



Monroe County, NY

Countywide Active Transportation Plan Executive Summary



AUGUST 2023





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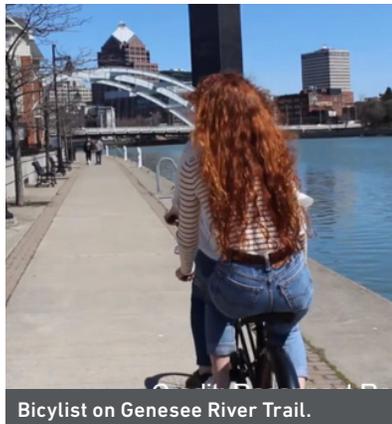
Overview

What is Active Transportation?

Active transportation is a term encompassing physically active forms of travel including walking, bicycling, using scooters, wheelchairs, and other mobility devices. Active transportation is supported by infrastructure such as sidewalks, bike lanes, trails, and shared-use paths to allow users to connect with the natural world and easily access everyday destinations such as work, schools, grocery stores, and shopping.

Why do we need an Active Transportation Plan?

Many people in Monroe County already bike and walk regularly, and an active transportation plan is key to developing the infrastructure, policies, and local programs for these users to make their trips safer and more enjoyable. The active transportation plan provides guidance to shape the built environment to encourage multimodal travel for current users and to expand the number of people walking and riding by providing comfortable facilities. A county-wide plan allows for a broad perspective encompassing travel within communities and between municipalities. Not only is it important for people to be able to get around their community but also to travel to neighboring municipalities for work, school, and social activities. Inter-municipal corridors are a key part of the plan to foster greater connections between communities in Monroe County. The plan provides a framework for implementation of these policies and projects on a county-wide level.



Principles and Vision

The vision for the Monroe County Active Transportation Plan was developed based on Project Advisory Committee priorities and public input. Feedback led to three principles upon which the plan was centered: Equity, Public Health, and Climate Change.



Equity – People of color are more likely to be killed while using active transportation modes, so designing safe facilities and developing a comfortable network are central to providing underserved populations with equal access to transit and commerce.



Climate change – Active transportation is an avenue to directly address the climate crisis as walking and biking are more sustainable modes of transportation that serve communities disproportionately affected by intense climate events.



Public health – Walking and biking provide physical and emotional health benefits for users, improving the overall quality of life for communities across Monroe County.

Our vision upon the completion of the CATP's active transportation network:

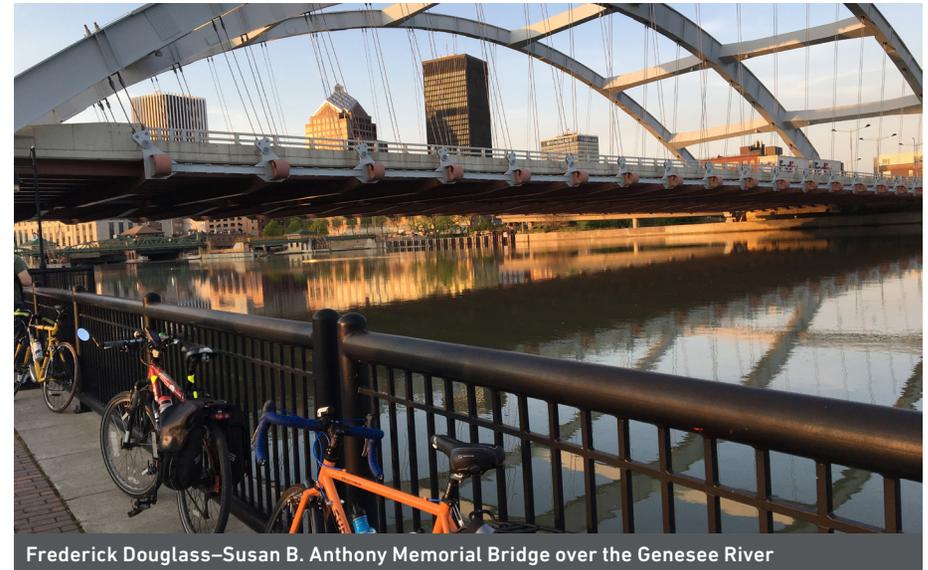
- People walking and biking in Monroe County, regardless of age, ability, income, or race/ethnicity, will **travel safely and comfortably in and between communities.**
- There will be frequent and seamless opportunities for travelers to **transition between transit and active transportation.**
- The built environment will encourage multimodal travel, reducing the need for private vehicle trips and **improving public health.**
- More residents and visitors walk or bike instead of driving for short trips, which **reduces congestion and road maintenance needs.**

Context

The CATP closes the gap between the current active transportation system and the visionary principles listed above. The project team reviewed over 28 related documents, including bicycle and pedestrian Master Plans and Active Transportation Plans for surrounding communities to develop a comprehensive plan for Monroe County. Reviewing other plans highlighted the importance of equity for all system users, being climate conscious, and procuring project funding.

The project team used data-driven methodologies including bicycle and pedestrian level of service, crash analyses, and community outreach to understand the existing conditions in Monroe County and where improvements could be made. A key takeaway was the importance of Environmental Justice and underserved communities in choosing locations to expand the network and remove systemic transportation barriers.

The project team also recognized the importance of integrating climate resiliency and sustainability and public health elements while procuring funding for infrastructure projects to build out the active transportation network. Closing the gap between the current and proposed network will require resource commitments from Monroe County as well as from local governments.



Key Plan Elements

1. **Introduction** – description of plan vision, objectives, coordination, and process
2. **Public Engagement** – overview of communication with the Project Advisory Committee and other engagement events
3. **Existing Conditions and Needs Assessment** – key findings from document review and data analysis including crash analysis, trip potential analysis, and pedestrian and bike network analysis
4. **Network and Policy Recommendations** – Detailed outcomes from the data analysis including network development, facility toolkit, and program and policy recommendations
5. **Implementation Strategies** – roles and responsibilities, funding sources, and performance measures for accountability as the plan moves forward

The CATP is comprised of four recommendation elements: the countywide bicycle network, the pedestrian accessibility scan, the facility toolkit, and the program and policy recommendations.

- The CATP's centerpiece is a 500-mile conceptual active transportation network. The network will provide a critical framework for bicycle travel in Monroe County.¹ Each segment will be prioritized for implementation, recognizing that some may take longer to develop due to their complexity.
- Pedestrian network recommendations include set of general pedestrian accessibility recommendations that provides basic guidance to improve pedestrian accessibility throughout Monroe County.
- The [Facility Toolkit](#) provides additional guidance for both bicycle and pedestrian accommodations; the toolkit should be the starting point for Monroe County and its partners to determine the most appropriate treatment for a given location.

- This CATP also includes a set of [Program and Policy Recommendations](#) to support the vision and goals outlined above. Monroe County, together with municipal governments, and stakeholders will take a lead role in implementing these initiatives.

The CATP outlines an ambitious vision, targeted goals, and specific pedestrian and bicycle-related projects, policies, and initiatives. Working together and toward this shared vision, Monroe County and its partners will make walking, rolling, bicycling and public transit a safe and convenient daily option for people of all ages and abilities.

Plan Highlights

- 500-mile active transportation network
- 29 program and policy actions
- 13 Facility Types to accommodate biking and walking
- 8 recommendations to improve pedestrian accessibility
- Reviewed 28 existing policies and studies
- Reviewed 13 existing/previous programs
- Received 1,065 comments online
- Received over 500+ inputs via in-person Public Workshops

¹ Planning for walking at the countywide scale requires a different approach than for bicycling. The conceptual network focuses primarily on accommodating bicycle travel, as walking trips tend to be short distances. However, as both pedestrians and cyclists are vulnerable road users, it is important to ensure that low-stress bicycle corridors are similarly accessible for pedestrians and equipped with ADA-compliant surfaces, sidewalks, and crossing treatments. The Pedestrian Accessibility Scan provides guidance on pedestrian improvements that can be replicated throughout the county. Additional resources for pedestrian network planning are available via the following links: [FHWA Small Town and Rural Design Guide](#), [FHWA Achieving Multimodal Networks](#), AASHTO Guide for the Planning, Design, and Operation of Pedestrian Facilities.

Methods and Findings

The project team used several data collection and analysis methods to develop the Monroe County ATP. Collected data included existing walking and biking networks, population density, low-income community locations, employment density, existing transit service, and crash data.

Data Informing the Proposed Network



Analytical Methods and Findings

Using these data sources, the team conducted analysis via four methods. Short descriptions of these methods and the findings are listed below.



Trip Potential Analysis represents the areas of Monroe County where people would be most likely to walk and bike assuming it is convenient and comfortable to do so uniformly across the county. The results highlight areas where enhanced pedestrian and bicycle infrastructure may potentially serve more users. Analysis variables included intersection density, population density, income, employment density, and transit service for walk trip potential. For bike trip potential, the variables included population density, income, employment, destination density, and existing multi-use trails. Findings include:

- Walk trip potential is concentrated in the Rochester area and Rochester suburbs including Brighton and Greece.
- Bicycle trip potential is also concentrated around Rochester but with a larger radius reaching for more suburban areas like Fairport, Henrietta, and Brockport.



Bicycle Traffic Stress and Network Analysis (BNA) measures how well the low-stress street and path network connects people to their everyday destinations. Each

block is scored by how well the people living there are connected to their neighbors, education, jobs, recreation, and transit along the low-stress network. The low-stress network is determined by finding the bicycle level of traffic stress (LTS) for each street and path segment by scoring it on a 1-4 scale. Scores of 1 and 2 are considered low stress while 3 and 4 are considered high stress. Examples of high stress roads include busier routes with high speed limits and routes where there are high-stress crossings. BNA findings include:

- Low-stress connectivity (scores of 1 – 2) is limited.
- Higher connectivity around existing trails and shared use paths.
- Bike network analysis scores are high but disjointed throughout the suburban communities.



Bicycle and Pedestrian Crash Analysis helps identify trends and patterns in bicycle and pedestrian crashes to recommend projects that have the greatest likelihood of improving safety for active transportation users. Finding these locations and mitigating the risks with improved infrastructure and policy is enumerated in the rest of the plan. A crash density analysis was also performed, which counts crashes along corridors that have similar characteristics to find corridors where greater levels of crashes occur. Crash density analysis is not impacted by how the network is split at intersections and other locations. The crash analysis returned these results:

- Urban areas, especially Rochester, see a disproportionately high number of crashes.
- Crashes in rural areas are more likely to be fatal, which may correlate with higher speeds among other factors.
- Dangerous corridors found in the crash density analysis are found in Rochester.



The **Pedestrian Accessibility Scan** evaluated pedestrian accessibility needs in a targeted way for three areas in the county that represent different place types. The project team conducted a desktop review and fieldwork to examine pedestrian accessibility at each location. This assessment guided the development of general recommendations to improve pedestrian accessibility throughout Monroe County. The recommendations include:

- Coordinate signal timing and evaluate the need for pedestrian signal timing and control enhancement.
- Evaluate crossing times to ensure sufficient pedestrian crossing time.
- Improve accessibility by rehabilitating curb ramps.
- Reduce driveway crossings and sidewalk cross slopes.
- Reallocate unneeded travel lane width for multimodal features.
- Identify opportunities for traffic calming
- Assess potential and feasibility for raised crosswalks
- Identify new crossing points

Recommendations

The Monroe County Active Transportation Plan includes infrastructure and non-infrastructure recommendations to increase the amount and safety of walking and biking throughout the county. The centerpiece of the recommendations is the Active Transportation Network. However, the plan includes multiple important planning, design, policy, and program recommendations that are documented throughout the plan and in the more detailed [Program and Policy Recommendations](#) memorandum.

Potential CATP Benefits



Connectivity – linking Rochester and Monroe County’s suburban and rural areas.



Health benefits – providing access to trails and outdoor spaces for physical activity and socialization.



Safety improvements – providing a safe and comfortable network for active transportation users.



Equity – providing people without cars or access to transit a safe and convenient mode of travel.



Mobility – creating accessible routes for people with mobility challenges.



Sustainability – reducing reliance on cars by providing environmentally friendly forms of transportation.

Active Transportation Network

Monroe County’s active transportation network is intended to both fill gaps in and expand the existing network. The project team developed the network based on information described previously and input from Monroe County residents and stakeholders. The project team then overlaid these analyses to manually develop the countywide active transportation network through city and town centers to ensure connectivity between communities as an essential part of this network.

The network is aspirational in scope, envisioning Monroe County’s ideal active transportation system – unconstrained by fiscal and other limitations – and does not delve into the particulars of facility types and locations. The network also focuses on accommodating bicycle travel, acknowledging that walking trips tend to be short distances. However, as both pedestrians and bicyclists are vulnerable road users, it is important to ensure that low-stress bicycle corridors are similarly accessible for pedestrians and equipped with ADA-compliant surfaces, sidewalks, and crossing treatments. Pedestrian recommendations are included in other plan elements, such as the Pedestrian Accessibility Scan and non-infrastructure recommendations. Countywide bicycle routes are meant to serve people of all ages and abilities who bike for day-to-day needs like commuting or errands, as well as recreational bicyclists.

Recommendations for the Monroe County Countywide Active Transportation Plan are not tied to particular facility types.² Rather, the proposed network seeks to accomplish the following:

- Leverage the county’s existing active transportation infrastructure by filling in gaps and making connections to regional trails that already serve as high quality facilities for pedestrians and cyclists – Genesee Riverway Trail, Erie Canalway Trail, Lehigh Valley Trail, Irondequoit Lakeside Trail, El Camino Trail, NYSDOT 390 Trail, Ridgeway Trail, and Hojack Trail.
- Connect town and village centers outside of Rochester to each other, with a special focus on high trip potential and low connectivity in rural and suburban communities – areas of high density that feature many core services and

² For guidance on facility selection, see the [Facility Toolkit](#).

employment/education opportunities, and/or areas with high-stress routes and less bike/ped infrastructure that limit access to key destinations and services.

- Respond to potential barriers created by interstate highways in high trip potential and low connectivity areas through key transition points in/out of Rochester and surrounding communities.

Monroe County will work with local jurisdictions and other stakeholders to identify the most appropriate treatments implementation as corridors are identified for future study and ultimate implementation. This conceptual network also helps the County make the financial and political case for the type of local-level interventions that will be needed from one jurisdiction to the next. Building consensus around a shared vision for active transportation in Monroe County will lay the groundwork for productive conversations about facility selection and other implementation details in the future. More information is available in the [Network Development Memorandum](#).

Scenario Planning

Scenario development builds on the proposed network³ by identifying which corridors and routes should be prioritized based on certain criteria. In coordination with Monroe County staff, the project team developed two network scenarios.

1. **High coverage network** – This network prioritized connecting as many towns and cities as possible, including connections between Rochester and the rest of the county and north/south and east/west connections between population centers including rural areas. This network also includes connections to existing multi-use trails.
2. **High-need segments network** – This network prioritized areas and road segments with underserved populations based on race, poverty, and vehicle access. Scores for each segment were calculated using the bike network analysis, trip potential, and equity inputs.

Cost Estimates

Once the project team created these scenarios, they then assigned cost estimates to each scenario. This involved three steps.

1. Estimate network mileage by facility type
2. Apply unit costs to facility types
3. Develop network-level cost estimates

The overall estimated cost of the High Coverage Network scenario is \$87 million, and the High Needs Segments scenario estimated cost is \$74 million. The resulting cost estimates show some clear differences between the two scenarios. Notably, the High Coverage Network scenario, being more rural in nature, would require far more shoulders and slightly more sidepaths than the High Needs Segments scenario. Conversely, the High Needs Segments scenario relies more on separated bike lanes due to its urban geography. There is an 18 percent difference in estimated network cost between the two scenarios, with the High Coverage Network costing approximately \$13 million more than the High Needs Segments.

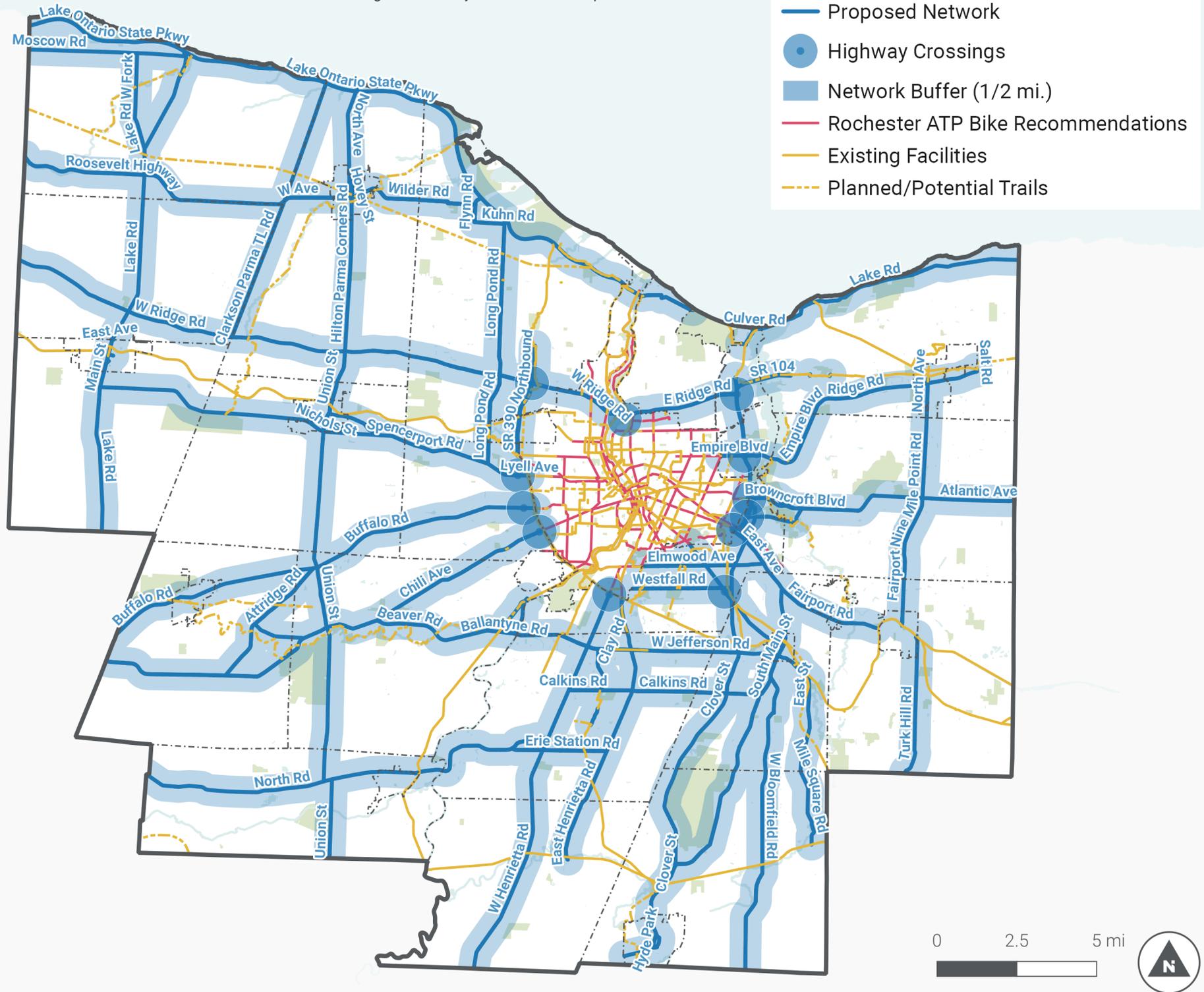
These numbers are illustrative of potential costs, and should be revisited as plan implementation occurs. Monroe County and its partners will use this information as a thought exercise to understand the benefits and tradeoffs of prioritizing distinct types of projects as the countywide active transportation network expands. More information is available in the [Implementation Strategies Memorandum](#).

Facility Toolkit

The purpose of the [Facility Toolkit](#) is to provide high-level descriptions, design considerations, and guidance for physical interventions in support of safe and comfortable active transportation infrastructure for users of all ages and abilities. The Facility Toolkit Memorandum provides additional information,

³ The [Network Development Memorandum](#) describes the scenarios and the approach to developing the network in more detail.

Figure 1: Countywide Active Transportation Network



including guidance for proposed bicycle and pedestrian facility types that can enhance and expand Monroe County’s active transportation network. These facilities have been placed in three treatment categories: off-street, on-street, and intersection treatments.

Pedestrian Accessibility Recommendations

As part of the Pedestrian Accessibility Scan, the project team visited three corridors after winter weather events to assess maintenance operations and their impact on pedestrian activity. The CATP provides a set of general recommendations to improve pedestrian accessibility throughout Monroe County.

For complete findings from the site visits, refer to the [Pedestrian Accessibility Scan Site Visits Memorandum](#).

Program and Policy Recommendations

In addition to the network development and other infrastructure changes recommended in previous tasks, policy and programmatic strategies and actions should play an influential role in the future of active transportation in Monroe County. The proposed network would significantly increase active transportation,



Bus stop and cleared sidewalk at Winton Road and Monroe Avenue (Twelve Corners).

but there are other opportunities for walking and bicycling in the county. These policy actions can maintain and encourage active transportation, and pursuing them now will ensure a strong policy framework as the proposed network is constructed. Certain actions may take effect immediately while others depend upon the successful implementation of this plan. The [Program and Policy Recommendations](#) divides 29 program and policy actions into five categories:



Snow and ice removal - Maintain a safe active transportation network throughout the winter by proactively managing walking and bicycling facilities before, during, and after precipitation.



Culture of walking and rolling – Support demonstration projects and active transportation related programs and partner agencies



Roadway safety policies – Adopt and advocate for a Safe Systems Approach that supports safety culture that places safety first and foremost in road system investment decisions.



Bike and shared use path - Invest in bike and shared use path facilities, prioritize maintaining existing infrastructure and increasing regional connectivity.



Equitable access to transportation network – Prioritize investment in underserved communities, increase engagement with BIPOC (Black, Indigenous, and People of Color) organizations, and investigate complaints of racial profiling or biased policing of roadways and transportation.

Implementation Strategies

Creating a comprehensive set of strategies to ensure successful implementation was the final step in plan development. These strategies cover the following topics:

1. **Roles and Responsibilities:** For the planning, design, funding, construction, maintenance, and operations of bikeways, trails, and pedestrian infrastructure projects.
2. **Funding Sources:** Potential funding sources for the implementation of recommended projects and programs.
3. **Network Scenario Cost Estimates:** Presenting the generalized/relative cost of the network scenarios explored alongside typical timescales for implementing individual projects outlined in the plan.
4. **Performance Measures:** Metrics to assess the performance of the active transportation network for use on an ongoing basis.

Next steps

- Prioritize key network connections and identify projects for short-term implementation.
- Use [Facility Toolkit](#) as design guidance for priority projects.
- Coordinate with appropriate jurisdictions and other key stakeholders on implementing priority projects.
- Acquire funding for priority projects.
- Engage the public, businesses, institutions, and other organizations to support active transportation infrastructure and plan implementation.



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