Village of Saranac Lake
Final Bicycle + Pedestrian Trail Master Plan

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This document was prepared for the New York State Department of State with funds provided under Title 11 of the Environmental Protection Fund.

Executive Summary

This Bicycle and Pedestrian Trails Plan implements a priority recommendation in the Village's adopted LWRP and advances the goals of the Adirondack Park Land Use Plan by promoting sustainable development and reinforcing the Village as a regional center destination for commercial activity. This plan results in a comprehensive bicycle, pedestrian and trail network that will enhance community livability through alternative transportation options, a network of open spaces, and promotion of a healthy active lifestyle.

A series of pedestrian and bicycle infrastructure improvements are outlined to increase connectivity between community centers and recreational assets, resulting in every home becoming a trailhead. Pedestrian improvements include an expansion upon Saranac Lake's recent sidewalk improvement program and intersection improvements. The bicycle improvements described provide the ability for families to commute and connect to recreational opportunities through signage, roadway space, and shared use paths. Additional recreational opportunities for hiking, mountain biking, canoe, kayaking, and x-country skiing are also identified.

Pedestrian Improvements

- Broadway
- Main Street
- Route 3
- Edgewood Road
- Lake Street
- Kiwassa Road
- Pine St / McKenzie Pond Rd
- Brandy Brook
- Canaras Ave

Bicycle Improvements

- Main St - Broadway
- Lake Flower Avenue
- Route 86
- Church St
- Route 3
- River St
- Moody Pond Loop
- Lake St – Petrova Ave
- Trudeau Rd
- Park Ave – Baker St – Cedar St
- Ampersand Ave
- Edgewood Rd

Intersection Improvements

- Main Street & Pine Street
- Brandy Brook & Pine Street
- River Street & Lake Flower Ave
- Lake Street & Petrova Ave (west)
- Main Street & Broadway
- River Street & Church Street
- River Street & Main Street
- Broadway & Bloomingdale Ave
- Broadway & Ampersand Ave
- Bloomingdale Ave & Church Street
- Railroad crossings (3)

A comprehensive bicycle and pedestrian network goes beyond linear bicycle and pedestrian improvements. Several location specific improvements and community wide programs are described in the plan that will continue to encourage walking and bicycling throughout the community.

- Riverwalk
- Route 3 Pedestrian Bridge
- Moody Pond
- Prescott Park
- Village Mountain Bike Park
- Wayfinding / Signage
- Main Street Pedestrian-Only Events
- Grate Replacement
- Complete Streets
- Safe Routes to School (SRTS)
- Saranac Lake Trail Map
- Bicycle Parking
- Safe Passage / Share the Road Campaign

Ten priority projects were chosen based on feasibility, significance, and public input. Two additional design concepts were developed; one at a community wide scale and the other at street scale. The following projects were determined to have the highest importance and impact in the Village of Saranac Lake:

- Rail-with-trail
- Mount Pisgah to Downtown Trail
- Baker Mountain to Downtown
- Dewey Mountain to Mount Pisgah Trail
- School Loop with Extension to Dewey Mountain
- Riverwalk
- Safe Routes to School Program
- Intersection Improvements
- River Street Trail
- Sidewalk Improvements
- Main Street & Broadway
- Wayfinding Signage

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1 Introduction

The Village of Saranac Lake sought to develop this bicycle and pedestrian trail master plan to help implement its Local Waterfront Revitalization Program. The master plan results in a comprehensive approach to the development of bicycle and pedestrian infrastructure that will benefit residents and attract visitors. Enhancing pedestrian and bicycle movement reinforces the Village as a regional destination for water- and outdoor-based recreation and related tourism activity by creating a plan for a comprehensive trail network linking the downtown and waterfront areas with surrounding public lands and regional trails such as the Jack Rabbit Trail or proposed Saranac Lake/Lake Placid Multi-use Trail. The recommended projects also enhance community livability by reducing auto dependency, providing alternative transportation options, creating a network of public open spaces, and promoting a healthy active lifestyle. The bicycle and pedestrian trail master plan includes:

- An inventory and assessment of existing bicycle and pedestrian infrastructure;
- Identification of potential linkages between existing trails and informal paths;
- Proposed new trails and infrastructure needed to create a cohesive trail network;
- Identification of maintenance needs; and
- Prioritization of capital improvements.

This Bicycle and Pedestrian Trails Plan implements a priority recommendation in the Village's adopted LWRP and advances the goals of the Adirondack Park Land Use Plan by promoting sustainable development and reinforcing the Village as a regional center destination for commercial activity. It also reaffirms the regional tourism and community revitalization goals of the Olympic Scenic Byway.

2 Study Area Boundary

2.1 Local Boundary

A local study area boundary is a circle with a two mile radius from the center of the Village. This local boundary includes the Village, portions of the Towns of Harrietstown, North Elba, and St. Armand, and the three surrounding mountain peaks, Mount Pisgah, Dewey Mountain, and Baker Mountain. A greater focus is placed on the local boundary to propose pedestrian, bicycle, and trail opportunities. Specific destinations are considered including local schools, trailheads, and shopping centers. See Figure 1 for the Local Study Area Boundary Map.

2.2 Regional Boundary

A regional boundary was determined that included additional communities surrounding Saranac Lake, including Lake Placid, Ray Brook, and Bloomingdale. This area was considered for bicycle and pedestrian gaps and opportunities at a high scale, while considering regional activities and connections. See Figure 2 for the Regional Study Area Boundary Map.

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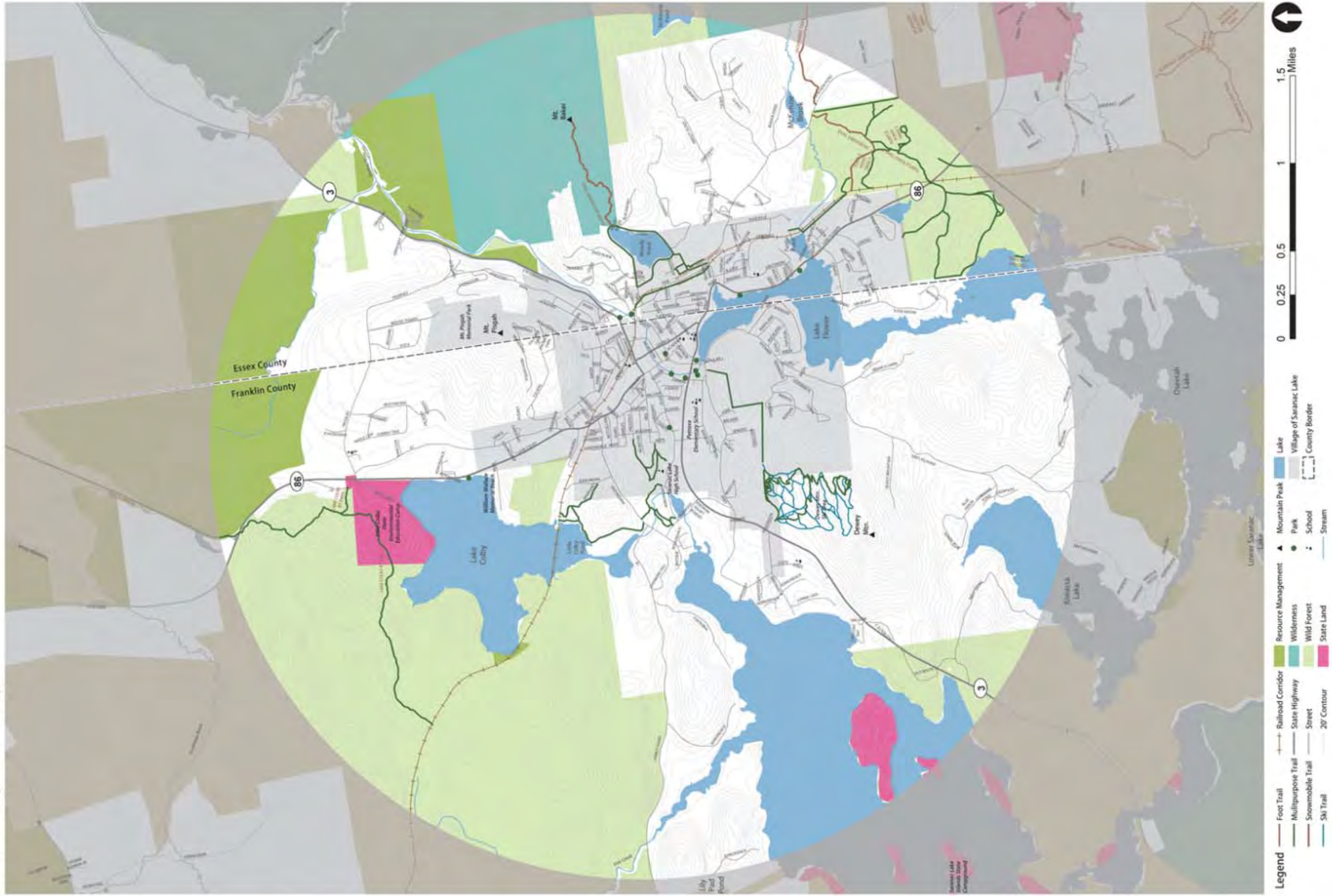

Figure 1

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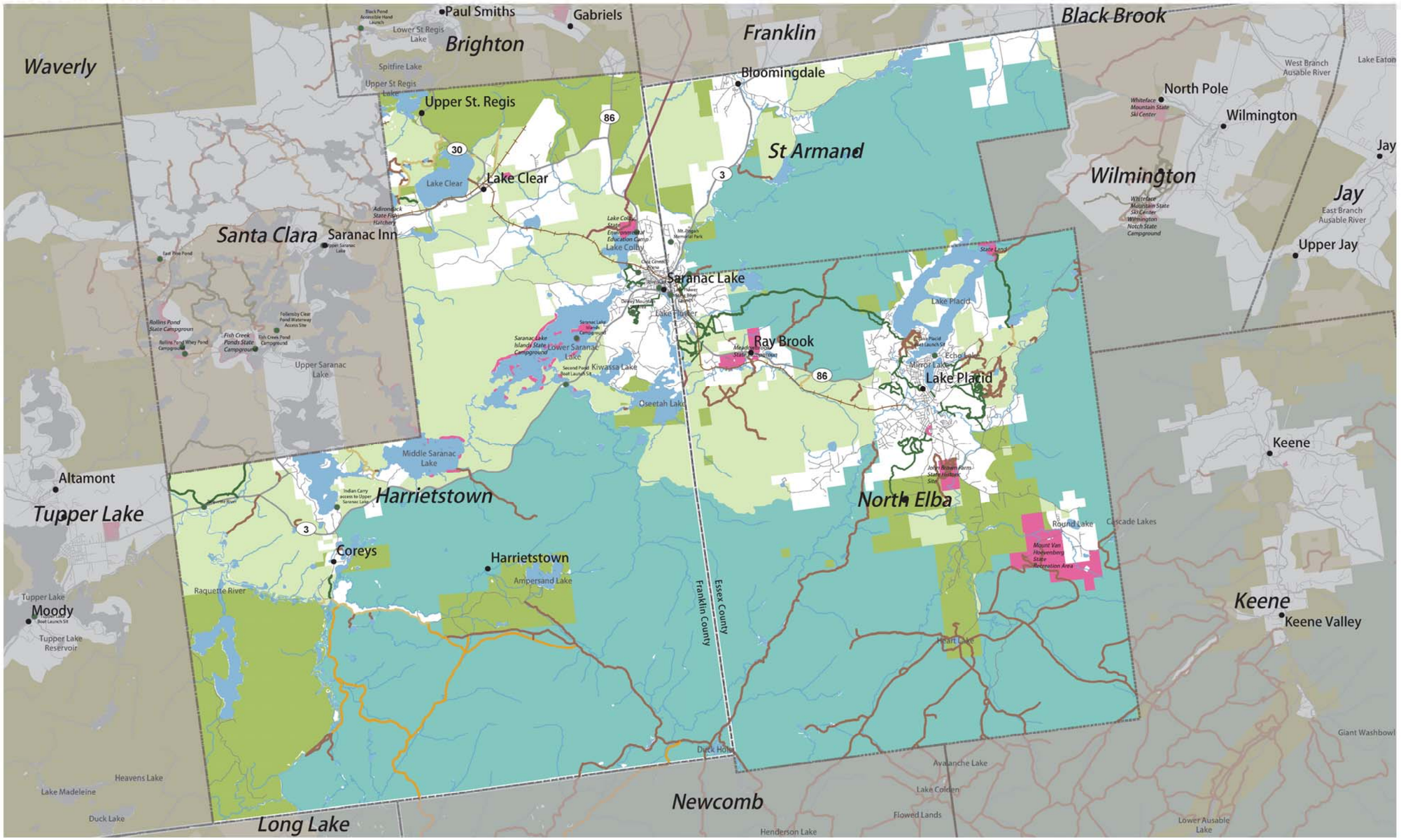
Figure 2

Regional Connections



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3 Related Plans and Documents

3.1 Local Waterfront Revitalization Program (Approved January, 2004)

The Local Waterfront Revitalization Program (LWRP) identified revitalization of lands along Lake Flower and Lake Colby as priority areas for the Village of Saranac Lake. The LWRP summarizes existing conditions in the Village, including public access and recreation, existing land use, economic activities, transportation, and environmental resources. General economic, waterfront, environmental, and recreation policies are set forth. A number of projects are proposed in relation to Lake Flower, which include a Lake Flower Trail, Riverside Park, and State Boat Launch enhancements. Lake Colby improvement recommendations include providing handicap-accessible fishing access, a formal canoe and kayak launch, expanded recreational programs, and connecting the park to the Village of Saranac Lake by raising the existing pathway and extending village sidewalks. Other projects were identified such as signage, traffic calming, aesthetics, and a skateboard area.

3.2 Village of Saranac Lake Draft Comprehensive Plan

The Village of Saranac Lake is currently in the process of updating their previously approved Comprehensive Plan. The Draft Comprehensive Plan identifies and supports the opportunities of existing and proposed trails. Mitigation of the lack of connectivity to the village and the lack of loop trails around the village is supported by the goals outlined in the Draft Comprehensive Plan. Current goals related to transportation include the adoption of a complete streets policy, implementation of the bike and pedestrian plan, a safe routes to school program, and clearly marking and publicizing trails and paths with signage.

Specific goals relating to sidewalks and pathways in the Draft Comprehensive Plan include:

- Replacement of existing sidewalks, removal of old or non-utilized sidewalks and installation of new sidewalks is an integral part of the overall capital improvement program;
- The focus of the program is on creating safe streets, sidewalks and pathways that meet the travel needs of all users and families including the needs of the most vulnerable – children, older adults and people with disabilities;
- The Healthy Infrastructure Advisory Board (HIAB) supports the development and implementation of policies that promote health through physical activity and active transportation;
- New connections and rehabilitation of existing connections between residential areas and destinations for goods, services and recreation are made;
- Facility design policies are developed and implemented;
- The initiatives from the "Bicycle and Pedestrian Trails Master Plan" are undertaken in a logical sequence;
- Improvements should enhance accessibility and an overall use of sidewalks, trails and pathways;
- The prioritized capital improvements are coordinated with the overall implementation plan of the Village's updated comprehensive plan;
- The Saranac Lake – Lake Placid Recreational Trail as a trail with or without rail provides maximum benefit/value to residents and businesses of Saranac Lake;

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Additional goals include providing public restrooms and a comprehensive signage and wayfinding system. Additional transportation goals related to the bicycle and pedestrian master plan include:

- Village transportation infrastructure enables safe, comfortable access for all users. Pedestrians, bicyclists, and motorists of all ages and abilities are able to safely move along and across the streets of the Village. Travelers find it easy to cross the Village streets, walk to local shops, and bicycle to work,
- Village-provided public vehicular and bicycle parking in the downtown area is well balanced with the needs of the land use mix in the downtown area and on-street spaces and Village-owned parking areas are well-maintained;
- In keeping with its heritage as a healing-oriented and healthy community, Village residents are renowned for their healthy lifestyle resulting from use of the Village's accommodation of alternate modes of transportation – walking and bicycling.
- The Village is at the center of a network of multi-use trails and pathways that are strategically connected, internally and externally;
- The trail and pathways allow for safe and convenient movement of pedestrians, cyclists, and hikers through, into and out of the Village;
- The trails and pathways are well-signed providing meaningful and informative direction to users of the network; and,
- The marketing of the trails and pathways draws visitors to the Village from across the country.

3.3 Saranac River Walk Plan, 1992

The Saranac River Walk Plan proposes a pedestrian path along the banks of the Saranac River through the downtown. A significant portion of this plan has been implemented. Sections 1 through 5 have been constructed from the southern terminus at the Grand Entrance, behind Main Street, through Dorsey Park, and ends just past Church Street. Connections to Woodruff Street and Denny Park have been difficult to implement since easements across developed private property are needed. Signage and aesthetics for connections between the Riverwalk and Main Street are currently lacking and are keeping the existing portions of the Riverwalk from being used to their potential.

3.4 NYSDEC Unit Management Plans and State Land Classifications

NYS Department of Environmental Conservation (NYSDEC), in conjunction with the Adirondack Park Agency (APA), is responsible for maintaining state owned land in the Adirondack Park. NYSDEC is in the process of developing Unit Management Plans for the entirety of the Adirondack Park. The Saranac Lakes Wild Forest Unit Management Plan, totaling 79,000 acres in Franklin and Essex Counties, is still under development. Unit management plans assess natural and physical resources, and opportunities for public use consistent with land classifications and the ability for the ecosystem to support the use. State land classifications have been determined for Adirondack Park lands surrounding the Village of Saranac Lake. The following classifications are present:

Wilderness (NYSDEC): A wilderness area is an area where the earth and its community of life are untrammeled by man - where man himself is a visitor who does not remain. A wilderness area is further defined to mean an area of state land or water having a primeval character, without significant improvement or protected and managed so as to preserve, enhance and restore, where necessary, its natural conditions.

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Wild Forest (NYSDEC): A wild forest area is an area where the resources permit a somewhat higher degree of human use than in wilderness, primitive or canoe areas, while retaining an essentially wild character. A wild forest area is further defined as an area that frequently lacks the sense of remoteness of wilderness, primitive or canoe areas and that permits a wide variety of outdoor recreation.

Resource Management (APA): Most development activities in resource management areas will require an Agency permit; compatible uses include residential uses, agriculture, and forestry. Special care is taken to protect the natural open space character of these lands.

4 Existing Conditions

4.1 Existing Bicycle and Pedestrian Accommodations

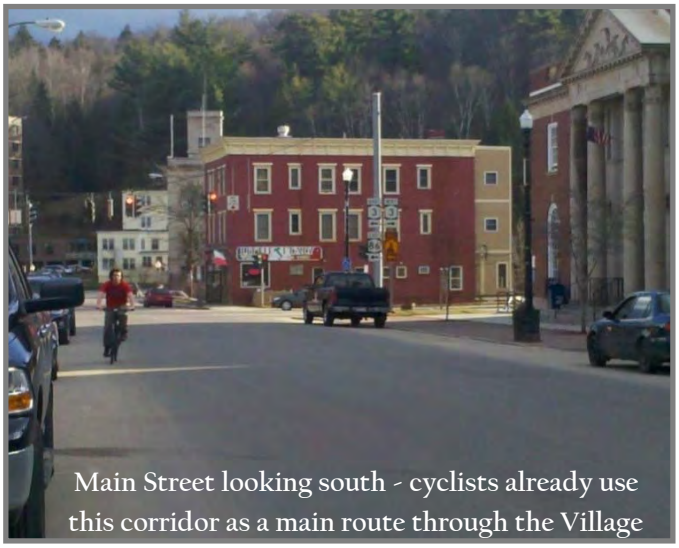
4.1.1 Sidewalks

Sidewalks are available on the major roadways, including River Street, Church Street, Main Street, Broadway, and Bloomingdale Avenue. Sidewalks extend onto a majority of the residential streets in the core area of the village. Although some remain in relatively good condition, a number of sidewalk sections are in disrepair. A number of the neighborhoods on the periphery of the Village are underserved. There are missing sidewalk connections from significant residential populations such as the Algonquin Apartments, and the neighborhoods of Glenwood, Helen Hill, and College Hill.

The Village has recently completed a sidewalk inventory, noting both location and condition of sidewalks. Using a million-dollar bond, Saranac Lake is implementing a sidewalk improvement project. The results of the scoping report established priority for the replacement of sidewalks based on factors such as condition, importance, and cost. Eight streets are identified for replacement under the existing funding, including St Bernard Street on both sides, Academy Street, Lake Street, Charles Street, McClelland Street, Helen Street, Shepard Avenue, Front Street, Broadway on both sides, and Main Street. These sidewalks are scheduled for replacement in 2012. Additional sidewalk segments, totaling 20,348 linear feet, are listed as low priority and for future replacement. Sidewalks and other pedestrian facilities are shown in Figure 3.

4.1.2 Main Street and Broadway

Main Street and Broadway, from River Street to Bloomingdale Ave., is the commercial center of the Village. Main Street is lined with storefronts with the exception of the 'Sear's' parking lot. Sidewalk widths vary from 5 feet to over 14 feet. There are crosswalks and pedestrian signals available at the intersection of River Street and Main Street. An additional mid-block crossing is located on the north side of the parking lot to a curb bump out on the other side of the roadway. The intersection of



Main Street looking south - cyclists already use this corridor as a main route through the Village

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Main Street and Broadway is yield controlled only on the westbound approach. Crosswalks are located on all three approaches but span over 45 feet each.

An additional public parking area, known as the Pontiac Lot, is located on the northeast corner of the intersection with a driveway on Broadway. Broadway narrows after Woodruff Street with 5 foot sidewalks, on-street parking on either side, and as little as 11' lanes in some places. Again, storefronts line the street, except at the bridge crossing the Saranac River. Further north, the street widens slightly with increased building gaps and setbacks. There are no curb bump outs north of Dorsey Street. Crosswalks and pedestrian signals are located on all approaches of the intersection of Broadway and Bloomingdale Avenue.

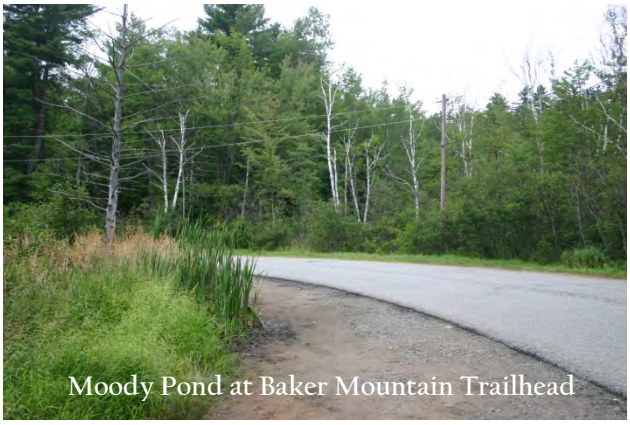
4.1.3 Riverwalk

The Riverwalk is a prominent feature along the Saranac River in the downtown area. The path is located behind many of the buildings on Main Street, providing good pedestrian access to businesses. The access-ways between Main Street and the Riverwalk could be improved with better wayfinding signage and pavement markings. Currently, only small signs are located on the sides of buildings and trail users have to pass through parking areas behind the Main Street buildings. The Village has been working with property owners to improve the aesthetics and access to these businesses from the off-street parking area and Riverwalk. The current terminus of the Rivewalk is just past Church Street. Existing commercial developments prevent the extension of the Riverwalk to the railroad bridge. Easements are need.

Riverwalk terminus at Church Street

4.1.4 Moody Pond

The roadway surrounding Moody Pond in the east part of the Village is a popular walking route for many residents, and is also access to Baker Mountain and the Pines trailhead. Some walk to Moody Pond, while others will drive and park near the Baker Mountain trailhead. No formal parking is provided. This is also the location where most people will launch non-motorized boats. The roadway is narrow, approximately 20 to 24 feet wide. Public comments indicate there is still an issue with speeding. Pedestrians and cyclists share the roadway; however, no matter which direction they are traveling, pedestrians tend to walk on the pond side of the roadway.



Moody Pond at Baker Mountain Trailhead

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4.1.5 Trails

Saranac Lake's location in the heart of the Adirondack Mountain region is a large opportunity for hiking and mountain biking recreational activities. There are a number of hiking trails surrounding the village, including the **Baker Mountain trail**, a trail network through the **Pines area**, and a trail system at Dewey Mountain. A loop of hiking and mountain biking trails also exists in the **Turtle Pond area**. These trails are typically three feet wide or wider dirt paths, and are clear of trees and shrubs. Trails are generally maintained by volunteers or NYS DEC.

Additional trails have been developed for mountain bikes at Dewey Mountain. Cyclists often use the snowmobile trail to the north of Lake Colby as well. The BETA group has submitted a proposal to the Department of Environmental Conservation for inclusion in the Saranac Lake Wild Forest UMP to expand mountain biking trails in the area of southwest of Ray Brook. Additional multi-use trails are under development at Mount Pisgah.

Dewey Mountain Trails

The Jack Rabbit Trail - between Saranac Lake and Lake Placid, was developed as a x-country skiing trail and is very popular in the region.

The Dewey Mountain Trails – this area started with trails developed for x-country skiing and snowshoeing in the winter months. Additional trails were built in recent years to accommodate mountain biking and hiking.

The Northern Forest Canoe Trail - originating in Old Forge, New York, and leading to Fort Kent, Maine, is a major canoe and kayak trail in the northeast and utilizes Lower Saranac Lake, Lake Flower, and the Saranac River. The local outfitters and hotels are currently listed as area services for the Village of Saranac Lake but with additional visibility and access to this water trail, residents and businesses can further benefit.

The Lake Placid – Saranac Lake Rail Trail – this multi-use trail has already been planned, and partially funded and permitted. This will be implemented as a 10 foot stone dust surface in the existing railroad corridor between Lake Placid and the eastern edge of Saranac Lake. Between this point, at Brandybook and Pine St, and the Saranac River, a dirt path and fencing already exist alongside the railroad tracks. Even where these accommodations do not exist, to the north by the railroad depot and to the south near North Country Community College, the railroad corridor is already in use by pedestrians and cyclists. Existing trails and regional connections are shown in Figure 4.

Existing Rail Trail in Saranac Lake

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4.1.6 Trail Wayfinding

Currently, the Village of Saranac Lake has little wayfinding signage for its trail system. Wayfinding is limited to destination signage for Mt. Pisgah and trailhead signage at locations such as Baker Mountain. and the Pines. Dewey Mountain includes a trail map and trail markers for its trails. Saranac Lake has an extensive trail system surrounding the village, including the trails to the peaks, the Pines, and the Jackrabbit Trail, but there is no signage leading people there from the village or back to the village after a day of hiking, mountain biking, or x-country skiing. The Village will soon be developing a wayfinding implementation plan to improve these conditions.

Trailhead at the Pines

4.2 Destinations

There are a number of key destinations in and around the Village of Saranac Lake, such as parks, schools, recreational activities, and businesses that can benefit from increased non-motorized access. Prominent parks in the region include:

- Riverside Park, located on the corner of Main Street and River Street along Lake Flower;
- Prescott Park, located between River Street and Lake Flower, located along the Northern Forest Canoe Trail;
- Mountain Mist Park, a pocket park on Lake Flower Avenue, adjacent to the Mountain Mist food stand;
- Baldwin Park, located in the southern part of the village between Lake Flower and Lake Flower Avenue;
- Lake Colby Beach, located off Route 86 on the southeast shore of the lake that includes a beach, park, boat access, swimming, ice fishing access
- William Morris Park, located on the corner of Church Street and Bloomingdale Avenue and the location of the Adirondack Carousel.
- Ampersand Avenue Playground and basketball court.
- Grand Entrance Skateboard Park.


Riverside Park


Lake Colby Beach

Business, retail, and educational centers are clustered in a few areas around the Village. The majority of businesses are located in the Downtown area. There is also a unique cluster of businesses located on River Street near the boat launch. There are two other major shopping areas in the Village; Upper Broadway and Lake Flower Ave. Several hotels and motels are also located on Lake Flower Avenue. North Country Community College, Adirondack Medical Center, and other civic destinations can be large generators of pedestrian and bicycle traffic.

Schools and recreational centers are concentrated in the southwest portion of the village. All three public schools are located along Route 3, west of Main Street. Sidewalks exist in much of the area and crosswalks are provided across Route 3 in two locations near the schools. A pedestrian bridge was constructed to provide access to the middle and elementary schools from the neighborhoods north of Route 3. The bridge was damaged and closed in 2011 and had a significant negative impact on the walking patterns of children attending Petrova School. NYS DOT does plan to repair the bridge.

Existing recreational centers in the area include the Civic Center on Ampersand Avenue, the skateboard park located near the Riverwalk Grand Entrance, Dewey Mountain recreational area, and Mt Pisgah. Moody Pond and Saranac River kayak course are also considered recreational sites for many.

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Figure 3

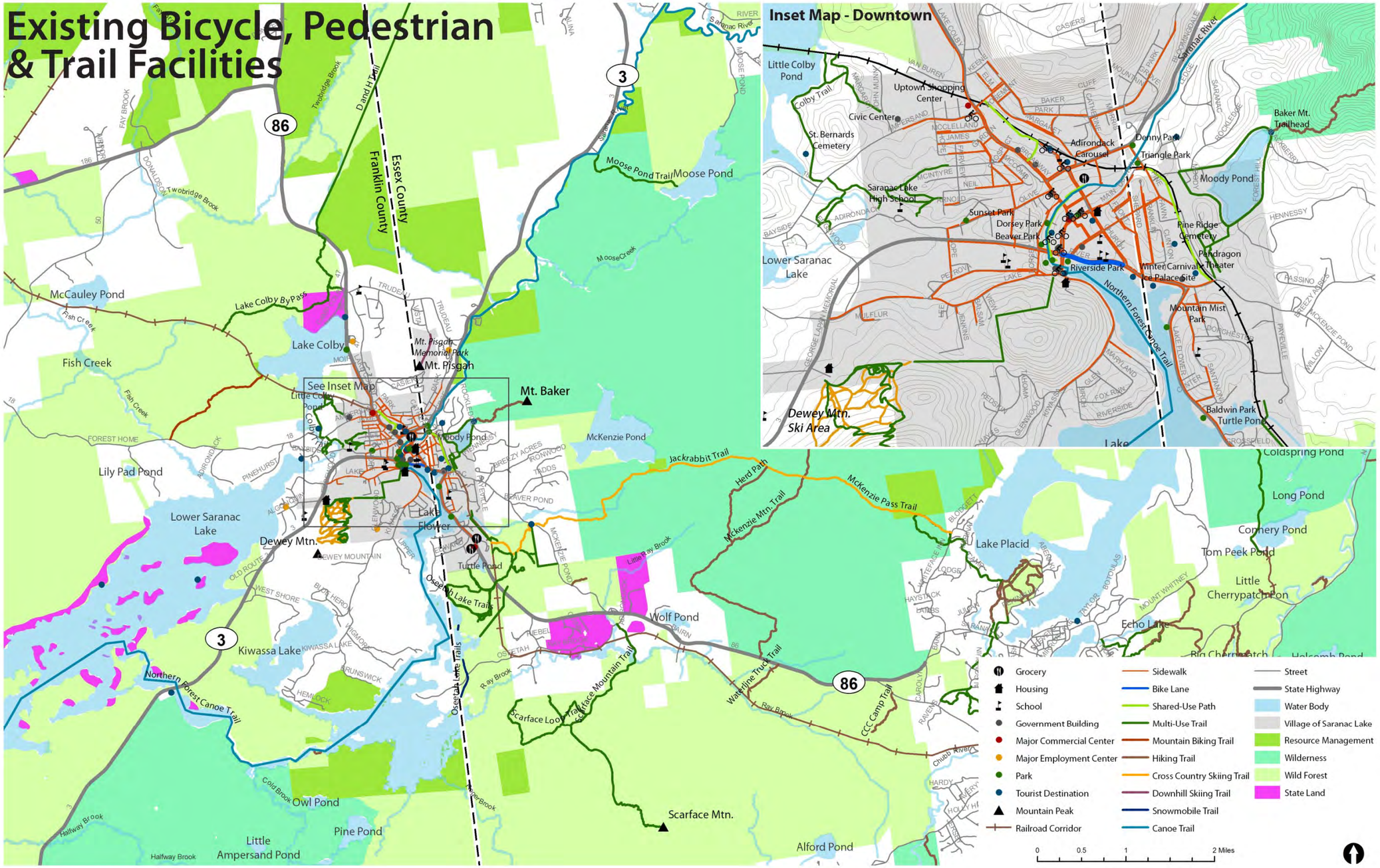

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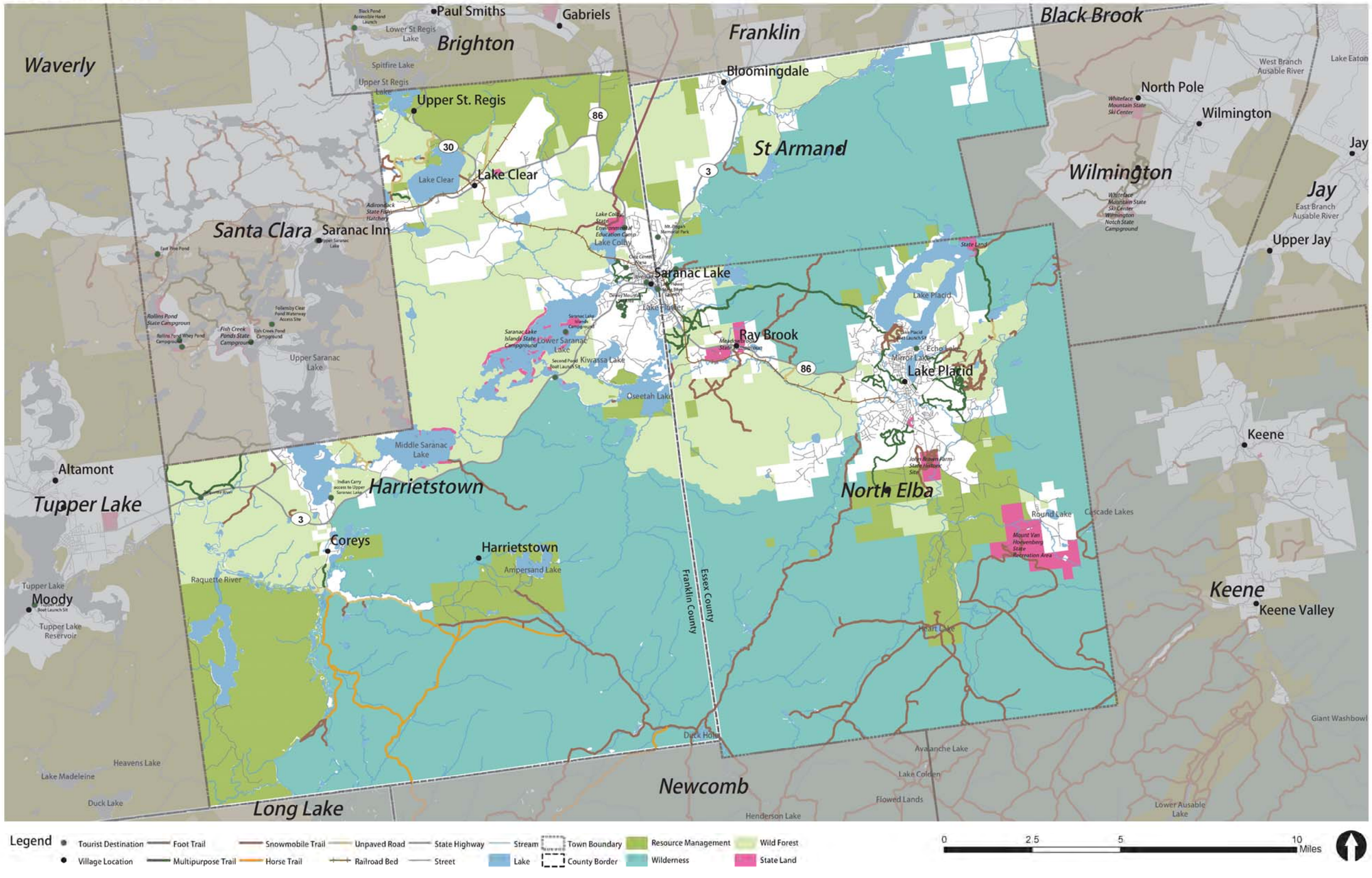
Figure 4
Regional Connections



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5 Recommended Bicycle and Pedestrian Network

Saranac Lake has the potential to build on its existing walkway and bikeway networks and transform itself into a community where walking and bicycling for transportation and recreation are more popular activities. The recommendations in this section lay out a plan for completing a system of walkways and bikeways in and around the Village. The recommended network builds upon previous and on-going local and regional planning efforts, and reflects the input offered by Village staff, the Steering Committee, bicycle and pedestrian stakeholder groups, and Saranac Lake residents.

The recommended network, shown in Figure 5, includes a comprehensive and diverse set of pedestrian, bicyclist and trail facilities connecting key destinations in and around Saranac Lake. System improvements include upgrading intersections for safer crossings, establishing connections to fill gaps in the existing system, and non-infrastructure projects for encouragement and education. Suggested improvements include low-cost measures yielding immediate results, such as spot-infill of sidewalks and re-striping of streets to accommodate bike lanes. Other suggested improvements, such as expanding the local trail system and a regional on-road bicycle network, represent longer-term strategies for transforming Saranac Lake into a truly trail-oriented community.

5.1 Public Input

The Saranac Lake Healthy Infrastructure Advisory Board has served as the advisory committee for the duration of the Bicycle and Pedestrian Trial Plan. Committee members include village residents, a member of each of the surrounding towns, a member of the North Country Healthy Heart Network, representatives from the local mountain biking group, BETA, and the village Community Development Director. The committee provided valuable input regarding existing opportunities and constraints in and surrounding the Village with regard to walking and bicycle and other non-motorized transportation. The committee has also provided evaluation criteria for priority projects and additional feedback on recommendations. The North Country Healthy Heart Network also supported the development of the plan by funding two design concepts for priority projects through a grant from the Department of Health. A list of committee members can be found in Appendix A.

5.1.1 Public Workshop

A public workshop was conducted at the Saranac Lake Free Library on October 18th, 2011. Over 35 people attended the meeting to provide input on the Trails Plan. A presentation was given that provided an overview of the scope of work and process for developing the Plan. Both the local and regional boundary maps were presented and posted for reference. Six additional maps were provided on separate tables for attendees to provide feedback on opportunities and constraints for non-motorized transportation. The six maps were separated by use and included pedestrians, hiking, on-road cycling, mountain biking, other uses, and programs. Comments provided on the maps, written on index cards, and provided verbally were the basis for developing the list of potential projects and determining the level of public support for each potential project.

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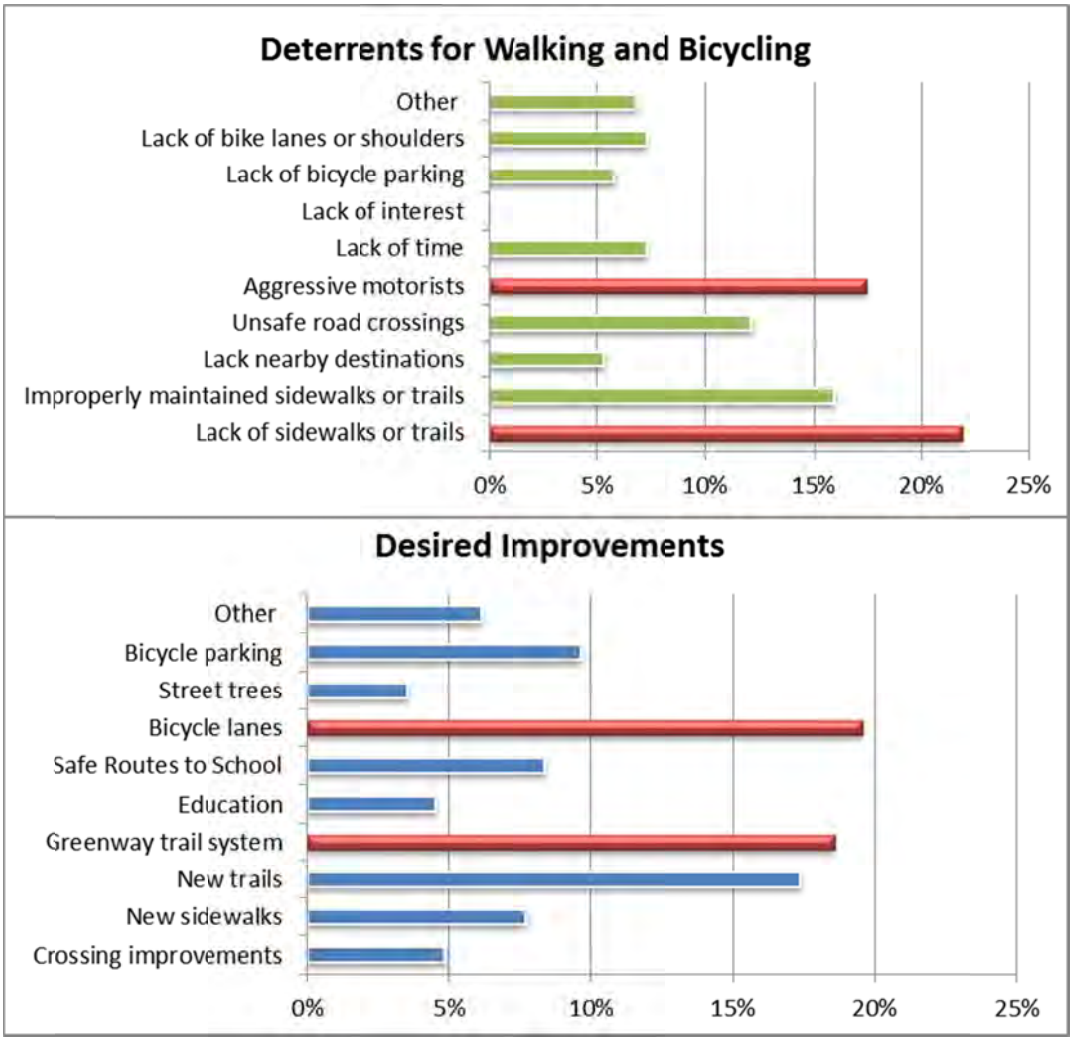
5.1.2 Online Survey

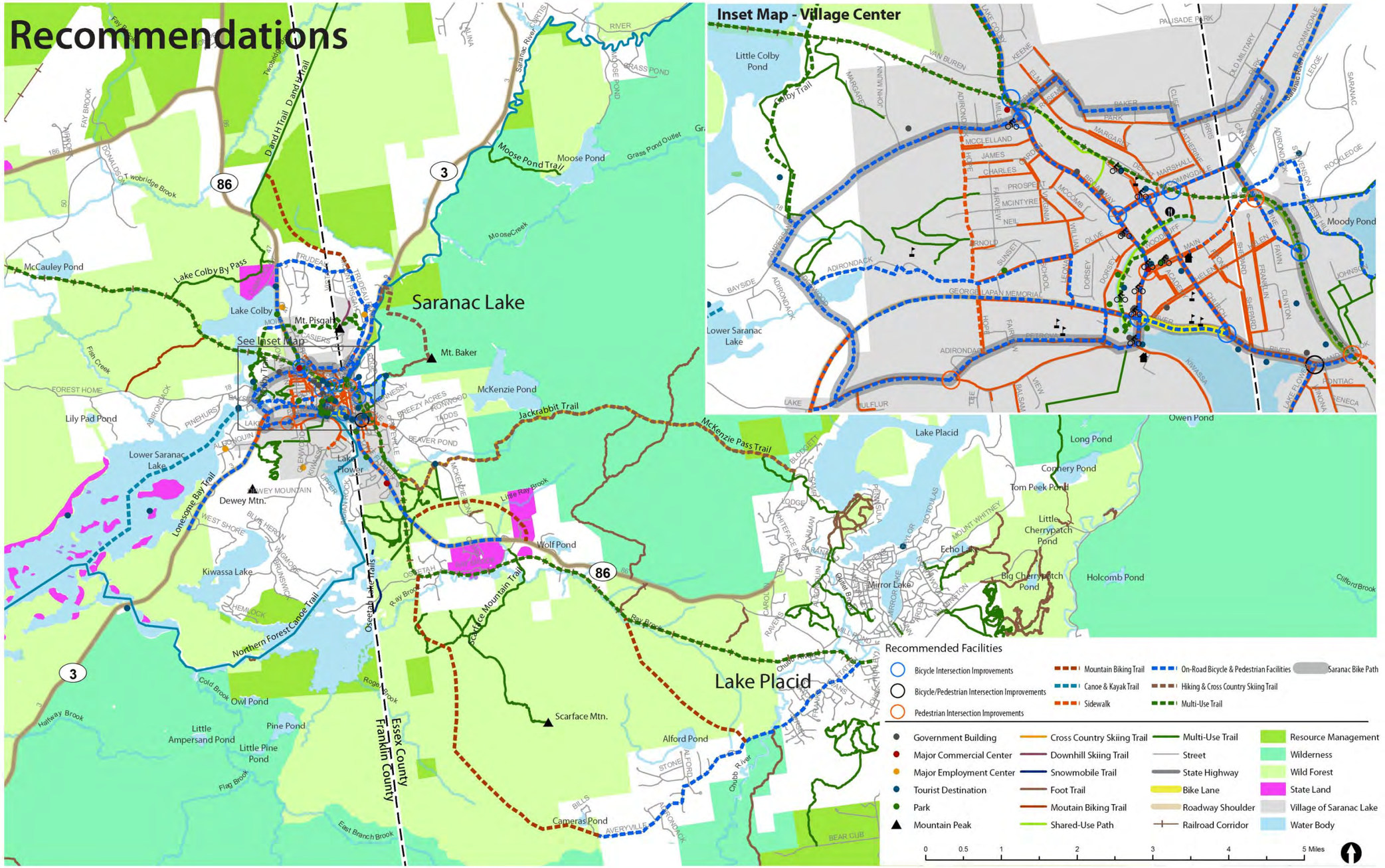
Seventy-nine people participated in the online survey about walking and bicycling in the Village of Saranac Lake. Almost 70% of people walked more than 15 minutes a day over four times a week. Almost 60% rode a bicycle at least once a week. 20 to 30% of those that responded used walking or bicycling for transportation, fitness, or recreation.

Lack of sidewalks or trails and aggressive motorists were the top reasons for not walking or bicycling in the Village. Improperly maintained sidewalks or trails and unsafe road crossings were also significant factors for people not walking or bicycling more. The most desired improvement was the addition of more bicycle lanes and a greenway trail system through the Village. New trails are also desired by residents.



The North Country Healthy Heart Network also conducted a survey of Franklin, Essex, and Hamilton County residents in June 2011. There were 802 participants from Franklin and Essex Counties. When respondents were asked what might help them get more physical activity, 56% and 69% said more safe places to walk & 51% and 64% said more safe places to bike, in Essex and Franklin Counties respectively. When asked if they favored public investment in places to be active 87% and 88% favored public investment in sidewalks and 81% and 84% favored public investment in paved shoulders for bikes.

Figure 5



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5.2 Pedestrian Accommodations

The recommended pedestrian network builds upon Saranac Lake's existing system of sidewalks, shared use paths, and other pedestrian infrastructure elements currently in place. The Pedestrian Recommendations Map, Figure 8, depicts recommended pedestrian system improvements, which include intersection improvements, sidewalk infill, spot improvements, and trail recommendations.

5.2.1 Sidewalks

Sidewalks are the most fundamental element of the walking network, as they provide an area for pedestrian travel that is separated from vehicle traffic. Sidewalks are typically constructed out of concrete and are separated from the roadway by a curb or gutter and sometimes a landscaped planting strip area. Sidewalks are a common application in urban and suburban environments but are less common in rural areas and environments where objections to the "urban" character of sidewalks can arise. Saranac Lake is unique in that while the community is considered rural due to its location within the Adirondack Park, surrounded by forests, the village center and adjacent neighborhoods have an urban design. The urban characteristics fade as one travels away from the center to the edge of village where rural character is evident. In these rural areas, pedestrian travel commonly occurs along the shoulder of the roadway, which is unpaved in some areas.

Installing new sidewalks can be costly, particularly if drainage improvements such as undergrounding of roadside culverts and installation of curb/gutter are part of the design. However, fixing short gaps in an existing sidewalk network is important to maximize system continuity and can be relatively low-cost. Alternatives to sidewalks in rural areas include pedestrian paths separated from a roadway by a grass strip (to serve drainage purposes), or traffic-calming measures (vertical or horizontal deflections to slow motorists) on low-volume streets where pedestrians share the road with motorists.

Figure 6 and Figure 7 show examples of poorly-designed and well-designed sidewalks, respectively. This section addresses design considerations contributing to a good pedestrian environment both along sidewalks and at intersections.

Figure 6. Narrow sidewalks are often blocked by utilities and do not provide adequate pedestrian space

Figure 7. A well-designed sidewalk provides plenty of pedestrian space, as well as trees, bike parking, and a planter zone

5.2.2 Sidewalk Improvement Recommendations

Saranac Lake benefits from a relatively complete sidewalk system in the Village core, while streets in some outlying areas have fragmented sidewalks or no sidewalks at all. As a result, the major challenge lies in retrofitting existing streets where sidewalks are fragmented or lacking altogether and in areas where

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development is expected to occur. Several sections have been identified as potentially benefiting from targeted pedestrian improvements, including sidewalk infill and obstacle removal. The table 1 contains each section and the proposed improvement.

Table 1. Sidewalk Improvements

Street	From-To	Improvement
Broadway	Main Street to Bloomingdale Ave	Remove obstacles, rehabilitate sidewalk surface
Main Street	Church Street to Pine St	Install sidewalk
Route 3	Algonquin Ave to Edgewood Rd	Install sidewalk
Edgewood Road	Route 3 to Adirondack Park Preserve (High School Access)	Install sidewalk
Lake Street	Route 3 to Mulflur Road	Install sidewalk
Kiwassa Road	Riverside Dr to Glenwood Rd	Install sidewalk
Pine St / McKenzie Pond Rd	River Street to Breezy Acre	Install sidewalk
Brandy Brook	Lake Flower Ave to Pine St	Install sidewalk
Canaras Ave	Route 3 to Petrova Ave	Install sidewalk

5.2.3 Intersections

In general, pedestrians are not inclined to travel very far out-of-direction to access a designated crosswalk, so providing sufficient crossings is critical for a safe pedestrian environment. Crosswalks can also be designed for increased visibility of pedestrians, and curb ramps as well as vehicle turning radii should also be considered for the pedestrian environment.

In areas of high pedestrian use, where priority is given to walking trips by Village policies, it may be appropriate to design for the convenience of pedestrians when considering signal placement and timing, even if it means reducing the efficiency of vehicle progression. For example, longer pedestrian phases may be desirable.

5.2.4 Intersection Improvement Recommendations

Although many intersections throughout Saranac Lake could be targeted for enhancements, the intersections identified on the Pedestrian Recommendations Map on page 18 were recognized by Village staff and residents as having a relatively high importance. Specific intersections recommended for improvement are listed below:

Table 2. Pedestrian Intersection Improvements

Street	Cross Street
Main Street	Pine Street
Brandy Brook	Pine Street
River Street	Lake Flower Avenue
Lake Street	Petrova Avenue (west intersection)
Main Street	Broadway

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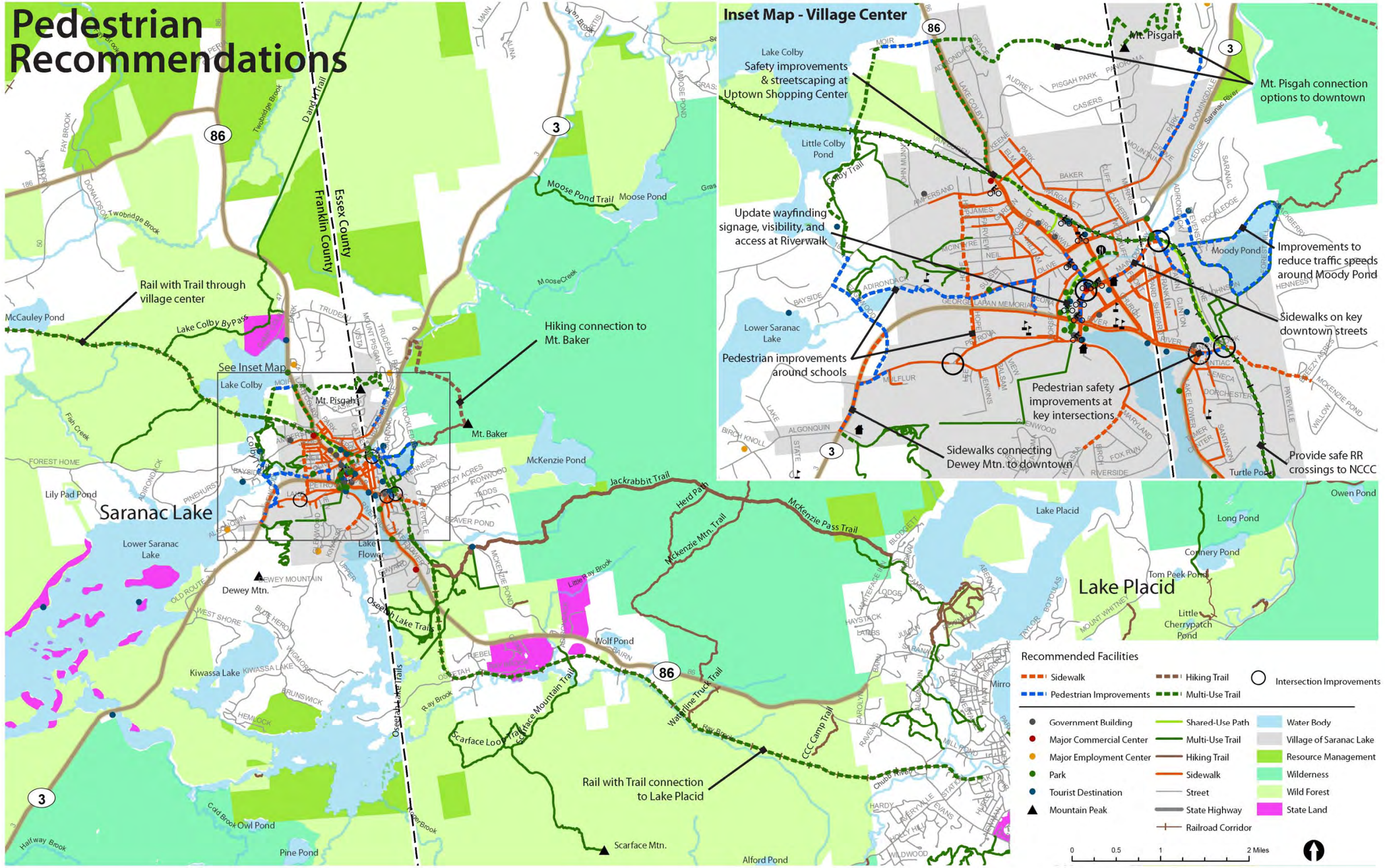
Figure 8



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5.3 Bicycle Accommodations

Although Saranac Lake currently lacks a comprehensive bikeway network, the Village has potential to create an excellent system. The proposed network has been developed to fill system gaps, continue expansion of the regional trail network, formalize existing routes used by bicyclists, and improve access between residential, employment, civic, and commercial destinations. The Bicycle Recommendation Map depicts the recommended bikeway network for Saranac Lake. Depending on their location and context, Saranac Lake's on-street bikeway network would include the following facilities:

- Bike Lanes
- Shared Lane Markings
- Neighborhood Greenways (Bicycle Boulevards)
- Signed Connections

It is important to note that bicycles are permitted on all roads in the state of New York. As such, Saranac Lake's entire street network is effectively the community's bicycle network, regardless of whether or not a bikeway stripe, stencil, or sign is present on a given street. The designation of certain roads as bike routes is not intended to imply that these are the only roadways intended for bicycle use, or that bicyclists should not be riding on other streets. Rather, the designation of a network of on-street bikeways recognizes that certain roadways are preferred bicycle routes for most users, for reasons such as directness or access to significant destinations, and allows Saranac Lake to then focus resources on building out this primary network. Clearly marked bicycle routes can encourage beginner cyclists and increase bicycle use commuting as well as recreation. **Designation provides a level of comfort to bicyclists and increases awareness in drivers.**

5.3.1 Bike Lanes

Designated exclusively for bicycle travel, bike lanes are separated from vehicle travel lanes with striping and also include pavement stencils. Bike lanes are most appropriate on arterial and collector streets where higher traffic volumes and speeds warrant greater separation.

Most commuter bicyclists would argue that on-street facilities are the safest and most functional facilities for bicycle transportation. Bicyclists have stated their preference for marked on-street bike lanes in numerous national surveys (Bureau of Transportation Statistics, *How Bike Paths and Lanes Make a Difference*, 2004 and Bikes Belong, *Enthusiast Demographics and Industry Trends Survey*, 2010). The fact is that many bicyclists – particularly less experienced riders – are far more comfortable if a busy street has a striped and signed bike lane. Part of the goal of this Plan is to encourage new riders, and providing marked facilities such as bike lanes is one way of helping to persuade residents to give bicycling a try.

If properly designed, bike lanes can increase safety and promote proper riding. For this reason, bike lanes are desirable for bicycle commute routes along major roadways. Bike lanes help to define the road space for bicyclists and motorists, reduce the chance that motorists will stray into the cyclists' path, discourage bicyclists from riding on the sidewalk, and remind motorists that cyclists have a right

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to the road. One key consideration in designing bike lanes in an urban setting is to ensure that bike lanes and adjacent parking lanes have sufficient width so that cyclists have enough room to avoid a suddenly opened vehicle door.

5.3.2 Shared Lane Markings

Shared lane markings (also known as "sharrows") are high-visibility pavement markings that help position bicyclists within the travel lane. These markings are often used on streets where dedicated bike lanes are desirable but are not possible due to physical or other constraints. Sharrows are placed strategically in the travel lane to alert motorists of bicycle traffic, while also encouraging cyclists to ride at an appropriate distance from the "door zone" of adjacent parked cars. Placed in a linear pattern along a corridor (typically every 100-200 feet), sharrows also encourage cyclists to ride in a straight line so their movements are predictable to motorists. These pavement markings have been successfully used in many small and large communities throughout the U.S. Shared lane markings made of thermoplastic tend to last longer than those using traditional paint.

5.3.3 Neighborhood Greenways (Bicycle Boulevards)

Neighborhood Greenways (Bicycle Boulevards) are low-volume streets where motorists and bicyclists share the same space. A motorist will usually have to cross over into the adjacent travel lane to pass a bicyclist unless a wide outside lane or shoulder is provided.

Traffic calming and other treatments along the corridor reduce vehicle speeds so that motorists and bicyclists generally travel at the same speed, creating a safer and more comfortable environment for all users. Neighborhood Greenways also incorporate treatments to facilitate safe and convenient crossings where bicyclists must traverse major streets. Neighborhood Greenways work best in well-connected street grids where riders can follow reasonably direct and logical routes with few "twists and turns." Boulevards also work best when higher-order parallel streets exist to serve thru vehicle traffic.

Why Neighborhood Greenways are important

Neighborhood Greenways serve a variety of purposes:

- **Parallel major streets lacking dedicated bicycle facilities:** Higher-order streets such as arterials and major collectors typically include major bicyclist destinations (e.g., commercial and employment areas,

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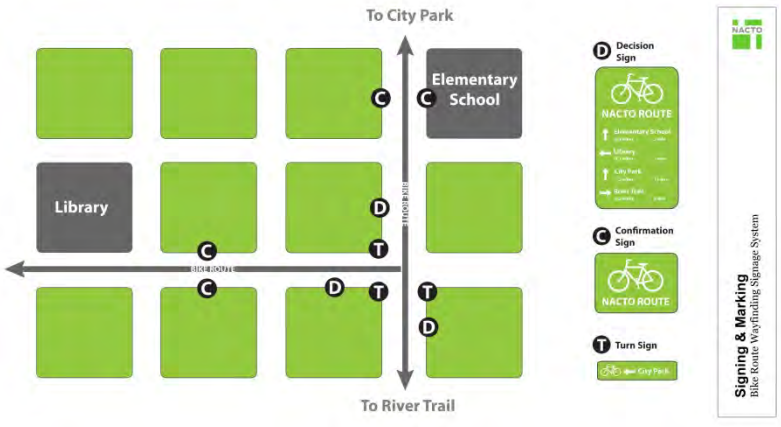
and other activity centers). However, these corridors often lack bike lanes or other dedicated facilities thereby creating an uncomfortable, unattractive and potentially unsafe riding environment. Neighborhood Greenways serve as alternate parallel facilities allowing cyclists to avoid major streets for longer trip segments.

- **Parallel major streets with bicycle facilities that are uncomfortable for some users:** Some cyclists may not feel comfortable riding in bike lanes on major streets for various reasons, including high traffic volumes and vehicle speeds, conflicts with motorists entering and leaving driveways, and/or conflicts with buses occupying the bike lane while loading and unloading passengers. Children and less-experienced riders might find these environments especially challenging. Utilizing lower-order streets, Neighborhood Greenways provide alternate route choices for bicyclists uncomfortable using the major street network. It should be noted however that bike lanes on major streets provide important access to key land uses, and the major street network often provides the most direct routes between major destinations. For these reasons, Neighborhood Greenways (Bicycle Boulevard) should complement a bike lane network and not serve as a substitute.
- **Ease of implementation on most local streets:** Neighborhood Greenways incorporate cost-effective and less physically-intrusive treatments than bike lanes and cycle tracks. Most streets could be provided relatively inexpensive treatments like new signage, pavement markings, striping and signal improvements to facilitate bicyclists' mobility and safety. Other potential treatments include curb extensions, medians, and other features that can be implemented at reasonable cost and are compatible with emergency vehicle accessibility.
- **Benefits beyond an improved bicycling environment:** Residents living on Neighborhood Greenways benefit from reduced vehicle speeds and thru traffic, creating a safer and more-attractive environment. Pedestrians and other users can also benefit from boulevard treatments (e.g., by improving the crossing environment where boulevards meet major streets).

5.3.4 Signed Connections

Signed connections provide routes between popular bikeways and major destinations. Signed connections are generally located on streets with higher automobile volumes than Neighborhood Greenways (Bicycle Boulevard), but less than on routes with shared lane markings.

Signed connections in Saranac Lake should include wayfinding signage to help cyclists navigate between major bikeways and nearby destinations, and along roadway segments between more well-defined bikeways (e.g., bike lanes or shared use paths).



5.3.5 Bicycle Improvement Recommendations

Saranac Lake's major streets currently lack dedicated bike lanes with the exception of River Street. Safely accommodating bicyclists on major roadways is important for several reasons. First, major streets generally offer the most direct routes between bicyclist destinations while providing better connectivity compared with lower-order streets. Consequently, commuter cyclists and those traveling longer distances often gravitate to these routes. Second, the commercial character of major streets (e.g., employment or shopping) makes these corridors destinations in and of themselves. Depending on funding or other constraints, bike lane project implementation could occur in multiple phases. The compact development currently seen in Saranac Lake lends itself to increased bicycle use along these corridors.

Saranac Lake generally benefits from a well-connected system of lower-volume streets that, with the addition of relatively small-scale treatments, could become spectacular Neighborhood Greenways for riders of all ages and skills. The treatments and guidelines described above can be used to safely accommodate bicyclists on many of the roadways in Saranac Lake. The table 3 contains each street and proposed improvements, which are also shown on the Bicycle Recommendations Map in Figure 9.

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Table 3. Bicycle Improvements		
Street	**From-To**	**Improvement**
Main St	River Street to Pine St	Bike lanes (uphill) / Shared lanes (downhill)
Broadway	Main Street to Bloomingdale Ave	Bike lanes (uphill) / Shared lanes (downhill)
Lake Flower Avenue	River Street to Railroad Tracks	Lane reconfiguration (being completed summer 2012)
Route 86	Bloomingdale Ave to Trudeau Rd	Shoulder widening as feasible
Church St	River Street to Bloomingdale Ave	Shared lanes / Bike Lanes
Route 3	River Street to Algonquin Ave	Shoulder widening
River St	Lake Flower Ave to Main St	Bike lanes - restriping
Moody Pond Loop	E. Pine Street to Mt. Baker Rd to Forest Hill Ave	Neighborhood Greenway (Bicycle Boulevard) / Signed connection
Lake St	Route 3 to Main St	Shared lanes / Signed connection
Trudeau Rd	Route 86 to Route 3	Signed connection
Park Ave	Cedar Street to AMA Way	Signed connection
Baker St	Park Ave to Catherine St	Signed connection
Cedar St	Route 86 to Park Ave	Shared lane / Signed connections
Ampersand Ave	Edgewood Rd to Broadway	Neighborhood Greenway (Bicycle Boulevard)
Edgewood Rd	Route 3 to Ampersand Ave	Neighborhood Greenway (Bicycle Boulevard)
Petrova Ave	Lake Street to Lake St	Bike lanes - lane narrowing / Neighborhood Greenway (Bicycle Boulevard)

5.3.6 Intersections

Bicyclists can be particularly vulnerable at intersection locations since they are smaller, not protected, and often slower to accelerate than vehicles. A variety of methods can be used to both protect bicyclists and increase their visibility to drivers. Stop signs and yield signs can help to slow drivers down and create further awareness of bicyclists. Stop signs can also be reoriented to give bicycle movements priority. No passing signs near intersections and at railroad crossings should also be considered, for example: "NYS Law: No passing within 200' of RR crossing".

Bike lanes and shared lane markings can reduce right turning vehicle and bicycle conflicts. Bike boxes are designed to allow cyclists to move first through intersections and increase visibility. Two stage left turn boxes reduce conflicts for bicyclists turning left at intersections. Signals can also be re-timed to increase green times for bicyclists or allow a bicycle only phase.

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5.3.7 Intersection Improvement Recommendations

Several intersections, identified on the Bicycle Recommendations Map on page 25, were recognized by Village staff and residents as having a relatively high importance or unsafe conditions. Specific intersections recommended for improvement are listed below:

Table 4. Bicycle Intersection Improvements

Street	Cross Street
River Street	Church Street
River Street	Main Street
Broadway	Bloomingdale Avenue
Broadway	Ampersand Avenue
Lake Flower Avenue	River Street
Bloomingdale Avenue	Church Street
Pine Street	Railroad Crossing
Broadway	Railroad Crossing
Bloomingdale Avenue	Railroad Crossing

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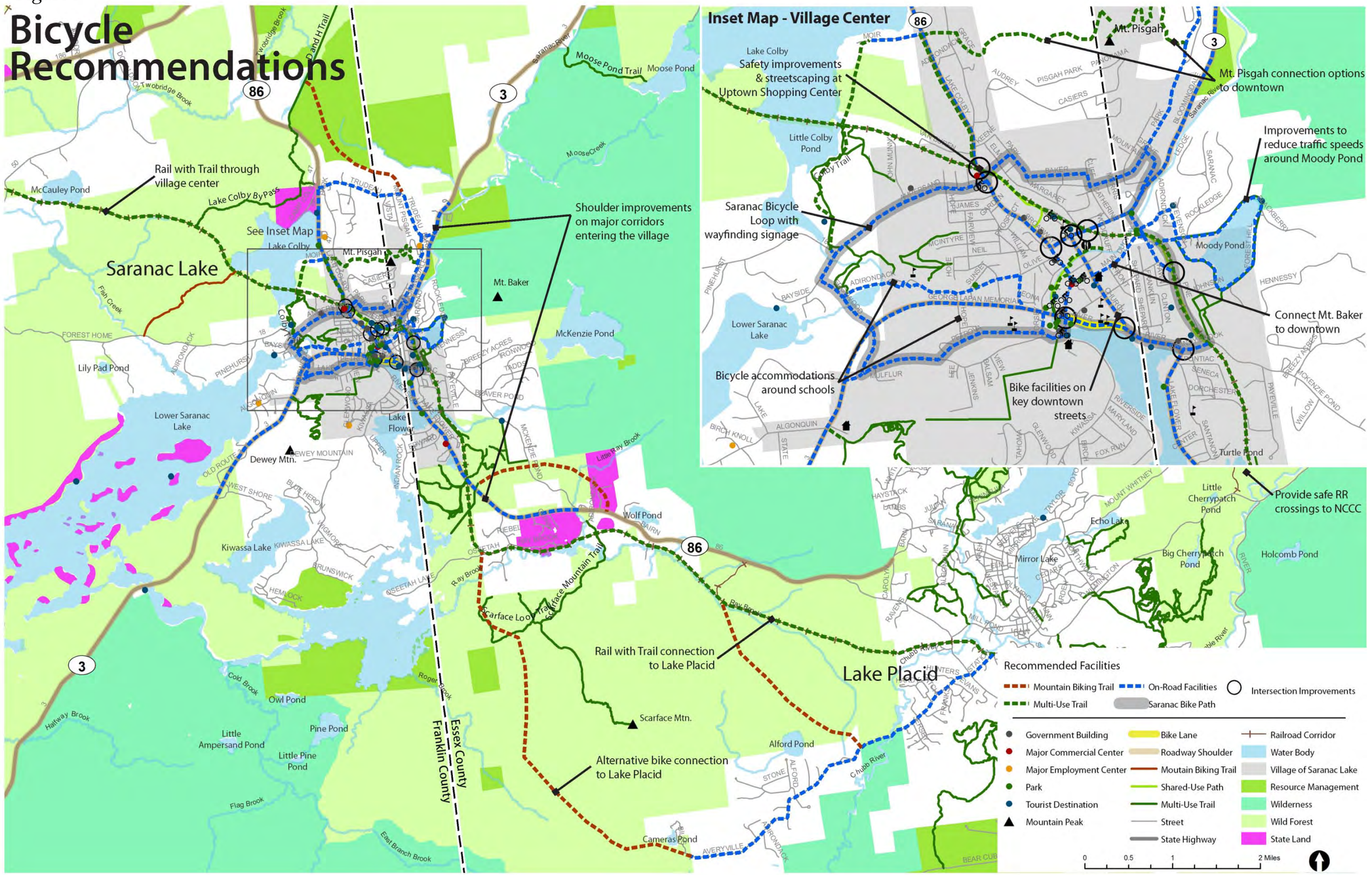
Figure 9



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5.4 Multiple Uses

Shared use paths (also referred to as "trails" and "multi-use paths") are often viewed as recreational facilities, but they are also important corridors for utilitarian trips. Shared use paths serve both bicyclists and pedestrians and provide additional width over a standard sidewalk. These facilities may be constructed adjacent to roads, through parks or open space areas, along creeks, or along linear corridors such as abandoned railroad lines. In rural areas, shared use paths can serve as an alternative to formal curb, gutter and sidewalks. If an asphalt or concrete surface is not desired, paths can be constructed with decomposed granite or another aggregate material to better fit in with the rural environment. Regardless of the type, paths constructed next to the road must have some type of vertical (e.g., curb or barrier) or horizontal (e.g., landscaped strip) buffer separating the path area from adjacent vehicle travel lanes.

Shared Use Path Recommendations: Saranac Lake to Lake Placid Trail

The railroad corridor between Lake Placid and Tupper Lake offers a great opportunity for a regional shared use path. Running directly through the heart of Saranac Lake, the corridor acts as a spine to the bicycle and pedestrian network. A rail-with-trail project between Lake Placid and Ray Brook has already been designed and permitted, and has construction funding. A continuation of the rail-with-trail corridor between Lake Colby and Tupper Lake is outside of the study area and assumed as a long-term future project.

Between Ray Brook and Saranac Lake, the railroad corridor does offer challenges but also significant opportunities. Benefits of the rail trail include recreational opportunities, transportation alternatives to activity centers, and a regional connection to Saranac Lake, Ray Brook, and Lake Placid.

Saranac Lake Section

A minimum of an 8-foot-wide path should be implemented along the rail corridor, providing adequate separation from the railroad tracks. Fencing should be installed to separate the two uses of the corridor, which has already been completed on many sections of the trail. In places where the existing corridor is not wide enough to provide a shared use path, a close alternative route can be found, or a path can be built by alternative means such as a raised platform next to the railbed. The gap at the railroad bridge over Saranac River can be filled by building a cantilevered path on one side of the bridge or by building a smaller structure adjacent to the existing bridge. A temporary alternative route can be provided on Pine Street or Woodruff Street.

Roadway crossings should be clearly marked with crosswalks and signage, alerting drivers to be more aware of cyclists and pedestrians crossing the street. Sight distance for vehicles, cyclists, and pedestrians should be measured at each crossing and conform to AASHTO guidelines to ensure safe visibility.

Access to and from the rail-trail would include Colby Pond, the Upper Broadway Commercial District, the Depot, Pine Street, North Country Community College, and the Saranac Lake Plaza. Access points should be clearly marked with wayfinding signage.

5.5 Trails

5.5.1 Natural Surface Trails

Natural surface trails are an important component of a healthy lifestyle and are consistently rated by residents as being a valuable asset to their community. Hiking, mountain biking, and x-country skiing are all popular

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activities in Saranac Lake. Natural surface trails are sufficient for all these uses and minimize impacts to the public and private forests surrounding the Village. There are several equestrian trails on state lands on the periphery of Saranac Lake. These existing trails appear to accommodate current equestrian use and no new trails are recommended for equestrians.

5.5.2 Natural Surface Trail Recommendations

A number of natural surface trails are proposed throughout the Village of Saranac Lake to complement and fill gaps in the existing system. Some trails will be designated for hiking only, some for x-country skiing in winter, and others for multiple uses including mountain biking. When right-of-way allows, hiking and mountain biking tracks can be separated. Proposed trails are shown on the Bicycle Recommendations Map (Figure 9) and Special Uses Recommendations Map (Figure 10). Table 5 outlines the proposed natural surface trails.

Table 5. Trail Recommendations

Location	From-To	Uses
Dewey Mountain to St. Bernard's Cemetery	Trailhead on Route 3, north on Edgewood Drive, to St. Bernard's Cemetery	Mountain Biking, Hiking, X-country Skiing, Snowshoeing
Public Land by St. Bernard's Cemetery	Edgewood Drive, behind St. Bernard Cemetery, to Rail-with-trail	Mountain Biking, Hiking, X-country Skiing, Snowshoeing
Mount Pisgah East	Mount Pisgah peak, following utility corridor east, through AMA property to Trudeau and/or Park Ave	Mountain Biking, Hiking, X-country Skiing, Snowshoeing
Mount Pisgah West	Mount Pisgah peak, following contours, down to Route 86	Hiking, X-country Skiing, Snowshoeing, potential for Mountain Biking
Baker Mountain North	Sidepath on Route 3 north to the bridge at the water treatment plant, hiking trail south to Baker Mountain peak, relocated gate	Hiking, X-country Skiing
Oseetah Lake to Lake Placid	From trails at Oseetah Lake, east to County Highway 23, north east to Lake Placid	Mountain Biking, Hiking, Cross-Country Skiing

5.5.3 Trailheads

Good access to a path system is a key element for its success. Trailheads (formalized parking areas) serve the local and regional population arriving to the path system by car, transit, bicycle or other modes. Trailheads provide essential access to the trail system and include amenities like parking for vehicles and bicycles, restrooms (at major trailheads), and posted maps. A central information installation also helps users find their way and acknowledge the rules of the path. They are also useful for interpretive education about plant and animal life, ecosystems, and local history. Items to consider when developing a trailhead include:

- Trailhead signage
- Bicycle parking
- Vehicle parking

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- Maps and informational signs
- Trash receptacles
- Restrooms

Saranac Lake has a number of existing trailheads and will have more with the proposed pedestrian and bicycle improvements. The following locations should be considered for improvement:

- Baker Mountain/Moody Pond
- Dewey Mountain
- Railroad Depot Union
- Prescott Park
- Mount Pisgah
- McKenzie Pond Road – Jack Rabbit trailhead

5.5.4 Blueway Trails

The community should take advantage of the many water ways including the Saranac River, Lower Saranac Lake, Lake Flower, Lake Colby, Moody Pond, and many others by developing blueways. Blueways are small boat and paddling routes that combine water-based recreation and environmental awareness and allow users to travel between designated stops that link New York's heritage sites, trails, greenways, historic resources, scenic byways, and revitalized community centers. Blueway trails contribute to regional economies, and individual blueway projects can be catalysts for local economic development, and promote environmental preservation and stewardship, by connecting communities to nearby waterways.

The Northern Forest Canoe Trail, which runs from New York to Maine, travels Lake Flower and the Saranac River through the Village. The Adirondack Canoe Classic or the "90 Miler" travels the same path as the Northern Forest Canoe Trail through Saranac Lake. The Adirondack Canoe Classic ("90 Miler") is a recreational and competitive canoe event which attracts approximately 250 vessels and 500 participants annually. Paddlers travel the original "highways" of the Adirondacks from Old Forge to Saranac Lake paddling through the heart of the Adirondack mountain wilderness. The competitors cover 90 miles in three days. Along with the paddling and rowing, there are also several miles of carries (or portages) that the racers must negotiate. The Adirondack Canoe Classic is one of the most popular races in the country, attracting people from California to Florida. The Adirondack Canoe Classic plays an important role in the economies of the communities in the Central Adirondack region.

Additional blueway trails can be mapped and marked for day trips. A popular loop from Ampersand Bay around to Lake Flower, ending at Prescott Park, is just over ten miles. Clearly marked trailheads and canoe launches will encourage tourism and more use by residents. Additional trails and pedestrian accommodations should connect each trailhead to downtown. Provide trail maps and markers and create and clearly mark launch sites, tie ups, and rest areas to highlight and promote canoe and kayak trails.

- Improve launch areas and clearly mark trailheads
- Provide trail connections
- Provide trail maps and markers

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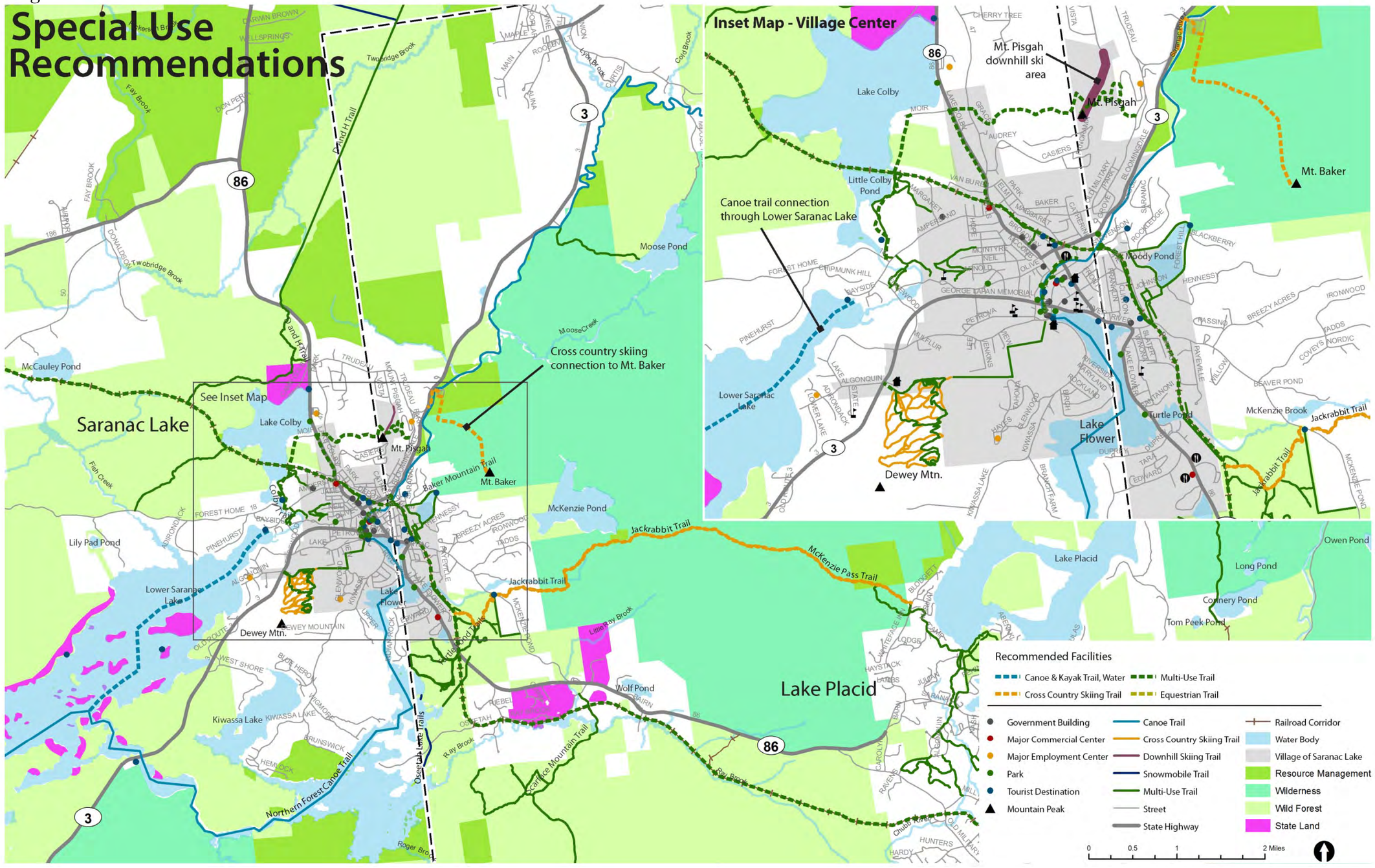
Figure 10



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5.6 Location-Specific Improvements

5.6.1 Riverwalk

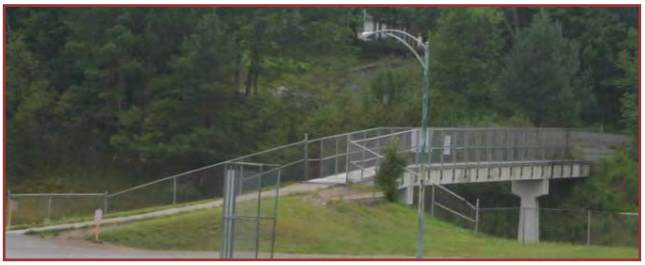
The Riverwalk is a prominent pedestrian path along the Saranac River. There is frequent access to Main Street, and two significant roadway crossings at Broadway and Church Street. Enhancements to the existing Riverwalk could encourage higher use. Recommendations include more visible wayfinding signage along Main Street, Broadway, and Church Street for access to the Riverwalk, clearly marked crosswalks, and creating more distinguished walkways from the Riverwalk to Main Street. Walkways through the parking areas behind Main Street should be clearly designated.

This path provides a key pedestrian connection to activity centers within the Village and would be an even greater commodity if extended further along the river to the east, ultimately connecting to the rail trail at Pine St. The Village should look for opportunities to obtain easements so the Riverwalk can be extended.

- Improve signage and access between the Riverwalk and Main Street/Broadway
- Obtain easements to extend the Riverwalk

5.6.2 Route 3 Pedestrian Bridge

The pedestrian bridge over Route 3 provides a key connection between the school grounds and the neighborhoods around French Hill. Due to structural conditions, the pedestrian bridge has been closed and temporary crosswalk has been installed further east on Route 3. NYSDOT has scheduled rehabilitation of the bridge for the Fall of 2012. Rehabilitating this bridge not only fills a critical gap, but also provides the village with the opportunity for a unique gateway feature from the west. Saranac Lake is home to many local artists who can be utilized to turn the bridge into an exciting piece of artwork.



- Rehabilitation scheduled for Fall of 2012
- Work with NYSDOT and local artists to incorporate artwork into the structure

5.6.3 Moody Pond

Moody Pond is a popular recreational area. Many residents prefer the serene environment and the low traffic roadway for a walking and bicycling loop. Speeding and parking are both issues at Moody Pond. Defining the loop around Moody Pond to reduce traffic speeds will help to create a safe walking and bicycling area. Defining the trailhead and the canoe and kayak launch with signage and a parking area will reduce user conflicts and increase visibility of these assets. Consider reducing the speed limit to 20 mph.

- Implement traffic calming features
- Provide wayfinding signage and trail markers
- Improve canoe and kayak launch and Baker Mountain trailhead

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5.6.4 Prescott Park

Prescott Park is one of the first recreational areas that visitors to Saranac Lake will encounter and is perfectly located between Lake Flower and the village center. The park provides access to the NYSDEC boat launch and docks and is used to hold events throughout the year. Interest has also been expressed in bringing back the public beach. Prescott Park can be further enhanced as a centerpiece for the Village by reducing pavement, increasing green space and landscaping, and by providing better access from local streets across River Street. Currently, the only accessible crosswalk from the park is located to the north at Church St. At least one additional crosswalk should be added to improve access. Prescott Park can also serve as a major trailhead to the rail trail, the Pines, Dewey Mountain, and downtown with an 8' shared use path leading east and west of the park. A multi-use path would also help to elevate safety concerns along River Street.

- Improve site access and parking area
- Provide an additional crosswalk on River Street
- Implement an 8' multi-use path through the Park

5.6.5 Village Bike Park

Mountain biking has grown in popularity in Saranac Lake and surrounding areas. Due to the Adirondack Park State Land Master Plan restrictions, there are limitations on the opportunities for mountain biking trails on the surrounding State lands. Creating a bike park or pump track within the village limits provides a unique attraction for Saranac Lake, a place for residents to test their skills, and an opportunity for kids to get involved in the sport.

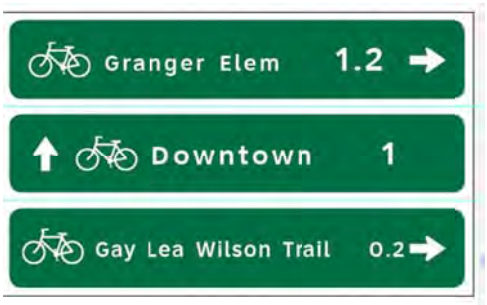
5.7 Programs

5.7.1 Wayfinding / Signage

Landmarks, natural features, civic destinations, neighborhood business districts and other visual cues help residents and visitors navigate through Saranac Lake. Placing signs throughout the village indicating direction of travel, location of destinations, and the distance to those destinations will increase users' comfort and convenience of the bicycle system. Wayfinding signs also visually cue motorists that they are driving along a bicycle route and should use caution. Saranac Lake should adopt an on-street wayfinding signage system similar to the MUTCD-approved sign shown in Figure 11 for use along pedestrian and bicycle facilities.

Signage can serve both wayfinding and safety purposes including:

- Helping to familiarize users with the bikeway system
- Helping users identify the best routes to destinations
- Helping to address misperceptions about travel time and distance
- Helping overcome a "barrier to entry" for people who do not bicycle often and who fear becoming lost



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Wayfinding signs are a relatively cost-effective means for improving the walking and bicycling environment. Signs are typically placed at key locations leading to and along pedestrian and bicycle routes, including the intersection of multiple routes. The Village should create a community-wide Wayfinding Signage Plan that identifies:

- Sign locations along existing and planned bicycle routes
- Sign type – what information should be included and sign design
- Sign standards – to ensure consistency among signage style and quality
- Destinations to be highlighted on each sign – key destinations for bicyclists
- Approximate distance and riding time to each destination

5.7.2 Main Street Pedestrian-Only Events

Closing off streets for events is a great way to encourage more residents to walk and bike to the Village and also promote local downtown businesses. Main Street and Broadway are prime locations to implement a pedestrian-only event. Vehicle access should be cut off at Bloomingdale Avenue, Main Street and Broadway, and River Street so that shops are more easily accessible by foot and bicycle. This is best done during an evening or weekend event. It is important to work with local businesses in the creation of the event so they have the opportunity to prepare and promote their business. Restaurants expanding to the sidewalk and street vendors should be encouraged. Pedestrian-only events can be created a few times during the year and then increased depending on the support expressed by the public.

5.7.3 Grate Replacement

Storm and sewer grates throughout the Village have openings that are too large or oriented incorrectly and pose a danger to bicyclists. When bicyclists ride in the shoulder or along the curb, there is a high risk that tires can be caught into the grate openings. Grates throughout the Village should be replaced so that the grate openings are smaller and/or oriented perpendicular to the roadway. This can be done as a grate replacement program or as part of street rehabilitation/reconstruction projects.

5.7.4 Safe Passage / Share the Road Campaign

New York State recently passed a new law requiring a driver to provide safe distance between vehicles and cyclists riding in the same direction. The new law allows drivers to cross over into the oncoming lane to provide a safe distance when it is safe to do so. A specific safe distance of three feet, often used in other states, was not included in New York's law because there are circumstances where three feet is not sufficient. Few people know about or obey this new law. This Safe Passage Campaign educates the public about the new law and the safety it provides to a cyclist riding on the roadway. A successful campaign must include engineering, education, and enforcement.

Engineering: 'Share the Road" signage should be installed at key locations throughout the village, including Route 86 and Route 3 as you enter the village. Places where on-road cyclists are frequent, or lane and shoulder

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widths are narrow, are other locations where signage should be installed. Either "Share the Road" or "Bicycles May Use Full Lane" signs can be used to enforce the idea that bicyclists should be given adequate space.

Education: Educating the public on the new law and what the signage means is an important component to the campaign. Drivers should be made aware of the safety risks to a cyclist if they pass too closely and the consequences for not providing enough distance. Educating the public can be done a number of ways:

- Recruit local news reporters to write pieces on the new law for newspapers, radio, and television.
- Have local politicians or cycling advocates appear on local radio or news programs to discuss the issue and the positive impact it has on cyclists on the road.
- Post temporary or permanent signs in prominent locations clearly stating the new law, such as those for the "move over" campaign in New York State; signs can read "NYS Law: Drivers passing a bicycle must pass at a safe distance"
- Educate 5th and 6th graders about rules and regulations when riding on the roadway.

Enforcement: After a successful educational campaign, it is important to enforce the new law. The Village should work with the Saranac Lake police department to recognize and enforce infractions. A cycling 'sting' can be set up using either plain closed officers or volunteers at common pinch points around Saranac Lake. Main Street and River Street at Lake Flower Avenue are two good locations for such an operation. Word of mouth that this new law is being enforced can be one of the best ways to encourage drivers to slow down and move over to provide safe distance for cyclists.

5.7.5 Complete Streets

Complete Streets policies direct transportation planners, engineers, and public works departments to consistently design and maintain roadways with all users in mind. Complete streets are designed and operated to enable safe access for all users. Pedestrians, bicyclists, motorists and transit riders of all ages and abilities must be able to move safely and comfortably along and across a complete street. There are many ways to implement Complete Streets policies.

"Complete Streets" is defined as streets and sidewalks that are designed and constructed for everyone – pedestrians, bicyclists, and drivers – and they take into account the transportation needs of everyone including children, older adults, and people with disabilities.

New York State has recently enacted a statewide Complete Street's Law, requiring the consideration of all users for project that utilizes both state and federal funding. Since this law does not apply to local roads it would be worthwhile for Saranac Lake to take advantage of this momentum and enact its own complete streets policy. Over 300 Complete Streets policies and laws have been adopted at the state, county, town, village and city levels across the country. Essex County municipalities have recently adopted complete streets polices at the local and county level and are included in Appendix B. Guidance on policy language and implementation can be found in the SUNY Initiative for Healthy Infrastructure document, found in Appendix B, and also at www.smartgrowthamerica.org/documents/cs/cs--brochure-policy.pdf.

Policy language recommended for the Village of Saranac Lake includes:

The Village of Saranac Lake will promote bicycling and walking for health, environmental sustainability, exercise, transportation, and recreation. Bicycle and pedestrian facilities shall be provided in new construction, reconstruction and maintenance projects unless the cost of establishing accommodations

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excessively out way the need. A comprehensive complete streets policy will include guidance for Engineering, Education & Encouragement initiatives, Enforcement, and Evaluation programs.

Bicycle and pedestrian facilities shall be provided and maintained in accordance with USDOT, NYSDOT, and AASHTO design guidelines. Site plan and subdivision reviews will also require incorporation of bicycle and pedestrian facilities.

5.7.6 Safe Routes to School (SRTS)

Helping children walk and bicycle to school is good for their health and can reduce congestion, traffic dangers and air pollution caused by parents driving children to school. Robust Safe Routes to School (SRTS) programs address all of the "Five E's" (Engineering, Education, Encouragement, Enforcement, and Evaluation). Petrova Elementary and Middle Schools already has a 'Walk or Wheel' program, focused on encouragement. The schools have also been awarded a SRTS grant to install bike racks and radar speed signs on Petrova Avenue.

The Village of Saranac Lake should continue to work with the School District to implement a SRTS Program, as recommended in the Comprehensive Plan. A next phase of the program can use a walkabout (also known as a bicycle and pedestrian audit) to assess walking and bicycling conditions of streets adjacent to the schools and create a school travel plan. Parents, students, neighbors, and Village planners or engineers should be invited to join in the walkabout. Safety concerns, issues, and ideas should be recorded.

After the bicycle and pedestrian audit is conducted, student and parent maps should be produced and distributed for each school showing recommended routes to reach school, along with high-traffic intersections and routes to avoid.

As a final step, a school travel plan should be produced according to the New York SRTS funding requirements for each school, including cost estimates and a prioritized project list. This infrastructure improvement plan will serve as a blueprint for future investments and can be used to apply for New York SRTS funding. A SRTS program has been identified as a priority project and is included in Section 6.

5.7.7 Saranac Lake Trail Map

One of the most effective ways of encouraging people to bike and walk is through the use of maps and guides showing the resources that exist in their community. Maps show walkers and bicyclists how easy it is to access different parts of the Village by bike or on foot. Creating a Saranac Lake trail map can help promote tourism, encourage residents to walk and bicycle, and promote local business districts.

Once a map is in place, regular updates should be scheduled and a distribution plan should be created. Paper copies of the map may be distributed by the Village as well as at bike shops, community groups, and at events throughout the year. An electronic copy of the map should be posted on the Village website.

5.7.8 Bicycle Parking

This section outlines design guidance for providing high-quality bicycle parking. Bicycle parking facilities are intended to provide short-term bicycle parking, and include racks which permit the locking of the bicycle

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frame and at least one wheel to the rack and support the bicycle in a stable position without damage to wheels, frame or components. Short-term bicycle parking is currently provided at no charge at various locations in Saranac Lake. Such facilities should continue to be free, as they provide minimal security, but encourage cycling and promote proper bicycle parking. Providing safe and adequate bicycle parking may also reduce car trips and limit the need for vehicle parking. Figure 12 illustrates appropriate rack design elements.

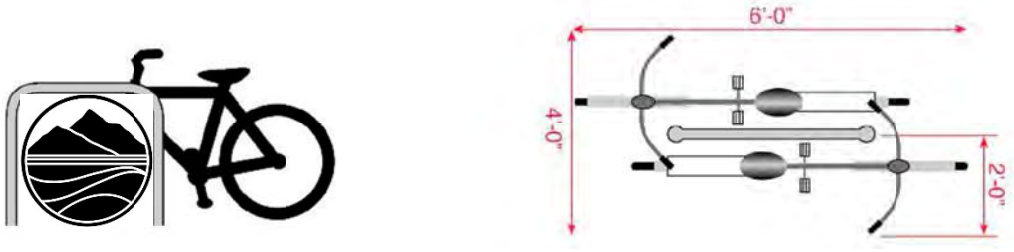

Figure 12. Inverted "U" Rack

Where the placement of racks on sidewalks is not possible (e.g., due to narrow sidewalk width, sidewalk obstructions, or other issues), bicycle parking can be provided in the street where on-street vehicle parking is allowed. Two possible options for creating parking in the street include clustered racks in a vehicle parking space protected by bollards or curbs (see Figure 13), and racks installed on sidewalk curb extensions where adequate sight distance exists. Installing bicycle parking directly in a car parking space incurs only the cost of the racks and bollards or other protective devices.

ng

A curb extension is more expensive to install, and can be prohibitively expensive if substantial drainage or utility work is necessary. Costs may be less if the curb extension is installed as part of a larger street or pedestrian improvement project. While on-street bicycle parking may take space away from automobile parking, there are ways to mitigate auto parking loss: additional auto parking spaces can be created by consolidating driveways, moving fire hydrants, or otherwise finding places where it may be possible to permit auto parking where it is currently prohibited. Options for combining bicycle and motorcycle parking also exist.

On-street bicycle parking may be installed at intersection corners or at mid-block locations. Mid-block on-street parking may be closer to cyclists' destinations, although it could force cyclists to dismount and walk to the parking site if access from the street is difficult or dangerous. Combining a mid-block pedestrian crossing with mid-block on-street parking could mitigate this situation.

Table 6. Bicycle Parking Locations	
Eat N Meet	Schools
Riverside Park	Public Parking Areas
Left Bank Café	Trailheads
Civic Center	Shopping Centers
Sear's Parking Lot	Town Hall

6 Priority Projects

6.1 Decision Criteria and Matrix

Projects were ranked based on twelve criteria to determine a list of priority projects. These criteria and their associated weights were developed through input provided by the steering committee. Over 25 projects were identified through public feedback and evaluated based on these criteria. The decision matrix is included in Appendix C.

• Public Support: level of support displayed by residents for given projects or types of facilities (15 positive)	15
• Connectivity - Fills System Gaps: completes critical gaps in the existing or proposed system (15 high connectivity)	15
• Connectivity to Activity Centers: connections to residential, commercial, and recreational centers (10 high connectivity)	10
• Economic Benefits: stimulates economic development, increases activity and tourism (10 high benefits)	10
• Multiple Uses: allows for more than one type of use (10 positive)	10
• Agency Support: level of support from agencies such as local governments, the Adirondack Park Agency , NYS Department of State, NYS Department of Environmental Conservation, and the NYS Department of Transportation (10 positive)	10
• Construct-ability: the feasibility and ease of construction (10 high feasibility)	10
• Regional Benefits: benefits to the region through transportation and recreation (5 positive)	5
• Initial Cost: the initial cost of the project (5 low cost)	5
• Operation / Maintenance Cost: the cost in time and materials for maintenance and operations (5 low cost)	5
• Availability of Funding: availability of funding resources through local projects, grants, state, and federal funding (5 positive)	5
Total =	100

The steering committee was given the top 15 ranking projects. From these 15 projects, ten were selected as priority project for the Village and two for additional design concepts. The priority projects and design projects are described in the following sections and shown in Figure 14. There is no particular order to the priority projects.

Each priority project includes a project description, details of the project, and a map or figure to define the project. For priority projects where design details could be identified at this stage, a planning level cost or a range of costs is included. Similar projects and NYSDOT unit costs were used to identify these costs and include the cost of preliminary design, final design, construction, inspection, and contingency.

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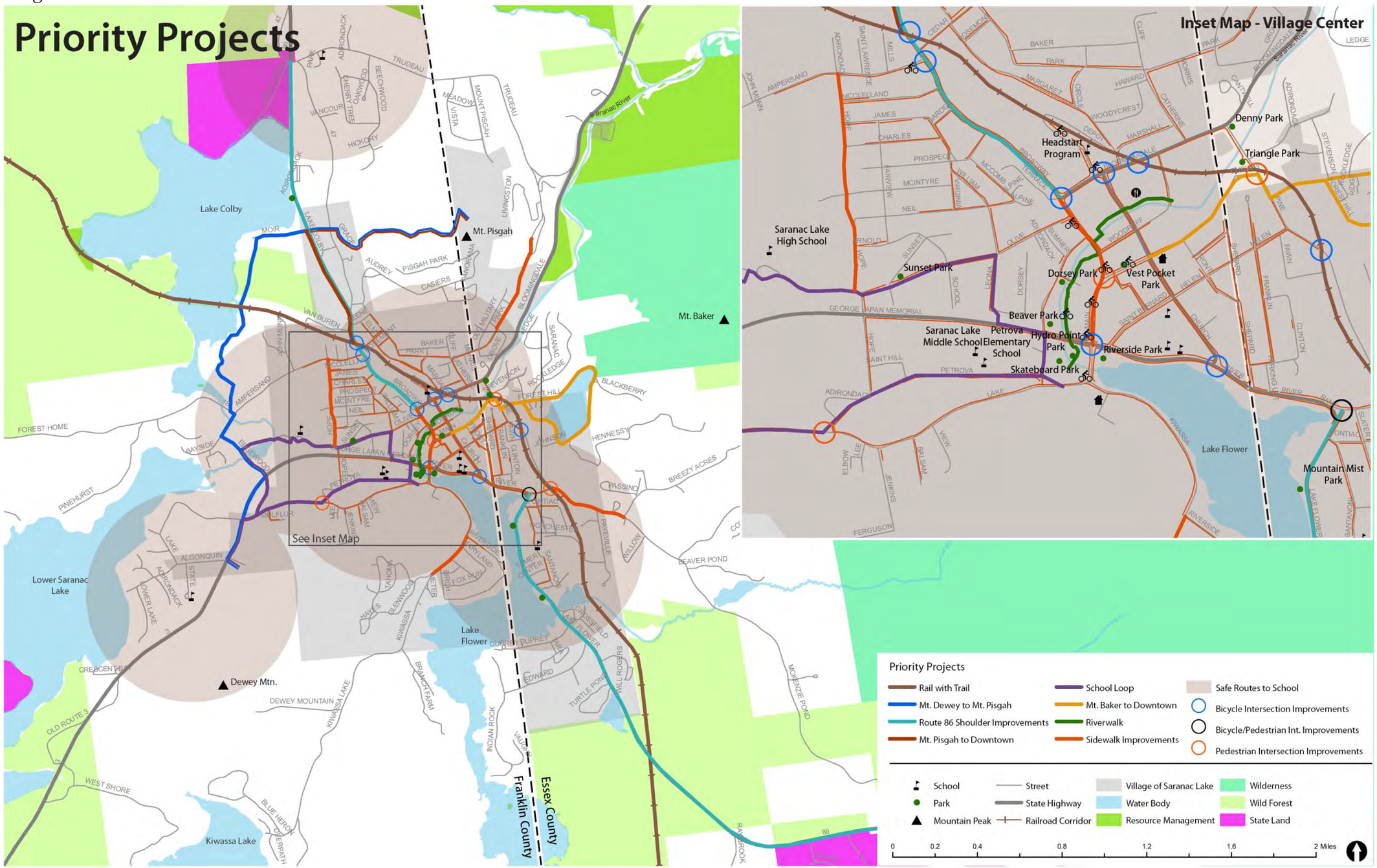
Figure 14



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6.1.1 Rail Trail

Brandybrook to Little Colby Pond - develop an 8' paved multi-use path in the railroad corridor between the intersection of Brandybrook and Little Colby Pond. This will extend the rail-with-trail already being implemented between Lake Placid and Brandybrook.

Key Elements -

- 8' asphalt paved path; separated by fencing from the railroad tracks (see graphic) if tracks remain in place
- Extend the path across the Saranac River utilizing the existing bridge. Potential exists for either a parallel or cantilevered structure.
- A lower trail or trail built on stilts can be built between the bridge and Bloomingdale Avenue, where the railroad track exists on a narrow berm.
- Wayfinding signage and visual cues should be used to direct trail users to and from the village.

At-Grade Crossings - Brandybrook, Pine Street (twice), Bloomingdale Ave, Lake Colby Dr (Route 86)

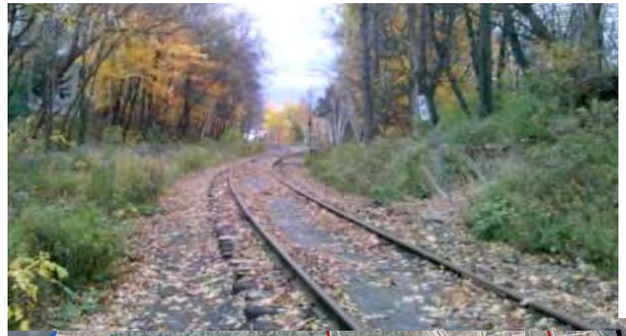
Trailheads - The Pines, VIS Herb Garden, Union depot

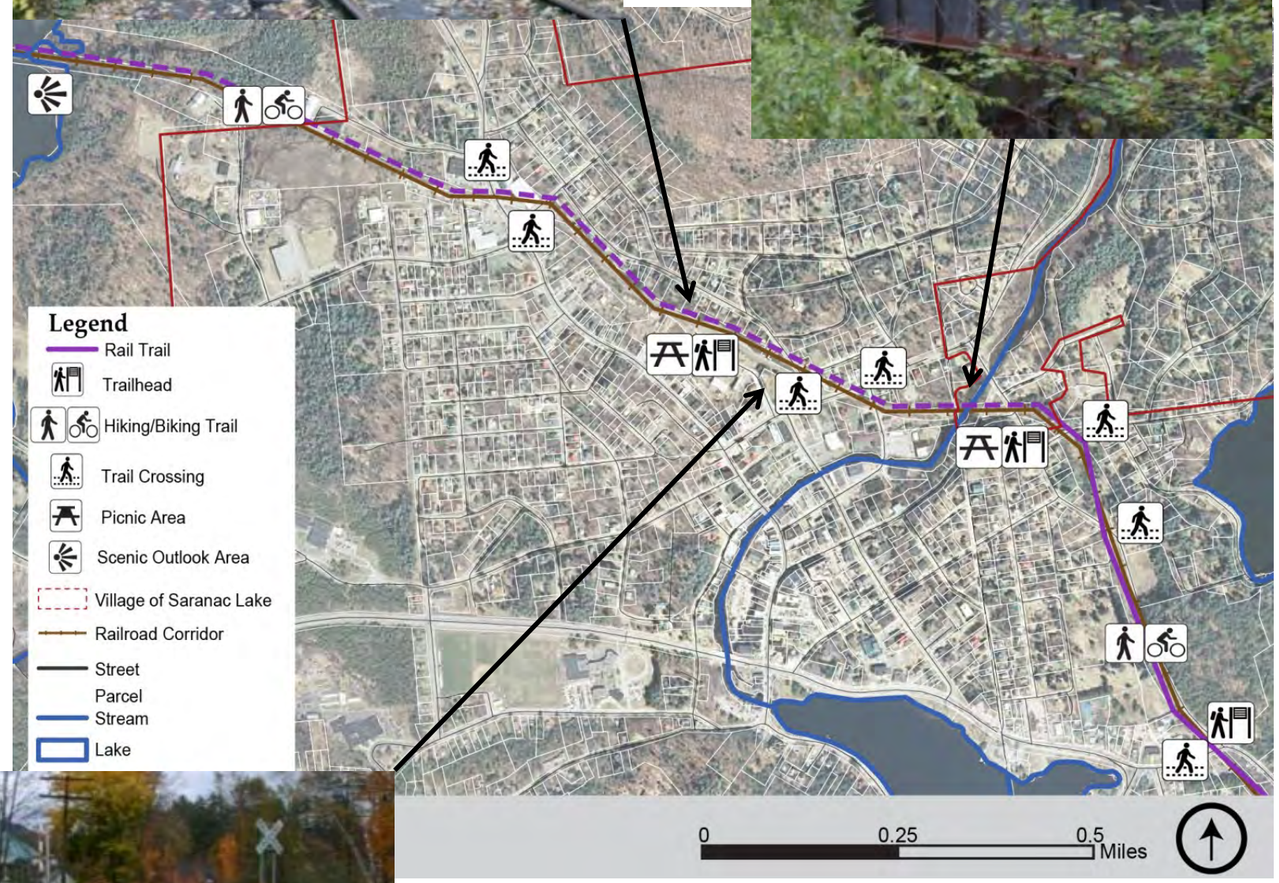
Ownership - Village of Saranac Lake, Town of St Armand, Town of Harrietstown, Town of North Elba.

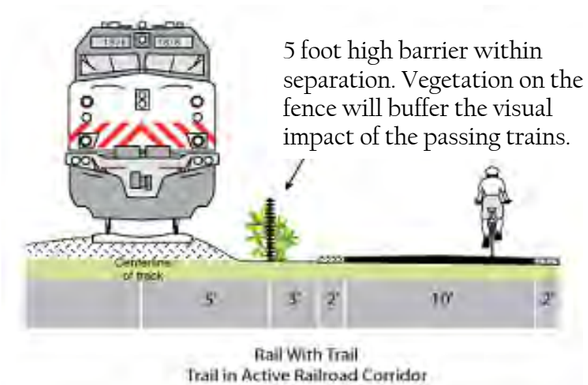
Length - 1.8 miles

Uses - pedestrians, cyclists, rollerblading, skateboarding

Planning Level Cost - $1.5 Mil







Rail With Trail
Trail in Active Railroad Corridor

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6.1.2 Mount Pisgah to Downtown Trail

Project Description - Provide a biking and hiking trail loop from Downtown to Mount Pisgah. A short term option is to accommodate pedestrians and hikers on this loop. Additional improvements will need to be made to accommodate cyclists.

Key Elements -

- Complete the rail-trail segment between the depot and the Upper Broadway Commercial District.
- Sidewalks currently exist on Route 86 between the rail-trail and Upper Broadway. Two bicycle options: provide on-road bicycle accommodations with sharrows or bike lanes, or widen the sidewalk to at least 8 feet on the west side of Route 86.
- Elevate shared use path between Upper Broadway and Colby Beach to prevent flooding and complete gaps in front of businesses. A high visibility mid-block crosswalk needs to be installed at Colby Beach across Route 86.
- Clear a 3 foot wide trail up the west side of the mountain to the peak and down the east side of the mountain the AMC property. If additional easements can be obtained, a separate mountain biking trail can be provided along the same approximate path.
- Install signage and traffic calming features on Park Avenue to lead trail users back into downtown.

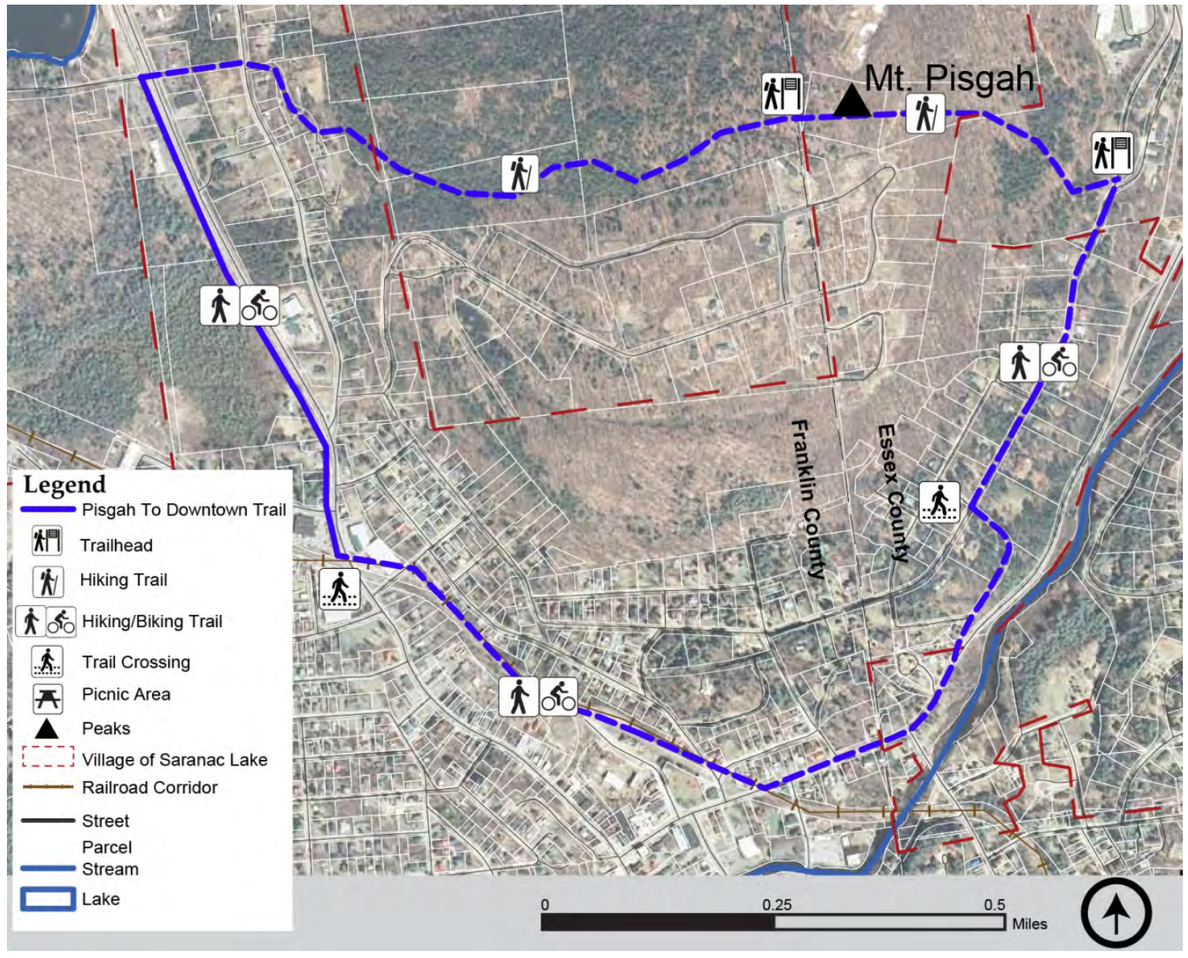
Trailheads - Union depot, Lake Colby Beach, Mount Pisgah, and AMC

Ownership - Village of Saranac Lake, NYSDOT, AMC, and private landowners (easements will need to be obtained)

Uses - pedestrians, hiking, cycling, mountain biking

Length - 3.6 miles

Planning Level Cost - $ 500,000 (excludes rail-trail section)



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6.1.3 Baker Mountain to Downtown (including Moody Pond Loop)

Project Description - Utilize the Moody Pond loop to Pine St by providing safer and more defined pedestrian and bicycle accommodations. Provide bicycle and pedestrian accommodations on Main Street and around Moody Pond to connect the Baker trailhead to downtown. Provide wayfinding signage to and from Baker Mountain.

Key Elements -

- Extend the sidewalk and provide bicycle accommodations on Main Street to the rail-trail.
- Provide signage and traffic calming features around Moody Pond.
- Designate a trailhead, parking area, and canoe/kayak launch at the existing Baker trailhead.

Additional Treatments - Lower the speed limit to 20 mph and provide enforcement.

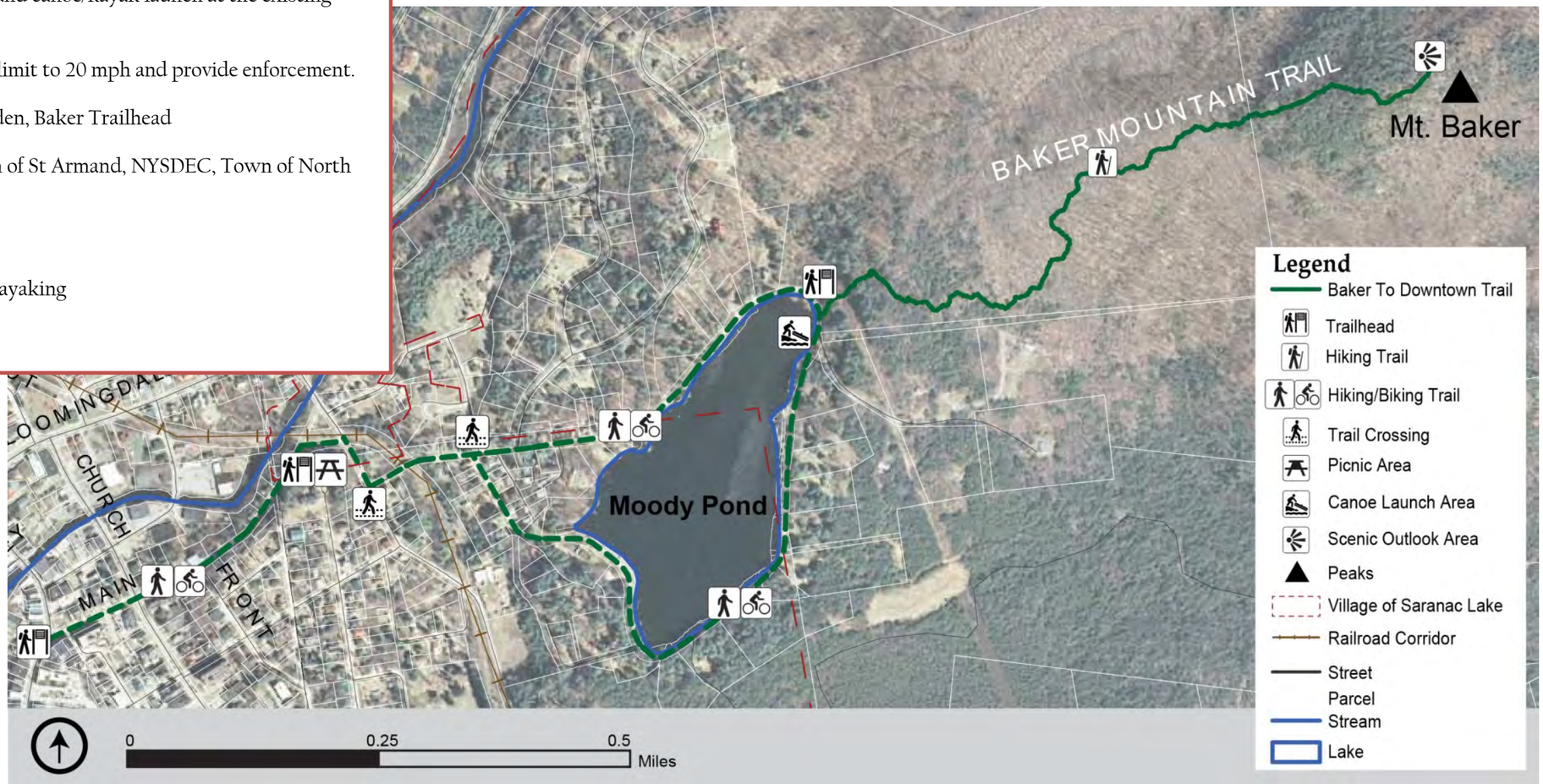
Trailheads - Berkley Square, VIS Herb Garden, Baker Trailhead

Ownership - Village of Saranac Lake, Town of St Armand, NYSDEC, Town of North Elba

Length - 2.2 miles

Uses - pedestrians, cyclists, hiking, canoe/kayaking

Planning Level Cost - $500,000



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6.1.4 Dewey Mountain to Mount Pisgah Trail

Project Description - Provide a mainly off-road route between Dewey Mountain and Mount Pisgah to connect these two recreational centers. Improvements include wayfinding signage and hiking / mountain biking accommodations.

Key Elements -

- Install a sidewalk and on-road bicycle accommodations or a shared use path on Route 3 from Dewey Mountain to Edgewood Road and on Edgewood Road from Route 3 to Ampersand Avenue. A crosswalk will be needed on Route 3 to access Dewey Mountain.
- Create a hiking and mountain biking trail through property owned by Harrietstown, behind the Elk baseball field, with a connection to the rail-trail.
- Elevate shared use path between Upper Broadway and Colby Beach to prevent flooding and complete gaps in front of businesses. A high visibility mid-block crosswalk needs to be installed at Colby Beach across Route 86.
- Clear a 3 foot wide trail up the west side of Mount Pisgah to the peak. If additional easements can be obtained, a separate mountain biking trail can be provided along the same approximate path.

Trailheads - Dewey Mountain, Uptown Shopping Center, Colby Beach, Mount Pisgah

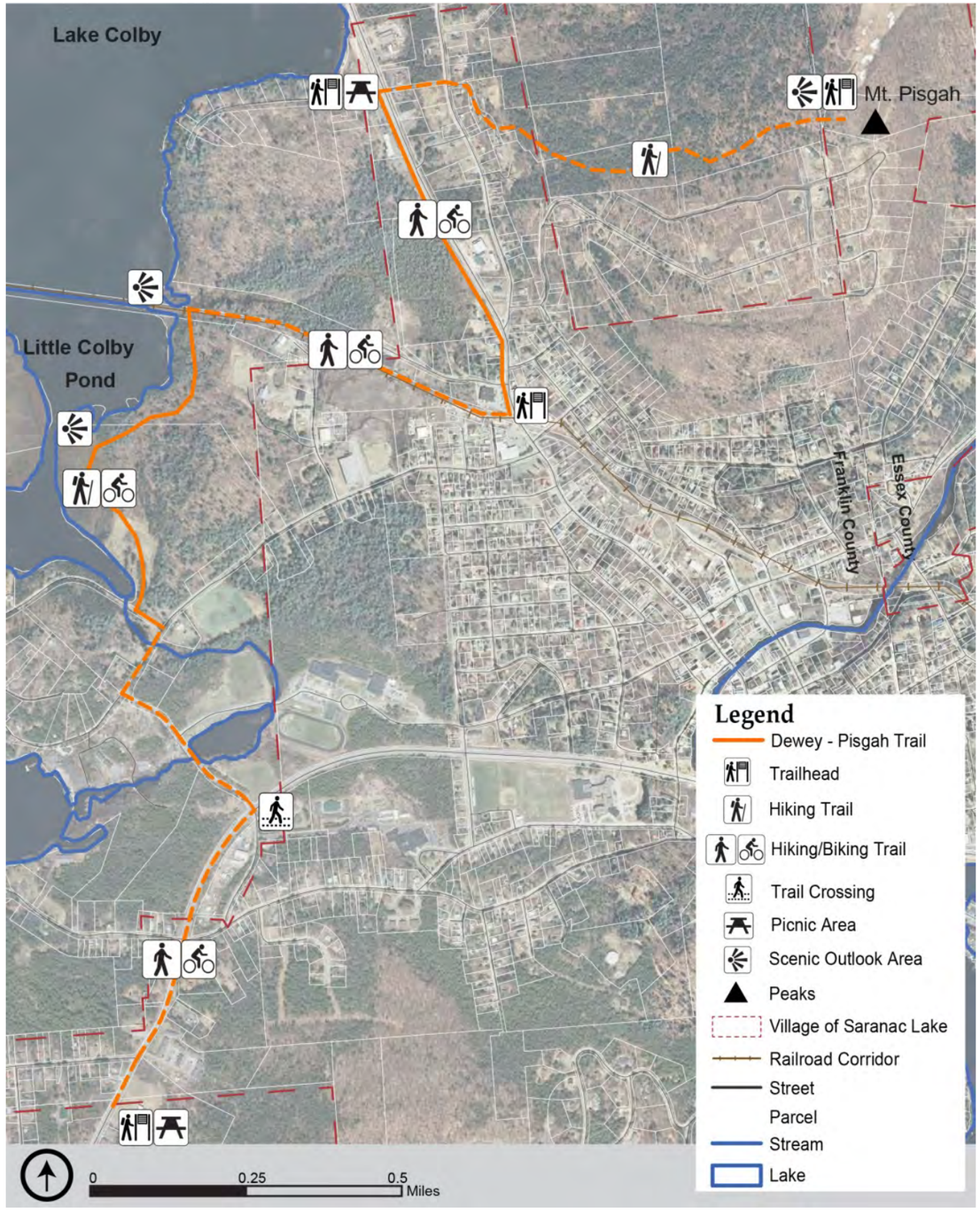
Scenic Views - hiking trail along Little Colby Pond, junction with rail-trail at Lake Colby, and Mount Pisgah

Ownership - NYSDOT, Town of Harrietstown, Village of Saranac Lake, private ownership (easements will need to be obtained)

Length - 2.9 miles

Uses - hiking, mountain biking

Planning Level Cost - $800,000



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6.1.5 School Loop with Extension to Dewey Mountain

Project Description - Provide safe pedestrian and bicycle accommodations immediately around the schools by creating a loop trail linking downtown to Dewey Mountain. This trail will link two key destinations in Saranac Lake and provide infrastructure for the Safe Routes to School program.

Key Elements -

- Install a sidewalk and on-road bicycle accommodations or a shared use path on Route 3, from Dewey Mountain to Edgewood Road and on Edgewood Road with a connection to the high school. A crosswalk will be needed to cross Route 3.
- Provide a shared use path for pedestrians and cyclists on the high school campus.
- Upgrade sidewalks on Olive Street and implement Neighborhood Greenway (Bicycle Boulevard) techniques for cyclists.
- Maintain sidewalks on Petrova Avenue and stripe bike lanes, reducing the travel lane to 11 feet.
- Reduce crossing widths, provide clearly marked crosswalks, and define driveways at the intersection of Lake Street and Petrova Avenue.
- Continue sidewalks on Lake Street to Edgewood Road and Route 3. Provide bicycle accommodations through traffic calming measures and sharrows.
- Provide bicycle parking at all of the schools.

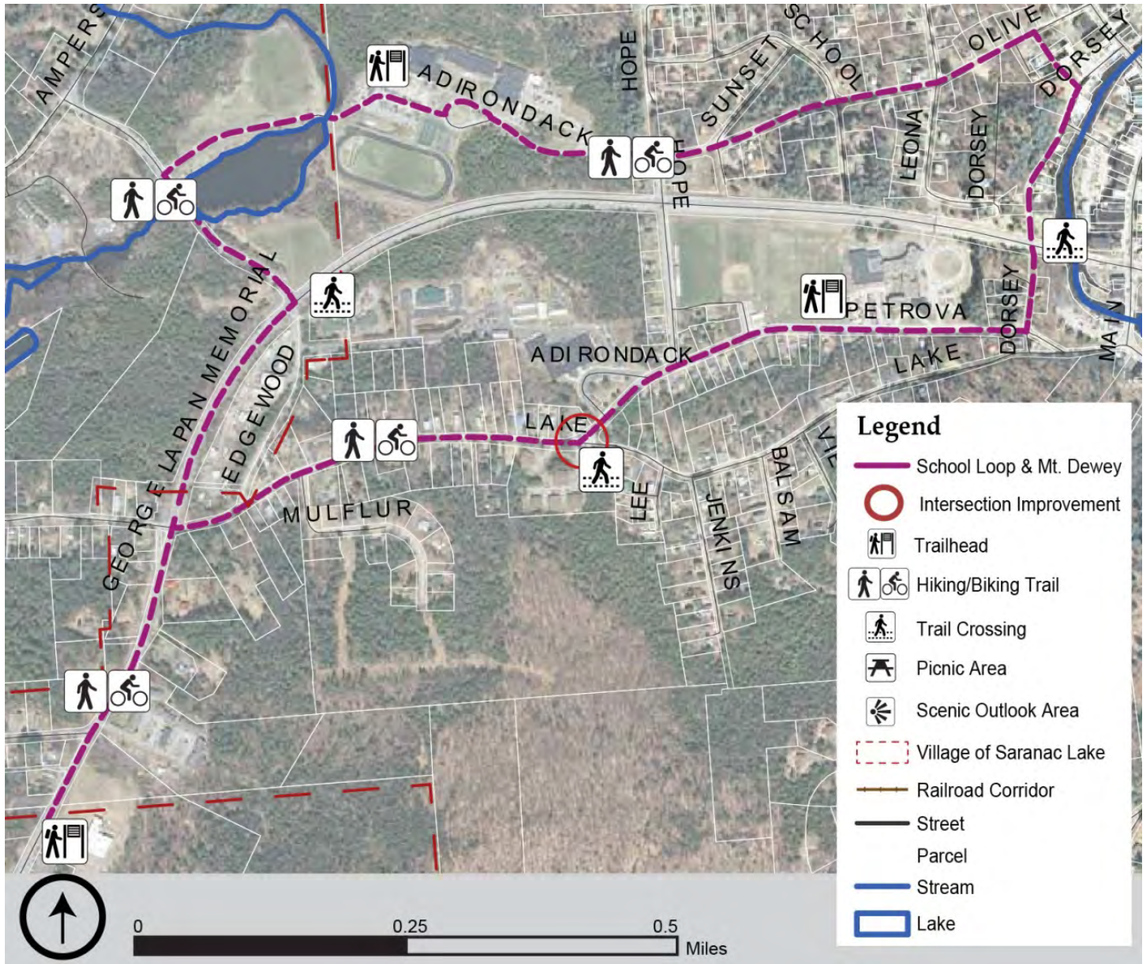
Trailheads - Schools and Dewey Mountain

Ownership - Village of Saranac Lake, Town of Harrietstown, NYSDOT

Length - 2.5 miles

Uses - Pedestrians and cyclists

Planning Level Cost - $800,000



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6.1.6 Riverwalk

Project Description - Enhance the existing pedestrian Riverwalk with better access and wayfinding. Complete the Riverwalk through the Village, past Woodruff Street, as proposed in the 1992 Riverwalk Plan.

Key Elements -

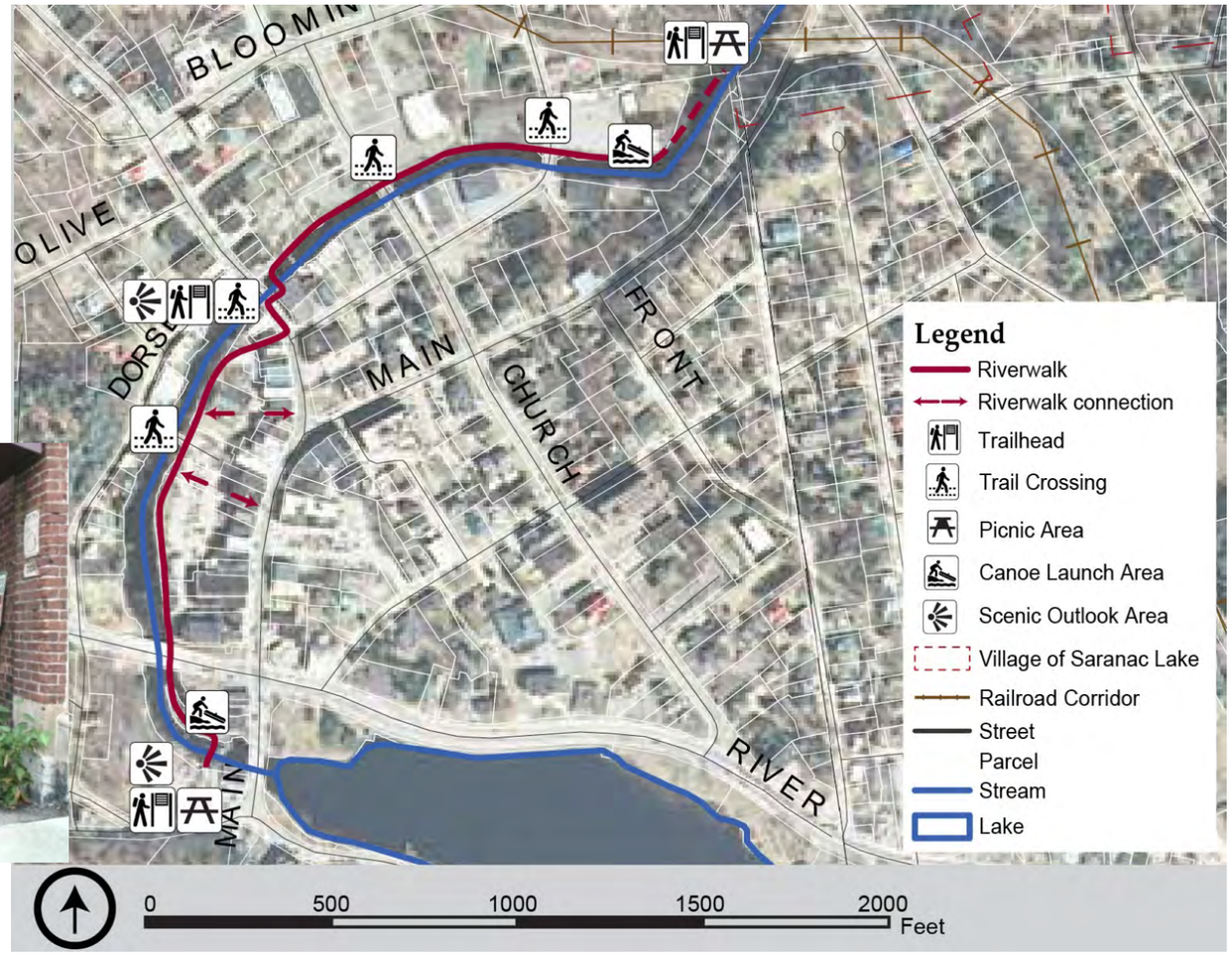
- Provide better wayfinding signage, visibility, and access improvements to the Riverwalk from Main Street. Walkways through the parking areas behind Main Street should be clearly designated.
- Define entrances to and from Main Street and Broadway, specifically where the Riverwalk crosses Broadway.
- Opportunities exist to enhance existing trailheads, at the Hydro Power Plant, Broadway, and Church St.
- Continue the Riverwalk to Woodruff St. Take the opportunity to extend the Riverwalk if easements can be obtained.

Ownership - Village of Saranac Lake

Length - 0.6 miles

Uses - pedestrians

Planning Level Cost - $1 Mil



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6.1.7 Safe Routes to School

Project Description - Provide infrastructure and signage to increase safe routes from local neighborhoods to the schools. Primary routes include Lake Street, Hope Street, Petrova Ave, Olive Street, and the pedestrian bridge across Route 3. It is important to focus on all of the 5 E's for a safe routes to school program: engineering, education, encouragement, enforcement, and evaluation.

Engineering: Provide safe infrastructure for walking and bicycling between the schools and surrounding neighborhoods. This includes crosswalks, sidewalks, bike lanes, shared use paths, and bicycle racks.

Education: Educate students and parents on the benefits of walking and bicycling. Educate students on safe pedestrian activity, i.e. looking both ways before crossing the street. Develop a program to teach children how to ride a bicycle and an advanced class for how to ride in the built environment of Saranac Lake.

Encouragement: Provide safe route maps to both students and parents. Develop walk and bicycle to school days throughout the school year. Develop a walking school bus program, which will not only encourage walking to school but also reduce the school budget.

Enforcement: Work with the Village police department to enforce school speed zones, yielding to pedestrians in crosswalks, and other motorist behavior.

Evaluation: Continue to evaluate the program through the number of students that are walking and bicycling to schools. Consider a yearly school survey to gather input from students on infrastructure and program benefits and needs.

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6.1.8 Intersection Improvements

Project Description - Improve safety conditions for bicyclists and pedestrians at the intersections of Main Street and Pine Street, River Street and Pine Street, River Street and Lake Flower Ave, and Lake Street and Petrova Ave. These intersections can be completed as part of other projects or as an intersection safety improvement program. Crash history at these intersections should be researched along with traffic and pedestrian volumes prior to completing a detailed design. Improvement costs can vary greatly depending on the types of improvements implemented at each location.

Main Street and Pine Street

- 3-way stop controlled
- Install crosswalks
- Southbound stop sign and crosswalk located north of railroad and trail crossing
- Ensure sufficient sight distance for all roadway users

Owner: Town of North Elba

River Street and Pine Street

- 3-way stop controlled
- Install crosswalks
- Clearly mark trail crossings for rail-trail and the Pines
- Improve wayfinding signage and user conflicts

Owner: Village of Saranac Lake

River Street and Lake Flower Avenue

Design Options

- Reduce radius of the right hand slip ramp, create separate cycle track or bike lane, slows cars down around curve
- Small 100' diameter roundabout
- Provide safe crossing for pedestrians

Owner: New York State Department of Transportation

Lake Street and Petrova Avenue

- Reclaim pavement to reduce the size of the intersection
- Define conflict points, and mark crosswalks
- Define driveway space for the sanitation company on the corner and Adirondack apartments

Owner: Village of Saranac Lake

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6.1.9 River Street Trail

Project Description – Provide a bicycle and pedestrian connection between Pine St and Main St, along River Street. This will provide a link between the rail-trail, Lake Flower, and downtown. Clearly marked and delineated pedestrian and bicycle accommodations will increase safety in an area with many curb cuts and vehicle conflicts.

Key Elements -

- Extend sidewalk on the north side of Brandy Brook to Pine St.
- Improve the Lake Flower Ave/ River St intersection.
  - Option 1: remove channelized right turn lane.
  - Option 2: install a single lane roundabout.
- Provide 8' shared-use path on the south side of River St through Prescott Park to Church St.
- Improve bicycle and pedestrian accommodations along River St between Church St and Main St. Install a mid-block crossing between the St. Bernard School and the overlook.
  - Option 1: restripe and maintain existing bike lanes and maintain sidewalks.
  - Option 2: widen existing sidewalk on the south side to a 10' shared use path.
  - Option 3: provide a parking lane, bike lane, and 10' travel lane in the westbound direction. Provide a 14' shared lane in the westbound direction and extend the sidewalk to a 10' shared use path. Replace the two-way-left-turn lane with a 10' wide raised landscape median. Install a roundabout at Church St. to facilitate a U-turn movement to access businesses on the north side of River St.

Ownership - Right-of-way is owned and maintained by New York State Department of Transportation

Length - 2 miles

Uses – Pedestrians and cyclists

Planning Level Cost - $2 to $5 Mil

Route 86 Shoulder Improvements: NYSDOT resurfaced Route 86 between Saranac Lake and Lake Placid during the summer/fall 2012 constructions season. Based on petitions from local residents for adequate cycle facilities on the roadway, NYSDOT agreed to reduce travel lanes to 10 feet, increasing shoulder widths by 1 foot on either side. This is a great accomplishment for both NYSDOT and cyclists in the region.

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6.1.10 Sidewalk Improvements

Project Description – Additional sidewalks to be provided on the following roadway segments (green segments):

Street	From-To
Main Street	Church Street to Pine St
Route 3	Algonquin Ave to Edgewood Rd
Kiwassa Road	Riverside Dr to Glenwood Rd
Pine St/ McKenzie Pond Rd	Brandy Brook to Breezy Acre
Hope Street	Charles Street to Ampersand Ave
Canaras Ave	Route 3 to Petrova Ave
Brandy Brook	River Street to Pine Street
Ampersand Ave	Broadway to Civic Center

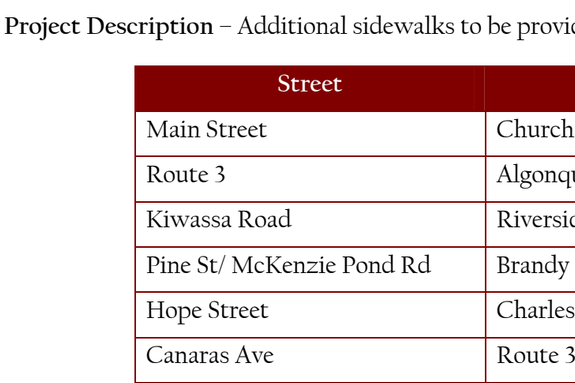
Key Elements -

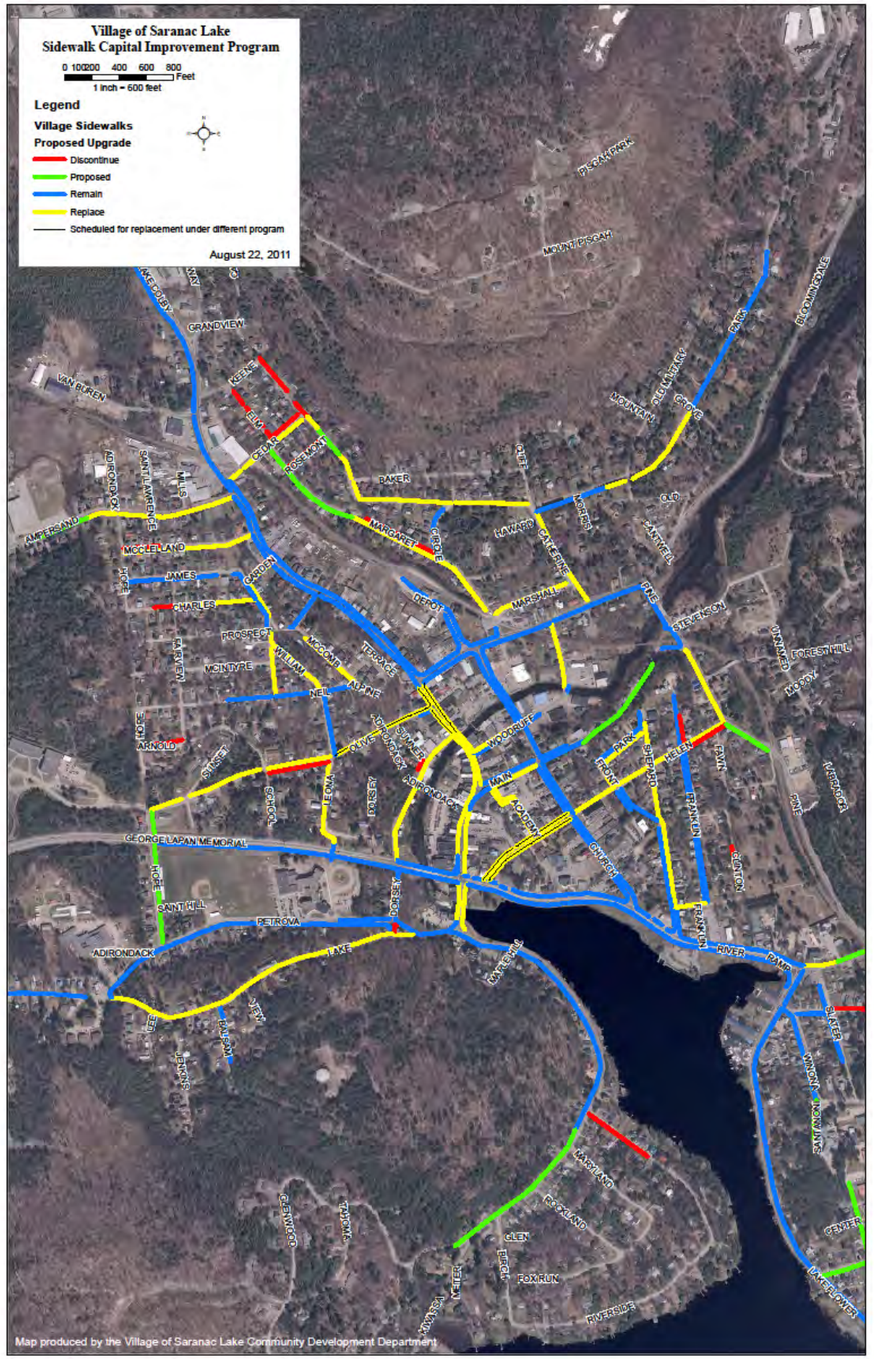
- Install 5 foot wide sidewalk on roadway segments listed above
- Ensure ADA accessibility, including curb ramps at intersections and midblock crossings
- Install new crosswalks at intersections where the sidewalk is being extended

Ownership – NYSDOT, Village of Saranac Lake, Town of Harrietstown, Town of North Elba

Total Length – 1.5 miles of new sidewalk

Planning Level Cost - $1.5 Mil





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6.2 Design Concepts

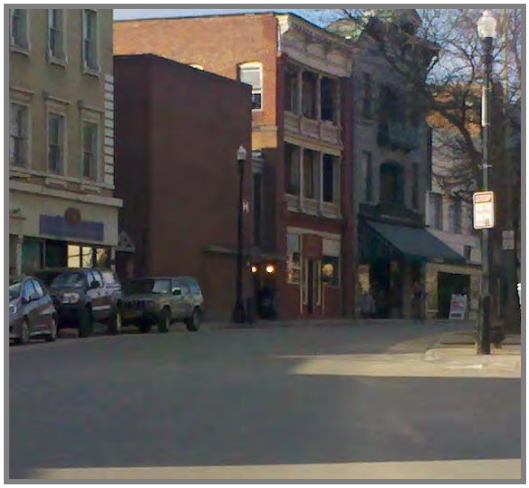
The North Country Healthy Heart Network received a grant from NYS Department of Health to complete additional design work, for one street-scale design and one community-scale design, to be included in the Village of Saranac Lake Bicycle and Pedestrian Trails Plan. The purpose of the street-scale design is to analyze sections of roadway for streetscape, pedestrian, and bicycle improvements, and consider traffic calming approaches, all to promote active transportation. The purpose of the community-scale design is to focus on improving the accessibility and proximity of residential areas to stores, jobs, schools and recreation areas; enhance the continuity and connectivity of sidewalks and streets; increase aesthetic quality; and improve safety aspects of the physical environment to create physical activity opportunities for residents of all ages and abilities.

A list of potential projects for each design was selected from a range of projects identified during the course of the Draft Trails Plan. Several projects were ruled out due to their location outside of Franklin County, the exclusive or extensive involvement of State Highways, or low priority. A set of six community-scale designs were put forth to the Trails Plan advisory committee from which to select one design.

6.2.1 Street Scale Design - Main Street and Broadway

NYS Route 86 and Route 3 are designed for and should carry non-local truck traffic through the Village of Saranac Lake. In order to avoid additional turning movements, however, a majority of large truck traffic takes Broadway and Main Streets as opposed to Bloomingdale Avenue and Church Street. With narrower lanes and no shoulders on these streets, trucks create noisy and dangerous situations for cyclists and pedestrians. Truck route signage can be placed at the Church Street / River Street and Broadway / Bloomingdale Avenue intersections to direct trucks to take the state routes unless making local deliveries. The Village can also pass a local law prohibiting trucks over a certain size from taking this local roadway.

Currently there are no on-road bicycle accommodations. The proposed design concept includes 13-foot shared use lanes with sharrow markings through a majority of the corridor. There is one section, crossing the Saranac River, where lanes narrow to 11 feet and signage will be posted for cyclists to use the full lane. In sections where lanes are climbing hills (northbound on Main Street approaching Broadway, southbound on Broadway approaching Main Street, and northbound on Broadway approaching Bloomingdale Avenue), a 5-foot bike lane is designated with a 10-foot travel lane. Storm/sewer grates should also be reoriented or replaced so that the openings are perpendicular to the direction of travel.



Main Street looking North - one of the uphill sections where bike lanes are recommended

There are three single-post bike racks currently located along the corridor. One is located outside the post office, another in Berkeley Green, by the mid-block crosswalk near the 'Sear's' parking lot, and one more on the northeast corner of the River Street/Main Street intersection by the town hall. Overall, this only provides eight bicycle parking spaces. Capacity should be increased at all of these locations, from two to at least six spaces. Additional bicycle parking, at least four spaces each, can be located at the Sears parking lot and near or

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on the Saranac River Bridge. Post and ring style racks can be located at regular intervals along Main Street as part of the streetscape.

Crosswalks are common along the corridor, but the red paint delineating them wears quickly. Highly visible white 'piano key' crosswalks could be considered to replace existing crosswalks throughout the corridor, or consider repainting the existing crosswalks more frequently. Thermoplastic materials can be used for both crosswalks and lane striping. Thermoplastic is slightly more expensive than paint but lasts longer and requires less regular maintenance.

Additional curb bump outs can be installed on the northern corners of Main Street at River Street, at the Sears parking lot, and on the northeast corner of Main Street at Broadway St. Bump outs reduce crosswalk distance and reduce pedestrian exposure time when crossing the street. These can also help in discouraging truck traffic. Reducing driveway widths also has these same effects and better defines conflict areas between vehicles and pedestrians. Curb ramps need to be located at all crosswalks in the corridor. Most locations through the corridor have ADA-compliant curb ramps but a few locations need to be updated including at the curb bump out across from Sears, the east side of the crosswalk across Main Street at Broadway in front of the Eye Care center, and the west side of the crosswalk across Broadway at Olive St. Any adjustments to curb alignments or driveways need to include ADA accessibility. In addition, approximately half of the curb ramps in the corridor are missing detectable warning strips that will need to be installed.

Intersection improvements are recommended at Broadway and Main Street to improve pedestrian safety and slow traffic down. The length of crosswalks and vast open space of pavement at intersections can be intimidating for younger pedestrians and seniors. Installing a curb bump out on the northeast corner of Main Street will reduce the distance of one crosswalk. Pavement along the other two corners can be cross-hatched to define lanes and keep vehicular movements closer to the center line. Additionally, a monument (tree, planter, statue, or flag pole) can be placed in the center of the intersection. The monument will define turning movements and slow vehicles down as they travel through the intersection.

The plan set forth, to better accommodate bicycles and pedestrians, can be completed with little impact to on-street parking, which is a traffic calming feature of the roadway. Two to three spaces will need to be removed on the northern portion of Broadway to accommodate the bike lane approaching Bloomingdale Avenue. These parking spaces can be reacquired by reducing driveway widths and extending parking lanes.

The plan view of the corridor shows the changes to curb alignments and lane markings. The plan view also shows crosswalks, intersection improvements, bike racks, and landscape treatments. Five representative cross sections show sidewalks, parking lanes, and lane width measurements. The cost estimate shown below is based on unit costs provided by NYSDOT on similar items and projects.

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Cost Estimate

Item	Cost	Count	Total
Striping	Lump sum	1	$3,500
Lane Markings	$150 each	21	$3,150
Crosswalks	$300 each	18	$6,300
Street Trees + Grates	$500 each	9	$4,500
Curb Bump Outs / Sidewalk Extensions	$5,000 - $15,000 each	9	$90,000
Bike Racks	$400-$1,500 each	4-6	$4,000
Curb Ramps / Detectable Warning Strips	Lump sum	1	$8,000
Pavement Paint	Lump sum	1	$3,000
Monument	Lump sum	1	$15,000
Signage (truck and bike signage)	$300 each	10	$3,000
			Subtotal: $140,450
			Engineering / Contingency (30%): $42,150
			Total: $182,600

Additional Treatments Options

There are some additional treatment options to consider along the corridor that would further improve bicycle and pedestrian accommodations along the corridor. These include:

- Bike boxes: designate an area at the head of a traffic lane at a signalized intersection that provides bicyclists with a safe and visible way to get ahead of queuing traffic during the red signal phase. The southbound approach on Main Street at River Street is a good location, especially since a large portion of cyclists turn left here, and also the northbound approach on Broadway at Bloomingdale Avenue.
- Pedestrian scale lighting: continue to replace overhead lighting structures with pedestrian scale lighting structures.
- Additional landscaping: wherever possible, add street trees and movable planters. If more off-street parking becomes available, consider leaving gaps between spaces or eliminating on-street parking in sections to provide additional landscaping.

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Figure 15

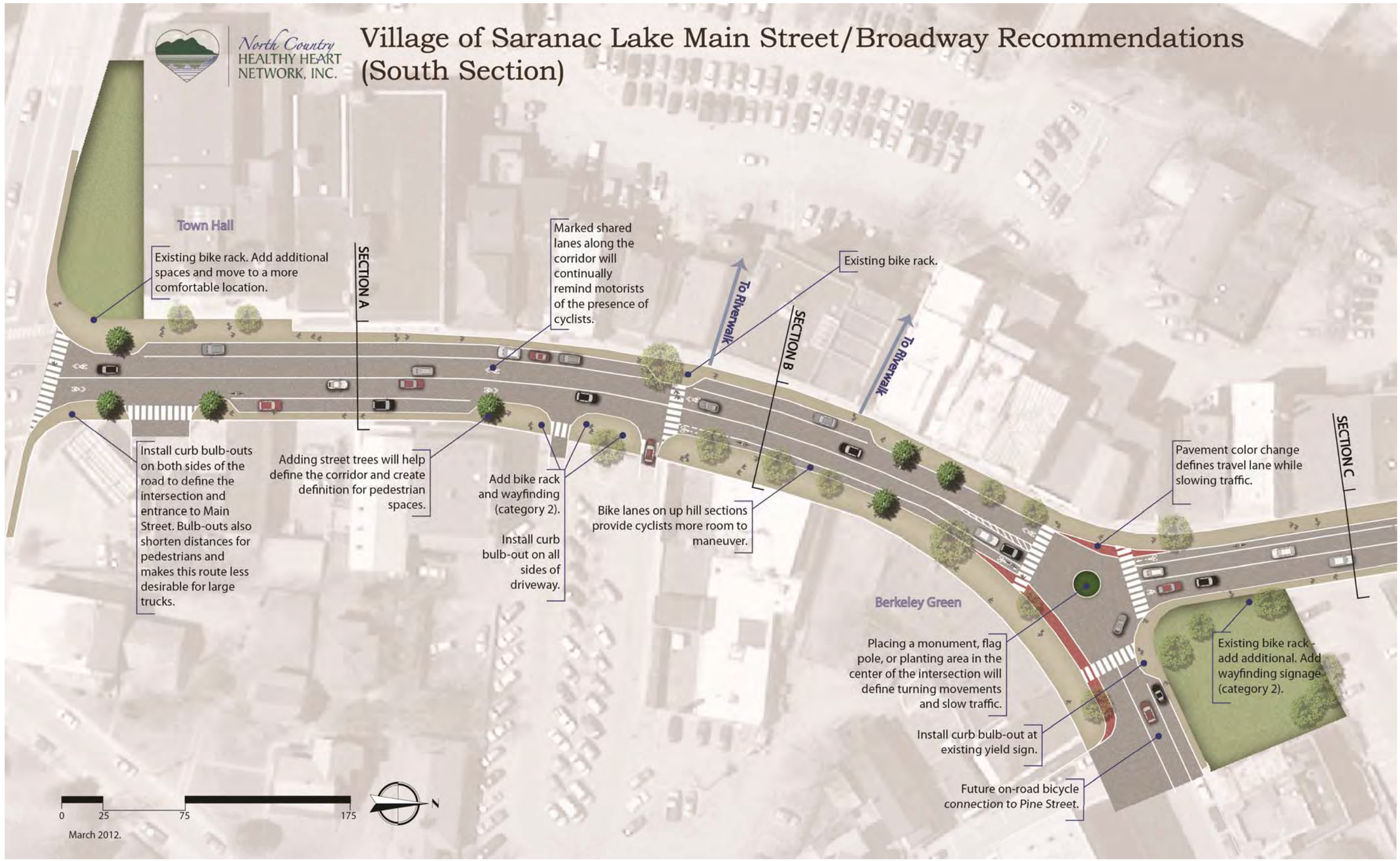

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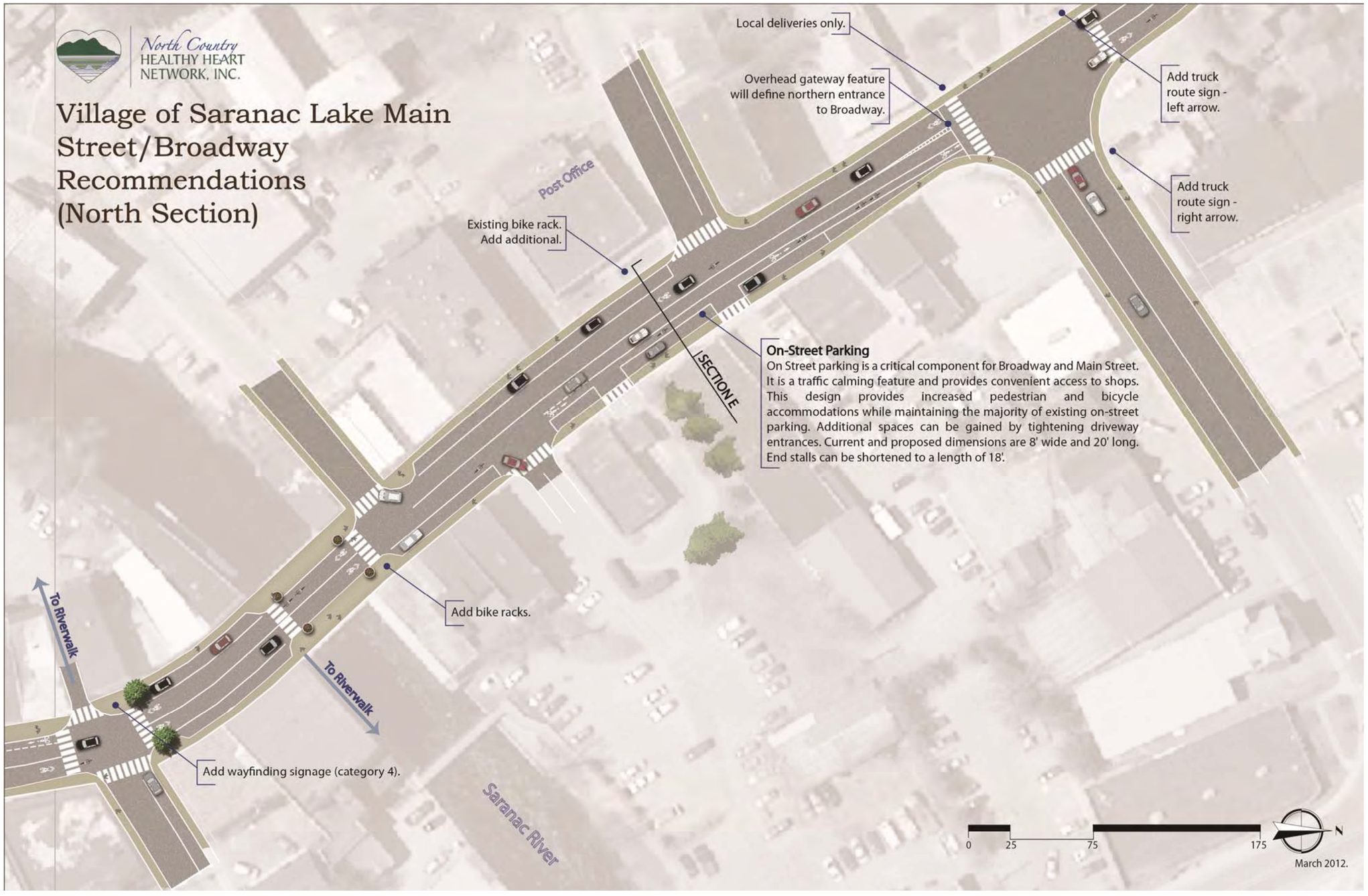
Figure 16



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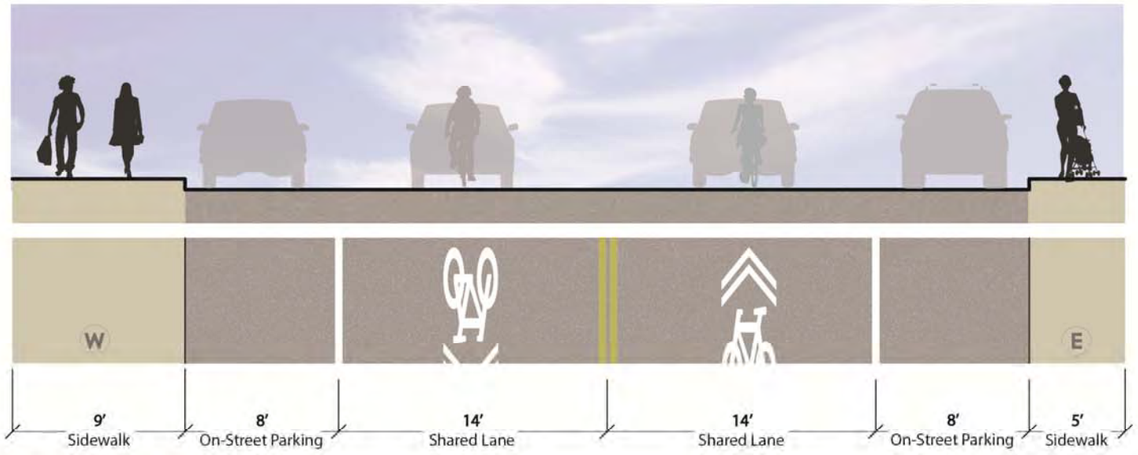
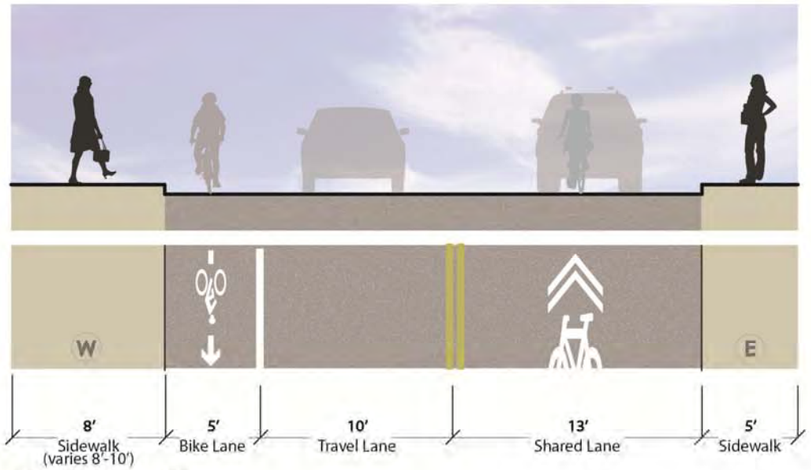
Village of Saranac Lake
Main Street/Broadway Recommendations

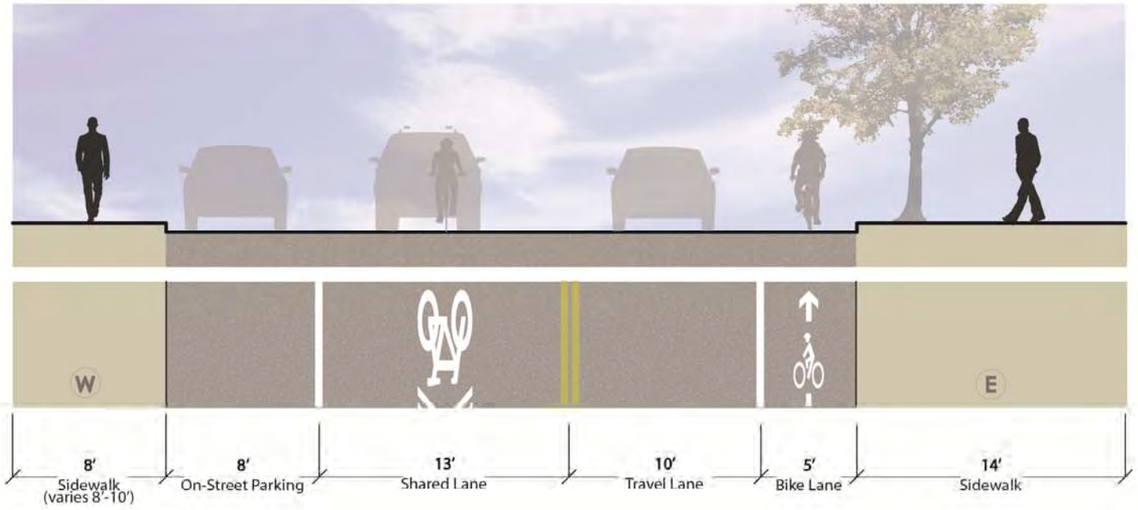
North Country HEALTHY HEART NETWORK, INC.



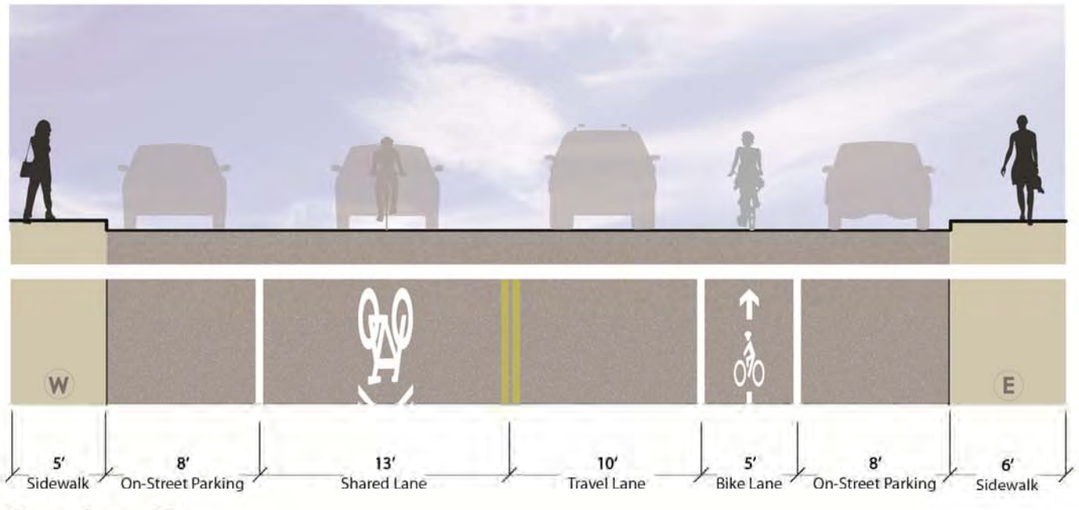
Section A



Section C



Section B



Section D

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6.2.2 Community Scale Design - Trail Wayfinding

Five different signage types are proposed for wayfinding in and around the Village.

- **Signage Type 1:** The most prominent signage type is a gateway feature. A larger structure, the signage would include a full map of the Village, its trail system, and other details. It is proposed that these gateway features be sited at four locations: the intersection of Route 86 and the rail-with-trail as an eastern gateway; at Riverside Park, a central recreation point; the 'Sear's' Parking Lot, and at Union Depot.
- **Signage Type 2:** A smaller overall village map will be located at key destinations and high traffic areas. The end of the Sears parking lot on Main Street is an example of a good location for a larger village map. Additional type 2 can be placed along Main Street.
- **Signage Type 3:** Area-specific trail signage will be developed for various locations around the village. These are important for areas with a number of different trails with a connection or trailhead that is centrally located or part of a popular destination, such as the Lake Colby Beach. Locations for the different types of trail map signage are shown on the attached wayfinding maps.
- **Signage Type 4:** A directional wayfinding signage type will be more common around Saranac Lake. These signage types will list destinations with directional arrows. It is critical to provide visible, easy to understand directional signage at decision points, whether at on the road or trail. Several features such as the Pines and Moody Pond are hidden in Saranac Lake. The combination of system maps downtown and directional signage to trailheads is important to get the information out that these sites exist, and to get people there.
- **Signage Type 5:** Once users have arrived to a trail, it is important to let people know they are on the correct path by providing trail markers. In addition to providing important feedback, these trail markers can also display other useful information such as mileposts, snow height, or distance to and from popular destinations.

All signage should be placed in a location where it can be seen easily from passing vehicle, bicycle or pedestrian traffic. Placement should consider site distance and visibility. Particularly for the signage displaying maps (types 1 through 3), it is important to make sure there is ADA access around the signage to make it easy for people to approach and read. Locations of each type of signage are shown in the maps attached.

The design of the signs considers the Village's expanding trail system. The signage structures are durable and will be long lasting, but the maps and directional signage can be changed readily as additional trails and destinations are added to the system. Trail and directional wayfinding can be done using vinyl lettering on metal plates. The directional arrows can be color coded to match the colors designated to each trail system by the Village. The vinyl strips can easily be removed and added as needed.

A few concepts have been developed, incorporating reclaimed wood panels for a natural look and metal plates for a clean and durable finish. One concept incorporates trees to reinforce the natural environment around the Village of Saranac Lake. Another concept incorporates mountain images, imitating the high peaks, and another concept incorporates both trees and mountain peaks. A more simplistic design excludes the reclaimed wood and instead forms mountain peaks on the top of the metal plate. Different signage concepts can be found in the graphics attached. The cost estimate below is provided for the proposed high quality, custom signage.

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These costs could be higher or lower depending on the final sign design, materials used, the quantity, and if DPW installs the signs. There are many different signage materials that can be used such as various types of wood or metal, PVC, and other composite materials. There are also different styles, colors, and thicknesses that can be used that will affect pricing.

Cost Estimate

Signage Type	Cost	Count	Total
Type 1 - Gateway	$15,000	3	$45,000
Type 2 - Overall Map	$8,000	3	$30,000
Type 3 - Area Map	$5000	6	$30,000
Type 4 - Directional	$3000	7	$21,000
Type 5 - Trail directional	$1500	3	$4,500
Type 5 - Route markers	$300		
Moody Pond		12	$3,600
Riverwalk		6	$1,800
Rail Trail		14	$4,200
			Total: $140,100

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Figure 18

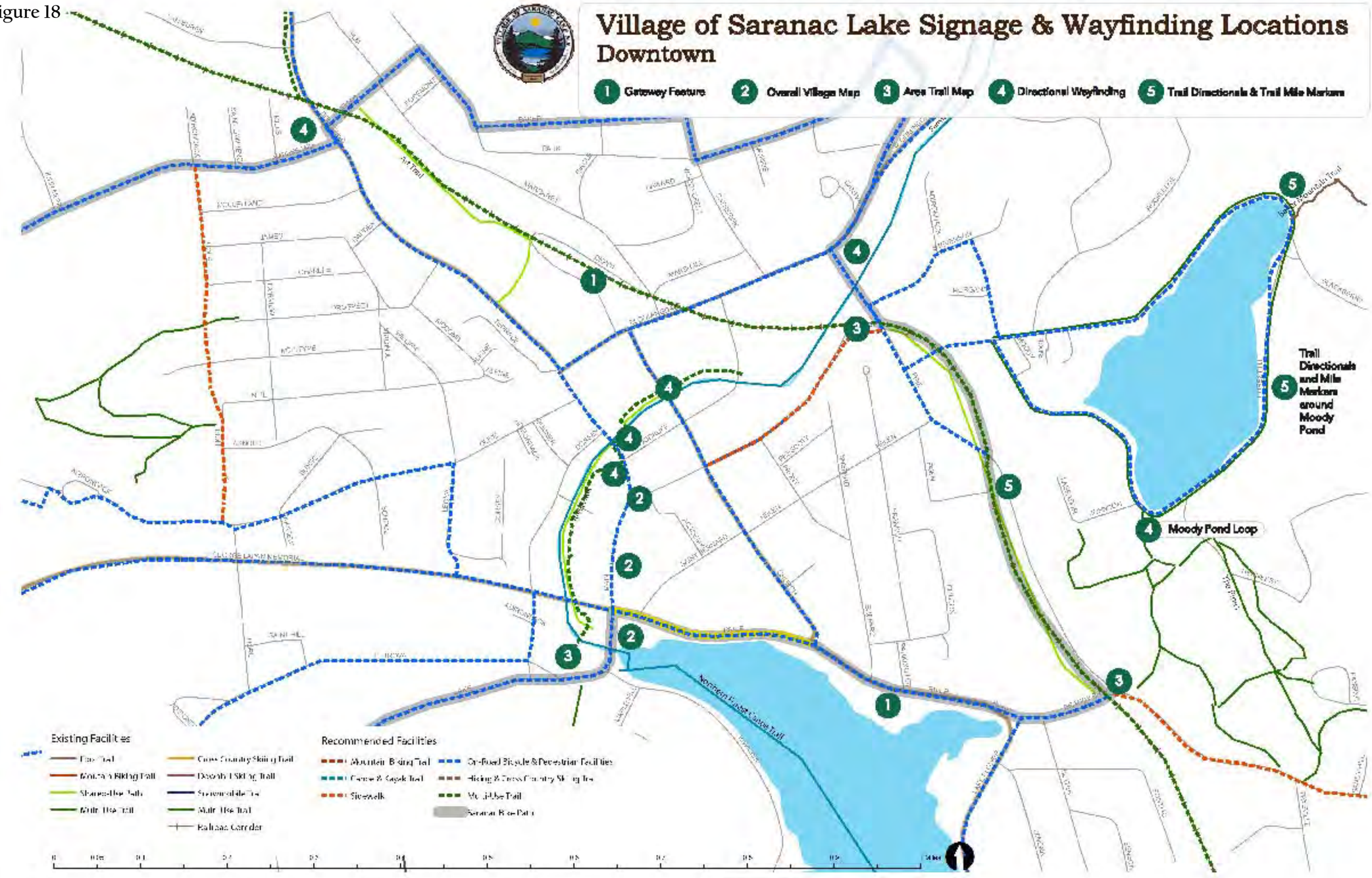

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Figure 19

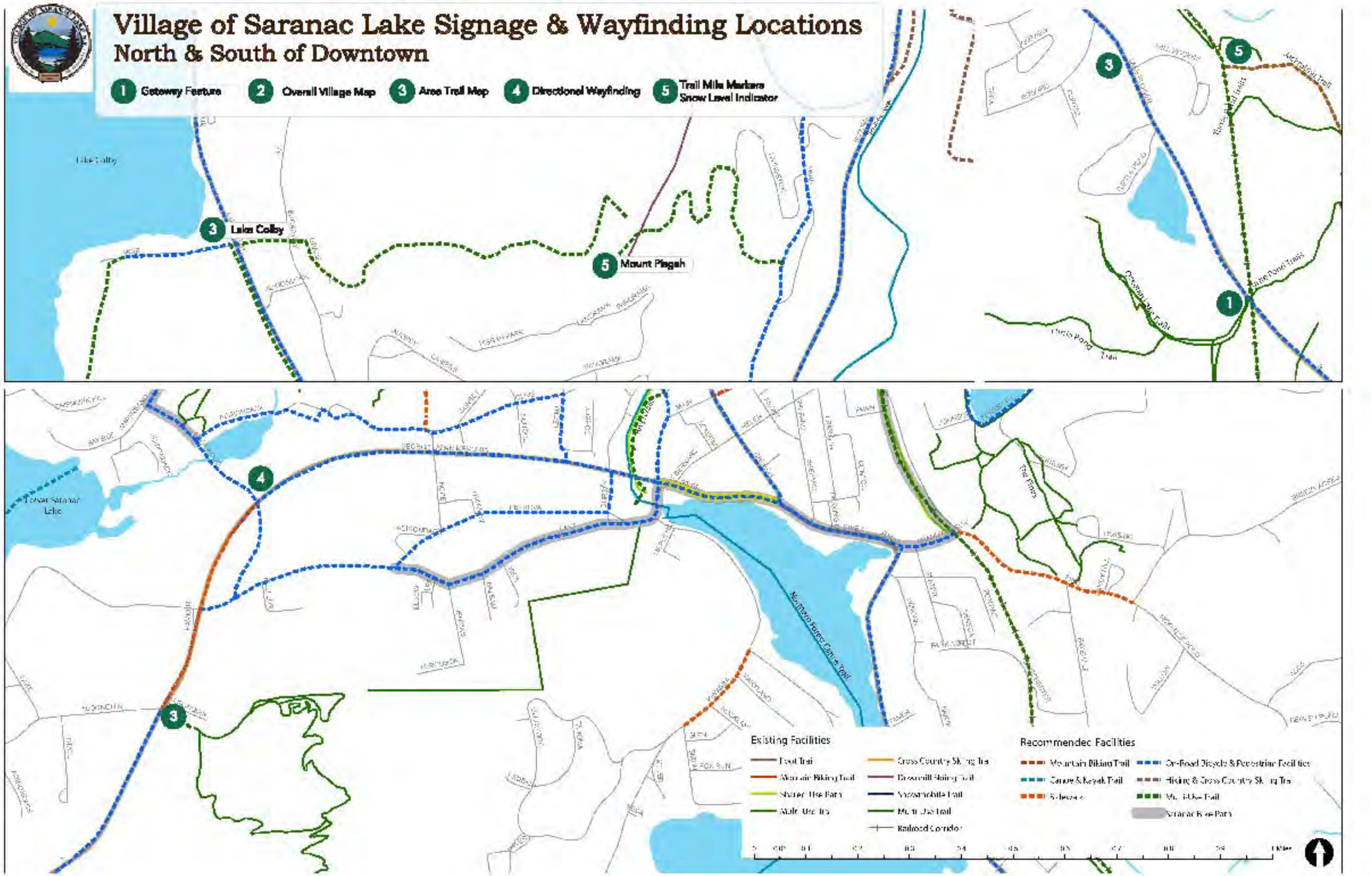

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Figure 20

Village of Saranac Lake Signage & Wayfinding Design Concept No. 4

Trail Blaze or Street Medallion
Etched Steel

Native stone wall with (if possible) reclaimed wood posts. Steel plate will be laser cut with etched lettering and bolted to wood posts. Map will be bolted into steel and weather protected. Map can easily be removed/replaced when updates are necessary.

1 **Gateway Feature** (Consider adding vegetation)

2 **Overall Village Map**

Steel plate will be laser cut with etched lettering. Map will be bolted into steel and weather protected. Map can easily be removed/replaced when updates are necessary.

3 **Area Trail Map**

Steel plate will have white vinyl lettering applied to indicate direction / location / miles / time (at client's discretion). White vinyl can easily be removed/changed as new locations are added.

4 **Directional Wayfinding**

Wood post with steel plate affixed on post as needed to indicate direction. White vinyl lettering can be removed/changed as needed. Top steel panel will be top cut with mountain silhouette, remaining panels will be straight cut.
Reclaimed wood stumps with inlaid mountain top steel plate. Mileage will be etched into metal. Side two of mile marker will indicate snow level with burned/etched markers to 2' or 3'.

5 **Trial Directionals Trail Mile Markers with Snow Level Indicator**

Design subject to availability of materials and capability of selected vendor. Local vendor can suggest best practices for materials, application, and durability. March 2012.

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Figure 21

Village of Saranac Lake Signage & Wayfinding
Design Concept No. 5

Trail Blaze or Street Medallion
Etched Steel

Native stone wall with (if possible) reclaimed wood panel mountain. Lettering will be burned/etched into wood panel. Map will be bolted into wood and weather protected. Map can easily be removed/replaced when updates are necessary.

1 **Gateway Feature** (Consider adding vegetation)

2 **Overall Village Map**

Reclaimed wood panel mountain on metal post. Steel plate will be laser cut with etched lettering and inlaid into wood panel for a smooth-front finish. Map will be bolted into steel and weather protected. Map can easily be removed/replaced when updates are necessary.

3 **Area Trail Map**

Reclaimed wood panel mountain on metal plate with metal post. Steel plate will be laser cut with tree outline, white vinyl lettering will be applied to indicate direction / location / miles / time (at client's discretion). Steel plate will be inlaid into wood panel for a smooth-front finish. White vinyl can easily be removed/changed as new locations are added.

4 **Directional Wayfinding**

Wood post with steel plate affixed on post as needed to indicate direction. White vinyl lettering can be removed/changed as needed. Top steel panel will be top cut with mountain silhouette, remaining panels will be straight cut.
Reclaimed wood stumps with inlaid steel plate tree. Mileage will be etched into metal. Side two of mile marker will indicate snow level with burned/etched markers to 2' or 3'.

5 **Trial Directionals Trail Mile Markers with Snow Level Indicator**

Design subject to availability of materials and capability of selected vendor. Local vendor can suggest best practices for materials, application, and durability. March 2012.

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7 Implementation Plan

This plan will be implemented through an ongoing effort through public and private efforts. The Healthy Infrastructure Advisory Board should meet regularly to identify opportunities to implement the recommended projects. The village, adjacent municipalities, and county public works agencies will be responsible for projects that are located within public ROW that they maintain. The State of New York has responsibility for the trail system within Adirondack Park lands as well as jurisdictions on state highways. Local clubs, including hiking, mountain biking, water trails, x-country skiing will continue to maintain trails and projects they already support.

The following sections identify design guidelines for the trail types recommended in this plan, followed by maintenance guidelines and funding opportunities for implementation. Design guidance is consistent with MUTCD, AASHTO, NYSDOT, and NACTO guidelines.

7.1 Design Guidance

7.1.1 Sidewalk Design Guidelines

The sidewalk corridor is the portion of the pedestrian realm between the roadway edge and right-of-way boundary, generally along the sides of streets. A variety of considerations are important in sidewalk design. Providing adequate and accessible facilities should lead to increased numbers of people walking, improved safety, and the creation of social space. Attributes of well-designed sidewalks include the following:

- **Accessibility**: A network of sidewalks should be accessible to all users and meet ADA requirements.
- **Adequate width**: Two people should be able to walk side-by-side and pass a third person comfortably, and different walking speeds should be possible. In areas of intense pedestrian use, sidewalks should be wider to accommodate the higher volume of walkers.
- **Safety**: Design features of the sidewalk should allow pedestrians to have a sense of security and predictability. Sidewalk users should not feel they are at risk due to the presence of adjacent traffic.
- **Continuity**: Walking routes should be obvious and should not require pedestrians to travel out of their way unnecessarily.
- **Landscaping**: Plantings and street trees within the roadside area should contribute to the overall psychological and visual comfort of sidewalk users, without providing hiding places for attackers.
- **Social space**: Sidewalks should be more than areas to travel; they should provide places for people to interact. There should be places for standing, visiting, and sitting. The sidewalk area should be a place where adults and children can safely participate in public life.
- **Quality of place:** Sidewalks should contribute to the character of neighborhoods and business districts and strengthen their identity.

The following sections describe specific sidewalk elements in greater detail.

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Zones in the Sidewalk Corridor

Design Summary

The Sidewalk Corridor is typically located within the public right-of-way between the curb or roadway edge and the property line. The Sidewalk Corridor contains four distinct zones: the Curb Zone, the Furnishings Zone, the Through Pedestrian Zone, and the Frontage Zone, shown right.

The Curb Zone

Curbs prevent water in the street gutters from entering the pedestrian space, discourage vehicles from driving over the pedestrian area, and facilitate street sweeping. In addition, the curb helps to define the pedestrian environment within the streetscape, although other designs can be effective for this purpose. At the corner, the curb is an important tactile element for pedestrians who are finding their way with the use of a cane.

The Furnishings/Planting Zone

The Furnishings Zone buffers pedestrians from the adjacent roadway and is also the area where elements such as street trees, signal poles, utility poles, street lights, controller boxes, hydrants, signs, parking meters, driveway aprons, grates, hatch covers, and street furniture are properly located. This is the area where people alight from parked cars.

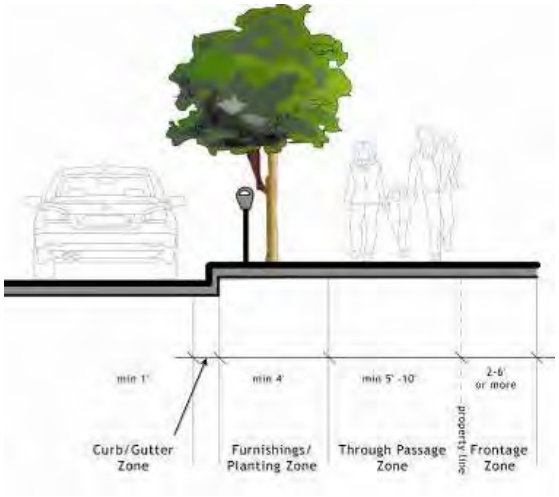
The Through Pedestrian Zone

The Through Pedestrian Zone is the area intended for pedestrian travel. This zone should be entirely free of permanent and temporary objects.

The Frontage Zone

The Frontage Zone is the area between the Through Pedestrian Zone and the property line. This zone allows pedestrians a comfortable "shy" distance from the building fronts in areas where buildings are at the lot line or from elements such as fences and hedges on private property.

Design Examples



Sidewalk Zones

This sidewalk has plantings in the furnishing zone and in the frontage zone and provides sufficient through passage zone width

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Sidewalk Widths

Design Summary

Proposed sidewalk guidelines apply to new development and depend on available street width, motor vehicle volumes, surrounding land uses, and pedestrian activity levels. Standardizing sidewalk guidelines for different areas of Saranac Lake, dependent on the above listed factors, ensure a minimum level of quality for all sidewalks.

Generally, sidewalks should be at least five feet wide, exclusive of the curb and other obstructions. This width:

- Enables two pedestrians (including wheelchair users) to walk side-by-side or to pass each other comfortably
- Allows two pedestrians to pass a third pedestrian without leaving the sidewalk

The table to the right provides guidance for minimum sidewalk widths by street type.

In some cases, it is possible to increase the dimensions of the sidewalk corridor, either through acquisition of right-of-way or public walkway easements, or by re-allocation of the overall right-of-way (such as by narrowing roadway travel lanes or reducing the number of lanes). As part of a roadway reconstruction project on a street with a narrow sidewalk corridor, project planners should first analyze the impact of reclaiming a portion of the existing right-of-way. If this proves impractical, the feasibility of acquiring additional right-of-way should be examined. Acquisition should be considered where its cost is reasonable in proportion to the overall project cost.

In the case of infill development, the dedication of public right-of-way or the granting of a public walkway easement to widen the sidewalk corridor may be included as a requirement for obtaining a building permit or land use approval.

Design Examples

Recommended Minimum Sidewalk Widths by Street Type:

	Curb	Planting Strip (Buffer)	Sidewalk Width
Arterial and Collector Street	1 ft.	2-4 ft.	8 ft.*
Local Neighborhood Street	0-1 ft.	0-2 ft.	5 ft.*
Commercial Walkways	1 ft.	2-4 ft.	6-10 ft.

*Note: short sidewalk segments can have narrower widths in physically-constrained areas.

Example of a sidewalk with trees and sufficient space for pedestrians to walk together

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Sidewalk Surfaces	
Design Summary	**Design Examples**
Sidewalk surfaces should be smooth and continuous. It is also desirable that the sidewalk surface be stable, firm and slip resistant. Preferred materials include Portland Cement Concrete (PCC) and Asphalt Concrete (AC).PCC provides a smooth, long-lasting and durable finish that is easy to grade and repair.AC has a shorter life expectancy but may be more appropriate in less urbanized areas and in park settings. Crushed aggregate may also be used as an all-weather walkway surface in park areas, but this material generally requires a higher level of maintenance to maintain accessibility. The *Americans with Disabilities Act* allows a maximum two percent cross-slope on sidewalks and other walkways. Where sidewalks meet driveways, curb cuts or intersections, a three-foot wide area should be maintained with a two percent cross-slope.	 Concrete is often used as a trail material and sidewalks  Pavers are a common sidewalk surfacing material

7.1.2 Intersection Design Guidelines

Attributes of pedestrian-friendly intersection design include:

- **Clear Space:** Corners should be clear of obstructions. They should also have enough room for curb ramps, for transit stops where appropriate, and for street conversations where pedestrians might congregate.
- **Visibility:** It is critical that pedestrians on the corner have a good view of vehicle travel lanes and that motorists in the travel lanes can easily see waiting pedestrians.
- **Legibility:** Symbols, markings, and signs used at corners should clearly indicate what actions the pedestrian should take.
- **Accessibility:** All corner features, such as curb ramps, landings, call buttons, signs, symbols, markings, textures, must meet accessibility standards.
- **Separation from Traffic:** Corner design and construction must be effective in discouraging turning vehicles from driving over the pedestrian area.

Although some intersections in Saranac Lake create challenging pedestrian crossing conditions, improvement opportunities exist. This Plan proposes an overall strategy to improve intersections and other pedestrian crossings throughout the Village through a variety of treatments.

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Improving Safety at Crossings

At signalized intersections, all crosswalks should be marked. At un-signalized intersections, crosswalks should be marked in the following situations:

- To help orient pedestrians find their way across a complex intersection;
- To show pedestrians the shortest route with the least exposure to vehicular traffic; and
- To help position pedestrians where they can best be seen by oncoming traffic.

Several provisions can increase safety for all roadway users by clearly marking or increasing the visibility of a crossing location, or by providing a pedestrian refuge island, as described below.

Mid-block Crossings

Crosswalks can be provided at mid-block locations if sufficient pedestrian demand exists or where pedestrians would be required to walk out-of-direction to access a crosswalk at an intersection. Mid-block crossings should be aligned where possible with logical pedestrian travel patterns. Mid-block crossings should always include pavement markings and warning signs.

High-Visibility Crosswalks

Where there is poor motorist awareness of an existing crossing or at high-use locations such as a school crosswalk or a crossing of the Constitution Trail, high-visibility crosswalks can increase safety for pedestrians and bicyclists. High-visibility crosswalks are particularly important along routes to school to improve visibility of school children.

Flashing Warning Signs and In-Street "Yield to Pedestrians" Signs

Another method for increasing the visibility of a crossing, flashing warning signs call attention to the pedestrian crossing location. They can be continuous, timed for rush hours, or activated by a pedestrian push-button.

In-Street Yield to Pedestrian Signs are flexible plastic "paddle" signs installed in the center of a roadway to enhance a crosswalk at uncontrolled crossing locations.

Pedestrian Refuge Islands

Pedestrian refuge islands minimize pedestrian exposure at a crossing by shortening the crossing distance and increasing the number of available gaps for crossing. Refuge islands allow pedestrians to make a crossing in multiple stages by focusing on one direction of traffic at a time.

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Signal Accommodation for Pedestrians

Pre-timed signals accommodate pedestrian crossings through automatic "phasing" concurrent with parallel vehicle traffic, while at actuated signals pedestrians usually push an activation button to trigger the walk signal. Providing adequate pedestrian crossing time is a critical element of the walking environment at signalized intersections. The MUTCD recommends traffic signal timing to assume a pedestrian walking speed of 4' per second, meaning that the length of a signal phase with parallel pedestrian movements should provide sufficient time for a pedestrian to safely cross the adjacent street. At crossings where older pedestrians or pedestrians with disabilities are expected, crossing speeds as low as 3' per second may be assumed.

Pedestrian-Activated Push Buttons

A push button permits the signal controller to detect pedestrians waiting to cross. When push buttons are used, they should be located so that someone in a wheelchair can reach the button from a level area of the sidewalk without deviating significantly from the natural line of travel into the crosswalk.

Pedestrian signal buttons are used in cases where actuated signals for the signal controller detect the presence of pedestrians. Where needed, pedestrian call buttons should be located to meet the following criteria:

- The closest push button to a crosswalk should call the pedestrian signal for that crosswalk;
- An arrow should indicate which crosswalk the button will affect;
- The push button should be visible to a pedestrian facing the crosswalk, unless space constrains placement; and
- The push button must be accessible from the landing at the top of the curb ramp or the dropped landing of a parallel curb ramp.

Leading Pedestrian Interval (LPI)

An LPI gives pedestrians an advance walk signal before the motorist signal releases vehicle traffic, which makes pedestrians more visible to motorists.

Audible Pedestrian Signal

Audible signals provide a cue to visually-impaired pedestrians that there is a 'Walk' signal. Audible signals typically include chirping sounds and or a pre-recorded voice indicator, which are activated by the pedestrian push-button.

The MUTCD states that installation of audible signals should be based on an engineering study considering:

- Potential demand or requests for accessible pedestrian signals
- The complexity of intersection geometry
- Traffic volumes when pedestrians might be present including periods of low traffic volumes or high turn-on-red volumes
- The complexity of traffic signal phasing

Pedestrian Countdown Signals

The countdown signal displays the number of seconds remaining for an individual to complete his or her crossing. This feature allows pedestrians of all walking speeds to determine if they complete their crossing movement during the current signal phase or wait for the next cycle.

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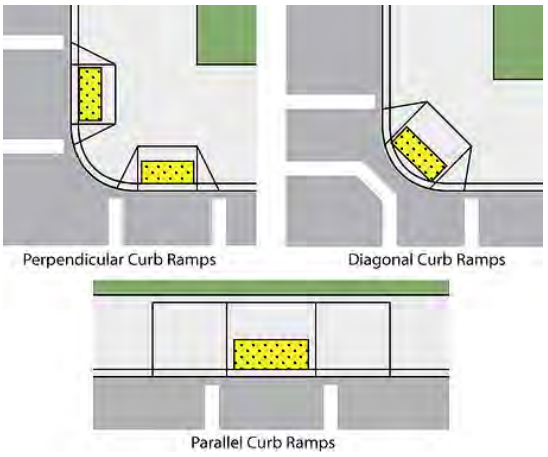
ADA-Compliant Curb Ramps

Design Summary

Curb ramps are the design elements that allow all users to make the transition from the street to the sidewalk. There are a number of factors to be considered in the design and placement of curb ramps at corners. Properly designed curb ramps ensure that the sidewalk is accessible from the roadway. A sidewalk without a curb ramp can be useless to someone in a wheelchair, forcing them back to a driveway and out into the street for access.

The ADA defines two types of curb ramp systems, "perpendicular ramps" and "parallel ramps" (see right). The first provides a ramp into a crosswalk, while the second provides a ramp into a landing that is flush with the street surface, sometimes called a "dropped landing."

Design Examples



Curb ramp design options

Discussion

Every curb ramp must have a landing at the top and at the bottom. The maximum ramp slope in the right-of-way is 1:12 with a cross slope of no more than 1:50. The minimum width of a ramp should be 3'-0".

The landing at the top of a ramp should be at least 4'-0" long and at least the same width as the ramp itself. It should slope no more than 1:50 in any direction.

If the ramp runs directly into a crosswalk, the landing at the bottom will be in the roadway. The landing, 4'-0" long, should be completely contained within the crosswalk and should not have a running slope of greater than 1:20.

If the ramp lands on a dropped landing within the sidewalk or corner area where someone in a wheelchair may have to change direction, the landing must be a minimum of 5'-0" long and at least as wide as the ramp, although a width of 5'-0" is preferred. The landing should not slope more than 1:50 in any direction.

A single landing may serve as the top landing for one ramp and the bottom landing for another.

Example of an ADA-compliant curb ramp

Curb Ramp Maintenance

It is critical that the interface between a curb ramp and the street be maintained adequately. Asphalt street sections typically have a shorter life cycle than a concrete ramp. Potholes in the asphalt at the foot of the ramp can catch the front wheels of a wheelchair, causing it to tip over. In some cases, existing ramps and streets create a tipping hazard because of a sharp change in slope. As an interim solution, this sharp transition can be eased with a tapered infill of asphalt at the foot of the ramp. Plastic and masonry detectable warning strips wear quickly under winter conditions and steel should be used wherever possible.

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7.1.3 Bike Lane Design Guidelines

Bike lanes have been developed in a large variety of configurations and can have special characteristics including coloring if beneficial. The AASHTO *Guide for the Development of Bicycle Facilities* guidance notes that "longitudinal pavement markings should be used to define bicycle lanes." The guideline states that "if used, the bicycle lane symbol marking shall be placed immediately after an intersection and other locations as needed. The bicycle lane symbol marking shall be white. If the word or symbol pavement markings are used, Bicycle Lane signs shall also be used, but the signs need not be adjacent to every symbol to avoid overuse of the signs."

The following pages describe guidelines for implementing bike lanes on streets with on-street parking (both parallel and diagonal) and without parking. Additional sheets highlight particular considerations for bike lanes, including conflicts with right-turning motorists, left-turning bicycle movements, bike lanes at intersections, and innovative techniques for improving bike lane visibility. The following sections discuss a variety of methodologies for retrofitting bike lanes to existing roadways.

Bike Lane Without On-Street Parking

Design Summary

Bike Lane Width:

- 6' recommended
- 4' minimum when no gutter is present (rural road sections)
- 5' minimum when adjacent to curb and gutter (3' more than the gutter pan width if the gutter pan is wider than 2')

Maximum Width:

- 8' adjacent to arterials with high travel speeds (45 mph+)

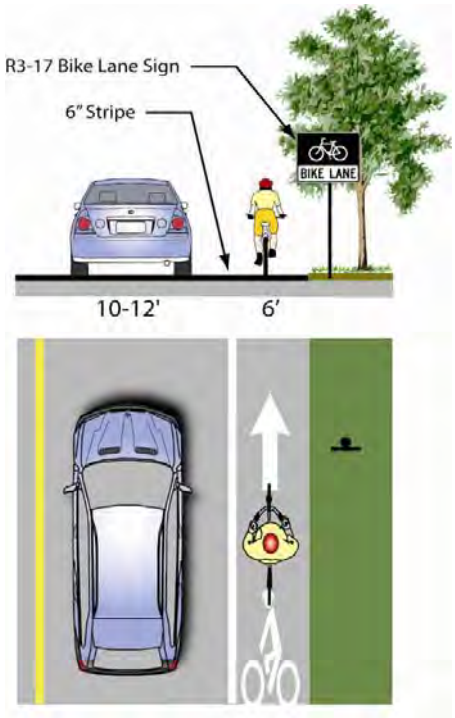
Discussion

Wider bike lanes are desirable in certain circumstances such as on higher speed arterials (45 mph+) where a wider bike lane can increase separation between passing vehicles and cyclists. Wide bike lanes are also appropriate in areas with high bicycle use. A bike lane width of 6 to 8 feet makes it possible for bicyclists to ride side-by-side or pass each other without leaving the bike lane, increasing the capacity of the lane. Appropriate signing and stenciling is important with wide bike lanes to ensure motorists do not mistake the lane for a vehicle lane or parking lane.

Guidance

AASHTO *Guide for the Development of Bicycle Facilities* /MUTCD/ NACTO Urban Bikeway Design Guide

Design Examples



Recommended design

Bike Lane Adjacent to On-Street Parallel Parking

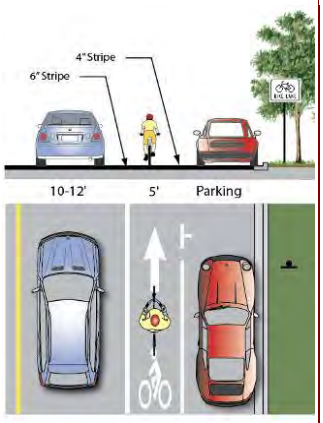
Design Summary

Bike Lane Width:

5' recommended when parking stalls are marked

7' maximum (wider lanes may encourage vehicle loading in bike lane)

12' for a shared lane adjacent to a curb face or 11' minimum for a shared bike/parking lane where parking is permitted but not marked on streets without curbs



Minimum design

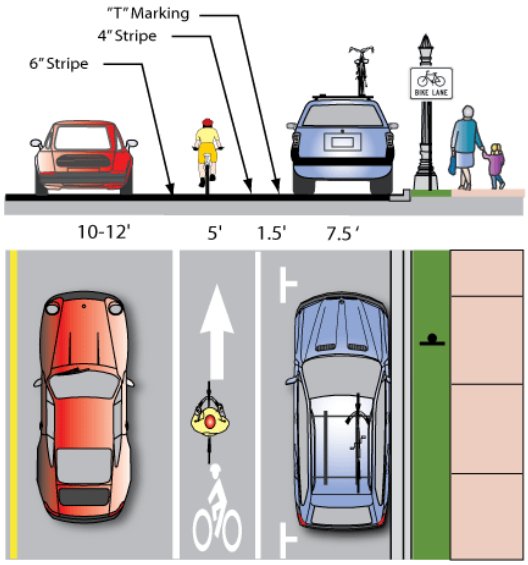
Maximum width

Discussion

Bike lanes adjacent to on-street parallel parking are common in the United States and can be dangerous for bicyclists if not designed properly. Crashes caused by a suddenly opened vehicle door are a common hazard for bicyclists using this type of facility. Cyclists tend to ride as far to the right as the bike lane allows to maximize distance from passing traffic, but this can place the bicyclist in the door zone unless the bike lane designates a buffer zone.

Wide bike lanes may also cause confusion with unloading vehicles in busy areas where parking is typically full. Some alternatives include:

- Installing parking "T's" and smaller bike lane stencils placed to the left (see graphic at top left)
- Using diagonal stripes to encourage cyclists to ride on the left side of the bike lane (shown top right; this treatment is not standard and should be studied before use)
- Provide a buffer zone (preferred design; shown lower right). Bicyclists traveling in the center of the bike lane will be less likely to encounter open car doors. Motorists have space to stand outside the bike lane when loading and unloading.



Preferred design (if space is available)

From AASHTO Guide for the Development of Bicycle Facilities:
Where parking is permitted but a parking stripe or stalls are not utilized, the shared area should be a minimum of 11 feet without a curb face and 12 feet adjacent to a curb face. If the parking volume is substantial or turnover is high, an additional 1 to 2 feet of width is desirable.

Design Examples

Bike lane with parking "T's" to minimize the danger of 'dooring' from cars parked too close to the bike lane

Extra-wide bike lane with signage to clarify the parking area

Guidance

2009 AASHTO *Guide for the Development of Bicycle Facilities* /NACTO Urban Bikeway Design Guide

This document was prepared for the New York State Department of State with funds provided under Title II of the Environmental Protection Fund.

Bike Lanes at Intersections With Right Turn Pocket

Design Summary

Bike Lane Width:

5' wide recommended

4' wide minimum

Discussion

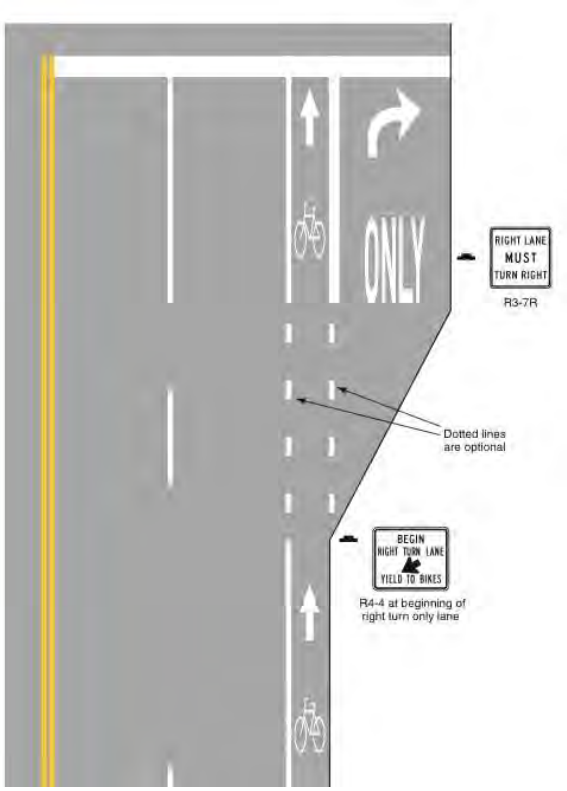
The appropriate treatment at right-turn lanes is to place the bike lane between the right-turn lane and the right-most through lane or, where right-of-way is insufficient, to drop the bike lane entirely approaching the right-turn lane. The design (right) illustrates a bike lane pocket, with signage indicating that motorists should yield to bicyclists through the conflict area. While the dashed lines in this area are currently an optional treatment, it is recommended that they be an integral part of any intersection with this treatment in Saranac Lake.

Dropping the bike lane is not recommended and should only be done when a bike lane cannot be accommodated at the intersection. (See also shared right-turn lane/bike lane.)

Guidance

AASHTO *Guide for the Development of Bicycle Facilities* / NACTO Urban Bikeway Design Guide

Design Examples



Recommended design

Continuing a bike lane for through traffic while providing a right-turn pocket reduces bicycle/motor vehicle conflicts

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Shared Bicycle/Right Turn Lane

Design Summary

Width:

Shared turn lane – min. 12'width

Bike lane pocket – 5' preferred, 4'min.

Discussion

This treatment is recommended at intersections lacking sufficient space to accommodate a standard bike lane and right turn lane.

The shared bicycle/right turn lane places a standard-width bike lane on the left side of a dedicated right turn lane. A dashed stripe delineates the space for bicyclists and motorists within the shared lane. This treatment includes signage advising motorists and bicyclists of proper positioning within the lane.

Case studies cited by the Pedestrian and Bicycle Information Center indicate that this treatment works best on streets with lower posted speeds (30 MPH or less) and with lower traffic volumes (10,000 ADT or less).

Advantages of shared bicycle/right turn lane:

- Aids in correct positioning of cyclists at intersections with a dedicated right turn lane but insufficient space for a dedicated bike lane
- Encourages motorists to yield to bicyclists when using the right turn lane
- Reduces motor vehicle speed within the right turn lane

Disadvantages/potential hazards:

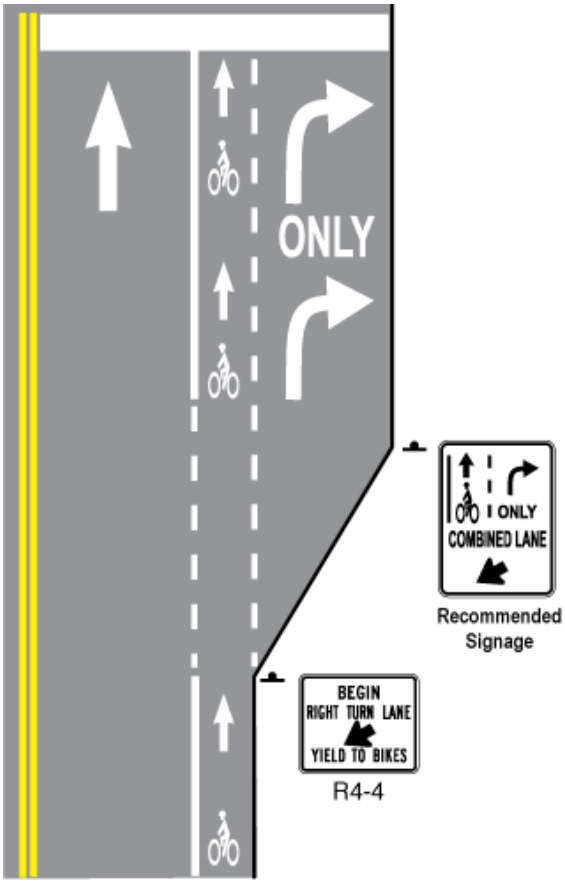
- May not be appropriate for high-speed arterials or intersections with long right turn lanes
- May not be appropriate for intersections with large percentages of right-turning heavy vehicles

Guidance

2009 AASHTO *Guide For the Development of Bicycle Facilities* / NACTO Urban Bikeway Design Guide

Previously implemented in: City of San Francisco; City of Eugene, Oregon

Design Examples



Recommended design

Shared bicycle/right turn lanes require warning signage as well as pavement markings

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Colored Bike Lanes in Conflict Areas

Discussion

Cyclists are especially vulnerable at locations where the volume of conflicting vehicle traffic is high and where the vehicle/bicycle conflict area is long. Some cities are using colored bike lanes to alert motorists and guide cyclists through vehicle/bicycle conflict points. These conflict areas are locations where motorists and cyclists must cross each other's path (e.g., at intersections or merge areas). Colored bike lanes typically extend through the entire bicycle/vehicle conflict zone (e.g., through the entire intersection, or through the transition zone where motorists cross a bike lane to enter a dedicated right turn lane).

This treatment typically includes signage alerting motorists of vehicle/ bicycle conflict points. Portland's *Blue Bike Lane* report found that significantly more motorists yielded to bicyclists and slowed or stopped before entering the conflict area after the application of the colored pavement. The research also observed similar cycling behavior at the study sites.

Color Considerations:

There are three colors commonly used in bike lanes: blue, green, and red. All help the bike lane stand out in conflict areas. Green has been approved by MUTCD for use as the bicycle facility standard and is the color recommended for use in Saranac Lake.

Advantages of colored bike lanes at conflict points

- Draws attention to conflict areas
- Increases motorist yielding behavior
- Emphasizes expectation of bicyclists on the road

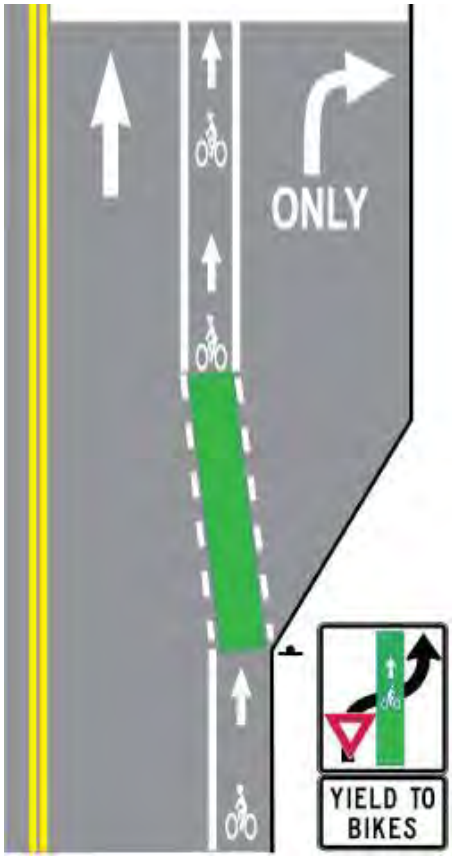
Disadvantages / potential hazards

- Not currently an adopted standard marking in the U.S.

Guidance

NACTO Urban Bikeway Design Guide / Manual for Uniform Traffic Control Devices / ASHTO Guide for the Development of Bicycle Facilities

Design Examples



Recommended design

Green bike lane in New York City

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Bike Box

Design Summary

Bike Box Dimensions:

14' deep to allow for bicycle positioning.

Signage:

Appropriate signage as recommended by the MUTCD applies. Signage should be present to prohibit 'right turn on red' and to indicate where the motorist must stop.

Discussion

A bike box is generally a right angle extension of a bike lane at the head of a signalized intersection. The bike box allows bicyclists to move to the front of the traffic queue on a red light and proceed first when that signal turns green. Motor vehicles must stop behind the white stop line at the rear of the bike box.

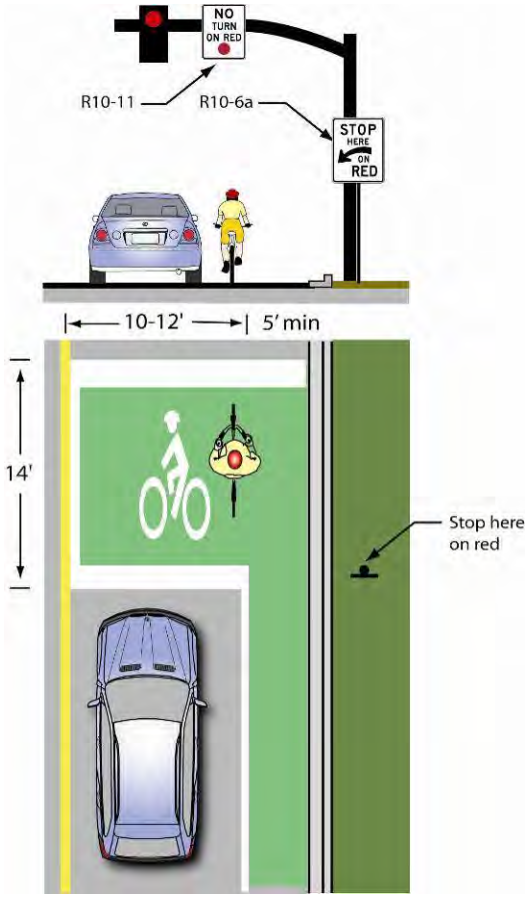
Bike boxes can be combined with dashed lines through the intersection for green light situations to remind right-turning motorists to be aware of bicyclists traveling straight, similar to the colored bike lane treatment described earlier. Bike boxes can be installed with striping only or with colored treatments to increase visibility (the same color as is used for colored bike lanes should be used for this treatment).

Bike boxes should be located at signalized intersections only, and right turns on red should be prohibited. On roadways with one travel lane in each direction, the bike box also facilitates left turning movements for cyclists.

Guidance

NACTO Urban Bikeway Design Guide

Design Examples



Recommended design

Bike boxes have been installed at several intersections in Portland, OR where right-turning motorists conflict with through bicyclists

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7.1.4 Retrofitting Existing Streets with Bike Lanes

This section describes several strategies for retrofitting bike lanes to existing streets. Although opportunities to add bike lanes through roadway widening may exist in some locations, constraints require street retrofit measures within existing curb-to-curb widths. As a result, many of the recommended measures effectively reallocate existing street width through striping modifications to accommodate dedicated bike lanes.

Although largely intended for major streets, these measures may be appropriate on some lower-order streets where bike lanes would best accommodate cyclists.

Roadway Widening

Design Summary

Bike Lane Width:
6' preferred
4' minimum (see bike lane guidance)

Discussion

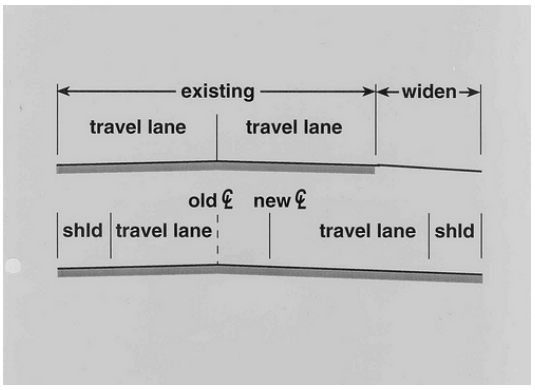
Bike lanes could be accommodated on several streets with excess right-of-way through shoulder widening. Although street widening incurs higher expenses compared with re-striping projects, bike lanes could be added to streets currently lacking curbs, gutters and sidewalks without the high costs of major infrastructure reconstruction.

As a long-term measure, the Village of Saranac Lake should find opportunities to add bike lanes to major streets where they are needed. Opportunities include adding bike lanes as streets and bridges are widened for additional auto capacity or as property development necessitates street reconstruction.

Guidance

AASHTO *Guide for the Development of Bicycle Facilities* / NACTO Urban Bikeway Design Guide

Design Example



Design guidance for widening roadway shoulders to accommodate bicycles

Roadway widening is preferred on roads lacking curbs, gutters and sidewalks

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Lane Narrowing (Road Diet 1)

Design Summary

Vehicle Lane Widths:

Before: 12 to 15 feet; after: 10 to 11 feet

Bike Lane Width:

See bike lane design guidance

Discussion

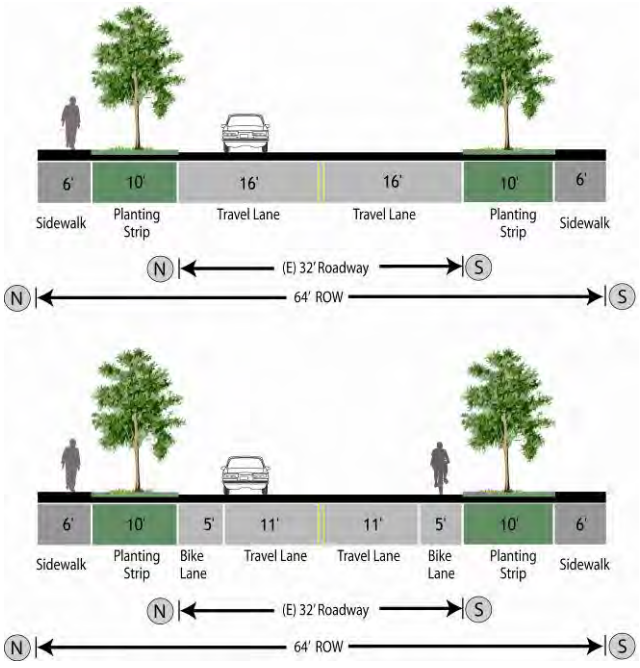
Also called a 'Road Diet', lane narrowing utilizes roadway space that exceeds minimum standards to create the needed space to provide bike lanes. Some Saranac Lake roadways have existing lanes that are wider than those prescribed in local and national roadway design standards. Most standards allow for the use of 11-foot and sometimes 10-foot wide travel lanes to create space for bike lanes.

Special consideration should be given to the amount of heavy vehicle traffic and horizontal curvature before the decision is made to narrow travel lanes. Center turn lanes can also be narrowed in some situations to free up pavement space for bike lanes.

Design Example

This street previously had 13' lanes, which were narrowed to accommodate bike lanes without removing a lane

Recommended Design



Example of vehicle travel lane narrowing to accommodate bike lanes

Guidance

AASHTO *Guide for the Development of Bicycle Facilities* /NACTO Urban Bikeway Design Guide

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Parking Reduction (Road Diet 2)

Design Summary

Vehicle Lane Widths:

Width depends on project. No narrowing may be needed depending on the width of the parking lane to be removed.

Bike Lane Width:

See bike lane design guidance

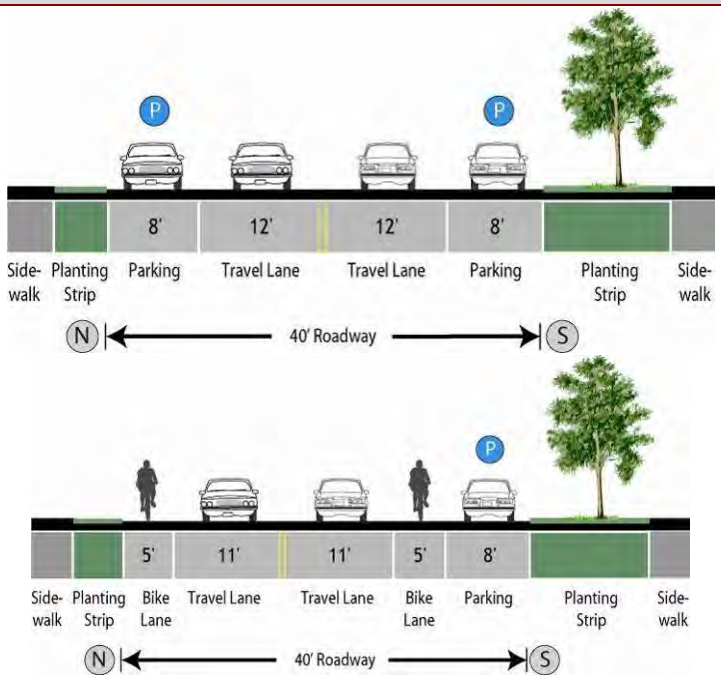
Design Example

Some streets may not require parking on both sides

Discussion

Bike lanes could replace one or more on-street parking lanes on streets where excess parking exists and/or the importance of bike lanes outweighs parking needs. For instance, parking may be needed on only one side of a street (see right). Eliminating or reducing on-street parking also improves sight distance for cyclists in bike lanes and for motorists on approaching side streets and driveways. Prior to reallocating on-street parking for other uses, a parking study should be performed to gauge demand.

Recommended Design



Example of parking removal to accommodate bike lanes

Guidance

AASHTO *Guide for the Development of Bicycle Facilities* / NACTO Urban Bikeway Design Guide

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Shoulder Bikeways

Design Summary

Typically found in rural areas where parking is not allowed, shoulder bikeways are paved roadways with striped shoulders (four feet or greater) wide enough for bicycle travel. Shoulder bikeways often, but not always, include signage alerting motorists to expect bicycle travel along the roadway.

Discussion

It is possible to stripe the shoulder in lieu of bike lanes if the area is 50 percent of the desirable bike lane width and the outside lane width can be reduced to the AASHTO minimum. If the available bike lane width is 2/3 of the desirable bike lane width, the full bike lane treatment of signs, legends, and an 8" bike lane stripe should be provided. Where feasible, extra width should be provided with pavement resurfacing jobs, but not exceeding desirable bike lane widths.

The Iowa DOT Design Manual recommends full width (minimum of four feet wide) paved shoulders "along near metropolitan areas where you expect a considerable amount of pedestrian and bike traffic or turning traffic into rural acreages and subdivisions" as well as "When a designated bike trail is routed along the roadway."

Shoulder bikeways are appropriate along wide rural roads where vehicles can avoid passing close to bicyclists

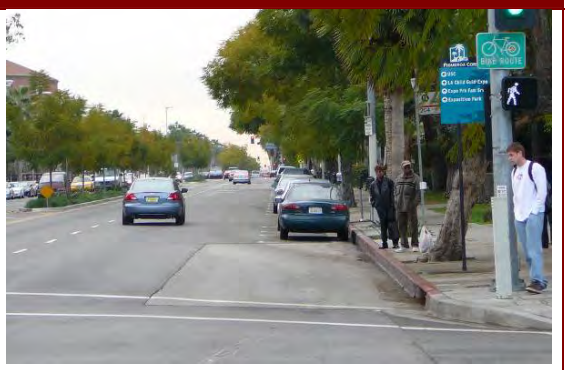
Wide Outside Lane

Design Summary

A wide outside lane may be sufficient accommodation for bicyclists on streets with insufficient width for bike lanes but which do have space available to provide a wider (14'-16') outside travel lane.

Discussion

Roadways appropriate for wide outside lanes often have a centerline stripe only, and no designated shoulders. This type of bike route can be used on a rural roadway without curb and gutter. It can also be used on an urban road where traffic speeds and volumes are low (photo), although shared lane markings may be more appropriate in these locations.



This bike route in Los Angeles provides a wide outside lane adjacent to on-street parking

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7.1.5 Shared Lane Markings Design Guidelines

The following provides design guidance for shared lane markings.

Shared Lane Markings

Design Summary

Door Zone Width:

The width of the door zone is generally assumed to be 2.5 feet from the edge of the parking lane.

Recommended Placement:

- At least 11' from face of curb (or shoulder edge) on streets with on-street parking
- At least 4' from face of curb (or shoulder edge) on streets without on-street parking
- Every 250' or at decision and conflict points

Discussion

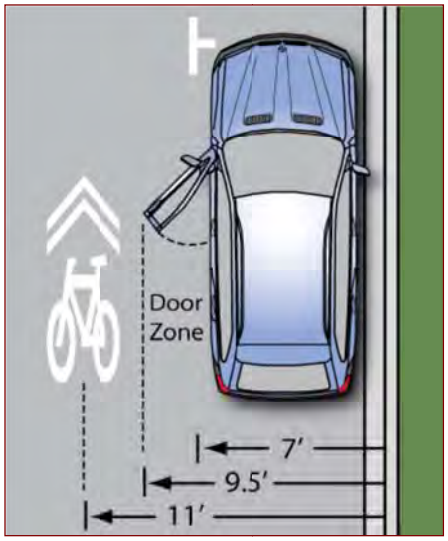
The Draft 2009 MUTCD language notes that sharrows should not be placed on roadways with a speed limit over 35 MPH, and that when used, the marking should be placed immediately after an intersection and spaced at intervals no greater than 250 feet thereafter.

Placing shared lane markings between vehicle tire tracks (if possible) will increase the life of the markings.

Guidance

NACTO Urban Bikeway Design Guide / Manual for Uniform Traffic Control Devices / AASHTO Guide for the Development of Bicycle Facilities

Design Examples



Shared lane marking placement guidance for streets with on-street parking

Shared lane markings can be used minor and major roadways

7.1.5.1 Neighborhood Greenway (Bicycle Boulevard) Design Guidelines

Neighborhood Greenway's (Bicycle Boulevard) can employ a variety of treatments from simple signage to traffic calming and/or pavement stenciling. The level of treatment to be provided for a specific location or corridor depends on several factors, discussed on the following pages.

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Neighborhood Greenway (Bicycle Boulevard)

Design Summary

Neighborhood Greenways (Bicycle Boulevard) generally are installed on minor or local roadways. Although no standard guidelines exist for this new facility type, current design approaches are discussed below.

Discussion

Treatments for Neighborhood Greenways (Bicycle Boulevard) fall within five main "application levels" based on their level of physical intensity, with Level 1 representing the least physically-intensive treatments that can be implemented at relatively low cost. Identifying appropriate application levels for individual Neighborhood Greenway (Bicycle Boulevard) corridors provides a starting point for selecting appropriate site-specific improvements. The five Neighborhood Greenway (Bicycle Boulevard) application levels include the following:

Level 1: Signage

Level 2: Pavement markings

Level 3: Intersection treatments

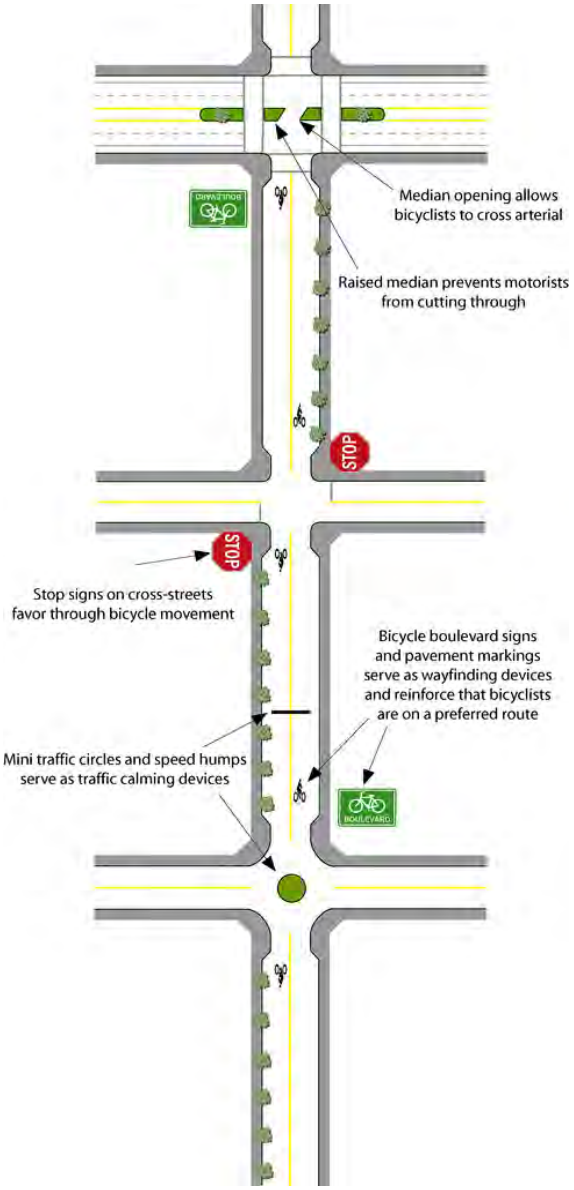
Level 4: Traffic calming

Level 5: Traffic diversion

These treatments are discussed in more detail on the following pages.

Design Example

Neighborhood Greenways (Bicycle Boulevard) are low-speed streets that provide a comfortable and pleasant experience for novice cyclists and families with child cyclists



Sample Neighborhood Greenway (Bicycle Boulevard) treatments

Guidance

Coverage in the 2009 AASHTO *Guide For the Development of Bicycle Facilities* / NACTO Urban Bikeway Design Guide

Implemented in: Portland and Eugene, OR; Minneapolis, MN; Palo Alto, Berkeley, and San Luis Obisbo, CA; Wilmington, NC; and Vancouver, B.C.

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7.1.6 Shared Use Path Design Guidelines

Shared use paths can provide a desirable facility particularly for novice riders, recreational trips, and cyclists of all skill levels preferring separation from traffic. Shared use paths should generally provide directional travel opportunities not provided by existing roadways. Elements that enhance shared use path design include:

- Frequent access points from the local road network; if access points are spaced too far apart, users will have to travel out of direction to enter or exit the path, which will discourage use
- Directional signs to direct users to and from the path
- High building standards to allow heavy maintenance equipment to use the path without causing it to deteriorate
- Few at-grade crossings with streets or driveways
- Path terminus that is easily accessible to and from the street system, preferably at a controlled intersection or at the beginning of a dead-end street. If poorly designed, the point where the path joins the street system can put pedestrians and cyclists in a position where motor vehicle drivers do not expect them
- Identification and addressing of potential safety and security issues up front
- Separate bicycle and pedestrian ways to reduce conflicts whenever possible, and especially where heavy use can be expected

7.1.7 Shared Use Paths Along Roadways

The AASHTO *Guide for the Development of Bicycle Facilities* generally recommends against the development of shared use paths directly adjacent to roadways. Also known as "sidepaths", these facilities create a situation where a portion of the bicycle traffic rides against the normal flow of motor vehicle traffic and can result in wrong-way riding where cyclists enter or leave the path. This can also result in an unsafe situation where motorists entering or crossing the roadway at intersections and driveways do not notice bicyclists coming from their right, as they are not expecting traffic coming from that direction. Stopped cross-street motor vehicle traffic or vehicles exiting side streets or driveways may frequently block path crossings. Even bicyclists coming from the left may also go unnoticed, especially when sight distances are poor.

As bicyclists gain experience and realize some of the advantages of riding on the roadway, some riders stop using paths adjacent to roadways. Bicyclists may also tend to prefer the roadway as pedestrian traffic on the shared use path increases due to its location next to an urban roadway. When designing a bikeway network, the presence of a nearby or parallel path should not be used as a reason to not provide adequate shoulder or bike lane width on the roadway, as the on-street bicycle facility will generally be superior to the "sidepath" for experienced cyclists and those who are cycling for transportation purposes. Bike lanes should be provided as an alternate (more transportation-oriented) facility whenever possible.

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Shared Use Path Opportunities

Rails-to-Trails

In the Saranac Lake area and throughout the U.S., communities utilize abandoned railroad corridors to complete bikeway system gaps. Commonly referred to as Rails-to-Trails, these projects convert vacated rail corridors into off-street paths. Rail corridors offer several advantages, including relatively direct routes between major destinations, and following generally flat terrain. Saranac Lake benefits from several existing rail-to-trail corridors as well as opportunities for future corridor development, such as the Bloomington Bog.

Route-of-the-Hiawatha rail-to-trail in Wallace, ID

Rails-with-Trails

Rails-with-Trails projects typically consist of paths adjacent to active railroads. Offering the same benefits as rail-to-trail projects, these facilities have been proposed (and in some cases developed) within active rail corridors. It should be noted that some constraints could impact the feasibility of rail-with-trail projects. In some cases, space needs to be preserved for future planned freight, transit or commuter rail service. In other cases, limited right-of-way width, inadequate setbacks, concerns about trespassing, and numerous mid-block crossings may affect a project's feasibility.

The San Fernando Bike Path along the Metro Orange Line, Los Angeles

Utility and Waterway Corridor Shared Use Paths

Several waterway corridors in Saranac Lake offer excellent trail development and gap closure opportunities. Utility corridors typically include powerline and sewer corridors, while waterway corridors include canals, drainage ditches, rivers, and beaches. Trail development along these corridors already exists in Saranac Lake, such as the Riverwalk. These corridors offer excellent transportation and recreation opportunities for cyclists of all ages and skills.

The Charles River Esplanade in Boston, MA

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Shared Use Paths

Design Summary

Width:

- 10' is the minimum allowed for a two-way shared use path and is only recommended for low traffic situations
- 12' is recommended in most situations
- 12-14' or greater is recommended for heavy use situations with high concentrations of multiple users such as joggers, bicyclists, rollerbladers and pedestrians.

Lateral Clearance:

- A 2' or greater shoulder on both sides

Overhead Clearance:

- Clearance to overhead obstructions should be 8' minimum, with 10'recommended.

Separation From Roadway:

- 5' min. buffer should separate the path from the edge of the roadway, or a physical barrier of sufficient height should be installed where a shared use path must be adjacent to a roadway

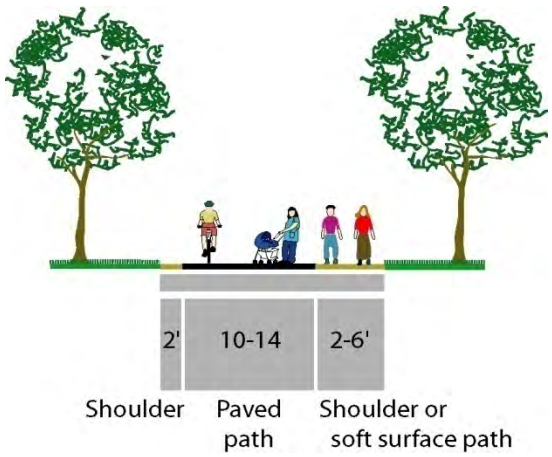
Discussion

Asphalt is the most common surface for shared use paths. However, the material composition and construction methods used can substantially affect the longevity of the pathway. Thicker asphalt sections and a well-prepared subgrade will reduce deformation over time and reduce long-term maintenance costs.

The use of concrete surfacing for paths has proven to be the most suitable for long-term use. Using modern construction practices, concrete provides a smooth ride with low maintenance costs. Concrete paths can be placed with a slip-form paver. The surface must be cross-broomed. Crack-control joints should be saw-cut, not troweled. Concrete paths cost more to build than asphalt paths but do not become brittle, cracked and rough with age, or deformed by roots

Shared use paths should be designed with sufficient surfacing structural depth for the subgrade soil type to support maintenance and emergency vehicles. Where the path must be constructed over a very poor subgrade (wet and/or poor material), treatment of the subgrade with lime, cement or geotextile fabric should be considered.

Design Examples



Recommended shared use path design

The Cedar Lake Regional Trail in Minneapolis, MN has sufficient width to accommodate a variety of users

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7.1.8 Natural Surface Trail Design Guidelines

Trail width will vary depending on the existing topographic and environmental conditions. Natural trails should take into account issues like drainage, erosion, compaction/impaction from anticipated use, presence of waterways and sensitive riparian areas, habitat areas, environmental guidelines, such as Adirondack Park Agency regulations and New York State Department of Environmental Conservation guidelines. Trail width will depend on intended users. For example, narrower widths should be used in environmentally constrained areas with only hiking uses intended. Wider widths are desirable for shared bicycle and/or equestrian use.

Natural Surface Trails

Hiking Trails

Design:

Width - 1.5 to 2.5 ft

Vertical Clearance - 8 to 10 ft

Horizontal Clearance - 3 to 6 ft

Surface - Bare soil, rocks, gravel, wood; hardened surface for wet areas

Mountain Biking Trails

Design:

Width - 1 to 3 ft (one lane), 3 to 4 ft (two lane)

Vertical Clearance - 8 to 10 ft

Horizontal Clearance - 2 to 6 ft

Sight Distance - Min. of 100 ft, up to 150 ft on downhill curves or road crossings

Min. Turning Radius - 6 to 8 ft (advanced to novice)

Surface - Firm natural surface including soil, rocks, wood; hardened surface for wet areas

**Photo courtesy of the Barkeater Trail Alliance (BETA)*

X-country Skiing Trails

Design:

Width - 4 to 6 ft (one lane), 7 to 8 ft (two lane), 8 to 10 ft (up and down hill)

Vertical Clearance - 8 to 10 ft above snow depth

Horizontal Clearance - 8 ft (one lane), 10 to 12 ft (two lane)

Sight Distance - Min. 50 ft on downhill runs and at stream and road crossings

Min. Turning Radius - Min. 50 ft, 100 ft preferred

Surface - Snow with underlying bare soil, rocks or wood chips. Outsloped underlying material. Can be groomed or ungroomed.

Discussion

Build trails along contours. Grades should range between 3% and 10%, with an increase up to 25-25% for short distances depending on the use. Obstacles over 10 in should be removed. Flat areas should be avoided where water can collect. Trail grades should be no more than half of the sideslope grade. This avoids creating fall-line trails where water funnels down causing erosion. Avoid existing fall lines.

Guidance

Forest Service Trails Management Handbook, USDA Forest Service; *Trail Solutions: IMBA's Guide to Building Sweet Singletrack*. 2004. International Mountain Bicycling Association; *Standards and Guidelines for Trails in NYS Parks*, 2010, New York State Office of Parks, Recreation and Historic Preservation; Adirondack Mountain Club

ork State nder Title ion Fund.

7.2 Maintenance

7.2.1 System Maintenance

The quality and condition of the sidewalks, shared-use paths and on-street bicycling system are essential to the long term success of the system. System maintenance refers to the care, upkeep, and smooth functioning of the off-road paths and on-street bicycling infrastructure. The bicycle and trail network is a key component of the infrastructure of a world-class visitor destination and community. If the system is well maintained and cared for, it will assure both the safety and enjoyment of the residents and visitors who use it. A proper maintenance program will reduce long-term costs by extending the life of the components and it will also win the continued support of the residents, homeowners, and businesses. There are multiple jurisdictions involved in the maintenance and operation of the Saranac Lake trail system. The following are key agencies and their responsibilities:

- Village of Saranac Lake, Town of Harrietstown - local streets and parks
- Nonprofit organizations - mountain bike trails, x-country ski trails at Dewey Mountain, Adirondack Mountain Club, volunteers and others.
- State of New York - NYS DEC (Adirondack Park hiking trails), NYS DOT (state highway system).

Overall, the HIAB will be the organization that helps coordinate the multiple agencies to support on-going maintenance of the system. This will involve regular meetings with key partners, pursuing grant funding and other resources to insure success of the system.

This section details routine maintenance activities, risk management, managing multiple uses, seasonal management issues, and recommended maintenance tasks for the Village of Saranac Lake.

7.2.2 Routine Maintenance Activities

Routine maintenance refers to the day-to-day regimen of litter pick-up, trash and debris removal, weed and dust control, trail sweeping, snow removal, sign replacement, tree and shrub trimming, and other regularly scheduled activities. Routine maintenance also includes minor repairs and replacements such as fixing cracks and potholes or repairing a broken section of fence. Major maintenance includes regularly scheduled improvements and upgrades to the system. Following is a summary of typical recommended routine maintenance tasks for Saranac Lake:

7.2.2.1 Trails and Trail-Related Corridors

- Inspection
- Trail surface maintenance/sweeping
- Snow removal and grooming
- Vegetation management
- Litter and trash removal
- Graffiti and vandalism control
- Repairing trail structures/erosion
- Maintaining rest areas, shelters, and water stations
- Toilet facility service
- Remedy "social trails" (also known as shortcuts, demand trails)

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- Maintain connecting on-street and sidewalk routes
- Patrol, security, enforcement, and safety hazard reduction
- Accident and incident data tracking

7.2.2.2 Trailheads and Amenities

- Inspection and citizen response
- Mowing/vegetation/pest management
- Litter and trash removal
- Graffiti and vandalism control
- Fixture repair
- Parking lot repair
- Incident data tracking
- Patrol and security, nuisance reduction

7.2.2.3 On-Street Bikeways

- Inspection and citizen response
- Street surface upkeep and repair
- Street sweeping
- Repaving and pavement overlays
- Signage, striping, and lighting
- Vegetation management
- Graffiti and vandalism control
- Education and enforcement
- Detours/disruptions
- Accident and incident data tracking

7.2.3 Seasonal Management Issues

Saranac Lake' year-round, four-season sidewalks, bikeways and trails system requires a special level of management. Specific concerns include winter trail grooming, freeze/thaw cycles, spring runoff of sand and gravel at trail/roadway sections, and flooding conditions in both spring and summer. These concerns are combined with a limited construction and maintenance season that limits trail projects to approximately six months of the year. These issues can also be seen as opportunities, especially since residents and visitors are able to enjoy the bikeways and trails in different ways, with a variety of experiences throughout the seasons. The Village of Saranac Lake should continue to groom the downhill skiing trails at Mount Pisgah and the x-country skiing trails at Dewey Mountain, and consider expanding this maintenance to more x-country skiing trails during the winter months.

7.2.4 Risk Management

All public facilities require a careful effort to maximize public safety and minimize exposure to liability. For the Saranac Lake bikeways and trails system, high-quality design, ongoing maintenance, and existing municipal liability protection provided by the Village's policies all minimize liability exposure. New sections of bikeways and trails generally do not add significantly to liability insurance since these policies are generally written based on land area, and recommended facilities are on long, narrow corridors of public rights-of-way that do not account for significant acreage when compared

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to larger public lands and facilities. However, the best practice to minimize potential legal actions is to manage the bikeways and trails system in a coordinated program that identifies safety issues and acts to remedy them efficiently.

Risk management recommendations include:

- Saranac Lake should implement a safety program that includes systematic risk management assessment, inter-agency design review for all proposed improvements and accident and crime reporting. In addition to department managers, planners, designers and engineers, police, sheriff, and fire/rescue and field maintenance personnel should be consulted in the design and review process.
- Implement an emergency response protocol working with law enforcement, EMS agencies, and fire and rescue department that includes mapping of trail and open space access points, design of trails and access roads, and an "address system" such as mile markers to identify locations.
- Implement a database management system in cooperation with law enforcement agencies for tracking specific locations and circumstances of all crashes, crime incidents, and safety reports, and create a safety follow-up task force to address any problems that develop.
- Routinely inspect for safety hazards, defective structures, missing safety signs, etc.
- Post and enforce safe user behavior and pathway speed limits in congested areas.
- Trim trees/brush/tall grass to address sight distance issues.

7.2.5 Managing Multiple Uses

A key safety issue on shared-use paths is managing multiple user types, including bicyclists, pedestrians, skaters, runners, and others. This issue has been successfully handled on the existing trails system, but as the system grows and usage increases, there will be a continued need to ensure that all trail users are safely enjoying the system. In addition, on-road facilities require motorists to 'share the road' with bicyclists.

Managing multiple uses involves the following activities:

- Plan, design, and manage to reduce conflicts among users, with adjacent properties including: reckless and unsafe behavior; incompatible uses and values, trespassing, disturbances and adverse environmental impacts.
- Recognize the different goals of different users and separate where feasible.
- Provide user education through signage, volunteers, brochures, and media.
- Provide adequate trail mileage to accommodate user populations.
- Solicit input from user groups.
- Monitor, document and log problem areas and address problems through design and management.
- Promote trail etiquette.
- Avoid excessive regulatory signage and "heavy handed" enforcement.
- Employ temporary closure of facilities when conditions dictate or for resource recovery.

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- In addition to having trail users 'share the trail' with each other, it is equally important for them to respect adjacent property owners. Many sections of the shared-use path system are located on or near private property and businesses.[1]

Maintaining good relations with adjacent property owners involves:

- Providing contact information for reporting problems.
- Maintaining facilities regularly.
- Distributing or publish maintenance schedule.
- Responding to illegal or disturbing activity quickly.
- Meeting periodically with neighbors and providing other feedback means.
- Responding promptly and effectively to complaints, concerns and suggestions.[2]

7.2.6 Proposed Maintenance Endowment

In the long term, it is recommended that Saranac Lake establish a maintenance endowment for sustainable support of the system. This is a common practice for land trusts, which often include an endowment contribution as part of the acceptance of a new parcel or easement. A possible model of a trail system endowment is the Friends of Acadia National Park (FOA), which created the Acadia Trails Forever endowment. With the philanthropic support of a private $5 million donation, FOA and its partners were able to establish a endowment that generates income to maintain more than 60 miles of carriage road and trails at Acadia. A similar endowment can be developed in Saranac Lake, both as an element of individual projects, and as an overall program in partnership with public, private and non-profit interests.

7.2.7 Performance Measures

Performance measures are a means of gauging the effectiveness of the bikeways and trails network. They can be used to evaluate progress towards adopted goals. The performance measures should be based on the following principles:

- A process that is policy-driven and can be supported by data.
- The measures reflect the users' experience on the system.
- The results are understandable to the general public.
- The application of the performance measures to programs and projects result in data that can be projected into the future.

The key to a successful benchmarking program is to have data that can be collected within the available resources, that is consistently available over time, and is reported in a format that allows year-to-year comparisons. With careful planning, the data system can serve as a core tool for system management in the long term, both to track performance and to ensure that resources are available and well managed.

[1] Source: Pauline Gambill, Roger Moore—American Trails Library documents

[2] Source: Flink, Searns and Olka—Trails for the 21st Century

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7.3 Funding Sources

7.3.1 Federal Funding

7.3.1.1 New York State Community Development Block Grant

The Office of Community Renewal administers the Community Development Block Grant (CDBG) program for the State of New York. The NYS CDBG program provides financial assistance to eligible cities, towns, and villages with populations under 50,000 and counties with an area population under 200,000, in order to develop viable communities by providing decent, affordable housing, and suitable living environments, as well as expanding economic opportunities, principally for persons of low and moderate income. Park & trail projects are eligible in low and moderate income communities in "public facilities" category or as part of broader "comprehensive" project. Funding is available up to $400,000 for individual applications, and $900,000 for joint applications (www.nyshcr.org/Programs/NYS-CDBG).

7.3.1.2 US Housing and Urban Development office (HUD) Sustainable Communities Regional Planning Grant Program

The Sustainable Communities Regional Planning Grant Program supports metropolitan and multijurisdictional planning efforts that integrate housing, land use, economic and workforce development, transportation, and infrastructure investments in a manner that empowers jurisdictions to consider the interdependent challenges of: (1) economic competitiveness and revitalization; (2) social equity, inclusion, and access to opportunity; (3) energy use and climate change; and (4) public health and environmental impact (portal.hud.gov/hudportal/HUD?src=/program_offices/sustainable_housing_communities/sustainable_communities_regional_planning_grants).

7.3.1.3 Transportation Alternatives

Ten percent of each State's annual Surface Transportation Program (STP) are set-aside for Transportation Enhancement Programs. These funds provide for transportation related community based projects to enhance surface transportation, including pedestrian and bicycle infrastructure and safety programs, scenic and historic highway programs, landscaping and scenic beautification, historic preservation, and environmental mitigation. 3 of 12 eligible categories are pedestrian and bicycle facilities, safety and education for pedestrians and bicycles, and rail-trails (www.dot.ny.gov/portal/page/portal/programs/tep?nd=nysdot). Funding ranges from $200,000 to 2,000,000 and is provided through NYSDOT.

7.3.1.4 Congestion Mitigation and Air Quality (CMAQ) Improvement Program

The CMAQ program provides funding for surface transportation and other related projects that contribute to air quality improvements and reduce congestion. Program funds may be used to construct bicycle and pedestrian facilities intended to reduce automobile travel and/or emissions in areas that have failed to meet air quality standards for ozone, carbon monoxide, and small particulate matter.

CMAQ projects can generally be classified in one of the following categories; Transit Improvements, Shared Ride Service, Traffic Flow Improvements (SOV Construction), Demand Management Strategies, Pedestrian and Bicycle Programs, and Inspection and Maintenance Programs (www.fhwa.dot.gov/environment/air_quality/cmaq/).

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7.3.1.5 Land and Water Conservation Fund Program

The LWCF Program provides matching grants to States and local governments for the acquisition and development of public outdoor recreation areas and facilities (as well as funding for shared federal land acquisition and conservation strategies). The program is intended to create and maintain a nationwide legacy of high quality recreation areas and facilities and to stimulate non-federal investments in the protection and maintenance of recreation resources (www.nps.gov/lwcf/). New York State received $1.8 million in 2011 under this program. The program is facilitated by NYS Office of Parks, Recreation and Historic Preservation and funding for this program is available through the New York State Consolidated Funding Application.

7.3.1.6 Hazard Elimination Program and Highway Safety Program:

At least ten percent of each state's Surface Transportation Program (STP) must be set aside for Hazard Elimination programs. This program's purpose is to identify and improve locations that have a documented history of numerous crashes. Funds may be used for safety improvement projects on any public road, any public surface transportation facility, or any publicly owned bicycle or pedestrian pathway or trail.

Pedestrian and bicyclist safety remain priority areas for State and Community Highway Safety Grants funded by the Section 402 formula grant program. A State is eligible for these grants by submitting a Performance plan (establishing goals and performance measures for improving highway safety) and a Highway Safety Plan (describing activities to achieve those goals).

7.3.2 New York State Funding

7.3.2.1 NYSDOS – Local Waterfront Revitalization Program (LWRP)

The Department of State works with communities in the Adirondack Park through the Local Waterfront Revitalization Program to promote community revitalization and resource protection through community-based plans and projects. The Department of State provides funding through the Environmental Protection Fund for projects that enhance public access to waterways and state lands, promote sustainable economic development, protect and improve water quality, and revitalize hamlets and downtowns. Eligible activities include planning, feasibility, design and construction of trails, blueways and streetscape enhancements.

7.3.2.2 Consolidated Local Street and Highway Improvement Program (CHIPS)

A New York State-funded program administered through the NYSDOT to assist localities in financing the construction, reconstruction or improvement of local highways, bridges, highway-railroad crossings and other local facilities. Eligible CHIPS bicycle and pedestrian projects include: bike lanes and wide curb lanes, shoulder improvements, roundabouts, new signs, new or upgraded traffic signals and traffic calming installations (www.dot.ny.gov/programs/chips).

7.3.2.3 NYS Department of Health- Preventative Health and Health Services (PHHS) Block Grant

The Preventive Health and Health Services (PHHS) Block Grant provides funding for health problems in the state of New York that range from tuberculosis to adult physical activity. PHHS Block Grant dollars fund a total of 19 different New York State health programs, including the Healthy Heart Program. PHHS Block

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Grant funds are used to promote and evaluate increases in the number of adults participating in regular sustained physical activity. From 1995-2004, nearly 1.2 million New York State residents received help from local HHP contractors to increase their physical activity levels (www.health.ny.gov/funding/grants/block_grant.htm).

7.3.3 Non-Governmental Grants

7.3.3.1 Bikes Belong

The Bikes Belong Grant Program strives to put more people on bicycles more often by funding important and influential projects that leverage federal funding and build momentum for bicycling in communities across the U.S. These projects include bike paths and rail trails, as well as mountain bike trails, bike parks, BMX facilities, and large-scale bicycle advocacy initiatives. Bikes Belong will accept requests for funding of up to $10,000 for facility and advocacy projects (www.bikesbelong.org). The next grant cycle will be in 2013.

7.3.3.2 Captain Planet Foundation

Grants are made for activities that conform to the mission of the Captain Planet Foundation which is to: promote and support high-quality educational programs that enable children and youth to understand and appreciate our world through learning experiences that engage them in active, hands-on projects to improve the environment in their schools and communities. Grants are available for up to $2,500 (captainplanetfoundation.org).

Appendix A –

Saranac Lake Healthy Infrastructure Advisory Board Members

Name	Organization
Jeremy Evans	Village of Saranac Lake
Tim Holmes	HIAB
Marijke Ormel	HIAB
Jason Smith	HIAB
Robin Smith	HIAB
Glenn Arnold	HIAB
Lauren LeFebvre	HIAB
Lindy Ellis	HIAB
Jamie Konkoski	Healthy Heart Network
Andrew Labruzzo	NYSDOS
Allie Pelletieri	Village of Saranac Lake
Paul Woodruff	Town of St. Armand
Derek Doty	Town of North Elba

Appendix B –

Complete Streets Policy Documents

Complete Streets Policy Brief

New York State

Preamble

It has been suggested that the wide-spread lack of physical activity in our nation has played a major part in the perpetuation of the obesity epidemic. A key factor contributing to the lack of physical activity in our country and specifically in New York State is the general lack of infrastructure to support pedestrian travel on foot and by bicycle. Currently, infrastructure of streets and roads in most communities focuses on the safety and needs of motorists, with few considerations made for pedestrians, cyclists, and transit users. It is our assertion that an important step in curtailing the obesity epidemic will be to revamp transportation infrastructure in communities to create "complete streets."

A recent poll indicated that more than half of Americans would like to bicycle more, walk more, and drive less. However, a major contributing factor to low pedestrian and bicyclist utilization of community streets and roads is the lack of infrastructure in place to accommodate safe travel. The "complete streets" movement calls for the creation of road networks that routinely accommodate all travelers: drivers, transit users, pedestrians, bicyclists, older individuals, children, and people with disabilities. This is done through the routine inclusion of accommodations such as bicycle lanes, sidewalks, crosswalks, benches, street trees and shelters for public transit users. Such safety considerations have the capacity to increase pedestrian, bicyclist and transit usage of streets, which would positively impact the physical health of individuals, the environmental quality of neighborhoods, and the economic vitality of communities.

Walking and bicycling to work or school was common a generation ago. Today, walking and bicycling to local destinations have all but dropped off the radar as modes of transportation for the majority of children and adults. Safety issues are a principal concern for individuals, and traffic danger is consistently cited as a major reason why individuals will not walk or cycle to school, work, or other destinations (CDC, 2005). These fears do not come unwarranted in New York State where police reports indicate that, in 2005, there were over 15,000 crashes between pedestrians and motor vehicles, and almost 6,000 crashes between bicyclists and motor vehicles.

Furthermore, the nation's youth is disproportionately affected by pedestrian/traffic accidents. According to the New York State Department of Health's Bureau of Injury Prevention, the leading cause of injury, hospitalization, and death among 5-9 year olds in New York State is being struck, as pedestrians, by motor vehicles. In addition, children ages 5-19 are more at risk than any other age group for being hospitalized for a bicycle/motor vehicle collision related injury. The most recent New York State Census[a] data indicates that youths 17 and under comprise approximately 25% of the population of New York State; however, in 2005, youths aged 5 to 17 years represented 61.6% of all bicycle/motor vehicle injuries and fatalities and 25.7% of all pedestrian/motor vehicle injuries and fatalities.[b]

The health of our nation is declining. Obesity rates have risen to epidemic proportions in New York State and throughout the country. National estimates of medical expenditures related to obesity totaled $75 billion in 2003.[d] Meanwhile, in the same year New York State alone spent $6.1 billion in medical expenditures related to obesity in adults—the second highest total in the nation.[e]

The threats of global warming have been well documented in recent years: increased atmospheric carbon levels due to the burning of fossil fuels are creating what promises to be a hostile environment for life. Excessive U.S. fuel consumption continues to play a major role in the saga: according to the U.S. government's official energy statistics from 1980-2004,[f] the U.S. consumes almost twice as much carbon-based fuel as China, the number two consumer of carbon fuel in the world, and over three times as much as Russia, the number three consumer. A major reason for the high fuel consumption in the U.S. is the automobile-centered infrastructure of most of our towns and cities. The implementation of complete street plans has the capacity to reduce our carbon emissions by increasing the number of viable transportation options available to individuals.

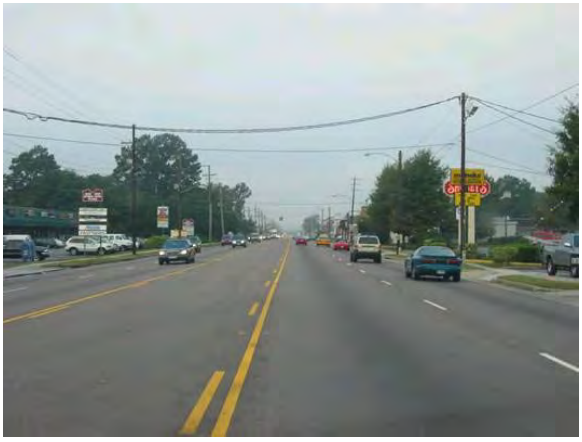
In addition to the health and environmental impacts, the implementation of complete streets has the capacity to improve the economic vitality of a community. Streets that accommodate pedestrian and bicyclists encourage residents and visitors to linger in shops and restaurants, creating the potential for economic growth in a community. This creates capital through increased value of property for retail, restaurant, and residential purposes. As the community

continues to grow, its capacity to draw visitors from the surrounding regions will also increase, thus perpetuating economic growth. Furthermore, it has been shown that complete streets increase social capital by fostering vibrant cultural and social interactions and creating a heightened sense of community. This in turn often results in lower crime rates and greater civic involvement.

A final benefit from the implementation of complete street projects in a community is the enhanced independence of older adults and disabled individuals—an important consideration as our population ages. The year 2006 saw the first of the baby boomers reach 60 years of age. Over the next eighteen years, 30% of the nation's population, or 76 million baby boomers in the United States will pass that same milestone, with 7.3%, or 5.62 million of them residing in New York State.[g] These individuals will be looking for ways to maintain their independence as their willingness and ability to drive personal motor vehicles decreases with age. One way that older individuals can maintain their independence is to utilize a combination of public transit and pedestrian modes of travel. Communities that offer widespread pedestrian and public transit accommodations will fare well with aging baby boomers who wish to maintain their independence.

Definition

A complete street provides for the safe, convenient and comfortable travel by foot, bicycle, transit, vehicle, car and truck.



Policy

I. Purpose

-To create a set of guidelines that community transportation planning committees will follow when generating plans for relevant transportation projects.

-These guidelines will create policies to support the implementation of complete street projects.

II. Scope

-Complete street projects will create environments that promote safety for users of all transportation modes.

-Improved safety access and convenience will create a truly intermodal transportation system.

-The above changes will have a positive impact on the health and vitality of the involved community in many ways including:

-Increased opportunities for physical activity

-Improved air quality

-Improved mobility for all users

-Positive economic input

-Independence for seniors and those with disabilities

-Enhanced quality of life

III. Policy Defined

The policy will create language to ensure that planning of future transportation projects will follow the guidelines for creating complete streets.

1 Agency

-State level: NYS Department of Transportation is responsible for the coordination and development of a comprehensive transportation policy for New York State. The NYS DOT coordinates and assists in the development and operation of all transportation facilities and services in New York State, and also formulates and keeps current a long-range comprehensive statewide master plan for general transportation facilities.

a. New York State 2000 Census of Population and Housing—Summary 1 file.
b. *New York State DMV Summary of Motor Vehicle Accidents: New York State 2005*. Institute for Traffic Safety Management and Research, Feb. 2007.
c. *New York State DMV Summary of Motor Vehicle Accidents: Erie County 2005*. Institute for Traffic Safety Management and Research, Feb. 2007.
d. Excellus/Univera Healthcare "Obesity in Upstate New York: Trends, Costs, Opportunities." Health Policy Reports: Informing the public about critical health care issues, No. 7, March 2004.
e. "Univera Healthcare Announces Zogby International Survey Findings on Exercise, Eating Habits, and Obesity Rates Among Upstate New Yorkers" © 2007, Univera Healthcare, a Lifetime Healthcare Company.
f. *Annual Energy Review 2005.* Washington, DC: Energy Information Administration, Forthcoming July 2006.
g. *Demographic Profile: American Baby Boomers.* MetLife Mature Market Institute Analysis, Population Projections Program. US Census Bureau, 2000.

VILLAGE OF MALONE
RESOLUTION NO. 73-2012

COMPLETE STREETS POLICY

DEFINITIONS: "Complete Streets" is defined as streets and sidewalks that are designed and constructed for everyone – pedestrians, bicyclists, and drivers – and they take into account the transportation needs of everyone including children, older adults, and people with disabilities.

"Complete Streets Program" is a system of implementing Complete Streets.

"Multi-modal transportation" refers to various modes of transportation (walking, bicycling, automobile, public transit, etc.).

"Pedestrian" refers to a person on foot, in a wheelchair, on skates, or on a skateboard.

WHEREAS, the Malone Village Board of Trustees is partnering with Malone Complete Streets Partnership to draft a Complete Streets Plan in order to provide safe and accessible streets and sidewalks for all; and

WHEREAS, Malone Complete Streets Partnership's mission is to coordinate and advocate for the development and implementation of Complete Streets plans and policies in the Town and Village of Malone that promote a multi-modal transportation network for all users; and

WHEREAS, The Town and Village of Malone Local Waterfront Revitalization Program (LWRP) recognizes that a visitor would not have the opportunity to visually connect with the waterfront unless they experience it as a pedestrian; and

WHEREAS, the LWRP proposes the creation of a comprehensive Physical Enhancements Plan that would include recommendations for such items as sidewalks and street crossings, benches and lighting, street trees and landscaping, which is consistent with a Complete Streets Plan; and

WHEREAS, the Village of Malone recognizes that the needs of bicyclists and pedestrians of all ages and abilities should be considered in the planning and design of all new street constructions and street reconstruction undertaken in the Village; and

WHEREAS, Complete Streets has been recognized and adopted as law in New York State; and over 300 Complete Streets policies and laws have been adopted at the state, county, town, village and city levels across the country for the purpose of improving multi-modal transportation options, safety, and accessibility for all users; and

WHEREAS, the Village of Malone recognizes that Complete Streets will increase opportunities for multi-modal transportation, increase the capacity and efficiency of the road network, incorporate traffic calming actions, limit greenhouse gas emissions, improve rates of physical activity and related health outcomes, improve neighborhood vitality, increase social interactions, create a stronger sense of community, strengthen the local economy, and improve the quality-of-life for people in the community; and

WHEREAS, the Village of Malone and its Department of Public Works has the ability to work with the Malone Complete Streets Partnership and others to explore the development,

maintenance and enhancement of pedestrian, bicycle and trail connections within neighborhoods, business districts, and put into practice a Complete Streets Program to address issues with these amenities.

NOW, THEREFORE, BE IT RESOLVED, the Village of Malone hereby recognizes the importance of creating Complete Streets through the planning, design, budgeting and implementation of local highway, street and sidewalk projects undertaken by and in the Village that enable safe multi-modal transportation for people of all ages and abilities, including children, youth, families, older adults and individuals with disabilities; and

BE IT FURTHER RESOLVED, that the Village Board hereby resolves to establish a Complete Streets Policy as follows:

Engineering: The Department of Public Works shall provide safe and efficient accommodation of pedestrians and bicyclists by incorporating Complete Streets concepts, design features and practices in the planning, design budgeting and implementation of streets and sidewalk improvement projects undertaken by the Village of Malone.

1. The inclusion of Complete Streets facilities shall be consistent with the scope of the construction or improvement project, sensitive to the surrounding environment and land uses, and shall not be disproportionate with the cost of the larger project.

2. Complete Streets facilities, design features and practices include, but are not limited to: sidewalks, paved shoulders suitable for cycling, designated bike lanes, bike paths, lane striping, share-the-road signage, crosswalks, curb ramps, audible pedestrian signals, pedestrian crossing signage, traffic calming measures such as curb bump-outs, center islands, and pavement markings, sidewalk snow removal and routine shoulder and bike lane maintenance, and bicycle parking facilities.

3. Complete Streets facilities may be planned, designed, developed, and maintained in accordance with bicycle and pedestrian facility guidelines adopted by the United States Department of Transportation, New York State Department of Transportation, the American Association of State Highway and Transportation Officials, and other guidelines approved by the Village of Malone.

4. If the Department of Public Works determines that the inclusion of bicycle and/or pedestrian facilities are unable to be accommodated on a roadway or within the public right-of-way proposed for construction or improvement, the DPW Supervisor shall provide said determination in writing, with supporting documentation, to the Village Board for their information.

5. The Village Board shall appoint an "advisory committee" to make recommendations to the Village Board on the planning, design, budgeting and implementation of Complete Streets improvements in accordance with this policy.

Education and Encouragement: The Village supports the promotion of walking and bicycling for health, fitness, transportation and recreation through events, programs and other educational activities which benefit residents, students, businesses and visitors of all ages and abilities. These activities can be coordinated in partnership with Malone Complete Streets Partnership, Waterfront Advisory Board, other Village Committees, schools, health organizations and other partners.

Furthermore, the Village encourages NYSDOT and Franklin County to consider a Complete Streets approach when constructing or reconstructing streets in the Village.

Enforcement: The Village will provide a balanced enforcement of the New York State Vehicle and Traffic law for motorists, pedestrians and bicyclists. This will include enforcement of pedestrian's right-of-way in crosswalks, bicyclists riding with traffic and all modes sharing roads safely. The Village will provide code enforcement of Chapter 47 Sidewalks and Streets of the Malone Code.

Evaluation: The "advisory committee" shall review the Complete Streets Policy every four years and recommend updates to the Village Board as necessary.

Motion Made By: Trustee Maneely
Seconded By: Trustee Hill
Approved by Board of Trustees On: September 10, 2012

Karen Elmer-Pritchard

Karen Elmer-Pritchard, Deputy Clerk

RESOLUTION NO. 30

TOWN BOARD

TOWN OF BETHLEHEM

RESOLUTION

COMPLETE STREETS

WHEREAS, a goal of the Town of Bethlehem Comprehensive Plan is to improve mobility – the ability of people, regardless of age and status, to engage in desired activities throughout the Town; and

WHEREAS, the Town of Bethlehem Comprehensive Plan recommends maintaining and enhancing bicycle and pedestrian connections within neighborhoods, and between neighborhoods and hamlet centers;

WHEREAS, the Town of Bethlehem has established a pathways committee (PaTHs 4 Bethlehem) to explore bicycle and pedestrian facility connections and address issues; and

WHEREAS, bicycling and walking are important forms of transportation and recreation in our community; and

WHEREAS, bicycling and walking contribute to health, fitness, neighborhood vitality, social interaction, and economic development; and

WHEREAS, the full integration of all modes in the design of streets and highways will increase the capacity and efficiency of the road network, reduce traffic congestion by improving mobility options, limit greenhouse gas emissions, and improve the general quality of life; and

WHEREAS, educating the public about safety, health and mobility are part of being a quality community; and

WHEREAS, Complete Streets are defined as facilities that are designed and operated to enable safe and efficient access for all users. Persons with disabilities, pedestrians, bicyclists, motorists and transit riders are able to safely and efficiently move along and across a complete street.

NOW, THEREFORE, BE IT RESOLVED, the intent of the Town of Bethlehem Complete Streets Policy is to recognize bicyclists and pedestrians as equally important as motorists in the planning and design of all new street construction and street reconstruction undertaken by the Town.

BE IT FURTHER RESOLVED, it is also the intent of the Town of Bethlehem Complete Streets Policy to recognize that local Town streets with low vehicle volumes and slow travel speeds safely and efficiently accommodate bicyclists and pedestrians. However, principal Town roads that are characterized as having high vehicle volumes and high travel speeds, and are important for bicycle and pedestrian travel to access and connect to destinations in and adjacent to the Town, shall be considered for Complete Streets treatment.

BE IT FURTHER RESOLVED, that the Town Board hereby resolves to establish a Complete Streets Policy as follows:

Engineering: The Highway Superintendent shall consider the safe and efficient accommodation of bicyclists and pedestrians in all new street construction and street reconstruction undertaken by the Town of Bethlehem.

1. In addition, where the need for bicyclist and pedestrian facilities has been established or is defined in Town planning documents, including but not limited to the Bicycle and Pedestrian Priority Network identified by the PaTHs 4 Bethlehem Committee, the Highway Superintendent shall consider the addition of safe bicyclist and pedestrian facilities in new street construction and street reconstruction undertaken by the Town of Bethlehem. The addition of the bicyclist and pedestrian facilities shall be consistent with the scope of the improvement project, context sensitive to the surrounding environment, and shall not be disproportionate with the cost of the larger project.

2. Bicyclist and pedestrian facilities are defined as improvements that are above and beyond the normal space, surfaces, pavement markings, and signing that would routinely be incorporated into street design and maintenance for the accommodation of bicyclists and pedestrians. These facilities shall include but not be limited to sidewalks, curb cuts and ramps, marked crosswalks, pedestrian actuated signals, paved shoulders, bicycle route signing, bicycle lanes, bicycle parking facilities, and shared use paths.

3. Bicycle and pedestrian facilities may be planned, designed, developed and maintained in accordance with guidelines adopted by the United States Department of Transportation (USDOT), New York State Department of Transportation (NYSDOT), and the American Association of State Highway and Transportation Officials (AASHTO) or other guidelines approved by the Town of Bethlehem.

4. Whereas, if the Highway Superintendent determines that the inclusion of bicycle and/or pedestrian facilities are unable to be accommodated on a roadway or within Town right-of-way proposed for construction or reconstruction, he/she shall provide said determination in writing, with supporting documentation, to the Town Board for their information. Education and

Encouragement: The Town supports the promotion of bicycling and walking for health, fitness, transportation and recreation through events, programs and other educational activities, which benefit residents, students, businesses and visitors of all ages and abilities. These activities can be coordinated with the PaTHs 4 Bethlehem Committee, other Town Committees and Departments, local bicycle clubs, schools, health organizations and other partners.

Furthermore, the Town encourages the NYSDOT and Albany County to consider a Complete Streets approach when constructing or reconstructing their respective streets in the Town.

Enforcement: The Town will provide a balanced enforcement of the New York State Vehicle and Traffic Law for motorists, pedestrians and bicyclists. This will include enforcement of pedestrian's right-of-way in crosswalks, bicyclists riding with traffic and all modes sharing the road safely.

Additionally, the Town may consider the use of traffic calming applications as an alternative to bicycle and pedestrian facilities. Traffic calming applications help to physically or psychologically calm motor vehicle traffic behaviors, thereby aiding in the enforcement of a safe environment for bicycle and pedestrian travel.

On a motion by Mrs. Dawson , seconded by Mr. Kotary, and by a vote of 5 for, 0 against and 0 absent, this RESOLUTION was adopted on August 12, 2009 .

Appendix C – Priority Projects Decision Matrix

Criteria	Public Support	Connectivity - Fills System Gaps	Connectivity to Activity Centers	Economic Benefits	Multiple Uses	Agency Support	Construct-ability	Regional Benefits	Initial Cost	Operation/ Maintenance Cost	Availability of Funding	TOTAL
Project	**15**	**15**	**10**	**10**	**10**	**10**	**10**	**5**	**5**	**5**	**5**	100
Rail with Trail, Pine to Colby Pond	15	15	10	8	8	8	7	5	2	3	2	83
Dewey Mt to Mt Pisgah	15	15	10	6	7	8	6	3	3	4	0	77
Route 86 Shoulder Improvements	15	15	8	7	5	5	8	5	3	4	1	76
Main St (River to Bloomingdale)	12	13	10	8	6	8	8	1	3	4	1	74
Moody Pond	14	12	8	3	8	8	8	1	3	4	3	72
Bicycle Loop	12	12	8	8	8	7	8	2	3	4	0	72
Mt Pisgah to Downtown	15	12	10	7	6	7	6	2	2	4	0	71
Trail Wayfinding Signage	12	5	8	8	5	8	10	3	5	5	2	71
Church St	10	10	10	8	7	8	8	1	3	4	1	70
Dewey Mt to Downtown	12	12	10	7	6	7	7	2	3	4	0	70
Sidewalks	12	15	8	5	4	8	6	2	3	3	3	69
Intersection Improvements	12	10	8	6	7	8	8	1	3	4	1	68
Signature Pedestrian Bridge	10	15	10	5	5	8	10	0	2	2	0	67
Riverwalk	8	10	10	10	5	8	6	2	2	3	1	65
School Loop	12	10	8	5	7	7	7	1	3	4	1	65
Regional On-Road Bicycle Network	10	10	8	7	5	5	8	5	2	4	1	65
Baker Mt to Downtown	10	12	8	6	5	6	7	2	3	4	0	63
"Move Over"	10	5	5	5	3	8	10	5	5	5	2	63
Bicycle Parking	8	5	10	8	3	8	8	2	4	5	2	63
NCCC RR Crossing	8	10	8	5	7	6	6	2	3	4	1	60
Uptown Shopping Center	8	5	8	8	7	6	8	1	3	5	1	60
Mt Pisgah to Baker Mt	10	10	8	5	5	5	5	2	2	4	0	56
X- Country Ski/ Snowshoe Loop	3	8	6	7	4	5	9	3	4	4	2	55
Streetscaping	8	5	2	8	6	6	8	2	4	3	1	53
Canoe & Kayak Trails	3	8	5	7	4	5	8	4	4	4	1	53
Safe Routes to School	5	10	5	4	5	8	7	2	2	3	2	53
Downtown Waterfront Park	8	5	5	6	6	6	7	2	2	3	1	51
Secondary Saranac Lake to Lake Placid Bicycle Trail	3	5	5	5	6	1	8	4	3	4	0	44
Village Mt Bike Park	3	2	3	8	2	1	5	3	1	1	0	29