



Genesee Riverway Trail (Downtown to Lower Falls Park) Feasibility Study

City of Rochester, NY



Final Plan
April 2006



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City of Rochester
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Feasibility Study
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Table of Contents

I. Executive Summary	1
II. Introduction.....	4
III. Study Area Overview.....	7
IV. Public Involvement	10
V. Trail Design Considerations	12
VI. Preferred Trail Alignment (Phase I).....	15
VII. Phase I Implementation.....	26
VIII. Long Term Options.....	29
IX. Funding Resources	33
X. Conclusions.....	35
XI. Acknowledgements	36

Appendix A: Study Area Maps

Appendix B: Cost Estimate

Appendix C: Trail Signage Standards

Appendix D: Monroe County DOT Memo - Court Street Crossing



Genesee Riverway Trail south of Court Street

I. Executive Summary

As part of the Genesee Transportation Council's Priority Trails Advancement program, the City of Rochester applied for and was successful in obtaining a grant to study the feasibility of extending the Genesee Riverway Trail from Downtown to Lower Falls Park (see Map 1). This study is being conducted consistent with the City's Renaissance 2010 Comprehensive Plan, the Center City Master Plan (Section 1), and the GTC Regional Trails Initiative (RTI).

This trail segment will eliminate a key gap in the City of Rochester's Genesee Riverway Trail which, together with the Genesee Valley Greenway to the south, will provide a continuous 101-mile trail along the Genesee River from Lake Ontario to Cuba, NY, in Allegany County. Once this 2.75-mile section of the Genesee Riverway Trail is developed, the trail system along the river between Lake Ontario and the south end of Letchworth State Park will be approximately 85% complete (see Map 2). The Genesee Riverway Trail in the City will be approximately 95% complete, once this segment and another project in Charlotte are completed. Additionally, the trail will complete the link between Lake Ontario and the Erie Canal Heritage Trail.

The study consisted of the following tasks:

- ❖ Collecting and analyzing GIS and other existing conditions data within the trail corridor;
- ❖ Facilitating periodic meetings with the Project Advisory Committee and the public to gather input and address specific concerns;
- ❖ Conducting limited traffic assessment(s) for all relevant streets and crossings and providing design recommendations such as crosswalk markings, sidewalk improvements, ADA compatibility, signage, traffic calming, and other needed or suggested treatments;
- ❖ Providing trail alignment alternatives, including short-term and long-term options;
- ❖ Providing itemized cost estimates for recommended improvements and amenities;
- ❖ Identifying specific and achievable follow-on activities that are needed to advance the findings and recommendations of the study, including potential sources of funding and preferred strategies to conduct these follow-on activities; and
- ❖ Producing a planning document to guide future development of the trail.

Genesee Riverway Trail (Downtown to Lower Falls Park) Feasibility Study
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During the planning process, several key opportunities and constraints for the potential trail were identified:

Key Opportunities

- ❖ Trail is proximate to the largest potential user population in the region;
- ❖ There are connections to a variety of historic, cultural, entertainment, residential, recreational, and commercial destinations;
- ❖ Trail will complete a significant link in the regional trail network, increasing its functionality as a recreational and non-recreational transportation corridor;
- ❖ Trail will increase access to the vast untapped scenic and recreational resources in the Genesee River gorge.

LOCATION	SUBTOTAL BY SEGMENT
COURT/EXCHANGE/MAIN	\$ 6,840.00
MAIN to ANDREWS	\$ 32,300.00
ANDREWS to INNER LOOP	\$ 113,394.00
INNER LOOP to COMMERCIAL	\$ 3,300.00
COMMERCIAL to BROWN	\$ 15,350.00
BROWN to SMITH (proposed park adjacent to Vincent Street)	\$ 419,915.00
BAUSCH MEMORIAL BRIDGE	\$ 203,700.00
SMITH STREET/ST. PAUL/BREWER	\$ 16,300.00
BREWER STREET To DAM	\$ 400,000.00
Subtotal Construction	\$ 1,211,099.00
Design	\$ 121,109.90
Construction Management	\$ 121,109.90
Contingency	\$ 242,219.80
Preliminary Cost Estimate	\$ 1,695,538.60

Figure 1: Preliminary Cost Estimate (Phase I)

Key Constraints and Challenges

- ❖ Extreme topography in the river gorge;
- ❖ Several historic buildings immediately adjacent to the river;
- ❖ Limited usable open space;
- ❖ Preserving public safety as trail users are brought closer to the river and various industrial/commercial uses;
- ❖ Multiple high volume roadway crossings; and
- ❖ Several properties requiring environmental mitigation and/or architectural rehabilitation

Taking into consideration all of these issues as well as public input received during the planning process, the design team and Project Advisory Committee examined various routing options and design considerations, resulting in the selection of a preferred trail alignment. A preliminary cost estimate for Phase I of the trail was also identified (see Figure 1).

The study presents a short-term recommended alignment that will connect to existing portions of the Genesee Riverway Trail to the north and the south. It also illustrates long-term options that will enhance the riverfront connectivity for the portions of the trail that are not directly on the riverfront as well as enhance the use and interpretation of historic features in the study area such as the Erie Canal Aqueduct. Alternative alignments are identified, as well as several connections to neighborhoods, points of interest, and complimentary trails.

The study area contains a highly-diverse collection of environments, both natural and man-made. The recommended alignment identifies feasible sections of the trail immediately adjacent to the river, while topographic and/or structural barriers force portions of the trail to shift away from the river. The trail will travel through residential, commercial, and industrial settings, as well as some less urbanized areas in the gorge. The trail should be designed to blend in with existing businesses and infrastructure without adverse impact to those operations. The diversity of the surroundings highlight the heritage of the city and its ties to the river and therefore should be celebrated and embraced.



Genesee River gorge near Middle Falls

In addition to developing one of the remaining missing links in the Genesee Riverway Trail, this vital section of trail will provide a number of benefits to the City of Rochester and the surrounding region. It will offer tremendous recreational opportunities and will serve as an important transportation link between residential neighborhoods, entertainment districts, and commercial areas. The trail will form a north-south pedestrian and open space “spine” for non-motorized transportation, promoting healthy and sustainable transportation choices with a strong connection to the City’s rich history.

II. Introduction

The Genesee Riverway Trail Feasibility Study has been funded with federal transportation planning funds through a competitive process administered by the Genesee Transportation Council (GTC). This study is being conducted consistent with the City's Renaissance 2010 Comprehensive Plan, the Center City Master Plan (Section 1) and the GTC Regional Trails Initiative (RTI). Comments received through the development of RTI indicated that there was strong interest in completing the Genesee Riverway Trail, specifically the missing 2.5-mile section between Center City Rochester and Lower Falls Park. RTI identified this trail as a near-term project (2003-2006), and estimated that the cost of the trail would be \$1,000,000.

According to GTC, the purpose of RTI is:

To develop a comprehensive and achievable action plan for community leaders to create and maintain a safe, accessible, and highly functional regional trail system that is fully integrated with the existing transportation system and constitutes a nationally recognized distinguishing feature of this region.

A. Regional Trail Context

Currently, more than 300 miles of trails exist within the nine-county Genesee-Finger Lakes Region, with over 900 miles of additional trails planned. Each of these trails are intended to provide safe, healthy, and economical transportation options for all ages, abilities, and incomes. Trails are an important component in improving the quality of life and attractiveness of the region and its ability to attract and retain a skilled work force. Additionally, the transportation alternatives made possible by a well-developed regional trail network contribute to efforts to improve air quality.

Completing the Genesee Riverway Trail through this part of the City will connect the northern and southern sections of the existing trail to Center City as well as to several important residential neighborhoods. The trail will also provide additional access to the Genesee River gorge north of Center City, a beautiful natural resource whose potential remains largely untapped. The trail is the largest missing link remaining in the Genesee Riverway Trail which, when completed, will connect Lake Ontario with the Erie Canal Heritage Trail. In the context of the Genesee-Finger Lakes Region, this trail was evaluated as being one of the highest priorities in expanding the regional trail network. Although a high priority, the trail corridor also presents numerous man-made and natural obstacles, especially through the high-density Center City area and the extreme topography of the river gorge.

B. The Planning Process

In 2005, the City of Rochester appointed a Project Advisory Committee to study the feasibility of a public, non-motorized trail from Corn Hill Landing in Center City to Lower Falls Park. The City also hired a team of consultants to assist with the development of the study.

In order to complete this study, the following tasks were required by GTC:

- ❖ Project initiation/kick-off meeting
- ❖ Corridor data collection and analysis
- ❖ Preliminary committee meeting to discuss the project alternatives
- ❖ Refinement of preliminary alternatives
- ❖ Public Open House to review alternatives
- ❖ Committee meeting to review public comments and select preferred alternative
- ❖ Preferred alternative conceptual design
- ❖ Final public meeting to review the final plan
- ❖ Committee meeting for final plan approval
- ❖ Deliver final plan

Working with staff from the City and GTC, the design team performed a comprehensive information review of past planning efforts and documents, current City initiatives regarding tourism, economic development, and goals for the study area, planned infrastructure improvements, and other related projects such as the proposed rehabilitation of the Erie Canal Aqueduct over the Genesee River.

The design team completed several field visits throughout the spring and summer of 2005. Examples of information collected include:

- ❖ Corridor length and general routing;
- ❖ Natural features and environmental constraints;
- ❖ Land ownership;
- ❖ Physical constraints such as railroad overpasses, buildings, lack of right-of-way, conflict points;
- ❖ Potential trail heads;

- ❖ Important destinations along or adjacent to the trail;
- ❖ ADA compliance issues;
- ❖ Conditions at relevant road crossings; and
- ❖ Presence/condition of sidewalks for on-street segments.

Based upon the information collected, the design team and the Project Advisory Committee identified potential trail route options. When evaluating these options, several primary goals were considered. The trail ultimately should connect Corn Hill, Downtown, High Falls, and Lower Falls. It should enhance outdoor recreation options for residents and improve public access to the Genesee River for all ages and physical abilities. The alignment of the trail should be as close to the riverfront as possible. The trail should limit potential user groups to bicycles and pedestrians. Finally, the trail should facilitate economic development for the City and region.

A preferred trail alignment was identified (Phase I), which has a balanced consideration of cost-effectiveness, direct routing, proximity to the river, and timely completion. Long-term options were then identified that are intended to connect to neighborhoods and other destinations, coordinate with other projects in the city (Butterhole Trail, Erie Canal Aqueduct, etc.), and bring the trail closer to the river.

III. Study Area Overview

The study area is approximately 2.5 miles in length, spanning vastly diverse urban settings. For the purposes of this study, the trail corridor has been divided into three distinct segments (see Map 3). This division is intended to simplify analysis and break the study area into manageable pieces. It has no relevance to the final trail design nor does it correlate with the phases of implementation as outlined in Sections VII and VIII.

- ❖ **Downtown/Corn Hill** (Corn Hill neighborhood to the south side of the Inner Loop)
- ❖ **High Falls** (Inner Loop to Bausch Memorial Bridge)
- ❖ **St. Paul/Edgerton** (Bausch Memorial Bridge to Lower Falls Park)

Each of these segments has a unique blend of land uses and natural settings (see Map 4). Therefore, the design of the trail should be well-integrated into the community while being respectful of its surroundings.



Downtown Rochester skyline

A. Downtown/Corn Hill

This segment contains high density development, a variety of architecture, and spectacular views of the river and the heart of the City. Integration with the numerous destinations and activities in Center City is considered critical to the design and location of this part of the trail.

The southern segment of the study area begins at the northern terminus of the existing Genesee Riverway Trail at Court Street. The existing trail has two spurs on either side of the river, both of which end at Court Street, with Court Street considered to be part of the trail. From this point north to the Bausch Memorial Bridge, the west side of the river was identified as the most likely location for the new trail,

due to the potential ease of access to the riverfront. Additionally, this segment includes the Corn Hill neighborhood. While the Riverway Trail already exists adjacent to Corn Hill, the study examines potential auxiliary and complimentary trails through the neighborhood.

The Downtown portion of the study area is approximately five blocks long. It contains a mix of commercial and entertainment uses, including the Blue Cross Arena, First Federal Plaza, and the Aqueduct Building (ThomsonWest). It also includes a two-block long riverfront plaza, known as Genesee Crossroads Park. The northern extent of the Downtown/Corn Hill portion of the trail terminates just before the Inner Loop where significant road and rail infrastructure block future riverfront connections to the High Falls segment.

B. High Falls

The Genesee Riverway Trail study area enters the High Falls segment on the north side of the Inner Loop and CSX viaducts, utilizing the existing gateway at the intersection of State Street and Allen Street. This segment of the trail could be a significant compliment to the High Falls Entertainment District, which contains a mix of restaurants, offices, bars, clubs, and historic interpretive sites. The High Falls District also features the Pont de Rennes pedestrian bridge which connects to the High Falls Brewery on the east side of the river and provides impressive views of Upper Falls and the Center City skyline.

The High Falls segment is also the beginning of the Genesee River gorge, which presents additional challenges to trail routing. RG&E's Beebee Station is located just north of the High Falls Entertainment District, and occupies all of the lower elevation land on the west bank of the river within the segment (see Map 5).

The City is in the process of acquiring a large vacant parcel that sits between Vincent Street and the right-of-way for the long-abandoned Falls Street. This property is littered with discarded building materials and other refuse. Potential contamination and environmental concerns may require further analysis to determine what, if any, remediation is required prior to re-use as a recreational space.



Browns Race in the High Falls Entertainment District

C. St. Paul Street/Edgerton

The northernmost segment of the study area contains the heart of the Genesee River gorge. There is trail development potential on both sides of the river — in the Edgerton neighborhood and along St. Paul Street. The majority of this portion of the study area is made up of industrial and commercial uses, including several large properties owned by RG&E along the gorge. The utility company's properties are primarily vacant aside from small clusters of buildings where their operations take place.



St. Paul Street near Brewer Street

This segment also contains an abandoned railroad right-of-way that the City is in the process of purchasing. The old rail line includes a large bridge over the Genesee River, which the City is considering for rehabilitation and re-use as a pedestrian bridge. This right-of-way and its accompanying bridge are part of the long-term recommendations for the Genesee Riverway Trail through this part of the City.

Although there are mainly commercial and industrial uses here, this segment is flanked by important neighborhoods — Edgerton on the west side and CONEA and the 14621 Neighborhood on the east side. Linkages to these residential areas are critical to the location and design of the trail.

The northern portion of the study area ends at the RG&E Middle Falls Dam. RG&E has revised its dam rehabilitation efforts to include pedestrian access over the service bridge, offering views of

Middle Falls and the river gorge and providing an important connection to the southern terminus of the existing trail in Lower Falls Park. RG&E's dam rehabilitation is slated for completion in summer 2006. The City has recently started trail design work for connections at the north and south ends of the dam, which are slated for completion in fall 2006. Upon completion of the dam rehabilitation and trail projects, and pending execution of an access agreement between RG&E and the City, pedestrians will be able to cross the river at Middle Falls.

IV. Public Involvement

The Transportation Equity Act for the 21st Century (TEA-21) requires that “the metropolitan transportation planning process... include a proactive public involvement process that provides complete information, timely public notice, full public access to key decisions, and supports early and continuing involvement of the public in development plans” (Title 23 CFR 450.316).

GTC has a long history of involving the public in its planning and programming activities, and the Long Range Transportation Plan sets it as a priority by stating:

The transportation planning process shall be conducted in as open and visible a manner as possible, encouraging community participation and interaction between and among citizens, professional staff, and elected officials.

The public involvement program provides an important link between the agencies, interest groups, the public, and the design team, ensuring that the study is a collaborative effort and one where all have the opportunity to comment and provide input to technical decisions. The community participation program for this study was conducted in accordance with the goals and policies of both GTC and the City of Rochester. The City also has a long history of public participation in its plans and capital projects.

A. Project Advisory Committee

In order to best represent the public interest, a group of advisors were assembled from a variety of organizations and interest groups. The committee consisted of City of Rochester residents as well as representatives from:

- ❖ City of Rochester
- ❖ Monroe County DOT
- ❖ RG&E
- ❖ Genesee Transportation Council
- ❖ Friends of the Genesee Riverway
- ❖ High Falls Business Association

- ❖ North East Block Club
- ❖ Edgerton Neighborhood Association
- ❖ Northwest Community Services

The Project Advisory Committee met several times throughout the conceptual design phase to provide input on/for the study, including the recommendations of specific planning activities.

B. General Public

Public input opportunities were provided during two public meetings. The first was held at the Rundel Building of the Rochester Public Library on September 8, 2005. Conceptual trail designs were presented for the public to review and submit comments. A second public meeting, held at the library on March 29, 2006, reviewed the Draft Feasibility Study recommendations and provided an opportunity for public comment. This input was important to the process of refining the options and ultimately selecting a preferred option.



Rundel Building on the Genesee River

V. Trail Design Considerations

A. Project Advisory Committee and Public Input Recommendations

The following list is a broad summary of comments from the Project Advisory Committee and the general public, and represents the concerns, questions, and suggestions that were raised regarding the alignment, design, and construction of the proposed trail:

- ❖ The trail should be as close to the river as possible.
- ❖ The trail should include periodic and strategically placed destinations, including points of interest, interpretive signage, public art, scenic views, and rest areas.
- ❖ The trail should be supported/complimented by adjacent trails including the Butterhole Trail (Rochester Running Track), the Plymouth Avenue Greenway, and a historic trail in the Corn Hill neighborhood.
- ❖ A mid-block crossing at Court Street near the Blue Cross Arena is preferred, but would require a new crosswalk and modifications to the walkway at the north end of the arena to comply with ADA standards.
- ❖ The trail design should be integrated with and connected to the plans for the rehabilitation of the Erie Canal Aqueduct (Broad Street Bridge).
- ❖ There is a possibility of connecting to the Aqueduct by punching through the subbasement wall of the active RG&E substation on the east bank of the river, which has the foundation and supports of a waterwheel that pre-dates the Erie Canal.
- ❖ The study should examine potential options for providing safe and convenient pedestrian access across the Inner Loop and CSX viaducts which separate High Falls from Downtown.
- ❖ Phase I of the trail south of the Bausch Memorial Bridge should focus on the west side of the river in order to better connect Downtown to High Falls.
- ❖ The city is in the process of acquiring property between Vincent Street and Beebee Station, which could potentially become a park that would include the trail.
- ❖ Additional treatments should be considered for the trail as it crosses the Bausch Memorial Bridge, including a promenade-style walkway and/or a scenic overlook.
- ❖ The trail should utilize the Brewer Street access to the river and connect to the pedestrian access that is under construction at the RG&E Middle Falls Dam.

B. General Design Recommendations

The Genesee Riverway Trail needs to meet certain guidelines that address the needs of the intended users. Design and use of the trail should be contextual and reflect the nature of the surrounding urban areas.

1. On-Street Trail Segments

Due to the presence of natural and man-made barriers, a large percentage of the trail will need to be located along existing streets, similar to the Court Street Bridge, which is the northern terminus of the existing trail. In such cases, pedestrians should utilize the sidewalk network, following strategically placed signage, while bicyclists should travel in the roadways. If feasible, dedicated bike lanes are recommended for the on-street sections, although they would require approval from the City, County, and/or NYSDOT. If bike lanes are not feasible, the roadways should at least contain adequate space for bicyclists, either on the shoulder or in travel lanes (14 foot lanes are sufficient). In general, the trail should emphasize and promote the shared use of roadways by all modes of transportation. Bicyclists should always travel in the direction of traffic and should avoid the use of sidewalks. The City of Rochester has a law that prohibits bicycle use on sidewalks within the Inner Loop.

Although many might perceive the idea of bicycles on the street to be safer than allowing bicycles on sidewalks, it has proven to be safer than sidewalks¹. It is also one of many ways to reinforce the fact that public rights-of-way, i.e. streets, are intended to be used by the public, regardless of the transportation mode of choice. As such, streets should be designed with multiple modes of transportation in mind. The presence of the Genesee Riverway Trail along several streets in the city should reinforce these principles.

2. Off-Street Trail Segments

Off-street portions of the trail should be a minimum of 10 feet in width, with at least a 2-foot shoulder on each side whenever possible. This width will accommodate pedestrian and bicycle traffic, providing enough space for the passing of slower traffic. These portions of the trail will be made up of a gravel base with a hot mix asphalt or concrete surface.

¹<http://www.bicyclinginfo.org/rd/safety.htm#3>

3. ADA Compliance

All portions of the trail should comply with the standards of the Americans with Disabilities Act. Compliance is necessary for securing state and federal funding for the project. This includes designs which minimize grades greater than 5% and providing ramp access wherever stairs are present along the trail. In the gorge area where the 5% grade is physically impossible, adequate signing of these conditions should be provided consistent with ADA standards. All sidewalks should have curb ramps for the sake of handicap accessibility. It is recommended that handicap accessible parking be provided at each trail head parking lot.

4. Trail Heads

The trail design should include strategically placed trail heads throughout the corridor to provide frequent access points. Trail heads typically include wayfinding signage and kiosks, benches, automobile parking, bike racks, and lighting. Additional features such as creative landscaping and public art make a trail head an even more valuable part of the urban fabric, inviting people to enjoy the space beyond its functional purpose. Due to the diverse nature of the Genesee Riverway Trail corridor, not all amenities are appropriate for each trail head. For example, space constrictions may not allow certain trail heads to include parking facilities.

5. Trail Signage

The trail should have informational signage placed at strategic locations. Signage standards have already been developed for the Genesee Riverway Trail (see Appendix C), including different sizes, styles, and content. Each trail head should contain a “Major Pedestrian Kiosk”. The City should identify desired destinations to be called out on wayfinding signs, such as Pont de Rennes or the Corn Hill neighborhood. The trail should have regularly spaced marker posts, as well as ground-level markers in the sidewalk sections. In the more urbanized areas, panels with directional information should be mounted on selected light poles. Public safety signs should be installed in areas proximate to active industrial uses, such as the RG&E Middle Falls Dam. For the on-street sections, trail signs should be placed between the sidewalk and the shoulder of the street, indicating that the street is part of the trail (for bicycle use).

VI. Preferred Trail Alignment (Phase I)

After analyzing information gathered from site visits, public input, the review of potential alternatives, and Project Advisory Committee feedback, a preferred trail alignment was identified (see Maps 6 & 7). The preferred trail alignment represents the short-term, or Phase I, recommendation for the trail, while additional segments identified serve as potential long-term options. Phase I is broken down by study area segment, as outlined in Section III. The alignment proposed takes into account the trail design considerations outlined in Section V.

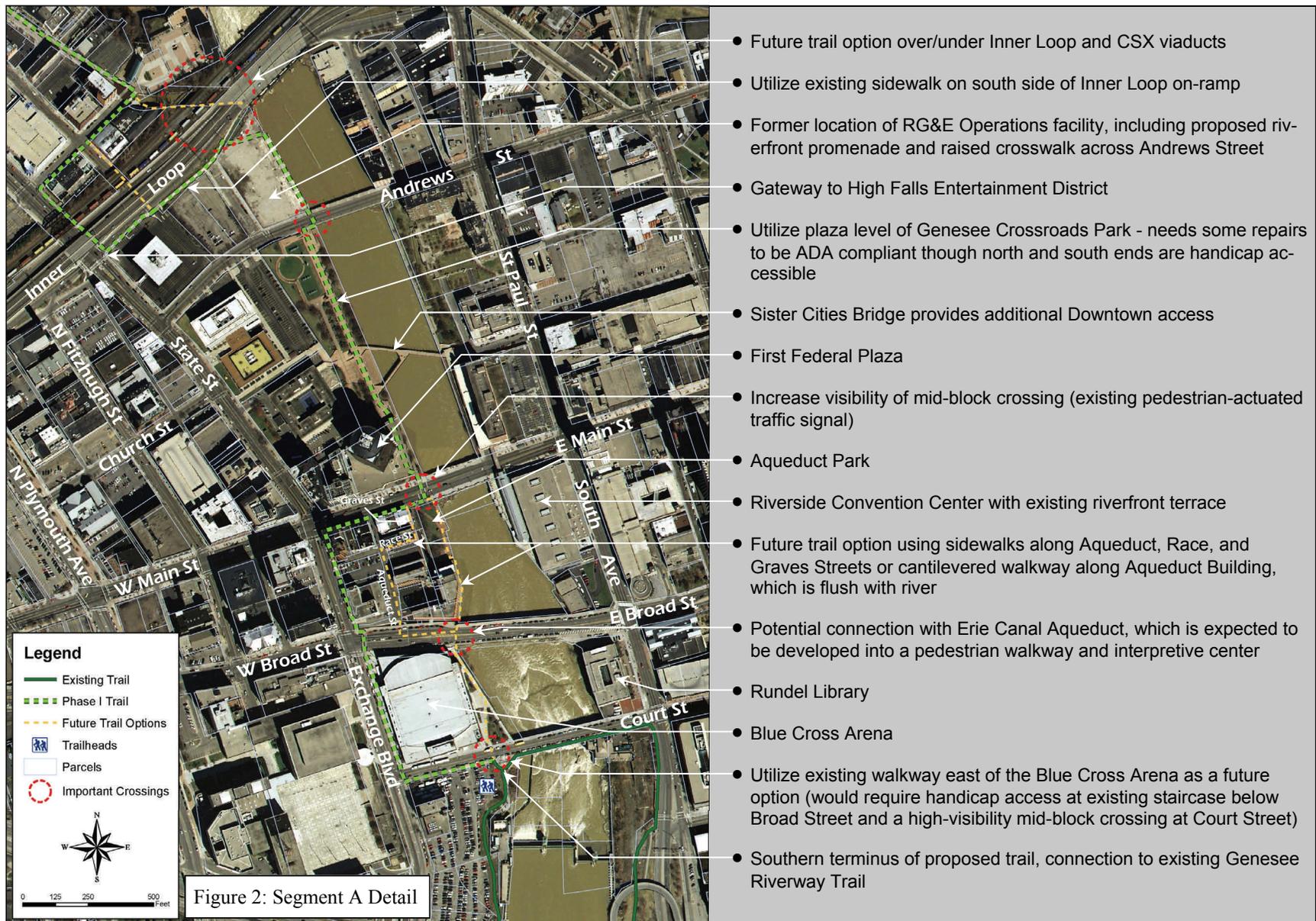
A. Downtown/Corn Hill (see Figure 2)

Phase I begins on the west side of the river at Court Street, which is the current northern terminus of the southern section of the Genesee Riverway Trail. From this point, the trail would use the sidewalk (pedestrians) and streets (bicyclists) to travel west along Court Street, north along Exchange Boulevard, then east along Main Street to the existing mid-block crossing on the west end of the Main Street Bridge. Additional enhancements should be considered for the Main Street crosswalk, such as better signage and/or brick pavers. This would increase safety and awareness of the trail's presence. Throughout this segment, ground level signage should be installed in addition to standard trail signage due to the busy nature of Center City's visual environment.

The trail would then head north through Genesee Crossroads Park to Andrews Street. Although the Main Street end of the park has a stairway entrance, handicap access is available immediately west of the steps, in front of the main entrance to First Federal Plaza. The north end of the park has a handicap ramp, though it should be replaced or moved approximately five feet to the south to be integrated with an enhanced crosswalk design (see Figure 3).

The City is negotiating with RG&E to purchase a 40-foot wide strip along the west bank of the Genesee River between Andrews Street and the Inner Loop. RG&E would retain a small triangle of land immediately adjacent to the Central Avenue Dam for operations and maintenance purposes. Pending environmental remediation, the City-acquired land will be developed into a riverfront promenade, including a grand staircase descending from Andrews Street, and will be made part of the trail (see Figure 3). To compliment the promenade, a raised crosswalk/speed table is recommended. This enhanced crossing will serve to slow vehicles, make trail users more visible, and raise awareness of the presence of the trail. However, this mid-block crossing would require a gap study to ensure there are adequate gaps in vehicular traffic to allow for safe crossing. If adequate gaps are not found, the presence of the raised crosswalk and strategically placed signage should provide enough visual friction to impact traffic speeds, potentially opening up sufficient crossing gaps. In

Genesee Riverway Trail (Downtown to Lower Falls Park) Feasibility Study
City of Rochester, New York



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City of Rochester, New York

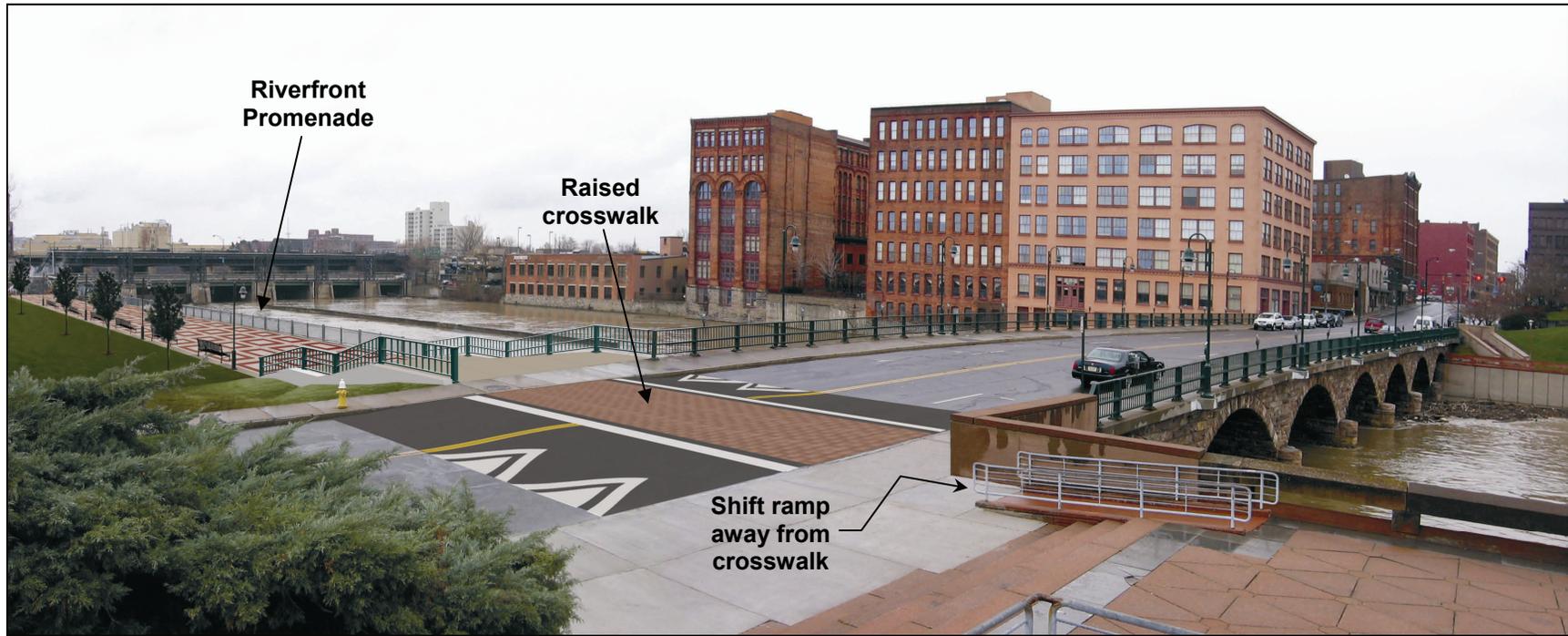


Figure 3: Photosimulation of the proposed trail crossing at Andrews Street to the proposed Riverfront Promenade

2005, Fehr and Peers studied the effectiveness of 58 different 22' speed tables and found that they lowered the 85th percentile speed of vehicles by an average of 6.6 mph.² Another consideration would be to route the trail 175' to the west on Andrews Street where trail users would use the existing crosswalk at Front Street, then travel back east on Andrews Street to the riverfront promenade.

Several options have been explored to overcome the barrier between Downtown and High Falls that is formed by the Inner Loop and CSX viaducts. Options include a pedestrian bridge over the viaducts, a cantilevered walkway under the bridges, or improving the existing narrow tunnel that connects to Mill Street. Each of these options would require considerable expense and pose significant engineering challenges. As a short-term solution, the trail should utilize the recently constructed sidewalk on the south side of the Inner Loop to connect to State Street, then head north along State Street,

²<http://www.trafficcalming.org/effectiveness.html>

through the new High Falls Gateway, then east along Commercial Street to Brown's Race. It is recommended that the more elaborate options undergo further analysis to determine their feasibility as long-term solutions.

Additional Trail Considerations in the Downtown/Corn Hill Segment
(see Maps 8 & 9)

In addition to the development of the Genesee Riverway Trail through this segment, the design team considered potential spur trail opportunities linking to the Corn Hill Neighborhood and the Plymouth Avenue Greenway. The **Plymouth Avenue Greenway**, which currently exists between Allen Street and Spring Street, consists of wide, curving walkways accompanied by trees and other landscaping. It is recommended that the Greenway be extended to the north and south to form a loop with the Genesee Riverway Trail.



Plymouth Avenue south of I-490

To the north, the Greenway would follow Plymouth Avenue past Frontier Field, then head east along Morrie Silver Way and Platt Street to the Riverway Trail at Mill Street. To the south, the Greenway would extend along Plymouth Avenue over I-490, into the Corn Hill Neighborhood, and connect to the Riverway Trail at Corn Hill Landing. The degree to which these extensions will resemble the curving, landscaped existing Greenway will depend on the condition of the sidewalks and available space. Also, the design of the Greenway extension should encourage bicyclists to ride in the roadways, as it is not likely that adequate space is available to accommodate bike and pedestrian traffic in the walkway.

An additional connector trail, scheduled for construction in 2010, will be developed on the south side of I-490 to further enhance connections between Corn Hill and the Genesee River. The **Corn Hill Connector** will begin at the intersection of Plymouth Avenue and Troup Street and will likely follow the sidewalk on the south side of Troup Street. This block is a narrow one-way street, so bicyclists should be extra cautious in the street, especially when traveling west.

At the intersection with Fitzhugh Street, pedestrians would cross over to the sidewalk on the north side of Troup Street, then cross Exchange Boulevard to the north end of Corn Hill Landing. This crossing at Exchange Boulevard, as well as the Greenway's crossing one block to the south, are mid-block crossings. According to the Monroe County DOT, previous gap studies have concluded that the crossing at Plymouth Avenue is safe due to the presence of the refuge median on Exchange Boulevard. The existing median at Troup Street should be enhanced to create an adequate refuge for pedestrians as well.

A **Historic Corn Hill Walk** could enhance opportunities for trail users to explore the Corn Hill Neighborhood, a unique urban setting that is rich in architecture and history. This interpretive walking trail would begin at the intersection of Plymouth Avenue and Fitzhugh Street and follow the existing sidewalk on the west side of Fitzhugh Street. It would then head west along Edinburgh Street, loop around Lundsford Circle, and continue west on Edinburgh Street. Next it would travel north along Clarissa Street, east along Atkinson Street, then reconnect to Plymouth Avenue. Additionally, the trail would include a connector north from Atkinson Street along Eagle Street, past Shumway Ice Arena, over I-490 using the existing pedestrian bridge, east on Spring Street, then terminate at the Plymouth Avenue Greenway.



Historic homes in Corn Hill

B. High Falls (see Figure 4)

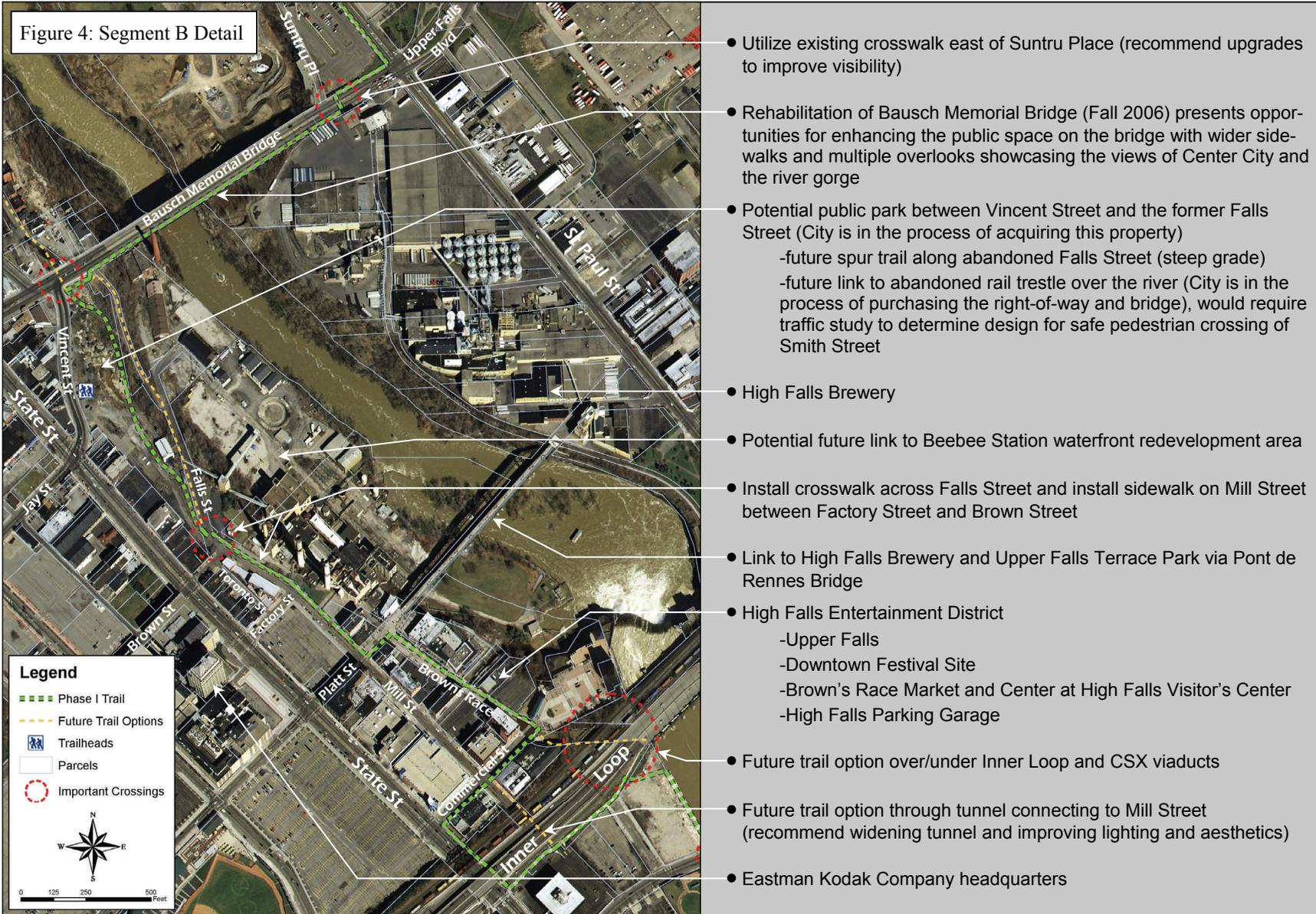
Phase I of the Genesee Riverway Trail's preferred alignment continues north of the Inner Loop, with pedestrians utilizing the existing sidewalks along Commercial Street and Brown's Race and bicyclists using the roadways. The trail will serve as an additional catalyst in the success of the High Falls Entertainment District. It also will connect with Pont de Rennes, a pedestrian bridge spanning the Genesee River that connects to the High Falls Brewery and Upper Falls Terrace Park on the east bank. This connection provides trail access to the residential areas immediately north of Downtown on the east side of the river. It may also serve one day as an important connection to an east side trail, depending on the ability to gain public access to riverfront land adjacent to the High Falls Brewery and the RG&E property to the north on St. Paul Street.



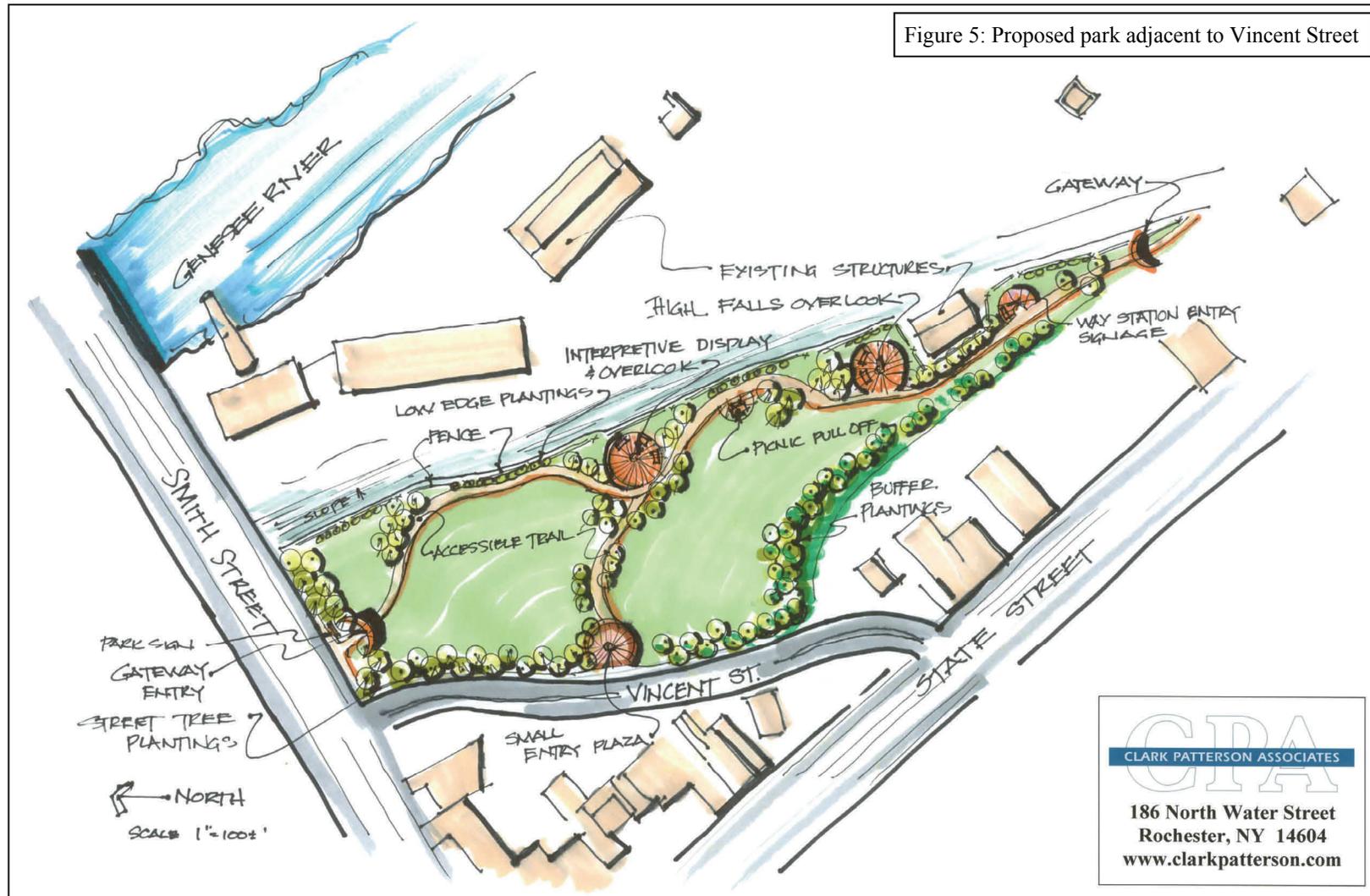
South end of proposed park adjacent to Vincent Street

From Pont de Rennes, the trail would travel west along Platt Street, then immediately north on Mill Street, with pedestrians using the sidewalk on the east side of the street. A new sidewalk would need to be constructed on Mill Street between Factory Street and Brown Street. At the intersection with Brown Street, the trail would cross the street and enter a property that the City is in the process of acquiring. A crosswalk is recommended at this location. The property is an excellent location for devel-

Genesee Riverway Trail (Downtown to Lower Falls Park) Feasibility Study
City of Rochester, New York



oping a public park, complete with a trail head, seating areas, overlooks, and creative landscaping (see Figure 5). The current condition of this property along Vincent Street would require extensive cleanup and potential environmental mitigation, but the result would provide an important green space in the trail corridor.



C. St. Paul Street/Edgerton (see Figure 6)

At the north end of the vacant property adjacent to Vincent Street, the trail would head east along Smith Street and the Bausch Memorial Bridge. The trail would use the sidewalk on the south side of the bridge, which offers spectacular views of Center City and Upper Falls. The City has hired an engineering firm to do a rehabilitation project for the bridge in Fall 2006. Members of the Genesee Riverway Trail Project Advisory Committee met with the engineers to discuss options for incorporating the trail into the bridge design. It was determined that there may be sufficient space to reduce the vehicle lane widths and widen the sidewalks. Pedestrian-scale lighting, a trail/roadway barrier, and bumpout overlooks on the sidewalks are recommended to improve safety and aesthetics and enhance opportunities for viewing the river gorge. Founders Bridge in Hartford, Connecticut is an excellent example of how the pedestrian experience can be improved on a major urban bridge (see images below). Additionally, a wider walkway along the bridge may be a more appropriate route for bicyclists, as vehicles on the bridge travel at high speeds.

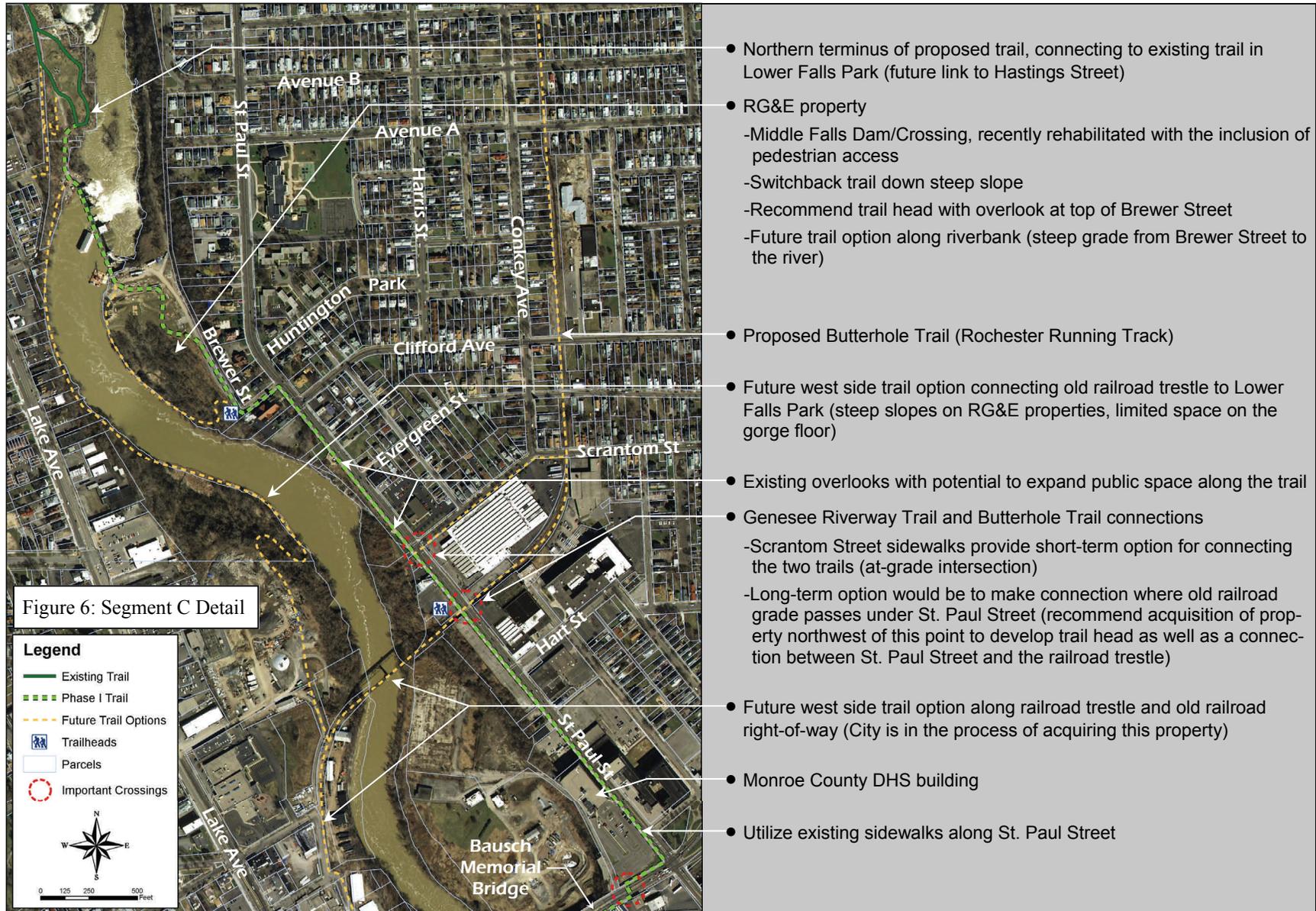


Founders Bridge in Hartford, CT, an attractive refuge for pedestrians and bicyclists



Founders Bridge features several overlooks and connects to Riverfront Plaza in Downtown

Genesee Riverway Trail (Downtown to Lower Falls Park) Feasibility Study
City of Rochester, New York





Downtown skyline from Bausch Memorial Bridge

At the east end of the bridge, the trail would cross the street at the existing crosswalk east of Suntru Place and continue east on Bausch Street to St. Paul Street. From there it would head north on St. Paul Street, with bicyclists using the roadway and pedestrians using the sidewalk on the west side of the street, all the way to Brewer Street. The sidewalks in this section of St. Paul Street are in good condition and are adequate to support Phase I of the trail. This part of the trail would also connect to two existing overlooks adjacent to the sidewalk network. The City-owned properties adjacent to these overlooks present opportunities for expanding the overlooks and developing passive greenspace or a small trail head.

The trail is expected to enter Brewer Street and travel approximately 250 feet west to a new trail head on the west side of the street. This location, adjacent to where Brewer Street bends to the north, would offer excellent views of the river gorge. The trail would then travel down the embankment to the same grade

as the existing RG&E Middle Falls Dam. A switchback trail design is necessary to ensure the grade meets ADA standards (maximum 5%). The trail would then cross the Middle Falls Dam, which, as part of RG&E's recent rehabilitation project to be completed in summer 2006, will provide pedestrian access across the RG&E Service Bridge. At the northern end of the dam, the trail would enter Lower Falls Park, which is the southern terminus of the northern section of the existing Genesee Riverway Trail, thus removing a significant gap in the overall trail network.

Additional Trail Considerations in the St. Paul Street/Edgerton Segment (see Maps 8 and 9)

In addition to the development of the Genesee Riverway Trail through this segment, the design team concluded that the trail should connect with the proposed **Butterhole Trail**, which will use the abandoned right-of-way of the old Rochester Running Track. Once both trails are completed, they will intersect where St. Paul Street crosses over the abandoned rail line, just south of Scrantom Street. The old rail line continues west to an abandoned trestle that spans the Genesee River, then ultimately ends at Smith Street across from the recommended public park adjacent to Vincent Street. Section VIII outlines this future trail in more detail. The portion of the Butterhole Trail east of St. Paul Street travels north



Rochester Running Track intersection with Scrantom Street

along the old rail line through the 14621 Neighborhood. Although the rail line travels under St. Paul Street, it eventually rises to street grade at Scrantom Street. As a short term solution, the sidewalk on Scrantom Street will serve as the connection between the Riverway Trail and the Butterhole Trail.

D. Genesee Riverway Trail - Trail Heads

Several trail heads are recommended to provide frequent access points to the trail (see Maps 6 & 7). Section V discusses the amenities that should be included in a trail head design, though not all amenities are appropriate or feasible for each location.

- ❖ Exchange Boulevard south of Corn Hill Landing
- ❖ Court Street across from the Blue Cross Arena (existing)
- ❖ The proposed public park adjacent to Vincent Street
- ❖ The junction of the Riverway and Butterhole Trails
- ❖ The RG&E property on Brewer Street

VII. Phase I Implementation

Phase I of the Genesee Riverway Trail focuses on creating a continuous trail linking Downtown to Lower Falls Park. Establishing the trail in the on-street sections primarily consists of installing signage and addressing street crossing concerns. Only a few small sections of the trail require actual trail construction, such as at the proposed public park adjacent to Vincent Street. The following outlines the necessary action items necessary to establish Phase I of the trail.

A. Downtown/Corn Hill

Court Street to Main Street

- ❖ Install signage along sidewalks (Court Street, Exchange Boulevard, and Main Street)
- ❖ Install ladder style crosswalks (Exchange/Court and Exchange/Broad)
- ❖ Install bike lanes or ensure adequate bike space in the roadways (Court Street, Exchange Boulevard, and Main Street)
- ❖ Enhance existing mid-block crossing on Main Street, including installing signage and more prominent pavement markings

Main Street to Andrews Street

- ❖ Rehabilitate plaza level of Genesee Crossroads Park to ensure ADA compliance
- ❖ Install signage in Genesee Crossroads Park

Andrews Street to Inner Loop

- ❖ Install raised crosswalk or speed table at north end of Genesee Crossroads Park (gap study required)
- ❖ Develop grand staircase and riverfront promenade (pending sale/transfer of land to the City)
- ❖ Install signage along existing sidewalk on south side of the Inner Loop



Court Street adjacent to the Blue Cross Arena

B. High Falls

Inner Loop to Brown Street

- ❖ Install signage along sidewalks (State Street, Commercial Street, Browns Race, Platt Street, and Mill Street)
- ❖ Install new sidewalks on Mill Street between Factory Street and Brown Street
- ❖ Install bike lanes or ensure adequate bike space in the roadways (State Street, Commercial Street, Browns Race, Platt Street, and Mill Street)

Brown Street to Smith Street

- ❖ Install crosswalk on Falls Street at the top of the hill near the entrance to RG&E's Beebee Station
- ❖ Develop public park on property adjacent to Vincent Street, including signage, benches, trash receptacles, scenic overlooks, and miscellaneous landscaping (pending sale/transfer of property to the City; will require environmental analysis and mitigation)
- ❖ Install 12-foot wide asphalt trail through park, ending at Smith Street



Vacant City property off Vincent Street

C. St. Paul Street/Edgerton

Smith Street to Bausch Street (AKA Bausch Memorial Bridge)

- ❖ Install signage along sidewalks (Smith Street, Bausch Memorial Bridge, and Bausch Street)
- ❖ As part of current bridge rehabilitation project, widen sidewalks and install scenic overlooks, establishing the bridge as a signature segment of the trail
- ❖ Install highly visible crosswalk on Bausch Street at Suntru Place

Bausch Street to Brewer Street

- ❖ Install signage along sidewalks (St. Paul Street)
- ❖ Install bike lanes or ensure adequate bike space in the roadway (St. Paul Street)

Brewer Street to Lower Falls Park

- ❖ Install signage along sidewalks (Brewer Street)
- ❖ Install 12-foot wide asphalt trail through RG&E property, ending at RG&E Middle Falls Dam Pedestrian Access
- ❖ Install signage on bridge in accordance with RG&E's signage plan
- ❖ Install 12-foot wide asphalt trail in Lower Falls Park connecting pedestrian crossing to existing Genesee Riverway Trail

VIII. Long Term Options

The alignment of several sections of the Phase I trail were chosen because they represent the simplest, most cost-effective option while still addressing the goals and objectives of the trail. Additional future options as outlined below were also examined. Each option should undergo further analysis to determine their individual feasibility and appropriateness for the trail (see Maps 8 and 9) Each of these options is an attempt to bring the trail closer to the riverfront.

A. Court Street to Main Street

A walkway on the river side of the Blue Cross Arena already exists, connecting Court Street to Broad Street. In order to incorporate this into the Riverway Trail, a mid-block crossing is needed on Court Street. A Monroe County DOT study concluded that there are adequate gaps in traffic to allow for the installation of a mid-block crosswalk at this location (see Appendix D). The north end of the walkway, near the west end of the Erie Canal Aqueduct, has a staircase leading up to Broad Street. If the trail were to cross over Broad Street, handicap access would need to be installed at this location. Another possibility is to continue the trail into the aqueduct, using a walkway that would be built at the same grade as the entrance and exit to the tunnel (upper archway level). However, this walkway would need to be reconciled with east-west pedestrian traffic at the subway/canal level that will be introduced when the aqueduct is rehabilitated into a pedestrian walkway and interpretive center.

The walkway would then pass through the aqueduct arch on the north side of Broad Street, arriving at the Aqueduct Building. This building is flush with the river, so a cantilevered walkway would be necessary to continue the trail north to the existing Aqueduct Park. A cantilevered walkway would be a significant compliment to the rehabilitation of the aqueduct, and would bring this section of the trail to the riverfront. A third option would be to head west from the aqueduct about 200 feet into the old subway tunnel, punch through the tunnel wall, and connect to Aqueduct Street. From there, the trail could use Race Street and Graves Street to connect to Aqueduct Park and Main Street.

A similar situation exists on the opposite side of the river, where a walkway begins at Main Street and runs alongside the Riverside Convention Center. The City-owned walkway, which would require the removal of barriers, stops at the end of



Visitors peek into the old Erie Canal Aqueduct under Broad Street

the building, as the Convention Center and the adjacent active RG&E Substation 6 become flush with the river. A second cantilevered walkway would be constructed from the existing walkway to the RG&E substation, where it would then enter the subbasement of the building. The subbasement, which is one of the oldest structures in Western New York, would allow trail users to see a waterfall that was once part of the river's extensive race system.

These two walkways would serve to complete a loop around this "block" of the river, further connecting the community to its historic roots. They would make this a highly-visible community asset and improve the connectivity to the aqueduct. The design of this long-term trail should be incorporated into the design of the City's aqueduct project, which recently secured funding.

B. Inner Loop and CSX Viaducts

The Central Avenue Dam and the Inner Loop and CSX viaducts are major obstacles to connecting Downtown Rochester with the High Falls Entertainment District. The Genesee Riverway Trail presents a great opportunity to overcome this obstacle, though the potential long-term solutions would require creative design and significant funding.

One possibility is a cantilevered walkway under the structures/bridges and above the river, though overhead clearance is very limited. This route would require the Inner Loop and railroad to be elevated several feet. A second option involves constructing a pedestrian bridge over the viaducts. A third option would be to enhance the existing tunnel walkway through the viaducts at Mill Street. In order to make this a viable route, the tunnel would need to be widened to at least 12 feet, complete with attractive lighting, signage, and entrances. If the tunnel became the official route of the Genesee Riverway Trail, it would also require improvements to the Inner Loop access ramp crossings on both sides of the viaduct. These options should be explored by the NYSDOT as part of their Inner Loop/Brown's Race Bridge project. Regardless of the option chosen, RG&E needs to retain access to the Central Avenue Dam and Brown's Race for operations and maintenance.

C. Falls Street Spur

The eastern boundary of the proposed public park adjacent to Vincent Street is an abandoned right-of-way that used to be an extension of Falls Street. The right-of-



Old Falls Street near Smith Street

way now consists of a narrow deteriorated asphalt surface surrounded by overgrown vegetation. This path could be restored to become a trail spur through the wooded area, though the steep grade would make it more appropriate for pedestrians than bicyclists. Meeting ADA standards for accessibility would require creative design, as the current slope is much too steep for handicap access. The Falls Street Spur would not replace the segment of trail in the park, rather it would provide alternate access to Smith Street.

D. Butterhole Trail (Rochester Running Track)

As discussed in Section VI, the proposed Butterhole Trail will follow the abandoned Rochester Running Track rail line. The trail would begin on the north side of Smith Street, across from the proposed park on Vincent Street. In order to connect these two trails, a safe crossing at Smith and Vincent Streets would need to be designed.

Currently, there are heavy traffic counts for vehicles traveling from Vincent Street to the Bausch Memorial Bridge and vice-versa. A traffic study should be performed to determine if a traffic signal at this intersection is warranted. Given the heavy turn volumes, a pedestrian phase may be necessary to increase safety.



RG&E property near Middle Falls

From Smith Street, the trail would head north along Cliff Street to Ambrose Street. Sidewalks and other streetscape improvements are recommended for this section. North of Ambrose Street, the trail would enter the former railroad right-of-way and cross the existing trestle. Extensive clean up and landscaping would be necessary in the area around the bridge approach. If feasible, the City hopes to rehabilitate the abandoned Rochester Running Track Bridge to provide pedestrian access across the gorge.

A number of options have been explored with regards to the ultimate connection between the Genesee Riverway and Butterhole Trails as they intersect at St. Paul Street. If the tunnel under St. Paul were preserved, trail users could follow the old rail line to the at-grade intersection with Scrantom Street, then use the Scrantom Street sidewalks to return to St. Paul Street. If the City were to acquire the parking lot northwest of the tunnel, there is ample space there to develop a trail head, parking, and ADA compliant access from the trestle up to street grade. From that property, a mid-block crossing could be installed to bring trail users to the east side of St. Paul Street, where a gradual slope would return them to the Butterhole Trail. This trail head design should be explored further as part of the Rochester Running Track Bridge or the Butterhole Trail projects.

E. Alternate Access Trail to RG&E Middle Falls Dam

In order to provide increased access to the riverfront and the gorge, a second trail could be developed from Brewer Street down to the pedestrian crossing. Beginning at the bend in Brewer Street, the trail would wind sharply down the hill to the river, then trace the riverbank to the pedestrian crossing. This segment would be too steep to replace the one developed in Phase I, but would provide additional access to the wooded area and the riverfront. This option would also require an additional easement agreement between the City and RG&E.

F. Hastings Street Access

A study was performed in the summer of 2005 to examine the feasibility of access from Hastings Street down to the existing Riverway Trail system in Lower Falls Park. This trail would provide valuable connectivity to the Edgerton neighborhood. The study identified three options for making this connection and identified the pros and cons of each option. At this time, a preferred option has not been selected.

G. Westside Riverway Trail

The Project Advisory Committee identified the east side of the river as the desired location for the trail north of the Bausch Memorial Bridge, so it was outside the scope of this study to examine the west side in any depth. However, there does exist potential for developing a trail along the west bank. A feasibility study would be necessary to explore this option.



RG&E Middle Falls Dam Pedestrian Access

IX. Funding Resources

Figure 7 is an overview of federal, state, and local funding sources available for the design and construction of this section of the Genesee Riverway Trail. In August 2005, the President signed into law SAFETEA-LU, the latest federal surface-transportation reauthorization bill. SAFETEA-LU includes programs such as the Surface Transportation Program (STP), which provides money for multi-use trails. STP funds are allocated through the Transportation Improvement Program (TIP). In the Rochester area, the TIP is cooperatively developed and managed by GTC and NYSDOT. The Transportation Enhancements Program (TEP) is another source. TEP is designed specifically for developing trails as part of a region's transportation network. Coordinated by NYSDOT, it promotes bicycle and pedestrian infrastructure and requires a 20% local match. New York State offers a variety of funding sources as well such as the Environmental Protection Fund, which provides money for recreational trails.

**Genesee Riverway Trail (Downtown to Lower Falls Park) Feasibility Study
City of Rochester, New York**

Funding Source	Program Focus	Fundable Activities	Required Local Match	Deadlines	Relevant Implementation Items
FEDERAL FUNDING					
Transportation Enhancements Program (TEP) <i>www.dot.state.ny.us/progs/tep.html</i>	Ten eligible project categories, including trails for transportation; on-street bicycle and pedestrian facilities	Preliminary engineering, design, right-of-way purchase, construction, inspection	20% *	Variable - confirm schedule with NYSDOT	Trail design and construction
Recreational Trails Program (RTP) <i>www.nysparks.state.ny.us/grants</i>	Trails for recreation	Planning, design, construction, maintenance equipment purchase	20% *	Annual program - confirm deadline with NYSOPRHP	Trail design and construction, purchasing trail amenities (benches, lighting, etc.)
Land and Water Conservation Fund Program (LWCF) <i>www.nysparks.state.ny.us/grants</i>	Trails for recreation	Acquisition, development, and/or rehabilitation of outdoor park and recreation facilities	50% or more *	Annual program - confirm deadline with NYSOPRHP	Trail design and construction, development of park adjacent to Vincent Street
Surface Transportation Program (STP)	Primarily for roads, but can fund on-street bicycle and pedestrian facilities	Preliminary engineering, design, right-of-way purchase, construction, inspection	20% *	Biennial - part of region's Transportation Improvement Program (TIP)	Trail design and construction
Highway Bridge Repair and Replacement (HBRR)	Transportation -- projects must be located on a highway bridge	Preliminary engineering, design, right-of-way purchase, construction, inspection	20%	Biennial - part of region's Transportation Improvement Program (TIP)	Bausch Memorial Bridge improvements, routing trail over/under/through Inner Loop and CSX viaducts
Rivers, Trails, and Conservation Assistance Program (RTCA) <i>www.nps.gov/rca</i>	Trails for transportation and/or recreation	Concept-level planning, public involvement, resource assessment	n/a	Annual program - July 1	Additional conceptual trail designs
STATE FUNDING					
Environmental Protection Fund <i>www.nysparks.state.ny.us/grants</i>	Trails for recreation	Acquisition and/or development of parks and recreation facilities, protection of open space	50% or more *	Annual program - confirm deadline with NYSOPRHP	Trail design and construction, development of park adjacent to Vincent Street
Clean Air/Clean Water Bond Act <i>www.dec.state.ny.us</i>	Trails for transportation and/or recreation with focus on environmental and open space protection	Acquisition and/or development of parks and recreation facilities, protection of open space	50% or more *	Annual program - confirm deadline with NYSDEC	Trail design and construction, development of park adjacent to Vincent Street
Governor's Traffic Safety Grant Program (GTSC) <i>www.nysgtsc.state.ny.us</i>	Transportation safety	Education, limited capital improvement projects	Not required	Annual program - confirm with county GTSC grant coordinator	Construction of safe roadway crossings including traffic calming devices
LOCAL FUNDING/OTHER DEVELOPMENT OPTIONS					
GTC Bicycle/Pedestrian STP Set Aside Funding <i>www.gtcmpr.org</i>	Trails/other bicycle and pedestrian projects for transportation	Planning, preliminary engineering, design, right-of-way purchase, construction	20% *	Biennial - part of region's Transportation Improvement Program (TIP)	Trail design and construction
Local capital improvement programs	As determined by local municipality	As determined by local municipality	n/a	n/a	As determined by local municipality
Incentive Zoning	As determined by local municipality	As determined by local municipality	n/a	n/a	As determined by local municipality

*In-kind match allowed for all/part of the required local match.
Typical in-kind or "soft" match provisions include force account labor, volunteer labor, materials and/or equipment donation, etc.

Figure 7: Overview of funding sources

X. Conclusions

The Genesee Riverway Trail corridor includes a broad range of natural and built environments, presenting great challenges and opportunities for trail development. This study recommends that these environments be embraced in the design of the trail. Beginning in the historic Corn Hill neighborhood, the trail and its system of neighborhood connectors will travel through Center City immediately adjacent to the river wherever possible. The trail will strengthen the link between Downtown and the High Falls Entertainment District, reinforcing the historic connection between these areas of the City. Continuing north, a new park along Vincent Street is recommended, providing valuable open space to the adjacent neighborhood and enhancing the attractiveness of the trail corridor. Utilizing the Bausch Memorial Bridge, St. Paul Street (short-term) and the Rochester Running Track Bridge (long-term), the trail will then head north from the new park to the RG&E Middle Falls Dam Pedestrian Access, removing a significant gap in the overall trail network as it enters Lower Falls Park.



Genesee River gorge from St. Paul Street overlook

The Genesee Riverway Trail from Downtown to Lower Falls Park will be a significant enhancement to the quality of life in the City of Rochester and the surrounding region. The Project Advisory Committee has determined that the recommended Phase I trail alignment offers the optimum balance between cost-effectiveness, direct routing, proximity to the river, and timely completion. It will provide opportunities for outdoor recreation and restore an important connection to the Genesee River. It will serve as a valuable alternative mode of transportation in the community and will function as a key recreational resource. Finally, the establishment of the Genesee Riverway Trail will prove to be a vital link in the ever-expanding regional trail network.

XI. Acknowledgements

Many people have assisted in the successful completion of the Genesee Riverway Trail Feasibility Study. We would like to thank all of the community members who participated in the public meetings and community forums. The input and ideas received at these venues helped drive the direction and specific detail contained in this plan. We would also like to thank the Project Advisory Committee which worked diligently to guide this process and ensure broad community participation.

Project Advisory Committee Members

Steve Beauvais
Richard DeSarra
Shirley Edwards
Robyn Fitzgerald
Erik Frisch
Hugh Ives

Scott Leathersich
Jeff Mrozcek
Joan Roby-Davison
Frank Shepardson
John Thomas

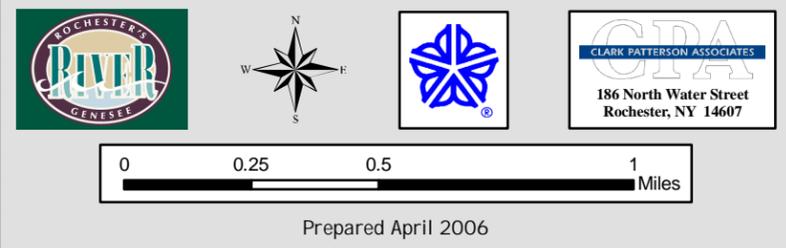


Upper Falls from Pont de Rennes

Appendix A:
Study Area Maps

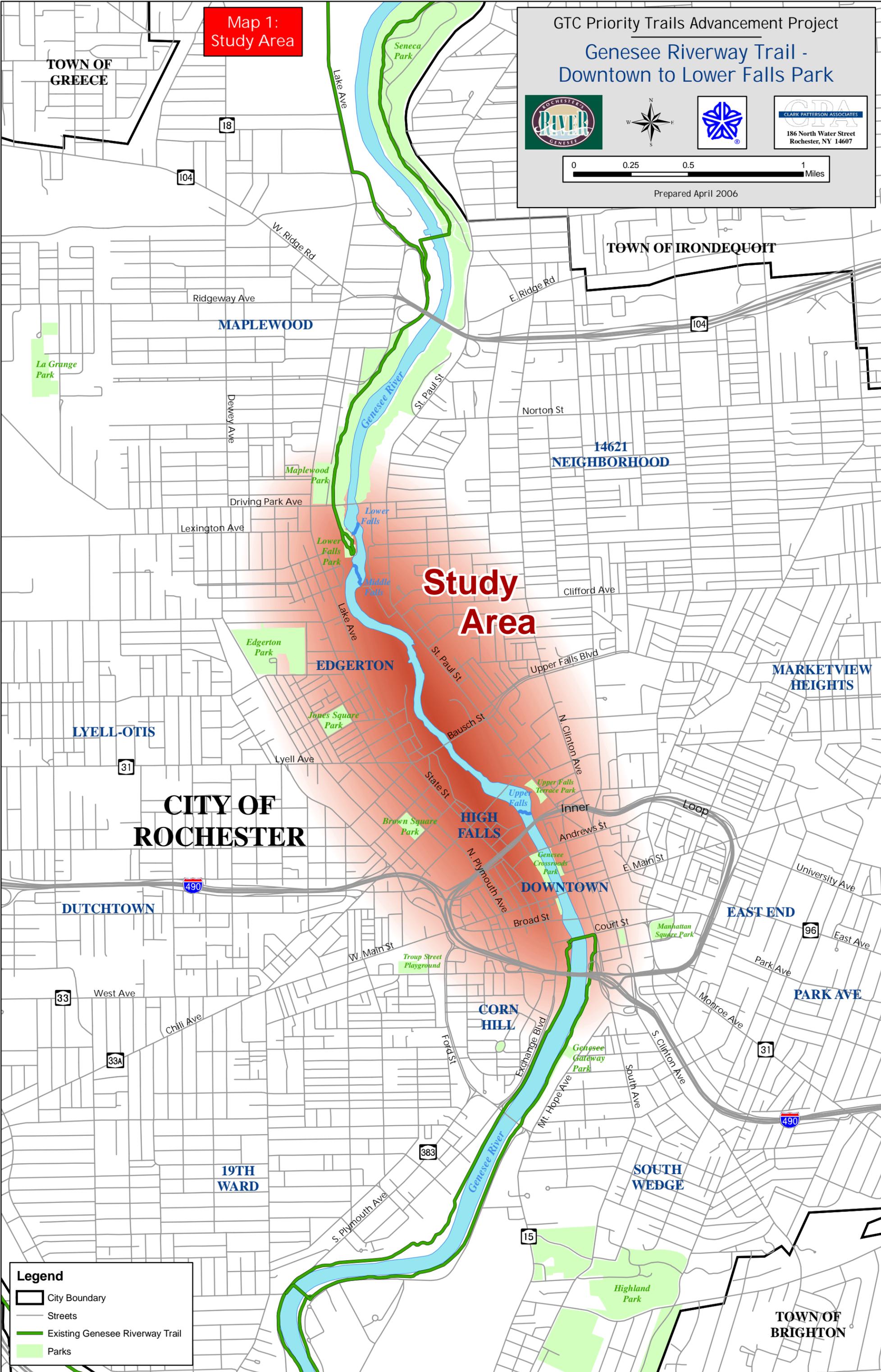
Map 1:
Study Area

GTC Priority Trails Advancement Project
Genesee Riverway Trail -
Downtown to Lower Falls Park



0 0.25 0.5 1 Miles

Prepared April 2006



Legend

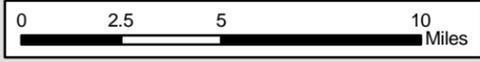
- City Boundary
- Streets
- Existing Genesee Riverway Trail
- Parks

TOWN OF BRIGHTON

Genesee Riverway Trail - Downtown to Lower Falls Park

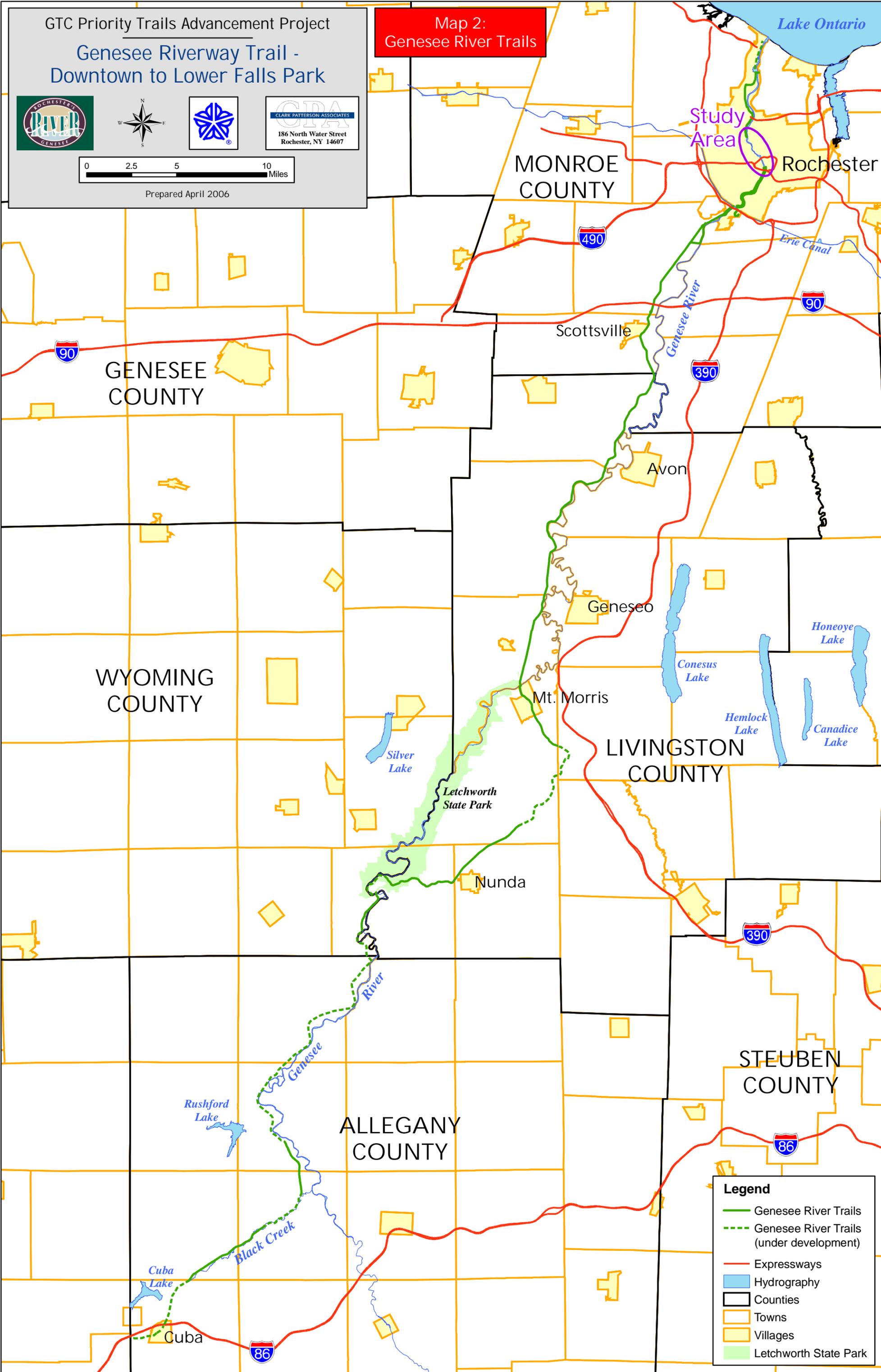


CLARK PATTERSON ASSOCIATES
186 North Water Street
Rochester, NY 14607



Prepared April 2006

Map 2: Genesee River Trails



Study Area

Lake Ontario

Rochester

MONROE COUNTY

490

Erie Canal

90

GENESEE COUNTY

Scottsville

390

Avon

WYOMING COUNTY

Geneseo

Conesus Lake

Honeoye Lake

Hemlock Lake

Canadice Lake

LIVINGSTON COUNTY

Mt. Morris

Letchworth State Park

Nunda

390

STEBEN COUNTY

ALLEGANY COUNTY

Rushford Lake

Black Creek

Cuba Lake

Cuba

86

86

Legend

- Genesee River Trails
- - - Genesee River Trails (under development)
- Expressways
- Hydrography
- Counties
- Towns
- Villages
- Letchworth State Park

**Map 3:
Study Area Segments**

GTC Priority Trails Advancement Project

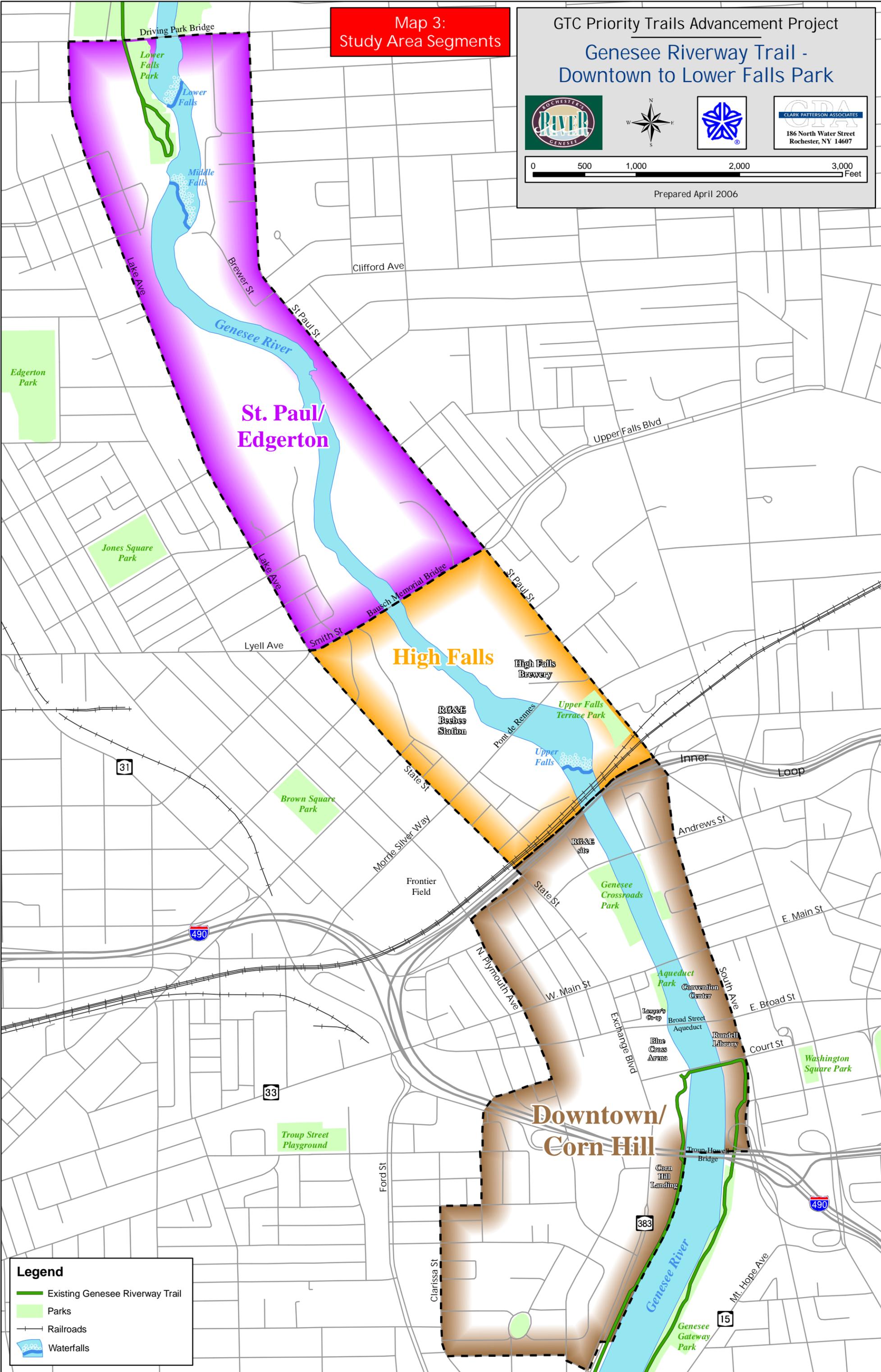
**Genesee Riverway Trail -
Downtown to Lower Falls Park**



CPA
CLARK PATTERSON ASSOCIATES
186 North Water Street
Rochester, NY 14607



Prepared April 2006



Legend

- Existing Genesee Riverway Trail
- Parks
- Railroads
- Waterfalls

MAPLEWOOD

Map 4:
Land Use

GTC Priority Trails Advancement Project

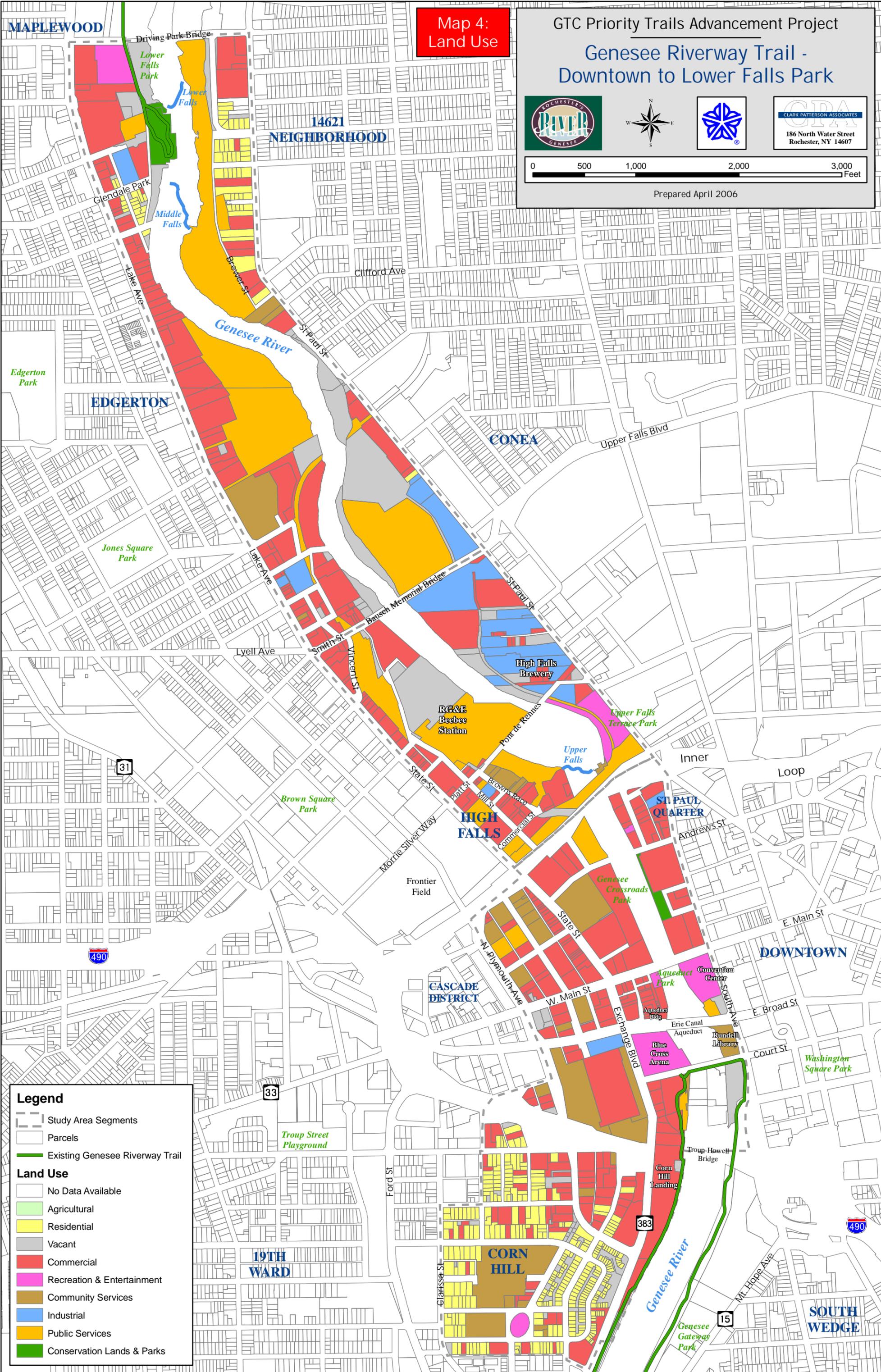
Genesee Riverway Trail -
Downtown to Lower Falls Park



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Rochester, NY 14607



Prepared April 2006



Legend

- Study Area Segments
- Parcels
- Existing Genesee Riverway Trail

Land Use

- No Data Available
- Agricultural
- Residential
- Vacant
- Commercial
- Recreation & Entertainment
- Community Services
- Industrial
- Public Services
- Conservation Lands & Parks

Edgerton Park

EDGERTON

Jones Square Park

31

490

14621 NEIGHBORHOOD

Clifford Ave

CONEA

Upper Falls Blvd

Lyle Ave

Smith St

Brown Square Park

RG&E Beebe Station

HIGH FALLS

Frontier Field

Morris Silver Way

CASCADE DISTRICT

N. Plymouth Ave

W. Main St

Aqueduct Park

Aqueduct Bldg

Erie Canal Aqueduct

Blue Cross Arena

Rundell Library

Convention Center

Exchange Blvd

Corn Hill Landing

Troup-Howell Bridge

Genesee Gateway Park

15

MI Hope Ave

DOWNTOWN

E. Broad St

E. Main St

Court St

Washington Square Park

South Ave

Inner Loop

Andrews St

Upper Falls Terrace Park

High Falls Brewery

Point de Reines

St Paul St

Upper Falls

ST PAUL QUARTER

Loop

SOUTH WEDGE

490

383

15

MAPLEWOOD

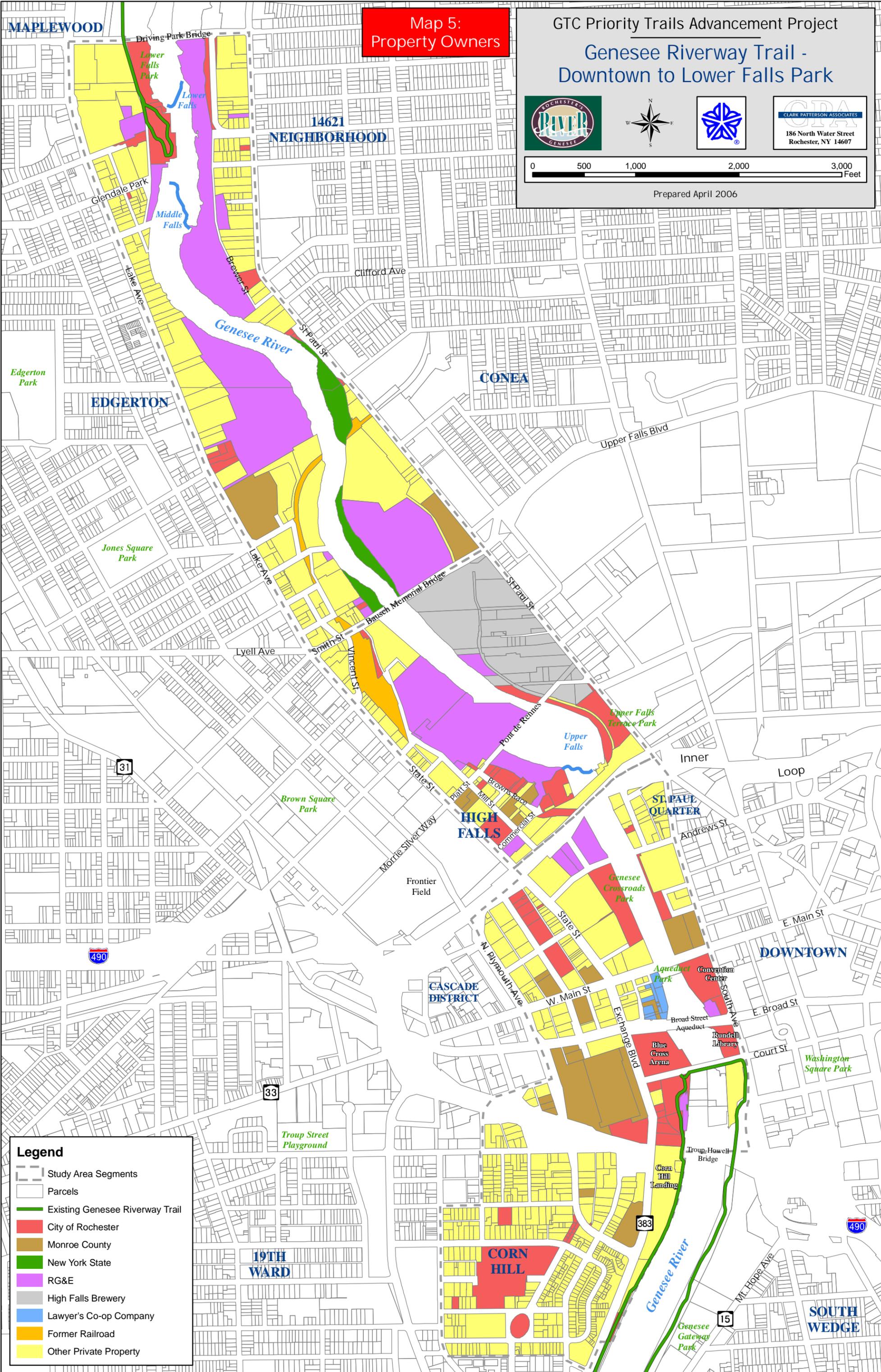
Map 5:
Property Owners

GTC Priority Trails Advancement Project

Genesee Riverway Trail -
Downtown to Lower Falls Park



Prepared April 2006



Legend

- Study Area Segments
- Parcels
- Existing Genesee Riverway Trail
- City of Rochester
- Monroe County
- New York State
- RG&E
- High Falls Brewery
- Lawyer's Co-op Company
- Former Railroad
- Other Private Property

14621
NEIGHBORHOOD

EDGERTON

CONEA

HIGH FALLS

ST. PAUL QUARTER

CASCADE DISTRICT

DOWNTOWN

CORN HILL

SOUTH WEDGE

19TH WARD

MAPLEWOOD

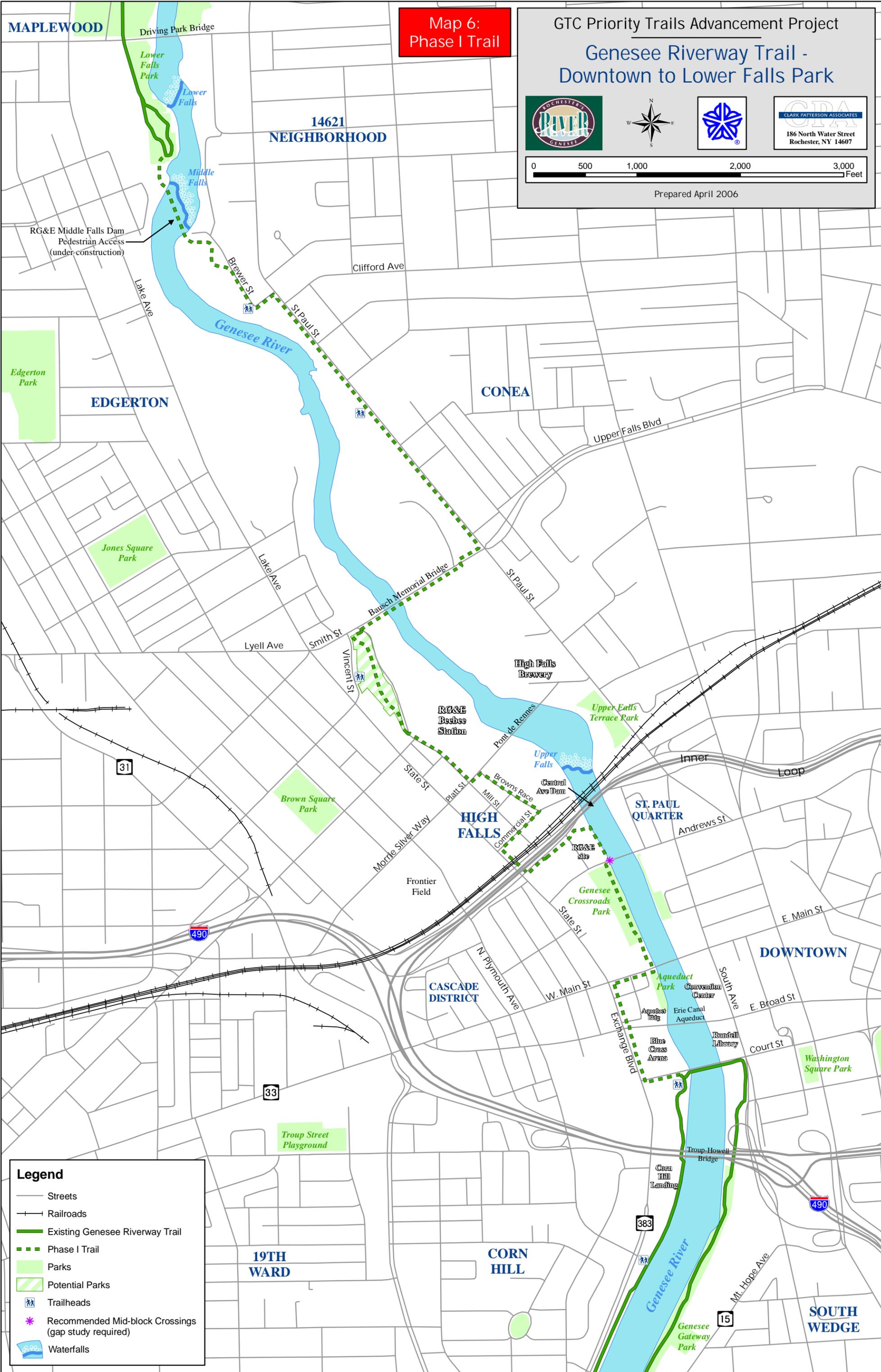
Map 6:
Phase I Trail

GTC Priority Trails Advancement Project

Genesee Riverway Trail -
Downtown to Lower Falls Park



Prepared April 2006



RG&E Middle Falls Dam
Pedestrian Access
(under construction)

Edgerton
Park

EDGERTON

Jones Square
Park

14621
NEIGHBORHOOD

CONEA

Brown Square
Park

HIGH
FALLS

ST. PAUL
QUARTER

CASCADE
DISTRICT

DOWNTOWN

CORN
HILL

19TH
WARD

SOUTH
WEDGE

Legend

- Streets
- Railroads
- Existing Genesee Riverway Trail
- - - Phase I Trail
- Parks
- ▨ Potential Parks
- Ⓜ Trailheads
- * Recommended Mid-block Crossings (gap study required)
- ☁ Waterfalls

MAPLEWOOD

Map 8:
Future Trail Options

GTC Priority Trails Advancement Project

Genesee Riverway Trail -
Downtown to Lower Falls Park



Prepared April 2006

Hastings Street
access (2 options)

14621
NEIGHBORHOOD

RG&E Middle Falls Dam
Pedestrian Access
(under construction)

Glendale
Park

Lake Ave

Genesee River

Lower Falls
Middle Falls

Upper Falls

Edgerton
Park

EDGERTON

Alternate riverfront
access

Westside
Riverway Trail

Jones Square
Park

CONEA

Butterhole Trail
(Rochester Running Track)

at grade crossing

below grade crossing

Future pedestrian
bridge

Upper Falls Blvd

Lyell Ave

Cliff St

Smith St

Vincent St

Bausch Memorial Bridge

High Falls
Brewery

Upper Falls
Terrace Park

Falls Street Spur
(steep grade)

Brown Square
Park

HIGH
FALLS

ST. PAUL
QUARTER

Inner Loop &
CSX Viaducts

DOWNTOWN

Inner Loop Tunnel/
Mill Street access

Frontier Field

Plymouth Avenue
Greenway

CASCADE
DISTRICT

Court Street to
Main Street

Convention Center

Erie Canal
Aqueduct

Rundell
Library

E. Broad St

Court St

Washington
Square Park

Corn Hill
Connector

Legend

- Streets
- Railroads
- Existing Genesee Riverway Trail
- Phase I Trail
- Future Trail Options
- Other Planned Connector Trails
- Parks
- Potential Parks
- Trailheads
- Recommended Mid-block Crossings (gap study required)
- Waterfalls

Troup Street
Playground

Historic
Corn Hill Walk

CORN
HILL

19TH
WARD

Edinburgh St

Atkinson St

Plymouth Ave

S. Fitzhugh St

Exchange Blvd

Trout-Howell
Bridge

Corn Hill
Landing

SOUTH
WEDGE

Genesee Gateway
Park

15

490

383

33

31

Appendix B:
Cost Estimate

LOCATION	COMPONENT	UNIT	UNIT COST	NUMBER	COST	SUBTOTAL BY SEGMENT
COURT to W. MAIN	Vehicular Directional Singage	EACH	\$ 800.00	2	\$ 1,600.00	\$ 6,840.00
	Trail Directional Sigange	EACH	\$ 2,500.00	2	\$ 5,000.00	
	Crosswalks (Ladder Style)	LF	\$ 3.00	80	\$ 240.00	
W. MAIN to ANDREWS	ADA Ramp	LF	\$ 300.00	50	\$ 15,000.00	\$ 32,300.00
	Interpretive Signage	EACH	\$ 1,500.00	1	\$ 1,500.00	
	Vehicular Directional Singage	EACH	\$ 800.00	1	\$ 800.00	
	Railings for Ramp	LF	\$ 20.00	100	\$ 2,000.00	
	Major Kiosk	EACH	\$ 6,500.00	2	\$ 13,000.00	
ANDREWS to INNER LOOP <i>Assumes bulkhead and railing are in satisfactory condition</i>	Crosswalks (Ladder Style)	LF	\$ 3.00	48	\$ 144.00	\$ 113,394.00
	Ramps	EACH	\$ 1,500.00	2	\$ 3,000.00	
	Concrete Walk	SF	\$ 10.00	5,000	\$ 50,000.00	
	Lighting	EACH	\$ 2,600.00	12	\$ 31,200.00	
	Trail Directional Sigange	EACH	\$ 2,500.00	2	\$ 5,000.00	
	Trees	EACH	\$ 450.00	10	\$ 4,500.00	
	Tree Grates	EACH	\$ 500.00	10	\$ 5,000.00	
	Benches	EACH	\$ 1,000.00	6	\$ 6,000.00	
	Trash Cans	EACH	\$ 350.00	3	\$ 1,050.00	
	Misc. Landscaping	EACH	\$ 7,500.00	1	\$ 7,500.00	
INNER LOOP to COMMERCIAL	Vehicular Directional Singage	EACH	\$ 800.00	1	\$ 800.00	\$ 3,300.00
	Trail Directional Sigange	EACH	\$ 2,500.00	1	\$ 2,500.00	
COMMERCIAL to BROWN	Major Kiosk	EACH	\$ 6,500.00	2	\$ 13,000.00	\$ 15,350.00
	Benches	EACH	\$ 1,000.00	2	\$ 2,000.00	
	Trash Cans	EACH	\$ 350.00	1	\$ 350.00	
BROWN to SMITH <i>Proposed park adjacent to Vincent Street</i>	Clearing of Debris	EACH	\$ 50,000.00	1	\$ 50,000.00	\$ 419,915.00
	Grading	EACH	\$ 20,000.00	1	\$ 20,000.00	
	Top Soil	CYARD	\$ 35.00	1,320	\$ 46,200.00	
	Grass Seeding	ACRE	\$ 2,000.00	2	\$ 4,500.00	
	Trail Head (TYP: Lower Falls Park J.Beck)	EACH	\$ 45,000.00	1	\$ 45,000.00	
	Asphalt Trail	SF	\$ 2.75	12,660	\$ 34,815.00	
	Lighting	EACH	\$ 2,600.00	26	\$ 67,600.00	
	Interpretive Signage	EACH	\$ 1,500.00	1	\$ 1,500.00	
	Trail Marker Signage	EACH	\$ 1,000.00	2	\$ 2,000.00	
	Trail Directional Sigange	EACH	\$ 2,500.00	1	\$ 2,500.00	
	Major Kiosk	EACH	\$ 6,500.00	1	\$ 6,500.00	
	Overlook Railing	LF	\$ 150.00	160	\$ 24,000.00	
	Railing for Eastern Slope	LF	\$ 60.00	1,250	\$ 75,000.00	
	Trash Cans	EACH	\$ 350.00	4	\$ 1,400.00	
	Benches	EACH	\$ 1,000.00	8	\$ 8,000.00	
	Bollard Series (3 Per Series)	EACH	\$ 1,500.00	1	\$ 1,500.00	
	Trees	EACH	\$ 450.00	32	\$ 14,400.00	
Misc. Landscaping	EACH	\$ 15,000.00	1	\$ 15,000.00		
BAUSCH MEMORIAL BRIDGE¹	Barrier - DOT Steel	LF	\$ 125.00	1,000	\$ 125,000.00	\$ 203,700.00
	Lighting	EACH	\$ 2,600.00	24	\$ 62,400.00	
	Interpretive Signage	EACH	\$ 1,500.00	1	\$ 1,500.00	
	Vehicular Directional Singage	EACH	\$ 800.00	2	\$ 1,600.00	
	Major Kiosk	EACH	\$ 6,500.00	1	\$ 6,500.00	
	Benches	EACH	\$ 1,000.00	6	\$ 6,000.00	
	Trash Cans	EACH	\$ 350.00	2	\$ 700.00	
BAUSCH/ST. PAUL/BREWER	Vehicular Directional Singage	EACH	\$ 800.00	1	\$ 800.00	\$ 16,300.00
	Interpretive Signage	EACH	\$ 1,500.00	1	\$ 1,500.00	
	Trail Directional Sigange	EACH	\$ 2,500.00	2	\$ 5,000.00	
	Benches	EACH	\$ 1,000.00	6	\$ 6,000.00	
	Misc Concrete	SF	\$ 10.00	300	\$ 3,000.00	
BREWER STREET TO DAM	Trail, landscaping, and signage ²	EACH	\$ 400,000.00	1	\$ 400,000.00	\$ 400,000.00
Subtotal Construction					\$ 1,211,099.00	\$ 1,211,099.00
Design				10%	\$ 121,109.90	
Construction Management				10%	\$ 121,109.90	
Contingency				20%	\$ 242,219.80	
Preliminary Cost Estimate					\$ 1,695,538.60	

Note that land acquisition costs are not included in the estimate.

¹ Improvements listed do not include bridge reconstruction costs, which are part of a separate project

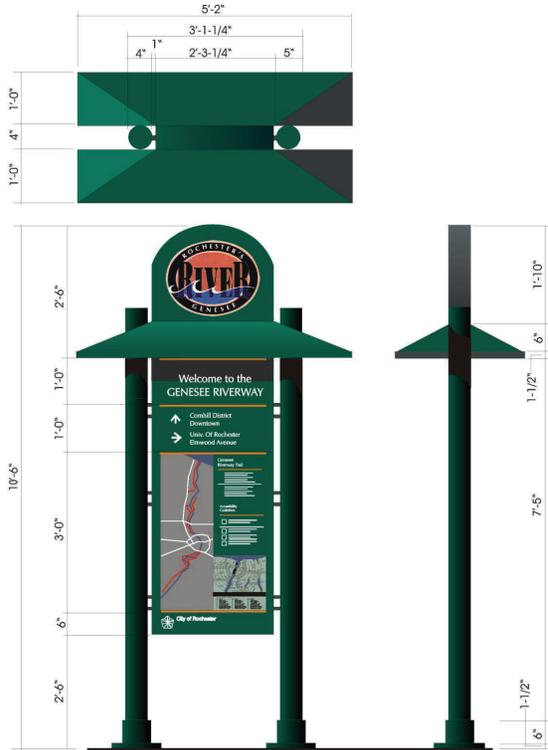
² The estimate for trail development on the RG&E property along Brewer Street was provided as a lump sum by the City of Rochester

Appendix C:
Trail Signage Standards

Sample Genesee Riverway Trail signage



Provided by City of Rochester
Department of Environmental Services



NOTES:

1. Fabrication will include aluminum box panel core, fused resin changeable message panels, aluminum awning and aluminum posts. Art for Genesee Riverway Trail logo and all changeable panel graphics will be furnished by owner.
2. See drawings SS-2 through SS-5 for fabrication and installation details.

Type A-1 Major Pedestrian Kiosk	
Genesee Riverway Trail Signage	SS-1



NOTES:

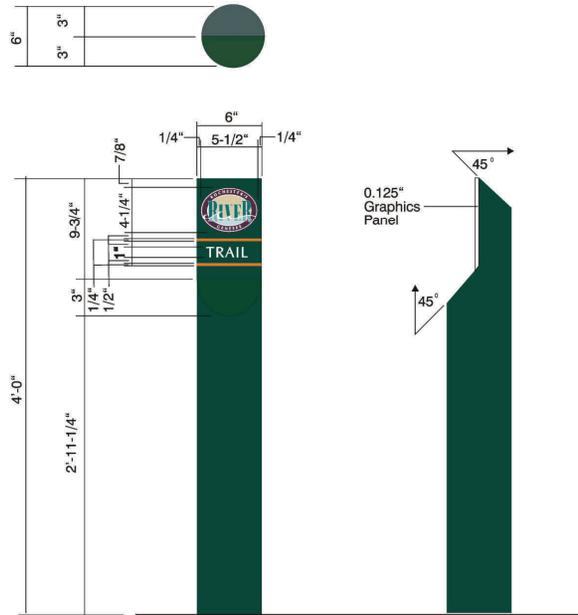
1. Materials and Fabrication same as Type B-1.
2. Colors, GRT logo and typefaces same as Type B-1.
3. Owner will provide art on disk of all logos to be used on Directional Signage.
4. See Drawing SS-11 for detail of face plate connection.
5. See Drawing SS-10 for layout detail.

Type D-1 Trail Directional	
Genesee Riverway Trail Signage	SS-9

Sample Genesee Riverway Trail signage



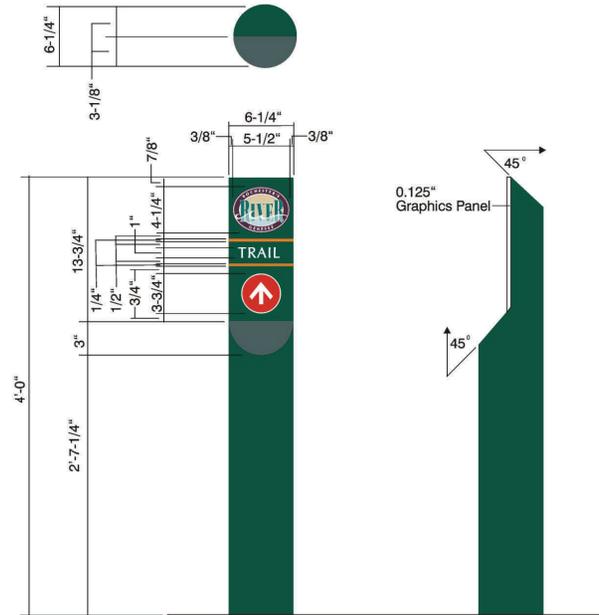
Provided by City of Rochester
Department of Environmental Services



NOTES:

1. Sign Post to be 6" Diameter Aluminum with angled planes fabricated as shown above.
2. Message Panel to be GRT Logo applied on .125" thick solid composite phenolic panel and beveled on top and bottom edges to match angle of bollard top and bottom shelf. Graphic rules to bleed right and left. All exposed edges to be sanded and painted to match color C-1. Attach message panel with 3M brand .020" thick VHB adhesive over 100% of back surface.
3. Post to be direct embedded into 42" deep, 16" diameter, concrete footer unless otherwise noted in Message Schedule. Footer to be flush with surrounding grade and follow the existing grade.
4. See detail SS-15 for special removable mount installation details.

Type F-1 Trail Marker	
Genesee Riverway Trail Signage	S-14



NOTES:

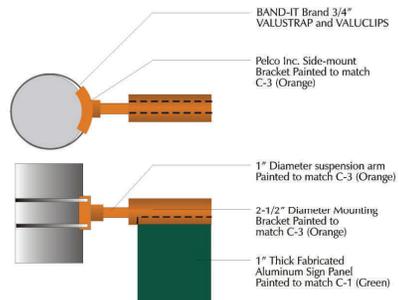
1. Materials, fabrication and installation same as Type F-1.
2. Sign content may include between one and four circular arrow symbols. Where more than one arrow symbol is employed, each symbol will be 1-1/2" diameter.

Type F-3 Directional Trail Marker	
Genesee Riverway Trail Signage	SS-18

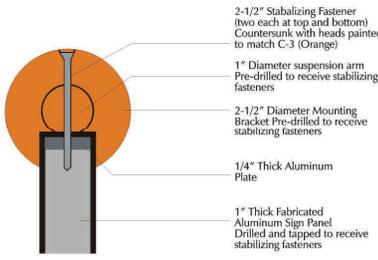
Sample Genesee Riverway Trail signage



Provided by City of Rochester
Department of Environmental Services



Light Pole Mounting Detail

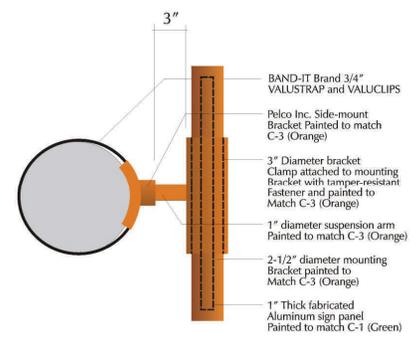
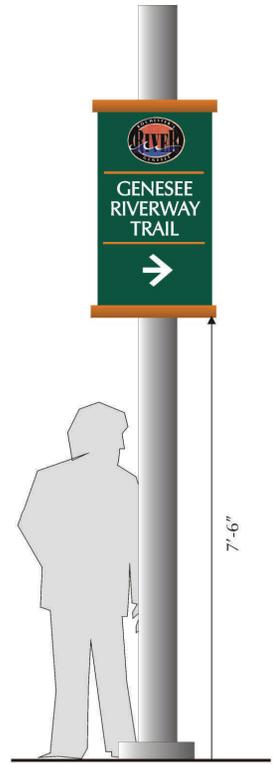


Panel/ Mounting Bracket Connection

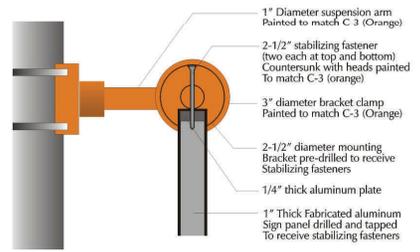
NOTES:

1. Sign Panel to be fabricated aluminum with applied reflective vinyl graphics.
2. Colors, GRT logo and typefaces same as Type B-1.

Type PD Pedestrian Directional	
Genesee Riverway Trail Signage	SS-25



Light Pole Mounting Detail



Panel/ Mounting Bracket Connection

NOTES:

1. Sign Panel to be fabricated aluminum with applied reflective vinyl graphics.
2. Colors, GRT logo and typefaces same as Type B-1.

Type VD Vehicular Directional Mounting Detail	
Genesee Riverway Trail Signage	SS-27

Sample Genesee Riverway Trail signage



Provided by City of Rochester
Department of Environmental Services



NOTES:

1. Materials, fabrication and mounting same as Type PD.

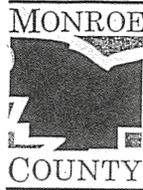
Type VD Vehicular Directional	
Genesee Riverway Trail Signage	SS-26



Type PD Pedestrian Directional Layout Detail	
Genesee Riverway Trail Signage	SS-24

Appendix D:

Monroe County DOT Memo -
Court Street Crossing



Department of Transportation

ENVIRONMENTAL SERVICES
ENGINEERING OFFICE
2000 APR 20 AM 11:15

Jack Doyle
County Executive

Frank L. Dolan, P.E.
Director of Transportation

April 18, 2000

*Jeff, Make modifications
as necessary & bring to
JCB at next meeting for
curb cut & HRT approvals.*

Mr. George H. Stam, P.E.
City Engineer
City Hall, Room 300-B
30 Church Street
Rochester, New York 14614

Analysis	<input checked="" type="checkbox"/> Secretary File
Bridges	<input type="checkbox"/> Distribute
Construction	<input type="checkbox"/> For Your Info
Development	<input type="checkbox"/> Reply for my signature
Financial	<input type="checkbox"/> Comments
Maps & Surveys	<input type="checkbox"/> Read and Pass On
Permits	<input type="checkbox"/> Discuss with me
Streets	<input checked="" type="checkbox"/> Follow Through
Street Lighting	<input type="checkbox"/>
Transp. Spec.	<input type="checkbox"/> 4/24

RE: COURT STREET - CURB ALTERATIONS AND CROSSWALK

Dear Mr. Stam: *George*

Thank you for the opportunity to review the revised site plan for the proposed curb alterations opposite the War Memorial on Court Street just east of Exchange Street. We concur with the proposed curb cut alterations as shown on the site plan.

We conducted a gap analysis study, during the a.m., noon, and p.m. peak periods, at the proposed crosswalk location and found adequate gaps for the a.m. and noon, but not in the p.m. period. We also identified 195 pedestrians crossing Court Street at or near the location of the proposed crosswalk. Although there are inadequate gaps for pedestrians to cross the entire width of Court Street during the p.m. period, pedestrians actually only need to cross 20 feet because parking is taking place. Also, we concur with the proposed installation of the crosswalk because it is not reasonable that the pedestrians will walk west to Exchange Street and cross there with the signal.

The following are additional comments regarding the proposed signs, pavement markings, etc:

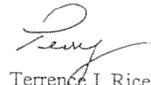
- We need to see a maintenance and protection of traffic plan.
- Who will be doing the signing and pavement marking work? We assume the developer.
- The advance pedestrian warning signs (W5-1C) for eastbound and westbound traffic should be located on light poles as per the attached copy of the drawing.
- The pedestrian crossing sign (W5-2C) for westbound traffic should be located on the adjacent light pole as per the attached drawing.
- At least 20 feet is needed for clearance between the crosswalk and the metered parking spaces adjacent to the east.

)
Mr. George H. Stam, P.E.
Page 2
April 18, 2000

- The existing double yellow center line needs to be removed where the crosswalk is to be striped.

Should there be any questions regarding our review, please contact Charles DiSalvo or me.

Sincerely,



Terrence J. Rice, P.E.
Chief Transportation Engineer

TJR:DPH:ltp

Enc.

cc: F. Dolan
P. Lanning
C. DiSalvo

Prepared by:

