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Lehigh Valley Trail Feasibility Study
Corridor Acquisition and Rail-to-Trail Conversion

TOWN OF MENDON and VILLAGE OF HONEOYE FALLS, NEW YORK
NOVEMBER 2009

IN ASSOCIATION WITH:
Trowbridge and Wolf Landscape Architects, LLP

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2007 - 2008 Priority Trails Advancement Program

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

I. Executive Summary

Overview

The Lehigh Valley Trail Corridor Acquisition and Rail-to-Trail Conversion Feasibility Study is part of the 2007-2008 Priority Trails Advancement (PTA) Program administered by the Genesee Transportation Council (GTC). This feasibility study recommends the construction of a multi-use trail that will connect the Village of Honeoye Falls with the main line of the existing Lehigh Valley Trail, an important east-west recreational corridor within the Rochester region about 1.5 miles north of the village. Approximately three miles in length, the study area follows the former rail line through farms, large residential lots, commercial businesses, and higher density residential neighborhoods. The greatest physical challenge to overcome within the study area is the crossing of Honeoye Creek, which forms a scenic greenway that bisects the proposed trail.

To increase the probability that the Lehigh Valley Trail Corridor Acquisition and Rail-to-Trail Conversion (hereafter "Lehigh Valley Trail") comes to fruition, this Executive Summary is intended to provide potential funding applicants with a framework for utilization in future grant and funding applications. This section generally relates to the criteria required for federal Transportation Enhancements Program (TEP) funding. While by no means a complete application, the Executive Summary should provide guidance on the main points to highlight in future funding acquisition attempts by community leaders and project champions.

Community Support & Participation

In 2008, the Mendon Foundation partnered with the Town of Mendon and Village of Honeoye Falls on the formation of a steering committee to oversee the development of a feasibility study for the Lehigh Valley Trail. The steering committee included Village, Town, and State officials as well as other local stakeholders with multi-use trail experience. The level of community support provided by these individuals and the organizations they represent will assist in the development of this and future trails by leveraging construction funding with the donation of materials, labor, land, and sweat -equity. Further, this group is likely to take a leadership position in the continued maintenance of the proposed Lehigh Valley Trail between the main line and the village.

The project planning consultants hired to assist with trail planning, trail design, and public participation components of the project devoted significant time and resources to involving the public in the decision-making and information exchange process. This included two public meetings, several steering committee meetings, and numerous informal conversations with landowners and stakeholders. Close coordination between the steering committee and the public resulted in the selection of a preferred alternative that had the highest levels of consensus among project participants.

Enhancement of the Environment

Trail alignment alternatives were identified and evaluated according to several criteria, including: trail usage, connectivity, safety, and potential impacts to surroundings. The preferred trail alignment selected, as shown on Map 6, balances these criteria along with consideration of cost-effectiveness,

direct routing, sensitivity to neighbors, and timely completion. The preferred alignment provides significant access for trail users to unique and seldom-experienced landscapes within the area. The trail will meander alongside active agricultural lands, historic hedgerows, fallow fields, mature woodlots and the varied floodplain of Honeoye Creek. By increasing the public awareness of these and other important natural and cultural resources, it is likely that an increased level of conservation, preservation, and participation will ensue to protect these valuable community assets.

The connection of Honeoye Falls with the Lehigh Valley Trail main line will serve as an important enhancement to the quality of life enjoyed by residents, visitors, and those employed in the area. It is anticipated that moderate economic development potential exists, resulting from increased trail usage by area residents that live outside of Honeoye Falls, yet frequent the region's trail network. Furthermore, the connection of the Village with the Monroe Street Park via a bicycle/pedestrian safe route will enhance the safety and marketability of Honeoye Falls as a family-friendly community.

Enhancement of the Transportation System

The preferred alignment for the Lehigh Valley Trail connector consists of the A1, B2, and C1 alternative segments, as shown on Map 5 and consolidated on Map 6. Although initial analysis of the Study Area broke the trail into three distinct segments, it is recommended that construction take place in two phases. The first phase, from the county line to the northern edge of Monroe Street Village Park, is considered relatively feasible from a cost, landowner, and physical constraints perspective. The second phase, beginning with a bridge over Honeoye Creek and extending to Great Bend Nature Park, is likely to come at an increased cost in addition to some landowner opposition to the preferred alignment.

The main line of the Lehigh Valley Trail is a highly traveled corridor and center of activity that can only be accessed via on-road walking/bicycling or by automobile. A potential trail connection with this corridor south to the activity center of the Village of Honeoye Falls and beyond will significantly increase the non-motorized transportation options for residents. The Monroe-Livingston County line was selected as the southern terminus because it significantly improves the prospects of continuing a multi-use trail south to the Village of Lima. During the detailed design phase, the community should explore the potential of extending phase one south to Corby Road in the Town of Lima, so as to bring the trail closer to the Village of Lima, which will ultimately add to the critical mass of potential users.

As well, a new destination will be created at a transportation nexus located along the trail corridor at the Peanut Line intersection. The trail plaza concept (see Figure 5) consists of landscaping, hardscaping, interpretive signage, sculpture, and other artistic features that could be designed around an interpretative transportation theme that relates to the location's significance in history and the future.

Relationship to Existing Plans & Smart Growth

The development of the Lehigh Valley Trail connector is consistent with the Town of Mendon's Comprehensive Plan and the Honeoye Creek Greenway Strategy which call for improved connectivity along the creek corridor and the expansion of recreational and non-motorized

transportation opportunities. Additionally, the Town and Village conducted a resident survey in 2008, in which the majority of respondents expressed that improving the park system should be a financial priority. Respondents also noted that more natural areas or trails would attract them to use the parks more often.

The development of this plan has been spearheaded by community members in an effort to improve connectivity and promote the development of a walkable and economically sustainable community center in the Village of Honeoye Falls. An increased level of awareness by the public for sustainable growth and development practices has also spread to transportation decision making, prompting many citizens to consider alternatives that improve their lifestyle and quality of life.

Projected Cost

Phase I includes the construction of 8,500 linear feet of stone dust trail, three trailheads, two crosswalks and directional signage. The planning-level engineer's estimate of probable cost for these elements in 2009 dollars is $700,000, which includes increases for contingency (25 percent), engineering (25 percent), and construction management (15 percent) fees.

Phase II includes the construction of a 400-foot long pedestrian bridge spanning Honeoye Creek at the location of the original "Papa Trestle", 7,700 linear feet of stone dust trail, one trailhead, one crosswalk and extensive directional signage. The planning-level engineer's estimate of probable cost for these elements in 2009 dollars is $10.3 million, which is significantly more than Phase I due to the cost of constructing a pedestrian bridge over Honeoye Creek. It is estimated that the pedestrian bridge accounts for roughly $9.9 million of this total. This figure also includes increases for contingency (25 percent), engineering (25 percent), and construction management (15 percent) fees.

Together, Phase I and II represent the construction of about three miles of stone dust trail and necessary amenities to provide pedestrian and bicyclist connectivity between Honeoye Falls and the Lehigh Valley Trail main line. The construction of the complete preferred alternative is estimated to be approximately $11 million with contingencies, engineering and construction management fees included. These are planning-level cost estimates. The overall cost could be lower with securing easements rather than property acquisitions, as well as the donation of time, materials and sweat-equity labor by area residents and project champions. Phase I and Phase II could also be constructed independent of one another, as both have logical termini at both ends. Additionally, when the project moves into detailed design, more accurate estimates of cost would then be developed.

Conclusion

The Lehigh Valley Trail represents a significant opportunity for the residents of Mendon and Honeoye Falls to improve their non-motorized transportation alternatives, and provide and enhanced level of choice in their mobility patterns. The preferred alternative provides the greatest level of connectivity, improved safety, recreational attraction, and quality of life enhancements. Moving forward, project success will hinge upon the continued cooperation of the Town of Mendon and Village of Honeoye Falls, and the involvement of project stalwarts that are determined and committed to seeing this project to its fruition.

II. INTRODUCTION

A. Project Overview

The main line of the Lehigh Valley Trail, which runs east-west about 1.5 miles north of Honeoye Falls, is an important recreational corridor within the Rochester region's network of parks and greenways. The trail has seen a steady increase in popularity since its inception, prompting the Mendon Foundation to partner with the Town of Mendon and Village of Honeoye Falls to consider a link from the main line to the village. The Lehigh Valley Trail Corridor Acquisition and Rail-to-Trail Conversion Feasibility Study is part of the 2007-2008 Priority Trails Advancement (PTA) Program administered 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 a trail connecting the main line to the village, using an abandoned spur of the Lehigh Valley Railroad (see Figure 1), with consideration given to other location alternatives and phasing strategies.

The Study Area for the Lehigh Valley Trail Corridor Acquisition and Rail-to-Trail Conversion (hereafter the "Lehigh Valley Trail") is approximately three miles in length, following the former rail line. The portion of the study area in the Town of Mendon consists primarily of farms and large residential lots. Within the Village of Honeoye Falls, the study area contains farmland, commercial businesses, and higher density residential neighborhoods. Honeoye Creek bisects the study area, forming a scenic natural corridor that is both an asset and a challenge to the trail. There are also two parks in the study area: Great Bend Nature Park where the main line of the Lehigh Valley intersects with the spur to Honeoye Falls, and Monroe Street Village Park on the western end of the village.

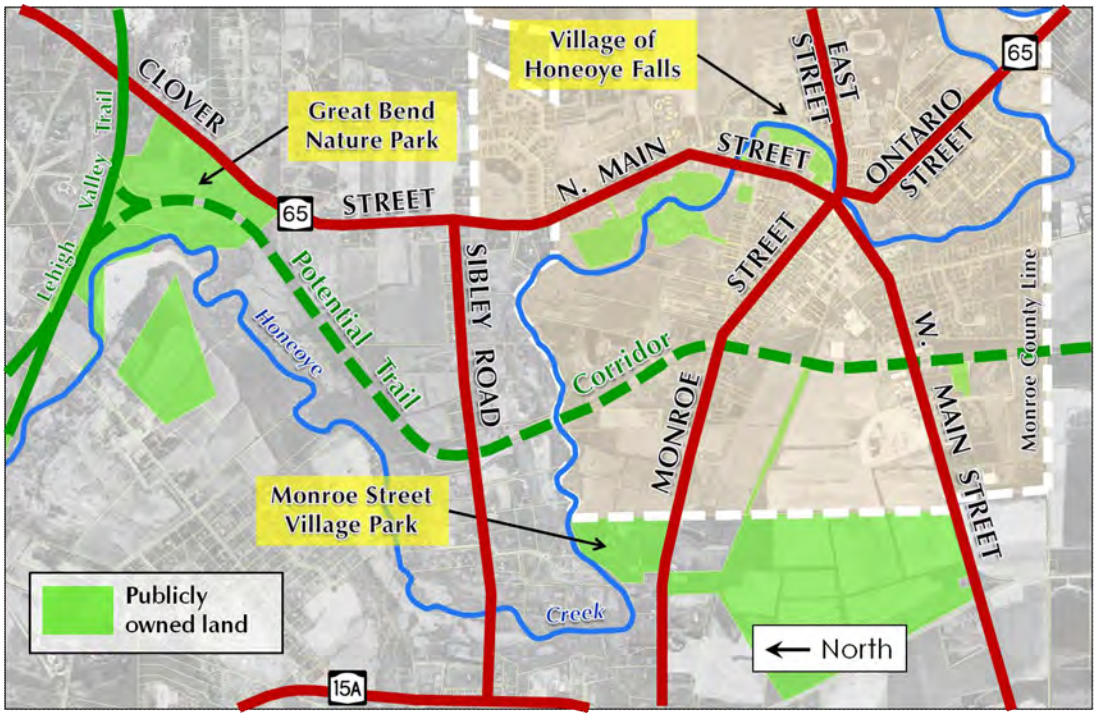


Figure 1: Study Area

B. Local and Regional Significance

Lehigh Valley Trail in the Town of Mendon

Honeoye Falls is located in close proximity to the main line of the Lehigh Valley Trail. However, residents only have access to the trail where it crosses Route 65 (Clover Street), two miles north of the heart of the village. Recent improvements to Great Bend Nature Park will provide a trail head and enhanced connections to the main line, yet the trail is still accessed primarily by automobile.

A non-motorized transportation facility between the main line and the village would provide an important link for hikers and bikers traveling between the two destinations. It would also link other important sites along the way, including retail and service establishments on West Main Street, the GM Fuel Cell Development Center, Monroe Street Village Park, Firemen's Field, the Honeoye Creek gorge, and the neighborhoods within Honeoye Falls. Such a trial would also provide a non-motorized alternative commuter corridor, connection residences in the village and town with the employment opportunities along West Main Street.

If this connection were to be made, the village would be linked to the larger network of trails in the Rochester region via the main line of the Lehigh Valley Trail. The North Branch of the Lehigh Valley Trail was recently completed as well; its southern terminus is Great Bend Nature Park. Together, these primary trails would link Honeoye Falls to Victor, Henrietta, and Rush, as well as the Genesee Valley Greenway trail seven miles to the west and the Auburn Trail seven miles to the east. If the trail were constructed, a follow-on project connecting Honeoye Falls south to Lima along the same abandoned rail line would become more feasible. Overall, this trail concept is another important link in the development of a strategic network of trails in the Rochester region. The system as a whole creates tremendous recreation and environmental stewardship opportunities, while encouraging sustainable transportation choices.

C. The Planning Process

In 2008, the Mendon Foundation, a non-profit group dedicated to preserving open space and natural resources, partnered with the Town of Mendon and Village of Honeoye Falls to create a Steering Committee to oversee the development of a Feasibility Study for the Lehigh Valley Trail. Members of the Committee, whose names are listed after the Table of Contents, included representatives from the Town, Village, the Foundation, and residents at large. The committee also benefited from representation by the New York State Department of Transportation.

With coordination provided by GTC, Bergmann Associates and Trowbridge and Wolf 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 (July 16, 2008)
- Identify trail location alternatives and key opportunities/ challenges, including a potential crossing of Honeoye Creek
- Gather initial feedback from interested citizens at a Public Open House (February 12, 2009)
- Refine alternatives and identify a preferred trail alignment
- Develop an implementation plan
- Develop design guidelines, planning-level cost estimates, potential funding sources
- Gather additional feedback on the Draft Feasibility Study at a Public Meeting [to be completed]
- Finalize the Feasibility Study [to be completed]

Site visit by the Steering Committee

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

- The trail should not be designed purely as a recreational facility, but also as an integral part of the Town, Village, and region's non-motorized transportation system
- The trail should link together Monroe Street Village Park and Great Bend Nature Park, and should enhance the experience in these public spaces
- From a broader perspective, the trail should connect the Village of Honeoye Falls with the main line of the Lehigh Valley Trail and contribute to the establishment of a greenway system along Honeoye Creek
- The trail should serve all types of users including short and long distance recreational trips, day-to-day errands, and neighborhood connections
- The trail should be located off-road whenever possible
- The trail should minimize impacts to surrounding residences, but still provide easy access to neighborhoods
- From the commercial corridor of West Main Street, to the neighborhoods along Monroe Street, to the Honeoye Creek gorge and surrounding rural areas, the trail should complement and respect its surroundings

A preferred trail alignment was identified (see Section V) which has a balanced consideration of cost-effectiveness, direct routing, sensitivity to neighbors, and timely completion. Complementary connections were then identified (see page 27) that are intended to increase accessibility to the trail and extend to other destinations.

III. Study Area Overview

A. Segment Descriptions

The study area for this project is located in the Village of Honeoye Falls and the Town of Mendon following a former railroad corridor that serviced a branch of the Lehigh Valley Railroad. From the Monroe County line north to the existing Lehigh Valley Trail, the corridor is approximately three miles in length. The section in the village is approximately 1.4 miles, while the town's section is about 1.6 miles. The former rail line traverses a variety of settings, including a commercial district, farmlands, wooded areas, rural residential areas, and the Honeoye Creek gorge. For the purposes of this Study, the trail corridor was divided into three distinct segments (see Figure 2).

- County Line to Monroe Street
- Monroe Street to Sibley Road
- Sibley Road to Great Bend Nature Park

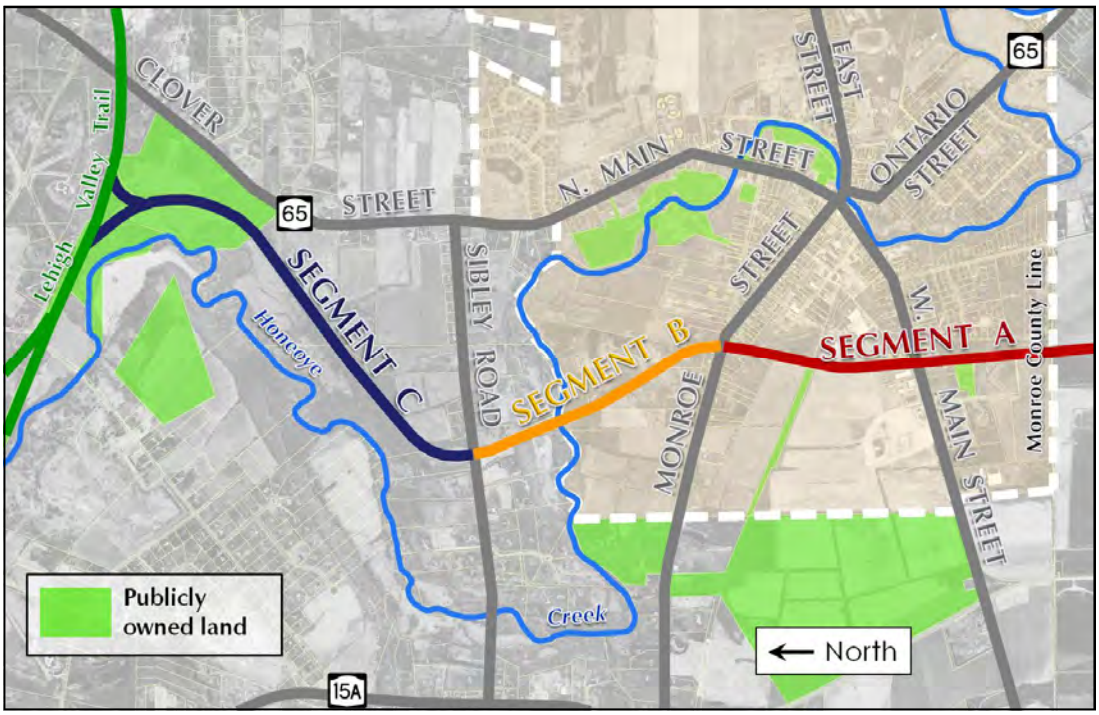


Figure 2: Study Area segments

<u>Segment A— County Line to Monroe Street</u>
This segment begins at the boundary between Monroe and Livingston Counties. This is also the southern boundary of both the Village of Honeoye Falls and the Town of Mendon. West Main Street, which bisects the segment, contains numerous small- and medium-scale businesses. These include a bowling alley, grocery store, senior living facility, pharmacy, and auto dealership. There is also a former airport south of West Main Street that, when in operation, utilized a portion of the former

Lehigh Valley right-of-way looking south near the former Honeoye Falls Airport

railroad right-of-way. The core of the village, including dozens of single-family homes, is immediately east of this area.

The GM Fuel Cell Development Center, the largest employer in the village, is located off West Main Street in this segment. The southern entrance to the facility is located on the former railroad right-of-way, although sufficient space exists alongside the driveway to accommodate a multi-use trail. The presence of GM has helped create and sustain a demand for restaurants and services in the area, resulting in increased pedestrian and vehicular traffic in this area of the village.

North and west of the GM facility, the remainder of Segment A is characterized by open fields and farmlands, as well as several residences along Monroe Street. There are several parcels in the proximity of the former rail bed that are currently owned by development companies, including Mathstone and LLD Associates. These could potentially be developed into commercial and residential properties over time. Mathstone recently built a small residential tract off Norton Street behind the GM facility.

Entrance to the GM Fuel Cell Development Center

The railroad bed of the former Peanut Line is also found in this area, perpendicular to the former Lehigh Valley corridor. The Peanut Line ran from Canandaigua to Niagara Falls, but has been inactive since before World War II. The right-of-way, now owned by Monroe County, is overgrown with immature forest and is a distinct boundary between the open fields to the north and the crop lands to the south. There is still evidence of the grade-separated crossing of the Peanut Line and the Lehigh Valley behind the GM facility. From this point north to Great Bend Park, the Lehigh Valley right-of-way has been substantially broken up and absorbed into adjacent parcels.

Segment B— Monroe Street to Sibley Road

This segment begins at Monroe Street, a non-shielded state road that connects Route 15A to the village. Monroe Street contains numerous residences, some of which are at the scale and density of the core of the village. Traveling west on Monroe Street, the houses become more sparse and rural in nature, although still in the village limits. The Monroe Street Village Park is also in this segment, located at the western edge of the village on the north side of the road. The park contains ballfields, nature trails, and a skate park. The Honeoye Falls Fire Department also has a field and pavilion on this property that can be used for community or private events.

The northern edge of Monroe Street Village Park is defined by Honeoye Creek, the most prominent waterbody in the study area. The Lehigh Valley Railroad's historic crossing of Honeoye Creek, east of the park, is located about a half mile north of Monroe Street. In order to maintain the original alignment, a pedestrian bridge would need to traverse a span of approximately 400 feet (see Figure 3). Portions of the original abutments still exist at this crossing. Further to the west, the potential creek crossing at the back side of the park would result in a significantly smaller structure.

The old railroad grade in this segment has been absorbed into adjacent properties. For instance, from Monroe Street to Honeoye Creek, the railroad right-of-way has been divided into three driveways leading to large flag lots. On the north side of the creek, two narrow lots connecting the creek to Sibley Road have been created from the original railroad right-of-way.

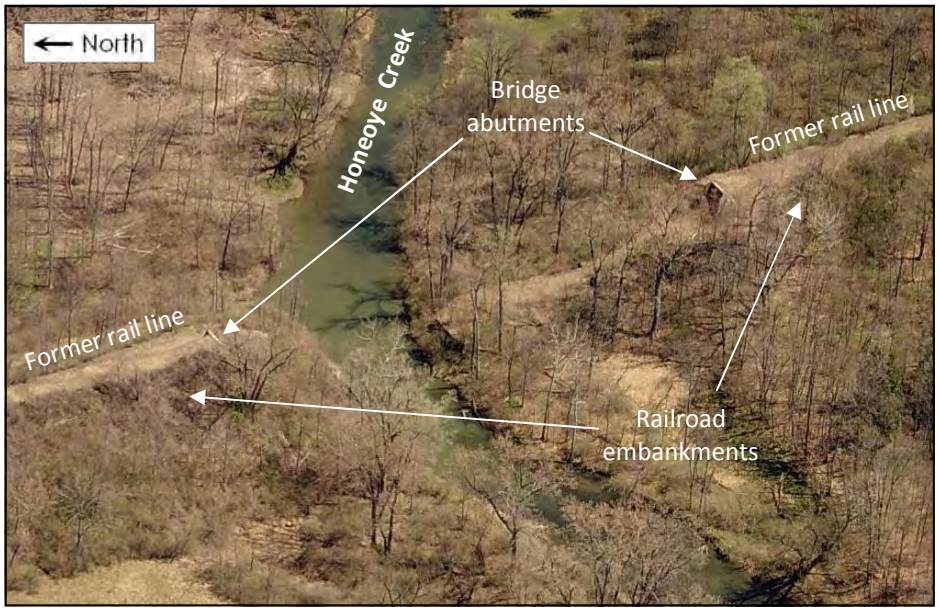


Figure 3: Site of former Lehigh Valley Railroad crossing over Honeoye Creek

Segment C— Sibley Road to Great Bend Nature Park

This segment begins at Sibley Road, a county road connecting State Routes 65 and 15A. Farmland along Sibley Road has over time been subdivided into numerous road frontage residential lots. The original railroad right-of-way no longer exists and is now part of two larger properties between Sibley Road and Great Bend Nature Park. On both properties, the former rail bed is marked by a narrow clearing amidst acres of heavy woods.

Given the private property issues in this section, consideration was given to alternative trail alignments that do not utilize the rail bed. Lands adjacent to the rail bed in this segment are largely farmlands and rural residential lots. Aside from a moderately sloped hill along Route 65, this remaining segment contains little or no known environmental constraints. Sibley

Open fields in Great Bend Nature Park

Road contains narrow shoulders that would need to be expanded and improved to accommodate bicycles and pedestrians as part of a multi-use trail link. The shoulders on Route 65 range from six to eight feet in width. If a trail alignment was selected that followed Route 65, consideration should be given to wider shoulders, as well as minimizing the cross slope of the shoulders.

Equipment used to clear trees and brush for trails in Great Bend Nature Park

Great Bend Nature Park, a town park located near the hamlet of Rochester Junction, is where the mainline of the Lehigh Valley Trail connects to the proposed trail corridor. The town and the Mendon Foundation have already developed a significant hiking trail system in this park. These are intended to be passive footpaths that connect to and support the larger Lehigh Valley Trail examined in this study. A large portion of that trail network within the park is currently under development. At one time the rail line formed a "Y" in this location, with one branch serving train traffic headed westbound on the mainline and one branch serving eastbound traffic. The Town and the Mendon Foundation plan to establish a trail along both branches of that "Y", with construction of the eastern branch expected to begin in 2010. Additionally, the Lehigh Valley Trail, Henrietta to Rush Section, travels north from this junction. Existing trails in this area are 10-12 foot wide with a stone dust surface, while the adjacent hiking paths are five to six foot wide paths.

B. Land Use and Ownership

Much of the land immediately adjacent to the proposed trail corridor is classified as residential, with the number of commercial uses increasing as the corridor winds south towards the Village of Honeoye Falls (see Map 1). This has important implications for trail use as both land use types create origins and destinations for potential trail users. Residents living along the proposed corridor will be able to access the trail solely for recreational purposes, as well as for trips into and out of the village.

The predominant land uses in the vicinity of the proposed trail corridor are privately held residential and commercial properties (see Map 1). A large property at the northern terminus of the corridor, however, is owned by the Town of Mendon — Great Bend Nature Park. Lands owned by the Monroe County Parks Department flank the area to the west and north, including the east-west mainline of the Lehigh Valley Trail. Additionally, the owner of the large tract of privately held land located immediately south of the Great Bend Nature Park has expressed the possibility of selling or donating the portion of land north of the old railroad grade.

C. Natural Features

Wetlands

As is depicted in Map 2, the trail corridor is located adjacent to two New York State Department of Environmental Conservation (NYSDEC) wetlands, registered as MN-12 and MN-23. Additionally, approximately 660 acres of federally identified wetlands as mapped by the U.S. Fish and Wildlife Service National Wetland Inventory (NWI) are located in the vicinity of the proposed trail corridor. It should be noted, however, that no NYSDEC or NWI wetlands occur directly within the corridor or within any of the alternatives examined as part of this study.

Floodplains

The trail corridor traverses both the 100-Year and 500-year floodplains of Honeoye Creek at two locations as depicted on Map 2. The first crossing is located along the creek between Sibley Road and Monroe Street and is relatively narrow. The second crossing is located at the northern terminus of the trail where the proposed corridor connects with the existing mainline of the Lehigh Valley Trail. At this location, the proposed corridor is located atop an old railroad grade and thus does not directly traverse the floodplain areas. This portion of the trail has already been examined for environmental impacts and is currently under development.

Honeoye Creek behind Monroe Street Village Park

Wooded Areas

The proposed trail corridor passes through several wooded areas as it winds from north to south along the existing old railroad grade (see Map 3). The largest concentration of wooded areas occurs north of Sibley Road along the old railroad grade, although a small clearing exists along the actual rail bed. Two additional significant wooded areas are also traversed by the proposed corridor — one adjacent to the Honeoye Creek crossing and the other located between Monroe Street and West Main Street. As the proposed trail winds through these areas, potential trail users will be provided the opportunity to view the various wildlife that inhabit forested areas.

Wooded area along Honeoye Creek

Potential Soil Erosion Hazards

One of the primary issues concerning trail design is the prevention and minimization of soil erosion. In addition to impacting water quality and the

aesthetic value of the trail, soil erosion can pose user safety issues and require a high level of maintenance investment. The potential soil erosion hazards for the proposed Lehigh Valley trail corridor are depicted in Map 3. A brief description of the potential soil erosion hazard classifications, as defined by the Natural Resource Conservation Service (NRCS), is provided below:

- Slight – erosion is unlikely under ordinary climatic conditions
- Moderate – some erosion is likely and erosion control measures may be needed
- Severe – erosion is very likely and erosion control measures, including re-vegetation of bare areas, are advised

Based on an analysis of soil data provided by the NRCS, much of the corridor is located in areas that pose a slight or moderate risk of erosion. There are, however, two areas located along the proposed corridor classified as severe – just north of Honeoye Creek and a long, narrow strip of land south of Great Bend Nature Park. These areas should be considered as the design phase of this project moves forward.

Steep Slopes

Map 3 also shows 10-foot elevation contours, which highlight certain areas where steep slopes could impact trail design. The corridor south of Honeoye Creek is mostly flat. The rail bed is elevated in most places, and its stability and width would need to conform to design standards in order to avoid problems with the steep banks on either side of the bed. The ravine at the historic crossing of the creek is quite steep, although potential crossings to the east or west would face less dramatic slopes. The old railroad grade between Sibley Road and Great Bend Nature Park traverses a somewhat prominent hillside; the stability of these soils in the steeper sections will require careful examination.

Relatively flat terrain dominates the study area

D. Transportation Network

The proposed trail corridor traverses three roadways as it winds from north to south – Sibley Road, Monroe Street, and West Main Street (see Map 4). Sibley Road (County Road 59) is a two-lane rural roadway with a posted speed limit of 45 mph.

South of Sibley Road the old railroad grade crosses Monroe Street near the intersection of Maplewood Avenue. At the point of crossing, Monroe Street is a two-lane road with a posted speed limit of 30 mph. East of the intersection with Maplewood Avenue, Monroe Street has the character of a

village residential street. West of the intersection, where the roadway becomes less populated, it has more of the character of a rural roadway. The average annual daily traffic (AADT) in this area is 3,094. Additionally, the old railroad grade crossing is approximately 60 feet from the westernmost terminus of both Maplewood Avenue and Monroe Street sidewalks. Linking the proposed trail corridor to these existing sidewalks would create a pedestrian transportation network that would provide potential trails users a direct connection to the Village of Honeoye Falls. The village is currently pursuing funding to extend the sidewalk network on Monroe Street west to the Village Park.

West Main Street near the entrance to the GM facility

Sibley Road near the crossing of the former rail line

The final roadway crossing is located at the intersection of the old railroad grade and West Main Street (County Road 94). This two-lane road has a posted speed limit of 30 mph and contains sidewalks on both sides of the street. As previously noted, linking the proposed trail to the existing sidewalk network would provide a direct connection to the Village of Honeoye Falls and improve accessibility to potential trail users.

IV. Trail Alignment Alternatives

As a result of the site visit, existing conditions analysis, Steering Committee discussions, and public input, several alternatives were considered and evaluated for locating the trail in the corridor. The following is a summary of these alternatives, as presented at the February 12th, 2008 Public Meeting (see Map 5). The assumption is that, regardless of the alternative chosen, the trail would begin on the former railroad bend south of West Main Street and end at the main line of the Lehigh Valley Trail in Great Bend Nature Park. Each of the alternatives were examined and a preferred alternative was identified, as described in Section V, Preferred Trail Alignment and Implementation.

A. Segment A — County Line to Monroe Street (Map 5)

A1 — Peanut Line alternative

This option would begin at the Monroe County line, which is also the Village of Honeoye Falls' southern boundary. Following the former railroad line north, it would parallel the former Honeoye Falls Airport through a partially wooded area until it reaches West Main Street. The design and exact location of the trail should not hinder any potential redevelopment opportunities in this area, rather it should complement and even serve to attract such redevelopment.

A gap study was performed on West Main Street between York Street and Pine Trail (see Appendix B). The study, performed during peak traffic times, concluded that there are sufficient gaps in traffic for pedestrians to safely cross at this mid-block crossing. Therefore, a highly visible crosswalk with appropriate signage, rather than a traffic signal, will be sufficient to accommodate the trail across West Main Street.

Once on the north side of Main Street, the trail would continue along the former railroad right-of-way, which parallels the entrance to the GM Fuel Cell Development Center. The trail would then ascend slightly to a point where the Lehigh Valley Railroad once crossed over the Peanut Line, a smaller line that ran east-west through the village. This alternative would then follow the Peanut Line to the west. It was observed on the site visit that the actual bed of the Peanut Line is heavily wooded with immature trees and brush, and that a more cost effective route would be to parallel the Peanut Line along its southern edge. This route would primarily traverse farmland, with a few short segments of wooded areas.

Looking east between the Peanut Line and the farmland off of West Main Street

Upon reaching the western boundary of the village, this alternative would turn north and trace the edge of the property owned by the Edgewood Free Methodist Church until it reached Monroe Street. A gap study was also performed at Monroe Street and determined that sufficient gaps exist for safe crossing at this mid-block location. This applies to any potential crossing of Monroe Street between Maplewood Avenue and Monroe Street Village Park.

Overgrown vegetation along the former Peanut Line

A2 — Monroe Street alternative link

This alternative utilizes the same alignment as A1, from the Monroe County line to approximately half way through the Peanut Line segment. It diverges from A1 at the western edge of the property owned by the Mathstone Corporation. From that point, it would travel north to connect to Monroe Street along the narrow strip of the Mathstone property. This option would be located along the rear of the homes in the proposed Norton Station subdivision. Depending on the alternative selected for Segment B, this alternative would either cross Monroe Street at this point or travel in either direction to connect to the next segment.

A3 — Rail-to-Trail alternative

This alternative also follows A1, but diverges at the point where the former Lehigh Valley Railroad and Peanut Lines intersect. Rather than traveling west, this alternative would continue north along the Lehigh Valley alignment to connect to Monroe Street. Currently owned by Mathstone, this segment would bisect the proposed Norton Station subdivision. Regardless of the alignment chosen for this trail, the developer intends to preserve the former railroad right-of-way through this property. This path already exists as an informal walkway with a gravel and cinder surface.

B. Segment B — Monroe Street to Sibley Road (Map 5)

B1 — Monroe Street Village Park alternative

After crossing Monroe Street, the B1 alternative would trace the eastern edge of Monroe Street Village Park, paralleling the entrance road and running alongside the baseball diamond. There are two feasible bridge locations in the park for bringing the trail over Honeoye Creek, as depicted on Map 5. The western alternative would build upon the work performed by local Eagle Scouts, who have developed small footpaths and stairs connecting the park to the edge of the creek. These paths would need to be widened and stairs replaced

Entrance to Monroe Street Village Park

with ADA-compliant ramps. The eastern alternative would require an easement or other arrangement from one less landowner on the north side of the creek, and is a more direct connection to that destination.

In either case, the trail would continue east, paralleling the creek. As it approaches the earthen foundation of the elevated railroad bed, the trail would turn north and gradually ascend up the side of that embankment, and then connect to Sibley road. This property is privately owned, but has no buildings on it and is too narrow to be used for residential or commercial purposes. A gap study was also performed at Sibley Road and determined that sufficient gaps exist for safe crossing at this mid-block location. However, due to the rolling terrain, it is recommended that signage be provided to warn vehicles of the crossing and that a highly visible crosswalk be installed. This applies to any potential crossing of Sibley Road between Hiram Way and Clover Street.

B2 — South Creek alternative

This alternative travels through Monroe Street Village Park, utilizing the same alignment as B1. Rather than continuing across Honeoye Creek at this location, B2 would parallel the creek on its south side, tracing the edge of a wooded area towards the former Lehigh Valley Railroad alignment. Honeoye Creek flows through a wide floodplain at the point where the rail line used to cross. Trains traveled over a large trestle, known as the "Papa Trestle", approximately 60 feet above the water. It is feasible to construct a low bridge, approximately ten feet above the water, or a larger structure replicating the location of the former trestle. The latter would be considerably more expensive, but would likely be a greater attraction, potentially increasing trail usage. In either case, once the B2 option reached the north side of Honeoye Creek, it would continue along the alignment of the former rail line until reaching Sibley Road. This stretch between the northern bridge abutment and Sibley Road is primarily flat.

B3 — Field alternative

This alternative would be a consideration if the A2 alternative was selected for Segment A. It would continue due north from the A2 alignment, straddling a property boundary that traverses hay fields and fallow farmland. Once arriving at Honeoye Creek, this alternative could be continued with either bridge alternative as outlined above, and then follow the former rail line to Sibley Road. As with B2, it would require easements or other arrangements with landowners in the area.

B4 — Rail-to-Trail alternative

This alternative would be considered if the A3 alternative were selected in Segment A. It follows the former rail line between Monroe Street and Honeoye Creek. While this serves as a more direct connection between the Lehigh Valley Trail and the Village of Honeoye Falls, the railroad right-of-way is no longer intact. It has been parceled off into flag lots, and a driveway has been built along 1/3 of its length in order to serve three private residences. Should this alternative be selected, it would cross Honeoye Creek using one of the two bridge options described in the B2 alternative, and then proceed to Sibley Road along the former railroad alignment. Easements or other arrangements would be required with landowners in the area.

C. Segment C — Sibley Road to Great Bend Nature Park (Map 5)

C1 — Rail-to-Trail alternative

The C1 alternative is a true rail-to-trail concept, following the former Lehigh Valley Railroad from Sibley Road to Great Bend Nature Park. As with the segment south of Honeoye Creek, the railroad right-of-way is no longer intact in this area, and has been absorbed by two large residential properties. Despite the residential presence, the trail would be rather secluded and buffered by the wooded areas that currently bound the railroad bed. Once it reaches Great Bend Nature Park, it would connect with a recently constructed trail segment that follows the railroad bed to the main line of the Lehigh Valley Trail.

C2 — On-Road alternative

This alternative was developed due to landowner concerns to the C1 alignment described above. It would consist of an on-road trail, following Sibley Road to the intersection of NYS Route 65 (Clover Street). It would then turn north and follow Clover Street to the entrance of Great Bend Nature Park. As an on-road segment, trail users would utilize the roadway shoulders. It is not anticipated that sidewalks or bike lanes would be necessary on Sibley Road, although consideration should be given to widening and leveling the shoulders (current cross slope is too steep) and installing signage. On Clover Street, bike lanes or other demarcations in the shoulder should be considered in conjunction with trail signage and "Share the Road" signage.

Clover Street looking north near Great Bend Nature Park

The Town of Mendon, in partnership with the Mendon Foundation, has plans to develop a new entrance to the park with parking spaces and a connection to the existing trail network, as shown on Map 5.

C3 — Field alternative

This alternative is somewhat of a compromise between C1 and C2 in that it travels along Sibley Road for a short segment, then becomes on off-road trail that connects with the former rail line. It would traverse open fields alongside a tree line, and then connect with the C1 alternative and proceed to Great Bend Nature Park.

D. General Design Considerations

Trail Dimensions and Surface

Per state and national trail design guidance, including recommendations from the American Association of State Highway and Transportation Officials (AASHTO), 10 feet plus two foot clear buffers on each side is the minimum desired width for a two-directional trail accommodating bicyclists and pedestrians (see Figure 4). In constrained areas, a narrower trail (eight feet minimum plus two foot clear buffers on each side) would be acceptable but these sections should be minimized. If additional users are allowed (e.g. equestrians) and/or higher usage is expected, a wider trail (12 feet minimum plus 2 foot clear buffers on each side) should be considered.

Some funding sources require the higher level trail construction standards. Vertical clearance from overhanging trees or other objects should be a minimum of eight feet, although 10 feet is preferred. Given the primarily natural setting of the Lehigh Valley Trail, it is expected that a 10-foot wide trail can be used for its entire length.

Asphalt vs. Stone Dust Surface

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.

Below is an overview of using one material versus another. This Feasibility Study recommends the use of stone dust, given the primarily natural setting. During the more detailed design phase of the project, the Village and Town should examine these factors carefully and determine which surface is appropriate for the Lehigh Valley Trail.

	Asphalt	**Stone Dust**
Installation Cost	$5.20 - $5.50 / SF	$1.80 - $2.00 / SF
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
Permeability	impermeable*	allows some infiltration
Durability	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
Other	designed for higher speeds, better for urban/suburban areas	easier on joints, better for rural/undeveloped areas

**porous asphalt materials are now available, although for a higher cost*

An improved natural surface such as stone dust is recommended for off-street segments of the trail, as they will largely be in a natural setting. Stone dust is permeable and is less expensive to install than asphalt, although it can require higher maintenance costs over time (see sidebar above).

Policing and Enforcement

Members of the community have expressed some concerns about policing the use of a new trail. Concerns include trail use by ATVs (if deemed undesired) and inappropriate or illegal behavior occurring in more secluded sections, such as in the wooded areas away from neighborhoods. While there are no guarantees that these issues will completely desist, trail design and policy can reduce these activities, potentially to lower levels than may be currently occurring in the absence of a trail.

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 Village and Town should work closely with the Monroe County Sherriff's Office to develop a plan for monitoring the trail and enforcing usage restrictions.

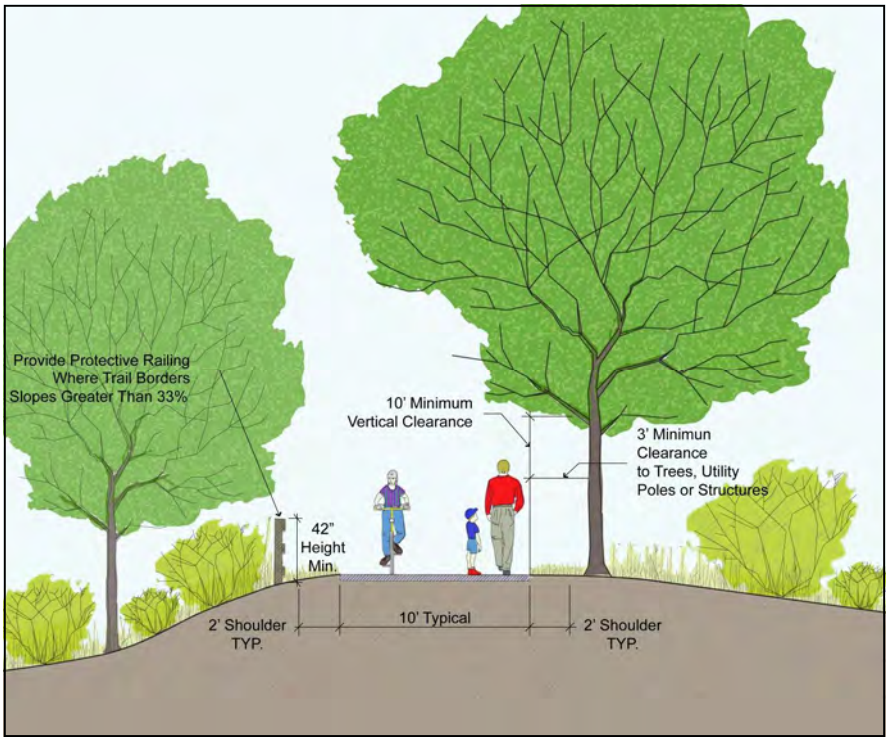


Figure 4: Typical section of a trail along a former railroad bed

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 (on the main line of the Lehigh Valley Trail), 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.

Accessibility

Accessibility for people with disabilities, including wheelchair users, should be provided whenever possible throughout the length of the proposed trail. It is recommended that handicapped parking be provided where possible at each trailhead parking lot along with a trail connection that meets the standards of the Americans with Disabilities Act, also known as ADA compliant. Such standards also limit the grade of a trail to a maximum of five percent, although exceptions are permitted provided that level landings are present at intervals defined within the standards.

Bicycle Use of the Trail

The Lehigh Valley Trail could potentially contain short segments that run concurrently with existing roads. In these cases, experienced bicyclists are encouraged to ride in the roadway in the same direction as vehicular traffic. 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 riding off-street should dismount when crossing the street at a designated crosswalk. These standards for bicycle use are consistent with New York State Vehicle and Traffic Law as well as the professional judgment of numerous bicycle advocacy groups.

Trail Ownership and Maintenance

The utilization of some public funding sources for trail development, including most state and federal sources, typically expect public ownership of proposed trail corridors. Alternatively, a corridor easement or lease agreement may be acceptable but would need to be established in a manner that would limit any agreement conditions that could negatively impact the investment of public dollars in the trail. The former is most desirable because the landowner holds all rights to the property.

Although there is some publicly-owned land in the Study Area (see Map 1 and Figure 1), there are some private land issues in the corridor. As noted earlier in this section, several alternatives would require some form of acquisition or easement.

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 Town and/or Village 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.

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 Village, Town, County 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.

Local officials involved with this project have expressed the desire for Monroe County to own the trail corridor, as it does the main line of the Lehigh Valley Trail, with the Mendon Foundation responsible for trail maintenance. It is recommended that this arrangement be solidified prior to the Town or Village pursuing funding sources such as through the Transportation Enhancement Program. 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 VII).

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 Town and Village should be proactive with the land owners and developers to achieve this objective. Additionally, in order to move forward with design and construction of the trail, the Town and Village should ideally have assembled willing landowners wherever private land is necessary for the preferred trail alignment.

Example of a stone dust trail through a wooded area

Regarding the potential pedestrian bridge over Honeoye Creek, the Village or Town should be prepared to take the responsibility of owning and maintaining the structure, including detailed inspection every five years, per FHWA guidelines, and routine maintenance.

Signage

It is recommended that a uniform standard (or logo) be developed and utilized for the identification of the Lehigh Valley Trail that is consistent throughout its length. As the project moves from a feasibility study to the design phase, it is also recommended that a more adequate name that distinguishes it from the main line of the Lehigh Valley Trail and is reflective of the purpose and location of the trail, be considered.

Example of wayfinding signage

Informational signage or wayfinding signage that orients users to their position within the trail corridor and that provides an overview of the system should be provided at all trailheads/parking areas, intersections with other trail systems (i.e., the main line of the Lehigh Valley Trail), and within the developed areas of Honeoye Falls. Signage indicating accessible routes should also be included. Regulatory signs describe the general rules and regulations that apply to the trail, such as permitted uses or hours of operation. Area-specific signage should also be included, such as 'STAY ON TRAIL' or 'RESPECT NATURE' signage for portions that pass through or adjacent to ecologically sensitive areas.

Additionally, warning signs are recommended to caution about various hazards such as steep adjacent slopes, roadway crossings, merges, pedestrian crossing signs (for motorists), etc. Utilization of consistent barrier gates or bollards to control access to the trail will also identify the trail system and communicate a consistent application of rules and regulations for all portions of the trail.

Interpretive signage opportunities exist for the Lehigh Valley Trail including signs related to the former railroad infrastructure (Peanut Line and Lehigh Valley Railroad), technological advancements at the GM facility, unique habitats found in and around Honeoye Creek, and the various historic sites and characteristics of Honeoye Falls and Mendon.

E. Steering Committee and Public Input Recommendations

The following general list is based on comments from the Steering Committee and the public at-large, and represents the common concerns, questions, and suggestions that were raised regarding the alignment, design, and construction of the proposed trail. Notes from the Public Meeting are included in the Appendix.

- The trail would be a great asset for the community, offering better access to Honeoye Creek and providing a non-motorized route between the village, Monroe Street Village Park, Great Bend Nature Park, and the main line of the Lehigh Valley Trail.
- If segments are built on private property, an easement, acquisition, or other agreement would first need to be reached with land owners.
- The trail would be a good complement to the GM facility and other businesses in the area, offering a place for lunchtime walks. It could also potentially attract employees to the area, who would enjoy the opportunity to bike or walk to work.
- The trail is an important first step in connecting the Villages of Honeoye Falls and Lima together.
- A safe crossing of all roadways, especially Main Street, is important to the design of the trail.

- The trail should enhance the proposed new developments along Norton Street, and vice versa.
- Several private property owners have expressed concern about the trail alignment between Monroe Street and Great Bend Nature Park. A trail through this segment may not be feasible in the near future.
- The Village and Town should explore the concept of a multi-use trail paralleling Honeoye Creek, which would connect Monroe Street Village Park to Rotary Park. From there, the Village has existing footpaths that could contribute to a larger Village Loop Trail.
- There are various pros and cons to consider for alternative alignments (see notes from the February 2009 Public Meeting in the Appendix). Major points include:
    - ◊ No major issues with the alternatives in Segment A, most seemed to support the importance of a connection through this segment. A1 had the most support, although A2 and A3 were noted as beneficial spur connections to other parts of Monroe Street, and will likely be built along with the Mathstone development. A1 was supported because of the use of public and undeveloped land and because the others would require an on-road connection to Monroe Street Village Park.
    - ◊ B1 received the most support in Segment B, mainly because of the direct connection to Monroe Street Village Park. The other alternatives have significant private property concerns.
    - ◊ Although an elevated trestle, similar to what used to span Honeoye Creek, would be more expensive, most felt it would be a tremendous attraction and may lead to increased trail use
    - ◊ Attendants generally supported the concept of a low bridge, approximately ten feet above the water, spanning the creek at the park.
    - ◊ Lack of consensus in Segment C. C1 and C3 are not supported by local landowners. The on-road alternative (C2) is not seen as much of a trail experience and would have safety concerns.

Remnants of grade separated crossing of the Lehigh Valley RR and the Peanut Line

V. Preferred Trail Alignment and Implementation

After careful review of the various alternatives for locating the Lehigh Valley Trail, a preferred alignment was selected. This process involved presenting the alternatives to residents at a Public Meeting in February 2009, as well as numerous discussions with the Steering Committee weighing the pros and cons of each alternative. As is demonstrated in the previous section, the public provided valuable input that drove the process of selecting the appropriate option for moving forward.

The preferred alignment for the Lehigh Valley Trail (Map 6) consists of the A1, B2, and C1 alternatives, as outlined in the previous section. It should be noted that the Town and Village desire to work with willing landowners wherever the preferred alignment is on private property. The B2 and C1 options may not have willing landowners at this time, but are still noted as part of the preferred alignment for meeting the objectives of this Study.

The specific steps necessary to create a trail along the A1, B2, and C1 alignments are described in this section. Although initial analysis of the Study Area was broken into three distinct segments, the conclusion of this analysis has resulted in the recommendation of two phases of construction. The first phase, from the county line to the northern edge of Monroe Street Village Park, is quite feasible from a cost, landowner, and physical constraints perspective. The second phase, which would cross Honeoye Creek east of the park and then end at Great Bend Nature Park, is likely to cost more and currently faces greater landowner opposition to the preferred alignment. Additional links and complementary connections, found at the end of this section, can be considered follow-on phases or separate projects.

A. Implementation Plan for Phase I *(County Line to Monroe Street Village Park)*

The A1 and B2 alternatives, as outlined in Section IV and shown on Map 5, were selected as the preferred option for connecting the county line with Monroe Street Village Park. This option utilizes the railroad right-of-way for the first 2/3 of a mile, which has been subdivided into two parcels whose owners have expressed openness to the trail concept. The remainder of the segment leading to Monroe Street is also located on private properties, whose owners have also expressed openness to incorporating the trial into future development plans. Finally, this option would utilize the Village-owned park on Monroe Street.

The actual southern and northern termini of the trail should remain flexible. While the county line in and of itself does not constitute a destination, it was selected as the southern terminus of Phase I for two reasons. First, the completion of Phase I of this trail should significantly improve the prospects of developing a multi-use trail south to the Village of Lima. These two villages are the primary population centers within the Honeoye Falls - Lima Central School District. This connection would likely continue along the railroad right-of-way, which currently has one landowner.

Second, there is a senior living complex near the end of the Phase I trail, as well as the Stonefield Place neighborhood. Both of these housing developments are seen as generators of trail users as well as potential destinations. Therefore, the actual southern terminus of Phase I could be adjusted to coincide with definitive destinations.

Consideration could be given to extending the southern terminus of the trail into the Town of Lima, ending at Corby Road. This option recognizes that a single landowner controls the former railroad right-of-way between West Main Street and Corby Road, and constructing the trail for the entire length of that property may make more sense than ending it at the county line. The cost estimate in Section VI provides an approximate cost per linear feet of stone dust trail that can be used to calculate this additional 3,760 feet between the county line and Corby Road.

On the north end in Monroe Street Village Park, the actual terminus will somewhat be driven by the funding source used and can be determined at the final design stage. For example, if funding from the Recreational Trails Fund is used, the northern terminus could be Honeoye Creek. If Transportation Enhancement Funds are used, a more logical terminus might be the parking lot in the park. As noted above, the cost estimate per linear feet of trail can be used to account for a trail that would be about 630 feet shorter if built only to the parking lot.

Phase I requires the following improvements:

- **Install a 10-foot wide stone dust trail** from the county line north to West Main Street. As mentioned above, consideration can be given to an alternate southern terminus that either ends at Corby Road in Lima or one that connects to the Pinehurst Senior Living complex (at the end of Pine Trail) and/or the Stonefield Place subdivision to the east.

- **Install a trailhead** at the end of Pine Trail. The trailhead would consist of a kiosk, directional signage, a bike rack, and bollards to restrict motorized vehicle access to the trail. This trailhead would be utilized when the southern extension to the Village of Lima is completed.

- **Install a crosswalk** across West Main Street on the west side of the entrance to the GM Fuel Cell Development Center. The design should make the crosswalk highly-visible to motorists, with consideration given to roadside signage, a sign mounted in the center of the roadway, colored pavement, or other eye-catching treatments. There is currently a crosswalk at the Pine Trail intersection about 600 feet to the west of this location. The Village anticipates that a traffic signal may

Example of a highly-visible crosswalk on Pine Trail

eventually be installed at Pine Trail depending on future development in the area. The location and design of the crosswalk for the purposes of this trail should be examined closely during the design stage, taking into consideration the status of the crosswalk and traffic signal at Pine Trail at that time.

- **Install a 10-foot wide stone dust trail** from the crosswalk north to the intersection of the former Peanut Line.

- **Install a trailhead** at the intersection of the former Peanut Line and former Lehigh Valley Trail (see Figure 5). The trailhead would consist of directional signage, a kiosk with interpretive signage, a bike rack, and bollards to restrict motorized vehicle access to the trail.

- **Install a 10-foot wide stone dust trail** from the intersection of the former Peanut Line west to the Village limits, and then bending north to connect to Monroe Street. As was noted earlier, the Peanut Line right-of-way is densely overgrown, and a more feasible alignment would be to trace the southern tree line at the rear of the farm. The trail would enter the woods approximately 500 feet east of the Village boundary. This segment would need to be coordinated with future development plans for this property.

- **Install directional signage** at the bend near the Village's western boundary, directing trail users north to Monroe Street Village Park and east to the GM Facility, Norton Street, and West Main Street.

- **Install a crosswalk** across Monroe Street on the east side of the Monroe Street Village Park entrance. The design should make the crosswalk highly-visible to motorists, with consideration given to roadside signage, a sign mounted in the center of the roadway, colored pavement, or other eye-catching treatments.

- **Install a 10-foot wide stone dust trail** from the crosswalk north to edge of the woods at the rear of the baseball diamonds. Trail users would then have access to Honeoye Creek via

Sign leading to the trail recently developed by local Eagle Scouts

Transportation Nexus

Opportunities exist for historic and artistic interpretation of the varied transportation modes, eras, and technologies that converge adjacent to the GM Fuel Cell Development Center. This "transportation nexus" features the following elements:

- Former Lehigh Valley Railroad, an important transportation corridor in the history of Honeoye Falls and the Greater Rochester Region
- Former Peanut Line Railroad, a relatively short branch of the New York Central Railroad that connected Canandaigua and Niagara Falls
- GM Fuel Cell Development Center, where GM has concentrated its efforts on fuel cell technology for automobiles, with the goal of reducing our dependency on fossil fuels
- Lehigh Valley Trail, as proposed in this Study, which re-introduces walking and biking as a critical mode of transportation for the future of our communities

Together, they form a unique collection of elements with a transportation theme. When the Lehigh Valley Trail moves to a design phase, the Town and Village should work with designers to develop a creative space at the convergence of this new trail and the two shorter linkages that travel north and east from that point. Creative landscaping, hardscaping, interpretive signage, sculpture, and other artistic features could make this nexus a destination within the Rochester Region. It would also provide an attractive outdoor amenity for GM employees, residents of the proposed Norton Station subdivision, and other residents or workers in the Village. Figure 5 provides a conceptual representation of this portion of the trail.

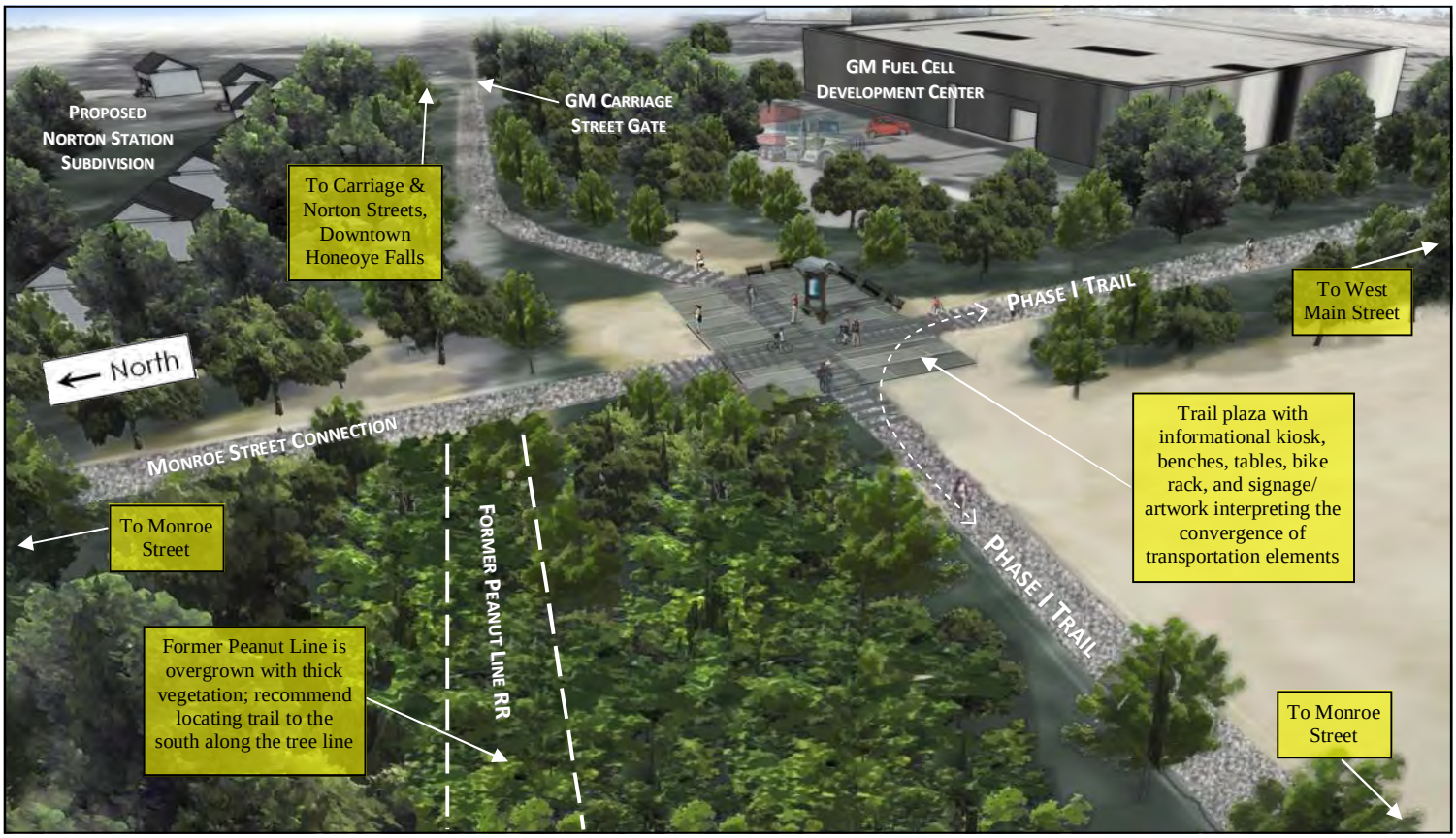


Figure 5: Transportation Nexus concept, adjacent to GM Fuel Cell Development Center

existing footpaths until Phase II, which would include a bridge over the creek, is constructed. As noted above, ending the trail at the parking lot may prove to be a more logical terminus depending on the funding source for the trail.

- **Install a trailhead** in the existing parking lot of Monroe Street Village Park. The trailhead would consist of a kiosk, directional signage, a bike rack, and bollards to restrict motorized vehicle access to the trail.

B. Implementation Plan for Phase II *(Monroe Street Village Park to Great Bend Nature Park)*

The B2 and C1 alternatives, as outlined in Section IV and shown on Map 5, were selected as the preferred option for connecting Honeoye Creek and Great Bend Nature Park. The B3 and B4 alternatives were not selected because they would conflict with the alignment of the preferred A1 alternative, and they have considerable landowner opposition. It should be noted that the Town and Village desire to work with willing landowners wherever the preferred alignment is on private property. The B2 and C1 alternatives may not have willing landowners at this time, but are still noted as part of the preferred alignment for meeting the objectives of this Study.

Honeoye Creek near the proposed bridge crossing

It is recognized that the B2 alternative, which contains a higher, long-span bridge over Honeoye Creek, would be approximately five to six times more expensive than a lower, short-span bridge in Monroe Street Village Park. However, the B2 alternative best meets the goal of this project to create a major recreational attraction along the alignment of the former Lehigh Valley Railroad. The community wishes to pursue this greater investment with the intention of creating a prominent destination for recreational trail users throughout the region and beyond. However, it is also recognized that a lower, short-span alternative in the park remains a viable alternative, if the Town and Village are not able to secure sufficient funds.

Phase II requires the following improvements:

- **Construct a 10-foot wide pedestrian bridge** over Honeoye Creek. The existing abutments of the former "Papa Trestle" still remain and bound the span of the new bridge at approximately 400 feet. A two span structure is recommended, with a pile-supported center pier located at the south side of Honeoye Creek. This pier will be located within the floodplain of Honeoye

Creek and will require hydraulic analysis and environmental coordination with numerous agencies. At 200 feet, a prefabricated steel truss superstructure is a viable and economical alternative for this span length.

View from northern abutment of former rail trestle

- **Install a 10-foot wide stone dust trail** from the northern approach of the bridge east to the base of the earthen foundation of the railroad bed. Depending on the agreement reached with the three landowners in this segment, the trail would either follow the edge of the creek or trace the edge of the woods.

- **Install directional signage** near the northern approach of the bridge, directing trail users east and north to Sibley Road and Great Bend Nature Park, and south to Monroe Street Village Park.

- **Install a 10-foot wide stone dust trail** from the bridge to Sibley Road. The trail would run from south to north along the former railroad bed.

- **Install a trailhead** on the south side of Sibley Road where the trail intersects the road. The trailhead would consist of a kiosk, parking for four or five cars, directional signage, a bike rack, and bollards to restrict motor vehicle access to the trail.

Former rail line on south side of Sibley Road

- **Install a crosswalk** across Sibley Road adjacent to the trailhead. The design should make the crosswalk highly-visible to motorists, with consideration given to roadside signage, a sign mounted in the center of the roadway, colored pavement, or other eye-catching treatments.

- **Install a 10-foot wide stone dust trail** from the crosswalk north to the existing trail in Great Bend Nature Park. Consideration should be given to hunters that utilize these

properties during hunting season, including clear signage preventing firing across or from the trail. This design consideration may dictate the actual alignment of the trail through this segment, which could vary from the former railroad alignment.

- **Install directional signage** approximately half way between Sibley Road and Great Bend Nature Park, directing trail users north to the park and south to Sibley Road and Monroe Street Village Park.

C. Complementary Connections*

Honeoye Falls - Lima Trail (see Map 6)
The Lehigh Valley Railroad right-of-way in the Town of Lima, unlike Honeoye Falls and Mendon, is largely intact and held by one landowner between the county line and the Village of Lima. These two communities, which are only 2.5 miles apart, are also the primary population centers in the Honeoye Falls - Lima Central School District. Therefore, a rail-to-trail project connecting these villages, and connecting to the Lehigh Valley Trail, would be a tremendous community asset and an important link in the region's trail network.

The Honeoye Falls - Lima Trail would require the following improvements:

- **Install a 10-foot wide stone dust trail** from the county line south to the Village of Lima. The actual alignment within the village should be determined in a feasibility study for this segment.

- **Install directional signage** along the trail, directing trail users north to Honeoye Falls and south to Lima.

- **Install a crosswalk** across Corby Road. The design should make the crosswalk highly-visible to motorists, with consideration given to roadside signage, a sign mounted in the center of the roadway, colored pavement, or other eye-catching treatments.

Monroe Street Connections (see Map 6)
Consideration should be given to developing trails along the A2 and A3 alignments, as outlined in Section IV. These connections will increase accessibility to and from the Lehigh Valley Trail, namely to residents along Monroe Street, Maplewood Avenue, and the proposed Norton Station residential subdivision.

**Not included in the cost estimate for this study.*

The Monroe Street Connections would require the following improvements:

- **Install a 10-foot wide stone dust trail** from Monroe Street south to the new Lehigh Valley Trail. This link would follow the former railroad alignment, which is dedicated open space in the proposed Norton Station subdivision design.

- **Install a 10-foot wide stone dust trail** from Monroe Street south to the new Lehigh Valley Trail, parallel to the above link. This connection would utilize the flag lot owned by Mathstone Corporation, along a sliver of land that is too narrow for a roadway but could accommodate a multi-use trail. Consideration should be given to extending this trail south across the new Lehigh Valley Trail to connect into any future development of the land behind Custom Brewcrafters.

Honeoye Falls Village Loop (see Map 6)
Should Phase II be completed, the Town and Village should work together to develop a trail alongside Honeoye Creek, connecting the former rail line with the center of the village. There are existing footpaths along part of this corridor, as shown on Map 6. The Village owns two large parcels in this corridor on the north side of the creek, which would expedite the process of developing the trail. If developed, it would offer alternative access between downtown Honeoye Falls and the Lehigh Valley Trail, and would complete a non-motorized transportation loop around the north side of the village. The trail concept would also be consistent with the goals outlined in the Honeoye Creek Greenway Strategic Plan.

The Honeoye Falls Village Loop would require the following improvements:

- **Install a 10-foot wide stone dust trail** from the new Lehigh Valley Trail north of Honeoye Creek to Rotary Park, paralleling the creek. An easement or other agreement would need to be reached with several property owners through this corridor.

- **Develop on-street trail segments** along portions of North Main Street, West Main Street, and Norton Street, as shown on Map 6. On-street segments would consist of adequate sidewalks, adequate roadway shoulders and/or bike lanes, and trail signage identifying the route.

- **Expand and improve the existing footpaths** in Rotary Park, Village Park, and parallel to Norton Street. These trails should be 10-foot wide stone dust paths to be consistent with the remainder of the loop trail. The trail behind Norton Street would need to be extended west, which is part of the proposal for the Norton Station subdivision.

Honeoye Creek Trail (see Map 6)
Although not explored in depth in this Study, the Town of Mendon should explore the feasibility of a multi-use trail paralleling the western edge of Honeoye Creek between Monroe Street Village Park and Great Bend Nature Park. There are numerous landowners that would need to be negotiated with, and a small pedestrian bridge would need to be constructed at the western edge of Great Bend Nature Park. Additionally, as shown on Map 2, the entire length of this trail is in a floodplain. This constraint may hinder the feasibility of a trail in this location, but the Town should explore the concept in more detail, especially if Phase II of the Lehigh Valley Trail does not materialize.

The Honeoye Creek Trail would require the following improvements:

- **Install a 10-foot wide stone dust trail** from Monroe Street Village Park west and north to the Sibley Road bridge over Honeoye Creek. The design of the trail must take into account the presence of a floodplain through this corridor.

- **Install a crosswalk** across Sibley Road west of the bridge over Honeoye Creek. The design should make the crosswalk highly-visible to motorists, with consideration given to roadside signage, a sign mounted in the center of the roadway, colored pavement, or other eye-catching treatments.

- **Install a 10-foot wide stone dust trail** Sibley Road north to Great Bend Nature Park. The design of the trail must take into account the presence of a floodplain through this corridor.

- **Construct a 10-foot wide pedestrian bridge** approximately 220 feet long over Honeoye Creek to span the floodplain. The bottom of the bridge should be ten feet above the surface of the water to allow for small boats to comfortably pass underneath. A more detailed examination of the appropriate bridge type and environmental considerations should be completed.

VI. Cost Estimate

The following cost estimate is presented for planning purposes, to allow the Town and Village to gauge the approximate cost for developing a multi-use trail 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 2009; escalation due to inflation or other factors is not included.

Note that trail linkages listed under "Complementary Connections" (pages 27-29) are not included in this cost estimate. To assist with design and construction, funding opportunities are available from a variety of sources, and are outlined in the next section.

A1, B2, and C1 Alternatives

PHASE I (County Line to Monroe Street Village Park)

DESCRIPTION OF WORK	TOTAL COST
Trail Construction[1]	$284,400
Trail Amenities (e.g. Benches, Kiosks, Bollards, Landscaping, etc)	$60,600
Signage and Striping	$20,100
SUBTOTAL	**$365,100**
Right of Way Acquisition[2]	$20,600
Maintenance & Protection of Traffic	$17,600
Incidentals (Survey, Mobilization)	$21,100
PHASE I SUBTOTAL:	$424,300
25% CONTINGENCY:	$106,100
25% ENGINEERING:	$106,100
15% CONSTRUCTION MANAGEMENT:	$63,600
PHASE I TOTAL	**$700,100**

PHASE II (Monroe Street Village Park to Great Bend Nature Park)

DESCRIPTION OF WORK	TOTAL COST
Trail Construction	$170,100
Trail Amenities (e.g. Benches, Kiosks, Bollards, Landscaping, etc)	$26,800
Signage and Striping	$12,100
Bridge over Honeoye Creek	$6,000,000
SUBTOTAL	**$6,209,000**
Right of Way Acquisition[2]	$7,100
Maintenance & Protection of Traffic	$9,800
Incidentals (Survey, Mobilization)	$11,700
PHASE II SUBTOTAL:	$6,237,600
25% CONTINGENCY:	$1,559,400
25% ENGINEERING:	$1,559,400
15% CONSTRUCTION MANAGEMENT:	$935,600
PHASE II TOTAL	**$10,292,000**

TOTAL CONSTRUCTION COST:	**$10,992,100**

[1] *Average cost of stone dust trails is between $1.80 and $2.00 per linear feet. This figure can be used to adjust the cost estimate if the northern or southern terminus of Phase I is revised (see page 22).*

[2] *Based on assessed value of individual properties requiring ROW acquisitions. Assumes ROWs will need to be acquired for all trail segments on private property, except for the property adjacent to the GM facility. Cost savings can be realized by pursuing easement agreements rather than full acquisition of properties.*

VII. FUNDING SOURCES

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 Lehigh Valley Trail.

A. Federal Sources

The Federal Government provides funding for transportation projects through various funding programs contained within multi-year federal transportation legislation, with the current appropriations bill referred to as SAFETEA-LU, or Safe Accountable Flexible Efficient Transportation Equity Act: a Legacy for Users. SAFETEA-LU is a six-year federal transportation act that will expire in September 2009. It is expected that funding for multi-use trails will continue to be provided from the federal government in a newer version of this transportation legislation, likely to be approved by January 2010.

The information provided below describes several existing federal transportation funding sources that provide funding for multi-use trail projects like the Lehigh Valley Trail based on the current SAFETEA-LU legislation. Federal transportation funding programs included in the new federal legislation may be different from the information provided below. For current federal funding program information, please contact the administering agency listed or the Genesee Transportation Council.

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.

Surface Transportation Program (STP)
All federal funds for transportation projects in Rochester's seven-county region are allocated through the Genesee Transportation Council (GTC), the area's Metropolitan Planning Organization (MPO). Surface Transportation Program funded projects must be selected for inclusion in the bi-annually created Transportation Improvement Program (TIP). The GTC TIP was last updated for 2007-2012, with additions made in February 2009 to meet the obligations of the federal American Recovery and Reinvestment Act (ARRA), or stimulus plan. While it is not likely that the TIP for the Genesee Region will be further updated in 2009 as a result ARRA projects, it is anticipated that a complete update may take place in 2010.

Regular amendments 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 to ensure inclusion in future funding programs. Federal funding sources provide up to 80 percent of project costs and require a 20 percent local match. 'Soft' match provisions (e.g., force account labor) are allowed, including soft matches from public agencies.

Transportation Enhancements Program (TEP)

Transportation Enhancements Program (TEP) funds are administered directly by the New York State Department of Transportation (NYSDOT), and not the GTC. In order to maximize the use of the available TEP funding, this program provides innovative financing alternatives for local matching requirements of 20 percent. There are 12 categories for eligible enhancement activities that can be funded under TEP. The proposed trail is potentially eligible for TEP funding under three categories:

- Provision of facilities for bicyclists and pedestrians
- Acquisition of scenic easements or scenic historic sites
- Acquisition of former railroad corridors

It is not fully understood how the pending reauthorization of transportation funding for 2010 may impact this program. However, it is anticipated that funding for bicycle and pedestrian facilities enhancements will continue as a significant component of new legislation, in keeping with TEA-21 and SAFETEA-LU.

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.

Safe Routes to School Program (SRTS)

The Safe Routes to Schools Program is also 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 2 miles of a school building may be eligible for funding. Similar to the Transportation Enhancements Funding, SRTS funding is administered by the State, with $27.5 million available for 2009-2014; calls for projects to be funded for 2009 under this program have passed as of the writing of this document. However, municipal officials and interested parties should remain in touch with GTC and their regional NYSDOT office for further funding opportunities.

Recreational Trails Program (RTP)
As a funding source through the Federal Highway Administration (FHWA), a total of $85 million nationally in contract authority was apportioned for fiscal year 2009 to provide and maintain recreational trails, with $2.9 million distributed to New York. 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 percent must be used for motorized trails, 30 percent must be used for non-motorized trails, and the remaining 40 percent 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 percent, and Federal agency project sponsors or other Federal programs may provide additional Federal share up to 95 percent. Soft match provisions are allowed, including soft matches from public agencies. New York State Office of Parks, Recreation and Historic Preservation (NYSOPRHP) 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.

Congestion Mitigation and Air Quality Program (CMAQ)
The CMAQ 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

Upon passage of the new federal surface transportation bill, CMAQ funding may become available in this region for transportation projects that improve air quality and enhance mobility.

B. State Sources

Clean Air / Clean Water Bond Act and the Environmental Protection Fund
The 1996 Clean Air / Clean Water Bond Act approved $1.75 billion in bond funding for environmental protection and enhancement projects, including projects that protect and enhance air quality, such as multi-use trails. The 1993 Environmental Protection Act approved the creation of the Environmental

Protection Fund, which established a dedicated funding mechanism to provide critical funding for the Department of Environmental Conservation, the Office of Parks, Recreation and Historic Preservation, and grants to local governments and non-profit organizations. EPF funding helps to implement a variety of environmental programs to protect public health and ensure communities have access to clean water, land, and air. Municipal officials and interested parties should contact NYSDEC and NYSOPRHP offices for further information regarding available funding for trail implementation.

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. This program is a reimbursement program. While trails are not an eligible project type, related improvements in a highway right-of-way, such as new sidewalks, paved shoulders, and bicycle lanes, may be eligible for State Multi-Modal Program funding.

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).

C. 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.

D. 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.bikebelong.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. The 2009 deadline for grant funding has passed. Municipal officials and interested parties should continue to visit the website for future funding opportunities.

E. 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 trail sections or trail amenities like benches, information kiosks, etc. An excellent New York State example of local private fundraising efforts is the Cayuga Waterfront Trail in Ithaca. For more information about the trail, please 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.

F. Funding Conclusions

There are numerous opportunities for implementation funding for trail initiatives. It is likely that most trails will need funding from multiple sources at the federal, state, local, and private levels. A small amount of local or private funding, in conjunction with volunteerism and donated time and materials, can leverage state and federal funding to make the Lehigh Valley Trail a reality.

APPENDIX A

Public Meeting Notes

Lehigh Valley Trail
Feasibility Study
Public Meeting
February 12, 2009

Bergmann associates

MEETING NOTES

General Comments from the Public

- Some concerned about spending taxpayer on trails money during times of economic stress
- Discussion of the benefits of trails to the community, including public health, transportation options, recreation, overall quality of life — essentially it is an investment in the community's future, and the hope is that it will attract other investment/development
- Concerns about private property issues including privacy, liability, trespassing
- Warren Wallace, Mendon Foundation, spoke about his experience with the mainline of the Lehigh Valley Trail, including types and number of users, the infrequency of incidents along the trail, and the overall benefit to the community
- Examples noted of trails in other communities, such as Town of Perinton and the Canalway Trail in Pittsford/Fairport — those communities have in part been transformed by their investment in trails and related public space improvements
- Consideration should be given to trail alternative along west side of the creek (behind Plains Road properties), bridging the creek at Great Bend Nature Park rather than at Monroe Street Village Park. The section behind Sibleyville Farm Estates (Sibleyville Lane, Gravel Hill Lane) has a conservation easement along the creek. Outside of that section, at least a half dozen other landowners would need to be contacted to gauge their interest.

'A' Alternatives – County Line to Monroe Street

- A1, A2, A3
  - ⇒ No major issues, most seemed to support these alternatives. A1 had the most support, although A2 and A3 were noted as beneficial spur connections to other parts of Monroe Street, and will likely be built along with the Mathstone development

'B' Alternatives – Monroe Street to Sibley Road

- B1 (through Monroe Street Village Park, crossing the creek at the park)
  - ⇒ generally supported, small bridge would be a neat attraction
  - ⇒ fewest landowner conflicts
  - ⇒ would be a good asset to the park
  - ⇒ property owners on north side of the creek apparently not present to comment on this option
- B2 (through the park, crossing the creek to the east at/near the old RR line)
  - ⇒ strong opposition due to private property issues
- B3 (due north from Monroe Street, crossing the creek at/near the old RR line)
  - ⇒ no specific comments noted
- B4 (along the old RR line)
  - ⇒ strong opposition due to private property issues
  - ⇒ driveways currently occupy the former RR right-of-way

Alternatives for Honeoye Creek Crossing

- High Bridge (where Papa Trestle once stood)
  - ⇒ would be a fantastic attraction, providing great views of the creek and the surrounding gorge
  - ⇒ very expensive option
- Low Bridge (adjacent to former Papa Trestle or at Monroe Street Village Park)
  - ⇒ more reasonable/feasible cost
  - ⇒ no input received from property owners on the north side across from the park

'C' Alternatives – Sibley Road to Great Bend Nature Park

- C1 (along former RR line)
  - ⇒ strong opposition due to private property issues
- C2 (Sibley Road to Clover Street)
  - ⇒ generally not supported due to a lack of attraction (not a trail "experience"), safety of roadways, and steep hill on Clover Street
- C3 (due north from Sibley Road to old RR line)
  - ⇒ no specific comments noted

APPENDIX B

Gap Studies

Technical Memorandum

Bergmann associates
architects // engineers // planners

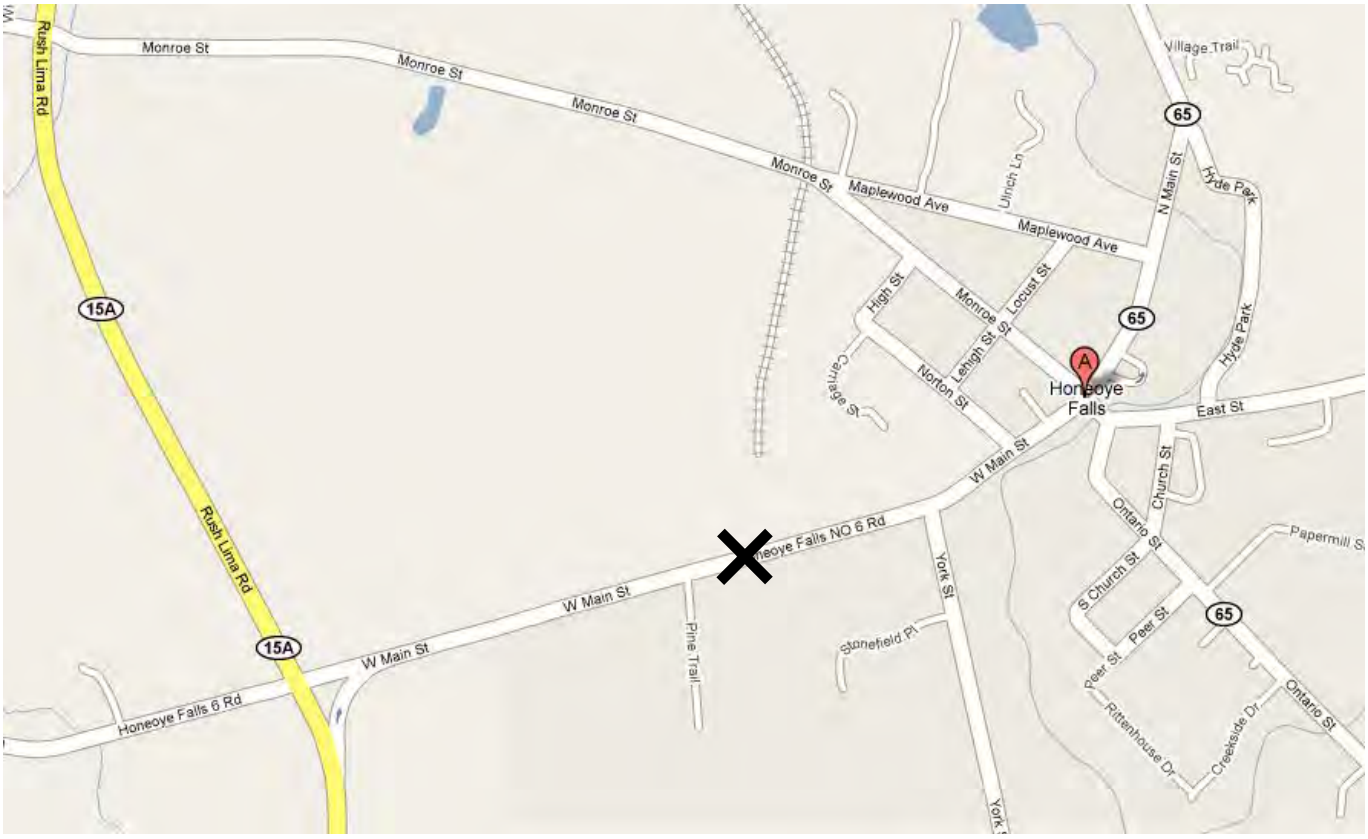
Date: Thursday, May 21, 2009

Re: GTC Priority Trails Study – West Main Street Gap Study

Introduction

A study of gaps in traffic flow on West Main Street was conducted in the Village of Honeoye Falls, Monroe County, NY, in April 2009. Figure 1 depicts the location studied between Pine Trail and York Street with an "X". The reason for the study was to evaluate the availability of adequate gaps for a potential multi-use trail crossing.

Figure 1: Study Location



Existing Conditions

West Main Street is an east-west arterial in the Village of Honeoye Falls. The width of pavement is approximately 36 feet, providing normal two-way traffic flow with one 12 foot wide lane in each direction and paved shoulders. No pedestrian crossing facilities (crosswalks, handicap ramps, signals, etc.) are currently provided for crossing West Main Street at this location. Adequate sight distances are available for pedestrians to see oncoming traffic to the east and west on West Main Street. Figure 2 depicts a view of West Main Street looking east from the trail location.

Figure 2: View to the East on West Main Street Showing Adequate Sight Distance

Traffic Gaps

Traffic data provided by the Monroe County Department of Transportation (MCDOT) was counted on August 24th, 2004. The peak hour two-way volume on West Main Street was 657 vehicles. Traffic gap data was collected from 5:00 p.m. to 7:00 p.m. on Thursday April 2, 2009. Detailed data is attached to the end of this technical memo. The time period was chosen because this is when typical trail usage peaks on a weekday. A sufficient number of traffic gaps, adequate to walk across West Main Street, were observed to occur at the study location during the 2 hour time period. Pedestrians walking at a rate of 3.5 feet per second take approximately 10 seconds to cross the 36 foot wide street. The walking rate is based on guidance in the New York State Supplement to the National Manual of Uniform Traffic Devices (National MUTCD). There were 96 gaps of 10 seconds or greater during the first hour and 113 during the second. Table 1 shows the number of adequate gaps for walking across West Main Street.

Table 1: Traffic Gaps

Time Period	Number of Adequate Gaps (10 Seconds or Greater)
5:00 – 6:00 p.m.	96*
6:00 – 7:00 p.m.	113**

* 9 gaps were 20 seconds or larger and therefore counted twice

** 16 gaps were 20 seconds or larger and therefore counted twice

Conclusions

The National MUTCD Pedestrian Volume Warrant recommends at least 60 gaps per hour for unsignalized pedestrian crossings so that pedestrians don't experience excessive delay in crossing the street. More than 90 gaps per hour are available during the 5:00 to 6:00 p.m. hour for crossing West Main Street and the 6:00 to 7:00 p.m. hour provides more than 110 gaps, both meet the minimum recommended for a pedestrian crossing. Therefore, pedestrians are expected to experience acceptable delay when crossing West Main Street between Pine Trail and York Street.

GTC - Lehigh Valley Trail
Main Street Gap Study
Thursday, April 2, 2009 Honeoye Falls NY
5:00 - 7:00 PM

File Name : Main Street Gap Study 5-7PM
Site Code : 00000000
Start Date : 4/2/2009
Page No : 1

Directions Printed: Combined

Start Time	Volume	2 - 3	4 - 5	6 - 7	8 - 9	10 - 11	12 - 13	14 - 15	16 - 17	18 - 19	20 - 21	22 - 23	24 - 25	26 - 27	28 - 29	>29	Int. Total	Average
05:00 PM	4	17	5	3	5	3	2	1	2	0	0	0	0	0	0	0	38	4 - 5
05:05 PM	0	15	17	5	3	1	1	1	1	0	0	0	0	0	0	0	44	4 - 5
05:10 PM	0	13	8	5	3	5	0	0	1	0	1	0	0	1	0	0	37	4 - 5
05:15 PM	0	15	11	4	3	4	3	0	1	0	0	0	0	0	0	0	41	4 - 5
05:20 PM	0	10	8	8	3	1	0	0	2	0	2	1	0	0	0	0	35	4 - 5
05:25 PM	0	20	15	5	2	1	0	0	1	1	1	0	0	0	0	0	46	4 - 5
05:30 PM	0	13	8	7	4	0	2	3	2	0	0	0	0	0	0	0	39	4 - 5
05:35 PM	0	11	7	2	3	4	1	0	1	1	0	1	1	1	0	0	33	4 - 5
05:40 PM	0	14	7	6	5	3	4	1	0	0	0	0	0	0	0	0	40	4 - 5
05:45 PM	0	11	8	8	4	4	0	3	1	0	0	0	0	0	0	0	39	6 - 7
05:50 PM	0	8	12	10	1	4	0	1	2	1	0	0	0	0	0	0	39	4 - 5
05:55 PM	0	17	7	3	5	3	2	0	2	1	0	0	0	0	0	0	40	4 - 5
Total	4	164	113	66	41	33	15	10	16	4	4	2	1	2	0	0	471	4 - 5
06:00 PM	0	18	14	6	3	0	3	2	1	0	0	0	0	0	0	0	47	4 - 5
06:05 PM	0	13	7	8	4	6	2	0	1	0	0	0	0	0	0	0	41	6 - 7
06:10 PM	0	8	8	4	3	4	2	3	0	0	0	0	0	0	0	1	33	6 - 7
06:15 PM	0	10	9	6	2	5	0	0	1	0	2	0	1	0	0	0	36	4 - 5
06:20 PM	29	14	10	1	3	4	3	1	0	0	0	0	1	0	0	0	37	4 - 5
06:25 PM	52	15	10	5	2	4	0	0	3	0	1	0	0	0	0	0	40	4 - 5
06:30 PM	57	12	6	6	5	3	0	2	0	1	1	0	0	0	0	0	36	6 - 7
06:35 PM	53	14	6	4	3	3	3	2	1	1	0	0	0	0	0	0	37	4 - 5
06:40 PM	61	18	14	5	1	1	2	0	0	1	1	0	0	0	0	1	44	4 - 5
06:45 PM	47	11	6	8	3	0	4	0	0	0	0	2	0	0	0	1	35	6 - 7
06:50 PM	55	11	13	4	5	1	5	0	0	0	0	1	0	0	0	0	40	4 - 5
06:55 PM	50	11	13	1	3	4	1	1	0	0	0	1	1	1	0	0	37	4 - 5
Total	404	155	116	58	37	35	25	11	7	3	5	4	3	1	0	3	463	4 - 5
Grand Total	408	319	229	124	78	68	40	21	23	7	9	6	4	3	0	3	934	4 - 5
Total %		34.2	24.5	13.3	8.4	7.3	4.3	2.2	2.5	0.7	1.0	0.6	0.4	0.3	0.0	0.3		

Technical Memorandum

Bergmann associates
architects // engineers // planners

Date: Thursday, May 21, 2009

Re: GTC Lehigh Valley Trail Study – Monroe Street Gap Study

Introduction

A cursory review of traffic on Monroe Street was conducted for the segment of roadway in the Town of Mendon, Monroe County, NY near Rush Lima Road. The reason for the study was to evaluate the availability of adequate gaps for a potential multi-use trail crossing. Figure 1 depicts the potential location with an "X".

Figure 1: Study Location

Existing Conditions

Monroe Street is an east-west rural minor collector in the Town of Mendon. The width of pavement is approximately 28 feet, providing normal two-way traffic flow with one 12 foot wide lane in each direction and 2 foot wide paved shoulders. No pedestrian crosswalks or signals are currently provided at the potential trail crossing location for crossing Monroe Street (approximately 3000 feet east of Route 15A). Adequate sight distances are available for pedestrians to see oncoming traffic to the east and west on Monroe Street. Figure 2 depicts a view of Monroe Street pointing west in the area of the potential trail crossing.

Figure 2: View to the West on Monroe Street Showing Adequate Sight Distance

Monroe Street Traffic

Traffic data provided by the New York State Department of Transportation (NYSDOT) was counted in July 2006. The peak hour two-way volume on Monroe Street was 353 vehicles with 215 traveling in the eastbound direction (61%). Pedestrians walking at a rate of 3.5 feet per second take 8 seconds to cross the 28 foot wide roadway (paved width). The walking rate is based on guidance in the New York State Supplement to the National Manual of Uniform Traffic Devices (National MUTCD). The number of adequate gaps for walking across Monroe Street during the peak hour is expected to be greater than 100, a rough estimate based on the volume of two-way traffic as it compares to West Main Street volumes. The traffic volumes on Monroe Street are roughly one half of those observed on West Main Street.

Conclusions

The National MUTCD Pedestrian Volume Warrant recommends at least 60 gaps per hour for unsignalized pedestrian crossings so that pedestrians won't experience excessive delay in crossing the street. Therefore pedestrians are expected to experience little delay when crossing Monroe Street at the potential unsignalized trail crossing.

Technical Memorandum

Bergmann associates
architects // engineers // planners

Date: Thursday, May 21, 2009

Re: GTC Lehigh Valley Trail Study – Sibley Road Gap Study

Introduction

A cursory review of traffic on Sibley Road was conducted for the segment of roadway in the Town of Mendon, Monroe County, NY east of Rush Lima Road. The reason for the study was to evaluate the availability of adequate gaps for a potential multi-use trail crossing. Figure 1 depicts the potential location with an "X".

Figure 1: Study Location

Existing Conditions

Sibley Road is an east-west rural minor collector in the Town of Mendon. The roadway width is approximately 26 feet, providing normal two-way traffic flow with one 11 foot wide lane in each direction and 2 foot wide shoulders. No pedestrian crosswalks or signals are currently provided at the potential trail crossing location for crossing Sibley Road (approximately 3800 feet east of Rush Lima Road).

Sibley Road Sight Distance

Stopping sight distances (SSD's) are adequate for vehicles approaching the potential trail crossing of Sibley Road from both directions according to *AASHTO Geometric Design of Highways and Streets 2004*. The available and AASHTO recommended SSD's are summarized in Table 1.

Table 1: Stopping Sight Distances

Traffic Flow Direction	Available SSD	AASHTO Recommended SSD
Eastbound	380 ft	378 ft*
Westbound	500 ft	400 ft**

* Stopping Sight Distance for a 3% downgrade
** Stopping Sight Distance for a 6% downgrade

Sight distances to the east and west on Sibley Road are hindered because of a steep curve in the road. Figure 2 depicts a view of Sibley Road pointing west from the area of the potential trail crossing. Figure 3 depicts a view of Sibley Road looking east. Although sight distance is limited by the hilly terrain adequate SSD is available. The SSD available to eastbound motorists is approximately 380 feet, where 378 feet or more is recommended. The SSD available to westbound motorists is approximately 500 feet, where 400 feet or more is recommended. Therefore, vehicles traveling in either direction have sufficient distance to come to a stop if a pedestrian is in the crosswalk. It is recommended that signage be installed to give drivers ample warning of the crossing ahead and to also clearly mark the crossing with signage and stripping.

Figure 2: View to the West on Sibley Road Showing the Crest in the Road

Figure 3: View to the East on Sibley Road Showing the Crest in the Road

Sibley Road Traffic

Traffic data provided by the Monroe County Department of Transportation (MCDOT) was counted on September 13th, 2005. The peak hour two-way volume on Sibley Road was 116 vehicles. Pedestrians walking at a rate of 3.5 feet per second take less than 8 seconds to cross the 26 foot wide road (paved width). The walking rate is based on guidance in the New York State Supplement to the National Manual of Uniform Traffic Devices (National MUTCD). The number of adequate gaps for walking across Sibley Road during the peak hour is expected to be significantly greater than 100, an estimate based on the volume of two-way traffic as it compares to West Main Street volumes. The traffic volumes on Sibley Road are roughly one sixth of those observed on West Main Street which experiences approximately 60 adequate gaps during the peak hour.

Conclusions

The National MUTCD Pedestrian Volume Warrant recommends at least 60 gaps per hour for unsignalized pedestrian crossings so that pedestrians won't experience excessive delay in crossing the street. Therefore pedestrians are expected to experience little to no delay when crossing Sibley Road at the potential unsignalized trail crossing. Due to the rolling terrain, it is recommended that signage be provided to warn vehicles of the crossing and that a highly visible crosswalk be installed.