Final Report March 2026

Genesee Riverway Trail North **Completion Study**

Acknowledgments

Project Advisory Committee (PAC)

GTC and the City of Rochester would like to thank the project advisory committee members who provided their input and guidance in developing the vision for the Genesee Riverway Trail.

- **Karen Lankeshofer**, R Community Bikes
- **Bill Collins**, Maplewood Neighborhood Association
- **Pamela Reed Sanchez**, Seneca Park Zoo Society
- **Eugenio Marlin**, Ibero-American Development Corporation
- **Yixuan Lin**, Monroe County Planning
- **Jesse Peers**, Reconnect Rochester
- **Helen Dumas,** Genesee River Alliance
- **Lisa Baron,** Greentopia

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The Genesee Transportation Council assures that no person shall, on the grounds of race, color, national origin, disability, age, gender, or income status, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity. GTC further assures every effort will be made to ensure nondiscrimination in all of its programs and activities, whether those programs and activities are federally funded or not.

Project Team

City of Rochester, NY
Malik D. Evans, Mayor
Rochester City Council

Colliers Engineering & Design

Steele
LANDSCAPE ARCHITECTURE

GENESEE TRANSPORTATION COUNCIL
The Metropolitan Planning Organization for the Genesee-Finger Lakes Region

Rochester 2034
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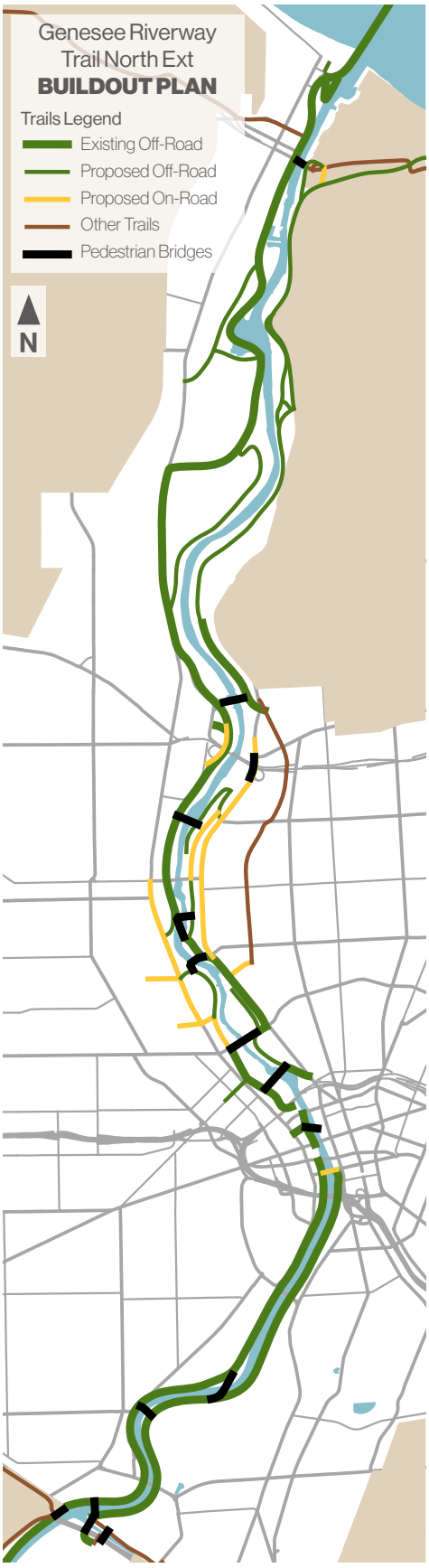


Figure 1 - GRT Buildout Plan

Introduction

Project Overview

Background

The Genesee Riverway Trail (GRT) system represents one of Rochester's significant recreational and transportation assets, extending 24 miles along the Genesee River from the Erie Canal at Genesee Valley Park to the south, through the heart of the City, to Lake Ontario to the north. The corridor traverses through several neighborhoods, industrial areas, natural habitats, and waterfront zones that reflect Rochester's rich industrial heritage and ongoing transformation. Historical land uses including former refinery operations, rail corridors, and manufacturing facilities, which have left a legacy of both heavily developed sites and valuable infrastructure that can be repurposed for trail development.

The alignment of the trail along the Genesee River gorge has presented both opportunities to engage in scenic and recreational experiences, and engineering challenges requiring specialized infrastructure, such as bridges and switchbacks, to navigate steep terrain. Trail establishment has required several planning initiatives, which have led to well-established and heavily-used portions of the trail south of downtown. However, land use, topography, and land ownership constraints along the 8.5-mile northern segment from downtown Rochester to Lake Ontario have inhibited the creation of a seamless, accessible trail network on both sides of the river.

The purpose of this study was to compile the information and recommendations from previous reports and overlay a current examination of gaps and opportunities to establish a refreshed strategic approach to implementing a continuous trail on both sides of the Genesee River north of downtown to Lake Ontario.

The extended GRT will transform connectivity for both long distance journeys and neighborhood loops, elevating Rochester's position within the statewide trail network. For local residents, the trail will allow cyclists and pedestrians to easily access neighborhood amenities like Seneca Park Zoo and High Falls while connecting underserved communities via projects like the Running Track Bridge linking the El Camino Trail to the main trail network. For long-distance travelers and commuters, the trail will complete the critical junction where the Empire State Trail, Erie Canalway Trail, and Genesee Valley Greenway converge, creating a continuous corridor for multi-day treks spanning from Pennsylvania to Canada, and providing Rochester with an advantage as a trail tourism destination.

This expansion will directly support the comprehensive ROC the Riverway initiative, a transformative $500+ million investment creating seamless connections along both sides of the Genesee River through projects like the Aqueduct Reimagined, resulting in a $2.8 billion impact. The trail extension integrates with the planned High Falls State Park, a new $8 million state park in the historic river gorge that will serve as the centerpiece of the ROC the Riverway initiative, while connecting to the Inner Loop North transformation project that will reconnect Downtown Rochester with several Rochester neighborhoods and High Falls through a restored pedestrian- and bike-friendly street grid that converges with the riverway system. Together, these interconnected projects create a once-in-a-generation opportunity to establish Rochester as a national model for urban waterfront revitalization and active transportation infrastructure.

Figure 2 - County-Wide Context

Goal + Objectives

Goal

To establish a world-class, accessible, and seamless trail system along both sides of the Genesee River from Downtown Rochester to Lake Ontario that reconnects communities to their waterfront, promotes active transportation, enhances public health and safety, and serves as a transformative catalyst for economic development while preserving the natural beauty and cultural heritage of the river.

Objectives

+ Compile & refresh existing and proposed trail segments along and connected to the GRT
+ Create a continuous, safe, accessible, and connected trail extending the full length of the City's river corridor on both the east and the west sides
+ Engage stakeholders, partner organizations, and the community in trail visioning
+ Identify potential connections along and within the river gorge
+ Connect to High Falls State Park, with proposed improvements in line with recommendations from the state park study
+ Apply best practice standards to implement and maintain an ADA compliant and sustainable trail
+ Consider on-going operation and maintenance needs
+ Enhance the region's trail system by completing the primary north-south spine and strengthening connections to its neighborhoods and other trail corridors

Study Area

The Genesee Riverway Trail North study area is a north-south corridor located primarily within the City of Rochester, tracing the boundary with the Town of Irondequoit for a portion of the eastern segment. The study area is bounded by the Inner Loop to the south and Lake Ontario to the north, following the Genesee River corridor for approximately 8.5 miles, as shown in Figure 3.

View of CSX Rail Corridor looking North

Trail Connections

The study area intersects with several existing trails, including the El Camino Trail, the Lake Ontario State Parkway Trail, Irondequoit Lakeside Trail, and NYS Seaway Trail.

Parks and Open Space

Parks within or in proximity to the corridor include Ontario Beach Park, Turning Point Park, Maplewood Park and Rose Garden, Lower Falls Park, Seth Green Park, High Falls Terrace Park, Seneca Park, and the planned High Falls State Park. Other open spaces include Riverside Cemetery, Holy Sepulchre Cemetery, and the State-owned parkland at Rattlesnake Point.

Natural Resources

Wetland areas are located along the banks of the Genesee River near Turning Point Park and along the State-owned property surrounding Rattlesnake Point.

Land Ownership

Property ownership along the corridor primarily consists of the City of Rochester, Monroe County, New York State, CSX Transportation, Rochester Gas & Electric (RGE), and the Town of Irondequoit.

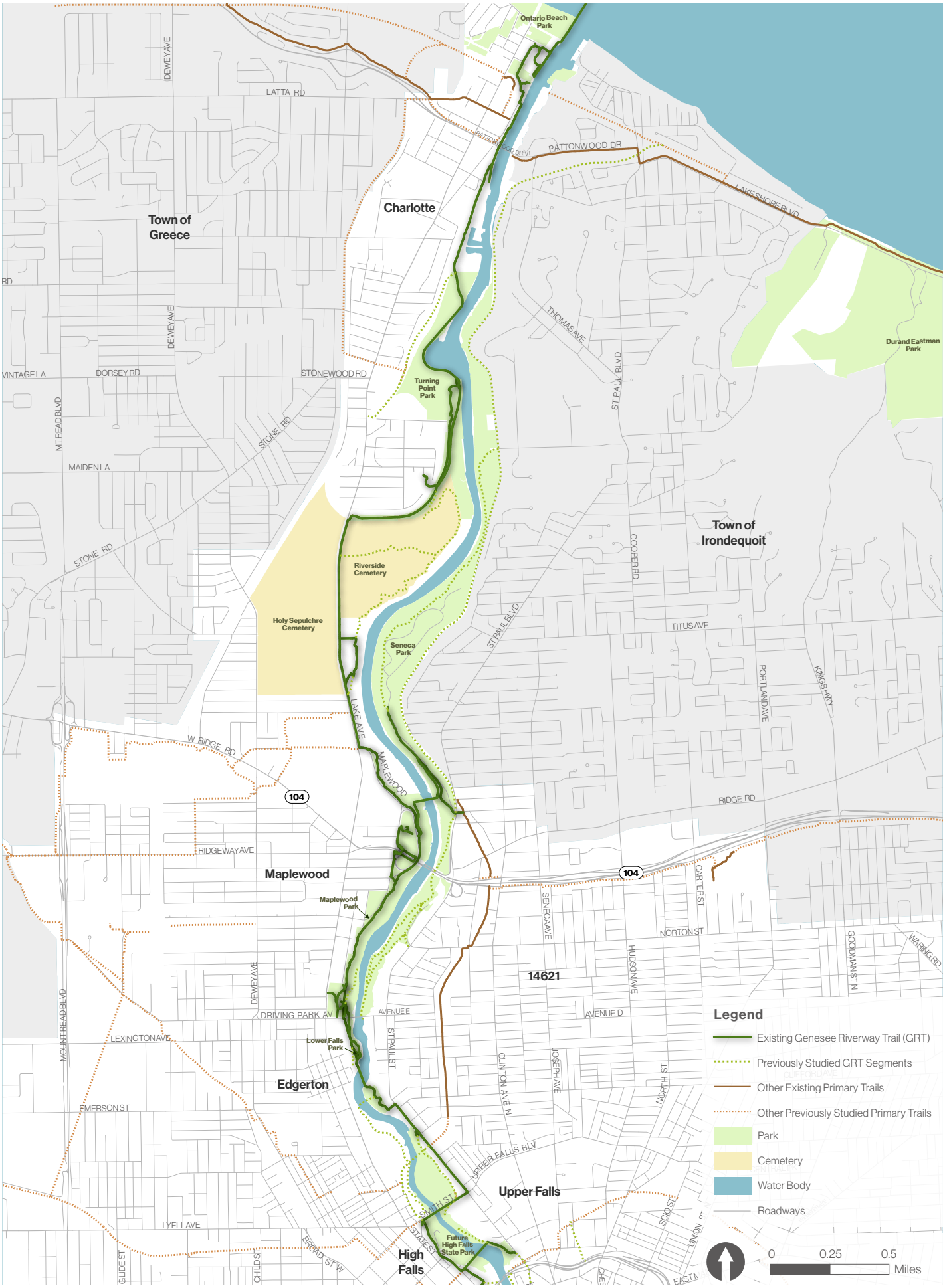
Neighborhoods

The trail passes through the 14621 area, Charlotte, Maplewood, Edgerton, High Falls, and Upper Falls neighborhoods.

Geographic Features

The study area follows the Genesee River from Rochester's urban center north to Lake Ontario, connecting downtown Rochester with the lakefront through varied urban and suburban landscapes along the gorge.

Figure 3 - Study Area



Public Engagement

Project Advisory Committee

A mix of community representatives, stakeholder groups and organizations, and local officials were engaged during the course of this project in the form of a Project Advisory Committee to provide oversight at key milestones and stakeholder interviews.

The Project Advisory Committee consisted of:

+ Karen Lankeshofer, R Community Bikes
+ Bill Collins, Maplewood Neighborhood Association
+ Pamela Reed Sanchez, Seneca Park Zoo Society
+ Eugenio Marlin, Ibero-American Development Corporation
+ Yixuan Lin, Monroe County Planning
+ Jesse Peers, Reconnect Rochester
+ Helen Dumas, Genesee River Alliance
+ Lisa Baron, Greentopia

Public Events

While committee and public input from the extensive list of existing plans and studies was incorporated into this report, a mix of formal and informal engagement events were held throughout the course of this project to solicit public input for needs, opportunities, and recommendations within the localized project study area within the regional trail system.

Bridging Communities

A River Party, Driving Park Bridge, July 27, 2024. The project team attended the event to advertise the project and collecting initial thoughts on vision and existing conditions.

Bridging Communities Public Event

International Plaza Public Event Booth

Genesee River Forum Public Event Table

Genesee Trail Awareness Weekend Public Event Booth

Hispanic Heritage Kick-off

International Plaza, September 15, 2024. The project team set up a booth to ask attendees compare current benefits the trail offers with focus areas for potential trail improvements, and identify priority areas of improvement.

ROC the Riverway Weekend

Genesee Riverway Bike Tour, October 5, 2024. The project team participated in a bike tour to spread awareness of the project and gather insights about existing conditions.

Genesee River Community Forum

Edgerton Recreation Center, November 17, 2024. The event was geared towards sharing information and providing opportunity for input on several river-related projects in the City. The project team shared existing needs, opportunities, and constraints, and collected additional input on trail improvement preferences.

Genesee Trail Awareness Weekend

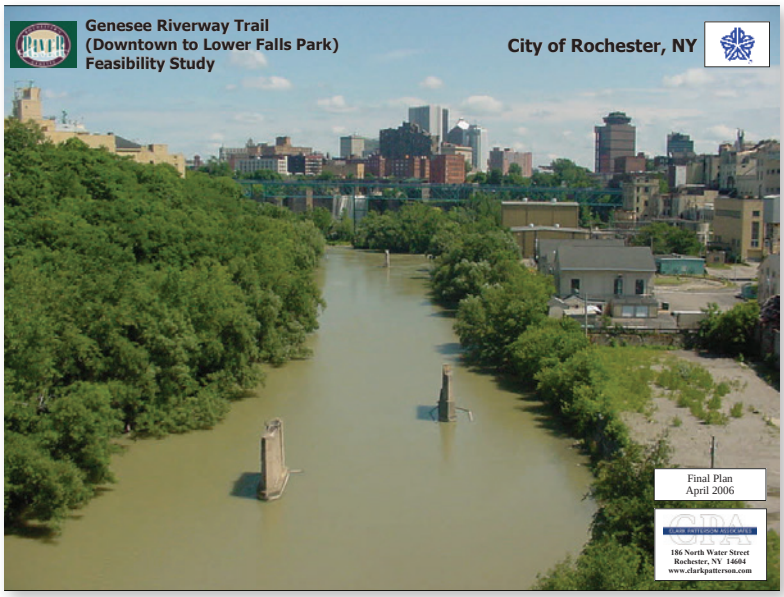
Seneca Park Zoo, July 26, 2025. The project team shared the proposed project profiles and spread awareness of the online mapping tool accessible on the project website including proposed project segments and locations.

High Falls State Park Framework Plan Launch Presentation

MCC Downtown Campus, October 21st, 2025. The project team joined the New York State Office of Park Recreation and Historic Preservation at the High Falls State Park Framework Plan Open House to share the proposed project profiles and provide opportunity for public input on the project.

Existing Plans + Studies

This project consolidates two decades of strategic planning and studies into a unified vision, through the compilation of previous reports, and overlays of a current examination of gaps and opportunities to establish a refreshed strategic approach to implementing a continuous trail north of downtown to the shores of Lake Ontario. The substantial progress already achieved—as illustrated in the Genesee Riverway Trail Development graphic—demonstrates the impact of this coordinated effort. The following sections summarize these plans and studies completed to date and how they contribute to the visioning of the continuous Genesee Riverway Trail along both sides of the Genesee River north of Downtown Rochester.



Genesee Riverway Trail Feasibility Study, 2006

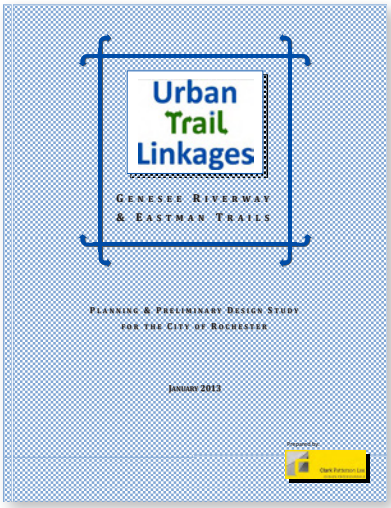
The Genesee Riverway Trail (Downtown to Lower Falls Park) Feasibility Study was developed by the City of Rochester in conjunction with the Genesee Transportation Council in April 2006. This comprehensive study examined the feasibility of creating a 2.75-mile trail segment connecting downtown Rochester to Lower Falls Park, addressing a critical gap in the regional trail network. The study proposed a phased implementation approach with an estimated cost of $1.7 million for Phase I, focusing on creating connections through downtown, the High Falls Entertainment District, and north to the Middle Falls Dam area.

This 2006 study directly relates to current Genesee Riverway Trail extension efforts north of the Inner Loop and Downtown Rochester as it provided the foundational planning framework for connecting the urban core to the northern trail segments. The study's recommended alignment through the St. Paul Street/Edgerton corridor and its identification of the Middle Falls Dam pedestrian crossing established the key northern connection point that modern trail extensions would build upon to create seamless connectivity from downtown through the river gorge to Lower Falls Park and beyond.

Rochester Bike Boulevard Report, 2011

The Rochester Bike Boulevard Report presents the City's comprehensive strategy for creating a network of low-traffic, bicycle-friendly streets that provide alternatives to busy arterial corridors. This plan was completed by the City of Rochester in June 2011 and identifies specific routes for bicycle boulevard development while providing detailed design guidelines and implementation strategies for traffic calming, wayfinding, and intersection treatments. The document addresses the need for parallel bicycle infrastructure in areas where traditional bike lanes are not feasible due to traffic volumes, parking demands, or constrained rights-of-way. It also includes cost estimates, phasing recommendations, and coordination strategies with other transportation improvements.

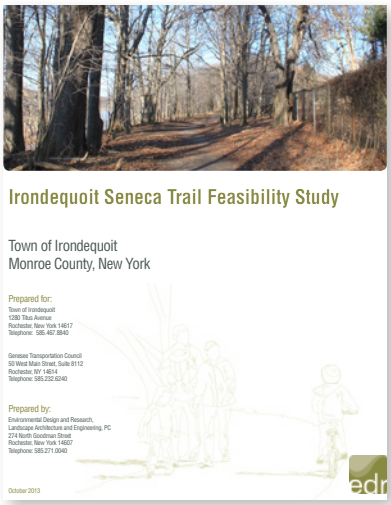
The Bike Boulevard plan provides essential context for connecting the Genesee Riverway Trail North to surrounding neighborhoods through safe, low-stress bicycle routes that extend the trail's accessibility and utility for daily transportation needs.



Urban Trail Linkages Study, 2013

The Urban Trail Linkages Study was completed as a joint effort between the Genesee Transportation Council and the City of Rochester in June 2013 focusing on identifying and developing connections between existing trail segments within Rochester's urban core to create a more cohesive and functional trail network. This comprehensive analysis examines gaps in the current system and proposes solutions for linking isolated trail segments through various strategies including on-street connections, dedicated pathways, and shared-use facilities. The study prioritizes connections that would provide the greatest benefit for recreational users and commuters while addressing safety and accessibility concerns. It also evaluates implementation costs and phasing strategies for achieving improved network connectivity.

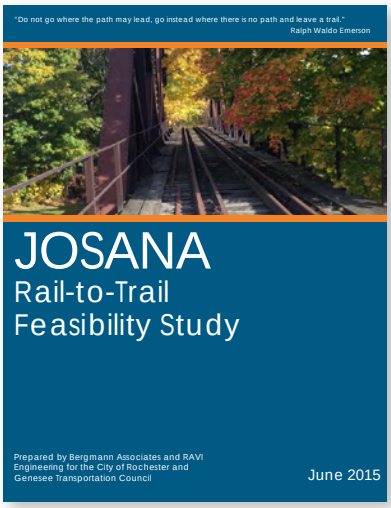
The Urban Trail Linkages Study directly informs the Genesee Riverway Trail North project by identifying connection points, providing standard trailhead and trail development guidance, and strategies for linking the northern trail extension to the broader urban trail network.



Irondequoit Seneca Trail Feasibility Study, 2013

The Irondequoit Seneca Trail Feasibility Study was completed by the Genesee Transportation Council and the Town of Irondequoit in October 2013 to examine the potential for developing trail connections between Rochester and adjacent Irondequoit, focusing on enhancing regional trail network connectivity. This study evaluates various routing options, engineering requirements, and potential obstacles for creating seamless trail connections across municipal boundaries. The document addresses coordination challenges between different jurisdictions while identifying opportunities for shared funding and maintenance responsibilities. It also considers integration with existing trail systems and the potential for extending regional recreational and transportation benefits.

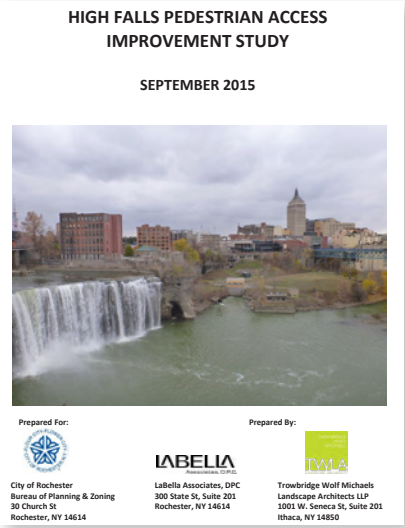
This feasibility study provides important context for recommended projects that expand the Genesee Riverway Trail north and establish regional trail connections, detailing improvements to the trail through Seneca Park, the CSX Rail Corridor, neighborhoods, and to the Irondequoit Lake Shore Trail.



JOSANA Rail to Trail Feasibility Study, 2015

The JOSANA Rail to Trail Feasibility Study was completed in June 2015 through the Genesee Transportation Council to examine the potential conversion of abandoned railway corridors into recreational trails within the Charles JOSANA, Brown's Square, and High Falls neighborhoods. This concept-level planning study develops preliminary trail layouts and improvement plans while exploring various design alternatives and cost estimates for rail-to-trail conversion. The study investigates critical connections between these historic neighborhoods and the broader trail network, addressing both technical feasibility and community benefits. It also evaluates potential challenges including property ownership, environmental remediation needs, and integration with existing transportation infrastructure.

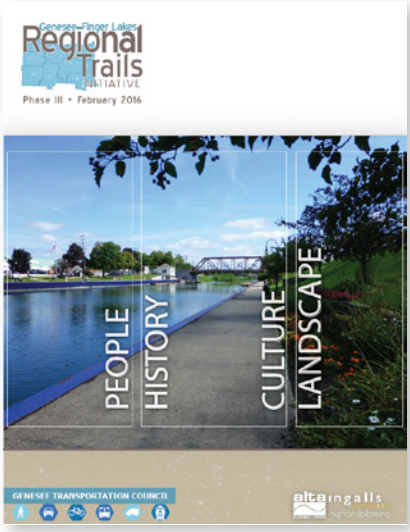
The JOSANA study directly informs the Genesee Riverway Trail North project by identifying potential connector trails that would link neighborhoods to the main riverway corridor and enhance overall network connectivity.



High Falls Pedestrian Study, 2015

The High Falls Pedestrian Access Improvement Study was completed in September 2015 by the City of Rochester, and undertakes conceptual planning, design, and feasibility analysis for enhancing public access into and through the High Falls District and Genesee River gorge area. This study examines various alternatives for improving pedestrian connectivity and safety while exploring innovative access solutions including the proposed "GardenAerial" concept. The document addresses the unique challenges of providing safe public access to dramatic natural features within an urban environment while considering historic preservation and environmental protection requirements. It also evaluates structural improvements, viewing platforms, and interpretive opportunities that could enhance the visitor experience.

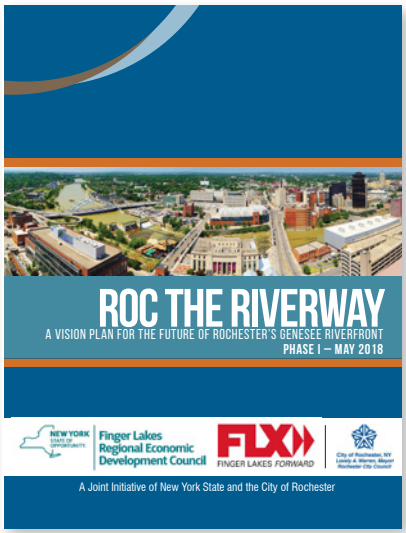
The High Falls study directly supports the Genesee Riverway Trail North by addressing critical access and connectivity issues in the downtown area where the trail transitions from urban streets and potential bridges to the riverway corridor.



Rochester Trails Initiative, 2016

The Regional Trails Initiative is comprised of a phased network of facilities that will expand the 500 plus mile trail system to more than 1,000 miles in an effort to connect communities, celebrate natural features, and enhance access to cultural destinations. The most recent phase, Phase III, was adopted in February 2016 by the Genesee Transportation Council (GTC) in collaboration with nine counties in the Genesee/Finger Lakes region to include planned, potential, and on-road trail facilities. This initiative established a framework for coordinating trail development across counties, municipalities, and community partners in the region while identifying funding opportunities and implementation strategies. It emphasizes the importance of trails for economic development, public health, and community connectivity, particularly focusing on closing gaps in existing networks. It also addresses maintenance standards, safety protocols, and community engagement strategies for ongoing trail system management.

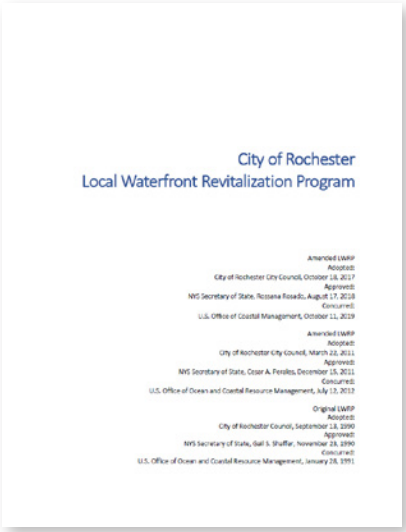
This initiative supports the development of the Genesee Riverway Trail North, establishing trails as a municipal priority, identifying key gaps that are further studied in this report, and creating institutional support for the project.



ROC the Riverway Initiative, 2018

ROC the Riverway (RTR) represents a transformative $50 million initiative focused on revitalizing the Genesee River corridor through strategic investments in parks, trails, historic sites, and supporting infrastructure. The initial RTR plan was developed by the City and proposed 28 projects with a combined $500M public investment. The Final Vision Plan was completed as a joint effort by the City of Rochester and the Finger Lakes Regional Economic Development Council, and funded by New York State Department of State, in June 2018 to progress the projects and objectives identified I the City's Local Waterfront Revitalization Program. This comprehensive program consolidates these projects under a unified vision to enhance public spaces, improve waterfront access, and stimulate economic development while honoring Rochester's rich history and natural beauty. The initiative emphasizes community connectivity, sustainable urban growth, and the creation of vibrant public spaces that serve both residents and visitors. It includes specific projects ranging from park improvements and trail extensions to historic preservation and new development opportunities.

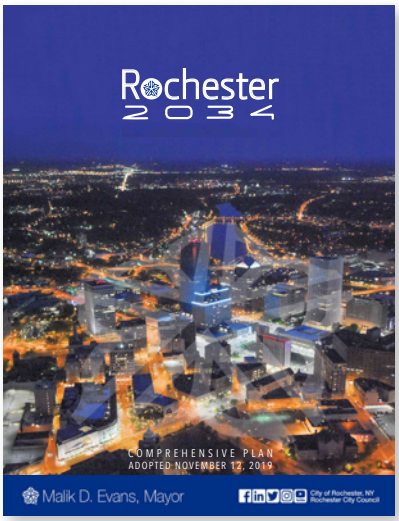
ROC the Riverway sets precedent for improvements to the Genesee Riverway Trail to extend beyond downtown and north to Lake Ontario. The Plan establishes key guiding principles and solidifies the need to connect the trail on both sides of the River that are essential for coordinating trail development with broader riverfront revitalization efforts.



Rochester Local Waterfront Revitalization Plan, 2018

The Rochester Local Waterfront Revitalization Plan serves as the official statement of land use and development policy for the City's waterfront areas along Lake Ontario, the Genesee River, and the Erie Canal. Originally adopted in 1990 and updated in August 2018, this plan expands the boundary to include all waterfront areas while identifying new policies and recommendations for future development and infrastructure improvements. The document provides guidance for leveraging funding opportunities and coordinating waterfront development activities across multiple jurisdictions and agencies. It establishes the framework for consistent decision-making regarding waterfront land use, public access, and environmental protection.

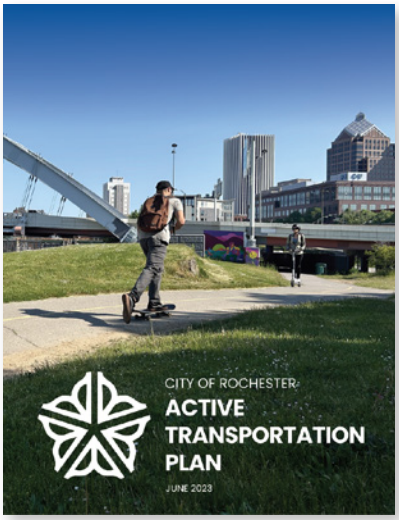
This plan provides the regulatory and policy foundation for waterfront portions of the Genesee Riverway Trail North, ensuring that trail development aligns with established waterfront revitalization goals and maintains consistency with state coastal management requirements. It also identifies key projects along the corridor, which guided project development included in this plan.



Rochester 2034 Comprehensive Plan, 2019

Rochester 2034 was adopted in November 2019 by the City of Rochester and represents the City's official 15-year comprehensive plan designed to guide community improvement efforts leading up to Rochester's bicentennial celebration. This award-winning plan covers diverse topics including housing, transportation, economic development, and historic preservation, all aligned with an overarching community vision and guiding principles. The document emphasizes themes of equity, sustainability, and community engagement while establishing specific goals and strategies for various topic areas. It serves as the legal framework for land use decisions and provides the foundation for coordinating public and private investment throughout the city.

Rochester 2034 provides the comprehensive planning context and specific guidance for the Genesee Riverway Trail North, ensuring that trail development supports broader community goals and aligns with established land use and transportation policies.

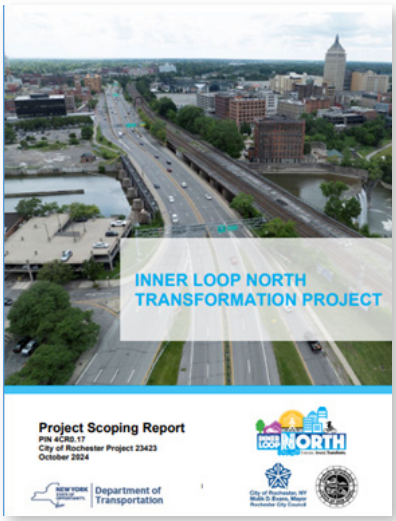


City of Rochester Active Transportation Plan, 2023

The Rochester Active Transportation Plan was completed by the City of Rochester in June 2023 and serves as the City's comprehensive strategy for improving safety and accessibility for pedestrians, cyclists, and transit users throughout the community. This plan updates and expands upon previous bicycle master planning efforts while incorporating a strong focus on equity and community engagement, particularly emphasizing the needs of underrepresented populations. The document provides detailed recommendations for infrastructure improvements, policy changes, and programming initiatives that support active transportation modes. It establishes a prioritized framework for investment in bicycle lanes, pedestrian facilities, and supportive infrastructure while addressing barriers to safe and comfortable active transportation.

This plan provides the broader active transportation context for the Genesee Riverway Trail North, ensuring that trail development aligns with citywide mobility goals and connects effectively to planned bicycle and pedestrian infrastructure improvements.

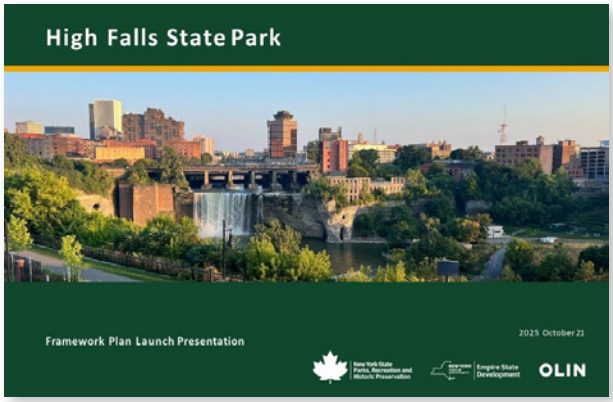
For more information on the relevant recommendations of each plan, see the Existing Plans & Studies Matrix within the Report Appendix.



Inner Loop North Transformation Project, 2022

In 2022, the City of Rochester completed the Inner Loop North Transformation Planning Study (ILNTPS), which identified a preferred design concept to replace the remaining segment of the Inner Loop Expressway with a city street grid. The transformation of the Inner Loop North will reconnect Downtown Rochester with several Rochester neighborhoods, restore a more pedestrian- and bike-friendly street grid, provide connections to the Genesee Riverway Trail and the future High Falls State Park; create new active and passive green spaces; and foster opportunities for equitable economic and community development.

Parallel to the ILNTPS, the City has finalized the Inner Loop North Mobility and Development Strategy (ILNMDS) for future land use, mobility improvements, and development on lands following the transformation of the Inner Loop North Corridor. Throughout the initial Inner Loop North Transformation Planning Study, future land use and open space design have been a consistent topic of discussion and the City recognized the need for a specialized land use study. The ILNMDS study focuses on creating a coordinated development plan for future land use, open space, and mobility on the new city streets with clear steps to implementation.



High Falls State Park Framework Plan, 2025

The High Falls State Park Framework Plan, released by New York State Parks, Recreation and Historic Preservation in late 2025, outlines a 40-acre urban park in downtown Rochester that will provide long-awaited public access to the Genesee River gorge and connect the park with Downtown Rochester and the Genesee Riverway Trail. The plan features trails, overlooks, playgrounds, and cultural and industrial history interpretation, with phased construction beginning after site remediation to create a vital green space and economic catalyst linking nature, history, and community.

Implemented Projects

As an outcome of the plans and studies summarized in the previous pages, several projects have already been implemented and are paving the way for a seamless trail system.

These projects include:

+ **Genesee Riverway Trail** – Turning Point Park to the O'Rorke Bridge – 2005-07
+ **Middle Falls Crossing** (St. Paul St – Lower Falls Park) – 2006
+ **Irondequoit Lakeside Multi-Use Trail** (Irondequoit Bay Outlet – O'Rorke Bridge) – 2006-07
+ **Lake Ontario State Parkway Trail** – 2008-09
+ **Turning Point Park Trailhead Improvements** – Boxart St - 2014
+ **City of Rochester Bicycle Trails** – 2013-14
+ **El Camino**: Butterhole-Seneca Park Trail – 2011-12
+ **Lake Ave to Lighthouse Trail and Overlook** – 2015-16
+ **Train Bridge Overlook** – 2018
+ **Brewery Line Trail** – 2021-22
+ **Sister Cities Bridge Rehabilitation** – 2019-2020
+ **Eastman Trail** – Ridgeway Ave (Latona Rd – Mt. Read Blvd) – 2021-22
+ **390 Multi-Use Trail Extension** (Ridgeway Ave – W Ridge Rd) – 2022-23
+ **Pont de Rennes Bridge and Brown's Race Rehabilitation** – 2023-25
+ **Austin Stewart Plaza** (Charles Carroll Plaza) Revitalization Phase II – 2021-2024
+ **Maplewood Nature Center** – 2024-2026
+ **Maplewood Park Trail Improvements** – 2025-26

Needs Assessment

Overview

The needs assessment was developed through in-depth workshops with City of Rochester staff and input from both the PAC and public. Based off of this information, identified needs were organized into the following categories:

- Safety & Security
- Drainage
- Topography
- Crossing
- Vegetation Management
- Rest Points
- Wayfinding
- Trail Surface
- Public/Private Edge Definition

The assessments were mapped throughout the corridor into three sub-sections: north, central, and south. A summary of these findings is included below, and identified in site-specific locations on Figures 2- 4. Ultimately, these needs and opportunities informed the list of proposed projects.

Northern Section

The northern section of the needs assessment is bounded by the pedestrian bridge crossing from Maplewood to Seneca Park to the south, Ontario Beach Park to the northwest and Irondequoit Lakeside Trail to the northeast.

Side	Existing Condition	Need/ Opportunity Type	Description
East	Pedestrians and cyclists largely utilize informal trail corridors to pass through this section of the corridor	**Trail Surface**	There is a need to restore and/or replace surface materials, and potentially establish a trail hierarchy, to improve the trail user experience and support ADA accessibility
	The trail surface is stone dust through the Seneca Park Zoo. There are areas where the stone dust has destabilized		
	The trail surface is a natural surface from the Zoo north to Thomas Avenue, which is not ADA accessible		
	Trail users have created many informal spur trails to access the riverfront		

Side	Existing Condition	Need/ Opportunity Type	Description
East	There are obstructions located within the trail corridor that inhibit the flow of trail users and continue to be inefficient in controlling undesired activities	Safety & Security	Re-evaluate existing access control infrastructure and trail monitoring
	Previous studies indicate there are segments of trail considered isolated areas with low natural surveillance		Incorporate visual markers to provide trail users with orientation and navigation throughout the trail and at key neighborhood access point
	There are locations where neighborhood can access the trail	Wayfinding	
	There are various habitats and vegetative cover types, in some case which prevent views towards the river	Vegetation Management	Clear views to the river
	There are lengths of trail with steep slopes within Seneca Park	Topography	Explore ways to regrade the trail, provide alternative routes, or alert users of non-ADA compliant sections of trail
	There are distinct locations where trail users experience scenic views of the surrounding water resources.	Rest Point	Provide amenities and facilities to support scenic views at key destination points
	Previous studies indicate there is drainage infrastructure in some areas of the trail, but there are multiple locations experiencing pooling and poor drainage	Drainage	Re-evaluate locations and maintenance of existing drainage infrastructure and install new drainage infrastructure at pooling locations
	There are multiple residential properties within 100' of the trail	Public/ Private Definition	Provide buffering or screening to adjacent properties
	Pattonwood Drive serves as the primary east-west connection along the Genesee River in this segment	General	Clearly establish trail routes that link users to Pattonwood Drive
	Property is largely owned by CSX and Monroe County	General	Property acquisition or easements will be necessary to establish a continuous trail
West	The trail largely passes through public right-of-way or City-owned property	General	Trail improvements may be largely completed by the City without need for acquisitions or easements
	Sidewalk is generally well-established	Trail Surface	There is a need to upgrade informal trail surfaces to support continuous ADA-compliant trail access directly along the River, in coordination with the Cemeteries, and to improve consistent bicycle facilities throughout this segment
	Off-road trail transitions into grade-separated bike lanes and sidewalk along Lake Avenue		
	Trail users utilize natural surface Cemetery trails to continue their experience closer to the river		
	There is a lack of wayfinding north of River Street to Lake Ontario, where there are several lakefront destinations	Wayfinding	Signage and pavement treatments to offer sense of arrival and orientation along long segments of trail that do not have spurs or neighborhood connections
	There are long stretches of trail segments in isolated areas		
	There are no crossing facilities across Petten Street	Crossing	Crossing facility markings and signage

Central Section

The central section of the needs assessment is bounded by the pedestrian bridge crossing from Maplewood to Seneca Park to the north, and the bridge over Lower Falls to the south.

Side	Existing Condition	Need/ Opportunity Type	Description
East	St Paul Street serves as the primary existing trail facility, but lacks consistent bike infrastructure	Trail Surface	Continuous bicycle facilities are necessary to provide continuous facilities to all trail users and there are several opportunities in the right-of-way or on existing trails that could provide an alternative off-road facility; ultimately a mix of on-road and off-road facilities may be necessary
	There are spur trails through RGE property and Seth Green Drive Park that provide access into the gorge		
	There are low volume streets and right-of-ways along the gorge		
	There are existing off-road trails through private property		
	NY-104 creates an off-road trail barrier along the riverfront		
	There is a trailhead to Seth Green Drive Park located across from an existing sidewalk facility	Crossing	Establish a crossing to the existing trailhead
	There is an existing bench with views overlooking the river	Rest Points	Improve scenic viewpoint areas for ADA-accessibility
	There are several trail loop opportunities and areas where trails intersect	Wayfinding	Provide signage and visual cues for trail users to navigate trail spurs and loops
	There are encampments observed along sections of the El Camino Trail	Safety & Security	Develop an approach to address encampments
Both	RGE often closes the bridge crossing Lower Falls Park due to emergency water management events	Safety & Security	Coordinate real-time events between RGE and the City to alert trail users of closures
West	The trail is facilitated through a grade-separated facility along Maplewood Drive which lacks natural surveillance and exhibits steep slopes and clearance limitations	Safety & Security	Explore alternative routes for trail users along Maplewood Drive in conjunction with traffic calming measures
	Volume and traffic speeds are influenced by the NY-104 on- and off-ramps connecting to Maplewood Drive		
	There are two opportunities to access the pedestrian bridge from the trail	Wayfinding	Provide wayfinding to ADA-accessible and stair access points too the bridge
	Maplewood Nature Center and Maplewood Neighborhood Area improvements are being developed	Crossing	Coordinate improvements between this plan and what is already being completed as part of improvements to Maplewood and create a trail connection to the new Nature Center
	Vegetation inhibits views toward the river from Lower Falls Park	Vegetation Management	Clear views to the river

Southern Section

The southern section of the needs assessment is bounded by the Lower Falls bridge to the north, the Inner Loop to the south, and the Future High Falls State Park anticipated project area in between.

Side	Existing Condition	Need/ Opportunity Type	Description
East	The southern terminus of the El Camino Trail is facilitated through sidewalks to St Paul Street	Wayfinding	There is a need for wayfinding to direct trail users to St Paul Street for continued facilities and provide bike lanes
	Pavement cracking and vegetation growth is present at existing rest points	Rest Point	Re-evaluate maintenance practices and restore existing rest points to support trail use
	There are encampments observed along Suntru Street and limited natural surveillance through barriers, grade-separation, and vegetation	Safety & Security	Apply principles of CPTED to improve trail access and perceived comfort along this segment
Both	Running Track Bridge continues to be studied as a potential connection across the River	Trail Surface	Coordinate bridge improvements with trail facilities leading to and from the bridge and consider additional crossing opportunities to connect across the river
	Pont De Rennes and Bausch Memorial Bridge/Smith Street serve as the primary east-west connections across the river		
	The future High Falls State Park will be located within the River gorge in this section	General	Coordinate trail improvements with the plans for High Falls State Park
West	There are multiple low volume streets in the right-of-way connecting neighborhoods, parks, and river crossing points	Trail Surface	There are opportunities to create a mix of off-road and on-road trails to connect trail users to neighborhoods largely through publicly-owned properties
	There are no trails present on the west side of the River north of the Bausch Memorial Bridge/Smith Street and Lower Falls Park		
	Monroe County owns large parcels to the north of the future Running Track Bridge		
	There are several areas with heavy commercial and industrial uses	Safety & Security	Apply principles of CPTED to improve trail access and perceived comfort along this segment
	There are well-established sidewalks and bike lanes through the High Falls District	Wayfinding	Ensure there is clear wayfinding applied throughout the district for users to navigate
	There is an existing view point overlooking the river	Rest Point	Repair and maintenance for facility use

Figure 4 - Needs Assessment Northern Section


Needs & Opportunities: North
Legend
Existing Genesee Riverway Trail (GRT)
Previously Studied GRT Extension
Other Existing Primary Trails
Other Previously Studied Primary Trails
Park
Cemetery
Water Body
Roadways
Safety & Security
Drainage
Topography
Crossing
Vegetation Management
Rest Point
Wayfinding
Trail Surface
Public/Private Edge Definition
Town of Irondequoit
ST PAUL BLVD
Genesee River
Seneca Park
Riverside Cemetery
LAKE AVE
Holy Sepulchre Cemetery
N

Figure 5 - Needs Assessment Central Section


Needs & Opportunities: Central
Legend
Existing Genesee Riverway Trail (GRT)
Previously Studied GRT Extension
Other Existing Primary Trails
Other Previously Studied Primary Trails
Park
Water Body
Roadways
Safety & Security
Drainage
Topography
Crossing
Vegetation Management
Rest Point
Wayfinding
Trail Surface
Public/Private Edge Definition
NORTON ST
CLINTON AVE N
City of Rochester
N
AVENUE E
ST PAUL ST
Lower Falls Park

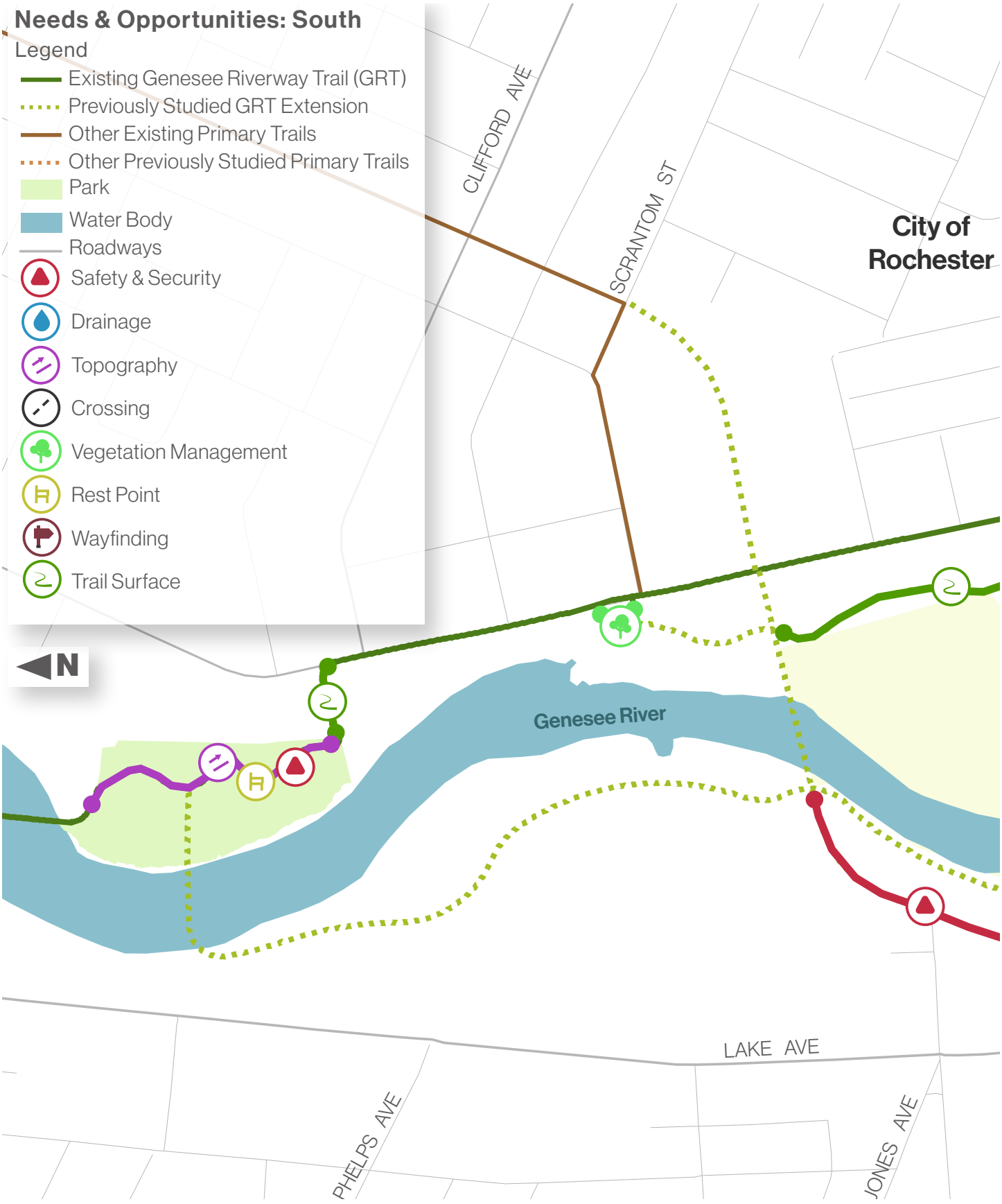
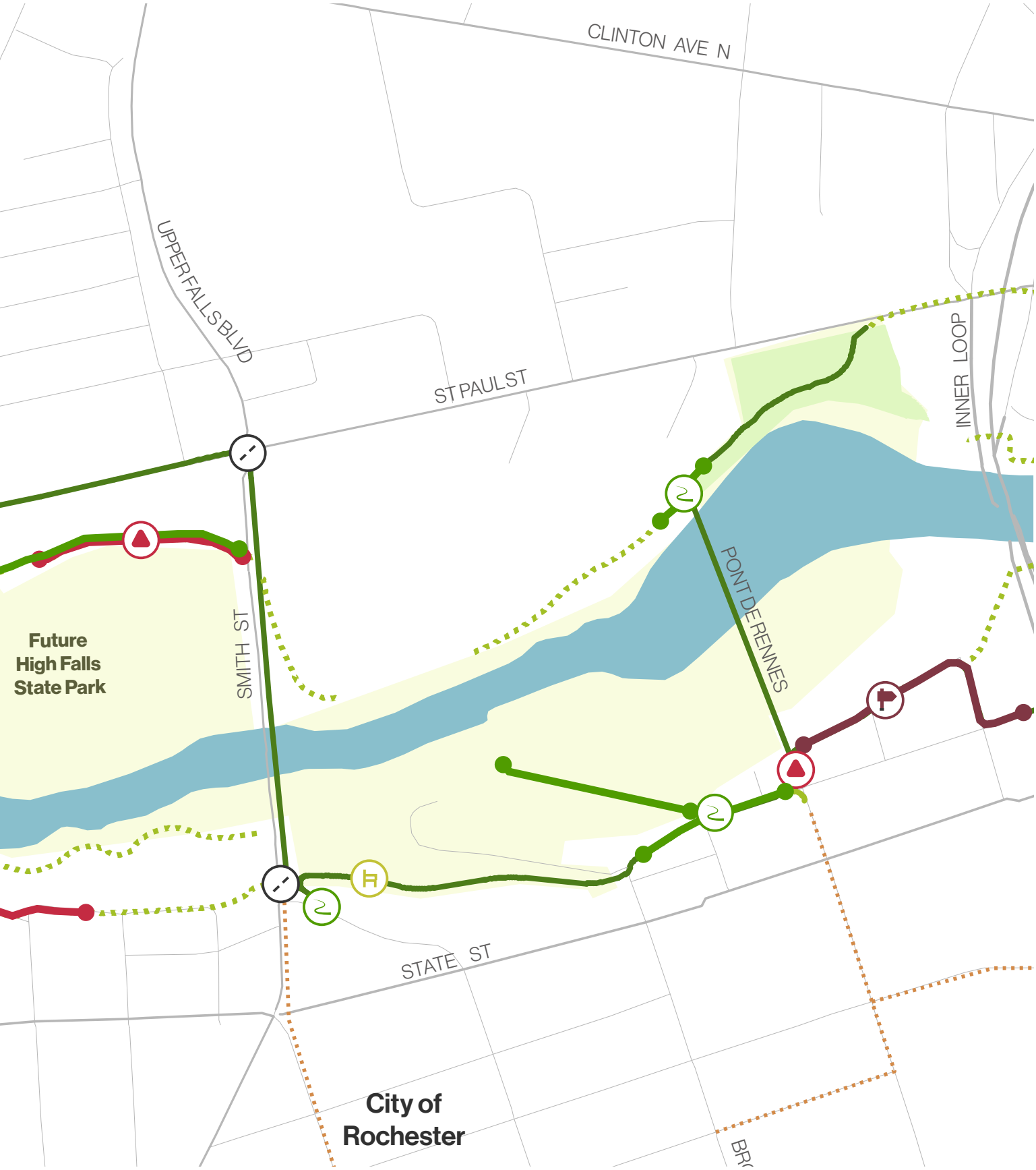

Needs & Opportunities: South
Legend
Existing Genesee Riverway Trail (GRT)
Previously Studied GRT Extension
Other Existing Primary Trails
Other Previously Studied Primary Trails
Park
Water Body
Roadways
Safety & Security
Drainage
Topography
Crossing
Vegetation Management
Rest Point
Wayfinding
Trail Surface
N
CLIFFORD AVE
SCRANTOM ST
City of Rochester
Genesee River
LAKE AVE
PHELPS AVE
JONES AVE

Figure 6 - Needs Assessment Southern Section



Best Practice Toolkit

This section of the report presents research findings on best practices and recommended strategies for management and maintenance of the Genesee Riverway Trail. The research focuses on five key areas of trail design and management, identified through input from the community and project stakeholders. Each focus area also includes specific recommendations.

Multimodal Trail Safety, Security, and Accessibility

Ensuring safety, security, and accessibility is vital to providing a welcoming, inclusive, and enjoyable experience for all users, from cyclists and pedestrians to individuals with disabilities.

Research & Best Practices

Safety and Accessibility

Ensuring the safety and accessibility of multi-modal trails requires adherence to well-established standards and best practices. The Americans with Disabilities Act (ADA) mandates that all shared-use paths meet or exceed accessibility requirements to accommodate individuals of all abilities. Similarly, the Public Rights-of-Way Accessibility Guidelines (PROWAG) provide essential standards for trails functioning as sidewalks within public rights-of-way.

The American Association of State Highway and Transportation Officials (AASHTO) provides additional guidelines for edge protection, recommending physical barriers such as railings, vegetation, or berms when the distance between the path's edge is less than five feet from the slope. For example, additional protective measures are recommended when slopes of 1:3 or steeper with a drop of six feet or more, or slopes of 1:2 or steeper with a drop of four feet or more. Additionally, slopes adjacent to bodies of water or other significant obstacles necessitate similar precautions. Implementing these measures minimizes hazards, enhances user safety, and improves overall accessibility.

Safety and Security

Rochester Fire Department and Rochester Police Department shared their concerns with the trail system and overall trail security. Thematic issues raised during this discussion include:

+ **Wayfinding & Signage:** Incorporate more frequent signage and wayfinding points to inform locations requiring an emergency response.
+ **Improved Access Points:** Identify and develop more formalized and reliable access locations for emergency vehicles and personnel, particularly near high-traffic sections of the trail and river.
+ **Specialized Equipment:** Explore acquiring and staging equipment suitable for river-related emergencies, such as UTVs, boats, and dedicated rescue equipment, at or near key access points.
+ **Staffing & Deployment Planning:** Assess staffing needs specific to the corridor to ensure adequate coverage during peak usage periods and potentially organize patrol along trail sections.
+ **Training:** Expand water rescue and technical rescue training opportunities for RFD personnel, focused on the unique challenges presented by the river corridor.

Preventing Unauthorized Motorized Use

The Genesee Riverway Trail is intended for non-motorized users, a widely adopted best practice that significantly enhances both safety and accessibility. Excluding motorized vehicles such as ATVs and dirt bikes reduces the risk of collisions, lowers noise levels, and prevents trail surface damage that can make paths difficult or unsafe to navigate for pedestrians, cyclists, and individuals with mobility devices.

Design strategies that discourage unauthorized motorized vehicles should not create obstacles for legitimate non-motorized users like cyclists and people using mobility devices. Physical barriers such as bollards or gates should follow AASHTO's recommendation of at least 5 feet of spacing to allow room for wider bikes, trailers, and handcycles. Design features like sharp turns or narrow sections can help deter ATVs and dirt bikes but should be used carefully so they don't reduce safety or accessibility for others. Additionally, trail access points and barriers should be designed to accommodate emergency and maintenance vehicles when needed using lockable gates or removable bollards. Supplemental strategies such as signage and vegetation can also help limit motorized use while keeping trails welcoming and safe for all users.

E-Bikes on Trails

E-bikes are growing in popularity and present new opportunities and challenges for trail management. While these pedal-assisted bicycles can make trails more accessible to a broader range of users, including older adults and people with physical limitations, they also raise questions about trail design, user safety, and environmental impacts that land managers are still working to address.

There are three classes of e-bikes:

+ **Class I electric bicycle:** A bicycle equipped with a motor that provides assistance only when the rider is pedaling, and that ceases to provide assistance when the bicycle reaches the speed of 20 miles per hour.
+ **Class 2 electric bicycle:** A bicycle equipped with a motor that may be used exclusively to propel the bicycle, and that is not capable of providing assistance when the bicycle reaches the speed of 20 miles per hour.
+ **Class 3 electric bicycle:** A bicycle equipped with a motor that provides assistance only when the rider is pedaling, and that ceases to provide assistance when the bicycle reaches the speed of 28 miles per hour and is equipped with a speedometer.

NYS enacted E-Bike legislation in 2020. The state law bans Class 3 E-Bikes on trails.

Decisions on whether to allow Class 1 and Class 2 E-Bikes on trails are set by the state or local government entity that owns a particular off-road trail section. New York State Parks and the NYS Canal Corporation, which administer large sections of the Erie Canalway Trail and Champlain Canalway Trail, have adopted policies allowing Class 1 and 2 E-Bikes. In addition, Class 1 and 2 E-Bikes are allowed on the Albany-Hudson Electric Trail section of the EST in Rensselaer and Columbia Counties. As of June 2023, all NYC Parks and greenways also allow E-bikes under a pilot program.

While Class 1 "pedal assist" E-Bikes are allowed on the Wallkill Valley Rail Trail (WVRT) section from New Paltz to Kingston in Ulster County; Class 2 E-Bikes are prohibited on the WVRT trail.
The remainder of the Empire State Trail is administered by counties and local governments, which own specific sections (e.g. the Westchester County Trail, Dutchess Rail Trail, etc.). To date most have

not adopted formal policies, meaning E-Bikes are neither explicitly allowed nor prohibited on those trail sections.

In other states, such as the State of California, e-bikes have been allowed on paved (asphalt or concrete) bike trails specifically classified for use as local or regional commuting. In most cases, only class I is allowed.

Within the City limits, outside of the Center City District, persons 16 years of age or older may operate electric bicycles upon the sidewalk, Genesee Riverway Trail or any multi-use trail. City Council has approved the use of Class 1 and 2 e-bikes on the Genesee Riverway Trail.

Example Signage

Addressing Homeless Encampments

Addressing homelessness along trails is a complex challenge that extends beyond the scope of this study. However, best practices highlight key approaches for managing encampments while prioritizing humane and effective responses. The Federal Strategic Plan to Prevent and End Homelessness provides a roadmap for evidence-based strategies to support individuals experiencing homelessness. Recognizing homelessness as a public health crisis, communities should approach it with the same urgency as displacement caused by natural disasters.

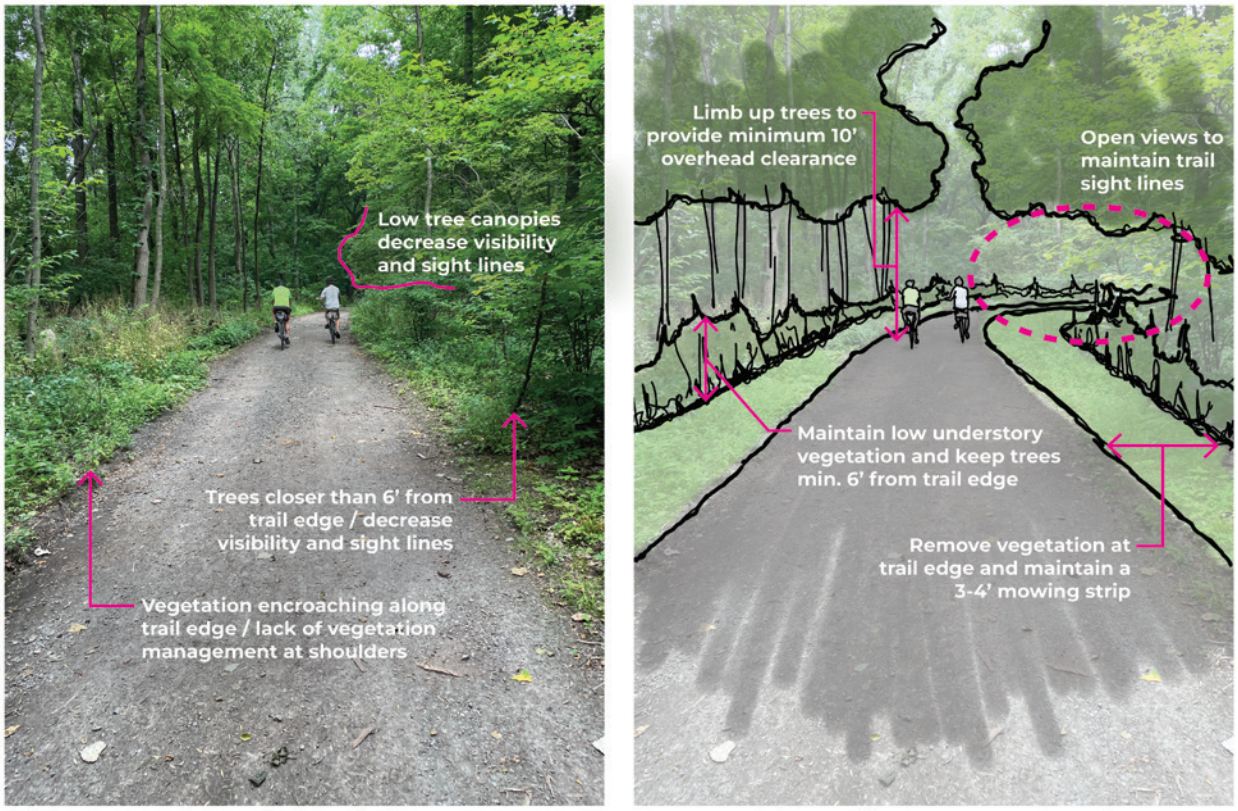
Rochester residents can report non-urgent concerns or request city services by calling 311 or using the online "311 Live" portal to submit requests with photos and track responses. For individuals needing immediate emergency shelter, please visit the city's homelessness resources page at https://www.cityofrochester.gov/homelessness-resources-rochester.

Crime Prevention Through Environmental Design (CPTED)

Applying CPTED principles enhances trail safety by shaping the built environment to deter crime and improve perceptions of security. Key design strategies include:

+ **Natural Surveillance:** Clear sightlines, reduction of obstructions, and spaces that encourage social interaction increase both perceived and actual safety.
+ **Natural Access Control:** Well-defined entrances and exits improve navigation and security.
+ **Territorial Reinforcement:** Design elements that clearly define a space's function contribute to a sense of ownership and stewardship.
+ **Maintenance:** Regular upkeep signals care and discourages undesirable activities.

Vegetation management plays a crucial role in CPTED strategies. High-canopy trees help maintain sightlines and contribute to a greater sense of safety. Open view corridors at entry points and along trails improve visibility and surveillance. Transparent vegetation compositions reduce opportunities for concealment, while well-maintained landscapes foster a sense of security and community investment.



Existing Genesee Riverway Trail North of Downtown

Recommended Vegetation Management Strategies

Figure 7 - Vegetation Management + Clearances

Recommendations & Strategies

Trail Construction

To ensure a safe and accessible trail network, the following strategies should be implemented:

+ Establish trail construction and restoration criteria that align with Americans with Disabilities Act (ADA), American Association of State Highway and Transportation Officials (AASHTO), and Public Right-of-Way Accessibility Guidelines (PROWAG)current standards. For design recommendations refer to Section 2.B.
+ Improve safety in areas with steep topography by incorporating protective barriers and designing clear sightlines.
+ Enhance neighborhood connections to increase accessibility, encourage community use, and increase safety with more access points.
+ Implement CPTED principles by improving visibility, wayfinding, and maintenance efforts.
+ Incorporate design strategies such as bollards and lockable gates to prevent unauthorized motor vehicle access, while ensuring these elements do not limit accessibility for legitimate trail users, including e-bikes and those with mobility devices.
+ Increase community awareness of homelessness and provide information to call 311 to report concerns.

Trail Restoration, Construction, and Maintenance

The Genesee Riverway Trail (GRT) is a vital part of Rochester's transportation, recreation, and open space network. It is supported by the City's Rochester 2034 Comprehensive Plan, Local Waterfront Revitalization Program (LWRP), Active Transportation Plan, and the Genesee Transportation Council's Regional Trails Initiative Update (2016). The trail also aligns with state plans, including the 2010 NYS Statewide Trails Plan, 2014–2019 Statewide Comprehensive Outdoor Recreation Plan, and 2009 NYS Open Space Conservation Plan. Nationally recognized as a Millennium Trail and National Recreational Trail, the GRT has received consistent federal, state, and local investment over the past four decades. As a key link to major employers, downtown Rochester, the Genesee River, and numerous cultural and recreational destinations, the GRT is a critical regional asset. Its long-term success relies on strategic planning, sound design, and ongoing maintenance to ensure safety, accessibility, and trail longevity.

Research & Best Practices

Trail Design and Construction

Trail management requires an understanding of the trail condition at the time of repair or reconstruction. A thorough evaluation of each trail segment condition should be conducted to determine whether restoration or full reconstruction is recommended. Restoration efforts are appropriate for segments that meet general design criteria but need surface repairs, while reconstruction should be considered for areas where the trail has significant structural or design deficiencies.

The best practices are established by AASHTO in the AASHTO Guide for the Development of Bicycle Facilities, Fourth Edition, 2012. The trail should also comply with Public Rights-of-Way Accessibility Guidelines (PROWAG). These standards are based on the operating characteristics of path users, with criteria established for trail width, horizontal and vertical clearances, slopes, shoulder design, visual access, and other safety standards.

Key minimum design standards are:

+ **Trail Width:** The minimum paved width for two-directional shared-use paths is 10 feet, with typical widths ranging from 10 to 14 feet. In very rare cases, the width may be reduced to 8 feet. With a compacted stone surface the trail should be built at least 12 inches wider than the design width to allow for vegetation growth and edge degradation over time.
+ **Shoulder Width:** A minimum 2-foot shoulder is required, with an ideal shoulder width of 3-5 feet on each side of the path, featuring a maximum slope of 1:6. In areas near water or steep slopes, such as a 1:3 downward grade, a 5-foot shoulder is recommended for safety and stability.
+ **Centerline Stripe:** A reflective yellow centerline stripe is recommended in locations with high peak hour and/or seasonal volumes. A broken yellow line indicates that passing is permitted when conditions allow, whereas a solid yellow line signifies that passing is prohibited due to safety concerns.
+ **Separation of Users:** In areas with extremely high pathway volumes, it may be beneficial to segregate pedestrians from wheeled users. This is only recommended when with a minimum 15' trail width (10' for two-way wheeled traffic and 5' for pedestrians). Additional guidance from the Federal Highway Administration recommends using Level of Service (LOS) analysis to evaluate trail capacity and user comfort. LOS considers user volume, speed differentials, and passing

behavior. A peak direction volume of ≥300 users/hour may warrant path widening or mode separation. Significant speed differentials, such as fast cyclists among walkers, may also justify separation at lower volumes.

+ **Speed Limits:** Consider applying a speed limit throughout the trail system, and especially along primary trails. NACTO Design Guidelines suggest typical design speed for people riding bikes can be assumed to be 10-15 mph on shared use trails. Consider a posted speed limit of 15 mph.

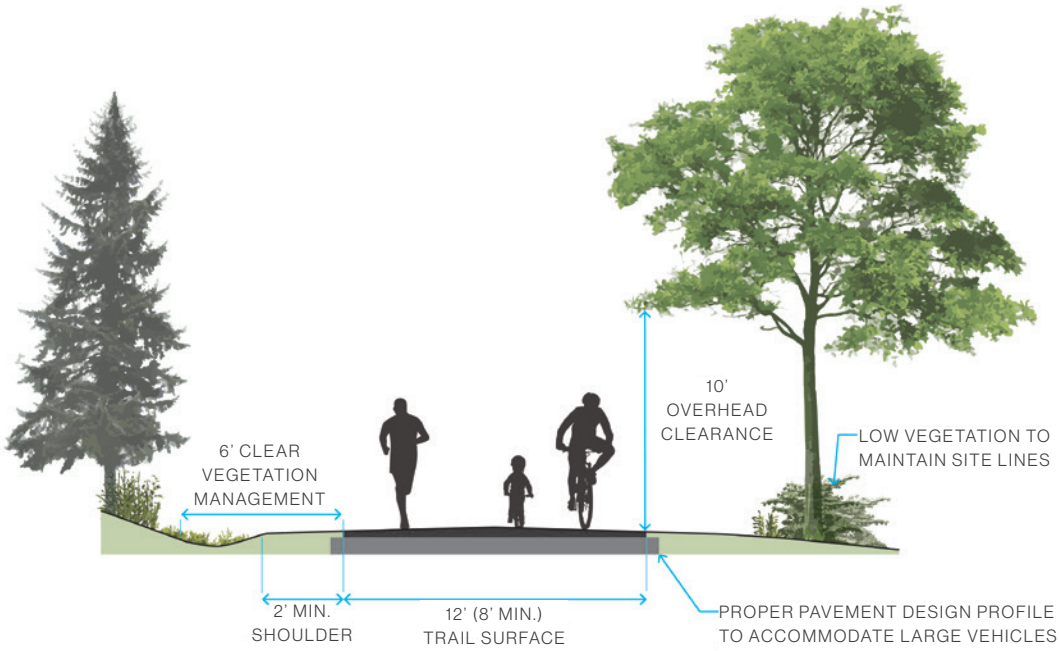


Figure 8 - Typical Trail Section

Maintenance and Operations

Current maintenance practices have been documented and compared against case studies, revealing opportunities for improvement. The City of Rochester Department of Environmental Services (DES) bureau of Architecture and Engineering operates with a limited annual budget of approximately $100-150K for the Genesee Riverway Trail maintenance, which is primarily allocated for trail signage repair and/or replacement and smaller maintenance tasks such as patching, minor repaving, and brush removal. When more extensive trail work is required or planned grants are pursued to supplement the annual Capital Improvement Program (CIP) budget.

The DES bureau of Buildings & Parks responsibilities are limited to routine maintenance and repair (debris collection, fallen tree removal, etc). The department labor is responsible for much more than just the Genesee Riverway Trail and their staffing levels and capabilities are limited.

There is regular and productive coordination between the two departments. The bureau of Architecture and Engineering typically provides additional support by formalizing trail rehabilitation projects in segments where the maintenance is beyond the capacity of the bureau of Buildings and Parks.

Planning and scheduling trail repair work is largely influenced by known deficiencies identified through routine maintenance, completed planning studies and reports, and also through reports received through the 311 non-emergency service line. A notable success, however, has been the El Camino Neighborhood Association and Genesee Land Trust, who actively monitor the trail, report maintenance needs, and organize volunteer programs.

Recommendations & Strategies

A seamless accessible Genesee Riverway Trail can be achieved through a combination of restoration, thoughtful construction practices, and robust management strategies. By adhering to best practices in trail design and involving the local community in stewardship efforts, the trail can become a safer, more accessible, and well-maintained asset. Prioritizing investments in infrastructure, coupled with economically sustainable maintenance strategies, will ensure that the trail continues to provide value to both residents and visitors.

Trail Construction and Reconstruction

Efforts should be approached in four tiers based on urgency and funding availability:

+ **Immediate Repairs:** Focus on safety and usability, addressing surface hazards or minor degradation such as tree root protrusions, drainage issues, and surface cracks. These fixes should prioritize user comfort and public concerns but are not designed as permanent solutions.
+ **New Construction / Critical Linkages:** New segments of trail that contribute to the creation of a seamless trail on both sides of the Genesee River that is accessible for all ages and abilities. Trail segments should meet current shared use trail standards and be enhanced with amenities such as seating, signage, and bike repair stations.
+ **Basic Improvements:** Segments of existing trail should be brought up to current shared-use trail standards. The trail should improve accessibility and safety, with a priority on areas that are severely distressed. Improvements should address drainage, settle areas of settlement, and ensure compliance with accessibility standards (e.g., PROWAG).
+ **Trail Enhancements:** Existing trail segments that meet current shared use trail standards and do not pose a hazard to trail users should be enhanced with amenities such as seating/rest areas, bike repair stations, and other community-focused features in the future.

Construction and reconstruction efforts should aim to bring the trail up to AASHTO Shared Use Path design standards to ensure it accommodates diverse user groups with varying mobility needs (see Figure 6). Particular attention should be paid to the following:

+ **Trail Design:** Trail width of at least 10 feet for two-directional shared-use paths, with preferred width at 12 feet. Each side of the trail should have a shoulder, with a minimum width ideally 3 feet, maintaining a maximum slope of 1:6. In areas near water or steep shoulder slopes, such as a 1:3 downward grade, a 5-foot shoulder is recommended for safety.
    + Centerline Stripe: Incorporate a reflective yellow centerline in areas with existing or anticipated high peak hour or seasonal volumes.
    + Separation: Use FHWA's LOS analysis—based on volume, speed differences, and passing—to guide separation needs. For very high trail volumes, separate pedestrians and wheeled users with a 15' wide trail (10' for wheeled users, 5' for pedestrians).
+ **Material Selection:** Asphalt is the preferred trail surface for the Genesee Riverway Trail. However, the choice of trail material should depend on site-specific conditions. Hard materials like asphalt or concrete are best for areas prone to flooding, stormwater runoff, or steep slopes (see Figure 7). Asphalt is preferred over concrete because it provides a smoother surface, while concrete can develop visible joints that affect wheeled users and may expand or settle unevenly over time. Concrete should be limited to highly developed or urbanized areas. Compacted stone is a good

option for areas with limited funding, low traffic volumes, and minimal stormwater or drainage concerns, though may require higher maintenance costs in the long-term. If compacted stone is used, it should be installed at least 12 inches wider than the desired trail width to account for vegetative growth and surface edge degradation.

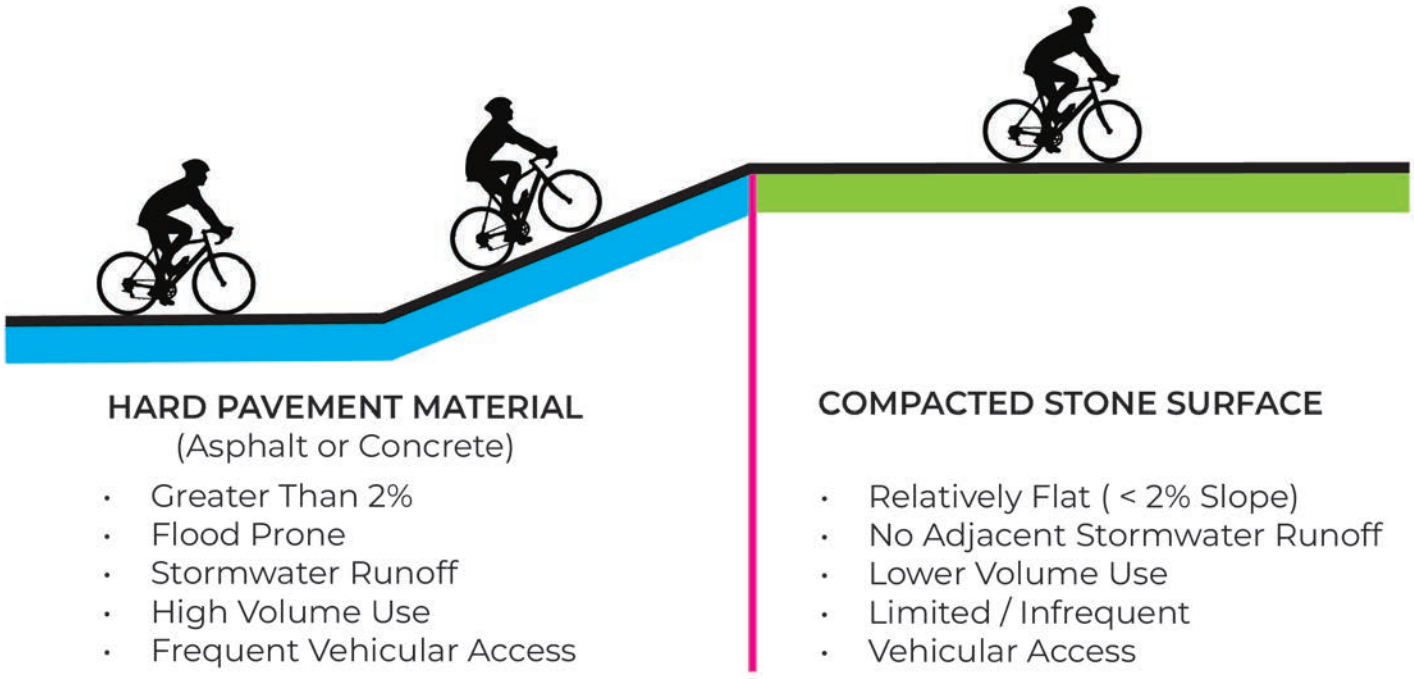


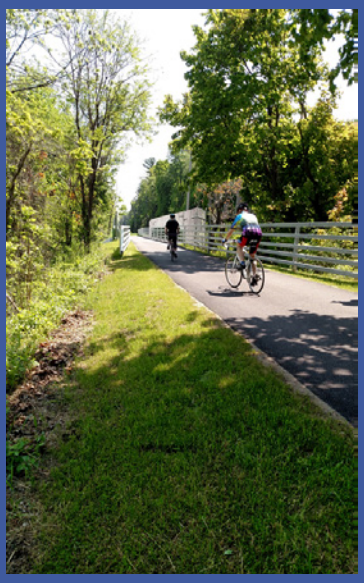
Figure 9 - Material Selection

+ **Pavement Design Profile and Maintenance:** The pavement profile should support future traffic from the trail corridor, which may increase with new amenities and connections. It must also accommodate routine maintenance and large utility vehicles. Geogrids can mitigate some subgrade deficiencies and may reduce base thickness. In some areas, raising the trail above the adjacent ground level can be achieved by increasing the base layer thickness over the existing subgrade. Reducing thickness (value engineering) of the trail base material layer is a common reason for surface pavement failure and can contribute to significant long-term maintenance costs.

+ **Trail Grading and Drainage:** Often a crowned drainage profile should be used instead of sheet draining to one side. Over time, debris, vegetation, and soil buildup at the trail edges can cause water retention, especially where shoulders slope up from the pavement. Even newly constructed trails often hold water, making them impassable during storms or spring melts. A crown raised above each shoulder helps ensure effective stormwater drainage and trail usability in all conditions.

+ **Road Crossings:** All road crossings should be equipped with safety features such as signage, high-visibility markings, accessible curb ramps, countdown timers, and push buttons. Where appropriate, rapid rectangular flashing beacons (RRFB) should be installed at unsignalized crossing locations to enhance user safety.

Case Studies



Source: Albany County

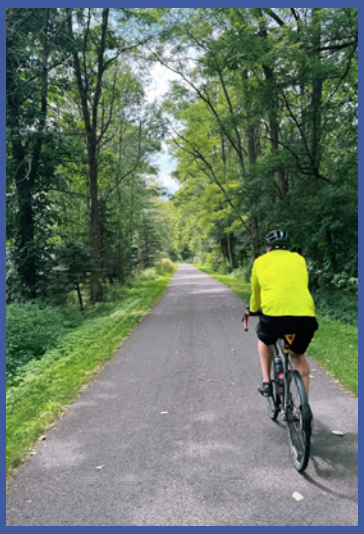
The Albany County Helderberg – Hudson Rail Trail

Length: 9 miles (paved)

The Friends of the Rail Trail (FORT), a jointly administered committee of the Mohawk Hudson Land Conservancy and Albany County, developed a Trail Ambassador program to monitor and provide weekly reports. A Trail Steward organizes volunteers who greet trail users, monitor condition, monitor activities, and perform light maintenance. The Trail Steward notifies the appropriate responsible party to address reported trail issues.

Key takeaways:

+ Dedicated and strong leadership with clear guidelines to assist volunteers.
+ Large pool of volunteers makes for light work - over 50 local volunteers monitor the trail and provide weekly reports on trail conditions and issues.
+ Volunteers are encourages to wear an ID tag , vest, and hat while on the trail. Regular presence helps create a sense of comfort and safety on the trail by activating and monitoring the trail.



Source: Evergreen Bicycle Works

The Zim Smith Trail (Saratoga County)

Length: 9 miles

Dedicated budget in addition to one dedicated full-time County Department Of Public Works (DPW) employee to address routine trail maintenance. Additionally, County planning has leverages local projects to support trail improvements.

Key takeaways:

+ Strong County support and planning vision has contributed to the success.
+ Partnerships with local land trusts has been critical in securing leases and easements.

Recommended Follow On Projects:

Additional Genesee Riverway Trail specific resources developed with the City of Rochester to develop programs and aid with trail management.

Example Resources:

+ Trail Monitor Handbook
+ Trail Maintenance and Operation Tasks
+ GIS Based app for Reporting Issues or documenting work – See Trail Rangers Dashboard (https://waba.org/trail-rangers/)

Maintenance and Operations

Develop management and maintenance practices that ensure a safe and quality trail experience, ensure adequate staffing and budget support for facilities, and develop (design, detail, and construct) the complete trail in a manner that minimizes maintenance burden. Effective long-term trail management hinges on the establishment of routine maintenance programs and strategic partnerships. The following actions are recommended to ensure that the Genesee Riverway Trail remains in optimal condition:

+ **Routine Inspection:** A comprehensive, routine inspection program should be implemented, focusing on key elements such as drainage systems, pavement conditions, and vegetative management. Regular monitoring of the trail and quick identification of necessary repairs will help minimize long-term maintenance costs.
+ **Dedicated Staffing and Budget:** A more detailed, long-term maintenance plan should be created to define annual funding needs, staff roles, and responsibilities. If deemed necessary, the current CIP budget should be expanded to accommodate a broader scope of trail management activities, including routine maintenance, enhancements, and reconstruction projects. Dedicated staffing responsible for management and maintenance of the city's multi-use trail network is recommended, especially as trail use continues to increase over time and as improvements and rehabilitation efforts are implemented.
+ **Leveraging Partnerships:** As demonstrated by successful case studies, partnerships with Friends of the Trail groups, local volunteer programs, and community stakeholders can significantly improve trail stewardship and sustainability. Consider establishing a Trail Steward Program where local volunteers can help monitor conditions, report issues, and perform light maintenance tasks. Such initiatives help foster a sense of ownership and safety among the community while providing invaluable support for routine management activities.

Vegetation Management

Effective vegetation maintenance is an ongoing necessity for multi-use trails. Failure to regularly manage vegetation can lead to increased long-term maintenance costs, as unaddressed growth can impede trail use, safety, and aesthetic appeal. Trail vegetation that is not properly managed can negatively affect sightlines, contribute to hazardous conditions, and deteriorate both the actual and perceived safety of the trail.

Research & Best Practices

Best practices for vegetation management are grounded in recognized guidelines such as those established by the American Association of State Highway and Transportation Officials (AASHTO) and the Crime Prevention Through Environmental Design (CPTED) principles. AASHTO emphasizes the importance of cutting back vegetation to prevent encroachment and recommends controlling intrusive tree roots, including the installation of root barriers where needed or maintaining minimum distances from trail edges. Additionally, it advocates for local ordinances to ensure that adjacent landowners either control vegetation or allow road authorities to do so.

The CPTED approach further supports vegetation management by promoting the strategic use of high-canopy trees, which help preserve sightlines while enhancing environmental quality. Additionally, the opening of view corridors, thinning vegetation, and removing areas that may provide concealment are all crucial strategies in creating a safe and welcoming environment for trail users. Regular maintenance of the landscape also fosters a sense of community investment and enhances overall security.

The management of invasive species is another key component, as these species can damage the ecosystem and hinder trail usability. Therefore, removal or suppression of invasive plants, along with the encouragement of native species, is essential for maintaining trail health and reducing vegetation management costs.

Recommendations & Strategies

Vegetation Management and Clearances

A comprehensive vegetation management plan is essential to establish and maintain appropriate clearances, thereby improving safety, aesthetics, and the longevity of the trail. Vegetative clearance should be implemented throughout the entire trail, with specific attention paid to high-value trees and woodland areas that provide unique environmental benefits. The following strategies are recommended to enhance trail safety, usability, and environmental quality through effective vegetation management:

+ **Viewshed Management:** Vegetation management is particularly important at the various scenic overlooks along the Genesee River corridor, where maintaining clear and intentional viewsheds is essential to the user experience. Management practices should be tailored to each overlook, with the intensity and frequency of work varying by site conditions and seasonal needs. A well-defined management plan should identify and map expected view corridors and outline specific techniques to preserve them. These techniques may range from routine clearing and pruning to selective plant removal and replacement, depending on site characteristics, access, and desired outcomes.

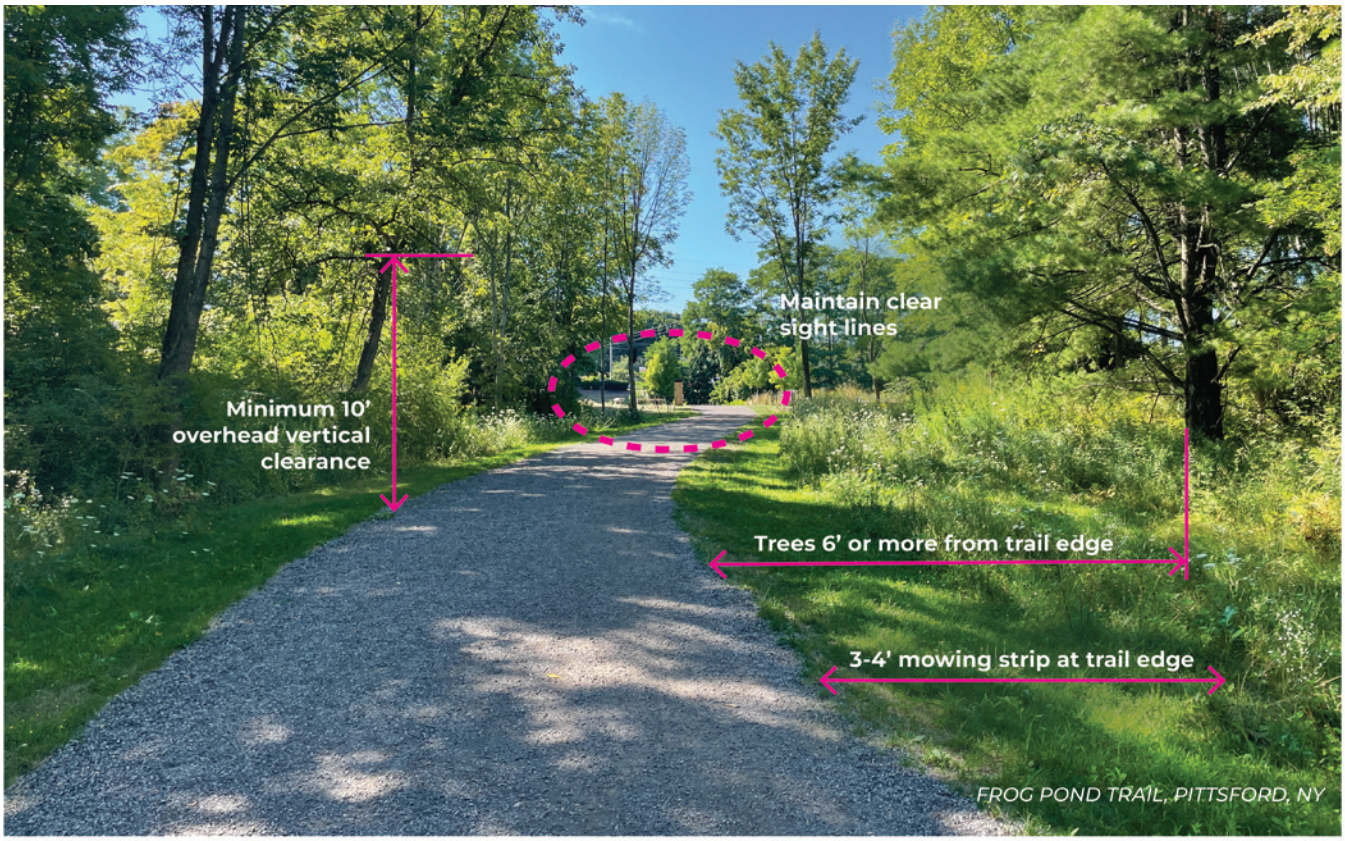


Figure 10 - Vegetation Management Best Practices

+ **Vegetation Clearances:** Standards should conform to or exceed the AASHTO Shared Use Path recommendations, including:
    + Minimum 6 feet of horizontal clearance from the trail edge (Figure 8).
    + Minimum 10 feet of overhead vertical clearance (Figure 8).
+ **Tree Roots:** Trail Protection strategized should be employed in areas where tree roots pose a challenge to the trail surface, two primary strategies should be considered:
    + Physical Separation: Maintain a horizontal distance of 1 foot per 1 inch of tree trunk diameter (with a minimum of 6 feet) to protect against root damage.
    + Root Barriers: Install polyethylene root barriers at the edge of pavement base materials to a depth of at least 1 foot to prevent root systems from undermining the trail structure.

    In areas where existing tree roots are impacting the trail, an assessment should be conducted to determine whether root pruning with barrier installation or tree removal is the best option. Alternatively, if the tree has significant value and adequate space exists, rerouting the trail may be a preferred option. All decisions should be made with input from a trained arborist.
+ **Invasive Species Management:** An invasive species management plan be developed and focus on the removal or suppression of harmful non-native plants, while promoting the growth of native vegetation. Some invasive species require extensive labor and/or chemical treatment to manage, strategies which may not be economically feasible or permissible due to public health concerns. It is important to monitor and identify the presence of invasive species, evaluate mitigation strategies and develop a feasible management plan. Often times, deferring management results in significantly increase costs to address in the future. A proactive approach to invasive species management will ensure the long-term ecological health of the trail corridor, improve the natural beauty of the environment, and contribute to the economic sustainability of the trail management.

Examples of Invasive Species found along the Genesee Riverway Trail

Japanese Knotwood
(Polygonum cuspidatum)

Asiatic Bittersweet
(Celeastrus orbiculatus)

Garlic Mustard
(Alliaria petiolata)

Swallow-wort
(Cynanchum rossicum)

Phragmites
(Phragmites australis)

Giant Hogweed
(Heracleum mantegazzianum)

Slope Stabilization Strategies

To protect the trail from erosion and reduce the need for future repairs, slope stabilization techniques should be implemented on areas with steep inclines. The following strategies should be tailored to each slope's unique characteristics, including soil type, drainage patterns, and trail usage.

+ **Drainage Patterns:** Evaluate and address drainage patterns that are contributing to downslope erosion and washout conditions. Resolving upslope drainage patterns will strengthen strategies for slope stabilization and rehabilitation.
+ **Ground Cover Planting:** Use deep-rooted plants, grasses, and shrubs that are well-suited to the site's soil, sunlight, and moisture conditions. Establishment maintenance is crucial to ensure plant reach maturity.
+ **Jute or Coir Matting:** In areas with severe slopes, biodegradable mats made from natural fibers can prevent soil erosion while vegetation becomes established.
+ **Routine Monitoring and Repair:** Regular inspection and maintenance programs are critical to address erosion, clear debris, and ensure vegetation health. Timely repairs of erosion control measures are necessary to prevent further damage.

Clearing for Scenic Quality and Views

To enhance the user experience, selective vegetation management should be employed to create visual connections between the trail and scenic features such as rivers or natural landscapes. Opening selective areas of the wooded corridor can enhance both the visual and ecological diversity of the trail. Healthy mature native trees should be preserved wherever possible and incorporated into the design to frame and enhance the newly created viewshed. These selective openings not only improve the overall aesthetic appeal but also create memorable, enjoyable experiences for users. Consider clearing practices and if they are contributing to increased maintenance versus removal and establishment of appropriately sized vegetation.

Concealed view along the GRT at Seth Green Park

Open view along the GRT at Turning Point Park

Wayfinding Signage

Effective trail wayfinding signage plays a critical role in ensuring trail users have a positive experience while navigating the Genesee Riverway Trail.

Research & Best Practices

Wayfinding signage should adhere to established regulations to guarantee consistency and safety. The National Manual on Uniform Traffic Control Devices (MUTCD) provides comprehensive guidelines on sign design, including size, type, and placement for streets, highways, and bikeways, which apply to all public roadways. These standards are recognized as best practices for designing off-road signs, ensuring they are easy to understand and navigate. Additional provisions found in the New York Supplement (17 NYCRR Chapter V) provide state-specific adjustments to the federal guidelines, ensuring local needs are met. The Americans with Disabilities Act (ADA) ensure signage is accessible to individuals with physical and visual impairments, addressing considerations such as font size, color contrast, and the inclusion of tactile or auditory elements where applicable.

The Genesee Riverway Trail Signage Standards Manual has been instrumental in shaping the trail's identity. Established in 2001 and last updated in 2013, the manual includes specifications for the trail's logo, color scheme, typography, and symbols. This standardized design has contributed to the trail's brand recognition, fostering a clear and consistent identity across the entire trail network.

The City's Capital Improvement Program (CIP) for the Genesee Riverway Trail Maintenance typically allocates between $100K - $150K annually, with a significant portion directed toward sign replacement and repair. This emphasizes the City's understanding of the importance of maintaining signage, while also highlights the need for durable, long-lasting materials that will minimize the frequency of repairs and reduce maintenance costs over time.

Recommendations

To enhance the effectiveness of wayfinding signage on the Genesee Riverway Trail, several recommendations are made based on the research.

Signage Manual Updates

The Genesee Riverway Trail Signage Standards Manual (last updated 2013) is current however the signage construction details have been updated and are kept on file with the City of Rochester Department of Environmental Services. The City Landscape Architect should be consulted for current signage details and mapping prior to any new signage projects.

Focus on Durability & Maintenance Cost Reduction

Future signage design should prioritize durability, and reduced customization to help mitigate annual repair and maintenance costs while maintaining the well-established identity. Reducing fabrication complexities, ensuring durable weather resistant materials, and streamlining installation and repair should be a goal.

Incorporate Trail Difficulty Information

Incorporating difficulty ratings for trail segments is recommended to enhance trail usability. A simple system using easy, moderate, and hard designations would allow users to select appropriate routes based on their physical capabilities and preferences.

Source: Example Signage Typologies from 2013 Signage Manual

Modern Accessibility Tools

Incorporating modern accessibility options is essential to improving legibility and accessibility for all users. For example including a QR codes (or other mechanism) on signage can provide mobile access to available digital trail maps and trail tours (grtrail.org), providing real-time updates and broader access to information. It would also be valuable to create and share an accessible GIS map that provides information like trail conditions, route difficulty, and other useful updates that can't easily be shown on physical signs. This would not only cater to a more tech-savvy audience but also allow people with varying abilities to easily navigate the trail.

Trail Network Components

Neighborhood Connections

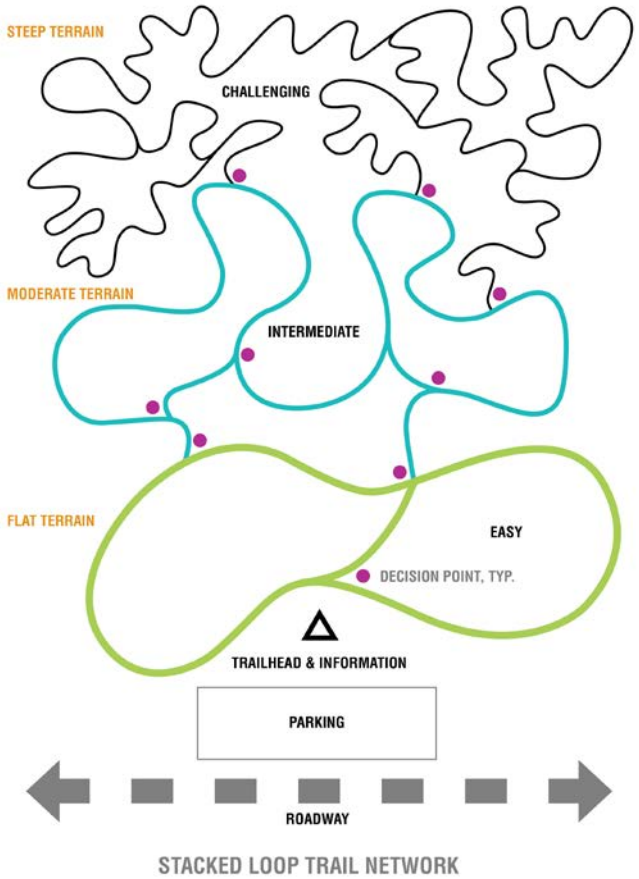
Identified as a priority need by stakeholders, expanding access to the Genesee Riverway Trail through additional entry points will improve connectivity, allowing users to start at various locations, select segments that meet their needs, and connect to nearby communities and destinations. Connections should prioritize recreation centers and neighborhood destinations - opportunities beyond bike boulevards and transportation networks. While the trail primarily runs north-south along the river corridor, it is equally important to strengthen east-west connections to surrounding neighborhoods and other trails. These improvements will help the GRT function as a more integrated off-road transportation network, rather than a limited-access recreational path, while also enhancing safety through increased visibility and emergency access.

Stacked Loops

A stacked loop system is a trail design that offers flexible routing, allowing users to customize the length and difficulty of their experience. It typically features a main loop with additional loops that progressively increase in difficulty, accommodating a range of skill levels (Figure 9). This design allows groups with varying abilities to enjoy the trail together while choosing routes that suit individual needs.

Implementing a stacked loop system along the Genesee Riverway Trail would involve adding or identifying secondary loops branching from the main trail. These loops could extend beyond the trail corridor, connecting to nearby neighborhoods and trail networks to improve access and enhance the user experience.

Stacked Loops Concept



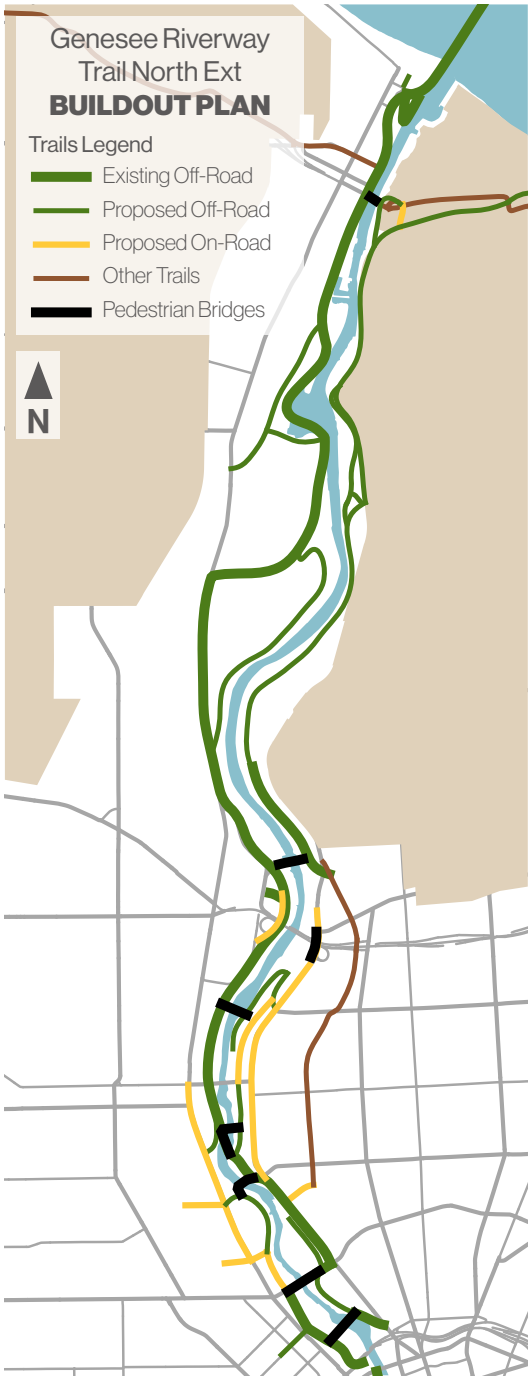
Source: Monroe County Shared Use Trails Pilot Program

Recreational Hiking Trails

Designated paths through natural terrain. These trails are an opportunity to provide nature-based connections. The intention of these types of trails is to allow users to explore and enjoy nature in a more rustic condition and therefor are not required to comply with accessibility guidelines. When establishing these trails, consideration should be given to the regular maintenance, particularly regarding vegetation management and potential impacts to perceived trail safety. These trails should be incorporated as off-shoots or spur trails to the main Genesee Riverway Trail and not considered as part of the primary trail network.

Project Profiles

Overview



The Genesee Riverway Trail extension north of downtown Rochester will create crucial connections linking the existing trail network to local destinations between Downtown and Lake Ontario on both sides of the Genesee River. At the southern terminus, this project will complete the connection to the existing Genesee Riverway Trail by extending up to the CSX/Amtrak rail line, building upon the ROC the Riverway initiative's work on downtown segments while coordinating with future efforts by the High Falls State Park (HFSP) to address trails and river access in the gorge and the Inner Loop North (ILN) initiative to overcome railroad and highway barriers. On the west side, the trail will culminate at Ontario Beach Park, with the historic pier serving as the ultimate northern destination, providing trail users with direct access to the lakefront. However, the east side faces geographical and development constraints that prevent the trail from reaching the lake directly alongside the river. Therefore, the east side trail will terminate at two key destinations: the O'Rorke Bridge, which will provide trail users access to cross over to the west side trail system leading to Ontario Beach Park, and a connection to the existing Irondequoit Lakeside Trail, ensuring comprehensive trail connectivity while maximizing access to Lake Ontario recreational opportunities.

The recommendations identified during this planning process have been formed into a set of project profiles which target specific locations or strategies to achieve this vision and the following objectives:

+ Prioritize closing existing gaps
+ Enhance neighborhood connections
+ Identify existing wayfinding systems and apply these corridor-wide to create placemaking and trail navigation opportunities
+ Provide concept-level design solutions and cost estimates that progress previous studies

Project Types

The projects have been identified under one of nine (9) categories:

+ Crossing
+ Rest/Viewing Point
+ Wayfinding Signage
+ Neighborhood Access Point/Trailhead
+ Master Plan
+ Pedestrian Bridge
+ Trail Establishment (New Off-Road Facility)
+ Trail Surface Enhancement (Improvements to Existing Trail Facility)
+ Buffered Bike Lanes (New On-Road Facility)

Project Profiles

There are a total of 33 projects as described on the following pages, with some alternatives identified for the short- and long-term solutions to identified needs and gaps. Each priority project has a combination of the following features:

+ Project Type
+ Description of recommendations
+ Graphic(s) demonstrating existing conditions, included in a previous study, showing precedent imagery, and/or a visualization
+ List of Relevant Previous Studies
+ Opinion of Probable Cost Estimate

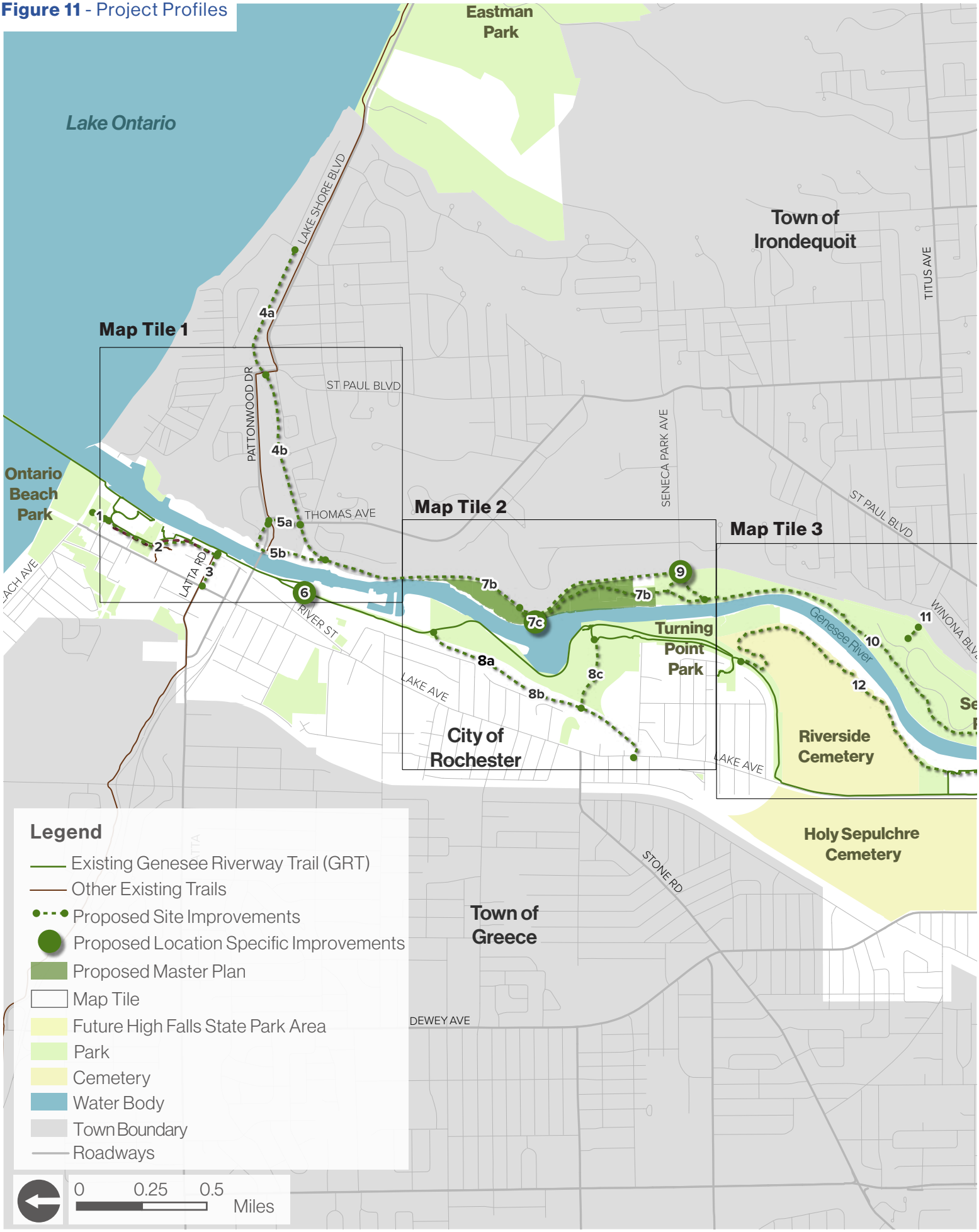
Depending on the complexity of the project, cost estimates were generated using a list of assumptions, typical unit prices, and/or precedent projects with similar scopes of work, and are based on the length or anticipated area of improvement.

The level of detail and amount of components included in the project profiles generally correlates with the presence of projects in previous studies and its level of priority for implementation. Refer to Section 6 Implementation.

Map Tiles

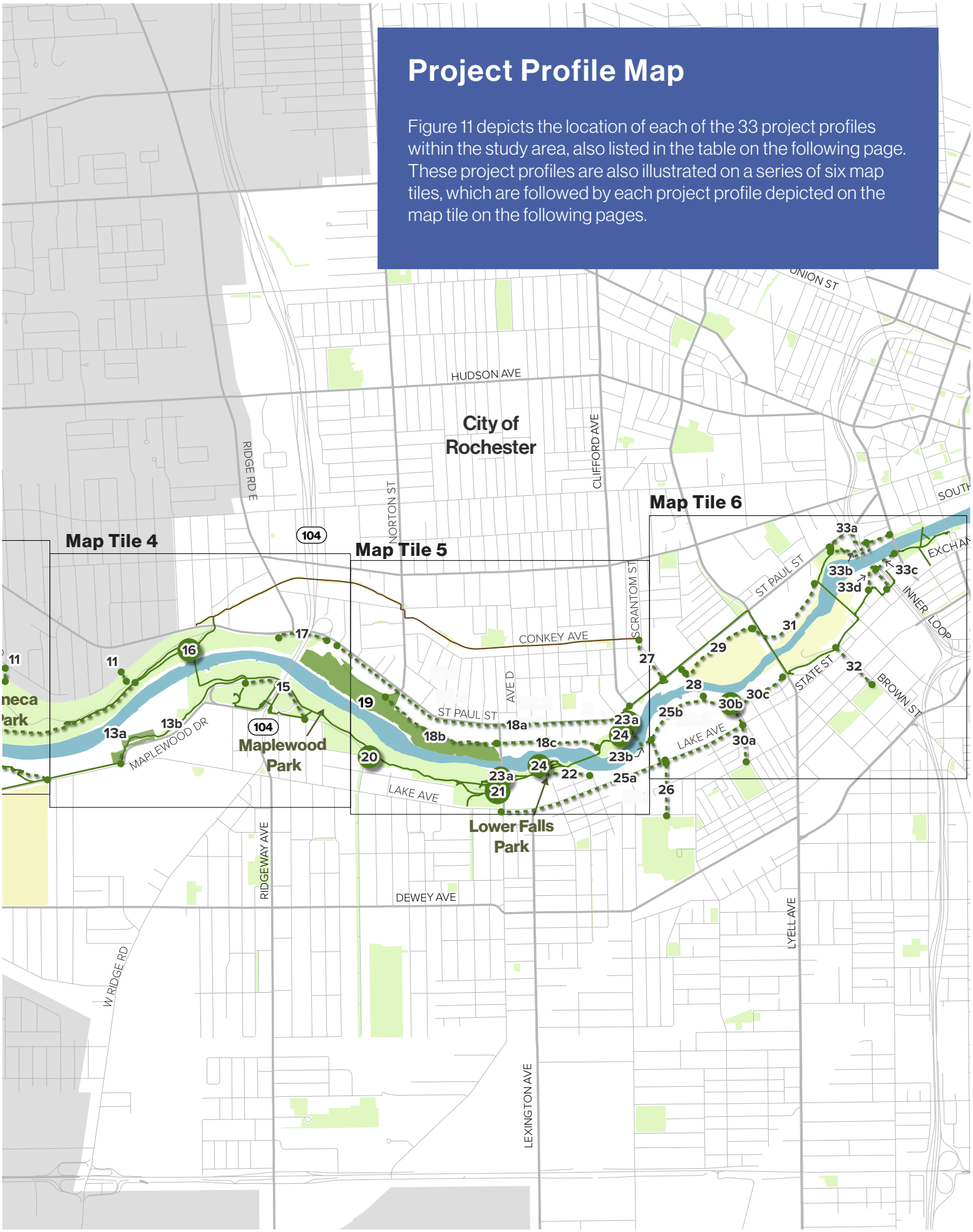
A series of six map tiles have been applied to enlarge the context of the proposed GRT trail segments throughout the corridor. Project profiles are organized within their map tile segment, moving from north to south. These tiles extend 1.25 miles in length by 1 mile in width.

Figure 11 - Project Profiles



Project Profile Map

Figure 11 depicts the location of each of the 33 project profiles within the study area, also listed in the table on the following page. These project profiles are also illustrated on a series of six map tiles, which are followed by each project profile depicted on the map tile on the following pages.



Project Profile List

Project No	Improvement Type	Project Description
1	Trail Establishment	Gateway into Ontario Beach Park
2	Wayfinding	River Street Bike Lanes & Wayfinding
3	Trail Establishment	Latta Road Lake Ontario State Parkway Trail Connector
4a	Trail Establishment	CSX Extension from Saint Paul Boulevard to Rock Beach Road
4b	Trail Establishment	CSX Rail Corridor to Irondequoit Lakeside Trail
5a	On Road Improvement	Bike Lanes on Thomas Avenue
5b	Trail Establishment	Off-Road Trail Connection from CSX Rail Corridor
6	Crossing	Crossing Improvements at Petten Street
7a	Acquisition	CSX Rail Corridor Acquisition
7b	Trail Establishment	CSX Rail Corridor Trail
7c	Rest Point	Rattlesnake Point Park Master Plan
8a	Acquisition	CSX Rail Corridor Acquisition (West)
8b	Trail Establishment	CSX Rail Corridor Connection between Lake Avenue and Turning Point Park
8c	Trail	CSX Rail Corridor Connection to Turning Point Park near the Falls
9	Neighborhood Access Point	Seneca Park Avenue Neighborhood Access Point
10	Trail Surface	Seneca Park Trail Improvements
11	Trail Surface	CSX Rail Corridor Trail Connections East
12	Trail Surface	Off-Road Cemetery Trail
13a	Acquisition	King's Landing Property Acquisition
13b	Trail Establishment	King's Landing Off-Road Trail
14	Master Plan	Maplewood Park Bridge Overlook Master Plan
15a	On Road Improvement	Bridge View Road Diet
15b	Trail Establishment	Underpass Reconstruction
16	Rest Point	Seneca Park Bridge Overlook Improvement
17	On Road Improvement	Improvements to Saint Paul Street Bridge
18a	Trail Establishment	Bike Lanes on Saint Paul Street
18b	Trail Establishment	Gorge Rim Trail North of Driving Park Bridge
18c	Trail Establishment	Gorge Rim Trail South of Driving Park Bridge
19	Trail Establishment	Seth Green Drive Master Plan
20	Neighborhood Access Point	Seneca Parkway Neighborhood Access Point
21	Crossing	Driving Park Bridge West Crossing
22	Trail Establishment	Hastings Street Neighborhood Access Point
23a	Wayfinding	Real-Time Digital Signage for RG&E Bridge
23b	Trail Surface	Trail & Pedestrian Bridge South of Middle Falls
24	Rest Point	Overlook Enhancements
25a	On Road Improvement	Lake Avenue On-Road Alternative
25b	Trail Establishment	Lake Avenue Off-Road Alternative
26	Neighborhood Access Point	Phelps Avenue Neighborhood Connection
27	On Road Improvement	El Camino Trail on Scrantom Street
28	Pedestrian Bridge	Running Track Bridge
29	Trail Establishment	Rim Trail adjacent to Future High Falls State Park
30a	Neighborhood Access Point	Jones Avenue Neighborhood Connector
30b	Neighborhood Access Point	Ambrose Street Neighborhood Access Point
30c	On Road Improvement	Cliff Street and Ambrose Street On-Road Improvement
31	Trail Establishment	Brewery Line Trail North
32	Trail Establishment	Josana Trail Linkage
33a	Trail Establishment	East Side Short-Term Downtown Connection
33b	Pedestrian Bridge	East Side Long-Term Downtown Connection
33c	Trail Establishment	West Side Short-Term Downtown Connection
33d	Pedestrian Bridge	West Side Long-Term Downtown Connection

Figure 12 - Map Tile 1

On-Road Improvement

1. Gateway into Ontario Beach Park

Ontario Beach Park and the pier are the northern-most destination of the Genesee Riverway Trail (GRT). Through the establishment of a more pedestrian and bicyclist-centered facility across Corrigan Street north through the existing parking lot, this trail connection will become the northern terminus of regional connected trail systems in all of Western NY fronting the shoreline of Lake Ontario. There are a range of options that would provide trail entrances into the park, from full trail to shared use, and with various methods to create the space. The OPC range accommodates this spectrum and will need to be developed with further consultation with Monroe County Parks and Rochester Police Department. By reclaiming one of these space from vehicles, this area of the parking lot could establish a strong visual and physical gateway into this waterfront destination, celebrating the northern terminus. Recommended improvements include a mix of public art, decorative pavement, lighting, safe shared pathways, access control, seating areas, gateway features, and vibrant native plantings. An example of these enhancements is illustrated in the image to the right, which reflects alternative 1 in the image below.

Relevant Plans, Studies, and Initiatives

Port of Rochester Improvements
City of Rochester Local Waterfront Revitalization Program

Opinion of Probable Cost

$300,000-$1,000,000

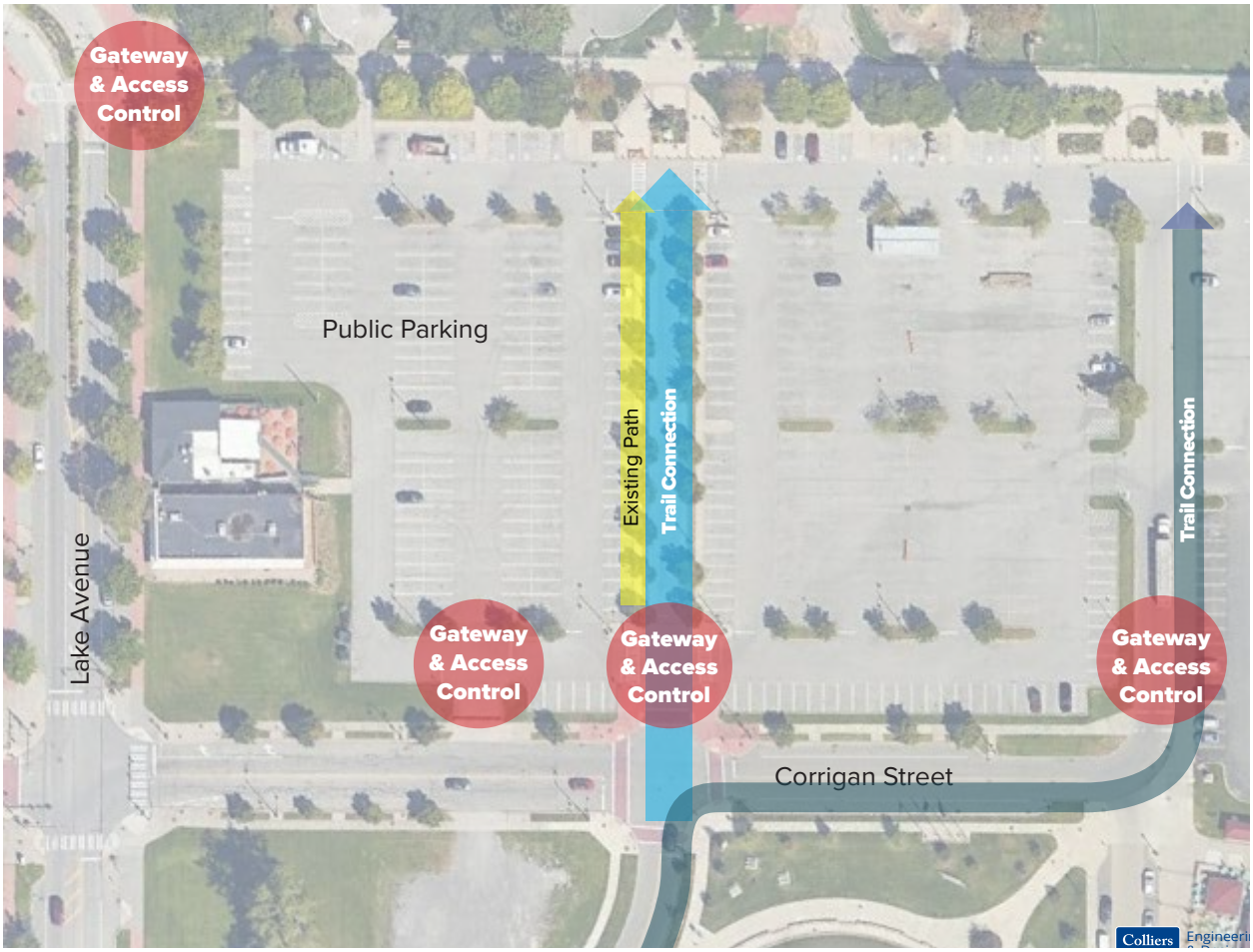


Figure 13 - Ontario Beach Park Gateway Alternatives

Figure 14 - Ontario Beach Park Gateway Concept

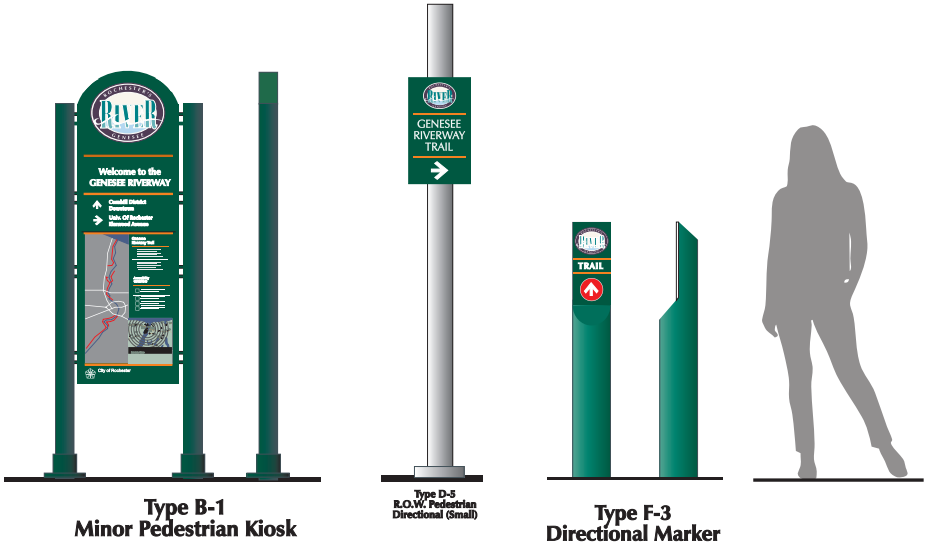
2. River Street Bike Lanes & Wayfinding

The trail could benefit from bicycle facilities, additional signage and wayfinding along River Street to direct users towards the Port of Rochester and Ontario Beach Park, starting at the northern entrance of the Rochester River Street Marine North Slips, and continuing north towards Corrigan Street. The City is currently realigning River Street in this area, which includes a shared use sidewalk. Signage indicating the shared use nature of the sidewalk will help to direct users north towards Ontario Beach Park. Branded directional signage consistent with the Genesee Riverway Trail Signage Standards manual should be installed along River Street from the marina to Ontario Beach Park.

Relevant Plans, Studies, and Initiatives

Genesee Riverway Trail Signage Standards Manual (2013)
River Street Realignment Project

Opinion of Probable Cost $100,000



Source: Signage Typologies from 2013 Signage Manual

Existing Conditions looking North on River Street

Neighborhood Access Point

3. Latta Road Lake Ontario State Parkway Trail Connector

Latta Road provides a crucial link between the Genesee Riverway Trail (GRT) and the Lake Ontario State Parkway Trail. The City's Local Waterfront Revitalization Program has identified that developing a direct connection from the Latta Road and River Street intersection across the CSX railroad tracks would establish a strategic trail node connecting these currently separate recreational systems. This connection would support future water-enhanced development opportunities in the area while improving access to both the Genesee River and Lake Ontario shoreline. The proposed facility could include bike lanes where Latta Road meets Lake Avenue and east to River Street if a lane reduction was studied and considered feasible. The CSX rail crossing intersection could be developed into a comprehensive trailhead featuring improvements to the existing historic train station and amenities such as wayfinding and informational kiosk, providing orientation for trail users and enhancing the overall experience of the City's growing trail network. Coordination with CSX and property acquisition or an agreement would be required to implement the project. CSX corridor acquisition nor street improvements other than striping / markings and signage are replected in OPC.

Relevant Plans, Studies, and Initiatives
City of Rochester Local Waterfront Revitalization Plan

Opinion of Probable Cost $630,000

Existing Conditions of the Latta Road and River Street intersection looking East

Source: Willamette River Trail

4. CSX Rail Corridor Connections between City of Rochester and Town of Irondequoit

The following projects have been discussed with the Town of Irondequoit, and would require coordination with Irondequoit and with property acquisition or agreement from CSX for implementation.

4a. CSX Extension from St Paul Boulevard to Rock Beach Road

The Irondequoit Lakeside Trail is currently facilitated by the sidewalk of Petten Street and Lakeshore Boulevard from the Genesee River to Durand Eastman Park. An identified connection in the Irondequoit-Seneca Trail Study, the former rail corridor between St Paul Blvd and Rock Beach Rd could become an off-road trail connecting these two recreational systems within current CSX owned property within the Town of Irondequoit through a property acquisition or agreement. The former CSX bridge carrying the rail line over St Paul Blvd has been removed. The cost would need to significantly escalate if we were to propose a new bridgeover St Paul This facility would provide greater separation from vehicular traffic, enabling safer and more direct multi-use activities for cyclists and pedestrians, and creating more immersive naturalized experiences. Project implementation is dependent on implementation of 4b.

4b. CSX Extension to Irondequoit Lakeside Trail

As identified in the Irondequoit Seneca Trail Study, the CSX rail corridor presents an opportunity to establish a vital east-west recreational link between Thomas Avenue and the Irondequoit Lakeside Trail where it intersects with Saint Paul Street. This connection is recommended, whether or not project 4a is implemented, to enhance regional trail network integration by creating a seamless pathway between off-road trail systems. Implementation would require a thoughtful community-centered design approach with the Town of Irondequoit that would solicit input on privacy and balance screening and buffering requirements with neighborhood access points. Design would also need to consider the significant grade differential (15' +/-) between the CSX line and the St Paul ROW, as well as a lack of access opportunity at this intersection, make connecting the CSX corridor/ St Paul Blvd / Irondequoit Lakeside Trail a difficult project.

Relevant Plans, Studies, and Initiatives

Irondequoit Seneca Trail Feasibility Study
Rochester 2034
Regional Trails Initiative III
City of Rochester Local Waterfront Revitalization Program

Opinion of Probable Cost
4a: $680,000
4b: $780,000

Source: City of Rochester LWRP

5. CSX Rail Corridor Alternatives to Pattonwood Dr

There are two viable routes to connect the CSX Rail Corridor (See Project 7) to Pattonwood Drive. These are shown on the graphic below, adapted from the Irondequoit Seneca Trail Feasibility Study.

5a. Bike Lanes on Thomas Avenue

This alternative utilizes existing sidewalk and proposes bike lanes in the shoulder along Thomas Avenue to provide a connection. This is feasible, but not the preferred facility type.

5b. Off-Road Trail Connection from CSX Rail Corridor

This connection would cross City property to create an off-road connection along the riverfront and beneath the O'Rorke bridge. This connection would need to be coordinated with marina activities, existing boat houses and planned waterfront development, relegating it to a longer-term project. Additionally, signage directing trail users from Pattonwood Drive across the O'Rorke Bridge to the GRT would enhance and strengthen this trail connection.

Relevant Plans, Studies, and Initiatives
Irondequoit Seneca Trail Feasibility Study

Opinion of Probable Cost
5a. $150,000 5b. $1,500,000

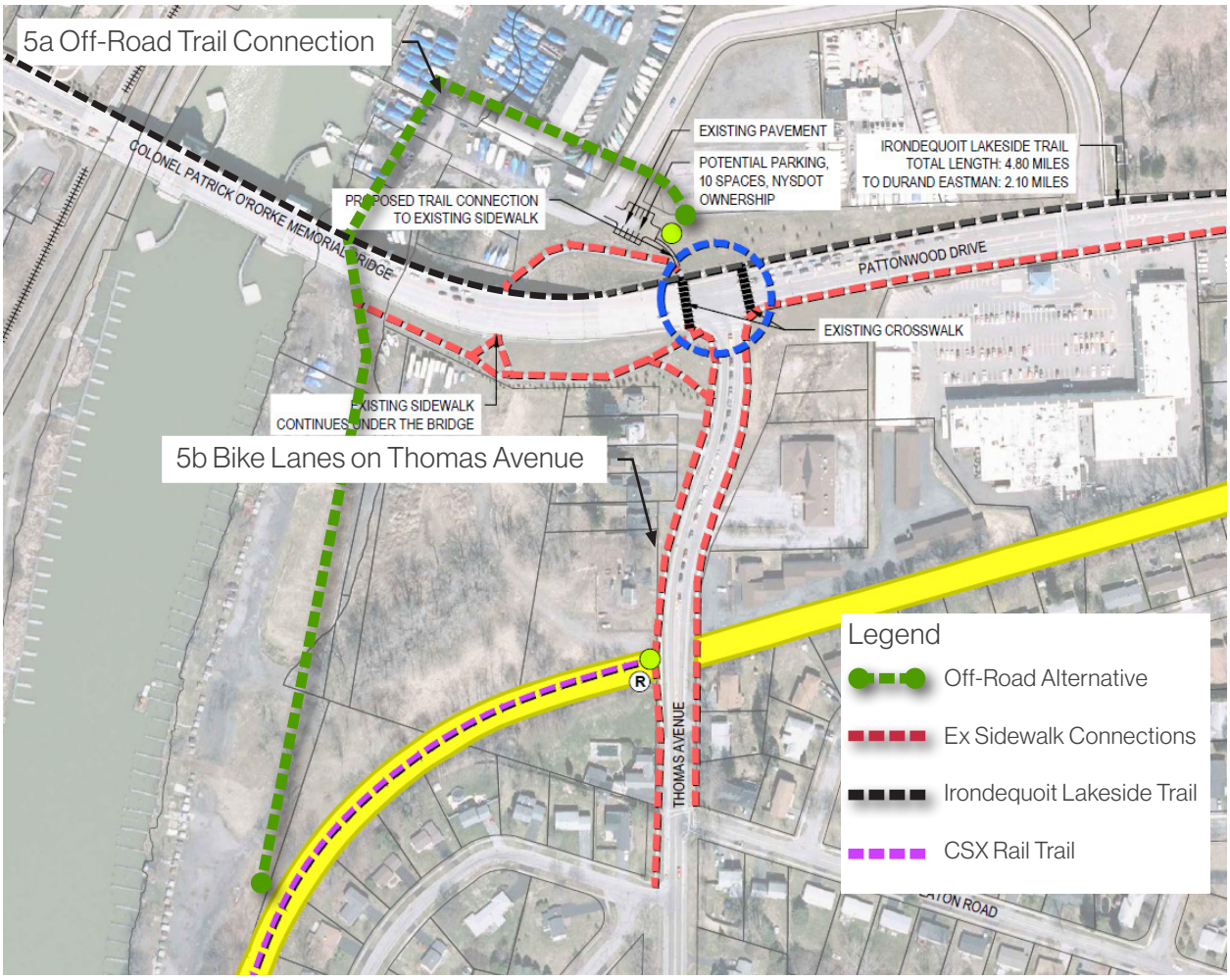


Figure 15 - Irondequoit Seneca Trail Feasibility Study Concept Plan & Markup

6. Crossing Improvements at Petten Street

While the crossing facility at Petten Street includes amenities such as a kiosk, trash receptacle, and access-controlling bollards, it currently lacks proper infrastructure for trail users to safely cross the street. A comprehensive crossing facility should be established, featuring high-visibility pavement markings and trail crossing signage to alert motorists of the trail intersection.

Opinion of Probable Cost $80,000

Existing Conditions at Petten Street looking West

W 11-15 and W 16-7P MUTCD Trail Crossing Signage

Figure 16 - Map Tile 2

7. CSX Rail Corridor

Known locally as the Rochester Running Track Trail, the CSX Rail Corridor runs north of Seneca Park Zoo offering scenic overlooks of the Genesee River gorge, seasonal interest in hardwood forest cover, and wildlife viewing. The following projects would encompass integration of this crucial connection along the east side of the River within the Genesee Riverway Trail system.

7a. CSX Rail Corridor Acquisition

A critical first step to implementing a trail along the CSX Rail Corridor would be for the City of Rochester and CSX Rail to enter into an agreement for the City to acquire the CSX linear parcel. Acquisition of this linear parcel, located in the Town of Irondequoit along the City border, would connect Seneca Park to Lake Ontario, and enable access to the recreational destination at the state owned Rattlesnake Point property.

Relevant Plans, Studies, and Initiatives

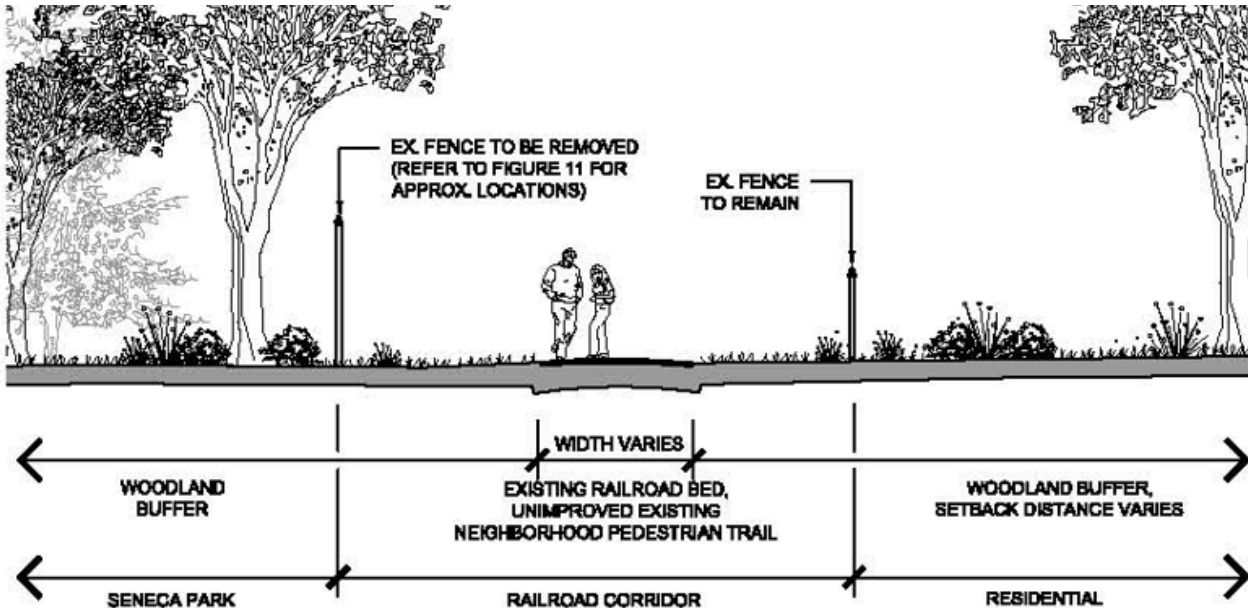
Irondequoit Seneca Trail Feasibility Study
Rochester 2034
Regional Trails Initiative Phase III
City of Rochester Local Revitalization Program

Opinion of Probable Cost

7a. $1,500,000
7b. $5,000,000
7c. $200,000

7b. CSX Rail Corridor Trail

Comprehensive development of the CSX Rail Corridor would require a careful Master Plan effort. This plan would identify alternative routes for optimal trail alignment, potentially applying a stacked loop network that diversifies abilities and user groups. Features of interest may include interpretive signage, rest areas, wayfinding, and scenic viewpoints. Special consideration of the private and public property definition would be required where the trail sits adjacent to residential properties. These are shown in the graphic below.



Source: Irondequoit Seneca Trail Feasibility Study

Rest Point

The Irondequoit Seneca Trail Feasibility Study identified a notable viewpoint of a tributary gully that waterfalls on private property to the east of the CSX Rail Corridor near the intersection of Van Voorhis Drive and Saint Joseph Street. This feature presents an opportunity to create a distinctive trail experience. Dependent on acquisition of the CSX Rail Corridor, recommended improvements for this project include establishing a formal overlook platform with seating, installing interpretive panels explaining the geological formation, drainage and ecological significance of the waterfall, and designing the space as a signature rest stop along the CSX rail corridor. Strategic vegetation management would also frame and enhance views while maintaining the natural character that makes this location special. A local example of this type of overlook is located along Allens Creek, adjacent to Monroe Avenue in Brighton, shown below.

Existing Conditions along the CSX Rail Corridor looking East

Source: Brighton Allens Creek Overlook Deck

7c. Rattlesnake Point Park Master Plan

New York State Parks, Recreation, and Historic Preservation has granted the City of Rochester the rights to develop the a 39 acre property "for the use and benefit of the public" along the Genesee River and CSX Rail Corridor in the vicinity of scenic Rattlesnake Point. Rattlesnake Point earned its name from the numerous timber rattlesnakes that once inhabited the rocky terrain, though they have since disappeared from the region. Today, this location provides views across the Genesee River west towards Turning Point Boardwalk.

In partnership with NYS, it is recommended that a master planning effort is completed to study the development of this waterfront space into a recreational and ecological asset for the trail system, including trail spurs, rest stops, amenities, interpretive/educational opportunities, views to the River, fishing access, and establishment of native plant communities. A vision for this space is included in the graphic on the next page.

Existing Conditions at Rattlesnake Point looking West

Figure 17 -Rattlesnake Point Conceptual Perspective

8. CSX Rail Corridor Connections to Turning Point Park

The CSX Rail Corridor currently serves as a barrier to establishing neighborhood scale connections to Turning Point Park other than entrances to the north and south, and to providing alternative options to the boardwalk over the Genesee River to travel through the Park. There are steep topographic sections to the south end of the park which may inhibit the experience of users of certain mobility groups. This project seeks to acquire the CSX Rail Corridor create more variety and mobility options for accessing and experiencing the Park.

8a. CSX Rail Corridor Acquisition

A critical first step to implementing trail connections to Turning Point Park along the CSX Rail Corridor would be for the City of Rochester and CSX Rail to enter into an agreement for the City to acquire this CSX property. The current acquisition costs are TBD and dependent upon property appraisals and negotiation with CSX.

8b. CSX Rail Corridor Connection between Lake Avenue and Turning Point Park

Requiring coordination with CSX, a trail may be established along the western boundary of Turning Point Park to bypass the Turning Point Park Boardwalk and provide a direct trail connection along the rail corridor to Lake Avenue. Design would also need to consider the significant grade differential (20' +/-) between where the rail line intersects with Lake Ave and would require further study to establish this connection.

8c. CSX Rail Corridor Connection to Turning Point Park near the Falls

There may be an opportunity to link the Turning Point Trail system directly to the CSX Rail Corridor in the vicinity of Turning Point Falls to create a scenic trail spur for trail users, utilizing existing informal trails within Turning Point Park. Design would also need to consider the grade differential (20' +/-) between where the rail line and Turning Point Park to establish this connection.

Relevant Plans, Studies, and Initiatives

Rochester 2034
City of Rochester LWRP

Opinion of Probable Cost

8a. To be Determined
8b. $3,000,000
8c. $1,500,000

Existing Conditions at Turning Point Falls looking West

Neighborhood Access Point

9. Seneca Park Avenue Neighborhood Access Point

This access point is one of only three potential points of connection to Seneca Park, the NYS Rattlesnake Point parcels and the CSX corridor from the neighborhoods to the east. To the north the nearest access point is at Thomas Ave / Pattonwood Drive (1.5 miles) or from the south at Maplehurst Road (1.5 miles). The current access point features a parking area gate, park entrance with chain link fence and gate, CSX rail corridor trail access gate, and Seneca Park identification sign. To transform this entry into a welcoming neighborhood gateway for West Irondequoit, recommended improvements include installing orientation kiosks with wayfinding information, adding Genesee Riverway Trail identification signage, repairing damaged pavement, providing ADA accessible parking spaces, and managing vegetation to create an inviting space for trail users. To transform this entry into a welcoming neighborhood gateway, recommended improvements include installing orientation kiosks with wayfinding information, fencing, trail barriers, GRT signage, rreplacing pavement, providing ADA parking spaces and managing vegetation to create an inviting space for trail users.

Relevant Plans, Studies, and Initiatives

Irondequoit Seneca Trail Feasibility Study
City of Rochester LWRP

Opinion of Probable Cost

$600,000

Existing Conditions at the parking lot looking West

Source: Tumalo Creek Trail Parking & Trailhead, Willamette, OR

Figure 18 - Map Tile 3

10. Seneca Park Trail Improvements

The existing approximately 2 mile informal footpath along the gorge edge through Seneca Park was studied in the Irondequoit Seneca Trail Feasibility Study. In five areas, the footpath exceeds maximum slope for ADA accessibility. Realignment or regrading of the trail would require impacts to steep slopes and mature trees, which in many areas would be prohibitively expensive. Following best management practices, enhancements to this trail may involve stabilizing stone surfacing material or considering hard pavement installation (asphalt or concrete). Trail difficulty signage may accompany these improvements, informing users that they may be able to use the CSX rail corridor or other Park trails within the vicinity of the zoo as an alternative route. Other enhancements studied in this report include rest areas with stone seating, directional and wayfinding signage, improved river views through vegetation management, and habitat enhancement through stabilized slopes and strategic understory plantings. Some of these enhancements have been recently completed by Monroe County Parks, including re-establishing pathway widths and vegetative management.

Relevant Plans, Studies, and Initiatives

Irondequoit Seneca Trail Feasibility Study
Rochester 2034
Regional Trails Initiative Phase III
City of Rochester Local Waterfront Revitalization Program

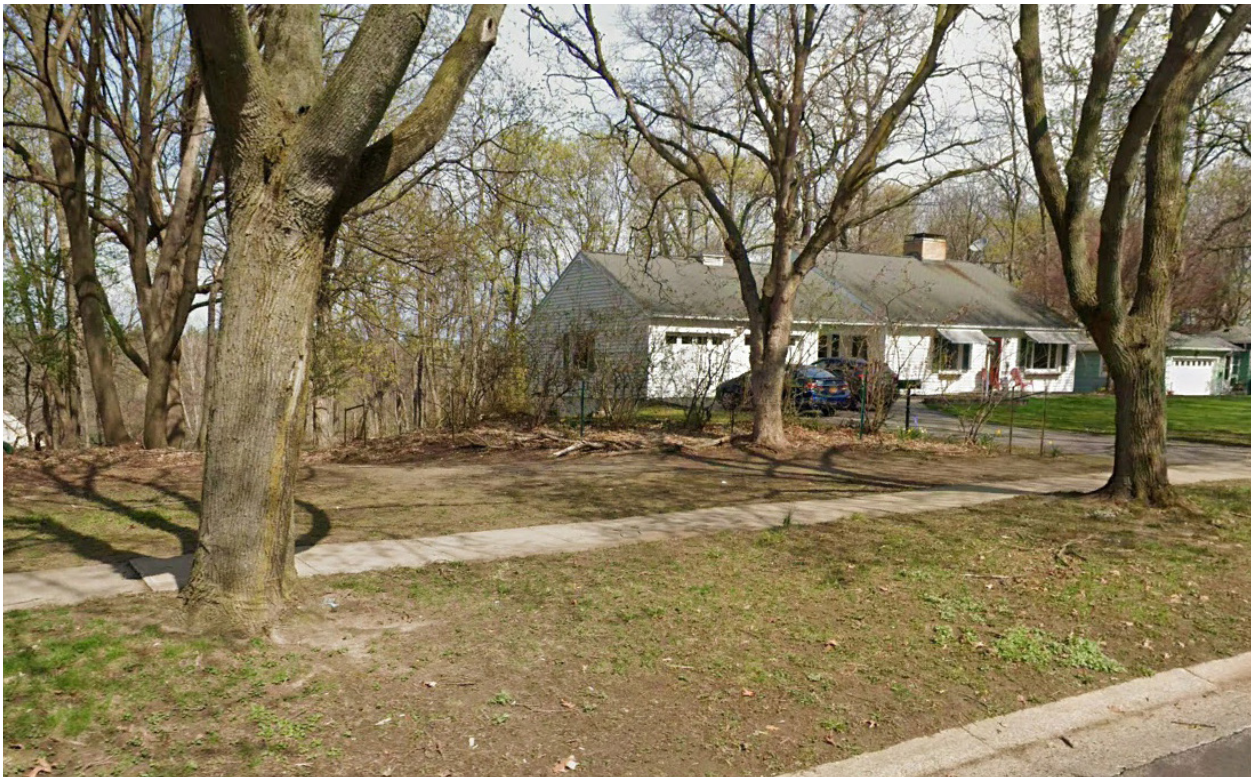
Opinion of Probable Cost $4,000,000

Source: Irondequoit Seneca Trail Feasibility Study

11. CSX Rail Corridor Trail Connections East

There are multiple opportunities to stitch the linear CSX Rail Corridor into the fabric of the surrounding context, including Seneca Park and nearby neighborhoods. In the section of the CSX Rail Corridor that is owned and maintained by Monroe County, enhanced trail connections are proposed between the Seneca Park Loop trail and the CSX Rail Corridor to the north of the zoo (adjacent to the Wegman Lodge) and at the intersection of Winona Boulevard and East Parkway through the Town of Irondequoit right-of-way. A connection to the Cornell Cooperative Extension Monroe County campus has also recently been completed. These two areas will provide critical connections between neighborhoods and trail corridors, improving and defining ease of access for residents and trail users. Connections to Seneca Park Zoo should be coordinated with Monroe County Parks, and the connection to Winona Boulevard should be coordinated with the Town of Irondequoit and local residents of West Irondequoit.

Opinion of Probable Cost
$300,000



Existing Conditions at Winona Boulevard and East Parkway looking West

Trail Surface Enhancement

12. Off-Road Cemetery Trail

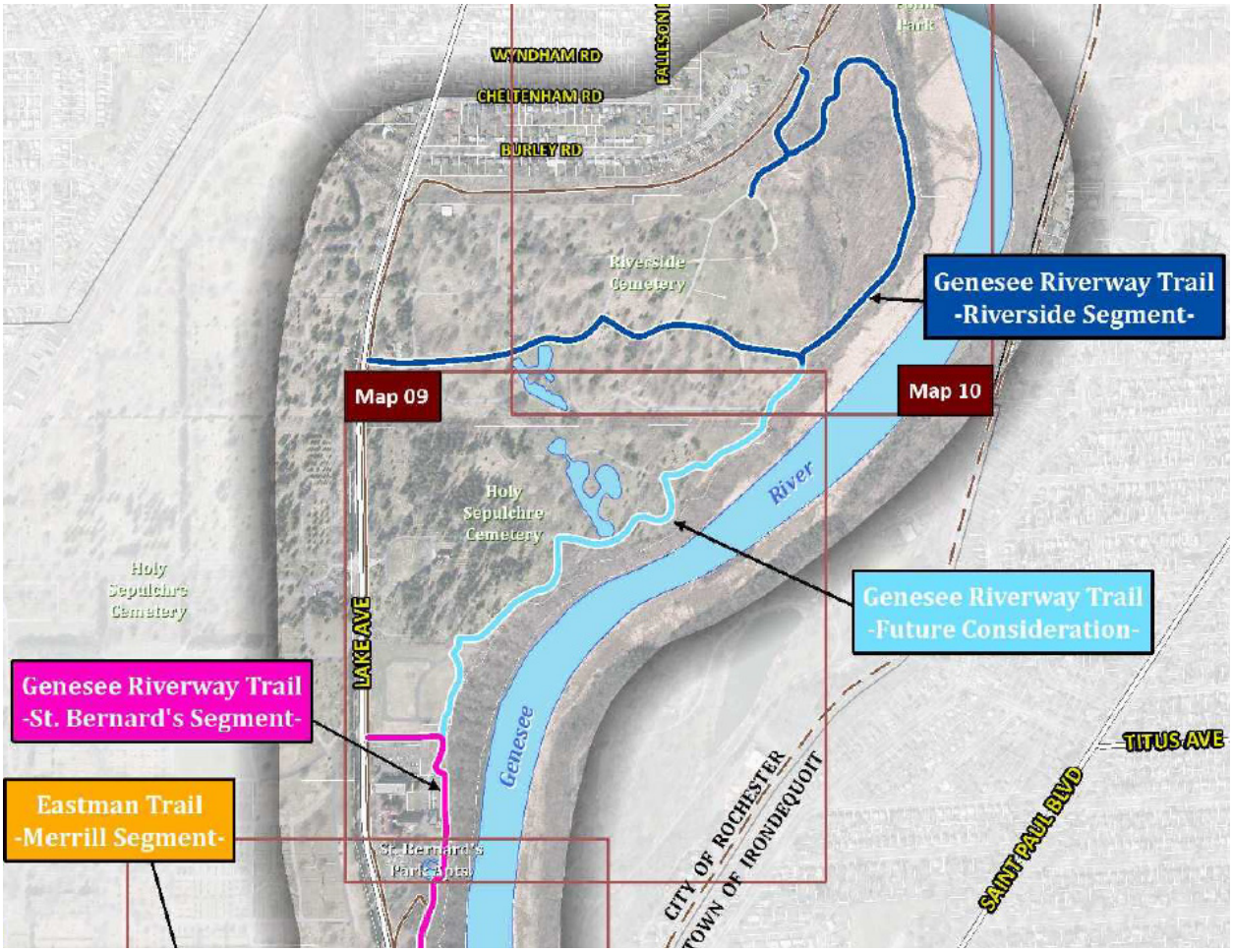
The Urban Trail Linkages study proposed an off-road trail between the St. Bernard's Seminary trail loop to the south and the Turning Point Park trail to the north (shown in the graphic below). The trail would pass through the City-owned Riverside Cemetery and the privately owned Holy Sepulchre Cemetery. Currently, Holy Sepulchre is unwilling to permit access and the Saint Bernard's Seminary trail has is being decommissioned due to safety hazards. Efforts should continue to reestablish the St. Bernard's Trail and to gain access through Holy Sepulchre Cemetery.

With this in mind, this project revisits this off-road trail, recommending a connection between Turning Point trails and Holy Sepulchre and Riverside Cemetery trails, providing users with a riverside alternative to the Lake Avenue grade-separated trail, which is detached from the Genesee River.

Relevant Plans, Studies, and Initiatives

Urban Trail Linkages Study
Rochester 2034
City of Rochester Local Waterfront Revitalization Program

Opinion of Probable Cost $4,000,000



Source: Urban Trail Linkages Study

Figure 19 - Map Tile 4

13. King's Landing Alternatives

The existing Genesee Riverway Trail (GRT) segment in the vicinity of City-owned King's Landing Cemetery connects the northern extent of Maplewood Park to Lake Avenue, and from the south, travels through four Kodak-owned parcels on a narrow grade separated sidewalk directly interfacing with the roadway. The trail encounters a series of underutilized spaces, including the parking areas to the south, once supporting Kodak employee vehicles, and the water treatment plant to the east. There is an opportunity to transform this area to enhance the trail user experience and provide more desirable, continuous off-road facilities through trail establishment and property acquisition.

13a. King's Landing Property Acquisition

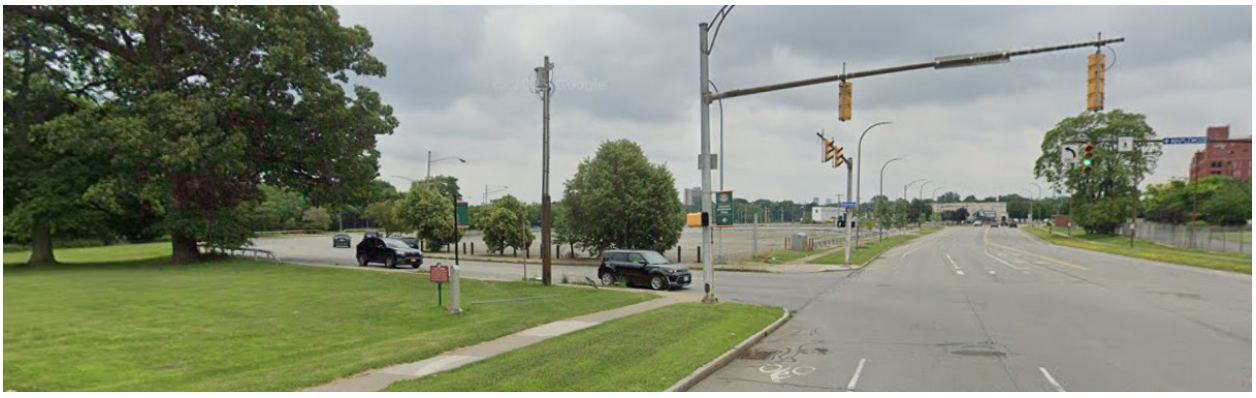
To apply the full master plan vision, this project would require the acquisition of 480, 540, 570 and a portion of 450 Maplewood Drive, to extend the Maplewood Park greenspace and trail to King's Landing Cemetery. Acquisition costs are dependent upon property appraisals and negotiation with Kodak.

13b. King's Landing Off-Road Trail

This project would encompass full trail redevelopment from Lake Ave in the north to just south of Hanford Landing Road East. This project references the King's Landing Segment identified in the Urban Trail Linkages Study to recommend an off-road facility for trail users as an alternative to the shoulder and sidewalk along Maplewood Drive. The suggested improvement would minimize encroachment onto the Cemetery, recommending relocating the guiderail and the trail facility into an off-road trail protected and separated from vehicular traffic by the guiderail.

Relevant Plans, Studies, and Initiatives
Urban Trail Linkages Study

Opinion of Probable Cost
13a. To be Determined
13b. $2,000,000



Existing Conditions at Maplewood Avenue and Lake Avenue looking South

14. Maplewood Park Bridge Overlook Master Plan

The GRT provides two points of access to the bridge connecting Maplewood Park on the east to Seneca Park on the west; one a staircase and the other a ramp following the slope of the gorge. This project would focus on the City-owned waterfront space which provides stair access to the bridge at the Monroe County Pure Waters Facility.

There is a need to implement clear directional signage ahead of and at the junction points, helping users understand both options and make informed choices based on their accessibility needs and preferences.

Beyond wayfinding improvements, this project recommends a larger master planning effort to study enhancements to the open space surrounding the facility, including trail surface, implementing a revised trail loop system, re-evaluating the need for the staircase and potential reconstructed connection to the pedestrian bridge, vegetation clearing to provide views, seating, and amenities that would support a destination level overlook area at this trail node.

Relevant Plans, Studies, and Initiatives

Urban Trail Linkages Study
Rochester 2034
City of Rochester Local Waterfront Revitalization Program

Opinion of Probable Cost $100,000

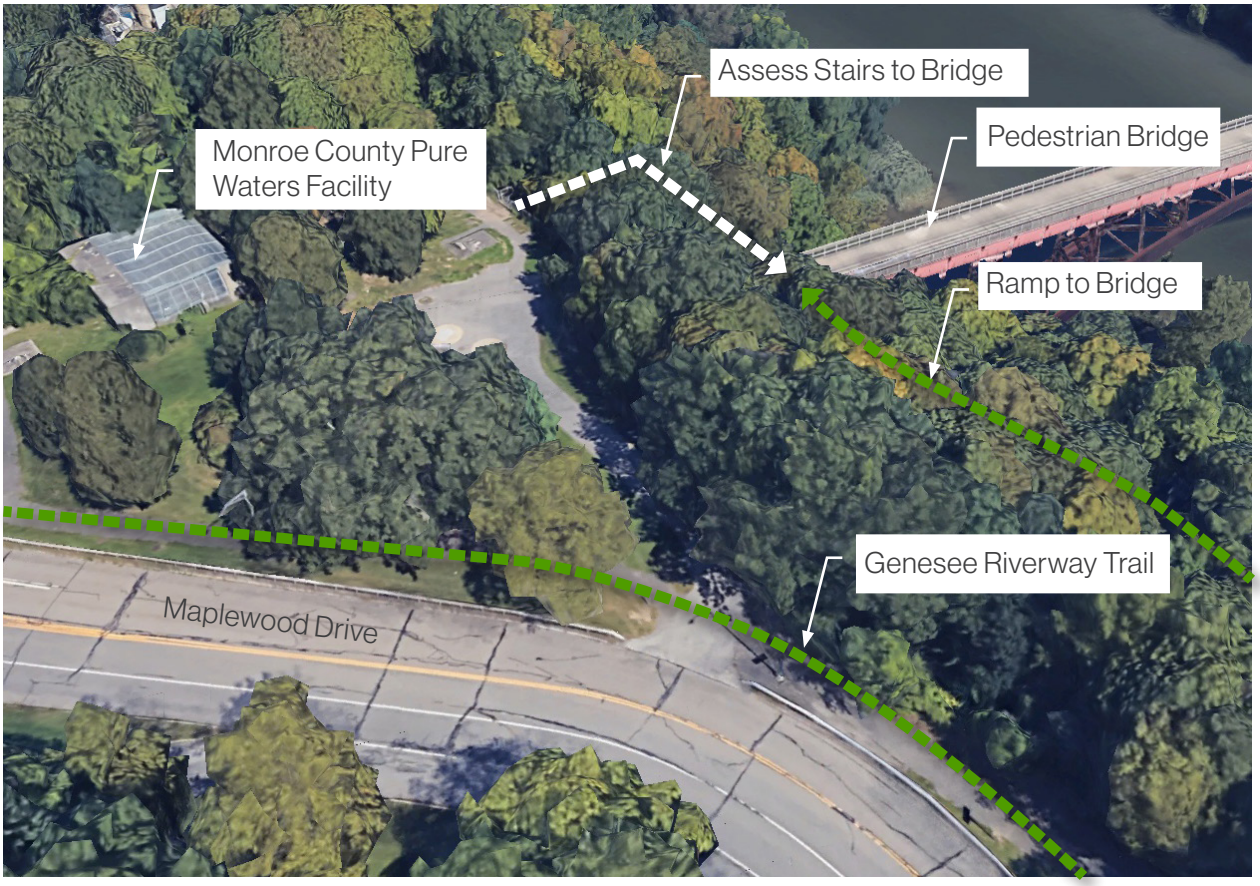


Figure 20 - Existing Conditions

15. Bridge View Drive Road Diet & Traffic Calming Alternatives

The existing grade separated trail connecting the sections of Maplewood Park north and south of Route 104 does not meet trail design standards for slope, visibility, clearance or safety. While the Route 104 pedestrian bridge provides a safe crossing, it is an indirect route and diverts trail users away from the scenic river gorge.

15a. Bridge View Drive Road Diet

A near-term solution involves implementing a road diet along Bridge View Drive, which would reallocate space within the existing right-of-way to create separated and/or protected bicycle lanes, while pedestrians would continue to use the walkway between the stone wall and the gorge, enhancing safety through clear delineation of travel modes. See rendered cross section below for improvements.

15b. Underpass Reconstruction

A more comprehensive long-term solution would include the complete reconstruction of the underpass to fully meet trail design standards, creating a seamless separated gorge edge connection. This comprehensive long-term solution would be dependent upon a future major NYSDOT project to align with a more comprehensive bridge and/or roadway reconstruction project, thus an Opinion of Probably Cost is not provided.

Opinion of Probable Cost 15a. $350,000 15b. TBD

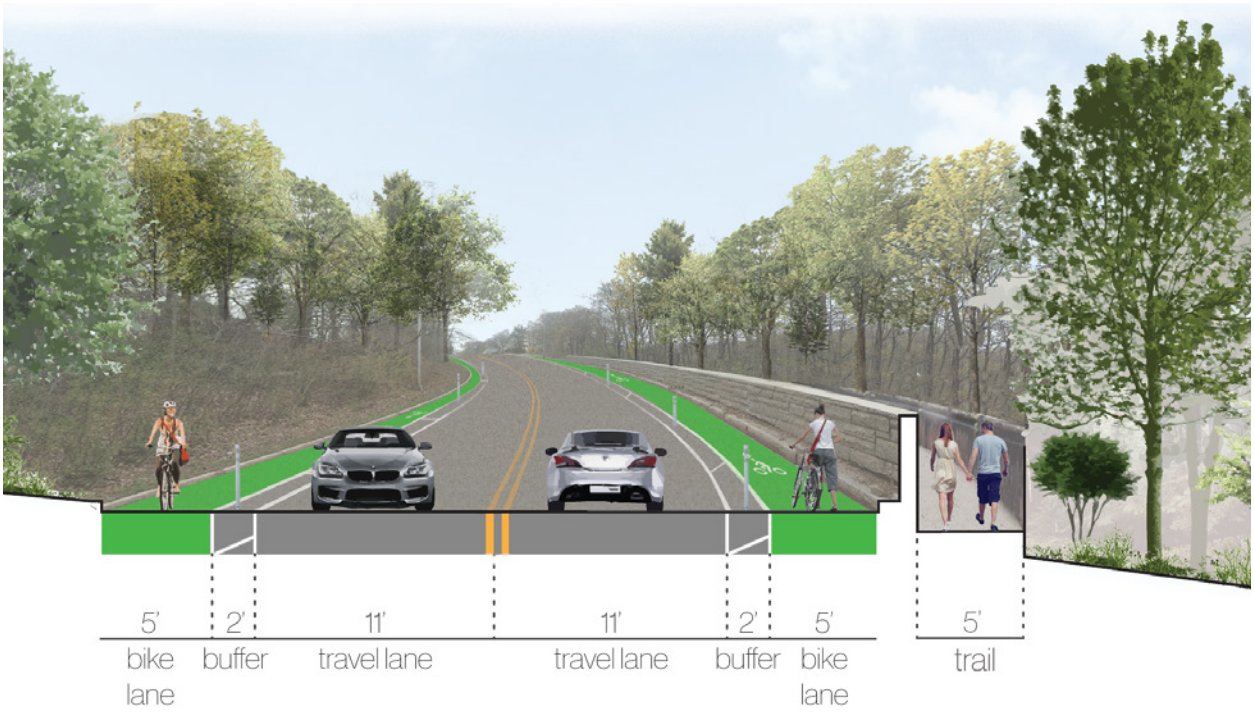


Figure 21 - Bridge View Drive Proposed Road Diet Alternative

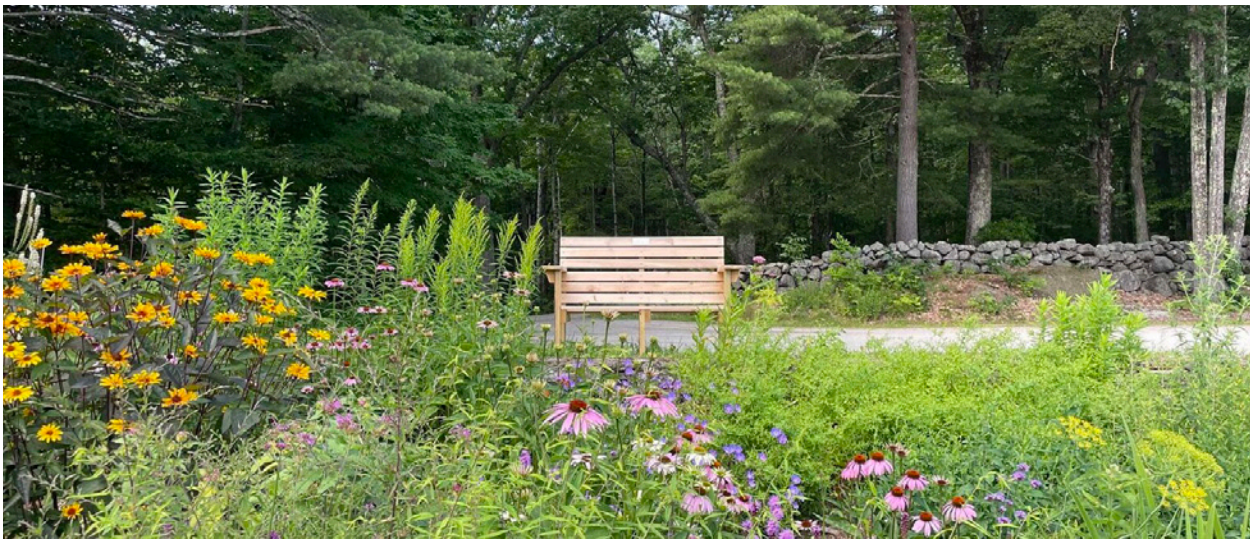
Rest Point

16. Seneca Park Bridge Overlook Improvement

Where the pedestrian bridge over the river enters Seneca Park to the east, a quiet rest area features a bench positioned off-trail beneath a tree, offering views of the Genesee River. This viewpoint presents an opportunity for accessibility enhancement. Core improvements would include an accessible pathway to the bench, installing a concrete pad beneath it, and managing vegetation to frame river views. Additional enhancements could transform this rest stop into a destination, including an expanded plaza area with multiple seating options, interpretative signage highlighting river ecology and history, landscaping with native plants, and clear wayfinding elements orienting the user to the broader trail network around this area and within view across the river. One precedent project that could be referenced includes the Harris Center for Conservation Nature for All Initiative in New Hampshire, where they are installing benches on trails to improve outdoor access for all ages and abilities.

Opinion of Probable Cost $200,000

Existing Conditions at the Seneca Bridge Overlook looking West



Source: Harris Center Benches for Accessibility, Harris Center, NH

17. Improvements to Saint Paul Street Bridge

While pedestrian and bicycle facilities are provided on the St Paul Street bridge over NY-104, high speeds and a lack of buffer have led to a perceived sense of discomfort for users adjacent to vehicular traffic on the bridge. There is an opportunity to study a road diet to eliminate one of the northbound lanes, and also the southbound dead lane (striped for no traffic) and reallocate this space for a trail connection along the bridge. This may be a widened shared use path on the west side of a bridge extended to the northern-most point of the offramp, or buffered bike lane combined with potential physical barriers between vehicles and bicyclists through reflectorized flexible delineators. These alternatives improvements may improve the perceived sense of comfort and safety along this overpass for trail users. A range of alterntaives may be feasibile based upon a traffic study, from roadway restriping to full roadway reconstruction, which are reflective in the range of cost estimates.

Opinion of Probable Cost
$250,000 (restriping) - $2,000,000 (sidewalk widening or physically separated facility)

18. Closing Trail Gaps along Saint Paul Street

The City completed on-road improvements to Saint Paul Street through the 2024 Milling and Resurfacing Project, targeting two key segments: Lowell Street to Riverbank Place and Norton Street to Tyler Street. While these improvements represent progress, connectivity gaps remain in the on-road network, and significant gaps remain in the trail network on the east side of the River, particularly between Route 104 and Clifford Avenue, as well as between Upper Falls Boulevard and High Falls Terrace Park. To address these missing links, the following projects explore on-road improvements and off-road opportunities. On-road improvements would require conducting both a parking utilization study and traffic engineering analysis for the corridor from Avenue E northward to Norton Street.

Opinion of Probable Cost 18a. $1,990,000 18b. $100,000 18c. $2,000,000

18a. Bike Lanes on Saint Paul Street

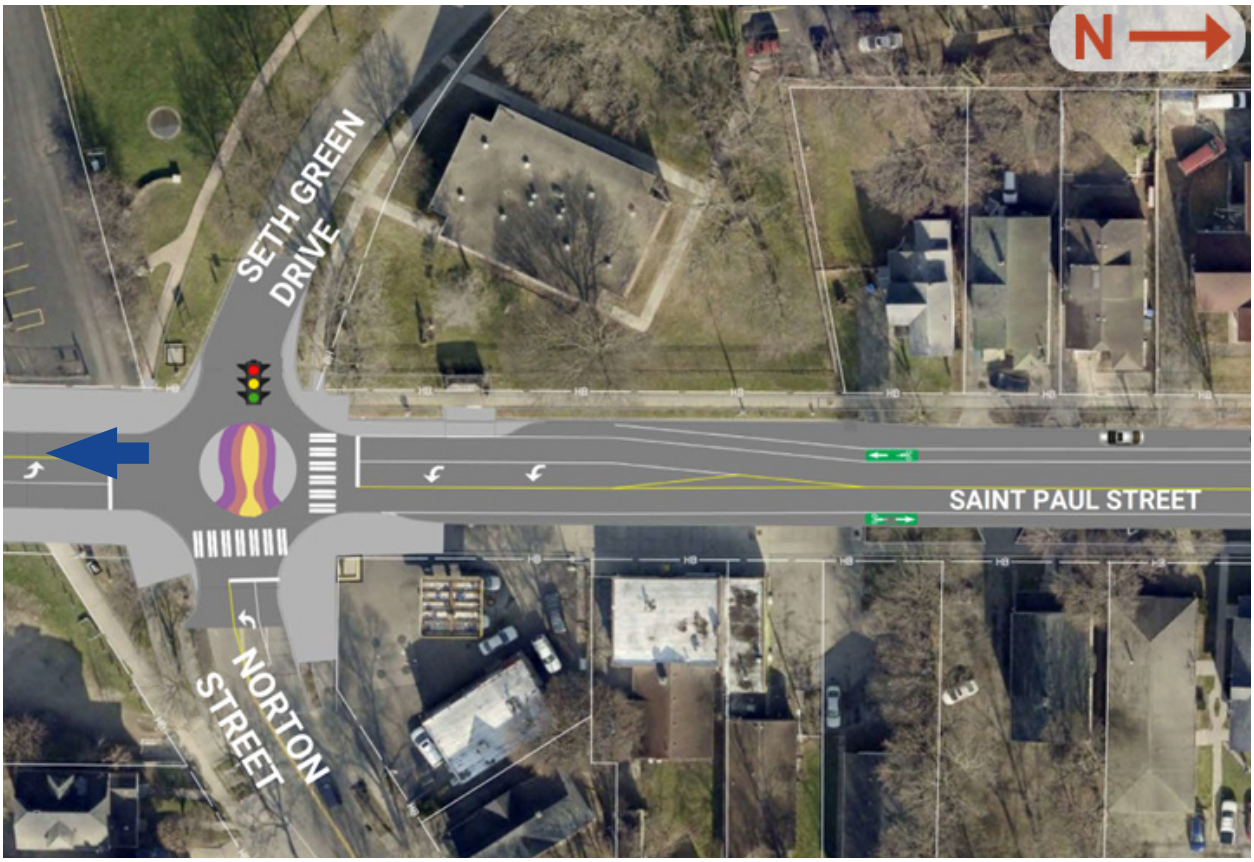
This project, dependent on the parking utilization and traffic engineering studies, would reallocate vehicle space for dedicated bicycle facilities, creating seamless on-road trail facilities throughout this vital transportation corridor, filling in the gaps remaining after the 2024 Milling and Resurfacing project, and connecting to High Falls Terrace Park.

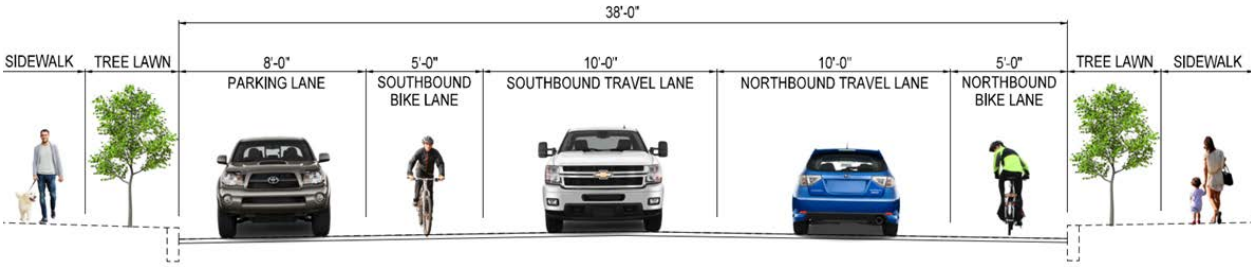
18b. Gorge Rim Trail North of Driving Park Bridge

The corridor along Saint Paul Street presents a connectivity challenge for cyclists between Driving Park Bridge and Seth Green Drive, where sidewalks exist continuously but bicycle infrastructure remains fragmented. This alternative would leverage the existing network of parking areas and pathways through the Rochester School for the Deaf campus and Hawkeye Plant, with a trail connection to the Seth Green Drive GRT trailhead. Collaborative planning would determine whether the optimal approach involves utilizing and connecting existing paved surfaces or developing an entirely new trail alignment. Either option would need careful design to effectively separate recreational trail users from the operational activities of these organizations.

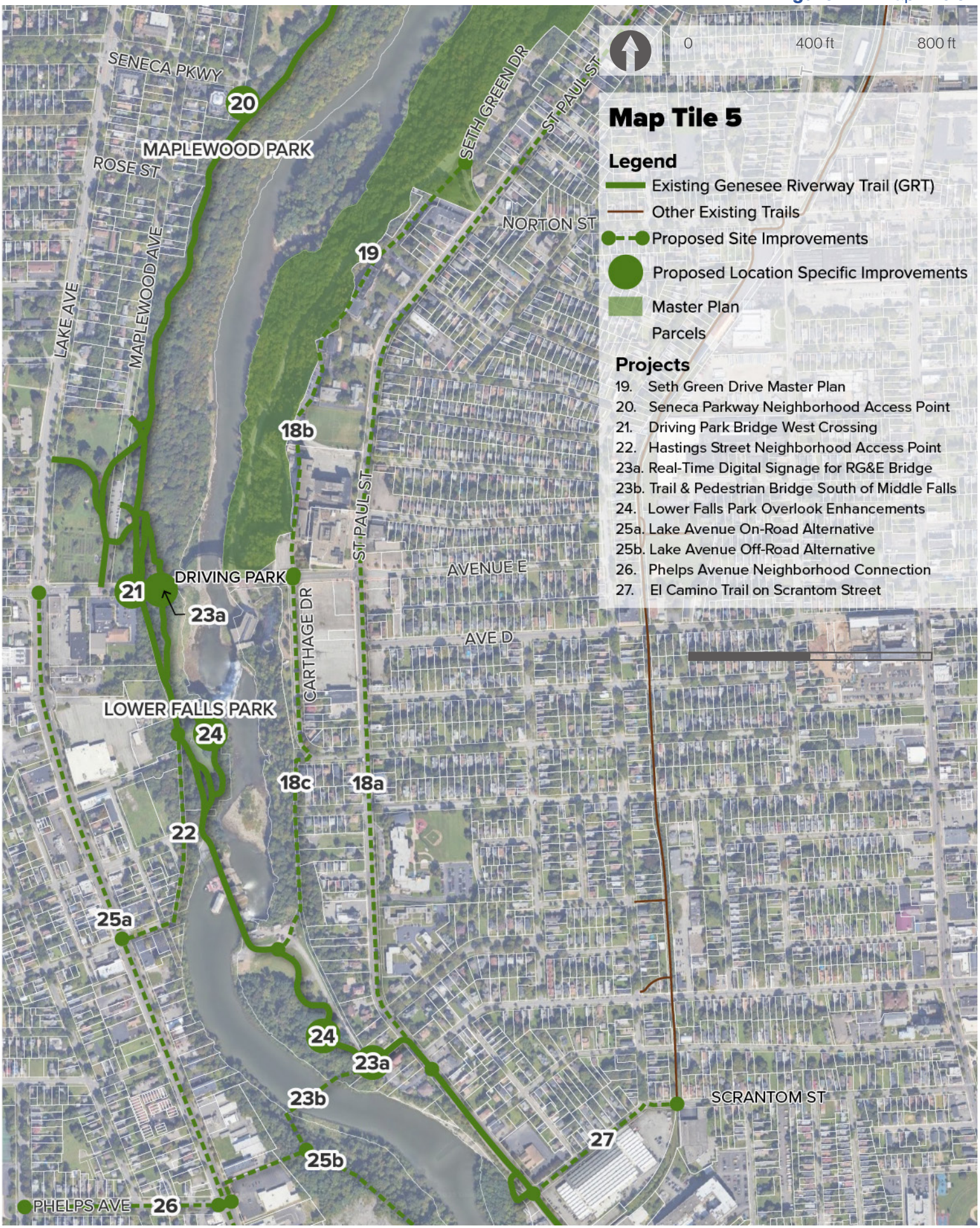
18c. Gorge Rim Trail South of Driving Park Bridge

Dependent on 18b, this project would extend the trail south on Carthage Drive and within a 20-foot-wide right-of-way corridor extending to Brewer Street, where it would join the existing Gorge Rim Trail and Middle Falls access points. The proposed alignment offers multiple benefits: creating neighborhood connections at Avenue B, Avenue A, and Riverbank Place, separating recreational users from vehicular traffic, and providing scenic vistas overlooking the river toward both Lower and Middle Falls. Strategic vegetation management and edge protection along the corridor would balance edge protection, viewshed, and maintaining the natural character of this riverside environment. Topographic challenges would need to be studied in the right-of-way corridor to Brewer Street.





Source: 2024 Milling & Resurfacing Project Design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400 ft
800 ft
Map Tile 5
Legend
Existing Genesee Riverway Trail (GRT)
Other Existing Trails
Proposed Site Improvements
Proposed Location Specific Improvements
Master Plan
Parcels
Projects
19. Seth Green Drive Master Plan
20. Seneca Parkway Neighborhood Access Point
21. Driving Park Bridge West Crossing
22. Hastings Street Neighborhood Access Point
23a. Real-Time Digital Signage for RG&E Bridge
23b. Trail & Pedestrian Bridge South of Middle Falls
24. Lower Falls Park Overlook Enhancements
25a. Lake Avenue On-Road Alternative
25b. Lake Avenue Off-Road Alternative
26. Phelps Avenue Neighborhood Connection
27. El Camino Trail on Scrantom Street
SENECA PKWY
MAPLEWOOD PARK
ROSE ST
LAKE AVE
MAPLEWOOD AVE
SETH GREEN DR
ST PAUL ST
NORTON ST
AVENUE E
AVE D
CARTHAGE DR
DRIVING PARK
LOWER FALLS PARK
SCRANTOM ST
PHELPS AVE
20
19
18b
21
23a
18c
18a
24
22
25a
23b
25b
26
27

19. Seth Green Drive Master Plan

Seth Green Drive offers local access to a trail network at one of the City's first settlements. While this planning study primarily aims to establish a spine network along Saint Paul Street, this project would enhance this trail spur that contributes to the stacked loop system with the Genesee Riverway Trail (GRT). To enhance the connection directly into the park, a designated crossing could be established to provide neighborhood access across Seth Green Drive to the main trail junction at the park entrance, where improved signage and trail surfaces could enhance navigation. Additionally, a protected off-road multi-use trail could be established along the west side of Seth Green Drive where there is level topography and vegetation clearance between the existing guardrail and forest edge. A master plan would also consider the potential of converting the informal trail network extending from Seneca Towers to the base of Seth Green Drive into a formal trail loop.

Beyond immediate connections, Seth Green Island presents a potential opportunity for creating a bridge between the eastern and western riverbanks, though significant topographic constraints exist on the western side for GRT connections. A crossing could potentially connect existing eastern trails to the informal fishing access trail from Maplewood Rose Garden on the west, but this area also presents topographic challenges. Any option would require coordination with Rochester Gas & Electric (RG&E), but due to extreme construction and maintenance difficulties and costs, this river crossing should remain a low priority.

Relevant Plans, Studies, and Initiatives
City of Rochester Local Waterfront Revitalization Program

Opinion of Probable Cost $200,000

Existing Conditions at Seth Green Trailhead looking West

Neighborhood Access Point

20. Seneca Parkway Neighborhood Access Point

At the end of Seneca Parkway's boulevard sits a City-owned parking lot adjacent to the Emmanuel Temple of Rochester, which is currently underutilized as a parking area for the trail. This strategic location offers direct access to the GRT but lacks proper identification, information, or amenities to communicate its intended function and purpose. It is recommended that this prime and convenient location be used to establish a major trailhead facility and neighborhood access point serving the GRT. Potential enhancements include installing GRT-branded entrance signage, an informational kiosk with maps and interpretive content, comprehensive wayfinding elements to guide users to nearby attractions, formalized parking, providing bike storage facilities, and potentially seating areas to transform this area into an inviting trailhead.

Opinion of Probable Cost $300,000

Existing Conditions at parking lot looking South

21. Driving Park Bridge West Crossing

The City recently installed an enhanced crosswalk with a rapid rectangular flashing beacons (RRFB) to alert motorists of the trail crossing west of Driving Park Bridge. This project recommends further safety improvements through study of additional protective measures including strategic roadway narrowing, curb extensions or "bumpouts," raised table crossings, or fully elevated crossing facilities. These enhancements would reduce vehicle speeds, increase visibility, enhance user comfort, and improve connectivity. Pairing crossing enhancements at both the trail crossing and the Maplewood Avenue intersection should improve trail user safety by creating traffic calming and increased visibility of crossing pedestrians.

Opinion of Probable Cost $100,000

22. Hastings St Neighborhood Access Point

This project would provide a neighborhood connection between Lake Avenue and Lower Falls Park utilizing Glenwood Ave and the abandoned Hastings St right-of-way. Prior concept studies have proved the viability of this alternative and developed conceptual cost estimates. Establishing this official connection would improve safety and accessibility for trail users by reducing on road travel distances along Lake Avenue . Implementation should include assessment of slope stability conditions, installation of appropriate edge protection, drainage infrastructure to prevent erosion, and wayfinding signage that integrates this connector into the broader trail system. This project would extend the trail connection shown in the Rochester Bicycle Boulevard Plan graphic below to Ravine Avenue.

Relevant Plans, Studies, and Initiatives

Regional Trails Initiative Phase III
GRT (Downtown to Lower Falls Park) Feasibility Study
Rochester Bicycle Boulevard Plan

Opinion of Probable Cost $3,000,000

Source: Rochester Bicycle Boulevard Plan

23. Alternatives to RG&E Bridge

RG&E closes the bridge over Middle Falls for maintenance and unexpected events. Other than general press releases, trail users have no advanced notice of closures and typically only find out when approaching the bridge. There are two potential solutions that can be applied to the Genesee Riverway Trail (GRT): advanced signage that communicates closures to users, or alternative routes.

Opinion of Probable Cost 23a. $70,000 23b. $10,000,000-$15,000,000

23a. Real-Time Digital Signage for RG&E Bridge

The Middle Falls crossing provides a critical Genesee Riverway Trail (GRT) crossing connecting the east side trail corridor along St. Paul Blvd to Lower Falls Park and Maplewood Park on the west side. The crossing spans the Rochester Gas and Electric (RG&E) hydroelectric facility over its Middle Falls Dam. A combination of advance warning signs and a well-marked alternate route are needed to provide reliable connectivity for trail users. Advanced warning signage should be provided at the intersection of Brewer Street and Saint Paul Street to the east and at the intersection of Hastings Street and Driving Park Avenue to the west in advance of the long descending trail slope to the crossing. Manually changeable real-time digital signage notifying of the crossing closure should be considered.

23b. Trail & Pedestrian Bridge South of Middle Falls

The GRT north of downtown currently offers limited opportunities for extended riverfront experiences due to topographical constraints. A project opportunity exists to create an east-west connection south of Middle Falls that would provide users with riverfront access and cross-gorge views, dependent on the establishment of Lake Avenue Off-Road Trail (Project 25). This enhancement would incorporate three key elements: a spur trail extending from the existing GRT at Brewer Street, an elevated pedestrian bridge spanning the gorge, and a connecting trail along publicly owned property on the river's western bank. The proposed alignment would cross diverse riparian and forest edge ecosystems, diversifying the trail experience beyond the predominantly upland character of the existing route. This connection would create a loop experience within the trail system while opening views of the gorge that remain currently inaccessible.

24. Overlook Enhancements

There are two overlooks that have been identified as in need of improvments: one within Lower Falls Park, one to the north of the Driving Park Bridge on the west side of the river; and one to the south of the Middle Falls bridge on the east side of the river adjacent to Brewer Street. Both of these overlooks have deteriorated, with overgrown vegetation obscuring once-spectacular views, extensive pavement cracking and heaving, and a notable absence of visitor amenities. This project proposes a comprehensive rehabilitation of both overlooks including complete reconstruction of the degraded pavement surfaces, strategic vegetation management to restore river viewsheds while maintaining ecological health, and installation of appropriate site amenities including seating, interpretive signage, and ADA-compliant access features. These improvements would transform these spaces into comfortable resting points and scenic destinations along the Genesee Riverway trail system, restoring the inviting character of the trail user experience.

Opinion of Probable Cost $240,000

Existing Conditions of the Lower Falls Overlook, North of Middle Falls

25. Lake Avenue Trail Alternatives

A mile long gap exists in the Genesee Riverway Trail (GRT) network between Driving Park Avenue and Bausch Memorial Bridge. Lake Avenue functions as the primary north-south transportation corridor in this area, but remains visually and physically disconnected from the riverfront. While continuous sidewalks provide basic pedestrian infrastructure, the corridor lacks both off-road trail facilities and designated bicycle accommodations. This segment was identified as a part of the City of Rochester's Active Transportation Plan Spine Network and Pedestrian Safety Focus Corridor and studied in the Lake Avenue Corridor Improvements Impact Study.

Relevant Plans, Studies, and Initiatives

Lake Avenue Corridor Improvements Impact Study
City of Rochester Active Transportation Plan

Opinion of Probable Cost
25a. $1,630,000
25b. $2,500,000
(construction only, does not include acquisition or easements)

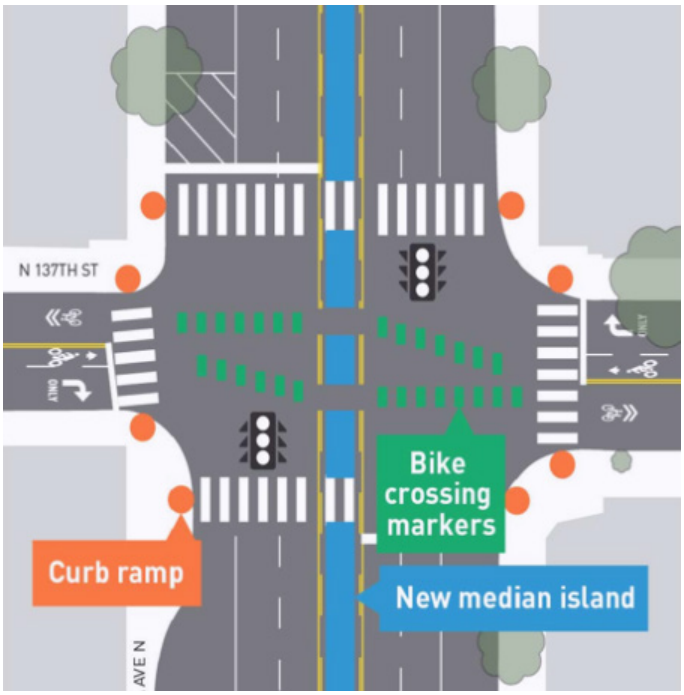
On-Road Improvement & Trail Establishment

25a. Lake Avenue On-Road Alternative

RTS will soon be conducting a feasibility study for bus rapid transit along Lake Ave. In coordination with this study, this project could involve revisiting the road diet that was studied in the Lake Avenue Corridor Improvements Impact Study, reallocating existing roadway width to incorporate dedicated bicycle infrastructure in combination with public transportation. Complementary enhancements would include wayfinding signage to guide users. Implementation of these collective improvements would effectively close a critical gap, but lack connection to the riverfront. One way these studies can coincide is by referencing the Aurora Avenue North improvements project being undertaken by the Seattle Department of Transportation, as shown in the graphic below.

25b. Lake Ave Off-Road Trail Alternative

Another strategic trail alternative proposes an off-road alternative to a portion of Lake Avenue by traversing multiple properties with various ownership including the City of Rochester, RG&E, ALDI, and the Monroe County Water Authority. Proposed trail components would include off-road trail establishment, amenities, and wayfinding. A critical connection point could be made to directly link ALDI to the Phelps Avenue Neighborhood Connection (Project 26), potentially incorporating shared parking and pathway arrangements to support trail use. This collaborative, multi-stakeholder approach would transform this waterfront area into a continuous recreational corridor that incorporates visual and physical connection to the waterfront. There is no feasible off-street option that would connect from ALDI north to Clarkson or Hastings Street, as the gorge is too steep and there is insufficient space for a trail along the gorge rim. Therefore, a completed west side trail would require an on-street segment between Phelps Ave and Ravine Ave.



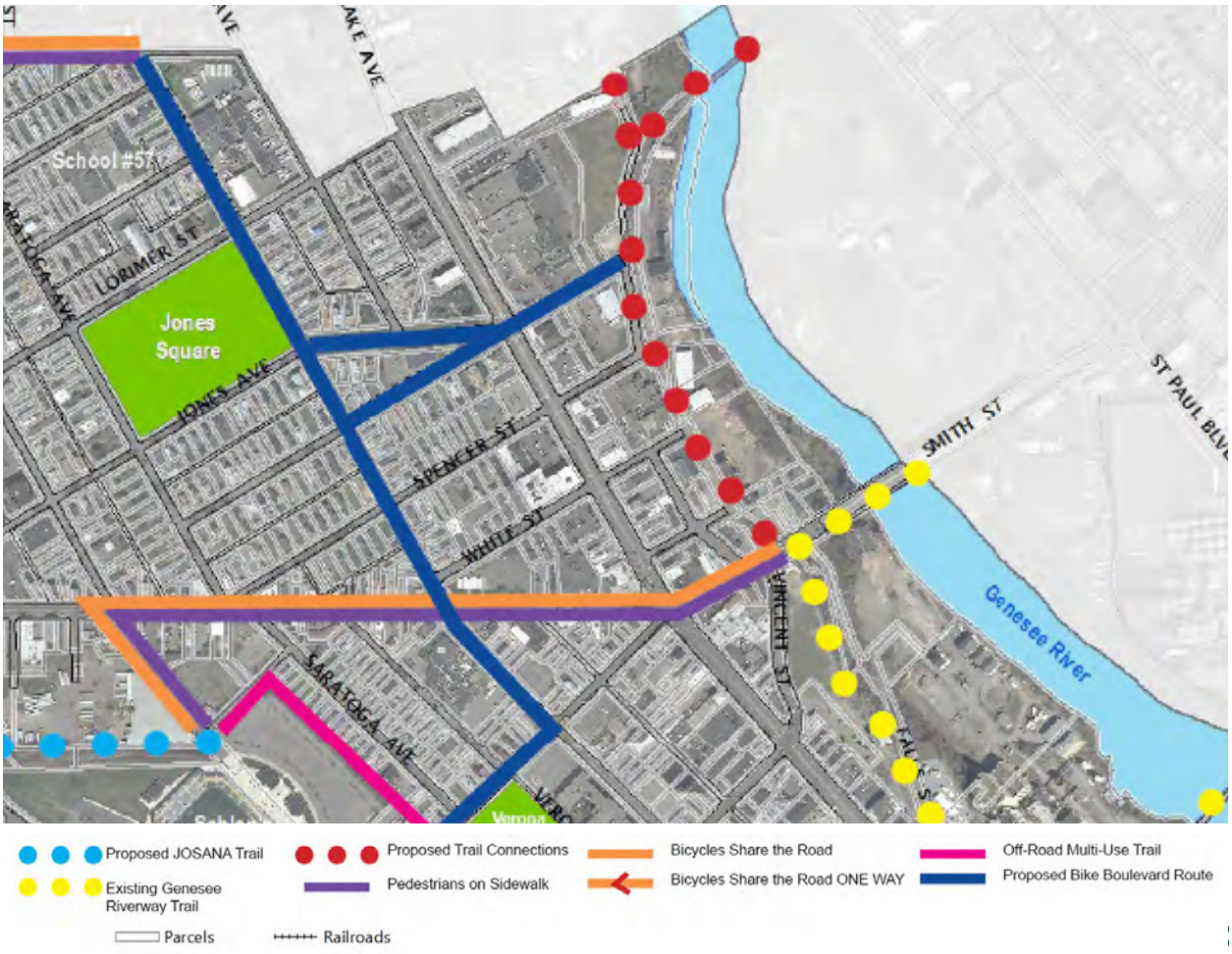
Source: Walkable Boulevard Project, Aurora Ave N Corridor, Seattle, WA

Neighborhood Access Point

26. Phelps Avenue Neighborhood Connection

Phelps Avenue serves as a neighborhood connector linking the Edgerton Recreation Center and Edgerton Park with Lake Avenue at a well-established intersection featuring traffic signals, public transit access, and pedestrian crossing infrastructure. This location presents an opportunity to integrate proposed trail alternatives along or adjacent to Lake Avenue with this existing community access point. By formalizing this connection, the project would create a designated neighborhood gateway to the Genesee Riverway Trail (GRT), improving accessibility for residents while leveraging existing transportation infrastructure. This enhanced connectivity point would strengthen the overall permeability of the trail system within the surrounding neighborhood fabric through on-road bike facilities, interpretive and wayfinding signage and amenities. Refer to Regional Trails Initiative guidance on implementing trailheads for specific components (shown in Project 19). This connection would be further enhanced with the completion of Lake Avenue Off-Road Trail (Project 24b) and provide a direct link to the riverfront through the proposed ALDI connection.

Opinion of Probable Cost $250,000



Source: JOSANA Rails to Trails Feasibility Study

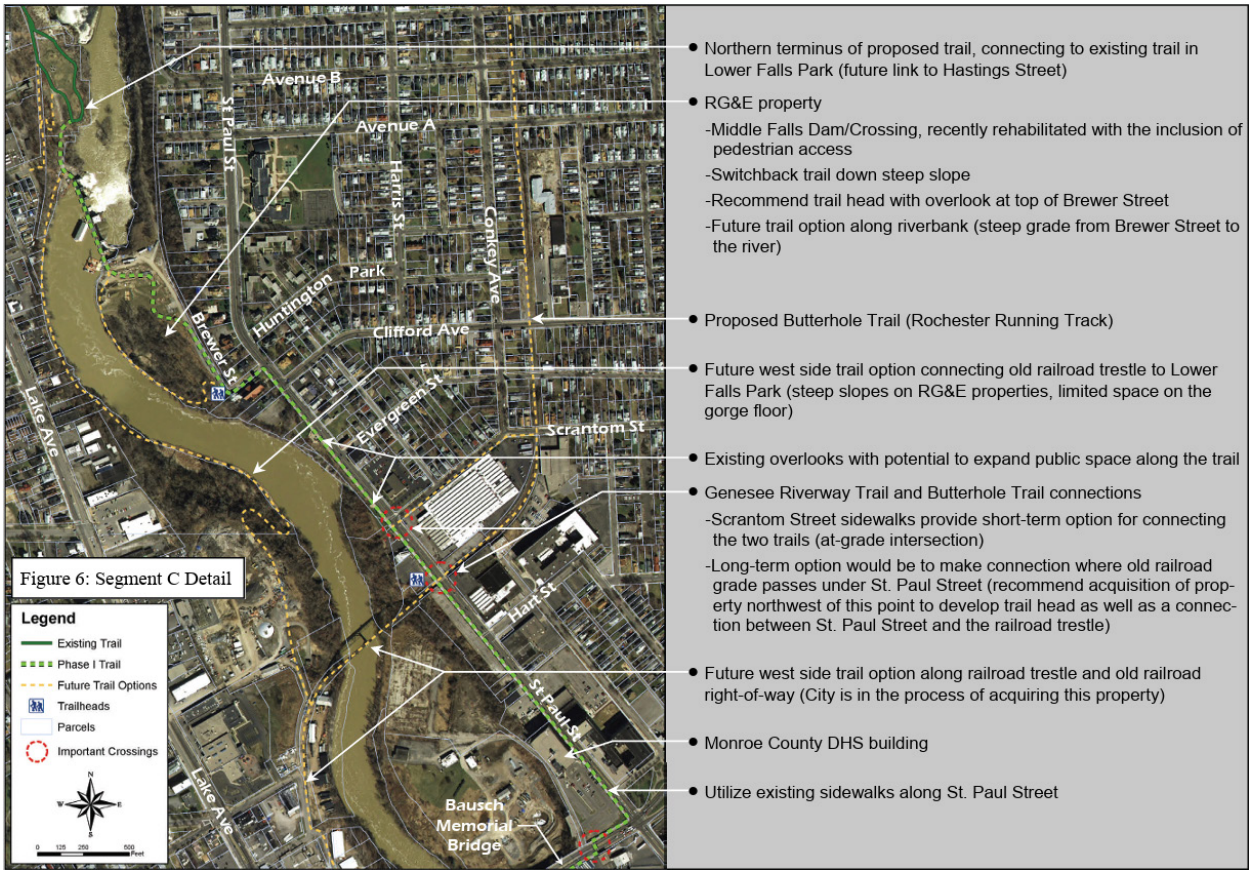
27. El Camino Trail on Scrantom Street

Two connection alternatives have been evaluated for linking the El Camino Trail with the Genesee Riverway Trail (GRT): an on-road route via Scrantom Street or an off-road path through the railroad right of way that continues to connect the trail's southern terminus, under St. Paul Street to the running track bridge. While the High Falls Pedestrian Access Improvement Study and High Falls State Park plan favor the off-road connection, implementation has been hindered by grade differential, clearance and land use issues and significant visibility and user safety concerns that complicate development. The short-term recommendations is to enhance Scrantom Street with bike lanes and comprehensive wayfinding and signage to create a functional connection between trail systems. This location plays a strategic role in serving as a connector between two of the City's trail systems, a neighborhood connection to the trail network, and a gateway to the future High Falls State Park.

Relevant Plans, Studies, and Initiatives

High Falls Pedestrian Access Study
GRT (Downtown to Lower Falls Park) Feasibility Study

Opinion of Probable Cost $220,000



Source: Genesee Riverway Trail Feasibility Study

Figure 23 - Map Tile 6

28. Running Track Bridge

The City acquired a section of the Rochester Running Track rail corridor (Seneca Park to Smith Street) in 2005. The portion on the east side of the Genesee River was converted into the El Camino Trail in 2012. Converting the bridge into a dedicated trail crossing would provide vital connectivity between the west and east side neighborhoods, provide visual and physical access to a portion of the river gorge presently off limits to the public, connect the El Camino Trail and Genesee Riverway Trail (GRT), and complement the proposed High Falls State Park (HFSP).

Opinion of Probable Cost $25,000,000

29. Rim Trail adjacent to Future High Falls State Park

Between Saint Paul Street and the Bausch Memorial Bridge lie existing trails and the underutilized Suntru Street roadway, positioned just south of the scenic GRT overlook. This corridor was studied in the High Falls Pedestrian Access Improvement Study and is now sited to serve as the eastern boundary of HFSP, inevitably attracting significant pedestrian traffic as the park develops into a premier regional destination.

Currently, Suntru Street presents concerning challenges that may deter trail users from accessing this portion of the trail. The roadway suffers from isolation created by chain-link fencing to the west, a large retaining wall to the east, and steep topography, resulting in maintenance neglect, unauthorized encampments, poor visibility, and deteriorating pavement conditions. Strategic interventions would include pavement markings and signage, intuitive wayfinding elements, regular maintenance protocols, and selective vegetation management to enhance sightlines to the river gorge along Suntru Street. With these thoughtful improvements, this connection would provide vistas down into the gorge that enhances the overall HFSP visitor experience while addressing current safety and accessibility concerns of the GRT.

As the state park plans develop, consideration should be given to providing trail connectivity between Smith Street and Saint Paul Street at Scrantom Street in the interim. In addition to providing neighborhood access into HFSP, the trail connection would provide an alternative route to the Saint Paul Street right-of-way. Additionally, the connection between Running Track Bridge and the northern terminus of Suntru Street should be coordinated with the plans for HFSP to establish a full rim trail, as the 2022 conceptual plan indicates trail connections would be made within the park from this point north.

Project implementation would also need to be coordinated through an agreement with Bausch and Lomb, as Suntru Street is no longer a public right-of-way. As the HFSP plan progresses through design, the City will continue to coordination with NYS Parks to ensure that the HFSP project includes this connection.

Opinion of Probable Cost $1,300,000

30. Ambrose Street Neighborhood Connection

This project builds upon the High Falls Pedestrian Access Improvement Study and JOSANA Rails to Trails Feasibility Study, which identified the need for a neighborhood connection to Middle Falls, Maplewood Park, and the Genesee Riverway Trail (GRT) at Ambrose Street and Cliff Street that could be further reinforced by improvements to Jones Street to link Jones Square Park. Providing further benefit, this connection would also provide future neighborhood access to the future High Falls State Park (HFSP).

Relevant Plans, Studies, and Initiatives

JOSANA Rails to Trails Feasibility Study
High Falls Pedestrian Access Improvement Study

Opinion of Probable Cost

30a. $280,000
30b. $250,000
30c. $2,500,000

30a. Jones Ave Neighborhood Connector

Jones Avenue serves as a neighborhood connector linking Jones Square Park with Lake Avenue at a well-established intersection featuring traffic signals, public transit access, and pedestrian crossing infrastructure. By providing bike lanes and wayfinding signage, the project would create a designated neighborhood gateway along the GRT, improving accessibility for residents to recreational destinations while leveraging existing transportation infrastructure. This project would also link to the improvements along Ambrose Street and Cliff Street as noted in Project 30c.

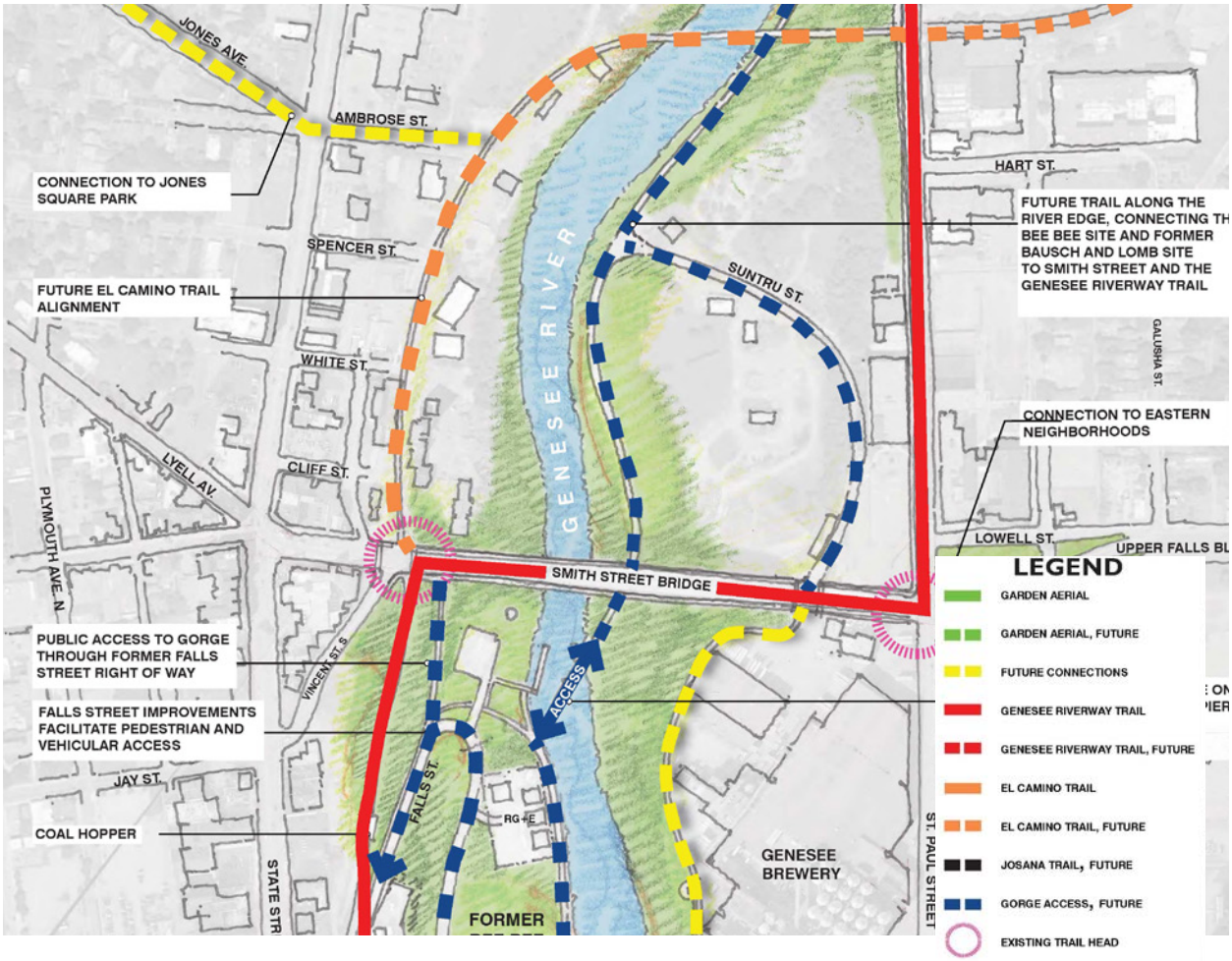
30b. Ambrose St Neighborhood Access Point

A neighborhood access point could be created where the GRT meets Ambrose Street through amenities, wayfinding and interpretive signage, and other features as indicated in Regional Trails Initiative guidance on implementing trailheads for specific components (shown in Project 19).

Source: JOSANA Rails to Trails Feasibility Study

30c. Cliff Street and Ambrose Street On-Road Improvement

Cliff Street currently serves as a vital but understated connection within the Genesee Riverway Trail (GRT) network and relative to the Rochester Running Track Bridge, winding through industrial and commercial zones with minimal vehicular traffic. As High Falls State Park (HFSP) development advances, this corridor will transition into a critical boundary feature of the park ecosystem, poised to experience substantially increased pedestrian and cyclist activity from diverse user groups. The City has received a grant from the NYSDOS to design and construct a trail extension from the existing GRT south of Smith St and the Running Track Bridge in the north. The project will install sidewalks, ADA-accessible curb ramps, curbing, street lighting, and trees on Cliff and Ambrose Streets and a pedestrian crossing at Smith Street. The project will create an inviting and accessible gateway to and from the west side landing of the Running Track Bridge in anticipation of its future conversion to a trail crossing facility. Implementation of this project is dependent on the implementation of Project 30b and Project 25 (Lake Avenue Trail Alternatives) or Project 28 (Running Track Bridge).



Source: High Falls Pedestrian Access Study

31. Brewery Line Trail North

The northerly extension of the Brewery Line Trail could be accomplished through multiple approaches: adaptive reuse of the existing rail trestle; new pier supported bridge structure; and/or adaptive reuse of existing gorge edge brewery property. This enhancement provides an opportunity to showcase the dramatic High Falls River Gorge with strategically positioned overlooks and interpretive elements that highlight the industrial character of this area. The High Fall State Park Framework Plan explores a trail in this vicinity that desends into the gorge, acting as a contracting experience from the views provided from the Brewery Line Trail North.

Relevant Plans, Studies, and Initiatives

Roc the Riverway
Regional Trails Initiative
High Falls Pedestrian Access Study
City of Rochester Local Waterfront Revitalization Plan
City of Rochester Comprehensive Plan

Opinion of Probable Cost $1,550,000

32. JOSANA Trail Linkage

The proposed connection from the Brown Street/Mill Street intersection of the GRT through Brown Square Park and Verona Playground would establish a critical east-west linkage within the City's expanding active transportation network and to the future JOSANA trail system when it is acquired and trail established. This transformative corridor would traverse the eastern edge of the JOSANA neighborhood, incorporating traffic calming measures along Brown Street while seamlessly integrating with existing park infrastructure to create a continuous recreational experience. The implementation would follow a phased development approach with multi-modal design elements accommodating diverse users from pedestrians and cyclists to wheelchair users and families with strollers. Beyond providing recreational opportunities, this strategic connection would catalyze continued neighborhood revitalization by connecting JOSANA residents to the GRT, promoting equitable access to the riverfront. See Map on Project 26, Phelps Avenue Neighborhood Connection.

Relevant Plans, Studies, and Initiatives

JOSANA Rails to Trails Feasibility Study

Opinion of Probable Cost
$300,000

33. Downtown Connections

The north-south Genesee Riverway Trail corridor encounters a major east-west barrier in the form of the CSX/Amtrak rail line as well as the Inner Loop expressway that parallels the rail line immediately to the south. This barrier significantly limits the potential of the multi-use trail to connect Downtown to adjacent neighborhoods. The Inner Loop North Transformation Project will partially address this challenge once the expressway is replaced with an at-grade, multi-modal urban street between St. Paul Street and North Plymouth Ave, including a new bridge over the Genesee River. However, the rail line will remain a major barrier to completing the trail along the entire length of the river, on both sides, within the city.

Relevant Plans, Studies, and Initiatives

Inner Loop North
ROC the Riverway Vision Plan

Opinion of Probable Cost

33a. TBD
33b. TBD
33c. TBD
33d. TBD

33a. East Side Short-Term Downtown Connection

On the east side of the new bridge over the river, the short-term connectivity solution entails a high visibility crosswalk for trail users at the end of Water Street. From there, either an off-street or on-street facility will connect that crossing to St. Paul Street. Enhancements to the St. Paul Street underpass under the rail line, including lighting and signage, will improve the experience for trail users for this connection between the Central / St. Paul intersection and High Falls Terrace Park, where an off-street trail through the park connects to the river gorge and points north.

33b. East Side Long-Term Downtown Connection

The City should consider a long-term solution in the form of a pedestrian bridge over both the new street and the rail line from the north end of Water Street to High Falls Terrace Park. Alternatively, the City could consider a design solution via an underpass located under the railroad bridge that crosses the river. Both of these long-term options are significantly more costly, which would have to be weighed against the enhanced connection. The pedestrian bridge option would also introduce a signature vertical element to the corridor. Each end of the pedestrian bridge would be constrained, so a design solution with switchback ramps, similar to the Maplewood Park Pedestrian Bridge over Route 104, would need to be considered. The underpass option is challenged by geometric constraints related to the height of the new bridge and the clearance under the existing railroad bridge.

33c. West Side Short-Term Downtown Connection

On the west side of the new bridge over the river, there are two connectivity solutions being evaluated as part of the Inner Loop North Infrastructure Design Project. For the first option, when the development site at 84 Andrews Street advances, it should include a segment of the Genesee Riverway Trail along the river side of the site. This is documented as the Front Street Promenade in the ROC the Riverway Vision Plan. At the north end, the trail will need to be routed away from the RG&E facilities related to the Central Avenue Dam. Using an on-street facility along the new street replacing the Inner Loop, trail users would then connect to a highly-visible crosswalk leading to Mill Street. This connection leads under the rail line and into the High Falls District, where additional on-street facilities would host the trail through the district as it connects to Pont de Rennes and the existing off-street trail facility that starts at Brown and Mill Streets.

33d. West Side Long-Term Downtown Connection

The second option would traverse the 84 Andrews Street site similar to the first option. If the new bridge over the river is constructed higher than the current bridge's elevation, the trail would then connect under that bridge and under the rail line, tracing the edge of the historic Brown's Race waterway. Once in the High Falls District, it would be an on-street facility similar to the first option. The design of the Brown's Race option will require careful attention to features that enhance safety and visibility under the new street and the railroad tracks. While more expensive than the Mill Street option, this connection will be more direct for trail users, is closer to the river, includes historic interpretation opportunities, and would be a unique urban experience that could attract higher usage and thus mitigate safety concerns.

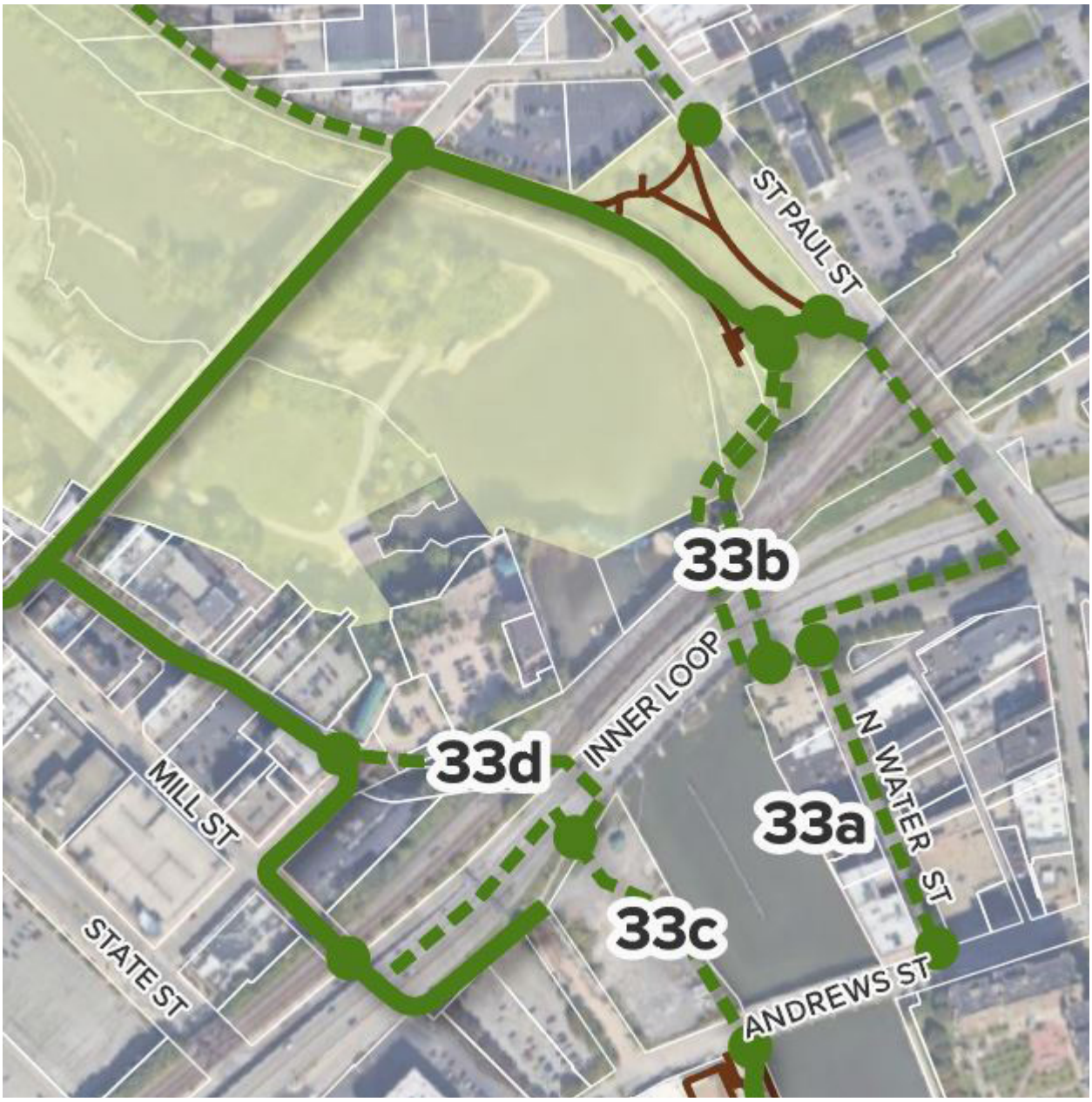


Figure 24 - Downtown Connections

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Implementation Strategy

Overview

Carrying out this vision for continuous trail on both sides of the Genesee River will require the implementation, in some cases phased or alternative implementation, of several projects, municipal partnerships, and property acquisition. The purpose of this section is to curate a strategy to implement of these projects, which takes into account the cost of construction, as well as other factors that are weighed together to generate a prioritization schedule. The following sections detail this process.

Cost Estimating

Opinions of Probable Cost (OPC) were developed for each priority project, using the three methods below. The costs presented are conceptual and would need be refined following final design.

Budget-Level Estimate

These cost estimates are a range of opinion of probable costs for implementation of a project based on similar projects or previous studies, which accounts for 5% escalation per year.

Planning-Level Estimate

Opinion of probable cost that is site specific, to include design and construction contingencies. The specific assumptions of the planning-level OPC are detailed below:

Construction and Soft Costs

The planning-level cost estimates presented in this study are based on standard construction estimating methods. In addition to estimating the cost of materials and labor to install the proposed trail facilities, each cost estimate also includes soft costs associated with construction.

These soft costs include:

+ Mobilization (estimated as 4% of the total cost of labor and materials)
+ Survey operations (estimated as 2% of the total cost of labor and materials)
+ Erosion and sediment control (estimated as 0.5% of the total cost of labor and materials)
+ General Administration (estimated as 5% of the total cost of labor and materials)
+ Design contingency (estimated as 15% of the total cost of labor and materials)
+ Construction contingency (estimated as 25% of the total cost of labor and materials)
+ Construction inspection contingency (estimated as 12% of the total cost of labor and materials)

This is a feasibility study and there are still several unknowns related to the design and construction of the proposed trail facilities. Therefore, high design and construction contingencies were applied to all the estimates to account for these unknowns and ensure sufficient funding is sought and secured.

It is also important to note that cost escalations are likely moving into the future due to potential increase in cost of materials, labor, or acquisition of property.

Cost Estimate Assumptions

The following assumptions apply to the planning-level cost estimates provided in this study:

+ All costs are estimated based on concept graphics and aerial imagery. No survey was available.
+ Construction inspection fees are not included.
+ Any necessary permit fees are not included.
+ Utility improvements and/or relocations are not included.
+ Property acquisitions, if required, are not included.

Typical Estimate

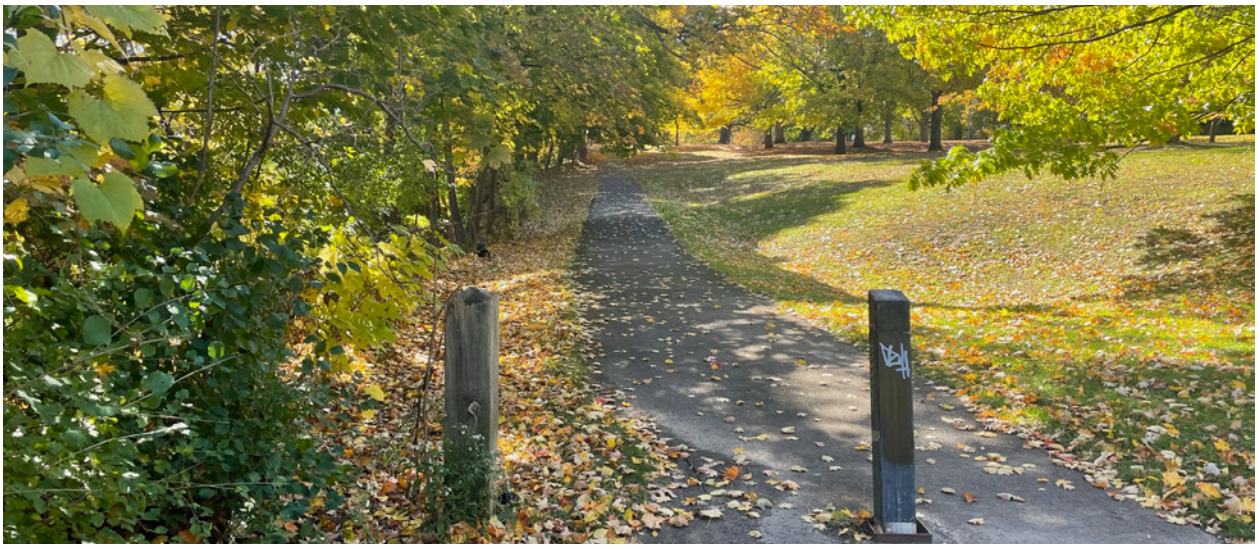
These opinions of probable costs are based on a typical type of trail improvement as shown in the table below with construction and soft costs, as applied for the planning-level estimates.

Category	Improvement	Unit	Unit Price
Neighborhood Access Point	Parking Lot	Square Feet	$12.00
	Interpretive Sign & Graphic Design of Display	Each	$5,000.00
	Trailhead Kiosk	Each	$10,000.00
	Tree Planting	Each	$1,400.00
	Bike Rack	Each	$1,000.00
	Stone Seats	Each	$750.00
	Bench	Each	$3,000.00
	Trail Access Gate	Each	$3,500.00
Trail Improvement	Paved Asphalt Trail	Linear Feet	$120.00
	Porous Recycled Asphalt Trail	Linear Feet	$180.00
	Stone Dust Trail	Linear Feet	$60.00
	Reflectorized Flexible Delineators (10' Spacing)	Each	$180.00
	Chain Link Fencing	Linear Feet	$250.00
	Bike Lane Buffering (3' Width)	Linear Feet	$3.00
	Bike Lane	Linear Feet	$60.00
Wayfinding	Wayfinding Sign	Each	$3,000.00
	Emergency Location Marker	Each	$500.00
Crossing	Crosswalk Striping (22' Wide Roadway) and Signage	Each	$1,600.00
	Pavement Symbol	Each	$175.00
	Raised Crosswalk (10' Width)	Linear Feet	$2,500.00
	Rapid Rectangular Flashing Beacon (Solar)	Each	$10,000.00
Vegetation Management	Vegetation Clearing	Acre	$12,000.00
	Tree Removal (6"-12" Caliper)	Each	$1,000.00

Cost Estimate Summary

Item Description	Length	OPC Type	OPC Max
1. Gateway into Ontario Beach Park	0.05	Planning	$1,000,000
2. River Street Bike Lanes & Wayfinding	0.46	Typical	$100,000
3. Latta Road Lake Ontario State Parkway Trail Connector	0.14	Planning	$630,000
4a. CSX Extension from Saint Paul Boulevard to Rock Beach Road	0.52	Typical	$680,000
4b. CSX Extension to Irondequoit Lakeside Trail	0.59	Typical	$780,000
5a. Bike Lanes on Thomas Avenue	0.12	Typical	$150,000
5b. Off-Road Trail Connection from CSX Rail Corridor	0.37	Typical	$1,500,000
6. Crossing Improvements at Petten Street		Typical	$80,000
7a. CSX Rail Corridor Acquisition (East)			$1,500,000
7b. CSX Rail Corridor Trail	1.63	Typical	$5,000,000
7c. Rattlesnake Point Park Master Plan		Budget	$200,000
8a. CSX Rail Corridor Acquisition (West)			TBD
8b. CSX Rail Corridor Connection between Lake Avenue and Turning Point Park	0.95	Typical	$3,000,000
8c. CSX Rail Corridor Connection to Turning Point Park near the Falls	0.28	Typical	$1,500,000
9. Seneca Park Avenue Neighborhood Access Point		Typical	$600,000
10. Seneca Park Trail Improvements	2.14	Typical	$4,000,000
11. CSX Rail Corridor Trail Connections East	0.09	Typical	$300,000
12. Off-Road Cemetery Trail	1.68	Typical	$4,000,000
13a. King's Landing Property Acquisition			$1,000,000
13b. King's Landing Off-Road Trail	0.05	Planning	$2,000,000
14. Maplewood Park Bridge Overlook Master Plan		Budget	$100,000
15a. Bridge View Road Diet	0.30	Planning	$350,000
15b. Underpass Reconstruction	0.30	Planning	$1,670,000
16. Seneca Park Bridge Overlook Improvement		Planning	$200,000
17. Improvements to Saint Paul Street Bridge	0.25	Typical	$2,000,000
18a. Bike Lanes on Saint Paul Street	1.24	Budget	$1,990,000
18b. Gorge Rim Trail North of Driving Park Bridge	0.49	Typical	$100,000
18c. Gorge Rim Trail South of Driving Park Bridge	0.41	Typical	$2,000,000
19. Seth Green Drive Master Plan		Budget	$200,000
20. Seneca Parkway Neighborhood Access Point		Typical	$300,000
21. Driving Park Bridge West Crossing		Typical	$100,000
22. Hastings Street Neighborhood Access Point	0.25	Typical	$3,000,000
23a. Real-Time Digital Signage for RG&E Bridge		Budget	$70,000

Item Description	Length	OPC Type	OPC Max
23b. Trail & Pedestrian Bridge South of Middle Falls	0.14	Typical	$15,000,000
24. Overlook Enhancements		Planning	$240,000
25a. Lake Avenue On-Road Alternative	0.99	Budget	$1,630,000
25b. Lake Avenue Off-Road Alternative	0.49	Typical	$2,500,000
26. Phelps Avenue Neighborhood Connection		Typical	$250,000
27. El Camino Trail on Scrantom Street	0.18	Typical	$220,000
28. Running Track Bridge		Budget	$25,000,000
29. Rim Trail adjacent to Future High Falls State Park	0.32	Budget	$1,300,000
30a. Jones Avenue Neighborhood Connector	0.24	Typical	$280,000
30b. Ambrose Street Neighborhood Access Point		Typical	$250,000
30c. Cliff Street and Ambrose Street On-Road Improvements		Budget	$2,500,000
31. Brewery Line Trail North	0.36	Typical	$1,550,000
32. JOSANA Trail Linkage	0.20	Budget	$300,000
33a. East Side Short-Term Downtown Connection			TBD
33b. East Side Long-Term Downtown Connection			TBD
33c. West Side Short-Term Downtown Connection			TBD
33d. West Side Long-Term Downtown Connection			TBD
GRAND TOTAL MAX (Without All Easement Costs)			**$91,120,000**



Genesee Riverway Trail through Maplewood Neighborhood looking North

Prioritization Matrix

Each of the project profiles was assessed based on seven metrics:

+ Property Ownership: Whether the project is located on City-owned land, other public land or privately owned land.
+ Connectivity: How the project helps to close gaps throughout the existing trail system.
+ Proximity: Whether the project is located on the main spine of the GRT, on a spur trail, or in close proximity to the trail system.
+ Public Support: To what degree was the project identified by the community as a pressing need.
+ Previously Studied: Whether the project has been vetted through another planning process, or informally by the City.
+ Requires Further Study: Indicating the complexity of the project, and the need for further feasibility analysis.
+ Dependent on another Project: If the purpose of the project will only be accomplished if other adjacent or relevant projects are completed first or in tandem.
+ Constructibility: If the project is easily implemented versus requires significant design and permitting.
+ Relative Cost: How affordable a project is compared to the full list of project profiles.

The culmination of each score resulted in each project being assigned an overall priority level of high, medium, or low, which is presented on the following page.

View Looking South at Lower Falls

Project No	Project Description	Priority Ranking
1	Gateway into Ontario Beach Park	High
2	River Street Bike Lanes & Wayfinding	High
5b	Off-Road Trail Connection from CSX Rail Corridor	High
7a	CSX Rail Corridor Acquisition	High
9	Seneca Park Avenue Neighborhood Access Point	High
10	Seneca Park Trail Improvements	High
11	CSX Rail Corridor Trail Connections East	High
17	Improvements to Saint Paul Street Bridge	High
20	Seneca Parkway Neighborhood Access Point	High
21	Driving Park Bridge West Crossing	High
24	Overlook Enhancements	High
26	Phelps Avenue Neighborhood Connection	High
27	El Camino Trail on Scrantom Street	High
28	Running Track Bridge	High
31	Brewery Line Trail North	High
15a	Bridge View Road Diet	High
30a	Jones Avenue Neighborhood Connector	High
30b	Ambrose Street Neighborhood Access Point	High
30c	Cliff Street and Ambrose Street On-Road Improvement	High
33a	East Side Short-Term Downtown Connection	High
33c	West Side Short-Term Downtown Connection	High
5a	Bike Lanes on Thomas Avenue	Medium
6	Crossing Improvements at Petten Street	Medium
7b	CSX Rail Corridor Trail	Medium
7c	Rattlesnake Point Park Master Plan	Medium
12	Off-Road Cemetery Trail	Medium
14	Maplewood Park Bridge Overlook Master Plan	Medium
16	Seneca Park Bridge Overlook Improvement	Medium
19	Seth Green Drive Master Plan	Medium
22	Hastings Street Neighborhood Access Point	Medium
29	Rim Trail adjacent to Future High Falls State Park	Medium
32	Josana Trail Linkage	Medium
13b	King's Landing Off-Road Trail	Medium
15b	Underpass Reconstruction	Medium
18a	Bike Lanes on Saint Paul Street	Medium
23b	Trail & Pedestrian Bridge South of Middle Falls	Medium
25a	Lake Avenue On-Road Alternative	Medium
25b	Lake Avenue Off-Road Alternative	Medium
33b	East Side Long-Term Downtown Connection	Medium
33d	West Side Long-Term Downtown Connection	Medium
3	Latta Road Lake Ontario State Parkway Trail Connector	Low
4a	CSX Extension from Saint Paul Boulevard to Rock Beach Road	Low
4b	CSX Rail Corridor to Irondequoit Lakeside Trail	Low
8a	CSX Rail Corridor Acquisition (West)	Low
8b	CSX Rail Corridor Connection between Lake Avenue and Turning Point Park	Low
8c	CSX Rail Corridor Connection to Turning Point Park near the Falls	Low
13a	King's Landing Property Acquisition	Low
18b	Gorge Rim Trail North of Driving Park Bridge	Low
18c	Gorge Rim Trail South of Driving Park Bridge	Low
23a	Real-Time Digital Signage for RG&E Bridge	Low

Funding Sources

A variety of funding sources can and should also be explored to facilitate the ongoing implementation of the Genesee Riverway Trail. The tables below summarize potential federal and state funding sources. Note that Municipal grant funding landscapes have evolved from historically more predictable, multi-year allocations to increasingly competitive processes with diverse application requirements and varying funding cycles.

Specifically, the New York State's Consolidated Funding Application (CFA) should be leveraged to implement the active transportation and green infrastructure recommendations in this study. The CFA is a streamlined resource where applicants can access multiple funding assistance programs made through state agencies. The availability of CFA funding and project types varies annually.

Furthermore, a ballot proposition for a $4.2 billion Bond Act was approved in November 2022 in New York State. This funding will help fund environmental and community projects that help protect water quality, help communities adapt to climate change, improve resiliency and create green jobs.

It should be noted that funding sources vary annually; therefore, project partners should monitor funding availability on an annual basis.

Also, many of the listed funding sources require local match funding, therefore local funding should be evaluated and identified in annual operating budgets, as appropriate.

Summary of Potential Funding Sources

Program	Description	Funded Project Types	Agency	Notes
Transportation Alternatives Program / Congestion and Air Quality Improvement Program (TAP/ CMAQ)	Supports bicycle, pedestrian, multi-use path, and non-motorized transportation- related projects. Projects must be related to surface transportation. The maximum award is $5 million.	Construction of pedestrian and bicycle facilities, recreational trails, and safe routes to schools, as well as community improvements, such as projects that reduce congestion and gas emissions.	This is a federally funded program, administered by NYSDOT.	Application timing varies year to year. Up to 80% of total project costs eligible, with 20% local share.
Consolidated Local Street and Highway Improvement Program (CHIPS)	Funds support the construction and repair of highways, bridges and highway railroad crossings, and other facilities not in the State highway system.	Funds can be used for resurfacing, shoulder improvements, new drainage systems, sidewalk improvements, traffic calming installations, and bus shelters.	Funding is administered through the NYSDOT.	Appropriations are defined annually. Would only be applicable to areas in which on-street facilities are proposed on local roads.

Summary of Potential Funding Sources

Program	Description	Funded Project Types	Agency	Notes
Recreation Trails Program (RTP)	Provides funds to develop and maintain recreational trails and trail-related facilities for both non-motorized and motorized recreational trail uses. Funded projects must be identified in, or further a specific goal of, the Statewide Comprehensive Outdoor Recreation Plan.	Funds the maintenance and restoration of existing trails, the purchase and lease of trail construction equipment, acquisition of easements, construction of new trails and assessments.	An assistance program of the U.S. DOT's Federal Highway Administration (FHWA). The RTP is administered by the Office of Parks, Recreation and Historic Preservation (OPRHP).	Funding is through the states' CFA process. Specific guidelines provided in association with each grant cycle.
Surface Transportation Block Grant program (STBG)	Provides flexible funding that may be used by states and localities to preserve and improve the conditions and performance on: any Federal-aid highway, bridge, and tunnel projects; any public road; pedestrian and bicycle infrastructure; and transit capital projects, including intercity bus terminals.	Funds can be used for transportation alternatives and recreational trail projects.	Funding is provided through the US Department of Transportation. Program is competitive at national level.	Available funding varies.
Better Utilizing Investments to Leverage Development (BUILD) Grant Program	The eligibility requirements of BUILD allow project sponsors to pursue multi-modal and multi-jurisdictional projects that are more difficult to fund through other grant programs.	Funds capital transportation improvements, including: roads and bridges, public transportation, and intermodal projects. Pre-construction activities, such as design, are also eligible.	Funding is provided through the US Department of Transportation. Program is competitive at national level.	Available funding varies. The maximum grant award is $25M and no more than $100M can be awarded to a state.
Capital Improvement Program (CIP)	The City's CIP is a five-year plan for capital projects that provide benefits to Rochester residents over a multi-year period.	Funds construction or reconstruction of facilities, acquisition and replacement of vehicles and equipment, technology implementations, and other projects that provide benefits to residents.	Funding is provided through the City of Rochester. Program is competitive at the local level.	Available funding varies each five-year cycle.

Summary of Potential Funding Sources

Program	Description	Funded Project Types	Agency	Notes
Environmental Protection Fund (EPF)	Funding for a range of planning and capital projects that protect the environment and enhance local communities.	Fundable projects cover a range of parks, open space, historic preservation and waterfront revitalization activities.	Multiple state agencies administer funding programs through the EPF, including NYSDOS, NYSDEC and OPRHP.	Funding is through the states' CFA process. Specific guidelines provided in association with each grant cycle.
Green Innovation Grant Program (GIGP)	Provides grants on a competitive basis to projects that improve water quality and implement green infrastructure in New York State.	A range of green infrastructure-focused installation projects, including the installation of permeable pavements, bioretention and stormwater street trees.	Funded and overseen by the NYS Environmental Facilities Corporation (EFC).	Typically funded through the NYS CFA process. Up to 75% - 90% of total project costs.
Market New York	Promotes efforts that strengthen tourism in New York State, with an emphasis on projects that "create family memories through activities including but not limited to outdoor recreation, historic sites and museums, food and drink, festivals and the performing arts."	Eligible costs include acquisition or leasing of land, buildings, machinery and/or equipment; pre-development costs; remediation costs; accessibility services; purchase of equipment and/or event amenities; and new construction, renovation or leasehold improvements.	Funding is offered and administered through Empire State Development (ESD).	Funding is through the states' CFA process. Specific guidelines provided in association with each grant cycle.
Clean Water, Clean Air and Green Jobs Environmental Bond Act	A prioritized funding source for investments in environmental justice, climate change mitigation, shoreline restoration, flood resilience, water quality, open space land conservation, recreational resources, and jobs.	The Bond act authorizes $1.5B for Climate Change Mitigation, $1.1B for restoration and flood risk reduction, $650M for water quality improvement and resilient infrastructure, $650M for open space land conservation and recreation, and $300M for other projects	The NYS Department of Environmental Conservation is leading a working group with eight other state agencies to determine the exact structure of the office overseeing spending.	It is anticipated that a quarter of the total $4.2B allocated funding will be spent in the next five years.
Transportation Improvement Program (TIP)	Funding through the United States Department of Transportation provided to metropolitan transportation planning organizations for staged, multi-year program of projects.	Funds highway, bridge, transit, intelligent transportation system, bicycle, and pedestrian transportation projects scheduled for implementation in the region in the next four years.	Genesee Transportation Council (GTC) and New York State Department of Transportation (NYSDOT).	Project funds for 2023-2027 are approximately $540 million of federal aid.

Genesee Riverway Trail North **Completion Study**