



**GENESEE RIVERWAY
& EASTMAN TRAILS**

**PLANNING & PRELIMINARY DESIGN STUDY
FOR THE CITY OF ROCHESTER**

JANUARY 2013

Prepared by:





TABLE OF CONTENTS

EXECUTIVE SUMMARY

| | | |
|------|-------------------------|-----|
| ES.1 | Project Overview | i |
| ES.2 | Community Benefits..... | i |
| ES.3 | Planning Process | iii |
| ES.4 | Recommendations | iv |
| ES.5 | Trail Funding..... | vi |

SECTION 1: INTRODUCTION 1

| | | |
|-----|---------------------------------------|---|
| 1.1 | Project Overview | 1 |
| 1.2 | Local and Regional Significance | 2 |
| 1.3 | Planning Process | 3 |

SECTION 2: INVENTORY & ANALYSIS 5

| | | |
|-----|---|----|
| 2.1 | General Description of the Study Area | 5 |
| 2.2 | Land Use..... | 5 |
| 2.3 | Land Ownership..... | 7 |
| 2.4 | Community Features..... | 8 |
| 2.5 | Transportation Network..... | 13 |
| 2.6 | Environmental Features..... | 19 |
| 2.7 | Eastman Business Park..... | 24 |
| 2.8 | Relevant Local Plans & Projects | 33 |
| 2.9 | Inventory & Analysis Conclusions..... | 39 |

SECTION 3: DESIGN CONSIDERATIONS 41

| | | |
|-----|--|----|
| 3.1 | Users, Dimensions, & Materials..... | 41 |
| 3.2 | Bicycle Use | 47 |
| 3.3 | Amenities..... | 49 |
| 3.4 | Signage..... | 51 |
| 3.5 | Safety | 51 |
| 3.6 | Ownership & Maintenance..... | 53 |
| 3.7 | Mt. Read Boulevard Pedestrian Bridge | 55 |



SECTION 4: TRAIL ALIGNMENT ALTERNATIVES..... 57

- 4.1 Overview.....57
- 4.2 Eastman Trail.....57
- 4.3 Genesee Riverway Trail.....64

SECTION 5: RECOMMENDED ALIGNMENT & DESIGN 79

- 5.1 Overview.....79
- 5.2 Eastman Trail Implementation Plan81
- 5.3 Eastman Trail Future Considerations.....85
- 5.4 Genesee Riverway Trail Implementation Plan86
- 5.5 Genesee Riverway Trail Future Considerations.....89
- 5.6 Mt. Read Boulevard Pedestrian Bridge Replacement100
- 5.7 Erie Canalway Trail Connections.....102

SECTION 6: PROJECT FUNDING & COST ESTIMATE..... 105

- 6.1 Overview.....105
- 6.2 Federal Sources.....105
- 6.3 State Sources.....108
- 6.4 Local Sources110
- 6.5 Private and Community Foundations.....110
- 6.6 Private Funding.....111
- 6.7 Implementation Techniques.....112
- 6.8 Planning-Level Cost Estimate112

**APPENDIX A: REPORT ON KEY INTERPRETIVE OPPORTUNITIES
& ENHANCEMENT OF THE TRAIL USER EXPERIENCE**

APPENDIX B: PUBLIC OUTREACH MEETING NOTES



LIST OF MAPS

| | |
|---|------------------------|
| Map 1: Regional Overview..... | Fold out after Page 6 |
| Map 2: Land Use | Fold out after Page 6 |
| Map 3: Land Ownership | Fold out after Page 8 |
| Map 4: Community Features | Fold out after Page 8 |
| Map 5: Transportation Network..... | Fold out after Page 18 |
| Map 6: Environmental Features | Fold out after Page 18 |
| Maps 7-01: EBP—Ridgeway & Lee/Latona | 26 |
| Maps 7-02: EBP—Mt. Read & Ridgeway | 27 |
| Maps 7-03: EBP—Ridge & Mt. Read..... | 28 |
| Maps 7-04: EBP—Ridge & Dewey..... | 30 |
| Maps 7-05: EBP—Lake & Ridge | 31 |
| Maps 8-01 to 8-10: Alternatives | 68-77 |
| Map 9: Recommended Alignment..... | Fold out after Page 78 |
| Maps 10-01 to 10-10: Recommended Alignment..... | 90-99 |
| Map 11: Erie Canalway Trail Connections..... | 103 |

We wish to thank the many people who participated in the development of this Study.

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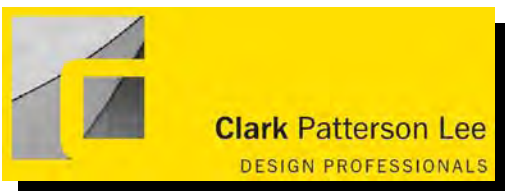
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EXECUTIVE SUMMARY

ES.1 PROJECT OVERVIEW

The Urban Trail Linkages Eastman and Genesee Riverway Trails Planning and Preliminary Design Study (hereafter the UTL, Eastman Trail, or Genesee Riverway Trail) is an exploration of the feasibility of two distinct but interrelated trail concepts in the City of Rochester: the Genesee Riverway Trail, which entails an off-road alternative to an existing sidepath trail segment (also sometimes referred to as an on-road trail), and the Eastman Trail, which would link the planned Route 390 Trail extension to the Genesee Riverway Trail through or adjacent to the Eastman Business Park. The City was awarded funds from the Genesee Transportation Council (GTC) to work with a planning consultant and assemble a committee of stakeholders to guide the process and arrive at recommended alignments, design standards, and planning-level cost estimates.

ES.2 COMMUNITY BENEFITS

The Eastman and Genesee Riverway Trails would provide tremendous benefits to adjacent neighborhoods and business districts, as well as the Greater Rochester Region. Below is an overview of how these proposed trails could enhance the quality of life and transportation alternatives for the community.

Public Health

Numerous studies have linked specific health problems (diabetes, cardiovascular disease, chronic depression, etc.) with the lack of physical activity. Part of the solution to these health risks is to make active transportation (walking and/or biking) more appealing and accessible in our communities. Multi-use trails are central to this effort, as are improving sidewalk networks and investing in vibrant, pedestrian-oriented business districts. Trails provide opportunities for recreational walking, hiking, and biking. A well connected trail network can also be utilized by bicycle commuters, incorporating consistent exercise into their daily routine.

While the Greater Rochester Region boasts the most extensive network of multi-use trails of any Upstate New York city, there remain many gaps in the network and several underserved neighborhoods. The City of Rochester intends to fill in all the gaps in the Genesee Riverway Trail (GRT) and transform all on-road segments to off-road trails that are as close to the river as possible. This would ensure greater use of this regional asset, promoting healthier lifestyles. Similarly, the Eastman Trail would connect the Eastman Business Park (EBP), a major employment center, to the GRT, Route 390 Trail, and ultimately the Erie Canalway Trail. This would create greater opportunities for active transportation for EBP employees and nearby residents.

Regional Significance

Both trails examined in this Study have impacts on the regional trail network. Once completed, they would be part of a large-scale trail loop system serving the west side of the City of Rochester and the east side of the Town of Greece. This loop would be formed by the Route 390 Trail, Lake Ontario State Parkway Trail, Genesee Riverway Trail, and Erie Canalway Trail. The Eastman Trail would bisect that loop forming two smaller loops and offering greater access to the interior. From a local perspective, people and businesses near the Eastman or Genesee Riverway Trails would benefit from enhanced non-motorized connectivity to the rest of the Rochester region.

Economic Development

Multi-use trails are economic development engines. Multiple studies of trails in various settings have illustrated how active transportation facilities generate tourism for the region and bring patrons to nearby businesses. In a less tangible sense, they also contribute to the culture of a community—whether or not it is a place known for its recreation, active lifestyles, accessible natural features, and transportation alternatives. Cities like Boulder, Austin, Seattle, Ithaca, Portland, Burlington, and Asheville are examples of places that boast these characteristics, which contributes to various publications consistently ranking them as “best cities” or “emerging destinations”. In addition, proximity to trail corridors is often linked to increased property values, especially if there is direct access to the trail.

Environmental Stewardship

Rochester boasts a tremendous natural asset in the Genesee River and its gorge. Much of the river corridor is isolated due to the steep walls of the gorge. While this isolation aids in preserving the habitat, it also hinders access. Improving low-impact access facilities like multi-use trails give people the opportunity to engage this unique natural environment without significantly compromising its health. The GRT in particular is an ideal means to bring people to the river and its wooded surroundings and can be used for education and fostering stewardship. While the Eastman Trail is proposed to mainly traverse urbanized environments, the western segment along the former Erie Canal bed is a serene wooded setting that offers opportunities for nature hikes and appreciating the history of the canal.

Lively Communities

Trails can foster greater human interaction and a sense of pride in the community. While society has trended towards more private and sedentary lifestyles, multi-use trails and the larger active transportation movement are aimed at bringing people out of their homes, into nature, and engaged with their community. Whether it be chance encounters with neighbors or more frequent patronage to local small businesses, a bicycle and pedestrian friendly environment is a key component in creating vibrant places. In addition, such environments are excellent opportunities for interpretive signage and interactive installations related to the community’s history, natural assets, and, in the case of Eastman Kodak, their unique industrial heritage.

ES.3 PLANNING PROCESS

In 2011, the City of Rochester, in cooperation with GTC and the Genesee Land Trust, formed a Project Advisory Committee (PAC). The City hired the consultant team of Clark Patterson Lee, McCord Snyder Landscape Architecture, and Jane Clark Chermayeff and Associates to work with the PAC on the UTL Study.

The PAC consisted of various local stakeholders such as representatives from the neighborhood, the local bicycle advocacy organization, NYSDOT, Genesee Land Trust, and the Town of Greece. From the onset, there were extensive communications with the larger landowners in the Study Area. EBP in particular was represented on the PAC and attended several meetings and site visits with the project team. The Acknowledgements page after the Table of Contents lists all members of the PAC.

A unique aspect of this multi-use trail study was the exploration of interpretive opportunities, such as stewardship of the natural environment and celebration of Kodak's industrial heritage. One of the early site visits was focused on these interpretive opportunities. The City Historian and representatives from the George Eastman House and the Landmark Society of Western New York attended and lent their expertise and ideas to the project team. The interpretive opportunities are discussed in depth in Appendix A.

The early stages of the project were focused on site visits and data collection. This resulted in a series of detailed maps and associated narrative found in Section 2. Issues explored included sensitive environmental features, land use patterns, land ownership, relevant local plans and projects, and connectivity to other modes in the transportation network. This information, along with a generalized conceptual trail corridor, was presented to the public at a workshop in October 2011.

Through a combination of site visits, stakeholder meetings, and project team meetings, the PAC developed a series of trail alignment alternatives for the Study Area (see Section 4). These alternatives were also influenced by feedback received at the first public workshop. All alternatives were documented, whether feasible or highly unlikely, and examined in terms of pros and cons for each. These alternatives were also presented to the public at a workshop in September 2012 to refine the ideas and progress towards a consensus recommended alignment.

After examining the alternatives in depth, the PAC developed a recommended alignment which has a balanced consideration of cost-effectiveness, land-owner cooperation, direct routing, sensitivity to neighbors, and timely completion. This recommended alignment is a planning-level concept, as is the associated cost estimate in Section 6. A more detailed design will be necessary once funding is secured, and that may result in modifications to the trail's location.

ES.4 RECOMMENDATIONS

Eastman Trail

The recommended alignment for the Eastman Trail connects the planned Route 390 Trail in the west to the GRT in the east. While a primary objective of the City and the PAC was to identify a feasible off-road trail, it was determined that much of EBP is not a feasible location for a multi-use trail at this time. EBP representatives expressed concern that the trail might jeopardize future growth opportunities on key sites slated for redevelopment. They also expressed concerns about liability and the trail's proximity to sensitive infrastructure such as above ground pipe networks.

There are, however, sections at the east and west ends of EBP identified as feasible locations for an off-road trail, but at this time an on-road bike route was identified as the only alternative between these off-road segments. An off-road segment through the heart of EBP was explored and a conceptual alignment developed. This alternative should be retained for future consideration should conditions change.

The recommended alignment consists of:

- An off-road trail along the former Erie Canal bed from the northeast corner of Latona Road and Ridgeway Avenue to the intersection of Weiland Road and Ridgeway Avenue;
- An on-road bike route along Ridgeway Avenue from Weiland Road to Aster Street, then along Aster Street from Ridgeway Avenue to Rand Street;
- An off-road trail along the EBP's buffer area behind the Rand Street residences (former DeNeve Street) from Aster Street to Dewey Avenue;
- An on-road bike route along Dewey Avenue from the former DeNeve Street to Eastman Avenue, then along Eastman Avenue from Dewey Avenue to the EBP Lot 42 access road, then along the EBP Lot 42 access road from Eastman Avenue into the abandoned portion of EBP Lot 42;
- An off-road trail along the western and northern edges of EBP Lot 42 from the access road to Merrill Street; and
- An on-road bike route along Merrill Street from the Lot 42 to Lake Avenue.

Additional recommendations for the Eastman Trail include:

- Interpretive installations at various points along the trail, celebrating the industrial heritage of Eastman Kodak Company and the original alignment of the Erie Canal (see Appendix A for specific ideas);
- A future connection from the Eastman Trail and Route 390 Trail west to the Erie Canalway Trail (see Map 11);
- Landscaping enhancements to the trail in EBP Lot 42, such as a wider landscaped corridor than is typically used for trails and vegetative screening to help beautify the industrial landscape and attract trail users; and
- A trail head with kiosks, seating, parking, landscaping, and other amenities, located at Latona Road and Ridgeway Avenue.

Genesee Riverway Trail

The recommended alignment for the GRT achieves additional off-road segments of the trail, but not for the entire length of the Study Area. While a primary objective was to relocate the entire sidepath segment along Lake Avenue to an off-road location, some segments were not deemed feasible at this time. The segment behind EBP Building 81 and the adjacent residences is hindered by the lack of space on RG&E property with limited or no slope. Also, the proposed segment along the existing cemetery roads in Holy Sepulchre Cemetery is not feasible at this time due to the concerns of the cemetery owners. That option was retained as a future consideration, should conditions change.

There are, however, three off-road segments within the Study Area that are desirable and feasible, but at this time the existing GRT sidepath on Lake Avenue was identified as the only feasible connection between these segments. Additionally, it is recommended that the Eastman and Genesee Riverway Trails form their junction at Merrill Street and Lake Avenue. A trail head is located just north of that intersection, which can provide wayfinding signage and information on each trail.

The recommended alignment consists of:

- An off-road trail through the City-owned King's Landing Cemetery, from the north end of the existing off-road GRT to Lake Avenue;
- Retaining the existing GRT from King's Landing Cemetery to St. Bernard's Park Apartments, which is a sidepath along the east side of Lake Avenue;
- An off-road trail through the St. Bernard's Park Apartments property, connecting at both ends to the sidepath on Lake Avenue and consisting of a new ADA-compliant entrance path at the south end of the property plus enhancements to the non-ADA compliant existing trail behind St. Bernard's;
- Retaining the existing GRT from the north end of St. Bernard's Park Apartments to the entrance to the City-owned Riverside Cemetery, which is a sidepath along the east side of Lake Avenue;
- An off-road trail utilizing the existing cemetery roads in Riverside Cemetery, from Lake Avenue to the eastern edge of the cemetery road network; and
- An off-road trail through Bullock's Woods in Riverside Cemetery, from the eastern edge of the cemetery road network to the existing GRT in Turning Point Park (this may or may not be built in conjunction with the planned cemetery road extension).

Additional recommendations for the Eastman Trail include:

- Interpretive installations at various points along the trail, celebrating the industrial heritage of Eastman Kodak Company, the natural beauty of the Genesee River Gorge, and the history found in the three cemeteries (see Appendix A for specific ideas);
- Widening existing sidewalks and trails to the recommended 10 to 12 feet where feasible; and
- A trail head with kiosks, seating, parking, landscaping, and other amenities, located adjacent to King's Landing Cemetery.

ES.5 TRAIL FUNDING

The cost estimate provided in Section 6 is for planning purposes to allow the City of Rochester to gauge the approximate cost for developing the multi-use trail segments as presented in this Study. The actual location and design of the trail may change once the project reaches the design stage. As well, construction costs are subject to change. Dollar figures included are from 2012; escalation due to inflation or other factors is not included.

The total planning-level cost estimate for the Eastman Trail recommended alignment is \$2,982,551. The total planning-level cost estimate for the GRT recommended alignment is \$1,149,669. The two trails together would cost approximately \$4.1 million. These estimates assume the acquisition of easements on EBP and Unity Health (St. Bernard's) property rather than an outright purchase of the land.

Section 6 also provides a variety of ideas for funding sources. These include grant programs and capital programs at the federal, state, and local level. An overview of each program is provided, but funding levels and requirements for any of the programs could change from year to year. Project advocates from the City and community should be sure to check for updates. Additionally, there may be non-traditional sources that could assist with development of the trail, including community foundations, public health organizations, and corporate sponsors. The development and use of this trail will be most successful if multiple community partners are involved and thus vested in its use and preservation.



SECTION 1 INTRODUCTION

1.1 PROJECT OVERVIEW

The Urban Trail Linkages Eastman and Genesee Riverway Trails Planning and Preliminary Design Study is one of several projects in the Unified Planning Work Program (UPWP) established by the Genesee Transportation Council (GTC). The project has been funded with federal transportation planning funds and local funds. This feasibility study explores the viability of two distinct but interrelated trail segments:

- Eastman Trail, connecting the planned Route 390 Trail extension to the Genesee Riverway Trail; and
- Genesee Riverway Trail, establishing an off-road segment to augment an existing sidepath segment within the larger 18-mile long trail.

Consideration in this Study is given to various alignment alternatives, design standards and guidance, and phasing strategies.

The Study Area for the Urban Trail Linkages Eastman and Genesee Riverway Trails Planning and Preliminary Design Study (hereafter the UTL, Eastman Trail, or Genesee Riverway Trail) is situated mostly in the City of Rochester, with a small portion located in the Town of Greece (see Map 1). The Eastman Trail Study Area is approximately 3.3 miles in length, stretching from NYS Route 390 in the west to Lake Avenue in the east. This area is largely comprised of the Eastman Business Park (former Kodak Park), a sprawling industrial campus that is home to dozens of small businesses in addition to the remaining operations of Eastman Kodak Company. It is surrounded by large residential areas in the City of Rochester and the Town of Greece, and is bisected by a major regional corridor, Route 104 (West Ridge Road). There is little or no dedicated public greenspace or recreation facilities in this portion of the Study Area.

The Genesee Riverway Trail Study Area overlaps the eastern edge of the Eastman Trail Study Area and is approximately 1.6 miles in length. It contains the lands adjacent to the existing Genesee Riverway Trail's sidepath segment, from Maplewood Drive in the south to Turning Point Park in the north. This area also contains portions of the Eastman Business Park (EBP), as well as three cemeteries and a large assisted living complex (former St. Bernard's Seminary).

1.2 LOCAL AND REGIONAL SIGNIFICANCE

Eastman Trail

The regional significance of the Eastman Trail is closely tied to existing and proposed segments of other multi-use trails in the region. With the planned extension of the Route 390 Trail from NYS Route 104 south to the Erie Canalway Trail, a major gap in the regional trail network would be closed. More specifically, it would close the last major gap in the region's first large-scale loop trail, serving the west side of the City and the east side of the Town of Greece.

The existing Route 390 Trail extends all the way north to the Lake Ontario State Parkway Trail (LOSP Trail). The LOSP Trail follows the Parkway near the shore of Lake Ontario east to the Charlotte neighborhood in the City of Rochester. Through a brief on-road route, the LOSP Trail connects with the northern end of the Genesee Riverway Trail (GRT) in Charlotte. The GRT is a 18-mile long trail system that connects to the Erie Canalway Trail on the southern edge of the City.

Although this large-scale loop trail will be a major achievement for non-motorized transportation in the region, the loop is approximately 9.5 miles long from the north end to the south end, without any east-west trail connections in between. The proposed Eastman Trail would provide a beneficial east-west link at about the mid-point of the larger loop. It would also represent the first east-west oriented trail within the City of Rochester.

From a local perspective, the Eastman Trail would provide numerous benefits. Despite the primarily industrial nature of the Study Area, it is flanked by extensive neighborhoods to the north in Greece and to the south in Rochester. This area is notably lacking in parks, trails, and other outdoor recreational facilities for residents. The Eastman Trail would provide such a facility and connect these neighborhoods to the regional network of trails. Residents would benefit from greater opportunities for exercise, connecting with nature, community engagement, connecting with Eastman Kodak's proud heritage, and greater walking or biking access to businesses in the area. Additionally, both residents and commuters would benefit from greater opportunities to choose alternative modes of transportation, promoting sustainability and resiliency.

Genesee Riverway Trail

The GRT, which continues on to the 84-mile long Genesee Valley Greenway to the south, and the Erie Canalway Trail represent two of the largest multi-use trail corridors in New York State. The GRT is a network of riverside trails on both sides of the Genesee River as well as several small neighborhood linkages. There are a few small gaps remaining in the overall network, including some on-road sections.

From Maplewood Drive north to Turning Point Park, the GRT is comprised of an 8-foot wide sidewalk on the east side of Lake Avenue, known as a sidepath. There is a brief off-road trail paralleling the sidepath segment behind the former St. Bernard's Seminary, but

it is narrow in places and has some slopes that exceed the maximum standards established by the Americans with Disabilities Act (ADA). The City of Rochester intends to address each of the on-road segments, sidepaths, and other gaps in the GRT, including the segment along Lake Avenue, in order to complete this crucial link in the regional trail network. This Study explores the feasibility of establishing an off-road segment of the GRT to augment the existing on-road segment. The City also seeks to expand linkages between the GRT and adjacent neighborhoods, which makes the Eastman Trail and its local and regional significance an ideal complementary project.

For trail users in the Charlotte neighborhood and adjacent areas, this improvement to the GRT would provide greater separation from the road network and increased access to the scenic Genesee River gorge. Local and regional trail users would also benefit from access to three historic and scenic cemeteries: Riverside Cemetery, Holy Sepulchre Cemetery, and King's Landing Cemetery (also known as Hanford's Landing Cemetery), one of the first burial grounds in Rochester. As noted above for the proposed Eastman Trail, there are also significant benefits related to public health, environmental stewardship, sustainable transportation, community engagement, historic interpretation, and connections to local businesses.

1.3 PLANNING PROCESS

In 2010, the Genesee Land Trust approached the City of Rochester and Eastman Kodak Company about the concept of a multi-use trail through or adjacent to EBP, connecting the vital north-south trail corridors on both ends of the industrial park. Having an interest in access to and preservation of the Genesee River gorge, the project concept evolved to include improvements to the on-road segment of the GRT on the east end of EBP. A Project Advisory Committee (PAC) was formed to work with a planning consultant to develop a feasibility study for these conceptual trails. Members of the PAC, whose names are listed after the Table of Contents, included representatives from EBP, the City, the Town of Greece, the Genesee Land Trust, the Maplewood and Charlotte neighborhoods, active transportation advocates, and residents at large. The committee also benefited from representation by the New York State Department of Transportation

With coordination provided by GTC, Clark Patterson Lee, McCord Snyder Landscape Architecture, and Jane Clark Chermayeff and Associates were hired as consultants to assist with trail planning, trail design, and public participation components of the project. The planning process consisted of the following steps:

- Examine the goals and objectives for the trail
- Inventory and analyze existing conditions in the Study Area
- Tour the Study Area to observe and document conditions (August and September, 2011)
- Identify trail location alternatives and key opportunities/challenges, including a detailed examination of alternatives within and around EBP
- Outline design considerations

- Gather initial feedback from interested citizens at a Public Open House (October 4, 2011)
- Refine alternatives and identify a recommended trail alignment
- Gather additional feedback on the proposed recommended alignment at a Public Open House (September 25, 2012)
- Develop an implementation plan
- Develop planning-level cost estimates and potential funding sources
- Finalize the feasibility study

Based upon guidance from the PAC and input from the general public, several location alternatives were identified. While evaluating these options, several goals were considered:

- The trails should not be designed purely as a recreational facilities, but also as integral parts of the City and region's non-motorized transportation system
- The trails should serve all types of users including short and long distance recreational trips, commuters, day-to-day errands, and neighborhood connections
- The trails should be located off-road whenever possible
- The trails should provide active transportation opportunities to nearby neighborhoods
- The trails should provide greater opportunity for environmental stewardship and historic interpretation (i.e. celebrating Kodak's heritage and the community's history represented in the cemeteries)
- The trails should minimize impacts to surrounding residences and businesses, but still provide easy access to neighborhoods
- The trails should be designed to mitigate safety risks, especially along the Genesee River gorge and through EBP
- The trails should be designed to meet or exceed ADA standards wherever possible
- The trails should complement and be consistent with recent advancements the City has taken to plan and design for on-road bicyclists
- The trails should link together the cemeteries and Maplewood and Turning Point Parks, and should enhance the experience in these public spaces
- From a broader perspective, the trails should connect the planned extension of the Route 390 Trail, the existing segments of the Genesee Riverway Trail, and indirectly the Erie Canalway Trail and other regionally significant corridors
- From the historic Erie Canal alignment to the sprawling industrial park, and from the pristine river gorge to the serene cemeteries, the trails should complement and respect their surroundings

The various alternatives were explored in depth, both through PAC discussions and frequent site visits. In particular, a significant effort was made to partner with EBP and identify feasible and desirable alignment options through this uniquely sensitive industrial park. A recommended alignment was identified (see Section 5) which has a balanced consideration of cost-effectiveness, land-owner cooperation, direct routing, sensitivity to neighbors, and timely completion.



SECTION 2 INVENTORY & ANALYSIS

2.1 GENERAL DESCRIPTION OF THE STUDY AREA

The Urban Trail Linkages Study Area (hereafter, the “Study Area” or “UTL Study Area”) is located in the northwest quadrant of the City of Rochester, with a small portion of the Study Area located in the neighboring Town of Greece. Due to the nature of this multi-use trail feasibility study, the boundaries of the Study Area are not intended to be rigid. They represent a generalized swath of land that follows the proposed trail corridor, containing relevant neighborhoods, commercial areas, and community features. The generalized corridor is illustrated on Map 1. This section of the Study presents some data related to the presence of certain features, such as industrial properties, wetland areas, or schools. The data is intended to illustrate the general characteristics and features in proximity to the proposed trail corridor, recognizing that the Study Area does not have a clearly defined edge.

Eastman Business Park (EBP), formerly Kodak Park, is one of the defining features in the Study Area, along with the Genesee River gorge and adjacent cemeteries. As Kodak Park expanded throughout the early and mid-20th Century, residential neighborhoods were developed in part to accommodate the company’s growing workforce. Thus, despite the significant industrial presence in the Study Area, there are expansive neighborhoods in Rochester and Greece immediately adjacent to EBP. The neighborhoods are generally lower and middle class, reflecting the area’s blue collar past. In addition to EBP as a major regional employment center, the Study Area boasts numerous assets, of both local and regional significance. These include Maplewood Park, Aquinas Institute, John Marshall High School, Holy Sepulchre and Riverside Cemeteries, Turning Point Park, and the Theatre on the Ridge.

2.2 LAND USE (Map 2)

Land use patterns define the feel and function of an area and are thus an important element when examining the feasibility of a multi-use trail. Transportation networks and land use patterns are impacted by one another, and must be carefully studied to understand the design considerations of such a facility. The diversity of land uses, the design of individual sites, and the ways in which these uses are connected influence the



The junction of the two proposed trails, with King’s Landing Cemetery in the foreground and Eastman Business Park in the background.



Industrial infrastructure in Eastman Business Park.



Holy Sepulchre Cemetery with gravestones and water features.



Commercial uses on West Ridge Road in the shadow of Eastman Business Park.

transportation choices people have in a given area. For example, if the land uses of a community tend to be integrated, with shops, services, jobs, and residences located within walking distance or even in the same building, walking and biking tend to have a greater presence in the community. If these uses are separated into low-density, single-use districts (i.e. office parks, commercial corridors, or single-family neighborhoods), connected only by major arterial highways, the built environment may not support biking and walking.

Communities will sometimes build multi-use trails to take advantage of natural features, such as waterfronts, or linear rights-of-way, such as abandoned railroads. In other instances, a trail will be developed to overcome the lack of bicycle and pedestrian facilities found in an environment dominated by automobile-oriented land use patterns. The Urban Trail Linkages Study Area contains a combination of these influencing factors. The Genesee Riverway Trail component seeks to bring an existing trail closer to its namesake, while the Eastman Trail is in part a recognition of the land use patterns and roadway characteristics that make the West Ridge Road corridor and Eastman Business Park less than optimal for walking or biking. Despite this challenging setting, there exists a relatively dense land use pattern of jobs, homes, and shops that would benefit from additional connectivity options.

The New York State Office of Real Property Services has developed a system for classifying all tax parcels according to how the land is used. The system is comprised of nine land use categories, eight of which can be found in the Study Area. As shown on Map 2 and in Table 2-1, the majority of the Study Area consists of industrial (37%) and residential (20%) properties. Community services make

up 18% of the area, comprised mainly of Holy Sepulchre and Riverside Cemeteries. Commercial properties (13%) are generally found along the Ridge Road (NYS Route 104) corridor. Parkland (6%) is extremely limited in the 2¼ square mile Study Area, with portions of Turning Point Park and Seneca Park tracing its northeastern edge. Aside from Maplewood Park, which is adjacent to the southeast corner of the Study Area, the portions of Rochester and Greece that surround the Study Area are also limited in park space and recreational amenities.

Table 2-1. Study Area land uses by category.

| Real Property Services Land Use Category | No. of Parcels | Total Acreage | % of Total Acreage |
|--|----------------|-----------------|--------------------|
| Agricultural | 0 | 0.00 | 0% |
| Residential | 2,017 | 289.23 | 20% |
| Vacant | 123 | 49.16 | 3% |
| Commercial | 287 | 181.27 | 13% |
| Recreation & Entertainment | 2 | 5.41 | 0% |
| Community Services | 17 | 254.35 | 18% |
| Industrial | 23 | 533.58 | 37% |
| Public Services | 18 | 54.56 | 4% |
| Wild, Forested, Conservation Lands, & Public Parks | 4 | 79.67 | 6% |
| Total | 2,491 | 1,447.23 | 100% |

2.3 LAND OWNERSHIP (Map 3)

Land ownership is a key issue when planning for trails. Publicly-owned land generally makes for a simpler process of establishing a trail. Private properties present challenges related to land acquisition, liability, and coordination among multiple adjacent land owners. Although the Study Area is primarily comprised of private properties, a small number of land owners control the vast majority of land. Map 3 illustrates the pattern of land ownership, which is dominated by Eastman Kodak Company, Rochester Gas and Electric (RG & E), Holy Sepulchre Cemetery, and Riverside Cemetery, which is owned by the City of Rochester.

The City also owns several smaller parcels throughout the Study Area. However, the cemetery is the only property with a significant impact on potential trail alternatives. The lack of publicly-owned land in this portion of the Genesee River corridor has in part contributed to the Genesee Riverway Trail being on-street for a segment that stretches more than one mile along Lake Avenue.



Although Lake Avenue contains several private residences, there are many large landowners along the proposed trail route.



Maplewood residents bike up Dewey Avenue to West Ridge Road.

2.4 COMMUNITY FEATURES (Map 4)

It is important to understand the community features in an area in order to identify the optimal design and location of a multi-use trail. Successful trails are designed to connect residential areas or existing trail facilities with key destinations and activity clusters. These are known as origins and destinations, respectively. Additional considerations include providing trail facilities to low income neighborhoods where car ownership is below average, enhancing the region's access to open space and notable natural features, and encouraging healthy lifestyles where physical inactivity and nutrition are concerns.

Neighborhoods

Maplewood

Although Eastman Business Park and two large cemeteries are the defining features of the Study Area, they are flanked by well-established neighborhoods in the City of Rochester and the Town of Greece. The Maplewood Neighborhood in Rochester is bounded by Holy Sepulchre Cemetery and the City line to the north, the Genesee River to the east, Mt. Read Boulevard to the west, and Driving Park Avenue to the south. The neighborhood is famous for Maplewood Park, which was designed by the renowned landscape architect Frederick Law Olmsted. The park features a portion of the Genesee River gorge and a nationally accredited Rose Garden, home to the annual Maplewood Rose Celebration. Olmsted also designed several streets and parkways in the neighborhood, including Lakeview Park and Seneca Parkway.



Historic Maplewood home.



Gazebo in Maplewood Rose Garden.

Maplewood is diverse, both in income and race, and features one of the more active neighborhood associations in the City. The neighborhood boasts numerous well-preserved historic homes, most built between 1900 and 1940, as

well as a library, six schools, and the prestigious Aquinas Institute, a catholic school offering grades 7 through 12. Despite having a rich architectural and natural history, the neighborhood faces many of the same challenges found in other City neighborhoods. While generally not to the same degree as neighborhoods to the east and south, Maplewood does grapple with vacant housing, crime, disinvestment, and struggling small businesses. Automobile ownership tends to be lower than in suburban areas, making transportation alternatives a key issue for residents.

Charlotte

Stretching north along the west side of the Genesee River is the Charlotte neighborhood. The southern portion of this historic neighborhood, between Lake Avenue and Turning Point Park, is the northern terminus of the proposed trail route. Much of the commercial and civic activity in Charlotte is located about two miles north where the river meets Lake Ontario, but the existing Genesee Riverway Trail provides an important transportation and recreation connection between the lake and Turning Point Park. The southern part of Charlotte features homes that were mostly built between 1920 and 1960. The neighborhood is also very active, boasting one of the largest and oldest neighborhood associations in the City. Charlotte takes much of its identity from its two major water bodies, Lake Ontario and the Genesee River. This Study is representative of the storied, concerted effort of the neighborhood to preserve the river resource and provide opportunities for community access to the river gorge.

Koda-Vista

The Koda-Vista neighborhood was developed by the Kodak Employees Realty Corporation in the late 1920s, in part to address the housing shortage that coincided with the boom years of the company. This is a unique neighborhood within the Town of Greece, featuring historic homes on tree-lined streets with sidewalks and signature street lamps. As with other tracts built in the 1920s and 1930s, the neighborhood streets offered greater diversity from house to house than previous eras of homebuilding. In 1928, the Koda-Vista Community Association was formed, and is still active today.



Genesee Riverway Trail boardwalk over the Genesee River's Turning Point Basin.



Gateway marker in the Koda-Vista Neighborhood.

Other Greece Neighborhoods

North of Ridge Road and west of the City limits lie a series of vast suburban housing developments. Some have direct ties to Kodak's expansion, such as the Bonesteel tract from the 1920s (Maynard, Everett, and Falmouth Streets), while much of remaining portions of this area were developed in the 1950s and 1960s. These areas coincided with the suburban commercial expansion along West Ridge Road during the post-World War II era.

Socio-economically, these neighborhoods tend to be more middle class and less diverse than nearby areas of the City. However, like the Maplewood neighborhood, they too draw much of their identity from their proximity to Kodak Park and the West Ridge Road corridor. These expansive neighborhoods, which include both single-family homes and large apartment complexes, have limited recreational opportunities and are currently not well-connected to the Rochester region's extensive multi-use trail network.



Gateway signage welcoming visitors to the West Ridge Road commercial area.

Commercial Areas

West Ridge Road

This corridor contains a variety of shops, services, and restaurants. There are many small-scale, locally-owned establishments, historically catering to the thousands of Kodak workers nearby. In recent decades, West Ridge Road also became home to several strip malls, large automobile dealerships, and more recently, national retailers and restaurants. The corridor therefore has a mixed urban environment, with establishments on the east end typically built close to the sidewalk while others, especially west of Mt. Read Boulevard, have extensive parking lots fronting the roadway.

Many small shops and restaurants closer to Eastman Business Park have closed in recent years, reflecting the dwindling numbers employed by Kodak. Consequently, the eastern portion of the corridor has been struggling economically for some time. Although not as active as in its heyday, there remain numerous shops, restaurants, and services between Mt. Read Boulevard and Dewey Avenue. They are in walking distance to hundreds of homes in Greece and Rochester, and serve both local patrons and, because Route 104 is a significant corridor in the region, people from all over Monroe County and beyond. These businesses, coupled with the jobs found in the Eastman Business Park, make the West Ridge Road Corridor an important employment destination in the Rochester region.

Dewey Avenue

Running through the heart of Maplewood in the City of Rochester, the Dewey Avenue commercial area is more of a neighborhood-based business district than the major West Ridge Road corridor to the north. Most businesses are small-scale operations, including several salons, pizza



Small businesses dot the Dewey Avenue corridor in Maplewood.

shops, corner stores, and auto mechanics. The corridor is also home to the Maplewood Neighborhood Association. Businesses tend to cater to everyday goods and services, as opposed to a boutique atmosphere found in more upscale neighborhoods. There are also many homes along this section of Dewey Avenue, creating a truly mixed-use and pedestrian-scaled environment.

West Ridge Road / Lake Avenue / Ridgeway Avenue

There is a small cluster of businesses where these three major roadways converge. This is somewhat of a gateway node. Traveling north and west, motorists are clearly entering an area defined by Eastman Kodak Company. Traveling south along Lake Avenue, the intersection is a distinct northern gateway into the City of Rochester. Similar to the West Ridge Road Corridor, this collection of businesses caters to both nearby residents and regional travelers.

Industrial Areas

The industrial portion of the Study Area is defined entirely by Eastman Business Park, which stretches from the Genesee River west to NYS Route 390. The Park has evolved significantly since its inception in the early 20th Century, and in recent years has become home to numerous businesses that are not associated with Eastman Kodak Company.

Regardless of ownership, the character of the industrial environment is substantially different than the adjacent neighborhoods and commercial areas. Vistas from the major roads feature a seemingly endless landscape of large scale industrial buildings, smoke stacks, and elaborate above-ground infrastructure systems. These large-scale operations have other impacts on the area, such as the presence of significant truck traffic, active rail lines, and peak hour commuter traffic. From a regional perspective, EBP represents a distinct transition area between the historic City of Rochester and the post-World War II suburb of Greece.

The original section of Kodak Park, at Lake Avenue and West Ridge Road, includes some pre-World War II buildings and is much denser than areas to the west along Mt. Read Boulevard and Ridgeway Avenue. One anomaly in this industrial landscape is the Theatre on the Ridge, an active performing arts center that punctuates the massive brick walls along the north side of West Ridge Road near Lake Avenue. Since opening in 1959, the theater has featured big name musical acts, plays and musicals, lectures, and community events.



Buildings 35 and 42 in the old Kodak Park.



Over 30 new companies have relocated to former Kodak buildings in Eastman Business Park.



King's Landing, the smallest but oldest cemetery in Rochester.



Entrance to the historic Riverside Cemetery, owned by the City of Rochester.



Cyclists frequent the rail-to-trail portion of the GRT in Turning Point Park.

Parks and Cemeteries

In addition to the dense neighborhoods and expansive industrial areas, the Study Area features two major cemeteries—Holy Sepulchre and Riverside—both located on Lake Avenue north of EBP. Holy Sepulchre Cemetery is one of the largest in the region and is affiliated with the Roman Catholic Diocese of Rochester. While most of the cemetery is located on the west side of Lake Avenue, the original section rests between Lake Avenue and the Genesee River. To the north of this property is Riverside Cemetery, which is owned and operated by the City of Rochester. Both of these cemeteries contain Gardenesque, Landscape Lawn, and Memorial Park styles of cemetery design and feature meandering paths, large stately trees, and small ponds. They also contain a range of gravestone styles, from modest military plots to elaborate monuments. St. Bernard's Park Apartments, a former seminary converted to an assisted living facility, is located immediately south of the cemeteries. Its ornate architecture, dating back to the 1890s, complements the historic and serene character of this section of Lake Avenue.

King's Landing Cemetery, located at the northeast corner of Lake Avenue and Maplewood Drive, is a small, historic plot that served Rochester's first settlement in 1797. It contains a small grouping of modest gravestones, some in disrepair, and is the only notable remnant of the King's Landing settlement, later called Hanford's Landing, along the Genesee River. This property is the point at which the existing Genesee Riverway Trail transitions from an off-road to an on-road facility.

The Study Area contains limited acreage of parkland. The northern terminus of the proposed trail is Turning Point Park. This City park along the Genesee River features a 1.75-mile segment of the existing off-road portion of the Genesee Riverway Trail, including a magnificent boardwalk over the Turning Point Basin. The trail continues south along an abandoned railroad right-of-way, terminating at Lake Avenue just north of Riverside Cemetery. Near this sliver of land is Brewster-Harding Park, a pocket park that features a small playground. The City is currently pursuing funding to develop a small spur trail connecting the pocket park to the Genesee River Trail.

Seneca Park and Maplewood Park are located adjacent to the Study Area, and both feature trail systems and other amenities that serve the City and region. Both are part of the Olmsted-designed park system in Rochester. Seneca Park is on the east side of the Genesee River and is linked to the Genesee Riverway Trail via a large pedestrian bridge. The bridge connects directly to the Seneca Park Zoo. The park is in the

process of being connected to the El Camino Trail, a new north-south trail through the 14621 Neighborhood on Rochester's northeast side.

Maplewood Park, containing the aforementioned Maplewood Rose Garden, is on the west side of the river and is part of a greenway system that links the proposed Genesee Riverway Trail to the Middle Falls and Lower Falls area of the Genesee River. Aside from these parks along the edge of the Study Area, this part of Rochester and Greece have a notable lack of green-space and recreational opportunities.

2.5 TRANSPORTATION NETWORK (Map 5)

Roads

Since the Study Area is comprised of a highly-urbanized environment, understanding the characteristics of the local road network is imperative to planning and designing a multi-use trail facility. Relevant issues include road widths, traffic volumes, locations for safe crossing, and jurisdiction.

Major roadways in the Study Area are described in Table 2-2. In general, the roadway system is representative of a transitional zone from an urban to a suburban setting. While sidewalks and bus lines are present in most places, automobile transportation is the dominant mode for travelers. Lake Avenue, West Ridge Road, and Mt. Read Boulevard are the thoroughfares most relevant to the design and location of the proposed trail, and all three happen to be major regional corridors. This is reflected in their Annual Average Daily Traffic figures, as shown in Table 2-2 and on Map 5. The map also illustrates the location of traffic signals in the area.

Rail

There are two primary railroad corridors in the Study Area, both of which carry freight only. CSX owns and operates the north-south corridor that parallels Mt. Read Boulevard and Dewey Avenue. These lines connect the Port of Rochester at Charlotte to points south, including CSX's main east-west line across Upstate New York. West Ridge Road and Ridgeway Avenue both intersect with this line, representing the only at-grade crossings of major roads within the Study Area. All other crossings are below grade.



West Ridge Road (NYS Route 104) is a heavily-traveled 6-lane highway with a center turn lane.



CSX railroad at-grade crossing with West Ridge Road, one of two such crossings in the Study Area.

Table 2-2. Characteristics of major roadways.

Note: The information below reflects the predominant condition of a given segment, some variations may be present.

| Road Name | Segment | | Jurisdiction | Lane Configuration | AADT ² | Posted Speed | On-Street Parking | Shoulders Present? | Bicycle LOS ³ | Bicycle Facility Prioritization ⁴ |
|--------------------|------------|------------|--|-----------------------------------|-------------------|--------------|-------------------|--------------------|--------------------------|--|
| | From | To | | | | | | | | |
| West Ridge Road | Lake | Dewey | NYS (Route 104) | 6 travel + 1 turning ¹ | 37,459 | 35 | None | No | E | IV |
| West Ridge Road | Dewey | Mt. Read | NYS (Route 104) | 6 travel + 1 turning ¹ | 35,946 | 35 | None | Yes, striped | D | II |
| Lake Avenue | W Ridge | Eastman | City of Rochester | 5 to 6 travel | 11,006 | 35 | None | No | D | IV |
| Lake Avenue | Eastman | Stonewood | City of Rochester | 4 to 5 travel | 20,620 | 35 | None | No | E | III |
| Dewey Avenue | Ridgeway | W Ridge | City of Rochester | 2 to 4 travel | 10,300 | 30 | Both sides | Yes, narrow | C | Target LOS Met |
| Dewey Avenue | W Ridge | Stone | City of Rochester (NYS Touring Route 18) | 2 travel | 14,419 | 30 | None | No | E | III |
| Eastman Avenue | W Ridge | Woodside | NYS w. of Dewey, City e. of Dewey | 2 travel | Not available | 30 | None | Limited | N/A | N/A |
| Mt. Read Boulevard | Ridgeway | W Ridge | NYS | 4 travel (limited access) | 18,106 | 45 | Limited | Yes | N/A | N/A |
| Ridgeway Avenue | Lake | Dewey | City of Rochester | 2 travel | 14,173 | 30 | Alternating sides | Yes, narrow | E | I |
| Ridgeway Avenue | Dewey | Ramona | City of Rochester | 2 travel | 16,387 | 30 | North side only | Yes, narrow | F | II |
| Ridgeway Avenue | Ramona | Mt. Read | City of Rochester | 2 travel + 1 turning | 23,892 | 30 | North side only | Yes, narrow | F | III |
| Ridgeway Avenue | Mt. Read | City Line | City of Rochester | 2 travel + 1 turning | 19,111 | 30 | None | Yes, striped | D | Existing / Programmed |
| Ridgeway Avenue | City Line | Lee/Latona | Monroe County (Route 111) | 2 to 4 travel + 1 turning | 20,411 | 35 | Limited | Limited | D | Existing / Programmed |
| Ridgeway Avenue | Lee/Latona | I-390 | Monroe County (Route 111) | 4 travel + 1 turning | 21,298 | 35 | None | No | D | Existing / Programmed |

¹ In certain segments, the turning lane is replaced with a center median.

² Average Annual Daily Traffic, a simple measure of how busy a road is, consists of the total volume of vehicle traffic of a road for a year divided by 365 days.

³ As identified in the City of Rochester Bicycle Master Plan (2011).

⁴ The Bicycle Master Plan included a tier system designed to help the City prioritize future improvements for bicycle accommodations. Roadway restriping was considered the highest priority solution, given the significant return on investment. Where restriping to accommodate bicyclists was not feasible due to physical dimensions or other conditions, the Plan recommended a more detailed corridor study as a precursor to potential road reconstruction. Below is the breakdown of prioritization tiers, as shown in the far right column in the above table.

Tier I: Roadway Restripe Candidates (upper half of benefit scores)

Tier II: Roadway Restripe Candidates (lower half of benefit scores)

Tier III: Detailed Corridor Study Needed (upper half of benefit scores)

Tier IV: Detailed Corridor Study Needed (lower half of benefit scores)

Target LOS Met: LOS C was identified as the target, or acceptable, LOS, as part of the Plan

Existing / Programmed: Facilities for accommodating bicyclists are either existing or programmed

The second railroad corridor runs east west through Eastman Business Park and is owned and operated by Kodak. This line and its various spurs service the remaining active divisions in Kodak as well as the new non-Kodak businesses in EBP. It also is utilized to supply coal to Kodak's power plant north of Ridgeway Avenue and west of Mt. Read Boulevard. The majority of this rail corridor is below grade, sharing underpasses with Technology Boulevard, Kodak's main internal roadway.

Transit

The Rochester Genesee Regional Transportation Authority (RGRTA) supplies transit in the area via its Regional Transit Services (RTS) bus system. Various routes connect to and through the Study Area, including Route 1 (Lake Avenue), Route 10 (Dewey Avenue, with a loop on Eastman Avenue), and Route 14 (West Ridge Road). Map 5 shows the numerous bus stops that serve the area, connecting potential trail users to the larger transit system. All RTS buses are equipped with bike racks mounted on the front, further expanding the non-motorized transportation opportunities for people in the region.

Walking and Biking

Planning for multi-use trails must take into consideration existing trail systems and the pedestrian environment of a given area. Successful trails require multiple access points with a critical mass of surrounding residences and activity generators. These access points are usually in the form of existing trail networks and comprehensive sidewalk systems. Generally speaking, the Urban Trail Linkages Study Area features existing trail systems on the eastern and western edges, with near complete coverage of sidewalks on the streets in between. What it lacks is a more intentional connection to and from those assets. While the Genesee Riverway Trail and Route 390 Trail are significant corridors in the regional system, they are two to three miles apart from each other. Consequently, many of the businesses and homes between these corridors lack convenient access to the larger trail system.

Certain corridors such as West Ridge Road are not necessarily engaging and attractive pedestrian environments despite the presence of sidewalks and the close proximity of neighbor-



Bicyclists often choose to use the sidewalk in the West Ridge Road corridor, in this case traveling the wrong direction, due to heavy traffic volumes and multiple travel lanes.



Although sidewalks are present, the noise of the roadway and the automobile-oriented design of adjacent land uses can discourage walking or biking.

hoods to the north and south. The noise and speeds of the adjacent six-lane highway, along with the asphalt-dominated commercial and industrial uses that define the corridor, make for a less-than-optimal experience as a walker or bicyclist.

Traffic on Lake Avenue is not as intense as West Ridge Road, but the sidewalk narrows in places and there are no roadway shoulders to accommodate bikes (see Section 2.8 for information on an upcoming Lake Avenue project that could improve conditions for bicyclists and pedestrians). Mt. Read Boulevard is straddled by one of the more active portions of EBP, yet it is designed primarily for automobile use. A multi-use trail serving this part of Rochester and Greece would greatly improve bicycle and pedestrian access to area jobs and commercial districts while connecting the area to the regional trail network. Map 5 shows the existing bicycle and pedestrian facilities, including sidewalks, crosswalks, bus stops, and existing and planned multi-use trails.

Sidewalks

Sidewalks are present throughout the Study Area. This includes automobile-dominated corridors such as West Ridge Road and Mt. Read Boulevard. The majority of sidewalks are five feet wide, which is the City's standard width. A portion of the Lake Avenue sidewalk is eight feet to accommodate an on-road section of the Genesee Riverway Trail. The most notable gap in the sidewalk network is along Ridgeway Avenue near the Lee Road / Latona Road intersection. This may be due to a lack of demand for pedestrian facilities, whether real or perceived. Another area of concern is the sidewalk in front of St. Bernard's Park Apartments on Lake Avenue which, due to the presence of an historic stone wall, narrows from eight feet to five feet for a brief segment. The narrowing occurs at a curve in the road, limiting a person's ability to see traffic and other sidewalk users around the bend. This is a particular issue for inexperienced bicyclists who use this sidewalk, as this is part of an on-road portion of the Genesee Riverway Trail.



Cyclists and pedestrians often compete for space on the sidewalk portion of the GRT at Maplewood Drive and Lake Avenue.

Although most sidewalks are in fair to good condition, there are some sections that are in a state of disrepair. This makes mobility a challenge for people with disabilities including wheelchair users. Should this project proceed to the design stage, a detailed inventory of sidewalk sections relevant to the final trail alignment should be developed.

Multi-Use Trails

The Study Area is flanked by existing and planned multi-use trails. To the west, the Route 390 Trail parallels the NYS Route 390 expressway, a major north-south corridor in the Rochester region. The trail reaches its southern end around West Ridge Road (NYS Route 104), where a pedestrian bridge carries users over the road to connect to the restaurants and hotels on Paddy Creek Circle. To the north, the trail follows NYS Route 390 to the Lake Ontario State Parkway, connecting to numerous schools, neighborhoods, parks, and commercial areas along the way. From that point, trail users may travel east along the Lake Ontario State Parkway Trail to connect to the northern end of the Genesee Riverway Trail in Charlotte.

NYS DOT plans to extend the Route 390 Trail south from West Ridge Road about 2.4 miles to the Erie Canalway Trail, the longest multi-use trail in the state (see Section 2.8 for more information). As shown on Map 1, the Town of Greece recently constructed a spur trail (Junction Lock Trail) off of the Erie Canalway Trail, connecting the main line to the north to Ridgeway Avenue along the canal's historic alignment. The Town has expressed the desire to further extend the trail to Long Pond Road along the old canal bed, which parallels Ridgeway Avenue and could eventually connect to the western terminus of the proposed Eastman Trail.

On the east end of the Study Area, the Genesee Riverway Trail (GRT) parallels its namesake, connecting Charlotte to the north with Genesee Valley Park at the City of Rochester's southern boundary. This park contains the most prominent trail junction in the region, as the GRT intersects with the east-west Erie Canalway Trail. To the south, the Genesee Valley Greenway continues along a former railroad bed, roughly paralleling the Genesee River, for over 80 miles to Cuba, New York.

Within the UTL Study Area, the GRT is an off-road trail from the intersection of Lake Avenue and Maplewood Drive to points south. North of this intersection, the GRT becomes an on-road facility, utilizing the sidewalks and travel lanes of Lake Avenue. This segment continues to the north end of Riverside Cemetery, at which point the trail becomes off-road again along a former railroad bed in Turning Point Park. The GRT remains off-road for nearly three miles, connecting to Latta Road at the Port of Rochester in Charlotte.



The Eastman Trail concept presents opportunities to link to the nearby Erie Canalway Trail, the longest multi-use trail in New York State.

There is also a brief off-road spur that complements the on-road Lake Avenue section north of Maplewood Drive. At the south end of the St. Bernard's property, the GRT provides an alternate route located on the east side, or river side, of the former seminary complex. This wooded spur offers views of the steep gorge and the back side of the ornate seminary buildings. It connects back to the on-road section immediately south of Holy Sepulchre Cemetery. A steep slope at the south end of this spur does not meet the requirements of the Americans with Disabilities Act (ADA), necessitating the ADA-compliant alternative that follows the sidewalks of Lake Avenue. This spur is located on a 20-foot wide easement granted by St. Bernard's to the City of Rochester.

The GRT boasts 26.75 miles of trails along the Genesee River corridor, including spur trails and complementary trails. The river corridor is approximately 13 miles long as it traverses the City. The segment examined as part of this Study is part of the three plus miles of the river corridor that the City of Rochester wishes to transform on-road segments into off-road segments, where feasible.

2.6 ENVIRONMENTAL FEATURES (Map 6)

Waterbodies

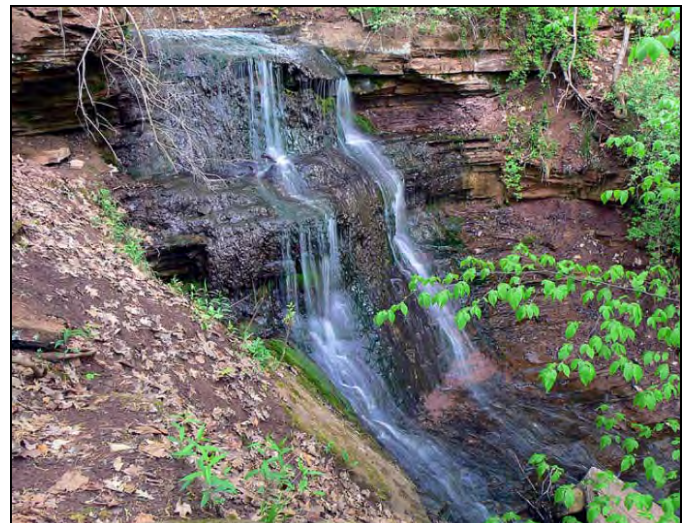
The UTL Study Area contains no major creeks or streams. It does however contain the Genesee River, the defining waterway in the City of Rochester and one of the largest north-flowing rivers in North America. The river, which is roughly 250 to 300 feet wide in this segment, flows through a dramatic gorge with steep, heavily wooded slopes on both sides. The gorge begins at Upper Falls, just north of Downtown Rochester, as the river plunges over the Niagara Escarpment. As it approaches Lake Ontario to the north, the gorge gradually levels out. The river has faced many pollution-related problems for decades, eroding its viability as a wildlife habitat. However, many species still make the river and its gorge their home, including deer, foxes, woodchucks, salmon, trout, herons, and even the occasional bald eagle.

The river itself creates no physical impediments to the proposed Genesee Riverway Trail. The steep slopes of the gorge and the stability of its rim are the primary design challenges. Beyond that, it is the magnificent views of the river and its beautiful natural setting that have the largest impact on the design and location of the proposed trail.

In addition to the Genesee River, there is also a small unnamed stream that flows into the river from Turning Point Park. Located just above the northern tip of the Riverside Cemetery property, Red Falls flows intermittently over the primary gorge edge. Also, the Holy Sepulchre and Riverside Cemeteries each contain one small man-made pond. The ponds are fully integrated into each cemetery's site plan for roadways and burial plots. The pond in Holy Sepulchre does feature a man-made outflow channel that travels under a cemetery roadway and then down into the gorge. Should the proposed off-road Genesee Riverway Trail be constructed as a separate facility from this roadway, the pond outflow will need to be accommodated. A similar condition exists for an even smaller man-made pond located along the gorge edge behind St. Bernard's Park Apartments. There are no waterways that would influence the design or location of the proposed Eastman Trail.



Genesee River gorge looking north from Maplewood Drive.



Red Falls in Turning Point Park.

Wetlands

Wetland areas are an important factor in examining the feasibility of a multi-use trail. Wetlands are often avoided whenever possible, as they create design challenges, increase cost, and are home to vital and often fragile habitats. In some instances, these challenges can be overcome, as is the case with the boardwalk segment of the GRT in Turning Point Park north of the proposed segment of the GRT.

The Study Area, being primarily flat and having no waterways other than the Genesee River, has a limited presence of wetlands, as designated by the New York State Department of Environmental Conservation (NYS DEC) and through the National Wetlands Inventory (NWI). The Genesee River is lined with wetlands in some sections of its eastern and western banks. However, this Study intends to examine the feasibility of a trail along the top of the gorge and would therefore not be influenced by these wetlands. One small wetland exists in what is known as Bullock's Woods in the northeast corner of Riverside Cemetery. This wetland is independent of the Genesee River wetlands, as it lies in a flat area between the primary gorge edge and a secondary gorge edge further inland. There are no wetlands influencing the proposed Eastman Trail, although one small NWI wetland is present southwest of the Ridgeway Avenue and Mt. Read Boulevard intersection.

Floodplains

Similar to wetlands, the Study Area does not have a notable presence of floodplains. Small sections of the Genesee River banks are considered to be part of the 100-year and 500-year floodplains. These are limited in area by the steep walls of the gorge, and therefore have limited relevance to the proposed Genesee Riverway Trail. The Eastman Trail is also not impacted by this environmental feature.



Wooded area along the former Erie Canal bed near Ridgeway Avenue.

Wooded Areas

Wooded areas can be both an asset and a challenge for trail design and construction. Mature woods offer a scenic respite that attracts trail users. They provide shade, a visual buffer from surrounding development, and opportunities to view wildlife. However, the desire to locate a trail in such a setting needs to be balanced with the additional construction costs and habitat disturbance that may come with extensive brush clearing and tree removal. In the UTL Study Area, there are very limited concentrations of wooded areas, as most of this part of Rochester and Greece is developed land. There is a large

swath of forest along the former canal bed west of Mt. Read Boulevard, featuring fairly thick underbrush and some mature trees. The Genesee River gorge is also heavily wooded, as are some areas beyond the gorge rim. This includes portions of Turning Point Park and the eastern edge of the cemeteries, most notably Bullock's Woods which is located in Riverside Cemetery and Turning Point Park.

Topography

The Study Area is largely flat, as evidenced by the five-foot contour intervals displayed on Map 6. The most dramatic topographic feature in the area is the Genesee River gorge. The majority of this steep land on the west side of the river is owned by Rochester Gas and Electric (RG &E). In the interest of cost, safety, and ADA compliance, such steep slopes are generally avoided when developing multi-use trails. As part of this Study, a cursory examination of the relationship between the gorge edge, or rim, and the limits of the RG & E property was performed (see Figures 2-1 and 2-2). It revealed that there is not ample space to construct a standard width multi-use trail on RG & E property and outside the gorge edge. Therefore, a new off-road trail would require either obtaining easements from other private property owners or constructing cantilevered or other stabilizing structures along the gorge's steep slopes, assuming RG & E is amenable to such a concept.

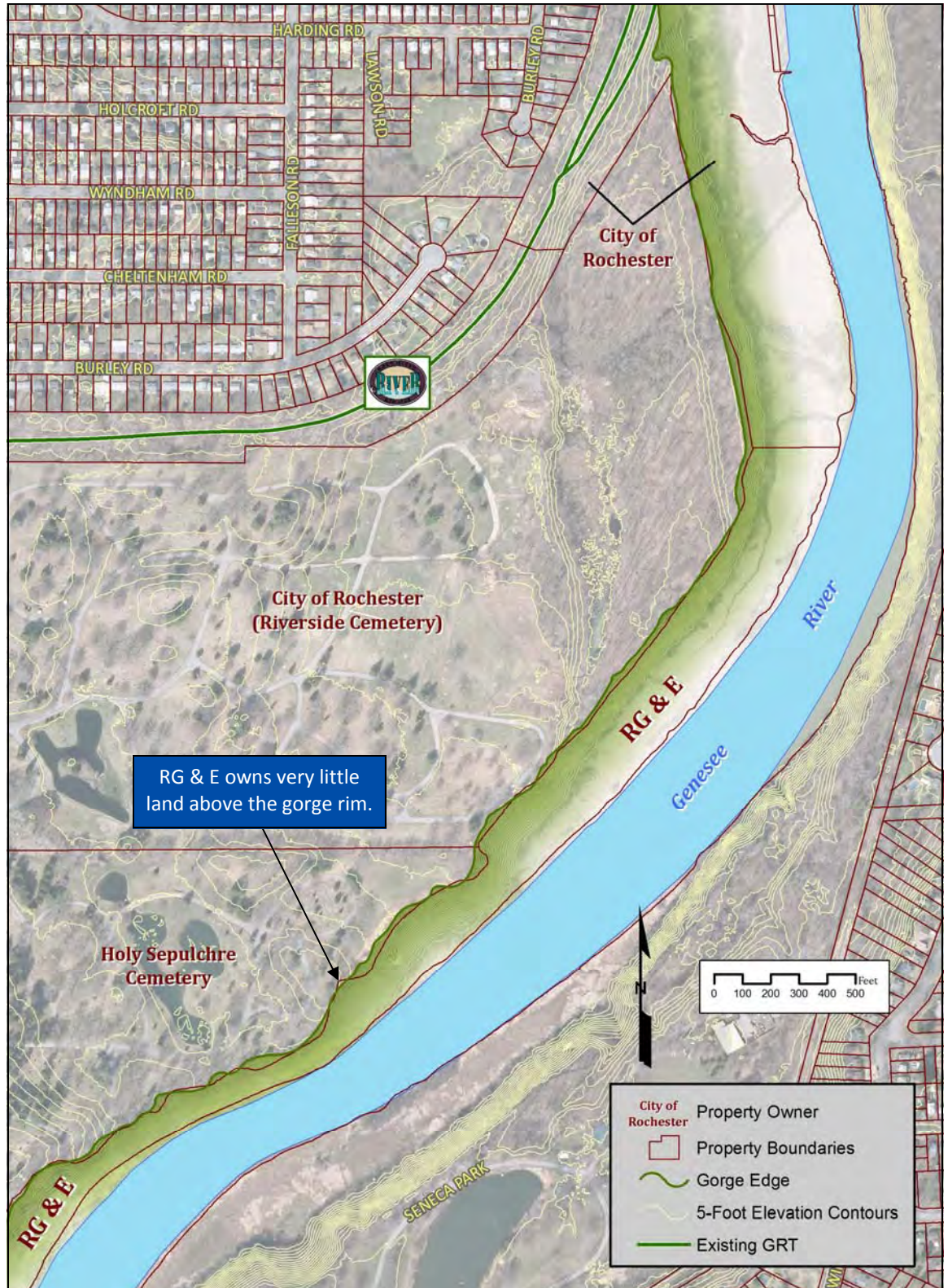
In addition to the slopes in the river gorge, there are some small rolling hills in the Holy Sepulchre and Riverside Cemeteries. Some of the existing cemetery roadways traverse these hills, and would need to be examined further should they be utilized for the proposed trail. There are also some relatively steep slopes along the north edge of the former canal bed. These changes in elevation are fairly manageable and are not expected to present any major design challenges or notable cost increases.



Development, including Kodak buildings, residences, and even burial plots, have been sited close to the edge of the gorge.

Figure 2-1. Relationship of Genesee River gorge edge and property boundaries, northern segment.

When the red property line is to the left of the green gorge edge line, this indicates the riverfront property owner (RG & E) owns relatively flat land beyond the rim of the gorge. Figures 2-1 and 2-2 indicate this condition is very limited in the Study Area, especially when a swath more than 12 feet wide is required for a multi-use trail. Therefore, re-routing the GRT off-road would require either an easement on private property other than RG & E land, or a cantilevered structure below the rim of the gorge, assuming RG & E is amenable to such a concept.



Continued on Figure 2-2, next page.

Continued on Figure 2-1, previous page.



Largest swath of RG & E land above the gorge rim, which is up to 30 feet wide in places, but mostly less than 20 feet wide.



Figure 2-2. Relationship of Genesee River gorge edge and property boundaries, southern segment.

See note on the previous page for an explanation of the analysis. Note that the gorge edge shown is an approximation based on examining five-foot elevation contours. A more detailed elevation survey would be necessary at the design phase, should the City pursue an alignment along the gorge edge.

Extremely limited space between the gorge rim and Building 81 (including its outdoor utilities) at Kodak.

2.7 EASTMAN BUSINESS PARK (Maps 7-01 through 7-05)

The Eastman Business Park (EBP) is the dominant land use in the Study Area. The industrial park is rich in history and is in the midst of major transitions, including simultaneous downsizing and expansion projects. Given the collection of active and inactive buildings, development sites, environmental constraints, and complex infrastructure systems, EBP warrants a more in-depth discussion as part of this inventory Section.

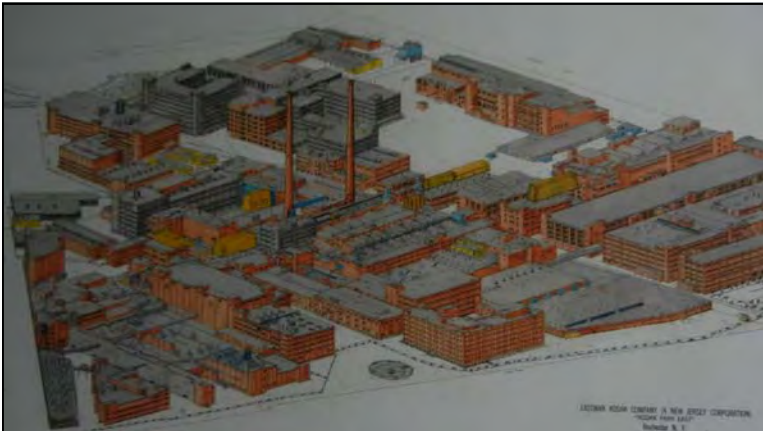


Illustration of Kodak Park in 1941.



Building 59 in EBP.

History

In the 1890s, Eastman Kodak Company founder George Eastman envisioned the corner of Lake Avenue and Ridge Road, then an undeveloped part of the City, as the perfect location to grow his film and camera business. Over the next several decades, the complex grew dramatically. During the 1930s and 1940s, the 1,200-acre industrial complex was known as one of the largest of its kind in the world. The company experienced continued growth for much of the 20th Century, peaking in the 1980s at about 35,000 people at Kodak Park.

As the region's largest employer for nearly a century, Kodak had a significant effect on the local economy. In particular, the northwest corner of Rochester and neighboring portions of Greece were defined by Kodak Park, as it sprawled out along West Ridge Road, Mt. Read Boulevard, and Ridgeway Avenue. The employment center contributed to residential and commercial growth in the area. This occurred on a small-scale in the form of local businesses and restaurants around West Ridge Road and Dewey Avenue supporting Kodak employees. But it also occurred on a large scale as residential development in this portion of Greece grew in tandem with Kodak's expansion. This in turn led to the demand for more large-scale shopping and services in the area, which primarily located to the east and west along the Route 104 corridor.

From the mid-1980s to the present, Kodak's business declined steadily due in part to the fading demand for film and film-based cameras. Today, the company employs about 4,000 people in Kodak Park. Although that is a dramatic decline from 30 years ago, it remains one of largest employers in Rochester. As a result of this contraction, Kodak has demolished several of its buildings, especially around Lake Avenue, Dewey Avenue, and Ridge Road.

Kodak Park remains the defining feature in this area despite the fact that it has fewer buildings and employees. In 2008, Kodak Park was renamed Eastman Business Park (EBP). This was part of a re-branding effort to help attract non-Kodak businesses into some of the vacant space. Today, there are more than 30 new companies located in EBP. These are mostly small businesses, but they total around 4,000 employees, bringing the EBP workforce total to about 8,000.

Current Site Conditions

As shown on Maps 7-01 through 7-05, EBP is a sprawling campus made up of complex, intertwined systems of buildings, utilities, vehicular and pedestrian circulation, and greenspace (see legend on Map 7-01). The park is a secure facility, where the entire perimeter consists of either fences, vehicular/pedestrian gates, or controlled-access buildings. A defining visual feature of the park is the expansive network of above ground pipes that carry steam and other chemicals used in the manufacturing process. The majority of the interior of EBP would be considered inhospitable and inappropriate for a public multi-use trail facility, but there are opportunities for locating a trail along the park's perimeter.

Technology Boulevard, which runs east-west between Lake Avenue and Latona Road, is the main infrastructural spine of EBP. The roadway carries employee traffic and large volumes of truck traffic related to daily operations of the various businesses. It is also paralleled by miles of complex pipes and other utilities, as well as an active rail line that mainly transports coal to the park's power plant. There are several major buildings that have been demolished in recent years, leaving vast open sites that are the focus of EBP's redevelopment efforts.



Power Plant in EBP.

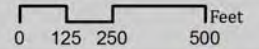


Historic train car in front of Building 52 at EBP.

Map 7-01: EBP — Ridgeway & Lee/Latona

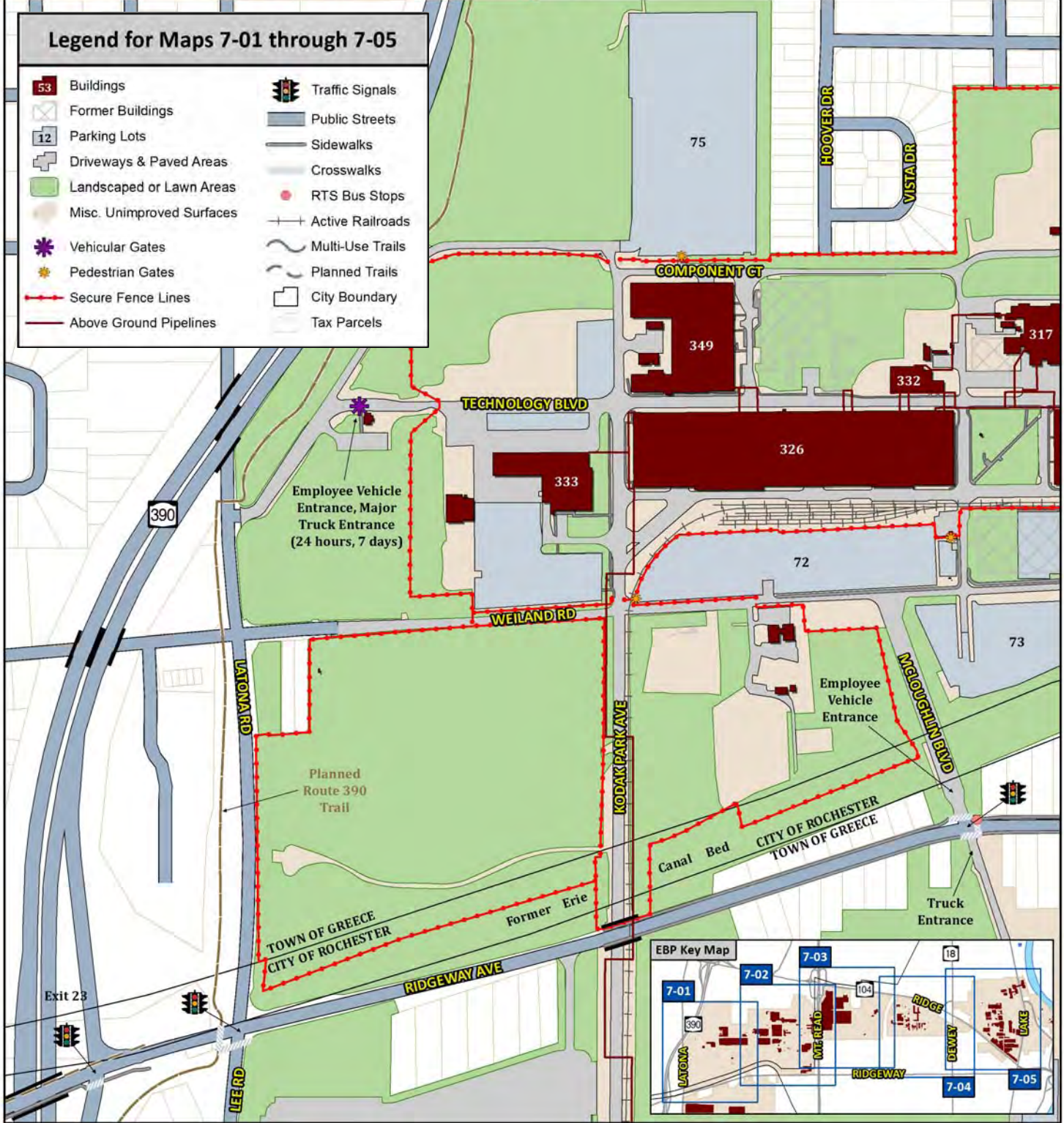


1 inch = 400 feet



Legend for Maps 7-01 through 7-05

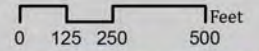
- | | |
|---------------------------|------------------|
| Buildings | Traffic Signals |
| Former Buildings | Public Streets |
| Parking Lots | Sidewalks |
| Driveways & Paved Areas | Crosswalks |
| Landscaped or Lawn Areas | RTS Bus Stops |
| Misc. Unimproved Surfaces | Active Railroads |
| Vehicular Gates | Multi-Use Trails |
| Pedestrian Gates | Planned Trails |
| Secure Fence Lines | City Boundary |
| Above Ground Pipelines | Tax Parcels |



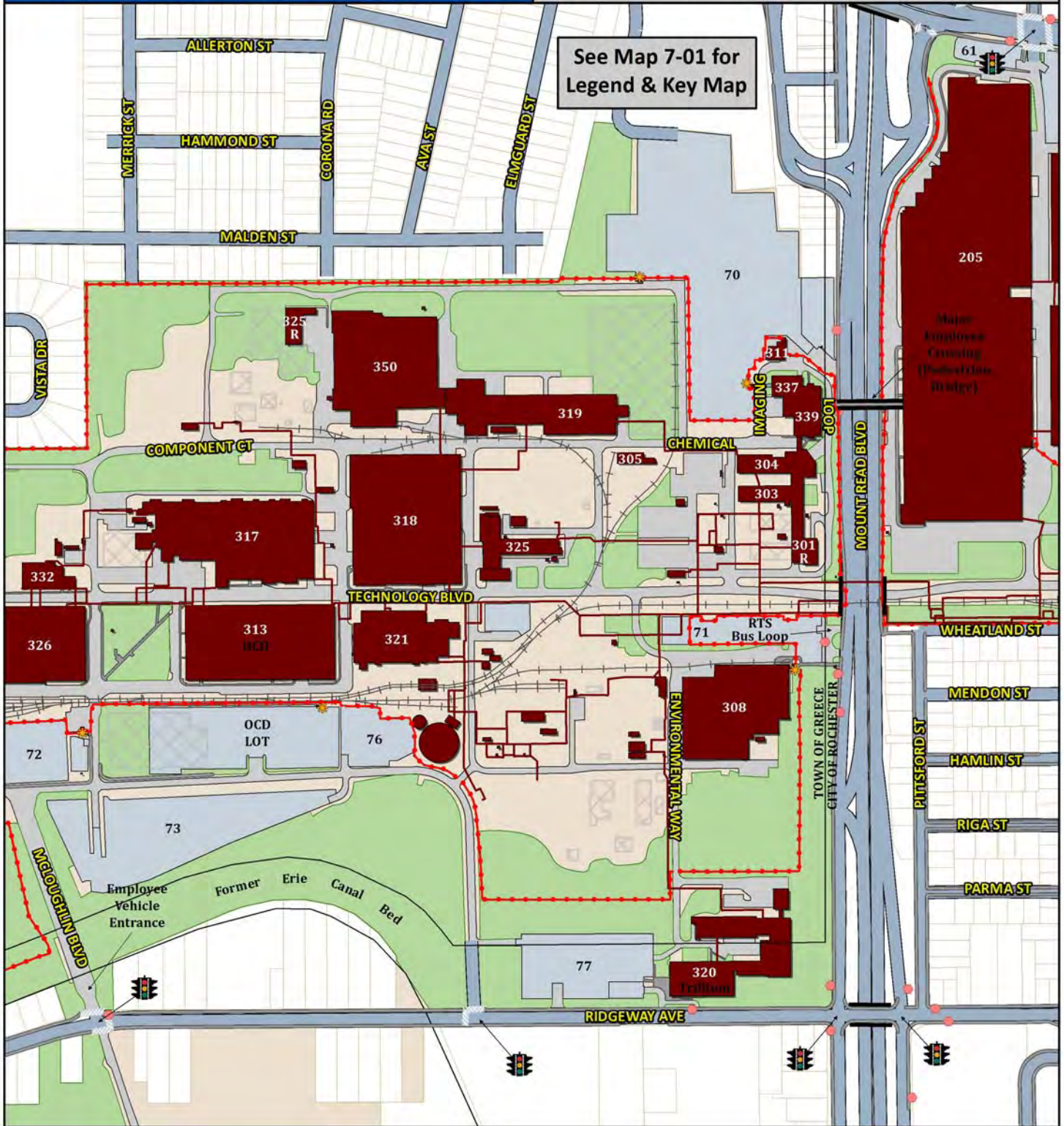
Map 7-02: EBP — Mt. Read & Ridgeway



1 inch = 400 feet



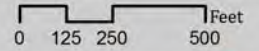
See Map 7-01 for
Legend & Key Map



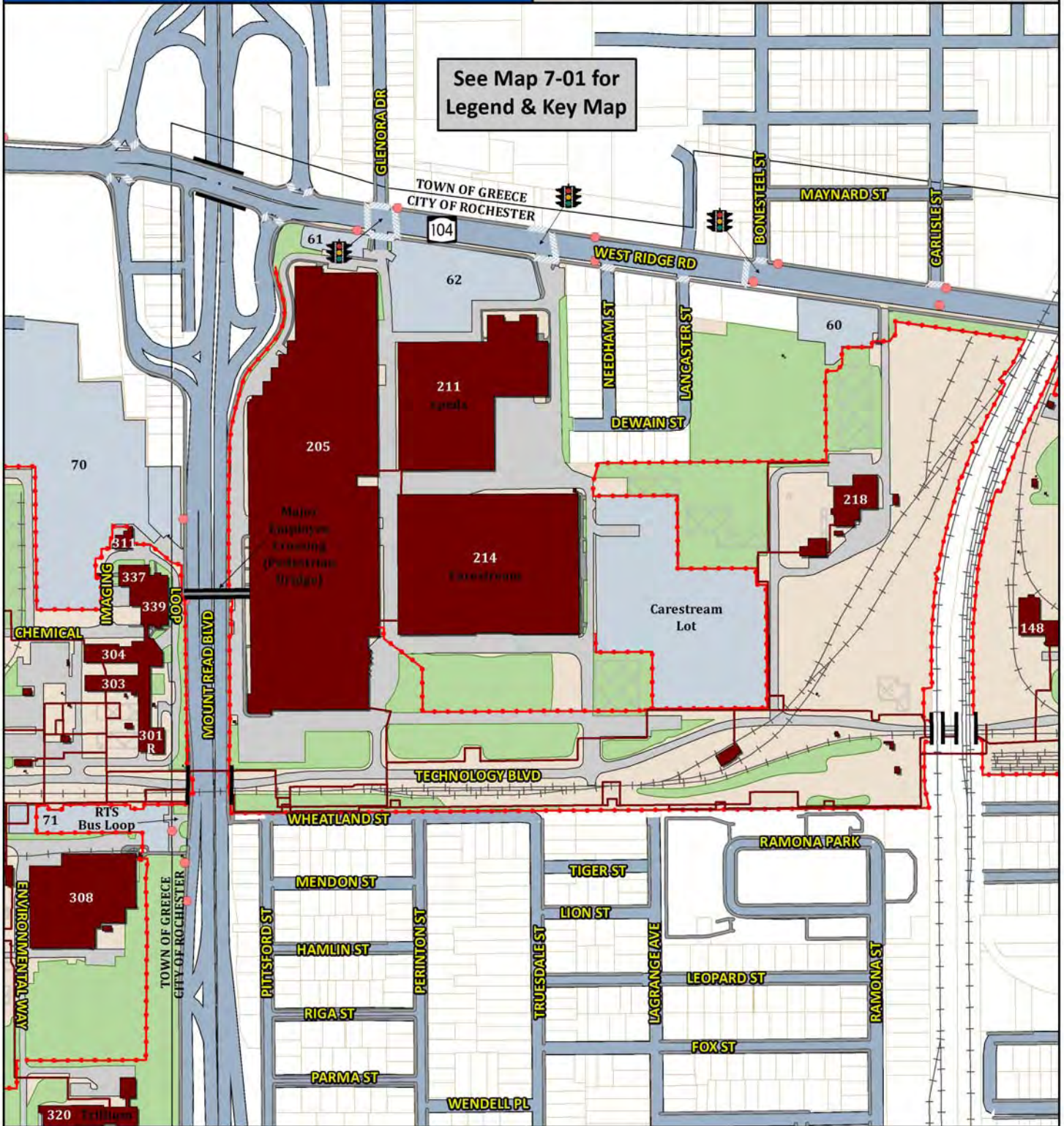
Map 7-03: EBP — Ridge & Mt. Read



1 inch = 400 feet



See Map 7-01 for
Legend & Key Map



Mt. Read Boulevard Pedestrian Bridge at EBP

The Mt. Read Boulevard pedestrian bridge is a key feature related to the development of the proposed Eastman Trail. Mt. Read Boulevard is a major thoroughfare in the region, carrying approximately 18,000 vehicles per day. In order for the Eastman Trail to cross this roadway, either a new bridge or existing bridges would need to be utilized, as the limited access highway configuration does not allow for an at-grade crossing. Presently, a pedestrian bridge spans Mt. Read Boulevard to connect EBP's Building 205 on the east side with Parking Lot 70 on the west side.

EBP has expressed an interest in exploring options for replacing this bridge. In addition to improving access for those using Building 205 and/or Parking Lot 70, an enhanced connection could be integrated into the proposed Eastman Trail. It will be important to consider both the connectivity of the trail and circulation within EBP when developing alternatives.

At this location, Mt. Read Boulevard consists of a four-lane limited access divided highway with an auxiliary road situated to the west of the southbound lanes. The pedestrian bridge crosses over Mt. Read Boulevard approximately 1,450 feet south of West Ridge Road (State Route 104) and 2,220 feet north of Ridgeway Avenue. The distance from the eastern curb of the northbound travel lanes to the western curb of the auxiliary road is approximately 160 feet. In addition to crossing Mt. Read Boulevard, the pedestrian bridge spans to the east over an access drive in EBP to connect directly into the second floor of Building 205. This brings the total bridge length to 240 feet.

The five-span steel multi-girder bridge was built in 1966 to service the growth of employment at EBP. The walkway has a clear width of slightly less than six feet and has a reinforced concrete bridge deck supported at each fascia by steel through-girders which have pipe railing mounted to the top flange along the fascia. The main superstructure and access stairways are supported on reinforced concrete piers positioned in between vehicular travel lanes and parking areas. The structure pre-dates the Americans with Disabilities Act (ADA) and does not offer access for people with disabilities, such as wheelchair users. The bridge is accessible to able-body pedestrians via stairways from the sidewalks on the east and west sides of Mt. Read Boulevard and from second floor of Building 205.



Pedestrian bridge over Mt. Read Boulevard connecting to Building 205 in EBP.

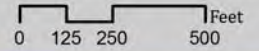


Pedestrian bridge over Mt. Read Boulevard looking west toward Building 339 in EBP.

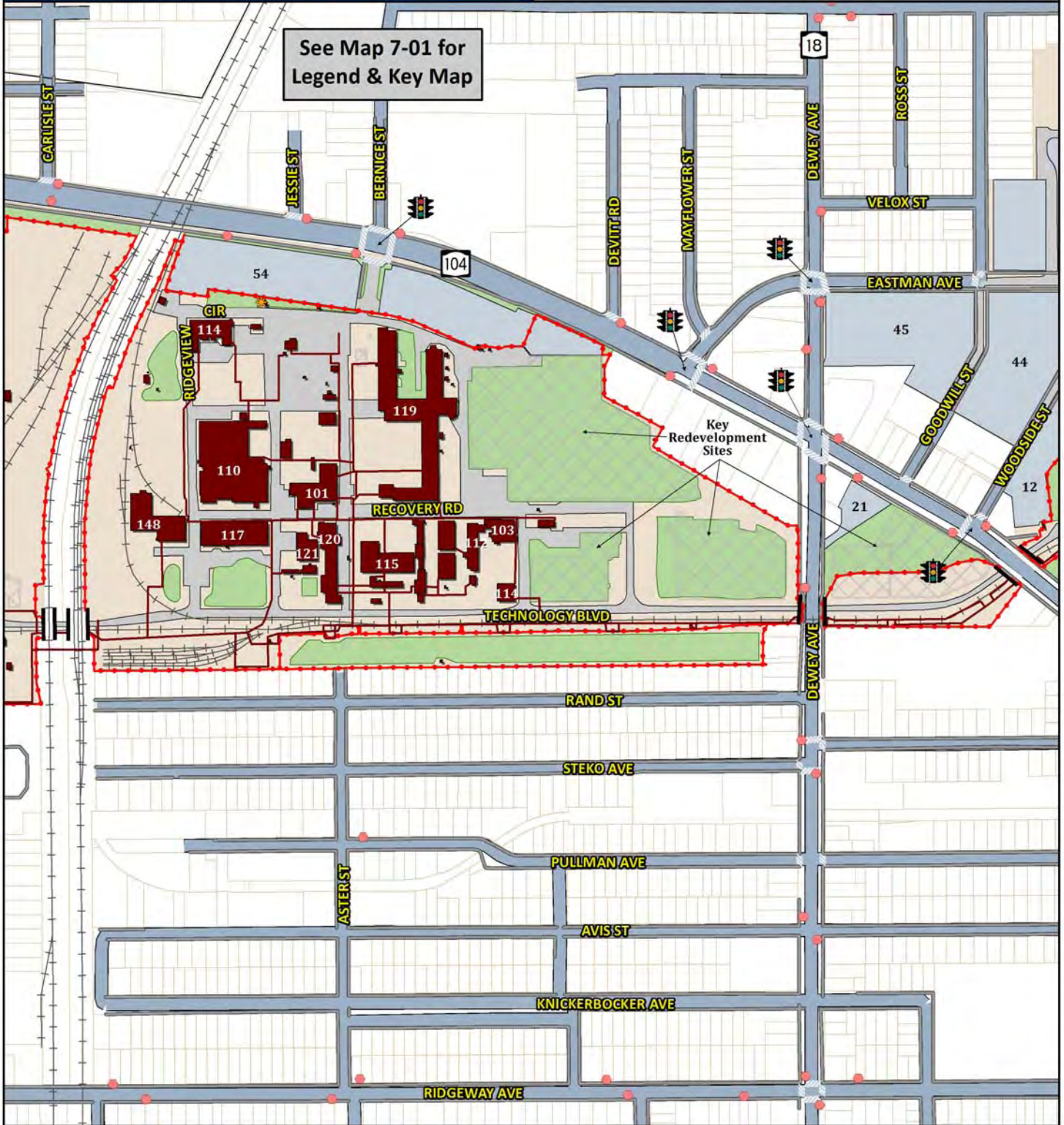
Map 7-04: EBP — Ridge & Dewey



1 inch = 400 feet



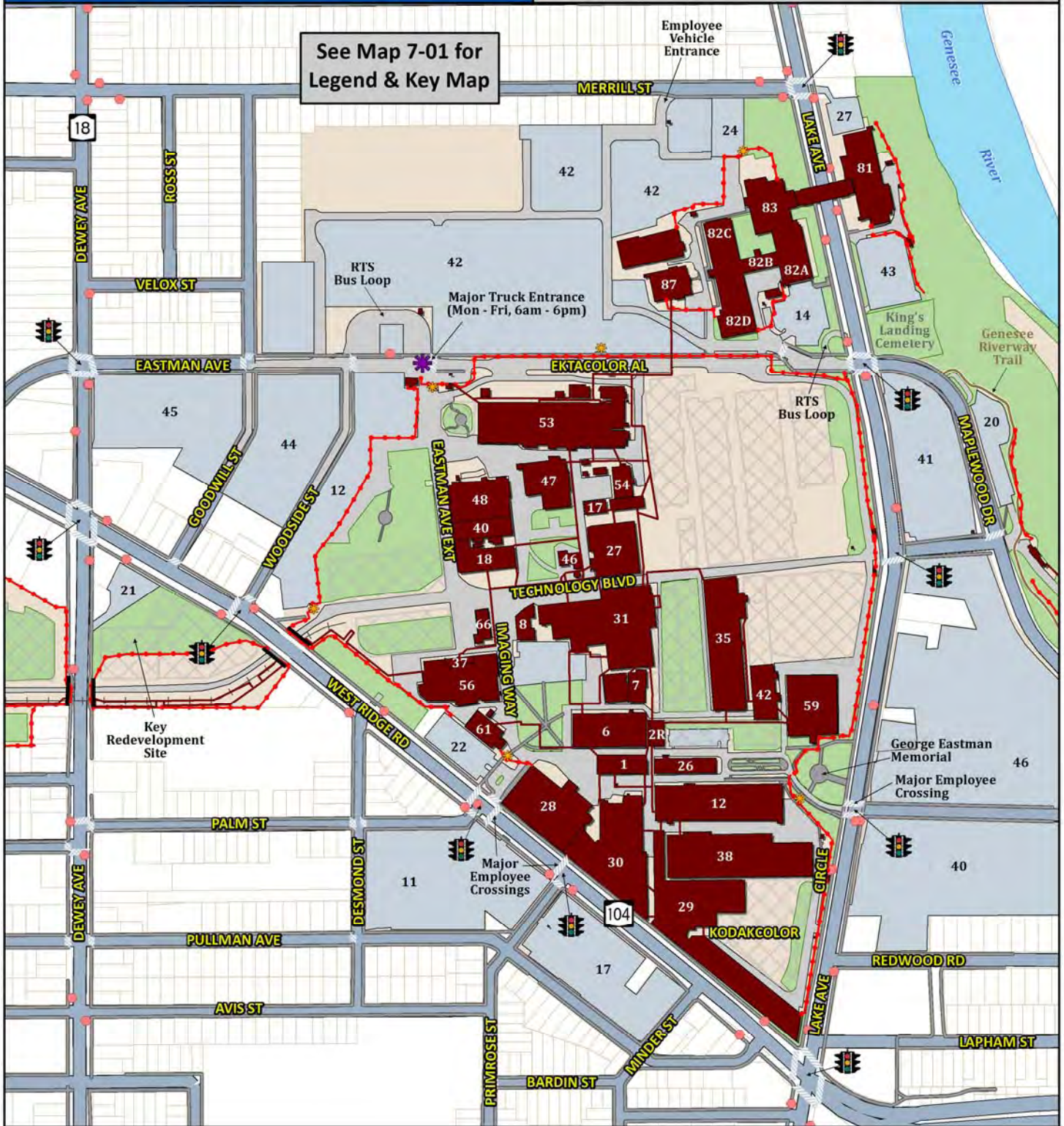
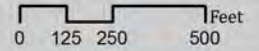
See Map 7-01 for
Legend & Key Map



Map 7-05: EBP — Lake & Ridge



1 inch = 400 feet



Eastman Trail Constraints and Opportunities

EBP does present several obstacles to developing a trail through its property. The industrial nature of the area is not a typical setting for such a facility. Thus, the design of a trail must be more than a basic transportation facility – it must be engaging and inviting, and should help tell the story of Kodak’s role in the region. Also, Kodak is actively seeking new tenants for certain vacant sites, so the potential Eastman Trail would need to be designed so as to not preclude future development. Lastly, much of EBP has a secure fence line, limiting trail location alternatives and creating access challenges.



EBP’s vast parking lots and redevelopment sites provide opportunities for locating a multi-use trail.

Despite these obstacles, the concept of the Eastman Trail presents some unique opportunities. On a site-specific level, EBP is in a zoning district (Planned Development District No. 12) that requires a 20-foot landscaped buffer adjacent to residential areas. North of Eastman Avenue, an additional 100-foot buffer is required between buildings and residential areas. These swaths may provide opportunities for siting the proposed trail. Another opportunity is related to the existing pedestrian bridge over Mt. Read Boulevard. EBP would entertain replacing the bridge to enhance its pedestrian access and support the Eastman Trail.

From a neighborhood and regional perspective, EBP is a major employment center. The adjacent West Ridge Road corridor contains dozens of shops, services, offices, and restaurants. The surrounding neighborhoods have a comprehensive sidewalk network to support pedestrian access to a nearby trail. EBP represents a

single landowner stretching from the Genesee Riverway Trail to the Route 390 trail, an unusual circumstance for such a large area. It is located in part of Rochester and Greece that has a notable lack of open space and recreational opportunities. A large portion EBP’s western holdings are traversed by the former Erie Canal bed, an ideal setting for a multi-use trail. Lastly, some of the new and prospective tenants in EBP are oriented to sustainability, innovation, and energy efficiency, which would complement the nature of a walking and biking facility.

As an example, New York State’s Empire State Development recently awarded \$3.5 million to the New York Battery and Energy Storage Technology Consortium (BEST) to develop a product commercialization center in Building 308. The center would be designed to build, test and characterize batteries and energy storage devices. The Finger Lakes Regional Economic Development Council, who spearheaded the proposal as part of a larger regional package of projects, is also pursuing funding to develop a waste-to-ethanol plant in EBP.

2.8 RELEVANT LOCAL PLANS & PROJECTS

The following is a compilation of relevant plans and projects that have and will influence the feasibility and design of the Eastman and Genesee Riverway Trails.

Route 390 Trail (undetermined start date)

Developed by the New York State Department of Transportation (NYS DOT), the Route 390 Trail parallels the expressway from the Lake Ontario State Parkway south to the pedestrian bridge over West Ridge Road. While funding and timing for this project remains uncertain, NYS DOT intends to extend this facility about 2.4 miles to the south to connect with the Erie Canalway Trail near the Lexington Avenue exit. Once constructed, this trail is envisioned as the western terminus of the proposed Eastman Trail. This connection would be located near the Ridgeway Avenue and Latona Road intersection.



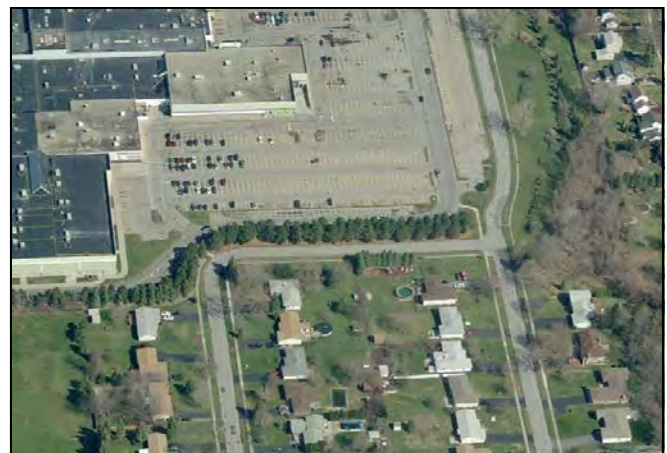
Southern terminus of the Route 390 Trail, where a pedestrian bridge carries trail users over West Ridge Road.

Mount Read Boulevard Corridor Study (expected to begin in 2012)

The City of Rochester and the Town of Greece will be conducting a corridor study to address key multi-modal safety, access, and operational issues within a four-mile long segment of this urban arterial. While the existing configuration is designed to support the numerous industrial businesses in the corridor, there are also roughly 15,000 residents within a quarter mile of Mount Read Boulevard. The study will outline opportunities for infrastructure improvements that serve multiple modes of transportation, as well as make land use recommendations that support the agreed upon vision for the corridor.

Town of Greece Bicycle and Pedestrian Master Plan (expected to begin in 2012)

The Town of Greece will be developing a master plan to explore enhancements for pedestrians and bicyclists throughout the town. The plan will inventory existing active transportation facilities, identify gaps and establish priorities for improvements, and identify strategies for long term maintenance and enhancement of the Town's active transportation infrastructure. Ultimately, the goal of the project will be to improve the safety, accessibility, and convenience of active transportation options for people of all ages and abilities.



Residential neighborhood adjacent to a commercial development in the Town of Greece.



Amenities along the new Junction Lock Trail in Greece.



Brewster-Harding Park, site of a future neighborhood connection to the adjacent GRT.



The upcoming redesign of Lake Avenue north of Merrill Street presents an opportunity to better accommodate the on-road section of the GRT.

Junction Lock Trail (2011)

The Town of Greece recently developed the Junction Lock Trail, a 1,500-foot spur connecting the Erie Canalway Trail to a trail head on Ridgeway Avenue. The new trail follows the former canal alignment, just west of Long Pond Road and about 1.25 miles west of the proposed Eastman Trail's western terminus. The Town has expressed the desire to continue the Junction Lock Trail across Ridgeway Avenue to connect to Long Pond Road. This connection would complete the Town of Greece's portion of a connection to the proposed Eastman Trail. The remaining gap along the former canal alignment is within the City of Rochester (see Map 1).

Brewster-Harding Park Connector Trail (proposed)

Brewster-Harding Park is a pocket park in Charlotte adjacent to Turning Point Park. The entrance to this largely undeveloped property is approximately 600 feet from the Genesee Riverway Trail. The City of Rochester has secured funding to establish a trail connection through this 3.4-acre park, providing valuable access to the larger trail network for residents in this neighborhood.

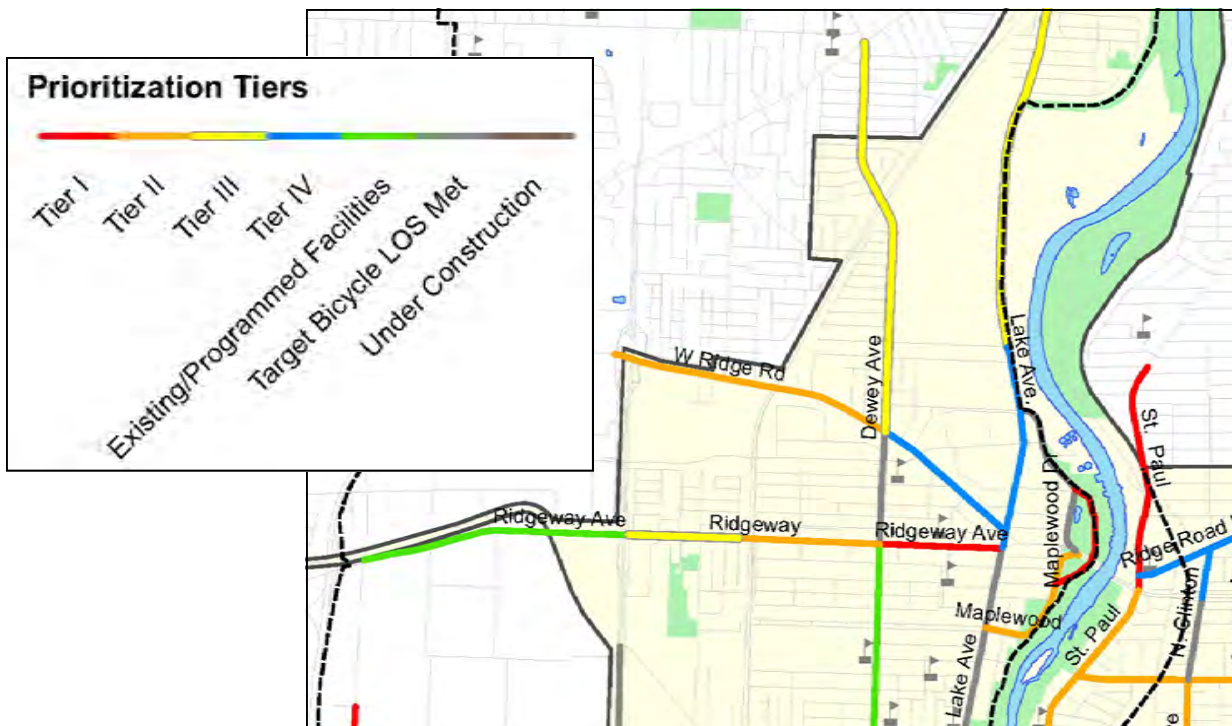
Lake Avenue Reconstruction Project (2011-2014)

The City Street Design Division recently began planning for the redesign of Lake Avenue between Merrill Street and Burley Road. The majority of this segment consists of four 11-foot wide travel lanes with no shoulders. The GRT is currently located in the right-of-way on the eastern sidewalk, with some cyclists choosing to utilize the outside travel lanes. In light of decreased traffic volumes, the City will be exploring a variety of lane configuration options in order to improve bicycle and pedestrian accommodations. The redesign will take into consideration the recommendations of this Study. Sidewalk and lighting improvements will also be explored. One alternative would be reducing Lake Avenue from four to two travel lanes with a center turn lane, leaving space for bike lanes. It is expected that the project will address the narrow pinch point of the sidewalk in front of St. Bernard's stone wall, which is problematic due to the bend in the road at that location. Construction is slated for 2013 to 2014.

City of Rochester Bicycle Master Plan (2011)

The City of Rochester recently joined the growing list of cities adopting bicycle master plans, an emerging trend that addresses sustainability, public health, recreation, and balanced transportation options. The objective of the City’s Plan is to identify long-range opportunities for improved bicycling infrastructure and services. The Plan recognizes the well-developed off-road trail system in the region, and thus focuses mainly on improvements to on-road accommodations, such as bike lanes and signage, to enhance the larger system. The Plan concludes with a prioritization of future on-road bicycle facilities that factors in present conditions, ridership demand, and physical constraints. As shown on Figure 2-3 and Table 2-2, roadway segments within the UTL Study Area received varying levels of prioritization, with Ridgeway Avenue between Lake and Dewey Avenues classified among the highest tier.

Figure 2-3. Excerpt from the City of Rochester Bicycle Master Plan: Bicycle Facilities Prioritization Map. See Table 2-2 for an explanation of the tier system.

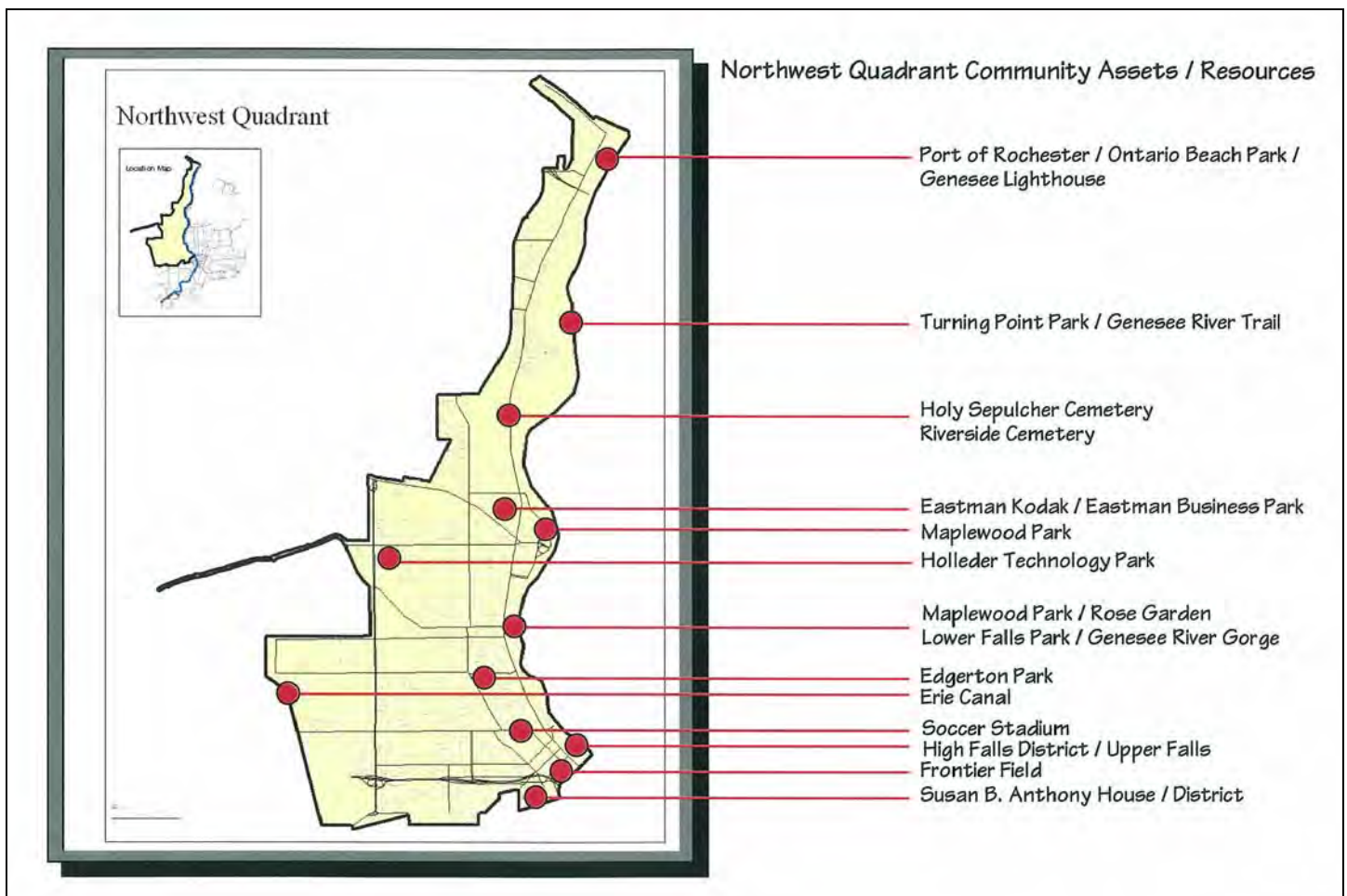


Northwest Quadrant Strategic Plan (2010)

The City of Rochester developed strategic plans for the four quadrants of the City. Each document contains an overview of the quadrant, its assets and opportunities, and specific strategies to be undertaken by City staff and community partners. The Northwest Quadrant Strategic Plan, which encompasses the UTL Study Area, lists the Genesee River and the GRT as two of its primary assets. It also recommends the following general objectives and strategies:

- Expand transportation choices in the area;
- Integrate EBP into the surrounding neighborhoods; and
- Complete an update for the City’s Local Waterfront Revitalization Plan that identifies waterfront policies and projects for the quadrant.

Figure 2-4. Excerpt from the Northwest Quadrant Strategic Plan: Community Assets/Resources. Note the inclusion of Turning Point Park, GRT, the cemeteries, and EBP.



City of Rochester Local Waterfront Revitalization Plan (1990 and 1999)

Through funding from the New York State Department of State, Division of Coastal Resources, the City of Rochester developed a Local Waterfront Revitalization Plan (LWRP) more than 20 years ago. The Plan contains general policies and objectives for enhancing the built and natural environment along the Genesee River and other waterways in Rochester. Specific to the UTL Study Area, the Plan states the following:

- In the B1 Subzone (Turning Point Park) and B7 Subzone (Riverside and Holy Sepulchre Cemeteries), public walkways are the primary recommended land use, and that public access to and through these areas should be improved; and
- Future development in these areas should promote waterfront recreation and preserve or enhance sensitive environmental areas and natural features.

A 1999 update to the LWRP states more specifically:

- The City should develop a continuous linear river trail system along both sides of the river;
- The trail should be developed immediately adjacent to the river, as practical;
- Connections should be made from the primary linear trail system to adjacent or surrounding neighborhoods and destinations; and
- Trail-related projects should utilize high-quality amenities including parking at trail heads, information and safety signs, solid trail surface, landscaping and buffering, lighting where appropriate, visual access where possible, emergency access where possible, and interpretive/entertainment opportunities.

The City intends to update the LWRP in 2012.

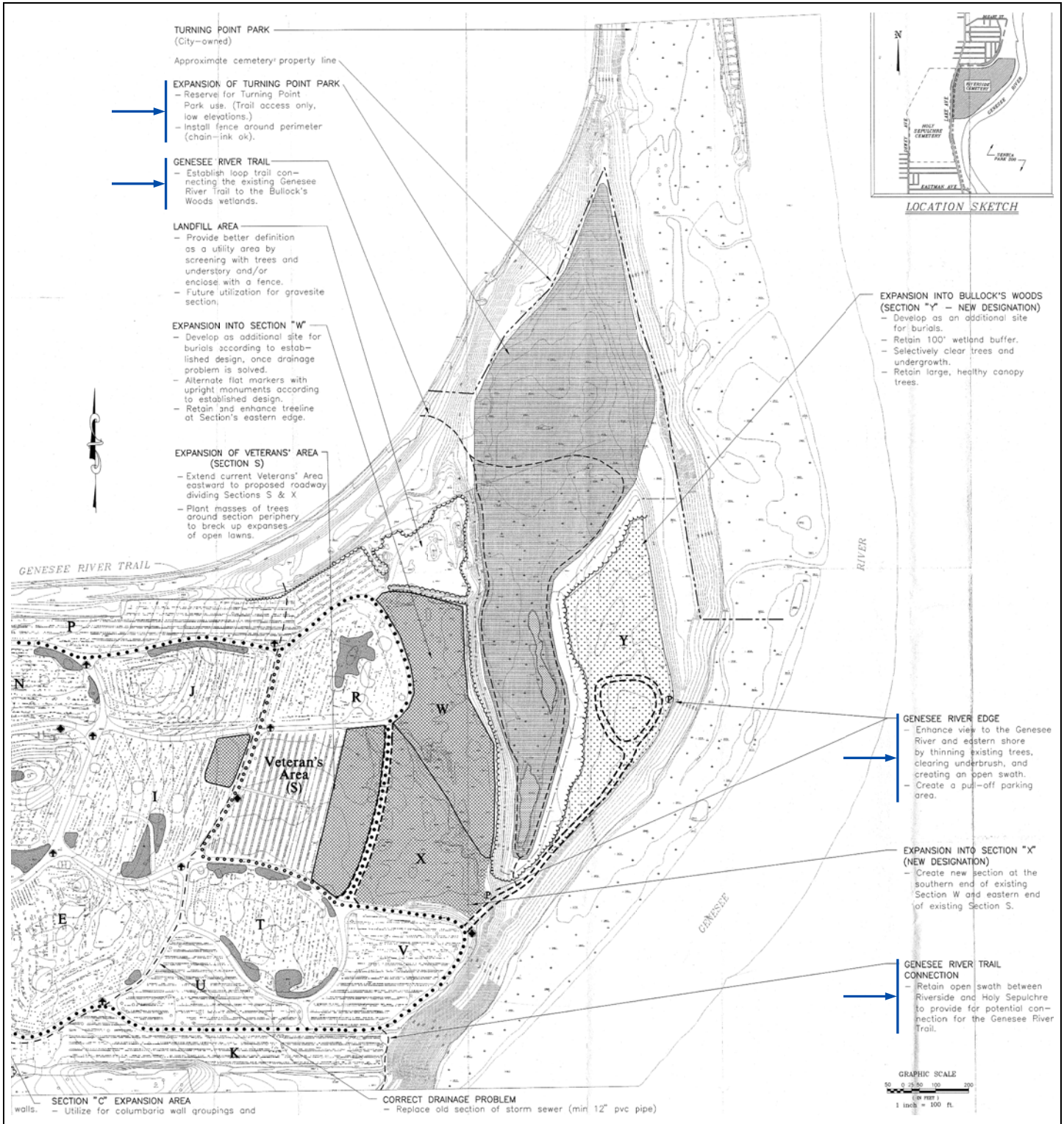
Design Guidelines, Mt. Hope and Riverside Cemeteries (1995)

This document provides guidance for maintenance, restoration, and future expansion of these two historic cemeteries in the City of Rochester. Relevant guidelines include:

- New development should respect existing topography, retaining healthy vegetation;
- New plant species should be suited to the cemetery soil, microclimate, and area climate; and
- Roads, paths, and visitor amenities in expansion areas should consider the contemporary use of cemeteries—as passive recreational areas—when designed.

The document also contained a “Summary of Recommendations” figure (see Figure 2-5), which suggests the cemetery may expand into a portion of Bullock’s Woods east of the small wetland. It also recommends connections to the Genesee Riverway Trail, north into Turning Point Park and south into Holy Sepulchre Cemetery. This could be augmented with a loop trail around the Bullock’s Woods wetland area. Should the cemetery expand into this section with a new road off the existing outer loop road, consideration should be given to incorporating the proposed GRT, either on-road or as a parallel facility.

Figure 2-5. Excerpt from Design Guidelines, Mt. Hope and Riverside Cemeteries, showing recommendations related to the GRT.



2.9 INVENTORY & ANALYSIS CONCLUSIONS

In conclusion, below is a list of opportunities and challenges / constraints to be considered as the City of Rochester explores the feasibility of the proposed trails. Items are categorized in the margin as relevant to either the Genesee Riverway Trail or the Eastman Trail, and in some cases, both.

Opportunities

- Improve connectivity for local residents, businesses, and employment centers to the regional trail network (Genesee Riverway Trail, Route 390 Trail, Erie Canalway Trail, Lake Ontario State Parkway Trail, El Camino Trail);
 - Take advantage of the diversity of land uses connected by the proposed trails;
 - Leverage the area's comprehensive sidewalk network to support pedestrian mobility and access to the trail system;
 - Enhance the system of on-road bicycle accommodations, albeit limited, in the form of roadway shoulders and an ever-expanding system of bicycle lanes in the City;
 - Leverage previous investments in the area, including the West Ridge Road / Lake Avenue / Ridgeway Avenue intersection, West Ridge Road corridor, and the gateway pedestrian bridge in Maplewood Park over NYS Route 104;
 - Capitalize on the active neighborhoods in Charlotte, Maplewood, and Koda-Vista, as their residents have demonstrated an enthusiasm for the history, resources, and assets that define this part of the region;
 - Increase non-motorized commuter traffic;
 - Capitalize on the limited number of private landowners along the proposed trail corridor, some of which have expressed support and enthusiasm for the proposed project;
 - Address the lack of outdoor recreation opportunities and non-motorized transportation options for employees and nearby residents, improving their health and social engagement levels;
 - Create a sense of continuity along each trail and adjacent trails by using similar landscaping methods, signage systems, and hardscape;
 - Support the objectives of the City's Bicycle Master Plan;
 - Encourage further integration of pedestrians and bicyclists with the bus system;
 - Partner with various community organizations to develop the trail and encourage stewardship and a sense of ownership;
-
- Re-route one of the few remaining on-road sections of the GRT;
 - Provide opportunities for greater appreciation of the three cemeteries, the Genesee River gorge, and the monumental architecture at St. Bernard's seminary;
-
- Improve historic interpretation of the role of Eastman Kodak, and Kodak Park specifically, in the Rochester region;
 - Develop a master plan for Kodak's properties fronting on Ridge Road to avoid uncoordinated development, to encourage a cohesive design that supports the City's land use goals, and to potentially accommodate a multi-use trail paralleling the roadway;
 - Help redefine the industrial landscape through sustainable transportation, which complements some of the green innovation businesses locating in EBP;

Both Trails

*Genesee
Riverway
Trail*

*Eastman
Trail*

*Eastman
Trail*

- Help attract new businesses to EBP, including young, tech savvy, and sustainability-minded workers, who will contribute to trail use in the area;
- Improve safety and access across West Ridge Road and Dewey Avenue;
- Introduce trees and landscaping and attractive amenities to various areas along West Ridge Road, Ridgeway Avenue, and Mt Read Boulevard;
- Improve the visual environment by attractively screening objectionable views of the industrial facilities and add shaded areas to an otherwise open landscape;
- Maintain ongoing relationships with current and future land owners in EBP to promote and explore the trail concept;
- Construct a new and improved pedestrian bridge over Mt. Read Boulevard to connect Parking Lot 70 to Building 205 and to accommodate the proposed trail; and
- Explore historic interpretation opportunities for former Erie Canal bed.

Challenges / Constraints*Both Trails*

- Identify trail alternatives and design features that are cost-effective;
- Work within the financial limitations of the City and Town;
- Pursue funding opportunities to reduce the local financial burden;
- Develop and sustain community enthusiasm for the project(s);
- Minimize road crossings;
- Provide a trail that is not overly circuitous to ensure walkers or bike riders will not choose another route to save time and distance;

*Genesee
Riverway
Trail*

- Avoid the steep slopes of the Genesee River gorge, where possible;
- Work with multiple private property owners along the GRT corridor, as there is limited RG & E and Kodak land owned above the gorge rim;
- Retrofit the existing off-road spur behind St. Bernard's to be ADA compliant;
- Mitigate impacts to sensitive features in the cemeteries, including gravesites, mature trees, and other landscaping;
- Avoid small wetland area in Bullock's Woods;
- Minimize clearing of mature forested areas in Bullock's Woods;
- Minimize disturbance to the serene nature of St. Bernard's seminary, currently an assisted living facility;

*Eastman
Trail*

- Design a trail that is attractive and inviting, despite the industrial landscape and undesirable pedestrian/bicycle environment on West Ridge Road and Mt. Read Boulevard;
- Design road crossings and on-road trail segments that are safe and inviting, despite conditions with high traffic volumes and multiple travel lanes;
- Avoid hindering future development at EBP;
- Provide greater access to EBP for the general public while respecting the active industry's security concerns;
- Minimize impact to residential properties that back up to the old Erie Canal bed by strategic trail location and provision of appropriate screening;
- Avoid potentially contaminated sites; and
- Minimize clearing of mature forested areas in the old canal bed near Ridgeway Avenue.



SECTION 3

DESIGN CONSIDERATIONS

3.1 USERS, DIMENSIONS, & MATERIALS

Trail Users

The Genesee Riverway Trail currently serves non-motorized transportation alternatives. While emergency vehicles are afforded access in most places, the trail is designed to prohibit motorcycles, ATVs, snowmobiles, and other motorized vehicles. It also prohibits equestrian use. Instead, the facility supports a variety of user-types such as bicyclists, walkers, joggers, skateboarders, parents with strollers, wheelchairs (non-motorized and motorized), dog walkers, and in-line skaters. The proposed realignment of the GRT in this Study should be designed consistent with these standards. The proposed Eastman Trail should serve the same user-types, especially considering its highly urbanized setting.

To encourage desired users and prohibit motorized vehicles on a trail requires a multi-faceted approach. Trail designers must consider the selection of amenities, information provided on signage and at kiosks, the involvement of emergency responders, and the physical design of the trail itself. At key access points, restrictive gates or removable bollards should be installed to allow access for emergency vehicles when necessary. Future signage and kiosk installment should clearly identify prohibited vehicles. The City and community stakeholders should work closely with law enforcement and emergency responders to examine design features that restrict unwanted access but permit emergency responders if needed. Lastly, the trail should be narrow enough to discourage cars and other vehicles, yet wide enough to safely accommodate desired users.



Joggers along the GRT.



Example of access restriction.

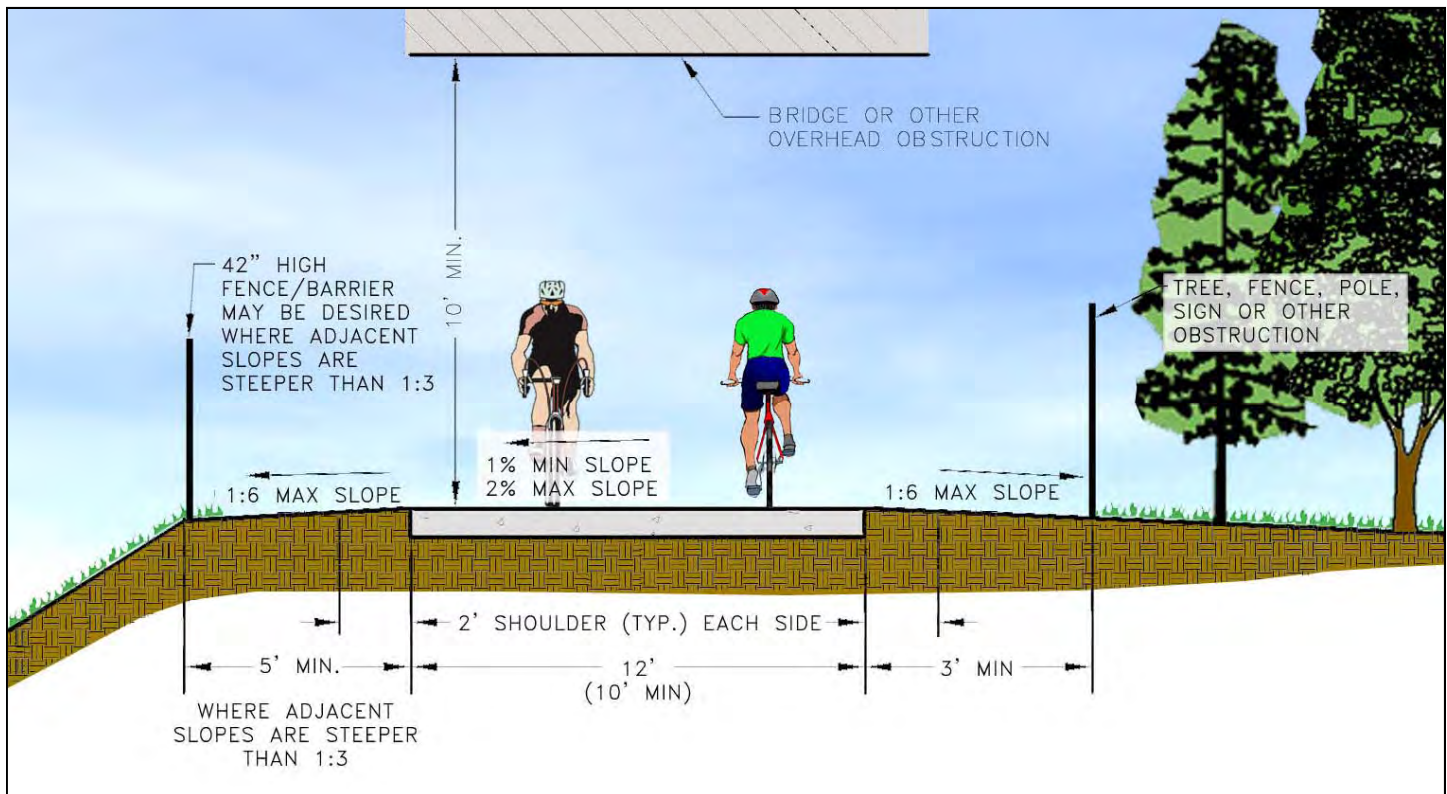
Dimensions

Horizontal and Vertical Clearance

Per state and national trail design guidance, including recommendations for the American Association of State Highway and Transportation Officials (AASHTO), the minimum width of a multi-use trail is 10 feet (see Figure 3-1). A more ideal design, especially if high volumes of users are expected, is at least a 12-foot wide trail. In circumstances where 10 feet is difficult or impossible to achieve due to physical constraints, a sensitive ecological setting, or other factors, a bare minimum of eight feet wide is acceptable. However, this exception is not advisable for any significant distances.

In all cases, AASHTO and other guidance organizations call for a minimum of two feet on either side of the trail to be made clear of any obstructions, whether man-made or natural. Three-foot clearance is preferred as space allows. Therefore, a typical segment of a multi-use trail should be a minimum 14 feet wide (10-foot wide trail plus two-foot clearance on both sides) and ideally 18 feet wide (12-foot wide plus three-foot clearance). If the facility parallels a fixed object, such as a stone wall, the surface should have a white edge stripe

Figure 3-1. Typical trail clearances for two-way bicycle traffic (not to scale).



placed at least one foot from the object to further reduce collision risks. If a segment is adjacent to a steep slope greater than 33%, a minimum five-foot clear shoulder is necessary. In such cases, a safety barrier of at least 42 inches in height is required. The trail should have a minimum eight-foot vertical clearance from trees or other overhanging structures, although a 10-foot clearance is preferred. Some funding sources are more stringent than others regarding trail widths and other dimensions.

Slope

Off-road paths are often used by novice bicyclists. Therefore, the maximum recommended slope, or grade, of the trail is 5%. A slope of 2% or less is appropriate for the majority of trail to ensure the safety and appeal of the trail. Where steeper grades are necessary, the following lengths are suggested as a general guide:

| Grade | Length |
|-------|----------------|
| 5-6% | up to 800 feet |
| 7% | up to 400 feet |
| 8% | up to 300 feet |
| 9% | up to 200 feet |
| 10% | up to 100 feet |
| 11+% | up to 50 feet |

These standards are consistent with the Americans with Disabilities Act (ADA). For grades greater than 5%, a level landing area should be considered to break up the steep slope.

The trail surface should also be designed with a cross slope that facilitates drainage but does not jeopardize safety (see Figure 3-1). For most surface materials, this consists of a minimum 1% and maximum 2% cross slope. The clear shoulders of the path should be slightly steeper, with a maximum 1:6 slope.



Example of decorative and functional barrier alongside a steep slope.

Design Speed

The minimum design speed for a shared use path is 20 mph. On steeper grades, a 25 to 30 mph design speed is recommended, provided the base of the slope does not have sharp curves, intersections, or other obstacles.

Surface Materials and Structure

Choosing a surface type is an important step in the planning and design of a trail. The surface material used should be determined by considering the desired users of the facility, the context of the trail, and the municipality’s available resources (budget, maintenance staff). Most multi-use trails use either an asphalt surface or an improved natural surface such as stone dust. The City’s standard for the Genesee Riverway Trail is an asphalt surface. However, the City typically uses concrete for facilities within the public right-of-way,

Table 3-1. Comparison of asphalt and stone dust trail surfaces.

| Factor | Asphalt | Stone Dust | Concrete |
|-------------------|--|--|--|
| Installation Cost | \$8.00 / SF or \$96.00 / LF | \$5.00 / SF or \$60.00 / LF | \$12.00 / SF or \$144.00 / LF |
| Users | wide range of users, best for long-range biking (commuters), strollers, in-line skaters, wheelchairs | limited range of users, would exclude in-line skaters | wide range of users, best for long-range biking (commuters), strollers, in-line skaters, wheelchairs |
| Permeability | impermeable* | allows some infiltration | impermeable* |
| Durability | does not erode on steep slopes, may require minimal maintenance every 7-10 or more years | may require resurfacing, edge cleanup every 2-5 years, susceptible to erosion from regular use, runoff from adjacent development | most durable, does not erode on steep slopes, won’t require surfacing or edge cleanup, may require replacement every 20-25 or more years |
| Other | designed for higher speeds, better for urban/suburban areas | easier on joints, better for rural/undeveloped areas | City policy to use concrete within the right-of-way |

* Porous asphalt and concrete materials are now available, although for a higher cost.

such as sidewalks designed for multi-use purposes. Table 3-1 presents is an overview of using one material versus another. Figures 3-2 and 3-3 illustrate the recommended dimensions and materials for constructing both types of trails. The City of Rochester should examine these factors carefully and determine which surface is appropriate for the proposed GRT and Eastman Trail segments. Consideration should be given to using a combination of trail surface materials, depending on the context of a given segment. However, changing back and forth from asphalt to stone dust may reduce trail usage by “through” traffic, such as commuting bicyclists.

Accessibility

The 2010 update to ADA Standards for Accessible Design did not include multi-use trails. For the purposes of this project, the standards for a walkable and accessible surface should apply wherever possible. ADA-compliant slopes are described on the previous page. Designs should also consider the United States Access Board’s Accessibility Guidelines for Pedestrian Facilities in the Public Right of Way. In addition to these standards, the trail should be designed to maximize accessibility for people with disabilities, such as wheelchair users. Handicap parking should be provided where possible at each trail head park-

Figure 3-2. Typical asphalt trail section (not to scale).

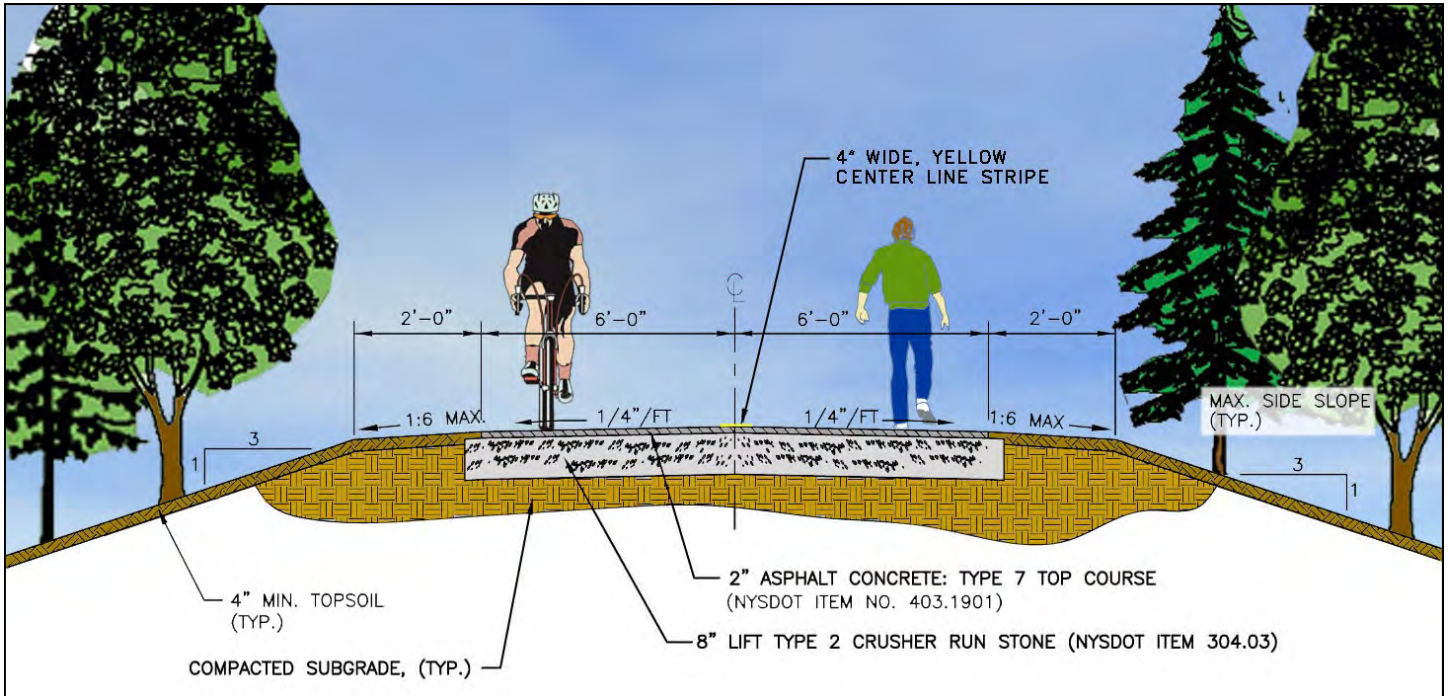
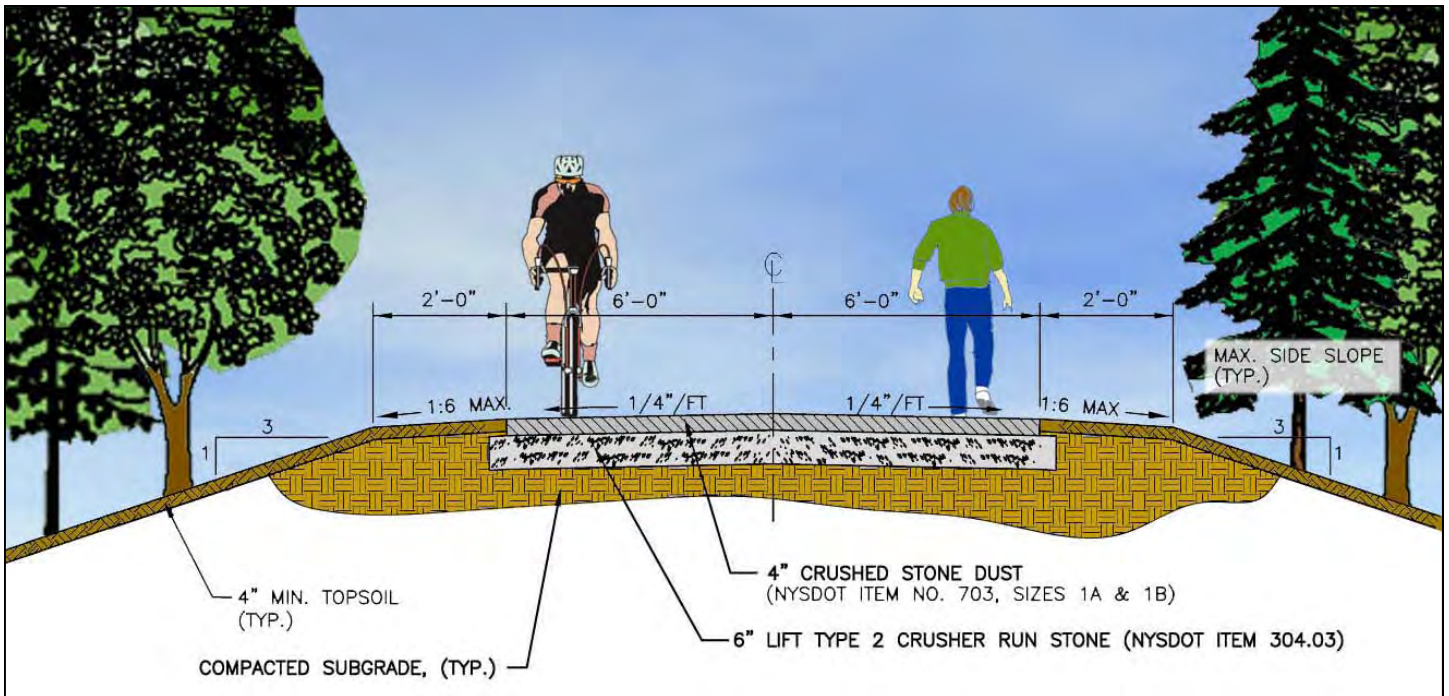


Figure 3-3. Typical stone dust trail section (not to scale).



ing lot, with ADA-compliant access paths connecting to the trail. All roadway crossings should include appropriate ramping and detectable warning systems. Trail amenities such as water fountains, picnic tables, and signage should consider users with disabilities.

Road crossings

Whenever the trail crosses a roadway, the design should factor in sight distances (for both vehicles and bicyclists), stopping distances, signage, and other approach treatments. Crosswalks should be highly-visible and marked with appropriate signage (see Figures 3-4 and 3-5). A material change for crosswalks will differentiate it from the roadway, prompting drivers to slow down and stay alert. A distinct crosswalk can also raise awareness of the trail within community, contributing to higher usage. The Manual on Uniform Traffic Control Devices (MUTCD) contains a section on bikeways and trails, which should be utilized for roadway crossing signage. The City of Rochester has also developed a manual for signage along the GRT, which should be adhered to where applicable.

Depending on the characteristics of a given roadway, a crosswalk at an unsignalized location, or mid-block crossing, may necessitate a signed crossing treatment, such as yield signs, stop signs (see Figure 3-5), or the solar-powered advance warning Cross Alert System. Complementary signage should be placed in the roadway in advance of the crossing to warn motorists. The Monroe County Department of Transportation’s Traffic Studies Procedure Manual requires an analysis and documentation of key roadway features to justify a mid-block crossing. These features include number of travel lanes, pedestrian volume, traffic volume, pedestrian gap availability, travel speeds, and geometry of the location. The manual also recognizes that crosswalks used for multi-use paths are unique situations in that the pedestrian volumes necessary to justify the crossing may not be present prior to the trail’s installation. Therefore, such a crossing is typically justified in the interest of promoting the use of the new facility.

Figure 3-4. Example of high visibility crosswalk with patterned surface to highlight trail use (not to scale).

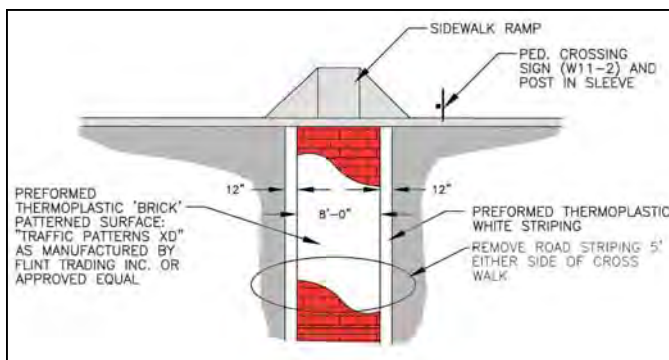
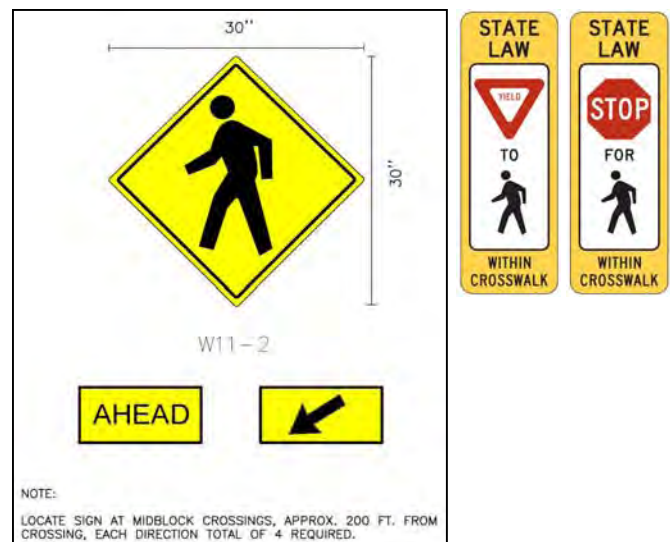


Figure 3-5. Mid-block crossing sign details (not to scale).



3.2 BICYCLE USE

Sidepaths, On-Road Segments, and Bike Routes

The GRT segment examined in this Study is currently a sidepath, which is commonly referred to as an on-road, or “shared roadway”, facility along Lake Avenue consisting of roadway shoulders and a signed sidewalk. Should all or portions of the proposed off-road alternative not be achieved, the City should consider upgrading the existing sidepath segment to be consistent with the standards of this Section. The proposed Eastman Trail may similarly contain a combination of sidepath / on-road and off-road segments. In places where there is insufficient space for a sidepath, a bike route may be the next best option (see Figure 3-6).

An on-road segment is comprised of a shared space or lane on the roadway, plus the sidewalks on both sides of the road. The shared space is typically reserved for experienced bicyclists, while the sidewalks would accommodate all other trail users. According to NYS Vehicle and Traffic Law, a bicycle is considered a “vehicle” and therefore has a legal right to use the roadway. When riding in the road, bicyclists should obey the same laws that apply to motorists, while taking extra safety precautions. These include hand signals, the use of highly visible clothing and/or lights, and allowing vehicles to pass when adequate space is available.

Bicyclists are generally discouraged from riding on sidewalks, as these facilities are usually much narrower than the recommended 10 to 12-foot wide multi-use trail. In addition, bicyclists that ride on the sidewalk but against vehicular traffic can confuse drivers. Predictable behavior is key to ensuring bicycle safety, and wrong-way sidewalk riding can erode that predictability. Bicycle use of sidewalks can also discourage pedestrian use due to limited width and incompatible speeds. However, it is recognized that in the communities where bicycle ridership is relatively low, many riders including families with children will choose to ride on the sidewalk.

Whenever possible, the space between an outside lane stripe and a curb (if present) should be a minimum five feet wide to accommodate cyclists. If this space is not available, the outside lane, or curb lane, should be 12 to 14 feet wide to provide ample room for vehicles and bicycles. In segments containing on-street parking, 12 feet of combined bicycle travel and parking width is recommended to avoid conflicts with parked vehicles (open doors, mirrors, etc.). Sidewalks incorporated into the trail system should be a minimum eight feet wide, although 10 or more feet is preferred.

Additional considerations for on-road segments include:

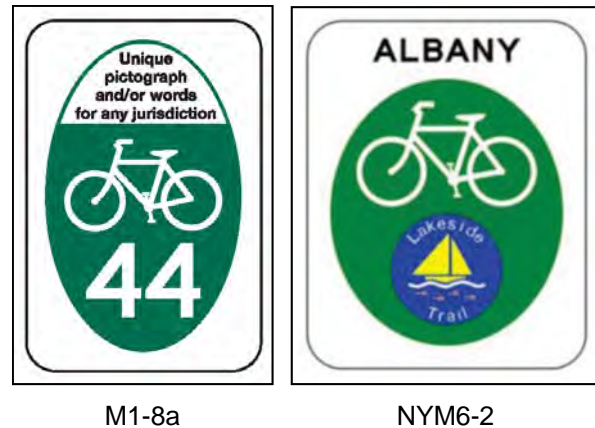


Figure 3-6. Federal MUTCD (M1-8a) and NYS MUTCD (NYM6-2) provide for bike route signs that incorporate local names and/or pictographs. Signs for the on-road or bike route portions of the proposed trail could be visually linked to the off-road segments using a common logo.

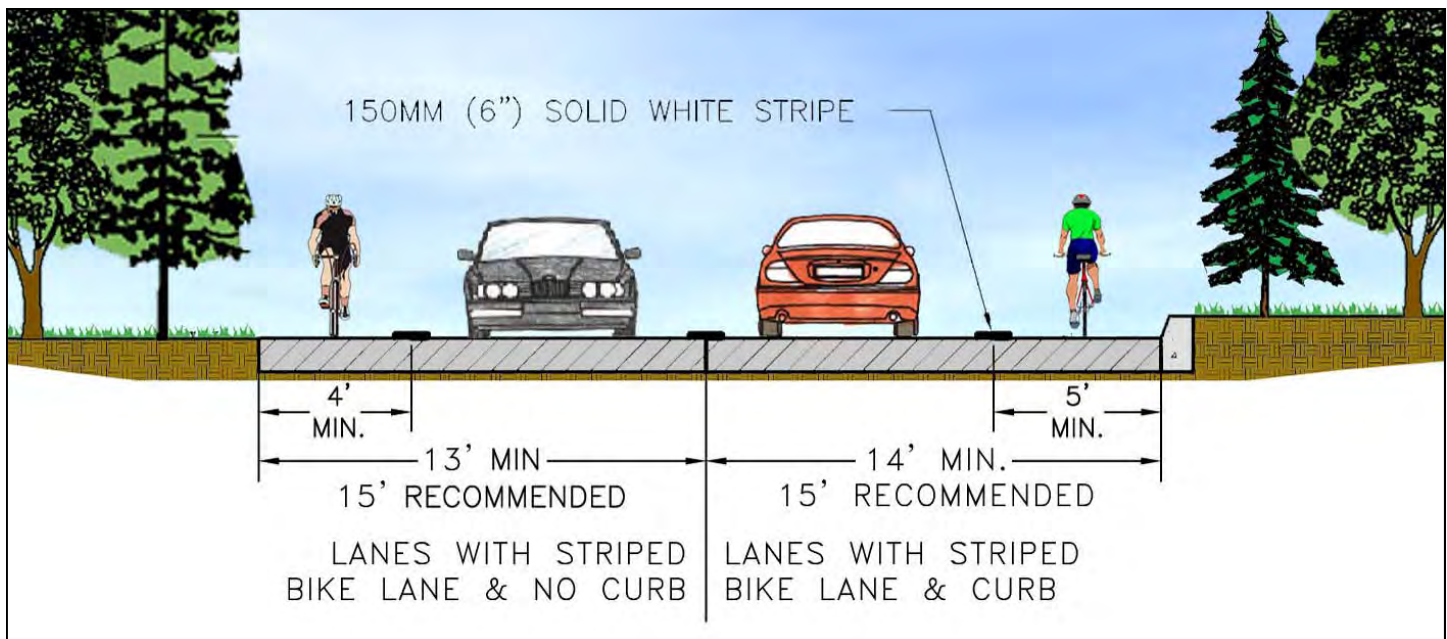
- Bicycle-safe drainage grates with slots perpendicular to traffic flow;
- Smooth pavement materials with shoulders kept free of debris;
- Detector systems at intersections that respond to bicyclists; and
- “Share the Road” signage and/or sharrow markings on the pavement.

Bike Lanes

Bike lanes are one-way striped facilities designated between the outside travel lane and the curb or edge of pavement (or on-street parking, if present). These markings are useful for alerting motorists to the presence of cyclists. They also raise the confidence of certain skill levels and encourage safe and predictable riding. Most importantly, a vast and growing inventory of bicycle lanes within a city or town contributes to the sense that it is a bicycle-friendly community.

If the curb to curb dimensions of a roadway allow for one or both bicycle lanes, they should be considered as a retrofit to a segment that is accommodating the proposed trail. Bike lanes should be a minimum of four feet wide, or five feet wide if on-street parking is permitted in the area or if curbs are present (see Figure 3-7). An alternate design, known as a buffered bicycle lane, contains a minimum 2-foot wide diagonally striped buffer area between the bicycle lane and the vehicular travel lane. This provides greater comfort and flexibility to cyclists. The City of Rochester, as part of its Bicycle Master Plan, identified a priority level for all of its major streets (see Table 2-2 and Figure 2-3). Within the Study Area, Ridgeway Avenue between Lake Avenue and Dewey Avenue was placed in the highest tier, which is most likely to have bike lanes installed in the near future.

Figure 3-7. Typical shared roadway section with no parking (not to scale).



Bicycle Boulevards

The bicycle boulevard is an emerging design strategy that retrofits low-volume and low-speed streets to optimize bicycle travel. The primary characteristics of a street or network of streets that could be considered for a bicycle boulevard designation are:

- Low motor vehicle volumes;
- Low motor vehicle speeds;
- Connections to key destinations;
- Logical, direct routes that are clearly marked; and
- Safe and comfortable intersection crossings for cyclists.

The concept involves employing a combination of design elements that together will reduce automobile use and/or speeds and encourage greater bicycle use. Table 3-2 presents a menu of treatments that could be utilized, depending on the context of the street in question.

The bicycle boulevard concept is relevant to the proposed Eastman Trail as an alternative to traversing all or a portion of EBP. It is also an alternative to utilizing the major east-west roadways in the Study Area—West Ridge Road and Ridgeway Avenue. The biggest challenge to pursuing this concept is overcoming two major north-south transportation corridors—Mt. Read Boulevard, which is a limited access highway, and the CSX railroad tracks that parallel Mt. Read Boulevard to the east. In the absence of two pedestrian bridges over these barriers, the bicycle boulevard concept would need to be compromised for short sections of Ridgeway Avenue to utilize its bridges over the two barriers.

Table 3-2. Design elements to be considered for establishing a bicycle boulevard.

| | |
|------------------------|-----------------------------------|
| Signage | Wayfinding |
| | Warning |
| | Identification |
| Traffic Calming | Mini-roundabouts |
| | Curbsouts/bumpouts |
| | Chicanes |
| | Speed tables |
| | Contraflow bicycle lane |
| | Painted/patterned surfaces |
| Prioritize Bicycle Use | Pavement symbols/stripping |
| | Stop/Yield signs |
| | Sharrows |
| Intersection Design | Bicycle boxes |
| | Bicycle activated traffic signals |
| | Crossing islands |
| | High visibility crosswalk |
| Traffic Reduction | Bicycle only crossings |

3.3 AMENITIES

Trail Heads

Trail heads are major access points to the trail system. They provide parking and signage instructing users as they begin their excursion. Various amenities should be considered for trail heads including kiosks with maps and other information, benches, bike racks, repair racks, restrooms (such as the low-tech Portland Loo), water fountains, trash receptacles, landscaping, vehicular access restrictors, and interpretive signage or installations. Trail heads should be located at the beginning and end of the trail and at points in between where concentrated flows of trail users can be expected. Ideally, a trail head location would be associated with a bus stop to accommodate multiple modes of transportation.

Lighting

Lighting is an important feature that allows trail users to see trail conditions and potential obstacles while promoting safety and visibility. Locations where lighting should be considered include intersections with roadways or other trails, trail heads and trail parking areas, and where heavy night use is expected (i.e. for students or commuters). Undeveloped areas are not recommended for lighting as it may detract from the natural environment. Under the City's policy, the GRT is considered a park facility and is therefore closed from dusk to dawn, precluding the use of lights for the majority of the trail. The City and EBP would need to consider whether or not to apply the same policy to the proposed Eastman Trail. In any case, whenever light poles are used, they should be pedestrian-scale in height and design, emitting a minimum five lumens and up to 20 lumens in areas where security is a concern. For on-road segments, existing street lighting should be sufficient for the trail.

Engagement

In order for the Eastman Trail and GRT to reach their fullest potential, they must be designed to be more than a means to get from one location to another. Users should be engaged by a variety of interpretive and creative amenities to ensure a dynamic trail experience. The industrial history of the Eastman Trail and the natural beauty of the GRT are foundational elements to this concept, and should be interpreted and celebrated. From simple signs to engaging art installations, there are numerous opportunities to add flavor and enjoyment to the trail experience. A more in-depth discussion of these possibilities can be found in Appendix A.



Installation celebrating the industrial heritage at Lowell National Historical Park.

Other Amenities

The trail user experience should be practical as well. Provision of amenities and furniture will contribute to the success of the facility. Wayfinding signage should be strategically placed so as to direct trail users to destinations and other trails. This type of signage is especially important in places where the trail transitions between off-road and on-road segments. Kiosks, which may include maps, business directories, rules and regulation, historical items of interest, and other helpful information, should be placed at trail heads and key intersections. Bike racks, benches, repair racks, and trash receptacles are recommended at trail heads and at reasonable intervals along the trail. Interpretive signage should be located near important historic sites or buildings and should highlight unique natural features.

The trail experience would also benefit from intentional landscaping treatments. Strategic plantings can be used to add color and beauty, screen from adjacent private uses or unattractive features, provide shade at resting areas, and help provide definition to the corridor limits. Care should be taken to avoid plantings that hinder sight distances or compromise a secure environment.

3.4 SIGNAGE

Genesee Riverway Trail

In 2001, the City of Rochester developed Genesee Riverway Trail Signage Standards Manual. Updated in 2010, this comprehensive set of standards addresses the various sign types and outlines the size, colors, placement, and other signage design elements that should be consistent throughout the trail. All new signage on the GRT segment should adhere to the Standards Manual.

Eastman Trail

The specific theme of the Eastman Trail should be developed at the design stage of the proposed project. Whether it relates to the adjacent GRT or Route 390 Trail or is a completely independent design, it should follow the well-established standards for trail signage in the City. This entails precedents related to the hierarchy of signage types (Directional, Trail Marker, Regulatory, etc.), recommended frequency, and guidelines for placement to ensure safety and clarity. Where the trail intersects a public roadway, signage should be consistent with the MUTCD.

3.5 SAFETY

Policing & Enforcement

Planning for multi-use trails or other recreational facilities often raises concerns about safety and crime. Concerns include trail use by ATVs or other motorized vehicles and inappropriate or illegal behavior occurring in more secluded sections. While there is no guaranteed way to prevent unwanted behavior, trail design and policy can reduce these activities, potentially to lower levels than may be currently occurring in the absence of an officially designated trail. As mentioned previously, bollards or other physical barriers can be installed to prevent unauthorized motorized vehicle access, as can regulatory signs. However, this design should be periodically reviewed for its effectiveness. The City should work closely with the local police force and the Monroe County Sheriff's Office to develop a plan for monitoring the trail and enforcing usage restrictions.

Although the trail will provide easier access to semi-secluded areas, the presence of an official and highly-visible community facility can actually deter people from inappropriate or illegal activities. An improved trail as part of a larger system solidifies the perception that a hiker or biker could pass by at any given time, which can deter these unwanted activities. As the trail grows in popularity, it can in effect become self-policing. Other communities in the area, such as Victor and Mendon, as well as nationally, have reported this phenomenon, citing that people who typically choose to use the trail are the ones that care most about its preservation. While they may have the occasional problem, the overwhelming response to the trail from the communities has been positive.

Emergency Response

This issue is of particular concern to the proposed GRT segment, as it proposes to route users away from Lake Avenue to less accessible areas along the Genesee River gorge. The City of Rochester is currently developing a system to improve emergency response to such areas, with a pilot project slated for installation in Turning Point Park. The system consists of trail markers placed every 1/10th to 1/8th of a mile, each displaying a unique 5-character code. Should a trail user require police or medical help, they would call 911 and report the nearest code. This will be useful in segments that are far from roadway intersections, such as in Bullock's Woods. The code system should be integrated into the GRT design, as well as remote sections of the Eastman Trail.

Crime Prevention Through Environmental Design

Commonly known as CPTED, this is a multi-disciplinary approach to reduce crime, or the fear of crime, through strategic design of the built environment. CPTED generally consists of the five categories of strategies:

- Natural Surveillance. Seeks to increase the perception that people and places are highly visible, which in theory deters would-be criminals from acting. Such perpetrators also feel increased scrutiny and limitations on their escape routes. It entails careful design and placement of people, activities, and physical features.
- Natural Access Control. Involves the strategic placement and design of entry and exit points. Highly visible access points, coupled with inconvenient or impossible access points in between, improve social accountability.
- Natural Territorial Reinforcement. Involves a combination of design features and community engagement to create a sense of ownership of a space or a facility. Those that feel a sense of responsibility for something are more likely to safeguard it, while criminals that sense that active stakeholders are present will be less likely to act.
- Maintenance. Deteriorated places or facilities can communicate tolerance for disorder. A well kept community asset tends to discourage disinvestment or improper behavior.
- Activity Support. Activities involving intended users will further the perception of a safe place and promote social engagement.

Each of these strategies should be considered when addressing the various details of trail design. Highly visible access points will encourage trail use and decrease or remove the perception of isolation. Similarly, the more a trail is utilized by intended users, the less likely criminal activity will occur.

3.6 OWNERSHIP & MAINTENANCE

The City of Rochester should explore the various options available for owning and maintaining the trail. Each option has pros and cons and must be examined to determine the best fit for the City and the community it serves. A combination of options may be necessary, depending on physical conditions and negotiations with various private property owners.

Although the Study Area consists mainly of private land (see Map 3), it benefits from having a small number of large landowners, namely Eastman Kodak Company, Holy Sepulchre Cemetery, RG & E, and Carestream Health. The primary City-owned property is Riverside Cemetery. This set of circumstances reduces the amount of negotiation work necessary to pursue the proposed trail segments. For each property on which the proposed trail is considered, some form of acquisition or easement would be necessary.

When public sources are used to fund trail design and construction, most agencies expect public ownership of the corridor. An alternative is a corridor easement or lease agreement. While not as desirable as outright ownership, this is a common model for multi-use trails. The agreement would need to avoid conditions that would negatively impact the investment of public dollars in the facility.

One of the most common methods of acquiring full rights and title to a parcel of land is *fee simple acquisition*, where the landowner holds all rights to the property without restriction or reservation. Another potential option is a *bargain sale*, in which the current landowner agrees to sell the property below the market value with the difference being treated as a charitable tax deduction. Similarly, a *full donation of all or part of the property* could be considered, which may make the donor eligible for some property tax relief and/or charitable donation tax deductions.

In lieu of full acquisition of the corridor, the City could consider establishing a long-term easement or lease with the property owners. Property easements or leases are acceptable when using public funding for trail development but generally should meet the following terms to protect the public's investment:

- An easement or license should be irrevocable;
- Facilities, installations, and improvements should not be required to be automatically removed at the end of the easement or lease agreement;
- Use or conveyance of the space above or below ground should be a term for negotiation. The intent here is not to restrict the corridor owner's rights to allow other parallel uses but to ensure these uses do not negatively impact the trail facility installed, including the use of the trail and the aesthetics of the trail corridor;

- The corridor owner should not expect the trail operator to remove or relocate all or part of the trail facility, installation, or improvement at the operator's expense within either a short time frame and/or with no joint determination of the need to do so;
- An easement or lease agreement should be granted for a minimum of 20 years, which is considered by NYSDOT as a "reasonable duration of intended use and access" for a trail project funded with public dollars. A pedestrian bridge structure as part of a multi-use trail should be designed for a service life of at least 50 years.

The premature removal of a publicly-funded trail or portion thereof may result not only in a local community having to remove or relocate the trail at its expense but also pay back some state and/or federal funding used for trail improvements. Both the NYSDOT and the Federal Highway Administration, another major funder of trail projects, find this situation unacceptable. Thus, the City or another public agency should consider acquiring portions of privately-owned properties, or to agree to a long-term easement or lease with few, if any, conditions that would impact the public's investment. Some public funding sources can be used for right-of-way acquisition costs in addition to trail design and construction costs, including several federal transportation funding sources (see Section 6).

In general, it is important that private landowners are committed to the trail project, regardless of how future development plans evolve. If such plans do not materialize, or change substantially, they should not jeopardize the development of the trail. The City should be proactive with the land owners and developers to achieve this objective.

The City should be prepared to handle the maintenance of the trail. According to a nationwide survey of 39 communities with trails, conducted by the Rails-to-Trails Conservancy, average annual maintenance costs amount to about \$1,500 per mile. Given the length of the recommended alignment of the GRT (see Section 5), that would average about \$920 per year, excluding trail segments along existing cemetery paths. Annual maintenance of the recommended alignment of the Eastman Trail is estimated to be \$2,170 based on the nation-wide survey. Some of these costs can be offset by utilizing volunteer labor through community groups such as Eagle Scouts, local schools, or the annual "Clean Sweep" cleanup day.

3.7 MT. READ BOULEVARD PEDESTRIAN BRIDGE

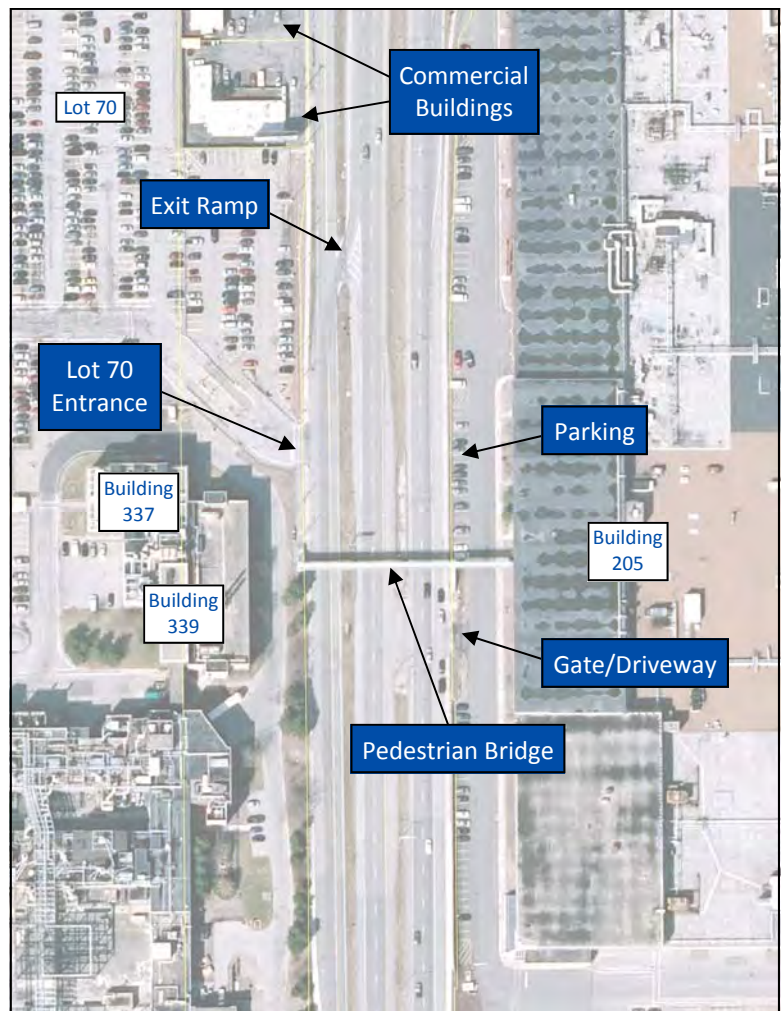
Constraints on New Bridge Construction

Should the Eastman Trail cross Mt. Read Boulevard, a new pedestrian bridge would likely be necessary. Replacing the existing bridge requires careful consideration of the needs of both EBP employees and trail users. A cursory review of on-site features suggests that a new bridge is feasible from a physical design perspective, although there are some constraints (see Figure 3-8). See Section 5.6 for specific recommendations related to a new pedestrian bridge.

Along the east side of Mt. Read Boulevard there is a gate in front of a vehicular driveway to EBP approximately 75 feet south of the pedestrian bridge. There is visual evidence that the gate is no longer used, so it may or may not be a physical constraint. There is also vehicular parking along the west side of the EBP access drive. These parking spaces abut the sidewalk and right-of-way for Mt. Read Boulevard. It is likely that new ADA-compliant access would impact parking at this location.

The auxiliary roadway to the west of Mt. Read Boulevard has a driveway entrance to Parking Lot 70 approximately 125 feet north of the pedestrian bridge. The parking lot is located north of this driveway and abuts the right-of-way line which limits room for ADA-compliant access. It should be noted, however, that the size of the lot and observed usage suggests that eliminating a minimum number of parking spaces to allow for construction of access ramps will not significantly affect the lot's capacity. In addition, there is an exit from Mt. Read Boulevard to the auxiliary roadway approximately 350 feet north of the existing bridge.

Figure 3-8. Physical constraints to be considered in the design and placement of a new pedestrian bridge over Mt. Read Boulevard. Several features would affect the location of ADA-compliant approach ramps.



Other than the limitations imposed upon the area due to the roadway and parking geometries there are only minor physical obstructions in the immediate vicinity of the site. There are evergreen trees situated to the southwest of the existing bridge's western approach. To the north of the parking lot along the west side of the auxiliary roadway there is a commercial property with a building located in proximity to the property lines which may present constraints on the location of ADA-compliant access to a proposed bridge. In addition, the location of the EBP buildings and feasible access locations will limit the location of any new bridge.

Dimensional Standards

A new pedestrian bridge would need to be designed and constructed to meet all current standards. The majority of those standards are put forth by the American Association of State Highway Transportation Officials (AASHTO) and in the New York State Highway Design and Bridge Design Manuals. Per those standards, the clear width of the bridge should be a minimum of 10 feet to allow safe passage of pedestrians and bicyclists. Twelve feet is a more ideal width if feasible. ADA-compliant access ramps would need to be constructed on either side with a maximum 5% grade. Based on the relatively short length of the access ramps, a grade of 8% may be acceptable should physical features prevent a more gentle slope. Level ramps are required to be placed at the top and bottom of ramps as well as at any turns in the ramps. Handrails and fencing should be mounted to the bridge and ramps with a minimum height of 3.5 feet.

The underside of the bridge would need to be a minimum of 16 feet above the roadway, with a height of 16.5 feet more desirable. This clearance is determined by the fact that Mt. Read Boulevard is considered a Principal Arterial on the National Highway System. A 16-foot vertical clearance, coupled with a maximum 5% grade for approach ramps, would result in approximately 320 linear feet of approach ramps on both sides of the bridge.

Ownership

Should a new bridge be constructed to accommodate the proposed trail, all involved parties should carefully examine the ramifications of different ownership scenarios. The City of Rochester owns the current bridge and therefore is primarily responsible for maintenance. However, Eastman Business Park is listed as the Secondary Owner as the bridge is physically attached to one of their buildings and thus is partially constructed over private property. Both parties have a vested interest in a new pedestrian bridge, with the City's interest augmented by the presence of a multi-use trail serving the larger community. New York State would also have an interest in a new bridge, having jurisdiction over Mount Read Boulevard. Regardless of who pays for, owns, and/or maintains a new bridge, most funding sources will look for a long-term commitment on the part of the owner to preserve the continuous operation of the facility in order to maximize the longevity of investments.



SECTION 4

TRAIL ALIGNMENT ALTERNATIVES

4.1 OVERVIEW

As a result of the site visits, existing conditions analysis, Steering Committee discussions, public input, and discussions with major land owners, several alternatives were explored for locating the Eastman Trail and Genesee Riverway Trail (GRT). The following is a summary of the alternatives considered during the planning process (see Maps 8-01 through 8-10). The assumption is that, regardless of the alternative chosen, the Eastman Trail would begin at the proposed Route 390 Trail near the Ridgeway Avenue and Latona Road intersection and end at the GRT on Lake Avenue. The proposed GRT segment is assumed to begin near the intersection of Lake Avenue and Maplewood Drive and end at the existing trail in Turning Point Park. Each of the alternatives were examined and a preferred alternative was identified, as described in Section 5, Recommended Alignment and Design.

It should be noted that the numerous alternatives and sub-alternatives identified represent a complex set of iterations of where the trails might be located. The complexity of these iterations does not lend itself to a simple delineation such as “Alternative 1 vs. Alternative 2”. This Section focuses primarily on generalized alternatives, i.e. the Southern Route of the Eastman Trail, without belaboring the multitude of smaller segment iterations that arise from combining different alternatives.

4.2 EASTMAN TRAIL

Former Erie Canal Bed to Mt. Read Boulevard

This segment primarily consists of the former Erie Canal bed paralleling Ridgeway Avenue. At the Lee Road / Latona Road intersection with Ridgeway Avenue the Eastman Trail would connect with the proposed extension of the Route 390 Trail. There is adequate space to develop a trailhead for this important junction on either the northwest or southwest corner of the intersection.

Heading east, the corridor is heavily wooded with slope issues only where it is bisected by roadways. At Kodak Park Avenue, the trail would either require a pedestrian bridge over the roadway or it would need to briefly merge with the sidewalk on the north side of Ridgeway Avenue. The sidewalk is only five feet wide and the roadway dimensions are not conducive to expanding the sidewalk for the sake of the trail. A more moderate slope exists at the approaches to McLoughlin Boulevard. It is not expected that a pedestrian bridge is necessary at this location. This point is also an optimal location for providing bicycle/pedestrian access from the Eastman Trail north into EBP for employees.



The entrance to EBP at McLoughlin Boulevard presents an opportunity to link the Eastman Trail directly into the Park.



Trail impacts to existing infrastructure, like these overhead utilities near Weiland Road, would need to be mitigated.

East of McLoughlin Boulevard, the canal corridor turns southeast and crosses Ridgeway Avenue. At that point, three alternatives exist for continuing east to Mount Read Boulevard. One alternative is to parallel Ridgeway Avenue, just north of the existing sidewalks, traversing the tree lawn at the edge of the EBP parking lots. Safe crossings would need to be designed at Weiland Road and each of the driveways. Once east of EBP Building 320, the Eastman Trail would turn north and parallel Mount Read Boulevard in the wide swath of greenspace west of the sidewalk.

The second alternative would route the trail north of Parking Lot 77 and Building 320, turning north once the aforementioned greenspace adjacent to Mount Read Boulevard is reached. This alternative is more direct and more of a true off-road segment. However, EBP representatives have expressed concern about the impact on potential new development in the open space areas and mitigating conflicts with overhead utilities near Environmental Way. The current occupant of Building 320 is in a lease agreement with EBP and is considering an outright purchase of the building and adjacent property. This may or may not be favorable for the proposed trail, and the City of Rochester should remain in contact with all parties as the situation evolves.

The third alternative would be an on-road segment along Ridgeway Avenue from Weiland Road to Mount Read Boulevard. This segment has five-foot wide shoulders and no on-street parking. According to the City of Rochester Bicycle Master Plan, the segment was assigned a Bicycle Level of Service of 'D'. Based on the dimensions of this short segment of Ridgeway Avenue, there may be sufficient space to mark the east and west travel lanes as shared use lanes with sharrows, which would result in narrower shoulders. There is also sufficient space to install four or five-foot bicycle lanes, also resulting in narrower shoulders or no shoulders.

Regardless of which alternative is selected, the proposed Eastman Trail would continue north on the west side of Mount Read Boulevard. At the bridge over Technology Boulevard, the trail would need to merge with the existing sidewalk due to the narrow dimensions of the bridge. There is adequate space between the Technology Boulevard bridge and the pedestrian bridge at Building 205 to install a trail facility separate from the sidewalks. This would enable adequate trail width and separation from the adjacent limited access roadway. However, some tree removal may be necessary to accommodate a separate facility.

The pedestrian bridge over Mount Read Boulevard connects Building 205 to Buildings 337 and 339, as well as the adjacent Parking Lot 70. EBP has expressed an interest in replacing this aging structure, which is narrow and is not ADA accessible. One alternative is to construct a new structure at the same location (or immediately adjacent), including provisions for trail users and ADA-compliant approach ramps on both sides. The other alternative is to construct a new bridge at a different location to the north that still connects Building 205 with Parking Lot 70. In either case, this new bridge, coupled with the proposed Eastman Trail to the south and west, would provide valuable access to EBP for bicycle or pedestrian commuters.

In summary, enhancements to this segment include:

- installing a trailhead near the intersection of Ridgeway Avenue and Lee Road / Latona Road;
- installing a trail along the former Erie Canal bed between Latona Road and Ridgeway Avenue;
- installing a pedestrian bridge over Kodak Park Avenue or merging the trail with the Ridgeway Avenue sidewalk as it crosses Kodak Park Avenue;
- installing a trail on either the north or south side of Parking Lot 77 and Building 320 or designating that segment of Ridgeway Avenue as an on-road trail;
- installing a trail in the greenspace adjacent to Mount Read Boulevard; and
- replacing the pedestrian bridge over Mount Read Boulevard with an ADA-compliant structure that accommodates trail users.



Landscaped buffer between Mount Read Boulevard and Chemical Imaging Loop in EBP.



The pedestrian bridge over Mount Read Boulevard could be replaced to meet the needs of both EBP and trail users.

Mount Read Boulevard to Dewey Avenue - Northern Route

Two primary alternatives were explored between Mount Read Boulevard and Dewey Avenue. The Northern Route would mainly be an off-road segment paralleling Ridge Road and would traverse sections of EBP property. The Southern Route would be an on-road segment traversing the Maplewood Neighborhood, mainly along Ridgeway Avenue.



The entrance to Carestream showing the greenspace that would accommodate the Northern Route alternative.



Ridge Road crossing the railroad tracks, where the Eastman Trail would need to merge with the existing sidewalk.

Beginning at the pedestrian bridge over Mount Read Boulevard, the Northern Route would follow the existing sidewalk on the east side of the limited access highway. The sidewalk would need to be widened to at least ten feet to accommodate the trail. The trail's use of existing sidewalks would continue east along Ridge Road, crossing two major entrance points to EBP. At the second driveway (xpedx and Carestream), the trail would be located in the narrow greenspace adjacent to the driveway, heading south and tracing the fenced perimeter of the Dewain Street neighborhood until reaching the rear of the Arby's Restaurant property on Ridge Road. A sub-alternative to this segment would be to route the trail along Dewain Street rather than behind the houses on the south side of Dewain Street.

Continuing on the outer perimeter of EBP property, the Northern Route would head east to the major railroad crossing at Ridge Road. The trail would briefly merge with the existing sidewalk that crosses the tracks, instead of creating a separate at-grade crossing. On the undeveloped lands west of the tracks and the parking lot east of the tracks, the trail should be located so as to not preclude future development of these lands. Rather, it could be designed as an asset to attract future development. Across from Bernice Street, the trail would cross the gated entrance to Parking Lot 54 immediately adjacent to the gate, where vehicles are accustomed to stopping. At present, this parking lot has significant excess capacity and therefore has ample room for providing a wide, undulating trail with ample landscaping to buffer unattractive views and enhance the trail user experience.

East of Parking Lot 54, the Northern Route begins to traverse key sections of EBP that are being aggressively marketed for redevelopment. Once again, the trail could be designed in a fashion that does not preclude

future development, but rather can be marketed as an asset. However, EBP representatives are reluctant at this time to permit a multi-use trail through the Park's Ridge Road frontage properties. Their preference is to see how redevelopment materializes before exploring the inclusion of a multi-use trail.

Depending on future development scenarios and the alternative chosen on the east side of Dewey Avenue, the Eastman Trail could be aligned in several different ways to cross Ridge Road or Dewey Avenue, as shown on Map 8-07. Each of these sub-alternatives is designed to connect north and east to Eastman Avenue. If the sub-alternative that crosses Dewey Avenue south of Ridge Road is pursued, it should be noted that a gap study would be required for this mid-block crossing. All other potential roadway crossings would be at existing traffic signals (Ridge/Bernice, Ridge/Eastman, Ridge/Dewey, or Ridge/Woodside).

Lastly, this Study considered an on-road alternative along Ridge Road from Mount Read Boulevard to Eastman Avenue. It was concluded that, due to the high speed nature of the roadway, the limited space for shoulders and/or bike lanes, the raised median, and the high volume of truck traffic, an on-road Eastman Trail concept was not a desirable alternative.



Ridge Road's high speeds and traffic volumes do not present attractive conditions to the average cyclist.

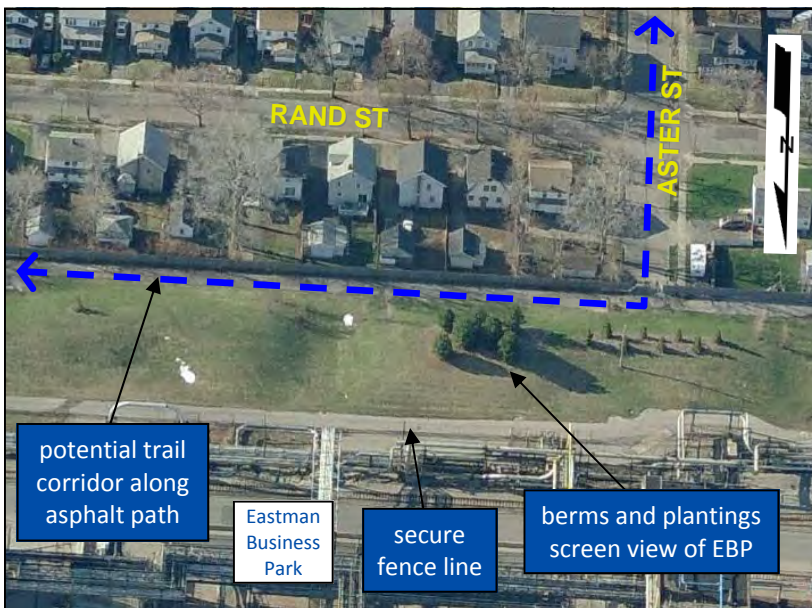
In summary, enhancements to the Northern Route alternative include:

- widening the Mount Read Boulevard and Ridge Road sidewalks as needed;
- installing a trail along the perimeter of the Dewain Street neighborhood;
- installing a trail along the northern edge of EBP from Lancaster Street to the eastern edge of Parking Lot 54; and
- installing a trail through EBP from Parking Lot 54 to Dewey Avenue, designed in a fashion that does not preclude redevelopment of key sites.

Mount Read Boulevard to Dewey Avenue - Southern Route

Beginning at the corner of Ridgeway Avenue and Mount Read Boulevard, the Southern Route alternative would primarily consist of an on-road trail through the Maplewood Neighborhood. Ridgeway Avenue from this point east to Aster Street has varying widths and travel lane / parking lane arrangements, making the provision of consistent bicycle treatments difficult. According to the City's Bicycle Master Plan, Ridgeway Avenue between Mount Read Boulevard and Dewey Avenue was assigned a Bicycle Level of Service of 'F'. The City is currently redesigning Ridgeway Avenue between Ramona Street and Minder Street. Bicycle accommodations are being considered but it is unlikely that the sidewalks will be widened to accommodate the trail.

Figure 4-1. Landscaped buffer between EBP and the Maplewood Neighborhood, including an asphalt trail along the fence.



In any case, the on-road Eastman Trail would be located on Ridgeway Avenue between Mount Read Boulevard and Aster Street, then north on Aster Street to its terminus. Aster Street is a small residential street with low traffic volumes. While there may be more space between curbs to include bicycle lanes or sharrow markings, they may not be warranted due to the low traffic volumes.

Aster Street ends at the EBP property, which is secured by a gate. The Southern Route alternative entails removal of that gate and routing the trail along the southern edge of the EBP property until reaching Dewey Avenue. This wide swath of green-space, which includes berms and trees, is a remnant of the DeNeve Street right-of-way and is designed to buffer the industry from the adjacent neighborhood (see Figure 4-1). A portion of the DeNeve Street right-of-way remains at the eastern end of the buffer

area. The southernmost edge of that greenspace contains an asphalt path that could be improved to carry the Eastman Trail. The gate at the eastern end of this path would also need to be removed, allowing the trail to connect to Dewey Avenue. From this point the Eastman Trail would connect to Eastman Avenue through one of the sub-alternatives shown on Map 8-07 and described in the Dewey Avenue to Lake Avenue section.

In summary, enhancements to the Southern Route alternative include:

- installing an on-road trail segment along Ridgeway Avenue and Aster Street, consisting mainly of signage and striping, where sufficient space allows; and
- installing a trail along the former DeNeve Street right-of-way in EBP.

Dewey Avenue to Lake Avenue

Depending on the trail route selected in the previous segment, the Eastman Trail in this segment would begin its route on either Merrill Street, Eastman Avenue, or Woodside Street. The Merrill Street alternative consists of an on-road segment that would connect east to Lake Avenue. The Eastman Avenue and Woodside Street alternatives would both connect to the Eastman Trail as it traces the western and northern perimeter of Parking Lot 42. EBP representatives have expressed a willingness to explore this alternative, as local zoning already requires a buffer between the adjacent residential properties and any industrial development.

There is a major employee vehicle access gate on Merrill Street just west of Lake Avenue. This the point at which the Eastman Trail would transition from Parking Lot 42 to Merrill Street. Or an off-road trail could be installed along the northern edge of Lot 42 parallel to Merrill Street. In either case, this segment provides bicycle and pedestrian commuters with improved access into EBP.

Lastly, an alternative along Eastman Avenue between Woodside Street and Lake Avenue was considered. EBP representatives had significant concerns about security issues and realignment of fences, gates, and other infrastructure. The alternative was not explored in any depth due to these concerns.

In summary, enhancements for this segment include:

- installing an on-road trail segment along Merrill Street, Eastman Avenue or Woodside Street;
- installing a trail along the western and northern perimeter of Parking Lot 42, connecting to Merrill Street at the vehicle access gate; and
- installing an on-road trail along Merrill Street from the employee gate to Lake Avenue.



The outer perimeter of Parking Lot 42 could accommodate the Eastman Trail within the buffer area prescribed in the zoning regulations.



There is extremely limited space, and in some cases no space, between the rear property line of Lake Avenue residences and the edge of the gorge.



The parking lot adjacent to King's Landing Cemetery is a potential location for a trail head with kiosks, benches, restrooms, and other amenities.

4.3 GENESEE RIVERWAY TRAIL

Maplewood Drive to St. Bernard's Park Apartments

The GRT currently connects Maplewood Drive with Turning Point Park via an on-road segment consisting of a sidewalk on the east side of Lake Avenue. Alternatives were explored for moving some or all of this segment off-road and closer to the Genesee River Gorge. An off-road trail from Maplewood Drive north to the St. Bernard's property would be located along the gorge edge, behind King's Landing Cemetery, EBP Building 81, and a collection of six residences to the north (Gorge Edge alternative).

Beginning at the southern end of this segment, the existing GRT transitions from off-road to on-road adjacent to a Kodak parking lot east of Maplewood Drive. There appears to be adequate space for the Gorge Edge alternative to trace the eastern edge of King's Landing Cemetery. However, a more detailed survey of the actual limits of this historic cemetery would be required to avoid disturbing any gravesites or other artifacts. North of the cemetery, it was observed that there is extremely limited space, and for some stretches, no space, to accommodate a multi-use trail behind Building 81 or the Lake Avenue residences. This alternative would likely require a costly structure and/or significant slope modifications in order to locate the trail east of those properties and on to the RG&E property that lines the gorge.

As this option was clearly cost-prohibitive, it was not explored any further with RG&E or neighboring landowners. The only feasible alternative to the Gorge Edge route in this segment is to continue utilization of the on-road segment of the GRT.

In summary, enhancements to this segment include:

- installing a trail head at the parking lot east of King's Landing Cemetery;
- installing a trail segment along the eastern and northern edges of the cemetery (pending survey);
- shifting the sidewalk segment on the southern edge of the cemetery to the inside of the guard rail, providing greater separation from the road and avoiding the confusion caused by southbound bicyclists apparently riding against traffic on the sidewalk;

- widening the Maplewood Drive sidewalk to at least 10 feet;
- additional historic interpretation signage in the cemetery, as a result of the survey; and
- widening the Lake Avenue sidewalk to at least 10 feet, from Maplewood Drive north to the entrance of Building 81.

St. Bernard's Park Apartments to Holy Sepulchre Cemetery

This segment provides greater opportunity for shifting the GRT closer to the Genesee River gorge. In addition to the on-road segment along Lake Avenue, the GRT includes a brief off-road segment located behind the St. Bernard's complex, connecting to the Lake Avenue sidewalk at the northern and southern ends of the property. The City of Rochester has an easement in place that allows for this segment of the GRT. The on-road segment in front of St. Bernard's is necessary because the southern end of the off-road segment exceeds the maximum slope required by ADA standards. Therefore, the proposed alternative for this segment would be to realign the southern end of the trail to feature a gentler slope and wider surface. North of the pond near the gorge edge, the trail passes through an open garage structure that is apparently no longer in use by the apartment complex. The ceiling of this structure is about eight feet high, making it lower than the minimum 10-foot clearance required for multi-use trails. Therefore, the eastern portion of the structure that the trail currently traverses may need to be removed.

North of the garage structure, the trail passes through a small abandoned parking lot that has significant deterioration. The trail is not delineated on this surface. At the north end of the parking lot, the trail easement continues west along a narrow sidewalk that connects to the Lake Avenue sidewalk, which carries the on-road segment of the GRT. Should an off-road segment through Holy Sepulchre Cemetery not be achieved, this east-west sidewalk should be widened to a minimum ten feet, as this would carry the trail back to Lake Avenue.



The slope on the existing GRT behind St. Bernard's exceeds the maximum slope required by ADA standards.



The vertical clearance of the garage behind St. Bernard's exceeds the minimum required by state and national guidelines.



An informal footpath connects St. Bernard's Park Apartments to Holy Sepulchre Cemetery.

The off-road segment of the GRT ends at the southern edge of the Holy Sepulchre Cemetery property, but an informal footpath connects north into the privately-owned cemetery. While not formalized, this path is frequented by hikers and bikers traveling to and from Holy Sepulchre and the adjacent Riverside Cemetery. Within both cemeteries, hikers and bikers use the roadways that travel closest to the gorge or they can meander throughout the serene and scenic network of roadways. Creating an off-road segment within Holy Sepulchre Cemetery would entail designating the eastern-most cemetery path as the GRT using wayfinding signage.

During the planning process, representatives from Holy Sepulchre indicated that they would not entertain designation of the GRT through their property due to concerns about liability and the sacred nature of the cemetery. The City of Rochester will continue to work with

cemetery representatives to address these concerns in order to advance this valuable link in the GRT system.

In summary, enhancements necessary to develop this alternative through the St. Bernard's and Holy Sepulchre properties include:

- realigning and widening the existing off-road segment behind St. Bernard's to achieve ADA-compliance;
- removing or altering the eastern portion of the garage structure behind St. Bernard's to achieve minimum vertical clearance;
- installing a short trail at the southern and northern ends of Holy Sepulchre Cemetery to connect to St. Bernard's and Riverside Cemetery, respectively; and
- installing wayfinding signage and signage with guidelines for respecting private cemetery grounds.

Additionally, whether or not an off-road trail is achieved through this segment, a portion of the Lake Avenue sidewalk in front of St. Bernard's should be widened. As the sidewalk bends adjacent to an historic stone wall, the safety of trail users may be jeopardized by the limited visibility around the bend and the lack of shoulders to buffer users from traffic on Lake Avenue. This issue is expected to be addressed during the Lake Avenue Reconstruction Project (see Section 2.8).

Holy Sepulchre Cemetery to Turning Point Park

Riverside Cemetery, north of Holy Sepulchre Cemetery, is owned and operated by the City of Rochester. This favorable ownership status presents fewer challenges to rerouting the GRT closer to the Genesee River Gorge when compared to the privately-owned Holy Sepulchre. In both cases, an off-road trail would consist primarily of wayfinding signage along existing cemetery roadways. A new asphalt trail would be necessary to connect the roadway systems in the adjacent cemeteries. This short connection requires a careful design as there is limited space between the easternmost gravesite in Riverside Cemetery and the edge of the gorge. There are a few mature trees located at this pinch point along the cemetery boundary. At least one of these trees would need to be removed, along with some slope stabilization, in order to route the trail away from existing gravesites.

The City is currently developing a master plan for expanding Riverside Cemetery into the undeveloped northeastern portion of the property, known as Bullock's Woods. Part of that expansion plan includes an extension of the roadway system into Bullock's Woods. This Study examined the feasibility of routing the GRT along the new roadway, avoiding the need for constructing a new trail facility. As the proposed new roadway approaches the Turning Point Park boundary, the trail would need to split off onto a separate facility to connect up to the rail-trail in Turning Point Park.

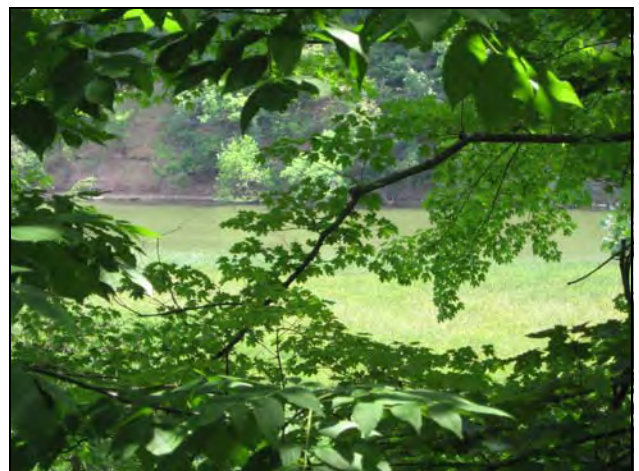
If a trail is not constructed in Holy Sepulchre Cemetery to the south, the off-road segment in Riverside Cemetery would remain a viable stand-alone concept as it provides an off-road alternative to Lake Avenue and provides trail users with greater access to the scenic wooded and wetland areas along the river gorge as well as the cemetery.

In summary, enhancements to this segment include:

- installing a trail connecting the two cemeteries, should the Holy Sepulchre segment be pursued (some tree removal and/or slope stabilization may be necessary);
- installing wayfinding signage and signage with guidelines for respecting private cemetery grounds; and
- Installing a trail connecting the proposed new cemetery road in Bullock's Woods north to the rail-trail in Turning Point Park (small bridge or culvert may be required).

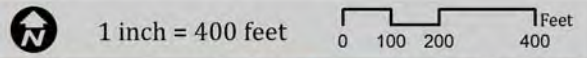


The GRT could share the existing roadway network in Holy Sepulchre and Riverside Cemeteries.



View of the Genesee River from Bullock's Woods in Riverside Cemetery, site of a proposed cemetery expansion that could incorporate the GRT.

Map 8-01: Alternatives — Ridgeway & Lee/Latona



Legend for Maps 8-01 through 8-10

| | | | |
|--|------------------------------|--|------------------------------|
| | Potential Trail Alternatives | | EBP Secure Fence Line |
| | Easement Required | | Approximate Gorge Edge |
| | Existing Trails | | Topography (5-foot contours) |
| | Planned Trails | | NWI Wetlands |
| | Sidewalks | | Tax Parcels |
| | Crosswalks | | Parks |
| | Cemetery Roads | | Municipal Boundaries |
| | Active Railroads | | |

Map 8-02: Alternatives — Ridgeway & McLoughlin

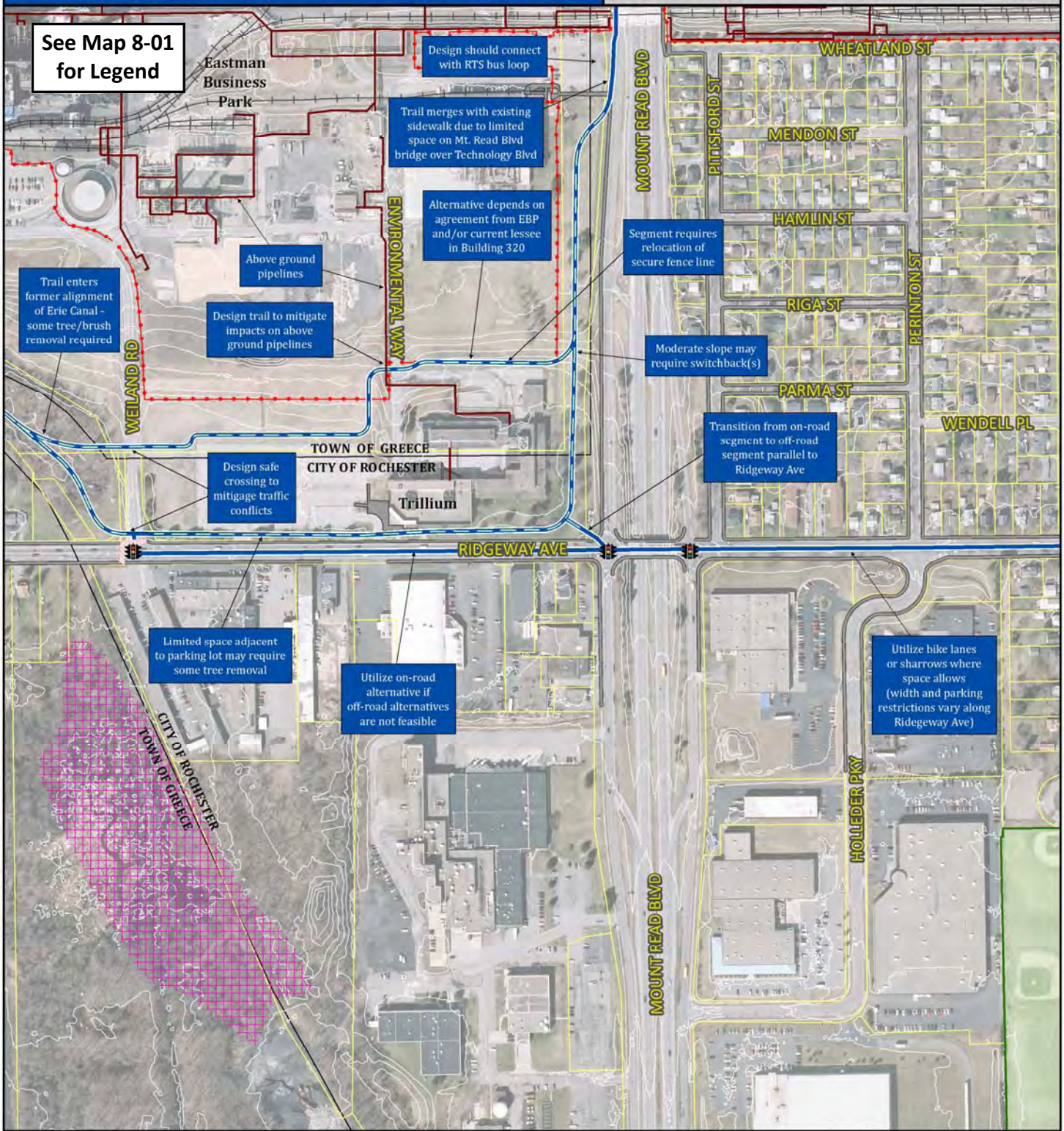
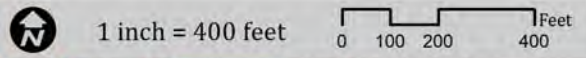


1 inch = 400 feet

0 100 200 400 Feet



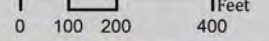
Map 8-03: Alternatives — Ridgeway & Mt. Read



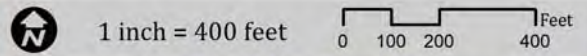
Map 8-04: Alternatives — Ridgeway & Ramona



1 inch = 400 feet



Map 8-05: Alternatives — Ridge & Mt. Read



Map 8-06: Alternatives — Ridge & Bonesteel



1 inch = 400 feet

0 100 200 400 Feet

See Map 8-01
for Legend



Utilize crosswalk as no other safe driveway crossings exist that link to northern trail alternative

Utilize lawn area adjacent to driveway

Ridge Road corridor should be master planned with inclusion of multi-use trail concept, should EBP subdivide to create frontage parcels (NYSDOT will restrict number of new driveways)

On-road segment consists of cyclists riding with traffic and pedestrians & inexperienced cyclists using sidewalks

Dewain St alternative reduces impact to EBP property but is an on-road segment

Requires shifting location of secure fence line

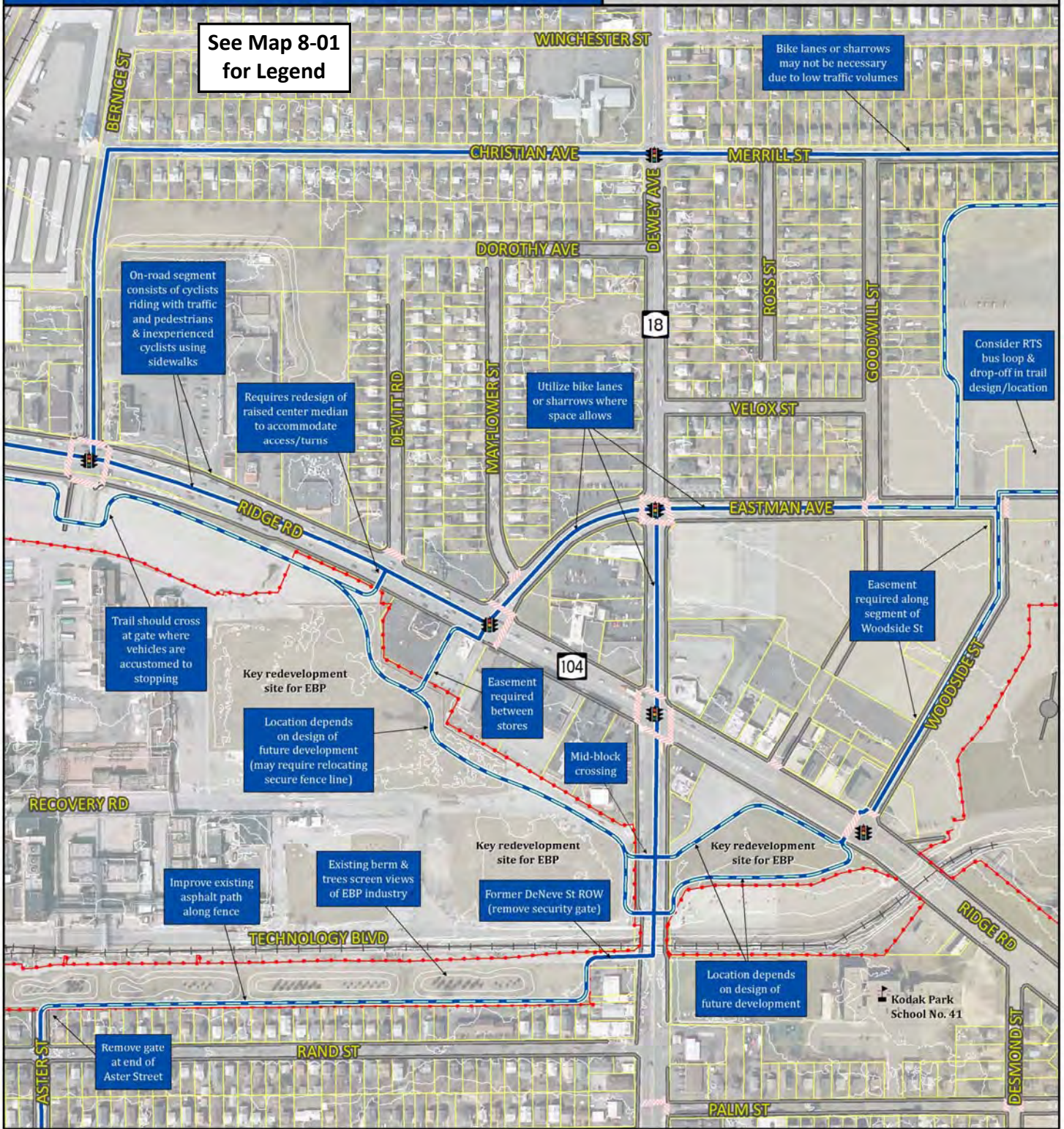
Expand sidewalk rather than create additional at-grade rail crossing

Only a single row of parking would be sacrificed to accommodate the trail

Remove gate at end of Aster Street

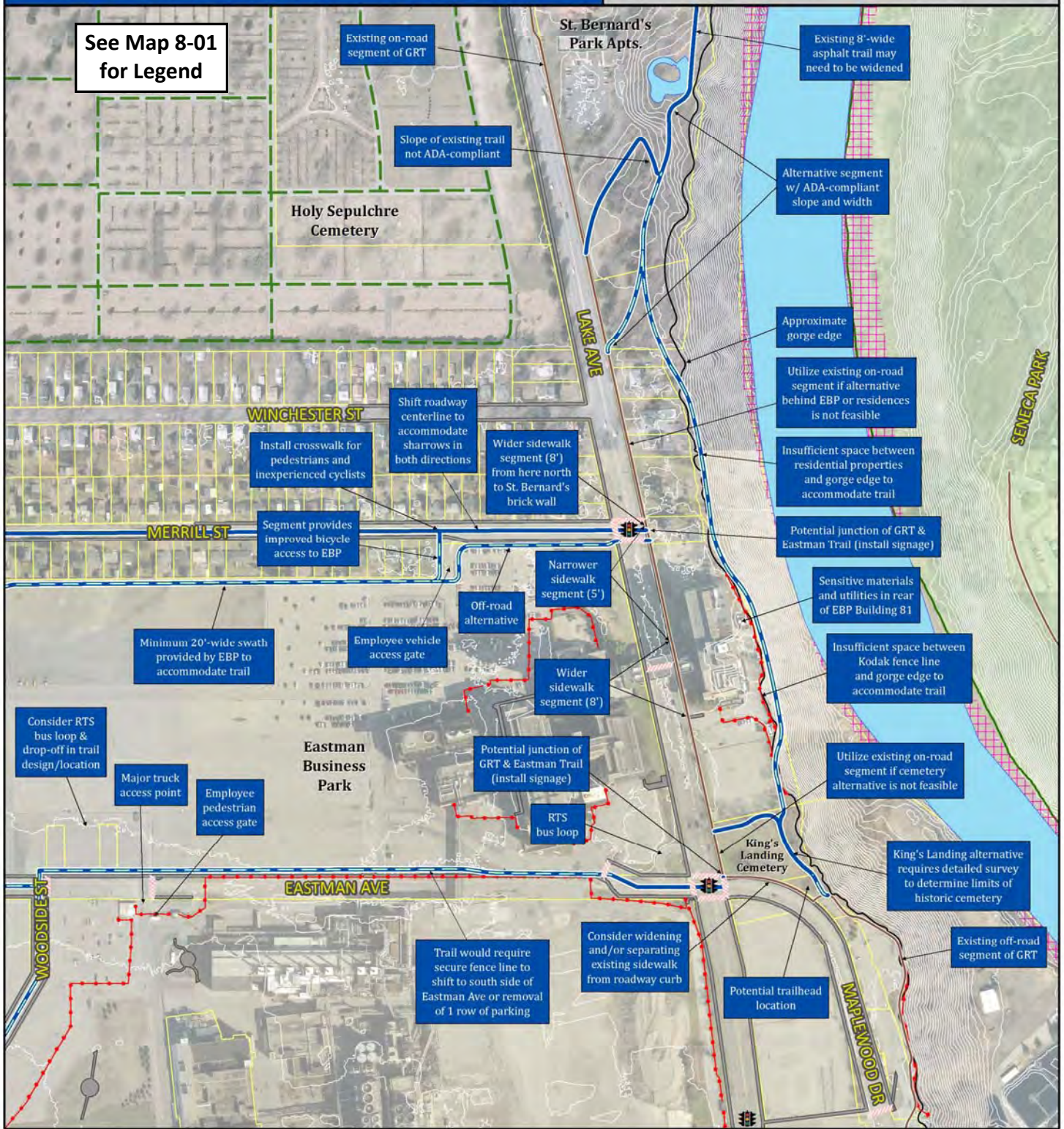
Map 8-07: Alternatives — Ridge & Dewey

1 inch = 400 feet 0 100 200 400 Feet

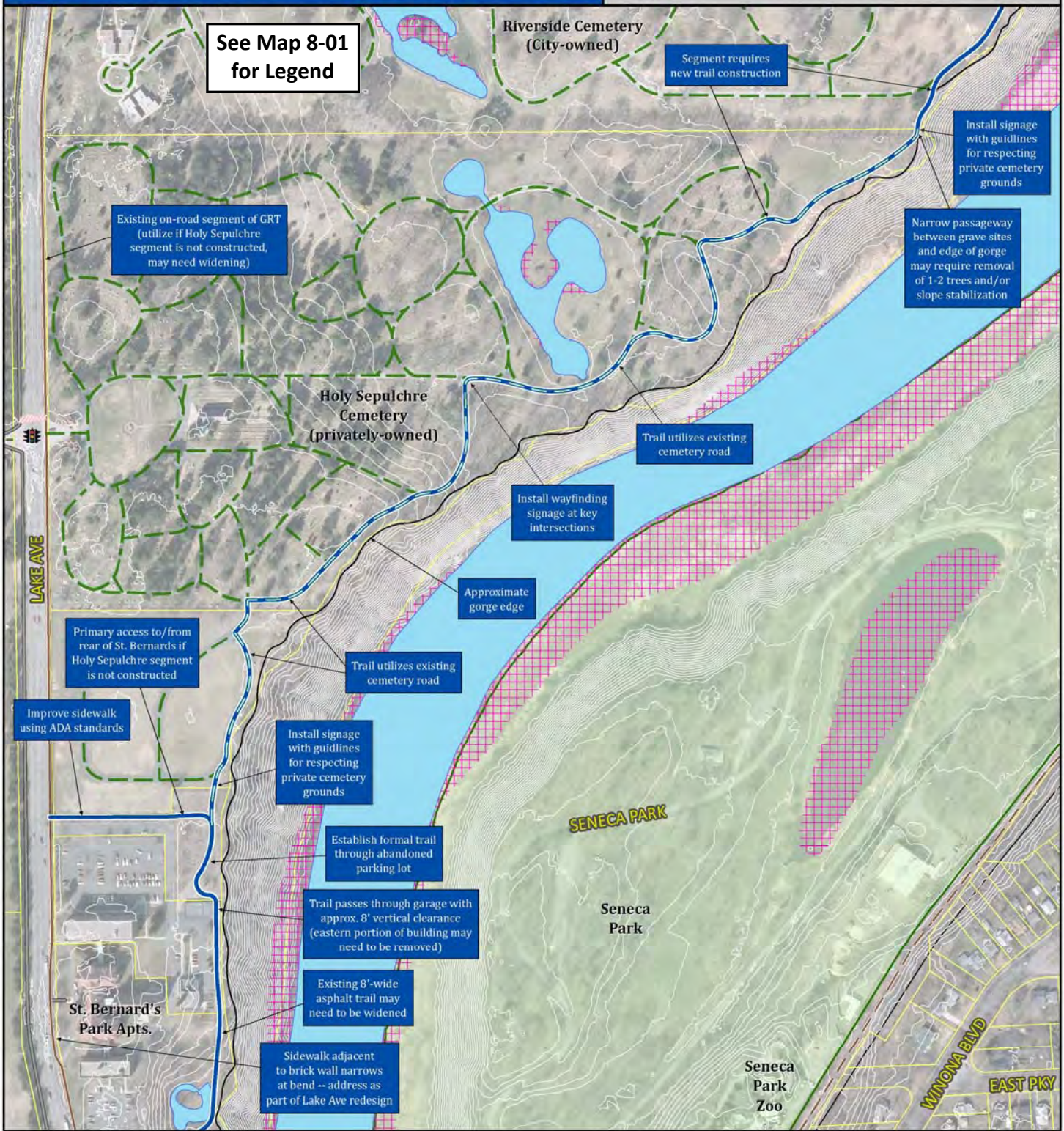
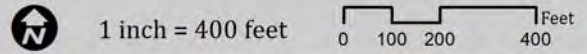


Map 8-08: Alternatives — Lake & Eastman

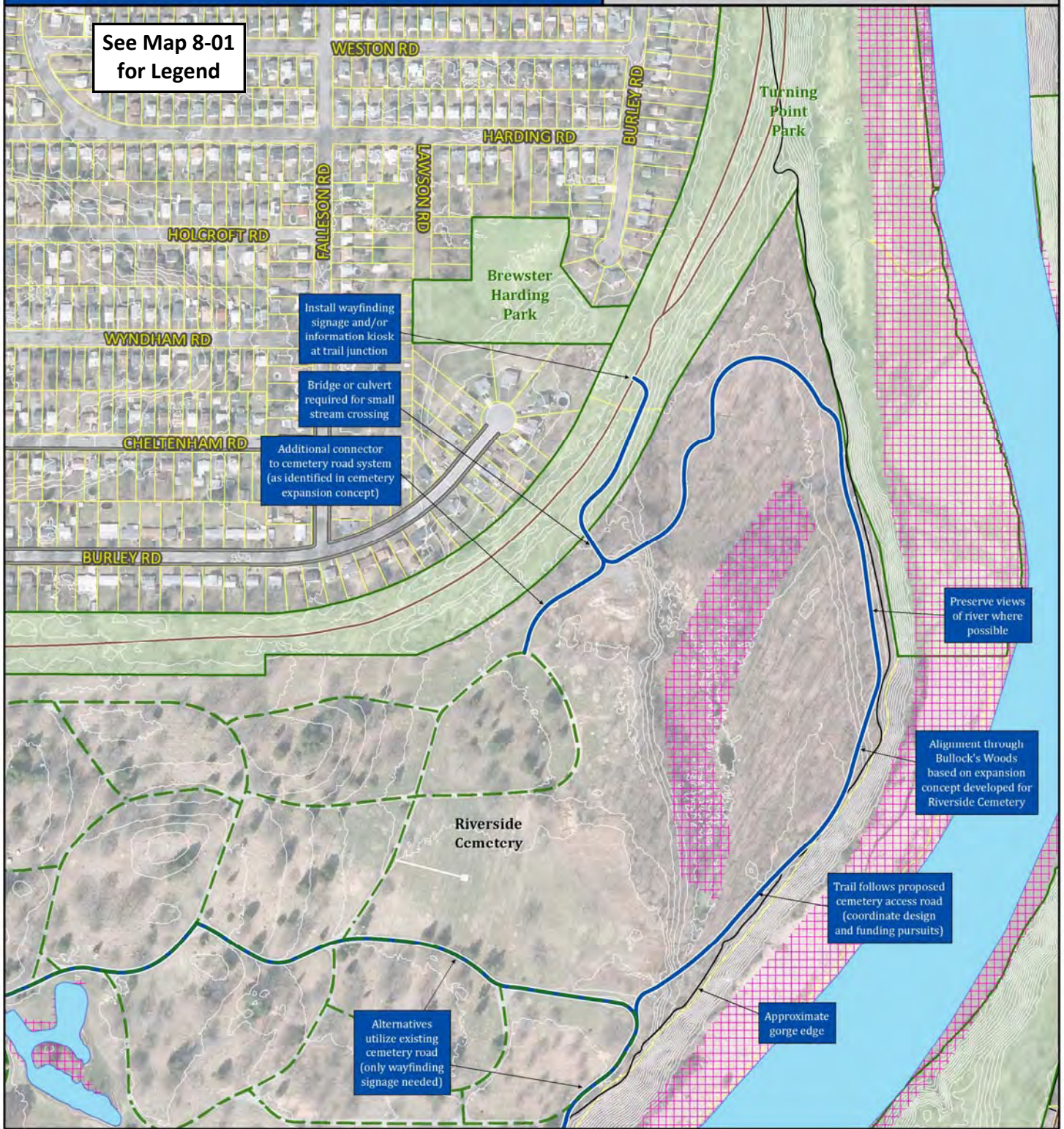
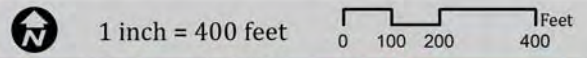
1 inch = 400 feet



Map 8-09: Alternatives — Holy Sepulchre Cemetery



Map 8-10: Alternatives — Northern Terminus



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SECTION 5

RECOMMENDED ALIGNMENT & DESIGN

5.1 OVERVIEW

After careful review of the various alternatives for locating the Eastman and Genesee Riverway Trails, a recommended alignment was selected. This process involved presenting the alternatives and the recommended alignment to residents and local stakeholders at the second of two Public Meetings conducted as part of this Study, as well as numerous discussions with landowners and the Project Advisory Committee (PAC), weighing the pros and cons of each alternative. The recommended alignment is shown on Map 9 and on more detailed tiles on Maps 10-01 through 10-10 (see Map 9 for key to detailed map tiles).

This Section contains the specific steps necessary to develop the recommended alignments of the Eastman and Genesee Riverway Trails. Future connections to the Erie Canalway Trail, from a regional perspective, are included at the end of this Section, as are recommendations for the potential replacement of the Mount Read Boulevard pedestrian bridge. Planning-level cost estimates for the recommended alignments and future considerations can be found in Section 6, along with potential funding sources that can be used in the implementation of the trails.

Eastman Trail Overview

The recommended alignment for the Eastman Trail consists of three distinct segments, which are color-coded and reflected in the detailed description in this Section, in the planning-level cost estimate, and on Map 9. These segments are:

Ridgeway Segment Following the former Erie Canal bed alongside Ridgeway Avenue.

Maplewood Segment Traversing the Maplewood Neighborhood with a combination of on-road bike routes and off-road multi-use trails.

Merrill Segment Tracing the edge of Eastman Business Park alongside Merrill Street.

As off-road trails are not feasible for much of the Eastman Trail corridor at this time, the on-road segments need to be treated as bike routes (i.e. the Eastman Bike Route) rather than be considered an on-road trail (see Section 3.2). An additional future consideration along the northern edge of Eastman Business Park is also identified on Map 9, but is not considered feasible at this time. For more information on this alternative, see Section 5.3.

Four sub-alternatives, as identified in Section 4, were not selected to be part of the recommended alignment. Below is an explanation of why those sub-alternatives were considered undesirable or not feasible.

- Segment north of EBP Building 320 and adjacent Lot 77 (see Map 8-03). Although preferred as an off-road option, this segment would have passed under sensitive above ground pipelines and forced the relocation of EBP's secure fence line. EBP officials were also concerned that the tenant in EBP Building 320 (Trillium International) may be interested in purchasing the building and surrounding land, and that the installation of the trail might jeopardize that future transaction.
- On-road segment along Route 104 (see Maps 8-06 and 8-07). An on-road facility is necessary for certain lengths of the trail due to EBP's concerns about an off-road trail on its property. The Route 104 and Ridgeway Avenue corridors are the nearest east-west corridors to provide such an on-road option. The Route 104 corridor features higher vehicle speeds, multiple traffic lanes, and is generally considered an unfriendly environment for bicycles and pedestrians. It was also recently reconstructed, making any physical alterations to accommodate the trail (or bike route) unlikely. While not ideal (see Table 2-2), the Ridgeway Avenue corridor was selected as the recommended alignment in the absence of a true off-road trail through EBP.
- Bernice Street / Christian Avenue / Merrill Street segment (see Maps 8-07 and 8-08). This on-road route was originally identified as an alternative connection from Lake Avenue to the off-road concept through EBP. Since that off-road concept is not considered feasible at this time, it was more prudent to pursue an on-road alternative with a more direct connection to the Maplewood Segment.
- Eastman Avenue segment (see Map 8-08). This concept was not considered desirable or feasible by EBP officials. The numerous security and infrastructure changes needed for this route made the Merrill Street option to the north a more acceptable option from the landowner's perspective.

Genesee Riverway Trail Overview

The recommended alignment for the Genesee Riverway Trail also consists of three distinct segments, which are color-coded and reflected in the detailed description in this Section, in the planning-level cost estimate, and on Map 9. These segments are:

King's Landing Segment

Passing around the historic King's Landing Cemetery.

St. Bernard's Segment

Consisting of improvements to the existing off-road trail behind the former St. Bernard's Seminary.

Riverside Segment

Passing through the City-owned Riverside Cemetery.

An additional future consideration through Holy Sepulchre Cemetery is also identified on Map 9, but is not considered feasible at this time. For more information on this alternative, see Section 5.5. Ultimately, the recommended alignment for the GRT is not entirely off-road. Some segments of the existing GRT on the Lake Avenue sidepath are retained as the recommended route of the trail. Two sub-alternatives, as identified in Section 4, were not selected to be part of the recommended alignment. Below is an explanation of why those sub-alternatives were considered undesirable or not feasible.

- Segment behind EBP Building 81 and adjacent residential properties (see Map 8-08). Close examination of the relationship between the gorge edge and property boundaries hindered the feasibility of this alternative. Assuming that an easement would be easier to secure from a single property owner (RG&E) than from Kodak and multiple residences, the trail would have been most feasible if sufficient space were available above the gorge edge on RG&E property. It was determined that RG&E's property contained insufficient areas with limited or no slope. Therefore, the trail would require either an expensive cantilevered structure along the gorge slope or the acquisition of multiple easements from Kodak and residences with limited rear yards. While not ideal, keeping the GRT on the existing Lake Avenue sidepath through this segment was identified as the recommended alignment.
- Improvements to existing segment at south end of St. Bernard's property (see Map 8-08). The existing off-road segment of the GRT on the St. Bernard's property does not meet ADA standards for width or maximum slope. Rather than retrofitting this section, a new trail segment is proposed to connect Lake Avenue to a point along the existing trail where maximum slope standards have already been achieved. The remainder of the existing trail behind St. Bernard's would still need to be upgraded to meet current design standards.

5.2 EASTMAN TRAIL IMPLEMENTATION PLAN

Ridgeway Segment (Maps 10-01, 10-02, and 10-03)

- **Install a trail head** at the southwest corner of Ridgeway Avenue and Latona Road. The trail head could feature vehicle and bike parking, a kiosk, interpretive signage related to the Erie Canal, seating, and landscaping. The trail head would be contingent on development of the Route 390 Trail extension, and therefore may not be part of the initial trail installation costs.
- **Install a high-visibility crosswalk** across Latona Road at Ridgeway Avenue. As with the trail head, the need for an enhanced crosswalk at this location is dependent on the development of the Route 390 Trail extension.
- **Install a vehicular access restrictor** at the beginning of the Eastman Trail as it enters the former Erie Canal bed, restricting motorized traffic to emergency vehicles only.
- **Install wayfinding signage** at the trail entrance.
- **Secure an easement** or other land acquisition arrangement from Eastman Kodak Company, which owns the majority of the former Erie Canal bed. Kodak has informally expressed a willingness to allow a trail through this portion of their property.
- **Install an asphalt trail** along the former Erie Canal bed from Latona Road to Weiland Road. Some clearing, grubbing, grading, and landscaping will be necessary through this wooded area.

- **Install wayfinding signage** in this segment along the former Erie Canal bed. Emergency locator signs are also recommended. See also Appendix A for interpretive opportunities along the trail that celebrate Eastman Kodak's heritage and impact on the Rochester community.

Figure 5-1. Photo rendering showing a conceptual pedestrian bridge over Kodak Park Avenue along the former Eric Canal corridor.

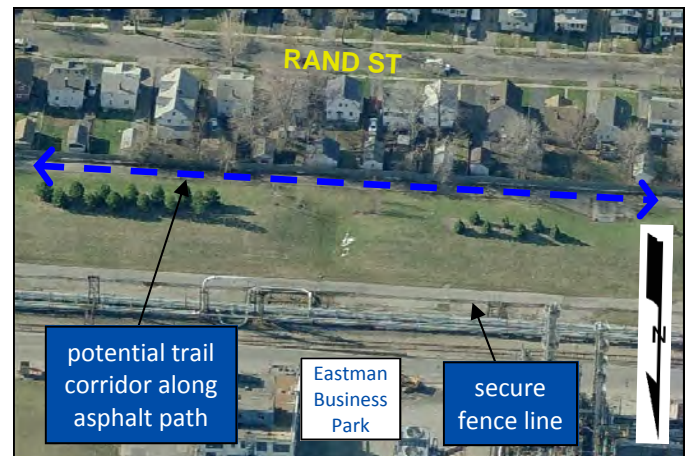


- **Install a pedestrian bridge** over Kodak Park Avenue (see Figure 5-1). The slopes on either side of this roadway are not conducive to a switchback design, which necessitates a pedestrian bridge. A cheaper but less desirable alternative would be to route the asphalt trail south to the Ridgeway Avenue bridge over Kodak Park Avenue. This bridge has a narrow sidewalk on the north side that necessitates either the installation of a barrier to protect trail users or the widening of the sidewalk. Reconstruction of the bridge to accommodate such improvements is unlikely at this time. However, should a major reconstruction of the Ridgeway Avenue road and/or bridge occur prior to installing the recommended pedestrian bridge, opportunities for providing this crossing within the right-of-way should be explored and may represent a significant cost savings. The preferred option of installing a pedestrian bridge is contingent on securing funding.
- **Install fencing** along the rear of residential properties on Ridgeway Avenue, if desired by residents.
- **Install a high-visibility crosswalk** where the former canal bed crosses McLoughlin Boulevard, a major entrance to EBP. The connection between the Eastman Trail and EBP entrance should be enhanced, encouraging pedestrians and bicyclists to use the trail to commute to and from EBP.
- **Install a vehicular access restrictor** at both ends of the McLoughlin Boulevard crossing. The gate would restrict motorized vehicle traffic to emergency vehicles only.
- **Install a vehicular access restrictor** at the entrance to the Eastman Trail at Weiland Road. The gate would restrict motorized vehicle traffic to emergency vehicles only.
- **Install wayfinding signage** at Weiland Road and Ridgeway Avenue. The signage would assist trail users making the transition from the off-road trail to the west to the on-road bike route to the east.
- **Install a high-visibility crosswalk** across Weiland Road at Ridgeway Avenue.
- **Install signage and/or pavement markings** along Ridgeway Avenue between Weiland Road and Mount Read Boulevard. These treatments would designate this section of Ridgeway Avenue as part of the Eastman Bike Route, an on-road facility connecting off-road portions of the Eastman Trail. Bike Route signage can be designed to correlate with the unique symbols and colors of the Eastman Trail signage.

Maplewood Segment (Maps 10-03, 10-04, and 10-07)

- **Install high-visibility crosswalks** along Ridgeway Avenue at Mount Read Boulevard, reinforcing this segment as the Eastman Bike Route.
- **Install signage and/or pavement markings** along Ridgeway Avenue between Mount Read Boulevard and Aster Street. These treatments would designate this section of Ridgeway Avenue as part of the Eastman Bike Route. Although roadway dimensions are not ideal for a bike route, Ridgeway Avenue is the only feasible option for connecting Mount Read Boulevard to Dewey Avenue. At this time, there is likely only space for bike route signage to designate the trail connection. Future roadway projects should consider pavement markings to further accommodate bicyclists.
- **Improve the at-grade railroad crossing** on Ridgeway Avenue to enhance safety for pedestrians using the sidewalk.
- **Install signage and/or pavement markings** along Aster Street between Ridgeway Avenue and Rand Street. These treatments would designate Aster Street as part of the Eastman Bike Route. Pavement markings may not be necessary due to low traffic volumes along Aster Street which is 26 feet wide with alternating on-street parking.
- **Remove the gate** at the end of Aster Street and **replace it with a vehicular access restrictor** for the Eastman Trail. The gate would restrict motorized vehicle traffic to emergency vehicles only.
- **Improve the existing asphalt trail** adjacent to the fence between Aster Street and the end of former DeNeve Street (see Figure 5-2). The adjacent fence serves as a barrier between Rand Street residences and the Eastman Trail, while the existing berm and secure fence line north of the proposed trail provide a barrier for EBP. Emergency locator signs are also recommended. See also Appendix A for interpretive opportunities along the trail that celebrate Eastman Kodak's heritage and impact on the Rochester community.
- **Secure an easement** or other land acquisition arrangement from Eastman Kodak Company, which owns the green buffer between the Rand Street residences and Technology Boulevard. Kodak has informally expressed a willingness to allow a trail through this portion of their property.
- **Remove the gate** at the end of the former DeNeve Street and **replace it with a vehicular access restrictor** for the Eastman Trail. The gate would restrict motorized vehicle traffic to emergency vehicles only.

Figure 5-2. Existing landscaped buffer between EBP and Rand Street residences. The Eastman Trail recommended alignment includes improving the existing asphalt trail adjacent to the fence behind the residences.



- **Install wayfinding signage** at Weiland Road and Ridgeway Avenue. The signage would assist trail users making the transition from the off-road trail to the west to the on-road bike route to the east.
- **Install signage and/or pavement markings** along Dewey Avenue between the former DeNeve Street and Eastman Avenue, and along Eastman Avenue between Dewey Avenue and Woodside Street. These treatments would designate these sections of Dewey Avenue and Eastman Avenue as part of the Eastman Bike Route.
- **Install high-visibility crosswalks** along Dewey Avenue at West Ridge Road.

Merrill Segment (Maps 10-07 and 10-08)

- **Secure an easement** or other land acquisition arrangement from Eastman Kodak Company for a corridor along the western and northern edges of EBP's Lot 42. Kodak has informally expressed a willingness to allow a trail through this portion of their property. Current zoning regulations require a 20-foot landscaped buffer adjacent to residential areas, although a wider corridor would allow for more effective buffers.
- **Install signage and pavement markings** along EBP's access road through Lot 42 from Eastman Avenue to the point at which the access road turns to the east.
- **Install an asphalt trail** through the vacant portion of Lot 42 in EBP, tracing the western and northern edge of the lot (see Figure 5-3). Certain surface materials may need to be removed or rehabilitated in order to accommodate the trail. A tree-lined berm and/or other landscaping elements are recommended to enhance the trail experience through this industrial setting. Emergency locator signs are also recommended. See also Appendix A for interpretive opportunities along the trail that celebrate Eastman Kodak's heritage and impact on the Rochester community.

Figure 5-3. Photo rendering of the proposed Eastman Trail along the northern edge of Lot 42.



- **Install an asphalt trail** in the existing lawn area west of the Merrill Street entrance to EBP.
- **Install a vehicular access restrictor** at the entrance to the Eastman Trail. The gate would restrict motorized vehicle traffic to emergency vehicles only.
- **Install signage and/or pavement markings** along Merrill Street between the EBP entrance and Lake Avenue, designating this section of Merrill Street as part of the Eastman Bike Route. An alternate location would be an off-road trail consisting of a widened sidewalk along the northern edge of EBP Lot 42 from the gate to Lake Avenue, requiring an easement and reconfiguration of the parking lot and fence line.

- **Install an enhanced crosswalk** at Merrill Street and Lake Avenue. The southeast corner could be enhanced with wayfinding signage, seating and a bicycle rack .

5.3 EASTMAN TRAIL FUTURE CONSIDERATIONS

(Maps 10-03, 10-05, 10-06, and 10-07)

In addition to the recommended alignment described in Section 5.2, the PAC also identified an alternative for future consideration (Map 9). This alignment follows the northern edge of Eastman Business Park (EBP) along the Route 104 corridor and is more integrated with the Park and its collection of businesses. It is more consistent with the original objectives of the Study than the aforementioned recommended alignment in that it provides greater access for commuters, an off-road connection through the Study Area, and greater opportunities for historic interpretation at EBP.

However, at this time this alignment is not considered feasible by EBP officials and is therefore not identified as the recommended alignment. EBP officials have expressed concern that the alignment could potentially impede redevelopment efforts at a few key sites. They are also concerned about the trail concept's proximity to sensitive infrastructure and EBP tenants that may not be amenable to a multi-use trail facility. However, the concept is retained as a "Future Consideration" in this Study, should conditions change in the future that would make it more feasible.

If this future consideration were developed, below is a brief summary of the steps necessary to construct the trail. Detailed amenities such as high-visibility crosswalks, wayfinding signage, and landscaping are not listed below but are included in the planning-level cost estimate found in Section 6.

- **Install an asphalt trail** from the northwest corner of Ridgeway Avenue and Mount Read Boulevard to the pedestrian bridge over Mount Read Boulevard.
- **Install a new pedestrian bridge** and ADA-compliant approach ramps over Mount Read Boulevard, serving both the Eastman Trail and EBP employees (see Section 5.6 for more information). Coordinate with the upcoming Mount Read Boulevard Corridor Study to ensure trail facilities and the potential new pedestrian bridge are recommended.
- **Widen the sidewalk** along the east side of Mount Read Boulevard from the pedestrian bridge to West Ridge Road, then along the south side of West Ridge Road from Mount Read Boulevard to the Carestream entrance.
- **Install an asphalt trail** starting at the Carestream entrance, tracing the rear of the Dewain Street neighborhood, then tracing the northern edge of EBP from Lancaster Street to Dewey Avenue.
- **Install an asphalt trail** along the edge of the vacant EBP site southeast of Dewey Avenue and West Ridge Road.
- **Install an on-road bike route** along Woodside Avenue, connecting to the recommended alignment of the Eastman Trail at Eastman Avenue.
- **See also Appendix A** for interpretive opportunities along the trail that celebrate Eastman Kodak's heritage and impact on the Rochester community.

5.4 GENESEE RIVERWAY TRAIL IMPLEMENTATION PLAN

King's Landing Segment (Map 10-08)

- **Secure an easement** or other land acquisition arrangement from Eastman Kodak Company for the vacant parcel adjacent to the southern edge of King's Landing Cemetery, as well as an easement to allow trail head parking in the adjacent lot to the south.
- **Install a trail head** on the aforementioned parcel adjacent to King's Landing Cemetery (see Figure 5-4). The trail head could feature bike parking, a kiosk, interpretive signage related to the cemetery, seating, and landscaping. Vehicular parking could be made available in the adjacent parking lot.
- **Install an asphalt trail** starting the end of the existing off-road segment of the Genesee Riverway Trail (GRT), tracing the eastern and northern edges of King's Landing Cemetery, and terminating at the sidewalk on Lake Avenue. The precise location of the trail would depend on the results of a detailed survey to determine the limits of this historic cemetery.
- **Widen the sidewalk** to eight feet along the east side of Lake Avenue from Maplewood Drive to the entrance to EBP Lot 43, at which point the existing sidewalk widens to eight feet. The sidewalk between EBP Building 81's bridge over Lake Avenue and Merrill Street would also need to be widened to eight feet. Widening these two segments would create a continuous 8-foot wide sidewalk from Maplewood Drive north to where the GRT enters Turning Point Park.

Figure 5-4. Conceptual design of trail head at King's Landing Cemetery.



St. Bernard's Segment (Maps 10-08 and 10-09)

- **Modify the existing easement** with Unity Health System, owner of the former St. Bernard's Seminary, for the new trail corridor in the southern end of their property.
- **Install an asphalt trail** from Lake Avenue to the existing off-road segment of the GRT. This new segment would ensure ADA compliance for width and maximum slope, which was not achieved by the existing GRT (built prior to the establishment of ADA standards) at the south end of the St. Bernard's property. Some brush and tree removal may be necessary, along with grading to minimize slope.
- **Install a trail head** at the southern end of the St. Bernard's property, adjacent to the new entrance to the off-road segment of the GRT (see Figure 5-5). The trail head could feature bike parking, a kiosk, interpretive signage related to St. Bernard's Seminary and the Genesee River, seating, and landscaping.

Figure 5-5. Photo rendering of proposed trail head for the GRT at the south end of St. Bernard's property.



- **Rehabilitate and widen the existing asphalt trail** behind St. Bernard's, meeting ADA standards for width and maximum slope. Emergency locator signs are also recommended for this segment. The outfall pipe connected to the pond may need to be repaired or replaced.
- **Remove eastern portion of the garage** in the rear of St. Bernard's. Although currently part of the GRT, the vertical clearance of the garage is shorter than AASHTO's recommended eight feet.
- **Install an asphalt trail** between the garage and the existing sidewalk that connects to Lake Avenue. This segment contains an abandoned parking lot, necessitating some removal of asphalt and other materials.
- **Widen the existing concrete sidewalk** between the GRT and Lake Avenue to a minimum of eight feet, or replace it with an asphalt trail.

Riverside Segment (Map 10-10)

- **Install wayfinding signage** along existing cemetery roads, delineating certain segments as part of the GRT.
- **Install an asphalt trail** through Bullock's Woods, forming a loop that connects to the eastern edge of the cemetery roadway system. Some tree and brush removal will be necessary. The proposed alignment, reflects the alignment of a proposed cemetery road. If the cemetery road is constructed, the new GRT segment would share the facility, as opposed to a separate, parallel trail. Only signage would be necessary in that scenario. If the cemetery road is not constructed, the trail would be developed as an independent facility.
- **Install an asphalt trail** connecting the new GRT segment in Bullock's Woods to the existing GRT in Turning Point Park.
- **Install a small bridge or culvert** over the stream in Bullock's Woods.
- **Install wayfinding signage** at the junction of the existing and new segments of the GRT in Turning Point Park.
- **Install a vehicular access restrictor** at the junction of the new cemetery road and new segment of GRT that connects to Turning Point Park. The gate would restrict motorized vehicle traffic to emergency vehicles only. If the cemetery road is not constructed, vehicular access restrictors would need to be installed at the two points where the new GRT segment intersects the existing cemetery roadway system.

5.5 GENESEE RIVERWAY TRAIL FUTURE CONSIDERATIONS

(Maps 10-09 and 10-10)

In addition to the recommended alignment described in Section 5.4, the PAC also identified an alternative for future consideration (Map 9). This alignment connects the St. Bernard's property with Riverside Cemetery via Holy Sepulchre Cemetery. It is more consistent with the original objectives of the Study than the aforementioned recommended alignment in that it provides a stronger connection to the Genesee River Gorge and an off-road alternative to the sidewalk along Lake Avenue.

However, at this time this alignment is not considered feasible by Holy Sepulchre officials and is therefore not identified as the recommended alignment. Officials of this privately-owned cemetery have expressed concerns about liability and the effects of a walking/biking trail through a sacred property. However, the concept is retained as a "Future Consideration" in this Study, should conditions change in the future that would make it more feasible.

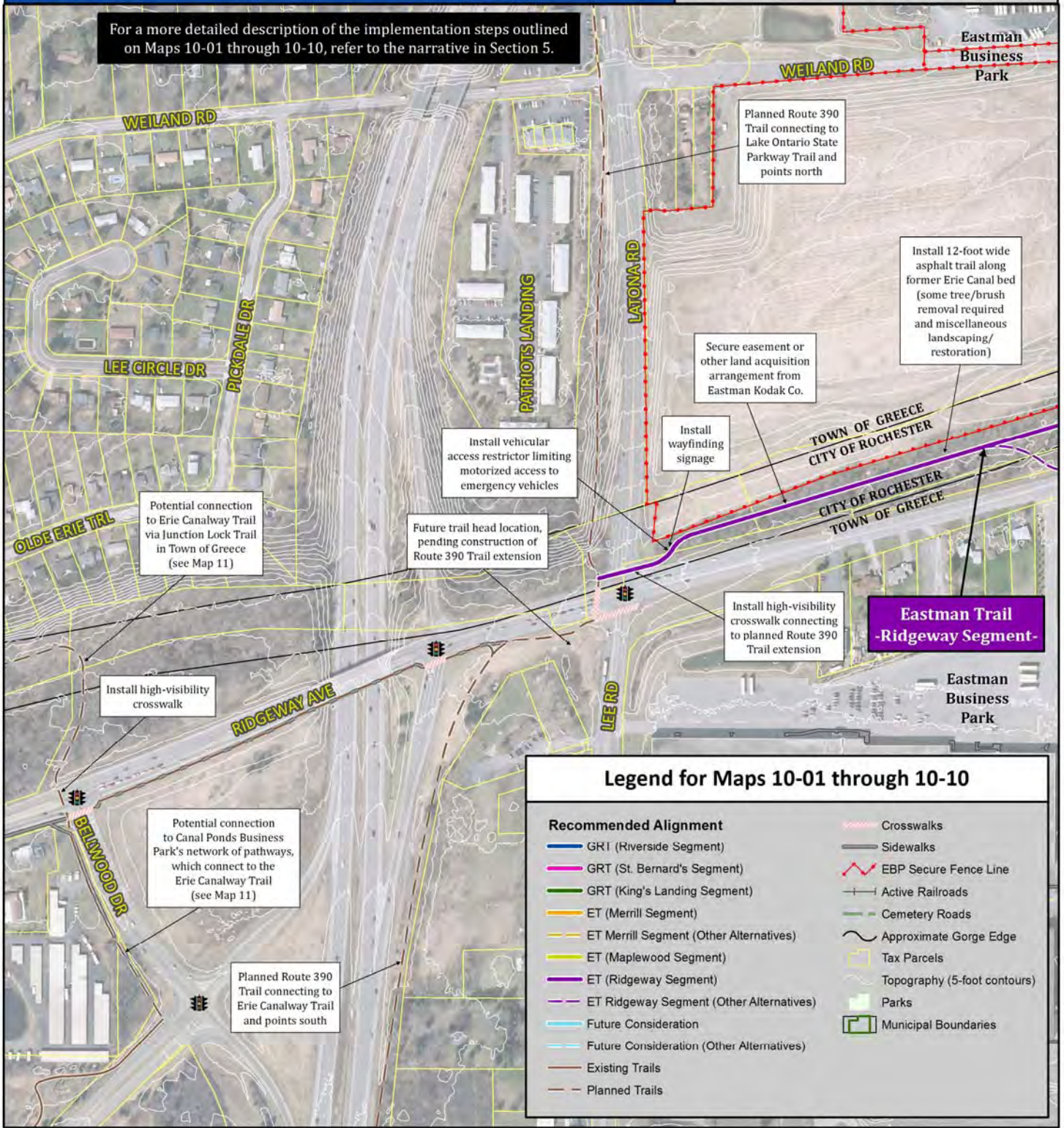
If this future consideration were developed, below is a brief summary of the steps necessary to construct the trail. Detailed amenities such as landscaping and miscellaneous signage are not listed below but are included in the cost estimate found in Section 6.

- **Install an asphalt trail** from the northern edge of the St. Bernard's property to the existing cemetery road network.
- **Secure an easement** through the cemetery property along designated roadways.
- **Install wayfinding signage** along existing cemetery roads, delineating certain segments as part of the GRT.
- **Install an asphalt trail** from the northeast corner of the cemetery road network to the southeast corner of Riverside Cemetery's road network.

Map 10-01: Recommended Alignment — Ridgeway & Lee/Latona

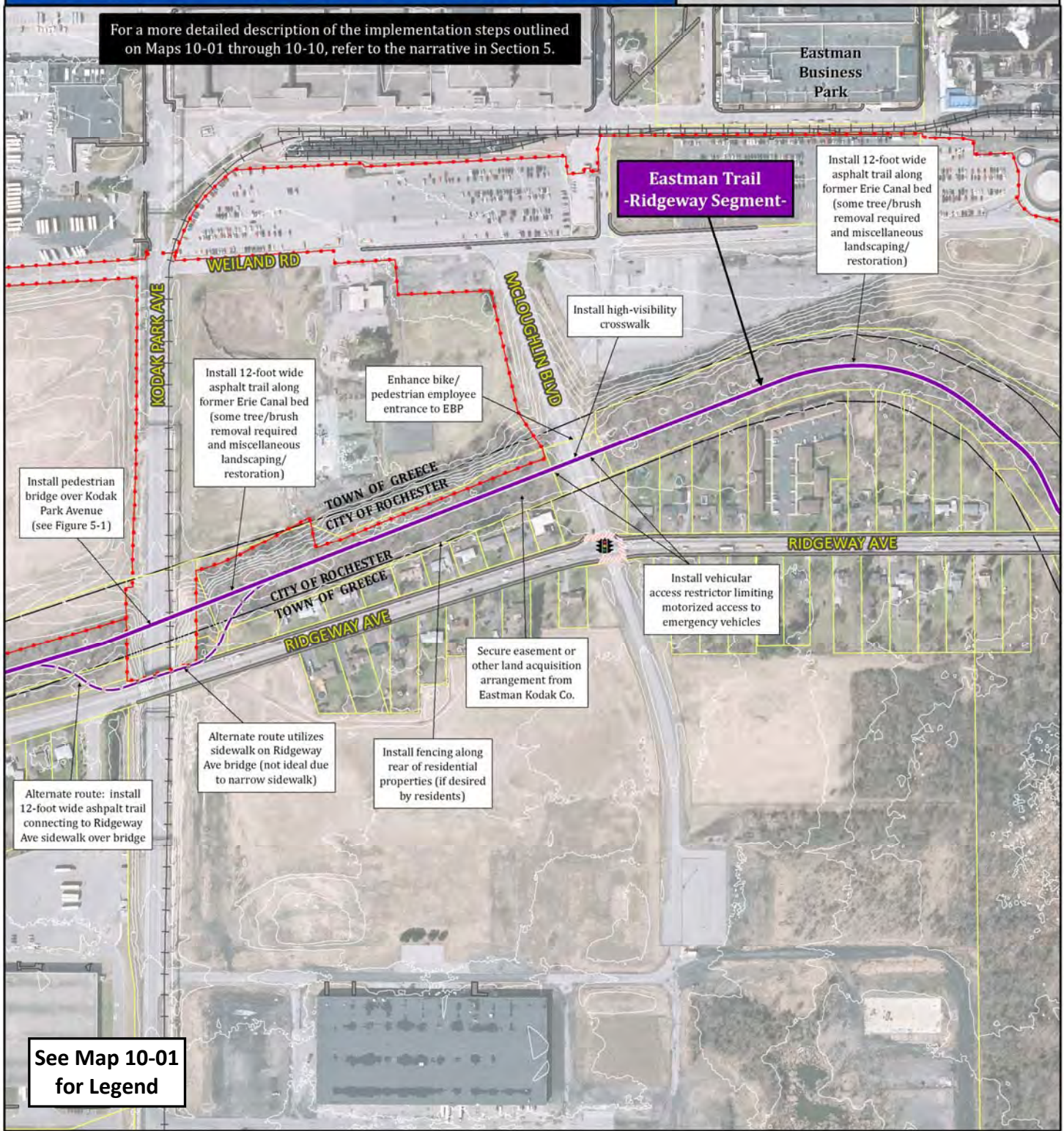
1 inch = 400 feet 0 100 200 400 Feet

For a more detailed description of the implementation steps outlined on Maps 10-01 through 10-10, refer to the narrative in Section 5.



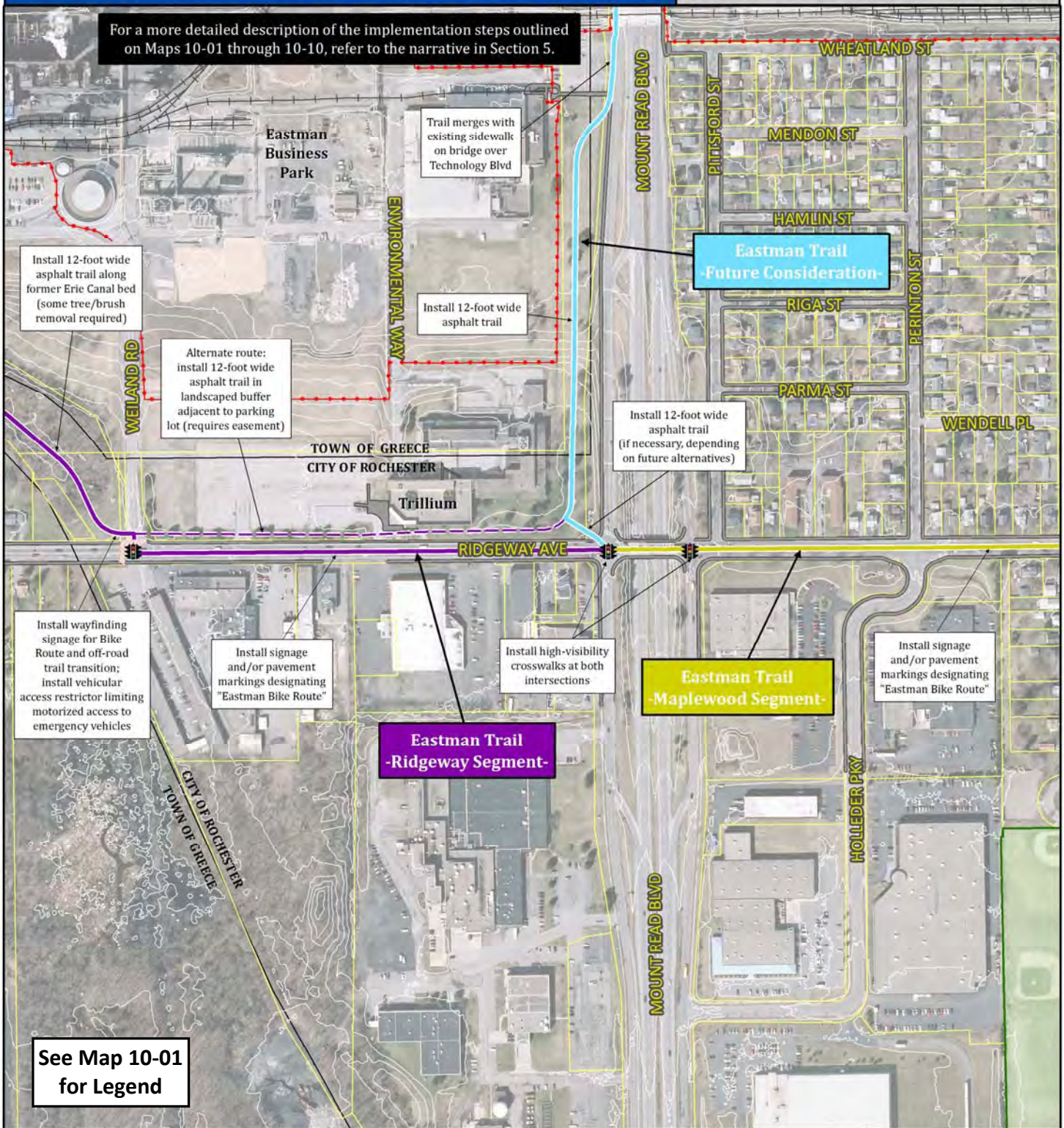
Map 10-02: Recommended Alignment — Ridgeway & McLoughlin

1 inch = 400 feet 0 100 200 400 Feet



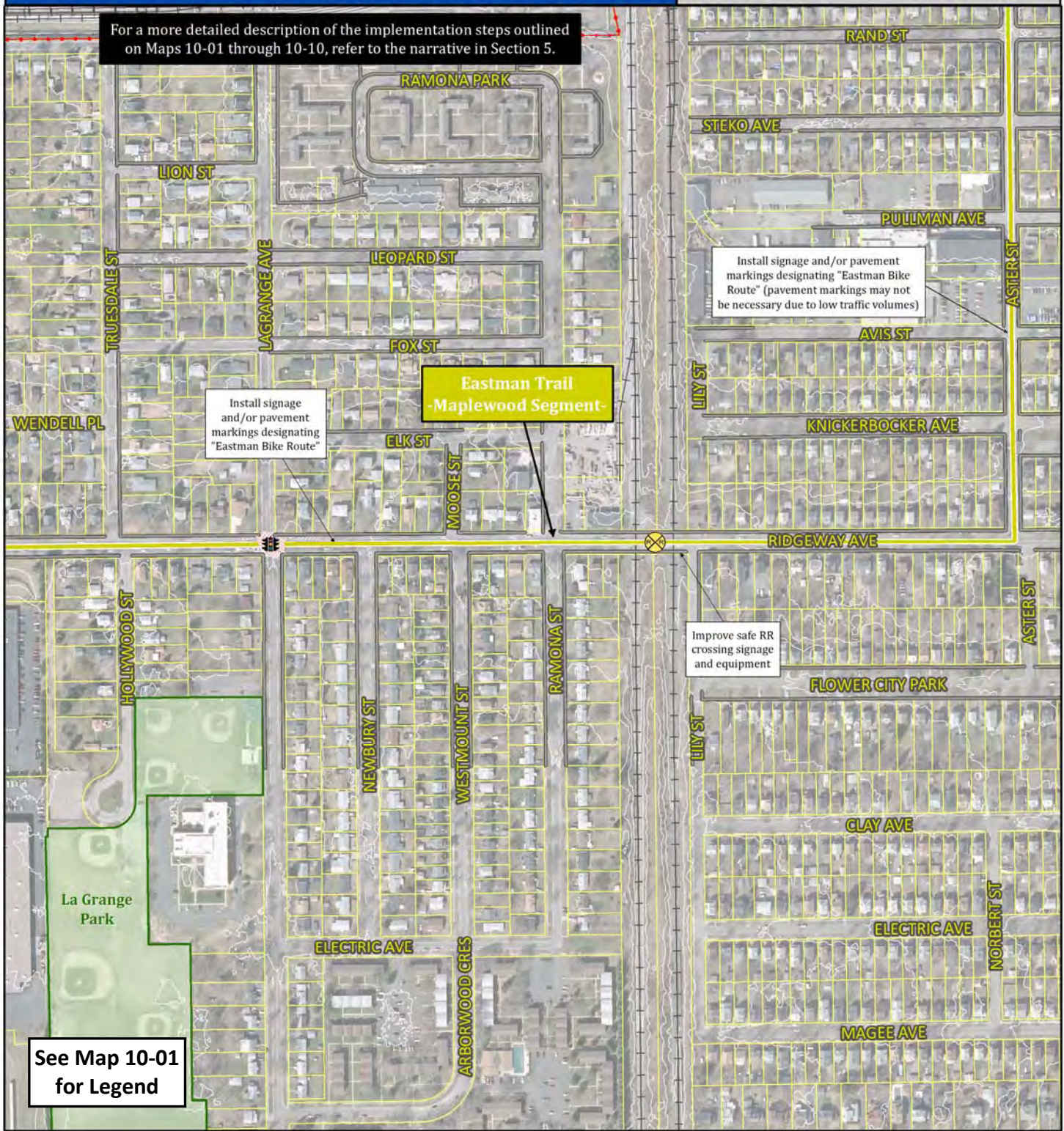
Map 10-03: Recommended Alignment — Ridgeway & Mt. Read

1 inch = 400 feet 0 100 200 400 Feet



Map 10-04: Recommended Alignment — Ridgeway & Ramona

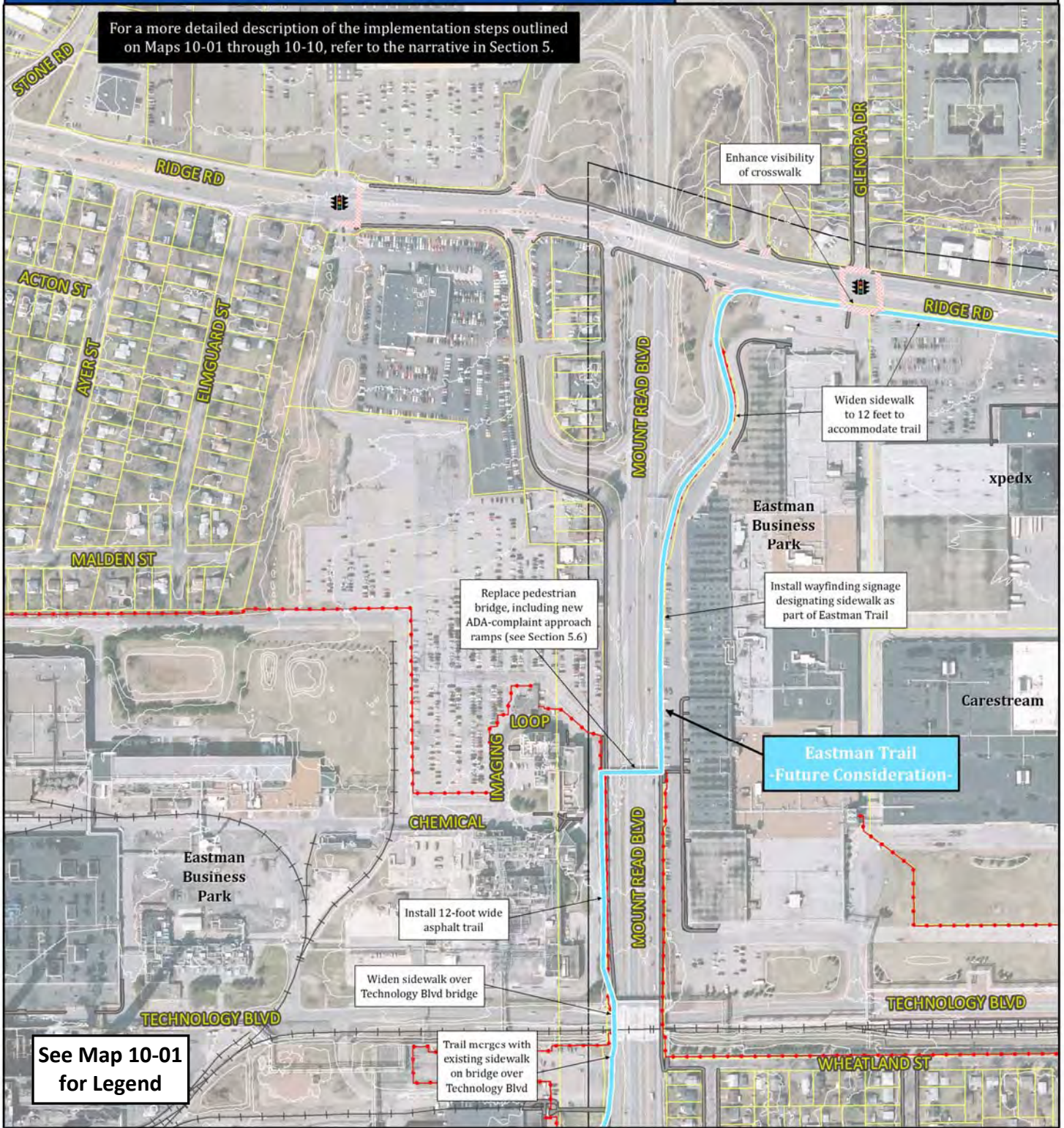
1 inch = 400 feet 0 100 200 400 Feet



Map 10-05: Recommended Alignment — Ridge & Mt. Read

1 inch = 400 feet 0 100 200 400 Feet

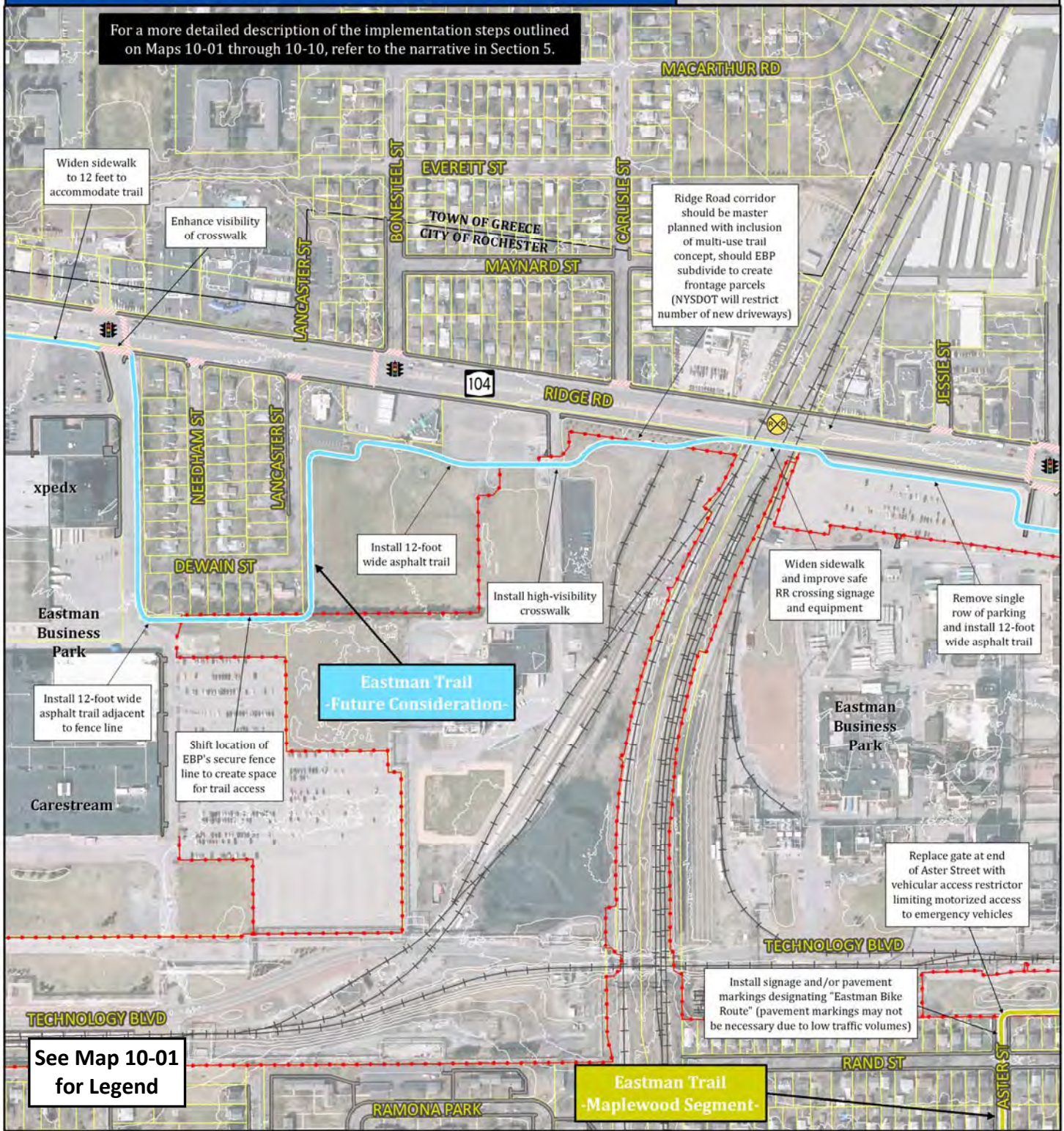
For a more detailed description of the implementation steps outlined on Maps 10-01 through 10-10, refer to the narrative in Section 5.



Map 10-06: Recommended Alignment — Ridge & Bonesteel

1 inch = 400 feet 0 100 200 400 Feet

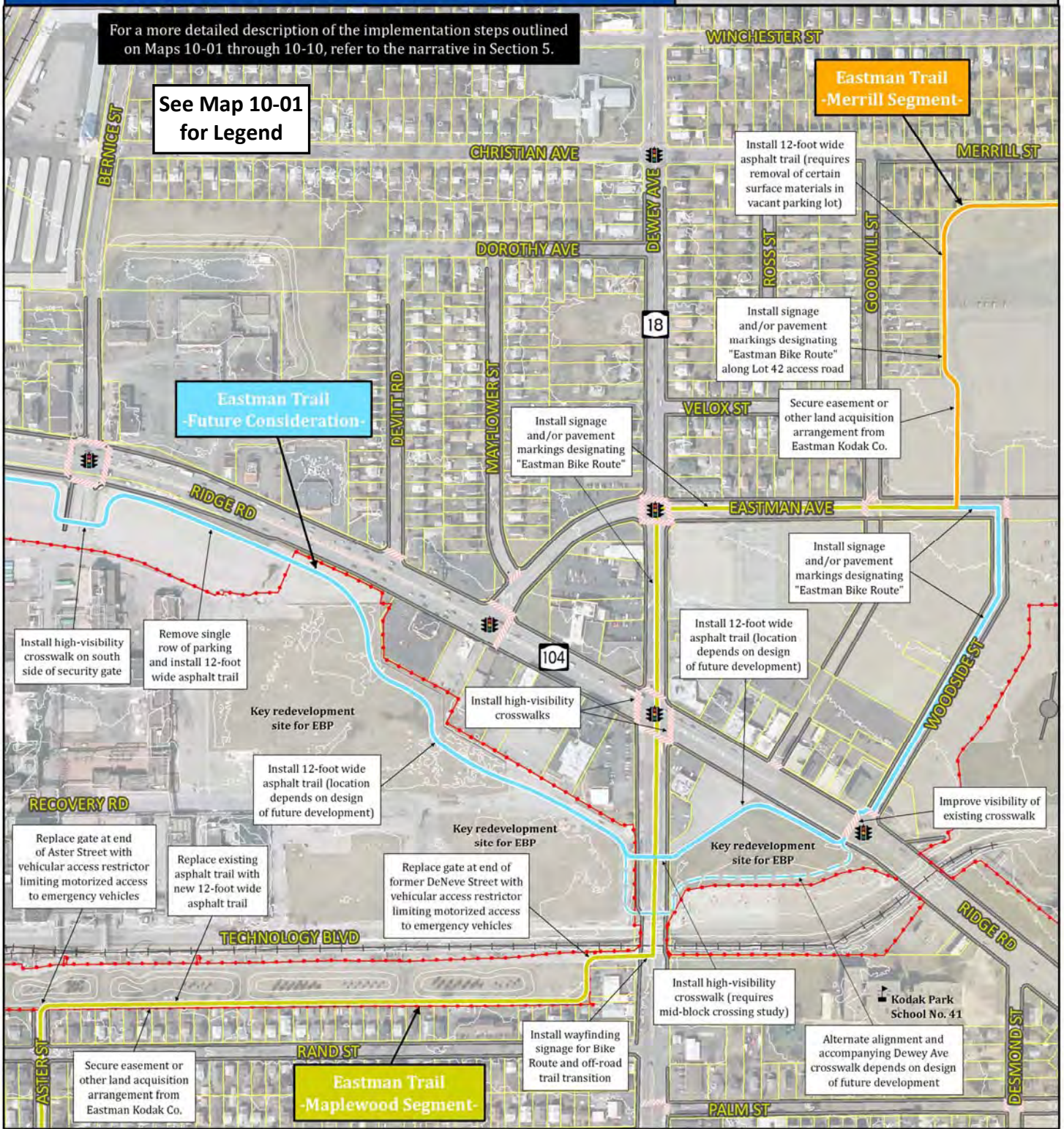
For a more detailed description of the implementation steps outlined on Maps 10-01 through 10-10, refer to the narrative in Section 5.



See Map 10-01
for Legend

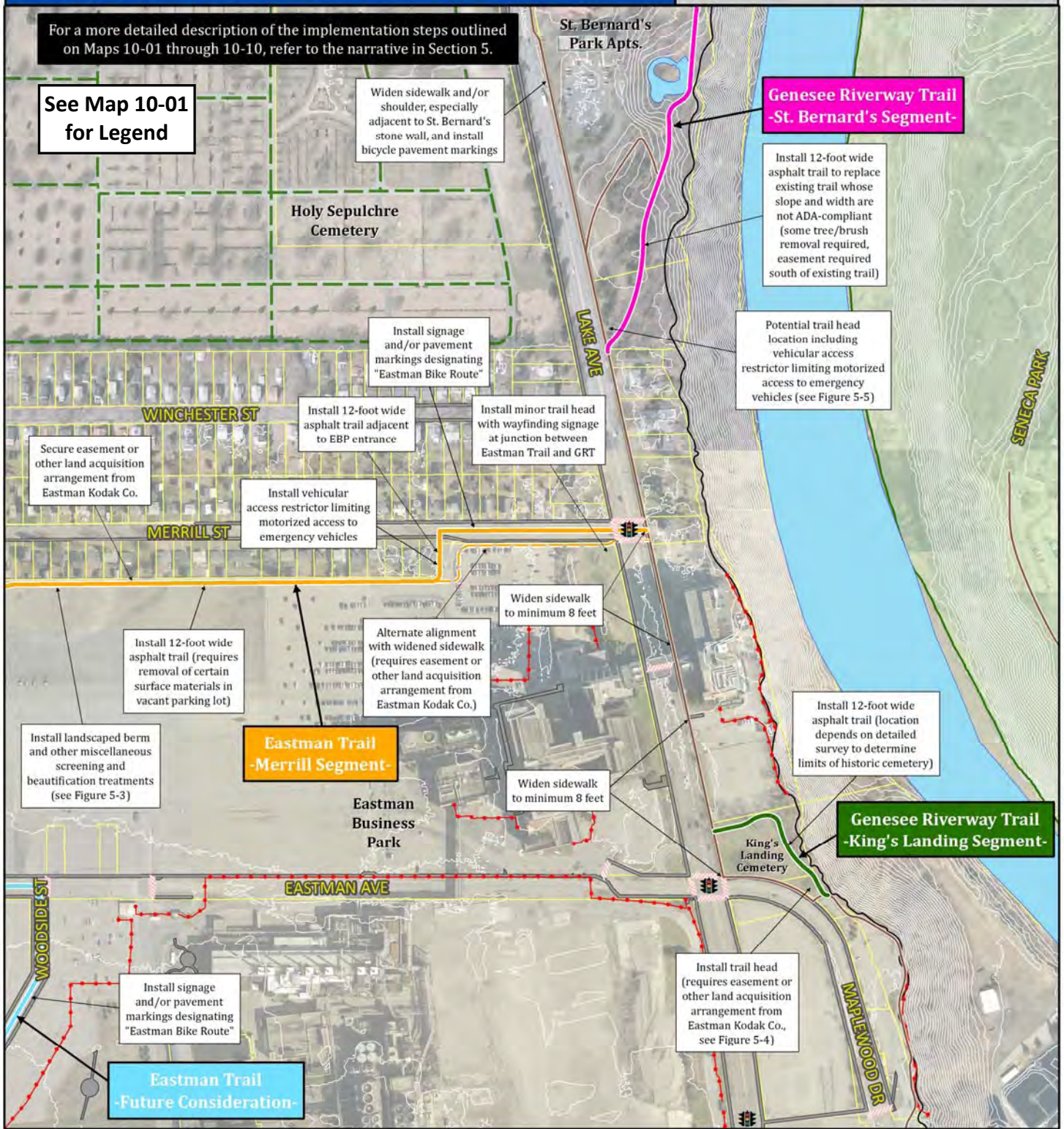
Map 10-07: Recommended Alignment — Ridge & Dewey

1 inch = 400 feet 0 100 200 400 Feet



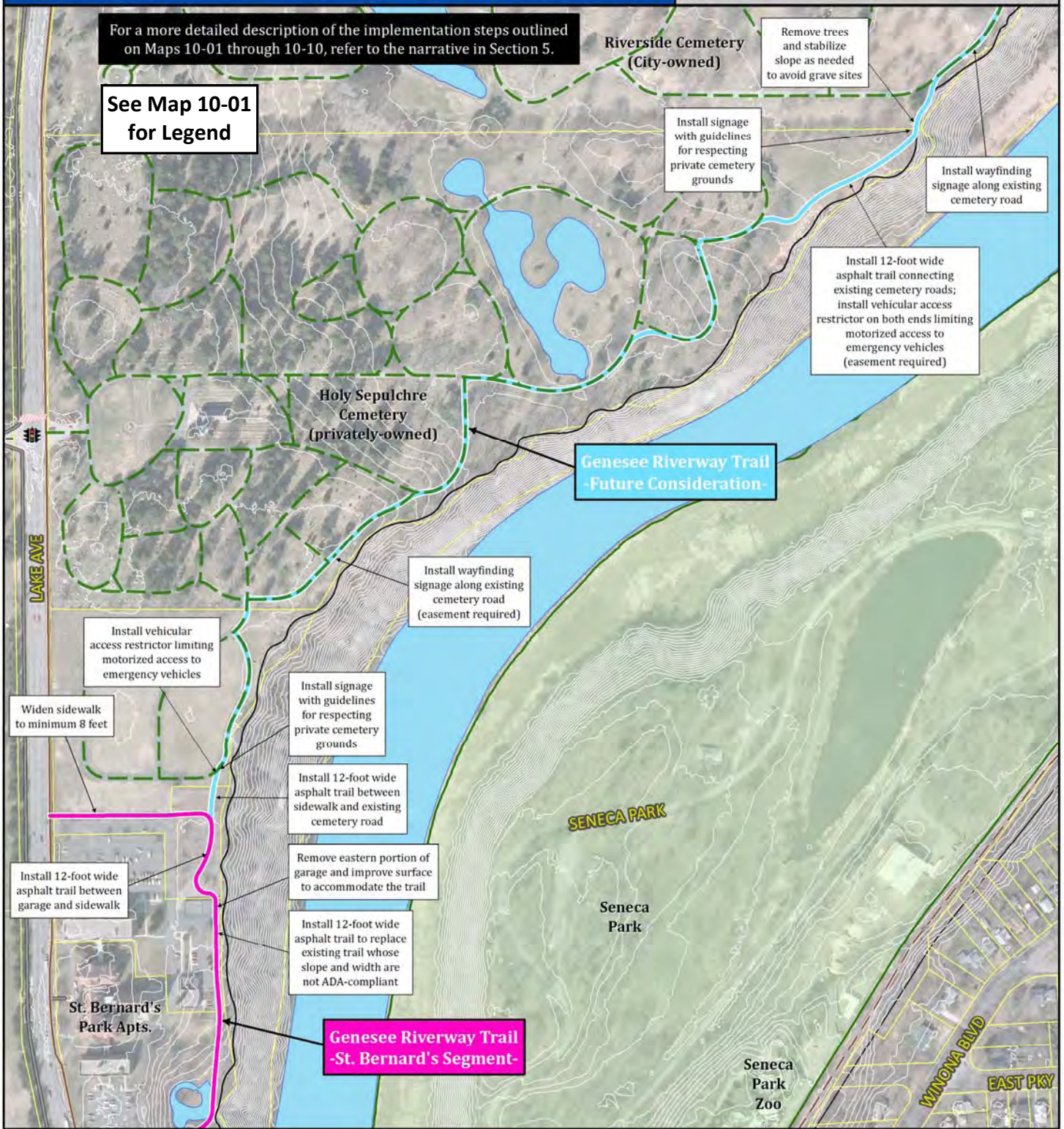
Map 10-08: Recommended Alignment — Lake & Eastman

1 inch = 400 feet 0 100 200 400 Feet



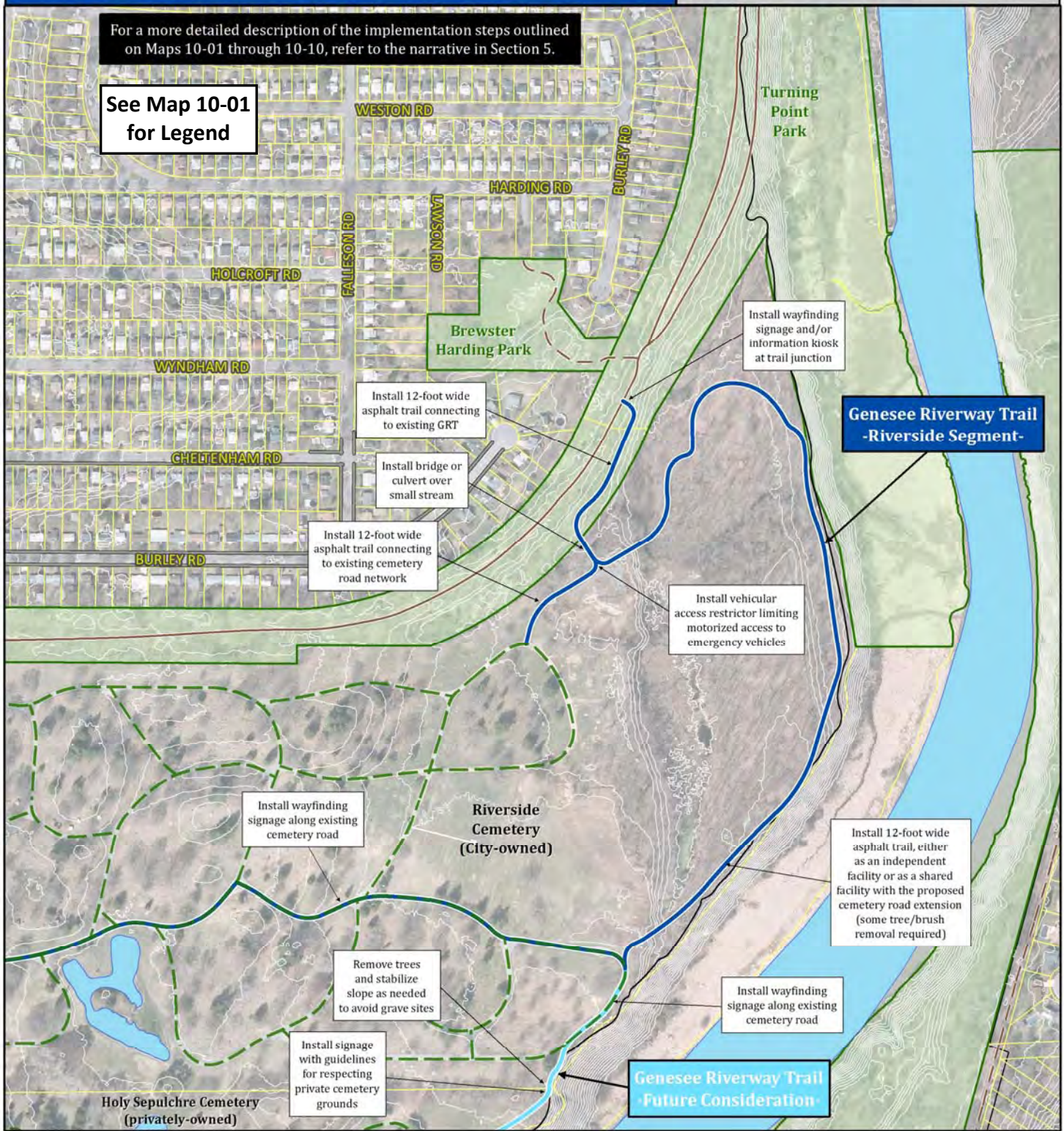
Map 10-09: Recommended Alignment — Holy Sepulchre Cemetery

1 inch = 400 feet 0 100 200 400 Feet



Map 10-10: Recommended Alignment — Northern Terminus

1 inch = 400 feet 0 100 200 400 Feet



5.6 MT. READ BOULEVARD PEDESTRIAN BRIDGE REPLACEMENT

Overview

As part of the Future Considerations of the Eastman Trail, both the City and EBP have expressed the desire to replace the pedestrian bridge over Mount Read Boulevard. A new and improved bridge design would improve service to EBP employees and allow for the Eastman Trail to link the Ridgeway Avenue and West Ridge Road corridors. It would also provide an opportunity for bicycle commuters to have safe and convenient access into the heart of EBP. Should this Future Consideration link be pursued in the future, this Section provides preliminary guidance to the feasibility of a new pedestrian bridge.

As part of this Study, several scenarios for the location of a replacement bridge were conceptually analyzed. These locations would provide the intended connectivity for the proposed Eastman Trail alignment and include construction of ADA-compliant approach ramps. The three most likely locations for a proposed bridge include:

1. just north of the existing bridge
2. approximately 200 feet north of the existing bridge
3. approximately 360 feet north of the existing bridge

Recommended Alignment

The first option was selected as the recommended alignment primarily due to the overall connectivity of the trail and EBP combined with the minimal impacts to surrounding features. Locating the bridge close to the current location will allow for connection into EBP Building 205 at its current second story location, resulting in only minimal modifications to the entryway. While all options would result in impacts and a loss of parking spaces in EBP to the east of Mount Read Boulevard, the first option would result in no impacts to the parking areas on the west side of the auxiliary roadway (see Figure 5-6).

Switchback ramps would likely be utilized to ensure ADA-compliance for maximum slope of a walkway and/or trail. A switchback ramp is necessary along the east side of Mount Read Boulevard, north of the existing bridge, due to the limited space between the bridge and egress locations for vehicular traffic. The switchback ramp would total approximately 300 feet in length and will likely impact about 20 parking spaces. A switchback ramp at the west termination of the bridge located to the south of the proposed bridge would be the most feasible option for connectivity with EBP Lot 70 since its entrance can be placed in proximity to the current bridge entrance. A linear ramp is feasible; however the distance from the entrance to that ramp would be approximately 300 feet south of the bridge location, which is not ideal for serving employees using EBP Lot 70.

The second and third location options were not selected as the recommended location. While overall connectivity for the trail would be maintained, there are some significant aspects to consider. The first is the connection to EBP Building 205 as either of these loca-

tions would require a feasibility study on accessing the building at a different second story location. In addition, the recommended location has a lower impact to parking lots due to the construction of ADA-compliant access ramps. These aspects and the overall geometry of the site led to the selection of the first option as the recommended alignment.

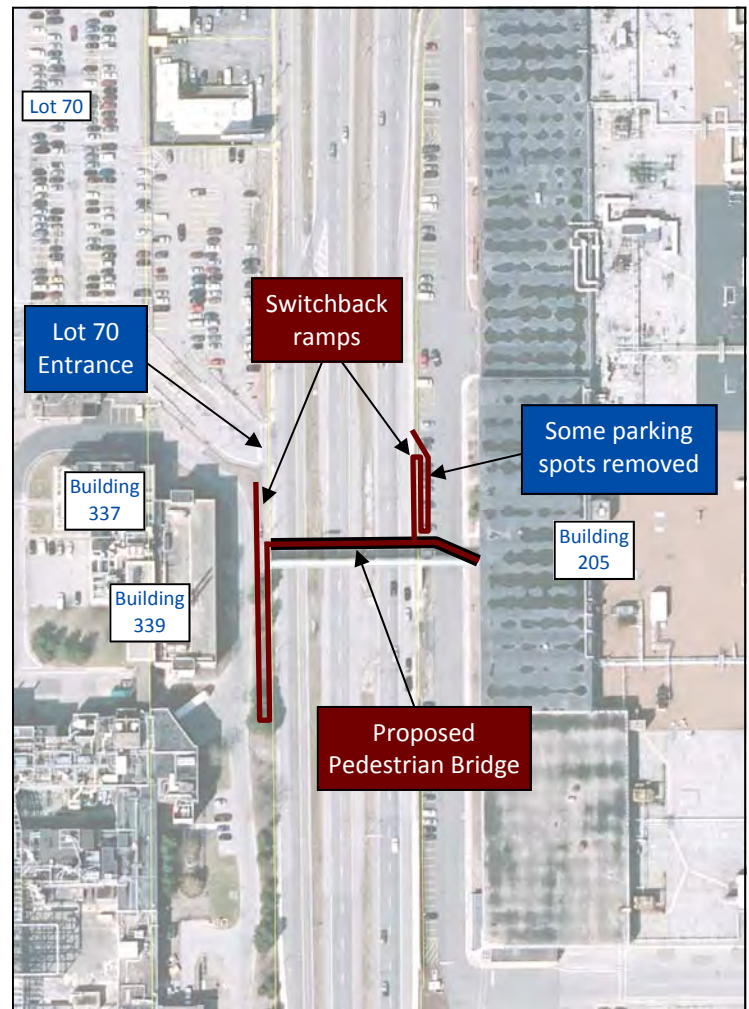
Design Considerations

During construction of the first option, temporary access from the sidewalk level to the west end of the existing bridge would be required since the proposed construction would be in conflict with the existing stairway. Once the primary span over Mount Read Boulevard and the auxiliary roadway is constructed, along with accessible transitions between the bridge and sidewalk level, temporary measures for connectivity to EBP Building 205 can be utilized while the span is constructed between the main span and the building.

The proposed bridge should embody a theme consistent with the remainder of the trail. It is noted that nearby pedestrian bridges which cross West Ridge Road consist of a steel truss bridge near NYS Route 390 and a steel multigirder bridge at Maplewood Park. The proposed bridge could be of similar construction to either of these, or embody an entirely different theme. Foundations for the proposed bridge would be located between roadways in similar locations as the existing bridge minimizing impacts to the existing features. Form liner finishes and/or stamped concrete can add to the bridge's character.

Aesthetics will be an important aspect of the proposed bridge to improve upon the overall industrial look of the existing bridge and provide a warm and inviting environment for its users. However, it is not anticipated that a signature bridge design on par with the Maplewood Park bridge is necessary for this location. The immediate surroundings of the Mount Read Boulevard pedestrian bridge consist of large-scale commercial and industrial spaces, whereas the Maplewood Park bridge is in a historic park setting adjacent to an urban neighborhood. It is also important to coordinate with the upcoming Mount Read Boulevard Corridor Study. A redesign of Mount Read Boulevard could provide greater opportunity for trail connectivity and bridge access ramp layout, and could reduce potential impacts to EBP.

Figure 5-6. Conceptual alignment of a new pedestrian bridge over Mt. Read Boulevard.



5.7 ERIE CANALWAY TRAIL CONNECTIONS

One of the primary goals of this Study is to explore the possibility of a major east-west connection between the GRT and the proposed Route 390 Trail. While not studied as part of this project, it should be noted that the Study Area is in close proximity to the Erie Canalway Trail (ECT). Given the regional objectives of this Study and the regional nature of the ECT, concepts were explored to link the two together. While the feasibility of these connections were not examined at the same level as the Genesee Riverway and Eastman Trails, it is important to document the potential for these future connections (see Map 11). Three different multi-use trail links were identified to connect the Eastman Trail (and by extension the Genesee Riverway Trail) and the Route 390 Trail to the ECT.

Junction Lock Trail Extension

The Town of Greece recently constructed the Junction Lock Trail off of the ECT, connecting the main line north to Ridgeway Avenue along the canal's historic alignment. The Town has expressed the desire to further extend the trail to Long Pond Road along the old canal bed, which parallels Ridgeway Avenue. This spur could eventually connect to the western terminus of the proposed Eastman Trail using the remainder of the former canal bed, which is City-owned. This link would connect trails of regional significance and would provide direct access to hundreds of residences in the neighborhoods off of Weiland Road.

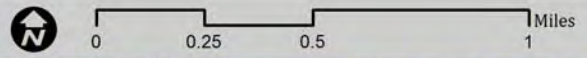
Route 390 Trail Extension

The approximate midway point of the proposed Route 390 Trail extension would be the western terminus of the proposed Eastman Trail. If constructed, it would connect the Eastman Trail due south to the ECT, forming a "short-cut" alternative to the Junction Lock Trail's connection to the canal. Additionally, this link represents the last major link in a large regional loop formed by the ECT, Lake Ontario State Parkway Trail, Genesee Riverway Trail, and Route 390 Trail.

Canal Ponds Business Park Trail Connection

Located in the Town of Greece, the 300-acre Canal Ponds Business Park contains over two million square feet of industrial, office, and commercial space. The numerous businesses and their employees benefit from an extensive trail system that in the Park. In the southwest corner of the site, the trail system connects to the ECT. In the northeast corner of the site, the trail network could be extended along Bellwood Drive to Ridgeway Avenue, and then along Ridgeway Avenue to Lee Road. This connection could consist of widening the existing sidewalks and/or installation of a separate multi-use trail facility. At Lee Road the trail would join the proposed Route 390 Trail and Eastman Trail via crosswalks over Ridgeway Avenue. The trail extension may not be eligible for certain funding sources, as many of the existing trails in the business park are too narrow to be considered multi-use trails. However, completing the link on the northeast side would improve pedestrian linkages in the area, provide another connection to the ECT from the other regional trails, and link a major employment center to the regional trail system.

Map 11: Erie Canalway Trail Connections



Legend

- Study Area
- Municipal Boundaries
- Existing Trails
- Proposed/Conceptual Trails
- Proposed Eastman Trail Corridor (generalized)



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SECTION 6

PROJECT FUNDING & COST ESTIMATE

6.1 OVERVIEW

There are various opportunities for funding trail projects in the City, ranging from local bonding and fund drives to Federal and State grants. The use of lands for public purposes short of outright purchase, particularly for trails and other similar uses, should be considered where appropriate. Non-profit organizations may be helpful partners in obtaining land or funds that might not otherwise be feasible. The availability of certain forms of State and Federal assistance can vary widely from year to year.

The most likely means of implementing some or all of the trail improvement recommendations identified in this feasibility study is through the application of multiple funding sources. Most trails are developed using either a combination of public funding from various governmental levels, a combination of public and private funding, and/or a combination of local public forces and volunteer assistance. This Section provides an overview of the potential funding sources for development of the Eastman and Genesee Riverway Trails.

6.2 FEDERAL SOURCES

Moving Ahead for Progress in the 21st Century Act (MAP-21)

The Federal Government's primary source of funding for multi-use trails and other bicycle and pedestrian programs is authorized through the MAP-21. This Act is the successor of Safe, Accountable, Flexible Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) and channels funding through the Federal Highway Administration (FHWA) to the State Department of Transportation (DOT) and Metropolitan Transportation Organizations (MPO). MAP-21 includes three relevant programs to the proposed Eastman and Genesee Riverway Trails, as described on subsequent pages:

- Transportation Alternatives Program;
- Surface Transportation Program; and
- Congestion Mitigation and Air Quality Program.

Transportation Alternatives Program (TAP)

TAP is essentially a combination of three programs from SAFETEA-LU: Transportation Enhancements Program (TEP), Recreational Trails Program (RTP), and Safe Routes to School (SRTS). Only RTP remains as a program with a dedicated allocation of funds. The others have evolved into categories of eligibility under TAP. Below is a brief summary of TAP and the differences (if any) between it and the collection of predecessor programs under SAFETEA-LU:

- 33% less dedicated funds for non-motorized transportation projects than SAFETEA-LU (\$833 million down from \$1.2 million)
- RTP retains its former funding levels
- SRTS was retained but not with a dedicated allocation of funds
- the remainder of relevant funding categories under the TAP resemble the former TEP

Recreational Trails Program (RTP)

As a funding source through the FHWA, a total of \$85 million nationally in contract authority was apportioned for each fiscal year from 2012 to 2014 to provide and maintain recreational trails. States must establish a State Recreational Trails Advisory Committee that represents both motorized and non-motorized recreational trail users to distribute funds. Of funds distributed to a state, 30% must be used for motorized trails, 30% must be used for non-motorized trails, and the remaining 40% can be used for either type of trail. A typical RTP award is \$50,000 to \$100,000.

The Federal funding portion for projects is 80%, and Federal agency project sponsors or other Federal programs may provide additional Federal share up to 95%. Soft match provisions are allowed, including soft matches from public agencies. New York State Office of Parks, Recreation and Historic Preservation administers this program in New York State. Upon approval, planning and environmental assessment costs incurred prior to project approval may be credited toward the non-Federal share cost of the project, limited to costs incurred not more than 18 months prior to project approval.

The RTP funds come from the Federal Highway Trust Fund, and represent a portion of the motor fuel excise tax collected from non-highway recreational fuel use: fuel used for off-highway recreation by snowmobiles, all-terrain vehicles, off-highway motorcycles, and off-highway light trucks. This program funds the acquisition, construction and maintenance of trails on state, county, municipal or private lands. The program also includes the "Rails to Trails" grants program. Typically, trails of regional significance are favored over local, smaller trails.

Safe Routes to School Program (SRTS)

The SRTS program was originally funded under the federal SAFETEA-LU bill, with the goal to enable and encourage children, including those with disabilities, to walk and bicycle to school; to make walking and bicycling to school safe and more appealing; and to facilitate the planning, development and implementation of projects that will

improve safety, and reduce traffic, fuel consumption, and air pollution in the vicinity of schools. Portions of trail projects that connect to schools and are within approximately two miles of a school building may be eligible for funding. SRTS funding is administered by the State, but is no longer a stand-alone category with a dedicated allocation of funds.

Other Eligible TAP Activities (similar to former TEP)

Aside from RTP and SRTS, there are six categories of eligible enhancement activities that can be funded under the TAP. The proposed Eastman and Genesee Riverway Trails are potentially eligible under “construction, planning, and design of on-road and off-road trail facilities for pedestrians, bicyclists, and other non-motorized forms of transportation” or “construction, planning, and design of infrastructure-related projects and systems that will provide safe routes for non-drivers”.

Section 61 of the State Finance Law requires the following of any project constructed with federal funds for NYSDOT:

- Funds used to construct/reconstruct highways, streets, and other transportation infrastructure projects require a 20-year project life;
- Funds used to acquire land for recreation projects require a 20-year easement/guarantee of ownership or permit to use.

Surface Transportation Program (STP)

STP was retained under MAP-21. Eligible activities most relevant to this Study include “Projects to accommodate other transportation modes”, “bicycle transportation and pedestrian walkways”, “modification of public sidewalks to comply with the Americans with Disabilities Act”, “Transportation alternatives”, and “Recreational trails”.

All federal funds for transportation projects in Rochester’s seven-county region are allocated through the Genesee Transportation Council (GTC), the area’s MPO. STP-funded projects must be selected for inclusion in the bi-annually created Transportation Improvement Program (TIP). The GTC TIP was last updated for 2011-2014.

Biennial updates are made to the TIP to include projects of significant community need, and municipal officials should stay abreast of funding notifications and calls for projects from the GTC if they wish to apply for inclusion in further funding programs. Federal funding sources provide up to 80% of project costs and require a 20% local match. ‘Soft’ match provisions (e.g., force account labor) are allowed, including soft matches from public agencies.

Congestion Mitigation and Air Quality Program (CMAQ)

CMAQ was also retained under MAP-21. The program provides funding for surface transportation and other related projects that contribute to air quality improvements and reduce congestion in areas that are designated as non-attainment or in maintenance per the

National Ambient Air Quality Standards. Selection of CMAQ projects is made at the State and local level but is subject to broad Federal project eligibility guidelines. Eligible project categories include:

- Transit and public transportation programs
- Traffic flow improvements
- Travel Demand Management (TDM) strategies
- Ridesharing programs
- Bicycle and pedestrian projects
- Education and outreach programs
- Inspection and maintenance programs
- Alternative clean fuels

The Rochester region is no longer in “non-attainment” status, and is thus not currently eligible for CMAQ funds. However, this status can change over time, and should be considered a potential funding source as the proposed trails are developed over time.

Other Sources

Local officials may also be able to acquire some trail project funding assistance by working with their federal representatives to acquire special funding appropriations through appropriations bills, transportation and other related legislative actions, and other special appropriations.

6.3 STATE SOURCES

Consolidated Funding Application (CFA) Program

In 2011, New York State introduced the CFA program, a grant application process that includes numerous funding sources from a variety of State agencies. In conjunction with this streamlined process, the State established 10 Regional Economic Development Councils, charged with developing strategic plans and evaluating CFA applications within their respective regions. Rochester is part of the Finger Lakes Regional Economic Development Council. Below are the State agencies and their respective grant programs that could potentially be used to fund components of the proposed Eastman Trail and/or Genesee Riverway Trail. Funding levels are listed for the 2012 CFA. The application deadline has passed for this round and funding levels may or may not be the same in 2013.

NYS Office of Parks, Recreation & Historic Preservation (OPRHP) – Environmental Protection Fund (EPF) Municipal Grant Program

OPRHP dedicated up to \$16 million to the 2012 CFA. One of the stated priorities for the grant program is to fund “projects that enhance the public’s access to parks and their environmental and recreational resources (including landscape and trail improvements to facilitate connections and special features or signage to improve programming and interpre-

tation), create physical and functional connections among, or provide or enhance public access to, already-protected state and local lands, historic sites, greenways, trails and waterways to bring visitors back.”

OPRHP funding programs include the EPF Municipal Grant program, which offers matching grants for the acquisition, planning, development, and improvement of parks, historic properties listed on the National or State Registers of Historic Places and heritage areas identified in approved plans for statutorily designated Heritage Areas. Funds are available to municipalities or not-for-profits with an ownership interest. The maximum award is \$500,000. Grants are for a maximum of 50% reimbursement of eligible costs. Competition for the relatively limited funds is very high and typically a minority of applicants is funded, sometimes at less than the requested amounts. It is necessary to document a clear planning process that identifies needs, demonstrates appropriate development, and includes community support.

NYS Department of State (DOS) – Local Waterfront Revitalization Program (LWRP)

The 2012 CFA included up to \$15 million from the DOS. Through the State’s LWRP program, communities can seek funding for “planning or constructing land and water based trails”. The City of Rochester is currently updating its LWRP and it is expected that stronger connections to the Genesee River will be a central priority of the plan.

NYS Canal Corporation – Canalway Grants Program

The Canal Corporation dedicated up to \$1 million to the 2012 CFA, seeking projects ranging from \$50,000 to \$150,000 in cost. Eligible activities include “constructing or rehabilitating segments of Canalway Trail”. Although the Eastman and Genesee Riverway Trails are not part of the Erie Canalway Trail, the application notes that “projects must be located along one of the four canals of the Canal System, trail linkages or connections to existing Canalway Trail segments, or the historic canal alignment”. Both proposed trails are linked to the Erie Canalway Trail, either through existing or proposed segments, and the Eastman Trail contains a segment of the Erie Canal’s historic alignment.

State Multi-Modal Program

The State Multi-Modal Program provides funding for authorized port, airport and local highway and bridge projects. State Multi-Modal funds can be used to finance project costs for the construction, reconstruction, improvement, reconditioning and preservation of county, town, city and village roads, highways, parkways and bridges. All Multi-Modal projects must have a ten year “bondable” service life and must be for public transportation or freight transportation purposes. Multi-Modal funding cannot be used for the mandated share of a federally funded project. Eligible project types relevant to the Eastman and Genesee Riverway Trails include sidewalks, paved shoulders, bicycle and pedestrian paths and bridges.

Other Sources

Another possible avenue for funding or other material support for trail projects may be state and county public health departments. Some public health officials and programs are targeting opportunities to provide active living environments – communities and neighborhoods that can support physical activity through its normal infrastructure of sidewalks, bicycle-friendly streets, trails, easily accessible parks, etc. Public health departments may be good sources for assistance with programs or projects that encourage the use of trails through maps, signage, and promotions. Additionally, private foundations with health-oriented missions are also more receptive to supporting trails as a means of encouraging healthy lifestyles (e.g., the Robert Wood Johnson Foundation’s Active Living Program).

6.4 LOCAL SOURCES

Limited federal and state funding opportunities for trail development have led many communities to allocate more local funding for these types of projects. The most common sources of funds at the municipal level include allocations from specific departments (e.g., public works or parks) or a line item in a community’s annual budget and/or Capital Improvement Program (CIP). Local revenues for trail development have also been raised in some communities through property tax, sales tax, or bond measures. Additionally, development impact fees levied by a municipality may also be allocated to capital trail improvements per local body.

Local communities have also developed trails through the allocation of staff time, also known as force account work, to build trails or provide certain trail building or maintenance activities that are then augmented by paid services from private contractors and/or unpaid volunteers.

6.5 PRIVATE AND COMMUNITY FOUNDATIONS

Community foundations provide charitable contributions which may be a potential source of funding. They operate much like a private foundation, but their funds are derived from many donors rather than a single source. Furthermore, community foundations are usually classified under the tax code as public charities and therefore are subject to different rules and regulations than those which govern private foundations. Private and community foundation grants can be combined to leverage federal funding by providing a portion of the local match requirement for federal transportation funding. Several potential foundations include:

Genesee Region Trails Coalition (GRTC)

The GRTC is an organization whose mission is to help local communities develop and maintain a regional system of multi-use trails in the ten-county Rochester-Genesee-Finger Lakes region. They have a small annual grant program to support small trail development and improvement projects within their region.

Bikes Belong Coalition

This is a membership organization founded by bicycle industry leaders with the mission of "putting more people on bikes more often." Bikes Belong Coalition pursues this goal by distributing grants for bicycle facility, education, and capacity projects. Bikes Belong Coalition Grants are small funding sources that assist communities and agencies in the development of bicycle trails and pathways. This grant source is often used to help fund a portion of the required match to access federal transportation funds. More information on this organization can be found at their website at www.bikesbelong.org.

Other Sources

The Eastman Kodak Company, The Conservation Fund, and the National Geographic Society provide small grants to stimulate the planning and design of greenways in communities throughout America through the Kodak American Greenways Awards Program. The annual grants program was instituted in response to the President's Commission on Americans Outdoors recommendation to establish a national network of greenways. Made possible by a generous grant from Eastman Kodak, the program also honors groups and individuals whose ingenuity and creativity foster the creation of greenways. For more information about the American Greenways program, please refer to its web site at www.conservationfund.org/kodak_awards. The program is not currently taking applications, but municipal officials and interested parties should continue to visit the website for future funding opportunities.

6.6 PRIVATE FUNDING

Some trails have been partially or substantially developed utilizing private funds from private donations by individuals and businesses, corporate sponsorships, and various fundraising efforts. Examples of fundraising efforts range from trail-related events, merchandise sales, and even the sale of naming rights for trail sections or trail amenities like benches, information kiosks, etc. The City should identify present and future opportunities for such participation and should pursue this where it is in the interest of the City to do so. Potential contributors to such a program would include Holy Sepulchre Cemetery, Eastman Business Park, Carestream, Excell, Champion, Lidestri Foods, Ortho Clinical Diagnos-

tics, and other nearby businesses. An excellent New York State example of local private fundraising efforts is the Cayuga Waterfront Trail in Ithaca. For more information about the trail, visit <http://cayugawaterfronttrail.com>.

Finally, a significant number of trails have been developed and maintained, particularly in the Rochester-Genesee-Finger Lakes Region, through the volunteer efforts of private individuals, Friends of the Trails groups, local civic organizations (Chamber of Commerce, Scout groups), and corporate volunteerism. Likewise, in some cases, specialized services (materials and equipment donation, trail construction work, trail design) have been donated by generous businesses and professionals.

6.7 IMPLEMENTATION TECHNIQUES

Leases, Easements, and Permits

Leases, easements and permits may enable the use of land or facilities for long or short terms. Advantages may include avoidance of immediate large capital outlay, possible less overall cost, avoidance of restrictions of debt financing, preservation of debt capacity, control of the period of the lease when permanency is not intended or obsolescence is anticipated and use or control of land or facilities which are not for sale or otherwise available. These are particularly effective means of acquiring rights-of-way for trails.

For both sections of trail under investigation for this project, some proposed trail heads might require permits or easements to allow public access to trails. Wherever possible, replacing permits with permanent easements should be pursued to ensure perpetuity. Easements would be required at numerous locations including along the former Erie Canal bed, now owned by Eastman Kodak Company, and through the St Bernard's Seminary property currently owned and operated by Unity Health.

Bonding

Bonds generate immediate financing and are appropriate for capital improvement projects. General obligation bonds are backed by the general credit and taxing power of the municipality. Bonding may be subject to permissive referendum if so petitioned. Other forms of bonds, such as revenue bonds, are occasionally applicable. The popularity of bonds varies with market fluctuations, interest rates, tax rates, and other influences.

6.8 PLANNING-LEVEL COST ESTIMATE

The following cost estimate is presented for planning purposes, to allow the City of Rochester to gauge the approximate cost for developing the multi-use trail segments as presented in this Study. The actual location and design of the trail may change once the project reaches the design stage. As well, construction costs are subject to change. Dollar figures included are from 2012; escalation due to inflation or other factors is not included.

Eastman Trail -Ridgeway Segment-

Route 390 Trail to Mount Read Boulevard (12 Ft. wide trail unless otherwise stated)

| Item | Quantity | Unit Cost | Cost |
|---|----------|-----------|--------------------|
| Trail Head at Lee Rd / Ridgeway (Kiosk, Parking, Interpretive Signage, Seating, Bike Rack, Landscaping, etc.) | 1 LS | \$250,000 | \$250,000 |
| High Vis. Crosswalk at Latona Rd. | 700 SF | \$21 | \$14,700 |
| Clearing, Grubbing and Grading at Old Erie Canal ROW | 4,075 LF | \$40 | \$163,000 |
| Asphalt Trail Within Old Erie Canal ROW | 4,075 LF | \$80 | \$326,000 |
| Signage - Old Erie Canal ROW | 1 LS | \$20,000 | \$20,000 |
| Landscaping and Restoration at Old Erie Canal ROW | 1 LS | \$40,000 | \$40,000 |
| Vehicular Access Restrictors | 4 LS | \$2,000 | \$8,000 |
| Ped Bridge over Kodak Park Ave | 1 LS | \$450,000 | \$450,000 |
| Fencing along Rear Property Lines | 2,300 LF | \$45 | \$103,500 |
| High Vis. Crosswalk at McLaughlin Blvd. | 700 SF | \$21 | \$14,700 |
| High Vis. Crosswalk at Welland Rd. | 700 SF | \$21 | \$14,700 |
| Signage & Striping Ridgeway Ave. | 1,340 LF | \$8 | \$10,720 |
| Subtotal | | | \$1,415,320 |
| Restroom Building (Optional - Not incl. in total) | 1 LS | \$300,000 | \$300,000 |
| <i>12% Design and 12% Construction Inspection Services</i> | | | \$339,677 |
| <i>15% Contingency</i> | | | \$212,298 |
| Total Estimated Cost | | | \$1,967,295 |

Total planning-level cost estimate* for Eastman Trail recommended alignment:

\$2,982,551

*assumes acquisition of easements on EBP property rather than outright purchase

Eastman Trail -Maplewood Segment-

Mount Read Boulevard to Eastman Avenue (12 Ft. wide trail unless otherwise stated)

| Item | Quantity | Unit Cost | Cost |
|--|----------|-----------|------------------|
| High Vis. Crosswalks at Mt Read Blvd. Ramps | 1,350 SF | \$21 | \$28,350 |
| Signage & Striping Ridgeway Ave. | 3,975 LF | \$8 | \$31,800 |
| Railroad Crossing on Ridgeway Ave. | 1 LS | \$6,000 | \$6,000 |
| Signage Aster St. | 1 LS | \$3,500 | \$3,500 |
| Asph. Pav't & Base Removal @ former DeNeve St | 2,380 SY | \$25 | \$59,500 |
| Asphalt Trail @ former DeNeve St | 1,785 LF | \$90 | \$160,650 |
| Vehicular Access Restrictors | 2 LS | \$2,000 | \$4,000 |
| High Visibility Crosswalk at W. Ridge Rd | 800 SF | \$21 | \$16,800 |
| Signage & Striping Dewey Ave. / Eastman Ave. | 1 LS | \$16,000 | \$16,000 |
| Subtotal | | | \$326,600 |
| <i>12% Design and 12% Construction Inspection Services</i> | | | \$78,384 |
| <i>15% Contingency</i> | | | \$48,990 |
| Total Estimated Cost | | | \$453,974 |

Eastman Trail -Merrill Segment-

Eastman Avenue to Genesee Riverway Trail (12 Ft. wide trail unless otherwise stated)

| Item | Quantity | Unit Cost | Cost |
|--|----------|-----------|------------------|
| On-Road Trail Signage & Striping @ Kodak Lot 42 | 1 LS | \$10,000 | \$10,000 |
| Asph. Pav't & Base Removal @ Kodak Lot 42 | 4,060 SY | \$25 | \$101,500 |
| Asphalt Trail at Kodak Lot 42 | 1,825 LF | \$80 | \$146,000 |
| Land. berm and Screen @ Kodak Lot 42 | 1,825 LF | \$40 | \$73,000 |
| Vehicular Access Restrictor | 1 LS | \$2,000 | \$2,000 |
| Signage and Striping - Merrill St. | 565 LF | \$20 | \$11,300 |
| Minor Trail Head at Merrill St / Lake Ave (Kiosk, Interpretive Signage, Seating, Bike Rack, Landscaping, etc.) | 1 LS | \$60,000 | \$60,000 |
| Subtotal | | | \$405,800 |
| <i>12% Design and 12% Construction Inspection Services</i> | | | \$96,912 |
| <i>15% Contingency</i> | | | \$60,570 |
| Total Estimated Cost | | | \$563,282 |

Eastman Trail Total \$2,982,551

Eastman Trail -Future Considerations-

Mount Read Boulevard & Ridgeway Avenue to Eastman Avenue (12 Ft. wide trail unless otherwise stated)

| Item | Quantity | Unit Cost | Cost |
|---|----------|-------------|--------------------|
| Asphalt Trail along Mt Read Blvd. | 1,355 LF | \$85 | \$115,175 |
| Widen Sidewalk Mt Read @ Technology Blvd | 320 LF | \$60 | \$19,200 |
| Asphalt Trail bridge over Technology Blvd to Mt Read Ped Bridge | 635 LF | \$85 | \$53,975 |
| Mt Read Ped Bridge and Ramps | 1 LS | \$1,200,000 | \$1,200,000 |
| Widen Sidewalk @ Mt Read / W. Ridge | 1,600 LF | \$60 | \$96,000 |
| High Visibility Crosswalk A at Carestream Entrance | 650 SF | \$21 | \$13,650 |
| Widen Sidewalk @ Carestream Frontage | 540 LF | \$60 | \$32,400 |
| High Visibility Crosswalk B at Carestream Entrance | 800 SF | \$21 | \$16,800 |
| Asphalt Trail Carestream Entrance to Railroad Crossing | 2,980 LF | \$80 | \$238,400 |
| High Visibility Crosswalk at EBP Entrance | 650 SF | \$21 | \$13,650 |
| Railroad Crossing at W. Ridge Road | 1 LS | \$6,000 | \$6,000 |
| Asphalt Pav't & Base Removal @ EBP Lot 54 | 1,565 SY | \$25 | \$39,125 |
| Landscaped berm & Screening @ EBP Lot 54 | 1,825 LF | \$40 | \$73,000 |
| High Vis. Crosswalk at W. Ridge Rd / EBP Entrance | 500 SF | \$21 | \$10,500 |
| Asphalt Pav't & Base Removal @ EBP Vacant Lot | 435 SY | \$25 | \$10,875 |
| Asphalt Trail @ EBP Vacant Lot | 1,170 LF | \$80 | \$93,600 |
| High Visibility Crosswalk at Dewey Ave. | 650 SF | \$21 | \$13,650 |
| Asphalt Trail at EBP Vacant Lot | 560 LF | \$80 | \$44,800 |
| High Visibility Crosswalk at W. Ridge Rd | 800 SF | \$21 | \$16,800 |
| Signage & Striping Eastman Ave / Woodside St | 1 LS | \$8,000 | \$8,000 |
| Subtotal | | | \$2,115,600 |
| <i>12% Design and 12% Construction Inspection Services</i> | | | \$507,744 |
| <i>15% Contingency</i> | | | \$317,340 |
| Total Estimated Cost | | | \$2,940,684 |

Eastman Trail -Future Considerations- Total \$2,940,684

Total planning-level cost estimate*
for Genesee Riverway Trail
recommended alignment:

\$1,149,669

*assumes acquisition of easements on
EBP and Unity Health (St. Bernard's)
property rather than outright purchase

Total planning-level cost estimate for
Eastman Trail and Genesee Riverway
Trail recommended alignments:

\$4,132,220

| Genesee Riverway Trail -King's Landing Segment- | | | |
|--|----------|---|------------------|
| King's Landing Cemetery to Merrill Street (12 Ft. wide trail unless otherwise stated) | | | |
| Item | Quantity | Unit Cost | Cost |
| King's Landing Trail Head Complete (Kiosk, Interpretive Signage, Seating, Bike Rack, Landscaping, etc.) | 1 LS | \$60,000 | \$60,000 |
| Asphalt Trail at King's Cemetery | 450 LF | \$80 | \$36,000 |
| Widen Lake Ave. Sidewalk to 8 Feet (Existing Genesee Riverway Trail) | 780 LF | \$35 | \$27,300 |
| | | Subtotal | \$123,300 |
| Restroom Building (Optional - not incl. in total) | 1 LS | \$300,000 | \$300,000 |
| | | 12% Design and 12% Construction Inspection Services | \$29,592 |
| | | 15% Contingency | \$18,495 |
| | | Total Estimated Cost | \$171,387 |

| Genesee Riverway Trail -St. Bernard's Segment- | | | |
|---|----------|---|------------------|
| Rear of St. Bernard's Property (12 Ft. wide trail unless otherwise stated) | | | |
| Item | Quantity | Unit Cost | Cost |
| St. Bernard's Trail Head Complete (Kiosk, Interpretive Signage, Seating, Bike Rack, Landscaping, etc.) | 1 LS | \$60,000 | \$60,000 |
| Vehicular Access Restrictor | 1 LS | \$2,000 | \$2,000 |
| Asphalt Trail at St. Bernard's Lake Ave to Existing Trail | 530 LF | \$80 | \$42,400 |
| Asphalt Trail at St. Bernard's (Rehab Existing Non-ADA Compliant Trail) | 1,130 LF | \$90 | \$101,700 |
| Garage Improvements | 1 LS | \$35,000 | \$35,000 |
| Asphalt Trail at St. Bernard's garage north to sidewalk | 265 | \$90 | \$23,850 |
| Widen Concrete Sidewalk | 450 LF | \$50 | \$22,500 |
| | | Subtotal | \$287,450 |
| | | 12% Design and 12% Construction Inspection Services | \$68,988 |
| | | 15% Contingency | \$43,118 |
| | | Total Estimated Cost | \$399,556 |

| Genesee Riverway Trail -Riverside Segment- | | | |
|---|----------|---|------------------|
| Lake Avenue to Genesee Riverway Trail in Turning Point Park (12 Ft. wide trail unless otherwise stated) | | | |
| Item | Quantity | Unit Cost | Cost |
| Signage at Riverside Cemetery | 1 LS | \$35,000 | \$35,000 |
| Asphalt Trail, Riverside Cemetery in Bullock's Woods | 3,140 LF | \$85 | \$266,900 |
| Asphalt Trail Connectors to GRT in Turning Point Park | 970 LF | \$85 | \$82,450 |
| Vehicular Access Restrictor | 1 LS | \$2,000 | \$2,000 |
| Small Timber Bridge at Stream Crossing | 1 LS | \$30,000 | \$30,000 |
| | | Subtotal | \$416,350 |
| | | 12% Design and 12% Construction Inspection Services | \$99,924 |
| | | 15% Contingency | \$62,453 |
| | | Total Estimated Cost | \$578,727 |

Genesee Riverway Trail Total \$1,149,669

| Genesee Riverway Trail -Future Considerations- | | | |
|---|----------|---|------------------|
| Holy Sepulchre Cemetery (12 Ft. wide trail unless otherwise stated) | | | |
| Item | Quantity | Unit Cost | Cost |
| Asphalt connection to H.S. Cemetery (south end) | 130 LF | \$80 | \$10,400 |
| Vehicular Access Restrictor | 1 LS | \$2,000 | \$2,000 |
| Signage at H.S. Cemetery | 1 LS | \$30,000 | \$30,000 |
| Asphalt connection to H.S. Cemetery (north end) | 660 LF | \$80 | \$52,800 |
| Vehicular Access Restrictors | 2 LS | \$2,000 | \$4,000 |
| Tree Removal, Slope Stabilization, and Retaining Wall | 1 LS | \$20,000 | \$20,000 |
| | | Subtotal | \$119,200 |
| | | 12% Design and 12% Construction Inspection Services | \$28,608 |
| | | 15% Contingency | \$17,880 |
| | | Total Estimated Cost | \$165,688 |

Genesee Riverway Trail -Future Considerations- Total \$165,688

PROJECT TOTAL (not including Future Considerations) \$4,132,220



APPENDIX A

REPORT ON KEY INTERPRETIVE OPPORTUNITIES & ENHANCEMENT OF THE TRAIL USER EXPERIENCE



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Urban Trail Linkages: Eastman and Genesee Riverway Trails Planning and Preliminary Design Study

Report on Key Interpretive Opportunities and Enhancement of the Trail User Experience

Prepared for:
Clark Patterson Lee

Prepared by:
Jane Clark Chermayeff & Associates, LLC

Report on Key Interpretive Opportunities and Enhancement of the Trail User Experience

Table of Contents

A. Project Background

- A1. Introduction: An Interpretive Framework
- A2. Proposed Eastman Trail: Description & Special Features
 - A2.1. Eastman Trail – Ridgeway Segment
 - A2.2. Eastman Trail – Merrill Segment
- A3. Genesee Riverway Trail: Description & Special Features
- A4. Audiences and Active Users

B. Preliminary Interpretive Themes and Resources

- B1. “Voices”
 - B1.1. Resources: The Moth
 - B1.2. Resources: StoryCorps
 - B1.3. Resources: Library of Congress: American Memory
 - B1.4. Resources: Columbia University Center for Oral History: Oral History Bibliography
 - B1.5. Resources: Minnesota Historical Society: Podcasts / Oral History Guides
 - B1.6. Resources: “Custom Sounds of Nature”
- B2. “Camera Ready”
 - B2.1. Resources: Flipbooks, Pinhole Cameras and other Photographic Devices
 - B2.2. Resources: Zoetropes
 - B2.3. Resources: “Light Walk”—Exploratorium, San Francisco, CA
- B3. “Scale”

C. Interpretive Design Opportunities

- C1. Waysides and Kiosks
 - C1.1. “VeloCity”—Seattle, WA
 - C1.2. “Bikeway Belém”—Lisbon, Portugal
 - C1.3. “Nature of the Hudson”—Hudson River Valley, NY

C1.4. “Dis(solve): The Japhet Creek Project”—Houston, TX

C2. Digital Interpretation: Site-Related Apps

C2.1. “Explore 9/11”—National 9/11 Memorial and Museum, NY

C2.2. “Streetmuseum”—Museum of London, UK

C3. Digital Interpretation: QR Codes

C3.1. “World Park”—Central Park, NY

C3.2. Lake Metroparks—Concord Township, OH

D. Recommendations for Interpretive Nodes on Trails

D1. Eastman Trail – Ridgeway Segment

D2. Eastman Trail – Merrill Segment

D3. Genesee Riverway Trail

E. Potential Project Partners

A. Project Background

A1. Introduction: An Interpretive Framework

“Even the most intelligent person fails in following the simplest directions – until he knows the reason.”
– George Eastman¹

The Urban Trail Linkages project represents a unique concept in that there is not much precedent in America for multi-use trails in industrial settings. As such, the trails need to be a catalyst for transforming the landscape into an attractive, hospitable and pedestrian friendly space (this is particularly true for the West Ridge Road corridor). The trails need to be dynamic and engaging, with an emphasis on their recreational opportunities for the public, rather than simply a means to get from point A to point B. A major goal of the project will be to expand public perception of the trails beyond their current function as thoroughfares for commuters to new uses and audiences.

An interpretive framework for the Rochester Urban Trail Linkages will accomplish this goal by creating a reasoned and coherent plan to help the user to understand the directions and the stories of the trails.

Interpretation is a thread that connects all aspects of a successful visitor experience—perhaps most obviously through signs and exhibits, but also through less tangible factors that affect what a visitor sees, feels, and learns at a site. It begins with visitors’ first introduction to a place, whether on the Web or on the street, and extends beyond the visit itself. Well-crafted interpretation ensures that all aspects of a project have meaning, so that visitors will be physically accommodated and will have the opportunity to be both educated and inspired by their visit.

In developing the full scope of the analysis and recommendations for the Urban Trail Linkages Planning and Preliminary Design Study, it is critical to balance the interpretive opportunities and precedents with the trails’ physical and logistical restraints. This planning document is based on research and a site visit with Clark Patterson Lee, the lead consultant for the project. The document proposes interpretive themes and resources for the trail linkages; international precedents for interpretive designs both physical and digital; and recommendations for interpretive nodes along the trails incorporating the themes and design options.

¹ McCormack, Tom. "One Hundred Years at Kodak Park." *Democrat and Chronicle* [Rochester, NY] 29 Sept. 1991. Print.

A2. Proposed Eastman Trail: Description & Special Features

Following meetings with representatives for the Eastman Business Park, the original trail that traveled close to the edges of the Park evolved into two feasible trail spurs at the east and west ends of the Park. The proposed alterations are the Ridgeway Segment and the Merrill Segment.

A2.1. Eastman Trail – Ridgeway Segment



The Ridgeway Segment of the Eastman Trail is 1.1 miles long. It runs from NYS Route 390, paralleling Ridgeway Avenue, along the former Erie Canal bed to Mount Read Boulevard. This trail will eventually link with the existing Erie Canalway Trail and the planned Route 390 Trail extension (a major north-south access route).

Special features include:

- Views of the huge Kodak plant (Figures 1 & 2)
- Overgrown remnants of the former Erie Canal
- An elevated existing wooded pathway adjacent to the original Canal (Figures 3 & 4)

Notes: In very close proximity is a stark juxtaposition of a huge 20th century industrial landscape and a cool woodland pathway where, with visual aids, the hiker(s) will be able to observe the design of the original 19th century achievement: the Erie Canal.



Figure 1



Figure 2

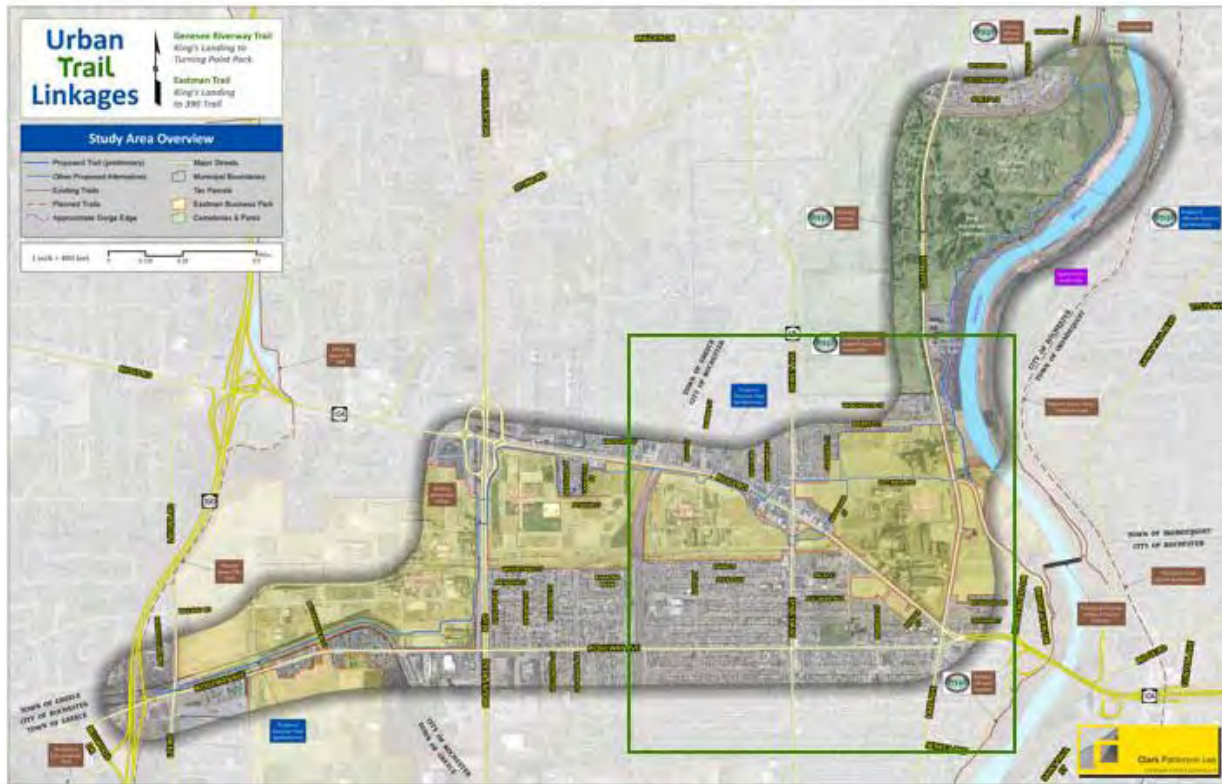


Figure 3



Figure 4

A2.2. Eastman Trail – Merrill Segment



The Merrill Segment of the Eastman Trail is 0.5 miles long. It begins at Lake Avenue and Merrill Street and follows Merrill to the entrance to the Eastman Business Park. It then traces the northern and western edges of the large vacant parking lot, terminating at Eastman Avenue. This route is in the proximity of the first Eastman Kodak building (Figure 5), built in the 1890s. Here, George Eastman, Henry A. Strong, and their prosperous trustees would meet and strategize (Figure 6).

Special features include:

- Iconic views of the Eastman Kodak building and research facilities
- From the earliest buildings in the 1890s to later additions and their connecting piping and byways
- The breadth of this industry is obvious. Also obvious is the desolate, empty shell of the parking lot and adjacent unused properties.
- Eastman memorial: Carved along the outside of the memorial are two bas-relief figures: one of a woman raising the flame of aspiration and the other of a crouching male figure representing the science on which Mr. Eastman's work in photography was based (Figure 7)

Notes: The view down Eastman Avenue at Lake Avenue is impressive in terms of the scale of the operations of this powerful industry. Building 35 and Building 40 (Figures 8 & 9), where thousands of workers toiled daily, are still there. The empty spaces where giant buildings once stood are equally impressive in the sense of their vast emptiness (Figures 10 & 11).



Figure 5



Figure 6



Figure 7



Figure 8



Figure 9



Figure 10



Figure 11

A3. Genesee Riverway Trail: Description & Special Features



This 2.3-mile long alternative route begins at King's Landing Cemetery (corner of Maplewood Drive and Lake Avenue) in the south and extends north to Turning Point Park, where it rejoins the existing Genesee Riverway Trail.

Special features include:

- The trail is nearby the western bank of the Genesee River
- The trail presents an excellent opportunity to experience the gorge edge
- King's Landing is a fitting start for this trail link; the landing was the first settlement in what is now the City of Rochester
- Three important Rochester cemeteries are located along this link: King's Landing Cemetery, Rochester's oldest; Holy Sepulchre Cemetery, where Colonel Patrick O'Rorke, "Rattlesnake Pete" Gruber, and horticulturalist Patrick Barr are buried; and Riverside Cemetery, final resting place of two New York State Senators (Allen James Oliver and George Frederick Rogers), the inventor of the eyelash curler William Joseph Beldue, actor Robert Wilcox, and organized crime figure Giuseppe Aiello
- In the gorge walls, the visitor will see 20 million years of sedimentation in a gorge cut in the last 10,000 years
- The river and the riverbanks offer many wildlife habitats
- The river is not only significant historically, but also offers many opportunities for recreation and outdoor relaxation

- Over 100 years ago, Frederick Law Olmsted designed a park system for Rochester. He suggested two parks both located on the Genesee River. South Park, now Genesee Valley Park, had broad meadows. North Park, now Seneca and Maplewood Parks, featured the nearly 200-foot deep gorge of the Genesee River. Highland Park, an arboretum built on land donated by the horticulturalists Ellwanger and Barry (and Rochester's first park), was also included in the Olmsted design.
- St. Bernard's Park Apartments, a former seminary, is an architectural gem adjacent to Lake Avenue and the river gorge. The Riverway Trail currently has a spur running behind St. Bernard's, which could be upgraded and enhanced as part of this project.

Notes: This stretch of land combines so many aspects of Rochester history, culture and nature. From the first settlement and its stories passed down in the 18th century diaries of Eli Granges, through the riverine landscape beside the Eastman Kodak Park, and past the gravesites of Rochester's famous and average citizens.

A4. Audiences and Active Users

Rochester already has a vibrant trail system. Developing these linkages and spurs will increase the number of visitors and users. The fully interpreted pathways would not only become a transportation route, but also a special destination for Rochester families, visitors and school groups.

"Once a week I get together with my mom friends to go mall walking in the colder months. Every week we long to be back on the Genesee River Trail. As soon as the warmer weather hits we say goodbye to the mall and meet weekly at the trail...Because we walk the trail in the summer time I have all my kids with me, but it still works out great for us. We let the kids run ahead of us as we walk, and they enjoy their made up game of "mommy alert." They know they can't go too far, and when we get closer they yell, "mommy alert!" and run off again. We love it because we get exercise, the kids get exercise, and we get to take in all the beautiful views. The trail runs parallel with and then right over the Genesee River. From time to time we'll stop and watch the tiny turtles swimming in the water or sunbathing on logs floating in the water. We also watch as swans swim by, and Herons land on logs. Walking there you forget that just up the hill is the city."

- User review of the Genesee River Trail on "Trekaroo" website²

² "Genesee River Trail - Rochester, NY - Kid Friendly Activity Reviews - Trekaroo." *Kids Travel, Kids Activities, Family Fun, Hotel Reviews - Trekaroo*. Web. 21 Nov. 2011. <<http://www.trekaroo.com/activities/genesee-river-trail-rochester-new-york>>.

B. Preliminary Interpretive Themes and Resources

B1. “Voices”

The theme of “voices” could enliven the trail linkages. In its heyday, Kodak Park employed 60,000 men and women in the Rochester area, with about 35,000 in Kodak Park. That heyday is not so long ago. It was in 1935 that Kodachrome came on the market and Kodak’s sales skyrocketed. “The rest is history.” Eastman Business Park is being transformed into a 1,200-acre technical center and industrial campus. Kodak employs some 8,000 today, a fraction of its glorious past, and several buildings have been imploded on the site. New memories will be made and shared as Kodak Park transitions to become the new Eastman Business Park.

It is, however, less than a generation ago that Kodak was amongst the three top employers in Rochester. Thousands of men and women spent their professional lives proudly working for the innovative Kodak enterprise. Those professionals have many stories that can be told to breathe real life and excitement into the hulking remains of the glorious past. Because it is a secure site, the majority of the public is not familiar with what happens inside the fences or behind the walls. The audience for such stories is multi-layered: the workers themselves; their families; visitors to the George Eastman House that want another perspective on the business; photographers; and curious visitors from near and far that remember Kodachrome and other signature products.

During a team discussion, City Historian Christine Ridarsky expressed a keen interest in developing oral histories of labor in Rochester. Also, a similar effort of “story collecting” or oral histories of local residents occurred at the Art Walk II project on University Avenue in the City. In fact, a “Stories in Stone” program already exists for the Mount Hope Cemetery. Additional research into the citizens and soldiers buried in the Riverside Cemetery will be intriguing voices, as well.

To explore the human experience of Kodak, audio clips on podcasts and smart phone applications, as well as kiosks and signage displaying historic images, facts and stories, could provide visitors with stories told by those with strong ties to the locations along the trail routes. The process of gathering stories would be valuable not only for those listening to these clips, but also for the important historical documentation of the site and lifestyle. For an example of an effective application, see Section C2.1. “Explore 9/11”—National 9/11 Memorial and Museum, NY (page 29).

The following pages outline two dynamic resources for collecting oral histories: The Moth and StoryCorps, as well as additional resources for embarking on an oral history project and other ideas for “voices” along the trail.

B1.1. Resources: The Moth

The Moth is an acclaimed not-for-profit organization dedicated to the art and craft of storytelling. It is a celebration of both the raconteur, who breathes fire into true tales of ordinary life, and the storytelling novice, who has lived through something extraordinary and yearns to share it. Moth shows are renowned for the great range of human experience they showcase. Each show starts with a theme, and the storytellers explore it, often in unexpected ways. Since each story is true and every voice authentic, the shows dance between documentary and theater, creating a unique, intimate, and often enlightening experience for the audience.

The Moth conducts six ongoing programs:

The Moth Mainstage is its flagship program, which has featured stories by Malcolm Gladwell, Ethan Hawke, Annie Proulx, Salman Rushdie, as well as an astronaut, a pickpocket, a hot-dog eating champion and hundreds more. The Moth Mainstage is a staple of the literary and art scene in New York City, but also tours throughout the United States and abroad as The Moth on the Road.

The success of The Moth Mainstage inspired The Moth StorySLAM, a popular open mic storytelling competition, currently thriving in New York, Los Angeles, Chicago and Detroit, and branching out further in the near future.

Launched in 2000 in an effort to reach storytellers who might not find their way to The Moth, the MothSHOP Community Education Program, teaches storytelling principles to students and disenfranchised adults in underserved neighborhoods, then shares those stories within the community and beyond, giving platform to voices that might otherwise have gone unheard.

The Moth is also available for the corporate sector through MothSHOP Corporate, which trains employees to utilize the power of storytelling to promote their goals and ideas.

The Moth Podcast offers a weekly story, free of charge, via digital download, and is downloaded over a million times a month.

The Moth Radio Hour, produced by The Moth and Jay Allison at Atlantic Public Media and presented by PRX, the Public Radio Exchange, is carried by more than 200 stations across the country.

For more information, visit: <http://themoth.org/>

B1.2. Resources: StoryCorps

StoryCorps is an independent nonprofit whose mission is to provide Americans of all backgrounds and beliefs with the opportunity to record, share, and preserve the stories of our lives. Since 2003, StoryCorps has collected and archived more than 30,000 interviews from more than 60,000 participants. Each conversation is recorded on a free CD to share, and is preserved at the American Folklife Center at the Library of Congress. StoryCorps is one of the largest oral history projects of its kind, and millions listen to their weekly broadcasts on NPR's *Morning Edition* and on their Listen pages.

Their goal is to remind one another of our shared humanity, strengthen and build the connections between people, teach the value of listening, and weave into the fabric of our culture the understanding that every life matters. At the same time, they create an invaluable archive of American voices and wisdom for future generations.

Statement of Principles

- StoryCorps is built on an uncompromising commitment to excellence across all aspects of the project, from collecting, sharing, and preserving people's stories; to organizational management; to maintaining an extraordinary work environment where respect and dignity are paramount.
- The interview session is at the heart of StoryCorps. We treat participants with the utmost respect, care, and dignity.
- StoryCorps has a relentless focus on serving a wide diversity of participants.
- StoryCorps is a public service.

Door-to-Door Service

Recommended for: Organizations, schools, churches, institutions, and families

StoryCorps will bring portable recording equipment to your location to record up to six 40-minute interviews per day. Organizations across the country have used Door-to-Door sessions to celebrate anniversaries and milestones, add a personal voice to fundraising and marketing materials, and provide the meaningful StoryCorps experience to their community.

For more information, visit: <http://storycorps.org/>

B1.3. Resources: Library of Congress: American Memory

American Memory provides free and open access through the Internet to written and spoken words, sound recordings, still and moving images, prints, maps, and sheet music that document the American experience. It is a digital record of American history and creativity. These materials, from the collections of the Library of Congress and other institutions, chronicle historical events, people, places, and ideas that continue to shape America, serving the public as a resource for education and lifelong learning.

For more information, visit <http://memory.loc.gov/ammem/index.html>

B1.4. Resources: Columbia University Center for Oral History: Oral History Bibliography

This comprehensive oral history bibliography was developed for the public's use by the Columbia University Center for Oral History in 2009. The Columbia University Center for Oral History is one of the world's leading centers for the practice and teaching of oral history. The archive, located in the Columbia University Libraries and open to the public, holds more than 8,000 text and audio interviews on a wide variety of subjects. Their mission is to record unique life histories, documenting the central historical events and memories of our times, and to teach and do research across the disciplines.

To view and download the bibliography, visit:

<http://library.columbia.edu/content/dam/libraryweb/libraries/ohro/The%20Oral%20History%20Bibliography%20--%20A%20CCOH%20Publication.pdf>

B1.5. Resources: Minnesota Historical Society: Podcasts / Oral History Guides

This collection of oral histories provides an excellent example that can serve as inspiration for a similar project in Rochester. The Minnesota Historical Society podcasts / oral history guides represent a unique source of contemporary history through the experiences of the newest Americans, in their own words. The content of the collection covers themes common to all of the groups, as well as the perspectives unique to each one. This site, *Becoming Minnesotan*, presents excerpts from these oral history interviews, along with supporting information about each narrator, the communities, and immigration in general, in a format designed to be of greatest use to teachers and students in grades 4-12.

To view the site, please visit: <http://education.mnhs.org/immigration/podcasts/1-why-do-oral-history>

B1.6. Resources: “Custom Sounds of Nature”

The “voices” of the trails can also include those of Rochester’s local wildlife. To explore, learn and identify these voices, a podcast or smart phone application could be devised for use along the trails.

An example of an application devoted to nature sounds is “Custom Sounds of Nature,” a customizable iPhone app that creates a melody of nature sounds exactly as you want to hear them.

To download, visit: <http://itunes.apple.com/us/app/custom-sounds-of-nature-lite/id294585705?mt=8>



To sample nature sounds, visit: <http://www.findsounds.com/types.html>

B2. “Camera Ready”

Inventions from the 19th century and earlier for capturing or projecting images could be redesigned for outdoor use. These interactive inventions, some of which are on view at the Discovery Room at the George Eastman House, could enliven the trails, pavilions and kiosks, thereby engaging visitors in Kodak’s fascinating technological breakthroughs and contributions to the world of photography.

The following pages offer examples of devices that could be redesigned for the outdoors, as well as a write-up of the Exploratorium’s famous “Light Walk,” an interactive outdoor exhibit exploring light and imagery.

B2.1. Resources: Flipbooks, Pinhole Cameras and other Photographic Devices

Flipbooks, stereoscopic viewers, pinhole cameras, and other devices currently displayed at the George Eastman House could be placed along the trails to offer visitors hands-on exposure to the history and wonders of photography.

Flipbooks and stereoscopic viewers on display at the George Eastman House:



Jane Clark Chermayeff



<http://www.eastmanhouse.org/visit/discoveryroom.php>

Pinhole cameras:



<http://www.cyberbeach.net/~dbardell/pinhole.html>



B2.2. Resources: Zoetropes

Zoetropes, already on display at the George Eastman House Discovery Room, provide a great way to engage visitors in the story of photography in an outdoor setting. Placed along the trail, zoetropes provide a fun and educational interactive experience for families.



<http://www.eastmanhouse.org/visit/discoveryroom.php>



<http://analyzer.depaul.edu/paperplate/Zoetrope.htm>

Zoetrope Trail—Billinghay, Lincolnshire, UK:

An example of zoetropes displayed in an outdoor setting, the Lincolnshire village of Billinghay in England has created a sculpture trail in which zoetropes are featured. Designed by Electricwig and manufactured by Smith of Derby, this piece was part of a regeneration project for the village. Here, zoetropes have been used to intrigue and animate stories written on finger signs, creating not just objects of curiosity, but also conversation pieces that prompt visitors and locals to interact together.

For more information, visit: <http://www.smithofderby.com/public/case-studies/zoetropes/>



<http://www.panoramio.com/photo/11832659>

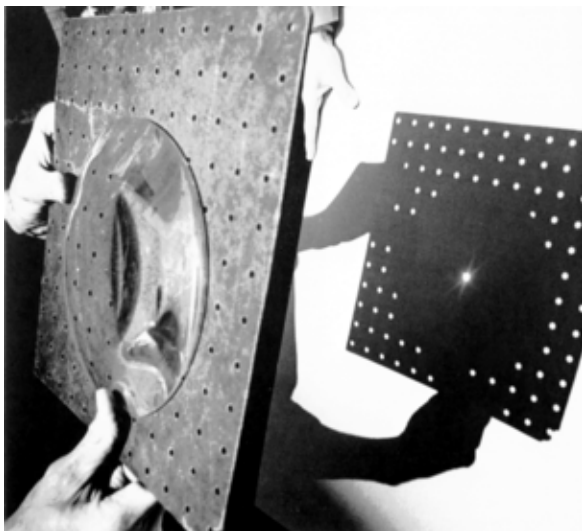


<http://www.smithofderby.com/public/case-studies/zoetropes/>

B2.3. Resources: “Light Walk”—Exploratorium, San Francisco, CA

Bob Miller was famous for his Light Walk, which he created in 1975 to show visitors how the sun shines through pinholes to reveal fascinating imagery. During these walks, visitors could look at tiny images of the sun coming through a simple sheet of pegboard. Over the years, the Light Walk has become an Exploratorium institution.

For more information, visit: http://www.exploratorium.edu/light_walk/

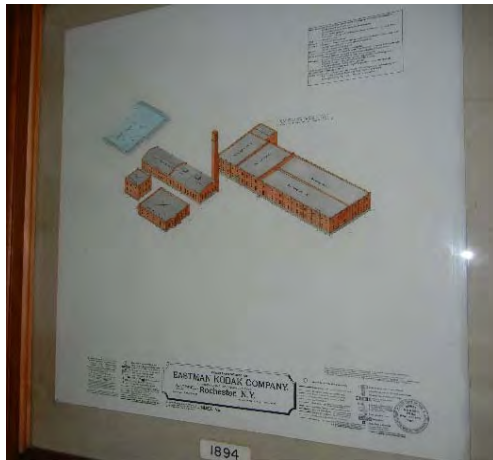


B3. “Scale”

The concept of “scale” could be another prominent theme. “Scale” implies that there are some intensities, sizes, or durations that are perhaps too large to easily comprehend. Large scale concepts include the size of the overall Park, the complexity of the utility pipes, and the production scale of the Kodak industry.

Scale is a design choice. It turns out there is one common unit we all share – the human scale. This concept of human scale could include stories of the individual employees or interesting anecdotes about how Kodak operated (i.e. during the early years, women employees were allowed to leave earlier than the men so they could return home to prepare dinner!). The smaller scale or human “Voices” offer a complement to the larger manufacturing scale. As described in section B.1, this theme or concept could be explored through audio applications along the trails.

Representations of Kodak Park’s scale; from its early buildings to its later—and much larger—footprint:



C. Interpretive Design Opportunities

C1. Waysides and Kiosks

Interpretive waysides and kiosks provide visitors with important links to the vital knowledge that can be gleaned along the trail. By highlighting interesting “ways of seeing or listening” to sites and historical information, these physical markers help to intellectually and emotionally connect visitors to the site. Through this process, visitors leave the trail as not only recreational users, but also informed stewards.

The following pages offer examples of well-executed and engaging wayside installations in the United States and Europe. These examples can serve as inspiration for ideas to bring the aforementioned themes to the trail experience.

C1.1. “VeloCity”—Seattle, WA

VeloCity is a comprehensive system for helping convey information about bicycling resources to potential riders. Created by Erin Williams as her MFA thesis project in Visual Communication Design at the University of Washington, it focuses on urban bicycle commuting and uses the city of Seattle as a case study to test design and sociological conclusions.

The program includes a new concept for the Seattle Bicycling Guide Map, eliminating redundant and visually confusing features and employing a color scheme that clearly suggests at a glance which routes are easiest for new cyclists. The back of the map serves as a poster that bike-friendly businesses can hang in their windows to promote cycling. It also visually coordinates with BikeStops that Williams proposes be placed around the city.

BikeStops (one per neighborhood) would be equipped with the Bicycling Guide Map, locational data, water, and tire pumps. The stops would support cyclists and make cycling resources visible in a way that shows it is supported and considered a normal transportation option. Williams’ design uses old bike parts to make their purpose obvious and to relate to Seattle’s urban crafting and sculptural roots. Williams also proposes route signage and ground markings that would provide clear directions for cyclists and also be visible to motorists, thus helping reduce tensions caused by unexpected bike crossings.

The communication approach centers around fully supporting route planning and route following, and also presenting information in a clear, easy-to-use, and friendly tone to increase the social acceptance and excitement around bicycling. The use of bright green for all the elements (bike maps, route signage, ground markings, and BikeStops) ties the system together and reinforces recognition. After presenting VeloCity as her MFA thesis in Spring 2009, Williams worked with the Seattle Department of Transportation to develop the Seattle Bicycling Guide Map 2010.

For more information, visit: <http://www.segd.org/publications/segdDESIGN/2004.html#/design-awards/5264/5289.html>



C1.2. “Bikeway Belém”—Lisbon, Portugal

The goal of the Bikeway Belém project was not only to define and provide wayfinding guidance for the new 7,362-meter bike route along the river Tagus in the center of Lisbon, but to energize the diverse urban spaces that it traverses.

P-06 Atelier and Global Landscape Architecture worked together to develop a system that goes beyond just clarifying the route for users. First, bold white wayfinding words and symbols are painted directly onto the new bikeway pavement to articulate bike lanes, measure distances, and provide direction to cyclists. Graphic “incisions” consisting of metal circles and polygons were made in existing pavements, then filled with asphalt to preserve the surface and provide an everlasting system of signs.

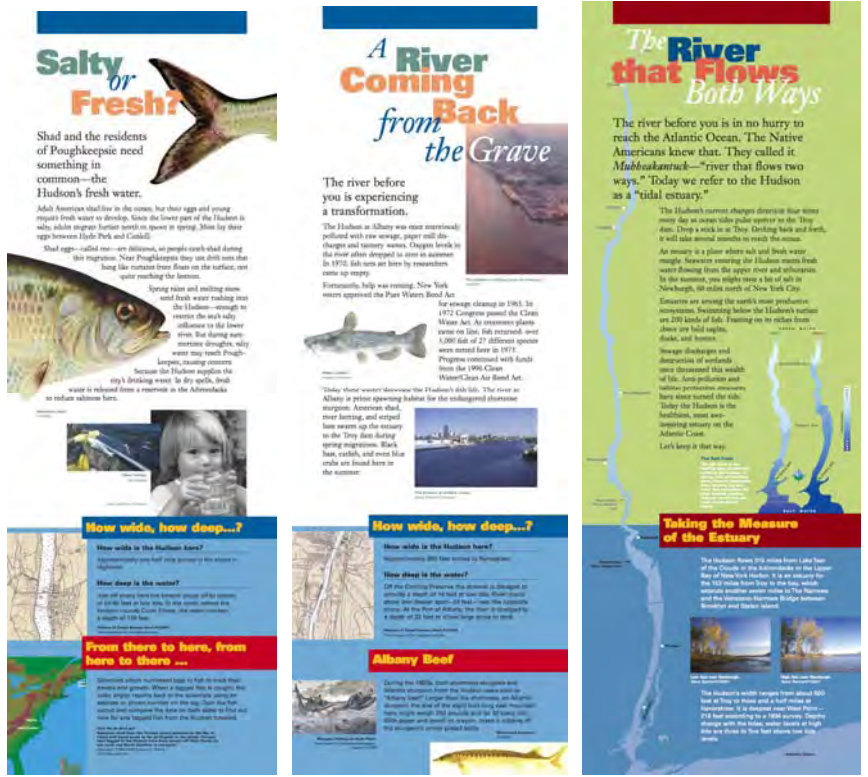
The project also included graphic and narrative interventions that help draw cyclists farther and farther along the stretch. Under a bridge support, the design team created an onomatopoeic interpretation that imitates the sounds of the bridge. Along a pier, the words of Portuguese poet Alberto Caeiro’s verse about the river Tagus are writ large in bold white letters. The total effect is of a story unfolding along the bikeway. The budget was 600,000 euros (about \$800,000) for the fabrication and installation.

For more information, visit: <http://www.segd.org/design-awards/5200/5214.html>



C1.3. "Nature of the Hudson"—Hudson River Valley, NY

With the New York State Department of Environmental Conservation, Jane Clark Chermayeff & Associates developed interactive kiosks for riverside sites from Albany to Manhattan connecting visitors to the Hudson's sights, sounds and history. These interactive kiosks employ telescopes, fish models to scale, and tide gauges.



C1.4. “Dis(solve): The Japhet Creek Project”—Houston, TX

Over the past several years, local environmentalists have worked hard to save Japhet Creek, part of the Buffalo Bayou waterway system that is Houston, Texas’ most significant natural resource. Japhet Creek had become a dumping ground, littered with tires, trash, plastic bottles, and rubble. Local efforts resulted in the development of a series of parks along creeks feeding into the bayou, and Japhet Creek became the first Houston Green Fingers project, an initiative to create corridors of connectivity to not only improve water quality, but to strengthen the relationship between the community and the environment.

The Dis(solve): Natural Signs project was developed to create a series of park amenities for Japhet Creek that inform, provoke, and educate the park visitor. The project was an interdisciplinary collaboration among 35 senior-level students at the University of Houston’s School of Art, Graphic Communications Program and the Gerald D. Hines College of Architecture. Each of four student teams was awarded a budget of \$1,800 provided by a grant. The students proposed, fabricated, and installed nine pieces designed to inform the public about Japhet Creek/Green Fingers, but also to serve as environmental metaphor about ideas and issues that shape our thoughts about nature, water, industry, and protecting natural resources. Several of the pieces will biodegrade, providing a commentary on the things we make as humans and their ability to return back to nature. Several use re-purposed materials and will remain on site until disassembled. These pieces most closely serve the needs of the client: a toolshed was created out of a re-purposed shipping container, and recycled scrap steel was transformed into a gateway sign and main identifier for the park.

The intention of the installations was to leave zero environmental impact; therefore, all pieces are biodegradable or easily removable from the site. To tie the nine structures into a cohesive whole, a set of icons was developed and used on all of the pieces. In addition to the design challenges, the students also developed proposals, procured city approval, solicited donations for materials, fabricated, and installed the structures in only nine weeks.

For more information, visit: <http://www.segd.org/publications/segdDESIGN/2004.html#/design-awards/5264/5280.html>



C2. Digital Interpretation: Site-Related Apps

As smart phones and hand-held Internet devices become ever more ubiquitous, interpretive opportunities increase. Cultural institutions around the world are using Internet applications to draw visitors in and quickly disperse information. The following two examples use photography, GPS tracking, video, audio clips and walking tours to engage visitors. By choosing the content they wish to explore, visitors have complete control to navigate sites freely and independently.

C2.1. “Explore 9/11”—National 9/11 Memorial and Museum, NY

Explore 9/11 is the official application created by the National September 11 Memorial & Museum as a guide to understanding 9/11 through the eyes of those who witnessed the events. Explore 9/11 includes a walking tour that takes people to seven locations around the World Trade Center site; each stop is accompanied by images, text and audio of interviews with eyewitnesses. There is also an interactive timeline of important 9/11 events. One section allows users to search for photos submitted to the museum’s Make History website. These images are tagged with certain keywords or associated with various locations, from Downtown Manhattan to sites around the world that held memorials. The photos include those from tourists who visited the Trade Center years before the collapse, as well as those from anniversaries years after the Sept. 11 attacks.

For more information, visit: <http://itunes.apple.com/us/app/explore-9-11/id387986451?mt=8>



http://money.cnn.com/2011/09/07/technology/911_apps/index.htm



<http://blogs.wsj.com/digits/2010/09/10/app-watch-museum-looks-at-911-through-photos-stories/>

C2.2. “Streetmuseum”—Museum of London, UK

This application allows London pedestrians access to the Museum of London’s extensive historic photographs and paintings as they walk the streets. Images depicting everyday scenes to momentous events in history are made accessible to smart phone users who simply select destinations from a map or use a GPS to locate an image of a scene near where they are standing. The user can then hold the phone up to the present day street scene to see a juxtaposing image of a historic scene in the same spot. The information screen also displays historical facts to give the user new perspectives.

For more information, visit: <http://www.museumoflondon.org.uk/Resources/app/you-are-here-app/index.html>

To download the app, visit: <http://itunes.apple.com/app/id369684330>



<http://www.mymodernmet.com/profiles/blogs/streetmuseum-looking-into-the>



<http://www.museumoflondon.org.uk/Resources/app/you-are-here-app/index.html>

C3. Digital Interpretation: QR Codes

Quick Response (or QR) codes are a rapidly emerging media tool. You can use QR codes to quickly and easily put information on a trail. The code is a picture that smart phones can translate into a web address. Users just point a smart phone's camera at the QR code, and in a moment (if there's cell phone coverage) the phone will access current trail information, tips, interpretive materials, a trail user census or questionnaire, or anything relevant to using that particular trail.

To create your own QR, you just need a web address and content of your choosing, and a free QR code generator app. All you have to do is follow the instructions on the generator app, which creates a code that you can print for use at the trailhead, a visitor center, nearby lodging, or bike rental. QR technology is license free, so you can easily adapt this free tool for use within your organization. It's easy to add QR codes as an image to your website, blog, or printed publications too.

There are a number of different ways to read QR codes. The easiest is to take a smart phone and use a QR code reader app like the Google Goggles, which can scan any code and immediately launch the content in a web browser. A QR code at the trailhead can allow quick access to a digital trail map. At an interpretive sign, a QR code can enable visitors to learn about history or local wildlife, or post to Facebook that they are visiting the site. You can start turning users into advocates by using QR codes to share your organization's membership invitation. QR codes can be installed as easily as putting a small sticker on existing signposts, and the information they channel can be changed at any time just by keeping the associated web page up to date, without anyone needing to run out and re-post the trailheads.

For more information, visit: http://en.wikipedia.org/wiki/QR_code or <http://www.nps.gov/fova/parknews/qrcodes1.htm>
To create a QR code, visit: <http://www.qrstuff.com/>



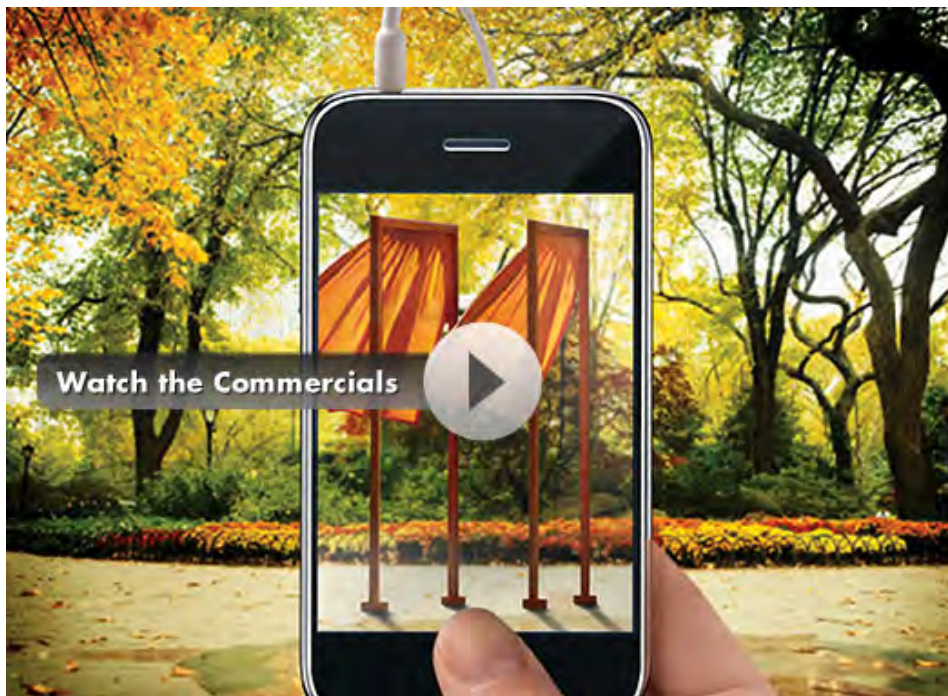
<http://www.qrstuff.com/>

The following pages show two examples of the use of QR codes in outdoor settings.

C3.1. “World Park”—Central Park, NY

“World Park” is an event that took place in 2010 over Arbor Day weekend (April 30-May 1). On the day of the event, visitors were given a map to guide them along a self-guided, interactive tour of New York's Central Park. Smart phone users scanned the location-based QR codes called Parkodes™. Each Parkode™ revealed a question relating to its exact location. Answers came along with entertaining content and information that visitors perhaps never knew about Central Park. Every map had a personal scorecard so that people could compete with friends across categories such as: Science & Geology, Pop Culture, Art & Music and History. The World Park was created by Michael Ferrare, founder of Agency Magma.

For more information, visit: <http://www.theworldpark.com/nyc/>



<http://www.theworldpark.com/nyc/>

C3.2. Lake Metroparks—Concord Township, OH

28 of the parks that make up Lake Metroparks started using Quick Response (QR) Codes in June 2011 at the information stands in the parks. The codes provide visitors with more information on the park, by taking them directly to the park's website after it is scanned with a smart phone. The visitor is also able to download trail maps directly to their phone, as well as any trail updates that are available.

For more information, visit: <http://www.lakemetroparks.com/news/whats-new.shtml>



D. Recommendations for Interpretive Nodes on Trails

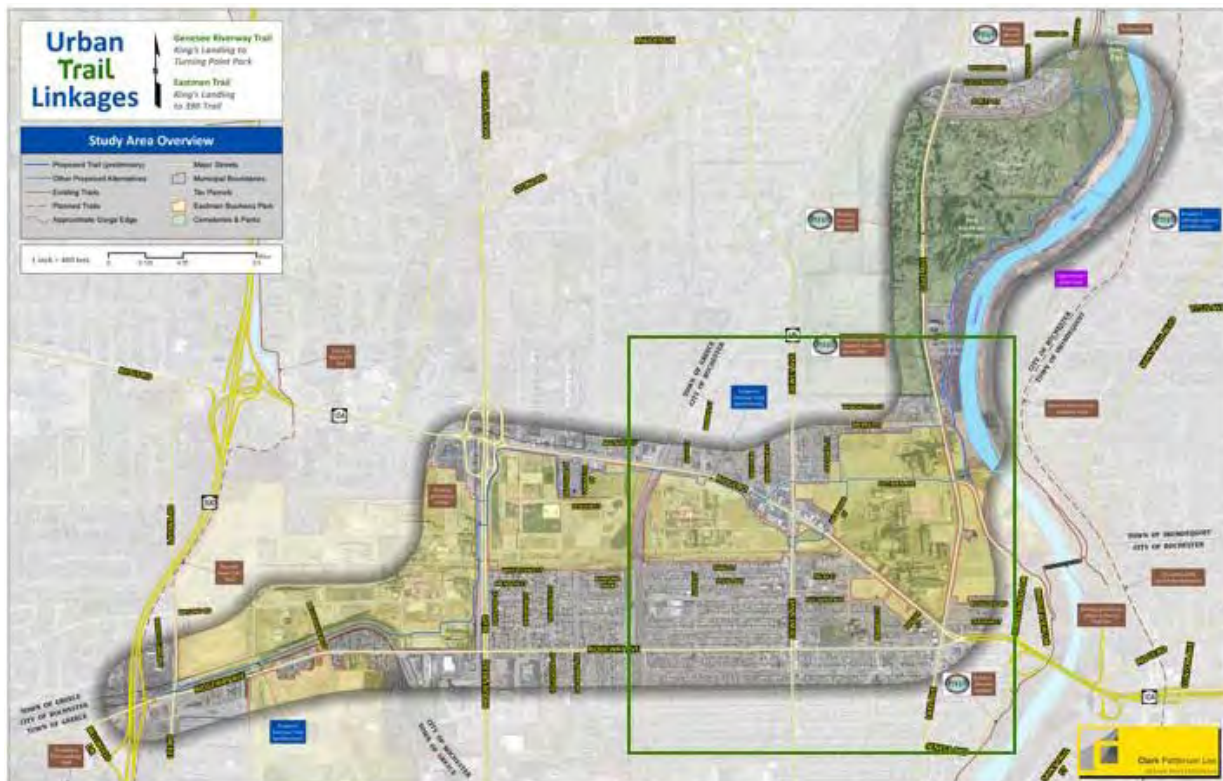
D1. Eastman Trail – Ridgeway Segment

- “Voices” to be located along the elevated edge of the former Canal (see Figure 3 in Section A: Project Background, page 6) – collected stories of Eastman Kodak workers and collected recounting of the workers building the Erie Canal in 1817-25 as told by a local historian or readings from letters of workers.
- These installations could be juxtaposed with “Scale” signage: the scale of the Park, the scale of the Erie Canal corridor, etc.



D2. Eastman Trail – Merrill Segment

- “Voices” installation located in the proposed trail head adjacent to King’s Landing Cemetery. This location will not only present the story, but also encourage the visitor to continue on the brief Merrill Segment of the Eastman Trail. It will be important to have visual connectors (see Section C1.2. “Bikeway Belém”—Lisbon, Portugal, page 26) and, if it is possible to open the Eastman memorial site to the public, the signage or markers should be designed to draw visitors along Lake Avenue.
- “Voices” at Eastman memorial: voices of people who knew and revered George Eastman or who benefit from his fame and philanthropy through to today. This could also include a “musical voice” interlude from an Eastman School of Music student.
- Visual marker to turn on Merrill Street at the corner of Merrill and Lake Avenue.
- “Voices” and living landscape installation at this site: a way to mix the storytelling of the past with the growth opportunities of the future. This site could also be a covered pavilion or small visitor center with photos of natural and industrial subjects from the past, as well as present-day images by local photographers or designers.
- Alternative to previous proposal: This “destination location” could also delight visitors with “interactive stations” portraying in playful, yet scientifically accurate means, the innovations and experiments that led to the development of the camera and film. “Camera Ready” (Section B2., page 20) would include well-designed interactives, such as the zoetrope or pinhole camera.



D3. Genesee Riverway Trail

- King's Landing Cemetery: "Voices Across Time and Scale" – installations the same as those recommended for the Eastman Eastern Trail. Earliest "voices": readings from the 1796 or 1797 diaries of Eli Granger, who was one of the small group of pioneers who came to the Genesee Country and settled at King's Landing.³ Latest "voices": excerpts from workers' oral histories at Eastman Kodak from the 1960s through the 1980s.
- The outer wall of the garage behind the St. Bernard's Park Apartments could be a "simple gallery" on the scale of the river as a habitat, waterway and economic force for Rochester. "Voices" elements could include sounds of tree frogs in the spring, migratory song birds in the fall, and local folk songs about the river (Figure 12 on next page)
- "Voices" installations: several locations in the Holy Sepulchre and Riverside Cemeteries offering the stories of "Rattlesnake Pete," a Civil War officer, or even the Bishop (Figures 13 & 14 on next page)
- "Voices" installation: voice of a naturalist as the visitor approaches Turning Point Park and later explores the work of Frederick Law Olmsted
- Create a signed overlook on the gorge edge to introduce the river scale concept (Figure 15 on next page).



³ Toth, Margaret. "The Diaries of Eli Granger." *University of Rochester Library Bulletin* VI.3 (1951).
<http://www.lib.rochester.edu/index.cfm?PAGE=4045>



Figure 12



Figure 13



Figure 14



Figure 15

E. Potential Project Partners

The success of developing and maintaining these trails is dependent on strong partnerships and the utilization of existing local resources. The following is a list of potential partners who could provide rich context and insight to the project.

Eastman Kodak Company

343 State Street

Rochester, NY 14650

Web: <http://www.kodak.com/ek/US/en/Home.htm>

- **Bernie Nee**, Community Relations
Email: bernard.nee@kodak.com

George Eastman House

900 East Avenue

Rochester, NY 14607-2298

Tel: 585-271-3361

Web: www.eastmanhouse.org

- **Kathy Connor**, Curator
Tel: (585) 271-3361, ext. 242
Fax: (585) 271-3970 or 271-6682
Email: kconnor@geh.org

Landmark Society of Western New York

133 South Fitzhugh Street

Rochester, NY 14608-2204

Tel: 585-546-7029

Web: <http://www.landmarksociety.org/>

- **Cynthia Howk**, Historian
Email: chowk@landmarksociety.org
- **Caitlin Meives**, Preservation Planner
Tel: (585) 546-7029, ext. 29
Fax: (585) 546-4788
Email: cmeives@landmarksociety.org

City of Rochester

Rochester City Hall

30 Church Street

Rochester, NY 14614

Tel: 585-428-5990

Web: <http://www.cityofrochester.gov/index.aspx?id=96>

- **Christine Ridarsky**, Historian
Tel: 585-428-8095
Email: Christine.Ridarsky@libraryweb.org

- **Jeff Mroczek**, Project Manager
Email: mroczekj@CityofRochester.Gov

City of Rochester Department of Environmental Services
(Manages Mount Hope and Riverside Cemeteries)
Rochester City Hall
30 Church Street
Rochester, NY 14614
Tel: 585-428-6855
Web: <http://www.cityofrochester.gov/cemeteries/>

The Friends of Mount Hope Cemetery

1133 Mount Hope Avenue
Rochester, NY 14620
Tel: 585-461-3494

Web: <http://www.fomh.org/>

[Resources: “Rochester’s Hope” (exhibit on the University of Rochester’s relations with the Cemetery, past and present); “Speaking Stones” (University of Rochester course on the Cemetery, taught by Th. Emil Homerin)]

Association for Gravestone Studies

Greenfield Corporate Center
101 Munson Street - Suite 108
Greenfield, MA 01301
Tel: 413-772-0836

Web: <http://www.gravestonestudies.org/>

University of Rochester

River Campus Libraries
755 Library Road
P.O. Box 270055
Rochester, NY 14627

Web: <http://www.library.rochester.edu/>

- **Nancy Martin**, Libraries’ Division of Rare Books and Manuscripts
Tel: 585-275-9337
Email: nmartin@library.rochester.edu

Rochester Historical Society

Rundel Memorial Building
115 South Avenue
Rochester, NY 14604
Tel: 585-428-8470

Web: <http://www.rochesterhistory.org/>

Rochester Museum and Science Center

657 East Avenue
Rochester NY, 14607
Tel: 585-271-4320
Web: <http://www.rmhc.org/>

The Strong Museum of Play

One Manhattan Square
Rochester, NY 14607
Tel: 585-263-2700
Web: www.museumofplay.org

New York State Canal Corporation

(Manages the Erie Canal)
Administrative Headquarters
200 Southern Blvd., P.O. Box 189
Albany, NY 12201-0189
Tel: 518-436-2700
Web: <http://www.canals.ny.gov/index.shtml>

The American Canal Society

- **Keith Kroon**, Director and Erie Canal Historian
2240 Ridgeway Avenue
Rochester, NY 14626
Tel: 585-225-0688
Email: GreeceErieCanal@aol.com

OTHER RESOURCES:

Girl Scouts of Western New York

Rochester SVC Center
1020 John Street
West Henrietta, NY 14586
Tel: 585-292-5160
Web: <http://www.gswny.org/>

Local schools

Local students can be an effective resource for trail development, bringing creativity, energy, and a fresh perspective to the process. Their involvement, which can spread to parents and school staff, encourages stewardship and community involvement. As an example, the Rochester City School District boasts two schools that use the Expeditionary Learning Model – School No. 10 and School No. 58. The Genesee Community Charter School in the City also employs Expeditionary Learning. This model is conducive to engaging students in developing and maintaining the trails from a

holistic perspective, including science, nature, math, local history, physical education, and civic engagement. School No. 41 (Kodak Park School), John Marshall High School, and Aquinas Institute are also in close proximity to the proposed trails and should be considered as potential partners.

Trust for Public Land

National Office

101 Montgomery Street, Suite 900

San Francisco, CA 94104

Tel: 415-495-4014 or 800-714-LAND

Web: <http://www.tpl.org/>

New York State Office

666 Broadway, 9th Floor

New York, NY 10012

Tel: 212-677-7171

National Park Service

U.S. Department of the Interior

1849 C Street NW

Washington, DC 20240

Tel: 202-208-3818

Web: <http://www.nps.gov/index.htm>

The chief aim of interpretation is not instruction, but provocation. The interpreter's role is to change attitudes and behavior, to motivate, to inspire, to take information and make it meaningful, interesting, exciting. Your ultimate objective is to take the visitor through the process of sensitivity-awareness-understanding-appreciation and finally, commitment.⁴

– Freeman Tilden

⁴ Tilden, F. (1957). *Interpreting our heritage*. Chapel Hill, North Carolina: University of North Carolina Press.



APPENDIX B

PUBLIC OUTREACH MEETING NOTES



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Eastman Trail – King’s Landing to Route 390 Trail
Genesee Riverway Trail – King’s Landing to Turning Point Park

UPWP Task No. 6524

Project Scoping Meeting
July 11, 2011 – 2:00pm, City Hall

PROJECT TEAM MEMBERS PRESENT

Kevin Kelley, Clark Patterson Lee, Project Manager
Jeff Mroczek, City of Rochester, Project Manager
Bob Torzynski, Genesee Transportation Council

MEETING NOTES

- Lake Avenue project will feature improvements between Merrill and Burley. Rich Koss is the City’s Project Manager, T.Y. Lin is the consultant. Improvements may include some curb line changes (narrower), and they may attempt to give more space on the sidewalk by narrowing the shoulder.
- Eastman Business Park – Thad Schofield is City’s representative for development at the park.
- City abandoned Eastman Ave about 5 years ago, EBP may want to give it back.
- Jeff has contacted the Cemeteries Manager (works under the DES Commissioner).
- Jeff will be out of town the 1st and last week of August.
- Map – extend St. Bernard’s trail through garage and back out to road. This segment is officially part of the GRT (including signage) but is not fully ADA accessible because of a steep switchback.
- The study should be a single document despite addressing 2 different trails, but relevant sections should be able to be pulled out easily.
- Mapping – scale and coverage will be dependent on map theme, but recommendations maps should definitely be tiles.



Eastman Trail – King’s Landing to Route 390 Trail
Genesee Riverway Trail – King’s Landing to Turning Point Park

UPWP Task No. 6524

Project Advisory Committee Meeting #1
July 12, 2011 – 3:30pm, Kodak’s Theater on the Ridge

PROJECT TEAM MEMBERS PRESENT

Ron Centola, Clark Patterson Lee, Project Principal
Kevin Kelley, Clark Patterson Lee, Project Manager
Doug McCord, McCord Landscape Architecture
Jeff Mroczek, City of Rochester, Project Manager

COMMITTEE MEMBERS PRESENT

Scott Copey, Town of Greece
Richard DeSarra, Rochester Cycling Alliance & Rochester Bicycling Club
Tom Frey, Genesee Land Trust
Gay Mills, Genesee Land Trust
Bernie Nee, Eastman Kodak Company
Mike Parker, Charlotte Community Association
Pete Saxe, City of Rochester NW Quadrant Administrator
Bob Torzynski, Genesee Transportation Council
Johann Wolf, Resident
Martin Wolf, City of Rochester Intern

MEETING NOTES

Jeff facilitated introductions and presented an overview of the project, including the history and purpose, study area overview, consultant selection process, and team responsibilities. He walked the group through the project scope of work, schedule, and approach to involving the community. The group reviewed a series of maps provided by Kevin from Clark Patterson Lee and the group discussed the project’s scope and a variety of issues related to the design/location of the trail and public involvement. Specific comments included:

- Concern about safety for trail users, not just that they feel safe while using the trail, but that adequate measures are taken to ensure quick and easy rescue operations should an incident occur.
- Providing trailheads with parking should be considered to offer access to more people.
- Concern that much of the Eastman Business Park is fenced, which, depending on the setting, can create an undesirable enclosed feeling for trail users. The committee will work with Kodak to identify solutions that balance user experience with safety and security at Eastman Business Park.
- Kodak is receptive to the trail extending into their property to provide separation from the adjacent, busy, right of way. Specifics regarding location and extent will be negotiated as the project progresses.

- Connectivity to the adjacent neighborhoods is key, as that will provide greater access to the trail system and encourage a more healthy and sustainable transportation option.
- There are opportunities to connect the western end of the Eastman Trail with the Erie Canalway Trail in Greece. The Town has already built a segment of trail connecting the Canalway Trail northeast to Ridgeway Avenue west of Long Pond Road, via the former canal bed. Should this trail continue north of Ridgeway and east of Long Pond Road, it could potentially link up with the Eastman Trail at the Route 390 Trail. There is also an opportunity to extend the Eastman Trail southwest into the Canal Ponds Business Park, which has a series of trails that eventually connect to the Erie Canalway Trail. These linkages are outside the study area for this project, but should be mentioned as future linkages that will enhance the trail system.
- Pete noted that the Project Team should consult with the Rochester Police Department to get their thoughts on safe design and access. He offered to facilitate this meeting later in the process. Jeff noted that he is working on an emergency signage system designed to be used on remote sections of the trail. The first installation will happen this fall in Turning Point Park. The system will include a park specific two letter code (Turning Point Park = TP) followed by a three digit number code (i.e. 100). Each sign, placed every 1/8th to 1/10th mile, would have a unique code tied into the 911 Centers mapping system. A trail user could call 911, relay the full code (TP100), and the 911 Center could immediately locate the caller and dispatch the appropriate emergency personnel.
- In addition to Clark Patterson Lee (CPL) and McCord Landscape Architecture (MLA), the consultant team includes Jane Clark Chermayeff and Associates, a NYC firm specializing in interpretive design. They will explore different opportunities for themes, signage, and other amenities that “tell the story” of Kodak and the Genesee River and will enhance the user experience. It was noted that many Charlotte residents have historic photos that can be utilized in this process.
- Future advisory group meetings will remain on Tuesdays and at the Eastman Business Park, if available. An alternate site for Advisory Group meetings and the public meetings will be at the City’s Maplewood Park training facility. It was requested that the meetings start prior to 3:30.

The meeting concluded with a discussion of next steps. The committee will be notified of the date of a walking tour, likely in the next 2 weeks. Anyone on the committee is welcome to join the tour, which is expected to last most of a day.



Eastman Trail – King’s Landing to Route 390 Trail
Genesee Riverway Trail – King’s Landing to Turning Point Park

UPWP Task No. 6524

Site Visit for Interpretive Planner
September 8, 2011 – 10am, Kodak’s Theater on the Ridge

PRESENT

Kevin Kelley, Clark Patterson Lee, Project Manager
Jane Clark Chermayeff, JCC & Associates
Bernie Nee, Eastman Kodak Company
Cynthia Howk, Landmark Society of Western New York
Wayne Goodman, Landmark Society of Western New York
Caitlin Meives, Landmark Society of Western New York
Kathy Connor, George Eastman House
Christine Ridarsky, City of Rochester Historian

MEETING NOTES

The group met in the conference room in Building 28 (Theatre on the Ridge) prior to departing for the tour. Bernie welcomed the attendants to Eastman Business Park and Kevin presented an overview of the project, in particular the role of JCC & Associates as interpretive planners. Kathy gave a brief overview of the history of Kodak Park and several anecdotes and historic facts were shared by all. The group proceeded to walk around the original buildings in Kodak Park, including Building 26 (the “Management Building”) which includes a historic conference room and map room.

The group then boarded a small tour bus to see the remainder of the site. Throughout the tour, Bernie offered his knowledge of current operations while the historic experts offered various facts and anecdotes, including:

- Kodak Park first established in 1890s. George Eastman purchased the land to “make barrels” because adjacent landowners were wary of a new industry for developing photography, which was not well known at the time.
- Today there are over 30 different companies in Eastman Business Park, most not connected to Kodak.
- At its peak in the early 1980s, there were about 35,000 employees in Kodak Park and 60,000 employed in the Rochester area. Today there are about 4,000 Kodak employees in the Park, about 7-8,000 employed in Rochester, and 4,000 non-Kodak employees in the Park.
- During the early years, women employees were allowed to leave earlier than men so they could return home to start dinner
- Kodak Bonus Day (March) was sort of a local holiday. The impact would give the local economy a boost. Even TV commercials would refer to the bonus in their pitch for products/services.

The following ideas for incorporating themes and interpreting Kodak’s history were discussed throughout the day:

- The story of labor is key to the story of Kodak Park. Because it is a secure site, the majority of the public is not familiar with what happens inside the fences or behind the walls. Many former Kodak employees are still alive and living in Rochester – they are a resource for telling that story. Perhaps a similar effort to the ArtWalk II project, where the designers are incorporating recorded histories from local residents. The designers for that project are a resource for repeating that process at Kodak, including what went well and what could have been improved. Christine mentioned that, as City Historian, she sees the story of labor in Rochester as one that hasn't been covered sufficiently – perhaps Kodak is a good starting point for the City's efforts.
- Scale could be a prominent theme on the trail. From large scale concepts like the size of the overall Park, the complexity of utility pipes, and the production scale to small scale concepts like the stories of individual employees or interesting anecdotes about how Kodak operated, i.e. the aforementioned story of women employees.
- The image of the elevated pipes is repeated throughout the Kodak landscape and may lend itself to thematic imagery, logos, or icons.
- Partnerships will be central to the design of both trails. In particular, with the Eastman Trail, potential partners include:
 - George Eastman House
 - University of Rochester (they share an archive collection with the George Eastman House)
 - Rochester Museum and Science Center (additional archives and experience with creative/interactive displays)
 - Landmark Society of Western NY
 - Trust for Public Land and/or the National Parks Service (noting that Kodak and Kodak Park are nationally significant, not just locally)
 - Local schools (i.e. 2 city schools feature an “outward bound” educational model whereby historic/natural interpretation ideas could be incorporated into the students' larger project)
 - NYS Canal Corporation (manages the Erie Canal and numerous historic interpretation efforts)



Eastman Trail – King’s Landing to Route 390 Trail
Genesee Riverway Trail – King’s Landing to Turning Point Park

UPWP Task No. 6524

Stakeholder Meeting
September 15, 2011 – 3:15pm, Kodak’s Theater on the Ridge

PRESENT

Kevin Kelley, Clark Patterson Lee, Project Manager
Jeff Mroczek, City of Rochester, Project Manager
Bernie Nee, Eastman Kodak Company

MEETING NOTES

Bernie recently met with Mike Alt, EBP Director, and various other EBP representatives to discuss the latest Eastman Trail alternatives map. Bernie conveyed the results of that meeting to Kevin and Jeff. EBP felt that a number of modifications need to be made to the proposed trail concept to be more consistent with EBP’s current operations and future development opportunities.

Specific changes included:

- Begin the eastern end of the trail at the Merrill Street entrance to the Research facilities lot. There currently exists a development buffer zone between Kodak and the adjacent neighborhoods. This buffer area should be sufficient to locate a multi-use trail following the backs of houses on Merrill Street and Goodwill Street.
- The large undeveloped area west of Dewey Ave and south of Ridge road is considered a potential site for some form of bio-fuels operation. Kodak feels that the site is already somewhat restricted in size, and offering any land for the sake of a multi-use trail (whether behind or in front of future development) would take away from the site’s viability. However, this Study should retain that concept as a future consideration, should a tenant come along that would be able to integrate the trail into the site.
- The Project Team should examine the zoning requirements for this area. There may be a building or development setback requirement that would provide sufficient space for a multi-use trail.
- Similarly, dedicating land to a multi-use trail along Kodak’s Ridge Road frontage between Dewey Ave and Mt. Read Boulevard is not a desirable option for Kodak. Such an alignment could hinder the company’s ability to subdivide parcels in this corridor for commercial development. Kodak was particularly uncomfortable with the idea of providing 40 to 50 foot wide corridor for the trail. Kevin explained that such a wide swath was mentioned only as a best-case scenario, assuming that there would be ample parking left over. Typically, the minimum width of a trail easement is 20 to 30 feet (10-foot wide trail plus space for construction and maintenance).
- Kevin recommended that Kodak consider doing a master plan of its Ridge Road frontage in order to 1) avoid haphazard, piecemeal development that will have a negative impact on corridor’s appearance, economic health, and traffic safety, and 2) encourage consideration of locating the proposed trail somehow within the master planned corridor.
- Kodak is reluctant to grant easements on land where development is possible, knowing that actual trail construction could occur several years after the easement is established, and may not occur at all depending on the City’s ability to secure funding.

- The parcel east of Dewey Ave and south of Ridge Road was not discussed in any detail by the EBP representatives, as concern over the property to the west of Dewey Ave would preclude the use of the parcel to the east of Dewey Ave.
- Along the Ridge Road frontage, an off-road trail would only be permitted behind the Hess Station and Arby's restaurant, just east of Lancaster Street. From that point west and south to the existing pedestrian bridge over Mt. Read Boulevard, the proposed trail alignment is considered by Kodak to be a feasible concept. The Project Team would still need to coordinate with Carestream Health regarding their frontage property on Ridge Road.
- If a new pedestrian bridge over Mt. Read Boulevard is desired to accommodate the trail, Kodak is willing to explore options for a new location. They suggest something to the north, which would provide better access to the large parking lot to the west of Mt. Read Boulevard.
- Kodak is reluctant to allow the trail option that traces the north side of the building at Mt. Read Boulevard and Ridgeway Avenue. A roadside alternative along those two roads is more desirable. Their concern is that the current tenant may be restricted in their expansion options, and may be reluctant to purchase the property if a trail or an easement were in place. In addition, the concept of a trail passing under pipes and other utility lines presents some security concerns. Placing the trail in the landscaped buffer along Mt. Read Boulevard and Ridgeway Avenue, as opposed to simply expanding the sidewalk, would need to be examined.
- Kodak was receptive to the concept of a trail being developed along the former Erie Canal bed.

In light of these constraints, the group discussed how the vision of the trail might need to evolve from a major connector trail within the regional system to an opportunity for feeder trails connecting the Riverway Trail and Route 390 Trail to adjacent neighborhoods and employment centers.

The group discussed a phased approach to reflect this evolving vision. Phase I would include a shorter Eastman Trail on the east side and a trail along the canal bed on the west side. The Eastman Trail would extend from Lake Avenue west into EBP, either to the parking lots behind the Research facilities or to a point further south along Woodside Street. It would have a greater focus on providing views of EBP and interpreting Kodak's history at the site and in the region, as opposed to a facility that connects existing trails. The canal trail on the west side would extend from the Route 390 Trail east until either Ridgeway Avenue or to a new pedestrian bridge over Mt. Read Boulevard. The latter terminus, while more challenging, will tap into a larger commuter population, as opposed to just recreational users.

Another alternative discussed was to establish on-street linkages south of EBP, perhaps in the form of wayfinding signage or even bicycle boulevard treatments, so that there is a clear and safe bicycle connection between the 2 major north-south trails, despite it being on-street. This option may be better than an on-street option along Ridge Road.

Phase II would retain the current alternative between the Mt. Read Boulevard pedestrian bridge and Woodside Street/Ridge Road intersection. The report would note that while this option is not considered feasible by Kodak at this time, it is recognized as the preferred alternative by the community and should be retained should conditions change at EBP.

Jeff and Kevin plan to visit the site again to examine how the trail alternatives can be refined. They will also contact the Project Advisory Committee prior to the Public Meeting to discuss, in general, how the trail is evolving based on Kodak's feedback.



Eastman Trail – King’s Landing to Route 390 Trail
Genesee Riverway Trail – King’s Landing to Turning Point Park

UPWP Task No. 6524

Public Meeting #1

October 4, 2011 – 6pm, Maplewood Training Facility

MEETING NOTES

The Public Meeting was designed in an open house format. A rotating presentation was provided, which provided a basic overview of the project with numerous maps and photographs. Large maps of the study area were stationed against the walls, as meeting attendants met with project representatives to discuss ideas and concerns.

The following comments were solicited from meeting attendants, either via written forms or conversations:

- Main purpose of the trails should be determined. Riverway Trail section will be mostly recreational in nature. There will be hardly any access points. However, Eastman Connector Trail should be transportation-oriented. You should try to keep trail as straight as possible, with as many access points as possible. If the route is too circuitous, people will veer off and take the road or sidewalk taking the shortest route.
- Stone dust is preferred – tree roots lift asphalt, corrugation occurs in 2 years and then it takes 5-7 years for the municipality to fix the corrugation. Stone dust repairs are 10% of the cost of asphalt repairs.
- The better the base the longer the trail will last before repairs are needed.
- Any place where the road crosses or goes on a public street, ‘Share the Road’ / ‘Watch for Bikers’ – striping on roadway, sharrows.
- Defacto – between Kodak Rd 20 and ped bridge or crossing – bicyclists and runners will use the road rather than sidewalk.
- Eastman Ave west of Lake Ave – widen with bike lane(s).
- Possible overlooks in Holy Sepulchre and Riverside Cemeteries.
- Ridgeway Ave bridge over Kodak Road is very narrow and might not allow for bike lanes.
- Use of new bridge over Mt. Read to North Kodak would be desirable. Park on west side of Mt. Read for use of buildings on east side.
- El Camino – under construction in Seneca Park. Connects to existing trail higher up. Also connects at steps.
- Are we going to have a fence between cemetery and trail? Behind Kodak?
- Consider using posts pile driven and build up a trail along top of gorge bank.
- Stone dust only for trail – better for runners, roots ruin asphalt, stone dust is cheaper
- Stone base – 8” deep? 12” works better and lasts longer – fewer pot holes
- Leave lots of width from trail to vegetation (2 mower widths).
- Take second look at entrance off Ridge Road into Kodak parking lots.
- “Share the Road” signage at Eastman Ave ped crossings
- Striping on road with symbol (sharrows)

- Widen Eastman Ave from Ridge Road to Goodwill.
- Bicyclists may just use road from Kodak 20 Road to ped bridge or whatever new crossing happens. Runners will use the road.
- Sidewalk along St. Bernard's – too narrow.
- Sidewalks along Riverside and Holy Sepulchre Cemeteries – lots of cracks and bumps.
- Tire catcher grates (the only 2 left) located at the Kodak ped bridge over Lake Ave.
- Eastman Foundation, Kodak Foundation – possible sources of trail funding or match.
- Include informational kiosks – paid for by sponsors and commercial enterprises.
- The connection east across the river at the existing ped bridge, through Seneca Park, and connecting to the El Camino (Seneca / Charlotte) Trail is very important.
- If the Riverway Trail is retained on the sidewalk north of Eastman Ave, then the sidewalk needs to be widened to 12 feet, especially along the edge of the cemetery at the corner of Eastman & Lake Ave.
- Overall the plan is a good idea but concerned about the possibility that the trail would link through the neighborhood via Dewain Street. Would prefer that the trail skirt the perimeter of the neighborhood on the surrounding property. The neighborhood is very quiet and peaceful, once off of W Ridge Road and would prefer that it not be disrupted, even by a low level of trail traffic.

Discussion with NYSDOT representative, Steve Beauvais:

- The crossing of Ridge Rd. at Dewey Ave. will be better received due to the existing traffic signal. A mid-block crossing at Woodside St. or Goodwill St. will be much more challenging to get approved by NYSDOT and Monroe Co. traffic.
- Lake Avenue between Merrill St. and Burley Rd. will be redesigned over the next few months. A consultant has been hired for the work.
- A project making the connection of the Route 390 Trail from Ridge Rd south to Ridgeway has been placed on the list of un-funded projects indefinitely.

In general, there was strong support for the concept of the two trails, with many noting the benefits they would provide to the community. The majority of input was regarding specific designs, locations, and amenities. The Public Meeting concluded at 8pm.



Eastman Trail – King’s Landing to Route 390 Trail
Genesee Riverway Trail – King’s Landing to Turning Point Park

UPWP Task No. 6524

Project Advisory Committee Meeting #2
February 14, 2012 – 3:30pm, Kodak’s Theater on the Ridge

PROJECT TEAM MEMBERS PRESENT

Kevin Kelley, Clark Patterson Lee, Project Manager
Doug McCord, McCord Landscape Architecture
Jason Snyder, McCord Landscape Architecture
Jeff Mroczek, City of Rochester, Project Manager

COMMITTEE MEMBERS PRESENT

Scott Copey, Town of Greece
Richard DeSarra, Rochester Cycling Alliance & Rochester Bicycling Club
Tom Frey, Genesee Land Trust
Bernie Nee, Eastman Kodak Company
Bob Torzynski, Genesee Transportation Council
Bill Collins, Maplewood Neighborhood Association & Rochester Cycling Alliance

MEETING NOTES

Jeff facilitated introductions and presented an update of the project, including the various site visits and landowner discussions that have taken place since the last meeting. Kevin then facilitated a discussion of the partial Draft which contained Sections 2 (Inventory and Analysis) and 3 (Design Considerations). Specific comments/questions included:

- Table 2-2 should provide more clarification on AADT and the Bicycle LOS. For the Bicycle LOS, perhaps referencing an excerpt from the Rochester Bike Master Plan in an appendix will suffice.
- Relevant Local Plans & Projects section should mention two future potential projects: the Town of Greece Bicycle Master Plan and the City of Rochester Mt. Read Corridor Study.
- Design Speed discussion about steep grades should be clarified. As for trail width, note that the Auburn Trail was approved for a 6-foot width (rare) because of the environmental setting.
- Figure 3-2 displaying a typical trail section – need to research the guidance for use of a center stripe, which can help communicate trail users to keep right.
- On-road trail section should mention that bicycle traffic on sidewalks can discourage pedestrian use of sidewalks.
- The term “shoulder” can be misleading/confusing when referring to a striped outer section of roadway that has a curb. Perhaps “curb offset” stripe is more clear? Make consistent with the City’s Bicycle Master Plan.
- Bike lane section should mention buffered bike lanes as a design option, which is a compromise between a cycle track and a bike lane.
- In amenities section, consider water fountains, bicycle repair rack (Sister Cities Garage has one), and low-tech restrooms (Portland has a model).

- Need to expand discussion of wayfinding signage.

Kevin then transitioned the group to examine a series of maps with preliminary trail location alternatives. After presenting the alternatives and some of their pros and cons, the group discussed the alternatives further, including the following comments:

- Alternative showing the trail in the wooded, undeveloped section of Riverside Cemetery: the cemetery has a master plan which depicts an expansion into this area, known as Bullock's Woods. One possibility is a joint application for the trail and the cemetery roadway, which could be designed/constructed together.
- Both cemeteries have had concerns about liabilities with a new trail, but those issues can be dealt with similar to the City's agreement with RG&E for the Middle Falls Dam.
- In at least 2 locations within the cemeteries, consider new trail segments as more direct routes rather than exclusively following the existing cemetery roads
- General consensus was that a new ADA-compliant trail from the Lake Ave sidewalk into the St. Bernard's property was preferred over retrofitting the existing trail, which has steep slopes.
- General consensus was that the alternative on the river side of the Kodak property (Building 81) and the Lake Avenue homes was not feasible due to landowner concerns and topography.
- It was noted that Kodak may have sold Building 81, on the east side of Lake Avenue, to a different company.
- At Lake and Maplewood, the proposed off-road segment tracing the rear of King's Landing Cemetery is a good consideration, but a more detailed survey of the historic limits of the cemetery would be necessary before constructing a trail.
- The Merrill Street alternative is preferred by EBP over Eastman Avenue, and generally acceptable for other committee members.
- EBP has significant concerns about other trail alternatives through their property that would potentially affect the redevelopment of key sites. Of particular concern is the vacant area southwest of Ridge and Dewey, where EBP hopes to attract a bio-fuels operation in the near future. Some committee members felt that a multi-use trail, promoting sustainability and reduced energy consumption, would be a great complement to such a company. Additionally, if and when there was a proposal for the site, the trail concept could be examined further to see if it would fit into the site design.
- EBP has concerns that a trail along the south side of Route 104 would jeopardize their ability to redevelop those sites and/or subdivide them and sell them off. It was noted that a master plan for this corridor could ensure development potential while retaining the possibility of including a multi-use trail in the site design(s).
- While a trail connecting all the way through EBP does not appear to be feasible at this time, EBP is open to connections into the park from the west (stopping at the end of the canal bed or at the Mt. Read pedestrian bridge) and east (along the back of Merrill Street properties, stopping at Eastman Ave or Woodside St). This will at least provide better access into the site for bicycle commuters.
- Group discussed the option of designating a trail through EBP as the community's preferred option, with clear caveats that landowner concerns at this time are such that the option is not feasible. However, leaving it in as the preferred option retains the idea in case future conditions in the corridor change. Interim solutions could be pursued in the short-term.
- Significant concerns about designating any section of Route 104 as an on-road portion of the trail, due to high speeds, traffic volumes, and roadway designs. As an alternative, encouraging

bicyclists to use the sidewalks on Ridge Road are counter to all the other efforts within the region to encourage on-road cycling. Also, bicycles on sidewalks can effectively discourage pedestrian use.

- On-road / bicycle boulevard concept between Dewey and Mt. Read, south of EBP, was discussed. General consensus was that it may not be direct enough, and at least 1 of the 2 neighborhood routes should be moved to Ridgeway Avenue for the sake of being more direct.
- Technology Boulevard corridor (EBP internal road and railroad) is not currently a feasible option, but perhaps it could be noted as a long-term consideration, should conditions at EBP significantly change.
- Alternative north of Building 320 (Trillium, at Ridgeway/Mt. Read) is not preferred by EBP. There is a major above ground utility that crosses that route, which is a design challenge, and the current tenant may purchase the property and may not be amenable to the trail concept. The alternative around the south and east side of the building is preferred by EBP. There appears to be enough space between the building and the sidewalk to create a true off-road trail, as opposed to designating this as an on-road segment.

The meeting concluded with a discussion of next steps. The committee will be notified of the chance to suggest additional alternatives. The committee may meet one more time prior to the 2nd and final public meeting.



Eastman Trail – King’s Landing to Route 390 Trail
Genesee Riverway Trail – King’s Landing to Turning Point Park

UPWP Task No. 6524

Project Advisory Committee Meeting #3
July 10, 2012 – 3:30pm, Kodak’s Theater on the Ridge

PROJECT TEAM MEMBERS PRESENT

Kevin Kelley, Clark Patterson Lee, Project Manager
Jason Snyder, McCord Landscape Architecture
Jeff Mroczek, City of Rochester, Project Manager

COMMITTEE MEMBERS PRESENT

Steve Beauvais, NYS DOT
Bill Collins, Maplewood Neighborhood Association & Rochester Cycling Alliance
Scott Copey, Town of Greece
Tom Frey, Genesee Land Trust
Bernie Nee, Eastman Kodak Company
Mike Parker, Charlotte Community Association
Rich Perrin, Genesee Transportation Council
Jordan Shapiro

MEETING NOTES

Jeff facilitated introductions and presented an update of the project, including landowner discussions that have taken place since the last meeting. It was noted that the Board of Directors for Holy Sepulchre Cemetery voted to not approve the allowance of the Genesee Riverway Trail on its property due to concerns over liability and the siting of a multi-use trail on sacred ground.

Kevin then facilitated a discussion of the newest section in the updated Draft: Section 4 (Trail Alignment Alternatives). Specific comments/questions included:

- Emphasize “preferred short-term” status for the agreed upon alignment
- Consider different title/wording for Long-Term Preferred Alternative through EBP, due to EBP’s concerns about liability, security, and impeding future development – maybe “long-term consideration” or “future consideration”? Considered to be preferred over the on-road alternative (Ridge Rd) as that alternative wouldn’t be shown on the preferred map
- Research House appropriations bill and it’s changes
- Pedestrian bridge over Kodak Park Ave is preferred and funding contingent; sidewalk on Ridgeway is an alternative to the bridge as needed; expansion of the Ridgeway Ave bridge with wider sidewalk is another alternative to consider when the bridge is reconstructed
- Note Brewster-Harding connection on Preferred maps
- Include a map showing potential connections to Erie Canalway Trail and other regional trails in Greece

- Steve expressed concern regarding calling the trail connections, specifically the east/west connector, a “trail” due to its mix of roads, sidewalks, and off-road sections. A trail is an off-road non-motorized facility, a sidewalk for pedestrians and bikes should be on-road. If a sidewalk is widened to accommodate multiple users it is called a sidepath in the latest AASHTO publication – for example GRT on Lake Ave and El Camino on Scrantom St.
- This facility may more correctly be called a “bike route”. The Town of Brighton & City are working on design of the Highland/Canalway trail and its layout is similar to this – a connection through an urban area with a mix of sidepath, on-road, and off-road connections. The Highland project will be unifying the “route” using a bike route sign (shown below).



- The City should push to accommodate on-road facilities in the upcoming Ridgeway Ave project (Ramona to Minder). The present plans for the project will maintain the existing curb lines and roadway widths and will just mill and resurface the existing pavements. The existing roadway widths and the need to accommodate on-street parking does not permit the necessary lane width (14') to accommodate a shared use lane with sharrows.
- Much time was spent discussing the various alternatives that have been explored and how to present them in the report. Are there near-term and long-term options? How does cost factor in? In the end it was noted, and the group agreed, that this is just a planning study and the final recommended route should be the ideal connection that can move forward. Alternatives should be presented as such, so that if and when funding becomes available they can be further evaluated at that time.
- Steve noted that Federal Enhancement Funding, which may be a good funding source for this project, is typically awarded in \$2 to \$2.5 million chunks. This should be factored into the cost estimating so selected portions can be applied for within this funding limit.
- Separate Mt. Read segment from Ridgeway / Erie Canal bed segment to provide flexibility in pursuing funding
- Funding for on-road segments should come mainly from local road reconstruction funds
- The group agreed upon the recommended alignment as follows:

Eastman Trail

- Off-road trail along former Erie Canal bed from Latona Road to Weiland Road, including a pedestrian bridge over Kodak Park Avenue

- Off-road trail from Weiland Road to Mt. Read Blvd, paralleling Ridgeway Ave, pending approval from EBP (Bernie to look into); otherwise on-road bike route on Ridgeway Ave from Weiland Road to Mt. Read Blvd
- On-road bike route along Ridgeway Ave from Mt. Read Blvd to Aster St, then up Aster St. to the end
- Off-road trail along existing green buffer between EBP and Rand Street residences
- On-road bike route along Dewey Ave from former DeNeve Street to Eastman Ave, then along Eastman Ave to Woodside Street, then north along Lot 42 Access Road
- Off-road trail along western and northern edge of Lot 42 to vehicular gate at Merrill Street
- On-road bike route along Merrill Street from gate to Lake Avenue

Genesee Riverway Trail

- Off-road trail along rear edge of King's Landing Cemetery to Lake Avenue
- Sidepath along Lake Avenue (existing GRT) from King's Landing Cemetery to St. Bernard's property
- Off-road trail through rear of St. Bernard's property (existing GRT, with improvements to width, slope, and a new entrance trail at the south end)
- Sidepath along Lake Avenue (existing GRT) from St. Bernard's access sidewalk north to Riverside Cemetery entrance
- Off-road trail through Riverside Cemetery using existing cemetery roads to the point at which planned cemetery road extension is located
- Off-road trail along planned cemetery road, connecting to existing GRT in Turning Point Park

The meeting concluded with a discussion of next steps. The committee will be notified of the next and final Public Meeting where the various alternatives will be presented for questions/comments.



Eastman Trail – King’s Landing to Route 390 Trail
Genesee Riverway Trail – King’s Landing to Turning Point Park

UPWP Task No. 6524

Public Meeting #2
September 25, 2012 – 6pm, Maplewood Training Facility

MEETING NOTES

The Public Meeting was designed in an open house format. A handout was provided giving attendants an overview of the study area and project. Large maps of the study area were stationed against the walls, as meeting attendants met with project representatives to discuss ideas and concerns. The maps displayed each of the location alternatives identified by the Project Advisory Committee over the course of the project.

The following comments were solicited from meeting attendants, either via written forms or conversations:

- Aster Street – at least sharrows should be utilized to make clear it is a bike route. Ideally, sidewalk signage would also be utilized for pedestrians.
- Ridgeway Ave – Ridgeway is being reconstructed. If it is to be used as a bike route, it must be specified to be wide enough at least for sharrows. A bike lane would be preferable. A protected or separated bike lane would be ideal.
- Kodak Park Ave – to avoid cost of bridge, recommend grading path down to level of Kodak Park Ave.
- King’s Landing Trail Head – should have a restroom building, bike racks, benches, information kiosk
- So far it sounds great. I would just wonder how far the trail would be from my house (Ridgeway Ave) and also about access (i.e. not having access from my back yard obstructed).
- As this would pass behind my house, this would very convenient to use.

In general, despite the low attendance, there was strong support for the concept of the two trails. The Public Meeting concluded at 8pm.



Eastman Trail – King’s Landing to Route 390 Trail
Genesee Riverway Trail – King’s Landing to Turning Point Park

UPWP Task No. 6524

Project Advisory Committee Meeting #4
December 11, 2012 – 3:00pm, Kodak’s Theater on the Ridge

PROJECT TEAM MEMBERS PRESENT

Kevin Kelley, Clark Patterson Lee, Project Manager
Doug McCord, McCord Snyder Landscape Architecture
Jeff Mroczek, City of Rochester, Project Manager

COMMITTEE MEMBERS PRESENT

Steve Beauvais, NYS DOT
Scott Copey, Town of Greece
Tom Frey, Genesee Land Trust
Bernie Nee, Eastman Kodak Company
Mike Parker, Charlotte Community Association
Bob Torzynski, Genesee Transportation Council

MEETING NOTES

Kevin presented an update of the project, including development of the remaining sections of the Draft Study (Executive Summary, Section 1 – Introduction, Section 5 – Recommended Alignment and Design, Section 6 – Project Funding and Cost Estimate, Appendices). An overview of these new sections was given, then the group discussed several comments and questions. These included:

- Bob suggested that in Section 5 we include a specific example of a customized bike route symbol. Jeff will send Kevin the graphics from the Highland Crossing Trail.
- Steve gave an update on the planned Route 390 Trail extension. Funding cuts have significantly decreased the chances of the project being funded in the near future. While it is a critical link for the Eastman Trail, the document does not need to be revised to reflect this update, other than changing the projected start date listed in Section 2. The Town of Greece is advised to advance the project (planning/feasibility) as much as possible during the upcoming bike/ped master plan, so as to improve chances of funding through NYS DOT or other sources.
- Doug suggested that the trailhead for the west end of the Eastman Trail be moved from the northwest to the southwest corner of Ridgeway and Lee/Latona. While an adjacent private property may limit the trailhead in the new location, there does appear to be sufficient space for one with limited parking. This corner is also advantageous because of the connection to the existing sidewalk on Ridgeway.
- Alternate alignments were discussed that would connect the proposed Riverside Cemetery road extension and the existing GRT in Turning Point Park. While the alignment shown is somewhat circuitous, it reflects some grade and drainage limitations. A more direct connection could be evaluated at the design phase, if desired.
- Jeff noted that the City is trying to accelerate certain projects to take advantage of low interest rates on bonding. Riverside Cemetery is a candidate to receive funding, but there’s only a small

chance that would include the proposed road extension into Bullock's Woods, which would coincide with extending the trail through that area.

- The potential for using the Technology Boulevard / EBP Railroad corridor for an off-road trail location was discussed at length. The potential use of the corridor is largely tied to the long-term viability of the rail line, which appears to be strong for the foreseeable future, at least west of the junction with the north-south rail line. It was agreed that although the document does not include it as a future consideration, that does not preclude the possibility should conditions change.
- Map 9 should be included in the Executive Summary.
- Various other minor text edits were discussed and additional edits will be emailed to Kevin.

The meeting concluded with a discussion of next steps. The committee will be notified of the deadline for final comments on the Study, after which the final Study will be completed and delivered to the City.



**GENESEE RIVERWAY
& EASTMAN TRAILS**

Prepared by:

