



VILLAGE OF PERRY

SILVER LAKE TRAIL FEASIBILITY STUDY



PROJECT BACKGROUND

The Genesee Transportation Council (GTC) and the Village of Perry are conducting a feasibility study for the Silver Lake Trail. The study will develop and evaluate alternative route scenarios for a multi-use trail that would connect Letchworth State Park and the Genesee Valley Greenway to Silver Lake via Silver Lake Outlet.

The Silver Lake Trail corridor offers the potential of providing active transportation alternatives, healthful recreation opportunities, access to historical resources, economic development, and improved connectivity to the evolving regional trails network.

The study will consider safe alternative trail alignments, project feasibility issues, planning level cost estimates, realistic project phasing and a practical implementation plan for the project.

Financial assistance for the preparation of this report is provided by the Federal Highway Administration through the Genesee Transportation Council. The Village of Perry 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.

PRELIMINARY PROJECT OBJECTIVES

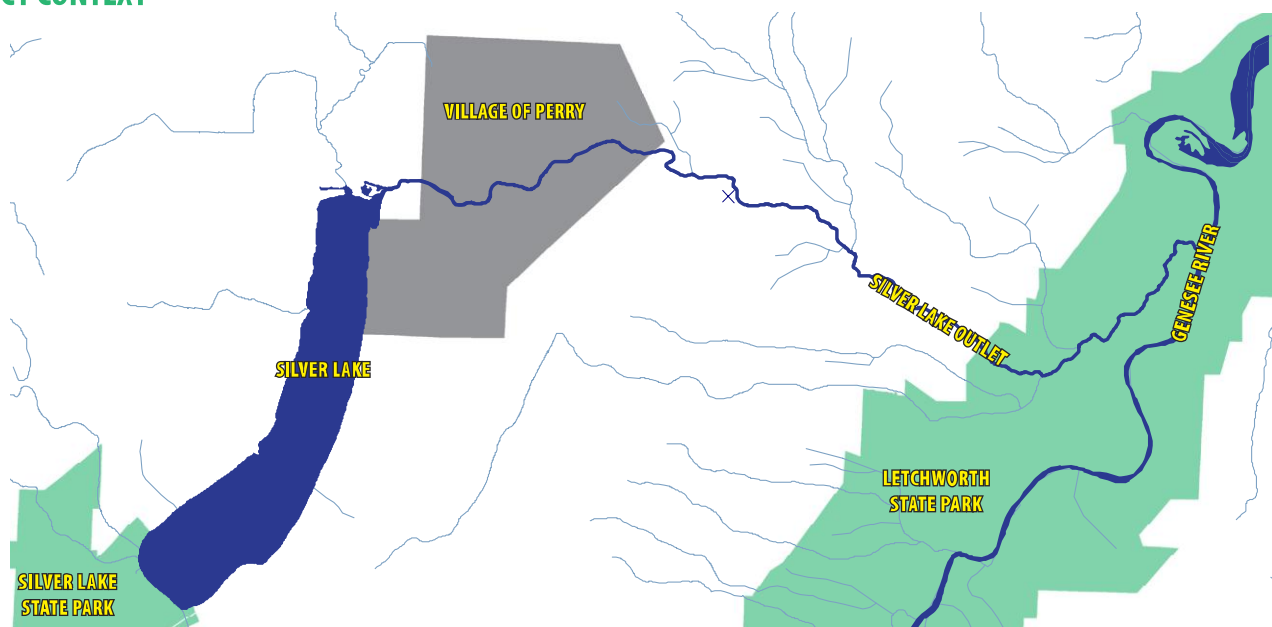
- » Enhance safety for pedestrian and bicycle travel in the Perry area.
- » Improve alternative transportation connections between Wyoming County communities and two State Parks.
- » Promotion of the Perry area as a tourist destination for visitors to Letchworth State Park.
- » Establishment of the first multi-use trail in Wyoming County outside the State Parks.

CONCEPT TRAIL SKETCH

Concept Sketch, Not to Scale, Not for Construction



PROJECT CONTEXT



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Postage
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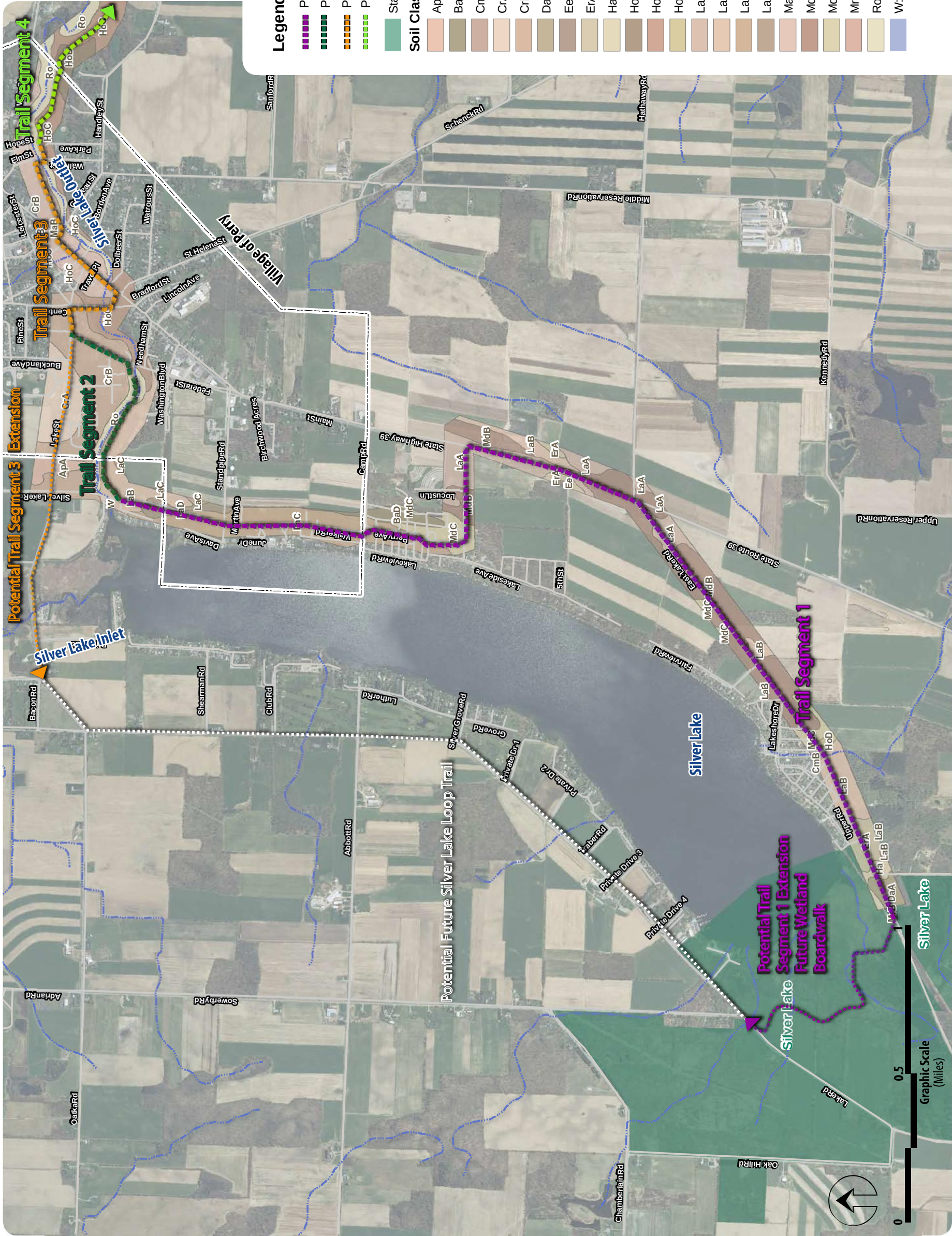
Village of Perry

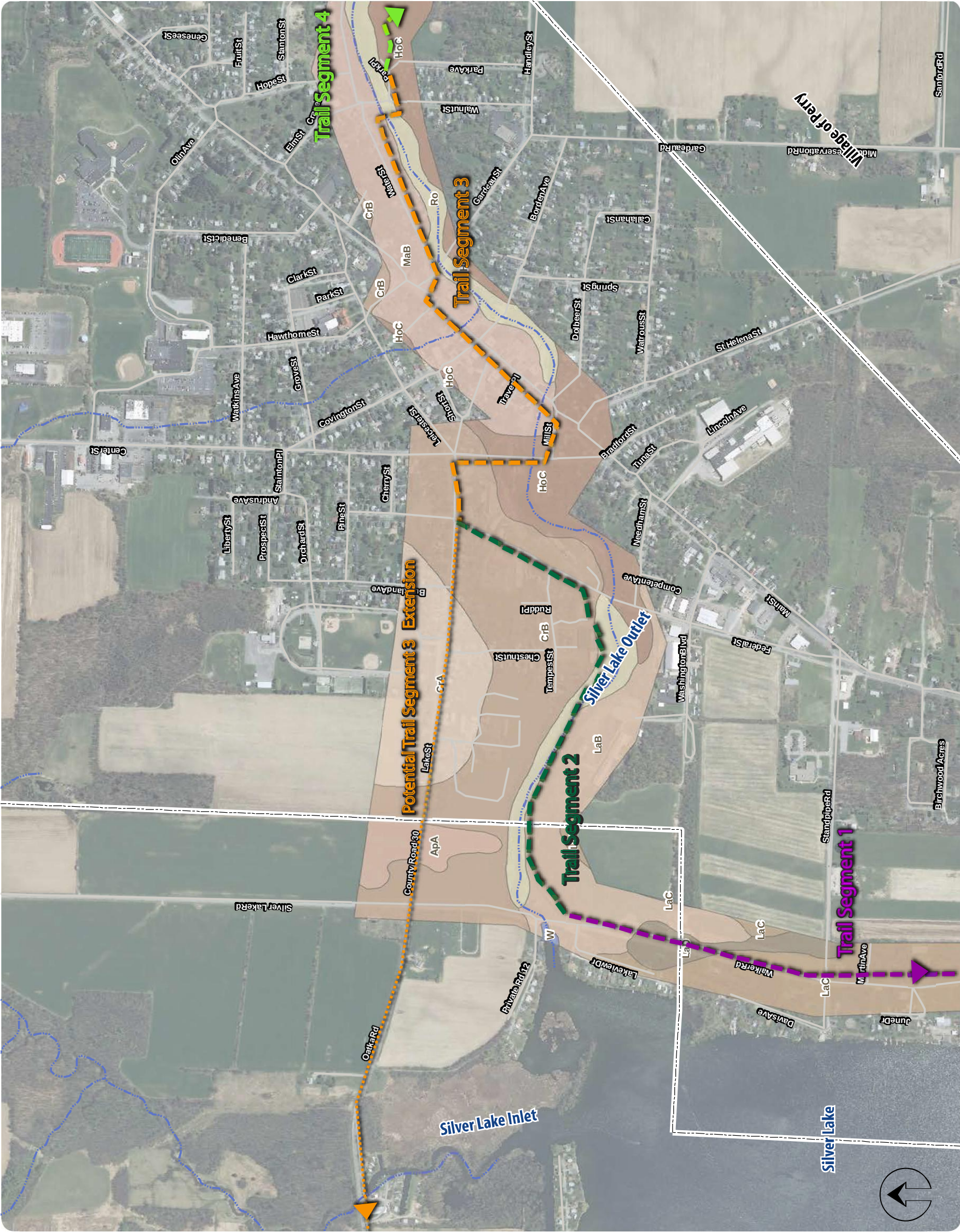
46 North Main Street

Perry, NY 14530

ATTN: Rick Hauser, Mayor

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VILLAGE OF PERRY
SILVER LAKE TRAIL
FEASIBILITY STUDY

FIGURE: 2
SOILS
SEGMENT 2 & 3

Legend

- Preliminary Alignment: Segment 1
- Preliminary Al gnment: Segment 2
- Prel minary Alignment: Segment 3
- Preliminary Alignment: Segment 4

State Parks

Soil Classification

- ApA: Appleton gravelly silt loam, 0 to 3 percent slopes
- CrA: Conesus gravelly silt loam, 0 to 3 percent slopes
- CrB: Conesus gravelly silt loam, 3 to 8 percent slopes
- HoC: Howard-Madrid gravelly loams, 8 to 15 percent slopes
- LaB: Langford channery silt loam, 3 to 8 percent slopes
- LaC: Langford channery silt loam, 8 to 15 percent slopes
- LaD: Langford channery silt loam, 15 to 25 percent slopes
- MaB: Madrid fine sandy loam, 2 to 8 percent slopes
- Ro: Rock outcrop
- W: Water

**VILLAGE OF PERRY
SILVER LAKE TRAIL
FEASIBILITY STUDY**

**FIGURE: 2
SOILS
SEGMENT 4**

Legend

■■■■ Preliminary Alignment: Segment 3

■ ■ ■ ■ ■ Preliminary Alignment: Segment 4

Soil Classification

Am: Alluvial land

AoB: Angola and Aurora channery silt loams, 3 to 8 percent slopes

BIA:Bath-Valois complex, 0 to 3 percent slopes

CcB: Canaseraga silt loam, 3 to 8 percent slopes

CnB: Churchville silt loam, 2 to 8 percent slopes

CoB: Collamer silt loam, 3 to 8 percent slopes

CrB: Conesus gravelly silt loam, 3 to 8 percent slopes

DaA: Dalton silt loam, 0 to 3 percent slopes

DaB: Dalton silt loam, 3 to 8 percent slopes

ErA: Erie silt loam, 0 to 3 percent slopes

HmC: Howard gravelly loam, 8 to 15 percent slopes

HmD: Howard gravelly loam, 15 to 25 percent slopes

HoB: Howard-Madrid gravelly loams, 3 to 8 percent sl

HoC: Howard-Madrid gravelly loams, 8 to 15 percent slopes

HSE: Howard and Chenango soils, 25 to 40 percent slopes

LaA: Langford channery silt loam, 0 to 3 percent slopes

LaB: Langford channery silt loam, 3 to 8 percent slopes

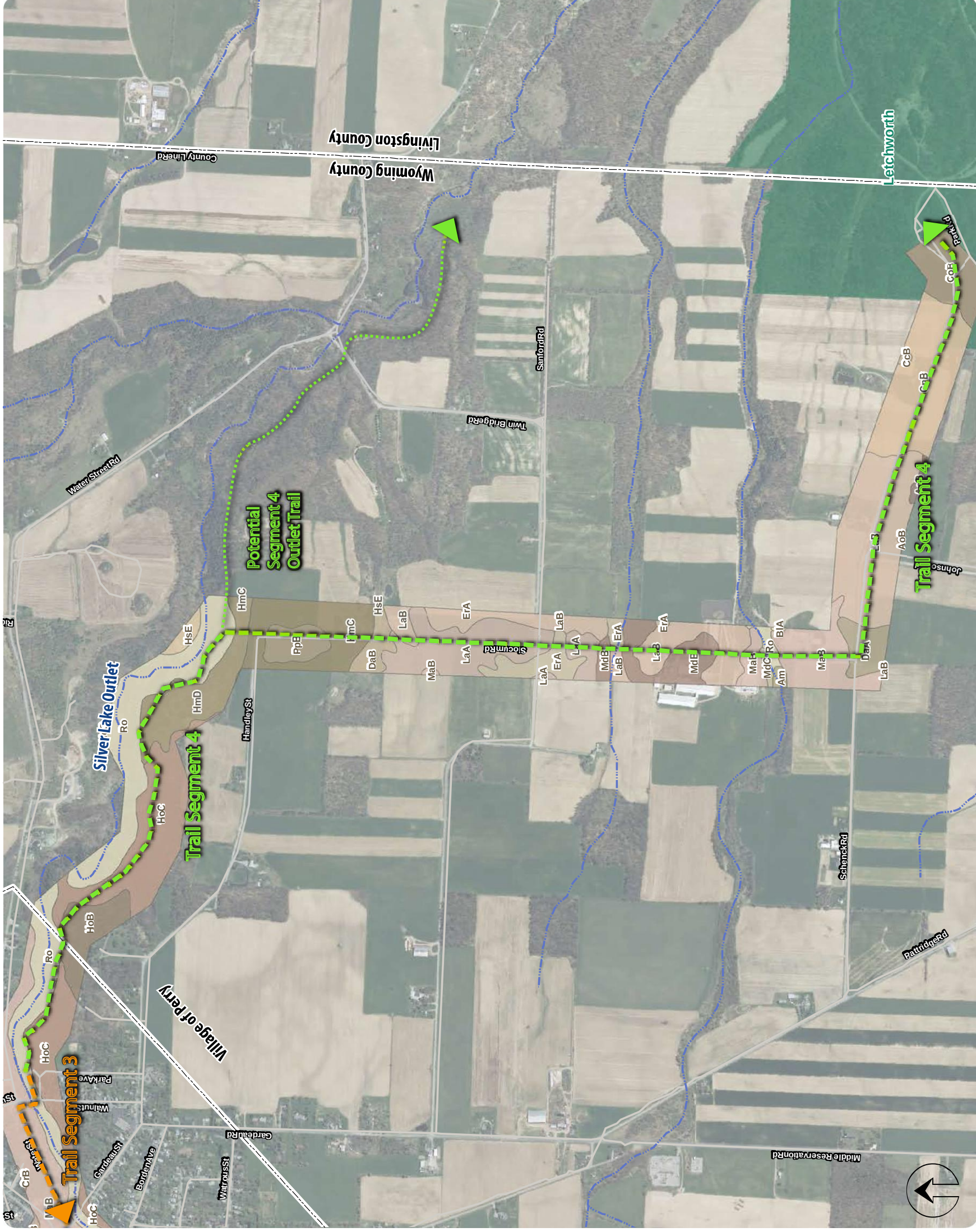
MaB: Madrid fine sandy loam, 2 to 8 percent slopes

MdB: Madrid loam, 2 to 8 percent slopes

MdC: Madrid loam, 8 to 15 percent slopes

PpB: P helps gravelly loam, 3 to 8 percent slopes

Ro: Rock outcrop



Map Sources: NYS GIS Clearing House, NYS OPRHP, NYSDEC, NWI Wetland Mapper, NYSDOT

Prepared by Barton & Loquidice, DPC

VILLAGE OF PERRY
SILVER LAKE TRAIL
FEASIBILITY STUDY

FIGURE: 3
EX. ENVIRONMENTAL FEATURES
SEGMENT 1

LEGEND

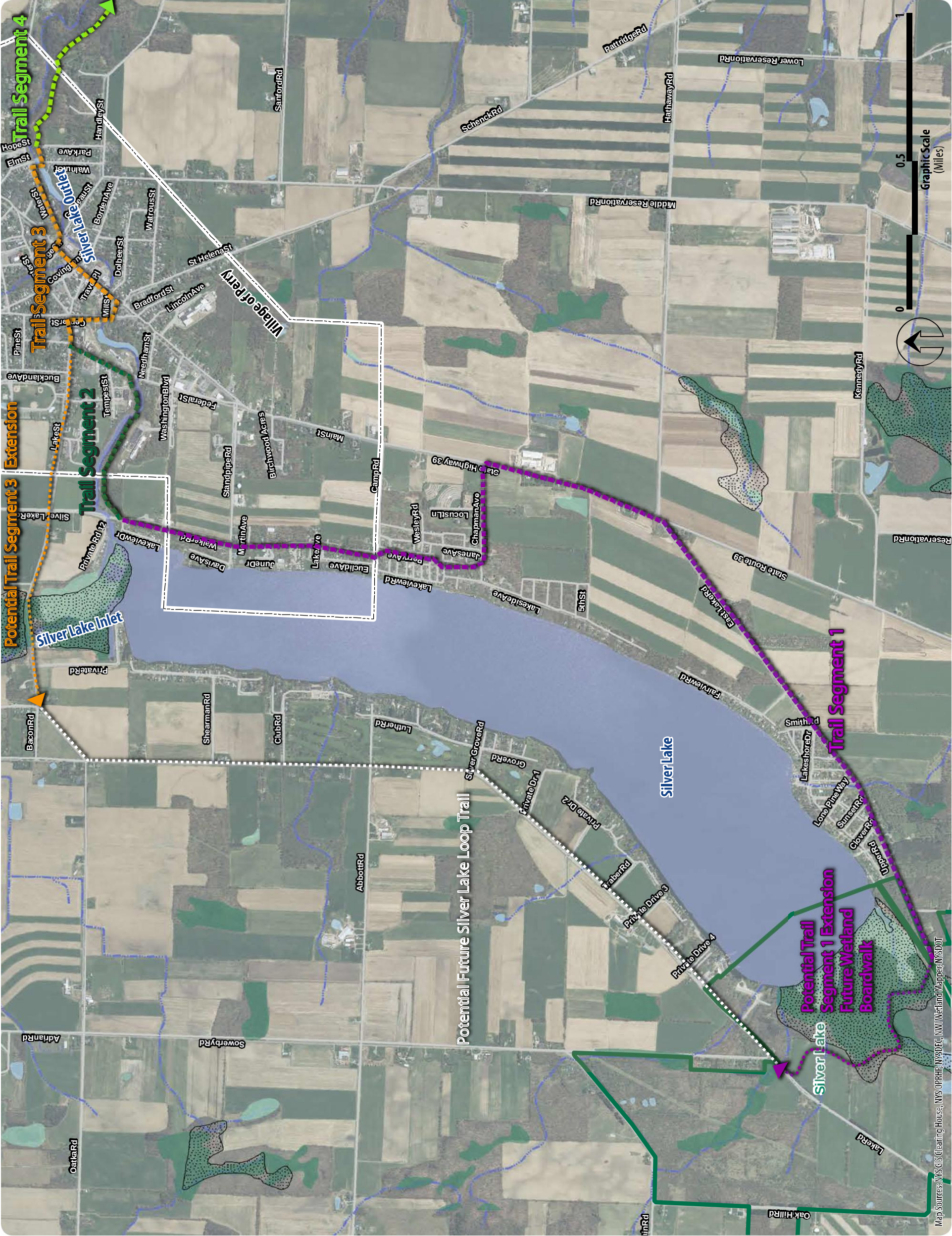
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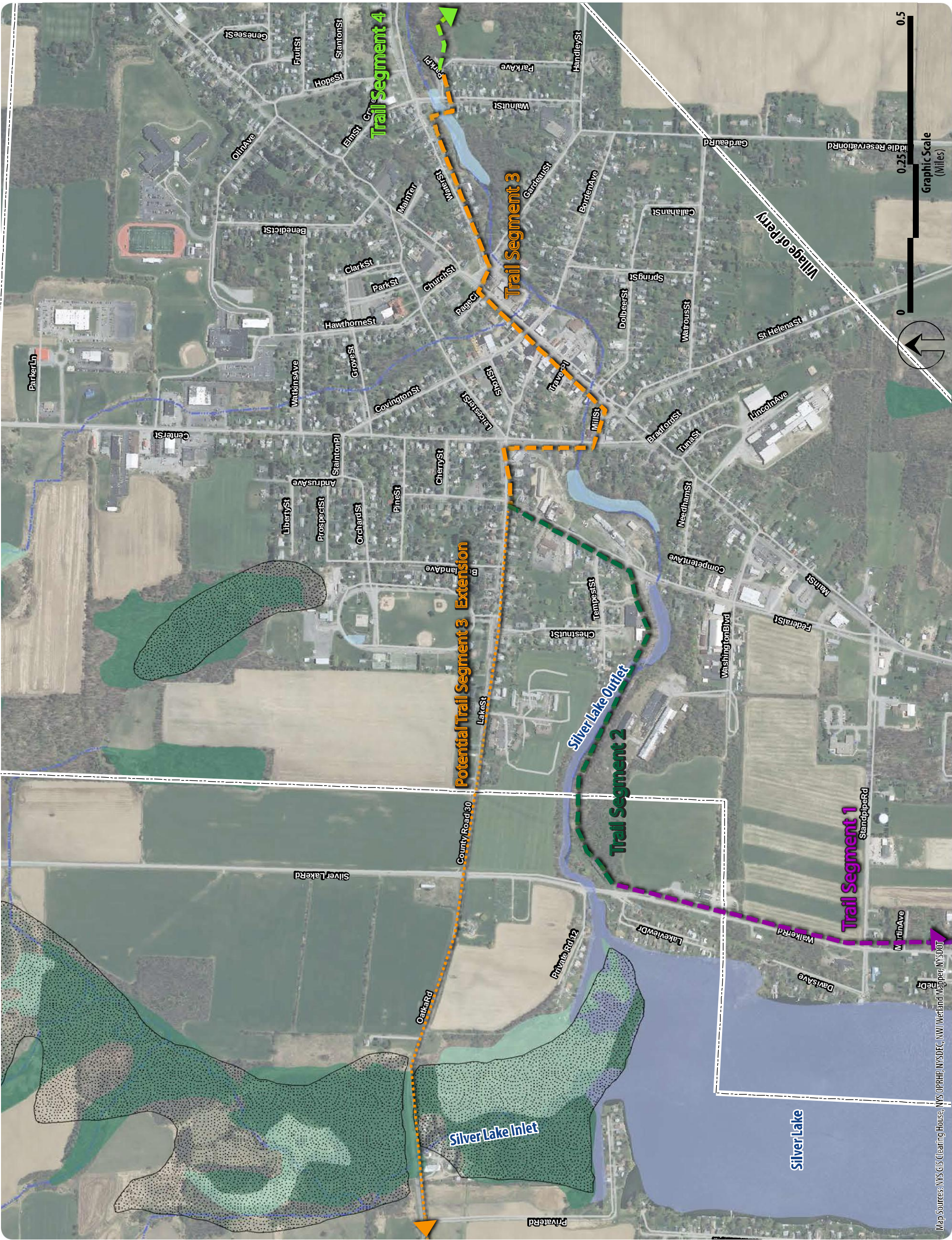
- Village of Perry
- Preliminary Alignment: Segment 1
- Preliminary Alignment: Segment 2
- Preliminary Alignment: Segment 3
- State Parks

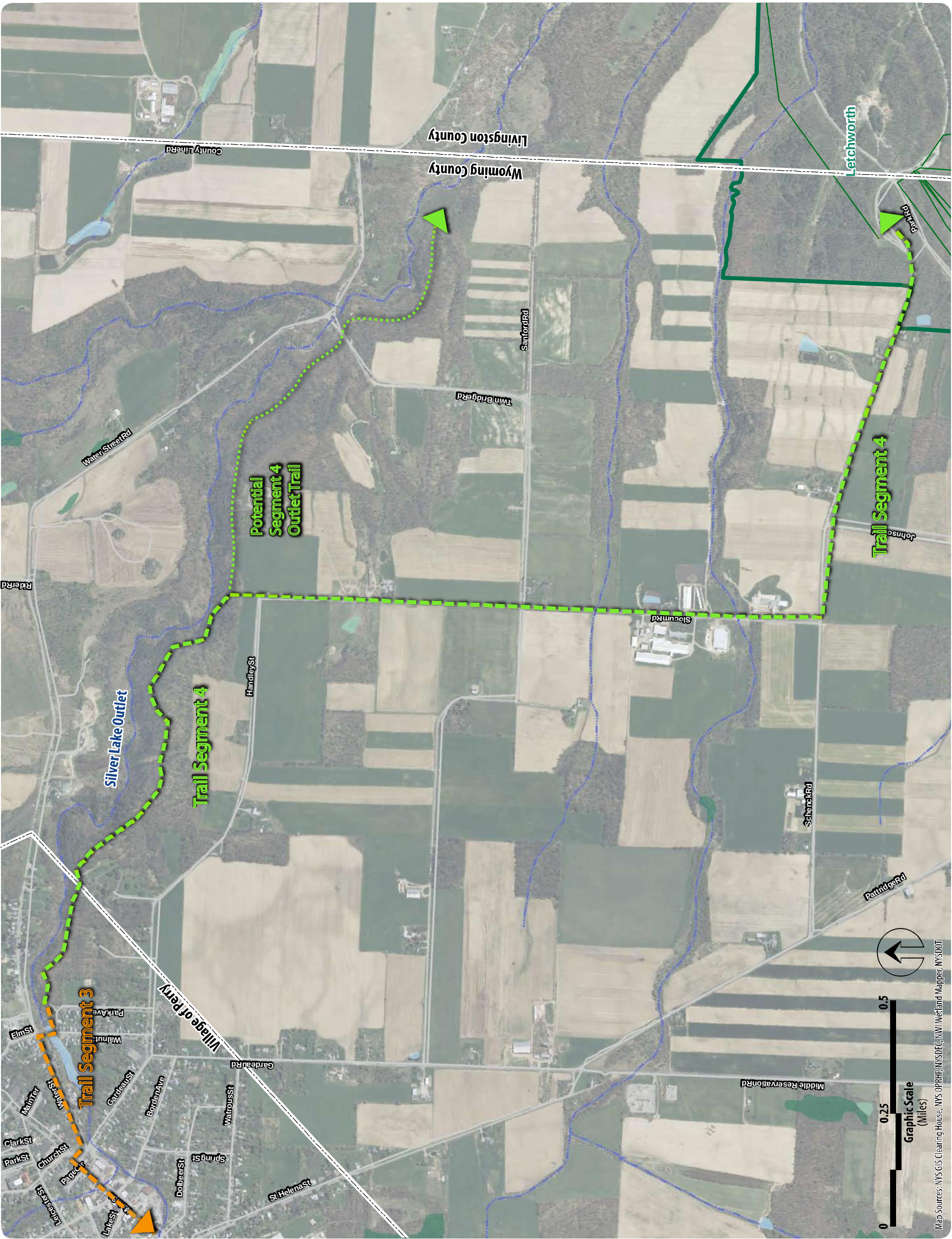
Wetlands

NWI Wetlands

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetlar
- Freshwater Pond
- Lake
- NY SDEC Wetlands







VILLAGE OF PERRY
SILVER LAKE TRAIL
FEASIBILITY STUDY

FIGURE: 4
SLOPES
SEGMENT 1

Legend

Municipal Boundary

State Parks

5ft Contours

Preliminary Alignment: Segment 1

Preliminary Alignment: Segment 2

Preliminary Alignment: Segment 3

Preliminary Alignment: Segment 4

Slope (Percent)

0 - 5

5-10

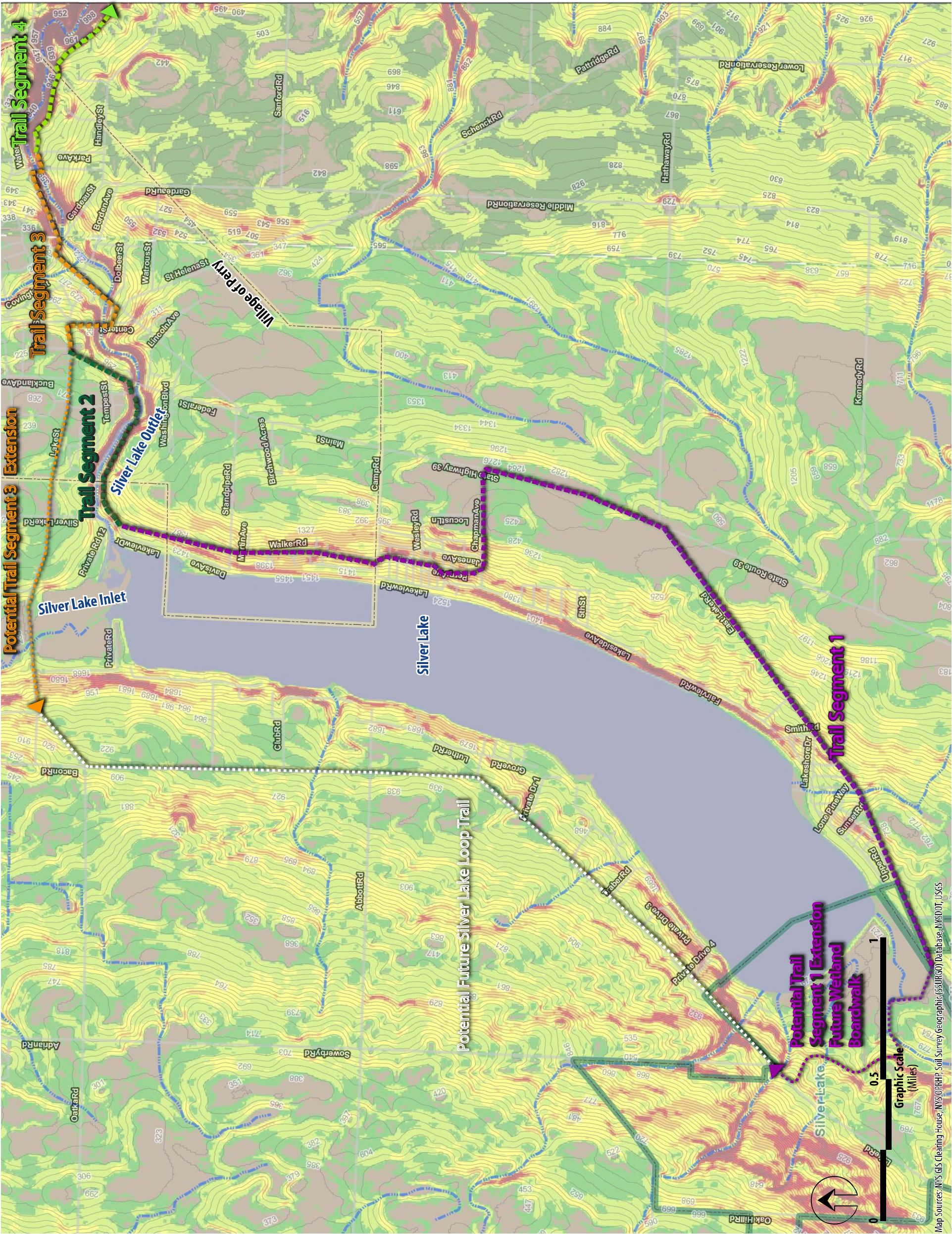
10-20

20-30

30-40

40-50

50+



Map Sources: NYS GIS Clearing House, NYS OBRHP, Soil Survey Geographic (SSURGO) Database, NYSOT, USGS

VILLAGE OF PERRY
SILVER LAKE TRAIL
FEASIBILITY STUDY

FIGURE: 4
SLOPES
SEGMENTS 2 & 3

Legend

Municipal Boundary

State Parks

5ft Contours

Preliminary Alignment: Segment 1

Preliminary Alignment: Segment 2

Preliminary Alignment: Segment 3

Preliminary Alignment: Segment 4

Slope (Percent)

0 - 5

5-10

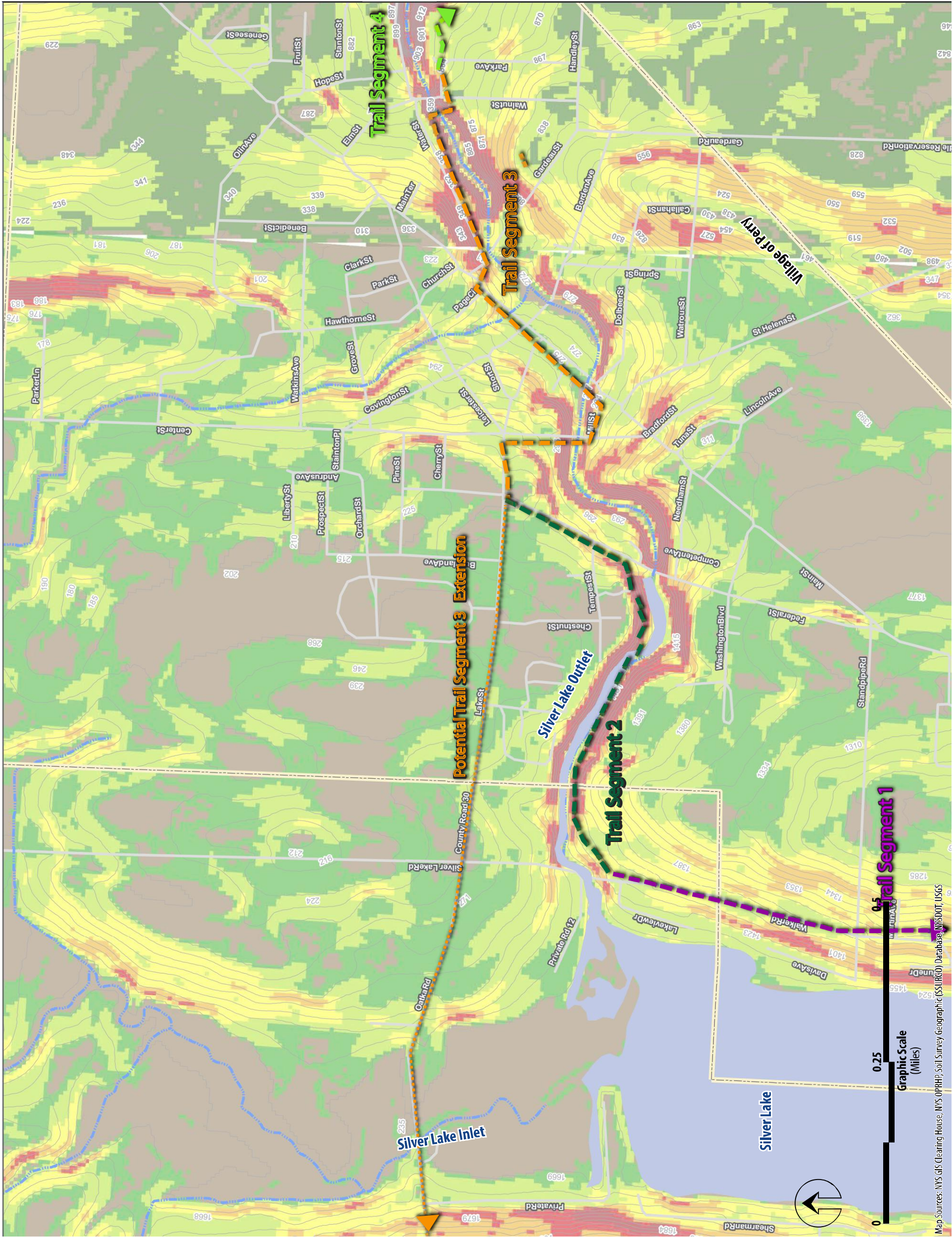
10-20

20-30

30-40

40-50

50+

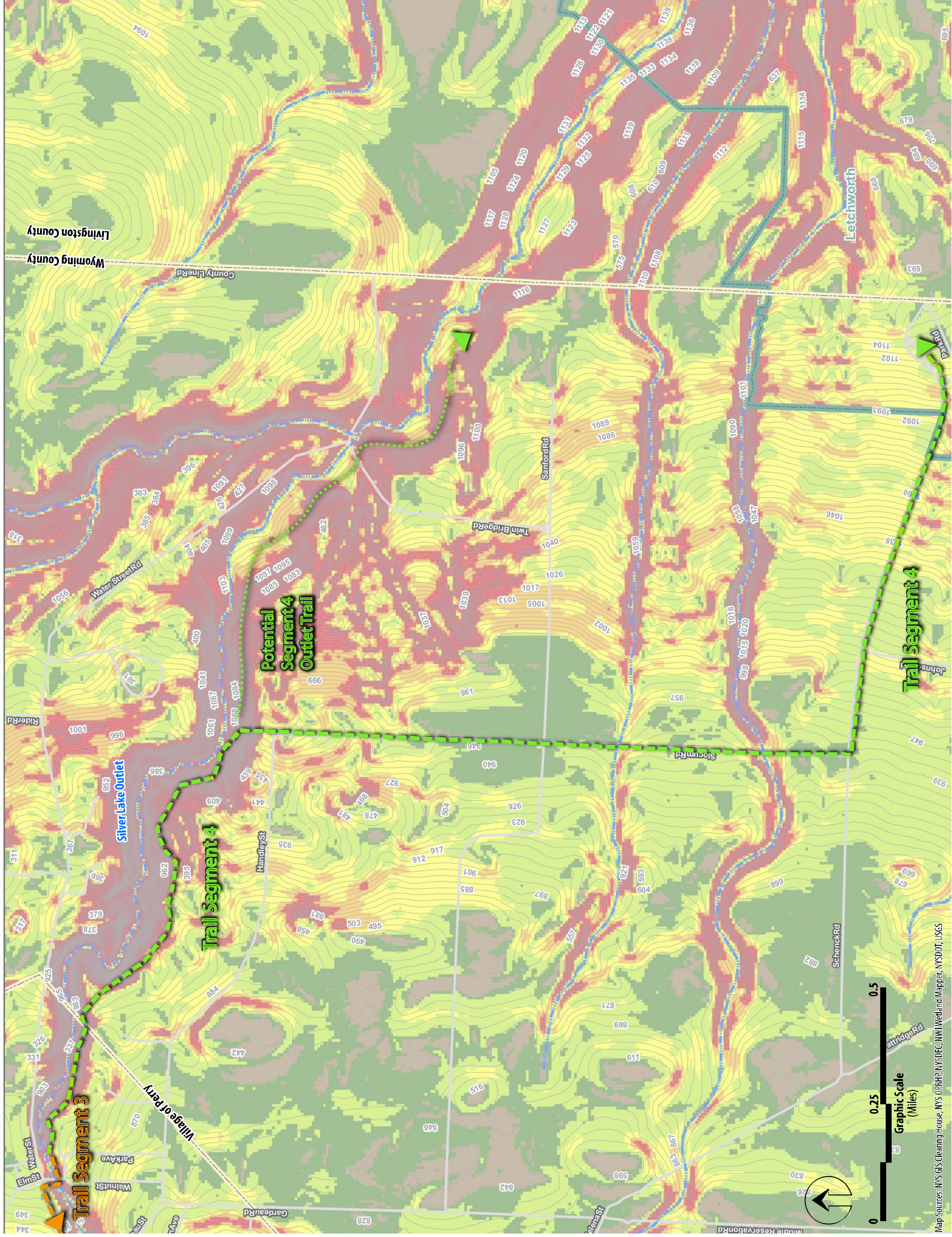
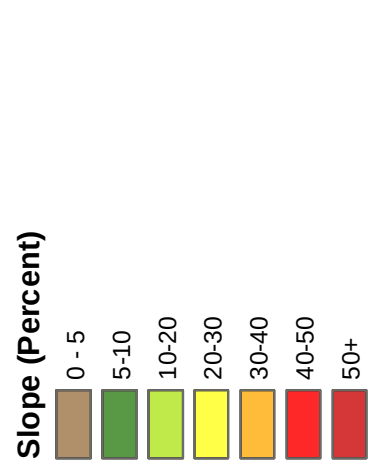


**VILLAGE OF PERRY
SILVER LAKE TRAIL
FEASIBILITY STUDY**

FIGURE: 4 SLOPES SEGMENT 4

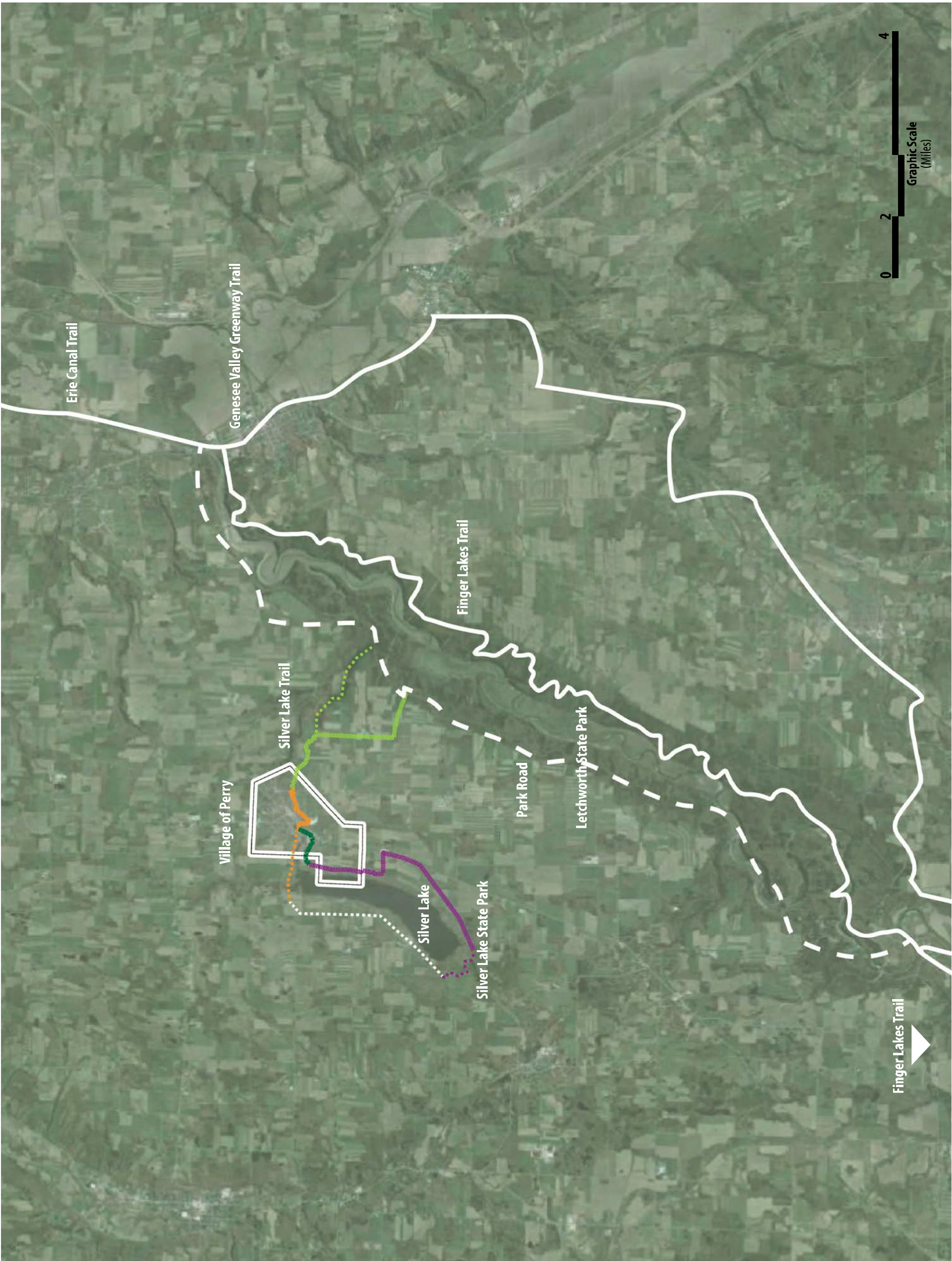
Legend

- Municipal Boundary
- State Parks
- 5ft Contours
- Preliminary Alignment: Segment 1
- Preliminary Alignment: Segment 2
- Preliminary Alignment: Segment 3
- Preliminary Alignment: Segment 4



Map Sources: NYS GIS Clearing House, NYS OPRHP, NYS DEC, NWI Wetland Mapper, NYSDOT, USGS

Prepared by Barton & Loguidice, DPC



VILLAGE OF PERRY
SILVER LAKE TRAIL
FEASIBILITY STUDY

FIGURE: 7
REGIONAL TRAIL NETWORK

VILLAGE OF PERRY
SILVER LAKE TRAIL
FEASIBILITY STUDY

FIGURE
RECOMMENDED TRAIL
ALIGNMENT

- Preliminary Alignment: Segment 1**

On road, new bike lane or shared shoulder
- Preliminary Alignment: Segment 2**

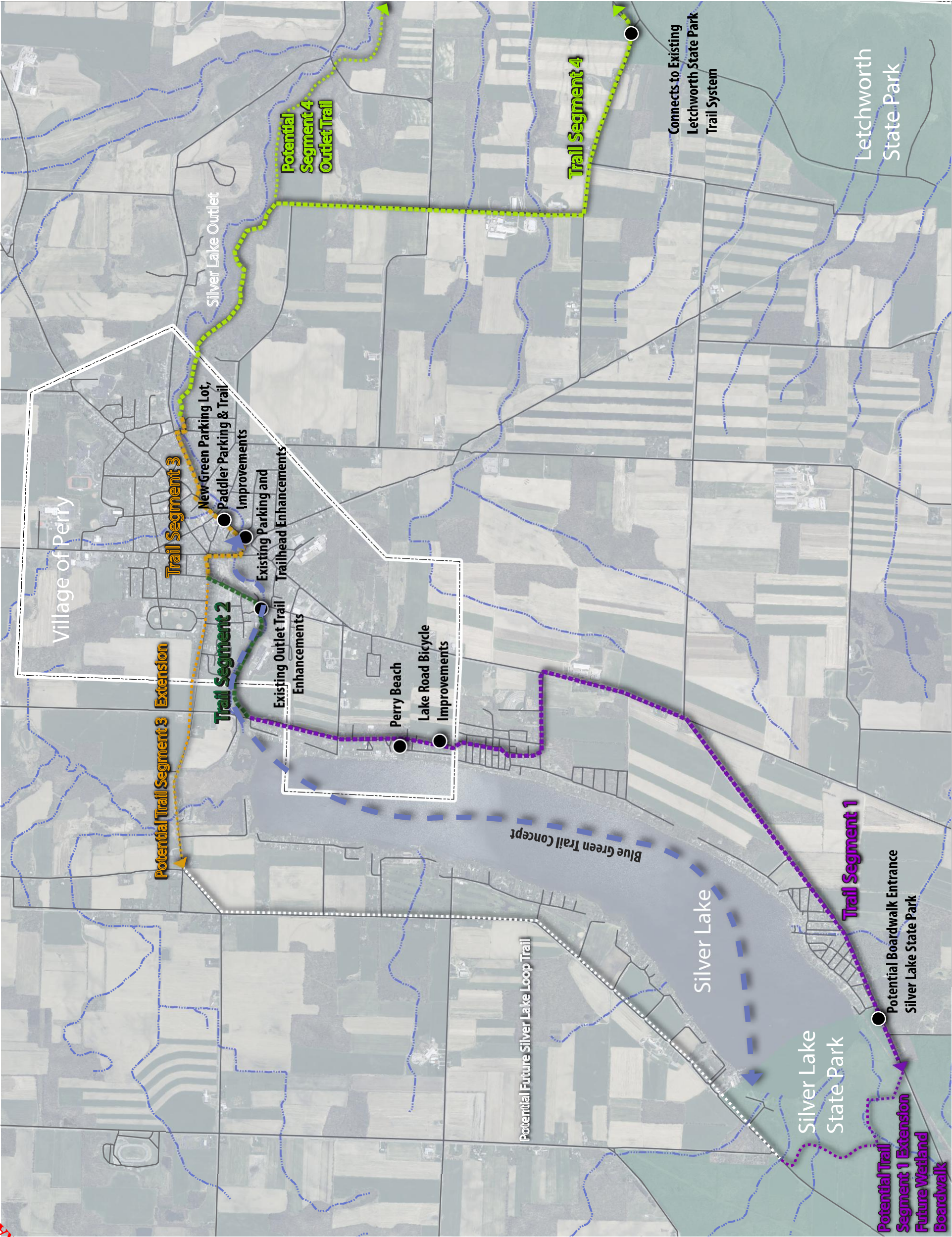
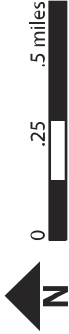
Enhance existing outlet trail
- Preliminary Alignment: Segment 3**

Combination of several strategies including
On road, new bike lane
Utilizing existing sidewalks
Natural surface trail following sustainable design guidelines along Silver Lake Outlet
- Preliminary Alignment: Segment 4**

Natural surface trail following sustainable design guidelines
- Potential Future Silver Lake Loop Trail**

On road, new bike lane or shared shoulder
- Road Network**
- Blue Green Trail Concept**
- Village of Perry**
- State Parks**
- Project Node**

All segments of Perry Trail will be designed according to best practices and design guidelines including Association of State Highway and Transportation Officials (AASHTO), Americans with Disabilities Act (ADA) & United States Department of Agriculture (USDA) Forest Service standards.

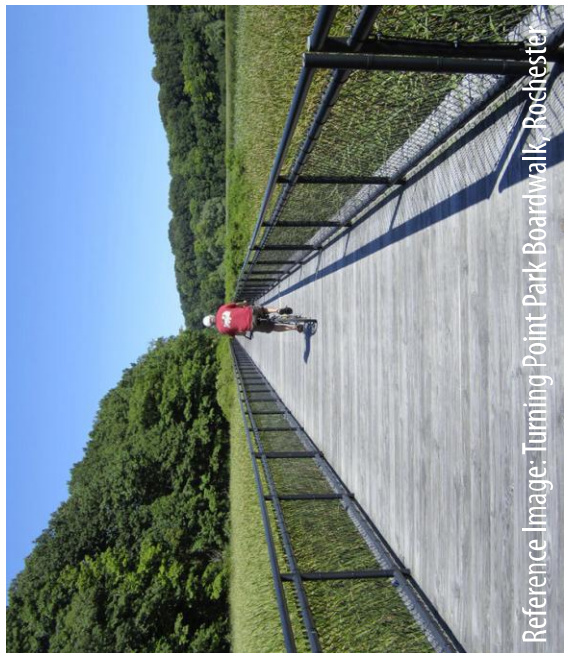
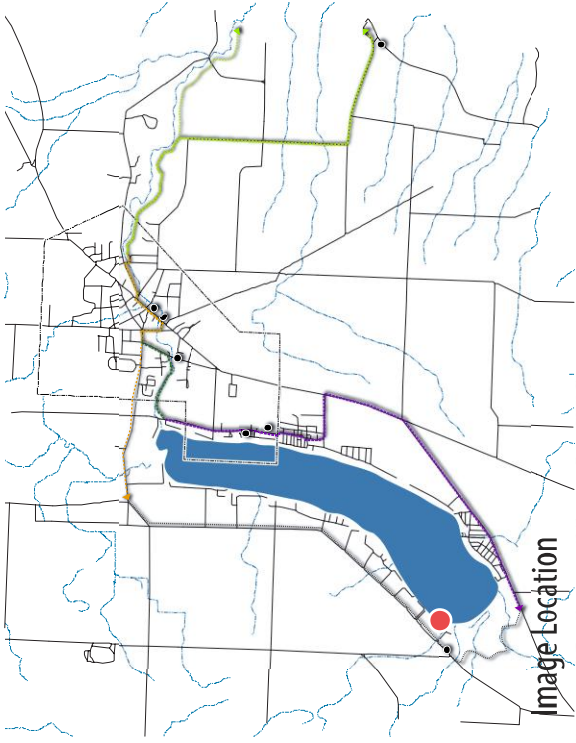


VILLAGE OF PERRY
SILVER LAKE TRAIL
FEASIBILITY STUDY

FIGURE
POTENTIAL BOARDWALK ENTRANCE
SILVER LAKE STATE PARK

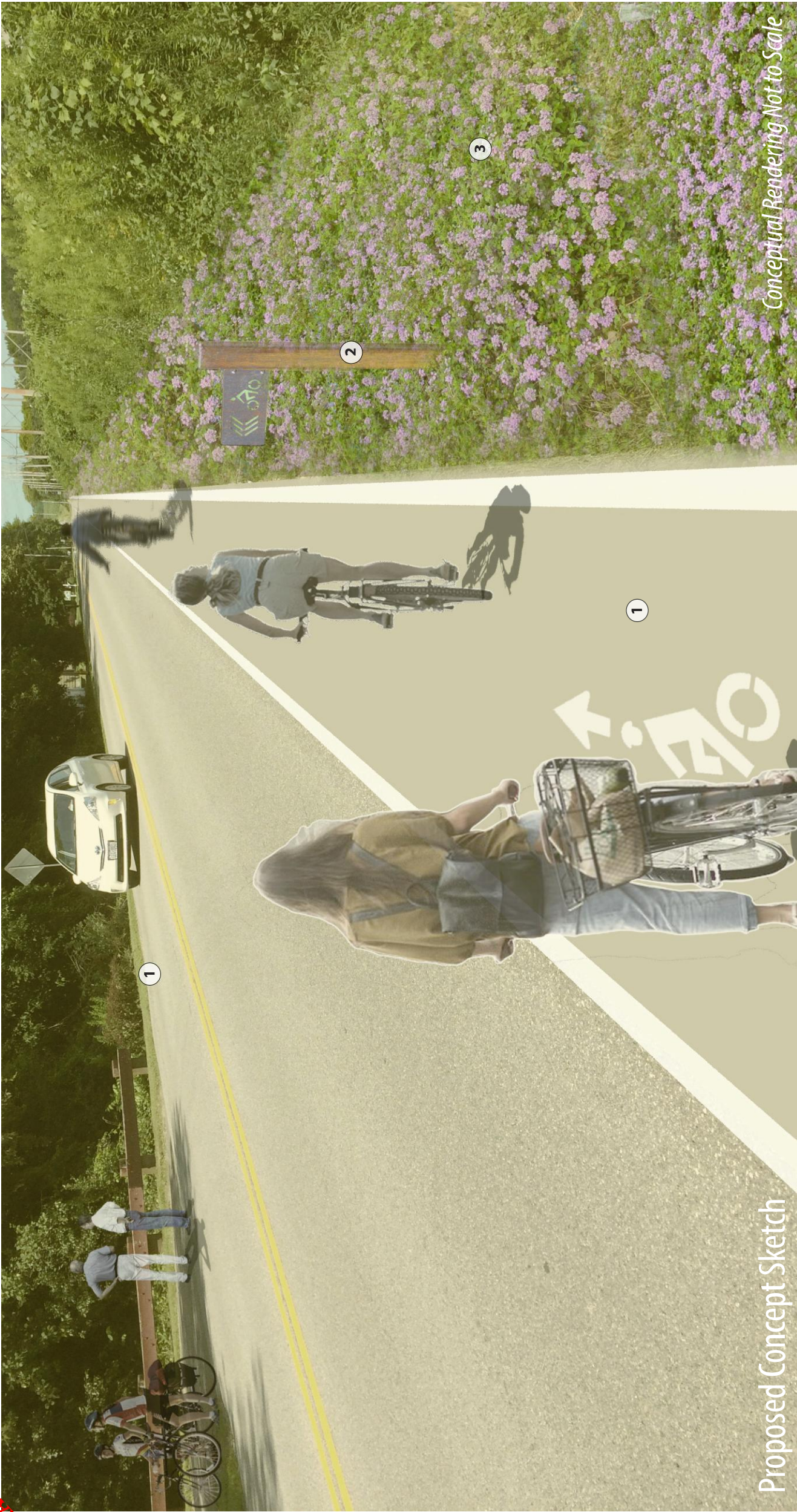


- 1 Silver Lake Trail Gateway builds site identity
- 2 Low impact construction of boardwalk such as floating boardwalk or helical pillar system, curb rail or handrail as required.
- 3 Pervious concrete shared-use pathway. ADA and AASHTO compliant. To be contiguous with proposed Perry Silver Lake Trail system (currently in planning stages).
- 4 Trail markers and signage
- 5 Pedestrian seating



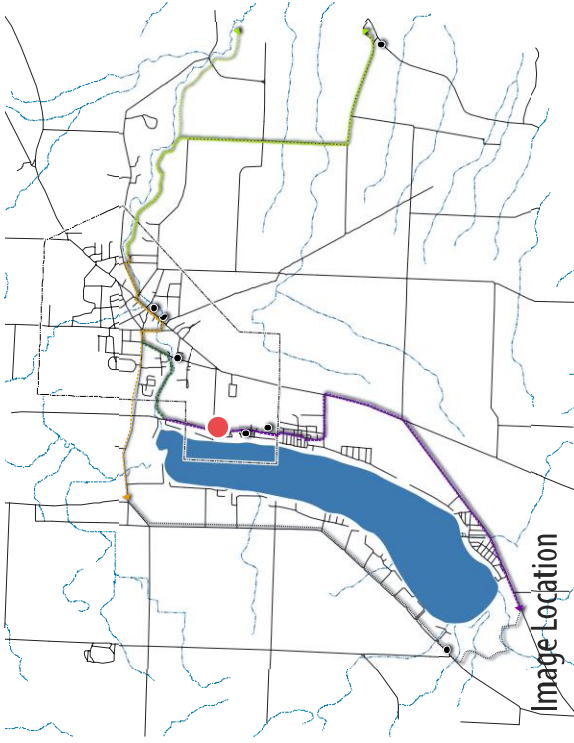
VILLAGE OF PERRY
SILVER LAKE TRAIL
FEASIBILITY STUDY

FIGURE
LAKE ROAD BICYCLE IMPROVEMENTS



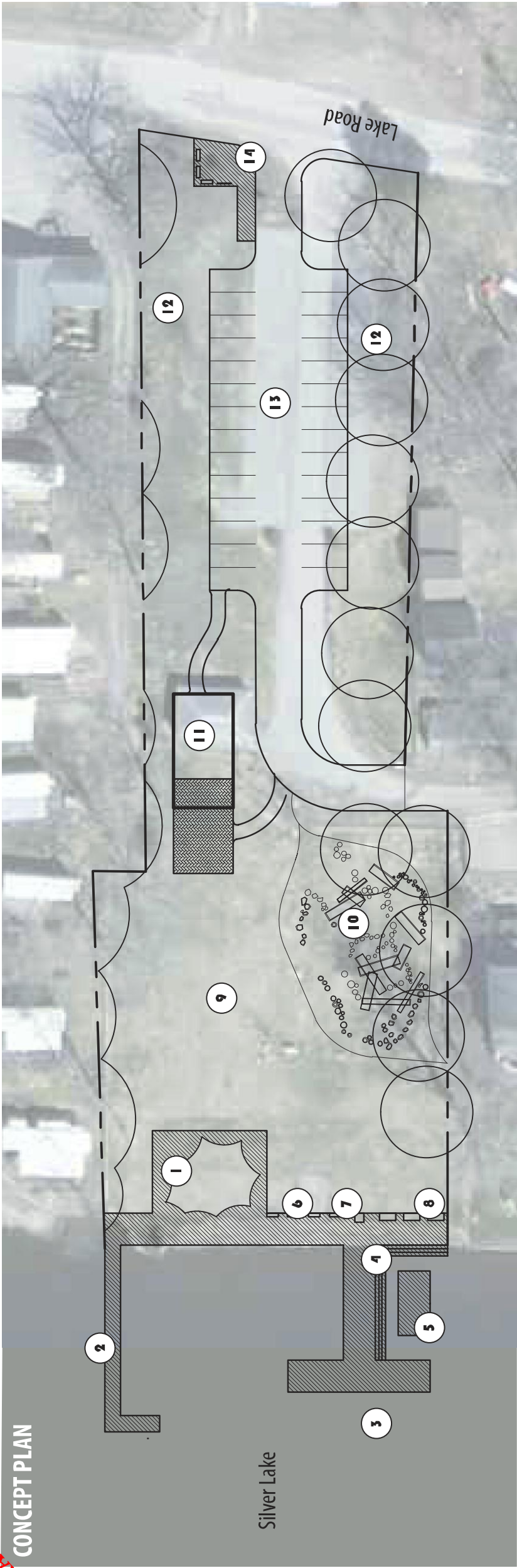
Conceptual Rendering Not to Scale

- 1 Improved shoulder with bicycle markings on both sides of road, where practical. Designed according to best practices for bicycle facilities and complying with guidelines including AASHTO and MUTCD
- 2 Trail markers
- 3 Roadside native species planting provides opportunity for infiltration, increased habitat and plant diversity, and improves trail user experience

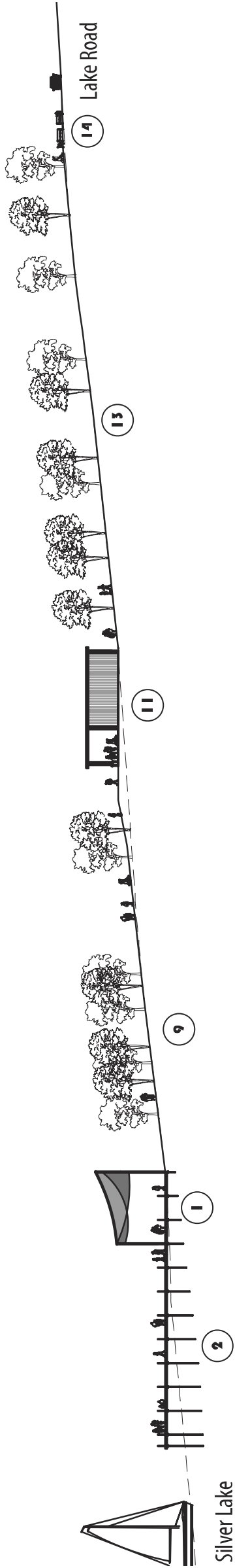


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CONCEPT PLAN



CONCEPT ELEVATION



Reference Image: Shade Structure

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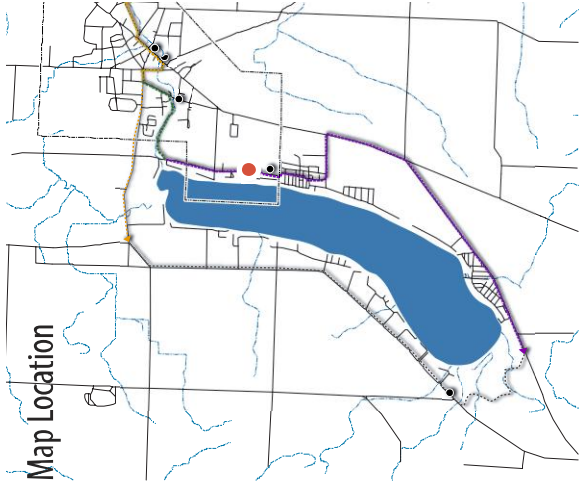
Reference Image: Paddler Parking



Reference Image: Nature Play

VILLAGE OF PERRY
SILVER LAKE TRAIL
FEASIBILITY STUDY

FIGURE
PERRY BEACH SCHEMATIC DESIGN
ALT A



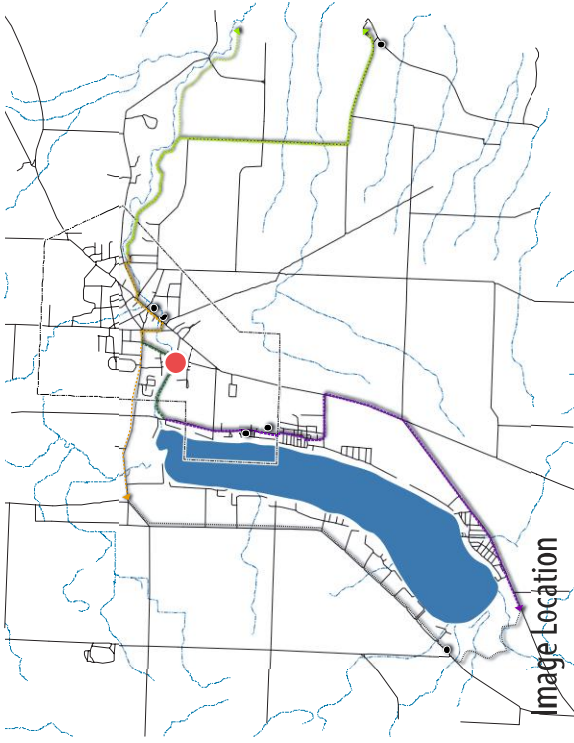
- 1 Removable Shade Structure - Performance Space
- 2 Dock for Paddler Parking
- 3 Swimming and Lounging
- 4 Sitting Steps
- 5 Floating Deck
- 6 Benches
- 7 Life Guard Chair
- 8 3x7' Lounging Benches
- 9 Seating/Lawn
- 10 Nature Play Area
- 11 Pavilion
- 12 Rain Gardens/Planted Buffer
- 13 28 Parking Spaces
- 14 Entry Plaza with Signage - Benches - Bike Parking



VILLAGE OF PERRY
SILVER LAKE TRAIL
FEASIBILITY STUDY

FIGURE
EXISTING OUTLET TRAIL ENHANCEMENT
TRAIL SEGMENT 2

- 1 Stonedust shared-use pathway, ADA and AASHTO compliant. To be contiguous with proposed Perry Silver Lake Trail system (currently in planning stages)
- 2 Stream buffer enhancement plantings. Mix of woody and herbaceous native species to provide bank stabilization, improved riparian habitat, and 4-season visual interest
- 3 Local stone blocks provide attractive, low maintenance, sustainable seating.
- 4 Trail markers
- 5 'Blue green trail' through Silver Lake Outlet Blue and green trails integrated into one system
- 6 Coordinate with Silver Lake Outlet Dredging Project and Walker Street Bridge Improvement Project

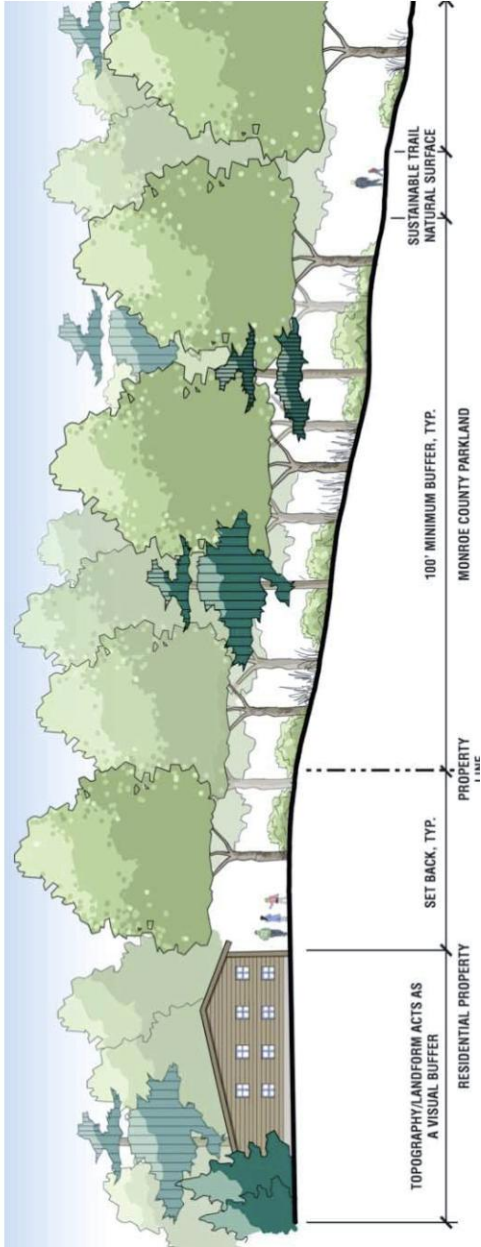
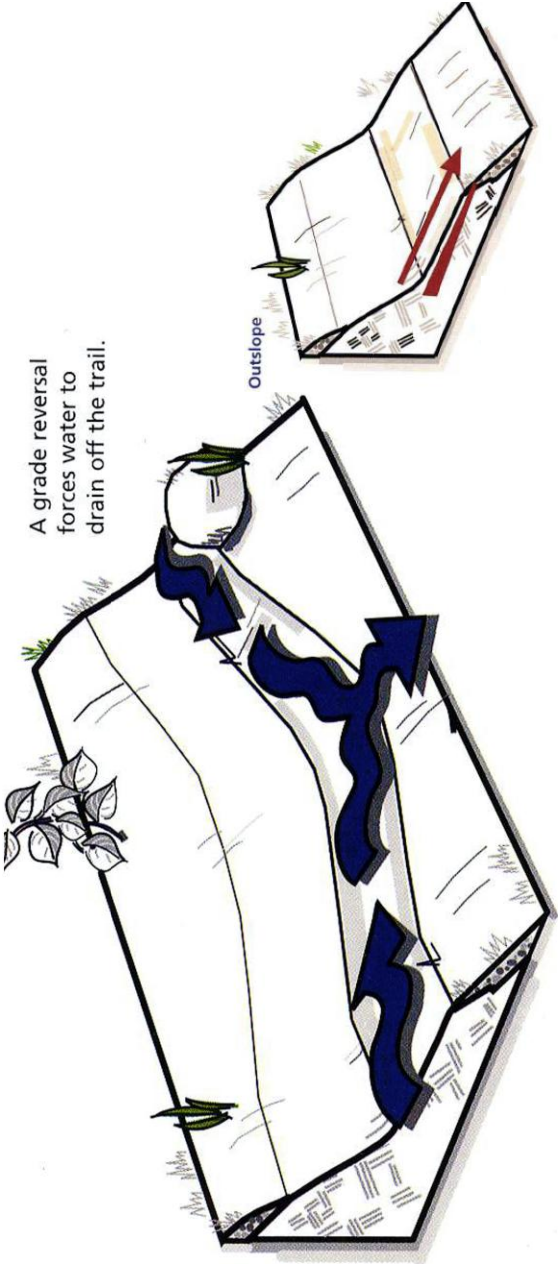
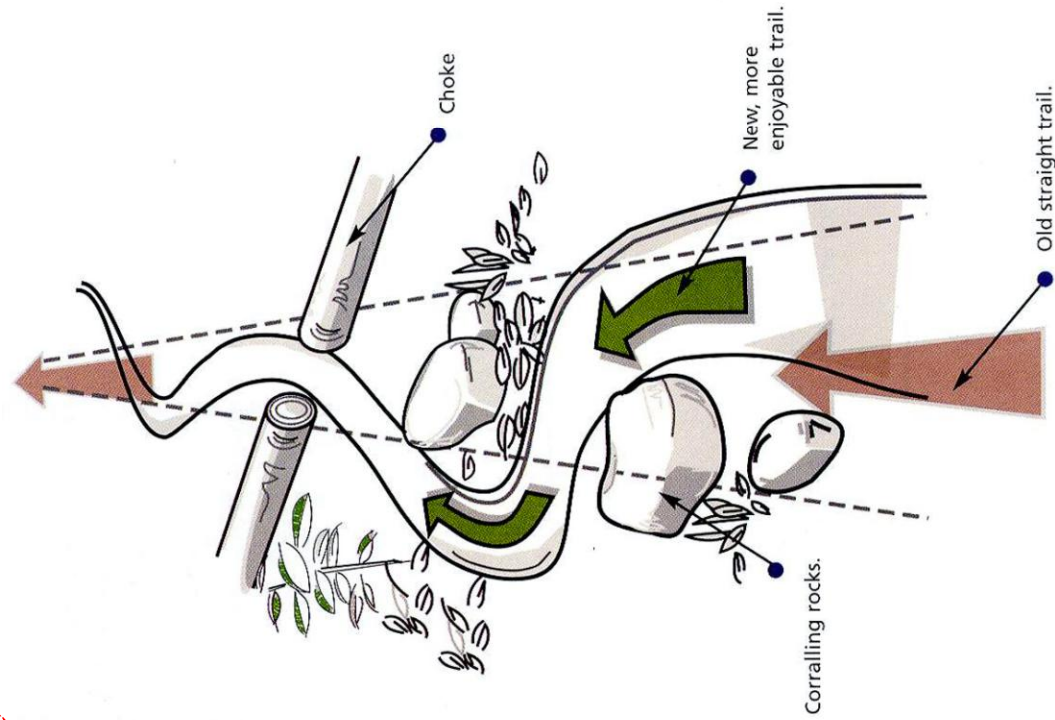


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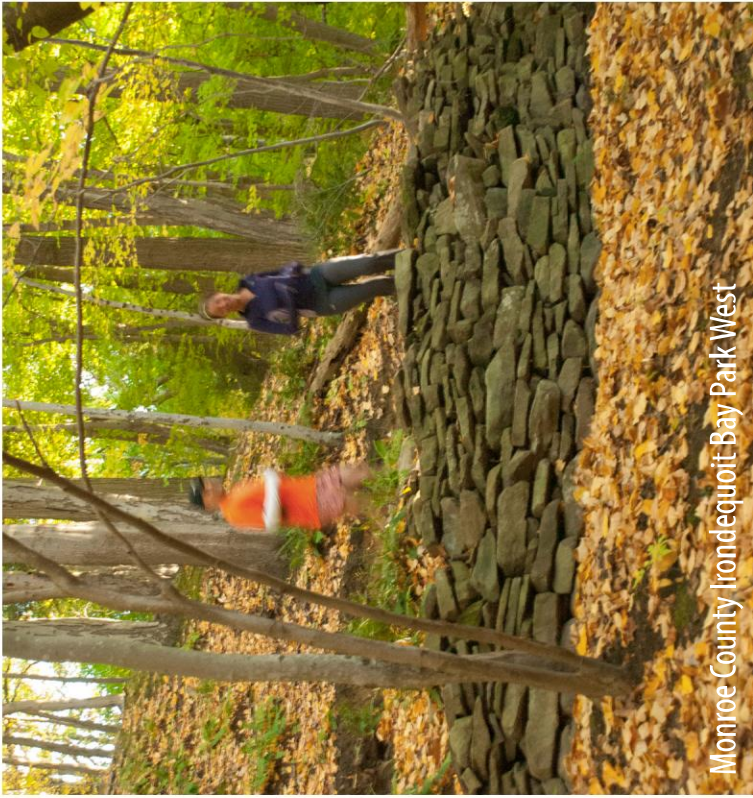


GENERAL RECOMMENDATIONS

- Provide Paddler Parking for Village Access
- Trailhead Improvements: Create clearly marked trailheads at both sides of existing Outlet Trail with
 - Silver Lake Trail Signage
 - Wayfinding
 - Trail Entry Gateway
 - Map Kiosk
 - Clearly Marked Trail Parking
 - * Refer to Preliminary Signage Schedule figure for signage examples.



REFERENCE IMAGES



WAYFINDING SYSTEMS



TRAIL HEAD EDUCATIONAL SIGNAGE



Sustainable trails are defined by the US Forest Service as trails having a tread that will not be easily eroded by water and use, will not affect water quality or the natural ecosystem, meet the needs of the intended users and provide a positive user experience, and that do no harm to the natural environment.

TRAIL SURFACE BENEFITS

- Construction and restoration of shared use trails conserves and enhances existing natural systems
- Supports passive recreation, environmental education, stewardship and tourism
- Carefully graded to minimize erosion, protecting Silver Lake Outlet
- Utilizes found materials including rocks, logs, and plant material to direct trail users and control user speed
- Signage system educates trail users and increases safety.

VILLAGE OF PERRY
SILVER LAKE TRAIL
FEASIBILITY STUDY

FIGURE
SUSTAINABLE OFF-ROAD TRAILS
TRAIL SEGMENT 4

- One-way on-street lanes that are striped, signed and marked to designate exclusive space for bicyclists on the roadway.
- Striped bicycle lanes make the movements of both motorists and bicyclists more predictable.
- Bicycle lanes should typically be one-way, carrying bicyclists in the same direction as the adjacent travel lane.



SHARED LANE MARKINGS

- Used in locations where, due to narrow width, a bicycle lane may not be practical.
- A shared lane marking, or “sharrow” is used to help bicyclists with lateral positioning in the lane.
- A sharrow is used to alert motorists to the position bicyclists are likely to occupy within the lane, encourage safe passing by motorists, and reduce incidence of wrong-way bicycling.
- Research suggests that sharrows reduce the incidence of sidewalk riding.



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MULTI-USE PAVED SHOULDERS

- Roads with paved shoulders where no other active transportation facilities exist are shared by more than one type of user (bicyclists, pedestrians, in-line skaters and vehicles for emergency use).
- Design of new or retrofit of existing paved shoulders should comply with AASHTO standards; “on uncurbed cross sections with no vertical obstructions immediately adjacent to the roadway, paved shoulder be at least 4 ft wide to accommodate bicycle traffic. Shoulder width of 5 ft is recommended from the face of a guardrail, curb, or other roadside barrier to provide additional operating width...”
- Areas with expected higher bicycle use should have increased shoulder widths as necessary in addition to areas where motor vehicle speeds exceed 50 mph or are used by trucks and buses.



BIKE PARKING

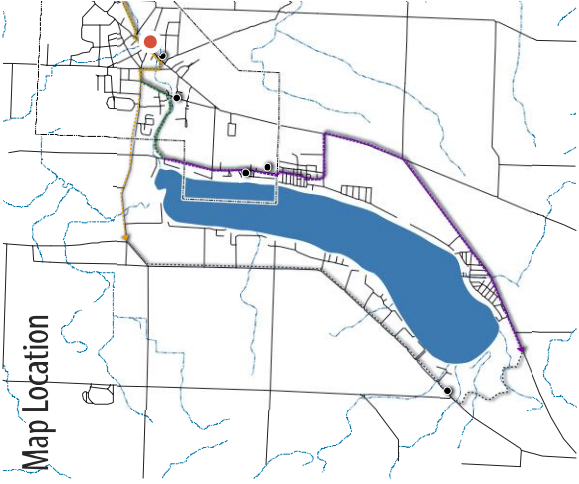
- The availability of safe and convenient parking is as critical for bicyclists as it is for motorists.
- However, it is frequently overlooked in the design and operation of shops, offices, schools and other buildings.



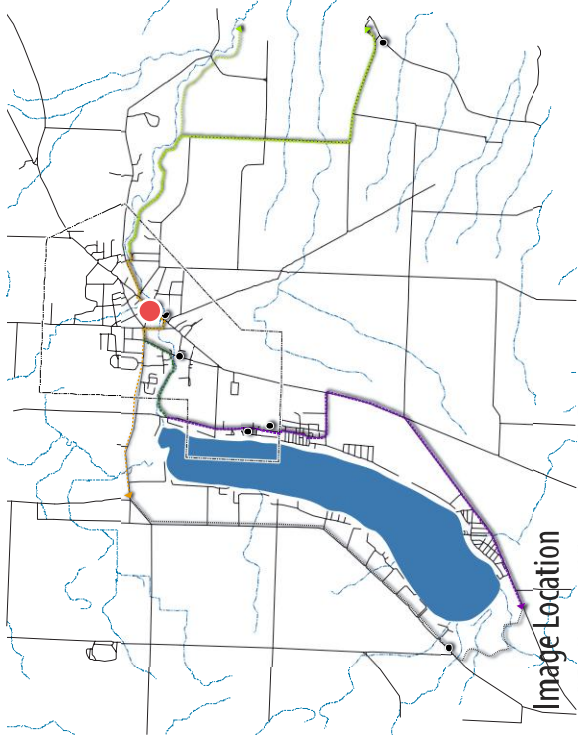
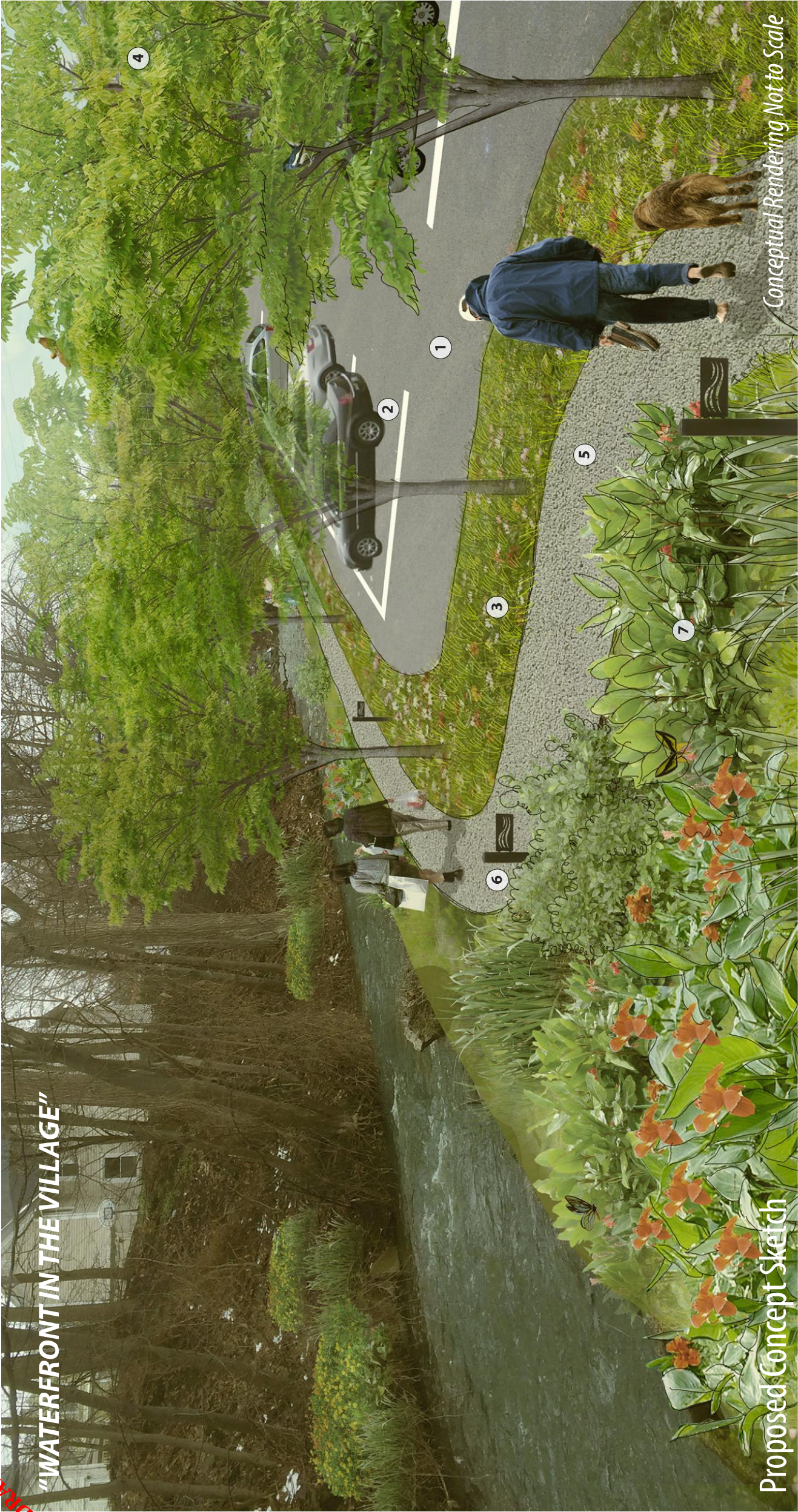
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VILLAGE OF PERRY
SILVER LAKE TRAIL
FEASIBILITY STUDY

FIGURE
WATERFRONT IN THE VILLAGE
INFRASTRUCTURE IMPROVEMENTS
SHEET 1 of 2



- 1 Memorial Park
 - 2 Study ADA Compliant Path
 - 3 Silver Lake Trail Secondary Route
 - 4 Creekside Buffer Planting
 - 5 Infiltration Strip
 - 6 Rain Garden
 - 7 Trees
 - 8 Existing Farmers Market Location
 - 9 Parking Spaces
 - 10 Possible Alternate Silver Lake Trail Route
- Legend:
- ▲ Pedestrian Access
 - ☼ Potential Bridge Location
 - ➡ Potential Funding Opportunities through existing NYS Grants



Prepared by Barton & Loguidice, DPC



VILLAGE OF PERRY SILVER LAKE TRAIL FEASIBILITY STUDY

FIGURE WATERFRONT IN THE VILLAGE INFRASTRUCTURE IMPROVEMENTS SHEET 2 of 2

- 1 Reconstruction of existing parking lot at corner of South Main Street and Borden Ave, utilizing pervious asphalt pavement. Reduced salt requirements will decrease pollutant loads and maintenance costs
 - 2 Drive lanes and parking spaces are striped to maximize parking efficiency. Provide ADA spaces for improved accessibility.
 - 3 "Low-mow" grass filter strip intercepts pollutants.
 - 4 Salt-tolerant native shade trees. Provide storm water intercept, improved air quality, and mitigation of heat island effect.
 - 5 Pervious concrete shared-use pathway. ADA and AASHTO compliant. To be contiguous with proposed Perry Silver Lake Trail system (currently in planning stages)
 - 6 Trail markers
 - 7 Stream buffer enhancement plantings. Mix of woody and herbaceous native species to provide bank stabilization, improved riparian habitat, and 4-season visual interest.
- Potential Funding Opportunities through existing NYS Grants

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Village of Perry Trail Alignment Alternatives

- 1 Memorial Park - Connection to Green Parking Lot Site Via Ramp/Stair
- 2 Proposed Green Parking Lot and Creek Trail Improvements
- 3 Possible Site of Bridge to Connect to Village Parcel Across Creek - Steep Topography
- 4 Connection from Borden to Walnut via Creek - Check Feasibility



Site 3 - Topography Challenges

VILLAGE OF PERRY
SILVER LAKE TRAIL
FEASIBILITY STUDY

FIGURE
DOWNTOWN SILVER LAKE OUTLET
TRAIL LOOPS & PARTNERSHIP
OPPORTUNITIES



Wyoming County
New York



- Village of Perry
- Town of Perry
- Italian American Club

- Perry Silver Lake Trail
- Primary Route
- Along Existing Roadways
- Possible Secondary Routes

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DIRECTIONAL & WAYFINDING SIGNS



Photo example from the El Camino Trail in Rochester, NY



Photo example from NYS Canal Signage Guidelines



Perry Silver Lake Trail Logo

TYPES OF LOCATIONS

- » Trail intersections

FREQUENCY

- » As needed

ANTICIPATED QUANTITY

- » TBD

INFORMATION

- » Destinations / points of interest
- » Connectivity to other trails / paths
- » Directions



Photo example from the El Camino Trail in Rochester, NY

KIOSKS



Typical Dockside Orientation



Typical Low Profile Wayside Exhibit Panel

Photo example from NYS Canal Signage Guidelines

MILEPOST BOLLARD & EMERGENCY LOCATION MARKERS

TYPES OF LOCATIONS

- » Along trail corridor
- » Emergency markers located on remote sections of the trail where there is no easily identifiable landmarks

FREQUENCY

- » Every 1/4 of a mile

ANTICIPATED QUANTITY

- » TBD

INFORMATION

- » Trail icon
- » Trail distance
- » Each emergency marker has a unique code specific to its location and is GPS located and entered into the 911 system with notes on how to access each specific location



Photo example from the El Camino Trail in Rochester, NY

TYPES OF LOCATIONS

- » Trailheads (existing and proposed)

FREQUENCY

- » All primary access points

ANTICIPATED QUANTITY

- » TBD

INFORMATION

- » Trail map with trail length
- » Access points and destinations / points of interest
- » Connectivity to other trails / paths

VILLAGE OF PERRY SILVER LAKE TRAIL FEASIBILITY STUDY

FIGURE PRELIMINARY SIGNAGE SCHEDULE

ROAD & TRAIL SIGNAGE EXAMPLES

