Lakeville Corridor Strategic Plan

Genesee Transportation Council
Town of Livonia, Hamlet of Lakeville

Prepared for:
GTC
City Place
50 West Main Street, Suite 5131
Rochester, NY 14614

GENESEE TRANSPORTATION COUNCIL

The Metropolitan Planning Organization for the Genesee-Finger Lakes Region

C&S COMPANIES®

Molly Vendura LANDSCAPE ARCHITECT, PLLC

LIVINGSTON COUNTY 1821 NEW YORK STATE

Livonia Center · Hemlock · South Lima · Village of Livonia · South Livonia · Lakeville · TOWN OF LIVONIA

February 2024

Acknowledgments

Financial assistance for the preparation of this report was provided by the Federal Highway Administration and/or Federal Transit Administration through the Genesee Transportation Council. The project sponsor is solely responsible for its content and the views and opinions expressed herein do not necessarily reflect the official views or policy of the U.S. Department of Transportation.

GTC's Commitment to the Public

The Genesee Transportation Council assures that no person shall, on the grounds of race, color, national origin, disability, age, gender, or income status, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity. GTC further assures every effort will be made to ensure nondiscrimination in all of its programs and activities, whether those programs and activities are federally funded or not.

En Español

El Consejo Genesee de Transporte asegura que ninguna persona, por motivos de raza, color, nacionalidad, discapacidad, edad, sexo o situación económica, será excluida de participar en ningún programa o actividad, ni se le negarán los beneficios de los mismos, ni será objeto de discriminación de ningún tipo. El GTC, (por sus siglas en inglés) asegura además que se hará todo lo posible para asegurar la no discriminación en todas las actividades de sus programas, ya sea que esos programas y actividades estén financiados por el gobierno federal o no.

Table of Contents

Appendices (Separate Document)

SECTION 1

Executive Summary

Lakeville, a Hamlet in the Town of Livonia, is located on the shores of Conesus Lake and is a seasonal destination. Big Tree Road is the nexus of the local community and functions as the main street. This study sought to provide a framework for how Lakeville's main transportation corridor, Big Tree Road (NYS Route 20A) could be improved to better serve its residents and visitors with regards to connectivity, safety, resiliency, and attractiveness. The Genesee Transportation Council (GTC), on behalf of the Town of Livonia, recognized that the road was not functioning as well as it could be with issues related to localized flooding, lack of multi-modal accommodations, and no consistency in the corridor experience.

Existing plans and studies that were directly and tangentially related to the study were recorded as well as their relevance. Through the development course of the plan, the local community was engaged to ascertain what it collectively thought and wanted for Big Tree Road. Through feedback, the latent demand for other forms of transportation besides driving

was realized. It was identified that the community sought a well-planned multi-modal corridor that used elements of Complete Streets such as traffic calming, walkability, landscaping, and an emphasis on safety. Additionally, a defined sense of place in accordance with the principles of placemaking was requested. These ideas would coalesce to increase the economic vitality of the Hamlet by supporting the lake-focused businesses as well as promoting the welcoming community.

Ultimately, the following vision statement of the corridor was adopted:

Create a safe, attractive, and multi-modal corridor focused on Conesus Lake. A corridor that is a community connection for residents and businesses, and a destination for visitors."

Goals

The goals for this study were recognized needs to address the issues and opportunities along the corridor. All study recommendations were in support of the goals and the vision statement.

1. ***Protect and promote Conesus Lake***
2. ***Provide multi-modal accommodations***
3. ***Improve intersection function and operations***
4. ***Implement access management***
5. ***Create a sense of place***

Existing Conditions

Big Tree Road is owned and maintained by the New York State Department of Transportation (NYSDOT) Region 4. The corridor is classified as a minor arterial, which is intended to provide moderate length service trips, and serve as a connection to higher arterial systems. The corridor, starting at the western end and travelling east, changes slightly in its character throughout its length. The western end is comprised of mostly residences, with an existing sidewalk on the north side and plenty of shoulder space to accommodate bicycles. As one travels east, vehicle traffic almost doubles at the intersection of Rochester Road, and consists of mostly commercial businesses with an abundance of lake front housing on the south side. This section of the corridor has

Figure 1.1: Map of Study Area

a variable width shoulder and no sidewalk. There is periodic localized flooding within the corridor, and some existing drainage facilities in the form of catch basins and pipe, as well as roadside ditches. There are areas of excess pavement at property frontages resulting in a lack of defined ingress and egress and contributing to the quantity of stormwater runoff. The inventory of existing conditions was used to inform the needs and realize the strategic plan for the study area.

Corridor Strategic Plan

In order to have the most effective result in transforming the corridor, a plan was put together taking a multifaceted approach to planning including identified capital projects, services and programs, and policy and planning recommendations. These recommendations addressed the identified needs with the corridor vision at its foundation. Recommendations and strategies were broken into three categories:

Capital Improvement Projects

These projects are tangible design and construction projects to restore and enhance the corridor. Recommended capital improvement projects are segmented by geographical area, but could qualify as a single project. Capital improvement projects encompass infrastructure including curb and sidewalks, bicycle accommodations, intersection upgrades, enhanced crossings, green infrastructure, landscaping, and drainage infrastructure.

Services and Programs

Service and program recommendations are strategies to improve mobility and provide a variety of transportation services to close any gaps in public amenities. Services look at improving the transportation network, for example, reducing single occupancy vehicles which reduces congestion.

Policy and Planning

This initiatives provide an opportunity to address a myriad of system enhancements in a comprehensive and holistic manner. This is a coordinated approach and plan for investment which will effectively use resources long term.

Capital Improvement Projects

Capital improvement projects will provide enhancements to the corridor improving its functionality, safety, and resiliency. The recommended improvement projects will provide continuous pedestrian and bicycle connections, create a sense of place through streetscape amenities, improve stormwater management through collection and green infrastructure, and create a more consistent user experience along the corridor length. Capital improvement projects consisted of identified intersection and corridor projects, however, they could be combined into a single project. Projects were segmented to provide additional opportunity to obtain funding depending on funding cost constraints.

Intersection Projects:

- West Lake Road at Big Tree Road
  - Intersection Enhancements
  - Roundabout
- Rochester Road at Big Tree Road
  - Intersection Enhancements
  - Roundabout
- East Lake Road and Bronson Hill Road at Big Tree Road
  - Intersection Enhancements
  - Intersection Enhancements with Exclusive Turn Lanes

Corridor Projects:

- West Lake Road to Rochester Road
  - Addition of sidewalk, drainage improvements, landscaping
- Rochester Road to East Lake Road and Bronson Hill Road
  - Maintain two lanes in each direction with addition of sidewalk on both sides, drainage improvements, landscaping, streetscape amenities

- Maintain two lanes in each direction with a two way left turn lane, addition of sidewalk on both sides, drainage improvements, landscaping, streetscape amenities

Services and Programs

Wayfinding Signage

Wayfinding can enhance the overall experience of a place, providing branding and a unique sense of place. Livingston County has developed a guide for wayfinding to improve navigation throughout the County, and to support economic development, connect people with destinations of interest through consistency, and promote the County's unique assets and destinations. The Town could use wayfinding signage for gateways into the Hamlet, and for pedestrian and vehicle activity. This would also provide historical or educational interpretive signage opportunities to be placed throughout the community, including education related to the lake how to protect it with preservation efforts.

Share the Road Education Campaign

Transportation safety is a shared responsibility, pedestrians and bicyclists share the street with vehicles today, using the shoulder as multi-modal space. Through the public outreach process, it was realized that there is a concern for safety due to the driver behavior in the area. It is recommended to do a driver education campaign about sharing the road with multiple modes, and rules of the road for all users.

Promote Active Transportation

Market and promote active transportation (benefits, wayfinding, historic/cultural components, etc.), as this is a benefit that supports vitality, public health, and economic development in the area. Walking, bicycling, and the use of transit can be promoted through infrastructure (sidewalk, shoulders, transit stop amenities), and wayfinding signage.

Policy and Planning

Pedestrian Overlay Zone

To encourage multi-modal activity, overlay zone districts target improving mobility through zoning regulations. This zoning regulation tool will generally improve the pedestrian experience by using a variety of methods to enhance safety, improve the public realm, and promote walkability.

Updated Access Management Policy

Currently, there is a lack of access management for properties along Big Tree Road which creates the perception that the roadway is unsafe. Without defined ingress and egress, there are more conflict points to occur between vehicles, and vehicles with other modes. Lack of access management has also resulted in large areas of asphalt and impermeable surfaces which contribute to flooding and increased stormwater runoff. The Town of Livonia can update their current access management policy to include additional elements. The Town should coordinate with roadway jurisdictional owners to ensure that the access management policy is adhered to at the site plan approval stage.

Updated Design Guidelines and Standards

The existing Town and Village of Livonia Design Criteria and Construction Specifications for Land Development was adopted in January 2007. There have not been updates to the standards since their adoption. Since 2007, there has been a shift in the approach to development with a focus on enhancing public health, safety, and equity. An update to the design criteria is recommended to reflect more sustainable development. It is also recommended to incorporate a section into the criteria for site plan design related specifically to new site development, changes to existing uses, sites, or structures.

These specific guidelines would apply to the design and construction of site projects outside of single-family home sites/developments. Updated guidelines should also include a pedestrian centric design with minimum parking lot sizes, include infrastructure to promote different mode choices, design that protects the natural environment, and a site design focused on sustainability.

Stormwater Management Policy

Due to current flooding issues and absence of stormwater management in the corridor, it is recommended to add additional zoning code language related to stormwater management within site design, and to develop a stormwater management policy and design guidelines specific to the Town. This policy would guide development using an added layer of safeguards with stormwater management. The requirements would be based around ensuring that all development, redevelopment, and disturbance activities are done in a way that protect the water quality, including the waterfront, and enhancing the shoreline with improving water quality and preventing erosion.

Plan Implementation

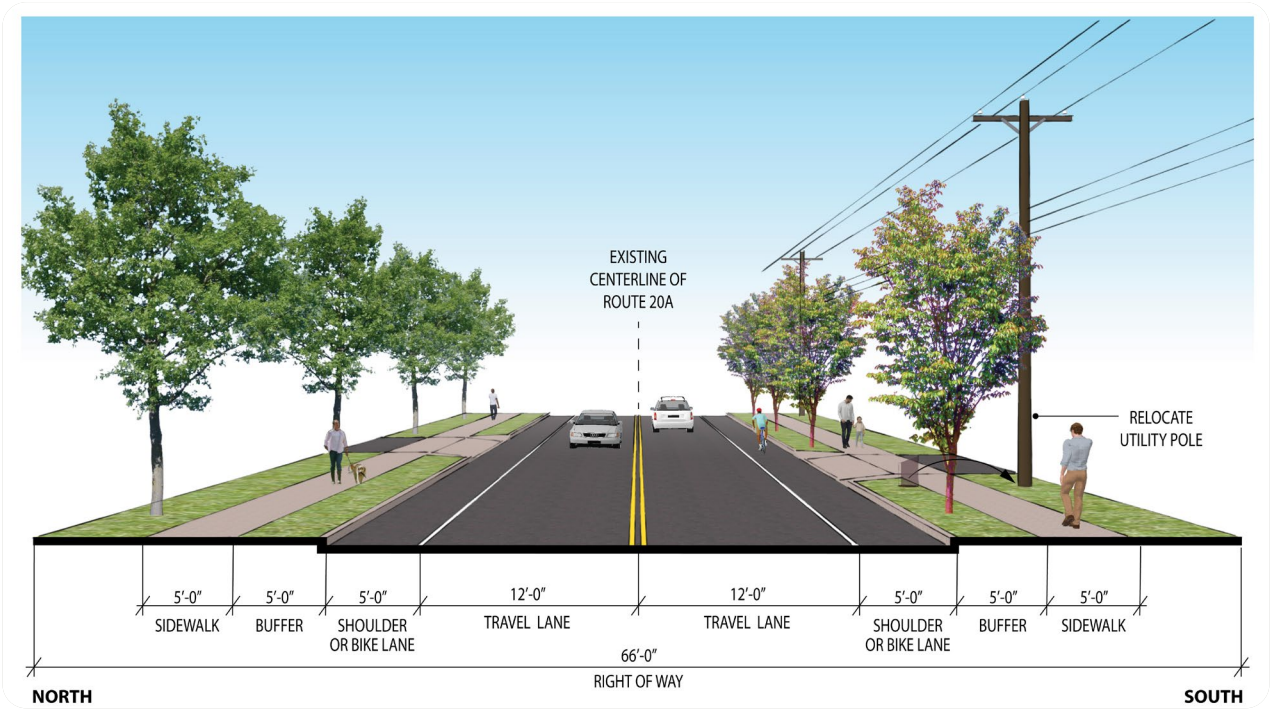
Priority Projects

Each of the recommendations for capital improvement projects, services and programs, and policy and planning initiatives have identified funding sources and implementation costs. Following public outreach and Steering Committee feedback, project priorities were developed to give the Town and stakeholders direction on where to focus efforts and resources for implementation. The near term priorities have a focus on capital improvement projects, which will be dependent on funding availability. The selected priority projects are:

Capital Improvement Projects

Corridor Project: Rochester Road to East Lake Road and Bronson Hill Road

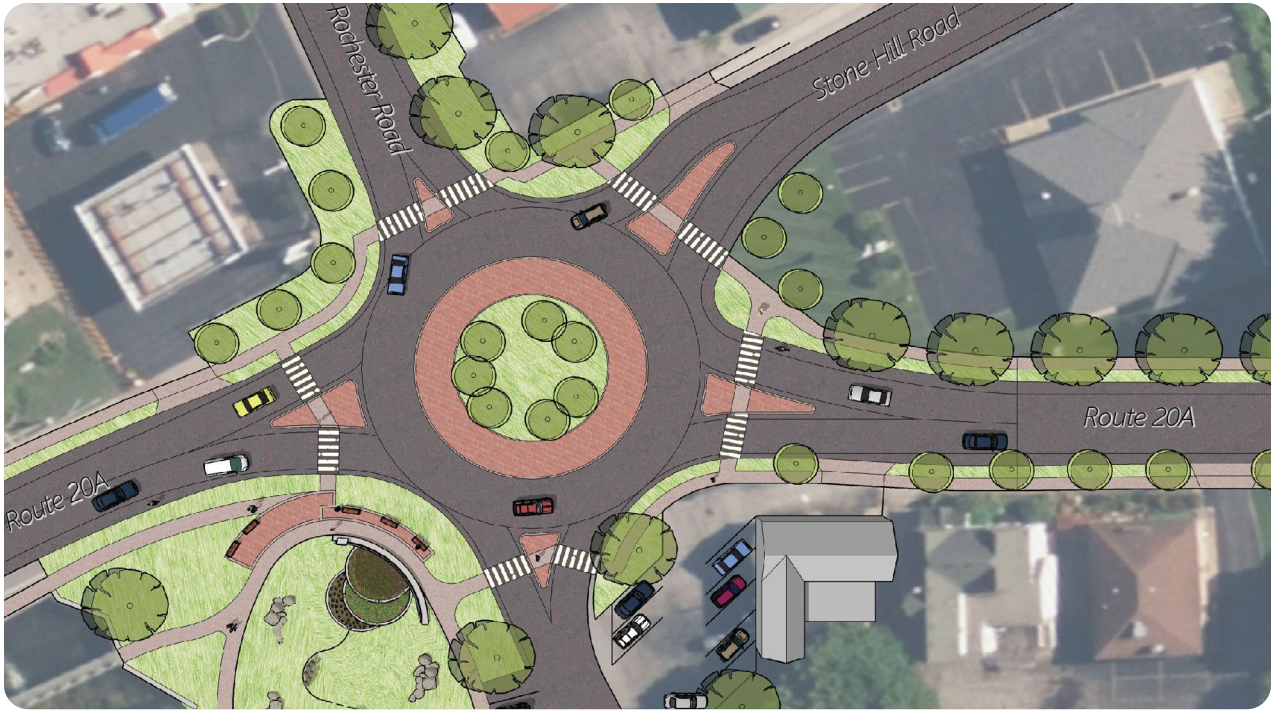
This project would include full depth reconstruction of Big Tree Road from Rochester Road to East Lake Road and Bronson Hill Road to install curb, sidewalk, and closed drainage. Two primary alternatives were identified for the roadway section, (1) maintain two lanes in each direction and 5' shoulders, or (2) maintain two lanes in each direction with a two way left turn lane and 5' shoulders. Sidewalks would be provided on both sides of the corridor, and include landscaping and streetscape amenities such as street furniture and lighting. To assist with localized corridor flooding, stormwater would be collected through a close drainage system, and conveyed to green infrastructure to be cleaned and ideally infiltrated, depending on soil and subsurface conditions.



Corridor Project: Rochester Road to East Lake Road and Bronson Hill Road

Intersection Project: Rochester Road at Big Tree Road

Two alternatives were identified for intersection improvements at this location, the installation of a single lane roundabout, or the realignment of the southern approach of the intersection with signal upgrades. The preferred alternative was the installation of a single lane roundabout. The roundabout could be used as a gateway element into the heart of the Hamlet, and provide the added benefit of a traffic calming feature. Also proposed in this project would be sidewalks and crosswalks, stormwater management, and other gateway elements such as signage and landscaping.



Rochester Road at Big Tree Road

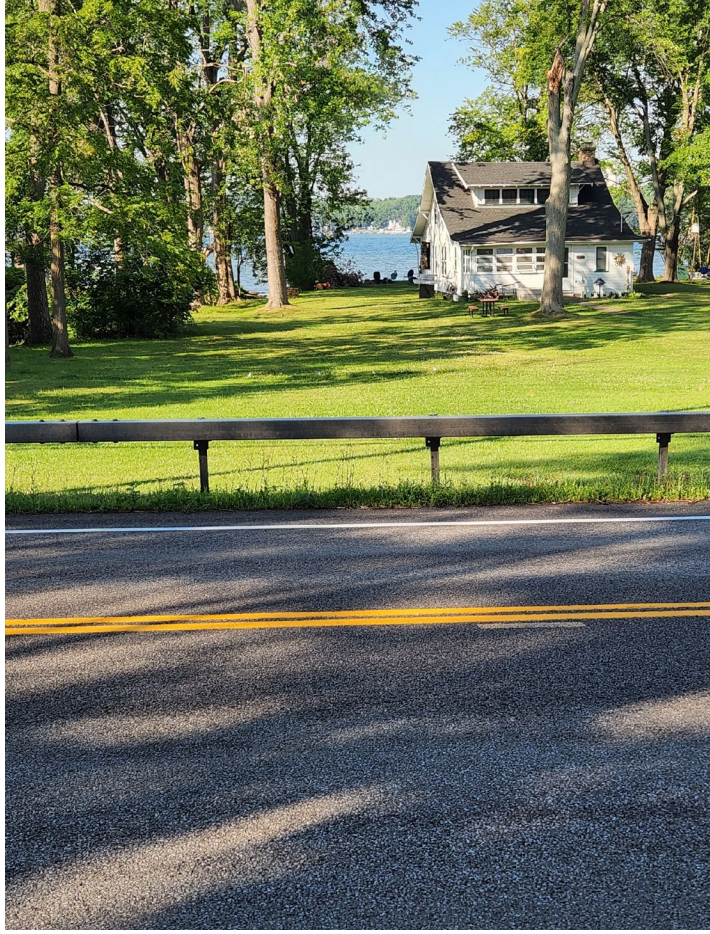
Planning

Stormwater Study for Larger Watershed Area

To fully understand and mitigate localized flooding in the corridor, a stormwater study should be conducted for the greater watershed area to identify contributing runoff to Big Tree Road. There are existing pipes and sources connecting to the existing stormwater system on Big Tree Road, but the sources of these connections remains unidentified in some areas. There has been some red dye testing and other investigative efforts to try and identify tributary sources, but there has been no comprehensive investigation or study for the overall area. This effort should be in alignment with the ongoing Conesus Lake Stormwater Management Plan Update, and other initiatives through Livingston County and the Conesus Lake Watershed Council.

SECTION 2

Introduction



Background and Purpose

The Town of Livonia, in conjunction with Livingston County, initiated this corridor strategic plan through the Genesee Transportation Council (GTC), to study this major corridor Big Tree Road (NYS Route 20A) in the Hamlet of Lakeville. With space available for future development, a plan is needed to determine phased investments along with the goal of promoting resiliency through smart planning, roadway improvements, and putting infrastructure in place to strengthen the economic vitality of the local area.

Through an existing and future conditions assessment, Steering Committee and public input, and existing framework and relevant plans, this plan was developed for the following purposes:

- Stormwater Management: Address stormwater issues including ponding, flooding on properties and roadways, and water quality to the lake
- Bicycle and Pedestrian Safety: Active transportation and multimodal improvements

- Traffic Safety and Efficiency: Enhance safety and efficiency along the corridor and at select intersections
- Economic Development: Create an opportunity for smart development

Livingston County and the Finger Lakes Region have put forward vast planning efforts and implementation to improve transportation and connections to amenities throughout the region. With Lakeville's current tourism draw and the need to advance safety within their downtown along Conesus Lake for residents and visitors alike, the project corridor is in need of this strategic plan to address long-standing needs and identify new transformative opportunities. This corridor strategic plan is centered on the implementation of recommendations to promote and protect critical assets in the community, while creating a sustainable and resilient transportation network. This plan takes a multifaceted approach to planning by recommending short and long term strategies including capital improvement projects, services and programs, and policy and planning initiatives. The strategic plan will be used as a tool for the Town of Livonia to advance key initiatives that are local priorities.

Map of Study Area

Study Area

The Hamlet of Lakeville is a census designated place in the Town of Livonia, located at the northern end of Conesus Lake. The Town of Livonia is located within the northeastern section of Livingston County, which is part of the Finger Lakes Region of New York State. Lakeville is located directly off of I-390, approximately 30 minutes south of the City of Rochester, and less than an hour and thirty minutes southeast of the City of Buffalo. Lakeville is .66 square miles and has a population of 694 according to the 2020 United States Census. Due to being located directly on Conesus Lake, a popular Finger Lakes destination, the Hamlet hosts a large number of seasonal residents and visitors during the late spring and summer months.

Map of Hamlet Lakeville

This plan focuses on Big Tree Road (NYS Route 20A) from the intersection with West Lake Road, to the intersection with Bronson Hill Road at East Lake Road, approximately 7,000 linear feet. This corridor is a major east-west connector in the Hamlet, and links Lakeville to the Village of Livonia to the east, and the Town of Geneseo to the west. The roadway is highly traveled by residents and commuters, as well as visitors in the summer months. The corridor's characteristics are varying and include less dense residential lots on the western portion, and it gradually becomes denser with commercial activity and lakefront residential properties traveling east.

Steering Committee

Working alongside this plan was a Steering Committee that included a working group of agency members, residents, business owners, and community representatives who have personal investment in the Hamlet. The Steering Committee included representation from GTC, Town of Livonia, Livingston County, New York State Department of Transportation (NYSDOT), and the Conesus Lake Association. The Steering Committee was established by The Town at the commencement of this study.

Steering Committee meetings were held throughout this study, and committee members had input on all aspects of the study including existing conditions, public outreach efforts, and all plan components. This was an active and engaged Steering Committee that wholly participated throughout the study process including assisting at and participating in public outreach events, providing meaningful feedback on plan components, and engaging with the community.

Steering Committee Members	
Members	**Affliation**
Adam Backus	Livonia Department of Building and Zoning
Rick Bennett	Livonia Town Planning Board
Joe Bovenzi	Genesee Transportation Council
Megan Crowe	Livingston County Planning Department
Pete Dougherty	Livonia Town Board
John Fama	Local Business Owner
Julie Holtje	Livonia Department of Building and Zoning
Lora Leon	New York State Department of Transportation
Doug Major	Conesus Lake Association
Kevin Masterson	Resident
Dave Petrowski	Resident
Michael Sharman	Livonia Town Zoning Board
Ted Sotir	Resident
Noelle VanDeursen	Resident
Chris Wegener	Business Owner

Table 2.1: Steering Committee Members

Public Engagement

An inclusive community visioning process is integral to any planning project, helping set the stage for successful implementation of final recommendations. Our team engaged with the community through three public meetings:

- **Public Meeting 1 (Project Planning Meeting):** This meeting provided an overview of the project and its associated goals and vision statement. The objective of this meeting was to gather insight from the community on identifying issues and needs, while collecting feedback on the vision statement.
- **Public Meeting 2 (Community Visioning Workshop):** This meeting provided roadway improvement concepts in the form of typical sections, plan views sketches and renderings. The focus was to obtain public feedback on the

proposed roadway improvement projects at all of the project intersections and segments within the corridor.

- **Public Meeting 3 (Strategy Review Meeting):** This meeting provided an overview of the entire study to date. Attendees were also given information on stormwater management strategies within the corridor. All of the proposed capital improvement projects were placed on a board, and participants did dot polling for the projects that were most important to them.

Public engagement efforts with additional details on event information and results are included in additional sections of this report, as well as **Appendix A.**

Public Meeting 1

Public Meeting 2

Public Meeting 3

SECTION 3

Inventory of Existing Conditions

History

Lakeville was built around a grist mill started by John Bosley of Maryland in 1792 on the Conesus Lake outlet which allowed for development of housing and businesses to support mill operations. To this day it remains the only settlement on the lake. Prior to mill development, Conesus Lake was settled by the Seneca Indian populations. In 1814, Lakeville became more established with streets, lots, a public square, and was situated at the crossing of two major stage coach routes; Canandaigua to Geneseo and Rochester to Dansville. The stage coach route to Rochester is adjacent to what is now West Lake Road. This route hosted the Kimbark Hotel for travelers passing through in an area referred to as Upper Lakeville.

In the later part of the 19th century, winter ice harvesting became a premier industry. Large chunks of ice were cut from Conesus Lake and moved using horse-power and bobsleds. Ice was shipped to

Ice Harvesting on Conesus Lake

McPherson Steamer on Conesus Lake

Rochester by the Conesus Lake Railroad Company which was built in 1882, with the name "True Switch." After the opening of the Brown & Bailey Milk Plant in 1904, which was situated on the north side of Big Tree Road, milk condensing became a prevalent industry for over 75 years.

In the late 19th and early 20th century, visitors traveled via train into Lakeville to board lake steamers such as the McPherson, J.A. Ritz, and the Conesus to enjoy destinations located on the lake and charter the boats for an afternoon. At the same time, Lakeville continued to grow into a holistic community with churches, schools, and retail stores. Completed construction of I-390 Expressway in the early 1980s allowed for increase travel to Lakeville. Due to this, the Hamlet's density increased with new businesses along and surrounding NYS Route 20A. Auto repair shops, restaurants, storage buildings, apartments and new housing, and offices were constructed throughout Lakeville. The lake steamers, new transportation connections, and the development of communities surrounding Conesus Lake allowed for Lakeville to succeed as a viable community and remain a destination to this day.

Demographic and Socioeconomic Analysis

Lakeville is a small Hamlet of 694 residents and is located within the Town of Livonia. The Town of Livonia has a larger population of 7,809 which also includes the 1,472 residents of the Village of Livonia (see Table 3.1).

Approximately 12% of Lakeville's population is over the age of 65, and the median age is 42.7, nearly 3 years of age higher than the median age in New York State. Nearly 15.4% of people in Lakeville are

Population Data			
Municipality	**2000 Population**	**2010 Population**	**2020 Population**
Lakeville	Data Not Available	756	694
Livonia - Village	1,372	1,409	1,468
Livonia - Town	7,286	7,809	7,390
Livingston County	64,328	65,393	61,834

Table 3.1: Population Data

at or below the poverty level, this is 2% higher than New York State. The majority (64%). of individuals living in poverty are those under the age of 18 (www.census.gov, accessed January 2023).

According to the United States 2020 Census, 89% of Village of Lakeville residents are White. This percentage is similar to the Town of Livonia (91%) and Livingston County (88%). Portions of Lakeville are considered an Environmental Justice (EJ) area as determined by the Environmental Protection Agency (EPA) due to portions of the Hamlet being in the 95-100 percentile for unemployment and 70-80 percentile for being over the age of 65. Areas bordering the study area are within the 80-90 percentile for unemployment. The study area also falls into the 70-80 percentile for asthma among adults (http://ejscreen.epa.gov/mapper, accessed January 2023).

Natural Resources

A natural resource adjacent to Lakeville that is vital to the area and surrounding communities is Conesus Lake. Conesus Lake is one of the smaller Finger Lakes due to its area and length, and the second shallowest. The lake is a source of drinking water for the Villages of Avon and Geneseo, the Towns of Avon and York, and a majority of the Town of Geneseo. Conesus Lake provides drinking water for approximately 34% of the residents in Livingston County. Other important uses for Conesus Lake include flood control, fish spawning, and a downstream release for the Livingston County Water and Sewer Authority (LCWSA) wastewater treatment facility.

In addition to its contributions to the health of the surrounding communities as a drinking water resource, Conesus Lake provides recreational activities and year round economic benefits to the area. The lake freezes almost every winter which allows for ice fishing. The lake also is used for boating and water sports in the warmer months, and hosts fishing tournaments.

Parks and Recreation

Vitale Park, which sits along the northern Conesus Lake border, provides walking trails, places for sitting and enjoying views of the lake, access to the water for fishing, a basketball court, pavilions and picnic tables, and a small playground. The park is open to residents and visitors year-round and hosts two separate buildings, the Chip Holt Nature Center and the Watershed Education Center. Vitale Park also hosts a summer concert series drawing thousands to enjoy live music and the waterfront during the Finger Lake's busiest time of year, assisting it with making it the second most-visited park in Livingston County.

Vitale Park

Boaters on the lake are also known to park their boats and walk to the northern shore placing them at the heart of Lakeville.

Floodplains and Flood Risk

Portions of the study area south and north of Big Tree Road fall into 100-year floodplains due to its adjacency to Conesus Lake. The floodplain area has a variety of land uses including residential homes, parks and recreation, commercial, and public services. Floodplain areas are also located east and west of Conesus Creek (figure in Appendix B). Due to adjacency to waterbodies, the study area and Hamlet are at an 80% to 90% flood risk according to the EPA (figure in Appendix B). The 80% to 90% flood risk is the probability for the risk of flooding in an area. The corridor being in the floodplain area only furthers the need to plan and implement resilient transportation infrastructure.

Existing Plans and Studies

There are numerous plans, studies, and framework which have been developed throughout the years that are integrated into this project. Table 3.2 highlights some of the development plans along the corridor, mostly related to stormwater. Following the table are resources that are relevant to this project

Existing Plans and Studies

Title	Date	Existing or Proposed	Details
Plans and Studies			
Lakeville-Livonia Trail Feasibility Study	2006	Existing	Feasibility study for the Lakeville-Livonia Trail.
Development Plans			
Lakeville As-Built Plan – OSB Ciderworks	1/24/2022	Existing	Drainage and Utility map of Lakeville
Big Tree Stormwater	12/9/2022	Existing	Map of Stormwater flow on Big Tree Road
Lakeville Stormwater Feasibility Review	2/28/2021	Proposed	Conceptual stormwater plan and map for Lakeville
Proposed Building Addition – OSB Ciderworks	6/26/2019	Proposed	Stormwater Management Plan for a proposed building
Conesus Lake Stormwater Toolkit	2017	Existing	Outline governmental practices for lakeside flooding. Details agency jurisdictions, emergency permits, joint permit process, and disaster declarations.
Big Tree Road 3 Lot Minor Subdivision	6/7/2004	Existing	Map of properties along Big Tree Road and Bronson Hill Road
3415 Rochester Road Site Plan	10/25/2011	Existing	Land Development Plan for property currently occupied by 3 Legged Pig on Rochester Road
Site Plan Approval, 6028 Big Tree Road	7/11/2000	Existing	Land Development Plan off of Big Tree Road
Conesus Lake Compact Outlet Improvement Project	5/31/1977	Existing	Old project plan and map. Created to reduce lakeside flooding in Lakeville

Table 3.2: Existing Plans and Studies

for the strategic plan implementation.

Existing Framework and Studies Related to Overall Study Area

Livonia Comprehensive Plan, Updated 2003 (an impending update is anticipated to begin in 2024)

Overview: The Town Comprehensive Plan is a guide and vision to plan for the future to promote change and progress. The Comprehensive Plan outlines the Town's mission and community goals.

Relevance to this Study: The Hamlet of Lakeville has a section in the Comprehensive Plan that outlines a vision for its future. Many of these vision components are in alignment with the study, and include:

- View of Conesus Lake
- Intersection Improvements
- Pedestrian Accommodations
- Waterfront Redevelopment
- Gateway Park Road Implementation
- Future Land Use

These vision components will be considered when developing the needs assessment, vision statement, and recommendations along the corridor. The Comprehensive Plan also contains Access Management Plans, a Recreation Master Plan, and a Conesus Lake Watershed Management Plan, all of which may be used as a foundation in recommendations for this study. The Town has been awarded a Consolidated Funding Grant in 2023 to update the Comprehensive Plan. This will allow for the recommendations of this study to be included in the updated Comprehensive Plan, and amendments made to zoning code language to address needs identified in the next section of this report.

Existing Framework and Studies Related to Transportation

Implementing Complete Streets in the Genesee-Finger Lakes Region, December 2022

Overview: This guidebook was created with the assistance from GTC working with the Villages of Penn Yan and Perry to create and implement a complete streets policy. The guidebook includes challenges, lessons learned, and potential best practices.

Relevance to this Study: This guide could be used on how to incorporate complete streets policies within local regulations. There are also many complete streets elements outlined in this guide which could be incorporated into the study area.

Livingston County Wayfinding Strategy, April 2021

Overview: This plan was recently completed with overarching goals to improve navigation throughout Livingston County, support economic development, and visually connect and promote various destinations throughout the County. There was a focus on the nine villages throughout the County, and a brand of signage was developed for wayfinding to be used at a county and village level. Downtown placemaking strategies are identified that include streetscape elements such as landscaping and amenities.

Relevance to this Study: As a part of the needs assessment, outreach process, and steering committee input, it may evolve that the Hamlet is in need of wayfinding, streetscape elements, and placemaking.

- The plan includes wayfinding signs, recommendations, and designs that could be applied to the Hamlet and maintaining a visual brand already developed through Livingston County, providing a more cohesive transportation system.
- There are monetary incentives to purchase signage through this study based on a packaged discount with other villages and municipalities in Livingston County.

Livingston County Transportation Connectivity Plan, December 2013

Overview: This is a countywide plan to develop and support a sustainable and equitable transportation system for existing and future conditions.

Relevance to this Study: Lakeville is called out specifically in the connectivity plan for the following items:

- Need for transit services between Geneseo to

Lakeville.

- Determine feasibility of installing bicycle infrastructure along Big Tree Road (NYS Route 20A).
- Strategies outlined to meet various countywide goals that could apply to this corridor include:
- Implementing standard roadway cross sections that include pedestrian/bicycle infrastructure.
- Provide pedestrian/bicycle amenities such as bike parking, landscaping, street furniture, etc.
- Close gaps in trail networks and improve trailhead access/amenities.
- Market and promote active transportation (wayfinding, benefits, historical/cultural components).
- Install intersection- and pedestrian-level lighting.
- Educate the public on the rules of the road – all users/modes.
- Enhance existing and create new transit stops – ensure safe and secure pedestrian/bicycle access/ADA compliance.
- Establish service/maintenance agreements.
- Continue to identify and leverage funding options to address key infrastructure deficiencies.
- Encourage growth directed towards Hamlets and village centers and continue to support downtown revitalization efforts.

Finger Lakes Regional Sustainability Plan, April 2013

Overview: This sustainability plan was funded through New York Cleaner Greener Communities (CGC) program. The plan incorporated Livingston County, and 8 other surrounding counties in the Finger Lakes Region. The vision statement for the plan is as follows, "The Finger Lakes Region will work collaboratively to honor and leverage its unique character and assets – its Story of Place – to integrate, evolve, advance, and make whole its natural, built, human, social, and financial capital, which serve as the foundation of its environment, economy, and society. The result will be a healthy, safe, and affordable place to live, work and play for all residents for current and future generations."

Relevance to this Study: There are opportunities, challenges, and goals related to this study, including areas such as transportation, land use and livable communities, water management, and economic development. Some examples of targets for each subject that could related to this project include:

- Provide and promote alternative modes of transportation
- Promote livability corridors
- Leverage transportation assets to encourage economic development
- Maintain and improve the functionality, safety and efficiency of the existing transportation infrastructure
- Create healthy, safe, sustainable communities
- Revitalize existing centers and prioritize the value of placemaking
- Preserve existing ecosystem services and promote green infrastructure to reduce reliance on grey infrastructure

Existing Framework and Studies Related to Stormwater Management

Livingston County Water Supply Study, Updated December 2020

Overview: An update to the original comprehensive water supply study (1991) that led to water improvement projects throughout the County. This update provides an assessment of the water quantity and quality after the improvement projects, as well as outlining additional goals related to water quality. The corridor study area was specifically identified in this water supply study by:

- Conesus Lake Watershed is identified as impaired.
- Major Pollutants include:
  - Nutrients such as phosphorus
  - Agal growth, invasive species, and low oxygen demand.
  - Silt, sediment, and disinfection by-products
- Conesus Creek, which feeds to Conesus Lake and is within the study area, has minor impacts with the following suspected pollutants:
  - Nutrients such as phosphorous
  - Silt and sediment

Relevance to this Study: The Conesus Lake Watershed is identified in the study, and its importance of maintaining water quality on Conesus Lake because it is used as a drinking supply for 34% of the residents in Livingston County. Concerning issues of Conesus Lake that this study should consider and assist in mitigating to the extent possible within the study area by using best practices for stormwater management.

Conesus Lake Watershed Management Plan, March 2003 (currently being updated)

Overview: This document was developed to restore and protect Conesus Lake. It covers everything from current lake uses, water quality, impairments, watershed information, and recommended actions.

Relevance to this Study: With the need to improve the water quality of Conesus Lake, the action plans developed can be incorporated into recommendations for this study. Some of the relevant action items can be:

- Review and amend zoning regulations to improve consistency in near-lake areas and address specific water quality related concerns in the watershed.
- Adopt local sediment and erosion control laws based on the Conesus Lake Watersehd Management Plan (CLWMP) Model Erosion and Sediment Control Law.
- Develop public education campaigns (or promote if existing) to include, but not be limited to, the following:
  - ⮡ Encourage planting and protection of streamside vegetation
  - ⮡ Discourage use of herbicides, pesticides, and fertilizers on shoreline properties or in the watershed
  - ⮡ Erosion control and lake-friendly landscaping
- Identify and develop sites for regional stormwater treatment areas in cooperation with NYSDEC and other stakeholders.
- Provide training on erosion control practices for municipal highway departments to support compliance with state and federal Phase II Storm Water Regulations.
- Implement best management practices, such as hydroseeding or other approved methods, as soon as possible after road construction or maintenance activities occur in the watershed. The goal is to have all road construction and maintenance activities subject to hydroseeding or other appropriate BMPs within three days.
- Municipal highway departments should develop a plan, subject to available funding, to remediate ditches in poor condition.

This plan is currently in the process of being updated. The Conesus Lake Watershed Management Plan update will be in alignment with recommendations and initiatives outlined later in this report, taking a more comprehensive look at the watersheds around Conesus Lake.

NYSDEC Harmful Algal Bloom Action Plan for Conesus Lake, No Date

Overview: Provides background information about Conesus Lake, including drinking water and history, conditions triggering HABs, lake management, priority projects, and action plans.

Relevance to this Study: Incorporate action plans from this document into this study. Action items included that pertain to this study include:

- Use stormwater management practices for curtailing runoff from developed land.
- Encourage public participation in initiatives for reducing phosphorous and increasing awareness.
- Address roadside ditch management with best practices through coordination with NYSDEC and NYSDOT.
- Continue to support and target municipal decision makers about water quality strategies.
- Identify technical resources for best management practices with funding opportunities. This includes studies and capital improvement projects.

Land Use and Zoning

Land Use

There are a variety of existing land uses along the study area corridor. The highest land use in terms of percentage of parcels is Residential (Class Code 200). There are also high numbers of vacant land and commercial uses surrounding the study area. The lowest percentage of land uses surrounding the study area corridor are Recreation & Entertainment (Class Code 500) and Public Services (Class Code 800) which account for less than 2% of overall land use.

Study Area and Land Use		
Class Code Land Use	**Number of Parcels**	**% of Total**
200 - Residential	85	52%
300 – Vacant land	28	18%
400 - Commercial	33	20%
500 – Rec and Entertainment	2	1%
600 – Community services	4	2%
800 – Public Services	1	<1%
900 – Wild, forested, conservation lands and parks	9	6%
	TOTAL	100%

Table 3.3: Study Area Land Use

Residential land uses are located north and south of Big Tree Road. Commercial land uses are mainly found to the north of Big Tree Road and at the corner of Big Tree Road, Stone Hill Road and Rochester Road. Wild, Forested, Conservation Lands and Public Parks (Class Code 900) can be found south of Big Tree Road and north of Conesus Lake which includes Vitale Park and lands surrounding the Park.

Vacant land accounts for 18% of land use and 147 acres along the study area corridor. Vacant properties are concentrated near the gateways of the study area.

Zoning

The study area corridor travels through four different zoning districts including the Gateway Commercial District, Agricultural Residential District, Waterfront Development District, and Neighborhood Residential District. These districts are part of the Town of Livonia's zoning code.

- The Gateway Commercial District lies north and south of Big Tree Road at both ends of the corridor and at the major intersection of Big Tree Road, Stone Hill Road and Rochester Road.
- The Waterfront Development District sits between Big Tree Road and Conesus Lake and encompasses Vitale Park and surrounding properties including both public, private, and vacant land.
- The Neighborhood Residential Districts are located primarily along Conesus Lake's waterfront south and north of Big Tree Road bound by the Gateway Commercial and Mixed-Use Districts.
- The Agricultural Residential Conservation District (3) is located south of Big Tree Road and is comprised over larger parcels with little development.

Study Area Zoning Types

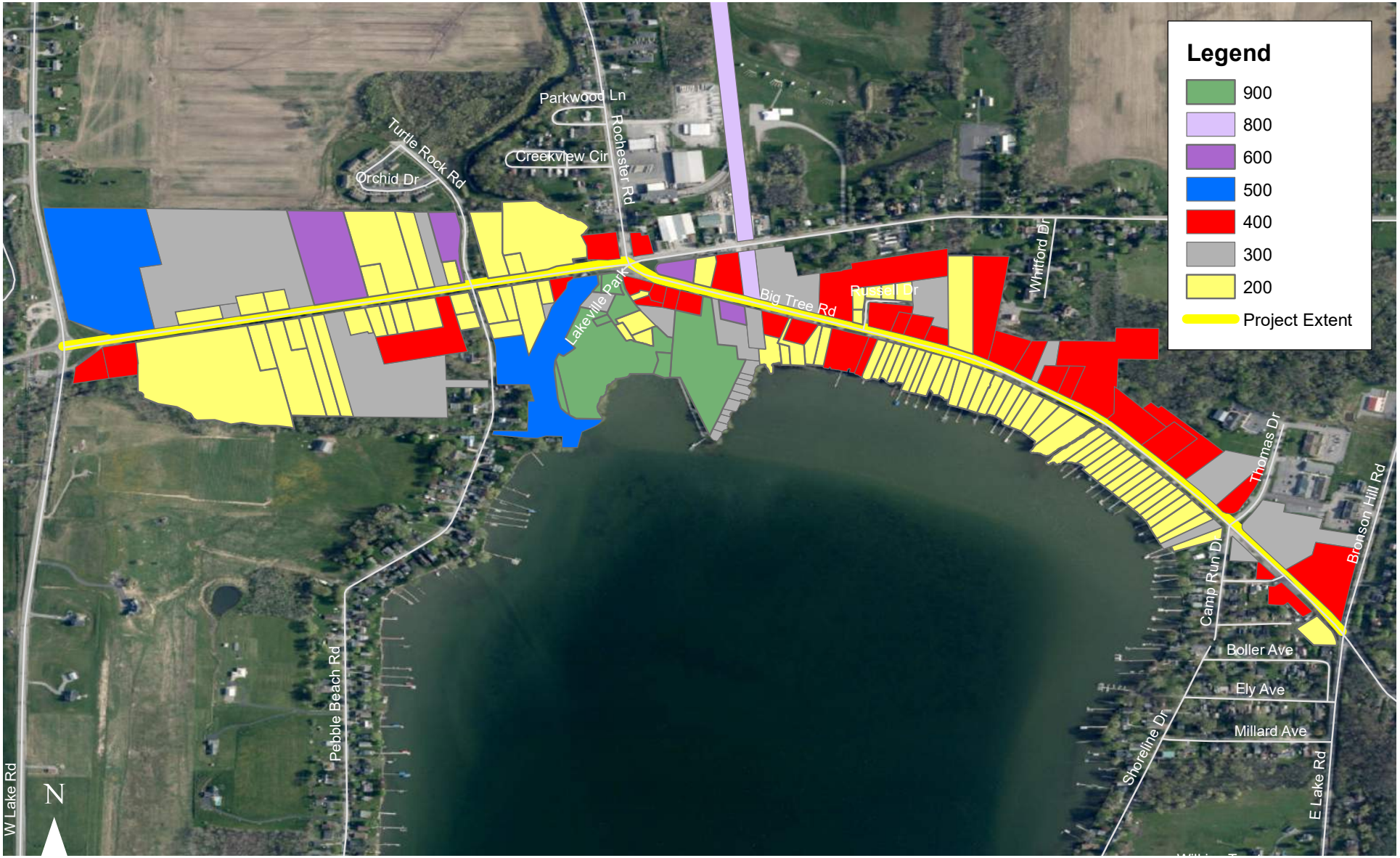
District: Gateway Commercial

Intent: Convenient commercial uses with local and regional clientele. Appealing pedestrian environment and linkages to other uses.
Permitted Uses: offices, services, retail, commercial recreation, B&Bs, childcare, mixed use, restaurants, public uses, bars, residential care facilities, outdoor recreation, movie theaters, drive ins, health center, motor vehicle sales, convenience stores, warehouses, and solar.

District: Waterfront Development

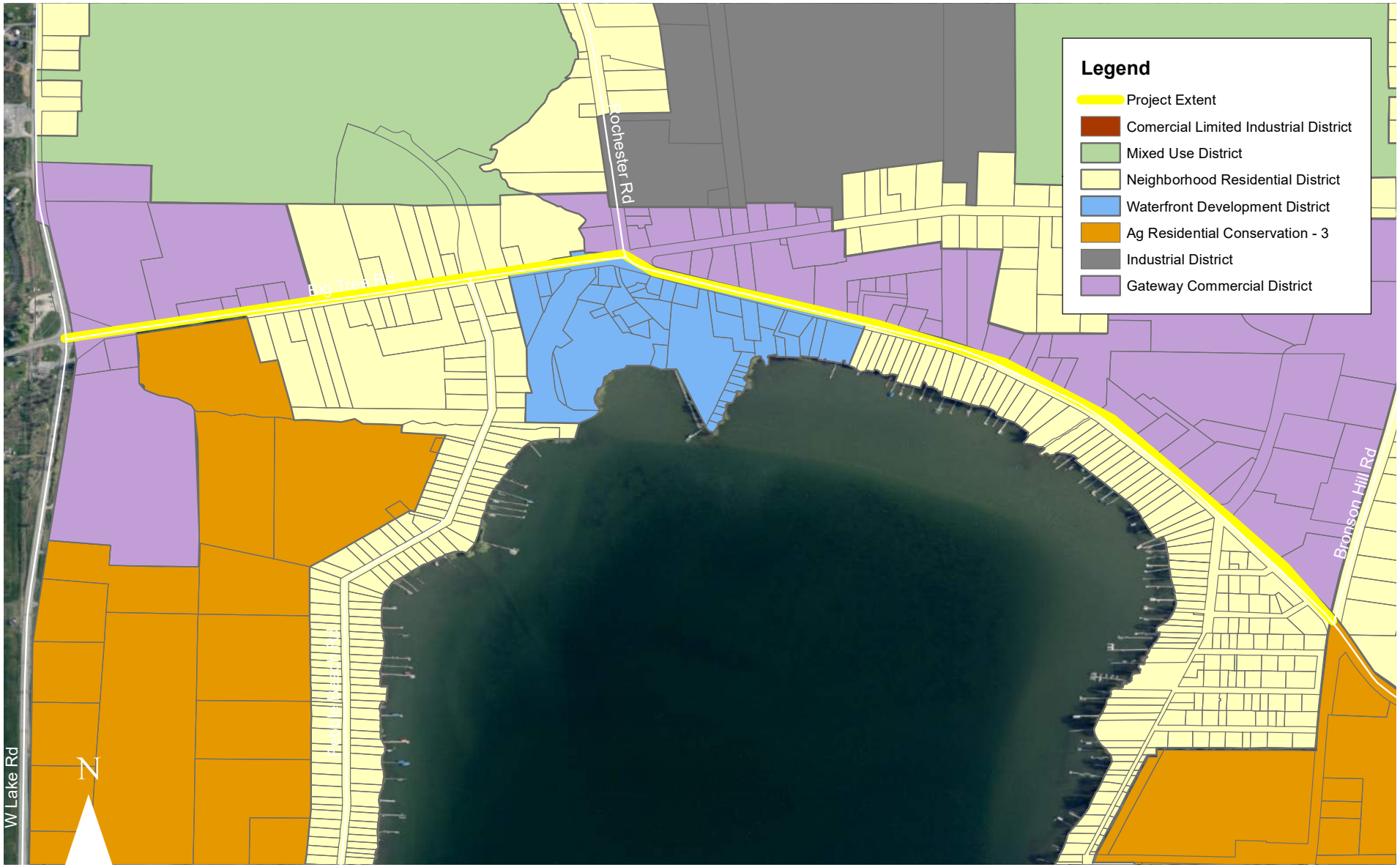
Intent: Encourage water-dependent and water-enhanced commercial uses in appropriate areas along Conesus Lake.
Permitted Uses: Retail / services less than 40,000 sf relating to water products and services, single, two-family, and multifamily dwellings, bars,


Lakeville


Legend
900
800
600
500
400
300
200
Project Extent
Parkwood Ln
Turtle Rock Rd
Orchid Dr
Creekview Cir
Rochester Rd
Whitford Dr
Lakeville Park
Big Tree Rd
Russell Dr
Thomas Dr
Bronson Hill Rd
Camp Run Dr
Boller Ave
Ely Ave
Millard Ave
Shoreline Dr
E Lake Rd
Pebble Beach Rd
W Lake Rd
N

Land Use Map


Lakeville


Legend
Project Extent
Comercial Limited Industrial District
Mixed Use District
Neighborhood Residential District
Waterfront Development District
Ag Residential Conservation - 3
Industrial District
Gateway Commercial District
Rochester Rd
Big Tree Rd
Bronson Hill Rd
W Lake Rd
N

Zoning Map

restaurants, commercial recreation, utilities, drive-ins, hotels and motels, convenience store with fuel sales, marinas and boat services, public use, B&B, and private clubs.

District: Neighborhood Residential

Intent: Variety of residential development that efficiently uses municipal services and provides convenient access to employment, retail, service, institutional, and recreational centers.

Permitted Uses: Singe, two-family, and multifamily dwellings, double wide homes, day care facility in private dwellings, roadside stands, agricultural operations, residential care facilities, utilizes, public use, B&B, funeral home, day care center, home occupation, professional services.

District: Agricultural Residential Conservation (3)

Intent: Limited residential development at a density outside of neighborhood service centers to encourage preservation of open space and natural features.

Permitted Uses: Single and two family dwellings, double wide manufactured homes, day care facility in private dwelling, roadside stands, agricultural and farming operations.

Roadway Characteristics

Big Tree Road (US Big Tree Road / NYS Route 15), is owned and maintained by the New York State Department of Transportation (NYSDOT) Region 4. This segment from West Lake Road to East Lake Road/Bronson Hill Road includes seven intersections, two traffic signals, and a single lane in each direction with a striped shoulder. The functional classification of Big Tree Road is a minor arterial, which is intended to provide moderate length service trips, and serve as connectors to higher arterial systems, providing intercommunity continuity.

Existing Roadway Features	
Route No. & Name	NYS Route 15/US Big Tree Road
NHS/Non-NHS	Non-NHS
Maintenance Jurisdiction	NYSDOT Region 4
Functional Classification	Minor Arterial
Terrain	Level
Truck Access/Qualifying Highway	Truck Access: Yes Qualifying: Yes
State Touring Route	Yes
AADT	East of Rochester Road: 11620 (2017) West of Rochester Road: 6871 (2019)
Element	
Posted Speed	35 MPH
Travel Lane	11FT-12FT
Shoulder	Varying Both Sides 4FT- 7FT
Right-of-Way	66FT
Pedestrian Facilities	Sidewalk North Side from West Lake Road to Rochester Road 5FT
Bicycle Facilities	Varying Shoulder Both Sides 4FT–7FT Shoulder
On-Street Parking	None

Table 3.4: Roadway Features

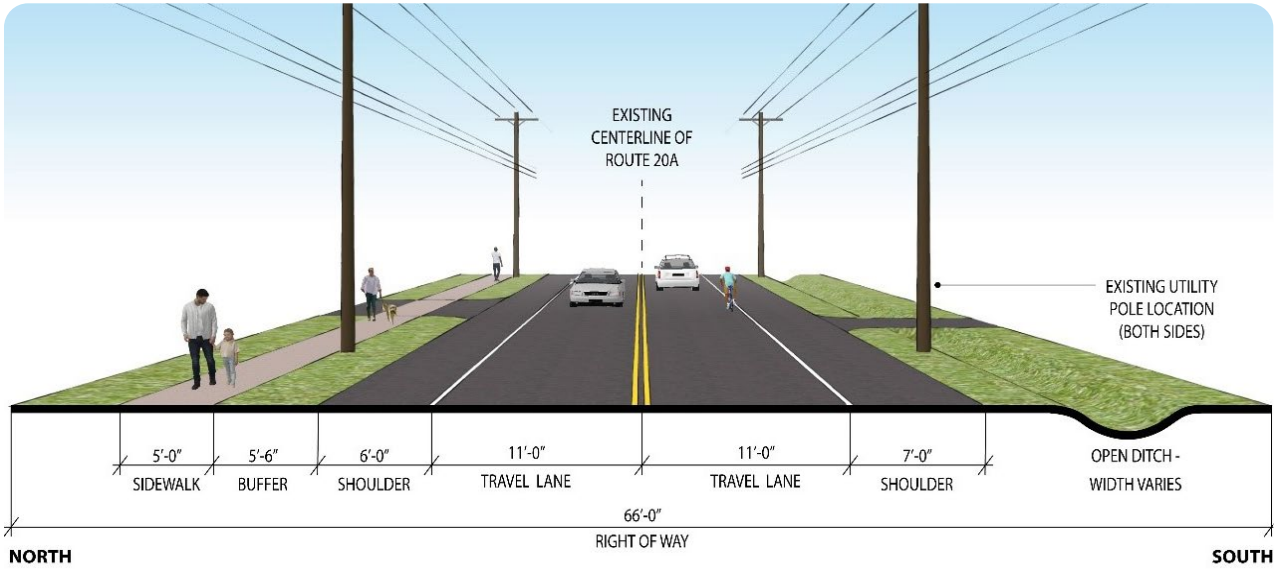
Existing Corridor Sections

In order to develop a better understanding of Lakeville and its geographic characteristics, the corridor has been divided intotwo segments.

Big Tree Road from West Lake Road to Rochester Road:

This section of Big Tree Road serves as a gateway into the Hamlet of Lakeville from the west. While this section begins at a rural intersection in front of Minnehan's Restaurant, it quickly turns into a warm and welcoming main street that leads into the heart of Lakeville. As one moves down Big Tree Road into Lakeville, one can see homes that line each side of the street. The north side of Big Tree Road has a sidewalk that takes residents and visitors into the core of the Hamlet. This segment is also home to the western shore of Conesus Lake, a region that hosts several year-round and seasonal community members. While this segment is largely residential, it still boasts a unique small-town charm that is authentic to the Conesus Lake region. This section has no curb, open drainage, sidewalk on the north side, defined driveways (with the exception of businesses adjacent to the intersection of West Lake Road) , and utility poles on both sides of the road.

Facing east at approximately 1,000 feet east of West Lake Road

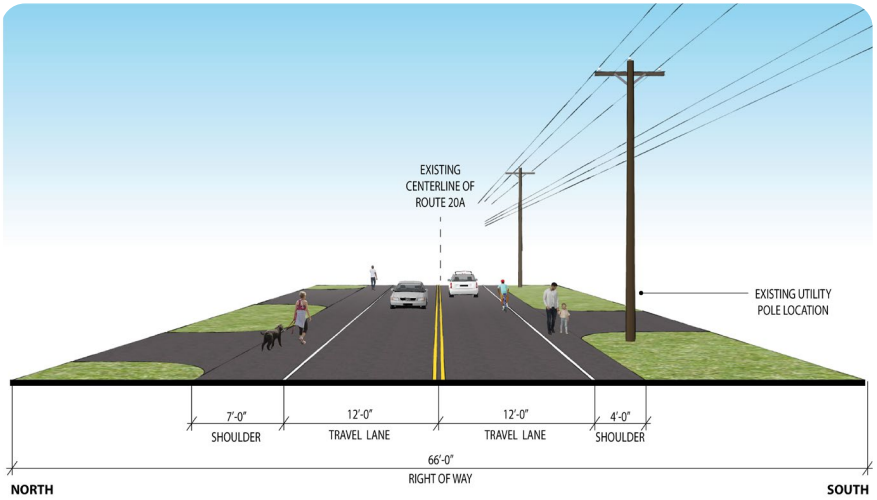


Roadway Section West Lake Road to Rochester Road

Facing east at approximately 1500 feet east of West Lake Road

Big Tree Road from Rochester Road to East Lake Road and Bronson Hill Road:

Within this area, one can find local businesses lining both sides of Big Tree Road with Conesus Lake on the south side. The lake's view is obstructed from Big Tree Road by existing buildings. This section is home to a majority of Lakeville's local businesses, with some camps and homes integrated in among the commerce. Vitale Park is the signature landmark here, providing visitors the opportunity to gaze right down the middle of New York's westernmost Finger Lake. This segment has the highest amount of transportation activity, spurred on by the 5-way intersection that lies in the center of the Hamlet. While there is a lot of automobile activity, there is potential for more pedestrian and cyclist activity given all the local businesses and their proximity to lakeside camps and homes. There are currently no accommodations for alternative modes besides sharing the existing narrow shoulders adjacent to vehicle traffic.



Roadway Section West Lake Road to Rochester Road

Facing east at approximately 400 feet east of Stone Hill Road intersection

Facing east at the intersection with Russell Drive

Facing east adjacent to Conesus Mobile Home Park

Facing east at approximately 200 feet east of Thomas Drive

Intersections

The Hamlet of Lakeville is home to seven roadway intersections, accompanied by several driveways and entrances to businesses. Of all the roadway intersections in Lakeville, the 5-way signal-controlled intersection experiences the most vehicle traffic in the Hamlet.

Big Tree Road at West Lake Road

The rural junction of US 20A and NYS 256 West Lake Road serves essentially as the western border of the Lakeville area. This 4-way intersection hosts two major routes, each with major destinations in all directions. US 20A West leads drivers into the Town of Geneseo, while US 20A East leads drivers onto Big Tree Road and into Lakeville. NYS 256 North moves drivers up towards Rochester while NYS 256 South goes into Dansville. This intersection is signal controlled with no turn lanes on the approaches. There is one notable business located on the northeast corner of this intersection, Minnehan's Restaurant and Fun Center.

Big Tree Road at West Lake Road Intersection

Big Tree Road at Rochester Road

At Lakeville's center, Big Tree Road (NYS 20A & NYS 15), Rochester Road (NYS 15), Stone Hill Road, and the western entrance to Freedom Point/Vitale Park all merge at one central location, forming what is essentially a large hub and spoke traffic flow pattern that is distributed throughout Lakeville. Big Tree Road is the only road at the intersection that has multiple travel lanes (one eastbound and one westbound turn lane).

Big Tree Road at Rochester Road Intersection

Big Tree Road at Bronson Hill Road and East Lake Road

The eastern limit of this study area is at the intersection of Big Tree Road, Bronson Hill Road, and East Lake Road. This 4-way, signal controlled intersection represents the last major road crossing in the Hamlet. This intersection is lined with homes and camps on each side. There are no turn lanes present at this intersection. Bronson Hill Road travels north into the South Lima region while East Lake Road moves south from this intersection and down the eastern shore of Conesus Lake before ending just outside of the Village of Conesus. East Lake Road is used to access many seasonal homes on the eastern shore of Conesus Lake. Continuing east of this intersection, Big Tree Road travels into Livonia.

Big Tree Road at East Lake Road Intersection

Existing Pedestrian and Bicycle Facilities

Big Tree Road from the intersection with West Lake Road has sidewalk on the north side headed east for just over half a mile up to the intersection with Rochester Road. Here, there are also six-foot shoulders and a snow storage to buffer the sidewalk from the travel lanes. This half mile stretch of road has the most multi-modal accommodations, but there is still opportunity for needed improvements. Big Tree Road from Rochester Road to the east does not have sidewalks. Bicyclists and pedestrians share the shoulder in this section. Big Tree Road eastbound is lined with narrow shoulders, cracking pavement, and frequent flooding. During winter months, snow and slush can further reduce available space for pedestrians and bicyclists.

Public Transit

The Regional Transit Service (RTS) serves Livingston County and has a route and stop through the corridor. The stop is at 40 Big Tree Road. The stop is part of a fixed route, in the morning there are two pick up times at 8:05 AM and 11:40 AM. Return trips to this stop location must use the Dial-A-Ride service. and is a part of a fixed route run in the morning with times of 8:05 AM and 11:40 AM. Return trips to this stop location must use the Dial-A-Ride service.

Collision Analysis

A collision analysis was completed along the corridor for the major intersections and segments on Big Tree Road. Big Tree Road was broken down into two segments. The first segment examined was West Lake Road to Rochester Road. The second segment examined was Rochester Road to West Lake Road. The collision analysis was completed for the most recent 5 years using data beginning in June 2017 through May 2022.

Intersections

All intersections had a collision rate below the statewide average with the exception of Big Tree Road at Turtle Rock Road and Pebble Beach Road. However, there were no traffic volumes available for the side streets at this intersection, Turtle Rock Road and Pebble Beach Road, therefore, an appropximate ADT was used. Over five years, five collisions occurred at this intersection with, three of those were rear ends. Since there are no turning lanes at this location on Big Tree Road, left turning vehicles were rear ended attempting to turn onto Turtle Rock Road or Pebble Beach Road. No safety deficiencies were identified at intersections based on this analysis.

Segments

The corridor was split into two sections to analyze collisions, from West Lake Road to Rochester Road,

Type of Collision	Number	%
Lakeville Rd. & Big Tree Rd. at West Lake Rd.		
Accident Rate: 0.48 acc/mev < Statewide Avg: 0.56 acc/mev		
Rear End	6	67%
Right Angle	2	22%
Right Turn	1	11%
Big Tree Rd. at Turtle Rock Rd. & Pebble Beach Rd.		
Accident Rate: 0.44 acc/mev > Statewide Avg: 0.31 acc/mev		
Rear End	3	60%
Left Turn	1	20%
Sideswipe	1	20%
Big Tree Rd. at Rochester Rd. & Stone Hill Rd.		
Accident Rate: 0.29 acc/mev < State Avg: 0.56 acc/mev		
Rear End	6	60%
Right Angle	1	10%
Other	3	30%
Big Tree Rd. at Russell Drive		
Accident Rate: 0.19 acc/mev < Statewide Avg: 0.31 acc/mev		
Rear End	2	50%
Right Angle	2	50%
Big Tree Rd. at Rochester Rd .& Stone Hill Rd.		
Accident Rate: 0.29 acc/mev < State Avg: 0.56 acc/mev		
Rear End	10	76%
Right Turn	1	8%
Left Turn	1	8%
Other	1	8%

Table 3.5: Intersection Collisions

and from Rochester Road to East Lake Road. Removing collisions at intersections, the first segment from West Lake Road to Rochester Road had a total of six collisions over five years. The second segment from Rochester Road to East Lake Road had a total of sixteen collisions over five years.

The majority of collisions from West Lake Road to Rochester Road were rear ends for vehicles following too closely. From Rochester Road to East Lake Road, the majority of collisions were rear ends, 13 out of 16, with vehicles following too closely. Attachment B contains more detailed information for the collision analysis. Both sections of the corridor had a below statewide average collision rate for rural 2 lane facilities.

Stormwater Conditions

In recent years, harmful blue green algal blooms have been spotted in Conesus Lake. The DEC has declared the lake as an "impaired waterbody," and it is one of the 12 priority lakes impacted by harmful algal blooms. By analyzing the existing stormwater runoff conditions, the phosphorus sources leading to the lake can be identified and later rectified to help reduce the algal blooms and to protecting the Hamlet of Lakeville's natural resource, which benefits the area for a multitude of ways.

Existing Studies and Plans

There are multiple resources specific to the water quality of Conesus Lake;

- Harmful Algal Bloom Action Plan – Conesus Lake
- Livingston County Water Supply Study – 2020 Update
- Conesus Lake Watershed Management Plan

These documents outline stormwater management strategies to protect the lake from pollutants and improving its water quality. There are actions outlined in the documents such as roadside ditch remediation, limiting impervious cover in near-lake area, strict stormwater management requirements for development, developing sites for stormwater treatment, and public education campaigns. These documents provide important framework for stormwater management with goals and strategies for the surrounding areas contributing runoff to Conesus Lake. Project recommendations will be in alignment with these documents.

Conesus Lake Water Quantity and Quality

The existing stormwater runoff in the study area directly impacts the water quality and quantity of Conesus Lake. While the following sections of the existing stormwater conditions go into more detail on the drainage system and runoff, it is essential to understand the role that Conesus Lake has for surrounding communities, and how it is impacted by contaminated runoff. Conesus Lake is a public water supply and provides an effluent for the LCWSA wastewater facility.

Drainage System

The existing stormwater system is under the jurisdiction and maintenance of NYSDOT Region 4. Based on record drawings of the corridor in 1957, a closed drainage system was put in place at the intersection of Big Tree Road and Stone Hill Road. Approximately eight drainage inlets were placed around the intersection with vitrified clay pipe varying from 8" to 12" in diameter connecting the system. The pipe network outlets directly into Conesus Creek. Based on feedback from the Town, the drainage inlets in this area appear to be clogged but should be televised to confirm the existing conditions. There are no records of the closed storm system in this area being updated since its original placement.

Field verifications have also been completed to identify existing conditions. A red dye test was used to identify the location of an existing drainage system on Big Tree Road between the rail road spur and Tax Liberty. The drainage inlets are located off the shoul-

der of the existing roadway and the pipe networks runs down Big Tree Road to Liberty Tax, and then crosses the road to the Conesus Lake. This network is daylighted at the lake shore. Sections of this drainage system appear to be clogged but should also be televised to confirm the existing conditions.

Existing drainage swales on Big Tree Road are located between the RE/MAX and Livonia Pharmacy businesses. These swales are on the northern side and may require some maintenance. These swales fill during rain events and may require a better outlet system since there is restricted capacity during more intense storm events.

Flooding

The current flood conditions in the Hamlet of Lakeville occur within the intersection of Big Tree Road (US 20A & NYS 15), Rochester Road (NYS 15), and Stone Hill Road. Stormwater from the roadway floods into the property of 5813 Stone Hill Road and then persists west down Stone Hill Road towards the intersection. Water then follows down Big Tree Road to Pizza Paul's parking lot (5808 Big Tree Road) where a large water volume resides during storm events. More flooding continues east down Big Tree Road in front of Smith's Lumber (5833 Big Tree Rd). The roadway, driveway, and railway succumb to flooding in this area as well.

Flooding also persists in front of Lakeville Liquor on Big Tree Road. The stormwater originates from a wooded area behind Lakeville Liquor (5885 Big Tree Road) and travels across the store's parking lot, and flows directly into the roadway. Stormwater runoff from adjacent buildings and parking lots also contributes to the roadway flooding in this area. The stormwater then flows east along the road edge of Big Tree Road, which in turn creates insistent flooding on roadway, parking lots, and driveways. Additionally, on the south side of the North-End Sub-Watershed, stormwater from Big Tree Road is directed into drainage swales at the road edge. These swales also flood during rain events.

Outlets

Conesus Lake outlets directly into Conesus Creek. The creek is on the northeast side of the lake and crosses under Big Tree Road. This creek is located next to Vitale Park where algal blooms are found. A closed drainage system empties into the creek on the north side of the bridge. The closed drainage system transports water from the intersection of Big Tree and Stone Hill Road and outlets into the creek. Quicklee's Convenience Store (5763 Big Tree Road) also outlets their stormwater treatment systems into the creek at this location.

The North-End Sub-Watershed is a primary stormwater outlet that empties directly into Conesus Lake. This waterway originates in a highly vegetated area within the 500-year flood location between Stone Hill Road and Big Tree Road (see map on next page). The sub-watershed then crosses under Big Tree Road between Conesus Mobile Home Park and Lake Life Accessories (5953 Big Tree Road) to empty directly into Conesus Lake. This water way collects stormwater runoff from neighboring roadways, driveways, and vegetation areas. Stormwater treatment practices from Lakeville Pharmacy (5975 Big Tree Road) and McDonalds (5965 Big Tree Road) also outlet their systems into the sub-watershed.

Another outlet into Conesus Lake resides between house addresses 5880 and 5882 on Big Tree Road. This outlet is a closed drainage system that collects stormwater from inlet structures on Big Tree Road by the rail road spur. The drainage system flows from the rail road spur to Liberty Tax (5877 Big Tree Road) along the northbound shoulder of the roadway. The closed drainage system then crosses in front of Liberty Tax where the system daylights at the lake edge.

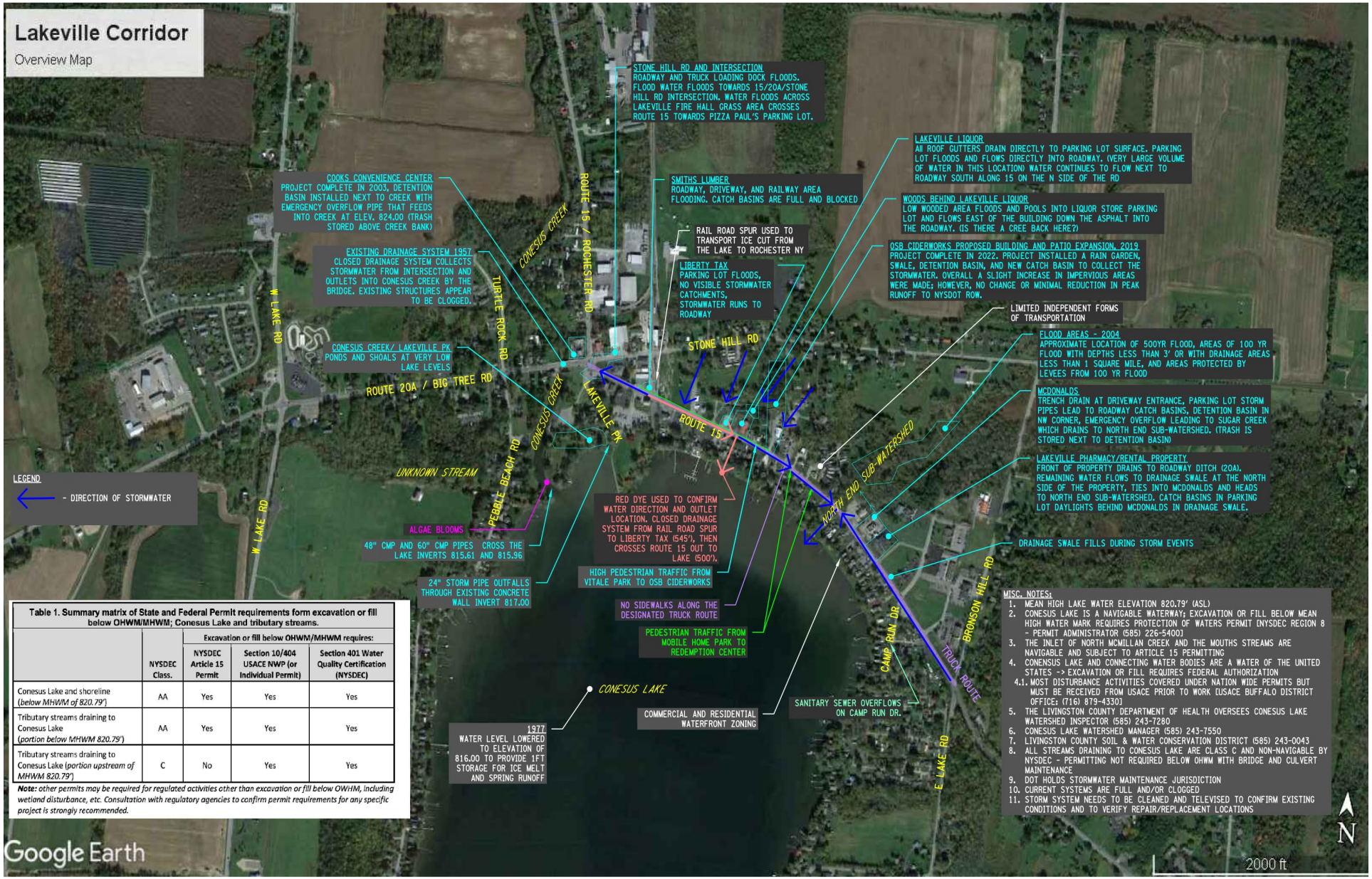


Table 1. Summary matrix of State and Federal Permit requirements form excavation or fill below OHWM/MHWM; Conesus Lake and tributary streams.

		Excavation or fill below OHWM/MHWM requires:		
	NYSDEC Class.	NYSDEC Article 15 Permit	Section 10/404 USACE NWP (or Individual Permit)	Section 401 Water Quality Certification (NYSDEC)
Conesus Lake and shoreline *(below MHWM of 820.79')*	AA	Yes	Yes	Yes
Tributary streams draining to Conesus Lake *(portion below MHWM 820.79')*	AA	Yes	Yes	Yes
Tributary streams draining to Conesus Lake *(portion upstream of MHWM 820.79')*	C	No	Yes	Yes

***Note:** other permits may be required for regulated activities other than excavation or fill below OWHM, including wetland disturbance, etc. Consultation with regulatory agencies to confirm permit requirements for any specific project is strongly recommended.*

SECTION 4

Corridor Vision and Needs

Vision

A corridor vision statement was created to guide the project needs and goals. All corridor strategies and improvements would support this vision statement, while providing guidance to the project team and community on the overall goal of this plan. The Steering Committee participated in crafting the vision statement through a visioning session. Members were asked to answer a question and defining statement, which were:

The statement and question were:

- ***In one sentence, describe the character of Lakeville. Lakeville is...***
- ***Barring all constraints, including time and money, what is your vision for Lakeville 10 years from now?***

Responses to the above question and statement are provided on the following pages.

Lakeville Character

For the description of character, the main theme that emerged from the responses was that Lakeville is inconsistent or lacking in character. Descriptions included: multi-faceted hub, a mix between bedroom community and lake-oriented destination, a compilation of things with no identity or focus, and a Hamlet that needs sprucing up. Based on these comments from the Steering Committee, the study corridor, which is the main arterial through Lakeville, needs consistent branding, a sense of place and character, and an improved physical and visual connection to the lake.

Lakeville Future Vision

The Steering Committee answered the question about what their vision for Lakeville is in the next 10 years. Some of the recurring themes included:

- A well-planned multi-modal corridor including traffic calming, safety, and walkable streets.
- Economic vitality including being attractive to both businesses and patrons, lake-focused retail/business destination, and welcoming community that encourages people to stop rather than pass through.
- A defined sense of place including improved physical and visual connections to the lake, and protection of the lake as a water resource.

While all of these themes may appear different, they all address a common goal, and that is to improve Lakeville's vitality. Safe, walkable streets, with improved access and views to the lake, will ultimately support and promote local and future businesses in the area. This improves the quality of life for residents and visitors alike.

Based on responses from the Steering Committee, the vision statement below was drafted, and finalized through public input.

"Create a safe, attractive, and multi-modal corridor focused on Conesus Lake. A corridor that is a community connection for residents and businesses, and a destination for visitors."

Goals

The goals listed to the right are recognized needs to address the issues and opportunities along the corridor. Each goal is expanded in the following section under the needs assessment, providing context to its development.

1. ***Protect and promote Conesus Lake***
2. ***Provide multi-modal accommodations***
3. ***Improve intersection function and operations***
4. ***Implement access management***
5. ***Create a sense of place***

Public Engagement Round 1

A public outreach program was developed to engage and gather feedback from the community on the Lakeville Corridor (US Route 20A). The first round of public outreach focused on educating the public on the project, while also gathering feedback on existing conditions, identifying corridor needs, and input on the vision statement. The responses and input gathered were used to inform recommendations and reflect the needs of the community for appropriate transportation infrastructure improvements.

The public meeting and online survey were promoted on social media through relevant Facebook pages and groups such as I Love Conesus Lake, Conesus Lake, and Conesus Lake Association, etc., as well as Facebook and Instagram posts by GTC, Town of Livonia, and Livingston County. Other ways the survey was promoted includes the Town of Livonia website; flyers circulated to businesses along the corridor; and an announcement at the Conesus Lake Watershed Council and Technical Committee Meetings.

Public Meeting

A public outreach event was held at 5:30pm on Tuesday, March 28th, 2023, at the Watershed Education Center in Vitale Park. For those unable to give feedback in person, there was an additional meeting available over Zoom on March 29th at 12pm. The

Public Meeting at Watershed Education Center

meeting had approximately 38 people attend and consisted of a brief presentation covering the project overview, project goals, a question-and-answer session. After the presentation was an open house style format with boards displayed around the room of the existing corridor for attendees to provide their feedback.

Online Survey

An online survey was developed as an additional means to engage with the community and document feedback. It was available for people to complete from March 10th to April 17th.

The survey had 167 participants and included both open ended and close ended questions. Incorporating both types of questions allow for further insight as well as providing an opportunity for participants to share additional thoughts and comments. A majority of those who completed the survey are full time residents, followed by visitors, then seasonal residents. Many respondents who visit the corridor come to visit Vitale Park, restaurants, other businesses and to visit family.

The most common mode of transportation along the corridor was the use of a personal vehicle with 95% of people choosing this option. Respondents could choose more than one option for this question, and other common transportation choices include walking at 47% of respondents and biking at 33% of respondents.

When asked if they choose to walk or bike, what their experience has been and what improvements they would like to see. There was clear indication that the corridor is perceived as dangerous if one chooses to walk or bike.

The following are some key responses:

- *"We bike and walk, but not as often as we'd like because both are hazardous. I'd love to walk or bike downtown with the grandkids, but I don't feel safe because of the traffic. Sidewalks, bike lane and slower traffic would certainly help!"*
- *"I gave up walking this area due to traffic and the risks you take. There should be a separate bike lane."*
- *"Too dangerous to walk or bike as the shoulder is minimal and cars tend to speed. Would like to see the area more people friendly."*

The following questions asked if they choose to use a personal vehicle, what has their experience been and what improvements would they like to see. This question received a variety of different answers.

Some common topics included pedestrian safety and fast vehicles.

The following are some key responses:

- *"Foot traffic around Vitale Park, especially in the summer, is an issue for motorists. A designated walkway/bike path would be a great way to improve safety."*
- *"Too many people speeding through.... long waits at lights, unsafe for pedestrians or bikes."*
- *"The flow can be busy but not unlike other lakefront areas. The real problem is the safety of pedestrians."*
- *"Walkers and bikers share a very busy roadway."*
- *"Many people walking on shoulders of roadway especially around Vitale Park during summer months."*

The main priority when considering potential improvements indicated through the survey is the need for sidewalks. The next highest ranked was bicycle facilities, closely followed by streetside landscape/greenspace buffer. Finally, showing the least priority, parking. It is good to note, there were a couple of comments indicating that each option is needed along the corridor.

The participants were asked a series of questions they could answer by sliding a scale bar to indicate importance and consideration needed of different potential improvements. The highest averages were seen in the results for the visual connection to Conesus Lake and the existing drainage system on Big Tree Road. Importance of addressing public access was around the middle, gateway treatments and wayfinding on Big Tree Road were slightly less than the middle and the least prominent issue to address indicated by the survey was on-street parking.

Very Important

- Existing Drainage System
- Visual Connection to Conesus Lake

Important

- Public Access to Conesus Lake
- Gateway Treatments/ Wayfinding

Neutral/ Not Important

- On-Street Parking

When asked to briefly describe their vision for the corridor, there was an emphasis on the desire for a pedestrian friendly, and safe corridor, as well as including some more personality and charm.

The following are some of the recorded answers:

- *"Pedestrian-friendly, cyclist-friendly, separate dedicated infrastructure for active transit user that separates them from automobiles."*
- *"A pedestrian friendly, walkable area, responsibly developed in a manner that will preserve and improve the quality of the lake for future generations. The area is already intensively developed. We just need smarter infrastructure to support our current (and future) small business owners."*
- *"Small town charm."*

Public Outreach Round 1 Themes

Comments from the public meeting as well as the online survey resulted in recurring themes of pedestrian and bicyclist safety, speed of traffic, infrastructure improvements and overall safety.

Hot Spot Map of Big Tree Road Corridor Noting Feedback from Community Members

Corridor Needs

A needs assessment was developed to support the implementation of the vision and its goals, and as a result informed potential concepts, projects, programs and services, and policies. The purpose of the needs assessment is to use the information gathered during the existing conditions analysis to lay a foundation for supporting the vision statement and goals for identifying areas of improvement. The needs of the corridor were identified through review of previous studies and documents, steering committee input, and the inventory of existing conditions. The result is a summary of actions to improve the Lakeville Corridor.

Protect and Promote Conesus Lake

Conesus Lake has a direct impact on the viability of the Hamlet and surrounding communities. It is paramount to protect and preserve this valuable natural resource that serves in many ways including drinking water, ecology, wastewater, recreation, and economic vitality (seasonal tourism). Protecting and promoting the lake includes stormwater management to reduce the quantity and improve the quality of stormwater entering the lake, and to improve physical and visual connections to the lake.

Ponding at a parking lot near the roadside edge at 5844 Big Tree Road

Stormwater Management

Through the existing conditions and inventory phase, it was discovered that there are several contributing factors impairing stormwater quality prior to its final destination into Conesus Lake. The study area can employ stormwater management strategies identified in existing studies and plans including:

- Reduce known pollutants such as phosphorus, silt, sediment, and byproducts.
- Identify strategic locations for green infrastructure that will capture runoff prior to reaching the lake.
- Implement best practices for erosion and sediment control including hydroseeding, planting and protection of streamside vegetation, and reducing use of pesticides, herbicides, and fertilizers.
- Reduce impervious area and implement guidelines on low impact development.
- Review zoning code for regulations to improve near-lake areas.

Stormwater management in the area is needed not only to protect the lake, but also necessary to address flooding in parking lots and minimize the hazard of flood waters blocking the road. The existing closed drainage system along Big Tree Road is not functioning properly, and may even be collapsed and/or clogged. Known flooding/poor drainage locations include but are not limited to:

- 5808 Big Tree Road
- 5885 Big Tree Road
- 5844 Big Tree Road
- 5833 Big Tree Road
- Adjacent to rail spur
- Drainage swale on the north side of Big Tree Road from McDonald's (5965 Big Tree Road) to East Lake Road.

There is still investigative work to be done on the closed system, as well as identifying unknown sources contributing to the system upstream. The corridor needs a smaller drainage study and to use investigative procedures such as dye testing and video inspection to determine unknown contributions to the open and closed system on the roadside.

Visual and Physical Connection to the Lake

Identified through the Town of Livonia Comprehensive Plan, as well as feedback from the Steering Committee, there is a lack of visual and physical access to the lake. The lack of visual access is due to:

- Existing structures on private properties that obstruct the view of the lake from Big Tree Road
- Overhead utilities which add to visual clutter

Southbound approach at Rochester Road Intersection facing Vitale Park/Freedom Point Entrance (Google Maps)

- Lack of gateway/landscaping features to compliment and promote the view of the lake for visitors, as they may not be as familiar with the area and the lake location.

Vitale Park is situated in the heart of Lakeville on the northern end of Conesus Lake. The park offers a playground, picnic tables and a shelter, the Chip Holt Nature Center, the Conesus Lake Watershed Education Center, walking paths, and views of Conesus Lake. This is also a popular location for summer concerts, fishing, and education events at both centers. The park also has sheriff substation that can respond to lake safety issues. There are two entrances to Vitale Park: Freedom Point and the main entrance adjacent to the post office. The Freedom Point entrance is an approach of the intersection with Big Tree Road, NYS Route 15, and Stone Hill Road. Due to the amount of impervious area at the intersection, coupled with the geometry and intersection layout, and lack of wayfinding, this park entrance is somewhat concealed. There is also a lack of connection to the park for multi-modal users such as sidewalk and adequate shoulder widths. This has created opportunity to improve the character and entrances to the park including: entrance landscaping, access management, gateways and/or wayfinding, and opening views into the park.

The main entrance for Vitale Park is east of the

Rochester Road intersection, located on the west side of the post office. The park entrance is not easily identified to visitors, for it lacks wayfinding signage and an attractive gateway entrance.

Another connection to Conesus Lake for boat access is from Pebble Beach located off of Pebble Beach Road. This is a NYSDEC car top launch only.

Vitale Park Main Entrance

Provide Multi-Modal Accommodations

Pedestrian Accommodations

Big Tree Road has over two dozen businesses in just a one-mile stretch. There are homes within close proximity of camps creating a potential for high pedestrian activity. There is a lack of sidewalks or pedestrian facilities separated from vehicle traffic to provide user-friendly connections between existing homes and camps to these businesses. Since most businesses are within walking distance of each other, and considering the proximity of camps, the lake, and Vitale Park, providing pedestrian space will create a user-friendly and welcoming corridor, which may in turn promote existing and potential future businesses.

There should be an established connection between Conesus Lake and the corridor. Conesus Lake boaters have shoreline access by water through anchoring and walking to shore at Vitale Park, and the restaurant Galene (5870 Big Tree Road, kayaks and canoes have direct shoreline access). A NYS-DEC boat launch is available on Pebble Beach Road, therefore, it is important that the pedestrian infrastructure surrounding these locations are inviting to the potential pedestrians accessing Big Tree Road from Conesus Lake.

Looking east, west of the Rochester Road. A lack of multi-modal space to widen for turn lanes at intersection.

The current roadway design and condition puts a constraint and limit on dedicated pedestrian facilities that can be currently put on the roadway. There is some existing sidewalk on the western segment of Big Tree Road, and a short stretch of sidewalk on the south side of the Rochester Road intersection. However, there is a missing link between key businesses, destinations, and the medical facilities within the Hamlet.

In addition to designated pedestrian space, midblock pedestrian crossings should be considered along Big Tree Road. The precise location will be determined based on pedestrian generators, where pedestrian traffic is near destinations. Locations may include near Pebble Beach Road, near more densely located residences, and at the Vitale Park entrance.

Bicycle Accommodations

One key concern that should be addressed is the shoulder condition along Big Tree Road from Pebble Beach Road to East Lake Road. Having adequate shoulder widths in a Hamlet like Lakeville is important to the comfort of bicyclists. The majority of the

corridor has shoulders that are a minimum of 4 feet wide, which is the minimum recommended width for bicyclists. However, with no sidewalks for pedestrians coupled with NY 20A being a designated truck route, there is competition for space within these 4 foot shoulders. Bicyclists travel with the flow of traffic and need adequate room on the roadway for comfort. The shoulders of Big Tree Road vary in width depending on location, and there are a few areas where shoulders are not adequate to provide 4 foot minimum of recommended space for bicyclists. The most notable area is near the 5-way intersection located in the center of the Hamlet, and at the culvert that crosses Conesus Creek east of Vitale Park. The westbound approach to this 5-way intersection features shoulder widths as small as half a foot in some locations. This narrow width, coupled with traffic volumes at the intersection, makes it difficult for bicyclists to navigate this section of Big Tree Road.

Improved bicycle accommodations would also encourage more people to use bicycles for short trips. This could be done through pavement quality improvements of increased space and shoulder pavement quality, but also by installing amenities such as bike racks at local businesses, and educating the public on the rules for sharing the road.

Looking east adjacent to Galene Restaurant showing a four-foot shoulder

Improve Intersection Function and Operations

There are three major intersections in the study area:

- West Lake Road at Big Tree Road
- Rochester Road (NYS Route 15) and Stone Hill Road at Big Tree Road
- Bronson Hill Road and East Lake Road at Big Tree Road

While the collision analysis completed during the inventory and existing conditions phase didn't identify a safety deficiency (collision rates at the intersections were below the statewide average for comparable facilities), there are opportunities to enhance the function and operation of intersections.

There are opportunities for enhancement at the Rochester Road at Stone Hill Road intersection:

- Pedestrian enhancements including crosswalks, pedestrian signals with pushbuttons and countdown timers, and accessible landings.
- Improved channelization (the amount of pavement makes the park entrance approach confusing as to whether it is integrated in the intersection or not).

There is a substantial increase in traffic that enters the corridor at the Rochester Road intersection, since

the majority of travelers coming from the north on I-390 enter Lakeville from this intersection. Additionally, there are opportunities at these intersections to create gateways due to their locations at the Hamlet edges.

Opportunities for enhancements at the West Lake Road intersection include:

- Pedestrian enhancements including crosswalks, pedestrian signals with pushbuttons and countdown timers, and accessible landings.
- Gateway Improvements such as plantings, signage, decreasing impermeable surfaces, and lighting

Needs at the East Lake Road intersection include:

- Pedestrian enhancements including crosswalks, pedestrian signals with pushbuttons and countdown timers, and accessible landings.
- Review of existing operations and determine if there is a need for turn lanes.
- Gateway potential

Implement Access Management

There are many properties and businesses along the corridor that have wider than standard driveway widths. Some of these driveways adjacent to one another have no definition and have access to Big Tree Road across the entire property frontage. This results in unpredictable ingress and egress movements entering and exiting properties. NYSDOT has standard driveway widths along State Routes which range from a maximum of 12 feet for residential driveways, up to 35 feet for two-way minor commercial driveways. This is also a safety concern for non-motorized users such as pedestrians and bicyclists, as these wide and unpredictable entrances and exits create additional conflicts points. Noncompliant driveway widths also result in excessive pavement and impervious area, contributing to higher runoff rates to the stormwater system and eventually to Conesus Lake. Several collisions have occurred in business parking lots due to the lack of channelization and flow into and out of commercial parking lots.

Create a Sense of Place

Creating a sense of place, or "placemaking," capitalizes on a local community's assets, characteristics, culture and history, with the intention of creating public spaces that reinforce the community's story, promote people's health, happiness and well-being, and maximize shared value. Community-based participation is at the center of effective placemaking. The results of the stakeholder and community engagement

Business driveways just east of the intersection with Rochester Road

process can be used to inform the recommended placemaking opportunities. The character of existing amenities in surrounding communities like Livonia, and using the signage design and branding strategy developed for the Livingston County Wayfinding Strategy, are placemaking opportunities that could help define a consistent and compatible character for Lakeville. Placemaking elements to consider include:

- desired design elements and materials of construction
- color palette
- streetscape amenities (lighting, street furniture, bike racks, planters)
- entrance landscaping and gateways
- wayfinding

During the Steering Committee visioning session, participants were asked for their input on opportunities for placemaking along the corridor. Some of the most common suggestions included:

- street lighting (for additional lighting, placemaking and to define the roadway edge)
- gateway and/or entrance landscaping at Vitale Park entrances
- street trees
- a traditional style for street furniture
- placement of overhead utilities underground

SECTION 5

Corridor Strategic Plan

The strategic plan is made up of recommendations for capital improvement projects, services and programs, and policy and planning initiatives that will support the corridor vision and its goals. These recommendations address the needs identified in the previous chapter which include protect and promote Conesus Lake, provide multimodal accommodations, improve intersection function and operations, implement access management, and create a sense of place.

Capital Projects

- Build multi-modal infrastructure (sidewalks)
- Intersection Improvements
- Green Infrastructure

Service Programs

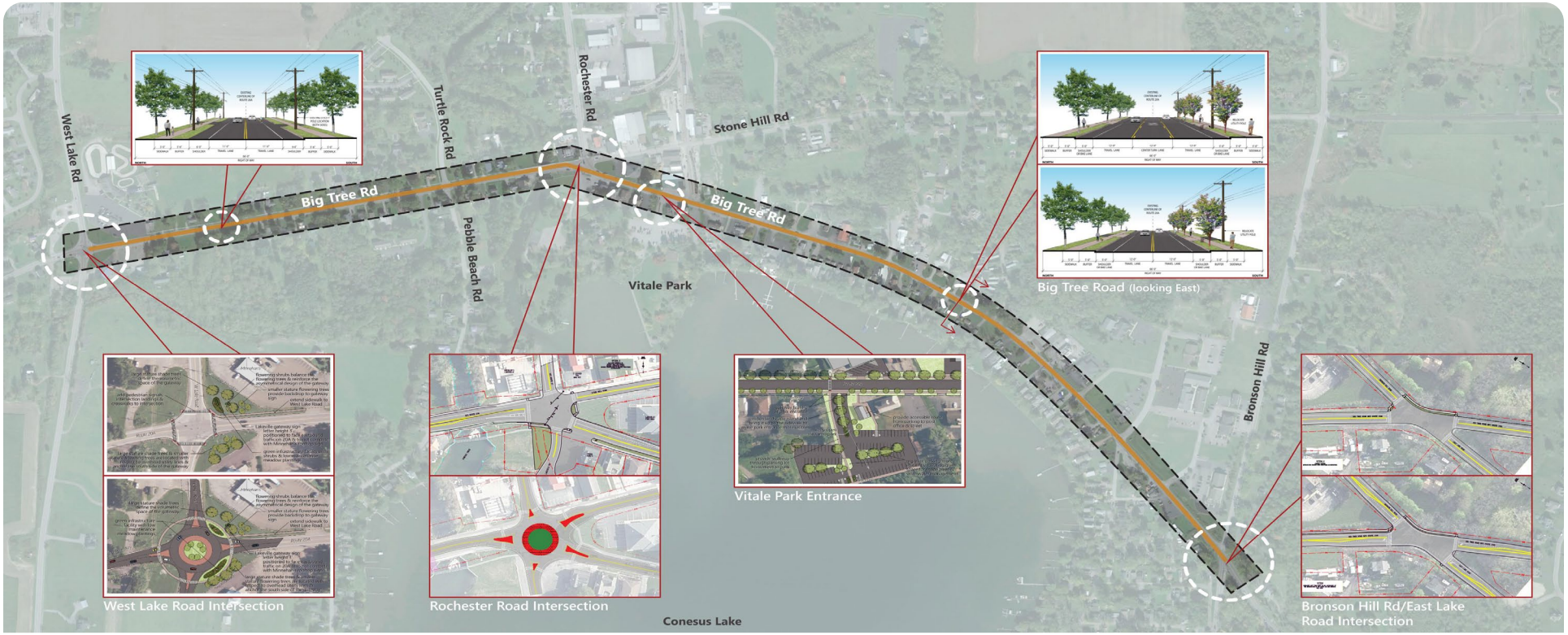
- Education
- Wayfinding
- Art program
- Traffic Calming

Policy/Planning

- Active Transportation Plan
- Stormwater Mitigation Policy
- Share the Road

Capital Improvement Projects

Capital improvement projects are physical design and construction projects that are a tangible upgrade within the highway boundary. Capital improvement projects are immediate improvements and/or enhancements to a corridor once construction is complete. These projects may include the installation of sidewalk, green infrastructure, traffic signal upgrades, road rehabilitation, striping improvements, etc. A benefit to capital improvement projects is an opportunity to implement municipal policies, such as compliant driveway widths, for properties that are noncompliant with current code and policies. These recommended capital improvement projects were developed in alignment with the needs and corridor vision statement. There is a focus on improving mobility and sustainability, while enhancing safety and creating a sense of place through improving the corridor aesthetics. Capital improvement projects include intersection improvements and corridor wide improvements. Recommended capital improvement projects are segmented into small-focused projects, with all of them compiled for a corridor wide project.



Lakeville Corridor Strategic Plan Alternatives Map

On the subsequent pages, individual corridor projects will be identified with detailed information about each one including how it addresses the project needs, anticipated design considerations, construction costs, their alignments with existing plans, studies, or framework, and potential funding sources.

Proposed Capital Improvement Projects					
	Project	**Alternatives**	**Design Considerations**	**Planning Level CIst Estimate**	**Potential Funding Sources**
Intersection Improvements	**A. West Lake Road at Big Tree Road**	**Option A1: Intersection Improvements**	• Gateway signage would need to meet NYSDOT standards for gateway signs on State Routes • Infiltration tests to determine infiltration	• Design: $103,000 • Construction: $407,000	• WFPO • GIGP • TAP • Private Developers
		Option A2: Single Lane Roundabout	• Construction Cost	• Design: $400,000 • Construction: $2M	• WFPO • GIGP • TAP/CMAQ
	B. Rochester Road at Big Tree Road	**Option B1: Intersection Realignment**	• Right-of-Way Acquisition	• Design: $185,000 • Construction: $795,000	• TAP • Future LWRP • Future DRI
		Option B2: Single Lane Roundabout	• Construction Cost	• Design: $600,000 • Construction: $3,000,000	• LWRP
	C. East Lake Road and Bronson Hill Road at Big Tree Road	**Option C1: Pedestrian Accommodations**	• Small Right-of-Way Acquisition	• Design: $115,000 • Construction: $485,000	• TAP
		Option C2: Left Turn Lanes	• Right-of-Way Acquisition	• Design: $179,000 • Construction: $751,000	• TAP

Table 5.1 Proposed Capital Improvement Projects

Proposed Capital Improvement Projects (Continued)

	Project	Alternatives	Design Considerations	Planning Level CIst Estimate	Potential Funding Sources
Corridor Improvements	D. Big Tree Road from West Lake Road to Rochester Road	**Option D1 Curb and Sidewalk**	• May need utility pole relocation • Cover open swale and install closed drainage • Infiltration trenches at low point • Assume shoulders are brought to 5' to add curb. • Assume pedestrian scale level lighting	• Design: $771,000 • Construction: $2,749,000	• CDBG • CRP • TAP • GIGP
		Option D2 Maintain Current Cross Section	• Utility poles maintained • Green infrastructure along the corridor • Infiltration trenches at low point	• Design: $234,000 • Construction: $816,000	• CDBG • CRP • TAP • GIGP
	E. Big Tree Road from Rochester Road to East Lake Road and Bronson Hill Road	**Option E1 Two Travel Lanes**	• May need utility pole relocation • Cover open swale and install closed drainage • Infiltration trenches at low point • Assume shoulders are brought to 5' to add curb. • Assume pedestrian scale level lighting	• Design: $1,332,000 • Construction: $6,578,000	• RAISE Grant • CDBG • TAP
		Option E2 Two Travel Lanes with Two-Way Left Turn Lane	• May need utility pole relocation • Cover open swale and install closed drainage • Infiltration trenches at low point • Assume shoulders are brought to 5' to add curb. • Assume pedestrian scale level lighting	• Design: $1,508,000 • Construction: $7,512,000	• RAISE Grant • CDBG • TAP
Park	F. Vitale Park Entrance	**Option F1 Gateway at Entrance**	• Landscaping/Signage • Adjust Entrance	• Design: $150,000 • Construction: $260,000	• CFA Grant through Environmental Protection Fund

Table 5.1 Proposed Capital Improvement Projects (Continued)

Intersection Improvements

A. West Lake Road at Big Tree Road

Entering Lakeville from the west, this intersection is the Hamlet arrival point. The West Lake Road at Big Tree Road intersection has a rural impression until denser housing is encountered further east down the Big Tree Road corridor. This intersection houses a popular family restaurant and entertainment complex. This intersection also has large a right-of-way at the northeast and southeast corners, which is an opportunity to provide gateway elements or provide an intersection that may require a larger footprint. The intersection could be enhanced with:

- Pedestrian/Multi-Modal Accommodations
- Landscaped Gateway/Stormwater Management
- Efficient traffic operations
- A gateway into the Hamlet

Two options were identified for this location that would meet the project needs, Option 1, an upgraded intersection or Option 2, a single lane roundabout. Additional details on how each option would meet the identified needs are shown in Table 5.2.

West Lake Road Intersection Comparison of Options		
Identified Needs	**Option A1: Intersection Upgrades**	**Option A2: Single Lane Roundabout**
Protect and promote Conesus Lake	• Stormwater management area with possible green infrastructure/infiltration • Landscaping/plantings	
Provide multi-modal accommodations	• Pedestrian indications with landings and crosswalks	• Crosswalks, sidewalks, and curb ramps
Improve intersection function and safety	• Upgraded traffic signal with updated signal timings based on demand	• Efficient traffic flow, elimination of potential high injury collision types (i.e. left turn)
Create a sense of place	• Gateway signage • Landscaping	

Table 5.2 West Lake Road Intersection Comparison of Options

Option A1. Intersection Upgrades (West Lake Road at Big Tree Road)

This first option for proposed improvements at the intersection include making upgrades to the signalized intersection while maintaining its existing geometry and layout. Pedestrian accommodations would be in the form of pedestrian indications, sidewalks, ADA compliant landings, and crosswalks. The roadway frontage at the corner of Minnehan's currently has a stormwater swale as this is the lowest point from the north and east. There is an opportunity to provide stormwater management in the form of a landscaped gateway.

Cost Estimate Assumptions

- Mill and overlay
- Enhanced striping including crosswalks
- Sidewalk extension on north side of Big Tree Rd.
- New traffic signal with updated signal control and pedestrian signals
- Gateway and wayfinding signage
- Landscaping
- Green infrastructure/stormwater management

Estimated Construction Cost: $407,000

Design Considerations

- Gateway signage would need to meet NYSDOT standards for gateway signs on state routes
- Infiltration tests to determine feasibility of green infrastructure (i.e., infiltration trench, or bioswale)

Estimated Design Cost: $103,000

Alignment With Previous Plans, Studies, Or Framework

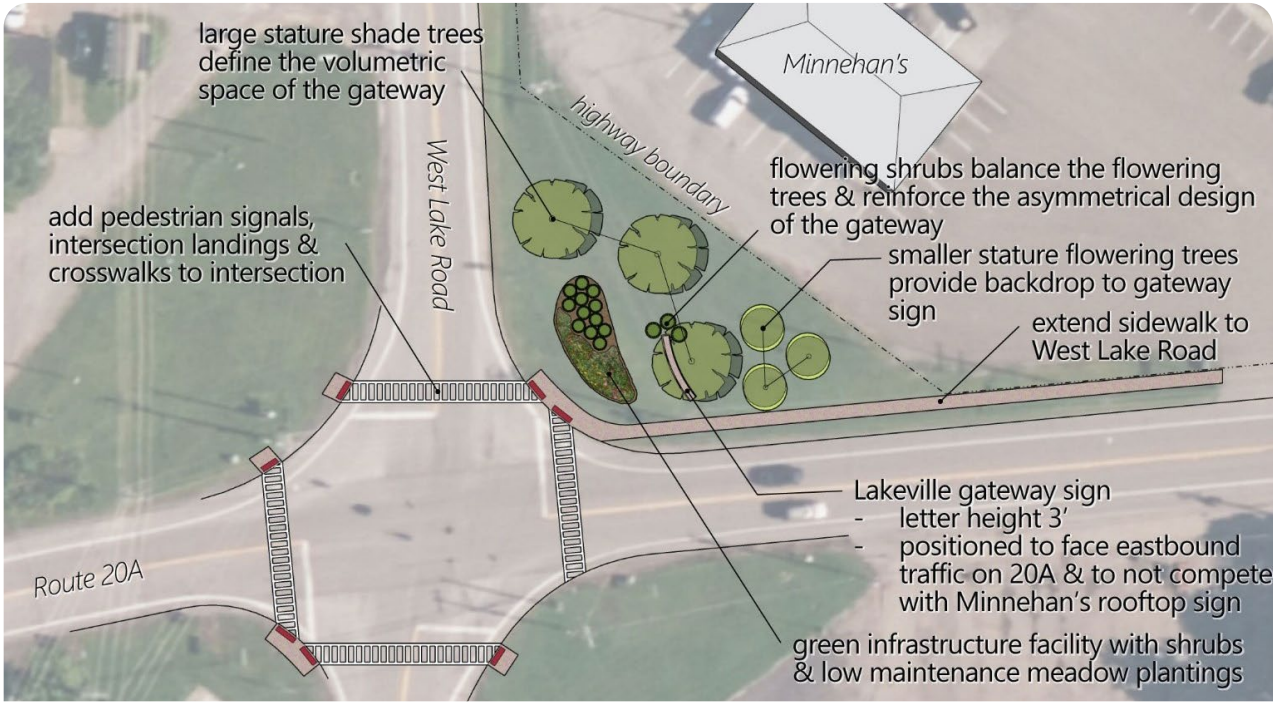
- Finger Lakes Regional Sustainability Plan
  - ➥ Maintain and improve the functionality, safety, and efficiency of existing transportation infrastructure
  - ➥ Preserve existing ecosystem services and promote green infrastructure to reduce reliance on gray infrastructure
- Livingston County Transportation Connectivity Plan
  - ➥ Install intersection & pedestrian level lighting
  - ➥ Conesus Lake Watershed Management Plan
  - ➥ Develop sites for stormwater treatment.
- Livingston County Water Supply Study
  - ➥ Maintaining water quality in the Conesus Lake Watershed

Funding Opportunities

- USDA Watershed and Flood Prevention Operations (WFPO) Program
- Green Innovation Grant Program (GIGP)
- Transportation Alternatives Program (TAP)
- Private Developers*

*Note that there is a proposed housing development just south of the intersection. The trips generated from the new development may warrant public improvements to the roadway or intersection pending the results of a traffic impact study.

Proposed Gateway Feature With Green Infrastructure



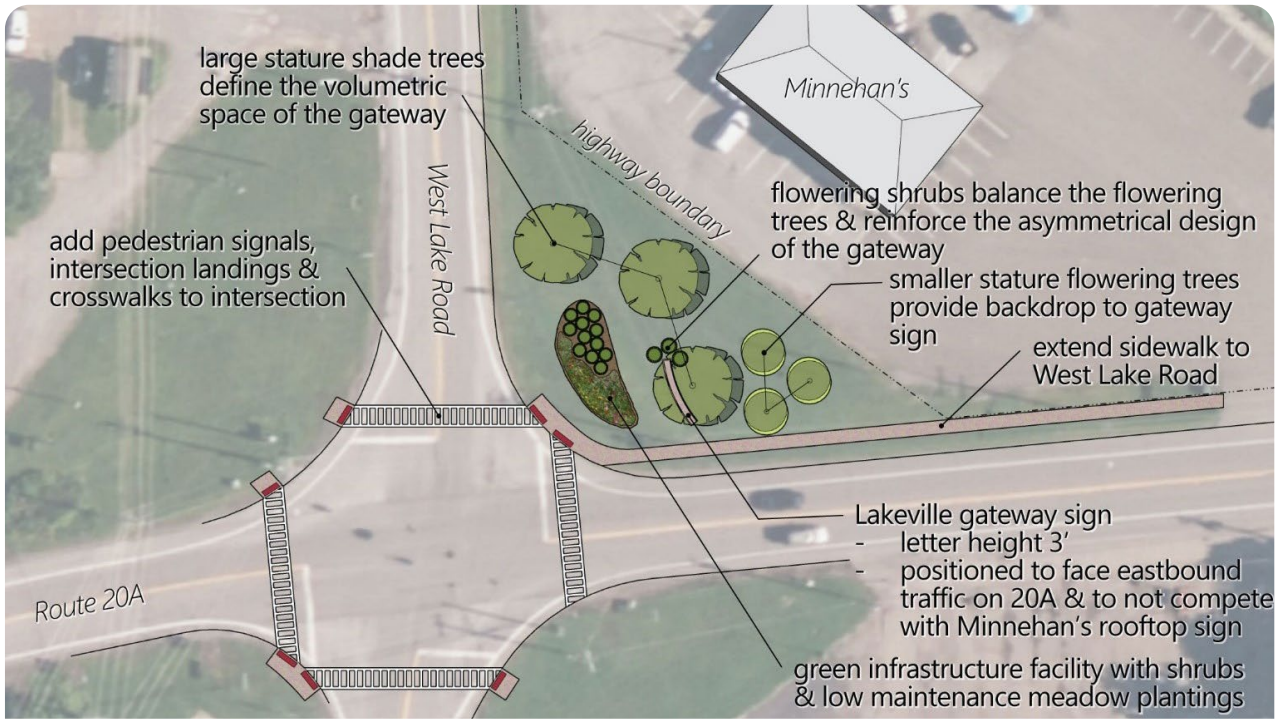
Plan view of proposed gateway feature & improvements to signalized intersection at 20A & West Lake Rd.

Option A2. Single Lane Roundabout (West Lake Road at Big Tree Road)

This second option for proposed improvements at this location would be to convert the intersection to a single lane roundabout. Pedestrian accommodations would be in the form of sidewalks, ADA compliant landings, and crosswalks. A single lane roundabout would keep traffic flowing efficiently, while eliminating collision types that may result in more serious injury, such as head on, right turn, and left angle. A roundabout would also act as a gateway and traffic calming element transitioning from high-speed rural roadways to low speeds entering the Hamlet. Stormwater management and other gateway elements such as signage and landscaping would be proposed for this option also.

Design Considerations

- Roundabouts use a larger footprint, but there is plenty of available right-of-way to stay within the highway boundary



Plan view of proposed gateway feature & improvements to signalized intersection at 20A & West Lake Rd.

- Roundabouts are more expensive in the short term due to the construction cost
- Gateway signage would need to meet NYSDOT standards for gateway signs on state routes
- Infiltration tests to determine feasibility of green infrastructure (i.e., infiltration trench, or bioswale)

Estimated Construction Cost: $450,000

Cost Estimate Assumptions

- Full depth roundabout reconstruction
- Curbed roundabout to accommodate sidewalk
- Pedestrian accommodations through sidewalk, splitter islands, and crosswalks
- Sidewalk extension on north side of Big Tree Road
- Gateway and wayfinding signage
- Lighting
- Landscaping and green infrastructure/stormwater management

Estimated Design Cost: $2,400,000

Alignment with Previous Plans or Studies

- Finger Lakes Regional Sustainability Plan
  - ↪ Maintain and improve the functionality, safety, and efficiency of existing transportation infrastructure
  - ↪ Preserve existing ecosystem services and promote green infrastructure to reduce reliance on gray infrastructure

- **Livingston County Transportation Connectivity Plan**
  - ↪ Install intersection and pedestrian lighting
- **Conesus Lake Watershed Management Plan**
  - ↪ Develop sites for stormwater treatment.
- **Livingston County Water Supply Study**
  - ↪ Maintaining water quality in the Conesus Lake Watershed

Funding Opportunities

- Transportation Alternatives Program (TAP) or Congestion Mitigation and Air Quality (CMAQ)
- USDA Watershed and Flood Prevention Operations (WFPO) Program
- Green Innovation Grant Program (GIGP)

B. Rochester Road at Big Tree Road

As a major arrival point for travelers entering Lakeville from the north, this intersection is recommended for improvements which include improved geometry, operations, and pedestrian and multimodal accommodations. Currently, the intersection geometry is confusing with the misalignment of five approaches. The southern approach has an excessive amount of pavement without clear delineation between properties with Pizza Paul's (5808 Big Tree Road). The average annual daily traffic (AADT) significantly increases for Big Tree Road from this intersection and east, with Rochester Road being a major connector to the Hamlet. One approach of this intersection is access to Freedom Point, a part of Vitale Park. Adjacent to this intersection is also Conesus Creek, which has a lake level control damn.

The intersection could be enhanced with:

- Pedestrian/Multi-Modal Accommodations
- Efficient traffic operations
- A gateway into the Hamlet
- Improved physical connection to the lake

Two options were identified for this location that would meet the project needs, Option B1, an intersection realignment or Option B2, a single lane roundabout. Additional details on how each option would meet the identified needs are shown in Table 5.3.

Rochester Road Intersection Comparison of Options

Identified Needs	Option B1: Intersection Realignment	Option B2: Single Lane Roundabout
Protect and promote Conesus Lake	• Improved physical connection to Conesus Lake	
Provide multi-modal accommodations	• Pedestrian indications with landings and crosswalks	• Crosswalks, sidewalks, and curb ramps
Improve intersection function and safety	• Upgraded traffic signal with updated signal timings based on demand • Improved alignment geometry	• Efficient traffic flow, reduction of high injury collision types (i.e. left turn)
Implement Access Management	• Provides delineation between private property and the Freedom Point Access • Moves main driveway further from intersection	
Create a sense of place		• Center island could have landscaping, art, or signage that does not obstruct sight lines

Table 5.3 Rochester Road Intersection Comparison of Options

Option B1. Intersection Realignment (Rochester Road at Big Tree Road)

This first option for proposed improvements at this intersection include making upgrades to the signalized intersection and realigning the southern approach that accesses Freedom Point. Pedestrian accommodations would be in the form of pedestrian indications, sidewalks, ADA compliant landings, and crosswalks. The signal would be replaced with a mast arm to accommodate the new southern alignment, as well as providing updated signal timings for more efficient operations, and to accommodate seasonal fluctuations in traffic demand.

Cost Estimate Assumptions

- New mast arm signal with detection and pedestrian indications
- Full depth reconstruction
- Enhanced striping including crosswalks
- Sidewalks and curb ramps at intersection corners
- Lighting
- Signage including wayfinding signage
- Mill and overlay

Estimated Construction Cost: $795,000

Design Considerations

- ROW taking from Pizza Paul's (5808 Big Tree Road)

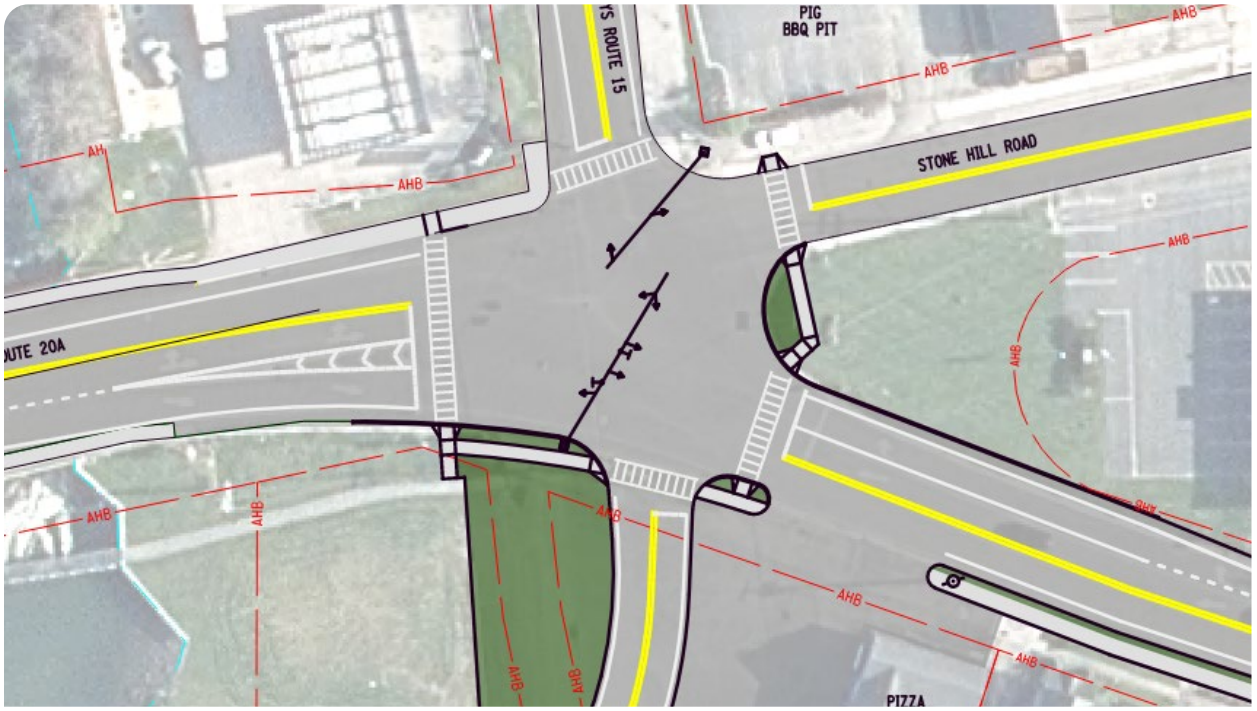
Estimated Construction Cost: $185,000

Alignment With Previous Plans, Studies, Or Framework

- **Finger Lakes Regional Sustainability Plan**
  - ➥ Maintain and improve the functionality, safety, and efficiency of existing transportation infrastructure
- **Livingston County Transportation Connectivity Plan**
  - ➥ Install intersection and pedestrian level lighting

Funding Opportunities

- Transportation Alternatives Program (TAP)
- Future Local Watershed Revitalization Program (LWRP)
- Future Downtown Revitalization Initiative (DRI)



Plan view of proposed intersection realignment (Option B1) of Rochester Road and Big Tree Road

Option B2. Single Lane Roundabout (Rochester Road at Big Tree Road)

This second option for proposed improvements at this location would be to convert the intersection to a single lane roundabout. Pedestrian accommodations would be in the form of sidewalks, ADA compliant landings, and crosswalks. A single lane roundabout would keep traffic flowing efficiently, while eliminating collision types that may result in more serious injury, such as head on, right turn, and left angle. A roundabout would also act as a gateway and traffic calming element transitioning from high speed rural roadways to low speeds entering the Hamlet. Stormwater management and other gateway elements such as signage and landscaping would be proposed for this option also.

Cost Estimate Assumptions

- Full depth roundabout reconstruction
- Curbed roundabout to accommodate sidewalk
- Pedestrian accommodations through sidewalk, splitter islands, and crosswalks
- Gateway signage
- Landscaping

Estimated Construction Cost: $3,000,000

Design Considerations

- Roundabouts use a larger footprint, but there is plenty of available right-of-way to stay within the highway boundary
- Roundabouts are more expensive in the short term due to the construction cost

Estimated Construction Cost: $600,000

Alignment With Previous Plans, Studies, Or Framework

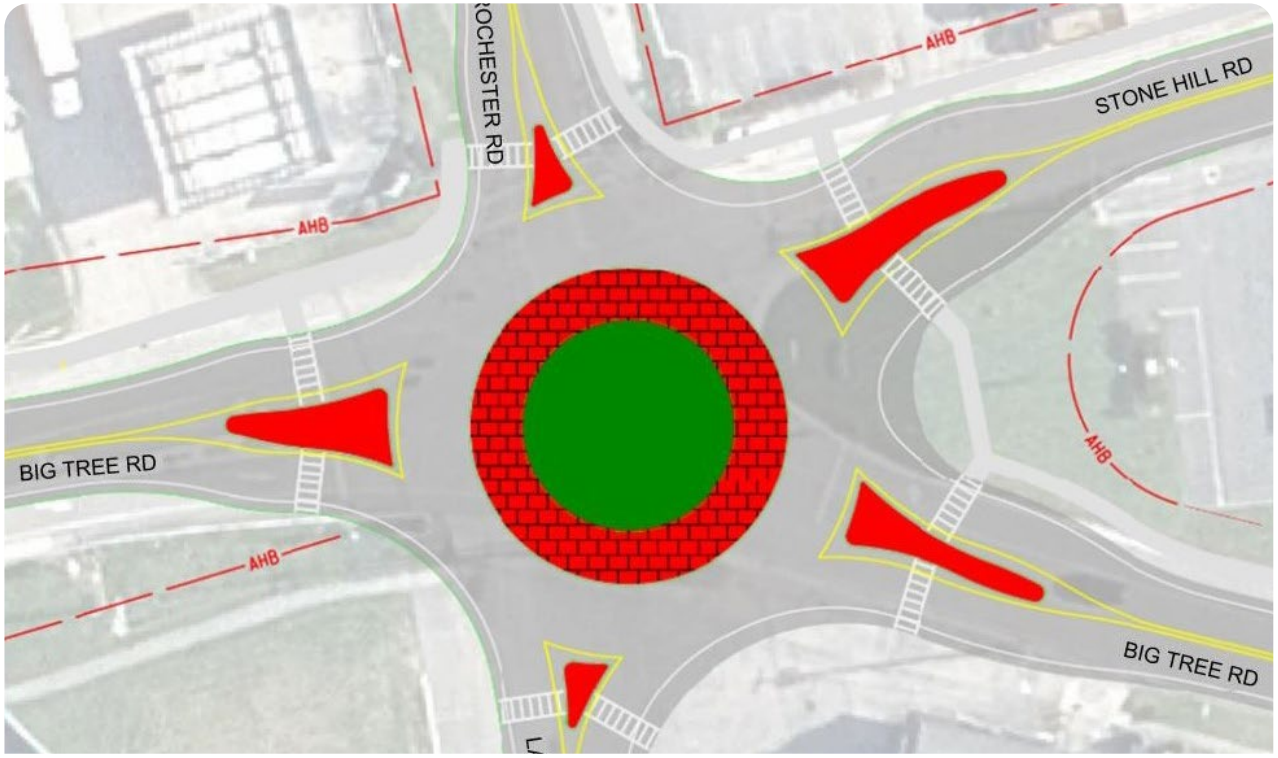
- Finger Lakes Regional Sustainability Plan
  - ➥ Maintain and improve the functionality, safety, and efficiency of existing transportation infrastructure

Funding Opportunities

- Transportation Alternatives Program (TAP) or Congestion Mitigation and Air Quality (CMAQ)
- Local Watershed Revitalization Program (LWRP)
- Downtown Revitalization Initiative (DRI)

C. East Lake Road and Bronson Hill Road at Big Tree Road

This intersection is located at the eastern limit of the corridor. The size of the intersection is constrained



Option B2 - Proposed roundabout at Rochester Road, Big Tree Road, Lakeville Park, and Stone Hill Road

by the hilly topography. Public feedback indicated that there is a need for left turn lanes for there can be long queues waiting for turning vehicles on the Big Tree Road approaches. The intersection is absent of pedestrian or multimodal accommodations, and there is currently limited shoulder or space outside of the travel lanes. The intersection could be enhanced with:

- Pedestrian/Multi-Modal Accommodations
- Efficient traffic operations

Two options were identified for this location that would meet the project needs, Option C1, an intersection upgrade or Option C2, an intersection upgrade with turn lanes. Additional details on how each option would meet the identified needs are shown in Table 5.4.

East Lake Road and Bronson Hill Road Intersection Comparison of Options		
Identified Needs	**Option C1: Intersection Upgrade**	**Option C2: Intersection Upgrade with Turn Lanes**
Provide multi-modal accommodations	• Pedestrian indications with landings and crosswalks • Sidewalk connecting landings	• Crosswalks, sidewalks, and curb ramps
Improve intersection function and safety	• Upgraded traffic signal with updated signal timings based on demand	• Upgraded traffic signal with updated signal timings based on demand • Left turn lanes to improve traffic flow

Table 5.4: East Lake Road and Bronson Hill Road Intersection Comparison of Options

Big Tree Road at West Lake Road Intersection

Big Tree Road at West Lake Road Intersection

Option C1. Intersection Upgrade (East Lake Road and Bronson Hill Road at Big Tree Road)

This first option for proposed improvements at this intersection include making upgrades to the signalized intersection in the form of new traffic signal equipment and pedestrian accommodations. Pedestrian accommodations would be in the form of pedestrian indications, sidewalks, ADA compliant landings, and crosswalks. The signal would be replaced with a mast arm to and provide updated signal timings for more efficient operations.

Cost Estimate Assumptions

- Mill and overlay
- Enhanced striping including crosswalks
- New mast arm signal with detection with pedestrian indications

- Sidewalks and curb ramps at each intersection corner
- Lighting
- Signage including wayfinding signage

Estimated Construction Cost: $485,000

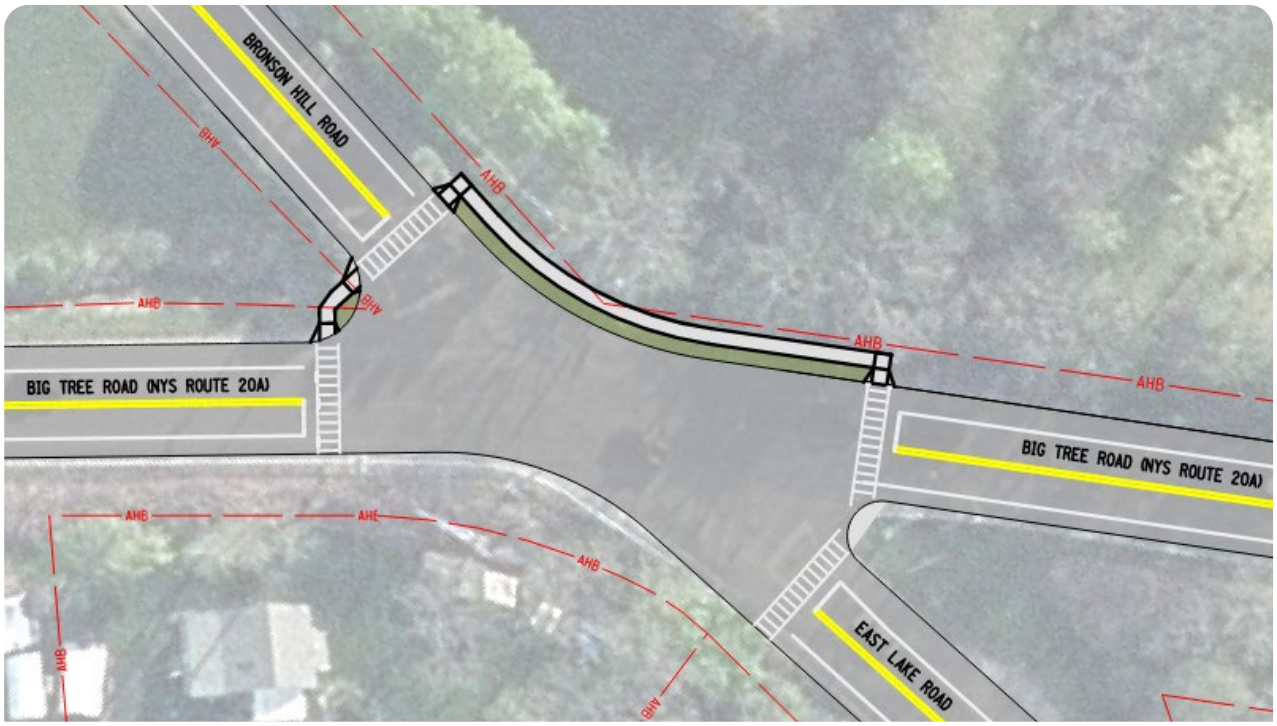
Design Considerations

- Small ROW acquisition for sidewalk and potentially grading

Estimated Construction Cost: $115,000

Alignment With Previous Plans, Studies, Or Framework

- Finger Lakes Regional Sustainability Plan
  - ➥ Maintain and improve the functionality, safety, and efficiency of existing transportation infrastructure
- Livingston County Transportation Connectivity Plan
  - ➥ Install intersection and pedestrian level lighting



Option C1 - Proposed intersection upgrades at Big Tree Road, East Lake Road, and Bronson Hill Road

Funding Opportunities

- Transportation Alternatives Program (TAP)

Option C2. Intersection Upgrade with Turn Lanes (East Lake Road and Bronson Hill Road at Big Tree Road)

This second option for proposed improvements at this intersection include making upgrades to the signalized intersection in the form of new traffic signal equipment and pedestrian accommodations. Exclusive left turn lanes would be added to each approach to remove left turns from through traffic. Pedestrian accommodations would be in the form of pedestrian indications, sidewalks, ADA compliant landings, and crosswalks. The signal would be replaced with a mast arm to and provide updated signal timings for more efficient operations.

Cost Estimate Assumptions

- Full depth reconstruction
- Enhanced striping including crosswalks
- New mast arm signal with detection with pedestrian signals
- Sidewalks and curb ramps at each intersection corner
- Lighting
- Signage including wayfinding signage

Estimated Construction Cost: $751,000

Design Considerations

- ROW acquisitions
- Grading impacts

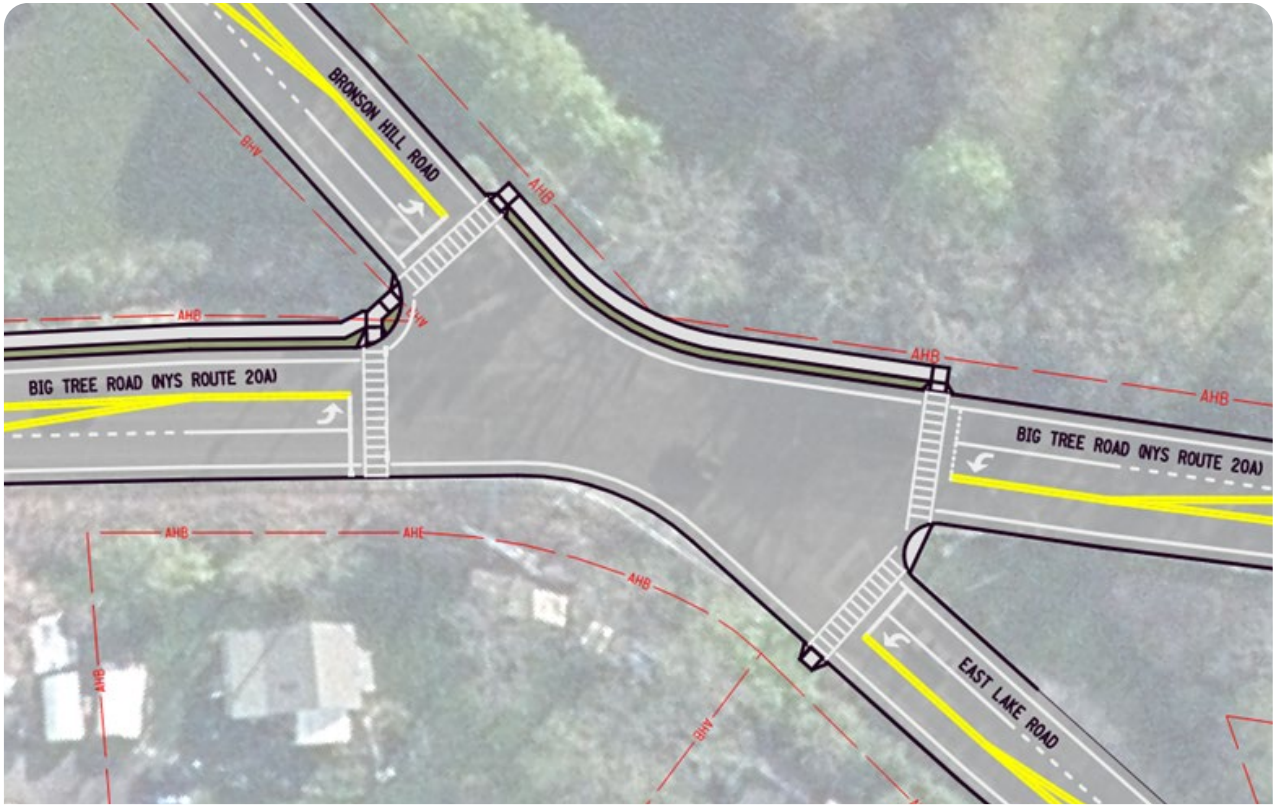
Estimated Design Cost: $179,000

Alignment With Previous Plans, Studies, Or Framework

- Finger Lakes Regional Sustainability Plan
  - ➥ Maintain and improve the functionality, safety, and efficiency of existing transportation infrastructure
- Livingston County Transportation Connectivity Plan
  - ➥ Install intersection and pedestrian level lighting

Funding Opportunities

- Transportation Alternatives Program (TAP)



Option C2 - Proposed Intersection Upgrade with Turn Lanes (East Lake Road and Bronson Hill Road at Big Tree Road)

Corridor Improvements

D. Big Tree Road from West Lake Road to Rochester Road

This section of Big Tree Road comprises of mostly residential properties lining both sides of the road. There is currently sidewalk on the north side from Minnehan's to the intersection with Rochester Road. Shoulder space is plentiful in this segment ranging from 6 to 7 feet. Based on public feedback at the second round of outreach, sidewalk was requested on the south side of Big Tree Road for this segment of the corridor. This section of the corridor could be enhanced with:

- Stormwater Management
- Pedestrian/Multi-Modal Accommodations

Two options were identified for this section of the corridor which would meet the project needs, Option D1, mill and overlay with proposed curb and sidewalk and closed drainage system or Option D2, mill and overlay while maintaining the current cross section with the addition of green infrastructure. Both options include a crossing at Turtle Rock Road and Pebble Beach Road to access Pebble Beach. Additional details on how these options would meet the identified needs are shown in Table 4.5.

West Lake Road to Rochester Road		
Identified Needs	**Option D1: Curb and Sidewalk**	**Option D2: Maintain Current Cross Section**
Protect and promote Conesus Lake	• Green infrastructure at low points with sidewalk and curb installation to reduce runoff and improve water quality from additional impervious surface • Pedestrian connection to Pebble Beach Road which leads to Pebble Beach	• Green infrastructure at low points • Pedestrian connection to Pebble Beach Road which leads to Pebble Beach
Provide multi-modal accommodations	• Sidewalk on both sides of the road • Crossing to access Pebble Beach	• Crossing to access Pebble Beach

Table 5.5: West Lake Road to Rochester Road

Option D1. Curb and Sidewalk (Big Tree Road from West Lake Road to Rochester Road)

This first option for this corridor includes mill and overlay of Big Tree Road and the installation of curb and closed drainage. Pedestrian accommodations would be in the form of new sidewalks, ADA compliant landings, and crosswalks, and shoulders that serve as bikes space.

Cost Estimate Assumptions

- Mill and Overlay
- Curb and closed drainage
- Sidewalk
- Lighting
- Signage including wayfinding signage
- Infiltration trench
- A few tree clearings at wooded area, the remainder clearing and grubbing

Estimated Construction Cost: $3,600,000

Design Considerations

- Utility poles should be able to be maintained in their existing location, but may need to be relocated
- Existing open swale would need to be covered and closed drainage
- Infiltration trenches at low point
- To put in a crossing, a study of potential pedestrian use may need to be completed
- Assume shoulders are brought to 5' to add curb.
- Assume pedestrian scale level lighting

Estimated Design Cost: $660,000

Option D2. Maintain Current Cross Section (Big Tree Road from West Lake Road to Rochester Road)

Option D2 for this corridor includes mill and overlay of Big Tree Road maintaining the current cross section. Green infrastructure installed along the corridor for stormwater management. Pedestrian accommodations would be in the form of and crosswalks at Pebble Beach Road to access Pebble Beach.

Cost Estimate Assumptions

- Mill and Overlay
- Signage including wayfinding signage
- Infiltration trench

Estimated Construction Cost: $816,000

Design Considerations

- Utility poles should be able to be maintained in their existing location
- Green infrastructure along the corridor
- Infiltration trenches at low point
- To put in a crossing, a study of potential pedestrian use may need to be completed

Estimated Design Cost: $234,000

Alignment With Previous Plans, Studies, Or Framework

- **Finger Lakes Regional Sustainability Plan**
  - Maintain and improve the functionality, safety, and efficiency of existing transportation infrastructure
- **Livingston County Transportation Connectivity Plan**
  - Implement standard roadway cross sections that include pedestrian/bicycle infrastructure
  - Market and promote active transportation
  - Install intersection and pedestrian level lighting
- **Harmful Algae Bloom Action Plan for Conesus Lake**
  - Use stormwater management practices for curtailing runoff from developed land

Funding Opportunities

- Community Development Block Grant (CDBG)
- Carbon Reduction Funding (CRP)
- Transportation Alternatives Program (TAP)
- Green Innovation Grant Program (GIGP)

E. Big Tree Road from Rochester Road to East Lake Road and Bronson Hill Road

This section of Big Tree Road is a mix of commercial properties and lakeside residences. There is currently no sidewalk along this segment of Big Tree Road. Existing shoulders in this segment range from 4 to 7 feet. Public feedback indicated that there is a need for a center two-way left turn lane. While Big Tree Road does not have an identified safety deficiency, the predominant collision type is rear end (13 in the past 5 years), which are due to left turning vehicles being rear ended as drivers wait for an adequate gap in oncoming vehicles to make their turn. A two-way left turn lane can provide benefits to vehicle safety and traffic flow.

This section of the corridor could be enhanced with:

- Stormwater Management
- Pedestrian/Multi-Modal Accommodations

Two options were identified for this location that would meet the project needs, Option E1, a corridor with two travel lanes or Option E2, Two travel lanes with a two-way center left turn lane. Additional details on how each option would meet the identified needs are shown in Table 5.6 below.

Rochester Road to East Lake Road		
Identified Needs	**Option E1: Two Travel Lanes**	**Option E2: Two Travel Lanes with Two-Way Left Turn Lane**
Protect and promote Conesus Lake	• Green infrastructure at low points with sidewalk and curb installation to reduce runoff and improve water quality from additional impervious surface • Pedestrian connection to Vitale Park	• Green infrastructure at low points with sidewalk and curb installation to reduce runoff and improve water quality from additional impervious surface • Pedestrian connection to Vitale Park
Provide multi-modal accommodations	• Sidewalk on both sides of the road • Larger buffer for furniture • Bike Space	• Sidewalk on both sides of the road • Bike Space

Table 5.6: Rochester Road to East Lake Road

Option E1. Two Travel Lanes with Sidewalk on Both Sides (Big Tree Road from Rochester to East Lake Road and Bronson Hill Road)

This first option for this corridor includes full depth reconstruction of Big Tree Road to install curb and closed drainage. Pedestrian accommodations would be in the form of new sidewalks, ADA compliant landings, and crosswalks, and shoulders that serve as bike space.

Cost Estimate Assumptions

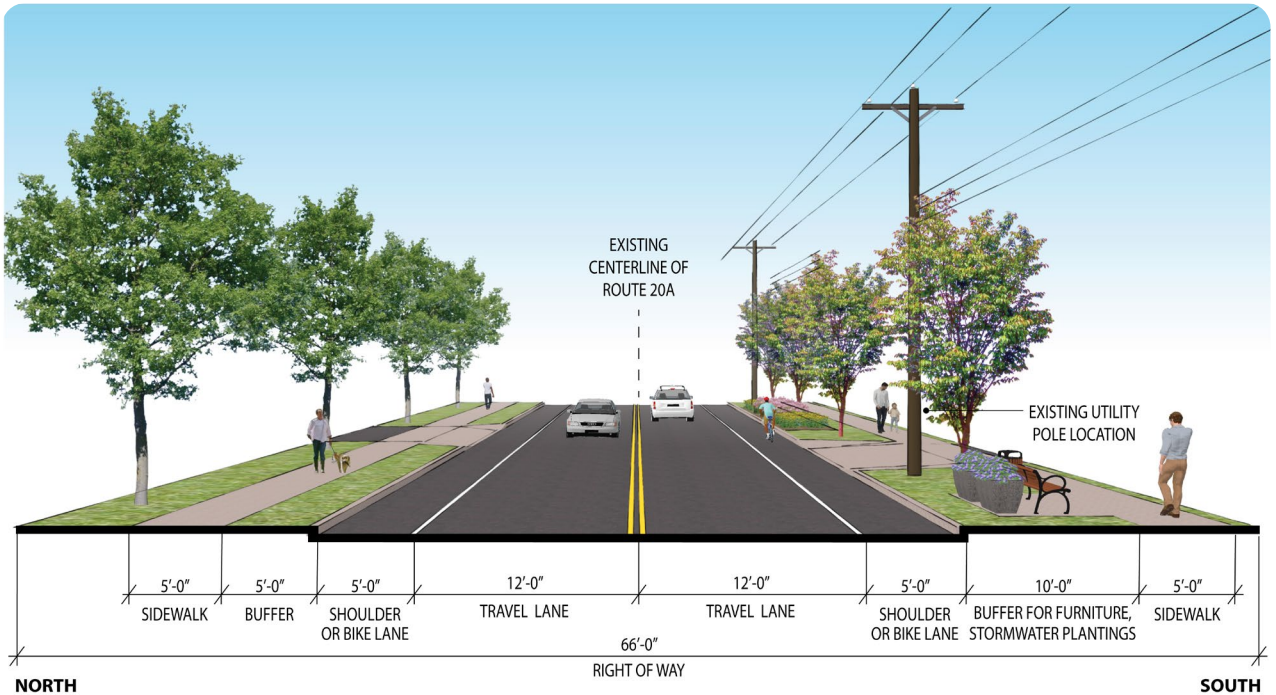
- Full Depth Reconstruction
- Curb and closed drainage
- Sidewalk – Both Sides
- Lighting
- Signage including wayfinding signage
- Infiltration trench
- A few tree clearings at wooded area, the remainder clearing and grubbing

Estimated Construction Cost: $6,578,000

Design Considerations

- Utility poles should be able to be maintained in their existing location, but may need to be relocated
- Existing open swale would need to be covered and closed drainage
- Infiltration trenches at low point
- Assume shoulders are brought to 5' to add curb.
- Assume pedestrian scale level lighting

Estimated Design Cost: $1,322,000



PROPOSED CROSS-SECTION WITH SIDEWALK ON BOTH SIDES & LARGER BUFFER
Rochester Road to East Lake Road
Route 20A (Big Tree Road) | Lakeville, NY

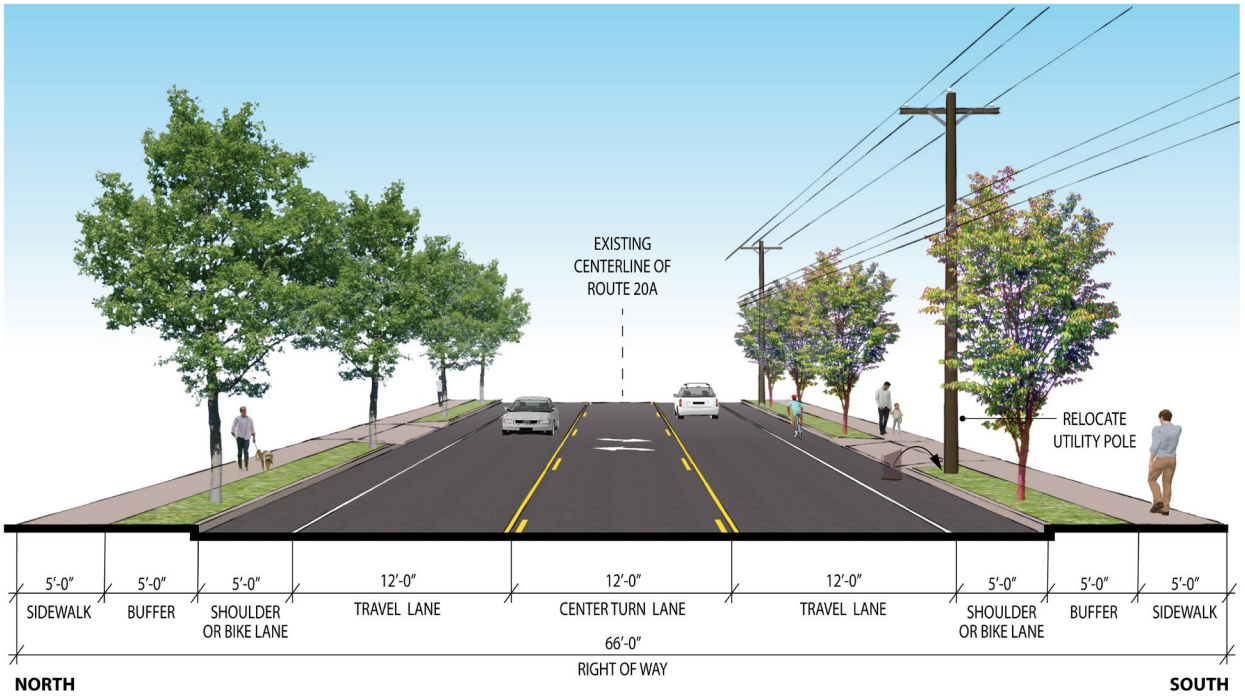
Proposed Cross Section With Sidewalk On Both Sides & Larger Buffer

Funding Opportunities

- RAISE Grant
- Community Development Block Grant (CDBG)
- Transportation Alternatives Program (TAP)

Option E2. Two Travel Lanes with Two-Way Left Turn Lane (Big Tree Road from Rochester to East Lake Road and Bronson Hill Road)

This second option for this corridor includes full depth reconstruction of Big Tree Road to install curb and closed and drainage. A two-way center left turn lane would be added along the length of the project. Pedestrian accommodations would be in the form of



Proposed Cross Section With Sidewalk On Both Sides & Larger Buffer

new sidewalks, ADA compliant landings, and crosswalks, and shoulders that serve as bike space.

Cost Estimate Assumptions

- Full Depth Reconstruction
- Curb and closed drainage
- Sidewalk – Both Sides
- Lighting
- Signage including wayfinding signage
- Infiltration trench
- A few tree clearings at wooded area, the remainder clearing and grubbing

Estimated Construction Cost: $7,512,000

Design Considerations

- Utility poles to be relocated
- Existing open swale would need to be covered and closed drainage
- Infiltration trenches at low point
- Assume shoulders are brought to 5' to add curb.
- Assume pedestrian scale level lighting

Estimated Design Cost: $1,508,000

Funding Opportunities

- RAISE Grant
- Transportation Alternatives Program (TAP)

Vitale Park Entrance

Vitale Park is a major destination for the Hamlet of Lakeville. The Park has walking trails, places to enjoy the views of the lake, access to water for fishing, a basketball court, pavilions and picnic tables, a playground, and also contains the Chip Holt Nature Center and the Watershed Education Center. During the summer months, Vitale Park hosts a popular summer concert series. The current entrance to the park is engulfed by pavement with the driveways of the adjacent properties with a small entrance sign. The study identified as a part of recommendations for Vitale Park to have a new entrance that is in alignment with the goals of this project. An entrance that is friendly to different transportation modes, is aesthetically pleasing with an enhanced sign and landscaping features, and serves as a defined gateway into the park.

- Pedestrian/Multi-Modal Accommodations
- Landscaped Gateway/Stormwater Management

One option was identified for the park entrance, however, this is a concept and could be more refined based on stakeholder preferences for aesthetics.

COST ESTIMATE ASSUMPTIONS

- Mill and overlay pavement at entrance
- Concrete sidewalk
- Gateway signage
- Decorative landscaping
- Small raingarden

Estimated Construction Cost: $270,000

DESIGN CONSIDERATIONS

Design and construction prices will vary depending on the selection of sign and aesthetic treatments to be used as a gateway. The Town should work with a landscape architect to define a vision within the budget available for the project. The design should align with community character and preferences for the future vision of the corridor.

Estimated Design Cost: $50,000

FUNDING OPPORTUNITIES

- CFA Grant through Environmental Protection Fund

Vitale Park Entrance	
Identified Needs	**Park Entrance Upgrade**
Protect and promote Conesus Lake	• Improved entrance at the park with reduced impervious area • Landscaping/plantings
Provide multi-modal accommodations	• Proposed sidewalks into the park entrance
Create a sense of place	• Park Gateway signage • Landscaping

Table 5.7: Vitale Park Entrance Needs and Upgrades

Vitale Park Entrance

Services and Programs

Wayfinding Signage Program

Project Goals: Protect and promote Conesus Lake, create a sense of place

Description: Livingston County has developed a guide for wayfinding to improve navigation throughout the County, support economic development, connection people with destinations of interest through consistency, and promote the County's unique assets and destinations. This guide has specific recommendations for the nine villages throughout the County. With the Hamlet of Lakeville being a seasonal destination, it is suggested that the Hamlet incorporate wayfinding signage along Big Tree Road. With assets such as Vitale Park, and its Nature and Education Centers, wayfinding signage could provide consistent signage with the initiative undertaken by Livingston County.

Wayfinding can enhance the overall experience of a place, providing branding and a unique sense of place. Wayfinding signage can include gateway signage into the Hamlet, and wayfinding for pedestrian and vehicle activity. In addition, historical or educational interpretive signage be placed throughout the community. This could be related to education on the lake and how to protect it, and historic photos or preservation, etc.

Proposed Services and Programs Initiatives

Service or Program Incentive	Description	Potential Partners or Responsible Parties	Funding Resources
Wayfinding Signage	• Program to provide wayfinding signage connecting people with places of interest in the physical environment.	• Livingston County • Town of Livonia	• NY Forward
Share the Road Education Campaign	• Instilling the principal that transportation safety is a shared responsibility. Refreshes the rules of the road and sharing the road with multiple modes.	• Local Police • Livingston County Sheriff • Livingston County Health Department • Town of Livonia	• Highway Safety Grant • Local Funding
Promote Active Transportation	• Market and promote active transportation through improved accommodations and infrastructure.	• Town of Livonia	• AARP Livable Communities • Local Funding

Table 5.8: Proposed Services and Programs Initiatives

Timeframe: *3-5 years*
Cost: *low to mid-level depending on scale and complexity*
Lead Agency: *Town of Livonia, Livingston County*
Funding Sources: *New York State Consolidated Funding Application Environmental Protection Fund: Parks, Preservation and Heritage Grants*

Share the Road Education Campaign

Project Goals: Provide multi-modal accommodations, Improve intersection function and safety

Description: Transportation safety is a shared responsibility. Pedestrians and bicyclists share the street with vehicles today using available shoulder width as multi-modal space. Public feedback expresses the concern for safety due to the lack of space, cars using the shoulder to go around left turning vehicles, and due to driver behavior in the area. It is recommended to do a driver education campaign about sharing the road with other modes of transportation.

In the same retrospect, bicyclists must obey traffic signs and signals. Pedestrians should be following the rules of the road, including signs and signals. Once crosswalks and other pedestrian equipment are installed, the rules of yielding to pedestrians at crosswalks, waiting for the walk sign to cross, and other rules should be promoted in the campaign. The campaign should cover the existing infrastructure on Big Tree Road, as well as the potential for future infrastructure.

Timeframe: 0-5 years
Cost: low to mid-level depending on scale and complexity
Lead Agency: Local police, County Sheriff, County Department of Health
Funding Sources: Highway Safety Grant, Local Funding

Promote Active Transportation

Project Goals: Provide multi-modal accommodations

Description: Market and promote active transportation (benefits, wayfinding, historic/cultural components, etc.), as this is a benefit that supports vitality, public health, and economic development in the area. Walking, bicycling, and the use of transit can be promoted through infrastructure (sidewalk, shoulders, transit stop amenities), wayfinding signage.

Timeframe: 0-5 years
Cost: low to mid-level
Lead Agency: Town of Livonia
Funding Sources: AARP Livable Communities, Local Funding

Policy and Planning

Lakeville is part of the Town of Livonia's municipal policies and zoning code. It is recommended that the Town of Livonia work to update these to reflect this plan's vision statement and associated goals for

Proposed Planning and Policy Initiatives

Service or Program Incentive	Description	Potential Partners or Responsible Parties	Funding Resources
Pedestrian Overlay Zone	• Incorporate an overlay zone as a zoning regulation tool to improve pedestrian, bicyclist, and transit user experiences	• Town of Livonia	• CFA Grant • Local Funding
Updated Access Management Policy	• Update/amend current policy to better control the flow of traffic ingress and egress into various land uses.	• Town of Livonia • Livingston County • NYSDOT Region 4	• CFA Grant • Local Funding
Updated Design Guidelines and Standards	• Update site design guidelines for new or major development within the corridor and Town. The update would focus on sustainability.	• Town of Livonia	• CFA Grant • Local Funding
Stormwater Management Policy	• Develop a Town-wide stormwater management policy to include best practices for development to reduce water quantity and improve water quality.	• Town of Livonia • Livingston County • Conesus Lake Association	• CFA Grant • Local Funding

Table 5.9: Proposed Planning and Policy Initiatives

the project. The following are focus areas where additional guidance and language should be updated within municipal policy and zoning code that aligns with the plan's needs and goals.

Pedestrian Overlay Zone

To encourage multimodal activity, many local governments use overlay zones targeted at increasing mobility for all users of the roadway. Pedestrian Overlay Zones (POZs) are a zoning regulation tool to generally improve the pedestrian experience while also used for cyclists and assisting those who use public transit. The Zones use a variety of methods to increase safety, enhance the public realm, and promote walkability. They can also have a positive impact on public health by encouraging less vehicle dependency.

POZs can be overlaid on an entire community or within certain areas of a community to target pedestrian activity within a downtown or near natural resources and recreational assets. A POZ can regulate items including:

- Parking lot placement
- Mandatory sidewalks
- Outside dining placement
- Exterior Lighting
- Location of garbage containers
- Entrances

Draft code language is for POZs provided in Appendix C.

Access Management

Access management provides access to developed land along a roadway while controlling the flow of traffic arriving to and departing land uses such as residences, parks, retail stores, and restaurants. Access management can assist with:

- Pedestrian and driver safety
- Improvement in aesthetics
- Benefits the local economy
- Tax savings
- Capacity improvements

Access management is a balance of public and private interests and can be beneficial for both when all interests are kept in mind. Implementing access management can include curb-cut management (link, reduce number of, and define), traffic control points (signal systems, turning restrictions) and roadway and driveway design (turning lanes, medians). Currently, there is a lack of access management for properties along Big Tree Road which creates the perception that the roadway is unsafe. Without defined ingress and egress, there are more conflict points to occur between vehicles, and vehicles with other modes. Lack of access management has also resulted in large areas of asphalt and impermeable surfaces which contribute to flooding and increased stormwater runoff.

Lakeville can improve access management by updating and amending their current policy to include the following elements:

Development Thresholds

SEQR identifies the development threshold of potentially having significant impacts to traffic at 100 vehicle peak hour trips. The current threshold identified in the zoning code is 150 peak hour trips, it is recommended to lower the Town's current threshold to 100 vehicle peak hour trips to be in alignment with SEQR. A new accompanying chart identifying land use types and sizes that generate approximately 100 vehicle peak hour trips. This chart is provided by NYSDEC for SEQR guidelines. Changing the threshold to 100 vehicle peak hour trips will support a closer review of development impacts to the transportation network, and may necessitate mitigation.

Driveway Consolidation

To reduce the number of conflict points along major routes such as Big Tree Road, driveway consolidation is an additional tool to provide regulation on the number of driveways

connecting to a major street. Additional language pertaining to consolidated driveways for properties that are under the same ownership, and also for properties not yet developed, is recommended to be added to the access management policy. There is also the consideration of a single access to the street for these locations.

Driveway Connection Locations

To enhance safety and mobility through intersections, it is recommended to identify areas near an intersection that should not permit driveway connections. Intersections already contain a high number of conflict points, reducing those conflict points results in enhanced intersection safety, as well as improved operations.

Driveway Width

It is recommended to add maximum driveway widths to driveway design standards in the zoning code. Driveway widths should be based on land use, such as commercial versus residential, and the functional classification of the road they are connecting to. For Big Tree Road, NYSDOT standards should be followed.

Appendix C contains existing Town of Livonia access management policy with recommended draft code language and sections inserted within.

Design Guidelines/Standards

Big Tree Road and its associated Zoning Districts would greatly benefit from updated design standards and guidelines for new development or major redevelopment of properties along the corridor. The existing Town and Village of Livonia Design Criteria and Construction Specifications for Land Development was adopted in January 2007. There have not been updates to the standards since their adoption in 2007. Since 2007, there has been a shift in the approach to development with a focus on enhancing public health, safety, and equity. An update to the design criteria should reflect more sustainable development. It is also recommended to incorporate a section into the criteria for site plan design related specifically to new site development, changes to existing uses, sites, or structures. These specific guidelines would apply to the design and construction of site projects outside of single-family home sites/developments. It is recommended that these site design guidelines have the overarching objectives:

- Development of sites shall be pedestrian centric with minimum parking footprints. Parking lots should not dominate the landscape, and should be placed behind or to the side of buildings for visual impact and to promote walkability.
- Access to sites shall be focused on pedestrian, bicycle, and transit users with the infrastructure to promote and support those mode choices. Sites shall incorporate complete streets concepts such as landscaping, sidewalk, and a defined ingress and egress.
- A development's site design should incorporate generous landscaping to help the project settle into its surroundings.
- The site design shall protect and enhance the natural environment, provide for habitat, wetland and/or waterbody conservation, and plan for storm and wastewater management.
- The site design should support sustainability. This would include parking lots minimizing impervious area and also minimizing heat capture through landscaping and shade. Stormwater should be treated on-site with low impact development (LID) techniques.

More specific details to recommended design criteria to be implemented into the Town's Design Guidelines and Standards are included in Appendix E.

Stormwater Management Policy and Guidelines

A primary goal of this plan is to promote and protect Conesus Lake. Due to current flooding issues and absence of adequate stormwater management in the corridor, it is recommended to add additional

zoning code language related to stormwater management within site design, and to develop a stormwater management policy and design guidelines specific to the Town. This policy would address guide development using an added layer of safeguards with stormwater management. The requirements would be based around ensuring that all development, redevelopment, and disturbance activities are done in a way that protect the water quality, including the waterfront and enhancing the shoreline with improving water quality and preventing erosion. This study has identified that there are opportunities for increased and improved best practices on residential and commercial properties in the watershed/ subject area to reduce runoff. Livingston County is currently working on updating the Conesus Lake Watershed Management Plan, which will include stormwater code. Any recommended zoning language should be verified for its alignment with the Watershed Management Plan update, and to incorporate its recommendations as well. Focus areas for the zoning code could include:

- Minimizing impervious surface
- Employing green infrastructure techniques to manage water/runoff prior to entering stormwater drainage basins.
- Redirecting downspouts

Draft code language and recommendations for stormwater management is provided in Appendix E.

SECTION 6

Implementation Strategy

The recommended strategies and improvements were reviewed by the Steering Committee and the public outreach process. Based on feedback, and the needs of the corridor, the recommendations were implemented into a prioritization matrix. This matrix provides a description of the project, priority status, and estimated funding and sources.

Implementation Matrix					
Project	**Alternative**	**Priority**	**Responsible Parties and Partners**	**Estimated Costs**	**Potential Funding Resources**
Corridor Project: Rochester Road to East Lake Road and Bronson Hill Road	• Two Travel Lanes • Sidewalk on Both Sides • Study whether additional space to be used as either a two way left turn lane or a larger landscaped buffer	**High**	• Town of Livonia • Livingston County • NYSDOT	Design: $1.3M - $1.5M Construction: $6.5M - $7.5M Total: $7.8M - $9.0M	• TAP • RAISE • CDBG
Intersection Project: Rochester Road at Big Tree Road	• Roundabout	**High**	• Town of Livonia • Livingston County • NYSDOT	Design: $480,000 Construction: $2.4 M Total: $2.9M	• TAP • CMAQ • Future LWRP • Future DRI
Stormwater Study for Larger Watershed Area	• Identifying sources of pollution • Upstream water contributing to localized flooding • Unauthorized connections	**High**	• Town of Livonia • Livingston County • Conesus Lake Association	Study: $30,000 - $50,000	• Clean Water State Revolving Fund • Water Infrastructure Finance and Innovation Act
Municipal Guidelines Updates	• Pedestrian Overlay Zone • Update Design Standards • Update Access Management Policy • Stormwater Management Policy	**Medium**	• Town of Livonia • Livingston County • Conesus Lake Association	Updates and Policies: $10,000-$30,000 Each	• CFA • Local Resources
Corridor Project: West Lake Road to Rochester Road	• Sidewalk on both sides • Green infrastructure • Midblock Crossing	**Medium**	• Town of Livonia • Livingston County • NYSDOT	• Design: $660,000 • Construction: $3,600,000 • Total: $4.3M	• TAP

Table 6.1 Implementation Matrix

Implementation Matrix (Continued)					
Project	**Alternative**	**Priority**	**Responsible Parties and Partners**	**Estimated Costs**	**Potential Funding Resources**
Intersection Project: West Lake Road at Big Tree Road	• Roundabout • Green Infrastructure • Gateway	**Medium**	• Town of Livonia • Livingston County • NYSDOT	Design: $400,000 Construction: $2.0M Total: $2.4M	• TAP • CMAQ • Future DRI • Future LWRP
Wayfinding Signage Program	• Livingston County Wayfinding Signage Plan	**Medium**	• Town of Livonia • Livingston County	Range of Cost	• NY Forward
Intersection Project: East Lake Road and Bronson Hill Road at Big Tree Road	• Pedestrian Accommodations • Alternatives include left turn lanes and no turn lanes	**Low**	• Town of Livonia • Livingston County • NYSDOT	Design: $115,000-$179,000 Construction: $485,000-$751,000 Total:$600,000 - $930,000	• CDBG • TAP
Vitale Park Entrance	• Gateway/Landscaping • Sidewalks • Revised Entrance	**Low**	• Town of Livonia	Design: $150,000 Construction: $260,000 Total: $410,000	• CFA Grant
Share the Road Campaign	• Driver Education	**Low**	• Local Police • Sheriff • County Health Department	Low Cost	• Highway Safety Grant
Promote Active Transportation	• Market and promote active transportation through improved accommodations and infrastructure.	**Low**	• Town of Livonia	Low Cost	• AARP Livable Communities • Local Funds

Table 6.1 Implementation Matrix (Continued)

Note

Most funding sources requiring a match from the local sponsor will accept in kind services to cover the cost of the required match. To stack grants, or use multiple grants on a project to cover the full scope of services needed, separate scopes of work within a project can be covered by separate grants. For example, a TAP grant may cover sidewalks, and a NYSERDA grant may cover lighting on a project. Each grant has their own stipulations on the matches required (if any), and if it will cover the local match or additional costs within the same scope on a project.

AARP Livable Communities
American Association of Retired Persons Livable Communities
CDBG - Community Development Block Grant
CFA - Consolidated Funding Application
CMAQ - Congestion Mitigation and Air Quality Improvement
DRI - Downtown Revitalization Initiative
NY Forward
LWRP - Local Waterfront Revitalization Program
RAISE - Rebuilding American Infrastructure with Sustainability and Equity
TAP - Transportation Alternatives Program