STATE ROUTE 364 & COUNTY ROAD 11

ACTIVE TRANSPORTATION CORRIDOR PLAN

FINAL REPORT

Ontario County, NY • Genesee Transportation Council • Barton & Loguidice • Landis Evans

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TABLE OF CONTENTS

1 INTRODUCTION

APPENDICES

A. Time Lapse Camera Data
B. Facility Design Guidance
C. Community Input
D. Selected Stakeholder Meetings
E. Bicycle & Pedestrian Level of Service
F. FLCC Trails Maps

DISCLAIMERS

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This chapter provides an overview of the ***Project Area, Project Background,*** and ***Project Purpose*** for this Active Transportation Plan. It also references ten ***Relevant Recent Studies*** that have informed the recommendations within this report. This chapter also provides an overview of the ***Community Engagement*** process that guided the development of this report, and a collection of the ***Benefits of Active Transportation.***

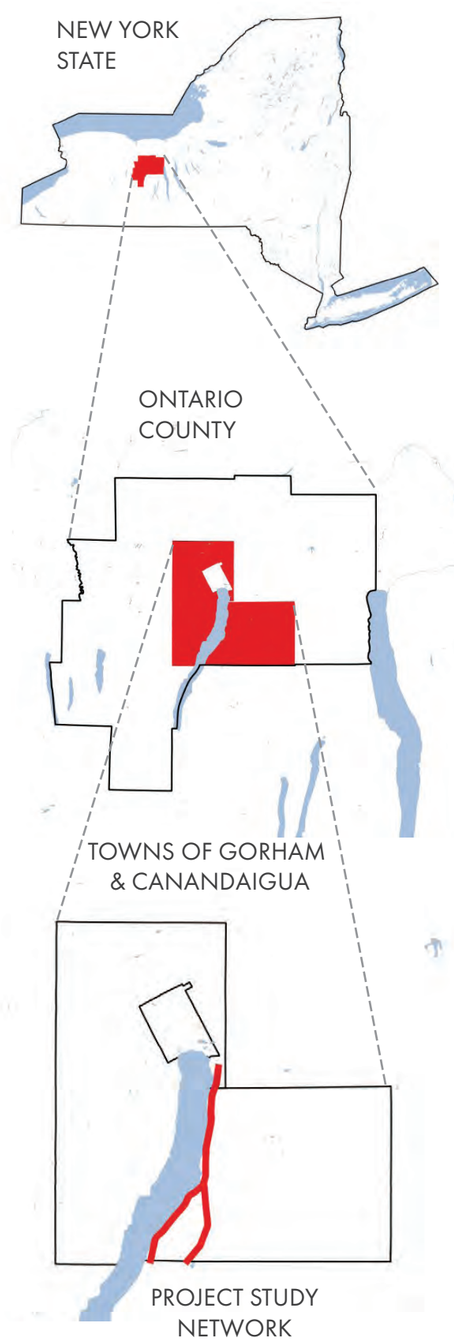
1.1 PROJECT OVERVIEW

PROJECT AREA

This study area is located in the center of the Finger Lakes Region of New York State, roughly 30 miles southeast of the City of Rochester. It includes two connector roadways along the east side of Canandaigua Lake in the Towns of Canandaigua and Gorham, within Ontario County. Specifically, this study examines 7.3 miles of State Route 364 from the intersection with Marvin Sands Drive to the border of Yates County at Townline Road, and 3.6 miles of County Road 11 from State Route 364 to Townline Road. These project corridors pass through a mixture of development patterns, including dense lakefront cottages, a hamlet, wooded and agricultural areas, and larger, set-back suburban-style residences. The corridors are also adjacent to Finger Lakes Community College, and several warmer-weather destinations, including the Constellation Brands-Marvin Sands Performing Arts Center (CMAC), two lakefront County parks, Town of Gorham Parkland, Crystal Beach, Pelican Point Marina, and LeTourneau Christian Center.

PROJECT BACKGROUND

With a high number of summer homes, rented cottages, and warm-weather destinations along these corridors, they are heavily used by pedestrians and bicyclists during Spring, Summer, and Fall. However, these corridors were designed to primarily facilitate automobile movement, and have minimal active transportation infrastructure. During the development of the 2019 Ontario County Parks System Canandaigua Lake Shore Parks Master Plan, many residents expressed particular concerns over the safety and comfort of active transportation throughout the corridors, and specifically articulated an interest in connectivity between the two County Parks: Ontario County Beach Park and Deep Run Park. These discussions illustrated a clear opportunity for the development of an Active Transportation Plan along the entirety of the east side of Canandaigua Lake within Ontario County.



PROJECT PURPOSE

Recognizing the environmental, health, and general quality of life benefits that active transportation affords, this Plan outlines comprehensive strategies for enhancing multimodal accessibility, connectivity, and safety along the project corridors. It is intended to serve as a 'blueprint' for future developments, recommending infrastructural, programmatic, and policy improvements that promote pedestrian, bicycle, and other non-motorized modes of transit. These recommendations include a combination of corridor-wide improvements and more context-specific opportunities for each of the 'Character Zones' within the corridor, including the creation of a 'Parkway' between the two Ontario County Parks. This Plan also recognizes the important connections between active transportation, the water quality of Canandaigua Lake, and community resilience.

1.2 RELEVANT RECENT STUDIES

The following selected studies have informed or contributed to the development of the recommendations within this Active Transportation Plan:

ONTARIO COUNTY PARK SYSTEM: CANANDAIGUA LAKE SHORE PARKS, ONTARIO COUNTY BEACH PARK & DEEP RUN PARK MASTER PLAN, 2019
This plan proposes green infrastructure, water access, wayfinding, infrastructural, and circulation-based improvements to Deep Run and Ontario County Beach Parks, which are located along the project corridors. The conversation around active transportation improvements that was discussed during the Parks Plan sparked the development of this Active Transportation Plan.

CANANDAIGUA LAKE WATER TRAIL ACTION PLAN, 2019 This plan outlines a series of launch and destination points for non-motorized boat travel on Canandaigua Lake. Additional recommendations include wayfinding, invasive species information signage, and formalized launches. As part of this plan, Deep Run Park is recommended as a destination paddle point, and Ontario County Beach Park is proposed as a launch paddle site.

ONTARIO COUNTY ROAD 16 PEDESTRIAN & BICYCLE STUDY, 2018 This Active Transportation Plan recommends multimodal corridor improvements along the west side of Canandaigua Lake. The combination of the County Road 16 Plan with this current State Route 364/County Road 11 Plan will help create an active transportation network on both sides of Canandaigua Lake.

LONG-RANGE TRANSPORTATION PLAN FOR THE GENESEE-FINGER LAKES REGION 2040, 2016 This plan provides a comprehensive vision for multimodal transportation throughout the nine-county region in and around Rochester, New York, and the western Finger Lakes. This plan recognizes transportation's role in promoting sustainability, social equity, and access to resources, and provides the framework for active transportation planning initiatives.

LAKESHORE DRIVE/COUNTY ROAD 50 & MORAN ROAD/COUNTY ROAD 10 SIDEWALK IMPROVEMENT PLAN, 2016 Sponsored by the Ontario County Department of Public Works, this plan outlines proposed sidewalk enhancements on these two corridors, which are located just to the north of the project boundary of this Active Transportation Plan.

COMPREHENSIVE UPDATE OF CANANDAIGUA LAKE WATERSHED MANAGEMENT PLAN, 2014 Published by the Canandaigua Lake Watershed Council, this plan outlines recommended measures to preserve and enhance the water quality of Canandaigua Lake. Proposed implementation strategies include proper management of stormwater runoff along roadways, reduction of the unnecessary use of road salt, and construction of vegetated buffers instead of v-shaped ditches wherever possible.

ROUTES 5&20 & ROUTE 364 MULTI-MODAL SAFETY & ACCESS IMPROVEMENT STUDY, 2013 Completed for Ontario County, this plan focuses on transportation improvements in and around Finger Lakes Community College and the Constellation Brands-Marvin Sands Performing Arts Center (CMAC). The project area in this 2013 plan is directly adjacent to the northern boundary of this current plan.

TOWN OF GORHAM PARK MASTER PLAN, 2011 This master plan outlines a proposed site plan for the Town of Gorham Parkland located at the southeast corner of the County Road 1 and State Route 364 intersection. This plan recommends a mixture of open and wooded space, parking, and general amenities for the Park.

TOWN OF CANANDAIGUA COMPREHENSIVE PLAN UPDATE, 2011 This Comprehensive Plan update proposes several active-transportation-related recommendations, most notably a Complete Streets policy, which was adopted in 2017.

TOWN OF CANANDAIGUA TRAILS MASTER PLAN, 2011 Prepared by the Town of Canandaigua Trails Committee, this document proposes several additional trails and sidewalks throughout the Town, including sidewalks along the north end of the project area of this Active Transportation Plan. Noting heavy pedestrian activity from Finger Lakes Community College students and CMAC attendees, the plan specifically recommends the implementation of sidewalks along State Route 364 from County Road 18 (referred to as Lincoln Hill Road) to Lakeshore Drive, and along County Road 18.

1.3 COMMUNITY INVOLVEMENT

Input from community members and local stakeholders contributed significantly to the development of recommendations within this plan. As detailed below, community members and stakeholders have provided input on active transportation barriers and preferences through multiple public meetings and an online survey that was administered as part of the concurrent Ontario County Lake Shore Parks Master Plan.

PUBLIC MEETINGS

Two 'Open House' style public meetings were held to solicit community input throughout the project. The first Public Meeting was held in conjunction with the Ontario County Lake Shore Parks Master Plan final Open House, and consisted of discussions of barriers and opportunities for active transportation along the corridors. The second Public Meeting included a review of preliminary findings, and discussion of corridor 'improvement concepts.' The results and key takeaways from both of these meetings are incorporated throughout the document, and meeting summaries are located in Appendix C.

PROJECT STEERING COMMITTEE MEETINGS

Five Project Steering Committee Meetings were conducted with key stakeholders, including representatives from Ontario County Planning, Ontario County Department of Public Works, the Town of Canandaigua, the Town of Gorham, the Canandaigua Lake Watershed Association, the Canandaigua Lake Watershed Council, New York State Department of Transportation (NYSDOT), the Genesee Transportation Council (GTC), and the Ontario County Sheriff's Department.

Public Meeting #2, held at Crystal Beach Fire Hall, drew over fifty community members on a Saturday morning.

ONLINE SURVEY

142 residents responded to an online survey conducted during the development of the Ontario County Lake Shore Parks Master Plan. These responses included concerns and preferences related to active transportation within the project corridors, which led to the development of this plan. Key issues identified were related to vehicular speeds, a lack of designated crossings, and a lack of pedestrian and bicycle facilities.

Date	*Meeting Type*	*Purpose*
May 2, 2019	Project Kick-Off	Project intentions, goals, and objectives.
May 18, 2019	Public Meeting #1	Project introduction, inventory, & analysis. Conducted in conjunction with the conclusion of the Lake Shore Parks Master Plan.
June 26, 2019	Steering Committee Meeting #2	Bus Tour to assess needs & opportunities
August 9, 2019	Steering Committee Meeting #3	Review preliminary project Needs & Opportunities assessment
September 28, 2019	PIM #2	Project needs & opportunities assessment; Preliminary alternatives & recommendations
October 15, 2019	NYSDOT Meeting	Discussion of preliminary improvements with New York State Department of Transportation
December 4, 2019	Steering Committee Meeting #4	Summary of Public Meeting #2; Preliminary alternatives and recommendations Discussion with Ontario County Sheriff
May 7, 2020	Steering Committee Meeting #5	Review of Draft Report

Project Steering Committee walkabout in June 2019

Discussion at Public Meeting #1 (and Parks Master Plan Meeting)

Interactive Boards at Public Meeting #2

1.4 ACTIVE TRANSPORTATION BENEFITS

Active Transportation refers to all modes of non-motorized transportation, most typically including walking, jogging, and bicycling. The rise in active transportation planning is due to a pressing need to increase the viability of alternative modes of transportation that are more sustainable than automobile travel. In both rural and urban areas, promoting active transportation has a variety of benefits for a community and its residents:

PHYSICAL AND MENTAL HEALTH BENEFITS

Active transportation has significant health benefits for all age groups and abilities. Physically, active transportation infrastructure enables community members to exercise regularly, reducing the risks of serious conditions and illnesses caused by an increasingly sedentary lifestyle. These risks include heart disease, respiratory disease, and diabetes. Incorporating exercise into everyday activities such as commuting or shopping further increases the likelihood of reaching the recommended weekly level of physical activity. Increasing the amount of active transportation infrastructure also leads to a reduction in physical injuries to bicyclists and pedestrians, further incentivizing healthy habits.

The mental health benefits of an active lifestyle are also significant, as regular exercise leads to a decrease in depressive symptoms and an increase in cognitive skills. Spending time outdoors can help reduce stress by stimulating endorphins and limiting the levels of stress hormones such as adrenaline and cortisol. Promoting active transportation infrastructure also provides alternative modes of commuting for residents, reducing the stress caused by commuting via vehicular travel.

Most crucially, several recent studies have illustrated that the presence of on-road active transportation facilities significantly increases the likelihood of residents utilizing recreational amenities and accessing key destinations. Promoting active transportation along State Route 364 and County Road 11 will likely lead to increased utilization of recreational facilities such as the Finger Lakes Community College Trail and the Ontario County Parks, and incentivize more people to walk or bike to community amenities in locations near Crystal Beach and Pelican Point Marina.

HEALTH FACTS

- Only 50% of adults in New York State achieve health benefits associated with exercise.
- The amount of young people in the United States who are overweight has tripled since 1980.
- Health benefits of cycling outweigh the safety risks 8 to 1.

ENVIRONMENTAL BENEFITS

There are important links between active transportation, climate change, and the environmental challenges facing the Finger Lakes region. One of the most important ways that individuals can reduce climate change is to use alternatives to cars for frequent, short distance trips. Short car trips pollute more per mile because car engines are less efficient during the first few minutes of operation. Substituting walking and bicycling for short car trips provides relatively large energy savings and greenhouse gas reduction. Reducing the burning of fossil fuels for transport will reduce the rate of climate change and the severity of climate change impacts on the Finger Lakes Region.

Transportation choices also impact the water quality of Canandaigua Lake. Short distance car trips generate particulate air pollutants that deposit in natural water bodies, and cars contribute pollutants that drain across impervious surface into lakes and streams in the form of runoff. Categories of pollutants in urban stormwater runoff include sediment, nitrogen, phosphorus, pathogens, petroleum hydrocarbons, metals, synthetic organics, and thermal pollution.

In Canandaigua Lake, a recent increase of harmful algae blooms is an indication of changing conditions that are impacting water quality. Active transportation can help reduce the pollutants generated by our transportation infrastructure, and improve the resilience of the Finger Lakes Region.

SOCIAL BENEFITS

Promoting active transportation has many social benefits, including increasing social equity and promoting a tighter-knit community. For the estimated 9% of Americans (and 4-8% of households in Canandaigua and Gorham) who do not have access to a car, active transportation is essential for access to employment, destinations, and shopping. Investment in active transportation is a direct investment in addressing equality and accessibility for all.

ENVIRONMENTAL FACTS

- 88% of all trips in the US are made by car, often by a single person.
- 72% of vehicular trips are less than 1 mile.
- 1/2 of the average person's greenhouse gas emissions stem from transportation.
- A short, four-mile round trip by bicycle keeps about 15 pounds of pollutants out of the air we breathe.

SOCIAL FACTS

- Since 1/3 of the people in the U.S. do not have cars, active transportation increases access to jobs, education, and health care.
- Bicycling opportunities are significantly associated with community's livability - attracting businesses, workers, and tourism.
- Active transportation increases opportunities for informal socialization and connection between neighbors and community members

Active transportation also helps facilitate a more cohesive sense of community. By spending time within the public sphere and moving at a much slower pace than afforded by the automobile, pedestrians and bicyclists are more likely to form connections with other community members, reducing a sense of isolation. Bicycling and walking groups can also be appealing for families looking to engage in new recreational opportunities with social components.

ECONOMIC FACTS

- For every dollar earned, the average American household spends 18 cents on transportation, of which almost 17 cents is for costs associated with a car.
- The average annual cost of operating a bicycle is only $120.
- Homes in walkable and bikeable areas generally have higher property values.

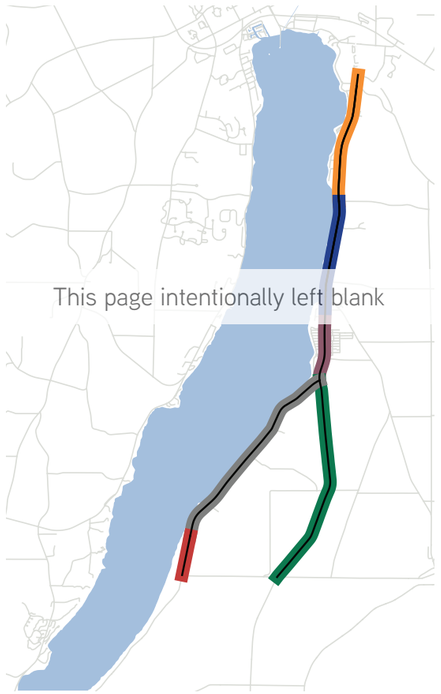
ECONOMIC BENEFITS

The economic benefits to promoting active transportation are significant. For individuals, active transportation decreases the cost of owning a vehicle, including reduction in fuel costs, maintenance, and insurance. Healthy, active individuals are also likely to have lower health-related expenses.

For communities, the economic benefits of active transportation include improved access to key destinations and retail. For instance, pedestrians and bicyclists are more likely to enter storefronts, and are also more likely to patronize additional businesses when compared to visitors who drive to and from destinations. Pedestrian-scaled development also promotes density, creating centrally-located amenities that stimulate reinvestment within communities. The number of people walking and bicycling can also be a good indicator of a community's livability - a factor that has a profound impact on attracting new residents, businesses, workers, and tourists, all of which contribute towards stimulating the economy.

REFERENCES

- Behavioral Risk Factor Surveillance System
- Center for Disease Control
- Rails to Trails Conservancy
- Environmental Preservation Association
- American Community Survey
- Bicycling and Walking in the United States: 2018 Benchmarking Report
- Harvard Health Report, 2018
- Office of Disease Prevention and Health Promotion, 2018 Physical Activity Guidelines
- Area Vibes
- University of Delaware Institute for Public Administration
- American Public Transportation Association



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2 EXISTING CONDITIONS

This chapter provides an overview and analysis of the existing conditions along the corridors. It includes: an overview of **Community Characteristics**, including demographics, destinations, and recreational amenities; an inventory of **Physical Characteristics**, including roadway dimensions, slope, topography, and environmental considerations; a summary of **Operational Characteristics**, including roadway class, jurisdictions, traffic volumes and speeds, and seasonal fluctuations; a review of **Regulatory Characteristics** such as design standards and zoning codes; and an analysis of current **Active Transportation Experience,** based on community input, Level of Service metrics, and time-lapse camera video analysis.

2.1 COMMUNITY CHARACTERISTICS

As illustrated by Figure 1: Project Area, the majority of the roadway segments studied for this Plan are located within the Town of Gorham, with a small section of State Route 364 located in the Town of Canandaigua. Both of these towns are part of Ontario County; the border with Yates County and the Town of Middlesex constitutes the southern boundary of this project.

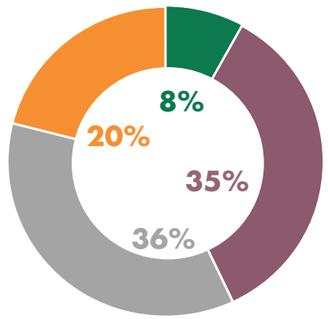
DEMOGRAPHIC ANALYSIS

The following pages compare selected demographic characteristics from Gorham and Canandaigua. These specific characteristics have been selected due to their relevance to active transportation; for instance, residents who are below the poverty line, and/or lack access to vehicles are more likely to walk or bicycle as a primary mode of transportation. In general, though Canandaigua has twice the population of Gorham, both towns share many demographic similarities, including a relatively high median age, moderate levels of poverty, and access to at least one vehicle for the vast majority of households. For comparison, the national and New York State median age is 38 years old, and 14-15% of individuals across the country and state are below the poverty level. The distribution of vehicles per household in both Towns is consistent with national averages for rural areas.

TOWN OF CANANDAIGUA

Population: **10,020** *Median Age:* **47** *Individuals Below Poverty Level:* **8.5%**

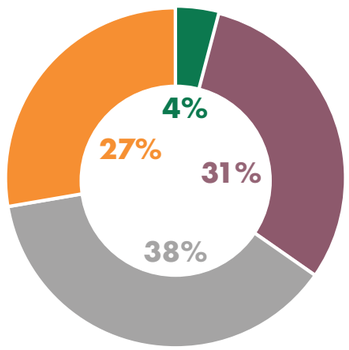
AMOUNT OF VEHICLES PER HOUSEHOLD



TOWN OF GORHAM

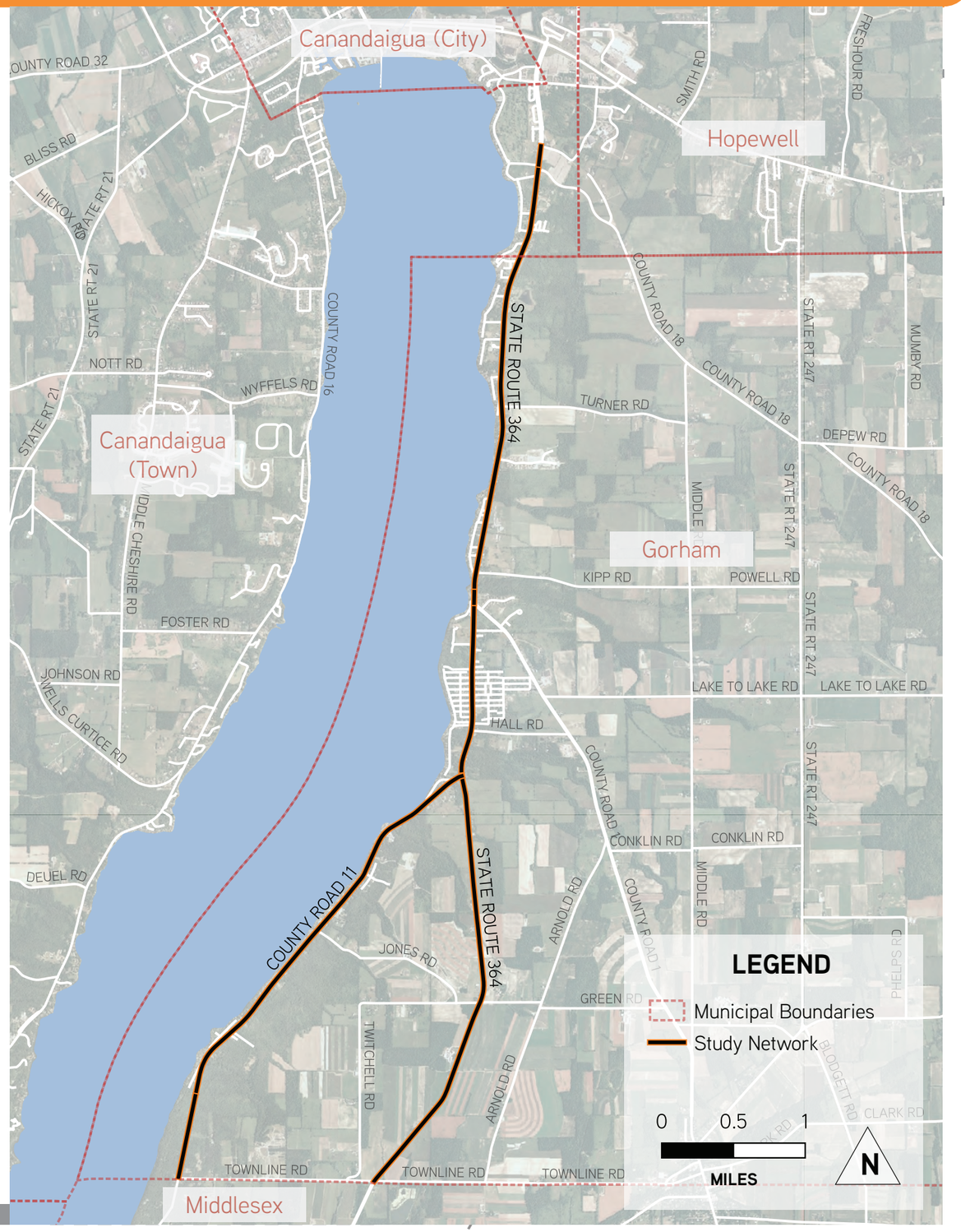
Population: **4,417** *Median Age:* **49** *Individuals Below Poverty Level:* **9.5%**

AMOUNT OF VEHICLES PER HOUSEHOLD



Sources: 2010 Census, 2017 & 2018 American Community Survey

FIGURE 1: PROJECT AREA



OVERVIEW OF CORRIDOR DESTINATIONS

The destinations and parks along the project study corridors are key generators of pedestrian and bicycle activity, drawing both local and regional residents.

FINGER LAKES COMMUNITY COLLEGE Located on Marvin Sands Drive at the north of the project area, Finger Lakes Community College (FLCC) is a public institution that offers continuing education courses and professional development. FLCC also hosts events for organizations and businesses in the area. Most students and attendees commute to FLCC via vehicle.

CMAC Founded in 1983, the 15,000-person capacity Constellation Brands-Marvin Sands Performing Arts Center (CMAC) is located on the campus of FLCC at the northern end of the project area. Beginning as the Finger Lakes Performing Arts Center, CMAC has since expanded through a public/private partnership between the not-for-profit 'Friends of CMAC,' Ontario County, Ontario County Industrial Development Agency, and FLCC. Along with other cultural events, CMAC typically hosts 20-25 concerts throughout the summer, attracting both local residents and visitors. These concerts significantly affect traffic and pedestrian patterns, requiring the closure of Marvin Sands Drive to vehicular traffic after 2:00PM and the conversion of State Route 364 into a three-lane corridor on concert days. As illustrated by Appendix A: Time Lapse Camera Data, a significant amount of pedestrians walk to CMAC along State Route 364 and Marvin Sands Drive, typically coming to/from free parking areas located north of the project area.

CRYSTAL BEACH HAMLET The Hamlet of Crystal Beach is located on State Route 364 south of the County Road 1 intersection. With an estimated population of 644 people concentrated in less than one square mile, Crystal Beach is conducive to walking and bicycling. Businesses in Crystal Beach are located on a small commercial district along SR 364 and include Sangiorgi Pizza, Eastside Grill and Pub, and St. George's Grocery & Deli. The Crystal Beach Betterment Association owns three properties in Crystal Beach that are open to use by members: Lakefront Beach, Boat Launch, and Basketball Court & Field Game Park. Because the residences are spread across both sides of State Route 364, a significant amount of pedestrians must cross over State Route 364 to access key services and amenities; please refer to Appendix A: Time Lapse Camera Data for more information.

PELICAN POINT MARINA Located on County Road 11, Pelican Point Marina is a full service marina that offers wet slips, dry storage, full boat service, a store, and other services from May until Labor Day. As illustrated by Appendix A: Time Lapse Camera Data, the Marina is a significant generator of pedestrian activity during the summer, with pedestrians crossing between the boat storage, marina store, and boat launch.

LETOURNEAU CHRISTIAN CENTER Located south of Pelican Point Marina on County Road 11, LeTourneau Christian Center hosts many conferences, retreats, youth camps, and other events. Founded in 1938, the Center consists of several buildings and fields on the east side of County Road 11, and a swim area on Canandaigua Lake on the west side of County Road 11. As illustrated by Appendix A: Time Lapse Data, the crossing between these areas is heavily used, and marked with a High Visibility Crosswalk and Rapid Rectangular Flashing Beacon.

FIGURE 2: DESTINATIONS & PARKS

RECREATIONAL AMENITIES

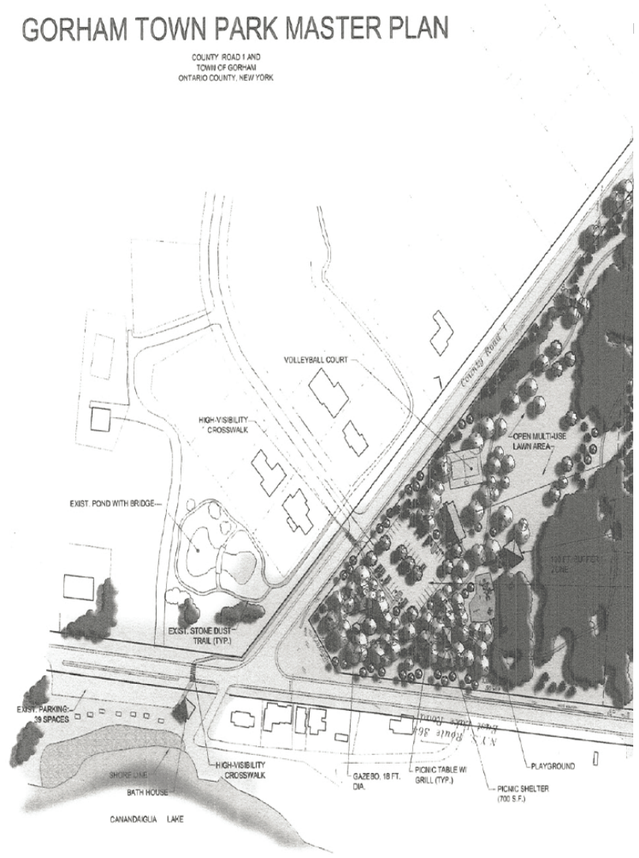
The numerous parks and trails located along the study corridors are key generators of active transportation, including pedestrians, bicyclists, and kayakers. Recent efforts to enhance many of these amenities spurred the development of this Active Transportation Plan.

ONTARIO COUNTY BEACH PARK Located between State Route 364 and Canandaigua Lake, Ontario County Beach Park currently offers picnic amenities, informal water access, and a small pavilion. The 2019 Ontario County Lake Shore Parks Master Plan outlined a wholesale renovation for this park, including a new fishing pier, non-motorized boat launch, enhanced bioretention areas and stormwater treatment infrastructure, new seating, and new north-to-south vehicular circulation in the parking area. The plan also proposes new bicycle parking facilities and a pedestrian crosswalk between Angela Way and the park entrance. As shown by Appendix A: Time Lapse Camera Data, the park is often accessed by residents on the east side of State Route 364.

DEEP RUN PARK Less than a mile south of Ontario County Beach Park near the intersection of State Route 364 and County Road 1, Deep Run is a slightly larger park, with a beach, larger building, and 36 parking spaces. The 2019 Ontario County Lake Shore Parks Master Plan also proposed a new design for this park, including a paddle point, enlarged multi-use lifeguard building, new pavilions and seating, and bioretention rain gardens. Recommended active transportation-related improvements include covered bicycle parking and a new crosswalk over State Route 364. The park operates from 9am to 8pm from Memorial Day to Labor Day each year, and – as illustrated by Appendix A: Time Lapse Camera Data – is heavily used in season. During high-occupancy times, pedestrians are forced to navigate around cars parked on the shoulders of State Route 364 and County Road 1 to access the park.

TOWN OF GORHAM PARKLAND Located adjacent to Deep Run Park on the south side of the State Route 364 / County Road 1 intersection, the Town of Gorham Parkland is a currently undeveloped 9-acre parcel. A 2011 Master Plan, referenced in the 2019 Ontario County Parks Master Plan, proposes a combination of wooded areas, open space, and minor amenities for the parkland. Additionally, a recommended parking area would both serve this park and overflow from Deep Run Park. A proposed crossing over County Road 1 would enable pedestrians to safely move between this parking area and Deep Run Park.

CRYSTAL BEACH PARKS The Crystal Beach Betterment Association (CBBA) owns seven small parks within the Hamlet of Crystal Beach, including Maiden Lane Waterfront Park, Maiden Lane Picnic Area, Catallo Park Pavilion & Playground, Blossom Rd. Park, Middle Beach Swim Area, Cottage City Right of Way and Boat Launch, and Valesko Park. Access to these parks is restricted to Crystal Beach residents and guests only.



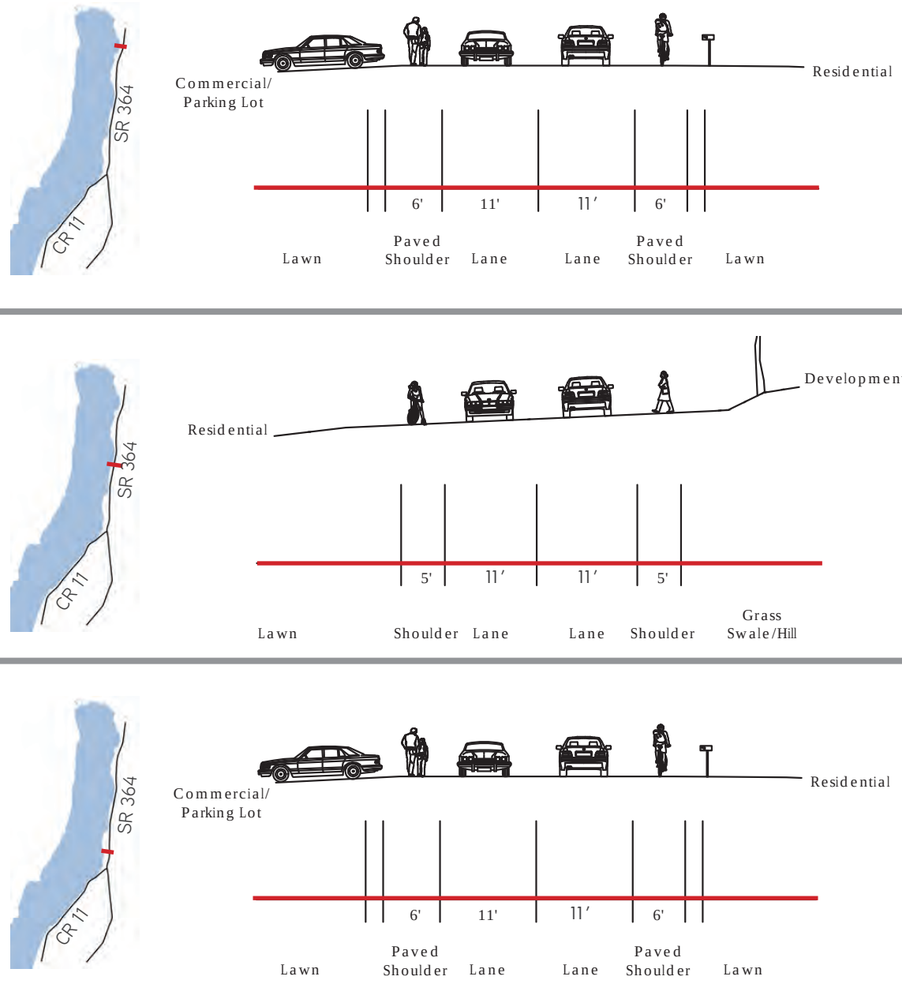
CANANDAIGUA LAKE WATER TRAIL The Canandaigua Lake Water Trail is a proposed network of on-water 'trails' for non-motorized boaters around Canandaigua Lake. In 2019, the Canandaigua Lake Water Trail Action Plan was published, outlining recommended wayfinding signage, access points, and destination points for kayaking and canoeing. Ontario County Beach Park and Deep Run Park were identified as launch and destination points, respectively, for paddlers as part of this Action Plan.

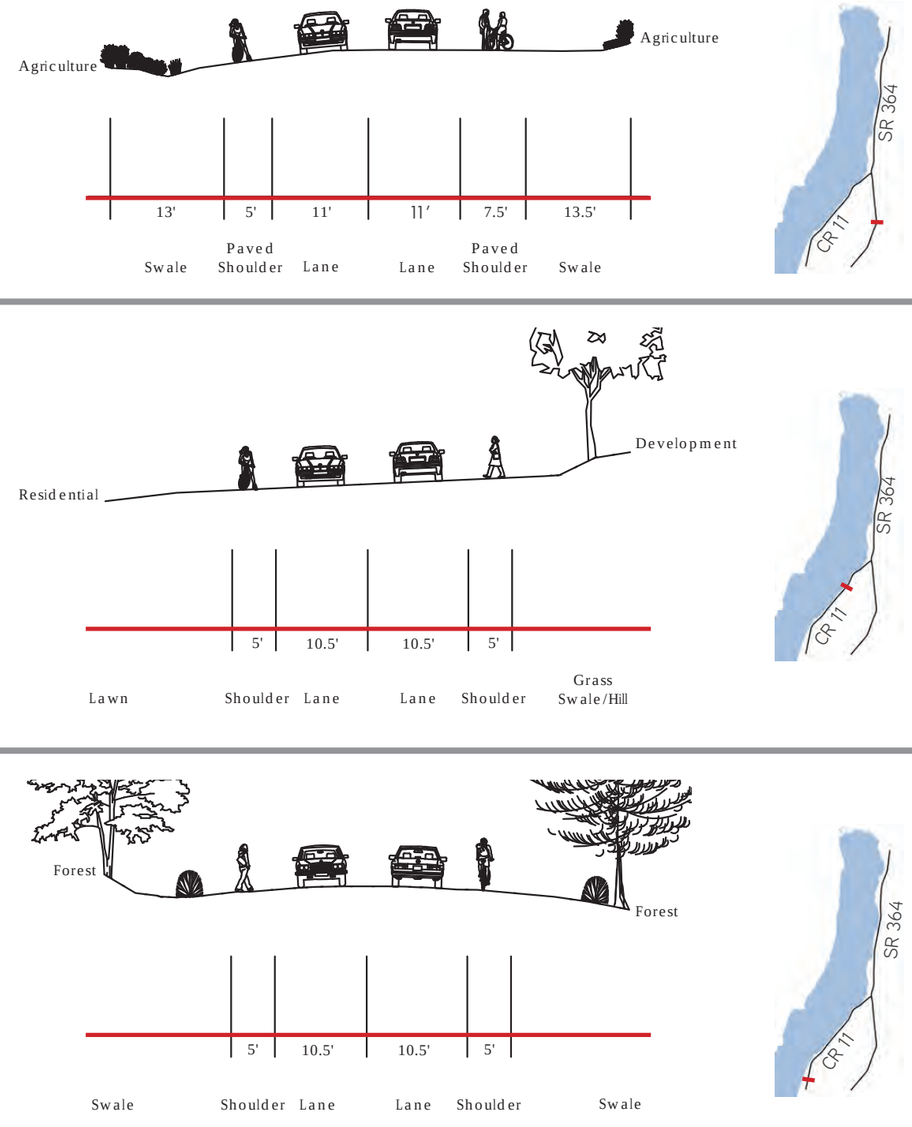
FINGER LAKES COMMUNITY COLLEGE CAMPUS TRAILS Two trails totaling nearly six miles wind throughout the FLCC Campus, and include a well-regarded cross country runnning trail. They are accessible via Marvin Sands Drive, just north of the project area. Please refer to Appendix F: FLCC Trails for additional information.

2.2 PHYSICAL CHARACTERISTICS

ROADWAY DIMENSIONS & FEATURES

Throughout the project area, the average Right-of-Way width is between 50'-65' on State Route 364, and between 45'-50' on County Road 11. Along State Route 364, the pavement is 29'-34' wide, with marked travel lanes from 11'-12', leaving an average shoulder width of 3'-5'. Along County Road 11, the pavement is typically 30'-34' wide, with marked travel lanes between 10.5'-11', leaving an average shoulder of 3'-5'. However, the entire width of the shoulders is often not fully usable for pedestrians and cyclists, as the pavement is occasionally eroded and the limbs of untrimmed plantings and trees often encroach onto the roadway. Figure 3: Roadway Dimensions shows detailed pavement and lane widths at six specific points along the corridors.





PAVEMENT CONSTRUCTION

According to NYSDOT records, the section of State Route 364 within the project area last received a major roadway rehabilitation in 1994-1995. In 2009, additional roadwork was completed, which included widening the roadway, paving 3" of new binder and top course over the existing roadway. NYSDOT continues to perform preventative maintenance on the roadway.

DEVELOPMENT

As shown by Figure 4: Development Patterns, the west (lakefront) sides of both State Route 364 and County Road 11 are nearly entirely built-out. On these sides, there are typically residential lots with frontages between 30'-90' with varying setbacks due to the changing amount of room between Canandaigua Lake and the roadways. Along points of County Road 11, structures are less than 20' from the roadway edge. The eastern sides of both corridors are more sparsely built-out, with pockets of residences centered around developments on Angela Way and near County Road 1;.the eastern side of State Route 364 north of County Road 11, and the eastern side of County Road 11 for the northernmost three miles are designated by the Town of Gorham's Comprehensive Plan as the 'primary development corridor.'

The Hamlet of Crystal Beach has smaller residences and a few businesses along both sides of State Route 364. The lower section of State Route 364 has a noticeably different development character than the rest of the project area, with larger, agricultural parcels and relatively few residences. The southern 0.8 miles of County Road 11 within the project area typically features smaller cottages clustered along the lakeshore, farther away from the roadway itself; due to steep slopes and shallow bedrock that make public utility extension impractical, this section is zoned with a five-acre minimum to disincentivize future development.

SR 364 North of Turner Road Intersection

SR 364 North of Ontario County Beach Park

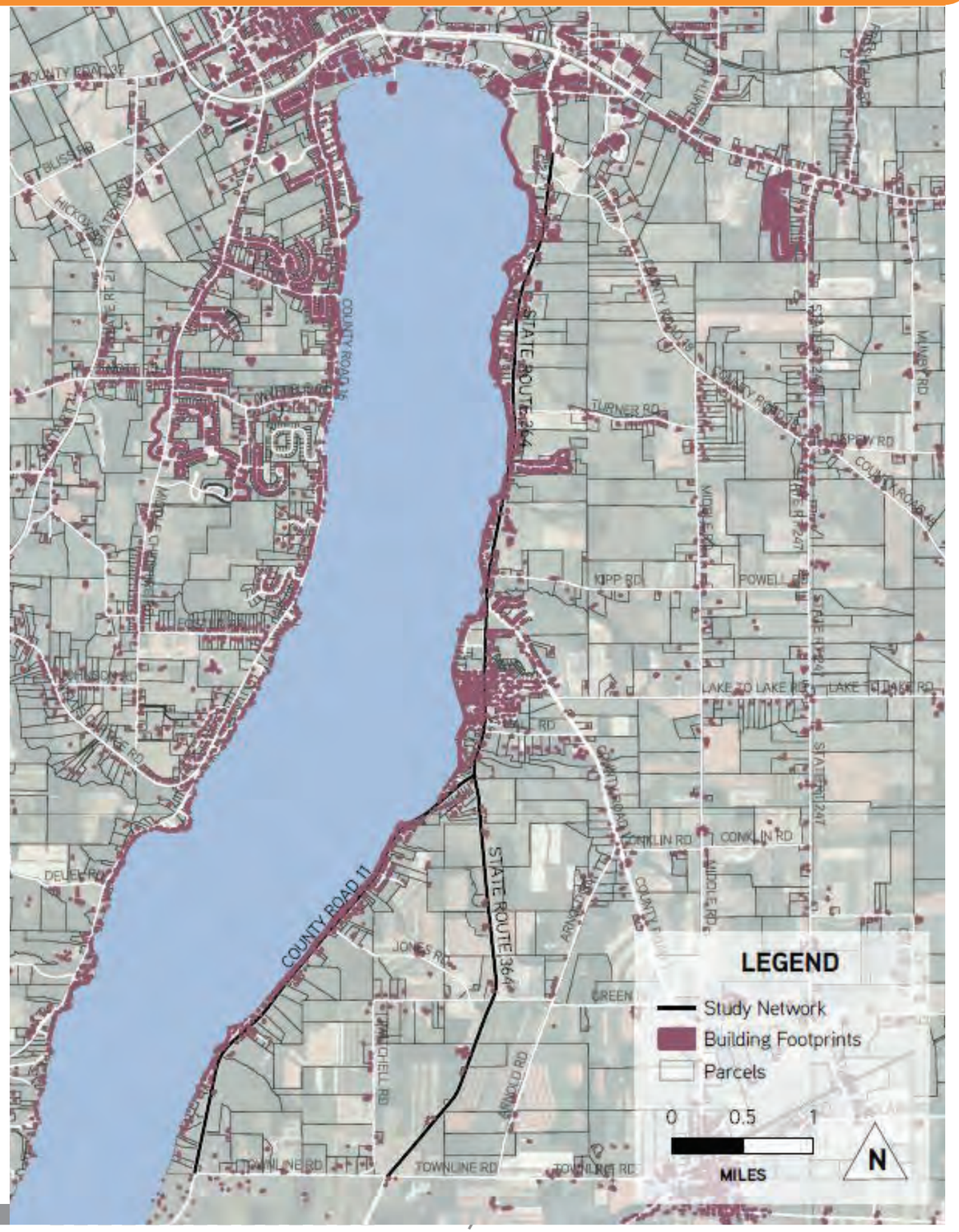
SR 364 in Crystal Beach

SR 364 Near Townline Road Intersection

CR 11 at Pelican Point Marina

CR 11 North of Townline Road Intersection

FIGURE 4: DEVELOPMENT PATTERNS



SLOPE & TOPOGRAPHY

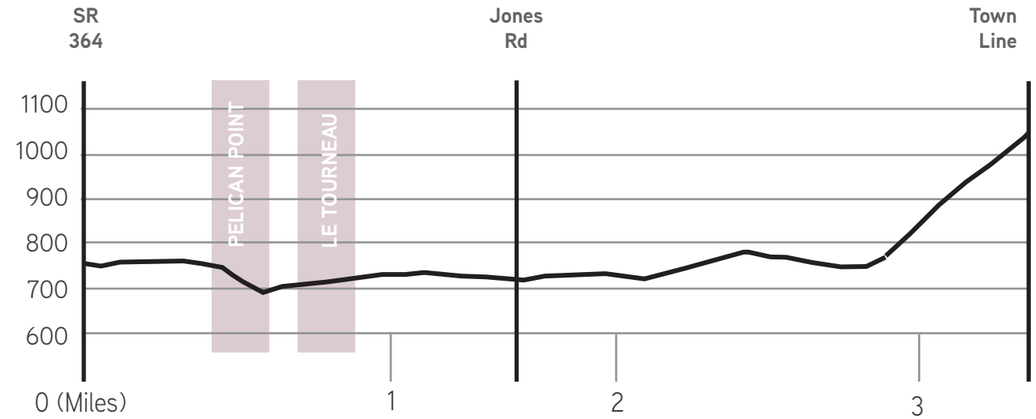
The southern end of the project area is 250'-300' higher in elevation than the northern end, resulting in expansive views of Canandaigua Lake from the southern sections of State Route 364 and County Road 11. The following figures illustrate these topographical changes in more detail, with Figure 5: Road Profiles showing the elevations of both corridors throughout the entire project area, and Figure 6: Road Slope illustrating the maximum slopes (elevation gained or lost/ distance traveled) within each approximately half-mile section of roadway.

In general, the northern section of State Route 364 is fairly flat, at roughly 15-20' above the Canandaigua Lake water level. State Route 364 becomes hillier around Crystal Beach, with slopes reaching 7%; the southern section of State Route 364 continues steadily climbing with similar slopes, before beginning to descend again near the intersection with Townline Road. Beginning from the intersection with State Route 364, County Road 11 descends steadily back down to lake level, remains fairly flat for a mile, and then significantly climbs over 200' in less than a mile; the southern section of County Road 11 is by far the steepest slope within the project area, reaching over 15% at points.

FIGURE 5: ROAD PROFILES

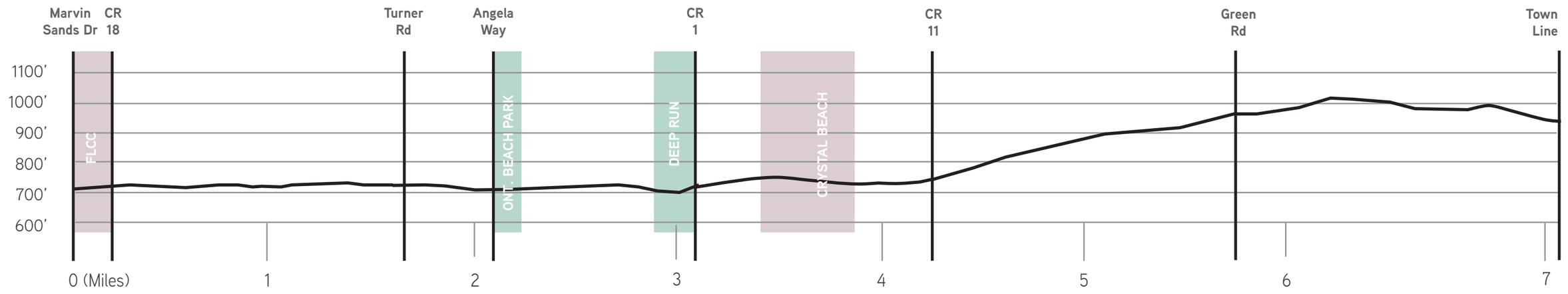
COUNTY ROAD 11

▲ 339′ ▼ 56′ TOTAL +273′



STATE ROUTE 364

▲ 473′ ▼ 123′ TOTAL +350′



Areas with steep topography pose several challenges for active transportation. As shown in the adjacent graphics, both bicyclists and pedestrians can become fatigued with slopes greater than 5-7%. When climbing steeper hills, bicyclists often meander while trying to gain enough speed, occasionally drifting into vehicular traffic lanes. When descending steeper hills, bicyclists are also more likely to experience difficulty stopping, which can be particularly dangerous when approaching driveways or intersections. Additionally, the presence of hills and sharper turns often obscures motorist visibility of pedestrians and cyclists, creating potentially unsafe situations.

BICYCLISTS & ROAD SLOPE

Relatively easy for all riders **0%**

Not particularly challenging; novice riders will feel resistance **3%**

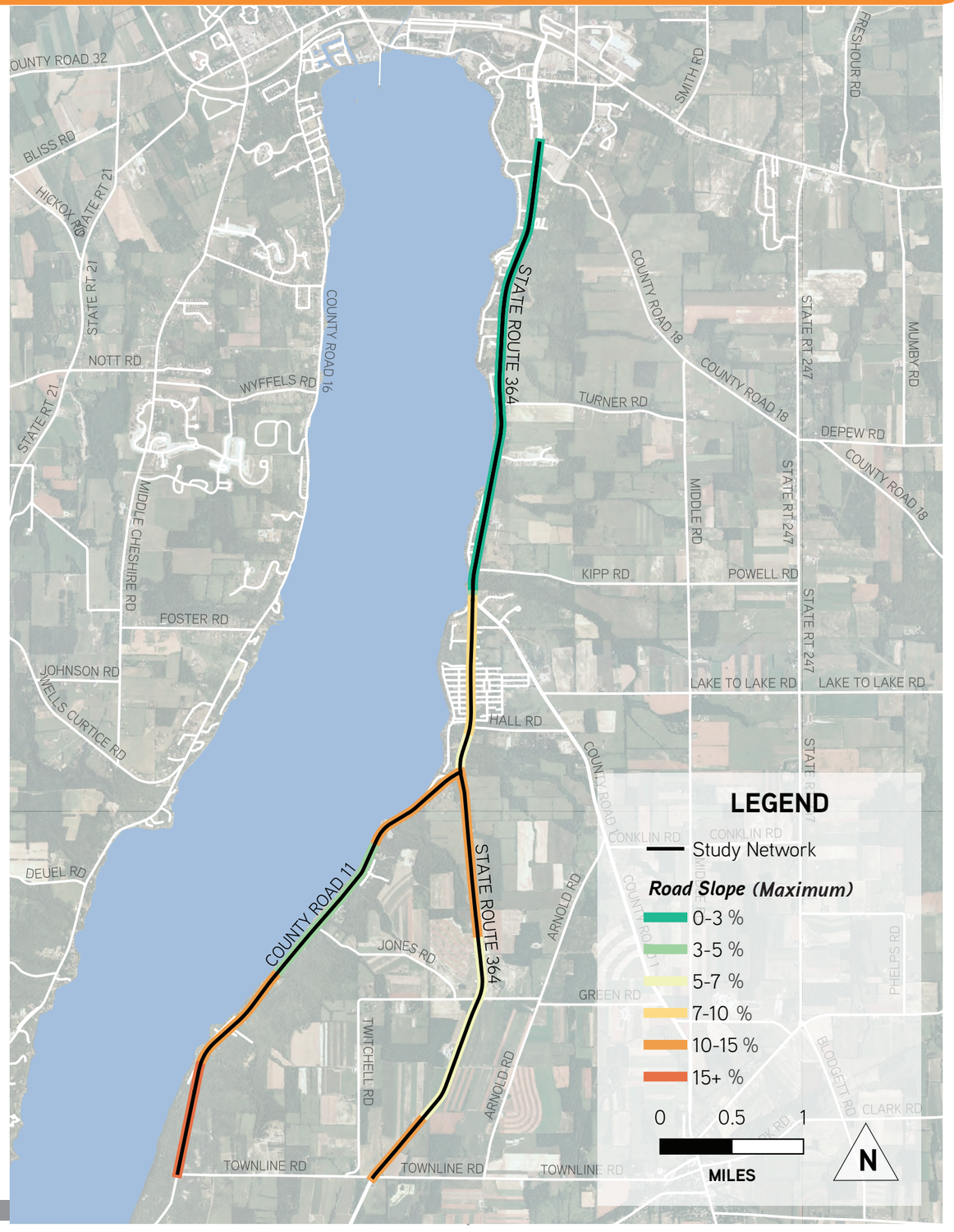
Manageable for all riders over short periods; some fatigue **5%**

Uncomfortable for all riders over longer distances; noticeable fatigue **7%**

Difficult for all riders over all distances; significant fatigue **10%**

Extremely difficult for all riders; some may need to walk bikes **15%**

FIGURE 6: ROAD SLOPE



ENVIRONMENTAL CONSIDERATIONS

WATER QUALITY Maintaining the water quality of Canandaigua Lake is paramount, as the waterbody is a flourishing habitat and the source of water for over 70,000 people. However, the lake has recently experienced issues with Harmful Algal Blooms, which are algae-based growths that degrade water quality and correspondingly pose health threats to humans and animals. These blooms are typically caused by a combination of phosphorus and nitrogen inputs from adjacent surface runoff, calm summer weather, the presence of Zebra and quagga mussels. Pavements and other impermeable surfaces infringe upon water's ability to infiltrate into the ground, enabling more surface water to flow untreated into Canandaigua Lake.

Water quality issues have recently led to closed beaches

STREAMS There are several streams that drain steeply sloped areas on both sides of County Road 11 and State Route 364 in the project area, flowing into Canandaigua Lake. According to the Department of Environmental Conservation regulated wetlands and National Wetlands Inventory regulated wetlands maps, these streams are classified as class "C," meaning they are not protected under New York State Conservation Law. However, ensuring that the water from these streams flows properly around the roadways is imperative for maintaining roadway stability and reducing the amount of eroded sediment that ends up on the roadway.

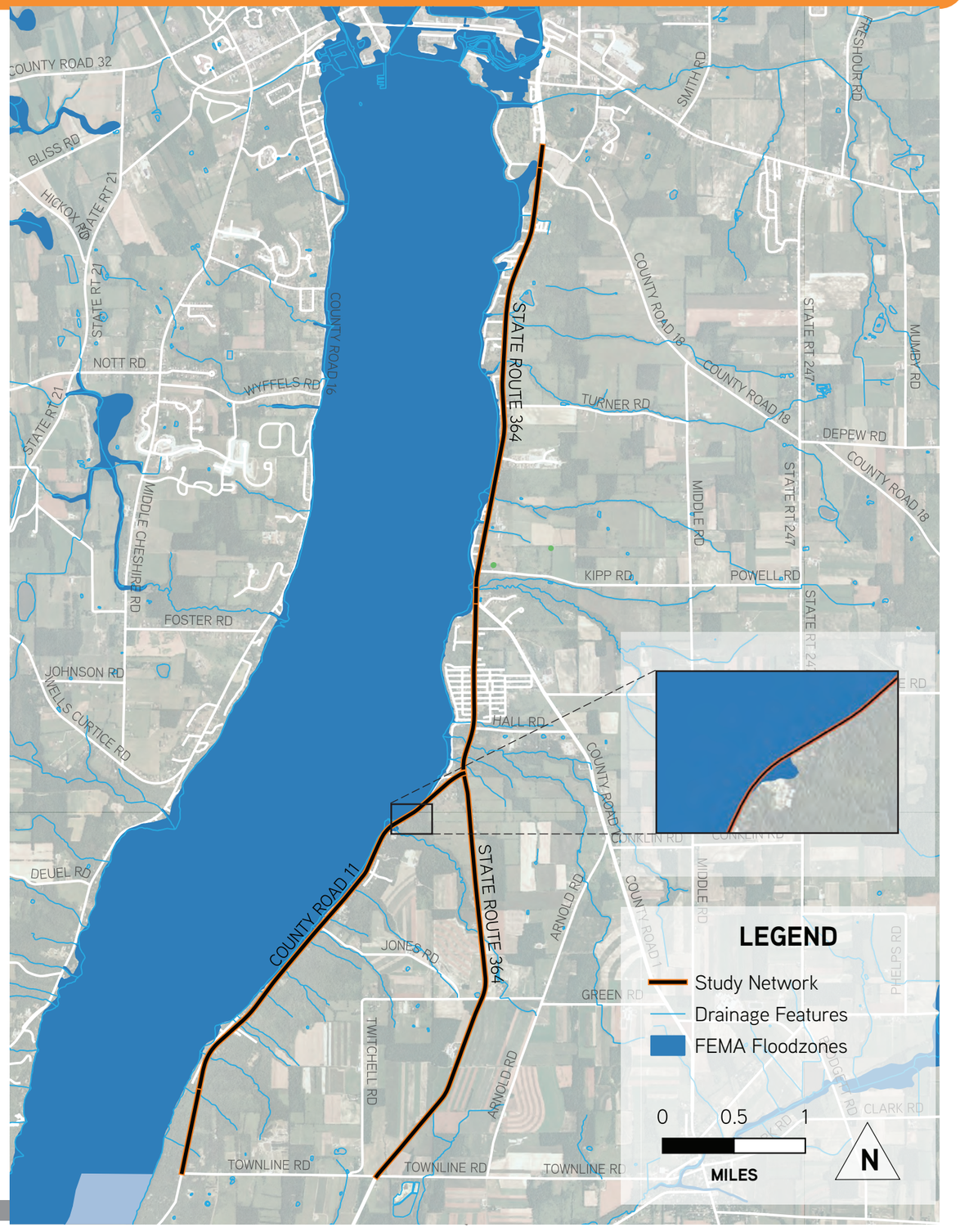
SWALES Swales are located along the majority of the eastern sides of the corridors, gathering runoff from the hillsides and filtering it underground. At driveways, water from the swales is passed through culverts. Swales must be taken into consideration when new sidewalks or widened shoulders are proposed for active transportation.

WETLANDS One wetland area exists directly adjacent to State Route 364, near Marvin Sands Drive and County Road 18. This wetland is identified by NYSDEC as CL-13, and also extends to State Route 364 near Sandy Beach on property owned by Ontario County and residents. Stormwater from the 'G'-Lot at Finger Lakes Community College constitutes a portion of the inflow into this wetland; Ontario County has accordingly installed separate water quality, retention, and detention capacity to accommodate this stormwater outflow from the parking lot.

FLOOD ZONES According to the Federal Emergency Management Agency (FEMA) maps, a small portion of County Road 11 is located within a flood zone. As illustrated by Figure 7: Hydrology, several other sections of the project corridors are adjacent to flood zones.

FLOODING Flooding can negatively impact active transportation-based mobility, as excess water often pools up on or near shoulders of roadways. This can lead to dangerous and unpleasant conditions, as cyclists are more likely to lose control, and both pedestrians and cyclists are often sprayed by passing vehicles. Community input identified several locations of minor flooding along the project corridors, including at the southern end of County Road 11 and at the north end of State Route 364 near FLCC. In 2005, Ontario County modeled the watershed of CL-13, identifying causes of flooding in this area near FLCC, which include upland, non-county development and agricultural uses without proper stormwater management, dense residential construction surrounding this area, the replacement of two natural outflows with undersized and poorly maintained pipes, and construction of Poplar Cove with an undersized piping system.

FIGURE 7: HYDROLOGY



2.3 OPERATIONAL CHARACTERISTICS

The project corridors are utilized by a mix of local residents and regional traffic. With summer houses, a concert venue, and a college located along the corridor, traffic patterns typically fluctuate throughout the year.

FUNCTIONAL CLASSIFICATION

Since all roadways function as part of larger systems, functional classification groups roadways into classes relative to the character of service they provide. The entirety of State Route 364 and the majority of County Road 11 are classified as 'Major Collectors,' which are typically meant to provide connections between key destinations within a county. The 1-mile stretch of County Road 11 at the south of the project area is classified as a 'Minor Collector,' which typically collects traffic from local roads and provides a link to more trafficked roadways.

ROADWAY JURISDICTION

State Route 364 is owned by New York State Department of Transportation (NYSDOT). County Road 11 is owned and maintained by Ontario County.

TRAFFIC VOLUMES

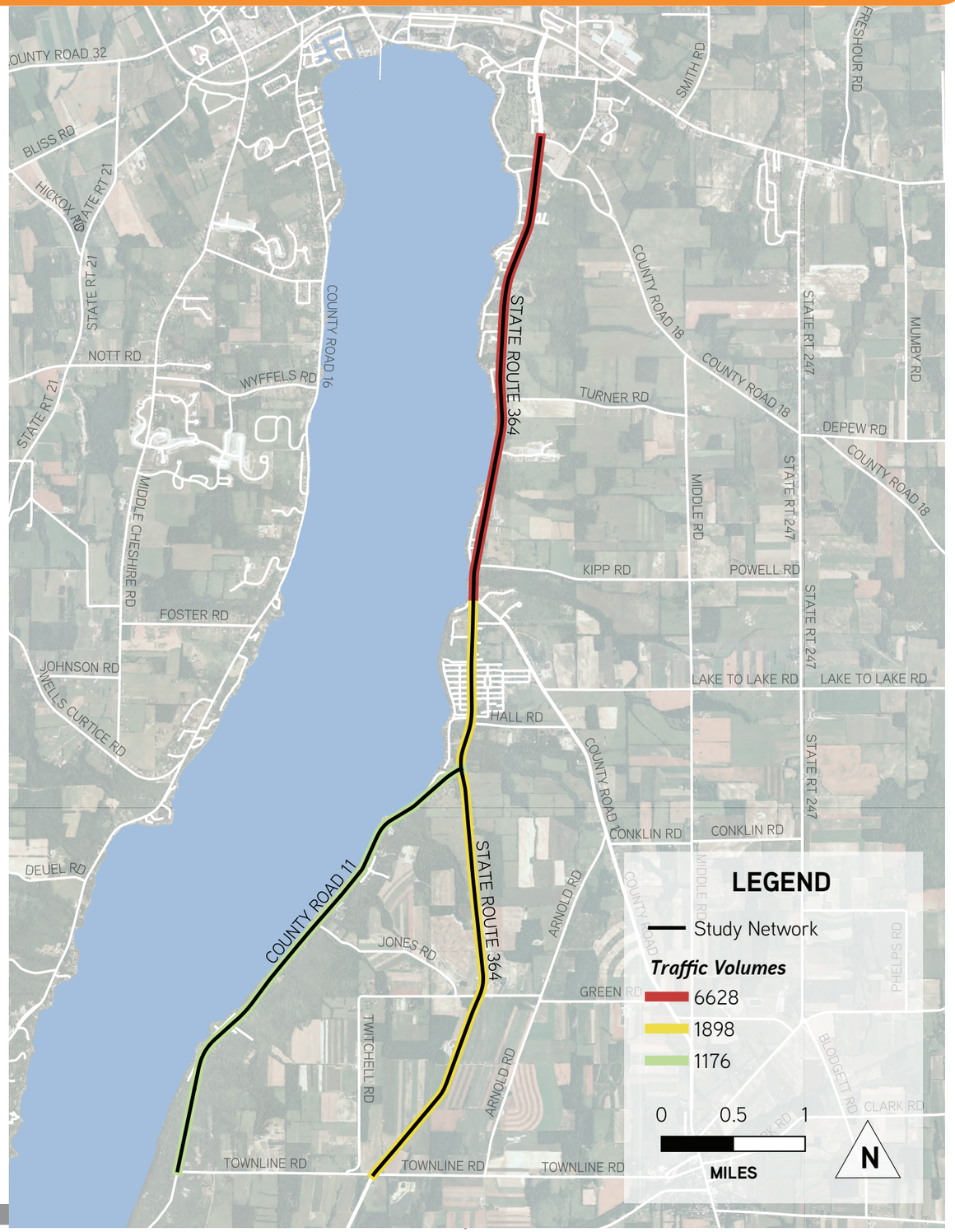
Annual Average Daily Traffic (AADT) counts are completed by NYSDOT, and are an estimate of daily traffic volumes on a particular roadway. Though actual daily volumes may vary from this average based on seasonal, weekend, and daily fluctuations, the estimates are generally within +/- 10% of the actual value. Based on 2018 average daily traffic counts from New York State, traffic volumes are generally low compared to national urban major collector volumes. As illustrated by Figure 8: Vehicular Traffic Volumes, the northern section of State Route 364 sees the most traffic, with over 6,000 vehicles per day. The southern section of State Route 364 and County Road 11 have far less average traffic, with counts between 1,000-2,000 vehicles per day. Additionally, County Road 1 averages roughly 1,700 vehicles per day, signifying that southbound traffic on State Route 364 splits evenly between continuing along State Route 364 and turning left onto County Road 1.

SPEEDS

Posted speeds vary from 35 mph to 55 mph within the project corridor. As illustrated by Figure 9: Vehicular Speeds, the northern section of State Route 364 is posted at 45 MPH, including through the hamlet of Crystal Beach. The majority of County Road 11 is posted at 35 MPH, from the intersection with State Route 364 through the waterfront area. The southern ends of both roadway corridors are 55 MPH.

The actual speeds shown on Figure 9: Vehicular Speeds are based on two types of traffic counts: NYSDOT data, measured between 2011-2016, and Ontario County data, measured in 2018 and 2019. The speeds displayed on this Figure represent the most up-to-date measurements for all roadway locations. While the speeds generally remained similar across all studies, a brief description of the methodology and findings from each type of traffic count follows. These actual speeds are shown in two manners: Mean speeds and 85th Percentile speeds. Mean speeds represent the speed of the average vehicle that drove by during the traffic counts, while 85th Percentile speeds signify the speeds at which 85% of cars were at or below while driving by; 85th Percentile speeds are the measurement by which NYSDOT implements speed limits.

FIGURE 8: VEHICULAR TRAFFIC VOLUMES



NYSDOT TRAFFIC DATA

Methodology The Department of Transportation conducts regularly-scheduled traffic data counts that include volume, class, and speed of vehicles. While NYSDOT uses portable counters that are deployed at only one location, the data from these counters is extrapolated out for an entire 'station' (section) of roadway. These stations are determined based on noticeable changes in traffic volume along routes, including intersections, jurisdictional changes, and major traffic generators. However, these sections are not explicitly determined by changes in posted speeds, meaning that one set of speed data could apply to sections of road with both 55 MPH and 45 MPH speed limits.

Findings

» 2016 Counts along County Road 11 showed an average speed of 38 MPH, with the 85th % speeds at 45 MPH. These are both noticeably higher than the posted speed of 35 MPH.

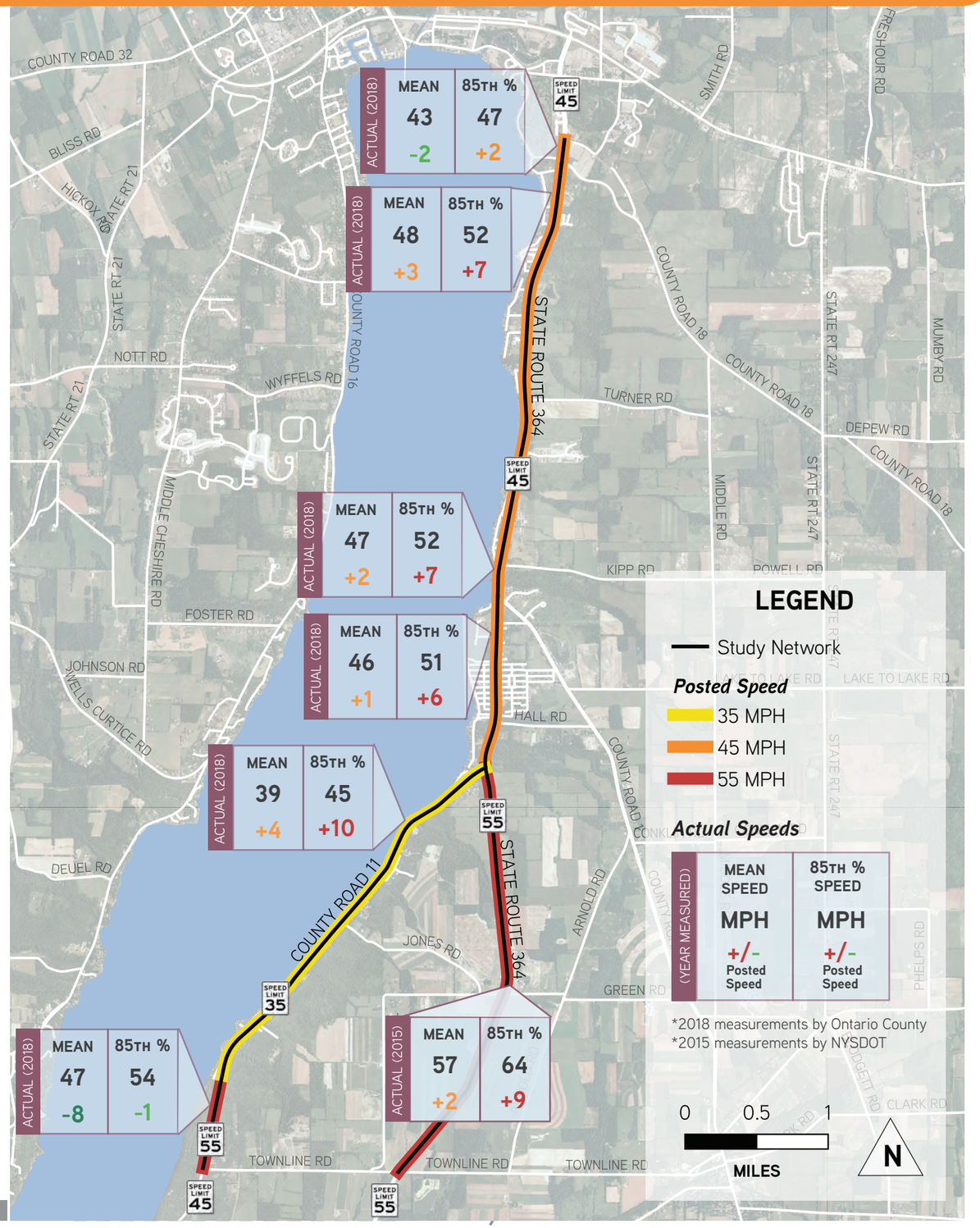
» 2011 Counts along the northern section of State Route 364 (from the intersection with County Road 1 to the north end of the project area) showed a mean speed of 48 MPH and an 85th % speed of 53 MPH, which are both higher than the posted speeds.

» 2015 Counts along the southern section of State Route 364 (from the intersection with County Road 1 to the south end of the project area) showed a mean speed of 57 MPH and an average speed of 64 MPH. However, this roadway section encompasses two different speed limits: 45 MPH from County Road 1 to County Road 11 (through Crystal Beach), and 55 MPH from County Road 11 to the southern end of the project area. Since the exact locations of speed counts are not recorded, it is important to recognize that these counts may have been taken at a location with either speed limit. If taken in the 45 MPH section near Crystal Beach, these counts represent significant speeding patterns, at 12-19 MPH over the posted speeds. However, if taken within the 55 MPH zone, these speed patterns are relatively in line with the northern section of State Route 364, showing noticeable but not extreme speeding of 2-9 MPH over the posted speeds. The data from 2018 Ontario County traffic counts, discussed below, most likely indicates that the latter scenario is more likely, as this 2018 data shows far slower speeds through the Crystal Beach area.

ONTARIO COUNTY TRAFFIC DATA

Methodology: These counts were taken throughout the spring, summer, and autumn of 2018 by County staff. They were measured at specific locations over the course of 3-5 weekdays using portable counters. Because the data showed extremely minor variations between the three seasons, the speeds shown on the Figure and discussed below represent averages between all three counts. Please note that the county did not measure speeds on the southern section of State Route 364 in 2018.

FIGURE 9: VEHICULAR SPEEDS (ACTUAL & POSTED)



Findings:

» Counts at the very northern end of the project area on State Route 364 showed an average speed slightly below the posted speed, and an 85th% speed slightly above. These speeds may be influenced by the presence of the intersections with County Road 18 and Marvin Sands, however, which may cause traffic to slow slightly.

» Counts throughout the remainder of the 45 MPH speed limit zone on State Route 364 indicated average speeds slightly above the posted speed, with 85th% speeds 4-5 MPH higher than the averages. These more moderate speeds include the Crystal Beach zone, indicating that the NYSDOT data discussed above that showed speeds of 57-64 MPH most likely applies to the 55 MPH zone of State Route 364.

» Counts along the 35 MPH section of County Road 11 showed similar speeds as the NYSDOT data, with mean speeds at 39 MPH and 85th% speeds at 45 MPH.

» Counts at the southern section of County Road 11, which is posted at 55 MPH, showed a mean speed far below the posted speed and the 85th% speed slightly lower than the posted speed. These lower speeds may be due to the location of 35 MPH and 45 MPH speed limits on both sides of this segment. Noticeably, despite the presence of a steep hill in this section, northbound and southbound speeds were nearly identical.

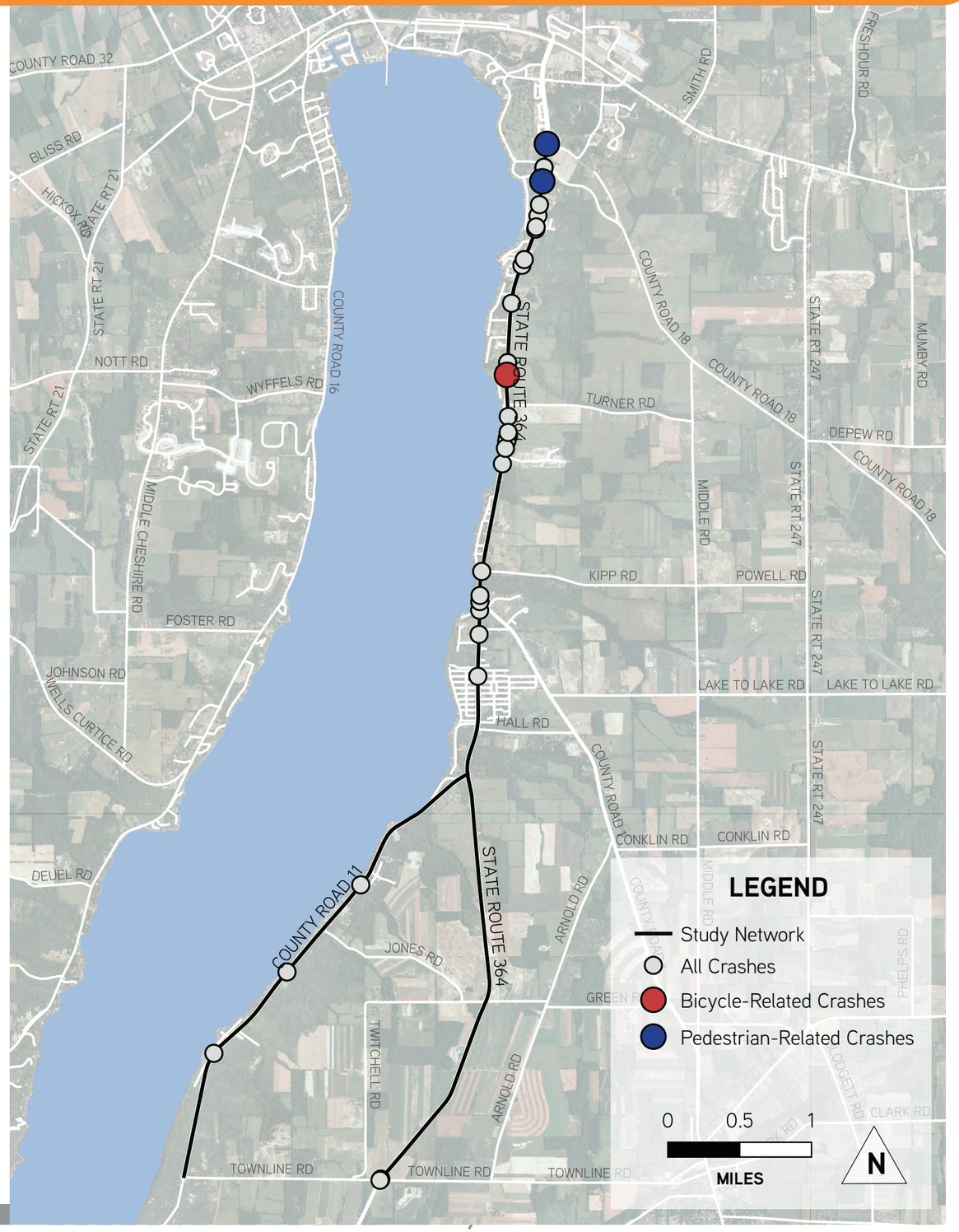
SAFETY & CRASH INFORMATION

Information from the Accident Location Information System (ALIS), provided through the Genesee Transportation Council, was used to identify the locations of all reported crashes along the project corridors between 2013 and 2018. Figure 10: Five-Year Crash History, shows the location and type of each of these crashes. It is also important to note that not all pedestrian and bicycle-related crashes are reported officially.

Based on this data, the majority of vehicular crashes have occurred in the northern sections of State Route 364, with a cluster around the intersection with County Road 1. There have been two pedestrian-related incidents along the project corridors, both located in the northern section of State Route 364 near FLCC and CMAC, both causing non-fatal injuries. The crash south of County Road 18 occurred in May 2015 around 9:00 PM on a Monday night, with a pedestrian walking along the side of the road in rainy conditions. The crash near Marvin Sands Drive occurred in June 2016 around 11:00 PM on a clear Friday night, after the conclusion of a concert at CMAC.

There was one bicycle-related crash near the intersection with Turner Rd, which occurred on a clear Sunday afternoon in June 2016. The crash caused non-fatal injuries for both the driver and the bicyclist. There have been no fatalities recorded along the project corridors in this timeframe.

FIGURE 10: FIVE-YEAR CRASH HISTORY



PARKING

Currently, vehicles frequently park on the shoulders along the project corridors. At key destinations, such as Ontario County Beach Park, Pelican Point Marina, and Deep Run Park, vehicles park along the roadway when off-street parking lots are full. Along other sections of County Road 11 and northern State Route 364, vehicles typically park along the street due to insufficient off-street parking availability at most residences. With growing amounts of rental properties and visitors, on-street parking is expected to increase in the future. As demonstrated in Appendix A: Time Lapse Camera Data, on-street parking along the shoulders poses significant safety concerns for pedestrians and bicyclists, who must either move off the road or into the travel lanes to navigate around parked vehicles.

PUBLIC TRANSIT

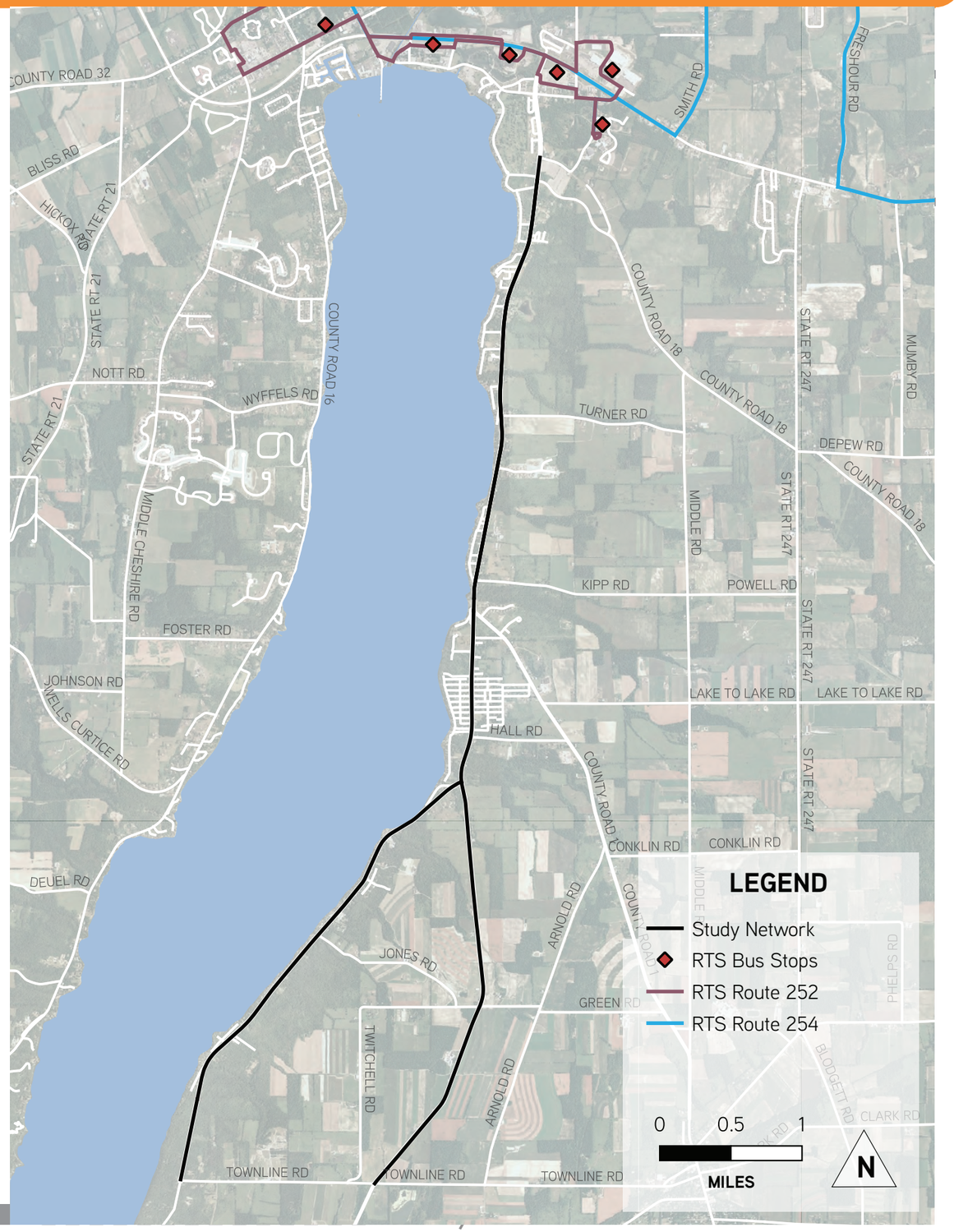
Currently, this area is served by RTS-Ontario Dial-a-Ride service, but is not served by fixed routes. As illustrated by Figure 11: Regional Public Transit, several Regional Transit Service Bus Routes serve just north of the project area, connecting Canandaigua to Geneva, Lyons, and Rochester. Additional seasonal RTS routes specifically serve the FLCC campus during the winter months.

FLUCTUATIONS IN USE

SEASONAL POPULATION CHANGES Many of the residences along the corridor are used primarily as summer homes or tourist rentals, leading to a significant increase in traffic along the project corridors during warmer seasons. In fact, houses along the project corridor were identified in the 2010 Census as having the highest vacancy rate in Ontario County, verifying the seasonal nature of occupancy. Assuming full household occupancy during the summers, the population increases by at least 3,000; when factoring in the high numbers of rented properties, the Town of Gorham estimates that as many as 8,000-10,000 people may be residing along the lakefront on these corridors during peak summer weekend days. Additionally, the majority of the destinations in the project area – Pelican Point Marina, LeTourneau Christian Camp, CMAC, and all of the parks – are typically used during the summer. Together, these factors lead to the high numbers of pedestrians and cyclists that were observed during the inventory and analysis phase of this project.

SUMMER CONCERTS As mentioned in Section 2.1, CMAC hosts 20-30 concerts every summer, with increasing amounts of events reaching the 15,000 person capacity. These events have significant impacts on both vehicular and pedestrian travel, as detailed in the 2013 ***Routes 5&20 & Route 364 Multi-Modal Safety & Access Improvement Study.*** During events, vehicles often park on-site in several FLCC lots, including 'G' lot, which is adjacent to State Route 364, or in off-site parking lots along Routes 5&20, and walk to the amphitheater via State Route 364 and Marvin Sands Drive. Due to this spike in pedestrian activity on concert days, Marvin Sands Drive is closed to vehicular traffic after 2:00 PM, and officers from the Ontario County Sheriff's Department are assigned to guide pedestrian movement along the edges of the roadway. These events also have significant impacts on through-traffic along State Route 364, forcing many residents to either wait or find alternate routes to their residences. Please refer to Appendix A: Time-Lapse Camera Data for additional information on pedestrian movements at the Marvin Sands Drive / State Route 364 intersection during concert events.

FIGURE 11: REGIONAL PUBLIC TRANSIT



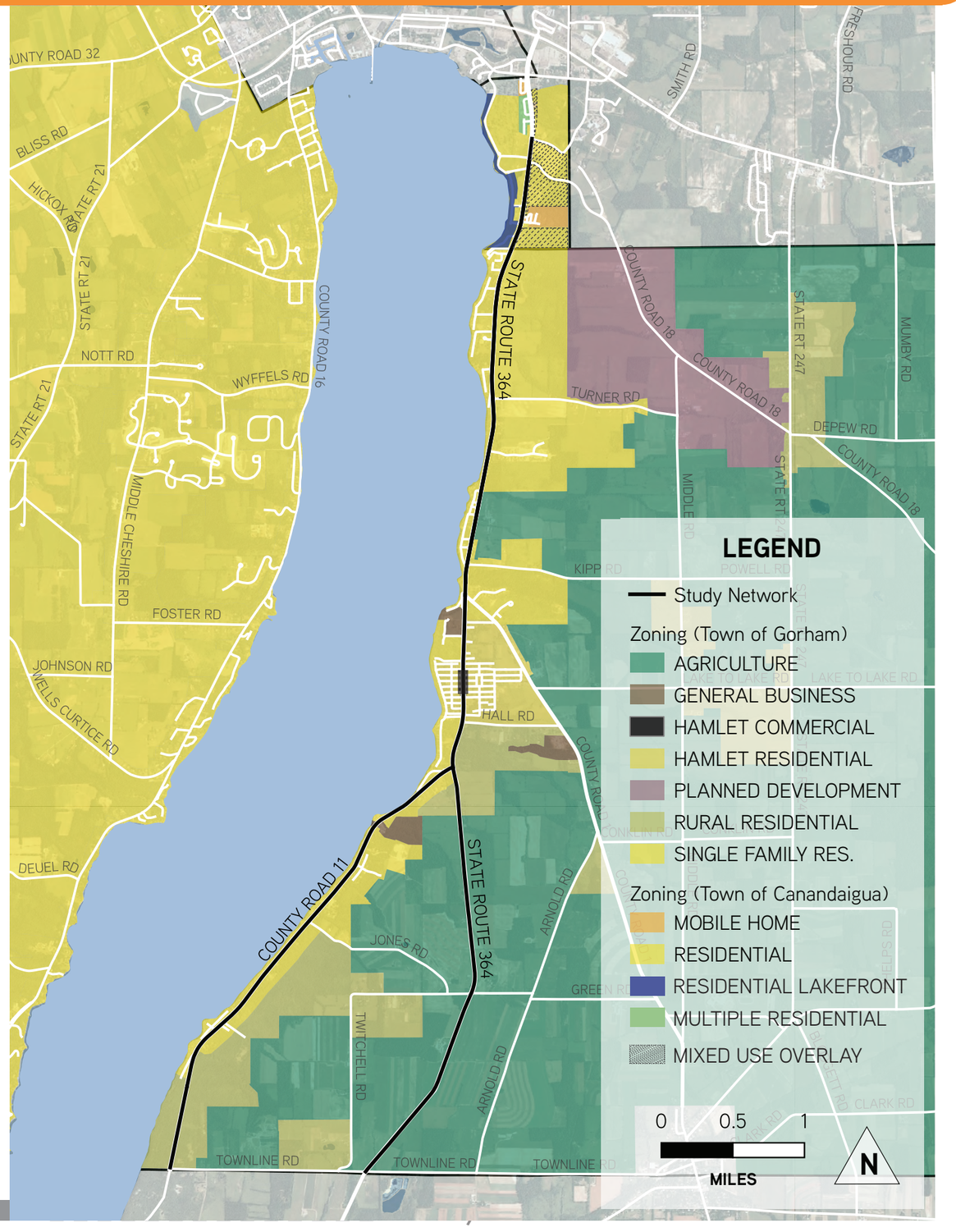
2.4 REGULATORY CHARACTERISTICS

Regulations, including zoning, access management, and site development policy, provide the context for the function and character of corridors. Regulations can encourage active transportation connectivity and safety through promoting implementation of multimodal facilities, denser development patterns, and design guidelines that enhance and enliven streetscapes.

ZONING DISTRICTS

TOWN OF CANANDAIGUA			
Color	*District*	Intent	Selected Permitted Uses
	Residential (R-1-20)	Promotes residential uses at suburban standards and densities	One single-family dwelling per lot
	Residential Lakefront	Allows limited residential uses that protect the quality of Canandaigua Lake, and scenery	One single-family dwelling per lot; Public parks; Public safety facilities
	Multiple Residential	Permits construction of multiple family residences in appropriate areas of Town	Townhouses, apartment buildings, and two-family dwelling units
	Manufactured Home	Promotes health, safety, and general welfare of residents by establishing minimum standards	Manufactured homes
	Mixed Use Overlay (MUO-3)	Promotes more intensive mixed use development within existing base zoning district	Typically multi-family, commercial, and industrial development
TOWN OF GORHAM			
Color	*District*	Intent	Selected Permitted Uses
	Farming Preferred	Supports agricultural operations, preserves farmable lands, reduces conflicts with non-agricultural uses; maintains rural character	Agricultural uses; Single-family housing (with minimum lot sizes)
	General Business	Provides locations for business development to complement rural character	Agricultural uses; Commercial uses; Public uses
	Hamlet Commercial	Provides for mixed-use business development in 'downtown' commercial areas	Commercial (first floor); Dwellings (second floor); Industrial
	Hamlet Residential	Encourages mixture of residential uses and styles that are compatible with neighborhood environment	Single- or double-family dwelling; Public building or park; Agricultural & accessory uses
	Planned Development	Describes procedures for comprehensive development of parcels marginal to farmland in a flexible and cohesive manner	Farm uses and related uses; Single-family residences
	Rural Residential	Provides transitional area for low-density residential development between farms and denser development	Single- or double-family dwelling; Agricultural & accessory uses; Public or private school
	Single-Family Residential	Promotes preservation of existing residential neighborhoods and smaller-scale homes	Single or double family dwelling; Agricultural uses; School, park, public building

FIGURE 12: ZONING MAP



TOWN OF GORHAM REGULATIONS & GUIDELINES

The regulations in this section are discussed based on their relevance to active transportation. Generally, the following types of regulations are included and analyzed: future plan development guidelines, which dictate future multimodal connections; roadway setbacks and streetscape design guidelines, which affect corridor character; access management plans, which guide the amount of vehicular and multimodal access points and circulation along corridors; and multimodal facility design standards, which impact the accessibility and construction of pedestrian and bicycle facilities.

ZONING LOCAL LAW, TOWN OF GORHAM (MUNICIPAL CODE: CHAPTER 31) (LAST AMENDED 2017) The zoning law establishes comprehensive controls for the development of land within the Town, intended to promote and protect health, safety, comfort, convenience, and general welfare of the community's citizens. The law's regulations help ensure the maintenance of particular characteristics within districts, and encourage appropriate land uses throughout. The districts included within the Zoning Local Law are included on the table on the page 40.

RELEVANT REGULATIONS

- *31.4.2-5 Minimum Front Setbacks*
  - R-1 District: 50' from Collector Roads; 35' from Local Roads
  - Hamlet Residential: 25' from Collector Roads; 15' from Local Roads
  - Hamlet Commercial: 0' from All Roads
- *31.4.8 Planned Development*
  - Objectives include open space, coordinated plans, convenient commercial and service areas, preservation of vegetation, minimal visual impacts, compact development patterns for efficient use of land, and seamless integration with nearby development
  - Planning Board Recommendations include a summary of pedestrian circulation and internal and external connectivity
- *31.4.11 Lakefront Overlay District*
  - Includes all properties on the west sides of State Route 364 and County Road 11
- *31.8.1 Off-Street Parking*
  - Minimum width of 10'
  - One-Two Family Dwellings must have 2 parking spaces per unit
  - Hotels, Motels, Inns, Rooming Houses must have 1 space per rent-able unit, plus 1 per 100 square feet of non-room gross floor area
- *31.8.4 Outdoor Lighting*
  - Outdoor lighting shall not be above 35' from the ground
- *31.8.8 Landscaping, Screening, and Buffer*
  - All plant material adjacent to parking areas and driveways shall be protected by barriers or curbs…from stormwater runoff
- *31.10.7 Criteria for Site Plan Review*
  - General considerations include vehicular access and circulation, pedestrian access and circulation, off-street parking, arrangement of building and lighting, stormwater drainage, trees and buffering, and conformance to design guidelines

TOWN OF GORHAM DESIGN GUIDELINES (2014): This document provides a well-illustrated set of best practices for maintaining the visual and physical character of four key zoning districts within Gorham: the Hamlet Residential, Hamlet Commercial, Lakefront Residential, and Farmland Priority.

RELEVANT GUIDELINES

- *Chapter 2: Hamlet Residential District*
  - Purpose includes promotion of neighborhood interaction, through porches and sidewalks, and encouragement of walking
  - Promotes shallow setbacks to reinforce human scale along the street
  - Encourages shade trees to create human scale space along sidewalk
  - Discusses benefits of small-scale pedestrian lighting
  - Promotes parking in rear of buildings
- *Chapter 3: Hamlet Commercial District*
  - Promotes pedestrian-scale detailing along building facades
  - Encourages front entrances and no setbacks to promote pedestrian mobility and liveliness of street
  - Emphasizes separation between sidewalks and vehicular traffic
  - Promotes use of street trees
  - Recommends pedestrian-scale lighting with 12-14' height maximums
  - Restricts curb cuts and access points along primary streets
  - Promotes connected parking areas in rear of buildings
- *Chapter 4: Lakefront Residential District*
  - Promotes pedestrian scale development, lighting, and plantings and roadside-oriented entrances

TOWN OF GORHAM DESIGN AND CONSTRUCTION STANDARDS FOR LAND DEVELOPMENT (2008) This document outlines required standards for design and construction of roadways, driveways, and parking lots.

REGULATIONS

- *2.9.2 Design Standards:* Design of roads shall conform to AASHTO standards
- *2.9.5 Intersection Design Requirements:* Streets shall be at approximately right angles and in no case shall the intersecting centerlines have an angle less than 75 degrees
- *2.9.7 Sidewalks:* Sidewalks shall be provided on both sides of the street where required for safety or convenience. The minimum width of sidewalks shall be four feet.
- *2.9.8 Trees within Right of Way:* Generally, the right-of-way shall be cleared of trees and brush.
- *2.10 Exterior Site Lighting:* Lighting shall conform to general standards and not be higher than 10' in residential areas.

TOWN OF GORHAM ACCESS MANAGEMENT (MUNICIPAL CODE: CHAPTER 30) (2006): Implemented after the recommendations from the Town Comprehensive Plan, this document provides requirements and procedures to manage access to properties while preserving the safety and operating characteristics of all roadways users.

RELEVANT REGULATIONS

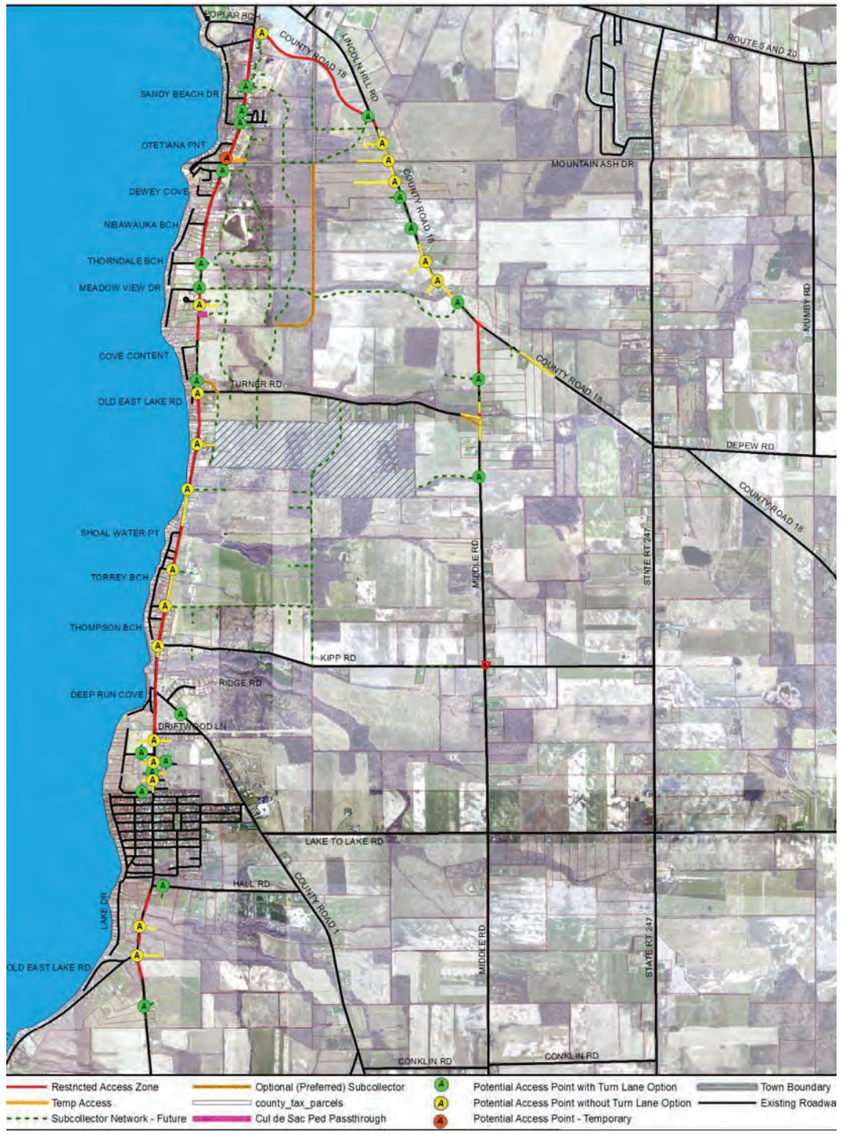
- *30.4.A Connection Spacing:* On the project corridors, access connections must be at least 125' apart in 35 MPH zones, and 440' apart in 45+ MPH zones.
- *30.6.A Internal Site Circulation:* Residential developments shall provide internal pedestrian connectivity with special access to recreational amenities, trails, and open spaces.
- *30.6.B Internal Site Circulation*: Internal road networks…shall maximize on-site circulation and promote internal connections to the degree that is reasonable and possible.
- *30.9 Special Standards for State Route 364 and County Road 1*
  - A. Number of Driveways: Access should be limited to one access per parcel generally. Where parcels have dual frontage on a local road and State Route 364, access shall be provided from the secondary road.
  - B. Driveway Design: Alternative access shall be encouraged, including Frontage or Reverse Frontage (Backage) Roads, to minimize access points along State Route 364 and County Road 11
- *30.10 Access Management Map:* This provides an overview of all proposed access management points along the north part of this project corridor. This map identifies capacities of existing road intersections along the project corridors, adjacent land development capacity, improvements to various intersections, and proposes a network for future road alignments to alleviate overburdening of County Road 11 and State Route 364. In leiu of an official map, this is the guidance that the Town of Gorham Planning Board uses to promote interconnectivity between adjacent developments as they are proposed. Please refer to Figure 13: Access Management Map, for additional details.

TOWN OF GORHAM SUBDIVISION REGULATIONS (MUNICIPAL CODE: CHAPTER 32) (LAST AMENDED IN 2006) This document provides planning for the orderly, efficient, safe, and economical development of the Town, and ensures that all new developments adhere to accepted standards set forth by the code and comprehensive plan, as well as the Access Management Plan and Local Law. There is also a provision that requires compliance with the Town of Gorham's Soil Erosion and Sedimentation Control Law, a document that establishes a Limited Development Overlay District that corresponds roughly to the Canandaigua Lake Watershed, and establishes the need for erosion control techniques for land development; the Town's Zoning Local Law also requires compliance with this Soil Erosion and Sedimentation Control Law.

REGULATIONS

- *Article 4: Development Standards: 32.91.A Streets*
  - Whenever possible, streets should intersect at right angles, in no case intersecting at less than 60 degrees
  - Local residential streets shall discourage through traffic
  - All subdivisions shall be designed to provide access to adjacent properties
- *Article V: Improvements Required: Sidewalks*
  - Sidewalks shall be required on both sides of the street
  - Street trees shall be planted at intervals from forty to sixty feet

TOWN OF GORHAM, HOPEWELL, AND CANANDAIGUA ROUTE 364 ACCESS MANAGEMENT PLAN (2003) Created in response to increasing development along State Route 364, this document provided the foundation for the access management standards that were adopted into the Municipal Code. Similar to the documents that followed it, this document emphasized the importance of managing the amount of curb cuts and driveways along State Route 364, thereby reducing the amount of conflict points between roadway users. This document was adopted as an addendum to the Town of Gorham's Comprehensive Plan. The key takeaways from this plan are previously referenced in the above plans.



SRF Associates + EDR

TOWN OF CANANDAIGUA CODE & DESIGN STANDARDS

TOWN OF CANANDAIGUA MUNICIPAL CODE: The code regulates the physical and visual characteristics of the Town of Canandaigua, including public and private areas.

RELEVANT REGULATIONS

- *Chapter 134: Manufactured Home Parks*
  - 134-6 Access: The entrance road connecting the manufactured home park with the public road shall have a minimum paved road width of 22 feet.
  - 134-7 Internal Roads (E): Road lighting. Adequate dark-sky-compliant road lights shall be provided at each intersection from dusk to dawn.
  - 134-18 Walkways: Each manufactured home stand shall be provided with a durable surface walkway leading from the dwelling's main entrance to the road or to the driveway.
- *Chapter 174: Subdivision of Land*
  - Article I General Provisions: 174-3 Purpose: to create and provide for conditions favorable to the public health, safety, and general welfare and guide future growth by use of sound planning principles as set forth in the Town of Canandaigua Comprehensive Plan.
  - Article III Design Standards: 174-23 Sidewalks, Crosswalks
    - Pedestrian sidewalks and trails may be required where necessary to assist circulation or provide access to community facilities.
    - Sidewalks may be installed on one or both sides of the street or road that provides access to the site
    - Sidewalks, when required, shall be installed one foot inside the road right-of-way.
    - Walking trails, when proposed or required, shall be designed to connect with trails
    - Crosswalks, a minimum of six feet in width, shall be provided in blocks with interior parks, in exceptionally long blocks or where access to a school, shopping center or where other community facilities are located.
  - Article III Design Standards: 174-22 Parking, Loading Areas, and Site Access
    - A. In addition to the requirements in this section, proposed parking, loading areas and site access shall comply with Town Code
  - Article III Design Standards: 174-28 Lighting
    - A. A lighting plan detailing lighting levels and demonstrating compliance with Town Code is required for all proposed outdoor lighting.
- *Chapter 195: Vehicles and Traffic*
  - Article I: Parking Restrictions: 195-1 Parking Prohibitions
  - County Road 18, both sides, from State Route 364 to the Hopewell Townline
  - Article IV: Seasonal Parking Restrictions: 195-13 Prohibition: The parking of any vehicle on any county or Town highway within the Town of Canandaigua, including roads dedicated to the Town of Canandaigua within subdivisions, is prohibited between November 1 of any year and April 1 of the following year.
- *Chapter 220: Zoning*
  - 220-2 Purpose: Its purpose is to regulate and restrict: the height, number of stories and size of buildings and other structures; the percentage of lot that may be occupied; the size of yards, courts and other open space; the density of population; and the location and use of buildings, structures and land for business, industry, agriculture, residence or other purposes.
  - 220-73 Off Street Parking Regulations: Discusses lighting, location, amounts, design requirements
  - 220-75 Access Control (A2): All site development proposing access along U.S. Route 5 and State Routes 364, 332, 20 and 21 shall have access control solutions consistent with the adopted Site Design and Development Criteria
  - 220-77 Lighting Standards & Regulations: Discusses reduction of glare, light trespass, encourages safety, and reduces crime

TOWN OF CANANDAIGUA DESIGN STANDARDS This document outlines design standards for construction of new developments on public and private land.

RELEVANT REGULATIONS

- *2.1 Street Layout*
  - B. Streets shall be logically oriented, related to the existing topography and meet acceptable planning/engineering criteria, which will produce buildable lots and reasonable road grades
  - G Dead-end streets shall be prohibited, except as stubs to permit future street extension into adjoining tracts or when designed as a cul-de-sac
- *2.2 Street Intersections*
  - A. Streets shall be laid out to intersect as nearly as possible at right angles. No street shall intersect another at an angle of less than 75 degrees.
  - B. Multiple intersections involving a junction of more than two streets shall be avoided.
- *2.8 Trails/Sidewalks*
  - Walking trails and sidewalks when proposed or required, shall be designed (where possible) to connect with existing trail networks and sidewalks in the Town of Canandaigua
- *4.0 Design Criteria*
  - *G. Sidewalks*
    - Sidewalks are required by the Planning Board in all applications unless otherwise determined by the Planning Board If required, sidewalks shall be concrete having 5' in width.
  - *H. Trails*
    - Walking trails in conformance with the Town of Canandaigua Parks and Recreation Master Plan of 2018 may be required. If required, walking trails shall be a minimum 6' in width, and consist of a 6 inch lift course of Type 2 crusher run stone, and a 2" top of stone-dust or 2" top of asphalt conforming to screenings & 1B (NYSDOT Table 703-4). Shared use paths (walkers and bicyclists) may require additional trail width. All trails shall be designed in conformance with the Federal Highway Administration recommendations
- *4.2 Installation of Improvements*
  - *J. Concrete Gutters & Sidewalks*
    - B. Sidewalks shall be designed in conformance with the Americans with Disabilities Act (ADA)

2.5 ACTIVE TRANSPORTATION EXPERIENCE

The amount of amenities, densely-packed residences, and beautiful views along the project corridors result in significant amounts of bicycle and pedestrian activity. However, higher traffic speeds, a lack of sidewalks, and shoulders that are occasionally occupied by vehicles or overgrown with shrubs create a mixed perception of safety for many pedestrians and bicyclists. This section gauges the levels of active transportation comfort and safety through three methods: community input gathered through public and stakeholder meetings, the Bicycle and Pedestrian Level of Service models, and an analysis of videos from time-lapse cameras that were deployed along the corridors.

COMMUNITY INPUT

As discussed in Chapter 1: Introduction, community feedback was solicited through multiple public meetings both for this plan and the 2019 Ontario County Parks plan. In general, community members have expressed that they often feel unsafe while walking along the corridor, and occasionally feel unsafe while bicycling. The speeds of vehicular traffic are the largest concern, particularly with the influx of visitors during summers who are not always aware of the significant active transportation presence along the project corridors. Additionally, the lack of continuous shoulders throughout the project corridors significantly impact perceptions of safety, as pedestrians and bicyclists must often navigate around parked cars, ponding, overgrown branches, and subpar pavement conditions.

TIME LAPSE CAMERA DATA

By enabling a day's worth of data to be analyzed in a matter of hours, time-lapse cameras are an important tool for understanding current active transportation patterns on a site-specific level. They provide both quantitative and qualitative information, which can be developed into visuals that detail pedestrian, jogger, and bicyclist movements, usage trends, and interactions with motorists. For this project, time-lapse cameras were deployed at eight locations throughout the corridor, and illustrated significantly high pedestrian and bicycle use of the corridors. Key takeaways from each camera are discussed on the following page, and more detailed visuals of each location are included in Appendix A: Time Lapse Camera Data. On the following pages, 'significant' usage refers to at least 25-30 pedestrians or 5-10 bicyclists per peak hour; 'moderate' usage refers to approximately 10-20 pedestrians or 2-5 bicyclists per peak hour; and 'minimal' usage refers to less than 10 pedestrians or 2 bicyclists per peak hour.

8 LOCATIONS	4 DIFFERENT DAYS	90 HOURS ANALYZED
1560 PEDESTRIANS	238 BICYCLISTS	72 JOGGERS

Marvin Sands Drive & State Route 364 Intersection
- » Significant north-south bicyclist use and moderate pedestrian use
- » High pedestrian use during CMAC concerts

Ontario County Beach Park, Angela Way, & State Route 364 Area
- » Significant north-south bicyclist use and moderate jogging use
- » Moderate pedestrian use crossing between Angela Way and Ontario County Beach Park

Deep Run Park, County Road 1, & State Route 364 Area
- » Moderate north-south bicyclist use and extremely high pedestrian use crossing to Deep Run
- » Significant conflict between on-street parking and pedestrian/bicycle mobility

Bluebird Road & State Route 364 Intersection (Crystal Beach)
- » Moderate north-south bicyclist use and moderate pedestrian use for leisure walking
- » Pedestrians cross State Route 364 at various locations to access destinations

County Road 11 & State Route 364 Intersection
- » Moderate bicyclist use and minimal pedestrian use

Pelican Point Marina on County Road 11
- » Moderate through-bicycle use and significant through-pedestrian use
- » Extremely high pedestrian use crossing between Marina General Store and boat launch

County Road 11 at Le Tourneau Christian Camp
- » Moderate through-bicycle use and significant through-pedestrian use, often by larger groups
- » Significant use of activated crossing by Le Tourneau visitors; vehicles always yield

Townline Road & State Route 364 Intersection
- » Minimal through-bicycle usage and no pedestrian use

BICYCLE & PEDESTRIAN LEVELS OF SERVICE

The Bicycle Level of Service (BLOS) and Pedestrian Level of Service (PLOS) models are a nationally-recognized method for measuring users' perceived safety and comfort along a roadway. Roadways are measured using "grades" from A-F, with 'A' representing a comfortable environment for people at most levels of mobility, and 'F' representing a highly unsafe and uncomfortable corridor for active transportation. These models are 'consensus-based,' meaning that they represent an average experience for any pedestrian or bicyclist; the factors that are incorporated into this grade are based on extensive research about specific roadway elements that impact perceptions of active transportation safety and comfort. A summary of the factors that influence BLOS and PLOS are included on the following pages.

For this BLOS and PLOS analysis, the corridors were broken into six segments (which were later used to develop the project Character Zones described in Chapter 3: Needs & Opportunities). Generally, particularly in relation to national rural connector roadways, the models depicted the project corridors as a generally favorable environment for bicycling and a challenging environment for walking. These findings also held true when seasonal traffic volume fluctuations were incorporated into the model.

BICYCLE LEVEL OF SERVICE

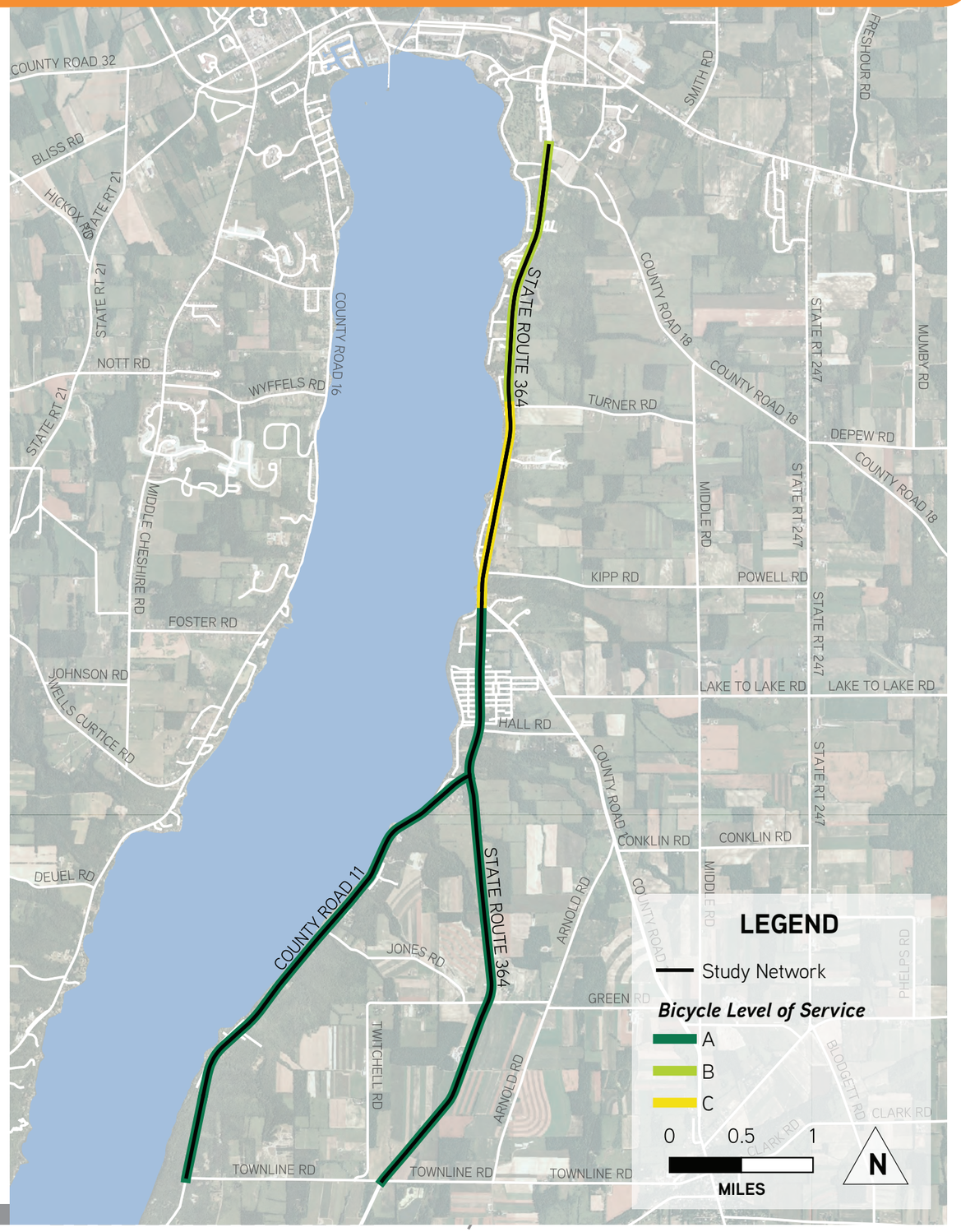
As illustrated by Figure 14: Bicycle Level of Service, the southern sections of State Route 364 and the entirety of County Road received 'A' grades, due to low traffic volumes, low truck traffic, generally good pavement conditions, and the presence of shoulders. The northern sections of State Route 364 received slightly lower 'B' and 'C' grades, primarily due to higher traffic volumes and slightly narrower shoulders between the two County Parks. However, since these grades represent the entirety of each segment, they do not explicitly incorporate the occasional encroachments into the paved shoulder by parked vehicles, debris, flooding, and pavement degradation. These obstacles, which are discussed in more detail in Appendix C: Public Meeting Summaries, may result in slightly lower BLOS grades on particular days at particular locations.

Better Grade	*Factor*	Worse Grade
Less Traffic	*Average Daily Traffic*	More Traffic
Less Trucks	*Percent of Heavy Vehicles (Trucks)*	More Trucks
Lower Speeds	*Speed Limit*	Higher Speeds
Fewer Lanes	*Number of Traffic Lanes*	More Lanes
Wider Shoulder	*Width of Pavement outside of Edge Line*	Smaller Shoulder
Less Parking	*On-Street Occupied Parking*	More Parking
Better Pavement	*Pavement Condition*	Worse Pavement
Bike Lane	*Presence of Designated Bike Lane*	No Bike Lane

A *Low traffic volume, wide shoulder, good pavement, no parking*

C *Higher traffic volume, small shoulder, fair pavement, some on-street parking*

FIGURE 14: BICYCLE LEVEL OF SERVICE



PEDESTRIAN LEVEL OF SERVICE

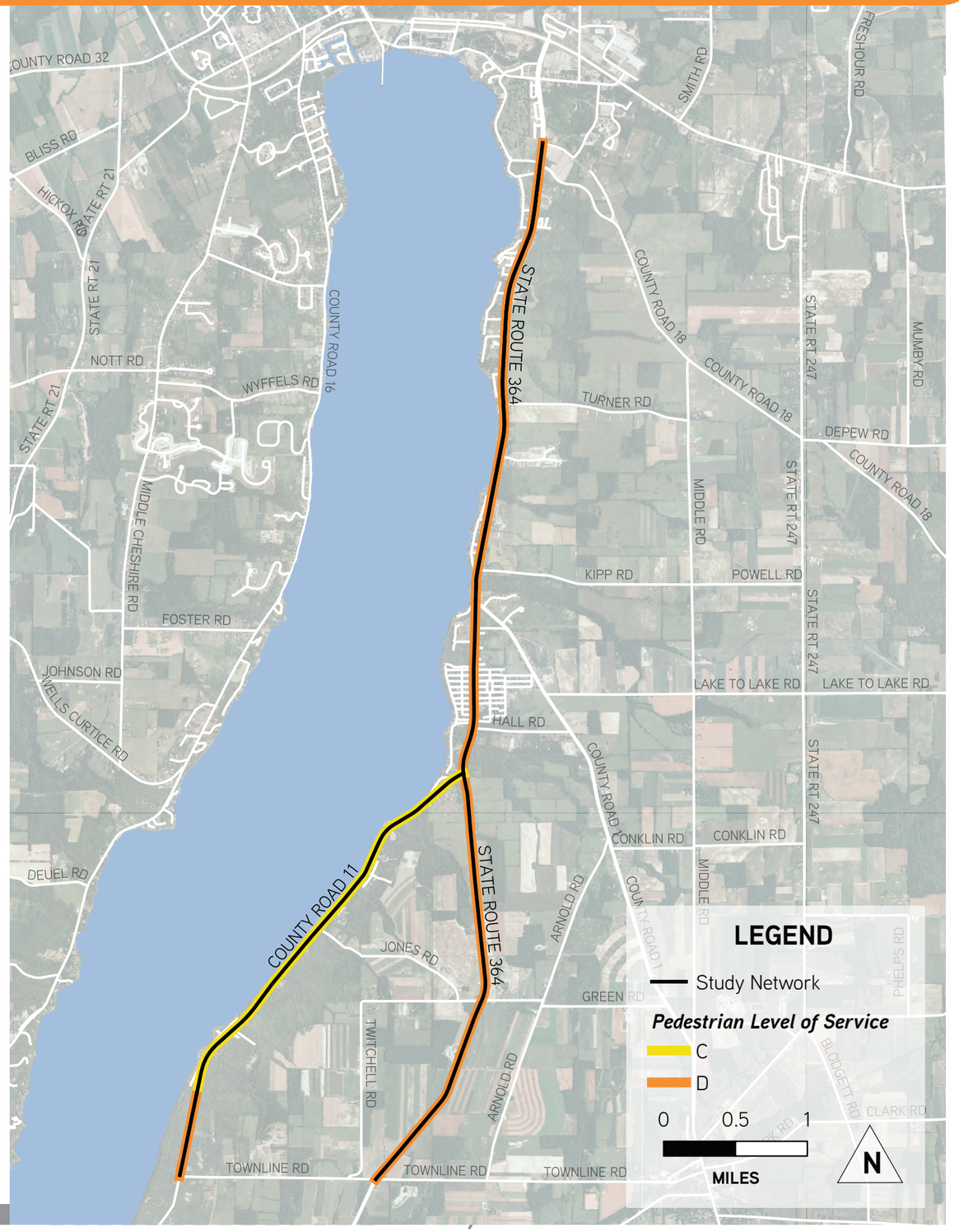
As shown by Figure 15: Pedestrian Level of Service, the majority of the project corridors received a 'D' grade, indicating general lack of comfort for pedestrians. These grades are primarily due to the lack of a sidewalk and higher vehicular speed limits. The slightly better 'C' grade for the northern portion of County Road 11 is due to the lower speed limit of 35 MPH, which gives vehicles more time to react and move around pedestrians. As noted in the BLOS discussion, however, these grades only represent the entirety of each segment, and specific sections where pedestrians cannot use the full shoulders may have even lower grades on particular days. For more detailed information on BLOS and PLOS methodology, findings, and grades, please refer to Appendix E: Bicycle and Pedestrian Levels of Service.

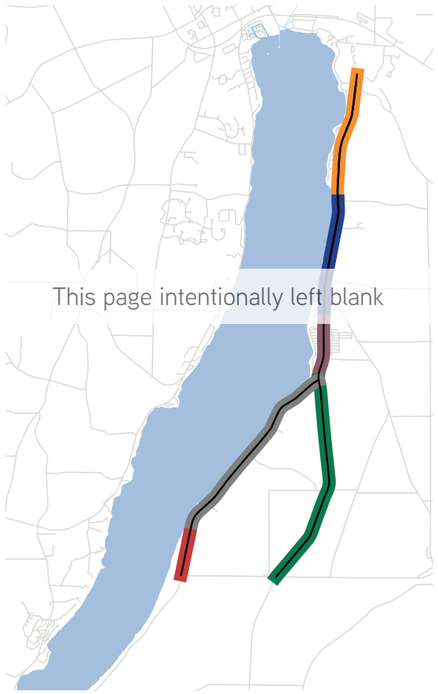
Better Grade	*Factor*	Worse Grade
Less Traffic	*Average Daily Traffic*	More Traffic
Less Trucks	*Percent of Heavy Vehicles (Trucks)*	More Trucks
Lower Speeds	*Speed Limit*	Higher Speeds
Fewer Lanes	*Number of Traffic Lanes*	More Lanes
More Shoulder	*Width of Pavement outside of White Line*	Less Shoulder
Less Parking	*On-Street Occupied Parking*	More Parking
Street Trees	*Presence of Street Trees*	No Street Trees
Wide Sidewalk	*Presence & Width of Sidewalk*	No Sidewalk

C *Lower speeds, some shoulder, no sidewalk or street trees, parking*

D *Higher speeds, small shoulder, no sidewalk or street trees, some parking*

FIGURE 15: PEDESTRIAN LEVEL OF SERVICE





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3 NEEDS & OPPORTUNITIES

This Chapter is broken into two segments: ***Corridor-Wide Needs & Opportunities,*** which includes a broader overview of deficiencies and opportunities for improvements throughout the corridors; and ***Character Zone Needs & Opportunities,*** which details deficiencies and opportunities that are more specific to six particular segments of the corridors. These 'Character Zones' have been identified through synthesis of the findings within the Inventory & Analysis, and are defined by particular development types, traffic volumes and speeds, key destinations, and Bicycle and Pedestrian Level of Service grades. The outline of this chapter mirrors the following recommendations within Chapter 4.

3.1 CORRIDOR-WIDE NEEDS & OPPORTUNITIES

SHOULDER WIDTH: While the majority of the corridors contain shoulders between 3'-5' in width, there is a need to widen pavement in particular areas to meet this standard width.

SHOULDER PAVEMENT: There are several isolated sections throughout the corridors with eroded pavement in the shoulders. There is a need to repave these areas to ensure pedestrian and bicycle safety.

TRAFFIC CALMING: With actual speeds averaging 2-10 MPH above posted speed limits throughout the majority of the corridor areas, there is an opportunity to reduce speeds through implementing traffic calming measures. Typically, traffic calming measures include reduced lane widths and increased vertical elements.

REDUCED ON-SHOULDER PARKING: With on-street parking frequently blocking the use of the shoulder by pedestrians and bicyclists, there is a need to reduce the amount of on-street parked vehicles through increased signage or enforcement.

MAINTENANCE: Untrimmed tree limbs or brush occasionally obscure motorist visibility of pedestrians and bicyclists, and reduce the amount of usable width within the shoulder.

INTERSECTION IMPROVEMENTS: The wide turning radii at many of the intersections along the corridors enable vehicles to turn at higher rates of speed, potentially endangering pedestrians or bicyclists. There is an opportunity to tighten intersection radii to encourage slower vehicular traffic, while still accommodating standards for large trucks.

CROSSINGS: Currently, there is only one marked crossing along the corridors, at Le Tourneau Christian Camp. As demonstrated by the time-lapse camera data, however, there is a significant demand for pedestrian crossings at key destinations. Implementing more crosswalks would enhance the safety of pedestrians and may increase active transportation travel.

SIDEWALKS: In areas with high pedestrian activity, there are opportunities to implement sidewalks for increased pedestrian safety and comfort.

ADVANCED WARNINGS: With several sharp curves and steep hills, there are opportunities to implement signage that warns motorists of frequent pedestrian and bicycle use areas.

WAYFINDING: Active transportation wayfinding functions to help bicyclists or pedestrians navigate safely and easily between key locations through signage and other environmental cues. Implementing wayfinding between key corridor destinations – particularly between the parks – may further encourage visitors and residents to walk or bike along the corridor.

STORMWATER MANAGEMENT With occasional on-road flooding and water quality concerns, there is a need to improve drainage and filter runoff before it flows into Canandaigua Lake.

CODES & DESIGN STANDARDS:

The regulatory documents for both the Town of Gorham and Town of Canandaigua often represent best practices for promoting context-specific designs that promote active transportation. In general, the following considerations represent significant regulatory opportunities for enhancing active transportation safety and comfort within and around the corridor.

- *'Sense of Place' and Setbacks:* The visual environments in which pedestrians, bicyclists, and motorists move have significant impacts on their behavior and speeds. For instance, open spaces with wide roadways typically encourage faster vehicular speeds, while tighter roadways with surrounding buildings adjacent to the street typically cater to pedestrian movement and encourage vehicles to slow down. This concept is known as the 'Street Wall,' which is calculated using a ratio between the height of buildings on both sides of the street to the distance between them. Generally, a ratio of 1:3 (for instance, 30' tall buildings with 90' of streetscape between them) is most favorable for pedestrians in downtown environments. Even the most built-up areas of the corridors, Crystal Beach and County Road 11, typically have ratios of 1:4, 1:5, or even higher. There is an opportunity to encourage lower ratios throughout selected areas in the corridors by requiring maximum setbacks and promoting pedestrian-scaled design.
- *Access Management:* The Town of Gorham Access Management Chapter and Map clearly and explicitly outlines access management standards for State Route 364. There are minimal opportunities to further strengthen these guidelines by incorporating bicycle circulation.
- *Off-Street Parking:* There are opportunities to further promote off-street parking on the sides or backs of buildings emphasizes human scale development, aesthetically enhances the streetscape, and reduces on-street parking.
- *Lighting:* There are opportunities to further encourage pedestrian-scaled lighting, which assists pedestrian and bicycle mobility by enhancing visibility and perceptions of safety.
- *Bicycle Accommodations:* There are currently no references to bicycles within any of the regulatory documents examined for this project. There are opportunities to encourage bicycle mobility, facilities, and parking throughout many of the documents.
- *ADA Accessibility:* There is an opportunity to further encourage ADA Accessibility, as it is only briefly mentioned in the Design Standards of both Towns, but is not highlighted as a key component of sidewalk or site plan development.
- *Green Infrastructure:* There are opportunities to emphasize the ability of Green Infrastructure to address many of the stormwater issues that face these corridors and the larger area. Green Infrastructure, which includes landscapes that infiltrate and filer stormwater, can both reduce on-road flooding and further treat the stormwater before it flows into Canandaigua Lake.
- *Street Trees:* There are opportunities to further emphasize the role of street trees in traffic calming. As key vertical elements that are located adjacent to the roadway, they can contribute to more human-scaled development, encouraging more active transportation and slower vehicular speeds.

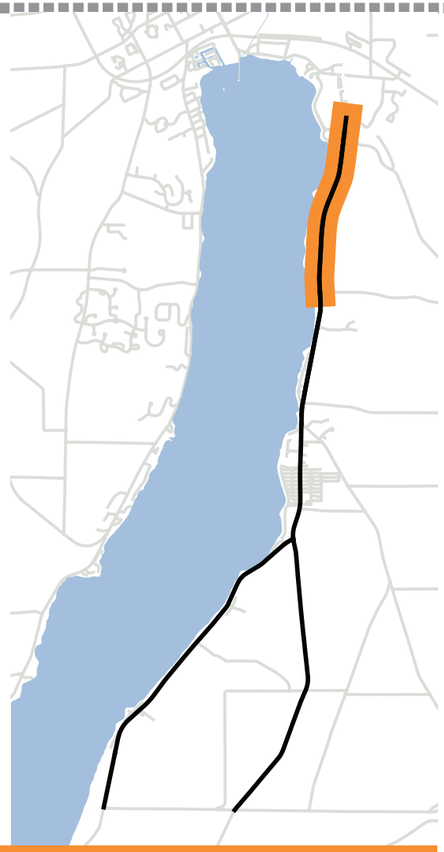
3.2 CHARACTER ZONES NEEDS & OPPORTUNITIES

The following pages outline goals, needs, and opportunities for all six character zones.

1 NORTH STATE ROUTE 364

This section encompasses the northern end of State Route 364 from Marvin Sands Drive to Turner Road. Houses are located along both sides of State Route 364, and are typically set back from the roadway; a mobile home park and vacant land are also located along the eastern side. The presence of FLCC and CMAC at the north of this segment significantly generates pedestrian activity, particularly on event days. The majority of cyclists are moving north-south along State Route 364 on shoulders with varying widths from 1' to 5'. The 'G' parking lot located between Marvin Sands Drive, State Route 364, and County Road 11 is used for concert parking, student parking, and commercial license (CDL) drivers tests.

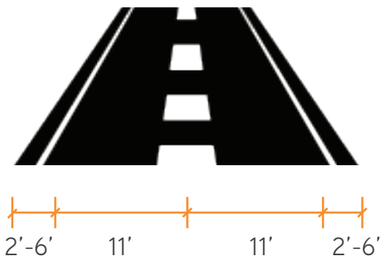
Typical View Looking South on State Route 364



Distance	1.7 Miles
Elevation (N>S)	+32 Feet, -10 Feet
Road Slope	Minor; 0-3%
Traffic Volume	~6500 Vehicles/Day
Posted Speed	45 MPH
*Mean-85% Speeds**	48-52 MPH
# of Crashes	11; 2 Pedestrian & 1 Bike-Related
Parking	Occasional
Zoning District(s)	Residential, Mobile Home
BLOS	B
PLOS	D
Amount of AT Use	Moderate; High During Events

Town of Canandaigua (N) & Town of Gorham (S)

Finger Lakes Community College, CMAC, FLCC Trail



*For this page and following pages, "Mean-85% Speeds" refer to Mean and 85th Percentile Speeds for the designated areas.

NEEDS

Off-Road pedestrian facilities near FLCC and CMAC With significant pedestrian activity from concerts and residents and higher traffic volumes, there is a demand for off-road sidewalks along County Road 18, State Route 364, and Marvin Sands Drive. These sidewalks could complement sidewalks along the east side of State Route 364 (north of the project area) that the Town of Canandaigua is currently proposing.

Standardized shoulder widths Particularly in the northbound direction, shoulders are often less than 3' wide. This significantly impacts the ability of through-bicyclists to navigate safely, forcing them to ride in the travel lane.

Maintenance of foliage Particularly at key intersections, branches and brush intrude into the right-of-way, causing vehicles to lose visibility of pedestrians and/or bicyclists who may be utilizing the shoulders.

Lighting There is currently minimal on-street lighting along State Route 364, and both pedestrian-related crashes in this area occurred after dark. During CMAC events, the Ontario County Sheriff's Office sets up portable lighting to increase pedestrian safety. There is, however, a clear need for more permanent, formal lighting along this section of State Route 364, Marvin Sands Drive, and County Road 18.

OPPORTUNITIES

Near County Road 18 Intersection

Shoulder near Residences

Enhanced Intersections with Marvin Sands Drive and County Road 18 There is an opportunity to reduce the turning radii at both of these intersections to force slower vehicular turning speeds. Implementation of pedestrian crossing facilities at both intersections would also enhance pedestrian safety.

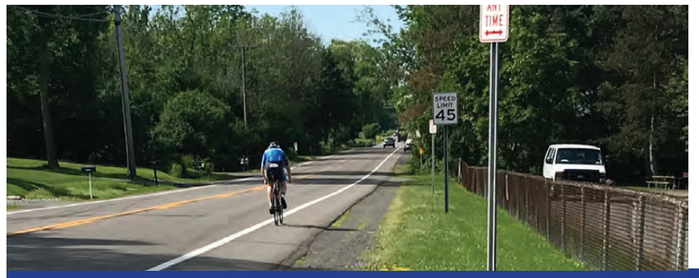
Traffic calming Currently, vehicles move through the center of this Character Zone at speeds 3-7 MPH over the posted speed limit, placing pedestrians and bicyclists at increased risks.

Green Infrastructure near 'Lot G' Continuing to implement Green Infrastructure practices in this area would reduce amounts of untreated surface runoff and treat the water before it flows into Canandaigua Lake.

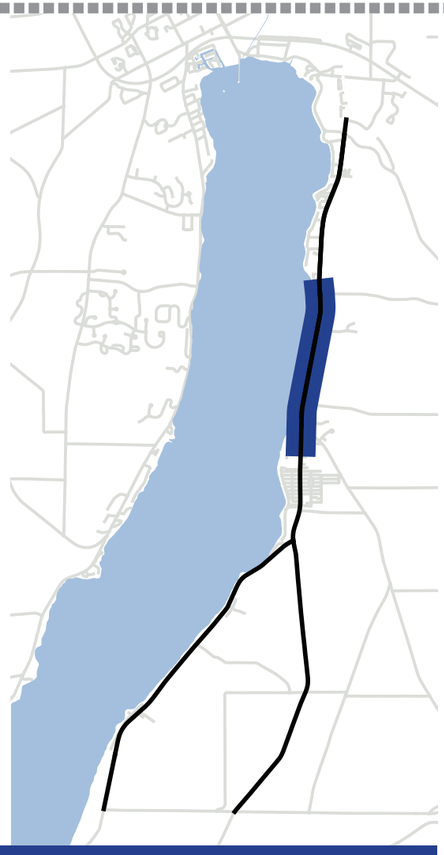
Bicycle & Pedestrian Linkages to City of Canandaigua The City of Canandaigua's downtown district is located less than 2 miles away from the north end of this project area, and is a major destination for residents, students, workers, and tourists. This area generates significant year-round pedestrian and bicycle demand, which is expected to further increase with additional lakefront residential development. Providing multimodal connections from the edge of this project area northward would increase the safety of pedestrians and bicyclists, and would link this project to recent active transportation-related projects in and around the City.

2 PARKWAY ZONE

This section includes State Route 364 between Turner Road and the Town of Gorham Parkland, including Ontario County Beach Park and Deep Run Park. Residences are along both sides of the corridor in this zone; lakefront houses on the west side are generally on smaller lots, while houses on the east side are generally set back further on larger lots. There are also several cul-de-sac developments along the east side that are expected to expand in the future. High pedestrian volumes are typically driven by local residents and park visitors, who often need to cross over State Route 364. The majority of bicyclists are moving north-south along State Route 364, though the shoulder width varies particularly on the west side.



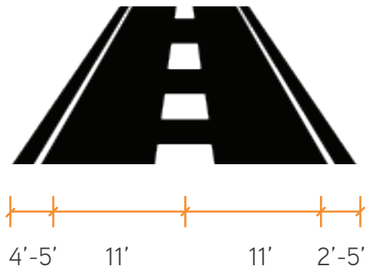
View Looking South at Ontario County Beach Park



Distance	1.4 Miles
Elevation (N>S)	+19 Feet, -2 Feet
Road Slope	Minor: 0-3%
Traffic Volume	~6500 Vehicles/Day
Posted Speed	45 MPH
Mean-85% Speeds	47-52 MPH
# of Crashes	8
Parking	Often near Parkland
Zoning District(s)	Residential; Agricultural (East)
BLOS	C
PLOS	D
Amount of AT Use	High, especially at Parks

Town of Gorham

Ontario County Beach Park, Deep Run Park, Town of Gorham Parkland



NEEDS

Improved connection for pedestrians moving between residences on the east side of State Route 364 (and on Angela Way) and Ontario County Beach Park. Camera Data illustrated that pedestrians currently cross here frequently, and with future development anticipated on Angela Way, this need is expected to become more pronounced in the future.

Enhanced vehicular circulation at Ontario County Beach Park. Since many vehicles approach from the north, the existing circulation pattern (entrance at the south, exit at the north) is counterintuitive. This can prove to be dangerous for pedestrians and cyclists who are accessing the parks or moving along State Route 364.

Restricted on-street parking along State Route 364 at both County Parks. As illustrated by the camera data, vehicles often park on the shoulder of the road on busy days when the parking lots fill up. This leads to several significant dangers for active transportation: it forces pedestrians and cyclists to either move into the travel lane or walk on the grass; increases potential conflict between opening car doors and passing cyclists; and reduces visibility of oncoming traffic, bicyclists, or pedestrians for motorists pulling out of the parks.

Enhanced crossing at Deep Run Park. As illustrated by camera data, many residents from nearby developments access Deep Run Park by crossing over State Route 364. However, there is currently no pedestrian facility at this location, and pedestrian activity is only expected to increase with future residential development.

Intersection with County Road 1

Near Deep Run Park looking North

Advanced warning of pedestrian crossings The slight hill south of the County Road 1 intersection inhibits visibility of both pedestrians crossing at Deep Run Park and vehicles pulling out of County Road 1.

OPPORTUNITIES

Traffic calming measures. Currently, the majority of vehicles drive through this character zone at speeds that exceed the posted limits.

Establish connection between Town of Gorham Parkland and Deep Run Park. As discussed in previous studies, the Town of Gorham Parkland represents an opportunity for new recreational amenities and additional overflow parking for Deep Run Park. Establishing a pedestrian connection through sidewalks and/or crossings would encourage visitors to park without jeopardizing the safety of pedestrians and bicyclists.

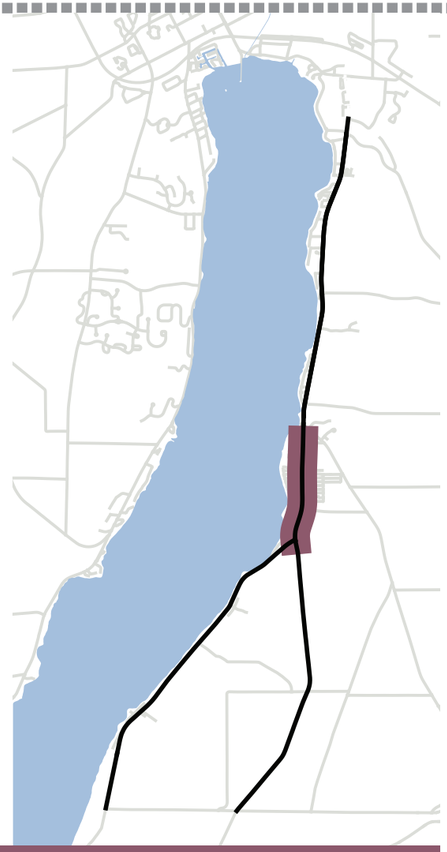
Realigned State Route 364 / County Road 1 intersection. The current Y-alignment of this intersection enables southbound vehicles on State Route 364 to make high-speed right turns onto County Road 1, and has wide turning radii.

Enhanced connection between the two County Parks. While Deep Run Park and Ontario County Beach Park are less than a mile away, there is little signage or active transportation infrastructure that encourages visitors to walk or bike between them. Wayfinding signage or the creation of a 'district' may provide an opportunity for an enhanced sense of place around the parks.

3 CRYSTAL BEACH

Character Zone 3 encompasses the area around the hamlet of Crystal Beach, between the intersections with County Road 1 and County Road 11. Within the hamlet, State Route 364 functions as the central roadway, with small restaurants, local businesses, and the Crystal Beach Fire Hall; parking is available along wide shoulders and gravel areas, and off-street parking lots. 13 small cross streets are organized in a grid pattern on both sides of State Route 364, with residences sited on small parcels ranging from .1 to .3 acres. Residents frequently cross over State Route 364 for recreational walks, or to access businesses or lakeside beach parks. Through-cyclists often move north-south along State Route 364 through this area.

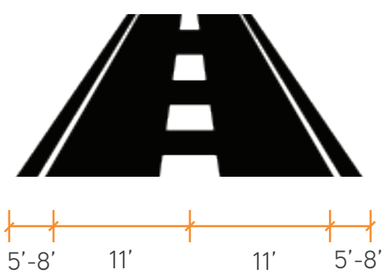
Sylvan Drive Intersection *Pizza Sangiorgi*



Distance	1.2 Miles
Elevation (N>S)	+83 Feet, -26 Feet
Road Slope	Minor; 0-7%
Traffic Volume	~1800 Vehicles/Day
Posted Speed	45 MPH
Mean-85% Speeds	46-51 MPH
# of Crashes	1
Parking	Allowed on wide shoulders
Zoning District(s)	Hamlet Residential & Commercial
BLOS	A
PLOS	D
Amount of AT Use	Moderate

Town of Gorham

Crystal Beach Parks
Pizza Sangiorgi, Crystal Beach Fire Hall, Eastside Bar & Grill



NEEDS

Pedestrian infrastructure along State Route 364 Within Crystal Beach, State Route 364 is the only roadway with significant traffic volumes and a speed limit over 25 MPH. However, without any facilities, pedestrians are currently forced to walk along the paved or gravel shoulders.

OPPORTUNITIES

Traffic calming measures Currently, vehicles move through Crystal Beach 1-6 MPH over the posted speed, which is already a high speed limit for a hamlet development pattern. Implementing slight lane width reductions and increasing vertical elements may help reduce vehicular speeds.

Enhanced parking areas at destinations and Crystal Beach Fire Hall There is an opportunity to formalize the off-parking facilities at key businesses along State Route 364. This would add aesthetic enhancements and maximize off-road parking capacity, reducing the amount of vehicles that need to park along the side of the road.

Eastside Bar & Grill *Crystal Beach Fire Hall*

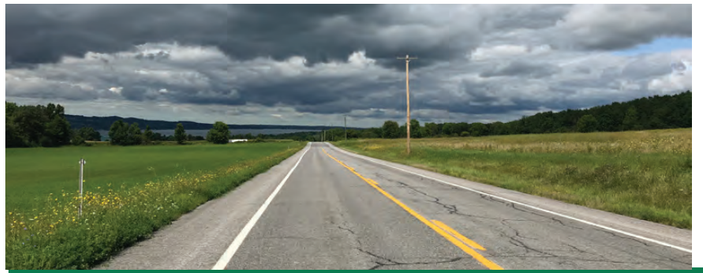
Green Infrastructure With occasional drainage issues in the hamlet, green infrastructure along the roadway edges would both reduce on-road flooding and filter stormwater before it drains into Canandaigua Lake.

Create community identity through roadway design and 'sense of place' With a wide roadway, few street trees, and a high posted speed limit, Crystal Beach does not have the feel of a 'hamlet' for motorists passing through on State Route 364. Implementing elements such as sidewalks, curbing, plantings, street trees, smaller scale lighting, or tighter lane widths would provide a more urban feel and likely incentivize motorists to slow down. Additional signage, wayfinding, or branding elements would further this idea, helping create a distinct 'sense of place.'

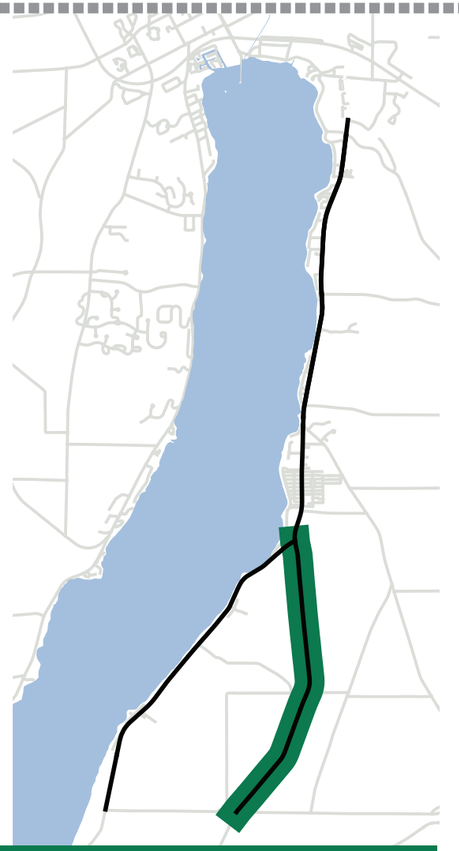
Active Warning Signage near hillcrests and curves Crystal Beach is approached from the north over a large hillcrest, and from the south after two significant turns. Advanced warning signage may provide a 'heads-up' to oncoming motorists that they are about to enter an area with high pedestrian activity.

4 SOUTH STATE ROUTE 364

Character Zone 4 is the 3.1 mile section of State Route 364 from the split with County Road 11 to the intersection with Townline Road at the south end of the project area. It is primarily comprised of farmland with farmhouses set far back from the roadway. With a significant elevation gain from north to south, much of this section affords expansive views of Canandaigua Lake. The roadway typically has drainage swales on at least one side, and wide shoulders that are used by bicyclists and horse and buggies from the local Mennonite population.



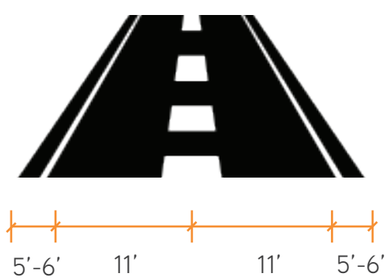
View Looking North towards Canandaigua Lake



Distance	3.1 Miles
Elevation (N>S)	+269 Feet, -85 Feet
Road Slope	Moderate; 0-7%
Traffic Volume	~1800 Vehicles/Day
Posted Speed	55 MPH
Mean-85% Speeds	57-64 MPH
# of Crashes	1
Parking	Prohibited
Zoning District(s)	Agricultural & Rural Residential
BLOS	A
PLOS	D
Amount of AT Use	Low Ped, Moderate Bike

Town of Gorham

Farmland



NEEDS

Consistent shoulder space With use by both horse and buggies and bicycles, there is a need for particularly wide shoulder space that is free from overgrown brush and flooding. Pavement in the shoulders must also be in good condition to accommodate horses' hooves.

OPPORTUNITIES

Enhancements at County Road 11 / State Route 364 intersection There is an opportunity to tighten the turn radii at this intersection to promote slower speeds for turning vehicles. Improved maintenance of the trees and brush on the southwest corner of this intersection would also enhance visibility for pedestrians and bicyclists attempting to cross over State Route 364. Community input also identified occasional flooding concerns at this intersection, highlighting an opportunity for the implementation of green infrastructure and/or improved drainage.

Townline Road Intersection

Green Road/Twitchell Road Intersection

Enhancements at State Route 364 / Green Road / Twitchell Road intersection There are currently no pavement markings at this intersection aside from the typical center and edge lines along State Route 364. Adding edge striping and stop bars could help encourage vehicles to further slow down before turning. There is also an opportunity to implement advance signage on State Route 364 north of this intersection, as it is located just after a significant bend in the road that minimizes visibility.

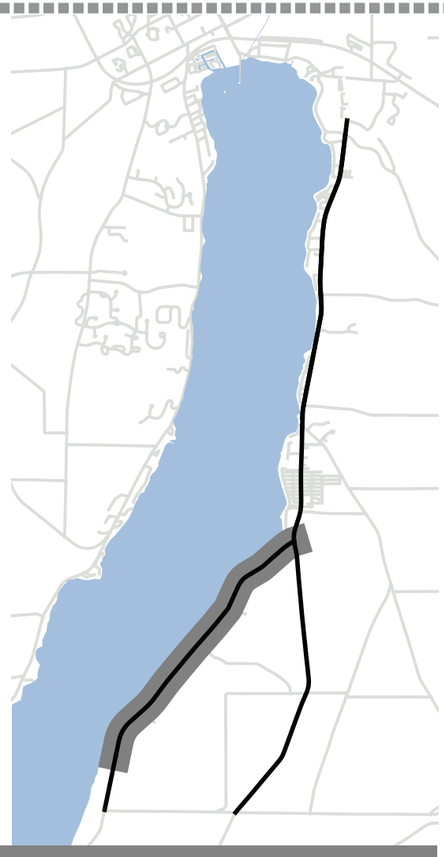
Traffic calming measures With average speeds 2-9 MPH above the posted speed of 55 MPH, there is an opportunity to slow vehicles to promote pedestrian, bicycle, and horse and buggy safety.

Scenic overlooks or pull-off zones With frequent use by slower-moving traffic such as heavy farm equipment or horse and buggies, this section of State Route 364 has significant potential for roadway use conflicts. Often, these conflicts result in traffic utilizing the shoulder, reducing the amount of space for active transportation. With wide right-of-way and a lack of houses near the road, there is an opportunity to implement several paved pull-off zones along the edges of the roadway where farm equipment or horse-and-buggies could let other vehicles safely pass. These pull-off zones would also function as scenic overlooks for vehicles, bicyclists, and pedestrians.

5 NORTH COUNTY ROAD 11

Character Zone 5 includes the section of County Road 11 from the intersection with State Route 364 to the bottom of the steep hill near Shale Beach Drive North. Throughout this area, County Road 11 follows the edge of Canandaigua Lake, with smaller, seasonal residences primarily along the lakefront side and a mixture of larger houses and undeveloped land along the east side. Particularly during the summer, residents from these homes frequently walk or bike along the shoulders of County Road 11, often in groups of 3-5 people. Pedestrian traffic in this zone is also generated from Pelican Point Marina and LeTourneau Christian Camp; as discussed in Appendix A: Time Lapse Camera Data, pedestrians frequently cross over County Road 11 between these destinations and the lakefront.

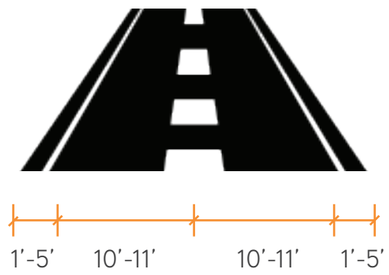
View Looking Southwest towards Canandaigua Lake



Distance	2.7 Miles
Elevation (N>S)	+100 Feet, -88 Feet
Road Slope	Moderate: 0-10%
Traffic Volume	~1100 Vehicles/Day
Posted Speed	35 MPH
Mean-85% Speeds	39-45 MPH
# of Crashes	3
Parking	Often on Roadsides
Zoning District(s)	Residential & Commercial (Marina)
BLOS	A
PLOS	C
Amount of AT Use	Extremely High Ped & High Bike

Town of Gorham

Pelican Point Marina
Le Tourneau Christian Camp



NEEDS

Parking improvements A combination of small parcel sizes, limited off-street parking, and high amounts of vehicles visiting seasonal homes leads to a significant amount of on-street parking during the summer. As described in Appendix A: Time Lapse Camera Data, on-street parking on the shoulders typically forces pedestrians and cyclists to move into the traffic lane, creating conflict with motorists. There is a need to reduce this on-street parking through increased enforcement and signage or through the use of alternative off-street parking areas.

Traffic calming As shown in Figure 9: Vehicular Speeds, vehicles often exceed posted speeds by up to 10 MPH through this section of County Road 11. With limited shoulder space and parked cars, these speeds can be particularly dangerous to pedestrians and cyclists, and have dissuaded some local residents from walking along the roadway.

Shoulder consistency While much of this section of County Road 11 has 4'-5' shoulders, there are areas where the effective shoulder is only 1'-2' due to eroded pavement or overgrown brush or limbs. Maintaining a consistent shoulder is essential for promoting pedestrian safety.

Le Tourneau Existing Enhanced Crosswalk

On-Road Parking near Summer Homes & Vacation Rentals

Drainage After storm events, there is occasionally ponding on the shoulders of County Road 11, forcing pedestrians and bicycles to move into the vehicular travel lane.

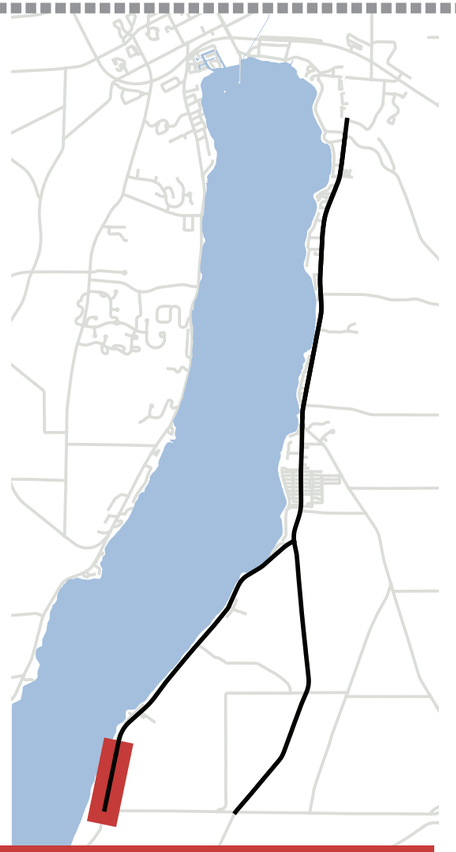
OPPORTUNITIES

Pelican Point Marina pedestrian enhancements As shown by the time lapse camera data, the area around Pelican Point Marina is extremely heavily used by pedestrians during the summer. Pedestrians move between multiple parking areas, the marina store, and boat storage area, and the boat launch itself, currently both walking alongside County Road 11 and crossing it. There is an opportunity to implement pedestrian infrastructure, including sidewalks, crossings, curbing, and off-road paths, to improve pedestrian safety and reduce conflicts with all modes of transit.

6 SOUTH COUNTY ROAD 11

Character Zone 6 is comprised of the 0.8 mile section of County Road 11 from Shale Beach Drive North to Townline Road. It contains a steep hill that rises nearly 250' in less than a mile, creating a difficult environment for active transportation. In this section, County Road 11 is surrounded primarily by wooded areas, with several seasonal homes set back on larger, 1+ acre parcels. Because many of these homes are often rented out to large groups, there is occasionally on-street parking that blocks the shoulder. The area is moderately used by pedestrians and bicyclists from nearby residences.

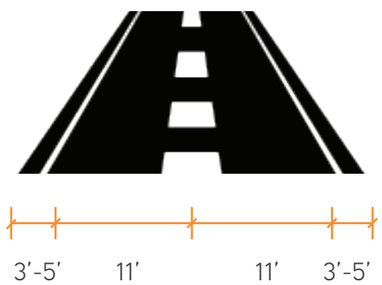
View Looking North towards Canandaigua Lake



Distance	.8 Miles
Elevation (N>S)	+291 Feet, -0 Feet
Road Slope	Significant: 5-15%
Traffic Volume	~1100 Vehicles/Day
Posted Speed	55 MPH
Mean-85% Speeds	45-54 MPH
# of Crashes	1
Parking	Occasionally on Roadside
Zoning District(s)	Residential
BLOS	A
PLOS	D
Amount of AT Use	Low Ped & Bike Usage

Town of Gorham

Single Family Homes & Summer/Tourist Houses



NEEDS

Shoulder consistency Though the shoulder is typically 3'-5' in width, there are areas where overgrown brush or eroded pavement create effective shoulders that are far narrower in width.

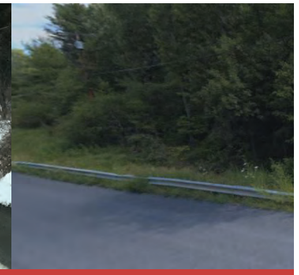
Parking improvements The occasional presence of on-street parking forces pedestrians and bicyclists to move into the vehicular travel lane, creating potential conflicts. There is a need to reduce this on-street parking through increased enforcement and signage or through the use of alternative off-street parking areas.

OPPORTUNITIES

Speed Limit Reduction Currently, this 0.8 mile section of County Road 11 is posted with a 55 MPH speed limit, though the section to the north (Character Zone 5) is 35 MPH, and the section to the south (in Yates County) is 45 MPH. With average recorded speeds of 45-54 MPH, there is an opportunity to pursue a speed limit reduction through a formalized study.

Typical View of Roadway with Driveways

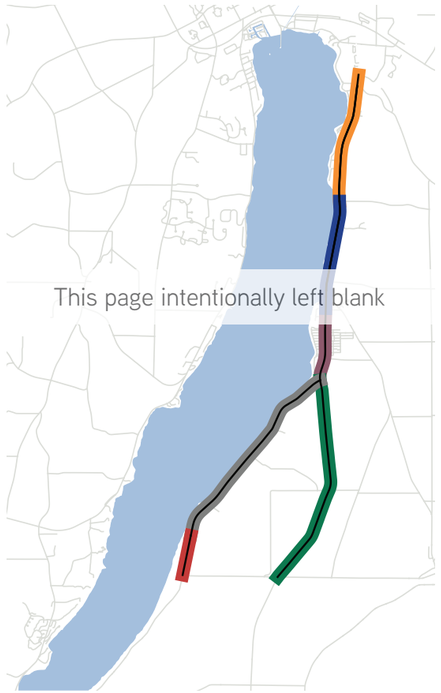
Guardrail in Winter



Guardrail in Summer

Wider shoulder for incline Cyclists often meander while climbing steeper slopes, which can inadvertently force them into travel lanes. Re-striping the roadway to accommodate wider shoulders on the southbound side of County Road 11 would provide additional space for bicyclists moving up the hill.

Overlooks/passing areas With expansive views from the top of the hill, there is an opportunity to implement a scenic overlook for use by all modes of transportation. This may incentivize more pedestrians and cyclists to utilize this stretch of roadway.



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4 RECOMMENDATIONS

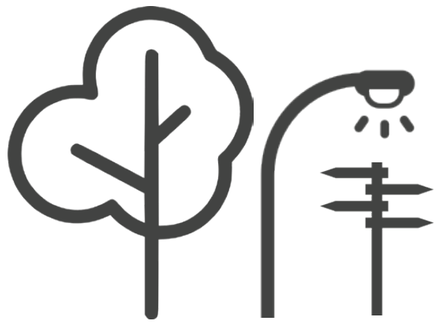
This Chapter is also separated into ***Corridor-Wide Recommendations*** and ***Character-Zone Recommendations.*** The recommendations reflect a comprehensive approach to active transportation improvements, proposing traffic calming measures, additional active transportation facilities, new and enhanced signage, programs and outreach opportunities, and regulatory amendments. Throughout this chapter, recommended facilities and infrastructure are referred to at a fundamental level; for additional technical guidance, please refer to Appendix B: Facility Design Guidance. Implementation of the recommendations within this chapter is discussed in the following Chapter 5.

4.1 CORRIDOR-WIDE RECOMMENDATIONS

Corridor-wide recommendations are separated into four categories:

ON-ROAD IMPROVEMENTS

- *Shoulder Improvements*
- *Roadway Markings*
- *Intersection Enhancements*
- *Crosswalks*



OFF-ROAD IMPROVEMENTS

- *Stormwater Management*
- *Vertical Elements & Street Trees*
- *Signage*
- *Lighting*

PROGRAMS & OUTREACH

- *Maintenance Procedures*
- *Enforcement*
- *Outreach & Education*
- *Partnerships*

POLICY & REGULATIONS

- *Municipal Codes*
- *Access Management*
- *Design Standards*
- *Design Guidelines*

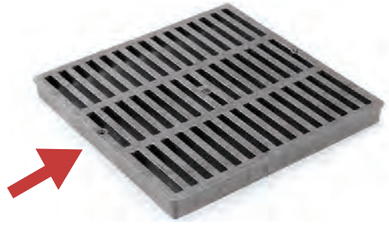
SHOULDER IMPROVEMENTS

Without space or demand for designated pedestrian or bicycle facilities throughout the entirety of the corridors, multi-use shoulders function as the most important active transportation facility. Ensuring that they are wide, clear, and in good condition is essential for promoting active transportation within this project area.

SHOULDER WIDTH According to AASHTO guidelines, multi-use shoulders should be at least 4' wide in areas without vertical obstructions or curbing, and at least 5' in areas with guardrails, curbs, or other roadside barriers. Along both of these project corridors, multi-use shoulders at least 5' in width are recommended, as this is the typical minimum for bike lane width. While the majority of the project corridors do currently have shoulders between 4' and 6' in width, selected areas along both State Route 364 and County Road 11 need expanded pavement or reduced travel lane width to meet this recommendation. ***Applicable to Character Zones 1, 2, 3, 5, & 6***

BICYCLE SAFETY & ORIENTATION OF DRAINAGE GRATES

Thinner bicycle tires may get caught in grooves of grate



Bicycle tires can easily pass over grooves of grate

SHOULDER PAVEMENT CONDITION Ensuring that shoulders are smooth and flat is essential for promoting safe bicycle and pedestrian movement. Recommendations for promoting these conditions include routine patching of eroded areas, reducing the amount of linear joints in pavement, and replacing hazards such as dangerous grates or utility covers whenever feasible. ***Applicable to All Character Zones***

RUMBLE STRIPS (SHARDS) When placed along edge lines, Rumble Strips (referred to technically as SHARDS) can help encourage drivers to stay out of the shoulders, providing increased safety for pedestrians, joggers, and bicyclists. Per NYSDOT guidelines, rumble strips are allowed in areas with at least 6' wide shoulders and speed limits at or above 50 MPH. However, in certain situations, rumble strips can infringe upon available shoulder space and can pose safety dangers for bicyclists who may need to swerve into the vehicular lane due to impediments within the shoulder. Rumble Strips can also cause issues for horse-and-buggy transportation, for both the horse(s) and the riders. For this reason, rumble strips are not directly recommended for this project currently; however, if any segments of these roadways are significantly expanded in the future, rumble strips may be an effective measure for enhancing active transportation safety. Wherever implemented, they should have breaks every 50'-100' to allow bicycles to move into the travel lane if needed.

CURBING In areas with sidewalks or other amenities adjacent to the roadway, curbing can be an effective measure for increasing active transportation safety. It provides a vertical buffer between the travel lane and the adjacent roadside, and can also discourage vehicular parking along narrower shoulders by eliminating the ability to park partially on the shoulder and partially on the adjacent grass or gravel. ***Applicable to Areas in Character Zones 1, 2, 3, and 5***

ROADWAY MARKINGS

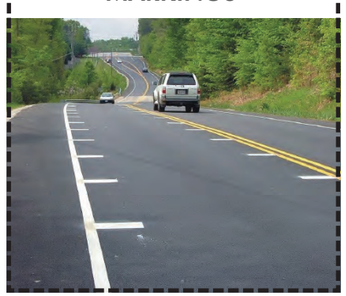
Roadway markings refers to any painted lines or signage on the pavement. These markings are essential to promoting vehicular and active transportation safety by reinforcing traffic laws, providing space for pedestrians and bicyclists, and influencing vehicular behavior.

WIDE EDGE STRIPING In areas where rumble strips may not be appropriate, increasing the width of edge striping can promote motorist awareness of shoulders and decrease lane drift. NYSDOT standards allow for a maximum striping width of 6". ***Applicable to All Character Zones***

LANE WIDTH REDUCTIONS Reducing the width of travel lanes serves two purposes: it encourages drivers to slow down and provides more pavement space for pedestrian and bicycle use in the shoulders. Along the majority of the project corridors, 11' travel lanes are sufficient based on the NYSDOT Highway Design Manual; in the 35 MPH section of County Road 11, 10' travel lanes are suitable. Currently, lane widths vary between 10.5' and 12.5' throughout the project area, and restriping travel lane widths to appropriate 11' and 10' minimums, during future repaving will significantly enhance active transportation safety and comfort. ***Applicable to All Character Zones***

ASYMMETRICAL SHOULDERS In areas with steep inclines, bicyclists often meander side to side (sweep) while trying to maintain speeds, or dismount to walk their bikes. Both of these conditions increase the speed differential between cyclists and vehicles, and result in the need for additional space. Restriping travel lanes to allow for increased shoulder space on inclines (and correspondingly narrower shoulder space on declines) significantly improves the safety and comfort of bicyclists. However, the narrower shoulders should still maintain 4' minimum widths. ***Applicable to Character Zones 3, 4, 5, and 6.***

SPEED REDUCTION MARKINGS

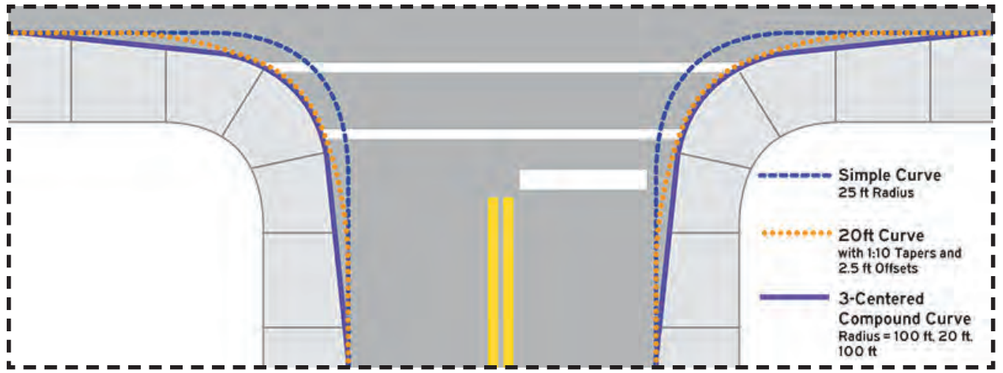


SPEED REDUCTION MARKINGS Speed Reduction Markings are a low-cost traffic calming device that consist of a series of white transverse lines on both sides of a travel lane that are perpendicular to the center line or edge line. The longitudinal spacing between the markings is incrementally decreased as motorists approach destinations or intersections, creating a perception that motorists are driving faster than they actually are. This tends to encourage drivers to slow down. At approaches to key destinations, these markings may have a positive impact on speed reduction, increasing active transportation safety and comfort. However, NYSDOT has indicated that these are not a supported treatment along State Route 364, and it is generally recommended that these only be implemented after detailed engineering studies. ***Applicable to Character Zones 5 and 6.***

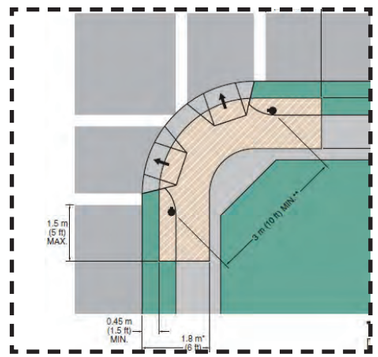
INTERSECTION ENHANCEMENTS

As inherent conflict points, intersections typically pose the greatest safety and comfort issues for pedestrians and bicyclists. Encouraging motorists to slow down and providing designated active transportation facilities can significantly enhance safety for all users. The enhancement strategies discussed below only represent best practices for unsignalized intersections, as there are no signalized intersections within the project corridors.

TURNING RADII REDUCTION A turning radius refers to the amount of space provided to vehicles to complete a turning movement (typically a right-turning movement). It can be dictated by amount of pavement available, curbing, and edge striping. As illustrated in the below visual, 'wider' turn radii enable vehicles to turn at a higher speed, while 'tighter' radii force vehicles to slow down to safely complete the maneuver. Throughout the project area, the majority of intersections have turning radii that are wider than required. Reducing these radii through pavement reduction, curbing, or tighter edge striping would encourage motorists to slow down and be more aware of pedestrians and bicyclists. All turning radii must enable heavy truck traffic to navigate the intersection safely. ***Applicable to All Character Zones; for proposed designs, reference Section 4.2: Character Zone Recommendations***

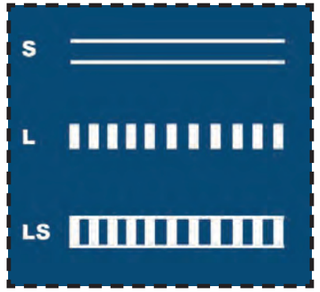


PEDESTRIAN INFRASTRUCTURE Pedestrian infrastructure at intersections includes accessible curb ramps and crosswalks. As illustrated in the adjacent visual, curb ramps should directly face each crosswalk, and must adhere to ADA accessibility slope requirements. In areas without full sidewalks, curb ramps can still be implemented along with pedestrian 'landing pads,' setting the stage for potential future development of sidewalks. For additional information about crosswalks, please reference the following section.
Applicable to Intersections and Mid-Block Crossings in All Character Zones; for proposed designs, reference Section 4.2: Character Zone Recommendations



CROSSWALKS

In areas with identified pedestrian crossing patterns, crosswalks significantly enhance pedestrian safety at intersections and in 'mid-block' areas. At all times, crosswalks should connect to a sidewalk or key destination, and should be designed to encourage pedestrians to walk only within the painted lines. The following treatments can be used to maximize visibility of crossings; the existing crosswalk at LeTourneau Christian Camp is an example of best practice design for mid-block crossings.



PAVEMENT MARKINGS Various pavement markings are applicable for each type of crossing:

- ***"S"-Type*** S-Type Crossings are used for crossings at signals or stop signs on low-volume side streets, such as Marvin Sands Drive.
- ***"L"-Type*** L-Type Crossings are used for crossings at signals or stop signs on higher-volume roads, such as County Roads 1 and 18.
- ***"LS"-Type L***S-Type Crossings are used for unprotected or 'mid-block' crossings on higher-volume roads, such as all crossings on State Route 364.

DOUBLE-SIDED SIGNAGE & REFLECTIVE POSTS At mid-block crossings, increased signage at the location of the crosswalk can encourage motorists to be aware of potential pedestrian crossings. Designing back-to-back signage with reflective posts increases visibility of potential crossings from both directions. Advance warning signage should also be implemented approximately 200' - 250' upstream from mid-block crossings. Lighting at the location of crosswalks can also enhance the visibility of crosswalks during evenings and nights.

RAPID RECTANGULAR FLASHING BEACONS Rapid Rectangular Flashing Beacons (RRFBs) are pedestrian-activated measures to increase crosswalk safety. Typically solar-powered, RRFBs are supplements to traditional crosswalk signs, and light up when pedestrians push a button. Though warrants for RRFB installation are not yet formalized, it is generally agreed that these measures are best installed in areas with significant safety concerns and proven pedestrian crossing demand. RRFBs are applicable at several key locations along the project corridors.

PARKING

As discussed in Needs & Opportunities chapter, on-street parking is a significant challenge to active transportation mobility within the chapter. A combination of recommendations designed to both prohibit on-street parking and provide additional off-street parking are intended to mitigate this concern. Suggested recommendations include:

- Additional no-parking signage (p. 80)
- Increased parking enforcement (p. 82)
- Policy regulations that decrease off-street parking space size minimums, thereby providing room for additional spaces (p. 85)
- Curbing at selected locations to prohibit vehicles from parking half-on/half-off the pavement (pp. 89, 91, 93, 95, 97)
- Additional off-street parking at Town of Gorham Parkland (p. 93)
- New no-parking restrictions near both County Park entrances. These restrictions should be implemented through explicit incorporation of a new parking article into Town of Gorham municipal code and through coordination with NYSDOT.

STORMWATER MANAGEMENT

Stormwater management, environmental sustainability, and active transportation are closely linked. As discussed in Chapter 2, promoting active transportation helps reduce the environmental impacts of vehicle emissions. Additionally, effective stormwater management practices help reduce the amount of water that ponds on the roadway, encouraging more pedestrian and bicycle use.

GREEN INFRASTRUCTURE Green Infrastructure refers to stormwater management practices that enable surface runoff to infiltrate into the ground, where it can be naturally treated before flowing into waterbodies. With occasional on-road ponding and serious water quality threats to the Canandaigua Lake region, Green Infrastructure is a key recommendation for both enhancing on-road mobility and regional environmental sustainability. Wherever possible, the following green infrastructure practices should be implemented on and around the project area:

- ***Permeable Pavement*** Permeable pavement functions like conventional asphalt, yet it enables stormwater to infiltrate into the ground at far higher rates. Permeable pavement is recommended in the Ontario County Lake Shore Parks Master Plan, and should be considered for any multimodal paths, sidewalks, or pull-offs along the project corridors.

- ***Bioretention Areas*** Bioretention areas are high-performance landscapes, serving both aesthetic and functional purposes. They filter stormwater that otherwise may flow directly into culverts, drains, or other pipes before entering major waterbodies without being treated. Bioretention areas are also recommended in the Ontario County Lake Shore Parks Master Plan, and should be considered as part of any roadway or drainage reconstruction projects along these corridors.

- ***Vegetated Swales*** Vegetated swales treat runoff from roadways and adjacent areas, replacing typical roadside 'ditches' or swales. Where applicable, implementing vegetated swales along State Route 364 and County Road 11 would aesthetically enhance the corridor and filter stormwater runoff before it enters Canandaigua Lake.

VERTICAL ELEMENTS

The environment that surrounds the roadway has a significant impact on driver behavior. The incorporation of vertical elements close to the edge of the roadway can create a more 'urban' feel and enhance the perception of the 'street wall,' typically encouraging motorists to slow down and be more aware of pedestrians and bicyclists.

STREET TREES Street Trees can enhance active transportation safety and comfort by serving a wide variety of environmental, aesthetic, and traffic calming purposes. They should be implemented throughout the corridors where possible. A variety of the benefits of street trees are listed below. ***Applicable to Character Zones 1, 2, 3, and 5.***

- Traffic Calming: When placed closer to the roadway, street trees can help create a 'parkway' environment, encouraging vehicles to slow down.
- Air Quality: One acre of trees produces enough oxygen for eighteen people to breathe each day, and removes the pollutant equivalent of 26,000 miles of driving. When trees are placed closer to the roadway, they can absorb up to nine times as much carbon emissions as more distant trees.
- Rainwater: Street Trees absorb the first 30% of precipitation through their leaf system, where water is evapotranspirated back into the atmosphere before it touches the ground.
- Stormwater Treatment: When placed within tree trenches, street trees can help filter stormwater as part of a larger Green Infrastructure system. Tree roots also prevent erosion by trapping soil that would otherwise become silt.
- Aesthetics: Street trees significantly enhance the appeal of areas, by framing views and increasing exposure to more natural elements.
- Shade: Street trees can provide shade and raincover to pedestrians and bicyclists on hot summer days.

BUILDING SETBACKS Buildings that are closer to the roadway similarly encourage vehicles to slow down by creating a more 'urban' feel. Regulatory measures designed to promote building closer to the street in selected areas include creating decreasing minimum building setbacks and creating maximum setbacks. This discussion is continued in the Policy & Regulations section within this chapter. ***Applicable to Character Zones 1, 2, 3, and 5.***

SIGNAGE

Signage can enhance active transportation safety and comfort through both restricting unsafe or prohibited activities and promoting awareness of pedestrians, bicyclists, and dangerous locations. Balancing 'restrictive' and 'encouraging' signage is critical to promoting safe behaviors. All signage posts can also be covered in reflective sheeting to further draw attention to upcoming safety issues in low-light situations.

ADVANCE WARNING SIGNAGE Advance signs can provide motorists with information about upcoming areas with limited visibility or particular dangers. Signage regulations are found in the Federal Manual for Uniform Traffic Control Devices (MUTCD), and in the New York State Supplement. Example signage and MUTCD identification numbers are included in the graphic below; these base signs can also be augmented with flashing beacons, flags, and other enhancement means. Warning signage that is particularly relevant for this project includes the following:

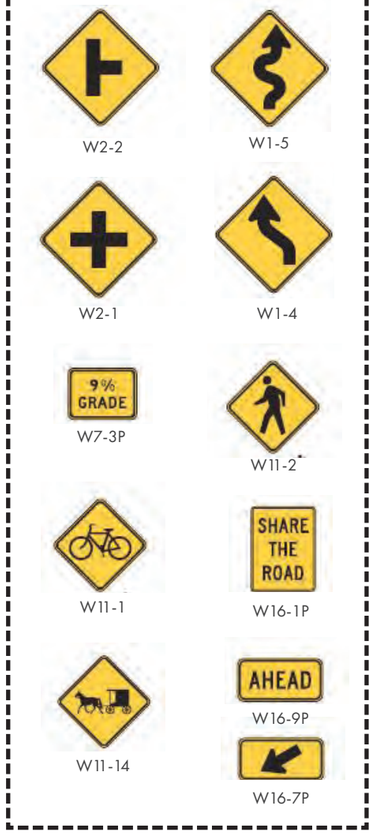
- ***Intersection Warning Signage*** Intersection warning signage advises motorists of upcoming intersections with limited visibility. These signs encourage motorists to slow down, and enhance safety of crossing motorist and active transportation traffic. These signs are currently located at most key intersections within the project area, and should be considered for any future development.

- ***Steep Grades Signage*** Steep grades signage warns both motorists and bicyclists of upcoming inclines or declines. On declines, this signage is particularly valuable, as it reminds motorists and bicyclists to them to not gain excess speed. Steep grades signage is particularly relevant to the southern section of County Road 11. ***Applicable to Character Zones 4 and 6***

- ***Pedestrian & Crossing Advance Signage*** All pedestrian zones and pedestrian crossings should have proper warning signage, which is typically located at crosswalks and 200' in either direction. This signage must be installed with any future crosswalk installation or pedestrian zone designation.

- ***Share the Road Signage*** Share the Road signage encourages motorists to respect bicyclists' rights to using the roadway in areas where shoulders are not sufficient for active transportation travel. Currently, there is only one Share the Road sign, at the north of the project area. Implementing additional signage in areas with narrower shoulders would further the importance of sharing roadway facilities with active transportation modes.

SELECTED SIGNAGE
(WITH MUTCD IDENTIFICATION NUMBER)



» ***Activated Hillcrest or Bend Warning Signage*** When visibility is limited by hillcrests or bends, activated warning signage enables real-time awareness of pedestrian and bicycle use. Typically placed ahead of low-visibility areas, this signage is activated by loops (for bicycles) and push-buttons (for pedestrians), and continues flashing until bicyclists and pedestrians have enough time to safely move through the low-visibility area. This activated signage can be implemented in low-visibility areas throughout the corridors, including near Deep Run Park and in Character Zone 5 on County Road 11. ***Applicable to Character Zones 2, 3, 4, 5, 6***

» ***No Parking Signage*** Currently, there are No Parking signs only in key locations along the corridors, including near both Ontario County Parks. Increasing the amount of No Parking signs in restricted areas is one component of further decreasing the amount of on-road parking throughout the corridors. ***Applicable to Character Zones 1, 2, 3, 5, 6***

DYNAMIC SPEED DISPLAY SIGNS Dynamic speed display signs (DSDS) detect and display a vehicle's speed to the driver in real time, and flash to alert drivers who are exceeding posted speeds. These are recognized as an effective traffic calming measure, with proven reductions of up to nine miles per hour. Currently, a DSDS is utilized along the northern section of County Road 11; however, studies have illustrated that these are most effective when frequently moved around, eliminating the ability for drivers to become accustomed to only slowing down in one or two locations. Consistently moving these signs throughout the entirety of the project corridors would likely reduce speeds, particularly prompting awareness during the summer season for tourists who are unfamiliar with the roadways. ***Applicable to All Character Zones***

WAYFINDING & ROUTES Wayfinding refers to cues within the built environment designed to enhance people's ability to navigate between key destinations in safe and effective manners. Typically, signage is the key component of wayfinding, directing vehicles, bicyclists, and pedestrians to roadways and paths that are most conducive to each transportation mode. The Ontario County Lake Shore Parks Master Plan recommended wayfinding, including advanced park signage and 'welcome' signage at each park. Developing this proposed signage into a corridor-wide wayfinding system that includes all key destinations could further enhance active transportation connectivity and promote a more defined 'identity' and sense of place. Key destinations could include CMAC, FLCC and the FLCC Trails, Ontario County Beach Park, Deep Run Park, the Town of Gorham Parkland, Crystal Beach, and Pelican Point Marina.

LIGHTING

Lighting plays a key role in promoting active transportation comfort and safety. When scaled appropriately, it can create a more pedestrian and bicycle friendly environment, increasing comfort. When directed towards key crossings, sidewalks, and bicycle facilities, lighting is essential for promoting the safety of pedestrians and bicyclists during evenings and nights. As discussed in Chapter 3: Needs & Opportunities, lighting is a key need for these project corridors, as both pedestrian-related crashes within this project area have occurred after sunset, and the Ontario County Sheriff's Department currently needs to bring in portable lights to safely direct pedestrian traffic near the County Road 18 and Marvin Sands Drive intersections during CMAC concerts.

Pedestrian- and bicycle-scaled lighting should be implemented throughout the project corridors, particularly around key destinations such as CMAC and Crystal Beach, and areas with significant amount of evening walkers, such as County Road 11. All lighting should comply with regulations described in the Town of Canandaigua and Town of Gorham regulations, being sure to direct all light downward to reduce light pollution. Care should also be taken to direct light towards the street to reduce the amount of 'trespass' onto neighborhood properties. ***Applicable to Character Zones 1, 3, 5***

SIDEWALKS

Sidewalks provide off-road facilities for pedestrians to move parallel with the roadway. Where feasible, sidewalks should be implemented throughout the project areas, being sure to accommodate ADA accessibility requirements. When implemented, sidewalks are most effective when separated vertically and horizontally from the roadway, through buffer zones, curbing, or other treatments. In general, the addition of sidewalks will have the most significant impact in increasing the Pedestrian Level of Service 'grades' for the corridor segments.

MAINTENANCE

Ongoing maintenance of facilities is essential in promoting active transportation safety and comfort. Sufficient funding must be regularly allocated to maintain shoulders, sidewalks, and viewsheds throughout all seasons.

SHOULDER MAINTENANCE: Typically, the majority of debris within a roadway collects along the shoulders, significantly impacting the safety of active transportation users by causing them to veer into travel lanes. Additionally, plants and brush often grow into the shoulder, similarly impacting bicyclists and pedestrians. Regularly-scheduled maintenance of shoulders ensures that these obstacles are clear from the roadway.

ROAD STRIPING MAINTENANCE: Road striping, particularly when located along the shoulder, can fade quickly with flooding, erosion, and winter weather. All roadway markings and crosswalks should be repainted annually or bi-annually to ensure consistent visibility.

VIEWSHED MAINTENANCE: Often, untrimmed tree limbs can obstruct the viewshed of motorists, blocking views of oncoming vehicular, bicycle, and pedestrian traffic. These issues can be particularly acute at intersections, affecting turning motorists' visibility of bicyclists and pedestrians in the shoulder. Particularly with the proposed installation of street trees throughout the corridor, consistently-scheduled maintenance of tree limbs is essential for promoting safety of all roadway users.

WINTER MAINTENANCE: Particularly in upstate New York, winter weather significantly affects the amount of people who regularly bicycle, run, or walk. While primarily due to the colder temperatures, this pattern is also partially due to the significant reduction in active transportation safety during winter months, as key facilities are typically not cleared of snow and ice. Regularly plowing and de-icing shoulders and any potentially implemented sidewalks is essential for increasing the viability of active transportation year-round.

ENFORCEMENT

Law Enforcement departments can play a leading role in improving active transportation safety through enforcement of violations and promotion of awareness of laws. The Ontario County Sheriff's Department has participated in the development of this plan, and is committed to ensuring that vehicles, bicyclists, and pedestrians can safely utilize the roadways.

» ***Motorists:*** Key vehicular laws that must be enforced to promote active transportation safety include obeying speed limits, yielding to pedestrians in crosswalks while turning, and obeying drunk- and distracted-driving regulations. Along the project corridors, particular attention should also be granted to ticketing on-street parking violations, part of a larger effort to reduce the amount of on-shoulder parking.

» ***Bicyclists:*** Illegal bicycling behaviors can significantly impact bicycle, motorist, and pedestrian safety. Key laws that should be strictly enforced include: using lights at night; not riding on sidewalks; riding with the flow of traffic; and appropriately sharing the roadway with vehicles.

» ***Pedestrians:*** In areas with crosswalks, pedestrians should be strongly encouraged to utilize them through enforcement and ticketing of illegal crossings.

OUTREACH, EDUCATION, & PARTNERSHIPS

Particularly given the growing number of distracted pedestrians, bicyclists, and motorists, educating all roadway users about proper behaviors is a key component of promoting a safer active transportation network. While the dangers of distracted driving are well-known, the risks of distracted walking are equally significant: over the past decade, studies have shown that the majority of pedestrians utilize phones while walking, and National Traffic Safety Commission reports have indicated that pedestrian fatalities have continued to rise. The following programs, opportunities, and partnerships are potential opportunities to increase awareness of active transportation safety for all user groups, particularly children.

PROGRAMS AND PARTNERSHIPS:

» Partner with the Canandaigua and Gorham-Middlesex school districts to provide education on the benefits of active transportation to students. These educational programs can focus on the wide variety of active transportation benefits, as well as the roles and responsibilities that all roadway users have in promoting safety.

» Collaborate with local driving schools and drivers' education programs to emphasize the importance of respecting pedestrian and bicycle rights on the roadway.

» Connect with local artists and engaged community members to develop creative bicycle parking. The establishment of artistic bicycle racks and parking areas not only encourages bicycling but also creates public art elements that can improve the aesthetics and 'sense of place' within a community. The Ontario County Lake Shore Parks Master Plan recommended the installation of bicycle parking throughout both parks, and bicycle parking should be installed at all key destinations throughout the corridors.

» Continue to work with the Ontario County Sheriff's Department to emphasize the importance of promoting active transportation safety. By regularly corresponding, planners and law enforcement officers can more quickly understand and properly address safety concerns.

» If an unused paved area becomes available in the future, consider implementing a 'kids bike park' where children can learn proper bicyclist and motorist behavior in a safe environment.

TACTICAL INTERVENTIONS

Tactical urbanism refers to low-cost, short-term interventions that can catalyze behavioral change and re-allocation of space. Ranging from parklets and plazas to 'pop-up' bike lanes, tactical efforts can significantly enhance pedestrian and bicycle experiences along roadways. These efforts also enable concepts to be 'tested out' in reality, gaining an understanding of whether or not they will work as intended.

- While not technically 'urban,' the project corridors could potentially benefit from tactical interventions. For instance, the temporary installation of cones along shoulders near the Ontario County Lake Shore Parks could significantly reduce the amount of on-street parking, and provide more separated facilities for bicycles and pedestrians. Currently, Pelican Point Marina uses cones along the center line to slow traffic, and could utilize additional temporary measures to enhance pedestrian safety during peak times. The guides found on http://tacticalurbanismguide.com/guides/ are excellent illustrated references of various tactical materials and practices that may be implemented along key destinations within the project corridor. ***Applicable to Character Zones 2, 3, 5***

REGULATORY ENHANCEMENTS

As discussed in Chapter 3: Needs & Opportunities, the regulatory frameworks for both the Town of Canandaigua and Town of Gorham are particularly strong in terms of promoting active transportation for current and future development. The following recommendations are generally focused on strengthening and supplementing the existing policies with the following considerations:

- Promoting development closer to the roadways to create a more 'urban' feel
- Increasing the consideration of bicycle circulation and facilities in all new development
- Reframing the perception of street trees and green infrastructure along the roadways
- Decreasing the need for on-street parking
- Strengthening the considerations of ADA accessibility and lighting
- Codifying many active transportation-friendly 'guidelines' into enforceable regulations

TOWN OF CANANDAIGUA MUNICIPAL CODE

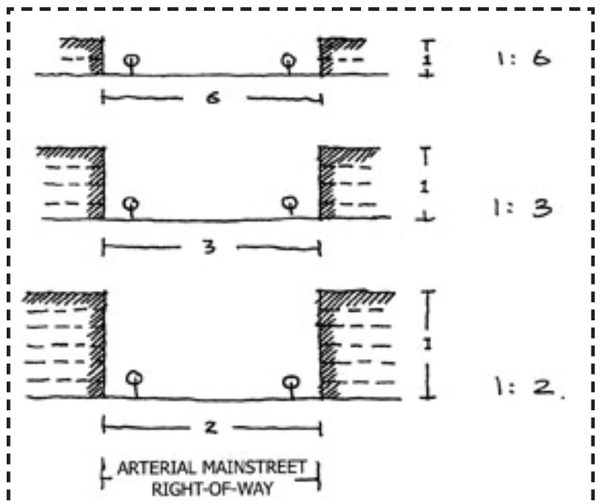
- ***Chapter 134: Manufactured Home Parks***
  - Consider adding requirements for sidewalks or walkways along roadways
- ***Chapter 174 Article III Subdivision of Land, Design Standards:***
  - General: Consider adding language that encourages consideration of bicycle mobility and safety.
  - 174-23: Consider rephrasing references to sidewalks from 'only when necessary' to language that more greatly encourages enhancing pedestrian mobility.
  - 174-28: Consider adding references to pedestrian-scaled lighting when applicable
- ***Chapter 220: Zoning***
  - 220-33: Mixed Use Overlay Districts: Consider adding language that encourages development in these districts that promotes active transportation connectivity, access, and safety. This could include information about best practices for multimodal facilities, including: sidewalk implementation with width of at least 6'; ADA compliance throughout; bicycle parking and connectivity provisions; pedestrian and bicyclist scaled lighting; public transit stops, if deemed prudent; and setback minimums and maximums. Along State Route 364, these setback requirements could be 35' minimums and 50' maximums to mirror recommended practices for Collector roadways in the Town of Gorham. Along internal access roadways, these minimums and maximums could both be further reduced to promote more active transportation-friendly environments.

TOWN OF CANANDAIGUA DESIGN STANDARDS

- ***2.1 Street Layout*** Consider requiring pedestrian and bicycle connectivity from cul-de-sac developments when feasible.
- ***2.8 Trails/Sidewalks*** Consider referring to walking trails as 'multi-use' paths to include bicycle use as a consideration.
- ***General***: Consider adding Green Infrastructure as a requirement when feasible to further treat stormwater before it drains into Canandaigua Lake.

TOWN OF GORHAM ZONING LOCAL LAW (MUNICIPAL CODE, CHAPTER 31)

- ***31.4.2-5 Minimum Front Setbacks:***
  - Consider decreasing minimum setbacks to 35' on Collector Roads in R-1 District and 15' from Collector Roads in the Hamlet Residential District.
  - Consider adopting maximum setbacks for all districts.
- ***31.4.8 Planned Development***
  - Consider adding bicycle circulation and safety as an objective for site plan review
- ***31.8.1 Off-Street Parking***
  - Consider reducing minimum parking space width to 9' to allow for additional parking spaces.



SOURCE: OTTAWA, CA

  - Consider flexible parking requirements for various uses based on surrounding parking availability.
- ***31.8.4 Outdoor Lighting***
  - Consider mentioning pedestrian-scale lighting where appropriate
- ***31.8.8 Landscaping, Screening, and Buffer***
  - Consider adding language about the benefits of Green Infrastructure in treating stormwater runoff from roadways.
- ***31.10.7 Criteria for Site Plan Review***
  - Consider adding bicycle access and circulation as a consideration for site plan review
  - Consider mentioning value of gridded and connected roadway systems for promoting active transportation.

TOWN OF GORHAM DESIGN GUIDELINES

- ***General:*** Consider formalizing the highly-progressive and active transportation-friendly guidelines within this document into enforceable measures within the municipal code and design standards.
- ***Chapter 2: Hamlet Residential District:*** Consider adding language that promotes bicycle circulation throughout the hamlets.
- ***Chapter 3: Hamlet Commercial District:***
  - Consider adding language that promotes bicycle circulation and bicycle parking at key destinations.
  - Consider further discussing ADA requirements as an important asset for promoting inclusive active transportation and accessibility to all amenities.

TOWN OF GORHAM DESIGN AND CONSTRUCTION STANDARDS FOR LAND DEVELOPMENT

- ***General:*** Consider updating to reflect best practices outlined in the Town of Gorham Design Guidelines.
- ***2.9.7 Sidewalks:*** Consider changing sidewalk width requirements to 6' to reflect ADA best practices.
- ***2.9.8 Trees within the Right of Way***: Consider amending to allow street trees and/or Green Infrastructure practices.

TOWN OF GORHAM ACCESS MANAGEMENT (MUNICIPAL CODE, CHAPTER 30)

- ***30.6.A Internal Site Circulation:*** Consider adding bicycle circulation as a key consideration.

TOWN OF GORHAM SUBDIVISION REGULATIONS (MUNICIPAL CODE, CHAPTER 32)

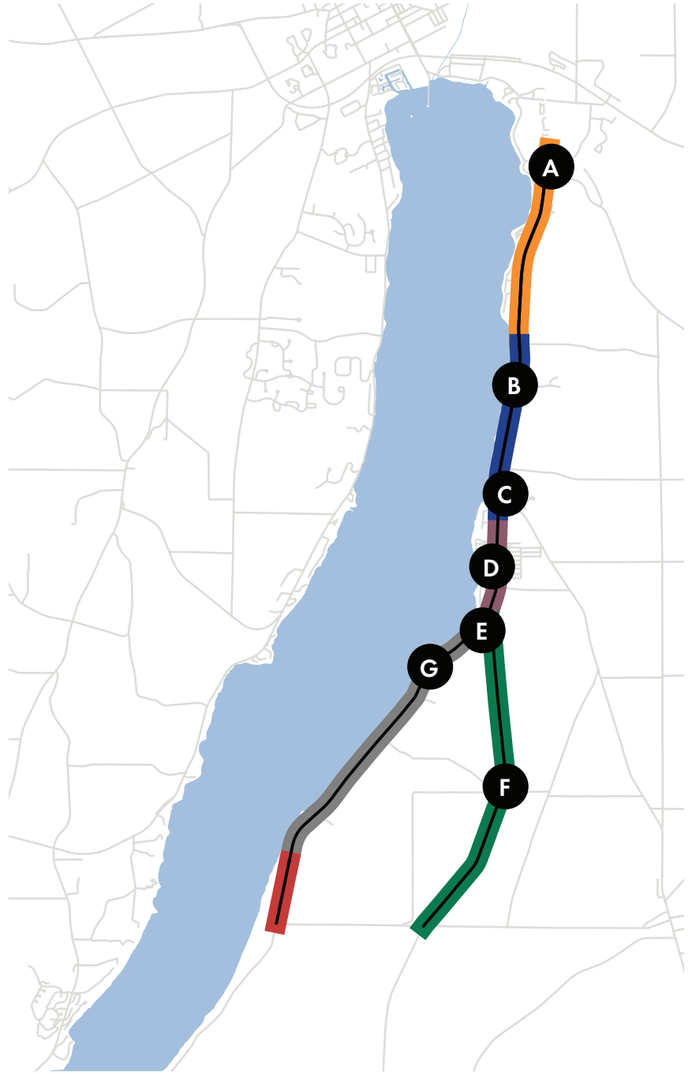
- ***Article 4 Development Standards 32.91.A Streets:***
  - Consider amending minimum angle of road intersection to 75 degrees to match requirements in Chapter 30. Perpendicular intersections are safer for active transportation users, as they increase visibility and force motorists to slow down further.
  - While roadways are designed to prohibit through vehicular traffic, consider encouragement of through-active transportation traffic if practical.

4.2 CHARACTER ZONE RECOMMENDATIONS

The recommendations within this section include specific improvements for each Character Zone, including overlooks, intersection enhancements, and pedestrian infrastructure. These recommendations incorporate many of the features discussed in the Corridor-Wide Recommendations section, including sidewalks, crosswalks, turning lane reduction, and green infrastructure.

Selected Intersection & Streetscape Improvements:

- **A** County Road 18 / Marvin Sands Drive / State Route 364 Area
- **B** Angela Way / State Route 364 / Ontario County Beach Park
- **C** County Road 1 / Deep Run Park / State Route 364 Area
- **D** Crystal Beach Streetscape Enhancements
- **E** County Road 11 / State Route 364
- **F** State Route 364 / Twitchell Road / Green Road
- **G** Pelican Point Marina Pedestrian Improvements



1 NORTH STATE ROUTE 364

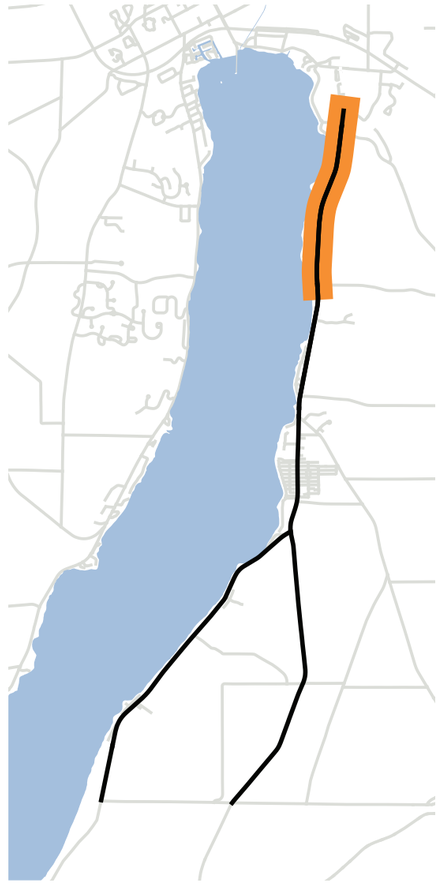
GENERAL RECOMMENDATIONS

Shoulder Width
Shoulder Pavement Condition
Lane Width Reduction

Green Infrastructure
Street Trees
Parking Signage
Share the Road Signage
Lighting

Maintenance (near Turner Rd)
Speeding Enforcement
Outreach at CMAC & FLCC

Setback Regulations for MUO-3 District
Bicycle Accommodations
ADA Accessibility

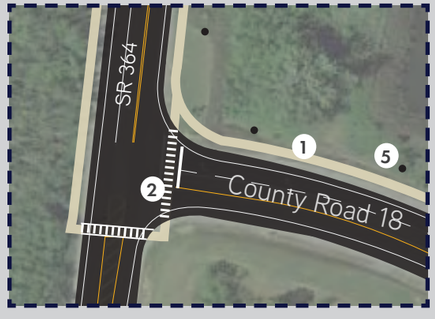


SPECIFIC RECOMMENDATIONS

Pedestrian Infrastructure at State Route 364 intersections with Marvin Sands Drive and County Road 18
A variety of intersection enhancements and pedestrian facilities will significantly increase multimodal safety at these two intersections, serving both high-volume pedestrian traffic during CMAC events and general lower-volume bicycle and pedestrian movement during normal conditions. While sidewalks are recommended long-term along the majority of the roadways, implementation can be phased based on immediate need. Based on input from stakeholders, the sidewalks along the east side of State Route 364 (north and south of Marvin Sands Drive) and along the south of Marvin Sands Drive should be most highly prioritized. The implementation of pedestrian crosswalks should also be staged based upon implementation of nearby sidewalks. Along the intersection of County Road 18 and State Route 364, Green Infrastructure should be implemented to treat runoff from the adjacent wetland. Additionally, these sidewalks should form the foundation for an enhanced pedestrian and bicycle connection to the City of Canandaigua, north of the project study area, incorporating recommendations from this study and precedent plans; additional information is included in *5.3: Follow-On Activities.*

MARVIN SANDS DRIVE / COUNTY ROAD 18 AREA IMPROVEMENTS

1 New Sidewalks (Highest priority along east side of State Route 364)
2 Crosswalks (LS, S, L)
3 Green Infrastructure
4 Tightened Turn Radii
5 Pedestrian Lighting



2 PARKWAY ZONE

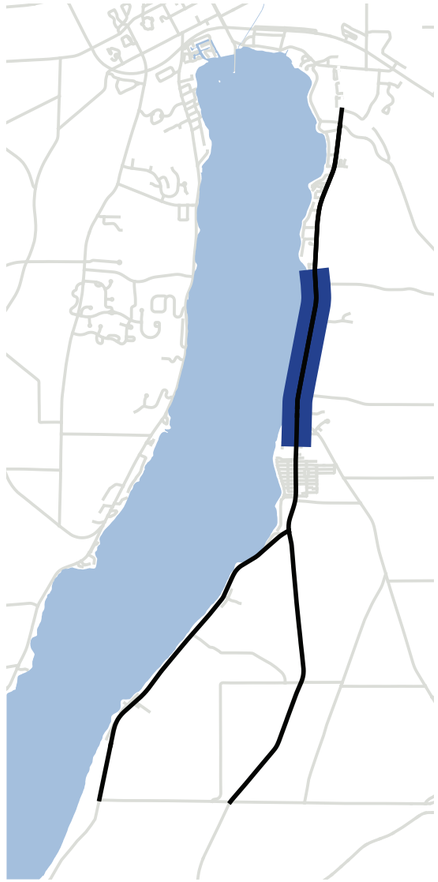
GENERAL RECOMMENDATIONS

Shoulder Width
Shoulder Pavement Condition
Curbing at Selected Areas
Lane Width Reductions

Green Infrastructure
Street Trees
Dynamic Speed Display Signs
Parking Signage
Share the Road Signage
Wayfinding

Maintenance
Speed & Parking Enforcement
Tactical Elements
Education at Parks

Setback Regulations
Bicycle Parking at Parks
ADA Accessibility
Parkway Designation



SPECIFIC RECOMMENDATIONS

Angela Way / Ontario County Beach Park Improvements

Pedestrian facilities should be implemented to complement the improvements proposed in Ontario County Beach Park as part of the Ontario County Lake Shore Parks Master Plan. These facilities should include an LS Crosswalk over State Route 364, connecting to a sidewalk landing pad on the southeast corner of the Angela Way/State Route 364 Intersection. The recommendations within the Lake Shore Parks Master Plan should also be implemented, particularly the reversal of circulation to enable the entrance on the northern end of the park. This will reduce confusion, which could potentially lead to active transportation-related issues. Proposed implementation of street trees, bicycle infrastructure, accessible pathways, and green infrastructure all align with the objectives of enhancing active transportation safety, comfort, and connectivity. However, it is important to note that the transportation-related improvements, such as crosswalk implementation and circulation switch, can be implemented in tandem or separately from the other proposed park improvements.

ANGELA WAY / STATE ROUTE 364 / ONTARIO COUNTY BEACH PARK AREA

1. Kayak Launch
2. Vehicular Parking
3. Reversed Circulation
4. ADA Accessible Path
5. Street Trees
6. Green Infrastructure
7. Pedestrian Pathway
8. Bicycle Parking Shelter
9. Gateway Signage
10. Curbing (to define corner & tighten turning radius)
11. LS Crosswalk (with potential RRFB)
12. S Crosswalk
13. Sidewalk Landing Pad

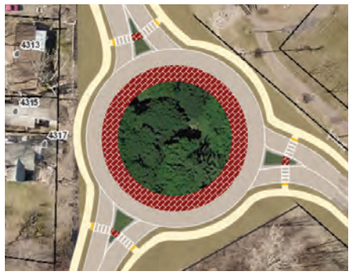
Parkway Designation and Wayfinding Elements

Designating the section between the two county parks as a 'parkway' could further enhance the sense of place within the corridor, and provide additional wayfinding. The gateway signage and wayfinding elements proposed within the Ontario County Lake Shore Parks Master Plan should be implemented to enhance the visual quality of the corridor and establish active transportation as a preferred method of movement between the parks.

Tactical Elements

As discussed in Section 4.1, implementing tactical elements such as traffic cones along the roadway shoulders may serve as a low-cost method of preventing on-road vehicular parking in the short-term.

County Road 1 / State Route 364 / Deep Run Park Improvements



» Non-Preferred Alternatives: Throughout the development of this plan, various alternatives were discussed for this intersection, including roadway chicanes (slight alignment offsets) and a roundabout (shown to the right). While the roundabout was included for its traffic calming benefits, it ultimately proved to extremely expensive and generally unfeasible due to the intersection's location on a hill.

» Preferred Alternative: The preferred alternative (shown on following page) includes various traffic calming, streetscape, and pedestrian enhancements to complement the recommendations for Deep Run Park within the Ontario County Lake Shore Parks Master Plan. As discusssed in Section 5.3: Follow-On Activities, it is recommended that the below recommendations be investigated further through a formal engineering study.

  » By aligning County Road 1 at a slightly more perpendicular approach and tightening striped turn radii, this alternative prevents vehicles from completing high-speed left-turning movements while driving southbound on State Route 364. It also incentivizes slower turns and increases visibility of oncoming traffic for vehicles approaching the intersection on County Road 1.

  » Pedestrian improvements complement those included in the Lake Shore Parks Master Plan and in the Town of Gorham Parkland Master Plan. Specifically, these improvements include a new crosswalk over State Route 364 at the location where Time Lapse Camera Data indicated the highest amount of pedestrian crossings, and new sidewalk construction to provide off-road facilities for pedestrians to move between Deep Run Park, the Town of Gorham Parkland, and the residential development located off of County Road 1.

  » Installation of curbing along the east side of State Route 364 serves multiple purposes. It provides a vertical barrier between the roadway and pedestrians, and also prohibits vehicles from parking 'half-on' the shoulder, 'half-on' the grass. The combination of this restrictive measure with the recommended creation of additional parking in the Town of Gorham Parkland is expected to decrease the amount of on-road parking, addressing the conflicts between active transportation users and parked vehicles.

County Road 1 / Ridge Road / Town of Gorham Parkland Proposed Design

The proposed design on the inset drawing on the following page is based upon the design shown in the 2011 Town of Gorham Parkland plan. The location for this entrance has several advantages: it aligns this proposed park entrance with the existing intersection of Ridge Road, enables sidewalks to connect the Town Parkland to Deep Run Park, and provides a more suitable location for an LS crosswalk across County Road 1 with typical best practice advance warning signage.

COUNTY ROAD 1 / STATE ROUTE 364 / DEEP RUN PARK IMPROVEMENTS

COUNTY ROAD 1 / RIDGE ROAD / GORHAM PARK PROPOSED DESIGN

1 Parking Lot
2 Accessible Path
3 Street Trees
4 Green Infrastructure
5 Bicycle Shelter
6 LS Crosswalk with RRFB & Warning Signage
7 Sidewalks
8 T-Intersection Alignment (90 degree approach)
9 Tightened Turn Radii
10 Curbing
11 Signage and Traffic Calming to Warn Oncoming Traffic

3 CRYSTAL BEACH

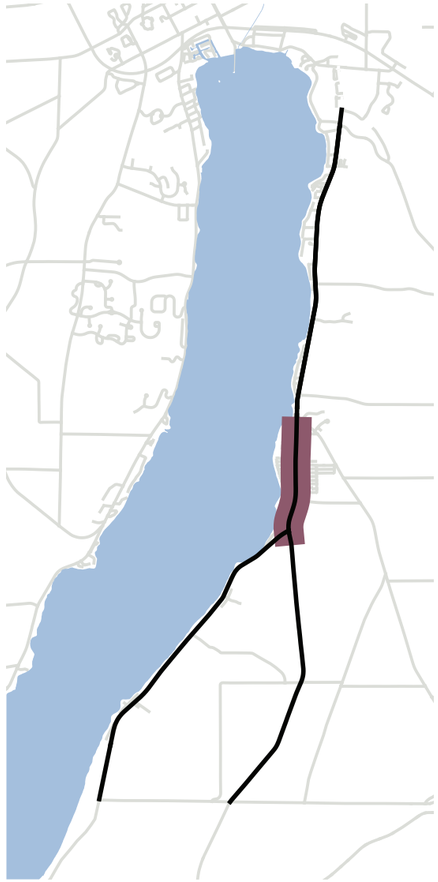
GENERAL RECOMMENDATIONS

Pavement Condition
Curbing (in Hamlet)
Lane Width Reduction

Green Infrastructure
Street Trees
Additional Parking Areas
Dynamic Speed Signs
Share the Road Signage
Pedestrian Lighting
Bicycle Parking

Maintenance
Parking & Speed Enforcement
Community Member Outreach
Education Events at Fire Hall

Setback Maximums
Bicycle Parking
ADA Accessibility



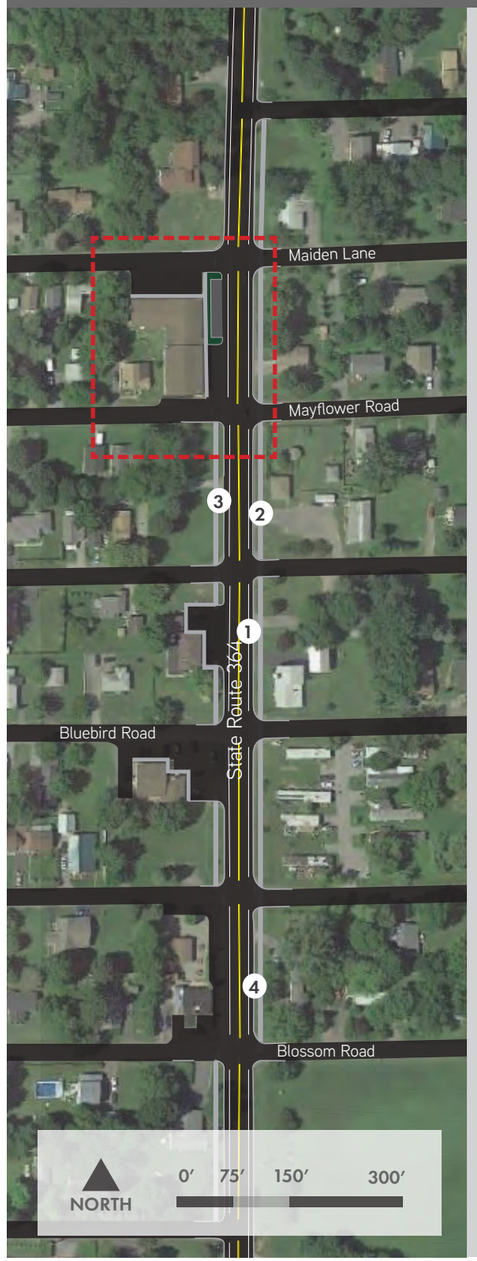
SPECIFIC RECOMMENDATIONS

Streetscape Enhancements throughout Hamlet

Streetscape enhancements can promote a more 'village' atmosphere in the Hamlet of Crystal Beach, providing additional active transportation facilities and potentially decreasing vehicular speeds. Reduced lane widths of 11', sidewalks, curbing, street trees, and green infrastructure can help 'enclose' the roadway, creating a more pedestrian- and bicycle-friendly experience. Additional welcome signage and wayfinding can further develop the 'sense of place' for the community.

While dedicated crosswalks over State Route 364 are not recommended throughout Crystal Beach at this time due to the variety of locations at which pedestrians cross, these general environmental enhancements to the streetscape are likely to make pedestrians more comfortable when crossing over State Route 364. Due to the extensive and complex nature of streetscape projects, this recommendation will need additional engineering study to determine exact costs and feasibility; for this reason, a detailed study is proposed in the Follow-On Activities section of this plan. After these improvements are implemented, a follow-up speed study should be conducted to determine potential reduction of posted speeds.

CRYSTAL BEACH STREETSCAPE ENHANCEMENTS



1. Curbing
2. Sidewalks
3. Buffer Strip with Green Infrastructure
4. Street Trees in Buffer Strip
5. Permeable Pavement

4 SOUTH STATE ROUTE 364

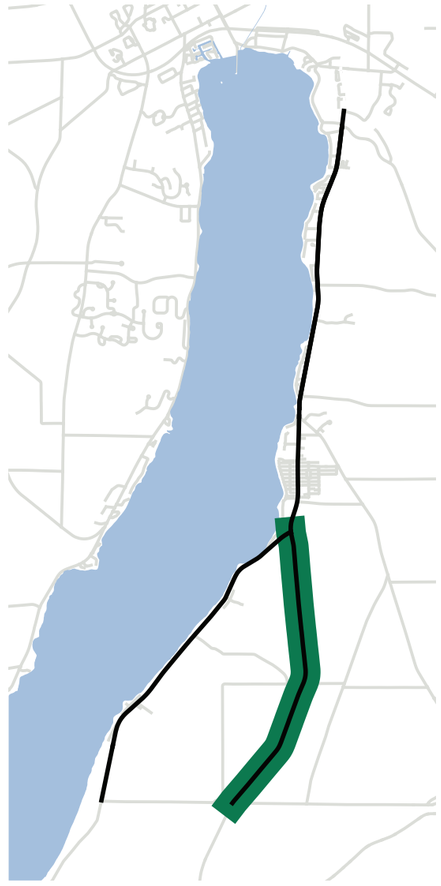
GENERAL RECOMMENDATIONS

Wide Edge Line Markings
Asymmetrical Shoulders
Lane Width Reductions

Dynamic Speed Display Signs
Advance Intersection Signage
Share the Road Signage

Maintenance of Shoulder
Speed Enforcement
Outreach & Education

Involvement of Mennonite Community in Future Regulatory Discussions

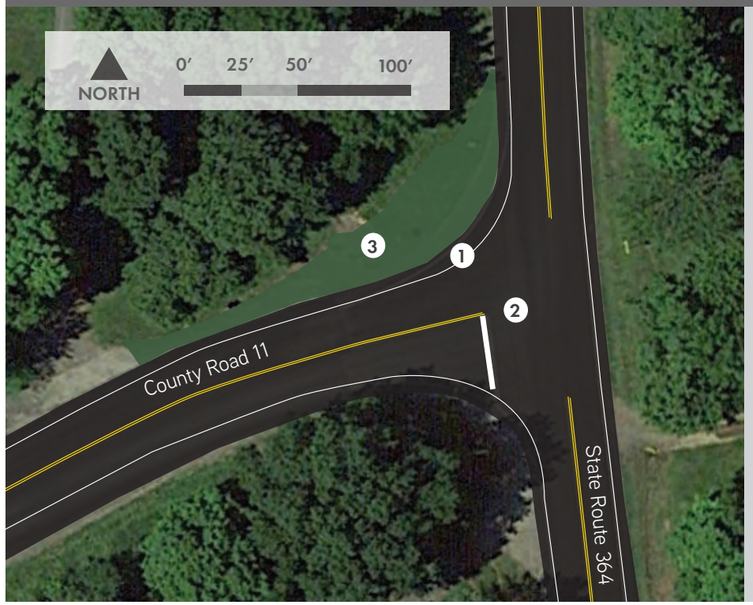


SPECIFIC RECOMMENDATIONS

Scenic Overlooks
As discussed in the Needs & Opportunities Chapter, scenic overlooks should be implemented where feasible to both take advantage of expansive views and allow for extra passing room between various modes of transportation, including farm equipment, vehicles, horse and buggies, and bicycles.

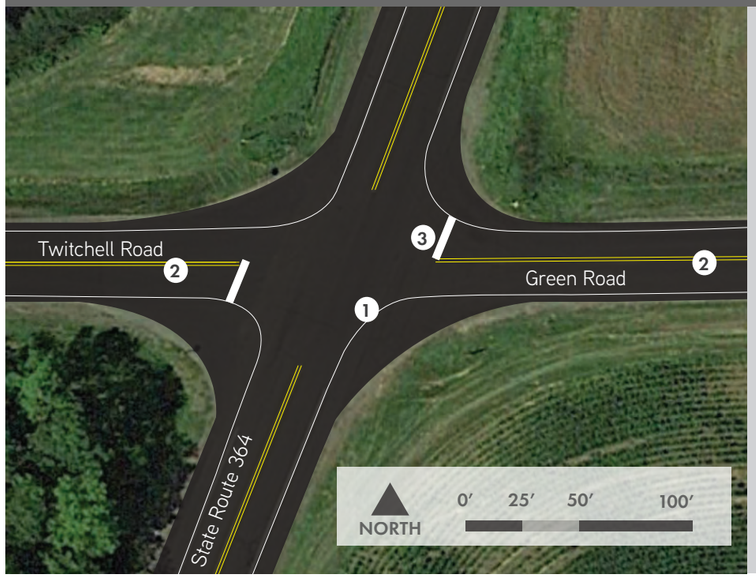
Intersection Enhancements at County Road 11/State Route 364 and State Route 364/Green Road
Improvements at these intersections should include additional road striping, stop bars, and tightened turning radii.

COUNTY ROAD 11 / STATE ROUTE 364 INTERSECTION ENHANCEMENTS



1. Tightened Turn Radii
2. T-Intersection (Perpendicular Approach)
3. Green Infrastructure

TWITCHELL ROAD / GREEN ROAD / STATE ROUTE 364 INTERSECTION ENHANCEMENTS



1. Tightened Turn Radii
2. Edge Lines & Center Lines on Twitchell & Green Roads
3. Stop Bars on Twitchell & Green Roads

5 NORTH COUNTY ROAD 11

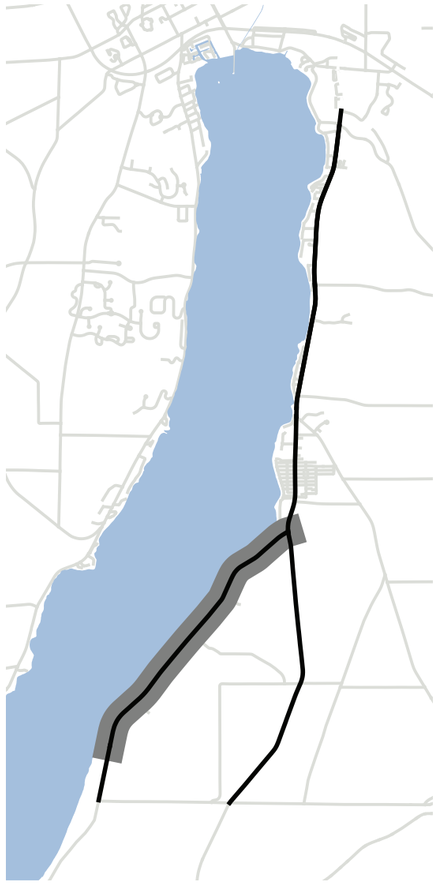
GENERAL RECOMMENDATIONS

Shoulder Width
Pavement Condition
Curbing near Marina
Speed Reduction Markings

Green Infrastructure
Street Trees
Dynamic Speed Display Signs
Bicycle Parking
Parking Signage
Share the Road Signage

Maintenance of Shoulders
Parking & Speed Enforcement
Tactical Strategies
Education for Visitors

Setback Regulations
Access Management Plan
Bicycle Parking
ADA Accessibility



SPECIFIC RECOMMENDATIONS

Pedestrian Enhancements at Pelican Point Marina

As illustrated by the Time Lapse Camera Data, Pelican Point Marina generates extremely high numbers of pedestrians during the summer season. Recommended enhancements are designed to provide for safe pedestrian movement both along and across County Road 11 at key locations. Crossings should include Rapid Rectangular Flashing Beacons, and be modeled after the best practice installation at Le Tourneau Christian Camp further south on County Road 11.

Through coordination with the owners of Pelican Point Marina, these recommendations can create a pedestrian-friendly area both on and off the roadway. When implementing sidewalks and curbing, particular consideration should be given to ensuring proper drainage; green infrastructure such as permeable pavement and bioretention rain gardens should be implemented wherever possible.

PELICAN POINT MARINA PEDESTRIAN IMPROVEMENTS

1. ***Sidewalks*** along both sides of County Road 11 provide separated facilities for pedestrians. In front of the Pelican Point Marina Store, the sidewalk should move onto private property to reduce conflicts with vehicles pulling in or out of the informal parking area.
2. Two LS ***Crosswalks*** with RRFBs provide safe measures for pedestrians to cross County Road 11 at locations identified as hotspots by Time Lapse Camera Data.
3. ***Green Infrastructure***, including street trees, bioretention areas, and rain gardens should be implemented wherever possible to treat stormwater runoff before it enters Canandaigua Lake.
4. There are three potential ***connections*** to the parking area north-east of the Marina; all cost approximately the same. Option A would require a widened on-road shoulder, while Options B and C would require the construction of a pedestrian bridge on private property over a small creek.
5. ***Curbing*** along all sidewalks provides additional protection for pedestrians and also discourages vehicles from illegally parking 'half' on the shoulder and 'half' on the grass.

6 SOUTH COUNTY ROAD 11

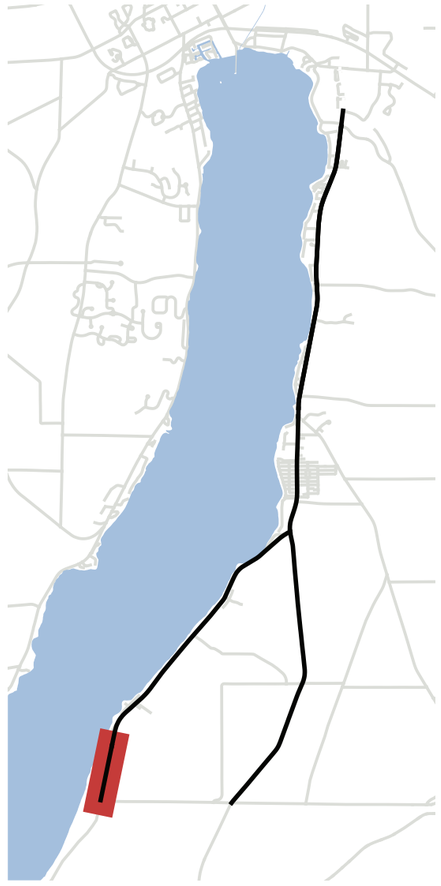
GENERAL RECOMMENDATIONS

Shoulder Width
Shoulder Pavement Condition
Asymmetrical Shoulders
Lane Width Reduction

Green Infrastructure
Hillcrest Warning Signage
Parking Signage
Share the Road Signage

Maintenance of Shoulders
Parking Enforcement
Outreach to Tourists & Visitors

Access Management Plan
Speed Limit Reduction



SPECIFIC RECOMMENDATIONS

Scenic Overlooks
As mentioned in Character Zone 4, scenic overlooks should be implemented if possible to take advantage of expansive views of Canandaigua Lake.

Speed Reduction Study
With actual speeds typically well below posted speeds of 55 MPH, a formal speed reduction study should be completed on this section of County Road 11. Reduction of posted speeds to 45 MPH would create speed limit continuity with the posted speeds south of the study area. This study is also included in Section 5.3: Follow-On Activities.

5 IMPLEMENTATION

This chapter provides prioritization of the recommendations included in Chapter 4. It includes a discussion of ***Priority Factors***, followed by a ***Priority Matrix*** for all four improvement types: On-Road, Off-Road, Programs & Outreach, and Policy & Regulations. In general, the Priority Matrix section is intended only as a broad overview to guide the allocation of resources when determining next steps for implementation; regardless of 'priority level,' all projects included in this chapter are ultimately recommended for implementation. A summary of ***Funding Sources*** for implementing projects follows this section, including discussions of federal, state, regional, and local grants and programs. The final section, ***Follow-On Activities***, provides an overview of next steps for implementing many of the projects discussed in this plan, and discusses several potential future studies that could complement this plan's recommendations.

5.1 IMPLEMENTATION PRIORITY MATRIX

The table on this page outlines the factors incorporated into the priority matrix on the following pages; these factors have been included based on the input of the Project Steering Committee.

PRIORITY FACTOR	DESCRIPTION	
PUBLIC CONCERN ADDRESSED?	Refers to the degree to which each recommendation, if implemented, would address community concerns related to active transportation. These concerns are based upon input from the community survey and Public Open House #2, which is summarized on the "Community Input" chart on p. 106.	
	+++	recommendation addresses significant community concern(s)
	++	recommendation addresses moderate community concern(s)
	+	recommendation addresses minor community concern(s)
EXPECTED AMOUNT OF USE BY ACTIVE TRANSPORTATION	Refers to the amount of active transportation users that would be impacted by the proposed recommendation. These ratings are based on observed numbers of bicyclists, joggers, and pedestrians at particular locations through field studies and time-lapse camera utilization.	
	+++	recommendation will be utilized by/will affect a large amount of AT users
	++	recommendation will be utilized by/will affect a moderate amount of AT users
	+	recommendation will be utilized by/will affect a minimal amount of AT users
EXPECTED BENEFITS TO ACTIVE TRANSPORTATION SAFETY	Refers to expected enhancements to multimodal safety if recommendation is implemented. These ratings are based on prior studies and prior implementation of similar measures.	
	+++	recommendation will provide significant safety improvement
	++	recommendation will provide moderate safety improvement
	+	recommendation will provide minor safety improvement
EXPECTED ENVIRONMENTAL BENEFITS	Refers to expected improvements to air and water if recommendation is implemented. While nearly all active transportation projects promote air quality by reducing emissions from vehicular travel, certain recommendations have additional benefits to environmental health and resiliency.	
	+++	recommendation will significantly enhance air and water quality
	++	recommendation will moderately enhance air and water quality
	+	recommendation will slightly enhance air and water quality
PRIORITY LEVEL	Created by totaling the four factors above. Projects with less than five total +s received one star; projects with six-eight total +s received two stars; projects with over nine total +s received three stars.	
	★★★	recommendation should be immediately prioritized for implementation
	★★	recommendation should be implemented when feasible
	★	recommendation should be considered for potential implementation
COST	Based on the 'High Level Cost' table on p. 106. Costs are high-level estimates, and are not factored into the above priority level ranking.	
TIMELINE & NOTES	Refers to potential next steps for implementation of recommendation. This information is also not factored into the priority level ranking.	

ON-ROAD RECOMMENDATIONS

RECOMMENDATION	PUBLIC CONCERN ADDRESSED?	EXPECTED AMOUNT OF USE BY A.T.	EXPECTED BENEFITS TO A.T. SAFETY	EXPECTED ENVIRON-MENTAL BENEFITS	PRIORITY LEVEL	COST	TIMELINE & NOTES
SHOULDER IMPROVEMENTS (PP. 73-74)							
Shoulder Width & Pavement Expansion	++	++	++	+	★★	$$	long-term; consider during reconstruction
Curbing	++	++	++	+	★★	$$	consider at key locations during construction
ROADWAY MARKINGS (PP. 74-75)							
Wide Edge Striping	+	++	++	+	★★	$	short-term; consider during re-striping
Lane Width Reductions	++	+	++	+	★★	$	mid-term; consider during re-striping
Asymmetrical Shoulders	+	+	++	+	★	$	mid-term; consider during re-striping
Speed Reduction Markers	+	+	+	+	★	$	short-term; consider at key locations
INTERSECTION ENHANCEMENTS (PP. 75-76; THROUGHOUT)							
Marvin Sands Drive / State Route 364 / County Road 18 (p. 88)	+++	++	+++	+++	★★★	$$$	mid-term; requires addi-tional study and funding
Angela Way / State Route 364 / Ontario Co. Beach Park (p. 90)	++	++	++	++	★★	$$	mid-term; requires addi-tional study
County Road 1 / State Route 364 / Deep Run Park (p. 92)	+++	+++	+++	++	★★★	$$$	mid-term; requires addi-tional study and funding
County Road 11 / State Route 364 (p. 97)	+	+	++	+	★	$	short-term; consider during re-striping
State Route 364 / Twitchell Road / Green Road (p. 97)	+	+	+	+	★	$	short-term; consider during re-striping

ON-ROAD RECOMMENDATIONS (CONTINUED)

RECOMMENDATION	PUBLIC CONCERN ADDRESSED?	EXPECTED AMOUNT OF USE BY A.T.	EXPECTED BENEFITS TO A.T. SAFETY	EXPECTED ENVIRON-MENTAL BENEFITS	PRIORITY LEVEL	COST	TIMELINE & NOTES
STREETSCAPE ENHANCEMENTS (P. 76; THROUGHOUT)							
Crystal Beach (p. 94)	++	++	+++	++	★★★	$$$	long-term; requires addi-tional study and funding
Pelican Point Pedestrian Enhancements (p. 98)	++	+++	+++	++	★★★	$$	mid-term; requires private coordination with owners

OFF-ROAD RECOMMENDATIONS

SCENIC PULLOFFS (PP. 96,100)	+	+	+	+	★	$	long-term; consider during re-construction
GREEN INFRASTRUCTURE (P. 77)	++	+	+++	+++	★★★	$$	consider during all updates and redesigns
STREET TREES (P. 78)	++	+	++	+++	★★	$	consider when-ever feasible
SIGNAGE (PP. 74-75)							
Warning Signage	+	+	++	+	★	$	mid-term; perform detailed study
No Parking Signage	++	+	++	+	★★	$	short-term; install when feasible
Dynamic Speed Display Signs	+++	++	+++	+	★★★	$	short-term; con-tinue installing
Wayfinding & Routes	+	+++	+	+	★★	$	short-term
LIGHTING (P. 81)	+	++	++	+	★★	$$	consider when-ever possible
BICYCLE PARKING (PP. 84-86)	++	++	+	+	★★	$	implement whenever possible

PROGRAMS & OUTREACH RECOMMENDATIONS

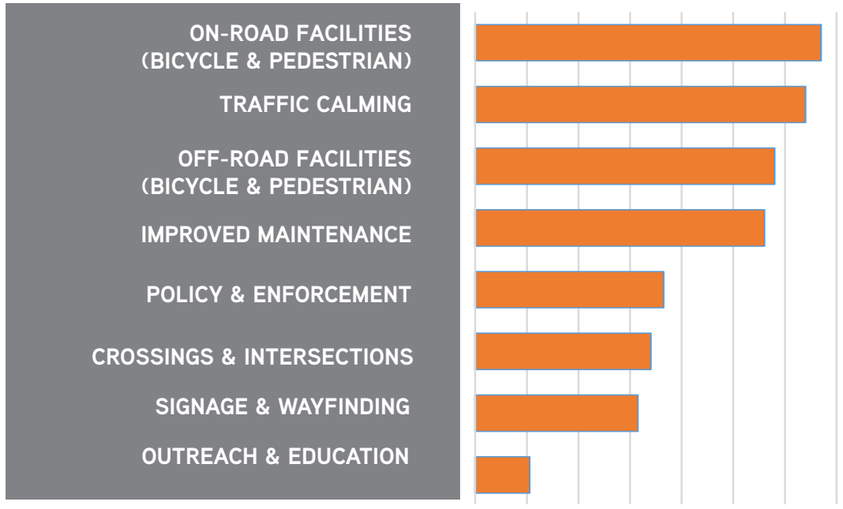
RECOMMENDATION	PUBLIC CONCERN ADDRESSED?	EXPECTED AMOUNT OF USE BY A.T.	EXPECTED BENEFITS TO A.T. SAFETY	EXPECTED ENVIRON-MENTAL BENEFITS	PRIORITY LEVEL	COST	TIMELINE & NOTES
MAINTENANCE (P. 82)	+++	+++	+++	++	★★★	$	ongoing
ENFORCEMENT (P. 82)	+++	+++	+++	+	★★★	$	ongoing
OUTREACH & EDUCATION (P. 83)	+	++	+++	+	★★	$	ongoing; continue outreach
TACTICAL INTERVENTIONS (P. 84)	+	+	++	+	★	$	short-term; coordinate with stakeholders

POLICY & REGULATORY RECOMMENDATIONS

REGULATORY ENHANCEMENTS (P. 84-86)	++	+	++	+	★★	$	short-term; implement when feasible through formal process

COMMUNITY INPUT

The following table represents a summary of community preference for recommendations at Public Open House #2. This chart was used to inform the "Public Concern Addressed" rating levels on the implementation matrix on the preceding pages.



HIGH-LEVEL COSTS

Costs for improvement types are based on high-level estimates from precedent active transportation-related improvements and planning efforts. In general, infrastructural improvements such as curbing, roadway alignment, sidewalks, and stormwater infrastructure are the most expensive recommendations, while striping, signage, and other similar measures are less expensive. Maintenance, enforcement, and tactical improvements vary in costs, as the majority of funding is directed towards labor costs instead of physical infrastructure. For infrastructural projects, the following unit costs can be referenced as best practices.

Element	*Cost*	*Unit*
Sidewalk (Assumed at 6' width)	$35.00	Linear Foot
Curbing (Granite)	$33.00	Linear Foot
Street Trees	$600	Tree
Bioretention Areas	$8.00	Square Foot
Pedestrian Lighting	$2,000.00 - $10,000.00	Unit
Bicycle Racks	$500.00 - $800.00	Unit
High-Visibility Crosswalk	$5,000,00	Unit
Rapid Rectangular Flashing Beacon (Solar Powered)	$10,000.00 - $20,000.00	Unit

5.2 FUNDING SOURCES

This section provides an overview of federal, state, and private funding opportunities for active transportation related projects. It is intended to be a guide for current and future projects, and therefore includes funding sources that may not be directly applicable to recommendations within this project, but may be useful for future opportunities.

FEDERAL FUNDING - FAST ACT PROGRAMS

Funding activities governed by the Fixing America's Surface Transportation (FAST) Act are briefly described in the following funding sources. The FAST Act is the modified edition of the pre-existing Moving Ahead for Progress for the 21st Century program (MAP-21), and intends to make the surface transportation system more streamlined and multimodal through improvements in safety, infrastructure conditions, and efficiency. While currently technically authorized only through the end of 2020, it is expected that it will either be extended or re-authorized in a similar manner in the future. Several of the following resources provide additional information on relevant aspects of the FAST Act:

- http://www.fhwa.dot.gov/environment/bicycle_pedestrian/legislation/sec217.cfm
- http://www.fhwa.dot.gov/fastact/factsheets/transportationalternativesfs.pdf
- http://www.bikeleague.org/content/what-know-about-fast-act

HIGHWAY SAFETY IMPROVEMENT PROGRAM (HSIP)

The HSIP is primarily focused on pursuing data-driven solutions to enhance safety along public roadways. Funds may be used for bicycle- and pedestrian-related highway safety improvement projects on a public road that are consistent with a State strategic highway safety plan. Example projects include: intersection safety improvements, pavement and shoulder widening; bicycle/pedestrian/disabled person safety improvements; traffic calming; installation of yellow-green signs at pedestrian and bicycle crossings and in school zones; transportation safety planning; road safety audits; improvements consistent with FHWA publication "Highway Design Handbook for Older Drivers and Pedestrians"; and safety improvements for publicly owned bicycle and pedestrian pathway or trails. An average of $2.6 billion is funded nationally through this program.

SURFACE TRANSPORTATION BLOCK GRANT PROGRAM (STBG)

The FAST Act converted the long-standing Surface Transportation Program into to the STBG, which provides funding for the improvement of conditions on any federal-aid highway, public road bridge projects, active transportation facilities, and transit capital projects. An average of $11.7 billion is funded nationally through this program.

- ***Transportation Alternatives (TA)***
  Funding for Transportation Alternatives is set aside from the STBG funding amount that is allocated to each state. These set-aside funds include all projects and activities that were previously eligible under the Transportation Alternatives Program under MAP-21, encompassing a variety of smaller-scale transportation projects such as: pedestrian facilities; recreational trails; access to transit; safe routes to school projects; on- and off-road bicycle and pedestrian facilities; overlooks and viewing areas; rails to trails projects, and boulevard construction in previously divided highway right-of-ways. TA is funded through the Federal Highway Administration, and is administered through NYSDOT.

CONGESTION MITIGATION AND AIR QUALITY IMPROVEMENT PROGRAM (CMAQ)

The CMAQ program provides funding sources to state and local governments for transportation projects that meet the requirements of the Clean Air Act. These projects typically include public transit facilities, bicycle and pedestrian infrastructure, and other vehicular transportation alternatives. An average of $2.4 billion is funded nationally through this program.

OTHER FEDERAL & STATE FUNDED PROGRAMS

The following are federally- and state-funded programs that offer opportunities for enhancing active transportation directly or indirectly. Many of these programs are federally-funded and administered by state agencies.

BETTER UTILIZING INVESTMENTS TO LEVERAGE DEVELOPMENT (BUILD)

Informally referred to as INFRA, the highly competitive BUILD grant program is 2018 the revised version of the Transportation Investment Generating Economic Recovery (TIGER) program that was created in 2009. In both of its iterations, the program has funded numerous multi-modal and multi-jurisdictional projects. This is an annually administered federal discretionary grant program distinct from the FAST Act and typically provides grants to projects difficult to fund through traditional federal programs. Awards focus on capital projects that generate economic development and improve access to reliable, safe and affordable transportation for communities, including rural communities.

NATIONAL PARK SERVICE LAND AND WATER CONSERVATION FUND (LWCF)

This federal funding source was established in 1965 to provide "close-to-home" parks and recreation opportunities to residents throughout the United States. LWCF grants can be used by communities to build a variety of parks and recreation facilities, including trails and greenway alternatives proposed in this Plan. LWCF funds are distributed by the National Park Service to the states annually. Communities must match LWCF grants with 50 percent of the local project costs through in-kind services or cash. All projects funded by LWCF grants must be used exclusively for recreation purposes, in perpetuity. Projects must be in accordance with each State's Comprehensive Outdoor Recreation Plan.

STATE & MUNICIPAL FACILITIES GRANT PROGRAM (SAM)

SAM grants are available for a wide variety of infrastructural and amenity improvements. The program, created in 2013, can be utilized by municipal corporations (for instance, Towns and Villages), school districts, emergency services, public park conservancies, and several other agencies to fund many components of projects, including engineering services, construction, project management, and right-of-way acquisition.

CONSOLIDATED LOCAL, STATE, AND HIGHWAY IMPROVEMENT PROGRAM (CHIPS)

Through the CHIPS program, Funds are administered by NYSDOT for local infrastructure projects. Relative and eligible project activities include bike lanes and wide curb lanes (highway resurfacing category); sidewalks, shared use paths, and bike paths within highway right-of-way (highway reconstruction category), and traffic calming installations (traffic control devices category). CHIPS funds can be used for TA grant program local match requirements.

TITLE 49 USC PROGRAMS

» ***Enhanced Mobility of Seniors and Individuals with Disabilities Public Transportation Grant Program (5310)***
This program is designed to support access to public transit for particularly vulnerable user groups. While the majority of funding is designated towards vehicular acquisition and maintenance, as well as operations, some funding can be allocated to ADA accessibility enhancements and capital improvement projects. These improvements can include sidewalks and other efforts to exceed ADA requirements.

» ***Public Transportation in Non-Urbanized Areas (5311)***
This program allows the Formula Program for Other than Urbanized Area (Section 5311) transit funds to be used for improving bicycle and pedestrian access to transit facilities and vehicles. Eligible activities include investments in "pedestrian and bicycle access to a mass transportation facility" that establishes or enhances coordination between mass transportation and other transportation, such as those in this Plan.

NEW YORK STATE CONSOLIDATED FUNDING APPLICATION (CFA)

The CFA is a streamlined resource through which applicants can access multiple financial assistance programs made available through various state agencies. The CFA offers the opportunity for local governments (and other eligible applicants) to submit a single grant application to state agencies that may have resources available to help finance a given proposal; grants are typically due in late July. All submitted CFAs are reviewed by the applicant's Regional Economic Development Council, which may elect to endorse the proposal as a regional priority project. The following grant resources have been made available through the CFA that may be appropriate funding opportunities for either direct or indirect implementation of active transportation efforts:

RECREATIONAL TRAILS PROGRAM

The Regional Trails Program (RTP), funded nationally through the TA program, is administered by the NYS Office of Parks, Recreation and Historic Preservation. Funds may be used for all types of recreational trail projects. Of the funds apportioned to a state, 30 percent must be used for motorized trail uses, 30 percent for non-motorized trail uses, and 40 percent for diverse trail uses (any combination). Example projects include: trails for both motorized and non-motorized uses, including hiking, bicycling, in-line skating, equestrian use, cross-country skiing, snowmobiling, off-road motorcycling, all-terrain vehicle riding, four-wheel driving, or other off-road motorized vehicles; development of trailhead facilities; purchase/lease of maintenance equipment; and acquisition of easements/property. Between $25,000 - $250,000 is available per project, and funding requires a 20% local match.

CLIMATE SMART COMMUNITIES

Climate Smart Communities grants offer funding to projects that promote green initiatives and lessen a community's impact on the larger environment. Example projects include: installation of green infrastructure, comprehensive planning, active transportation enhancement projects, and flood risk reduction efforts. Planning projects are eligible for up to $100,000, while design and construction projects can receive up to $2,000,000; however, the grants require a 50% local match.

GREEN INNOVATION GRANT PROGRAM

The Green Innovation Grant Program provides funding towards projects that install green infrastructure within communities. Green Infrastructure refers to practices that enable stormwater to infiltrate into the ground, where it can be naturally treated before flowing into waterbodies. While not directly applicable to active transportation funding, this program can be used to supplement sidewalk, trails, and public transit facility construction through implementing green infrastructure.

COMMUNITY DEVELOPMENT BLOCK GRANTS (CDBG)

Funded through the U.S. Department of Housing and Urban Development (HUD), and administered through the New York State Homes and Community Renewal Office, the CDBG program provides eligible metropolitan cities and urban counties (called "entitlement communities") with annual direct grants that they can use to revitalize neighborhoods, expand affordable housing and economic opportunities, and/or improve community facilities and services, principally to benefit low- and moderate-income persons. Eligible activities include building public facilities and improvements, such as streets, sidewalks, sewers, water systems, community and senior citizen centers, and recreational facilities. While the focus of CDBG projects must be public infrastructure, funding can also be used to cover streets, sidewalks, recreational facilities, and greenways if they relate to the project purpose. Funding for implementation of improvements can reach up to $750,000 (and $1,000,000 with co-funding).

MAIN STREET PROGRAM

The Main Street Program provides funding for building and facade enhancements along key 'downtown' corridors. Similarly to the CDBG, this program cannot be used to directly enhance active transportation, but can be used to improve sidewalks or streetscapes that are adjacent to revitalized buildings.

PRIVATE FUNDING SOURCES

There are a number of for and non-profit businesses that offer programs that can be used to fund bicycle and pedestrian related programs and projects. Nationally, groups like Bikes Belong fund projects ranging from facilities to safety programs. Locally, Wegmans and Excellus have a strong track record of supporting health-based initiatives and may be resources for partnership or sponsorship.

PEOPLEFORBIKES

The PeopleForBikes Community Grant Program strives to put more people on bicycles more often by funding important and influential projects that leverage federal funding and build momentum for bicycling in communities across the U.S. Most of the grants awarded to government agencies are for trail projects. The program encourages government agencies to team with a local bicycle advocacy group for the application. Applications for accepted bi-annually for grants of up to $10,000 each (with potential local matches).

AMERICAN HIKING SOCIETY NATIONAL TRAILS FUND

The American Hiking Society's National Trails Fund is the only privately funded national grants program dedicated solely to hiking trails. National Trails Fund grants have been used for land acquisition, constituency building campaigns, and traditional trail work projects. Since the late 1990s, the American Hiking Society has granted nearly $200,000 to 42 different organizations across the US. Applications are accepted annually with a summer deadline.

THE ROBERT WOOD JOHNSON FOUNDATION

The Robert Wood Johnson Foundation seeks to improve the health and health care of all Americans. One of the primary goals of the Foundation is to "promote healthy communities and lifestyles." Specifically, the Foundation has an ongoing "Active Living by Design" grant program that promotes the principles of active living, including non-motorized transportation. Other related calls for grant proposals are issued as developed, and multiple communities nationwide have received grants related to promotion of trails and other non-motorized facilities.

CONSERVATION ALLIANCE

The Conservation Alliance is a group of outdoor businesses that supports efforts to protect specific wild places for their habitat and recreation values. An example relevant activity in this Plan is funding the protection of lands and surrounding habitat for off-road trail systems in Geneseo. Before applying for funding, an organization must first be nominated by a member company. Members nominate organizations by completing and submitting a nomination form. Each nominated organization is then sent a request for proposal (RFP) instructing them how to submit a full request. Proposals from organizations that are not first nominated will not be accepted. The Conservation Alliance conducts two funding cycles annually. Grant requests should not exceed $35,000 annually.

GREATER ROCHESTER HEALTH FOUNDATION

The Greater Rochester Health Foundation administers a competitive grant program to implement community health and prevention projects in counties within the greater Rochester region, including Ontario County. While grant focus topics and cycles may vary from year to year, bicycle- and pedestrian-related projects and programs may frequently be well suited for these opportunity grants.

5.3 FOLLOW-ON ACTIVITIES

PROJECTS WITHIN THIS PLAN

As a comprehensive plan, this report provides a blueprint for enhancing active transportation along the east side of Canandaigua Lake, but does not identify all of the specifics needed to implement each individual project. For all projects that require infrastructural modifications, at least some of the following steps will need to occur before implementation. In general, many of these infrastructural recommendations may be implemented during regularly-scheduled reconstruction of the roadways.

- Additional operational analysis and traffic studies
- Consultation with, and approval from, property and/or facility owners
- Access agreements with appropriate landowners
- Design development & construction documentation
- Regulatory approvals and permitting
- Environmental permitting

ADDITIONAL PROJECTS

Throughout the development of this plan, several additional concerns and potential active transportation-related projects emerged that could be beneficial follow-on activities:

FORMAL ENGINEERING STUDIES

As discussed above, nearly all of the infrastructural recommendations within this report require further engineering studies to develop more detailed designs before implementation. In most cases, these studies can be pursued with assistance of the funding sources listed in Section 5.2. Overall, it is recommended that these studies use the recommendations within this report as guidelines, and perform additional site and user analysis to develop the specific designs. Specifically, it is recommended that engineering studies should be performed at four key locations:

- ***State Route 364 / Marvin Sands / County Road 18 Area***
  This study should consider and evaluate recommendations from this Active Transportation Plan as well as the 2013 *Routes 5&20 & Route 364 Multi-Modal Safety & Access Improvement Study*. In particular, it should evaluate specific locations where sidewalk installation should be prioritized, and should investigate potential Uber and Lyft dropoff zones for concert attendees. This study should also encompass the sections of State Route 364, Marvin Sands Drive, and the FLCC campus just north of this project area for this Active Transportation Plan to increase multimodal connectivity and access between these destinations and the City of Canandaigua.

- ***State Route 364 / Angela Way / Ontario County Beach Park***
  This study should specifically evaluate the location of the crosswalk between Angela Way and Ontario County Beach Park.

- ***State Route 364 / Deep Run Park / County Road 1 / Ridge Road Area***
  This study should analyze the locations of sidewalks, curbing, crosswalk locations and signage, and the proposed entrance into Town of Gorham Parkland. This study should consider the recommendations in this Active Transportation Plan, as well as the 2019 Ontario County Lake Shore Parks Master Plan and the Town of Gorham Parkland 2011 Master Plan.

- ***State Route 364 through Hamlet of Crystal Beach***
  This study should investigate and propose detailed cross-sections and plans illustrating drainage, accessibility, and additional infrastructure for the streetscape enhancement within Crystal Beach. In addition to the recommendations within this plan, crosswalks should be considered at two particular locations after an initial streetscape improvement plan is developed:
  - at Mayflower Lane, which connects to to the Maiden Lane Waterfront Park and Picnic Area, is located adjacent to the Crystal Beach Fire Hall, and is located near an undeveloped 32 unit subdivision north of Crystal Beach;
  - at Blossom Road, which provides access to Middle Park and Blossom Road Beach on the west side of State Route 364 and Valesko Park on the east side. This crosswalk could also provide improved access to several restaurants and the commercial area of Crystal Beach.

  If implemented, these crosswalks should feature all best practices, including LS pavement markings, potential activated beacons with sufficient pedestrian demand, and curb extensions.

SPEED LIMIT REDUCTION STUDIES

As mentioned in Character Zone 6 Recommendations, the current speeds within this area are below the posted speed limit of 55 MPH, most likely due to the presence of 45 MPH and 35 MPH speed limits located on both sides of this segment. A detailed speed study of this area could determine the exact feasibility of a potential speed reduction to 50 MPH or 45 MPH, which would increase the safety and comfort of active transportation users. Additionally, NYSDOT has indicated a willingness to conduct a future speed study in the Crystal Beach area if traffic calming streetscape improvements are implemented.

VISION PLAN FOR TOWN OF CANANDAIGUA MIXED USE OVERLAY-3 DISTRICT

As discussed in the Regulatory Recommendations on pages 84-86, the Mixed Use Overlay-3 District in the Town of Canandaigua is envisioned as a gateway area that features mixed-use development and multimodal connectivity. In addition to considering the recommendations within this proposal, it is recommended that the Town, in conjunction with other stakeholders, commission a study to identify a clear vision for this area. This study should take into consideration the area's proximity to downtown, FLCC, CMAC, commercial development, the lakeshore, and the nearby FLCC nature trails, and seek to promote both active transportation and economic development. This study can be modeled on the Town of Canandaigua's study of its "Uptown" Mixed-Use areas, which was completed in 2019.

STATE ROUTE 364 & COUNTY ROAD 11

ACTIVE TRANSPORTATION
CORRIDOR PLAN

FINAL REPORT

Ontario County • Genesee Transportation Council • Barton & Loguidice • Landis Evans