterrupted public access along the river via a 30 foot setback buffer from the river edge. The intent of the Riverfront District is to guide the form of new development in an effort to encourage pedestrian scaled buildings, ranging in height from three stories (30 feet off the river edge) up to six stories (60 feet of the river edge). The height transition preserves the openness of the river corridor.

Riverfront District Regulations:

Minimum lot frontage = 30 feet

Buildings adjacent to the river must be set back 30 feet to a maximum of three stories and 60 feet to a maximum of six stories

Front yard setback = 0 feet

Building height minimum = three stories (30 feet)

Building height maximum = six stories (72 feet)

Parking may not be located on the riverfront

Parking must be screened from streets by a wall conforming to building materials

A river promenade must be located adjacent to the river with a minimum



The Center City Code creates a framework for new development that supports well thought out urban design principles and integration with existing building stock

■ Design Precedents

Prior to conceptualizing design recommendations for Erie Harbor Park, waterfront sites in other communities were looked at for design inspiration. Many cities across the country such as Providence Rhode Island, Columbus, Georgia and Chicago, Illinois have embraced their river frontages and established significant public realm improvements which focus on water.



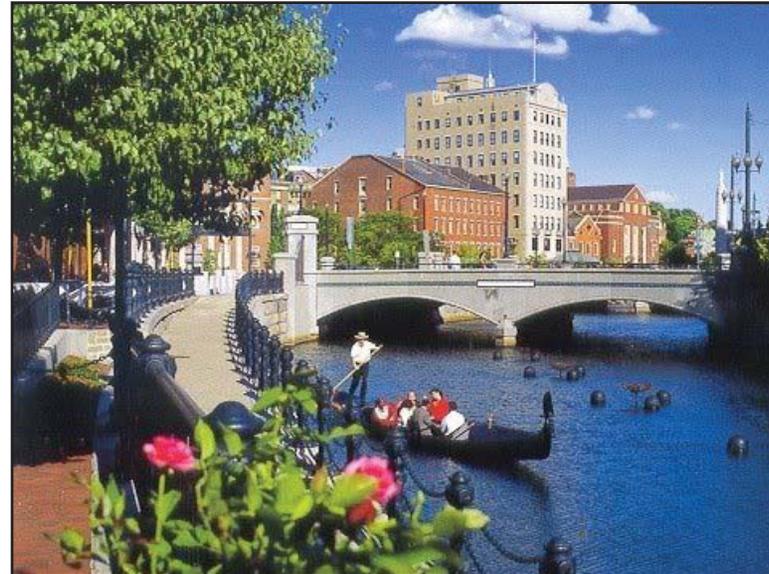
Waterplace Park: Providence, Rhode Island



Chattahoochee Riverwalk: Columbus, Georgia



Chicago Riverwalk: Chicago, Illinois

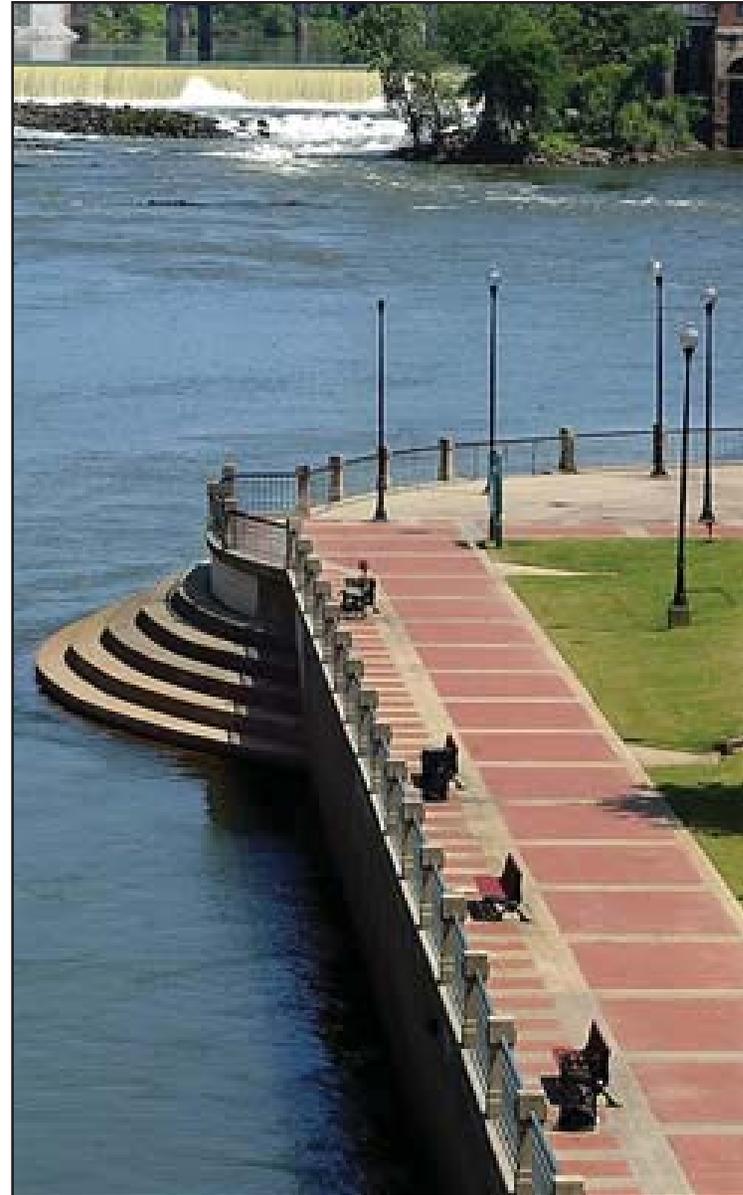


Waterplace Park: Providence, Rhode Island

Waterplace Park located in downtown Providence, Rhode Island was completed in 1994, and is immediately adjacent to Riverwalk, a series of pedestrian promenades located along the junction of three river - the Woonasquatucket, Providence, and Moshassuck. The Providence waterfront was once a bustling hub for the shipping trade, but portions of the river area were covered over with highways and parking lots in the 1950s and 60s. The idea for what is now Waterplace Park was first proposed in the 1980s, and conceptualized a plan that would uncover the buried rivers and surround them with amenities for pedestrians rather than cars. Waterplace Park is now a central gathering place within downtown Providence, and is the site of the popular Waterfire, a series of nearly 100 burning braziers lit on the river and accompanied by music from dusk until midnight. Waterfire occurs approximately 18 times a year, and attracts more than 500,000 visitors annually. Recently, a private residential development called simply, Waterplace, was constructed adjacent to Waterplace Park, and consists of 193 units which range in size and style from 1 bedroom flats to townhouses and penthouses, and also features an underground parking garage. The significant economic impact of Waterplace Park and the Providence Riverwalk has become increasingly apparent since its completion.

Precedent concept that could be applied to Erie Harbor Park:

Showcases an urban riverfront, and leverages a natural asset into an opportunity to spark private development which adds to the tax base, and increases property values by way of establishing a high quality public realm.



Chattahoochee Riverwalk: Columbus, Georgia

The Chattahoochee Riverwalk is a twenty-two mile walking and biking area along the Chattahoochee River in Columbus, Georgia, and provides residents and visitors with recreational activities while highlighting historic elements along the way. A combined sewer pipeline along the bank of the Chattahoochee River installed in the middle part of the 20th Century had diminished the natural beauty of the river corridor, and the Riverwalk was design to stabilize the bank along the river edge, and allow the public to have closer access to the water. The physical design of the Riverwalk makes us of a variety of materials and forms such as tinted concrete, unit pavers, decorative fencing, railing and lighting, gateway features, and interpretive signage. Public art has also been incorporated along the route creating a space that is beautifully design and that ties the community to a significant natural asset.

Precedent concept that could be applied to Erie Harbor Park:

Creates a generous, and beautifully designed public promenade which includes decorative features such as paving, lighting, public art, and provides improved access to the waterfront. Promoting the river as a place for recreational opportunities is another way in which project the project can be directly tied to water.



Chicago Riverwalk: Chicago, Illinois

A recently completed master plan for the Chicago Riverwalk establishes a unique pedestrian waterfront environment along the south bank of the Chicago River. The Riverwalk will be universally accessible to all visitors and contain a variety of spaces that accommodate both passive and active recreation. This will be accomplished by the expansion of the riverwalk twenty to twenty-five feet in width to provide the area needed for under bridge connections. A series of bridge underpasses are being constructed which will allow for a seamless, uninterrupted 1.2 mile trail along the Chicago River, giving bikers a safe access to the Lakefront Trail. Vertical access between Wacker Drive and the Riverwalk is currently limited to a series of staircases located adjacent to road and bridge infrastructure, therefore, the Riverwalk is not accessible to people with disabilities. A series of vertical access improvements comprised of ramps and elevators are proposed to address this issue in order to provide access to all people, and to improve the function and commercial viability of the riverwalk. Universal access, and an uninterrupted continuous promenade will strengthen the usefulness and viability of the Chicago Riverwalk, as a premier destination that embraces the riverfront.

Precedent concept that could be applied to Erie Harbor Park:

Overcomes the challenges presented by grade separations between street level and river through the use of ramps, stairs, and elevators, thereby tying the urban street grid of the City to the river corridor.

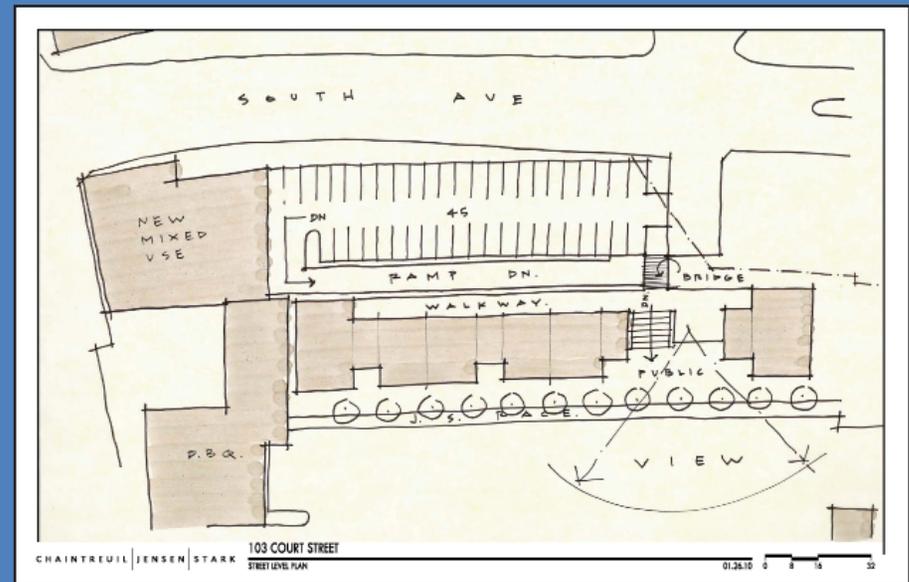
■ Project Participation

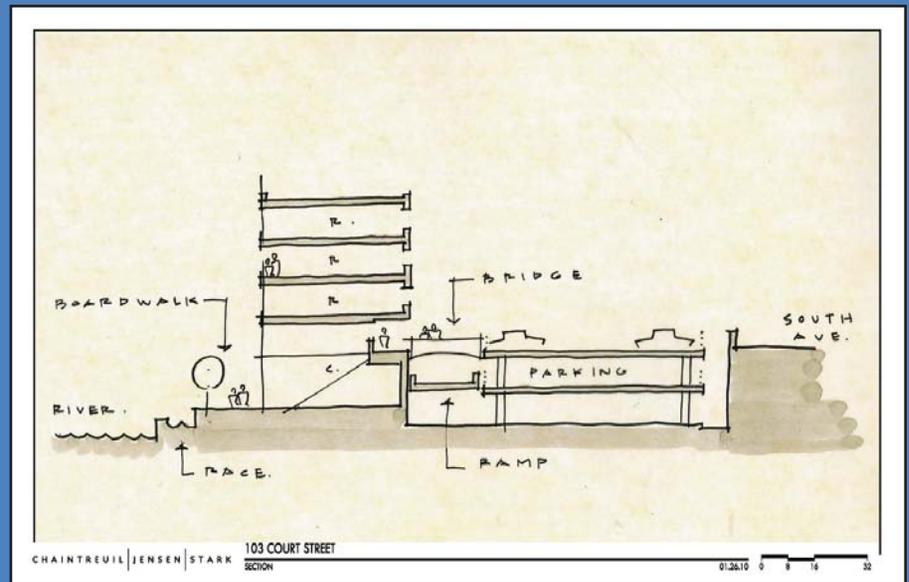
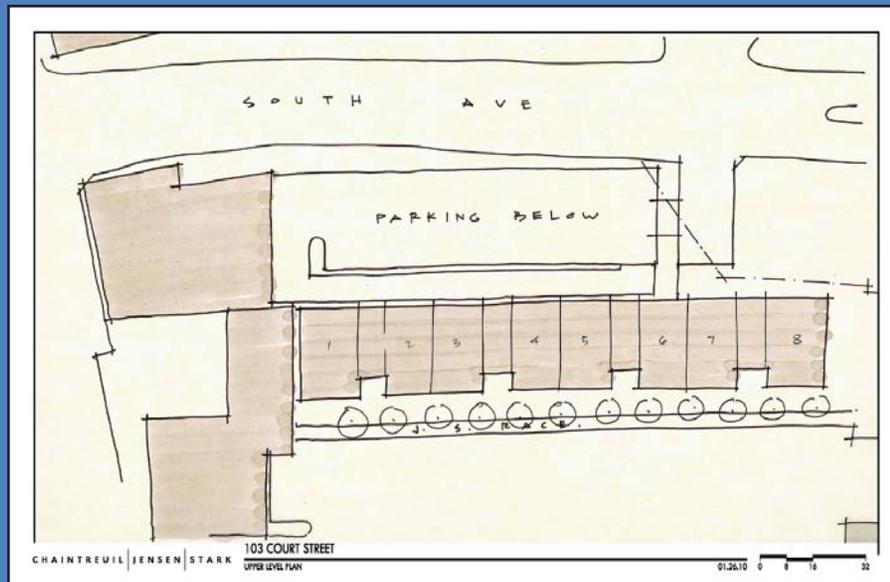
The master plan contemplates both public and private improvements to the Erie Harbor Park site, therefore it was critical to work closely with the Farash Corporation throughout the planning process, as Farash maintains ownership of the majority of the site. Once the City of Rochester contracted a consultant to perform planning and preliminary design for Erie Harbor Park, Farash concurrently retained a consultant, CJS Architects, to investigate the private development potential of the property. In an effort to coordinate the two processes, a meeting was held early on in the process which included representatives from various departments within the City of Rochester, the City's consultants for the project (T.Y. Lin International and Plan Architectural Studio), Farash Corporation, and their consultants (CJS Architects). After contemplating the opportunities and constraints of the site, CJS Architects produced concept sketches for Farash which envision a dense residential development on the site, and public access along the river. Viewshed to the river from Woodbury Boulevard would be maintained through an opening in the development in order to preserve existing sightlines. Since the Erie Harbor Park site is approximately 20 feet below the elevation of South Avenue, a parking ramp could easily be constructed that would be fully below the street elevation, and serve the proposed development. This would allow the parking to be out of view, yet still provide a critical amenity with regard to off-street parking and residential projects.

Recognizing the importance of gaining outside input during the master planning process, a Project Advisory Committee (PAC) was formed made up of representatives from the City of Rochester, area businesses, institutions, and advocacy groups. Individuals from Excellus Blue Cross Blue Shields (whose Rochester headquarters building is located across the street from the site), the Rundel Library, Rochester Riverside Convention Center, and the Landmark Society of Western New York ensured that the immediate stakeholders around the site were well represented. Advocacy groups such as the Rochester Bicycling Alliance, Rochester Inline Skate Club, Rochester Downtown Development Corporation, Rochester Regional Community Design Center, and

representatives from the Corn Hill Neighborhood Association, South Wedge Planning Committee, and the Grove Place Neighborhood Association also provided valuable input.

The first PAC meeting was held on February 25, 2010, and served as an opportunity to present the general outline and scope of the project. A presentation of the site history and existing conditions was also offered, and some conceptual recommendations for the site and adjacent area were discussed in order to gain feedback from the PAC on which direction the master plan should take. The conceptual recommendations presented included improvements to South Avenue, and three possible site development options.





■ **Erie Harbor Park Conceptual Site Options**

Based on the analysis of existing conditions, evaluation of design criteria for creating great public space, analysis design precedents, and processing input from the public, three distinct conceptual site design options were generated which build upon the goals set forth in the Local Waterfront Revitalization Plan (LWRP), and the Rochester's Center City Master Plan. All three options include public access via a river promenade, but each differs with regard to how the remainder of the site is treated. It was determined that the three options explored would contemplate varying degrees of development density.

Once the three site options were developed, it was important to present them to area stakeholders, advocacy groups, and the public via Project Advisory Committee meetings and Public Meetings, in order to gain valuable input with regard to the best possible use of the site.

Initial Site Option Alternatives



Option 1: Full Development



Option 2: Half Development / Half Park



Option 3: All Park

Initial Site Option 1: Full Development

A dense private development that would incorporate residential units along the riverfront, an underground parking ramp sized for approximately 150 vehicles, and a mixed-use building at the corner of Court Street and South Avenue was envisioned in Option 1. A small park space would be constructed south of the development that would tie the project to the existing Genesee Riverway Trail. A generous public promenade would be constructed along the river linking the private development to the waterfront, and pedestrian network beyond.

The intent of this design option would be to implement a dense use for the site, that would add to the growing population base of the Center City. Other residential projects have either been completed, or are underway east of the site on South Avenue, as well as in the adjacent South Wedge neighborhood. A residential development at the Erie Harbor Park site would not diminish the desire to incorporate public access along the river, and would complement other uses already present in the area, such as office, restaurants, and cultural venues. The Center City Code dictates a three story building height maximum along the river, and allows building to reach up to six stories, 60 feet back from the river edge. This option assumes a development maximizes what is allowed under the code. A three story residential development is conceptualized along the river frontage, and is attached to a six story mixed use building that could house restaurant or retail space on the first floor, and five floors of residential units above.

Pros:

- Activates area with residential and commercial uses.
- Maximizes density on a waterfront parcel.

Cons:

- Traffic access and control could be challenging.
- Possible conflicting uses between trail users and residents/commercial tenant patrons.



Option 1: Full Development



Initial Site Option 2: Half Development / Half

Option 2 reserves half of the site for private development, and half for a public park. The northern half would be developed with a small mixed-use building including housing and commercial space, attached to a small parking ramp, while the southern half would be dedicated park space. A public river promenade would tie the two together, and ensure public access along the riverfront. A focal element, such as a fountain, would be placed at the entry point, aligning with Woodbury Boulevard to visually link the site with the adjacent corridor.

This option would still bring a residential presence to the site, but in a less dense way than was explored in option 1. A small three story residential development is conceptualized along the river, and a commercial building is depicted at the intersection of Court Street and South avenue in an effort to build-out the southwest corner of the intersection. This building would likely house a restaurant use that could compliment the existing adjacent restaurant, and build off of existing restaurant demand.

Pros:

- Balances public and private uses.
- Smooth transition from existing space to development.

Cons:

- Financing difficulty due to small building footprint not producing sufficient yield to make project cost effective, especially due to high cost of garage construction.



Option 2: Half Development / Half Park



Initial Site Option 3: All Park

Option 3 considers the possibility that private development may not occur on the site, and that the City could acquire the land and create a large public park. A small surface parking area would allow for trail head parking, and the river promenade would be the prominent site feature. This option also contemplates the potential for re-purposing the abandoned elevated roadway as a park overlook area. Shown in brown, the elevated roadway segment would be stabilized, incorporate new railings, and provide opportunities for unique views into the site, and across the river.

The all park option would reinforce the concept of Woodbury Boulevard as a green corridor that strings together urban parks. In option 3 Erie Harbor Park would take its place as a new 21st Century Rochester Park that would complement the 19th Century Washington Square park one block away, and the 20th Century Manhattan Square Park two blocks away.

The all park option would also preserve an area to accommodate the long term vision outlined in the Master Plan for Rochester's Historic Canal District. The goal of the district is to celebrate the historic alignment of the Erie Canal through downtown Rochester, and one of the visions is to recreate the canal along its original alignment. A round lock has been envisioned for a site just south of Erie Harbor Park that would allow boats to enter the new canal directly from the Genesee River. The canal would then run through the Erie Harbor Park site and then enter the tunnel under the Rundel Memorial Library Building after which it would daylight and cross the Genesee River via the restored Erie Canal Aqueduct. While funding for this vision is not yet in place, its potential inclusion has been considered in the all park option for Erie Harbor Park.

Pros:

- Limits the potential for increased traffic.
- Creates new usable riverfront park space.

Cons:

- Downtown already has several parks, and maintenance costs are a concern.
- Eliminates potential for residential and/or commercial uses that would help activate the area.



Option 3: All Park





Site Improvements Phase I



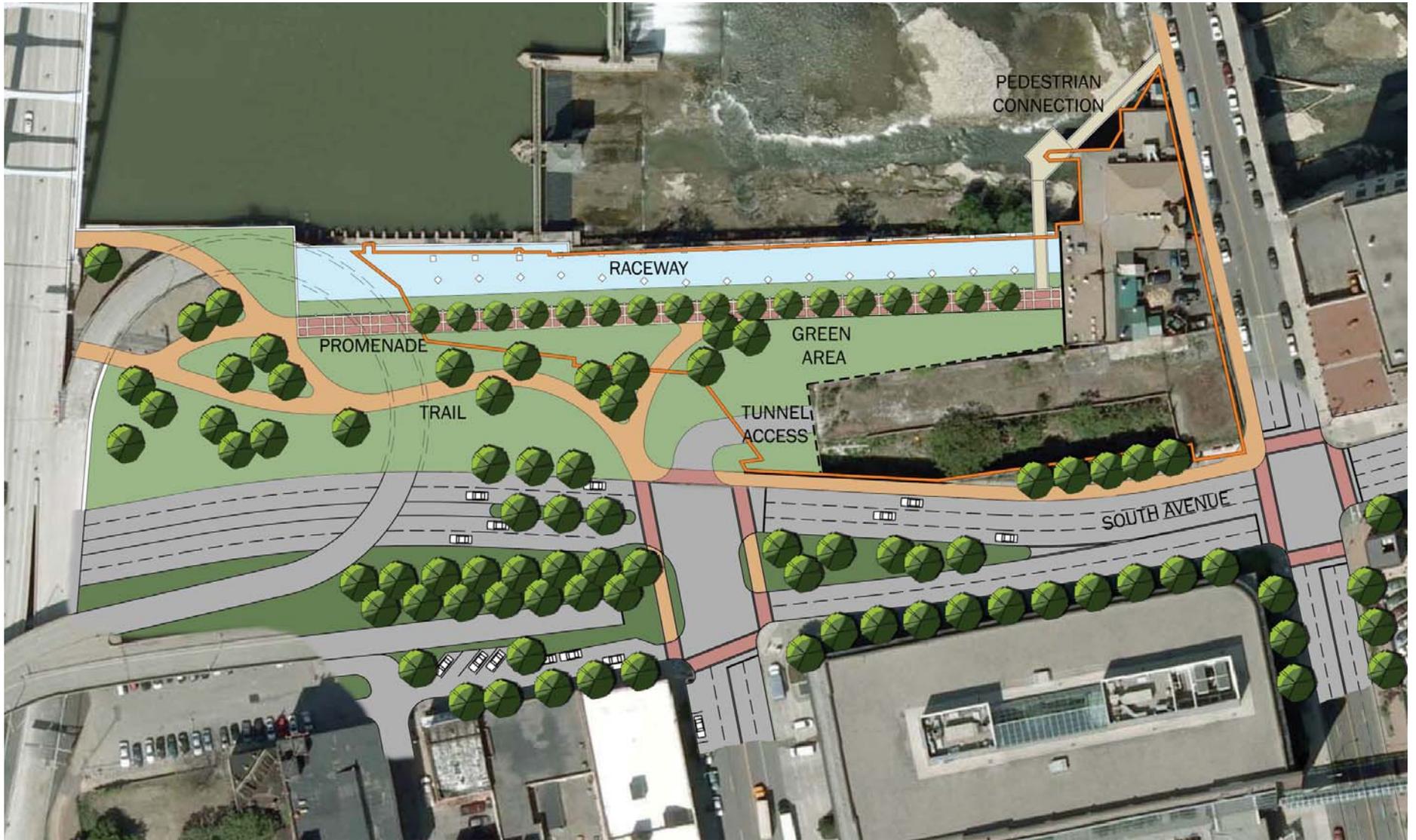
■ Recommended Design Option and Site Phasing

After gaining feedback from both the PAC and the public at large, the consensus was to develop a site plan that will not preclude the potential for private development in the future by focusing the public improvements along the river edge in lieu of establishing a traditional park on the site. In fact, many felt strongly that this area should be highly developed rather than used as parkland, and therefore, favored Option 1, Full Development. Extending the Genesee Riverway Trail north to Court Street accomplishes the main project objective, creation of a river promenade along the Johnson and Seymour Raceway, and encourages the Riverway Trail to continue along the river corridor through downtown. The public improvements will be executed in phases, and coordinated with the Farash Corporation. These improvements may occur regardless of whether a private development takes place on the site, but at the same time are certain to increase the attractiveness of the site for private investment.

Site Improvements Phase I

The initial phase of improvements to the site will involve removal of the existing chain link fence, which currently prevents public access to the riverfront. A new fence will be constructed around the abandoned elevated road structure and tunnel entrance which will ensure public safety by prevent public access to the tunnel, and keeping people a safe distance from the abandoned elevated roadway. The existing Genesee Riverway Trail will be extended and expanded to include the area along the raceway, and the raceway corridor will be cleaned of debris and vegetation currently obscuring views of the watercourse. The trail will be constructed with asphalt, and be 10-12 feet in within which is consistent with the existing Riverway Trail. The site will also be similarly cleaned of debris, and substantially “greened” through the establishment of a maintained lawn. Phase I will achieve a number of goals, such as increasing the visibility of the historic raceway, extending the trail system, and cleaning up the appearance of the site, all at a relatively low cost.

Erie Harbor Park Phasing Costs	Time Frame	Phase Components	Total Cost
Phase I	Year I	<ul style="list-style-type: none"> ■ Site Grading ■ Lawn Seeding ■ Chain Link Fence Installation ■ Asphalt Trail Construction ■ Tree Planting 	\$125,000



Site Improvements Phase II

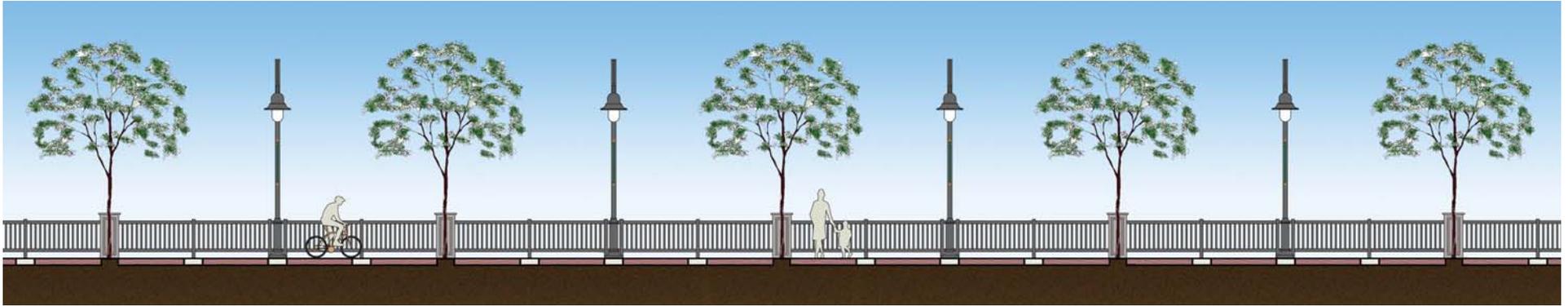


Site Improvements Phase II

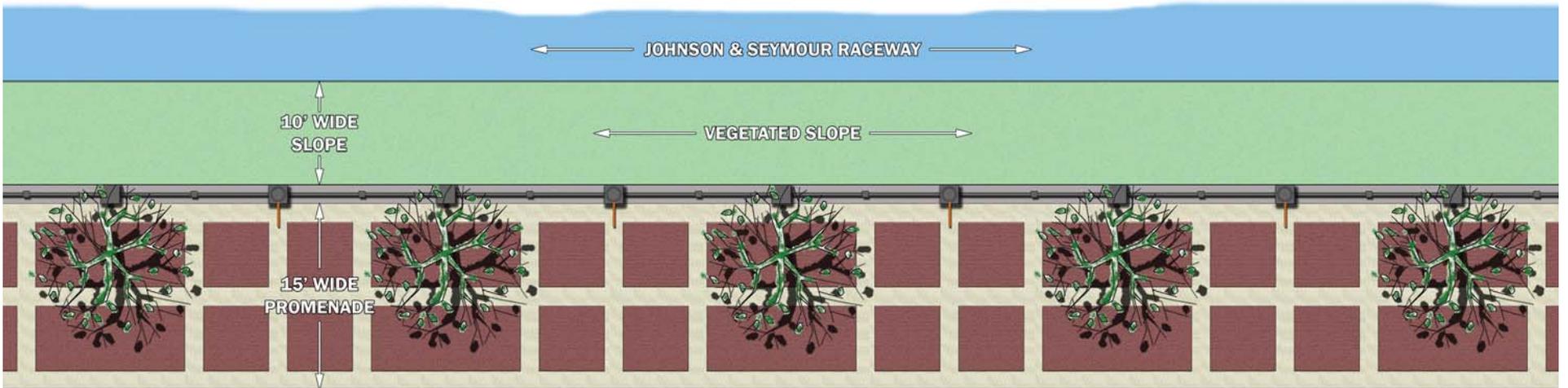
Following the initial phase of improvements, Phase II establishes the most significant of the planned public improvement elements with the construction of a formal river promenade, and ramp connection to Court Street. The promenade is intended to be 15 feet in width and constructed using premium materials such as tinted stamped concrete, exposed aggregate finishes, modular concrete pavers, or a combination of these. The promenade will be sited five feet higher than the Johnson & Seymour Race, and a decorative metal railing will be placed along the western edge of the walkway to ensure safety, as the vegetated slope will make up the grade difference between the promenade and raceway. This grand pedestrian walkway will be punctuated by trees and decorative lighting which will be fashioned with banners announcing the Genesee Riverway Trail. Similar site furnishings are currently in place along the existing river promenade south of Erie Harbor Park, thus similar design elements will strengthen the overall promenade corridor.

The abandoned elevated road structure will still remain in place at this time, as funding will need to be secured for its ultimate removal. While the possibility of its reuse as an elevated overlook was considered during the planning process, it was determined to be in too deteriorated a condition for economically feasible rehabilitation. Just to the west of the abandoned elevated roadway, an elevated ramp will be constructed which will extend the river promenade to Court Street, which is 12 feet higher in elevation. Few realize that the former Lehigh Valley Railroad passenger station is actually cantilevered over the river, and is supported by steel trusses on stone piers. An existing stone pier on at the southern edge of the old passenger station can be used to support the proposed elevated walkway, and creates an ideal opportunity to construct a river overlook. This overlook will have phenomenal views of the water flowing over the Court Street Dam, as well as the river corridor beyond.

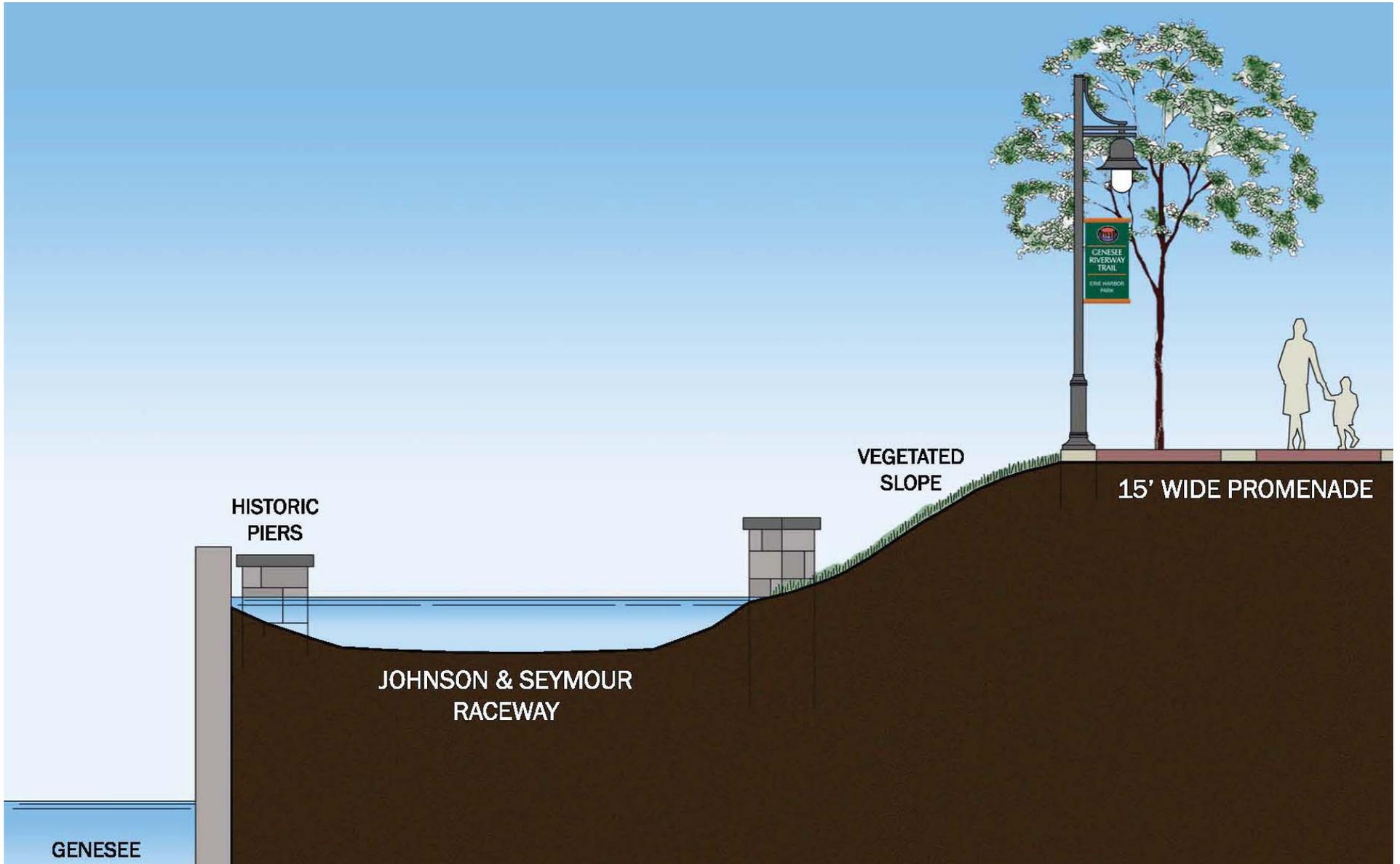
Erie Harbor Park Phasing Costs	Time Frame	Phase Components	Total Cost
Phase II (does not include river wall rehabilitation)	2 - 4 Years	<ul style="list-style-type: none"> ■ Promenade Construction (stamped concrete surface, railings, and landscape) ■ Ramped Trail Connection Construction ■ Light Pole Installation ■ Interpretive Panel Installation ■ Educational Overlook Area ■ Benches and Site Amenities 	\$1,800,000



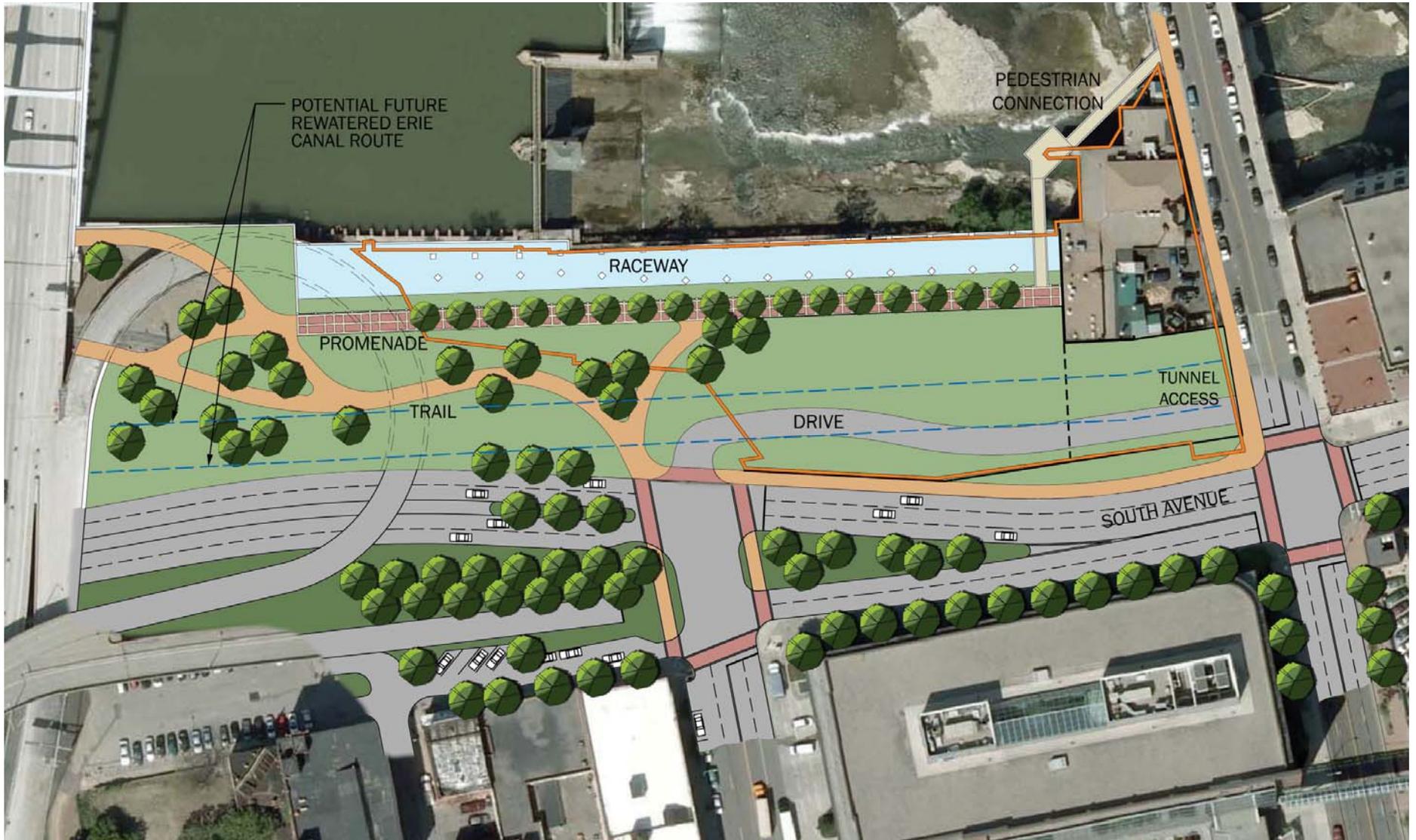
Elevation view of pedestrian promenade



Plan view of pedestrian promenade, vegetated slope, and raceway



Section through promenade, slope, and raceway



Site Improvements Phase III



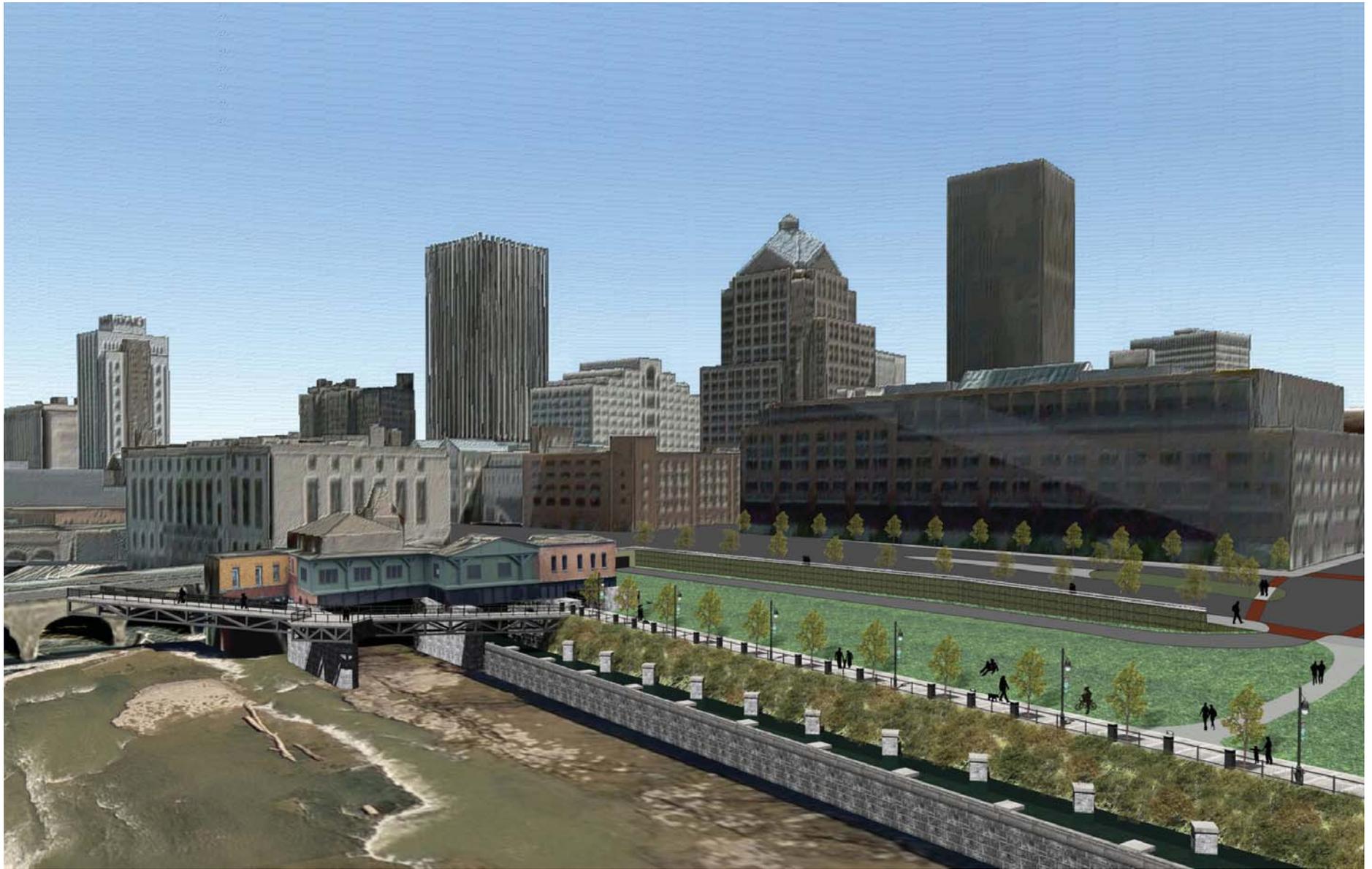
Site Improvements Phase III

Phase III focuses on the removal of the abandoned elevated road structure and creation of a more formalized gated access to the former subway tunnel. A park-like access road will be constructed on grade which will transition from the elevation of South Avenue down to the tunnel portal, and allow maintenance vehicles to continue accessing the tunnel when necessary. While Phase III represents the conclusion of the public improvements, the considerable changes to the site are anticipated to make the site much more attractive to private developers than it has in its current condition. Other river sites in the City of Rochester such as Corn Hill Landing and Brooks Landing have already seen public improvements implemented with, or followed closely by, significant private development. Another private development, to be called Erie Harbor, is soon to break ground south of the Erie Harbor Park site between the river and Mount Hope Avenue, and will include public improvements to the adjacent streetscape and riverfront. The Erie Harbor Park site could easily be developed in a similar fashion with a private and public partnership.

Erie Harbor Park Phasing Costs	Time Frame	Phase Components	Total Cost
Phase III	4 - 6 Years	<ul style="list-style-type: none"> ■ Abandoned Structure Demo ■ Grading and Seeding of Demo Area ■ Driveway Construction (for success to the tunnel entrance from South Avenue) 	\$150,000



Photo rendering of proposed promenade and elevated Court Street Bridge Connector



Birds eye view of Phase III Improvements



View looking north up the Johnson & Seymour Raceway and the Erie Harbor Park promenade. Interpretive panels speak to the history of the site.



View of the transition from the Genesee Riverway Trail into Erie Harbor Park and the promenade.



Photo rendering of river view from Court Street Bridge Connector



Erie Harbor Park Phasing Costs*	Time Frame	Phase Components	Total Cost
Phase I	Year I	<ul style="list-style-type: none"> ■ Site Grading ■ Lawn Seeding ■ Chain Link Fence Installation ■ Asphalt Trail Construction ■ Tree Planting 	\$125,000
Phase II	2 - 4 Years	<ul style="list-style-type: none"> ■ Promenade Construction (stamped concrete surface, railings, and landscape) ■ Pedestrian Bridge (Trail Connection) Construction ■ Light Pole Installation ■ Interpretive Panel Installation ■ Educational Overlook Area ■ Benches and Site Amenities 	\$1,800,000
Phase III	4 - 6 Years	<ul style="list-style-type: none"> ■ Abandoned Structure Demo ■ Grading and Seeding of Demo Area ■ Formal Driveway Construction (for access to the tunnel entrance from South Avenue) 	\$150,000
Full Project			\$2,075,000 + 10% contingency +/- \$2,300,000

*Construction costs were estimated in 2010 dollars. Design and construction inspection fees are estimated to be an additional +/- \$500,000.

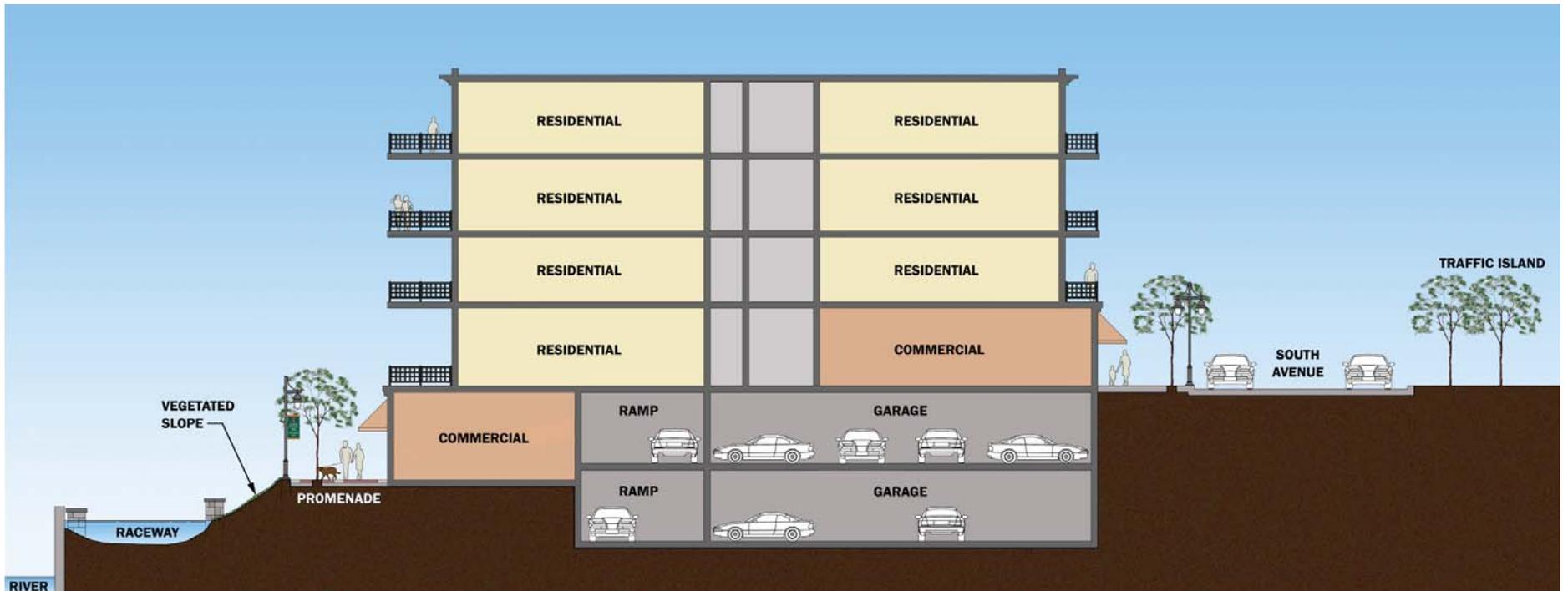


Conceptual Private Development Plan



Conceptual Private Development

The feedback received at the public meeting held in March pointed to the desire for some form of private development to occur on the site that would activate South Avenue and engage the river. While the Erie Harbor Park master plan focuses mainly on public improvements, the potential for private development accommodations on the site has also been explored. The potentially developable portion of the site between the proposed river promenade and the South Avenue retaining wall is approximately 110 feet wide, which is sufficient width to accommodate a development with its own parking structure. Since there is approximately 20 feet of grade change between South Avenue and the proposed promenade, a parking structure could potentially be located below street grade, allowing for a mixed-use development that incorporates commercial space along both the South Avenue and the river promenade frontages, and incorporates residential units above.



Section through Conceptual private Development Plan



Birds eye view of Conceptual Development Plan as conceived by CJS Architects for Farash

■ Access and Area Roadway Analysis

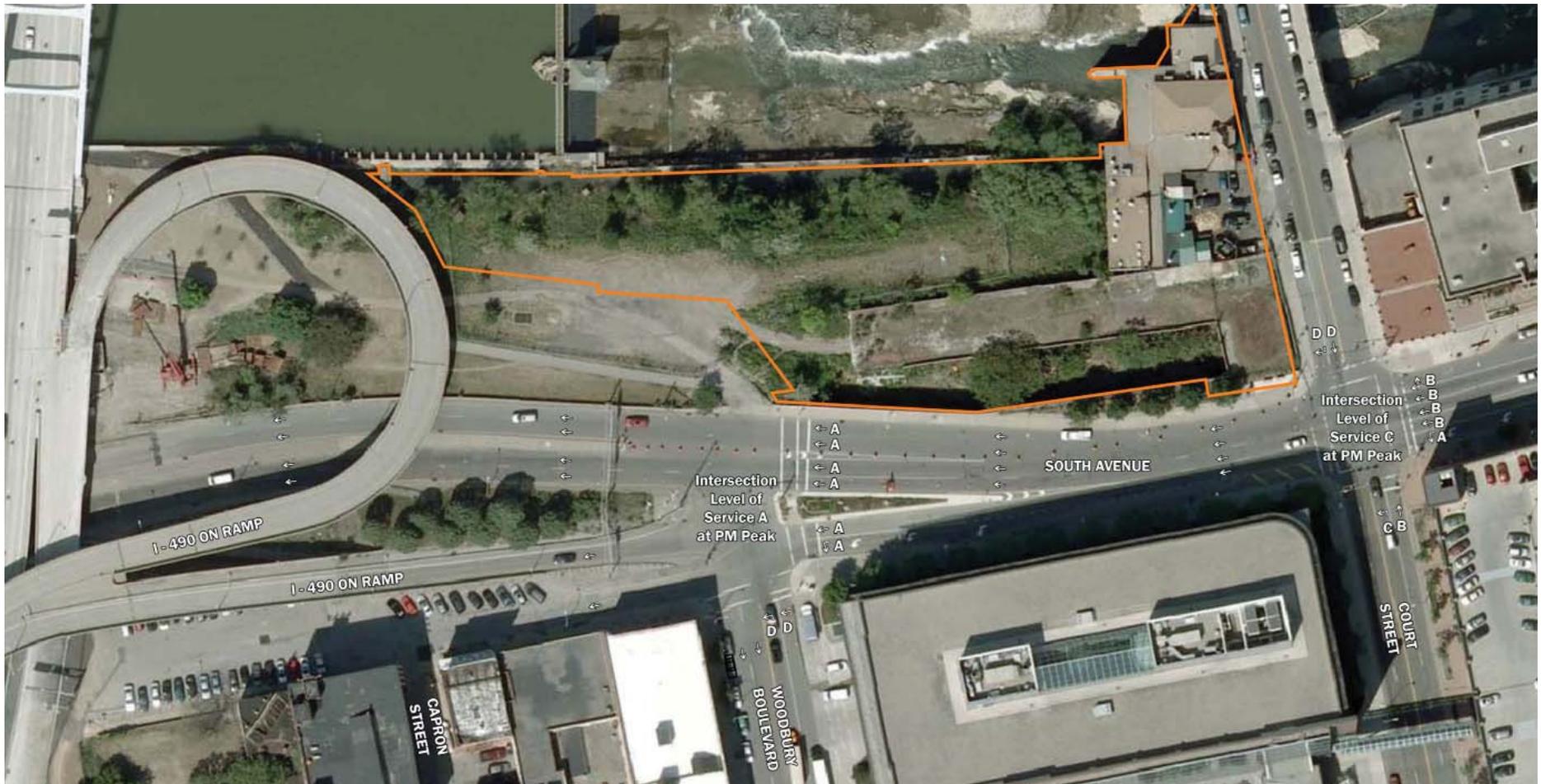
The concept of converting South Avenue to two-way traffic between Court Street and Woodbury Boulevard was discussed at the first PAC meeting. Currently, westbound traffic on Woodbury Boulevard must head south when reaching South Avenue, and there is no formalized curb-cut in place which could provide access to the Erie Harbor Park site. This stretch of South Avenue currently operates as both a through street, and on-ramp to I-490, and is not easily navigable by pedestrians and bicyclists. To better determine the feasibility of two-way conversion, the current levels of service for both the Court Street/South Avenue, and the Woodbury Boulevard/South Avenue intersections were analyzed. The “level of service” for a roadway or intersection refers to an alphabetical system used by the Department of Transportation which rates the ease of flow. Level of service “A”, for example, indicates free flowing traffic, while a level of service “D” would indicate that cars wait through several traffic light cycles at a given intersection before passing through. DOT typically describes any intersection that operates at a LOS of D or better to be acceptable. The existing conditions graphic (see below) presented to the PAC, indicates that the overall Court Street/South Avenue intersection currently operates at a level of service ‘C’ at “PM peak”, also known as rush hour, around 5:00 in the evening. It is not uncommon for an intersection to operate at a level of service “C” or “D” during rush hour in a downtown core. The Woodbury Boulevard/South Avenue intersection operates at an overall level of service “A”. The level of service for individual travel lines within the surrounding roadways was also presented. All six lanes of South Avenue between Court Street and Woodbury Boulevard operate at a level “A” during rush hour, while the left turn movements onto South Avenue from Woodbury Boulevard operate at a level “D”. It should be noted that north is to the right, when looking at the graphics, so for orientation purposes the Genesee River is the top (west), I-490 to the left (south), and Court Street (north) to the right.

There are currently two ways of accessing I-490 from South Avenue. Southbound traffic heading to I-490 forks such that approximately half of the motorists use the two western most lanes of South Avenue to access I-490, and the other half use the lane immediately east of the planted island in South Avenue. Since pedestrian and bicyclist must cross six lanes of traffic that is generally picking up speed to access I-490, currently crossing South Avenue can at times be daunting.

The proposed changes to South Avenue involve closing the on-ramp to I-490 closest to Woodbury Boulevard. That would allow for the roadway conversion to two-way circulation between Woodbury and Court Street. It was brought up at the meeting that the Genesee Transportation Council has recently approved funding of a study that will examine the potential conversion of South Avenue/St. Paul Street and Clinton Avenue to two-way traffic from Broad Street northward to the Inner Loop. The study will be administered by the City of Rochester, and a Request for Proposals is expected to be issued sometime this summer. It was pointed out that should the rest of South Avenue be converted to two-way traffic, it would logically be tied into the block presented for conversion as part of the Erie Harbor Park master plan. Either way there is merit in analyzing the conversion of the block between Woodbury and Court, as it allows traffic to circulate back into the downtown core from Woodbury Boulevard, and allows for proper access to the Erie Harbor Park site (see below).

With regard to levels of service, it was explained that the South Avenue/Court Street intersection would likely reduce to an overall level of service “D”, and South Avenue/Woodbury a level of service B, during rush hour. A widening of the existing planted island in South Avenue and the construction of high visibility pedestrian crosswalks at the two intersections would make strong non-motorized connection to Erie Harbor Park, and help to calm traffic.

As the largest adjacent stakeholder, it was acknowledged that Excellus has concerns over potential impacts to employees exiting the parking garage onto Woodbury Boulevard at rush hour. It was mentioned that an increase in commuters heading to I-490 on Woodbury Boulevard has been noticeable since ESL has opened their new headquarters building down the street. Excellus employees looking to head westbound on I-490 primarily turn left onto Woodbury Boulevard in order to head to Chestnut Street, where access to I-490 can be obtained via the Inner Loop. Allowing a northbound movement on South Avenue would eliminate the need to make a difficult left turn onto Woodbury during rush hour in favor of a right hand turn on Woodbury where vehicles could then head north on South Avenue, east on Court Street and South on Chestnut to the Inner Loop before heading west on I-490. Right hand traffic movements are typically preferable to left hand turns as they involve far fewer conflicts.



■ Site Access and Area Roadway Improvements

Given the challenges of the existing roadway configuration, conceptual improvements were developed to help improve both motorized and non-motorized access to the site, and to better tie Erie Harbor Park to the existing urban fabric.

I-490 On-ramp Recommendations

As previously noted, there is a redundancy in the existing on-ramp accommodations to I-490 east. Of the two on-ramps, the eastern most ramp is the more obtrusive as it is elevated and impacts views from the Capron Street Lofts building. After analyzing current traffic operations in the vicinity of Erie Harbor Park, it was concluded that two on-ramps are not necessary for the current volumes at peak hour, and that use of the elevated ramp could be discontinued, as the at-grade on-ramp has adequate capacity to handle all vehicles accessing I-490 east from South Avenue. The master plan recommends closure and ultimately removal of the elevated on-ramp which will significantly improve both vehicular and pedestrian operations and safety at the intersection.

South Avenue Recommendations

Closure of the elevated on-ramp would allow for an opportunity to convert South Avenue to two-way traffic between Court Street and Woodbury Boulevard. The existing planted island in the roadway could be expanded, and would serve as an ideal separation between northbound and southbound lanes, while also providing a more comfortable refuge island for pedestrians and bicyclists. The new roadway geometry would convert the two eastern most lanes of South Avenue to northbound lanes, one which would become a right-turn only lane for Court Street eastbound, and the other a left-turn only lane for Court Street westbound. The middle lane would be designated for traffic heading south towards the South Wedge Neighborhood (this lane would expand from a single lane to two lanes heading south after the intersection with Woodbury Boulevard), and the two western most lanes would be used for vehicles accessing I-490 east (just as they do in their current form).

Conversion of this segment of South Avenue would not only allow traffic heading west on Woodbury Boulevard to circulate back into the Center City, but also accommodate left-turns from Erie Harbor Park should the site accommodate parking and/or a mixed-use private development in the future. Allowing northbound traffic on South Avenue will greatly improve traffic circulation from Woodbury Boulevard and strengthen access to the central business district. It is also important to note that the Genesee Transportation Council has approved funding for a study to analyze the potential of converting South Avenue and Clinton Avenue to two-way streets between Broad Street and the northern segment of Rochester's Inner Loop (below-grade limited access roadway). The study will be administered by the City of Rochester, and a Request for Proposals is expected to be released in the summer of 2010. Should the study conclude that South Avenue is a candidate for conversion to a two-way street, the study limits could be expanded to include the segment from Broad Street to Woodbury Boulevard.

The preliminary traffic analysis completed to evaluate the feasibility of converting South Avenue to two-way between Court Street and Woodbury Boulevard concluded that traffic operations would remain at an acceptable level of service (LOS), letter grade 'D' or better, albeit with some decrease in to the current level of service during morning and evening peak usage. However, providing proper access to and from the Erie Harbor Park site, plus improving overall circulation and safety for motorists, pedestrians, and bicyclists in the area, make this trade off worthwhile.

In addition to changes in the roadway operation, upgrades to non-motorized users are also recommended. High visibility crosswalks, such as DuraTherm crosswalks which the City of Rochester has used elsewhere in downtown, an expanded refuge island, and additional street trees will all help to improve the safety of pedestrians and bicyclists by calming traffic, as well as beautify the corridor.



■ Preliminary Roadway Improvement Cost Estimate

South Avenue Project Costs*	Two-Way Conversion Project Components	Total Cost
Road Markings	<ul style="list-style-type: none"> ■ Pavement Striping ■ Pavement Arrows 	\$5,000
Signage Updates	<ul style="list-style-type: none"> ■ Existing Signage Removal ■ New Overhead Signage and Installation ■ New Ground Mounted Signage and Installation 	\$6,000
Signal Changes	<ul style="list-style-type: none"> ■ Modification of Existing Signal Heads ■ Addition of New Signal Heads ■ Mast Arm and Pole Modifications ■ Conduit and Wiring ■ Additional Pedestrian Signal Heads 	\$65,000
Full Project		\$76,000 + 10% contingency +/- \$84,000

*Construction costs were estimated in 2010 dollars. Traffic analysis & construction inspection fees are estimated to be an additional +/- \$20,000

■ **Concurrent Projects**

In the fall of 2009, the City of Rochester completed a proposal that envisions utilization of the historic Johnson and Seymour Raceway as a generator of hydrokinetic energy. The report references the adjacent Erie Harbor Park project and the notion that placing hydrokinetic turbines in the raceway will provide an excellent venue for historic and educational interpretation. Hydrokinetic power refers to the generation of electricity from moving water, where as hydropower dams operate via water pressure built up behind impoundments or diversionary structures. The use of turbines in the raceway at Erie Harbor Park would not only serve as an educational opportunity promoting “green” harvesting of energy, but could also produce clean energy that could be used to illuminate the proposed Erie Harbor Park site lighting, and the facade of the adjacent Rundel Memorial Library at night.

■ **City of Rochester Hydro-Kinetic Energy Plan**

This initiative consists of installing hydrokinetic (in-stream) turbines in the existing Johnson Seymour Mill Race to supply energy for illumination of the east end of the Broad Street Bridge and the west face of the Rochester Rundel Memorial Library, which overlooks the Genesee River and is constructed over the race.

■ **Rochester’s Historic Canal District Master Plan**

In 2009, the City of Rochester completed a master plan for the Erie Canal Aqueduct and Broad Street Corridor, which called for the establishment of a Historic Canal District within the south west portion of center city Rochester. Drawing on the history of the Erie Canal, the district looks to celebrate the waterway through public improvement project and themed private developments that will reinvigorate this portion of downtown.

■ **Rochester Skate Park**

The Rochester Skatepark is envisioned for the area just south of the Erie Harbor Park site, under the existing 490 east on-ramp. The Skatepark depicts an opportunity to create not only a youth park, but a youth district where young people can feel safe and welcome whether they are participating in the action or simply spectating.

■ **St. Paul & North Clinton Two-Way Conversion Study**

The project being funded by the Genesee Transportation Council will look to determine the feasibility of converting St. Paul Street and North Clinton Avenue between East Main Street and the Inner Loop to two-way traffic to improve neighborhood accessibility and walkability. If feasible, prepare a draft concept-level plan for implementation of the two-way conversion including necessary traffic signal modifications, roadway geometric changes, and bicycle/pedestrian enhancements. If infeasible, recommend alternatives to enhance accessibility and improve the bicycle/pedestrian friendliness of the district.