

# Town of Perinton

## NYS Route 31/Hamlet of Egypt Transportation Study

*June 2001*



Prepared for:

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Fairport, New York 14450

and

### Genesee Transportation Council

65 West Broad Street  
Rochester, New York 14614

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Rochester, New York 14623

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Thomas Beck, Commissioner of Public Works  
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# NYS Route 31 / Hamlet of Egypt Transportation Study

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Elements that Define the Historic Character of the Hamlet of  
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- Appendix B Study Area Properties: Additional Information
- Appendix C Future Traffic Forecasting
- Appendix D Traffic Operations Analysis

# ***NYS Route 31/Hamlet of Egypt Transportation Study***

## ***EXECUTIVE SUMMARY***

### ***Study Purpose***

The purpose of this study was to review existing and future land use and transportation conditions along New York State Route 31 in the Hamlet of Egypt in the Town of Perinton, and then develop and recommend alternatives that include concepts and strategies that:

- Address the safe and efficient movement of vehicles traveling through Egypt and accessing side streets and property;
- Preserve and enhance the unique cultural, historic and environmental character of the Hamlet;
- Provide safe and pleasant space for pedestrians and bicyclists; and
- Improve the business and aesthetic environment of the corridor.

A variety of short- and long-term strategies to achieve these goals were identified and evaluated.

### ***Background***

The Hamlet, located in the southeastern corner of the Town of Perinton, Monroe County, was one of the earliest settlements in the region and was recently designated as an historic district. Its history includes use as an agricultural center, stagecoach and trolley stop, residential hamlet, and canning community. More recently, new commercial businesses have located in the Hamlet, primarily single structures scattered along Route 31. However, it retains an identity of a small community surrounded by open space. As development in neighboring communities has increased, so has traffic along Route 31. This study included projections of future traffic volumes and determined the strategies necessary to accommodate the traffic demands within the context of the historic Hamlet.

The New York State Department of Transportation (NYSDOT) is currently in the preliminary design phase of a transportation project in the Hamlet. This study has been closely coordinated with NYSDOT and the recommendations made here are being considered for implementation as part of the NYSDOT project in partnership with the Town.

## Community Planning Process

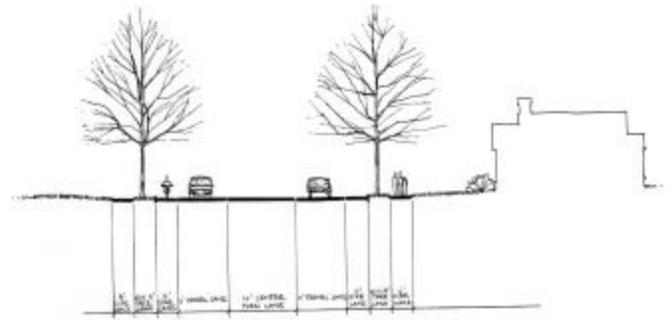
Town of Perinton officials and staff, and representatives of the NYSDOT, the Genesee Transportation Council, and Monroe County were part of the study's Steering Committee. The consultant team of Bergmann Associates and SRF & Associates provided the study guidance and technical expertise. The community was involved in the study through meetings held with the general public, Hamlet property owners and business owners. Meetings were also held with various Town boards, commissions and committees.

## Recommendations

Recommendations for the corridor include:

Full Corridor: Three lanes will adequately accommodate the projected 2025 traffic volumes. The section would consist of two 11-foot travel lanes, a 16-foot two-way center turn lane, 5-foot bicycle lanes on both sides, and sidewalks throughout. Lower design and operating speeds are recommended for consistency with the planned land use. Access management strategies were developed to improve safe and efficient access to Hamlet properties.

Hogan Road: Add an eastbound left-turn lane on Route 31 and a southbound right-turn lane on Hogan Road. This intersection area is recommended as the western Hamlet gateway, including pedestrian crossing amenities, a raised median, landscaping and specialized pavement treatments.

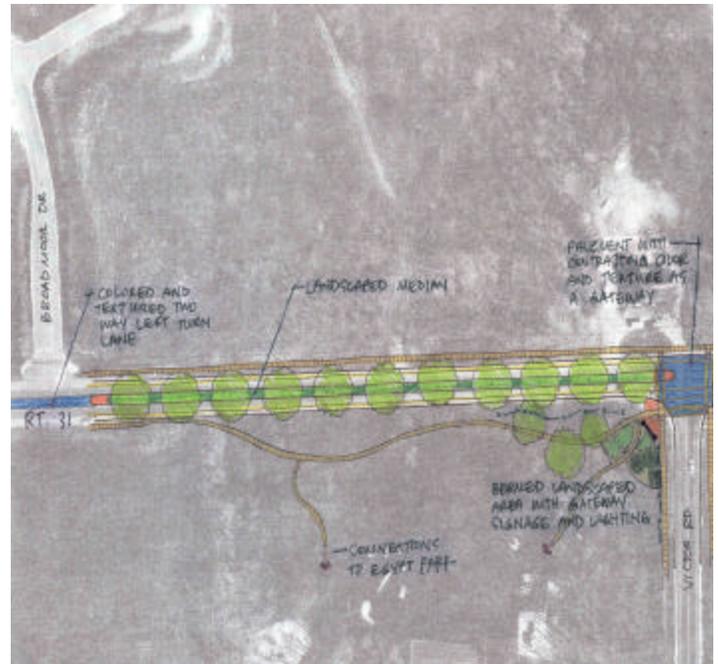


**Egypt Western Gateway – Hogan Road**

Thayer Road: No additional turn lanes are proposed. However, the center turn lane on Route 31 would serve left-turns into Thayer Road. A northbound one-way connection to the Hamlet Center “loop road” (see below) is recommended for access to the Hamlet Center and the traffic signal at Loud Road.

Mason and Loud Roads: Align Mason to Loud Road and install a traffic signal; construct separate southbound left/through and right-turn lanes, and east and westbound exclusive left-turn lanes. Install traffic calming enhancements on Loud Road to reduce cut-through traffic volumes, speed and improve the appearance and multi-modal character of the road.

Victor Road: add an eastbound right-turn lane and a westbound left-turn lane on Route 31 and a northbound right-turn lane on Victor Road. This intersection area is recommended as the eastern Hamlet gateway, including pedestrian crossing amenities, a raised median, landscaping and specialized pavement treatments.



**Egypt Eastern Gateway – Victor Road**

Aldrich Road: Add an eastbound left-turn lane and a southbound right-turn lane. The three-lane section of Route 31 would transition back to two east of Aldrich. A new traffic signal is recommended for installation when the predicted increase in traffic following reopening of the Lyndon Road bridge satisfies warrants. Traffic should be monitored and the signal re-evaluated at that time.



# **CHAPTER I**

## **INTRODUCTION**

### **A. Purpose**

In 2000, the Town of Perinton completed an extensive update of its Comprehensive Plan, including an Egypt **Subarea** Report. There was much thought given by the community about its vision for the Hamlet of Egypt, and its land use and transportation goals, and other elements needed to achieve that vision. **The vision is to re-establish Egypt as a hamlet, a self-sufficient and attractive neighborhood sub-center.** The Hamlet concept includes a more compact pedestrian scale design with extensive streetscape improvements.

Because Route 31 is the primary access to and is at the center of the Hamlet, its functioning and design is central to the future of the Hamlet. The goal is to redesign the road to make it more community, pedestrian, and bicyclist oriented. There is a desire to create public places for people to be together to maintain and enhance their sense of belonging to the community. Highway improvements can also enhance the economic vitality of existing businesses, attract new businesses, and enhance residential areas within the Hamlet. Route 31 should not divide the community because of high speed and high volume traffic. Its design should bring people together and add life to the community, creating sustainable and enjoyable public spaces.

In the transportation community a change in planning and design, referred to as "**Context Sensitive Design,**" is helping to re-establish the community sense of place and identity by designing transportation projects with creativity and imagination, incorporating local environmental, historic, cultural, aesthetic and other community resources and values. The goal is to think "beyond the pavement" about the impact a travelway will have on the area it traverses. Context-sensitive design asks questions first about the need and purpose of a transportation project, and then addresses equally safety, mobility and the preservation of scenic, aesthetic, historic, environmental, and community values.

Achieving these goals means balancing the needs of all users, and enhancing community resources and values, including:

- Safe and efficient traffic movement, for vehicles traveling through, as well as accessing side streets and properties in Egypt;
- Safe and pleasant space for pedestrians and bicyclists, traveling along the road and crossing the road;
- Aesthetic features such as decorative light fixtures, pavers or colored pavement, benches, landscaping, fencing, pedestrian-scale signs, etc;
- Enhanced local economy and needed community services; and
- Protected and enhanced environmental, historic and cultural resources.

The Town of Perinton Comprehensive Plan recommended that this corridor study address the question of the future of Route 31, including capacity, safety and streetscape improvements. Can land use and zoning measures and access management strategies affect the need to widen Route 31 and nearby Town and County roads?

The Town's vision and the future needs for Route 31 will be integrated into a current New York State Department of Transportation (NYSDOT) project to improve traffic operations and safety in the study area (currently in the preliminary design phase). Another exciting element in this study is Egypt's important link to local and regional pedestrian and bicycle travel, and the opportunities to enhance and integrate walking and bicycling into the fabric of the Hamlet.

Based upon a cooperative effort with the Town and the public, and drawing upon significant previous work done by others for the Hamlet, this study developed and evaluated various transportation scenarios. Recommendations include both short- and long-term strategies to improve transportation safety, mobility and efficiency for all modes of travel and to best preserve and enhance the unique historic character and economic vitality of the Hamlet. The success of transportation and land use improvements in Egypt will require close cooperation between the community, Town officials, NYSDOT, the Genesee Transportation Council (GTC), and Monroe County, and a combination of initiatives, including access management, streetscape improvements, an efficient and safe Route 31, Hamlet gateway treatments, incorporating pedestrian and bicycle travel, linking existing trails, and managing land use and development.

The study area corresponds to that in the Comprehensive Plan Egypt Subarea Report and is shown in Figure 1. It includes Route 31 and the adjacent roadways of Hogan Road, Thayer Road, Mason Road, Loud Road, Victor Road and Aldrich Road.

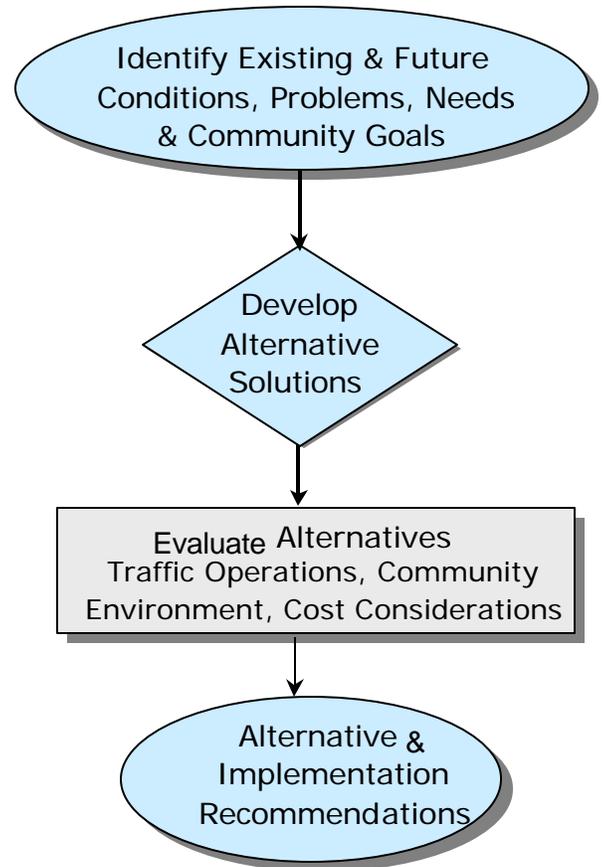


## B. Community Involvement and Study Process

This study was a cooperative effort between the Town of Perinton, the Genesee Transportation Council, the New York State Department of Transportation, Monroe County, and the public. The transportation planning consultant team of Bergmann Associates and SRF & Associates was hired to assist in the conduct of this study. Town participants included staff, public officials, members of boards and committees, residents, and business and property owners.

The study included the active participation of a Steering Committee, two public meetings, individual meetings with business and property owners, and meetings with local boards and committees focusing on specific issues within the study area.

In addition to the public participation tasks, the general tasks completed as part of this study are outlined in Figure 2.



**Figure 2 - Planning Process**

## C. Community Goals

The following are the principal goals identified in the Comprehensive Plan Update, Egypt Subarea Report and Recommendations. These issues and opportunities were consistent with those found in the public involvement process and the analysis conducted for this study. These were addressed to the maximum extent possible in the development and evaluation of the recommendations in this study.

### 1. Design of Development

- Enhance attractiveness of the community, including streetscape and building design;
- Preserve open space;
- Preserve design elements and historic structures identified as important to the Hamlet's heritage;
- Maintain historic properties; and
- Enhance Hamlet gateways.

## 2. Reinforcing the Hamlet Concept

- Maintain and enhance character as a Hamlet;
- Renew identity by replacing marginal highway-oriented businesses with more stable businesses catering to the local population;
- Provide physical access between this business center and surrounding areas;
- Concentrate development around Route 31 (particularly around Mason and Loud Roads);
- Create a common development theme;
- Support denser residential and mixed use developments;
- Provide pedestrian-oriented development; and
- Provide open space buffers to adjoining properties.

## 3. Economic Viability of Businesses

- Stabilize businesses;
- Invest to upgrade vacant property;
- Finance off-site improvements;
- Design enhancements; and
- Provide denser residential land use to support local oriented businesses.



## 4. Transportation

- Provide safer more efficient ingress/egress to side streets and adjacent properties;
- Reduce traffic accidents;
- Reduce number of driveways on Route 31;
- Decrease/do not increase through traffic on the rural and limited capacity roads in the upland hills south of Egypt;
- Connect open spaces, trails, businesses and residences adjacent to and near Route 31 for bicyclists and pedestrians;
- Provide safe crossings of Route 31 for bicyclists and pedestrians;
- Maintain efficient traffic flow on Route 31 so it does not seek other routes, eg, residential side streets;
- Turk Hill Road, Mason Road and Victor Road are the principal north/south facilities and traffic should be directed to these rather than other roads;
- Maintain the rural character of Hogan, Thayer and Loud Road, by minimizing their use by through traffic;
- Reduce travel speeds;
- Enhance safe and efficient access to businesses; and
- Minimize traffic volumes and speeds of those cutting through residential streets.

## **CHAPTER II**

### **EXISTING CONDITIONS**

#### **A. Local Context**

The Hamlet of Egypt is similar to a village, having greater population density than surrounding rural/agricultural lands and supporting jobs and businesses. However, it has no separate political jurisdiction and is governed by the Town of Perinton. Egypt is the oldest community in Perinton, originally settled at the turn of the 19<sup>th</sup> century. The Hamlet was historically developed as a rural farm-oriented industrial center with a village-like character -- self-sufficient with jobs, retail services, and housing.

More recent development has been in strip retail and highway frontage commercial development pattern serving a non-local driving population. The Egypt Fire Hall is located on the corner of Route 31 and Mason Road, and there are several industrial developments on Mason Road. There are many beautiful residential areas surrounding the Hamlet, as well as parks, open space and the RS&E Hike/Bikeway, which crosses Route 31 at Mason Road. The primary transportation route is Route 31, which carries approximately 21,000 vehicles per day. Much of the traffic growth on Route 31 is due to growth east and south of the Town. Route 31 dominates the Hamlet, with its high traffic volumes and travel speeds, and is the primary way people experience Egypt.

#### **1. Roadway Network<sup>1</sup>**

##### **NYS Route 31**

The primary arterial serving the study area is Route 31, also known as Pittsford-Palmyra Road. It is an uncontrolled access highway and is classified as a Principal Arterial Street (Urban) on the National Highway System. Route 31 is owned and maintained by the NYSDOT. It is a primary connecting link for the region. It connects the communities of Perinton, Victor, Macedon, Palmyra, Newark, and Lyons to the Greater Rochester Metropolitan Area. Table 1 presents the approximate existing right-of-way widths of Route 31 and the area side streets.

**Table 1  
Right-of-Way Widths**

<b>Intersection</b>	<b>Route 31 Width</b>	<b>Side Street Width</b>
Hogan Road	75 - 82 ft (23 - 25 m)	50 ft (15 m)
Mason/Loud Roads	66 - 72 ft (20 - 22 m)	66 ft (20 m) Mason 50 ft (15 m) Loud
Victor Road	66 ft (20 m)	50 ft (15 m)
Aldrich Road	66 ft (20 m)	66 ft (20 m)

Source: NYSDOT Expanded Project Proposal. PIN 4031.30.101. June 15, 1999

Route 31 lane widths are 12 foot (3.6 m) with 8 foot (2.4 m) shoulders in each direction. There is one through travel lane in each direction with no exclusive left or right-turn lanes on Route 31 to serve adjacent side streets or private developments, with one exception. There is an eastbound left-turn lane for traffic entering Broadmoor Trail. There are no curbs on Route 31 within the study area. The drainage is primarily open with some limited closed drainage in the vicinity of Mason and Loud Roads. There is no on-street parking permitted in the study area. The posted speed limit is 45 mph (70 km/hr), which transitions to 55 mph (90 km/hr) from Victor Road east.

There are major telephone and electric facilities at Hogan Road and Mason Road. There is a major gas transmission facility at the Victor Road intersection. There are several locations of non-standard vertical curves as shown in Table 2.

**Table 2  
Non-Standard Vertical Curves**

<b>Location on Route 31</b>	<b>Change in % Grade</b>
1,045 ft (318 m) west of Hogan Road	10.9%
230 ft (70 m) west of Hogan Road	5.6%
695 ft (212 m) east of Thayer Road	3.9%
470 ft (143 m) west of Aldrich	9.0%
615 ft (188 m) east of Aldrich Road	6.9%

Source: NYSDOT Expanded Project Proposal. PIN 4031.30.101. June 15, 1999.

An estimated four percent of the vehicles on Route 31 are considered heavy vehicles. There is one traffic signal in the study area at Route 31 and Victor Road. This signal was installed in February, 1999, by NYSDOT.

<sup>1</sup> Some of the information provided in this section was obtained from the NYSDOT Expanded Project Proposal. PIN 4031.30.101. June 15, 1999.

## **Side Streets**

All side streets in the study area have one lane in each direction. Towne Center Plaza, (southbound), Mason Road (southbound), and Broadmoor Trail (southbound) have an additional lane to accommodate left and right turns onto Route 31 in separate lanes. All other side streets and driveways at their intersection with Route 31 have one entering and one exiting lane with no exclusive turn lanes. At their intersection with Route 31, Mason and Loud Roads are not exactly aligned, but are slightly offset from one another. Table 3 presents the lane and shoulder widths of the side streets.

**Table 3**  
**Side Street Lane and Shoulder Widths**

<b>Side Street</b>	<b>Lane Width</b>	<b>Shoulder Width</b>	<b>Posted Speed Limit</b>
Hogan Road	11 ft (3.3 m)	3 ft (0.9 m)	30 mph (50 km/hr)
Mason Road	12 ft (3.6 m)	3 ft (0.9 m)	30 mph (50 km/hr)
Loud Road	11.5 ft (3.5 m)	1 ft (0.3 m)	30 mph (50 km/hr)
Victor Road	12 ft (3.6 m)	6 ft (1.8 m)	40 mph (65 km/hr)
Aldrich Road	12 ft (3.6 m)	0 ft (0 m)	40 mph (65 km/hr)

*Source: NYSDOT Expanded Project Proposal. PIN 4031.30.101. June 15, 1999.*

There are sidewalks on some portions of Mason and Victor Roads and none on the other side streets, with the exception of Victor Road which has a sidewalk on the west side from Route 31 to the southern end of the Lollypop Farm property.

## **2. Land Use**

Figure 3 presents the existing land uses in the study area. Appendix B presents additional information about each of these properties. From Hogan Road east through the Mason/Loud intersection, the study area consists primarily of retail and service businesses and plazas along Route 31. East of the Mason/Loud intersection the land use becomes more residential and open space. On the south side of Route 31, west of Victor Road, is the Egypt Town Park.

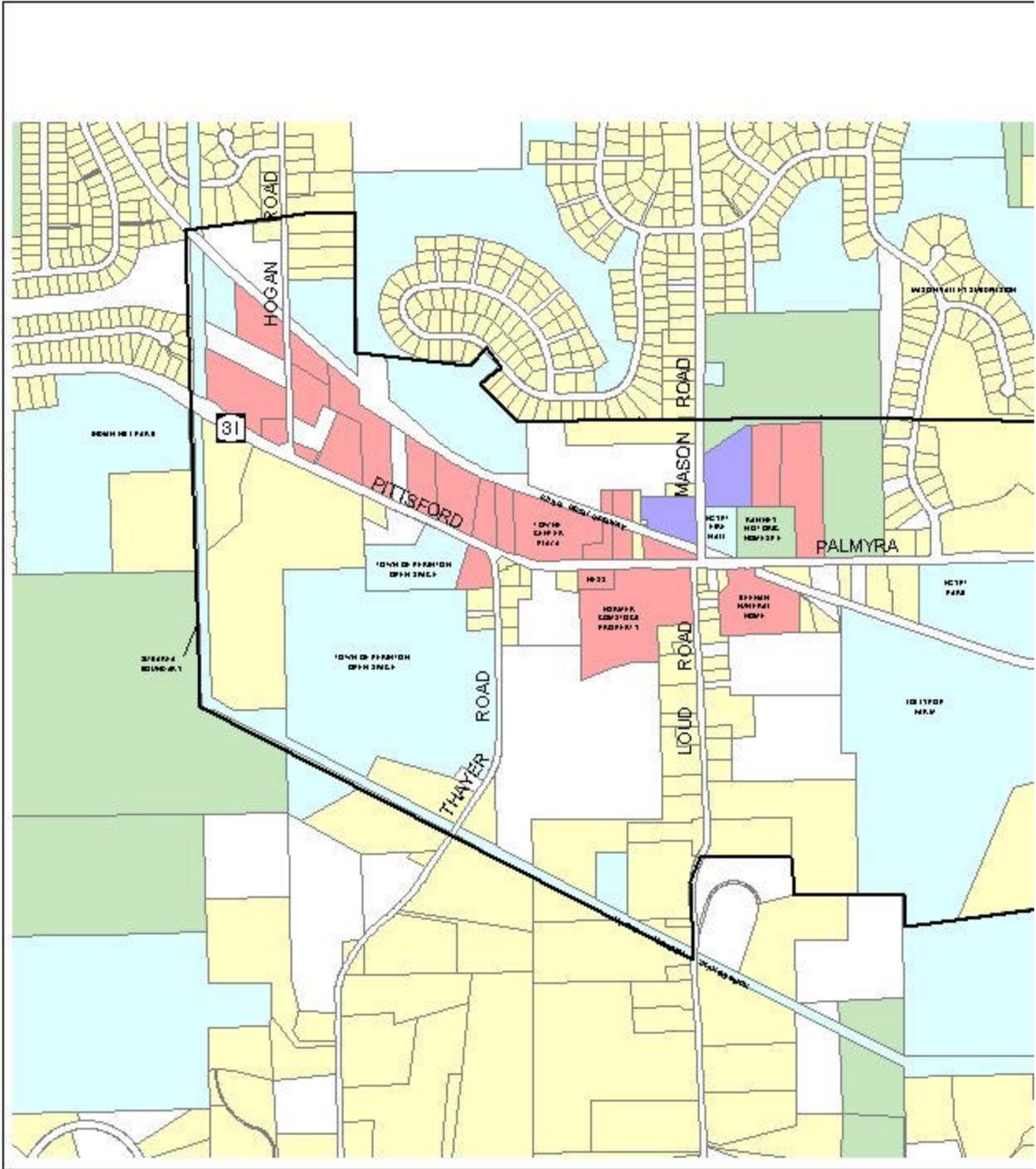
The Hamlet was traditionally an agricultural/industrial center. There are several industries that remain, and this area has one of the few remaining industrial zones in the Town. There are several large vacant or underdeveloped parcels remaining in the Hamlet that are suitable for development. The Fairport School District will construct a new elementary school on Victor Road across from the Lollypop Farm (planned for completion in 2002). There are also current

proposals to construct higher density residential development near the northeast quadrant of Route 31/Mason Road.

Figure 4 presents the existing zoning in the study area. From Hogan to Mason/Loud Roads the land use along Route 31 is zoned primarily for commercial and industrial land uses, with residential and residential transition areas to the east, north and south.



***Intersection of Mason and Loud Roads with  
Route 31***





The Comprehensive Plan Update of 2000 outlines the following land use and zoning guidelines for the Hamlet.

1. The Hamlet of Egypt should be considered a Town Sub-Center and, as such, an area where denser development and redevelopment should be encouraged, consistent with the objectives of compatibility with adjacent land uses, limiting natural factors and continued enhancement of the attractiveness of the community;
2. The density and intensity of development shall be greatest closer to the four corners in Egypt (Mason/Loud, Rt. 31) and become less dense more distant from this sub-center;
3. For residential development, higher density development is appropriate near the core, with more traditional suburban densities outward and more rural densities to the east and south;
4. Adequate buffers and/or land use transitions are needed between new development and low-density rural residential areas to the south and suburban density subdivisions to the north and northeast;
5. It is the policy of the Town to continue to pursue the preservation of open space;
6. Industrial Park expansion near the four corners shall be discouraged. Consideration will be given to changing the zoning to limited commercial, planned residential, restricted business, and/or planned mixed-use;
7. Undeveloped areas should be considered for application of the Town's Open Space Preservation Law or similar density transfer provisions. Larger undeveloped lots in the uplands could be considered for open space uses, and density transferred elsewhere, such as the more level areas close to the Hamlet's center;
8. Areas currently zoned "Residential B" that are not considered suitable for suburban residential development should be re-zoned in accordance with the plan;
9. Due to topographic constraints, the zoning on the south side of Route 31 west of Thayer Road shall remain flexible to allow either commercial, restricted business, or mixed density residential designed to minimize disturbance of the hillside, provide adequate off-street parking, and provide access to adjoining developable property;
10. Development north of Route 31 should remain similar to current uses, with infill recommended to be office or small retail oriented rather than large building ("big box") commercial. If possible, access should be

- combined, and development themes and styles made more uniform to promote a community concept;
11. Promote the continued occupancy of existing residences along Route 31. If, in the future, the existing residential property is impacted by outside factors, i.e., traffic, then further extension of restricted business or limited commercial could be considered;
  12. Community service and convenience businesses are preferred over businesses primarily drawing regional traffic;
  13. The Comstock building is one of the key redevelopment sites. A combination of zoning restrictions and development incentives should be initiated to both encourage the owners to change the use and improve the looks of the building and grounds;
  14. The Hamlet of Egypt Development Plan from the Development Opportunities Study for the Town of Perinton recommendations for the Hamlet should be incorporated by reference and used as a guide for redevelopment (included in Appendix A); and
  15. Limit proliferation and encourage co-location and compatible design of radio and microwave towers in and surrounding the Hamlet.

### **3. Environmental Features**

#### **Wetlands**

Both New York State and Federal wetlands are found in the Egypt subarea, as shown in Figure 5. State-regulated wetlands are 12.4 acres or greater in size and are lands or submerged lands that support semi-aquatic or aquatic vegetation. Federal jurisdictional wetlands are regulated by the United States Army Corps of Engineers (USACOE) and are defined as those areas that are inundated, or saturated, by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

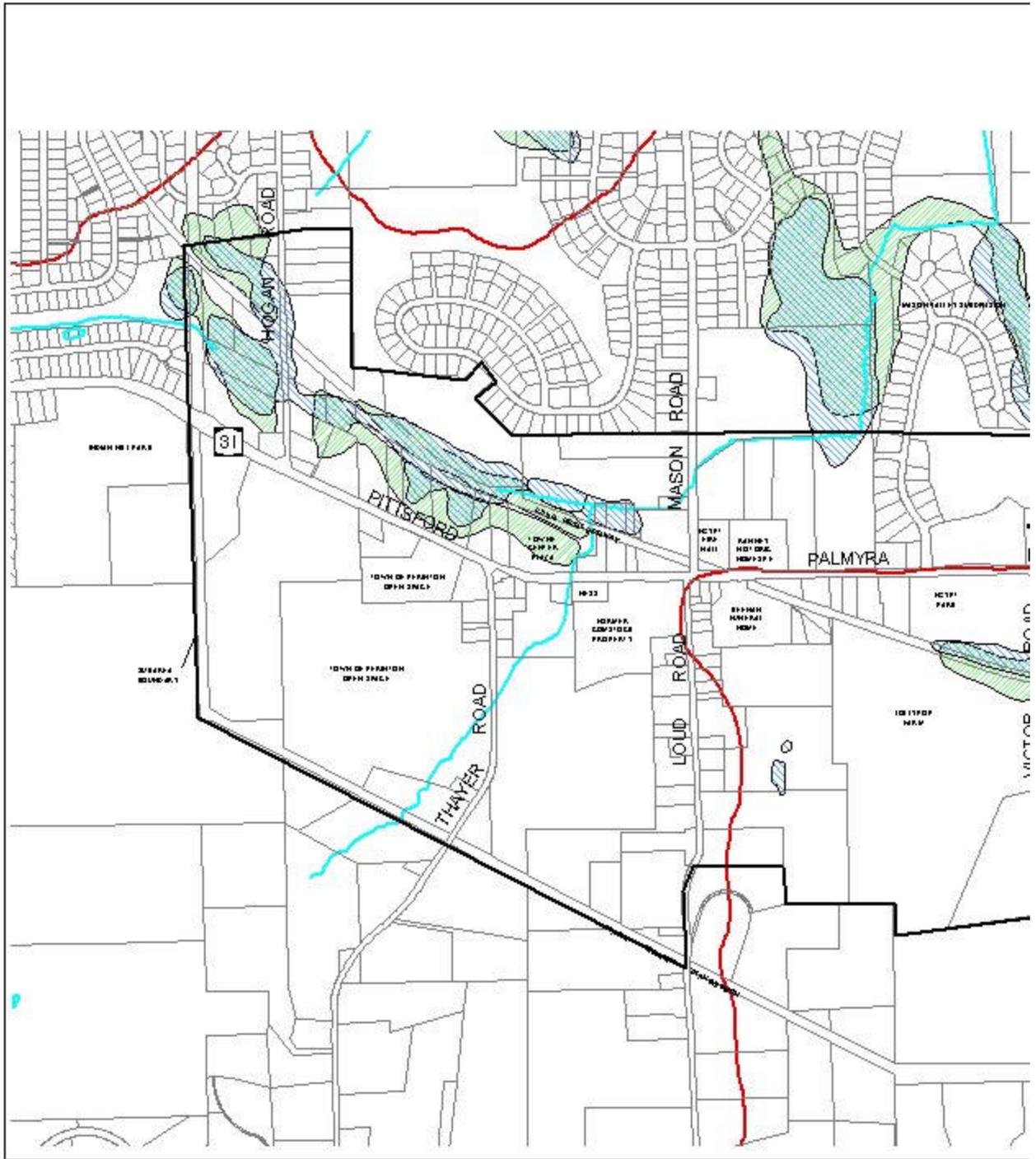
The wetlands are principally located along the RS&E Hikeway / Bikeway north of Route 31, and at the extreme east end of the Egypt sub-area. The location of these wetlands could affect the construction of rear access roads and cross property connections in this area, and may be impacted by NYSDOT work on Route 31. However, some of the wetland area has already been developed into commercial properties. If avoidance of the wetlands is not feasible due to the close proximity to the roadway, measures would be incorporated by the NYSDOT to minimize wetland impacts, such as adjusting road profiles, steeper

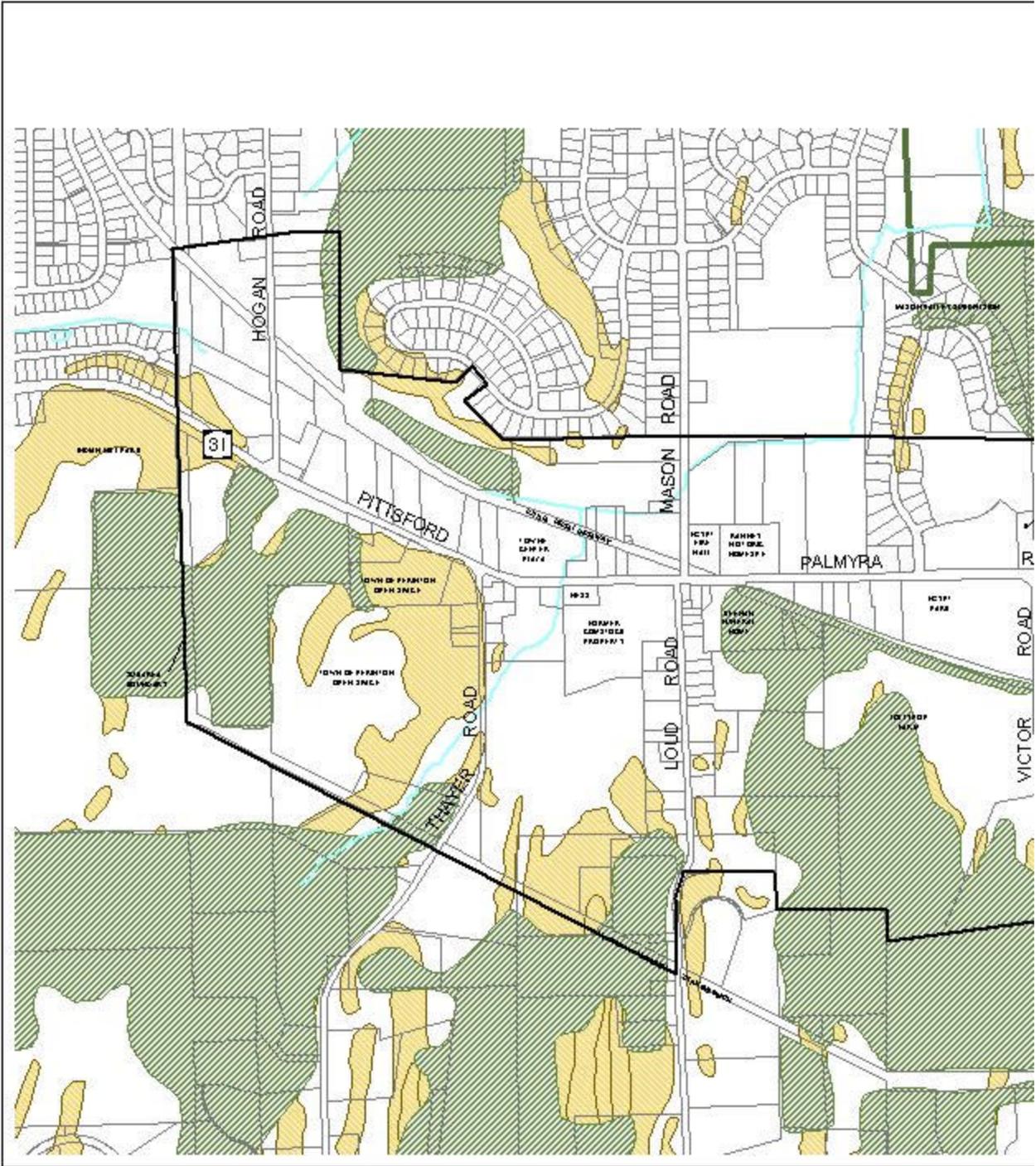
side slopes adjacent to wetlands, seeding and mulching disturbed areas, and development of a soil erosion and water pollution control plan.

There are also several streams that cross Route 31 in the study area, and the study area is within the watershed area. The Floodway boundary is east of the Egypt subarea.

### **Wooded Areas and Steep Slopes**

There are several significant wooded areas in Egypt as well as steep slopes (shown in Figure 6). These will primarily influence land use by limiting the ability to construct back lot access roads on the south side of Route 31. These features should be positively utilized in the hiking and bicycling system.



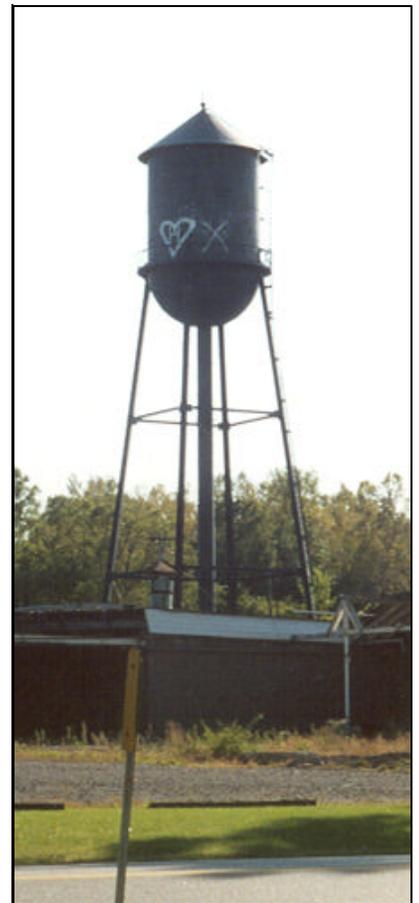


## 4. History <sup>2</sup>

The Hamlet of Egypt is the oldest community in the Town and one of the earliest settlements in the region, pre-dating both Fairport and Bushnell's Basin. By 1807, Route 31 was established as a turnpike between Palmyra and the Genesee River, with tolls along the way. By 1820, Egypt was a thriving Hamlet with a stage depot, blacksmith shop, tannery, sawmill, gristmill, a school, and two stores. After the Erie Canal opened in 1825, Egypt lost importance as the Town's commercial center shifted to the canal hamlets of Fairport and Bushnell's Basin. The stage line was discontinued in 1842. However, it remained a viable and active Hamlet. The Hamlet of houses and shops was surrounded by prosperous farms. A sense of this agricultural identity remains today in the open space and some remaining structures and businesses such as Northern Nurseries.

The Hamlet changed again just after the turn of the 19<sup>th</sup> century (1900). The Rochester, Syracuse & Eastern Electric Railroad trolley came through, providing a means for residents, farmers and their produce to get to the City of Rochester. However, the growth in the use of the automobile led to the end of the trolley, which closed in 1931. The trolley line is now the RS&E Hike-way-Bike-way (described below). In addition, an industrial presence was established with the opening of the Egypt Canning Company on Route 31 at Loud Road, which processed vegetables and fruits grown by local farmers.

Route 31 has become a major route for the spread of suburban communities to the east. The Egypt Canning Company became the Comstock Canning Company, changing hands several additional times before the closing of the plant in 1982. The building was partially demolished and the remaining portions now serve as a warehouse and an athletic facility. New commercial businesses have located in the Hamlet, primarily single structures scattered along Route 31. However, it retains an identity of a small community surrounded by open space.



***Canning Company Water Tower***

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<sup>2</sup> Information contained in this section was obtained from the Landmark Society of Western New York report Identification of Architectural and Visual Elements that Define the Historic Character of the Hamlet of Egypt, Town of Perinton, March, 1999.

## 5. Community Plans

The Town of Perinton has given a lot of thought to and thoroughly evaluated the future of the Hamlet of Egypt and Route 31. Additionally, the Town has worked with the NYSDOT to plan for its improvement project. Prior to this study, several detailed traffic impact studies were conducted as well as concept land use and access management plans. In addition, as outlined earlier, the Town of Perinton recently completed an extensive update of its Comprehensive Plan, including an Egypt Subarea Report conducted cooperatively with local community residents, business and property owners. The goal of this study is to see that plan realized through transportation infrastructure and planning policy improvements. The goals for Egypt, as outlined in the Comprehensive Plan, are listed in section I.C, above.

As part of the Comprehensive Plan process, the Town and the Egypt Plan Update Committee asked the Landmark Society of Western New York to identify architectural and visual elements within the Hamlet of Egypt that define its historic character and could be the basis of a design vocabulary to be incorporated into new construction/development.<sup>3</sup> The general recommendation of that study, to retain an identity with Egypt's past and contribute to the Town of Perinton, was through the following ways:

- Return Egypt to a "village" context;
- Channel growth to retain the feeling of a small and concentrated community surrounded by "farms" or open space;
- When possible, convert the historic houses into small shops, and return Nelson's store (southeast corner Route 31/Loud Road) to its historic shop appearance, if possible;
- Keep new housing close to the village center and maintain a concentrated neighborhood character;
- New construction should be compatible with the architectural character of Egypt, which is small scale and simple, with a minimum of embellishments; and
- Make the Hamlet a welcoming place for people to stop, shop and walk by adding more sidewalks, planting streets trees, and placing appropriate signage about Egypt's history near existing and future trails.

Since the completion of that study, the Hamlet of Egypt has been designated as an historic district.

The Genesee Transportation Council completed an update of the region's Long Range Transportation Plan (LRP) in 1999 (see the GTC website for further information at <http://www.gtcmpo.org/>). It provides a 20-year perspective (2000 – 2020) of existing and projected transportation system capabilities, needs,

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<sup>3</sup> Identification of Architectural and Visual Elements that Define the Historic Character of the Hamlet of Egypt, Town of Perinton, March, 1999. The Landmark Society of Western New York.

objectives, and strategies to achieve these objectives. It provides the framework for guiding the planning and implementation of transportation improvements in the region. The LRP identifies Route 31 from I-490 to Macedon as a congested highway segment. Projects to reconstruct and widen Route 31 from Ayrault Road to Route 250 have been planned, as have intersection improvements in the Egypt area (from Turk Hill Road to Aldrich Road). The LRP also recommends further study of Route 31 in the Egypt area for possible widening. This study will fulfill that recommendation.

## **B. Regional Context**

NYS Route 31 is a Principal Arterial Street (Urban) on the national Highway System and is owned and maintained by the NYSDOT. It is a primary east-west connecting link in the region. It connects the communities of Perinton, Victor, Macedon, Palmyra, Newark, and Lyons to the Greater Rochester Metropolitan Area. A majority of the traffic generated in the study area is a result of these regional trips. There are no logical or efficient alternative routes for this regional east-west traffic, and no short or long-range plans to provide one. The NYSDOT has plans to widen Route 31 to four through travel lanes from Ayrault Road to Route 250, just west of the study area.

## **C. Non-motorized Travel**

### **1. Trail System**

The Town of Perinton has been named one of the top 10 "Trail Towns" in the United States by the American Hiking Society and the National Parks Service. The Crescent Trail is a footpath system within the Town of Perinton. Twenty-six miles of trail wind through wooded hills and scenic wetlands. The Trail connects with the Canalway Trail along the banks of the Erie Canal, the RS&E (Perinton) Hike/Bikeway, and trails in the neighboring towns of Penfield, Pittsford, Victor, Macedon and the Village of East Rochester.

These three interconnected linear trails: the RS&E Hike/Bikeway, the Canalway Trail, and the Crescent Trail, are an integral part of the community. The trails promote non-motorized transportation and recreation, bring added economic and quality of life benefits to the area, and connect or have the potential to link with other trail systems regionally.

The existing sections of the **Crescent Trail** service primarily the southwest portion of the Town, as shown in Figure 7<sup>4</sup>, with other main trail segments in the northeast portion of Town, and minimally within the Egypt subarea north of Route 31 and east of Mason Road. It serves people hiking, cross-country skiing,

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<sup>4</sup> Figure 7 was provided by the Crescent Trail Association and prepared by Larsen Engineers in 1999.

and snowshoeing. Bicycles and horses are not permitted, and it is infeasible to in-line skate because the trail is not paved.

A planned Crescent Trail main trail segment in Egypt would connect the RS&E Hikeway-Bikeway, the Crescent Trail section to the east and north, with the main trail to the southwest portions of the Town and Indian Hill Park. It would also connect the large parcel of open space owned by the Town south of Route 31 and immediately west of Thayer Road (see Figure 3). These potential connections of the Crescent Trail, safe crossings of Route 31, and connections to the Hamlet of Egypt and its businesses were considered in this study (see Chapter V).

**The RS&E Hikeway-Bikeway** (also referred to as the RS&E Trolley Trail), shown in Figure 7, begins at the Canalway Trail just east of Turk Hill Road, and continues south and east through the study area, crossing Route 31 in the vicinity of Mason and Loud Roads, continuing southeast to Pannell Road. It serves people hiking, bicycling, and cross-country skiing. Horses are not permitted, and it is infeasible to in-line skate because the Hikeway-Bikeway is not paved. There are no markings or signs indicating a crossing of Route 31. The trail essentially ends on the north side of Route 31 west of Mason Road and continues on the south side of Route 31, just north of the Keenan Funeral Home. The trail is marked and paved with crushed stone.

**Indian Hill Park**, 7025 Pittsford Palmyra Road, is 35 acres in size and features a scenic area of hiking trails with panoramic views of the surrounding town from the top of Indian Hill. There is a small parking area on the south side of Route 31 just west of Hogan Road for access to the park and trail system.



### ***RS&E Trolley Trail / Hikeway-Bikeway Mason Road Facing Westbound***

**Egypt Park** is a 16.3-acre park located at 7 Victor Road on the southwest corner of Route 31 and Victor Road. It includes two tennis courts, a softball field, picnic tables and grills, picnic shelter, restrooms, a children's play area and a horseshoe court. There is a trail connection to the Humane Society at Lollypop Farm located immediately to the south as well as to the RS&E Hikeway-Bikeway.

## **2.Route 31 Pedestrian and Bicycle Travel and Accommodations**

A partial sidewalk system exists along the north side of Route 31 from Turk Hill Road to the Mason/Loud Road intersection, with a gap at the Hogan Road intersection. It is primarily paved with asphalt and is about 5 feet (1.5 m) in width. The sidewalks do not meet all ADA standards, including incomplete or no curb ramps at intersections. The primary side streets do not have sidewalk systems that connect the residential areas to the Route 31 commercial area. There is a sidewalk on the west side of Victor Road from Route 31 to the south end of Lollypop Farm.

Bicyclists traveling along Route 31 can utilize the paved shoulders that are approximately 8 feet (2.4 m) in width and delineated with a white stripe separating it from the travel lane.

Route 31 is classified and signed as NYS Bike Route 5. Bike Route 5 is a cross state route from the Massachusetts-New York State line to the Canada-US border (Niagara). It is one of several major cross-state routes designated by NYSDOT for long-distance touring and to connect local bicycle routes. The NYSDOT's guidance on improvements on designated state bicycle routes is to "do more to meet at least the minimum guidelines for bicycle accommodations."

**Insert Figure 7**

## **D. Vehicular Circulation**

### **1. Traffic Volumes**

All available traffic volume data was reviewed and found to be complete and representative of existing conditions along Route 31 in the Hamlet of Egypt. The following data sources were reviewed and used in the subsequent analysis:

- Egypt - Route 31 Traffic Study, November 1992;
- Loud, Thayer, and Mason Road Realignment Traffic Analysis and Alternative Selection, March 1995;
- Town of Perinton Northeast Central Sub-Area Issues Affecting Planning, January 1996;
- Five Intersection Safety Improvement, Route 31 with Turk Hill Road (CR 50), Hogan Road, Loud and Mason Roads, Victor Road (CR 52) and Aldrich Road (CR 46), NYSDOT Expanded Project Proposal, June 1999; and
- Traffic Impact Study for the Alexandria Apartment Homes on Mason Road, April 2000.

Existing traffic volumes at all of the study area intersections were obtained from the above mentioned sources. No additional data collection was required. Existing weekday AM and PM peak hour traffic volumes are shown in Figures 8 and 9.

### **2. Traffic Operations**

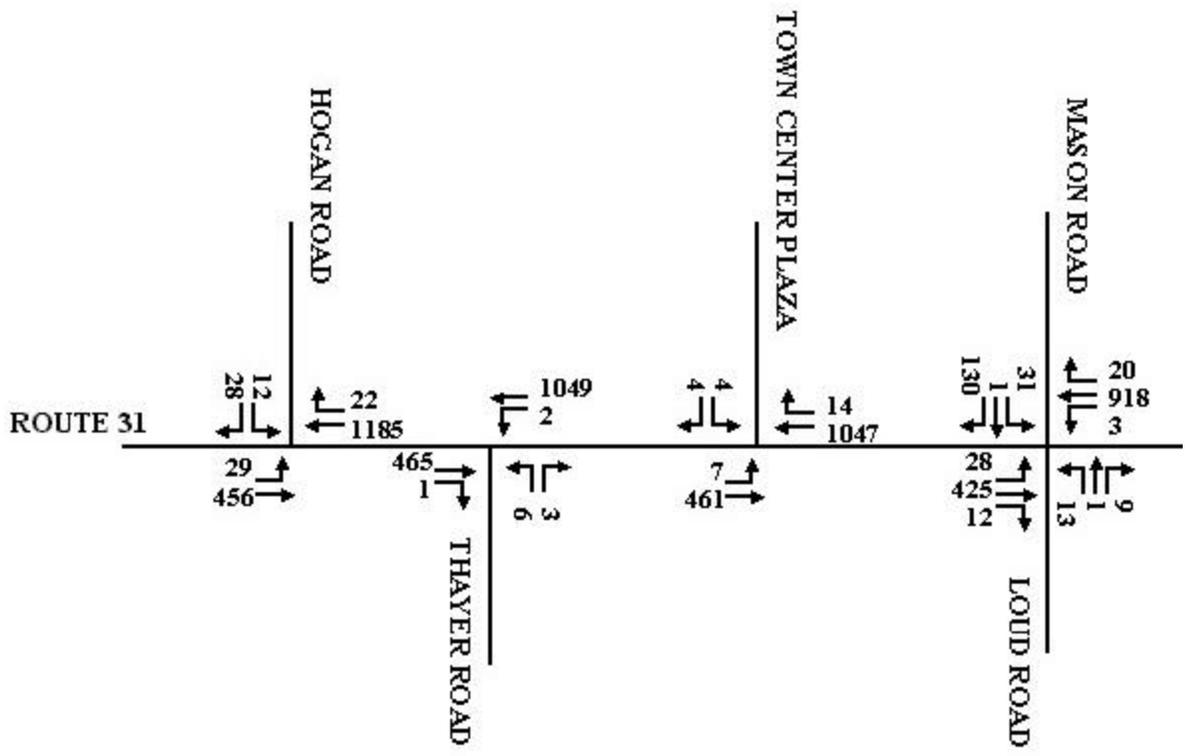
The capacity of a highway system is predicated on two components: the capacity of the included roadway sections and the capacity of the affected intersections along the route. Intersecting roadways generally provide the initial constraint on a system's capacity. Efficiency at the intersections becomes the critical constraint for capacity. Vehicle interactions at these points must be analyzed to assess the projected capacity levels.

The standard procedure for capacity analysis of signalized and unsignalized intersections is outlined in the 2000 Highway Capacity Manual (HCM) published by the Transportation Research Board. The procedure yields a Level of Service (LOS) as an indicator of how well intersections operate. Level of Service is defined in terms of delay that is a measure of driver discomfort, frustration, fuel consumption, and lost travel time.

The concept of LOS is defined as a qualitative measure describing operating conditions within a traffic stream, and their perception by motorists and/or passengers. Six Levels of Service are defined for analysis purposes. They are assigned letter designations, from "A" to "F", with LOS "A" representing the best conditions and LOS "F" the worst. Suggested ranges of service capacity and an explanation of Levels of Service are included in Appendix D.

A traffic model of the study area was developed using the SYNCHRO 5 and SimTraffic traffic simulation software (Trafficware, Inc.). The model simulates how the roadway and the network of intersections operate together as a system, rather than each intersection in isolation from the others.

For example, it simulates the affects of complex phasing of traffic signals on nearby unsignalized intersections, driveways and other signalized intersections. SimTraffic also performs realistic vehicle simulation for a visual observation and understanding of existing and proposed future traffic operations. In addition to the SYNCHRO model, the Highway Capacity Software (version 4.1) was also used to evaluate traffic operations. It is based directly upon the HCM and is a national standard. Capacity results of the weekday morning and afternoon peak hour existing conditions, calculated using SYNCHRO 5 and/or version 4.1 of the Highway Capacity Software, are listed in Table 4. All capacity analysis calculations are included in Appendix D.

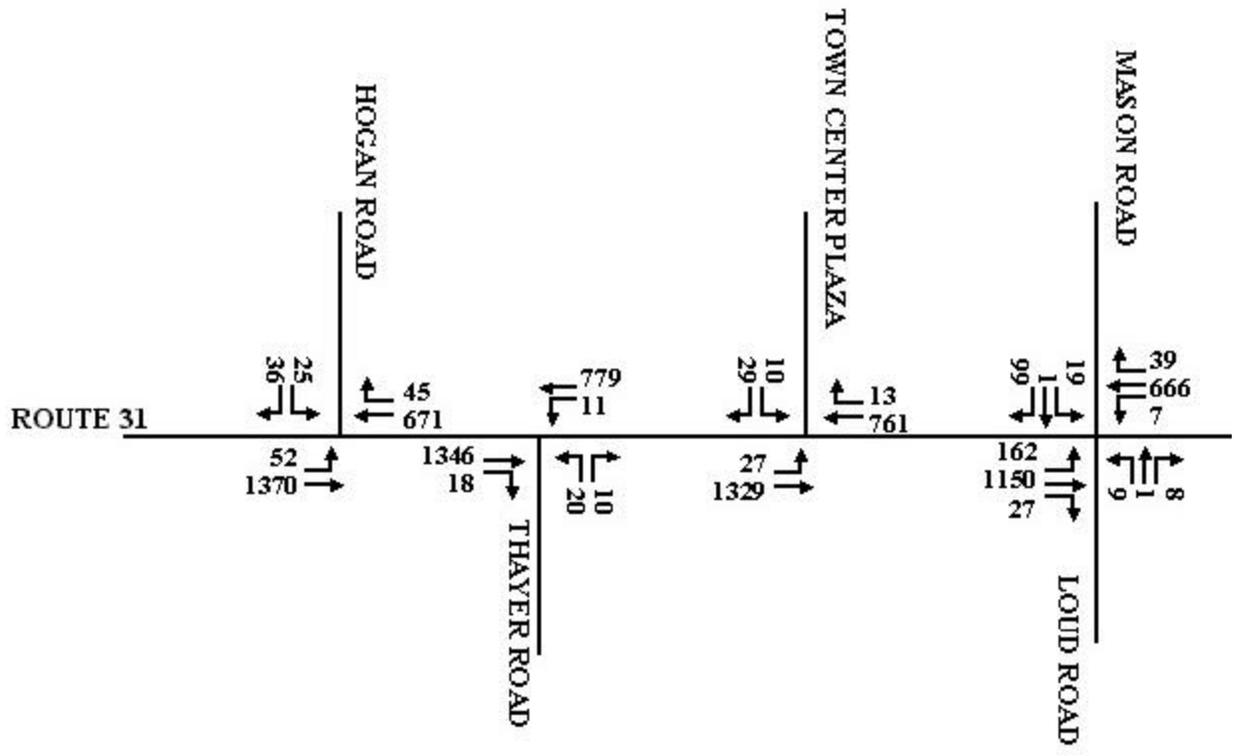


## EGYPT TRANSPORTATION AND LAND USE STUDY

Town of Perinton, New York

SRF & Associates  
Rochester, New York





## EGYPT TRANSPORTATION AND LAND USE STUDY

Town of Perinton, New York

SRF & Associates  
Rochester, New York



**TABLE 4  
EXISTING CAPACITY ANALYSIS RESULTS**

<b>INTERSECTION</b>	<b>AM PEAK</b> LOS (seconds of delay/vehicle)	<b>PM PEAK</b> LOS (seconds of delay/vehicle)
<b>Route 31 &amp; Hogan Road, unsignalized</b> Eastbound Southbound	B E	A F (170.0)
<b>Route 31 &amp; Thayer Road, unsignalized</b> Westbound Northbound	A B	B E
<b>Route 31 &amp; Towne Center Plaza, unsignalized</b> Eastbound Southbound – Left Southbound – Right	B E C	A F (139.2) C
<b>Route 31 &amp; Mason/Loud Roads, unsignalized</b> Eastbound Westbound Northbound Southbound – Left Southbound – Right	B A F (97.8) F (78.3) D	B B F (*) F (*) C F (*)
<b>Route 31 &amp; Broadmoor Trail, unsignalized</b> Eastbound Southbound – Left Southbound – Right	B E C	A F (78.4) B
<b>Route 31 &amp; Victor Road/Office, signalized</b> Eastbound Westbound Northbound <b>Overall LOS (delay in sec/veh)†</b>	A B B <b>B (10.7)</b>	A A C <b>A (7.8)</b>
<b>Route 31 &amp; Aldrich Road, unsignalized</b> Eastbound Southbound	B F (67.8)	A F (83.6)

\* Indicates oversaturated conditions

† Intersection modeled as observed to operate in field (i.e.. eastbound exclusive through lane, eastbound exclusive right turn lane, westbound exclusive left-turn lane, westbound exclusive through lane, two northbound lanes).

### **Route 31 and Hogan Road, unsignalized**

Motorists currently have difficulty exiting Hogan Road onto Route 31 during both peak periods. The southbound weekday morning peak hour LOS is "E" and the weekday afternoon is LOS "F". This equates to long delays for left turning vehicles and the potential for right turning vehicles to experience long delays as a result of the left turns given that Hogan Road consists of only one southbound lane. Motorists turning left and right from Route 31 onto Hogan Road experience little delay and do not typically impede through traffic on Route 31.

### **Route 31 and Thayer Road, unsignalized**

Traffic operations at Thayer Road are very similar to those at Hogan Road, although levels of service are better because Thayer Road is on the south side of Route 31. Thayer Road also has a flared approach which allows one right turning motorist to maneuver around a vehicle waiting to turn left onto Route 31. Motorists currently have difficulty exiting Thayer Road onto Route 31 during both peak periods. The northbound weekday AM peak hour LOS is "B" and the weekday PM is LOS "E". This equates to moderate to long delays for left turning vehicles. Motorists turning left and right from Route 31 onto Thayer Road experience little delay and do not typically impede through traffic on Route 31.

### **Route 31 and Towne Center Plaza, unsignalized**

The Towne Center Plaza driveway supports two exiting lanes; therefore, right turning vehicles are not impeded by vehicles waiting to turn left onto Route 31. While the left-turn movement experiences delays indicative of LOS "E" during the weekday AM peak hour and LOS "F" during the PM peak hour, the right-turn movement experiences LOS "C" during both peaks.

### **Route 31 and Mason/Loud Roads, unsignalized**

Although Mason and Loud Roads intersect with Route 31 in unique locations, the close proximity of the intersections to one another and the operational observations indicate that they operate as if they are one intersection. Therefore, they were analyzed as one four-way intersection. This analysis indicates poor levels of service on the side roads during both peaks with the exception of the southbound right-turn, which is provided an exclusive turn lane. The weekday PM peak hour condition is over-saturated (i.e., the volume of traffic is much greater than the capacity for the movement).

### **Route 31 and Victor Road, signalized**

This intersection currently operates at overall LOS "B" during the weekday AM peak hour and "A" during the PM peak hour. In the weekday afternoon, the northbound approach operates at LOS "C". These acceptable levels of service are representative of existing operations given that Route 31 operates as if there is a westbound left-turn lane and an eastbound right-turn lane, although

these are not delineated via pavement markings. The northbound approach is delineated as one lane with a wide shoulder area; however, it operates as if there were exclusive left and right-turn lanes.

### **Route 31 and Aldrich Road, unsignalized**

Operations at Aldrich Road are very similar to operations at Hogan Road. Motorists currently have difficulty exiting Aldrich Road onto Route 31 during both peak periods. The southbound weekday AM and PM peak hour LOS is "F". This equates to long delays for left turning vehicles and the potential for right turning vehicles to experience long delays waiting behind left turning motorists given that Aldrich Road consists of only one southbound lane. Motorists turning left and right from Route 31 onto Aldrich Road experience little delay and do not typically impede through traffic on Route 31.

In addition to the intersections reviewed above, three of the major commercial driveways along the corridor were analyzed. They include the two Hess Station driveways on the south side of Route 31 and MacGregor's Grill on the north side. The analysis results, indicative of operations at all driveways along the corridor, show poor levels of service for the northbound and southbound driveway approaches. The difficulty experienced by vehicles turning left onto Route 31 (both from the driveways and side roads such as Mason, Loud, Thayer, and Hogan) is typical of delays experienced at these types of intersections with a high volume highway (Route 31). Other east-west highways throughout eastern Monroe County experience similar unsignalized side road and driveway operations.

### 3. Accident Summary

The NYSDOT compiled a listing and analysis of accident data at the key intersections in the study area as a part of their Five Intersection Safety Improvement, Expanded Project Proposal (EPP). The following is a brief discussion of the NYSDOT findings, including a quantitative summary in Table 5.

**TABLE 5**  
**Accident Summary for October 1994 through September 1997**

Intersection	Total Accidents	Accident Rate (acc./mev)*	Statewide Avg. Accident Rate (acc./mev)*
Hogan	16	<b>0.68</b>	0.21
Thayer	5	0.22	0.21
Mason/Loud	14	<b>0.56</b>	0.39
Victor **	17	<b>0.87</b>	0.21
Aldrich	4	0.21	0.21

\* *acc/mev is accidents per million entering vehicles (vehicles entering the intersection from all approaches)*

\*\* *Note that this is the accident rate prior to the installation of a traffic signal at this intersection (2/99) by the NYSDOT in an effort to improve the safety at this intersection.*

#### **Hogan Road**

During the three-year period analyzed, this intersection had 16 accidents (0.68acc/mev), higher than the expected rate (0.21 acc/mev) for this type of roadway. Seven of the 16 accidents were eastbound rear ends as eastbound vehicles were stopped or slowing to make a left-turn onto Hogan Road and were struck from behind. Four other eastbound accidents (two overtakes, one fixed object, and one head-on) were also caused by vehicles trying to avoid a vehicle waiting to turn left. The only other pattern was that eleven out of the sixteen accidents occurred on a wet or snow covered road. Slippery road was cited as a factor in at least five of the accidents.

#### **Thayer Road**

Five accidents (0.22 acc/mev) occurred during the three-year period analyzed, which is average (0.21 acc/mev) for this type of intersection. The accidents included two left-turn accidents from Thayer Road onto Route 31, one left-turn

from Route 31 onto Thayer Road, one eastbound rear end accident, and one deer struck. No accident cluster or pattern was readily discernable.

### **Mason/Loud Road**

The accident rate for this intersection was 0.56 acc/mev, which is slightly higher than the state average of 0.39 acc/mev. Out of the 14 accidents that occurred at this location, the only identifiable cluster of accidents was six eastbound rear end accidents which occurred as vehicles were attempting to avoid vehicles preparing to turn left onto Mason Road.

### **Victor Road**

Seventeen accidents (0.87 acc/mev) occurred at this intersection over the three-year period analyzed. This is over four times the statewide average (0.21 acc/mev) for this type of intersection. The main accident cluster for this intersection is vehicles turning left out of Victor Road being struck by mainline traffic on Route 31. Seven vehicles turning left were struck, six by eastbound traffic. There was one fatality in December, 1995, when a vehicle attempted to turn left from Route 31 onto Victor Road and was struck by an eastbound vehicle. A traffic signal was recently installed at this intersection (February 1999) by the NYSDOT in an effort to improve the safety at this intersection.

### **Aldrich Road**

The accident rate for this intersection is 0.21 acc/mev, which is exactly the State average for this type of intersection. The four accidents that occurred during the three-year period analyzed showed no identifiable patterns or clusters.

### **Segments**

In the roadway segments between intersections from Hogan Road to Aldrich Road there were 28 accidents. Of these 28 accidents, 21 occurred as motorists entered or exited one of the numerous commercial driveways. Fifteen of these were rear end, overtake or fixed object accidents while vehicles were stopped waiting to turn left into a driveway. The locations with the highest number of accidents were the Hess Gas Station and MacGregor's Grill driveways with nine accidents, and the Towne Center Plaza driveway with four accidents.

## 4. Travel Speed

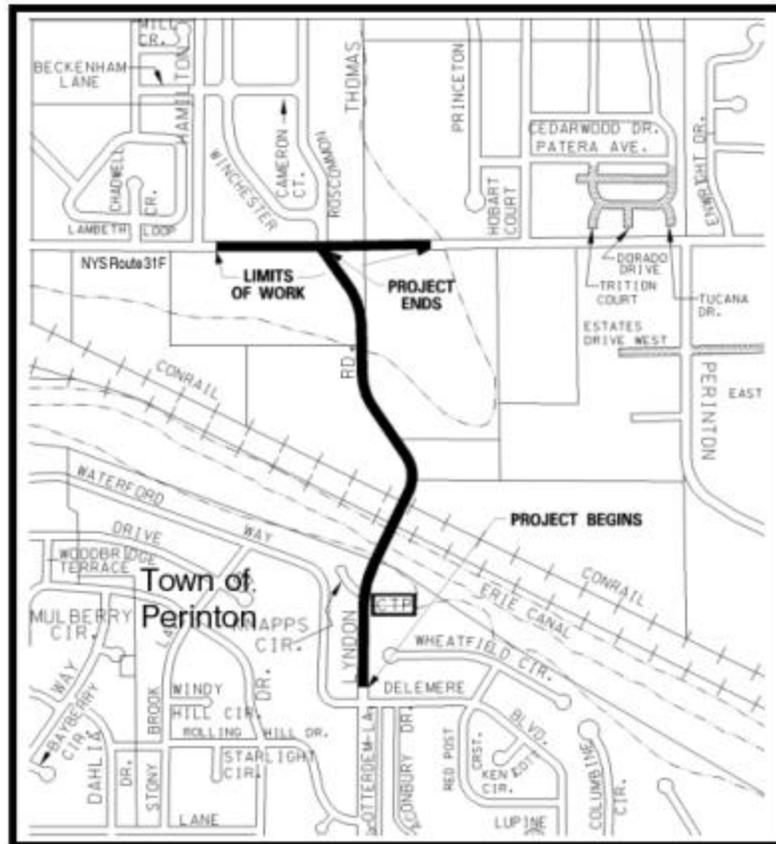
The posted regulatory speed limit on Route 31 in the majority of the study area is 45 mph and 55 mph between Victor Road and Aldrich Road. A NYSDOT speed survey identified the following 85<sup>th</sup> percentile speeds<sup>5</sup> on Route 31 in the study area (see Figure 10). Please note that the speed survey was performed before the installation of the traffic signal at Victor Road.

<b>Location</b>	<b>85<sup>th</sup> Percentile Speed</b>
Near Indian Hill Reservation Area parking lot	51 mph
Just west of Victor Road	55 mph
Crest vertical curve west of Aldrich Road	57 mph

<sup>5</sup> The speed at or below which 85 percent of the vehicles travel.

## 5. Impact of the Lyndon Road Bridge Reconnection

Monroe County is progressing a project to replace the bridge that carries Lyndon Road (County Road 44) over the Erie Canal and CSX Railroad. It is located north of Egypt and will alter traffic flow in the study area. Construction is currently underway on the new bridge that will reconnect the discontinuous north and south segments of Lyndon Road. The bridge is scheduled to re-open in Fall 2002. (For more information, visit <http://www.lyndonroad.com/>.) The new bridge is estimated to alter traffic volumes on road segments in the study area as described in Table 6.



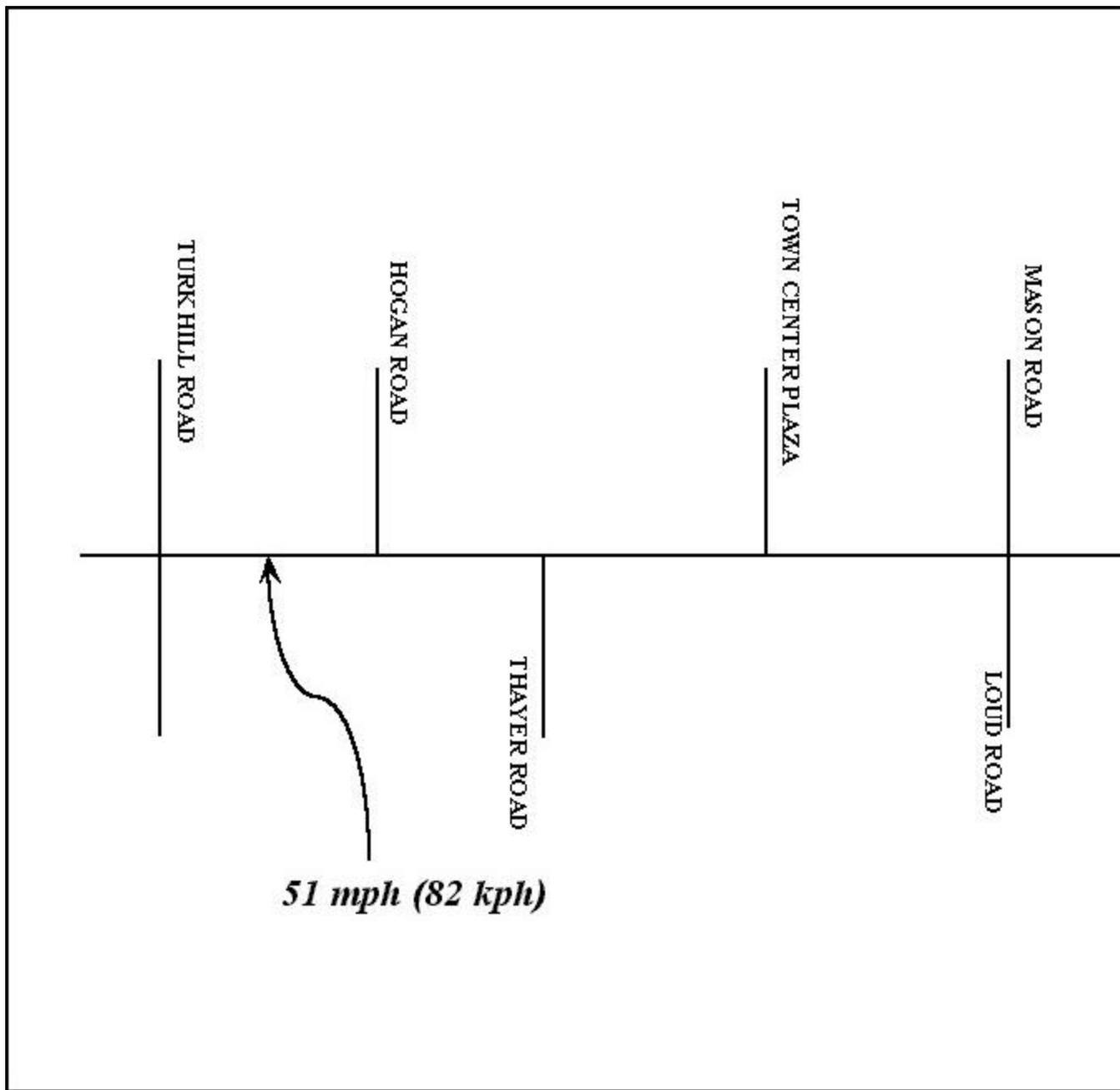
**Lyndon Road Bridge Replacement Project  
Map**

(Courtesy of Monroe County and Erdman Anthony & Associates)

**TABLE 6  
PM PEAK HOUR ESTIMATED TRAFFIC VOLUME IMPACTS OF  
THE LYNDON ROAD BRIDGE RECONNECTION**

Roadway	Segment	Existing Volumes		Existing Volumes With Bridge		Change in Volume Due to Bridge	
		NB / EB	SB / WB	NB / EB	SB / WB	NB / EB	SB / WB
Aldrich Road	Ayrault to Rte 31	121	85	235	189	114	104
Victor Road	Rte 31 to Bluhm	129	121	151	170	22	49
Mason Road	Ayrault to Rte 31	20	32	24	53	4	21
Loud Road	Rte 31 to Bluhm	44	52	44	52	0	0
Thayer Road	Rte 31 to Bluhm	33	53	34	55	1	2
Hogan Road	Ayrault to Rte 31	351	187	354	181	3	-6

The largest increase in traffic volumes due to the reconnection of Lyndon Road during the weekday PM peak hour is expected to occur on Aldrich Road. This is expected to lead to the need for a traffic signal at Route 31 and Aldrich Road. Any increases in volumes on Mason Road during the PM peak hour are expected to be relatively small.



## EGYPT TRANSPORTATION AND LAND USE STUDY

Town of Perinton, New York

**SRF & Associates**  
Rochester, New York



NORTH

## E. Public Transit

The Regional Transit Service, Inc. (RTS) operates Route 92 (known as the Perinton/Bushnell's Basin/Lyons/Eastview Mall route) in the study area. It travels from downtown Rochester to Lyons via I-490 and Route 31. Several of the Route 92 buses also provide service to Kodak Park. Within the vicinity of the study area there are bus stops at the Perinton Park and Ride lot (Route 31/Route 250) and at the Egypt Fire Department at the northeast corner of Route 31/Mason Road intersection. There are two eastbound and two westbound buses leaving the Fire Department stop on weekday mornings and two on weekday afternoons. No amenities are provided at the bus stop other than the bus stop sign.

The Perinton Park and Ride lot is one of six lots in the region owned entirely by the New York State Department of Transportation and are in public "sole use," dedicated to the purpose of Park and Ride service. A study of RGRTA Park and Ride facilities is currently being finalized. This study recommends that a new shelter be installed at the Perinton Park and Ride lot to replace the one that was removed. Customers surveyed in that study had safety concerns about the current location. There have been occurrences of vandalism. As a long-term solution, it was recommended that opportunities to relocate this lot to a more visible location be explored, perhaps on the north side of Route 31.



***RTS Bus Stop, Route 31/Mason***

## **Chapter III**

### **FUTURE NO-BUILD TRAFFIC CONDITIONS**

#### **A. Methodology, Future Land Use and Traffic Volumes**

Estimates of the future traffic volumes along the Route 31 corridor were made by utilizing the Genesee Transportation Council (GTC) Rochester Regional Traffic Simulation Model. It is a computerized regional traffic simulation model that estimates volumes in the future. Estimated volumes to the year 2025 were generated for this project. This information is used to assess the performance of the transportation system and identify future problem areas so plans for improvements can be made. The GTC Traffic Model is based on the TModel2 computer software program (TModel Inc.). The primary use of the traffic model is to project vehicle trips, not public transit travel patterns. It estimates travel patterns and vehicle volumes for the weekday morning peak hour (approximately 7 to 8 AM) and the weekday afternoon peak hour of traffic (approximately 5 to 6 PM). These are typically the highest volume hours used for design purposes.

Land use information (household and employment demographics) is input into the model, which then generates trip ends, distributes them between origins and destinations, and then assigns the trips onto the roadway system.

The Genesee/Finger Lakes Regional Planning Council revised demographic forecasts for the GTC Long Range Transportation Plan Update in 1999. Also, as part of the Long Range Transportation Plan Update, year 2025 demographics and the transportation network change estimates (projects likely to be constructed) were updated. To summarize the overall demographic change, Monroe County growth is estimated as follows from 2000 to 2025:

- Population increase of 14,300 (2%);
- Employment increase of 38,000 (8.1%); and
- Household vehicle increase of 13,700 (3.0%).

GTC staff updated and enhanced the Regional Traffic Simulation Model so that it was capable of more detailed modeling in the study area. This included updating the Traffic Analysis Zones (TAZs) and their associated data within and adjacent to the study area, including the projected land use (residents and employment). This was done based upon input from the Town of Perinton and knowledge of other development projects near the Town and adjacent Towns, such as the Town of Victor.

The following land uses were incorporated into the model:

- 1) A new elementary school/playing fields on Victor Road south of Route 31;

- 2) A proposed apartment complex on Route 31 and Mason Road;
- 3) Other developable parcels along the corridor, particularly the four significant parcels that remain within the Hamlet, including the two parcels between Thayer and Loud Roads (planned for mixed use and low density residential), one parcel on the northwest side of Mason Road (planned residential), and one parcel east of Mason Road (planned for mixed use);
- 4) Other developments in the Town of Perinton; and
- 5) Development in the adjacent Towns of Macedon, Wayne County, and Victor, Ontario County.

Figure 11 summarizes the estimated future land use growth within the Egypt subarea.

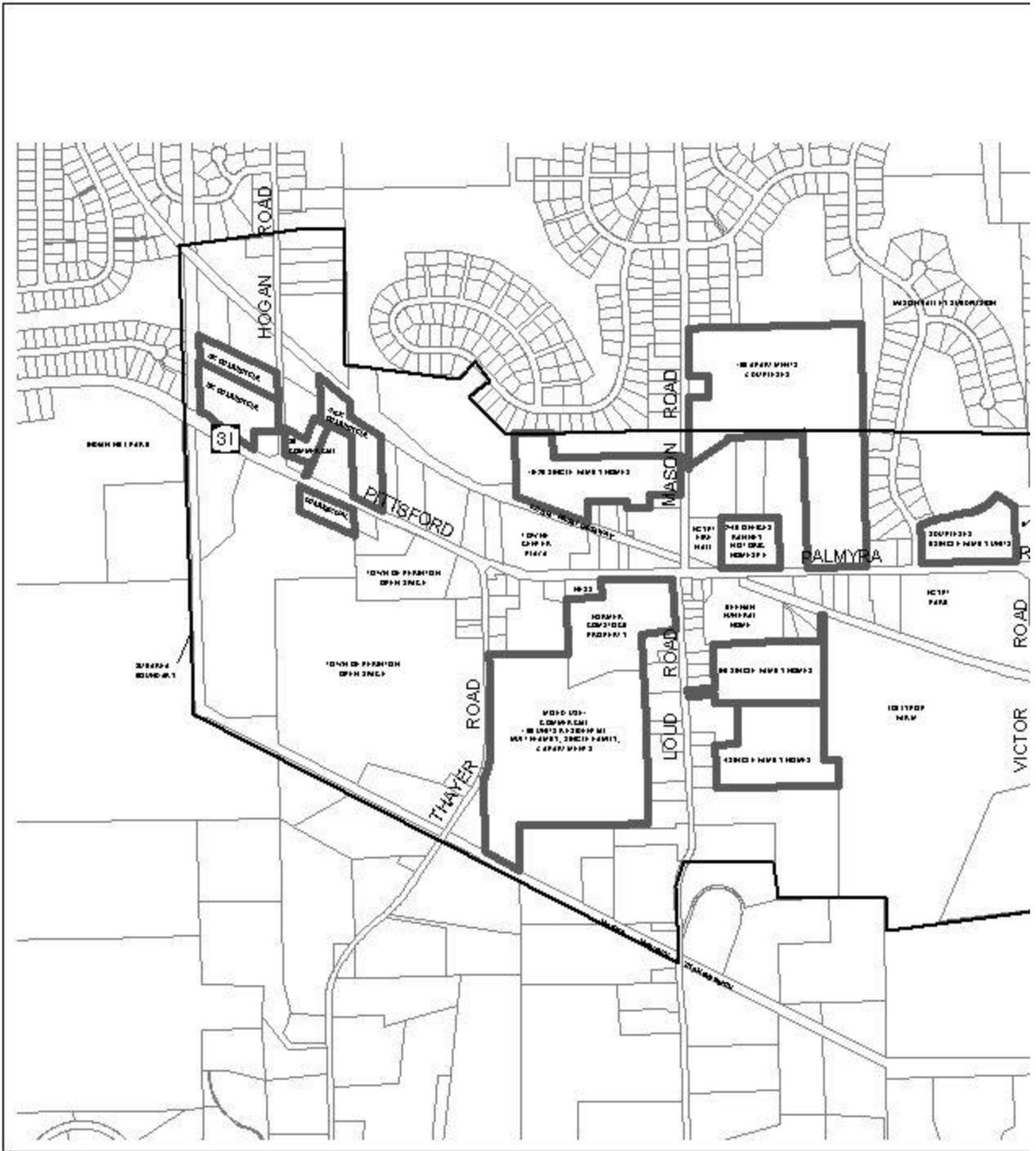
The model's future transportation network includes roadway improvement projects in the GTC Transportation Improvement Program (TIP) or that are otherwise imminent. The primary improvements included in the model in the vicinity of the Town are:

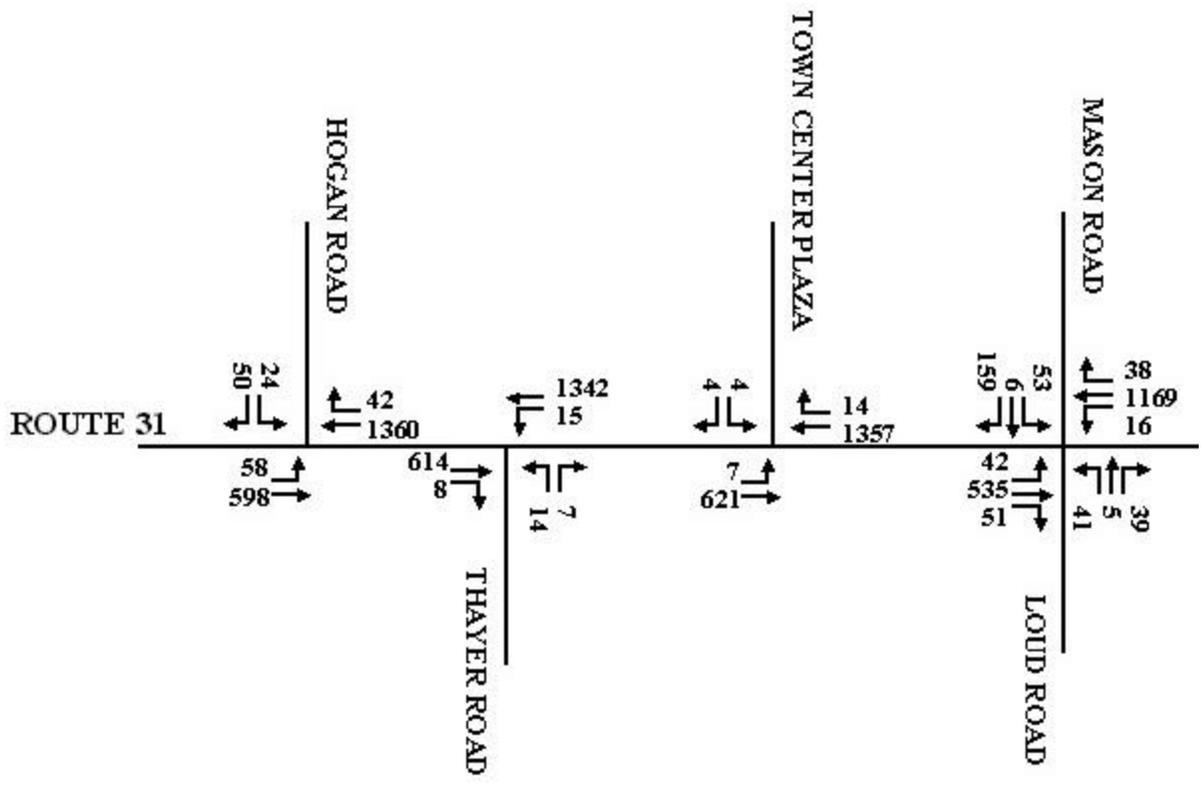
- The new Lyndon Road Bridge; and
- Widening of Route 31 between Ayrault Road and Route 250.

The future traffic volumes expected without any other major transportation system improvements (the no-build condition) were obtained from the GTC Regional Traffic Simulation Model and converted into turning movement volumes for traffic operations analyses. The model results were refined with a more microscopic evaluation of Hamlet traffic patterns. This included trip generation and distribution for specific developments (e.g., items 1 - 5 above) by hand (utilizing existing traffic studies as appropriate), comparing that to GTC Regional Traffic Simulation Model results, and developing final turning movement volumes.

Appendix C includes additional information on the GTC Regional Traffic Simulation Model and the future traffic volume projections.

The estimated future (2025) weekday peak hour traffic volumes are presented in Figures 12 and 13 for the weekday morning and afternoon peak hours, respectively. This is for the no-build condition, without any major transportation system improvements not already programmed.



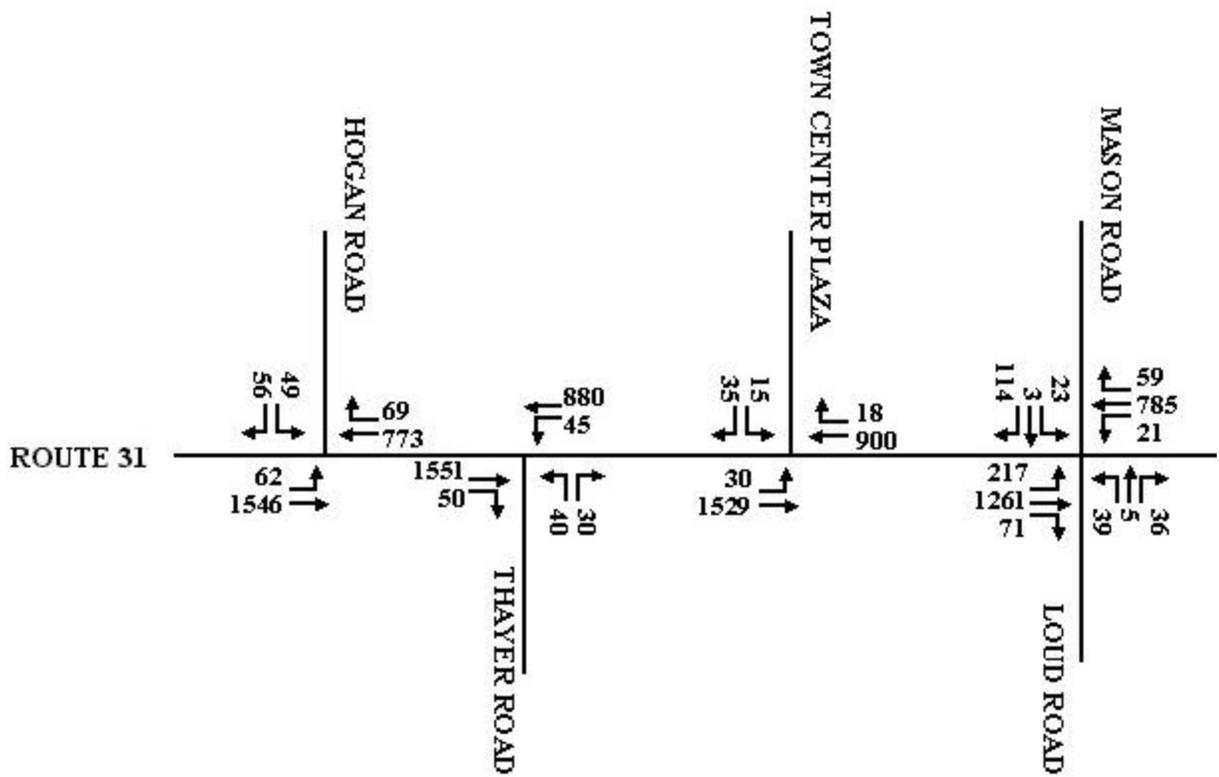


## EGYPT TRANSPORTATION AND LAND USE STUDY

Town of Perinton, New York

SRF & Associates  
Rochester, New York

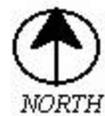




## EGYPT TRANSPORTATION AND LAND USE STUDY

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Rochester, New York



## B. Future Traffic Operations

The traffic network analysis model (SYNCHRO, version 5), described in section II.D.2 above, was utilized to analyze operations at all of the study area intersections. The future no build Level of Service (LOS) results obtained from the SYNCHRO model are listed in Table 7.

**TABLE 7 - FUTURE NO BUILD CAPACITY ANALYSIS RESULTS**

INTERSECTION WITH ROUTE 31	FUTURE NO BUILD	
	AM Peak LOS (seconds of delay/vehicle)	PM Peak LOS (seconds of delay/vehicle)
Hogan Road, <i>unsignalized</i> Eastbound Left Southbound Left Southbound Right Southbound Approach	A --- --- F (430.7)	B --- --- F (*)
Thayer Road, <i>unsignalized</i> Westbound Left Northbound Approach	A C	C F (*)
Towne Center Plaza, <i>unsignalized</i> Eastbound Left Southbound Left Southbound Right Southbound Approach	B F (90.5) D F (60.3)	B F (398.5) C F (131.5)
Mason/Loud Roads, <i>unsignalized</i> Eastbound Left Westbound Left Northbound Approach Southbound Left/thru Southbound Right Southbound Approach	B A F (*) F (639.8)F (61.6) F (215.8)	B B F (*) F (*) C F (*)
Broadmoor Trail, <i>unsignalized</i> Eastbound Left Southbound Left Southbound Right Southbound Approach	B F (76.6) D E	B F (194.8) C F (76.4)
Victor Road, <i>signalized</i> Eastbound Westbound Northbound Overall (Delay in sec/veh)	A B C B (14.4)	B C C B (18.1)
Aldrich Road, <i>unsignalized</i> Eastbound Left Southbound Approach	C F (*)	B F (*)

\* Indicates oversaturated conditions

--- Placed where the analysis does not provide a LOS by movement, only by approach.

### **Route 31 and Hogan Road, unsignalized**

Motorists will continue to have difficulty exiting Hogan Road onto Route 31 during both peak periods. The southbound LOS is "F" during both peak periods. This equates to significant delays for left turning vehicles and the potential for right turning vehicles to experience long delays as a result of the left turns given that Hogan Road consists of only one southbound lane.

### **Route 31 and Thayer Road, unsignalized**

Levels of Service for motorists both entering and exiting Thayer Road are projected to decrease to LOS "C" in the AM peak and "F" in the PM peak. The LOS for vehicles entering Thayer Road from Route 31 are projected to change to LOS "C" in the future during the weekday PM peak which indicates somewhat longer delays to westbound through traffic.

### **Route 31 and Towne Center Plaza, unsignalized**

Traffic exiting Towne Center Plaza is projected to experience LOS "F" for left turns during both peak periods. In addition, the exiting right-turn traffic is projected to experience LOS "D" during the weekday AM peak period. Eastbound left turns into the Plaza are also projected to experience longer delays during both peak periods contributing to eastbound through delays.

### **Route 31 and Mason/Loud Roads, unsignalized**

Delays experienced by the side road movements, northbound approach and southbound through and left-turn movement is projected to increase, as would through movement delay created by left turning vehicles.

### **Route 31 and Victor Road, signalized**

This intersection is projected to continue to operate at acceptable levels of service (LOS "C" or better) during both peak periods. This assessment is based on existing observed operations, future projected volumes, and the capacity inherent in a signalized "T" intersection.

### **Route 31 and Aldrich Road, unsignalized**

Delays experienced by the southbound (side road) approach are projected to increase significantly. Through movement delay on Route 31 created by eastbound left turning vehicles would also increase.

## CHAPTER IV

# ALTERNATIVE DEVELOPMENT, ANALYSIS, & RECOMMENDATION

### A. Design Criteria

"A Policy on Geometric Design of Highways and Streets" (American Association of State Highway and Transportation Officials (AASHTO, 1994)), Chapter 2 and Chapter 25 of the NYSDOT Highway Design Manual, the Manual of Uniform Traffic Control Devices, and the Guide for the Development of Bicycle Facilities, 3<sup>rd</sup> Edition (AASHTO, 1999) were reviewed to identify the following design criteria for Route 31:

<b>Design Criteria</b>	<b>Proposed for Urban Principal Arterial</b>
Design Speed	40 mph (65 km/h) throughout
Widths Travel Lane Two-way Left-turn Lane  Left & Right-turn Lanes  Curb Offset	11 ft (3.3 m) 11 ft, 16 ft desired (3.3 m, 4.8 m desired) 10 ft, 11 ft desired (3.0 m, 3.3 m desired) 2 ft (0.6 m)
Maximum Grade	7%
Minimum Curve Radius / Horizontal Curvature <b>not applicable</b>	607 ft (185 m)
Maximum Rate of Superelevation Rollover at Pavement Edge Rollover between Travel Lanes	4% 8% 4%
Minimum Stopping Sight Distance	295 ft (90 m)
Maximum Pavement Cross Slope	1.5 – 2.0 %
Lateral Clearance	18 in (0.5 m) from face of curb to the vertical elements
Sidewalks	5 ft (1.5 m)

A 40 mph (65 km/h) posted speed limit is recommended on Route 31 through Egypt. Recent context sensitive design guidance from state and federal transportation agencies allows for setting design speed equal to the posted speed limit (rather than at the existing 85th percentile speed). This allows communities to develop designs that achieve the travel speeds appropriate for the area. The speed limit (now 45 mph (70 km/h)) would be posted at 40 mph (65 km/h) and motorists would be expected to drive 40 mph (65 km/h). This speed is seen as a balance between the needs of commuters, the local land uses, and the community the Town would like to create in Egypt.

The design speed in the NYSDOT's Expanded project Proposal for the Route 31 Improvement Project is 80 km/h from Turk Hill Road to Victor Road and 90 km/hr from Victor Road to Aldrich Road. However, the recommended change in design speed to 65 km/h or 40 mph does not make a significant difference in the design criteria applicable to the study area.

## **B. Alternatives Considered**

The central issue regarding the future of NYS Route 31 is the number of lanes required to handle future traffic growth. For planning and development of local land uses, it is important to know the required future road right-of-way width. To this end, future local and regional population and employment growth projections were used to estimate traffic volumes and traffic operations, as outlined in Chapter III. Based on that and other analysis, it was determined that only one through travel lane in each direction is needed if the following are also provided: (1) a two-way center left-turn lane, (2) exclusive turn lanes at several intersections, and (3) two additional traffic signals. Additional information on the recommended alternative is provided in the following section of the report (Section IV.C.).

A wide range of alternatives was evaluated. The following is a list of the alternatives and a brief summary of the evaluation results. The basic features of the alternatives are listed, including number of lanes on Route 31 and new traffic signals.

1. **Future No-Build Condition**, as summarized in Chapter III, assumes no improvements are made other than routine maintenance. It is not recommended for further consideration because of the poor future traffic operations, it does nothing to address safety concerns, and it does nothing to help the Town realize its vision for the Hamlet of Egypt, including incorporating more bicycle and pedestrian amenities, improving access to local properties, and enhancing the community atmosphere of the Hamlet. It is not considered a feasible alternative, but is used as a basis of comparison to the recommended alternative.
2. **One through travel lane in each direction on Route 31, a continuous 16 foot (4.9 m) two-way left-turn lane (TWLTL)**

**throughout (with exclusive left-turn lanes at intersections with local streets), and new traffic signals at the aligned Mason and Loud Roads, and Aldrich Road intersections, and a new loop road that would serve the "Hamlet Center"** (see Figure 17).

This alternative is the recommended alternative and is described in detail in the following section (IV.C.). It provides the best compromise between serving Route 31 through traffic and access to adjacent properties.

- 3. The same as previous alternative, except it has two lanes eastbound and one lane westbound on Route 31 from the Towne Center Plaza through the Mason/Loud Road intersection, and an additional traffic signal at Towne Center Plaza.**

This alternative includes a traffic signal at the Towne Center Plaza and a new Hamlet Center loop road that would serve the proposed "Hamlet Center" (see Figure 17). To have an operational signal at Towne Center Plaza additional through capacity is necessary at that intersection to serve the Route 31 through trips adequately during the weekday evening peak hour of traffic. Therefore, an additional eastbound travel lane is provided under this alternative. This alternative does serve Towne Center Plaza traffic by providing a traffic signal, however, it requires significant additional width on the road, which is not appropriate to the Hamlet Center that the Town would like to create. It results in extra pavement width for pedestrians and bicyclists to cross and would require the taking or relocation of Macgregor's Tavern, a successful local business, because of its close proximity to the roadway. The signal would not meet State and Federal signal warrants. This alternative is not recommended for further consideration.

- 4. One through travel lane in each direction on Route 31; a continuous two-way left-turn lane (TWLTL); exclusive left-turn lanes at intersections with Hogan, Thayer, Towne Center, Mason/Loud, Victor and Aldrich Roads; a traffic signal at the intersection of Mason and Loud Roads; connect Thayer Road to Loud Road, severing Thayer Road's connection to Route 31.**

This alternative operates acceptably and is very similar to the recommended alternative, number 2, above. Changes to Thayer Road could be considered separately from improvements to Route 31, would not have a significant impact on Route 31, and connection of Thayer Road to Loud Road would not be required to warrant a traffic signal at the Mason/Loud Road intersection. This element remains a possibility and is included as an option in the recommendation section (see Section IV.B.3.).

5. **One through travel lane in each direction on Route 31 with raised median throughout, except breaks and U-turns at Hogan Road, Towne Center/Thayer Road, and Mason/Loud Roads, new traffic signals at the Mason/Loud and the Aldrich Road intersections.**

This option has positive benefits for safety and through travel on Route 31 due to the continuous median. However, it would excessively limit access to properties along Route 31. U-turns at the intersections would require wider than desired cross sections, potentially significant right-of-way takings, and would increase delays at these intersections. More detailed engineering investigation would likely determine that U-turns are infeasible in the Hamlet of Egypt. Sections of raised median in Egypt remains a long-term possibility under several of the alternatives by converting the recommended two-way left-turn lane into a raised median where feasible, if in the future the safety conditions warrant this. Raised medians beyond the gateway treatments are not recommended at this time.

6. **Two through travel lanes in each direction with a raised median throughout, except breaks and U-turns at Towne Center/Thayer Road and Mason/Loud Roads, and a break at Hogan Road.**

Four through lanes on Route 31 were not found to be necessary to adequately serve the design year (2025) traffic volumes and would require significant right-of-way takings. This alternative is not recommended for further consideration.

7. **One through travel lane in each direction on Route 31 with continuous raised median throughout except breaks at local side streets, Thayer and Towne Center aligned and signalized and no signal at Mason and Loud Roads.**

This option has positive benefits for safety, but restricts the travel operations for eastbound motorists due largely to the signal at Thayer Road and Towne Center. However, it would excessively limit access to properties along Route 31. U-turns at the intersections would require wider than desired cross sections, potentially significant right-of-way takings, and would increase delays at these intersections. More detailed engineering investigation would likely determine that U-turns are infeasible in Egypt. Sections of raised median in Egypt remain a long-term possibility by converting the recommended two-way left-turn lane into a raised median where feasible, if in the future the safety conditions warrant this. Raised medians beyond the gateway treatments are not recommended at this time.

The signal at Towne Center Plaza was not found to operate acceptably in the future, unless Route 31 is widened to at least four lanes (as summarized above for #3). This alternative is not recommended for further consideration.

## **C. Recommendations**

### **1. NYS Route 31**

The following are the basic recommendations for NYS Route 31 within the study area to accommodate community needs and traffic through the design year (2025). Phasing considerations for the recommended improvements are summarized in Chapter VI. (Figure 19 on page 75 presents the proposed lane configuration.)

1. Widen to three lanes from Hogan Road through Aldrich Road, one travel lane in each direction and a continuous center left-turn lane;
2. Align Mason and Loud Roads at their intersection with Route 31 introducing a four-way intersection;
3. Add new traffic signals at the intersections with Mason/Loud Roads and Aldrich Road;
4. Add several additional side street turn lanes, and an exclusive eastbound right-turn lane at the Victor Road intersection;
5. Designate bicycle lanes in each direction;
6. Add sidewalks on both sides throughout the corridor;
7. Provide several additional landscaped median segments for access management, pedestrian crossing, aesthetics, and traffic calming; and
8. Provide gateway treatments with landscaped medians at the east and west ends of the Hamlet.

Central to the plan for NYS Route 31 is the Hamlet Center between Thayer Road and Mason/Loud Roads. This general area is considered as the heart of the residential/commercial district, similar to the "downtown" of a village. This concept is outlined in detail in Section IV.C.2. It includes the construction of a "Hamlet Center loop road" south of Route 31 beginning just east of the Towne Center Plaza driveway and connecting to Loud Road (see Figure 17). All vehicular access to properties in this area would be via this loop road (with the exception of the existing Hess gas station). Its impact on Route 31 would be to remove several uncontrolled access points, add another unsignalized adjacent side street, and increase traffic volumes at the signalized and aligned Mason and Loud Road intersection.

The following sections summarize the recommendations in greater detail.

#### **a) Cross Section**

The basic cross section for Route 31 is recommended to include the following:

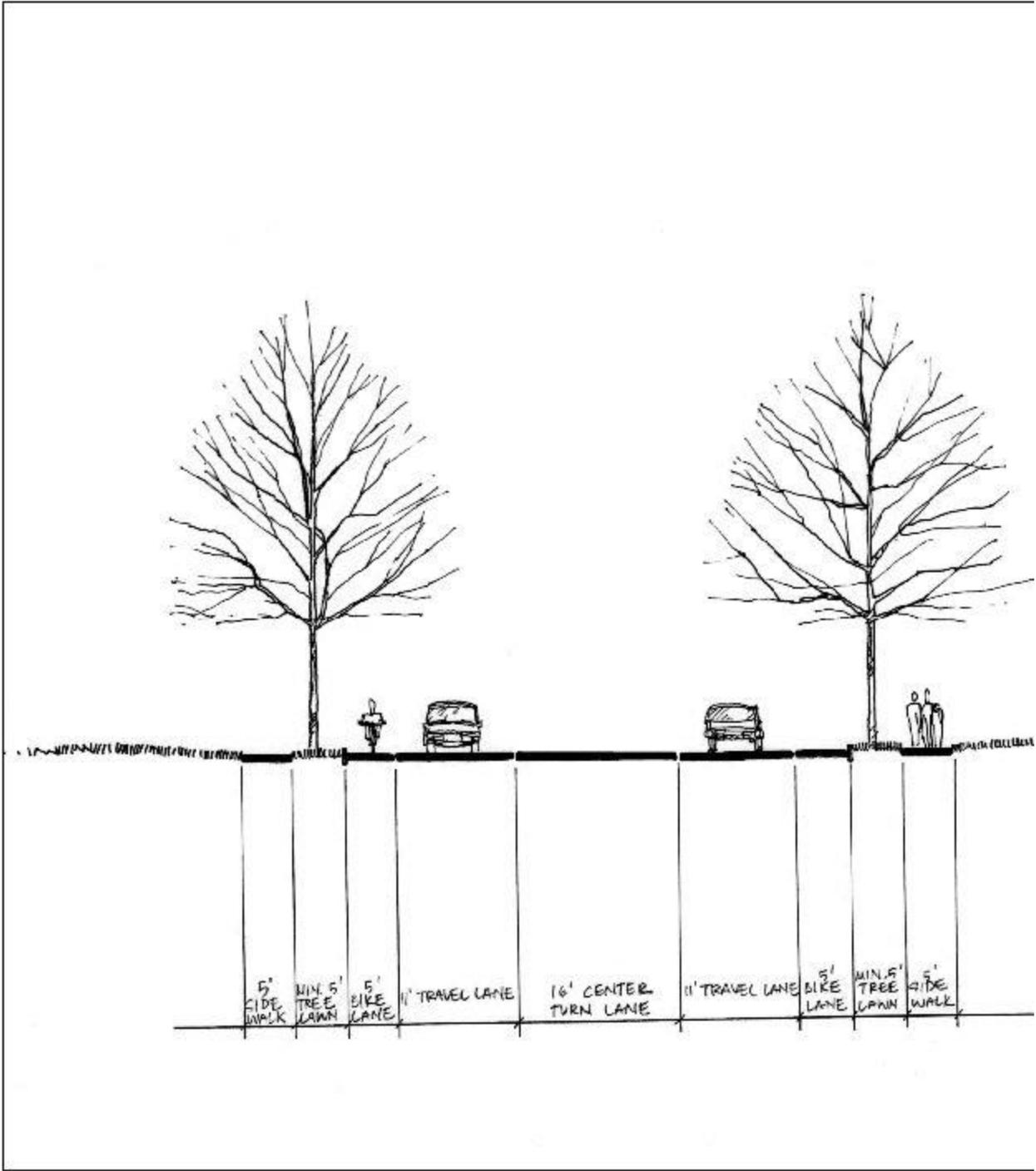
- One 11-foot (3.3 m) travel lane in each direction;
- Five-foot (1.5 m) bicycle lane in each direction;

- 16-foot (4.9 m) center left-turn lane (TWLTL) (or a variation thereof as described below);
- Curbs with a new closed drainage system;
- Five-foot (1.5 m) sidewalks on both sides the entire length. Some more rural sections (eg, south side of Rt. 31 adjacent to the park) may be asphalt sidewalks, with all other sections concrete; and
- Maximum width possible for tree lawn space (between curb and sidewalk). This will vary depending upon building set-back, right-of-way, etc. The desired minimum would be five feet (1.5 m) for planting trees and adequate width for snow storage in the winter.

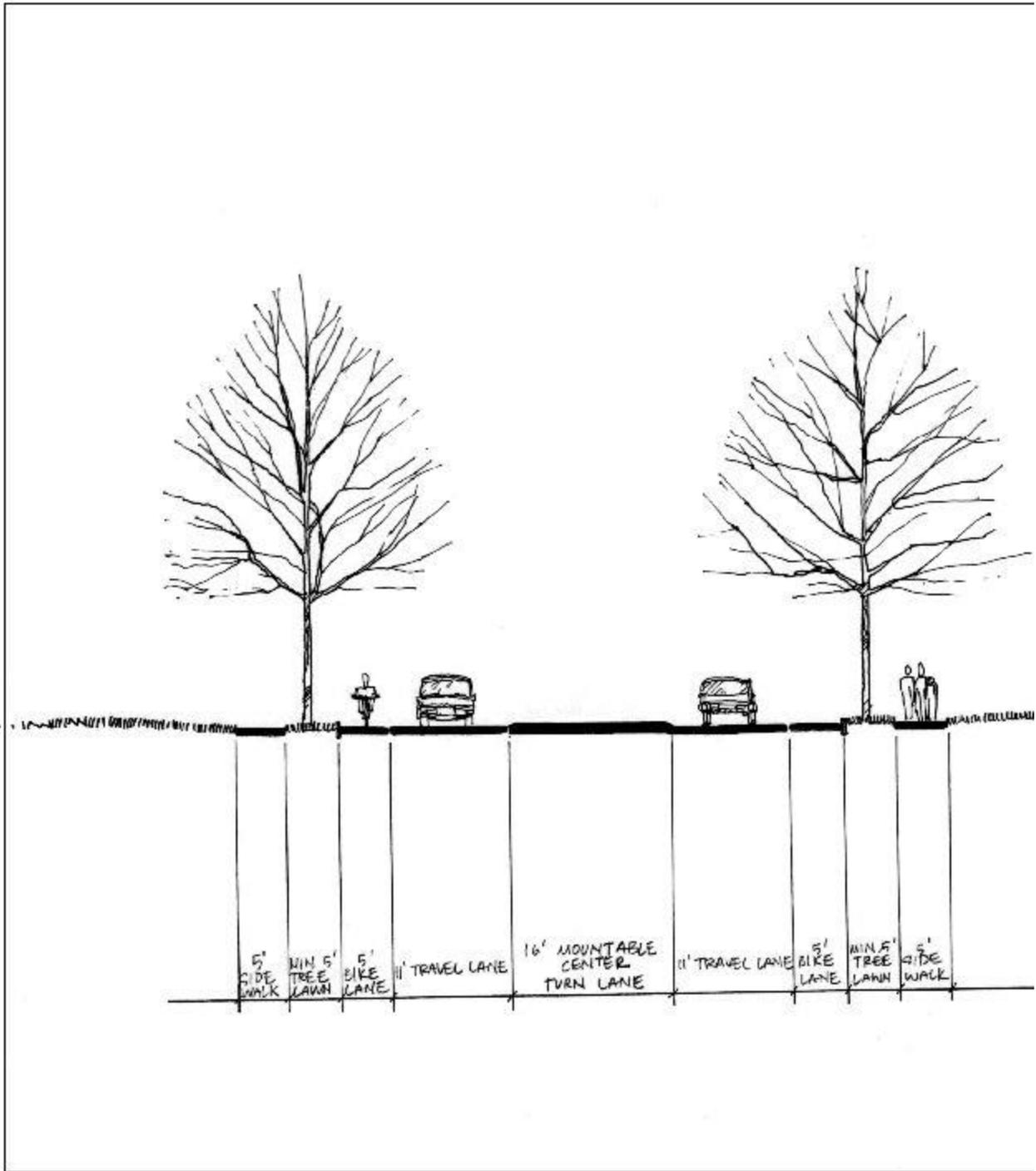
The basic cross section is illustrated in Figure 14a. The cross section and its lane widths represent a balance of the needs of all transportation modes and the community's vision for the Hamlet, including maintaining and enhancing the business district and enhancing the Hamlet atmosphere.

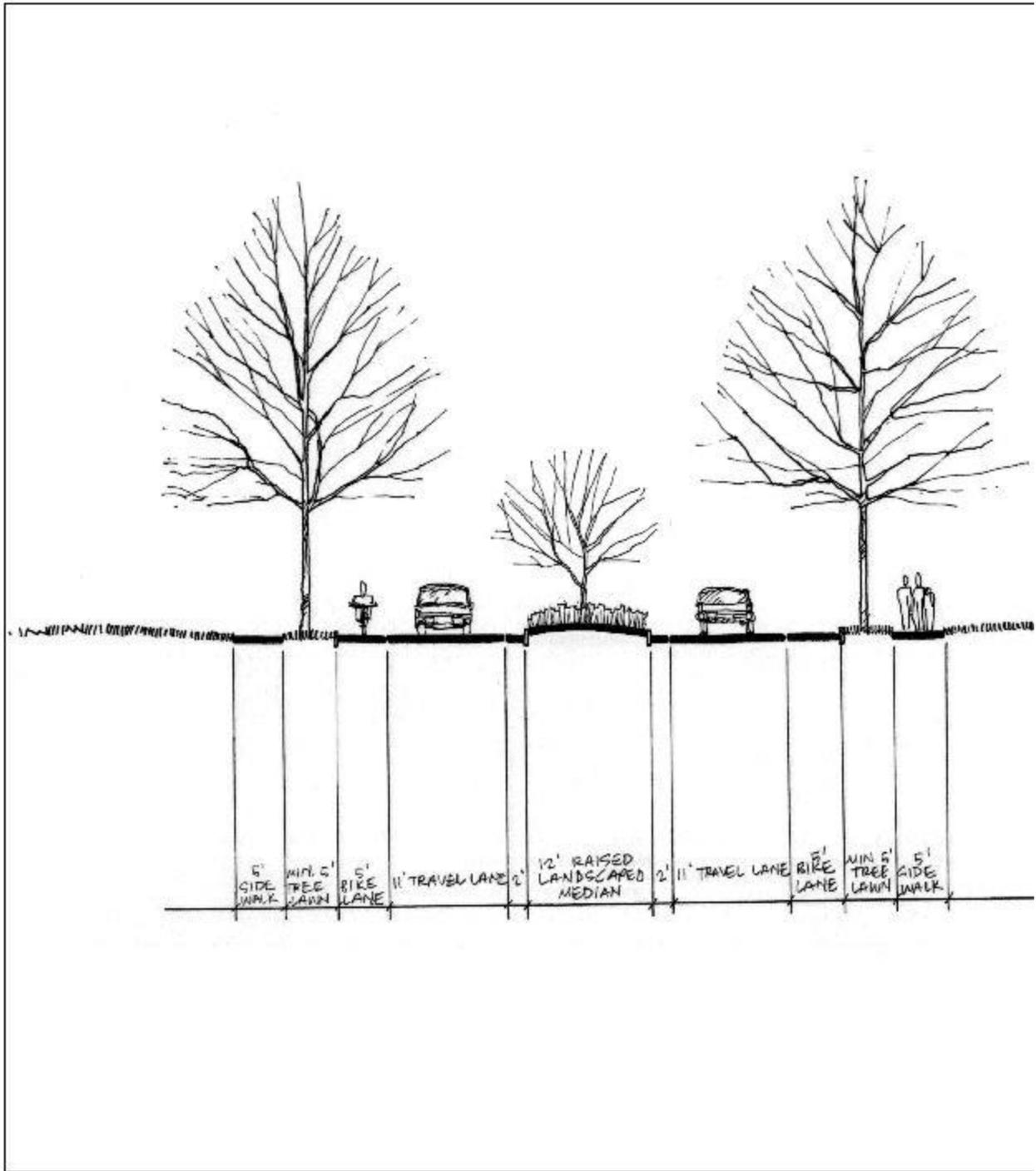
Figure 14b illustrates a variation of the basic cross section that may be used in several sections or throughout the entire corridor. In place of a standard flush TWLTL, a raised and textured TWLTL is shown. The raised center turn lane would help discourage the use of the lane for non-turning maneuvers and help to slow traffic down, improving the traffic calming benefit. It would be raised in the range of  $\frac{1}{4}$  to  $\frac{3}{4}$  inch.

Figure 14c illustrates another variation of the basic cross section that would be used in the gateways (as summarized in Section IV.C.1.c.), and may be desired for short segments in several other locations. In place of the standard flush TWLTL, a median consisting of a raised 12 foot (3.6 m) landscaped median, a two foot (0.6 m) curb offset on each side, leaving an 18 foot (5 m) curb to curb width (two foot offset (0.6 m), 11 foot (3.3 m) travel lane, five foot (1.5 m) bicycle lane) for passing if required at breakdowns. The raised median would allow a generous area available for landscaping to emphasize a Hamlet atmosphere, while allowing for the maximum traffic calming potential.



Insert Figure 14 b





- **Pedestrians** are served along both sides of the road throughout the length of the corridor with continuous five-foot (1.5 m) wide sidewalks. Enhancements are also recommended for several areas for safer crossing of Route 31 by pedestrians, including Hogan Road, the west side of Towne Center Plaza, Mason/Loud Road, and Victor Road. These improvements are summarized further below. Where possible the existing sidewalks should be utilized, but improved. Some existing sidewalks are on private property with easements. This situation should continue and be expanded, if possible, east and west of the Hamlet Center or “four corners” area. This allows for placing the sidewalks further away from the road, creating a greater buffer between pedestrians and vehicular traffic, more width for snow storage, and a more rural setting. However, in the Hamlet Center (between Thayer Road and Mason/Loud Roads) where a more urban village feel is desired and there are more right-of-way constraints, the minimum tree lawn area of 5 feet (1.5 m) may be the maximum possible or desirable.
- **Bicyclists** traveling along Route 31 would be accommodated by five-foot (1.5 m) bicycle lanes on both sides of the road. Route 31 is part of the NYS Bike Route 5 system and provides important connections to local and regional destinations, including numerous trails.
- **Through-traveling motorists** would be accommodated by one 11-foot (3.3 m) travel lane in each direction. This meets Federal and State design standards, helps to moderate travel speeds by not providing excess width, and helps to minimize Hamlet character degradation from excess pavement width and right-of-way impacts. The center left-turn lane and exclusive side road turn lanes remove turning traffic from the through traffic stream.
- **Access to properties and local side streets** would be enhanced by constructing a 16-foot (4.9 m) center left-turn lane where practical. This is wider than typical center left-turn lane widths (10 - 14 feet (3.0 m - 4.3 m) typical), and it meets the “desirable” width for this type of facility. This is recommended to help facilitate entry and exit for driveways and side streets along Route 31. As summarized in Section II.D.2., motorists experience difficulty at times accessing adjacent properties and side streets. The greater width would allow motorists to more easily pull into the turn lane, and completely out of the travel lane, as well as use the lane to exit driveways. There is no ideal way to improve ingress/egress from side streets and adjacent properties without other major impacts. As summarized in Section IV.C., adding additional traffic signals west of Mason/Loud Roads would lead to the need to widen Route 31 to accommodate additional travel lanes, resulting in significant property impacts, or significantly increased delay for Route 31 motorists. In addition, the signals are not likely to meet federal or state signal warrants. Where no turn movements occur or are possible, such as at the eastern gateway (see Section IV.C.1.c.), the median could be narrower

than 16 feet (4.9 m) to minimize right-of-way impacts and the width of the road.

The following engineering issues were identified for the recommended cross section:

- It is assumed that minor grade changes would be needed along the corridor to accommodate new sections;
- It is assumed that the general horizontal alignment would be retained for Rt. 31;
- Strip right-of-way takings or easements may be needed along both the north and south sides of Route 31 throughout the entire length to accommodate the sidewalks within the right-of-way. Average taking would be 4 meters, with a total area of 9,000 square meters and one structure (the Nelson store on the southeast corner of Route 31/Loud Road) for the intersection alignment and the widening of Route 31;
- Depending upon the alignment for the new Hamlet Center loop road, it may require a right-of-way taking of 7,500 square meters, including one structure and one industrial structure (former Comstock Building);
- The addition of a turning lane at Victor Road would require a right-of-way taking of 500 square meters;
- The addition of a turning lane at Aldrich Road would require no takings, unless adjustment to the vertical curve west of Aldrich Road is incorporated into the project (then one structure and substantial right-of-way would be required);
- The realignment of Mason Road would require 2,000 to 2,500 square meters of right-of-way along with the need for relocated utilities. The entire scope of utilities to be relocated include drainage culverts, two utility poles with aerial lines, and possibly some underground utilities;
- Regardless of the option for Mason/Loud Road realignment the structure at the southeast quadrant (Nelson's store) would need to be removed or relocated; and
- MacGregor's Grill may lose some frontage land but the structure should remain unaffected under this alternative.

## **b) Intersection Improvements**

### **Route 31 / Hogan Road**

Significant concern regarding the safety and operation of this intersection was expressed by several individuals through oral and written comments. In addition, the accident rate was found to be higher than average and had distinct patterns. However, a traffic signal is not warranted or recommended at this intersection because the State and Federal signal warrants are not sufficiently met. The Comprehensive Plan goal for this road is that it remains a minor north/south road in the Hamlet (with Mason and Aldrich Roads carrying the

majority of north/south traffic in the area). Adding a traffic signal would encourage the use of this road and likely increase traffic volumes on it. In addition, a traffic signal here would result in the need to add an eastbound through travel lane to maintain acceptable traffic operations. This would require significant cost and impact to adjacent properties due to the steep grade.

However, the addition of an eastbound exclusive left-turn lane for traffic turning onto Hogan Road is recommended to reduce the potential for rear-end crashes (eastbound Route 31 through traffic comes over the hill and encounters vehicles turning left onto Hogan Road). Left-turning motorists would be out of the through travel lane, which would improve safety and reduce delays to eastbound through traffic. An additional southbound lane is recommended on Hogan Road to separate left and right turning traffic. This will allow right turning traffic to exit Hogan Road without being impeded by motorists waiting to turn left. Consideration should also be given to re-aligning the Hogan Road southbound approach to improve the angle of its approach for traffic turning onto Route 31, again due to the sight restrictions resulting from the steep grade to the west.

This intersection is also recommended as the Hamlet's eastern "gateway," which includes various enhancements, including signage, landscaping, a raised median segment, a pedestrian crossing, etc., as summarized and illustrated in the following Section (IV.C.1.c)). This serves as a visual cue to motorists that they are now entering into the Hamlet of Egypt and may help slow down traffic through the Hamlet Center.

### **Route 31 / Thayer Road**

No traffic signal or other changes to the intersection of Route 31 and Thayer Road are recommended. Similar to Hogan Road, adding a traffic signal would encourage the use of this road and likely increase traffic volumes on it, which is not desired by the Town and local residents. Additionally, the State and Federal traffic signal warrants are not sufficiently met. A traffic signal here would result in the need to add an eastbound through travel lane to maintain acceptable traffic operations, adding cost and impacts to adjacent properties. The recommended three-lane section on Route 31 would provide sufficient westbound left-turn storage for vehicles turning left onto Thayer Road.

A potential connection from Thayer Road to a new Hamlet Center loop road, as outlined in Section IV.C.2. of this chapter, would provide access to the Mason/Loud Road signal for Thayer Road residents, if desired. Several options for reducing cut-through traffic utilizing Thayer Road are outlined in Section IV.C.3.

### **Route 31 / Towne Center Plaza**

No traffic signal is recommended at the intersection of Route 31 with the Towne Center Plaza driveway. It also does not meet State and Federal signal warrants

and adding a traffic signal would result in the need to add an eastbound through travel lane to maintain acceptable traffic operations, adding cost and impacts to adjacent properties. The proposed 16 foot (4.9 m) center left-turn lane would significantly improve operations for entering and exiting traffic, and the driveway is expected to operate without major delay for most time periods.

### **Route 31 / New Hamlet Center Loop Road**

As described earlier a new road in the Hamlet Center is proposed, as shown in Figure 17. This would create a new intersection with Route 31. The distance between this new intersection and the Towne Center Plaza driveway should be maximized, with a minimum separation of 125 feet (38 m), to reduce the potential for conflicts between left turners using the Route 31 center left-turn lane. The road would be one lane in each direction designed to a narrow, village standard with parallel on-street parking. At its intersection with Route 31, separate northbound left and right-turn lanes are recommended, with one southbound entering lane. An exclusive westbound left-turn would be provided as part of the center left-turn lane for Route 31. See Section IV.C.2 and Section IV.C.3. for additional discussion about this roadway.

### **Route 31 / Mason Road / Loud Road**

This intersection and the area surrounding it is historically recognized and planned to remain as the Hamlet Center or "four corners" of Egypt, the central location of local activity. A concept plan and additional information is included in Section IV.C.2. A traffic signal is recommended for placement at this intersection. Section IV.D.3. outlines the traffic operations and signal warrants for this intersection. It is recommended that the south end of Mason Road be shifted west to align properly with Loud Road. Eastbound and westbound exclusive left-turn lanes are recommended. Southbound traffic would have an exclusive right-turn lane and a shared through and left-turn lane, and the northbound approach would have one entering lane and one exiting lane. The traffic signal would provide sufficient capacity so that separate right and left-turn lanes are not needed on the northbound Loud Road approach. This allows a narrower design of the road, a shorter distance for pedestrians to cross and a more Hamlet Center, pedestrian-scale look.

This is also the location of the crossing of the RS&E Hike/Bike Way and the Crescent Trail. Accommodations for the crossing of these trails are summarized in Section IV.C.2. and Figure 20.

The reasons why a traffic signal is recommended at this intersection rather than at the Towne Center Plaza intersection are summarized as follows:

- The Mason/Loud intersection is the "Hamlet Center" where most activity is planned to take place;

- The intersection is the recommended crossing of the Crescent Trail and the RS&E Hikeway-Bikeway;
- The adjacent location of the Fire Hall allows easy coordination of this signal with a possible additional emergency only traffic signal for the Fire Hall;
- Traffic volumes meet State and Federal traffic signal warrants. Volumes are now, and are projected to continue to be in the future, significantly higher than at Towne Center Plaza driveway;
- A traffic signal at Towne Center Plaza would require widening Route 31 to four or more lanes at a higher cost and with significant right-of-way impacts. A wider road would significantly change the character of the area;
- Due to the lower volumes, the Towne Center Plaza intersection would operate better than would the Mason/Loud Road intersection without a signal; and
- A signal at Mason Road supports the Comprehensive Plan role of Mason Road as an important local north-south road.

The signal would provide additional gaps in westbound Route 31 traffic for Thayer Road and Towne Center Plaza traffic to exit and enter. A decorative traffic signal pole design is recommended to fit into the design of the Hamlet Center. A potentially negative feature of a traffic signal at the Mason/Loud Road intersection is facilitating cut-through traffic on Loud Road. To discourage this several traffic calming measures have been proposed for Loud Road as summarized in Section IV.C.3.

### **Route 31 / Victor Road**

This intersection is currently signalized. An eastbound right-turn lane, a westbound left-turn lane, and a northbound exclusive right-turn lane are recommended.

This intersection area is also recommended as the Hamlet's eastern "gateway" which includes various enhancements, including signage, landscaping, a raised median segment, a pedestrian crossing, etc., as summarized and illustrated in the following section.

### **Route 31 / Aldrich Road**

It is recommended that the three-lane section on Route 31 be carried through the Aldrich Road intersection, tapering back to two lanes to the east according to appropriate design standards. Additional traffic is projected on Aldrich Road following the construction of the new Lyndon Road bridge (see Section II.D.5.). With this additional traffic a new signal is projected to be warranted. An exclusive left-turn lane would be provided in the eastbound direction for traffic turning on to Aldrich Road. Aldrich Road is recommended for widening at the intersection to provide exclusive southbound left and right-turn lanes.

## **Overall**

The traffic signals at the intersections of Mason/Loud Road, Victor Road and Aldrich Road should be interconnected to allow for signal coordination allowing for progressive movement of vehicles through the corridor. The traffic signals could also be used to moderate traffic speeds, if needed in the future.

### **c) Gateways**

Gateways are roadway and streetscape treatments that provide visual cues to people that they are entering a different setting or environment. These types of treatments are particularly important where transitions from highway speeds to village type speeds and activity are desired. They can serve to signal drivers to reduce their speeds and drive more cautiously, as well as provide a positive, aesthetic enhancement identifying an arrival to a hamlet, village, or neighborhood. Gateways should be distinctive and include strong vertical elements to break up the horizontal environment of the roadway. The Hamlet of Egypt gateways would be located at Hogan Road (western gateway) and in the vicinity of Victor Road (eastern gateway). Elements recommended include the following:

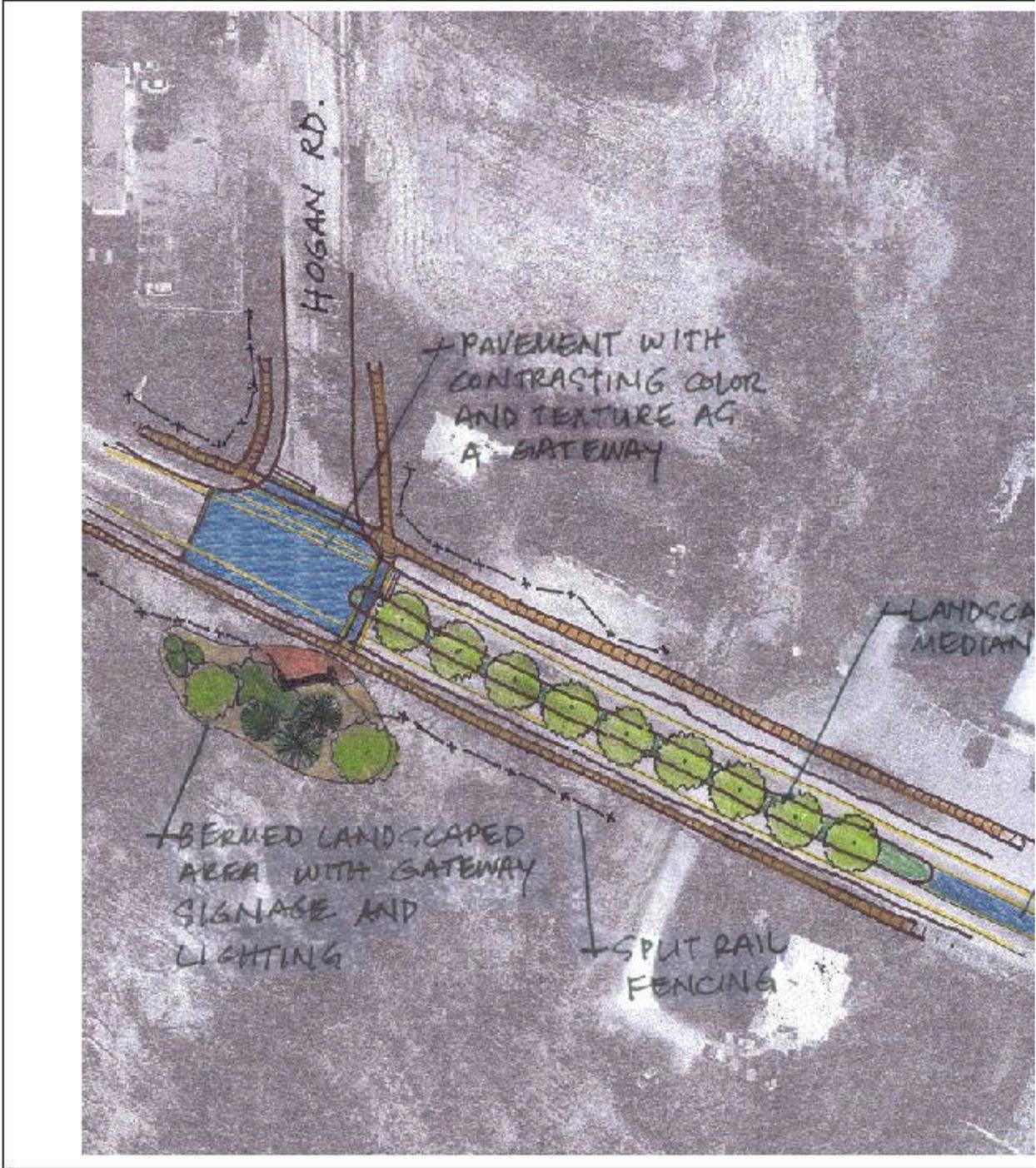
- Dramatic site-specific entrance signage;
- Raised/curbed landscaped medians;
- Enhanced landscaping and contrasting and textured crosswalks;
- Change in pavement texture and color (providing a textural and visual contrast to the normal roadway surface);
- Vertical elements, including tall street trees and fencing; and
- Decorative accent street lighting.

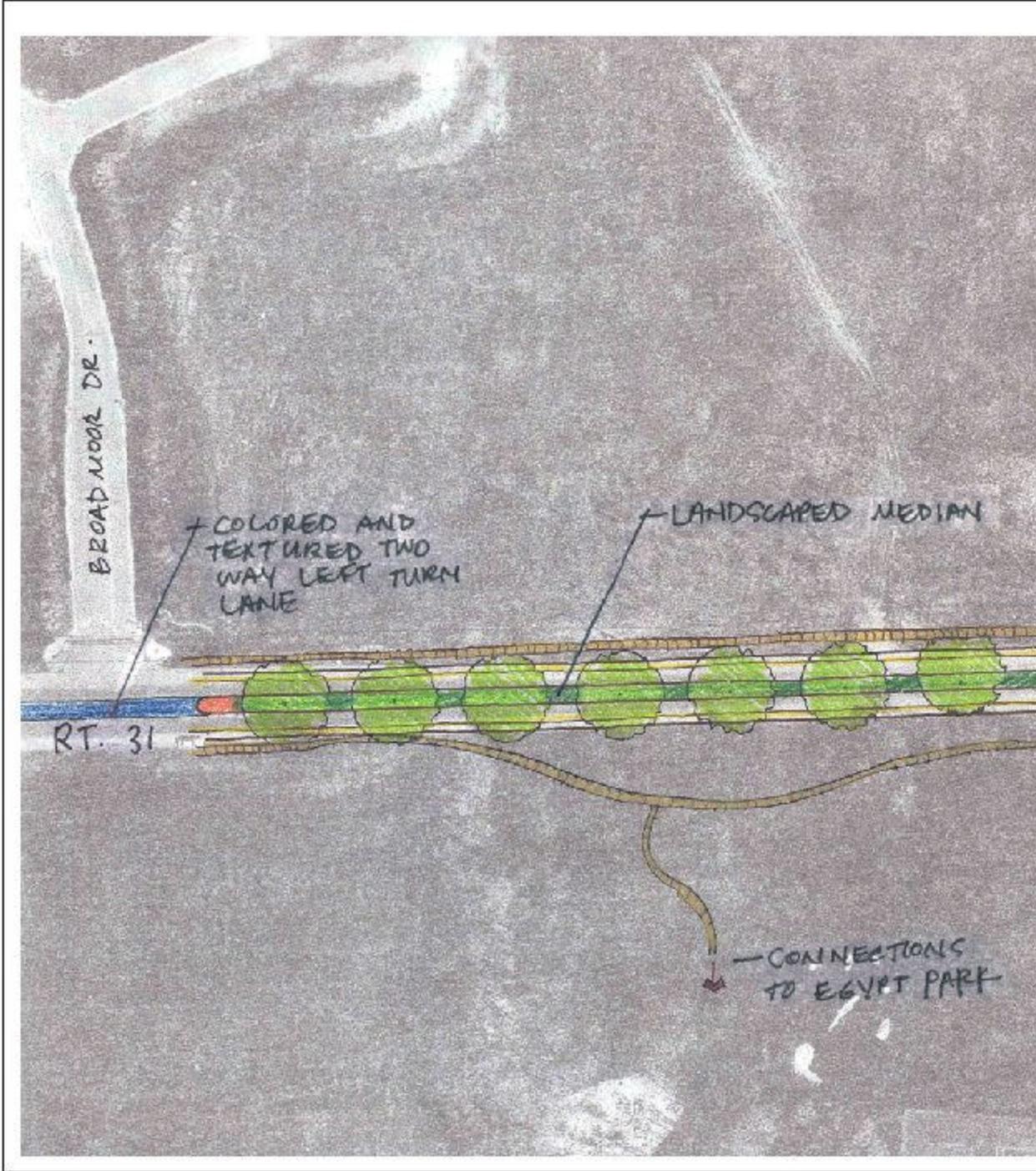
The western gateway at Hogan Road is illustrated in Figure 15. As outlined in Section II.D.3, this intersection has a higher rate of accidents than would be expected for similar facilities. A particular problem is accidents involving motorists waiting to turn northbound onto Hogan Road from eastbound Route 31, particularly during poor weather conditions. The recommended eastbound left-turn lane would improve this condition, as would the following gateway features.

The western gateway includes an approximately 360 foot (110 m) curbed landscaped median beginning at the east side of the intersection on Route 31. The landscaping in the median should not reduce sight distance for turning traffic. A bermed landscaped area is included on the south side of the road. It would include dramatic context sensitive signage (designed consistent with the historic Hamlet theme) welcoming people to Egypt; annuals; tall trees (for the vertical element); split rail fencing (used elsewhere within the Hamlet); and decorative street lighting consistent with the recommended designs for the

corridor (see Section IV.C.5.). A crosswalk on the east side of the intersection with a change in pavement texture and color would have the center median as a pedestrian refuge. Pedestrian crossing signs would also be required in each direction. A change in pavement texture, such as a paver surface, would signal an environmental change as well as visually improve the aesthetic quality of the streetscape.

The eastern gateway at Victor Road is illustrated in Figure 16. It includes an approximately 935 foot (285 m) curbed landscaped median beginning at the west side of the intersection on Route 31. A bermed landscaped area could be incorporated into Egypt Park on the south side of the road which would include dramatic signage (designed consistent with the historic Hamlet theme) welcoming people to Egypt; annuals; tall trees (for the vertical element); split rail fencing; and decorative street lighting consistent with the recommended designs for the corridor (see Section IV.C.5.). This intersection is also important because it is the main entry to Lollypop Farm and to the planned elementary school across from Lollypop. Therefore, safe pedestrian and bicyclist crossing of this intersection is very important.





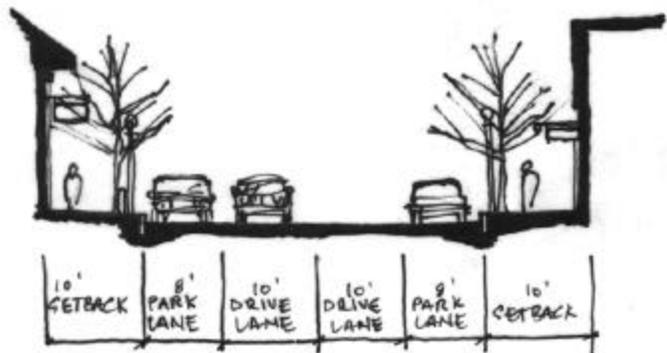
Crosswalks should be marked on all intersection approaches with broad zebra striping at a minimum, or more preferably, by a change in pavement texture and color. One good crosswalk striping option is staggered zebra striping which is being used more frequently around the country due to its maintenance benefits. The zebra stripes are staggered so that there is none along the typical vehicle tire path and therefore are not quickly worn away.

The median on the west side would provide a pedestrian refuge. A change in pavement texture, such as a paver surface throughout the entire intersection, would signal drivers of a change in the environment as well as visually improving the aesthetic quality of the street environment. Pedestrian push buttons to activate traffic signals should also be provided on all approaches.

## 2. The Hamlet Center

To further the community vision for the Hamlet of Egypt, a concept was developed for a Hamlet Center, as illustrated in Figure 17. The Hamlet Center would be developed around a new loop road designed as a neo-traditional village street with on-street parallel parking, curbs, sidewalks, narrow travel lanes, and minimal setbacks.<sup>1</sup> The scale of the streets and structures combined with the vernacular building materials of wood and stone would strengthen the character of the Hamlet. The road would begin opposite the Towne Center Plaza driveway (off-set easterly, not directly across from it), and connect to Loud Road. An east-west secondary loop road, parallel to and south of the Hamlet Center loop road, is another potential option.

This concept is based on the assumption of complete redevelopment of the former Comstock building site to low intensity mixed uses. The intended land use of the new buildings includes small retail or office developments with convenience businesses that are community-service oriented, rather than large commercial developments serving regional traffic. The buildings would be small detached structures spaced out consistent with the historic character and the architectural design guidelines



**Typical Section for  
Hamlet Center Loop**

<sup>1</sup> See [Traffic Engineering for Neo-Traditional Neighborhood Design](#). Institute of Transportation Engineers, 1994, for additional design concepts.

for the Hamlet

(see Section IV.C.5), and similar in layout to Bushnell's Basin. The area between the two parallel roads on the south side is envisioned to be two stories with the second floor in residential use and the first floor commercial. These types of developments are gaining popularity in village and small city centers nationwide.

No direct vehicular access from the Hamlet Center would be provided on the Route 31 frontage. Temporary driveway permits could be permitted until completion of the loop road. All permanent access to developments would be via the new loop road. The exception would be the existing Hess Gas Station that would maintain its existing access. However, rear-access between the gas station from the Hamlet Center is recommended.

The former Nelson's store on the southeast corner of Route 31/Loud Road will require removal to accommodate an aligned Mason and Loud Road and the widening of Route 31. It is recommended that this building be relocated to another site, if possible, to preserve this historic community landmark. One possibility is to relocate the store to the southwest corner of the same intersection. If the poor structural condition of Nelson's store precludes its relocation, perhaps a similar building could be constructed on the southwest corner as a local convenience store, museum, or visitor's center.

The Water Tower on the former Comstock property is also an important historic and visual landmark in the Hamlet. It should be saved and incorporated into the development of the Hamlet Center.

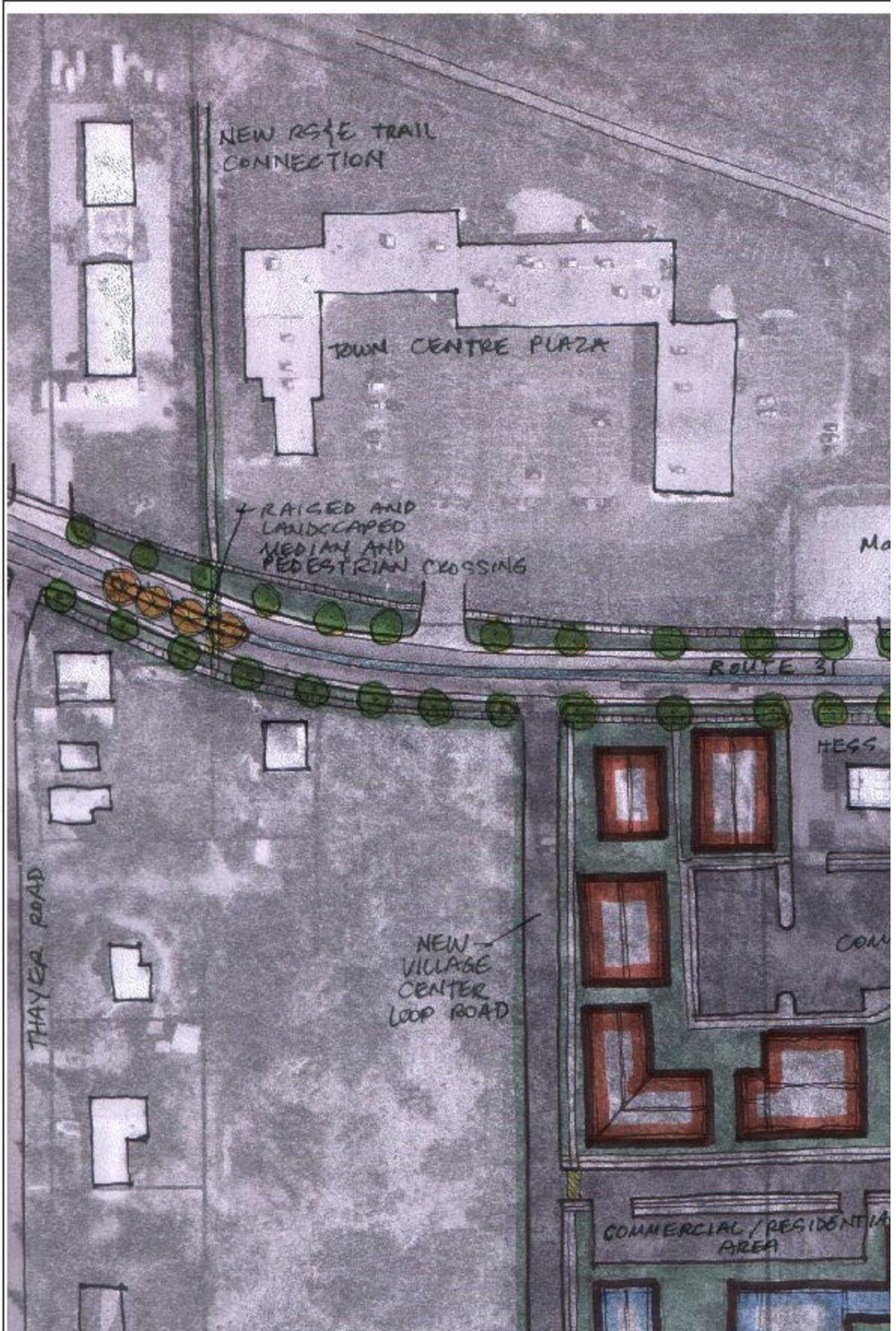
The southeast corner of the intersection would be a pocket park/trailhead for the RS&E Hike/Bike and the Crescent Trail, with benches and informational and directional signage for the trail (see Chapter V). On the northeast corner, the additional land resulting from the relocation of Mason Road to the west, could be utilized as a fireman's memorial and a specially designed connection of the Crescent Trail.

Loud Road would be designed to enhance the character of the Hamlet Center, calm traffic, and discourage cut-through traffic, while maintaining accessibility. It would have the characteristics listed below. The improvements are illustrated in Figure 17 and described further in the following section.

- One lane in each direction with no additional turn lanes at Route 31. The intent is to accommodate rather than encourage additional use of Route 31;
- On-street parking;
- Sidewalks on both sides. The west side walkway should be designed to serve the Crescent Trail and the RS&E Hike/Bike, as summarized in Section V.C.;
- An enhanced mid-block pedestrian crossing, ideally at a new RS&E trail crossing, including a raised table, curb bump-outs, landscaping, signage,

specialty pavers, brightly striped crosswalks, pedestrian warning signs, etc.;

- Street trees and other landscaping;
- At its intersection with the main new Hamlet Center loop road, a traffic circle; and
- At its intersection with the secondary loop road to the south, a forced turn island/channelization requiring all southbound traffic to turn right, permitting no through traffic. Another option here is a realigned intersection, with straight approaches meeting at right angles so that a straight through movement becomes a turning movement, but does not completely restrict any movements.



### **3. Local Road System Changes and Traffic Calming**

The Egypt Subarea Report of the Comprehensive Plan Update (2000) summarized the recommendations for changes to the local road system south of Route 31, including Loud and Thayer Roads, and their possible severing and reconnection to a new road. The Concept Plan for Land Use & Transportation (Appendix A) outlines those recommendations. One of the purposes of this study was to conduct detailed traffic analyses to test the feasibility of various options for local road realignments, roadway severing, new connections and traffic calming.

The recommendations made in this section were based upon the input received from the public outreach and analysis conducted for this study, and the following Guidelines for Managing Development from the Egypt Subarea component of the Town's Comprehensive Plan Update.

1. Turk Hill, Mason and Victor Roads will be considered the principal north/south collector and minor arterials for traffic originating in and moving through this area, and traffic shall be directed to/from them rather than to/from other north/south roads within the sub-area;
2. The rural character of Hogan Road, Thayer Road and Loud Road shall be maintained, and measures implemented to discourage their use by through traffic;
3. The realignment of Loud and/or Thayer Road to intersect Route 31 at Towne Center Plaza would meet warrants for installation of a traffic signal. This option should be carefully considered and fully evaluated in conjunction with Route 31 design studies; and
4. An aligned Loud Road or Thayer Road should follow a circuitous route to discourage use as a by-pass route to Turk Hill Road, Victor Road or the Town of Victor.

Item #3 was carefully considered and rejected for reasons outlined below. Discouraging use of Loud and Thayer Roads as by-pass routes (#4) is addressed with traffic calming measures rather than circuitous roads, which are not consistent with a Hamlet Center theme and may not be conducive to encouraging pedestrian travel. Figure 18 summarizes the recommendations for local road changes.

As previously described, the existing and projected future operation of Route 31 and the number of travel lanes needed on Route 31 was evaluated. The evaluation also considered if and where new traffic signals are warranted to help achieve the goals and vision for the Hamlet. It was found that if a traffic signal was placed at the intersection of Towne Center Plaza and a new access road connecting to Loud and Thayer Roads (or anywhere west of Mason/Loud Road), Route 31 would require widening to four or more lanes, which is against the Town's desires and goals for the Hamlet. However, the high volume of traffic turning off of Route 31 primarily to Mason Road, reduces the through volume

enough so that widening of Route 31 is not required with a traffic signal at Mason and Loud Roads. For this and other reasons outlined in Section V.C.1.b, a traffic signal is recommended at the aligned intersection of Mason and Loud Roads, which would include exclusive eastbound and westbound left-turn lanes.

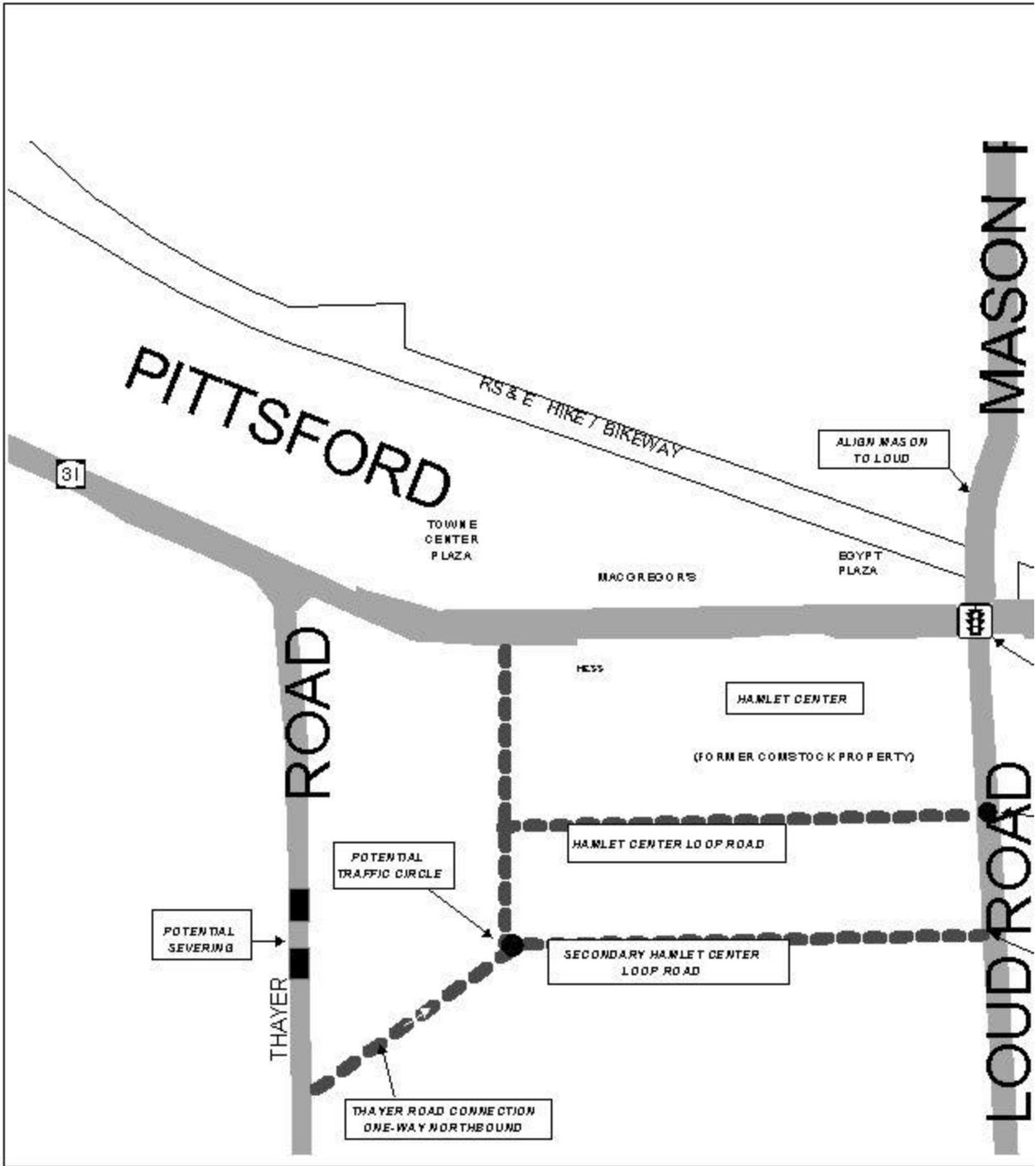
This helps facilitate Mason Road as a primary local north-south travel way. However, it could lead to additional unwanted traffic utilizing Loud Road to access points to the south. To discourage this, several traffic calming measures are recommended on Loud Road, as outlined and illustrated in the previous section.

Due to the functional evolution of Mason Road, as identified in this report, the Town should consider the jurisdictional transfer of Mason Road from a local town road to a designated collector road, owned and maintained by Monroe County.

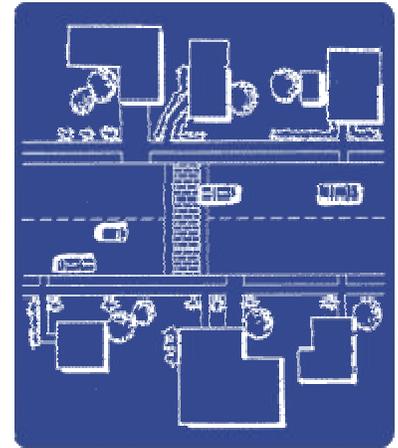
The function of Mason Road has and will continue to evolve as a collector-type road that services increased development from abutting local subdivision streets. The volumes on Mason Road have increased from the 1,500 vehicles per day that traversed the road twenty years ago, to the projected 4,000 vehicles per day expected twenty to twenty-five years in the future. This traffic volume is more indicative of collector-type roadways rather than local neighborhood streets.

Collectors typically serve dual functions: collecting traffic between local subdivision roads and arterial streets and providing access to abutting properties. Collector streets link neighborhoods or areas of homogeneous land use with arterial streets. Mason Road connects multiple neighborhood areas to the Route 31 arterial, including Bent Oak Trail, Waycross Road, Gabriel Drive/Grand View Drive, and the proposed Alexandria Apartments subdivision. Mason Road serves traffic movements between Route 31 and the local subdivision streets as well as through traffic within the local area.

In this capacity, the designation of Mason Road is likely more appropriately characterized and classified as a collector road, generally under the jurisdiction of Monroe County.



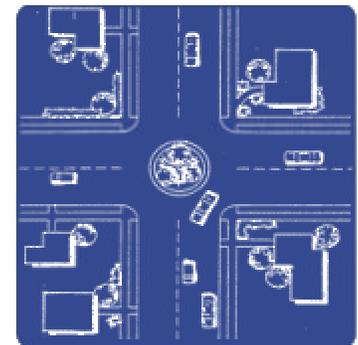
Traffic calming is the combination of mainly physical measures that reduce the negative effects of motor vehicle use, alter driver behavior and improve conditions for non-motorized street users. The main purposes of traffic calming are to decrease traffic volumes and speeds in sensitive areas. Many towns and cities across the country have been using these measures successfully for several years. However, careful consideration should be given to the systematic effects of traffic calming measures, including the reduced accessibility for local residents, the impact of higher traffic volumes, and altered travel patterns resulting from the traffic calming measures that may affect other area roadways. A detailed examination of the actual existing travel patterns and the effect of various measures within the Egypt subarea, as well as a larger area surrounding Egypt, should be conducted prior to implementing traffic calming measures so that they do not have unintended consequences. The effectiveness of measures recommended for the Egypt section of these roads may be enhanced with complementary measures on other sections of these roads and other roads used as cut-throughs.



**Mid-block pedestrian crossing**

Features recommended for further consideration on **Loud Road** are:

1. On-street parking on one or both sides;
2. Enhanced **mid-block pedestrian crossing**, ideally at a new RS&E trail crossing as summarized in Section V.C, including a raised table, bump-outs, landscaping, signage, specialty pavers, crosswalks, pedestrian warning signs, etc.;
3. Street trees and other landscaping;
4. At its intersection with the primary new Hamlet Center loop road, a landscaped **traffic circle**;
5. At its intersection with the secondary loop road to the south, a **forced turn island**/channelization<sup>2</sup> to require all southbound traffic to turn right, permitting no through traffic. Another option here is a **realigned intersection**, with straight approaches meeting at

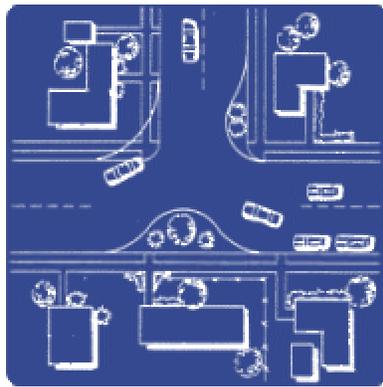


**Traffic Circle**

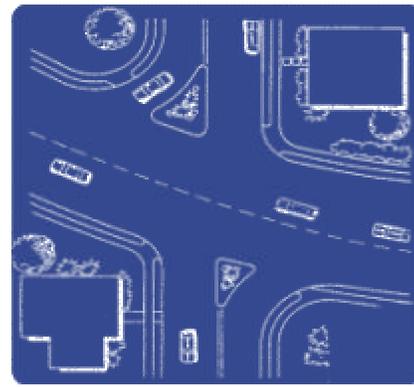
<sup>2</sup> The benefits and costs of a forced turn island on quality of life, livability, safety, etc., must be given serious consideration by the Town and the local community. This can be accomplished through an assessment of travel patterns following construction of the new Lyndon Road bridge, signalization of the Loud and Mason Road intersection, and/or construction of the Hamlet loop road. It could provide positive benefits in discouraging cut-through traffic, but could also disconnect parts of the neighborhood.

right angles so that a straight through movement becomes a turning movement;

It is recommended that traffic calming improvements on Loud Road be implemented in a step-by-step approach, with less restrictive measures implemented first and their effectiveness evaluated. If the less restrictive measures (such as on-street parking, mid-block pedestrian crossing, streetscape improvements) are not effective, other measures can be considered. Another implementation option is to install temporary traffic calming features to measure their effectiveness before permanent features are constructed.



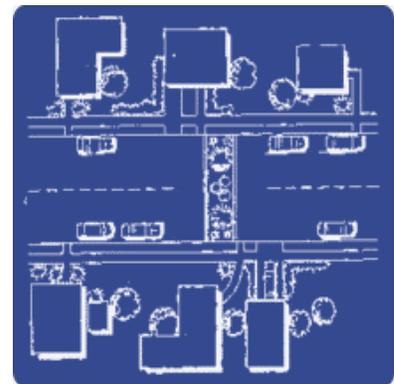
**Realigned**



**Forced Turn**

At Thayer Road, a connection to the new Hamlet Center loop road would provide residents with access to a signalized intersection. It is recommended that this be a one lane, one-way northbound road to discourage cut-through traffic. A 60 foot right-of-way should be set aside for this facility. Other traffic calming options for Thayer Road to discourage cut-through traffic include:

- At the intersection of the Thayer Road connection to the new loop road consider: a traffic circle or a T-intersection with the loop road being the through movement with the Thayer Road connection "T"ing into loop road and requiring a stop;
- On Thayer Road just south of the residences near Route 31, a full or half street closure could be considered. This would allow the same access as existing to Route 31 for those residents. Residents to the south would use the Thayer Road connection to the new Hamlet Center loop road.



**Full Street Closure**

## **4. Access Management**

Well-designed access systems enhance mobility and safety, help preserve community character, advance economic development goals, and protect the substantial public and private investment in roads and land use developments.

Comprehensive access management is an effective approach for advancing these community goals. It strives to help balance the competing needs of mobility and land access.

The Town of Perinton recognizes that highways serve as the primary network for moving people and goods. These corridors also provide access to businesses and homes. If access systems are not properly designed, managed and preserved, these thoroughfares will be unable to retain their primary transportation function and accommodate the travel and access needs of the community.

The intent of these Access Management Guidelines is to provide and manage access to land development while preserving the mobility and safety in the Hamlet of Egypt. These guidelines balance the right of reasonable access to private property with the right of the citizens of the Town of Perinton, Monroe County, and State of New York to safe and efficient travel.

Comprehensive access management does more than preserve the safety and efficiency of travel. These guidelines are also intended to further the orderly layout and use of land, through greater coordination and consistency of land use and transportation decisions; protect community character and conserve community assets by promoting well-designed road and access systems that encourage, and support existing corridor and growth objectives. It is recommended that the access management guidelines outlined below be considered for implementation on Route 31 in the Hamlet of Egypt. The implementation of these guidelines should be accomplished in partnership with the New York State Department of Transportation.

The Town of Perinton has already made several important strides towards access management in the Hamlet of Egypt, including obtaining cross-access easements on several properties. To further the Town's access management plans, several specific access management scenarios for the Hamlet were evaluated as part of this study, including recommendations made in previous Hamlet plans for rear-access roads.

The Concept Plan for Land Use and Circulation of 2000 (Appendix A) proposed a loop road south of Route 31 and just east of Hogan Road to serve the development of these properties. Based upon a field visit, review of existing

properties and land features, a rear access road is not recommended at this location. There is insufficient room for a new access road without significant impact to wooded areas and steep slopes. However, it is very important that these properties be connected through joint and cross access in accordance with the guidelines listed below.

An "L" shaped access road on the northeast quadrant of the Route 31/Hogan Road intersection as outlined in the Concept Plan for Land Use and Circulation of 2000 (Appendix A) is recommended for further consideration as these properties are developed or redeveloped. Significant benefit could be achieved for the intersection of Hogan Road by improving the corner clearances. The access road and driveways should be designed in accordance with the guidelines outlined below. Careful consideration should be given to the access road's impact on the State and Federal wetlands in this area.

For properties along the north side of Route 31, a rear-access road has been considered in the past, in particular a connection from Mason Road (between the RS&E Hikeway-Bikeway and the Egypt Plaza) to the Towne Center Plaza. A field visit and review of existing properties and land features was conducted. There are severe limitations to constructing a rear access road including limited available land, State and Federal wetlands, streams, wooded areas, and the RS&E Hikeway-Bikeway. In addition, the connection to Mason Road would be at a poor location too close to the intersection with Route 31 and not in conformance with the access management guidelines outlined below. A new access road would be a negative feature adjacent to the RS&E Hikeway-Bikeway and hikers and bikers would have to cross the driveway of the access road at Mason Road. However, it is important that all access to these properties should be in accordance with the guidelines outlined below. At every opportunity, access should be retrofitted to meet the guidelines.

As outlined in Section IV.C.2., development of the Hamlet Center concept would include no direct access to Route 31 from the new loop road east to Loud Road (with the exception of the existing Hess Gas Station). All access would be via Loud Road and the new Hamlet Center loop road.

One other consideration is the property planned for residential development north of Route 31 and east of Northern Nurseries. This property should have access (in strict conformance with the access management guidelines) to both Mason Road and Route 31. Completely restricting access to this property from Route 31 would result in too much traffic on Mason Road.

## ACCESS MANAGEMENT GUIDELINES

### 1.0 ACCESS SPACING

Reasonable spacing between driveways is important to the safety and capacity of roadways, as well as the appearance of a corridor. Several studies on the safety effects of access spacing have found that crash rates increase as access density increases.<sup>3</sup> This is because a surplus of access points leads to numerous traffic conflicts that increase driver decision-making. These access spacing guidelines are designed to help insure greater compatibility between land development and the road serving that development.

- 1.1 All access connections on this NYSDOT roadway segments should meet or exceed the minimum connection spacing requirements for that facility, as stipulated by New York State DOT Corridor Management Bureau, Albany, New York.
- 1.2 Separation between access connections on Route 31 shall be based upon the posted speed limit:

<i>POSTED SPEED LIMIT</i>	<i>DRIVEWAY SPACING</i>
35 mph or less (55 km/h)	125 feet (38 m)
36-45 mph (58-70 km/h)	245 feet (75 m)
45 mph or greater (70 km/h)	440 feet (134 m)

It is recommended that the posted speed on Route 31 be 40 mph (65 km/h). This would permit driveway spacing of 245 feet (75 m), however the greater distance of 440 feet (134 m) would be preferable. For the local side streets, the driveway spacing shall be 125 feet (38 m). Driveway spacing shall be measured from the closest edge of pavement to the next closest edge of pavement.

- 1.3 The connection spacing requirements may be reduced in situations where they prove impractical.
- 1.4 If the connection spacing guidelines cannot be achieved, then a system of joint use driveways and cross access easements may be required in accordance with subsequent sections.
- 1.5 Variations from these distances may be permitted at the discretion of the Planning Board where the effect would be to enhance the safety and/or operation of the roadway. A Traffic Study may be required by the applicant

<sup>3</sup> Source; NCHRP Report 3-52, #420.

to demonstrate whether the proposed change would exceed roadway safety and/or operation benefits.

## **2.0 CORNER CLEARANCES**

Corner clearance is the distance from an intersection of a public or private road to the nearest access connection. It is typically measured from the closest edge of the pavement of the intersecting road to the closest edge of the pavement of the connection along the traveled way. Corner clearance standards preserve good traffic operations at intersections, as well as the safety and convenience of access to corner properties.

- 2.1 Access for corner lots shall be provided from the lower volume side road. Justification for access onto Route 31 shall be provided. The granting of access onto Route 31 from corner lots shall not be considered until every feasible option for obtaining side road access is explored. Applicants must provide proof of unique or special conditions that make application of these provisions impractical.
- 2.2 Corner clearance for all connections shall meet or exceed the minimum connection spacing requirements for that roadway.
- 2.3 Where minimum spacing cannot be met, and when no other alternatives exist, the Town Planning Board may allow an access connection along the property line farthest from the intersection. In such cases, directional connections may be required (e.g., right-in only).
- 2.4 Larger minimum corner lot size should be established wherever possible to provide for greater corner clearances on street frontage.
- 2.5 Conditional use limitations for corner lots should be used where adequate corner clearance cannot be obtained.

## **3.0 JOINT AND CROSS ACCESS**

Joint and cross access requirements provide for a unified on-site circulation plan serving several properties on a commercial corridor. They connect developments to allow for circulation between adjacent sites and are a method of improving driveway spacing where lot frontage is inadequate. On developed strips, such as Route 31 in Egypt, joint and cross access is achieved through individual negotiations with property owners. In promoting these joint and cross access guidelines, the Town of Perinton could consider offering incentives for cooperation, such as increased floor area coverage, setback and parking adjustments, and a more streamlined site plan review process. It should be noted that joint access should be carefully evaluated on a case by case basis to insure acceptable traffic egress from developments.

- 3.1 Joint and cross access requirements should be administered on a site-by-site basis. The maximum allowable left-turn volume from any one driveway

onto Route 31 (with or without point of cross access) shall be 50 left-turn vehicles per peak hour. Future land uses with peak hour left-turns greater than this value should be strongly discouraged.

- 3.2 Adjacent and compatible commercial properties should provide a cross access vehicular drive and pedestrian access to allow circulation between sites.
- 3.3 A system of joint use driveway and cross access easements should be established to provide for driveway separation consistent with the access management classification system and guidelines.
- 3.4 The building site plan should incorporate the following:
  - a. Stub-outs and other design features to make it visually obvious that the abutting properties may be tied in to provide cross-access via a service drive;
  - b. A unified access and circulation system plan that includes coordinated or shared parking areas is encouraged whenever feasible.
- 3.5 Shared parking areas should be granted a reduction in required parking spaces if peak demand periods for proposed land uses do not occur at the same time period.
- 3.6 Pursuant to this section, property owners shall:
  - a. Record an easement with the deed allowing cross access to and from other properties served by joint use driveways and cross access or service drive;
  - b. Record an agreement with the deed that remaining access will be dedicated to the Town and pre-existing driveways will be closed and eliminated after construction of the joint-use driveway;
  - c. Record a joint maintenance agreement with the deed defining maintenance responsibilities of property owners.
- 3.7 The Town Planning Board may reduce the required separation distance of access points where they prove impractical, provided all of the following requirements are met:
  - a. Joint access driveways and cross access easements are provided whenever feasible in accordance with this section;
  - b. The site plan incorporates a unified access and circulation system in accordance with this section;
  - c. The property owner shall enter into a written agreement with the Town, recorded with the deed, that pre-existing connections on the site will be closed and eliminated after construction of each side of the joint use driveway.
- 3.8 The Planning Board may modify or waive the requirements of this section where the characteristics or layout of abutting properties would make

development of a unified or shared access and circulation system impractical.

- 3.9 Cross access for pedestrians should also be part of the site plan review process.

#### **4.0 DRIVEWAY CONNECTIONS AND DESIGN**

- 4.1 Driveways shall be limited to one per parcel, unless it can be demonstrated with a Traffic Impact Study that greater safety and operational benefits can be achieved with more than one driveway; and the additional driveway meets or exceeds driveway spacing guidelines;
- 4.2 Subdivision of property may occur inasmuch as new lots would need to obtain access from the existing access point, or a new single access point that services the entire parcel.
- 4.3 All driveway access design shall conform to the latest requirements of the NYSDOT, MCDOT, and Town of Perinton.
- 4.4 The length of driveways or "throat length" shall be designed in accordance with the anticipated storage length for entering and exiting vehicles to prevent vehicles from backing into the flow of traffic on the public street or causing unsafe conflicts with on-site circulation.
- 4.5 Where adequate on-site "throat length" is not practical, conditional use limitations should be used to insure safe storage and circulation.

#### **5.0 DRIVEWAY OFFSETS AND ALIGNMENT**

It is generally desirable to align opposing driveways on undivided roadways with center two-way left-turn lanes to reduce left-turn conflicts, if in the future there is a high potential for signalization of the intersection. If signalization is not anticipated, or wanted as in the case of the Route 31 intersections west of Mason and Loud Roads, the driveways then should be offset sufficiently (125 ft (38 m), see below). For other low volume roads or driveways (less than 50 total vph entering and exiting) on opposite sides, they generally should be aligned when the center two-way left-turn lane is present. This eliminates the exiting left-turn conflicts while having little, if any, impact on the overall level of service for the intersection. If alignment of low volume roads or driveways is not possible where the center two-way left-turn lane is present, they should be offset a minimum distance to minimize jog maneuvers, overlapping left-turns and other maneuvers that may result in safety hazards or operational problems.

Guidelines for minimum offset distances are 125 feet (38 m) for all opposite left driveways with access onto Route 31. Opposite right (downstream) driveway spacing should provide a minimum 300 feet (92 m) between access drives. Additional opposite right spacing over and above the minimum may be required if it is determined through a Traffic Impact Study that there is insufficient left-turn queue storage or weave maneuver areas between the opposite and

proposed driveway. Longer offsets may be needed depending on the expected inbound left-turn volumes of the driveways. This determination shall be made under the peak hour traffic periods for the site development.

## **6.0 PHASED DEVELOPMENT PLANS AND OUTPARCELS**

- 6.1 In the interest of promoting unified access and circulation systems, development sites under the same ownership or consolidated for the purposes of development and comprised of more than one building shall not be considered separate properties in relation to these access guidelines. The number of access connections permitted shall be the minimum number necessary to provide reasonable access to these properties, and not the maximum available for that frontage.
- 6.2 All access to outparcels must be internally connected using the shared circulation system of the principle development.
- 6.3 Pedestrian connections to outparcels should be provided.

## **7.0 SITE PLAN REVIEW PROCEDURES**

The site plan review process provides opportunity for incorporating access management features into the design and development process. Access management guidelines should be considered with all subdivision and site plan review as follows:

- 7.1 The subdivision and site plan review process should incorporate access management considerations as standard review procedures related to future development and redevelopment.
- 7.2 All Traffic Impact Studies submitted to the Town should address the specific site related access management issues contained in these guidelines.

## **8.0 VARIANCE STANDARDS**

Unique locations, unusual land use conditions or specific access needs may require access designs, locations or spacings that vary from the guidelines specified herein. The application of all access control standards or strategies should be based on the test of reasonability. Standards should not be applied arbitrarily. A variance policy and procedures will allow deviations from the standards when justified.

All situations cannot be anticipated when developing standards, and as such, flexibility in application must be included in the access management process through use of a variance. A variance procedure also insures that deviations from standards will be addressed consistently.

- 8.1 The granting of a variance shall be in harmony with the purpose and intent of these guidelines and shall not be considered until every feasible option for meeting access standards is explored.
- 8.2 Applicants for a variance from these standards must provide proof of unique or special conditions that make strict application of the provisions impractical.
- 8.3 Under no circumstances shall a variance be granted, unless not granting the variance would deny reasonable access, endanger public health, welfare or safety, or cause an exceptional and undue hardship on the applicant. No variance shall be granted where such hardship is self-created.

## **9.0 RETROFITTING ACCESS IN BUILT UP AREAS**

Many of the accesses in the corridor are already developed. Some areas may never be able to meet desirable or even minimum access management standards. In such situations, the existing property access is allowed to remain, but measures can be adopted to make some improvements. Retrofit strategies include the following:

- Selectively relocate or reconstruct existing substandard driveways;
- Negotiate driveway reconstruction, relocation during roadway resurfacing or improvement, or during development of an access management or corridor management plan;
- Require improvement of access during redevelopment or expansion of an existing use, including joint or cross access with adjoining properties;
- Negotiate redesign of driveway access during sidewalk maintenance, reconstruction, or additions;
- Consolidate access when adjacent parcels come under common ownership;
- Use raised medians along certain roadway segments to control mid-block turning movements, improve safety, and enhance the visual and aesthetic character of the corridor; and
- Develop special corridor overlay zoning districts that are tailored to the circumstances of built up areas.

## **5. Streetscape Design Guidelines**

The following design guidelines are recommended to direct future development in the Hamlet of Egypt. These design guidelines are intended to establish a vivid and memorable identity for the Hamlet of Egypt. The vision for the Hamlet is based on the historic patterns established during the agricultural past of Egypt and reinforced by the recently designated local historic district in Egypt. The previously identified community goals cover four general points -- future

development design, reinforcing the Hamlet concept, economic viability of local businesses, and transportation.

Compulsory enforcement of the design guidelines will be the responsibility of the Town Board as the governing body. However, compliance should be coordinated with other bodies of interest, such as the Historic Architecture Commission, and be flexible enough to accommodate a variety of proposed development types.

### **Enhance Historic District**

A recently established historic district officially recognized the historic significance of Egypt. The vision for the Hamlet of Egypt proposes that its historic identity is reinforced as it is an important and viable precedent for the area. A Landmark Society report entitled Identification of Architectural and Visual Elements that Define the Historic Character of the Hamlet of Egypt, Town of Perinton was completed in March, 1999. This report identified the significant historic resources of the area, and established architectural design guidelines for new development to blend with the historic character of the area. Appendix A includes several pages of the report that outline the architectural design guidelines.

### **Street Line**

Future development should promote a consistent building set back at a distance defined by existing adjacent historic structures. The rhythm, scale, and composition of new structures along the Route 31 corridor should be consistent with the Landmark Society report guidelines. Typically, with historic Hamlet-type development, homesteads, businesses and other structures retain significant side set backs between buildings and are architecturally simple and unadorned. It is recommended that a similar pattern of development be utilized for future development. Consistency along the corridor will promote a visual continuity in Egypt and strengthen the sense of place of the community.

### **Landscaping**

It is recommended that an improved street tree system and landscaping guidelines be adopted. A system of street trees should be established to contribute to the presence of vegetation in the corridor, to improve the aesthetics and definition of the corridor, and to provide another unifying element to the streetscape. Street trees should be planted at a consistent interval and with a consistent offset from the curb, between the curb line and sidewalk (curb park). In the study area, spacing between 40 feet (12 m) on center to 60 feet (18 m) on center, and approximately 3 feet (0.9 m) minimum from the curb are recommended ranges for street tree planting. The curb park should be as wide as possible, with a minimum of five feet (1.5 m). Wherever possible, street trees should be planted within the public right-of-way. In all other locations, planting of street trees should be coordinated with private property owners. Consideration should be given to the horticultural

requirements of the individual species, physical limitations of the species, and inherent visual qualities when selecting street trees. Existing significant trees should be preserved if possible.

In addition to street trees, other plantings in the study area should be considered. Other trees, shrubs, and seasonal flower displays should be considered for use to emphasize corridor entrances, complement signage and other street amenities, provide screening, and seasonal color/interest, and to define pedestrian and other non-motorized circulation systems. This additional landscaping could be provided and maintained by municipal, private, civic, or commercial organizations.

### **Signage**

It is recommended that a new signage system for pedestrians and motorists be implemented for the study area. The signage system should be coordinated to promote the larger goals of these design guidelines and the community vision of this rural Hamlet. Appropriate materials for the signage system include timber, rough-hewn stone or cobbles, and steel. The system should be developed as a hierarchical system regarding design, content, and location of the signs and circulation goals for the study area. Attention should be given to materials, scale, graphics, orientation, color, lighting, and other physical design issues to coordinate with other streetscape and architectural elements of the Hamlet. Where possible, signs should be consolidated to eliminate or reduce visual clutter. Further study should be undertaken to establish the signage system for Egypt.

### **Street Lighting**

A new consistent system of street lighting should be installed in the Route 31 corridor. Functionally, the addition of street lighting improves nighttime visibility and increases safety for motorists and pedestrians. However, consideration should be given to the aesthetic qualities of the lighting units and emitted light both during the day and nighttime hours. Pedestrian scale lighting should be included in a hierarchical system of streetlights. Additionally, nodal spaces along the corridor, like a trailhead, public park, or street intersection, should be addressed in the lighting system.

### **Street Furniture**

Throughout Egypt, a coordinated system of street furniture should also be planned. Street furniture includes items such as benches, garbage receptacles, bicycle parking and kiosks. Street furniture should be placed based on projected need or to emphasize a function of a specific place along the corridor. For example, amenities at a public bus stop or at a public park are recommended. The street furniture system should be planned in concert with all other recommended guidelines to best unify all elements of the Route 31 corridor in terms of design, materials, color, scale, and location. Appropriate materials are timber, rough-hewn stone, and steel.

## **Road Pavement Features**

NYS Route 31 should be designed based on the recommendations contained in this document in Section IV.B.1. It is recommended that granite curbing be utilized in the study area. In many areas, the narrow width of the state owned right-of-way necessitates the use of the space saving curb and closed storm water system in place of a shoulder and open swale type of storm water system. Curbing would also narrow the perceived width of the vehicular travel lanes and offer added traffic calming benefits. A curbed road would emphasize the community setting of the Hamlet as opposed to its more rural non-curbed counterpart.

Special pavement types could be used in pedestrian crossing areas, two-way left-turn lanes, entrance thresholds, medians, and bicycle lanes, to provide further identity to the Hamlet and offer traffic calming benefits. Paving materials with contrasting colors and textures could be added to these areas or substituted for typical road asphalt. These materials could consist of cobbled stone paving to emphasize the rural character of the area, or could be a more cost-effective solution, like stamped and colored concrete to mimic natural stone cobbles. The use of pavement alternatives reduces the visual dominance of the asphalt roadway and offers the opportunity to coordinate with materials used in other places in the Hamlet, strengthening the identity of Egypt.

As a historical reference to the historic RS&E Trolley Line, a change in pavement type could mark the former location of the functional rails. New, non-functional flush rails and ties could be installed at the former location. The rails could serve an educational role as an interpretive element of the former significance and location of the railroad and a unique feature for the RS&E Hikeway-Bikeway.

## **Pedestrian Sidewalk Features**

Sidewalks should be of five foot (1.5 m) wide concrete construction and should occur along both sides of Route 31, offset a minimum of five feet (1.5 m) from the curb line. Beyond the Hamlet, sidewalks could be of asphalt construction and should maintain a consistent width. Where space permits and context is appropriate (adjacent to Egypt Park for example), a meandering sidewalk design, similar to a linear park, could be installed to emphasize a more rural aesthetic. Specialty paving could be used in selected areas to mark nodal spaces and to coordinate with other material choices in the overall design guidelines. As with all projects occurring on public land, the pedestrian circulation system should be constructed for universal accessibility where practical.

## **Bicycle Lane Features**

The vision for the Hamlet of Egypt includes bicycle lanes along both sides of Route 31. These lanes, as described in previous chapters, should be five feet (1.5 m) wide and occur immediately adjacent to the vehicular travel lanes before

the curb. The bicycle lane should utilize contrasting pavement color or material and painted markings to better define the designated bicycle lanes. Bicyclists would be allowed access to the bicycle lanes at all curb cuts. At designated locations, bicycle parking should be installed as part of the street furniture system.

### **Trail System**

Crossing Route 31 in the project area are two trails – the RS&E Trolley Trail and the Crescent Trail. The RS&E Trolley trail is open to bicycle, pedestrian, cross country skiing (snowshoe) users only. The Crescent Trail is open to pedestrian and cross-country skiing/snowshoeing only. Horses or motorized traffic are not allowed. Neither trail is paved so in-line skating is infeasible. Clearly marked and signed entrances and connections to the trail system with informational kiosks and other amenities should be installed. Historical interpretive signage referencing the railroad origins of the RS&E Trolley Trail should be installed at a central ‘trail head park’ envisioned for the intersection of Mason and Loud Roads as both trails would cross Route 31 at this location. The actual crossing could be accomplished with a combined crossing with the local sidewalk system. The landscaping, signage, street furniture, and lighting systems could all link with the trail system at this location.

### **Utilities**

Ideally the overhead power lines in the Hamlet would be buried, consolidated behind buildings, or consolidated on one side of the street. However, there are feasibility and cost considerations with these options. Other options for improving the unsightliness of the overhead lines on poles are to consolidate lines on fewer poles, screen with street tree plantings, stain a specific color, use concrete poles, straighten existing poles, and/or utilize poles for other signage to eliminate street ‘clutter’.

### **Private Property Development in the Corridor**

Development on land adjacent to Route 31, but outside of the public right-of-way should comply with the design guidelines described in this report. Individual property owners could use the design guidelines as a resource in the planning and development of their property to achieve the vision for the Hamlet. Following are issues that should be considered for private development when being reviewed by the Town:

- Access directly to Route 31 from adjacent properties should be limited whenever functionally possible to increase the safety of users of Route 31 and to maintain street definition. Driveways could be consolidated and combined, or connected to a circulation system separate from Route 31. See Section IV.B.4 for further recommendations on access management;
- Off street parking should not be located between the street and the buildings. Parking lots reduce the desired rural, Hamlet character and disrupt the visual connection between the street and structure;

- Parking should be located behind or to the side of structures fronting on Route 31. In commercial areas, parking lots should be combined when possible.

## **6. Land Use Policies**

The following land use policies should be considered for implementation to support achievement of community goals:

1. Locate convenience uses likely to be accessed in the weekday afternoon peak period on the south side so primary movement during this peak is right-in, right-out (eg, gas stations and dry cleaners);
2. Locate convenience uses likely to be accessed in the weekday morning peak period on the north side so primary movement during this peak is right-in, right-out (eg, coffee shops);
3. Encourage mixed-use and supporting residential development, as these may increase the pedestrian and bicyclist trips within the Hamlet and decrease local trips made by automobile;
4. Protect natural land features to the maximum extent (water features, steep slopes, wooded areas, and open space); and
5. Promote shared parking among businesses in mixed-use areas and consider reduced parking requirements in mixed-use areas.

## **D. Traffic Operations Analysis**

### **1. Intersection Operations**

The future Level of Service (LOS) results for the recommended alternative were obtained from the SYNCHRO model (previously described in Section II.D.2.). Table 8 summarizes and compares the capacity analysis results of the existing, future no-build, and preferred alternative conditions. Figure 19 presents the recommended lane configurations on Route 31 and at each primary intersection in the study area.

#### **Route 31 and Hogan Road, unsignalized**

Motorists are projected to continue to have difficulty exiting Hogan Road onto Route 31 during both peak periods, although the volume of motorists experiencing the delay is not high. Providing an additional southbound lane would allow left and right turning motorists to exit Hogan Road independently of one another. In addition, installation of an eastbound left-turn lane would

allow eastbound through motorists to continue through the intersection without being impeded by motorists waiting to turn left onto Hogan Road. The southbound LOS would improve slightly during both peak periods and greater safety would result from the additional lanes, median treatment and possible shift in alignment at the intersection.

### **Route 31 and Thayer Road, unsignalized**

Levels of Service for motorists exiting Thayer Road would improve to LOS "B" in the AM peak and remain LOS "F" in the PM peak, although the actual delays experienced may be somewhat lower, and the volumes are relatively low. The LOS for vehicles entering Thayer Road from Route 31 would also remain a "C" during the PM peak. Installation of a two-way left-turn lane would allow left turning motorists exiting Thayer Road to first enter the center lane while waiting for a gap in westbound traffic. Both safety and operating efficiency would be improved.

### **Route 31 and Towne Center Plaza, unsignalized**

Levels of Service for motorists exiting Towne Center Plaza would improve to LOS "E" or better during both peak periods. This improvement is a direct result of use of the center left-turn lane.

### **Route 31 and Mason/Loud Roads, signalized**

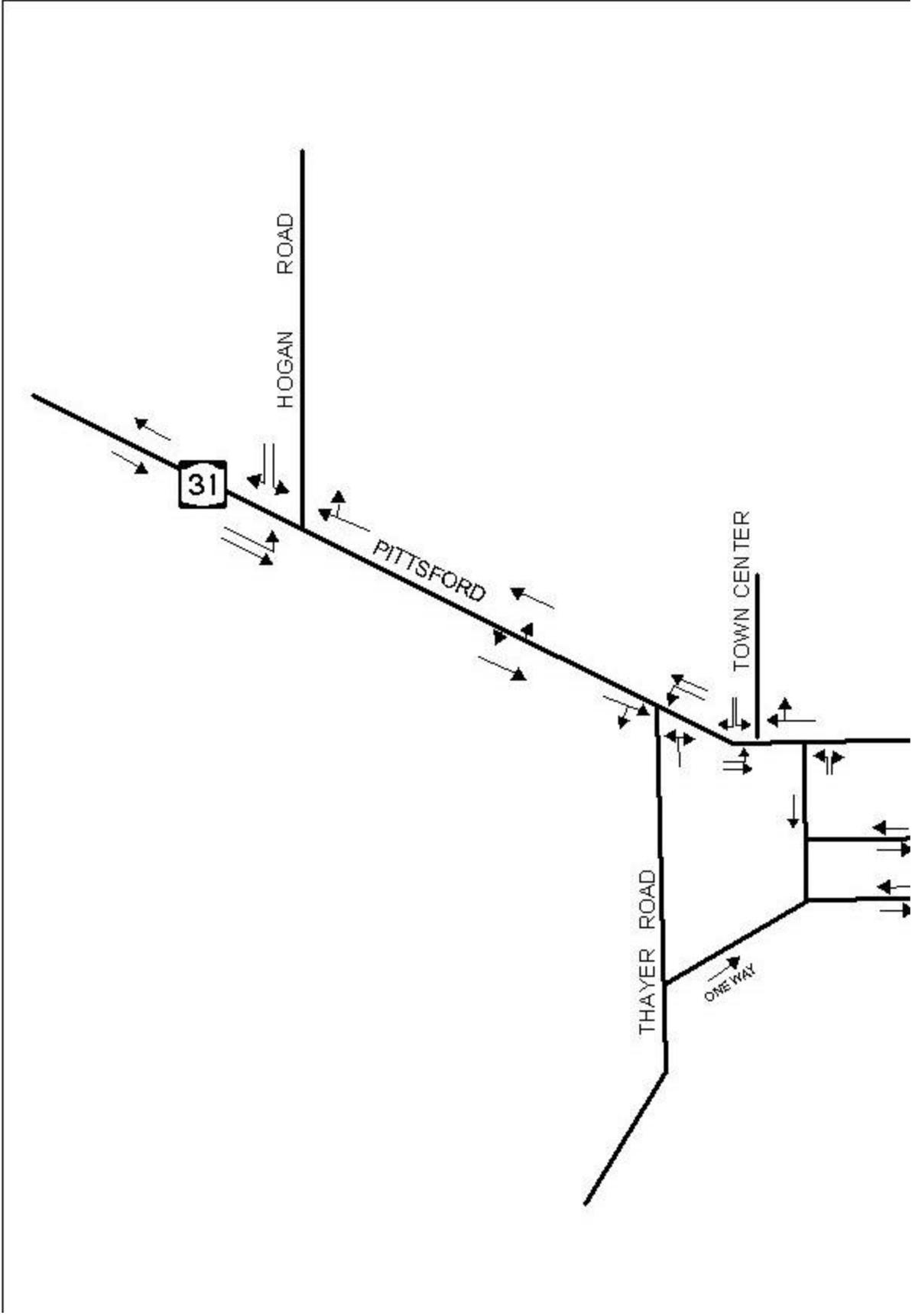
Signalization of this intersection would significantly improve safety and operations on the side roads, but would create some additional delay to eastbound and westbound through traffic. Installation of eastbound and westbound left-turn lanes would allow through traffic to traverse the intersection unimpeded by left turning motorists. Adjacent unsignalized intersections and driveways would also benefit from this traffic signal by increased duration and frequency of gaps in through traffic.

### **Route 31 and Victor Road, signalized**

This intersection would continue to operate at acceptable levels of service during both peak periods. Installation of auxiliary turn lanes on all approaches would further support existing operations.

### **Route 31 and Aldrich Road, signalized**

Signalization of this intersection would significantly improve safety and operations on Aldrich Road with some additional delay to eastbound and westbound through traffic. Installation of an eastbound left-turn lane would allow through traffic to traverse the intersection unimpeded by left turning motorists. Adjacent unsignalized intersections and driveways would also benefit from this traffic signal in the form of increased duration and frequency of gaps in through traffic.



**TABLE 8 - COMPARISON OF CAPACITY ANALYSIS RESULTS**

INTERSECTION WITH ROUTE 31	EXISTING		FUTURE NO BUILD		PREFERRED ALTERNATIVE	
	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak
<b>Hogan Road, unsignalized</b>						
Eastbound Left	B	A	A	B	C	B
Southbound Left	---	---	---	---	E	F(129.4)
Southbound Right	---	---	---	---	F (52.8)	C
Southbound Approach	E	F (170.0)	F (430.7)	F (*)	E	F(70.5)
<b>Thayer Road, unsignalized</b>						
Westbound Left	A	B	A	C	A	C
Northbound Approach	B	E	C	F (*)	B	F (66.4)
<b>Towne Center Plaza, unsignalized</b>						
Eastbound Left	B	A	B	B	B	B
Southbound Left	E	F (139.2)	F (90.5)	F (398.5)	D	E
Southbound Right	C	C	D	C	D	C
Southbound Approach	D	E	F (60.3)	F (131.5)	D	D
<b>Mason/Loud Roads, unsignalized</b>						
Eastbound Left	B	B	B	B		
Westbound Left	A	B	A	B		
Northbound Approach	F (97.8)	F (*)	F (*)	F (*)	NA	NA
Southbound Left/Through	F (78.3)	F (*)	F (639.8)	F (*)		
Southbound Right	D	C	F (61.6)	C		
Southbound Approach	E	F (*)	F (215.8)	F (*)		
<b>Mason/Loud Roads, signalized</b>						
Eastbound					A	C
Westbound	NA	NA	NA	NA	B	B
Northbound					C	D
Southbound					D	C
<b>Overall (Delay in sec/veh)</b>					<b>B</b>	<b>C</b>
					<b>(12.8)</b>	<b>(22.2)</b>
<b>Broadmoor Trail, unsignalized</b>						
Eastbound Left	B	A	B	B	B	B
Southbound Left	E	F (78.4)	F (76.6)	F (194.8)	F (76.6)	F (194.8)
Southbound Right	C	B	D	C	D	C
Southbound Approach	C	D	E	F (76.4)	E	F (76.4)
<b>Victor Road, signalized</b>						
Eastbound	A	A	A	B	A	A
Westbound	B	A	B	C	B	A
Northbound	B	C	C	C	C	D
<b>Overall (Delay in sec/veh)</b>	<b>B</b>	<b>A (7.8)</b>	<b>B</b>	<b>B</b>	<b>B</b>	<b>B</b>
	<b>(10.7)</b>		<b>(14.4)</b>	<b>(18.1)</b>	<b>(14.4)</b>	<b>(14.3)</b>
<b>Aldrich Road, unsignalized</b>						
Eastbound Left	B	A	C	B		
Southbound Left	---	---	---	---	NA	NA
Southbound Right	---	---	---	---		
Southbound Approach	F (67.8)	F (83.6)	F (*)	F (*)		

<b>Aldrich Road, signalized</b>						
Eastbound					D	B
Westbound	NA	NA	NA	NA	B	A
Southbound					D	C
<b>Overall (Delay in sec/veh)</b>					<b>C</b>	<b>B</b>
					<b>(29.4)</b>	<b>(11.6)</b>

LOS (seconds of delay/vehicle)

\* Indicates oversaturated conditions

## 2. Network Operations

SYNCHRO 5.0 has also been used to compare the overall performance of the highway system throughout the corridor under existing, future no-build, and preferred alternative conditions. Table 9 summarizes and compares various system wide performance measures.

**TABLE 9 - SYNCHRO SYSTEM-WIDE PERFORMANCE MEASURES**

MEASURE	FUTURE NO-BUILD		PREFERRED ALTERNATIVE	
	AM	PM	AM	PM
SIGNAL DELAY/VEH (s)	141	142	14	20
TOTAL DELAY (hr)	1,010	1,228	101	174
STOPS	7,162	20,935	9,419	11,761
AVERAGE SPEED (mph)	6	6	28	24
TOTAL TRAVEL TIME (hr)	1,181	1430	276	375
PERFORMANCE INDEX	1,048	1,300	145	223

The SYNCHRO measures of effectiveness reports display quantitative information about the performance of intersections and the network. The Performance Index is a combination of the delays, stops and queuing penalties. The lower the Performance Index, the better the overall network operates. These results indicate that the proposed improvements associated with the preferred alternative would significantly improve network operations throughout the system.

## 3. Signal Warrant Analysis

The need for a traffic signal is determined by comprehensive investigation of traffic conditions and physical characteristics at the location. The poor levels of service for motorists attempting to exit the side roads at the Mason/Loud and Aldrich Road intersections indicates a traffic signal may be warranted.

The New York State Manual of Uniform Traffic Control Devices (MUTCD) has set forth warrants to investigate the need for a traffic control signal. The seven warrants are as follows:

- Warrant 1 Minimum vehicular volume
- Warrant 2 Interruption of continuous flow
- Warrant 3 Minimum pedestrian volume
- Warrant 4 School crossing
- Warrant 5 Progressive movement

- Warrant 6 Accident experience
- Warrant 7 Combination of warrants

These warrants and their criteria are fully explained in the MUTCD. Warrants 3, 4, and 5 would not apply to either of the intersections in question.

Warrants 1 and 2 are satisfied when, for each of any eight hours of an average day, anticipated volumes on the artery and side road are in excess of the minimum values presented in the Manual of Uniform Traffic Control Devices.

The Federal Manual on Uniform Traffic Control Devices also sets forth three additional warrants which specifically address peak hour usage:

- Warrant 9 Four hour volumes
- Warrant 10 Peak hour delay
- Warrant 11 Peak hour volume

Warrant 9 stipulates that for any four hours of a day, minimum threshold volumes are met on the artery and side road.

Warrant 10 is intended for application where minor street traffic suffers undue delay in entering or crossing the major street for one hour of the day. This warrant is satisfied when the following conditions exist for one hour of an average week day:

- 1) total delay on the side road approach equals or exceeds five vehicle hours,
- 2) the volume on the same side road approach equals or exceeds 150 vph, and
- 3) the total entering volume serviced during the hour equals or exceeds 650 vph.

Warrant 11 is also intended for application where minor street traffic suffers undue delay in entering or crossing the major street for one hour of the day. It stipulates that for one hour of a day, minimum threshold volumes are met on the artery and side road.

**Mason Road/Loud Road**: Warrant 2 (Interruption of Continuous Flow), Warrant 9 (Four Hour Volumes), and Warrant 11 (Peak Hour Volumes) are met under both existing and future volume conditions. Warrant 1 (Minimum Vehicular Volume) is not met under either condition. Warrant 10 (Peak Hour Delay) is marginally met under future conditions assuming that left-turn motorists would not wait longer than 4 minutes and that right turners experience insignificant delay.

**Aldrich Road**: Warrant 9 (Four Hour Volumes), Warrant 10 (Peak Hour Delay), and Warrant 11 (Peak Hour Volumes) are met under both existing and future

volume conditions. Warrants 1 (Minimum Vehicular Volume) and 2 (Interruption of Continuous Flow) are additionally met under future conditions.

#### **4. Guidelines for Installation of Two-Way Left-turn Lanes**

The following guidelines concerning the installation of left-turn lanes were considered in recommending the preferred alternative.

- Closely spaced driveway and side road intersections: 25 driveways and intersections exist between Hogan Road and Mason Road (approximately 3,300 ft);
- Strip commercial type land use (Town Center Plaza, MacGregor's, Hess, Egypt Plaza);
- Average Daily Traffic between 5,000 and 12,000 for two lanes (Route 31 exceeds this threshold within the study area); and
- Turning Volumes: 70 mid-block left turns/1,000 ft or left turns greater than or equal to 20 percent of total traffic (117 lefts over 800 ft from Thayer Road to Hess).

#### **E. Cost**

A planning level cost estimate was prepared for the recommended improvements. The construction cost includes work along Route 31 and the connecting side roads, but excludes the Hamlet Center loop road. **The construction cost is estimated at \$9.2 million**, which includes a 20 percent design contingency, but excludes engineering design fees, construction inspection fees and right-of-way acquisition costs.

The following features are included in the above cost:

- Asphalt roadway pavement with a 16-foot (4.8 m) wide colored concrete center turn lane along Route 31 throughout the project length;
- Granite stone curbing and regular concrete sidewalks along each side of Route 31;
- Asphalt pavement reconstruction with granite stone curbing and sidewalks on side road approaches to Route 31. Turn lanes would be added to most side roads;
- A closed roadway drainage system;
- Tree lawns and street tree plantings;
- A decorative street lighting system along Route 31, consisting of pedestrian scale post-top light poles in the Hamlet Center area and 30 foot (9.1 m) davit-style poles at other locations;

- Gateway treatments at Hogan Road and Victor Road consisting of raised medians with landscaping and signs. Raised medians would have a colored and imprinted concrete surface;
- Three intersections with colored and imprinted concrete roadway pavement;
- Raised median islands at select locations within the project limits on Route 31 to control vehicle access and improve pedestrian crossings. The islands would have a colored and imprinted concrete surface; and
- Three new traffic signals at the intersections of Mason and Loud Roads, Aldrich Road and an emergency signal at the Fire Hall driveway, and required changes to the Victor Road traffic signal. The signal at Mason and Loud Roads would include decorative poles.

## **CHAPTER V**

### **NON-MOTORIZED TRAVEL ALTERNATIVES**

As outlined in Chapter I, the community vision for the Hamlet of Egypt is to re-establish Egypt as a self-sufficient and attractive neighborhood sub-center. The Hamlet concept includes a more compact pedestrian scale design with extensive streetscape improvements. The goal is to redesign Route 31 to make it more community, pedestrian and bicycle oriented. There is a desire to create public places for people to be together to maintain and enhance their sense of belonging to the community. Route 31 should not divide the community because of high speed and high volume traffic. Its design should bring people together and add life to the community, creating sustainable and enjoyable public spaces.

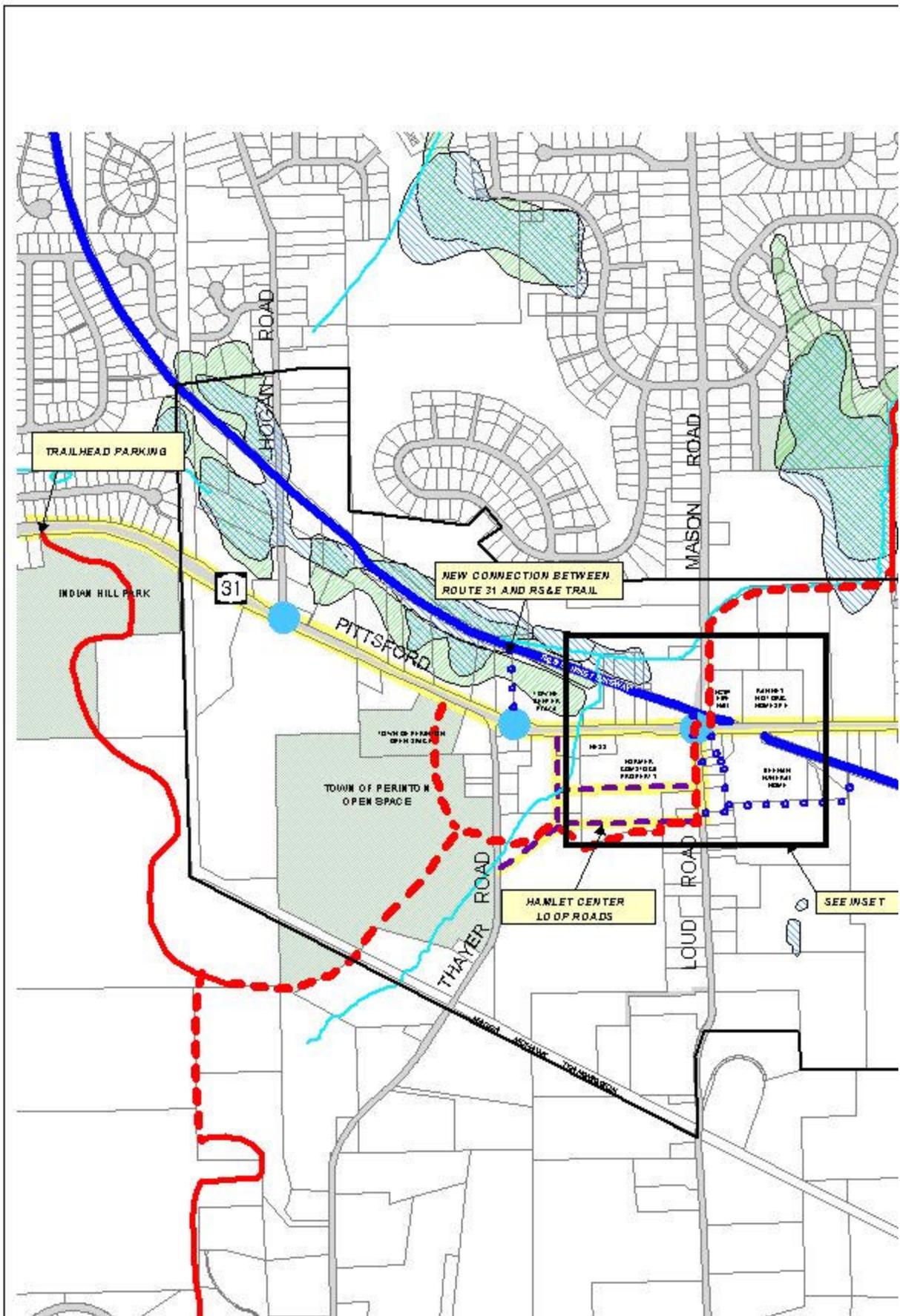
Serving the non-motorized travel alternatives of walking and bicycling are central to realizing this vision. In addition, USDOT Federal Highway Administration design guidance states that “Bicycling and walking facilities shall be incorporated into all transportation projects unless exceptional circumstances exist.” There have been no “exceptional circumstances” found in Egypt; therefore, these modes can be accommodated.

There are important local and regional parks, recreation areas, open space and trails, and significant and successful residential and business communities in and around Egypt as summarized in Chapter II. The goal is to provide pedestrian and bicycle connections to these community resources and that these connections meet Americans with Disabilities Act (ADA) guidelines. Recommendations are made in several different areas, including:

- Improvements for travel along Route 31;
- Improvements for travel across Route 31;
- Crescent Trail;
- RS&E Hikeway-Bikeway; and

- Site development.

These are summarized in additional detail as follows and shown in Figure 20: Pedestrian and Bicycle Plan for Egypt.



## **A. Improvements for Travel along Route 31**

### ***Pedestrians***

- Sidewalk system:
  - Install along Route 31 the length of the study area and on both sides (from west of Hogan east to Aldrich Road);
  - Five foot (1.5 m) minimum width, with potentially wider sections in the Hamlet Center where higher pedestrian volumes are likely;
  - Five-foot (1.5 m) minimum tree lawn area with the greatest possible separation between curb and sidewalk. To this end, sidewalks may continue to be on private property easements in some areas rather than in the NYSDOT right-of-way;
  - Primarily concrete sidewalks, with possible asphalt section adjacent to Egypt Park. Concrete should be carried over all driveways, including asphalt driveways;
  - Connect to sidewalks on side streets where applicable, and to public services and commercial establishments via Americans with Disabilities Act (ADA) accessible paths;
  - Meet all applicable ADA guidelines;
- Human scale lighting, particularly in the Hamlet Center (see Chapter IV);
- Human scale directional and identification signage; and
- Streetscape enhancements, including landscaping, street furniture, etc., as outlined in Chapter IV.

### ***Bicyclists***

- Designated five-foot (1.5 m) bicycle lanes along both sides of Route 31 throughout the Hamlet; pave with different materials than the vehicular travel lane (e.g. concrete) or of different color (see Chapter IV); mark with bicycle lane pavement markings and signage (signage only as necessary), according to Part 9: Traffic Controls for Bicycle Facilities of the Manual on Uniform Traffic Control Devices (AASHTO, 2000);
- Human scale lighting, particularly in the Hamlet Center (see Chapter IV);
- Human scale directional and identification signage;
- Bicycle parking at key locations. There are many bicycle parking designs available (as well as custom designs). Parking can be chosen or designed to support and enhance the design theme for the Hamlet (see Section IV.B.5.);
- Traffic signal actuators should be used that can be activated by bicycles, particularly at the Mason/Loud Road intersection; and
- Drainage grates should be bicycle safe.

According to the Guide for the Development of Bicycle Facilities, 3<sup>d</sup> Edition (American Association of State Highway and Transportation Officials (AASHTO), Washington D.C., 1999), "Bicycle lanes can be considered when it is desirable to delineate available road space for preferential use by bicyclists and motorists."

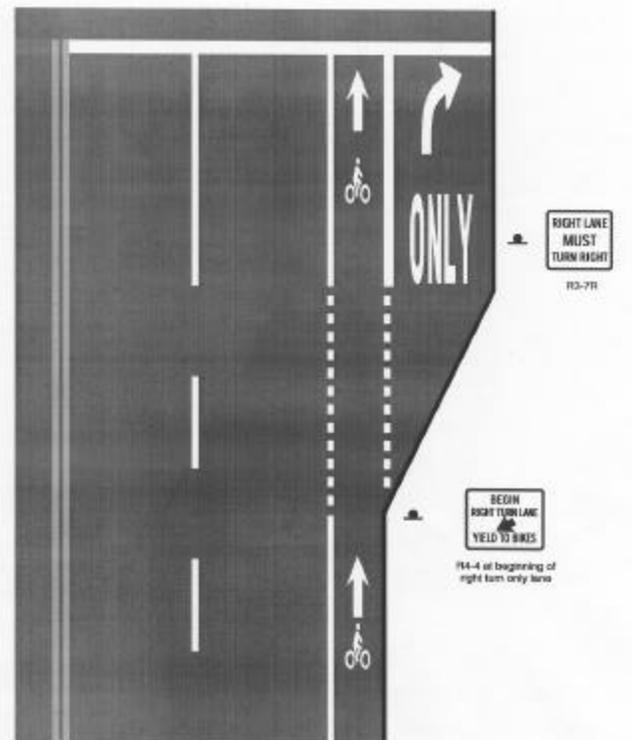
The addition of bicycle lanes may increase the awareness of motorists that they must share the road with bicyclists. Bicycle lanes may make bicyclists more confident that vehicles would not stray into their path.

Bicycle lanes are provided on urban arterial and major collector streets with posted speeds of less than 55 mph (90 km/h). They are one-way facilities that carry bicycle traffic in the same direction as adjacent motor-vehicle traffic, and should always be provided on both sides of a two-way street. Motorists are prohibited from using bicycle lanes for driving and parking, but may use them for emergency avoidance maneuvers or breakdowns.

Bicycle lanes in curbed sections are generally 5 feet (1.5 m) to 6 feet (1.8 m) wide, as measured from the center of stripe to the curb or edge of pavement. This width enables bicyclists to ride far enough from the curb to avoid debris and drainage grates, yet far enough from passing vehicles to avoid conflicts. By riding away from the curb, cyclists are more visible to motorists than when hugging the curb. Bicycle lanes are marked with pavement stencils and an 8-inch (200 mm) wide stripe that increases the visual separation of the motor vehicle lane and the bicycle lane. The bicycle lane itself should be marked with the words "bicycle" and "only" in succession along the travel path and the restricted use bicycle symbol may also be placed within the lane at regular intervals.

Only at the intersection of Route 31 with Victor Road is an exclusive right-turn lane recommended in the eastbound direction. At this location the bicycle lane should be carried through the intersection between the travel lane and the exclusive right-turn lane, as shown in the figure on the right. The design should be in accordance with Part 9: Traffic Controls for Bicycle Facilities of the Manual on Uniform Traffic Control Devices (AASHTO, 2000). Turning bicycles along Route 31 would be required to merge with motor vehicle traffic and use the turn lanes.

Drainage grates and utility covers can present potential problems for bicyclists. Some drainage inlet grates can trap a bicycle wheel. This may cause



### **Typical Bicycle Lane Treatment at a Right-Turn Only Lane**

From Part 9: Traffic Controls for Bicycle Facilities of the

damage to the bicycle or present a situation where the driver could become injured. To ensure bicyclist safety, all utility covers and drainage inlets should be kept flush with the pavement surface.

Changes in pavement texture were recommended in several sections of this report. Incorporating specialty pavement textures in the bicycle lanes should be carefully considered to insure smooth and safe ride quality for bicyclists.

## **B. Improvements for Travel Across Route 31**

Several locations along the corridor are identified for marked/enhanced pedestrian and bicycle crossing. They are designed for bicyclists to dismount and cross by walking their bikes.

The locations are as follows, and are shown in Figure 20. The concept design of each location can be seen in the report figures identified.

1. Hogan Road (Figure 15);
2. West side of Towne Center Plaza (connecting to the RS&E Hikeaway-Bikeway) Road (Figure 17);
3. Mason Road / Loud Road (Figure 17); and
4. Victor Road (Figure 16).

The following enhancements are recommended for each of these locations:

- Landscaped median (for pedestrian refuge) in center of Route 31 with ADA pedestrian crossing (Hogan Road east side, Mason/Loud Roads west side, and Victor Road west side only);
- High visibility marked crosswalk;
- Pedestrian crossing signs;
- Crossing of contrasting pavement texture / color / materials;
- Landscaping, pedestrian scale lighting and directional signage on both sides of Route 31;
- Designed for ADA accessibility, including curb ramps and sidewalk connection to primary east-west Route 31 sidewalk; and
- Pedestrian push buttons at the signalized intersections of Mason/Loud Roads and Victor Road.

## **C. Trail System Improvements**

Figure 20 presents the recommendations for connecting the Town of Perinton hiking and bicycling trail system through and across the study area. For the

**Crescent Trail**, the approximate location of a main trail through Egypt was taken from the Crescent Trail Master Plan (Figure 7). It would connect existing sections of the trail on the southwest, west and northeast of Egypt (see Figure 7):

- Southwest: existing section of the main trail, beginning at Turk Hill Road and continuing north-south adjacent to Thayer Road;
- West: existing branch trail to/from Indian Hill Park; and
- Northeast: existing section of the main trail through the Mason Valley Subdivision, the White Brook Nature Area, and to the Canalway Trail.

This alignment would traverse the Town parcel on Thayer Road and would be incorporated into the design of the Hamlet Center and the residential subdivisions planned south of the Center. The Trail would turn north-south upon reaching Loud Road and be incorporated into a wide sidewalk on the west side of Loud Road. The sidewalk would be wide and incorporate a design complementing the theme of the hiking trail, such as a meandering trail that is naturally landscaped. This segment may also need to incorporate a realigned RS&E Hikeway-Bikeway, as summarized below.

The Crescent Trail would cross Route 31 at Mason/Loud Road intersection which would be enhanced to better serve pedestrians visually and for safety, as outlined in Figure 17. It would continue north on the east side of Mason Road. The additional land resulting from the realignment of Mason Road could be used to provide a similar wider, meandering, natural trail- like sidewalk on the east side until it reaches the existing section of the Crescent Trail.

The **RS&E Hikeway-Bikeway** has no existing designated crossing of Route 31. The safest feasible crossing of Route 31 is at the planned signalized intersection with Mason and Loud Roads. The feasibility of a tunnel was reviewed and it is not recommended due to the potential regular flooding, cost, and impacts to existing properties. The community goals are to provide a safer and more comfortable walking and bicycling environment and to provide space within the public right-of-way to accommodate this. Constructing a tunnel and separating bicyclists and pedestrians would not be consistent with this goal. In addition, a tunnel would be infeasible at this location due to the high water level resulting in flooding, the length required to cross Route 31 along the diagonal path of the trail, and the costs and impacts due to the utilities and land uses on both sides of the road.

Therefore, it is recommended that the RS&E Hikeway-Bikeway cross Route 31 at the intersection of Mason and Loud Roads in the Hamlet Center. The crossing does not meet standards for off-road bikeways and would require bicyclists to dismount and walk across Route 31. There are several options for reconnecting to the RS&E trail on the south side of Route 31. This would depend upon how this area is developed and what property becomes available for use. Continuing east along the south side of Route 31 between Loud Road and the existing portion of the trail was determined not to be feasible due to a lack of right-of-

way and the impacts to existing properties resulting from the 10-12 foot (3.0-3.6 m) wide trail and the buffer between the trail and the curb line. The options are presented on Figure 20 and are summarized as follows:

1. The southeast corner of Loud Road/Route 31 is proposed as a pocket park as illustrated and described in Section IV.B.2. The construction of a Trolley Building similar to the historic RS&E Trolley stop structure previously located in Egypt is recommended as a central feature of the pocket park. It could include information about the trails, recreational activities, public services, etc., to serve trail users and other visitors. The RS&E trail could connect through this pocket park/trailhead to a re-aligned trail along the west side of the Keenan Funeral Home property turning east-west at the south end of the Funeral Home property on the Lollypop Farm property, heading east and back to the existing trail segment;
2. The second option is to connect through a vacant parcel on the east side of Loud Road, then as in #1 along the west side of the Keenan Funeral Home property turning east-west at the south end of the Funeral Home property on the Lollypop Farm property, heading east and back to the existing trail segment; and
3. The third option is to continue the RS&E trail south to an existing easement on Loud Road where it would connect to a new east-west trail on the south side of the Keenan Funeral Home property on the Lollypop Farm property, heading east and back to the existing trail segment.

Under option #1 the Loud Road crossing of the trail would be at the Loud Road/Route 31 signalized intersection. The improvements planned at this intersection are detailed in Section IV.B.2.

For either option #2 or #3, the trail would cross Loud Road mid-block. Improvements that serve pedestrian safety, calm traffic and discourage traffic cutting through Loud Road for this crossing location are detailed in Section IV.B.3, and summarized as follows:

- Raised table (raising the road to the sidewalk level);
- Bump-outs to narrow the crossing;
- Landscaping;
- Specialty pavers and/or painted pavement, and a high visibility crosswalk; and
- Crossing signs for vehicles and human scale directional signage for bicyclists and pedestrians.

## **D. Site Development Improvements**

All new developments and redeveloped properties should be required to tie into the existing sidewalk system, provide pedestrian accessibility to and from

the front door, meet ADA accessibility requirements, and, if appropriate, furnish bicycle parking. New developments and redeveloped properties should be designed to provide trail segment links as illustrated in Figure 7 and Figure 20.

## **CHAPTER VI**

### **IMPLEMENTATION ISSUES**

#### **A. Recommendations Warranted at This Time**

The following improvements are warranted and recommended for implementation at this time:

- Three lanes on Route 31;
- Additional turn lanes on side streets;
- Gateway improvements;
- RS&E trail crossing, realignment and connection to Loud Road;
- Route 31 pedestrian crossing improvements;
- Traffic signal at aligned Mason Road/Loud Road intersection in conjunction with Loud Road traffic calming measures;
- Pedestrian and bicycle improvements;
- Streetscape improvements (medians, landscaping, street trees, etc.);
- Implementation of access management measures and other land use policies;
- Loud Road traffic calming improvements; and
- Preservation of Nelson's store (southeast corner of Route 31/Loud Road) in all future redevelopment scenarios through relocation of the building to another site, if possible (perhaps on the southwest corner of the same intersection when the Comstock property is redeveloped).

Improvements to Route 31 are warranted at this time independent of the need to make changes to local side streets, including the traffic signal at the Mason and Loud intersection, to improve safety, traffic flow, and enhance the development opportunities desired to achieve the Town's vision for the Hamlet.

As outlined in Section IV.C.3, a detailed examination is recommended of appropriate traffic calming measures for the Hamlet of Egypt. This would include conduct of an origin and destination study to identify the actual travel patterns, evaluation of the potential positive and negative impacts of various traffic calming measures and community involvement in this process.

#### **B. Recommendations Warranted with Future Development**

- Signal at Aldrich Road (monitor following opening of Lyndon Road bridge);
- Hamlet Center loop road (implemented as part of the development of adjacent vacant parcels);

- Hamlet Center business development (only fully realized with redevelopment of the former Comstock building);
- Potential severing of Thayer Road should only be considered when the new Hamlet Center loop road and the Thayer Road connection to it are constructed; and
- Preservation of the Water Tower in all future redevelopment scenarios.

### **C. Coordination with NYSDOT Route 31 Project**

The following improvements are recommended to be included in the NYSDOT Route 31 project:

- Reconstruction of Route 31 with curbing and closed drainage according to cross section outlined here;
- Gateway enhancements;
- Lighting;
- Streetscape improvements;
- Intersection and pedestrian crossing improvements; and
- Traffic signals.

The NYSDOT environmental initiative supports incorporating other community enhancements into NYSDOT projects. This initiative does not necessarily include funding for the enhancements, but would incorporate improvements in the construction of a state project at a minimum.

### **D. Other Implementation Issues**

It is recommended that the Town's Historic Architecture Commission (HAC), or a separate "**aesthetics task force**" composed of HAC members and other residents, actively participate in the coordination and design of improvements in this corridor. This is a concept used in this region and nationally for important transportation projects. This helps to insure that the community vision is realized.

The Town should identify additional partnering opportunities through the New York State Quality Communities Program and the NYSDOT Environmental Initiative.

A lighting district for the Hamlet could help to offset some of the costs of attractive, pedestrian scale lighting.

Consideration should be given to formalizing the guidelines outlined in this study, including the streetscape, architectural, historic preservation Route 31, Hamlet Center Loop Road and access management guidelines, into an overlay

district for the Hamlet. The guidelines could also be expanded to include some additional detail, such as setback, buffer, signage design and standards.