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MEMORANDUM

August 1, 2023 (originally submitted February 24, 2023)
To: Yixuan Lin
Organization: Monroe County Department of Planning & Development
From: Wendell Joseph, Theja Putta, Adam Wood, and Michael Blau
Project: Monroe County Countywide Active Transportation Plan

Re: Task 6: Implementation Strategies – FINAL

This memorandum includes the following items as part of the Implementation Strategies (Task 6) for the Monroe County Countywide Active Transportation Plan (CATP):

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.

1. ROLES AND RESPONSIBILITIES

A concerted effort in multijurisdictional collaboration is the first step towards successful implementation of the CATP. While Monroe County Departments of Planning and Transportation will play leadership roles during implementation, many other organizations must support this effort in order to achieve the successful implementation of the CATP.

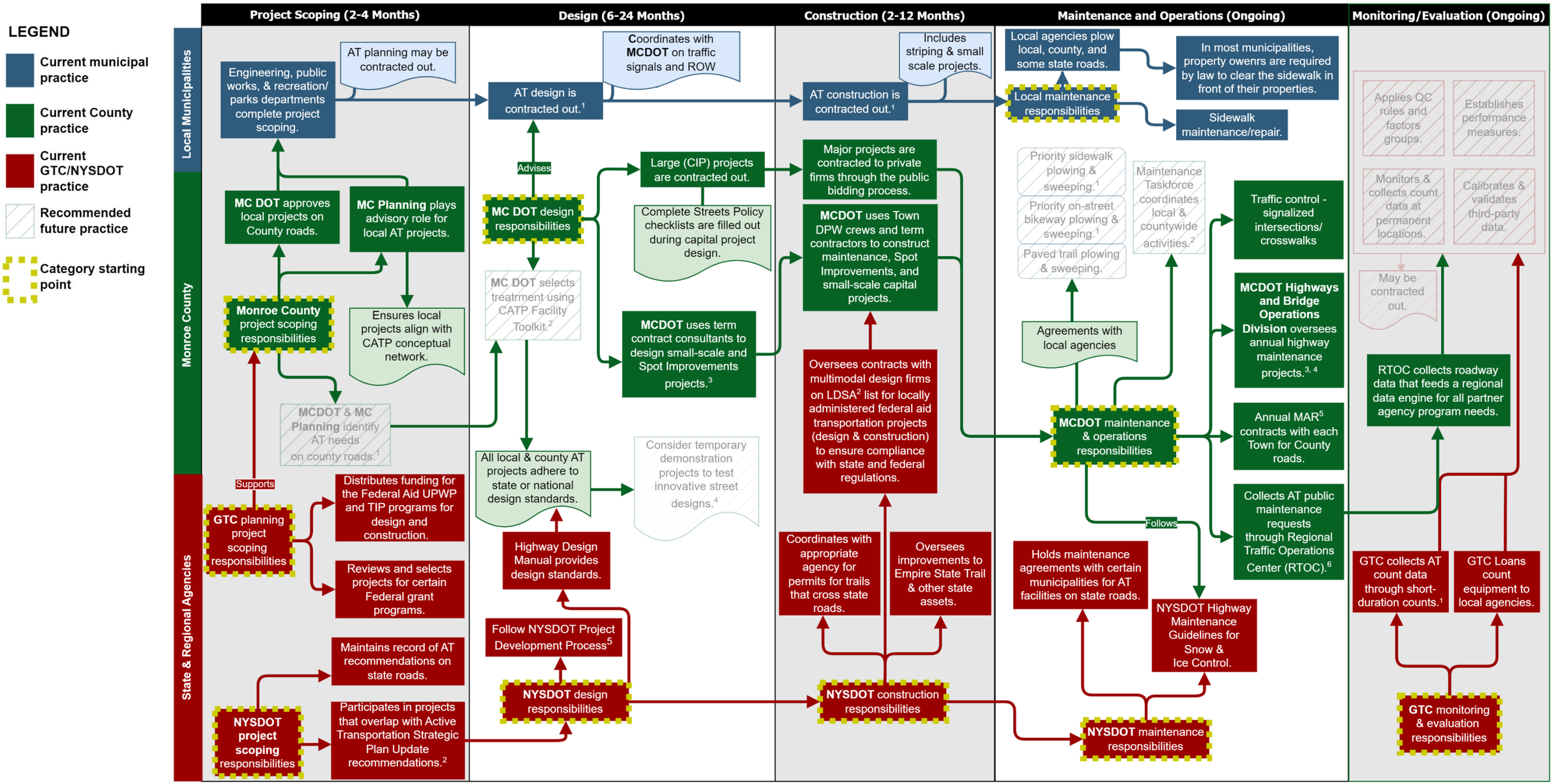
Figure 1 identifies roles and responsibilities in different phases of active transportation implementation. The chart is meant to help local agencies get a general idea of how to implement active transportation infrastructure and understand the key components of the implementation process. It shows three stakeholder categories as part of the implementation process: Local Municipalities, Monroe County, and State and Regional Agencies (i.e., New York State Department of Transportation and Genesee Transportation Council). These stakeholders are collectively responsible for the planning/scoping, design, construction, maintenance, and monitoring/evaluation of the network. Solid colored boxes indicate current practices for active transportation project implementation; transparent boxes with hatch lines represent recommended practices that outlined in the CATP Policy & Program Recommendations and other materials developed as part of the countywide plan.

Key stakeholders have reviewed the flow chart to confirm their roles and responsibilities – both current and future – and ensure these roles and responsibilities are accurately represented as current practice in this flow chart. **Please note that this flow chart is a reference for County staff and local agency partners to help facilitate**

coordination while implementing active transportation projects. It does not preempt or supersede any existing project development processes that Monroe County's partners currently follow.[1]

[1] For more information on existing processes, refer to GTC's TIP Procedures Manual and NYSDOT's Project Development Manual.

Figure 1: Roles & responsibilities for implementing active transportation projects



1. Based on local priorities, ped/bike/vehicle counts, CATP conceptual network, CATP trip potential analysis, CATP crash analysis, and CATP bicycle network analysis.
2. NYSDOT's Active Transportation Strategic Plan Update is anticipated to be completed in Fall 2024. During the next CATP update (timeline to be determined), the CATP will be updated to align with the NYSDOT's ATSP.

1. May be contracted to MC DOT or private firms.
2. CATP Facility Toolkit is the starting point for facility selection.
3. By default, AT facilities are included on Spot Improvement Projects that overlap with the CATP conceptual network, unless documented exceptions to the Monroe County Complete Streets Policy preclude them.
4. See Program and Policy Recommendation: Support demonstration projects to promote new infrastructure.
5. NYSDOT Project Development Manual

1. May be contracted to MC DOT or private firms.
2. Local Design Services Agreement.

1. See Program and Policy Recommendation: Develop a snow removal priority network.
2. See Program and Policy Recommendation: Form a year-round maintenance task force.
3. By default, on-street bike facilities are installed during milling/resurfacing/recycling projects that overlap with the CATP conceptual network, unless documented exceptions to the Monroe County Complete Streets Policy preclude them.
4. All work is completed by Town DPW crews and term contractors. Complete Streets Policy checklists are filled out during the planning and scoping of each highway maintenance project.
5. Mowing, Animal Removal, and Roadside Pickup. Many Towns have their own roadside pickup programs, which may include brush pickup, leaf pickup, and/or debris pickup.
6. For more information, refer to this page. See Program and Policy Recommendation: Use two-way public engagement to maintain the bicycle network.

1. For information on GTC's existing bicycle and pedestrian count program, refer to this page.

2. FUNDING SOURCES

Governmental agencies across many sectors are facing a constrained fiscal environment. As a result, public works projects often rely on creative problem-solving and collaboration between public agencies to succeed. Active transportation projects comprise a fraction of overall transportation network construction and maintenance. While they do not serve as many users as highways, bridges, and other critical infrastructure, they can have a substantial positive effect on local economies. For example, several studies have exposed the strong correlation between recreational trails and increased property values, tourism, and economic development, especially in rural communities through which major trails pass. Furthermore, providing opportunities for active living promotes public health and may reduce the burden on taxpayer-funded healthcare systems over time. In this light, active transportation infrastructure is a critical component of a complete transportation network and results in a positive return on investment for communities that fund such projects.

This section outlines potential funding sources for bicycle and pedestrian projects. For each funding source listed below, there is a description of program goals, eligible activities, funding match requirements, and application deadlines, where applicable. Each funding source includes a description and the following information, where applicable:

- Administrating agency
- Total available funds or amount granted per project
- Purpose of program or source
- Eligible project types
- Eligible recipient types
- Matching requirements
- Other requirements as applicable
- Application cycle / timeline
- Link to more information

A comprehensive funding table is available in Appendix A: Pedestrian and Bicycle Funding Opportunities: U.S. Department of Transportation Transit, Safety, and Highway Funds. It includes federal, regional and state funding sources that Monroe County and its partners should consider for implementing active transportation projects. Projects need to meet program eligibility requirements. See notes and basic program requirements below the table, with links to program information. Project sponsors should integrate the safety, accessibility, equity, and convenience of walking and bicycling into surface transportation projects.

Contact information for individual programs is listed below where available. GTC is the primary regional contact for all Federal Aid projects. NYSDOT Region 4 Program Development is the primary contact for all state funding sources:

Genesee Transportation Council

- Alex Kone
- akone@gtcmpo.org

NYSDOT Region 4 Program Development

- Joel Kleinberg
- Joel.Kleinberg@dot.ny.gov

Federal Funding Sources

Safe Streets and Roads for All (SS4A)

Administrating Agency

- U.S. Department of Transportation

Amount of Funds & Application Cycle

- $5 billion over five years (FY22-FY26)

Purpose of Program

- The Bipartisan Infrastructure Law established the Safe Streets for All (SS4A) grant program, which aims to support Vision Zero or Toward Zero Deaths initiatives. These programs use strategies to significantly reduce or eliminate transportation-related fatalities and injuries involving pedestrians, bicyclists, public transportation, personal conveyance, micromobility users, commercial vehicle operators, and motorists.
- SS4A grants may be used for developing a comprehensive safety action plan based on a Safe System Approach; conducting planning, design, and development activities for projects and strategies identified in a safety plan; or implementing projects and strategies identified in a safety plan.
- From fiscal years 2022-2026, there will be $1 billion per year available.
- The USDOT must use at least 40 percent of the funds for each fiscal year for projects to develop comprehensive safety action plans. Safety plans are expected to be in the range of $200,000 to $1 million, though applicants may request more or less funding.
- Eligible applicants may be a political subdivision of a state. However, joint, multijurisdictional, or regional action plans are encouraged and multiple action plan grant applications that cover the same geographic area for an action plan will be flagged and may not be funded.

Eligible Project Types

- Developing comprehensive safety action plans.
- Conducting planning, design, and development activities for projects and strategies identified in a comprehensive safety action plan.
- Carrying out projects and strategies identified in a comprehensive safety action plan.

Eligible Applicants

- MPOs (Metropolitan Planning Organizations).
- Political subdivisions of a State (counties, municipalities, etc.).
- Federally recognized Tribal governments.
- Multijurisdictional groups of the above entities.

Match Requirements

- Minimum local match is 20 percent.

Deadlines

- Applications are typically open in the fall, and awards announced in January of each year.

Resources

- FACT SHEET: Bipartisan Infrastructure Law – Safe Streets and Roads for All (SS4A)
- Safe Streets and Roads for All (SS4A) Grant Program
- Safe Streets and Roads for All (SS4A) – Resources

Rebuilding American Infrastructure with Sustainability and Equity (RAISE)

Administrating Agency

- U.S. Department of Transportation

Amount of Funds & Application Cycle

- $12.1 billion for fourteen rounds of funding (since 2009)
- $1.5 billion for FY23

Purpose of Program

- The RAISE Discretionary Grant Program (previously known as BUILD and TIGER) helps communities build transportation projects that have significant local or regional impacts and improve safety and equity.
- Half of the $1.5 billion allocated for 2023 targeted projects in rural areas, with the other half was designated for projects in urban areas. At least $15 million in funding is guaranteed to go towards projects located in areas of persistent poverty or historically disadvantaged communities, and projects located in these areas will be eligible for up to 100 percent federal cost share.
- The eligibility requirements of RAISE are designed to fund projects that are typically more difficult to support through other USDOT programs, which provides flexibility for sponsors at the local level to work directly with the entities that own, operate, and maintain transportation infrastructure.
- RAISE projects are reviewed and evaluated on criteria that span safety, environmental sustainability, quality of life, mobility and community connectivity, economic competitiveness and opportunity including tourism, state of good repair, partnership and collaboration, and innovation.

Eligible Project Types

- Surface transportation capital projects, including but not limited to:
    - Highway, bridge, or other road projects
    - Public transportation projects
    - Intermodal projects

Eligible Applicants

- States and the District of Columbia
- Territories or possessions of the United States
- Units of local government
- Public agencies or publicly chartered authorities established by one or more States
- Special purpose districts or public authorities with a transportation function, including a port authority
- Federally recognized Indian Tribe or a consortium of such Indian Tribes
- Transit agencies
- Multi-State or multijurisdictional groups of the above entities

Match Requirements

- The federal share is up to 80 percent unless the project is in a rural area, a historically disadvantaged community, or an area of persistent poverty.

Deadlines

- Applications are typically due in February, and awards announced in June of each year.

Resources

- RAISE Discretionary Grants
- Past Webinars and Slide Presentations

Contact

USDOT Office of Infrastructure Finance and Innovation
RAISEgrants@dot.gov
202-366-0301

Rural Surface Transportation Grant Program

Administrating Agency

- U.S. Department of Transportation

Amount of Funds & Application Cycle

- $2 billion over four years (FY22-FY26)

Purpose of Program

- The Rural Surface Transportation Grant Program supports projects aimed at improving and expanding surface transportation infrastructure in rural areas to increase connectivity, improve the safety and reliability of the movement of people and freight, and generate regional economic growth and improve quality of life.
- "Rural Areas" are defined areas that are 1) located within or on the boundary of a 2010 Census-designated Urbanized Area that had a population less than 200,000 in the 2020 Census, 2) located in a Census designated Urban Cluster, or 3) outside an Urbanized Area.

Eligible Project Types

- Highway, bridge, or tunnel projects
- Highway freight projects
- Highway safety improvement projects
- Projects on publicly owned highways or bridges improving access to certain facilities that support the economy of a rural area
- Integrated mobility management systems
- Transportation demand management systems
- On-demand mobility services

Eligible Applicants

- State and regional transportation planning organizations
- Local governments
- Federally recognized Tribal governments

Match Requirements

- No match requirements provided.

Deadlines

- Applications are typically available in March, with an end-of-May deadline.

Resources

- Rural Surface Transportation Grant
- Rural Surface Transportation Grant – Additional Guidance

Contact

MPDGrants@dot.govState

Funding Sources

Downtown Revitalization Initiative (DRI) & NY Forward

Administrating Agency

- Office of Planning, Development, and Community Infrastructure – New York Department of State

Amount of Funds & Application Cycle

- $100 million (DRI, Round 6)
- $100 million (NY Forward)

Purpose of Program

- The **Downtown Revitalization Initiative (DRI)** is meant to transform downtown neighborhoods into vibrant centers that offer a high quality of life and are magnets for redevelopment, business, job creation, and economic and housing diversity.
    - $10 million is awarded to one community in each of the State's ten Regional Economic Development Councils (REDCs) regions. Monroe County is part of the Finger Lakes REDC.
    - Through technical assistance provided by the State, participating communities develop Strategic Investment Plans that identify projects that align with a unique vision for revitalization of their downtown areas. This process is supported and overseen by Local Planning Committees and includes extensive community engagement and outreach.
    - The DRI program is grounded in a "plan-then-act" strategy which pairs strategic planning with immediate implementation.
- The **NY Forward** program supports downtown recovery and revitalization efforts in the State's smaller and rural communities, with a special focus on hamlets and villages.
    - This program targets smaller downtown areas that have distinct features and qualities that provide hyper-local goods and services that further enrich the unique character of these communities.
    - More communities can be supported through NY Forward, which will appropriate either two $4.5 million awards, or one $4.5 million award and two $2.25 million awards for each REDC region.
    - Participating communities should plan to develop one or two substantial anchor projects that are supplemented by smaller supportive projects, such as building façade renovations, public art, and other placemaking activities.

Eligible Project Types

- Downtown Revitalization Initiative
    - Larger private, mixed-use projects
    - Adaptive use projects
    - New construction projects on developable properties
    - Projects that elevate urban- and employment-based downtown qualities
    - Wayfinding projects to connect the network of amenities and attractions
- NY Forward
    - Smaller projects focused on building renovation, redevelopment, and activation
    - Adaptive use
    - Projects that deal with vacancy
    - Projects that elevate specific cultural, historical, qualities
    - Projects that enhance cultural heritage through signage of historic markers

Eligible Applicants

- Communities nominated by REDCs.[2]

Match Requirements

- None.

Deadlines

- Applications are typically opened in late July and typically due by late September. Awards are announced on a rolling basis in the fall, and planning processes typically begin the following January.

Resources

- Downtown Revitalization Initiative (DRI)
- NY Forward
- Governor Hochul Announces $200 Million in Funding to Revitalize Downtown Areas [Press Release]

Contact

Finger Lakes Region
(585) 399-7050
nys-fingerlakes@esd.ny.gov

Transportation Alternatives Program (TAP)

Administrating Agency

- FHWA, administered by NYSDOT.

Amount of Funds & Application Cycle

- $1.41 billion (FY23); $1.43 billion (FY24); $1.46 billion (FY25); $1.49 billion (FY26)

Purpose of Program

- Safe Routes to School projects and programs are funded through the Transportation Alternatives Program (TAP). TAP funds can be used for the construction of pedestrian and bicycle facilities, the conversion of abandoned railroad corridors for trail use, and infrastructure-related projects to provide access for and improve the safety of children, older adults, and individuals with disabilities.
- The funds are available through FHWA and administered by NYSDOT and GTC.
- The 2021 competitive process required demonstration of how proposed activities would contribute to the increasing use of non-vehicular transportation alternatives, reduce vehicle emissions, and/or mitigate traffic congestion.
- More than two-thirds of the 2021 projects awarded benefited Environmental Justice communities.

Eligible Project Types

- Pedestrian and bicycle facilities
- Community improvements such as historic preservation and vegetation management

[2] Monroe County or local jurisdictions would need to work with the Finger Lakes Regional Economic Development Council to secure a nomination.

- Environmental mitigation related to stormwater and habitat connectivity
- Recreational trails
- Safe routes to school projects
- Vulnerable road user safety assessments

Eligible Applicants

- Local governments
- Regional transportation authorities
- Transit agencies
- Natural resource or public land agencies
- Federal, State, or local public land agencies
- School districts, local education agencies, or schools
- Federally recognized tribal governments
- Metropolitan Planning Organizations
- Nonprofit entities
- Other local or regional governmental entity with responsibility for oversight of transportation or recreational trails
- State DOT

Match Requirements

- The program provides up to 80 percent of the project cost and requires a 20 percent match.

Deadlines

- There is no information on when the next project solicitation round will occur; however, the program is on a two- to three-year cycle, with the most recent awards for project applications in 2016, 2018, and 2021.

Resources

- FHWA – Transportation Alternatives
- FHWA – Transportation Alternatives (TA) Fact Sheet
- NYSDOT – 2021 Transportation Alternatives Program (TAP) and Congestion Mitigation and Air Quality Improvement (CMAQ) Program

Contact

Regional Local Project Liaison
Craig Ekstrom
(585) 273-3755
craig.ekstrom@dot.ny.gov

Highway Safety Improvement Program (HSIP)

Administrating Agency

- FHWA, administered by NYSDOT.

Amount of Funds & Application Cycle

- N/A

Purpose of Program

- HSIP is a federally funded program with the aim of achieving a significant reduction in fatalities and serious injuries on all public roads. All public roads – including local roads – in the state, and both infrastructure and non-infrastructure projects, are eligible for HSIP funds.
- A Strategic Highway Safety Plan (SHSP) is a major component and requirement of HSIP. The plan is a statewide safety plan that provides a framework for reducing fatalities and serious injuries on all public roads and identifies key safety needs and guides investment decisions towards strategies and countermeasures.
- Programs administered under HSIP include bicycle safety, intersection, local safety, low-cost spot improvements, pedestrian safety, safe corridor, and sign replacement and improvement, among others.
- Safety objectives defined in NYSDOT's SHSP include improving safety for pedestrians.
- The remaining fifty percent of the funds are administered by the NYSDOT Main Office and the Safety and System Optimization (SSO) team in a statewide competitive process. The funds are used to fund a call for projects program, the 2016-2021 statewide Pedestrian Safety Action Plan (PSAP) and other statewide safety initiatives that support the emphasis areas in the Strategic Highway Safety Plan.

Eligible Project Types

- Infrastructure or non-infrastructure highway safety improvement projects.
- HSIP requires a data driven process to obtain funds.

Eligible Applicants

- 11 NYSDOT Regions & New York City.
    - NYSDOT uses a hybrid approach to manage HSIP funds. Half of the funds are provided to NYSDOT regions according to a formula that includes exposure, crashes, and population. The regions work with MPOs to determine which state and local HSIP projects to include in the capital program. High crash locations on the state system are identified via an annual network screening process and all crashes on public roads are included in New York's crash data systems and are available for review and analysis.
    - The remaining funds are administered centrally by the NYSDOT Main Office and the Safety and System Optimization (SSO) team through a call for projects program, the statewide Pedestrian Safety Action Plan (PSAP) and other statewide safety initiatives that support the emphasis areas in the Strategic Highway Safety Plan.

Match Requirements

- The federal share is 90 percent.

Deadlines

- No information provided on application period or process.

Resources

- FHWA – Highway Safety Improvement Program (HSIP)
- NYSDOT – Highway Safety Improvement Program (HSIP)

Contact

NYSDOT Safety Program Development Section
Andrew Sattinger
Andrew.Sattinger@dot.ny.gov

Congestion Mitigation and Air Quality (CMAQ) Improvement Program

Administrating Agency

- FHWA, administered by NYSDOT.

Amount of Funds & Application Cycle

The following projects were funded in Monroe County ($4,699,784), which represent 20 percent of all projects funded in the Finger Lakes Region ($23.7 million):

- 2021 CMAQ Cycle
  - $583,384 to the Town of Perinton to construct a trail from Spring Lake Park to Channing Philbrick Park.
  - $540,000 to the Town of Pittsford to construct a sidewalk and crosswalk improvements in the vicinity of Thornell Farm Park and Pittsford Mendon High School.
  - $576,400 to Rochester-Genesee Regional Transportation Authority to install new bus shelters and post seating in Monroe and Orleans County.
  - $3 million to the City of Rochester to convert an abandoned railroad bridge over Greene River to a multi-use trail for pedestrian and bicyclists.

Purpose of Program

- The Congestion Mitigation and Air Quality Improvement (CMAQ) Program provides funding for transportation projects designed to reduce traffic congestion and improve air quality in areas that do not attain national air quality standards (defined by the Clean Air Act as “non-attainment areas”) or to former non-attainment areas to maintain their National Ambient Air Quality Standards status.

Eligible Project Types

- Project types relevant to active transportation include:
  - Pedestrian and bicycle facility improvements
  - Travel demand management/rideshare programs
  - Congestion reduction and traffic flow improvements
  - Transit improvements

Eligible Applicants

- Local Governments (Counties, Towns, Cities, and Villages)
- Regional Transportation Authorities
- Transit Agencies
- Natural Resource or Public Land Agencies
- Tribal Governments
- Local or Regional Governmental Transportation or Recreational Trail Entity
- New York State Department of Transportation

Match Requirements

- NYSDOT will provide up to 80 percent of the total eligible project costs with a minimum 20 percent match provided by the project sponsor.

Resources

- NYSDOT – 2021 Transportation Alternatives Program (TAP) and Congestion Mitigation and Air Quality Improvement (CMAQ) Program
- NYSDOT – 2021 Notice of Funding Opportunity
- USDOT – Congestion Mitigation and Air Quality (CMAQ) Improvement Program

Contact

- None.

Recreation Trails Grant Program

Administrating Agency

- FHWA, administered by the New York State Office of Parks, Recreation, and Historic Preservation.

Amount of Funds & Application Cycle

- Since 2010-2011, only three projects in Monroe County have been funded:
  - 2011: Purchase of Trail Maintenance Equipment (Mendon Foundation, Inc.) - $34,525
  - 2014: Town of Perinton Spring Lake Trail (Town of Perinton) - $169,940
  - 2019: CSX Corridor Acquisition (City of Rochester) - $250,000

Purpose of Program

- RTP provides funds to states to develop and maintain recreational trails and trail-related facilities for both nonmotorized and motorized recreational trail uses.
- The RTP legislation requires that States use 30 percent of funds for non-motorized recreation, 30 percent for motorized recreation, and 40 percent for diverse recreational trail use.

Deadlines

- Applications are typically due in September.

Eligible Project Types

- Maintenance and restoration of existing trails.
- Development and rehabilitation of trailside and trailhead facilities and trail linkages.
- Purchase and lease of recreational trail construction and maintenance equipment.
- Construction of new recreational trails.
- Acquisition of easements and/or fee simple title to property.
- Assessment of trail conditions for accessibility and maintenance.

Eligible Applicants

- Municipalities
- State agencies
- Federal agencies
- Public benefit corporations
- Public authorities
- Non-profit corporations

Match Requirements

- This is a reimbursement program and 100 percent of the cost of any eligible item must be incurred and paid before submitting a request for reimbursement to OPRHP. RTP may reimburse up to 80 percent of a project's total eligible costs.

Deadlines

- Application deadlines are typically in July.

Resources

- NY State Parks, Recreation, and Historic Preservation – Recreational Trails Grant Program

- NY State Parks, Recreation, and Historic Preservation – Recreational Trails Grant Program - Guide

Contact

Finger Lakes Region
Kate Badgley
(716) 773-5292
kate.badgley@parks.ny.gov

Green Innovation Grant Program (GIGP)

Administrating Agency

- NYS Environmental Facilities Corporation

Amount of Funds & Application Cycle

- Up to $15 million.

Purpose of Program

- The Green Innovation Grant Program (GIGP) provides grants on a competitive basis to projects that improve water quality and implement green infrastructure in New York State. A match from state or local funds is required.

Eligible Project Types

- GIGP funds a range of green infrastructure-focused installation projects, including the installation of permeable pavements and stormwater street trees. Eligible projects include:
  - Green Stormwater Infrastructure
  - Energy Efficiency
  - Water Efficiency
  - Environmental Innovation

Eligible Applicants

- Municipalities
- Publicly Owned Treatment Works (POTW)
- Private Entities
- State Agencies
- Soil and Water Conservation Districts

Match Requirements

- GIGP covers a minimum of 40 percent up to a maximum 90 percent of the total eligible project costs.

Deadlines

- N/A

Resources

- Green Innovation Grant Program

Contact

- info@efc.ny.gov

New York Main Street Program (NYMS)

Administrating Agency

- Office of Homes Community Renewal

Amount of Funds & Application Cycle

- N/A

Purpose of Program

- New York Main Street provides funds to stimulate reinvestment in properties located within mixed-use commercial districts located in urban, small town and rural areas of NYS. NYMS is a comprehensive grant program that provides funding for local revitalization efforts and technical assistance to help communities build the capacity required to grow downtowns or neighborhood retail districts.

Eligible Project Types

- Projects must be located in an eligible target area:
  - Area that has experienced sustained physical deterioration, decay, neglect, or disinvestment
  - Area that has a number of substandard buildings or vacant residential or commercial units
  - Area in which more than 50 percent of the residents are persons of low income, or which is designated by a state or federal agency to be eligible for a community or economic development program.
- Funds can be used to implement streetscape enhancements, such as planting trees; installing street furniture and trash receptacles; and providing appropriate signs in accordance with a local signage plan.

Eligible Applicants

- Units of Local Government or organizations incorporated under the NYS Not-for-Profit Corporation Law that have been providing relevant service to the community for at least one year prior to application.

Match Requirements

- N/A

Deadlines

- N/A

Resources

- NYMS Webpage
- NYMS Program Guide

Environmental Protection Fund (EPF)

Administrating Agency

- Department of Environmental Conservation

Amount of Funds & Application Cycle

- N/A

Contact

- N/A

Purpose of Program

- Funding for capital projects that protect the environment and enhance communities.

- Capital projects typically include large projects that purchase land or construct facilities. EPF funds projects to restore historic sites, and create or enhance public parks, open space, and trails.

Eligible Project Types

- Purchasing land for the NYS Forest Preserve
- Restoring historic sites
- Conserving farmland
- Restoring habitat
- Controlling invasive species
- Upgrading municipal sewage treatment plants
- Cleaning up waterfront property and creating a public park
- Helping business develop ways to recycle material

Eligible Applicants

- N/A

Match Requirements

- N/A

Deadlines

- N/A

Resources

- EPF Webpage

Contact

- contact@dec.ny.gov

Consolidated Local Street and Highway Improvement Program (CHIPS)

Administrating Agency

- NYSDOT

Amount of Funds & Application Cycle

Purpose of Program

- CHIPS provides State funds to municipalities to support the construction and repair of highways, bridges, highway-railroad crossings, and other facilities that are not on the State highway system.

Eligible Project Types

- Funds can be used for resurfacing, shoulder improvements, new drainage systems, sidewalk improvements, traffic calming installations, and bus shelters.
- A complete list of eligible project types is available here.

Eligible Applicants

- Municipalities

Match Requirements

- N/A

Deadlines

- N/A

Resources

- CHIPS Webpage

Contact

- N/A

Regional Funding Sources

Surface Transportation Block Grant (STBG)

Administrating Agency

- U.S. Department of Transportation (administered by GTC).

Amount of Funds & Application Cycle

- $14.11 billion (FY23) and $14.39 billion (FY24).

Purpose of Program

- STBG promotes flexibility in State and local transportation decisions and provides flexible funding to best address state and local transportation needs.
- The Bipartisan Infrastructure Law directs FHWA to allocate funds as lump sums for each state, then divide that total among apportioned programs.
- Projects seeking to use STBG funds must be identified in Statewide Transportation Improvement Programs (STIP)/Transportation Improvement Programs (TIP) and be consistent with Long-Range Statewide Transportation Plans.

Eligible Project Types

- Project types relevant to active transportation include:
    - Construction projects
    - Highway and transit safety infrastructure improvements and programs
    - Recreational trails projects, including maintenance and restoration of existing recreational trails, pedestrian, and bicycle projects
    - Planning, design, or construction of boulevards and other roadways in the right-of-way of former Interstate System routes or other divided highways
    - Protection for bridges and tunnels on public roads, and inspection and evaluation of bridges and tunnels and other highway assets
    - Projects and strategies designed to support congestion pricing, including electronic toll collection and travel demand management strategies and programs
    - Protective features, including natural infrastructure, to enhance the resilience of a transportation facility
    - The creation and operation by a State of an office to assist in the design, implementation, and oversight of eligible public-private partnerships
    - Projects to enhance travel and tourism
    - Public transportation project

Eligible Applicants

- Local governments
- Regional transportation authorities
- Transit agencies
- Natural resource or public land agencies
- School districts, local education agencies, or schools
- Federally recognized tribal governments
- Metropolitan planning organizations
- Nonprofit entities
- Other local or regional governmental entities with responsibility for or oversight of transportation or recreational trails

Match Requirements

- The federal share is no more than 80 percent.

Deadlines

- No information provided on application period or process.

Resources

- STBG – Fact Sheet
- Implementation Guidance for STBG
- 23 USC 133: Surface Transportation Block Grant Program

Contact

FHWA Office of Infrastructure
(512) 417-5191
david.bartz@dot.gov

Local Funding Sources

- Common Ground Health: The Healthy Kids Coalition at Common Ground Health has a five-year Creating Healthy Schools and Communities grant from New York Department of Health. They have this grant to purchase traffic calming materials for Complete Streets and Safe Routes to Schools work.
- Ralph C. Wilson Jr. Foundation: Provide funding to Improve Trails in Western New York State Parks
- AARP: Provide small grants for active transportation improvements and Complete Street initiatives
- Private Entities: Leverage contributions from major employers, healthcare organizations, and developers.

3. NETWORK SCENARIO COST ESTIMATES[3]

Scenario development builds on the proposed network[4] 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:

High Coverage Network

The project team developed the High Coverage Network (Figure 2Figure 3) through visual inspection of maps and datasets, seeking to connect large and mid-sized communities to each other and to important regional destinations. This scenario focuses on cross-county corridors linking every corner of the county to provide a network that reaches the most people possible. It also completes the loop of trails surrounding Rochester and fills in connections to existing multi-use trails.

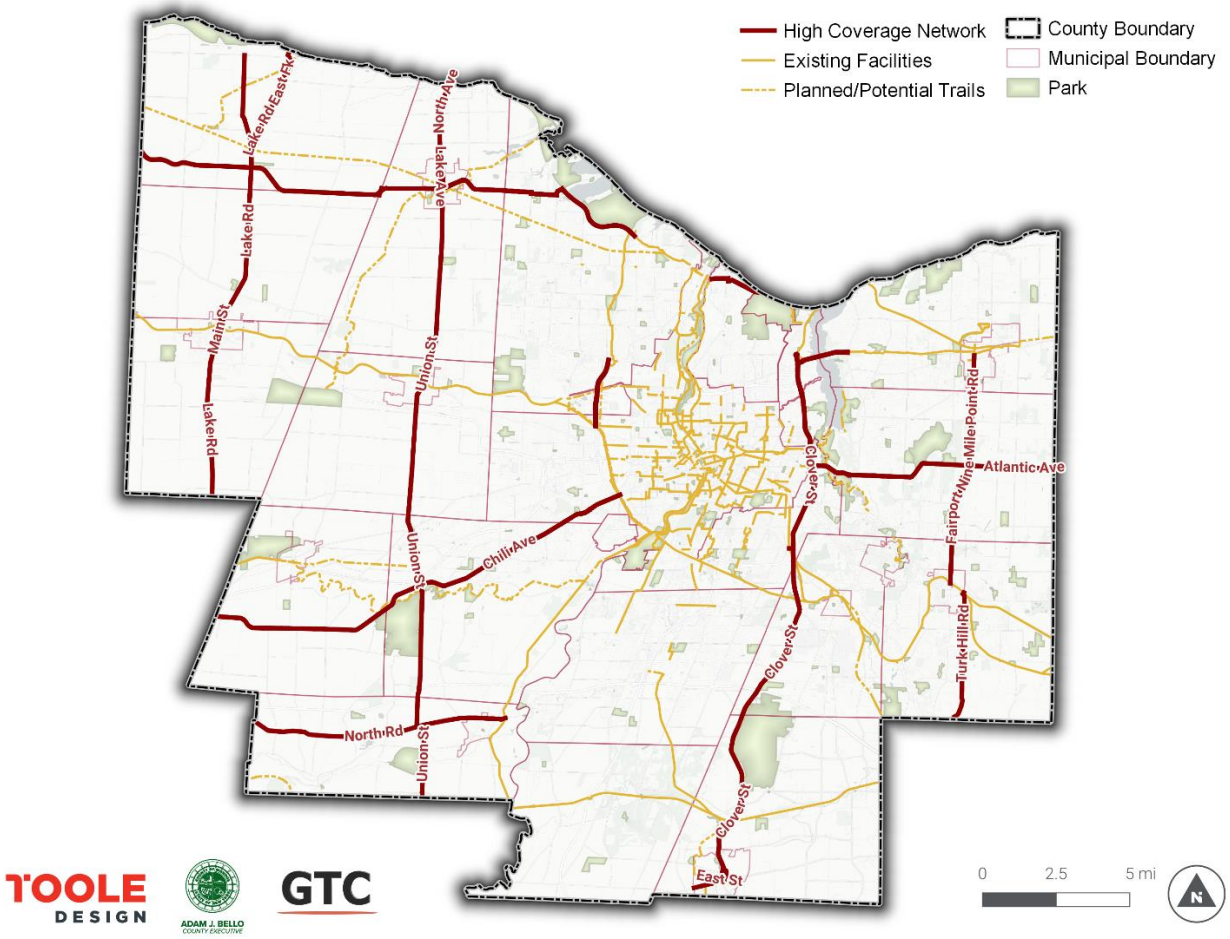
The High Coverage Network is guided by:

1. Connections between Rochester and the rest of the county.
2. Linkages to existing multi-use trails, including Erie Canalway Trail (part of Empire State Trail), Lehigh Valley Trail, Genesee Riverway, Genesee Valley Greenway, Auburn Trail, and Hojack Trail.
3. Key connections to/from the Erie Canalway Trail on the east and west sides of the county into nearby towns and villages.
4. North/south and east/west connections that begin to connect population centers, especially in more rural areas of Monroe County.

[3] Opinions of probable cost were developed by identifying major pay items and establishing rough quantities to determine a rough order of magnitude cost. Additional pay items have been assigned approximate lump sum prices based on a percentage of the anticipated construction cost. Cost opinions do not include easement and right-of-way acquisition; permitting, inspection, or construction management; engineering, surveying, geotechnical investigation, environmental documentation, special site remediation, escalation, or the cost for ongoing maintenance. Toole Design Group, LLC makes no guarantees or warranties regarding the cost estimate herein. Construction costs will vary based on the ultimate project scope, actual site conditions and constraints, schedule, and economic conditions at the time of construction.

[4] The Preliminary Network Development memo describes the scenarios and the approach to developing the network in more detail.

Figure 2: High Coverage Network scenario



High Need Segments

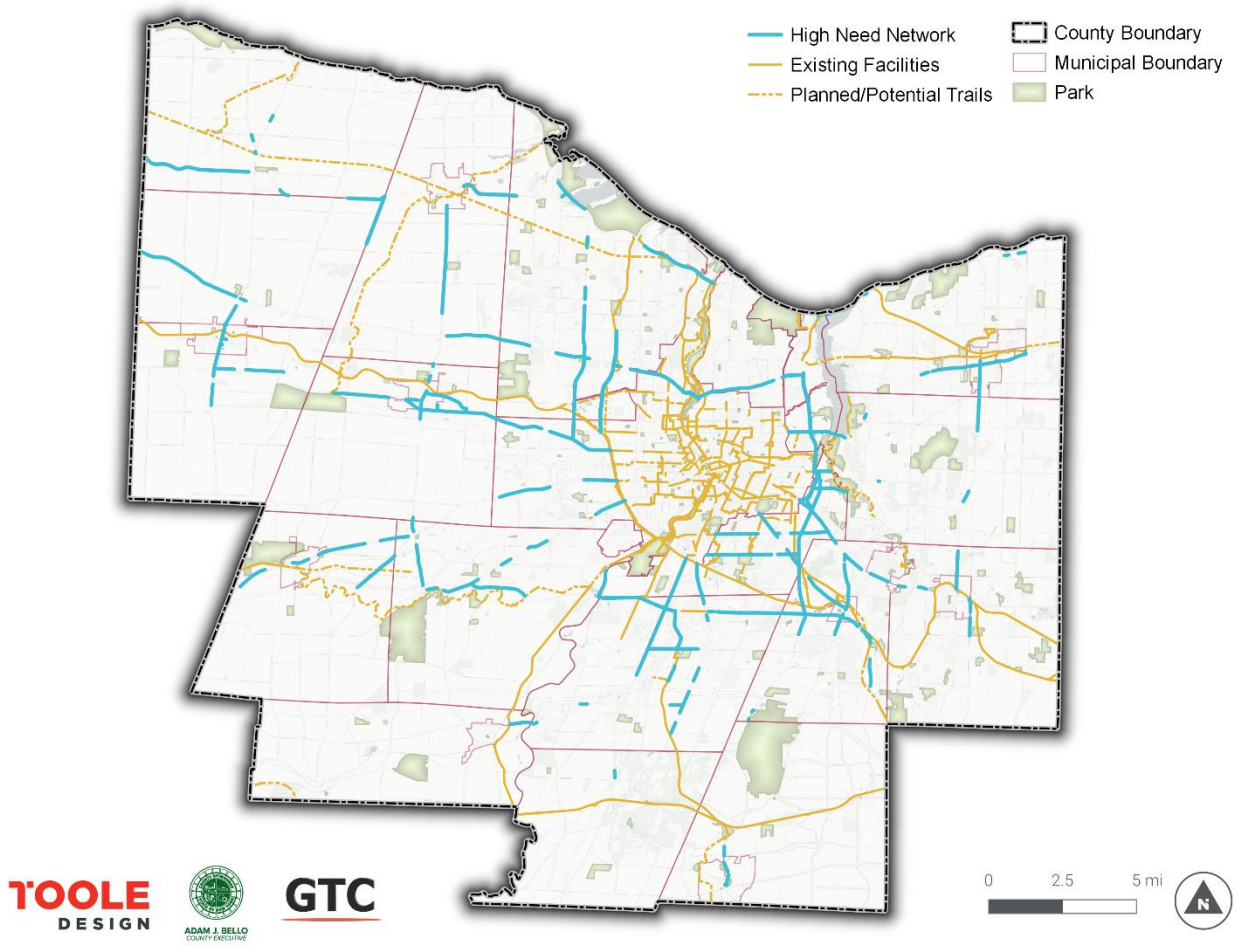
The High Need Segments scenario (Figure 3) highlights segments with high trip potential and low connectivity scores while prioritizing underserved populations based on race, poverty, and vehicle access. The base network for this scenario is the same as the one used for the High Coverage Network scenario. To identify the High Need segments, the project team calculated the following attributes for all proposed network segments:

1. BNA score – The Bicycle Network Analysis (BNA) aims to capture the importance of the interconnectedness of bicycle routes by measuring access to destinations via low-stress routes. The High Need Segments scenario takes the average BNA value of census blocks that are within 50 meters of a given segment. This value is scaled value between zero and one based on the percentile of average BNA measure in decreasing order (i.e., the highest BNA value gets a percentile value of zero, lowest BNA value gets a percentile of one, and median BNA values gets a percentile value of 0.5).
2. Trip potential score – The average bicycle trip potential value from the trip potential hex cells that intersect with the segment. This value is scaled based on the percentile of average trip potential (i.e., the lowest trip potential value gets a percentile value of zero, highest trip potential value gets a percentile of one, and median trip potential values gets a percentile value of 0.5).

3. Equity score – The average values of percentage of BIPOC population, percentage of households below poverty, and percentage of households without vehicle access. Each of these equity measures is scaled between zero and one based on their percentile values like that of trip potential score. The final equity score is calculated as the average of the three percentile scaled equity measures.

The final High Need Segments scenario score was calculated for each segment by adding the BNA, trip potential, and equity scores calculated as described above. The final score can be a value between zero and three. Higher final scores indicate a greater need for active transportation facilities, based on the factors mentioned above. To compare High Coverage Network and High Need Segments, the project team selected highest scoring segments for the second scenario until the total mileage for that scenario was roughly equivalent to the total mileage for the High Coverage Network scenario.

Figure 3: High Need Segments scenario



Once the project team created these scenarios, they then assigned cost estimates to each scenario. This involved three steps, each of which are described in detail below:

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

Estimate network mileage by facility type

This project focused on identifying network corridors but did not include the detailed work of assigning facility types to individual network segments; instead, the County will work with local jurisdictions and other stakeholders to identify the most appropriate treatments as projects are selected for funding and implementation. However, general estimates of network mileage by facility type are needed to compute network cost estimates. There is no rule-of-thumb guidance on what proportion of a network consists of trails versus on-street bikeways, signage, etc. In lieu of this information, the project team used several inputs to develop a rough estimation of facility types for each scenario, and applied those estimates to develop costs:

- **Level of Traffic Stress data from the Bicycle Network Analysis –** In addition to stress levels, LTS data includes information on traffic volumes, speed limits, and lane configurations (or assumptions thereof).
- **Trip Potential Analysis –** Trip potential indicates context (i.e. rural, suburban, urban) based on density and proximity to destinations.

Table 1 shows facility type assumptions based on LTS (from the Bicycle Network Analysis) and land use context (from the Trip Potential Analysis).

Table 1: Facility type assumptions based on LTS and land use context

	LTS 1 or 2	LTS 3	LTS 4
Rural *(trip potential below 50)*	Add signage only	4' paved shoulder each side (4 feet minus existing paved shoulder width)	Speed above 45 and/or ADT above 7,000: sidepath Else: 6' paved shoulder (6 feet minus existing paved shoulder width)*
Suburban *(trip potential 50 to 70)*	Add signage only	Bike lanes (5 feet minus existing paved shoulder width)	Speed above 35 and/or ADT above 6k: sidepath Else: bike lanes (5 feet minus existing paved shoulder width)
Urban *(trip potential above 70)*	Add signage only	Bike lanes (5 feet minus existing paved shoulder width)	Speed above 35 and/or ADT above 6,000: separated bike lane Else: bike lanes (5 feet minus existing paved shoulder width)

Apply unit costs to facility types

Unit costs were based on a query in Bid Express, a platform that sources costs by geography based on historical bid prices for over 40 transportation agencies in the United States and Canada. The project team filtered the costs to show NYSDOT historical bid data and unit costs by county in New York for greater accuracy, where available. Table 2 shows estimated unit cost by facility type.

Table 2: Estimated average facility type cost per mile

Facility Type	Unit Costs (per mile)
Bike lane	$60,000
Separated bike lane	$100,000
Shoulder widening	$105,000
Sidepath, rural	$1,000,000
Sidepath, suburban	$1,300,000
Signage*	$7,000
On-going Maintenance	

**Signage may include a number of MUTCD warning, regulatory, and guide signs; specific signage requirements and recommended practices vary based on roadway context. Common bike route signage includes:*

- Bicycle Regulatory Signs, particularly BIKES MAY USE FULL LANE (R4-11)
- Bicycle Warning and Combined Bicycle/Pedestrian Signs (W11-1 and W11-15)
- Bike Route Guide (D11-1) signs

Please note that the estimated costs listed above do not include additional ongoing maintenance costs. Local support and continuous commitment are also needed.

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. Table 3 shows mileage broken out by facility type for each scenario, rounded to the nearest five miles for estimating purposes. Several rounding steps were involved in developing network-level cost estimates: mileage values are rounded to the nearest five miles; average cost per mile is rounded to the nearest $10,000; and total scenario cost is rounded to the nearest $100,000.

Table 3: Scenario cost estimates by facility type

	High Needs Segments		High Coverage Network	
Facility type	**Mileage***	**Estimated cost**	**Mileage**	**Estimated cost**
Bike lane	10	$600,000	5	$300,000
Separated bike lane	80	$8,000,000	20	$2,000,000
Shoulder widening	30	$3,150,000	90	$9,450,000
Sidepath rural	15	$15,000,000	10	$10,000,000
Sidepath suburban	30	$39,000,000	45	$58,500,000
Signage	5	$35,000	5	$35,000
Unknown	20	$390,000	15	$460,000
Average cost/mile**	--	$390,000	--	$460,000
Extrapolated cost* **		**$74,100,000**	**--**	**$87,400,000**
Unknown treatment mileage %		10.53%	--	7.89%

**Mileage values are rounded to the nearest five miles.*

*** Estimated cost per mile for unknown facility type is based on the average cost per mile of the known facility types for the scenario. Average cost per mile is rounded to the nearest $10,000.*

****Total scenario cost is rounded to the nearest $100,000.*

The resulting cost estimates show some clear differences between the 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 not definitive 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.

4. PERFORMANCE MEASURES

Measuring the performance of active transportation networks is essential to ongoing success. Bicycle and pedestrian crash counts, crash records, and other data contribute to a business case for continued improvement of and investment in multimodal infrastructure. As recommendations in the CATP are constructed and programs are started, Monroe County must be able to measure whether these investments are paying active transportation dividends (i.e., more people walking and bicycling). An affirmative answer reinforces the Plan's legitimacy, and provides evidence that future investments will also yield positive results.

There are two types of performance measures:

1. **Inventory measures** evaluate specific implementation of recommended improvements. For example, they may include the number of miles of bike lanes, the number of enhanced crossings with a pedestrian refuge, the number of pedestrian activated signalized crossings, the number of miles of wide sidewalks, and the percentage of the population within a given distance of a bike facility. These inventory measures may also include the percentage increase in these improvements across a jurisdiction in a given year.
2. **Outcome measures** evaluate the effectiveness of active transportation in changing and shifting travel modes and reducing greenhouse gas emissions, providing viable alternative transportation choices, and improving quality of life and health. As an example, outcome measures could assess reductions in crash rates and increases in rates of bicycle, transit, or pedestrian travel on streets with active transportation improvements.

The performance measures in Table 4 includes both types of measures, and provides a framework for how Monroe County can begin charting its progress towards a safer, more connected, and more comfortable active transportation network. The table includes the following information:

- PAC identified plan goal – The table sorts recommended performance measures based on the most important plan goals identified by the Project Advisory Committee (listed in order of importance).[5]
- Performance Measure – The metric to be recorded for tracking changes.
- Unit of measurement – The quantifiable value of each performance measure.
- Example Target – Where available, example targets from other communities are included for reference. Monroe County will develop its own targets once baseline measurements are recorded for each category, and revisit them as new plans and priorities occur.
- Example Application – Where available, the table lists other communities that have successfully enacted the performance measure, with resources linked below.
- Data source/collection method

While considering these measures is a good starting point, Monroe County would need to commit more time to a robust performance measures program.[6] This includes establishing baseline measurements,[7] performance targets, data collection frequency, and data collection and analysis responsibility. Local MPO Genesee Transportation Council could provide technical assistance in data collection. Measurements also could be added to the project work plan and have a dedicated budget during the project scoping phase. Data on these measures should be documented and published for public review annually. Active transportation performance measures guidance is available in the Federal Highway Administration's Guidebook for Developing Pedestrian and Bicycle Performance Measures.

[5] Refer to Mentimeter results from PAC Meeting #1.

[6] Monroe County will consider factoring in data collection responsibility while soliciting design consultants in the bidding process.

[7] Baseline data are pivotal in selecting and designing active transportation facilities. These data should be collected before active transportation projects are installed to capture existing walking/biking volumes, crash rates, etc.

Table 4: Recommended performance measures

PAC identified plan goal	Performance Measure	Unit of measurement	Example Target	Example Application	Data source/ collection method
Network Connectivity[8]	Increase miles of bicycle network built annually	X% increase per year.	5% annual growth of miles of county roadways with shoulder widths greater than 4 feet.	N/A	▪ Inventory data
	Increase miles of pedestrian network built annually[9]	X% increase per year.	N/A	N/A	
	Route directness	Calculate the ratio of the shortest path route distance to straight-line distance for two selected points. The lowest number achievable would be 1.0, although unlikely, and lower results indicate strong, connected networks with little out-of-direction travel.[10]	N/A	Bellingham, WA Skagit Island Regional Transportation Planning Organization	▪ Maps of travel networks by mode ▪ Location of origin and destination ▪ GIS transportation networks for each mode ▪ GIS information on land use (origins and destinations)

[8] See also Network Completeness and Connectivity Index in FHWA's Guidebook For Developing Pedestrian & Bicycle Performance Measures.
[9] Municipalities are responsible for sidewalks and trails (exclusive of parks).
[10] Refer to FHWA's Guidebook For Developing Pedestrian & Bicycle Performance Measures for more information.

Safety	Pedestrian and bicyclist injury rate	# of crashes per X miles traveled on network segment.	10% reduction over two years	New York, NY Richmond, VA St. Louis, MO	Crash reports/police data, surveys
		Ratio of reported crashes to pedestrian and bicycle trips.			Calculated by dividing # of police-reported on-street bicycle collisions by recorded pedestrian and bicycle counts
	Vehicular speeds	80th percentile speed.	Depends on existing conditions	Calgary, AB	Automatic Traffic Recorders
Equity	Gender equity	% of female bicyclists.	N/A	Edmonton, AB	Human observation, such as establishing a Street Team that interacts with cyclists and pedestrians at selected locations and intercept surveys, such as send outing online survey forms or social media polls
	Age equity	% of children and seniors.	N/A	Calgary, AB	Human observation, such as establishing a Street Team that interacts with cyclists and pedestrians at selected locations and intercept surveys, such as send outing online

					survey forms or social media polls
	Coverage	Proximity to vulnerable populations.	% low-income, minority, or other disadvantaged population within ¼ mile of project	Tacoma, WA	Census data
	Crash distribution equity	Distribution of bicycle KSI by race/poverty rate over time.	% low-income/minority KSI is comparable to share of population	New Orleans, LA	Crash and demographic data
Accessibility	Access to community Destinations[11]	Proportion of residences within a ½-mile walking distance or 2-mile biking distance to specific key destinations, such as parks or elementary schools.	N/A	Atlanta, GA Indianapolis MPO	Baseline bicycle network data has already been collected for many of these measures through the Bicycle Network Analysis. Other data sources include: ▪ Local parcel data ▪ GIS data on schools, parks, healthcare centers, and
		Proportion of residences within ½-mile walking distance or 2-mile biking distance to specific key destinations along a completed pedestrian or bicycle facility.	N/A	N/A	
		Proportion of residences with access to a predefined set of "community destinations" within a 20-minute walk or 20-minute bike ride.	90%	Portland, OR Atlanta, GA	
		Percent of the network complete for pedestrians and bicyclists within ½ mile and 2 miles respectively of each designated destination.	N/A	N/A	
		Number of destinations that can be accessed within a ½ mile along a walking network from a given point on the network.	N/A	N/A	

[11] Ibid

		Number of destinations within 3 miles along a bicycling network from a given point on the network.	N/A	N/A	other daily destinations. ▪ NAICS coded employment data ▪ Demographic data
	Access to jobs[12]	Total # of jobs that may be accessed in less than 30 or 45 minutes using active transportation.	N/A	Indianapolis MPO Richmond, VA	▪ Demographic and jobs data ▪ U.S. Bureau of Labor Statistics ▪ GIS transportation network for all modes ▪ Local transportation costs (e.g., fuel prices, transit fares)
	Adherence to accessibility laws[13]	▪ Percent of total street crossings that meet accessibility standards (e.g. curb ramps, crosswalk grade and cross slope, and no median barriers). ▪ Percent of total sidewalk miles that meet accessibility standards (e.g. slopes, obstructions, protruding objects, changes in levels, etc.).	N/A	Texas DOT	Inventory data for: ▪ Roadways ▪ Sidewalks ▪ Pedestrian signals ▪ Curb ramps ▪ Share use paths ▪ Bus stops

[12] Ibid
[13] Ibid

		▪ Percent of total pedestrian signals that have Accessible Pedestrian Signal (APS) technology. ▪ Percent of total bus stops that are connected to streets, sidewalks or pedestrian paths by an accessible route and that have accessible boarding and alighting areas. ▪ Percent of total shared use paths that are accessible.			
Network Utilization	Annual average daily pedestrian traffic (AADPT) and annual average daily bicycle traffic (AADBT)	Conduct pre-/post-construction AADBT and AADPT estimates on TIP projects.[14]	N/A	Delaware Valley Regional Planning Commission Wichita Bicycle Count Program Guidance Manual Indianapolis MPO Bicycle Count Program Guidance Manual (p 14)	Data from permanent automated counters at high-profile project sites with substantial bicycle ridership and walking levels to provide a baseline for comparison. (Local agencies typically contract this work out to firms like Quality Counts, Eco Counter, or Miovision.) Once baseline is established, use data from short-duration

[14] Selecting locations to best represent the different patterns, levels, and types of walking and bicycling behaviors within a counting area allows agencies to generate annual average daily pedestrian traffic (AADPT) and annual average daily bicycle traffic (AADBT) that most accurately reflect current levels.

					automated counters to conduct before-and-after counts at project sites.
Livability	User perceptions	Bicycle level of traffic stress (LTS).	80% of important destinations connected via low-stress network (LTS 1 or 2).	Indianapolis MPO	Bicycle LTS data are already available for Monroe County; see Bicycle Network Analysis memo.
		Pedestrian LTS analysis at intersections or mid-block crossings.	N/A	N/A	Segment data ▪ Sidewalk condition and width ▪ Number of lanes ▪ Posted speed Crossing data ▪ Pedestrian signal presence ▪ Accessible pedestrian signal locations ▪ Sidewalk ramp presence
		On-site user surveys that assess user comfort and perception of safety under various scenarios	N/A	N/A	Intercept surveys
	Physical activity and health	▪ Average minutes of physical activity per day per capita. ▪ Average minutes of physical activity attributable to active transportation per day. ▪ Portion of people regularly using active transportation modes.	N/A	N/A	▪ Surveys tracking physical activity or other health indicators.

		▪ Portion of population that is inactive or active.			▪ Estimates of physical activity from transportation based on travel demand model outputs. ▪ Estimates of impacts on health outcomes from integrated models, such as the Integrated Transport and Health Impact Model. ▪ County-level health indicators measures are available at County Health Rankings & Roadmaps.

Appendix A: Pedestrian and Bicycle Funding Opportunities: U.S. Department of Transportation Transit, Safety, and Highway Funds

This table indicates potential eligibility for pedestrian and bicycle activities and projects under U.S. Department of Transportation surface transportation funding programs. Activities and projects need to meet program eligibility requirements. See notes and basic program requirements below, with links to program information. Project sponsors should integrate the safety, accessibility, equity, and convenience of walking and bicycling into surface transportation projects. The table was amended for the MC CATP to include New York State and GTC funding sources.

Table 5: Pedestrian and Bicycle Funding Opportunities: U.S. Department of Transportation Transit, Safety, and Highway Funds

Key: $ = Activity may be eligible. Restrictions may apply, see program notes and guidance. ~$ = Eligible, but not competitive unless part of a larger project.

Activity or Project Type	FEDERAL																													REGIONAL		STATE					
	OST Programs							Federal Transit				NHTSA		Federal Highway Administration																								
	RAISE	INFRA	RCP	SS4A	Thrive	RRIF	TIFIA	FTA	ATI	TOD	AoPP	402	405	BFP BIPBRR	CRP	CMAQ	HSIP	RHCP	NHPP	PROTECT	STBG	TA	RTP	SRTS	PLAN	NSBP	FLTTP	TTP	TTPSF	TIP	STBG	DRI NYF	STIP	TAP	HSIP	CMAQ	RTGP
Access enhancements to public transportation (benches, bus pads)	$	$	$	$		~$	~$	$	$		~$				$	$			$	$	$	$				$	$	$		$	$					$	
Americans with Disabilities Act (ADA)/504 Self Evaluation / Transition Plan				$	$					$	$				$						$	$			$		$	$								
Barrier removal for ADA compliance	$	$	$	$		~$	~$	$	$	~$	~$			$	$				$	$	$	$	$	$		$	$	$								
Bicycle plans			~$	$				$		$	$				$					$	$	$		$	$		$	$	$								
Bicycle helmets (project or training related)												$									$	$		$				$									
Bicycle helmets (safety promotion)																					$		$	$				$									
Bicycle lanes on road	~$	~$	$	$		~$	~$	$	$		~$				$	$	$	$	$	$	$	$		$			$	$	$	$	$						
Bicycle parking (see Bicycle Parking Solutions)	~$	~$	$	$		~$	$	$	$		~$				$	$			$		$	$	$	$		$	$	$		$	$		$	$		$	
Bike racks on transit	~$		$	~$			~$	$	$		~$				$	$					$	$					$	$								$	
Bicycle repair station (air pump, simple tools)	~$		$	~$		~$	~$	$	$						$						$	$	~$				$	$								$	
Bicycle share (capital and equipment; not operations)	~$	~$	$	~$		~$	~$	$	$						$	$			$		$	$					$	$								$	
Bicycle storage or service centers (example: at transit hubs)	~$		$	~$		~$	$	$	$						$	$					$	$	$				$	$								$	
Bridges / overcrossings for pedestrians and/or bicyclists	$	$	$	$		~$	~$	$	$					$	$	$	$	$	$	$	$	$	$	$			$	$	$	$	$		$	$		$	
Bus shelters and benches	$	$	$	~$		~$	~$	$	$						$	$			$	$	$	$				$	$	$									
Coordinator positions (State or				$							$					$					$	$		$				$									

Activity or Project Type	FEDERAL																													REGIONAL		STATE					
	OST Programs							Federal Transit				NHTSA		Federal Highway Administration																								
	RAISE	INFRA	RCP	SS4A	Thrive	RRIF	TIFIA	FTA	ATI	TOD	AoPP	402	405	BFP BIP BRR	CRP	CMAQ	HSIP	RHCP	NHPP	PROTECT	STBG	TA	RTP	SRTS	PLAN	NSBP	FLTTP	TTP	TTPSF	TIP	STBG	DRI NYF	STIP	TAP	HSIP	CMAQ	RTGP
local) (limits on CMAQ and STBG)																																				
Community Capacity Building (develop organizational skills/processes)				$	$					$	$														$			$								
Crosswalks for pedestrians, pedestrian refuge islands (new or retrofit)	$	$	$	$		~$	~$	$	$						$	~$	$	$	$	$	$	$	~$	$		$	$	$	$	$	$						
Curb ramps	$	$	$	$		~$	~$	$	$					$	$	~$	$	$	$	$	$	$	~$	$		$	$	$	$	$	$						
Counting equipment		$	$	$			~$	$	$								$		$		$	$	~$	$	$		$	$	$							
Data collection and monitoring for pedestrians and/or bicyclists	$	$	$	$			~$	$	$	$	$				$		$		$		$	$	~$	$	$		$	$	$							
Emergency and evacuation routes for pedestrians and/or bicyclists	$	$	$	~$			$	$	$	~$	~$				$				$	$	$	$		$			$	$								
Historic preservation (pedestrian and bicycle and transit facilities)	~$		~$	~$		~$	~$	$	$		~$				$						$	$				$	$	$								
Landscaping, streetscaping (pedestrian/bicycle route; transit access); related amenities (benches, water fountains); usually part of larger project	~$	~$	~$	~$		~$	~$	$	$	~$	~$				$				~$	$	$	$	$				$	$		$	$						
Lighting (pedestrian and bicyclist scale associated with pedestrian/bicyclist project)	$	$	$	$		~$	~$	$	$		~$				$	~$	$	$	$	$	$	$	$	$		$	$	$	$	$	$		$	$		$	
Maps (for pedestrians and/or bicyclists)				$				$	$	$	~$				$	$					$	$		$	$	$		$									
Micromobility projects (including scooter share)	$		$	~$		~$	~$				~$				$	$					$	$					$	$									
Paved shoulders for pedestrian and/or bicyclist use	$	~$	$	$		~$	~$							$	$	$	$	$	$	$	$	$		$		$	$	$	$		$						
Pedestrian plans	$	~$	~$	$			$			$	$				$					$	$	$		$	$		$	$	$		$						
Rail at-grade crossings	$	$	$	~$		$	$	$	$						$		$	$	$	$	$	$		$			$	$	$		$						
Recreational trails	$		$	~$			~$													$	$	$	$			$	$	$			$			$			$
Resilience Improvements for pedestrians and bicyclists	$	$	$	~$		~$	~$			$	~$			~$	~$	~$			$	$	$	$	$	$		$	$	$			$						
Road Diets (pedestrian and bicycle portions)	$	$	$	$		~$	$								$	$	$		$	$	$	$		$			$	$	$	$	$						

Activity or Project Type	FEDERAL																															REGIONAL		STATE					
	OST Programs							Federal Transit				NHTSA		Federal Highway Administration																										
	RAISE	INFRA	RCP	SS4A	Thrive	RRIF	TIFIA	FTA	ATI	TOD	AoPP	402	405	BFP BIPBRR	CRP	CMAQ	HSIP	RHCP	NHPP	PROTECT	STBG	TA	RTP	SRTS	PLAN	NSBP	FLTTP	TTP	TTPSF	TIP	STBG	DRI NYF	STIP	TAP	HSIP	CMAQ	RTGP
Road Safety Assessment for pedestrians and bicyclists			$	$	$		~$				~$						$	$			$	$			$		$	$	$								
Safety education and awareness activities and programs to inform pedestrians, bicyclists, and motorists on ped/bike traffic safety laws				$							~$	$	$				$						$	$	$			$								
Safety education positions				$							~$	$									$	$	$	$				$								
Safety enforcement (including police patrols)				$								$	$				$				$	$		$				$								
Safety program technical assessment (for peds/bicyclists)			$	~$	$						~$	$					$				$	$		$	$		$	$								
Separated bicycle lanes	$	$	$	$		~$	~$	$	$			~$		$	$	$	$	$	$	$	$	$	$	$		$	$	$	$	$	$						
Shared use paths / transportation trails	$	$	$	$		~$	~$	$	$		~$				$	$	$	$	$	$	$	$	$	$		$	$	$	$	$	$						
Sidewalks (new or retrofit)	$	$	$	$		~$	~$	$	$	~$	~$			$	$	$	$	$	$	$	$	$		$		$	$	$	$	$	$						
Signs, signals, signal improvements (incl accessible pedestrian signals) see note	$	$	$	$		~$	~$	$	$	~$	~$				$	$	$	$	$	$	$	$	$	$		$	$	$	$								
Signing for pedestrian or bicycle routes	$	$	$	$		~$	~$	$	$		~$				$	$	$		$	$	$	$	$	$		$	$	$	$								
Spot improvement programs (for pedestrian and bicycle facilities)	$	$		$		~$	~$	$			~$				$		$	$	$		$	$	$	$			$	$	$								
Stormwater impacts related to pedestrian and bicycle project impacts	$	$	$	~$		~$	~$	$	$								$	$	$	$	$	$	$	$			$	$	$								
Traffic calming	$	$	$	$		~$	~$	$							$		$		$	$	$	$		$			$	$	$								
Trail bridges	$	$	$	~$		~$	$								$	~$	$	$	$	$	$	$	$	$			$	$	$		$			$			$
Trail construction and maintenance equipment				~$		~$	~$								$						$	$	$				~$	~$	~$		$			$			$
Trail/highway crossings and intersections	$	$	$	$		~$	~$							$	$	~$	$	$	$	$	$	$	$	$		$	$	$	$		$			$			$
Trailside/trailhead facilities (restrooms, water, not general park amenities)	~$					~$	~$								~$						$	$	$			$	$	$			$			$			$
Training				$	$						~$	$				$	$				$	$	$	$	$			$								
Training for law enforcement on				~$								$	$			~$	$				$	$		$				$								

Activity or Project Type	FEDERAL																															REGIONAL		STATE					
	OST Programs							Federal Transit				NHTSA		Federal Highway Administration																										
	RAISE	INFRA	RCP	SS4A	Thrive	RRIF	TIFIA	FTA	ATI	TOD	AoPP	402	405	BFP BIPBRR	CRP	CMAQ	HSIP	RHCP	NHPP	PROTECT	STBG	TA	RTP	SRTS	PLAN	NSBP	FLTTP	TTP	TTPSF	TIP	STBG	DRI NYF	STIP	TAP	HSIP	CMAQ	RTGP
ped/bicyclist safety laws																																						
Tunnels / underpasses for pedestrians and/or bicyclists	$	$	$	$		$	$	$	$						$	$	$	$	$	$	$	$	$	$			$	$	$				$					
Vulnerable Road User Safety Assessment			$	$	$												$				$	$		$	$			$	$					$				

Abbreviations

ADA/504: Americans with Disabilities Act of 1990 / Section 504 of the Rehabilitation Act of 1973 RAISE: Rebuilding American Infrastructure with Sustainability and Equity
INFRA: Infrastructure for Rebuilding America Discretionary Grant Program RCP: Reconnecting Communities Pilot Program
SS4A: Safe Streets and Roads for All
Thrive: Thriving Communities Initiative (TA: Technical Assistance) RRIF: Railroad Rehabilitation and Improvement Financing (loans) TIFIA: Transportation Infrastructure Finance and Innovation Act (loans) FTA: Federal Transit Administration Capital Funds
ATI: Associated Transit Improvement (1% set-aside of FTA) TOD: Transit-Oriented Development
AoPP: Areas of Persistent Poverty Program
NHTSA 402: National Highway Traffic Safety Administration State and Community Highway Safety Grant Program NHTSA 405: National Highway Traffic Safety Administration National Priority Safety Programs (Nonmotorized safety) BFP: Bridge Formula Program; BIP: Bridge Investment Program; BRR: Bridge Replacement and Rehabilitation Program CRP: Carbon Reduction Program
CMAQ: Congestion Mitigation and Air Quality Improvement Program HSIP: Highway Safety Improvement Program
RHCP: Railway-Highway Crossings (Section 130) Program NHPP: National Highway Performance Program
PROTECT: Promoting Resilient Operations for Transformative, Efficient, and Cost Saving Transportation STBG: Surface Transportation Block Grant Program
TA: Transportation Alternatives Set-Aside (formerly Transportation Alternatives Program, Transportation Enhancements) RTP: Recreational Trails Program
SRTS: Safe Routes to School Program (and related activities)
PLAN: Statewide Planning and Research (SPR) or Metropolitan Planning funds NSBP: National Scenic Byways Program
FLTTP: Federal Lands and Tribal Transportation Programs: Federal Lands Access Program, Federal Lands Transportation Program, Tribal Transportation Program, Federal Lands Planning Program and related programs for Federal and Tribal lands such as the Nationally Significant Federal Lands and Tribal Projects program.
TTP: Tribal Transportation Program
TTPSF: Tribal Transportation Program Safety Fund

Cross-Cutting Notes

This table indicates potential eligibility for pedestrian, bicycle, and micromobility activities and projects under U.S. Department of Transportation surface transportation funding programs. Activities and projects must meet program eligibility requirements. See notes and links to program information below. Although the primary focus of this table is stand-alone activities and projects, programs also fund pedestrian and bicycle facilities as part of larger projects. Project sponsors are encouraged to consider Complete Streets and Networks that routinely integrate the safety, accessibility, equity, and convenience of walking and bicycling into surface transportation projects. In these instances, the Federal-aid eligibility of the pedestrian and bicycle elements are considered under the eligibility criteria applicable to the larger highway project. Pedestrian and bicycle activities also may be characterized as

environmental mitigation for larger highway projects, especially in response to impacts to a Section 4(f) property or work zone safety, mobility, and accessibility impacts on bicyclists and pedestrians.

- See FHWA Bicycle and Pedestrian Planning, Program, and Project Development (Guidance)
- Bicycle Project Purpose: 23 U.S.C. 217(i) requires that bicycle facilities "be principally for transportation, rather than recreation, purposes". However, 23 U.S.C. 133(b)(7) and 133(h) authorize recreational trails under STBG and the TA Set-Aside, therefore, 23 U.S.C. 217(i) does not apply to trail projects (including for bicycle use) using STBG or TA Set-Aside funds. Section 217(i) applies to bicycle facilities other than trail-related projects, and section 217(i) applies to bicycle facilities using other programs (NHPP, HSIP, CMAQ). The transportation requirement under section 217(i) only applies to bicycle projects, not to any other trail use or transportation mode.
- Signs, signals, signal improvements includes ensuring accessibility for persons with disabilities. See Accessible Pedestrian Signals. See also Proven Safety Countermeasures, such as Crosswalk Visibility Enhancements, Leading Pedestrian Interval signals, Pedestrian Hybrid Beacons, and Rectangular Rapid Flashing Beacons.
- Occasional DOT or agency incentive grants may be available for specific research or technical assistance purposes.
- Aspects of DOT initiatives may be eligible as individual projects. Activities above may benefit safe, comfortable, multimodal networks; environmental justice; and equity.
- The DOT Navigator is a resource to help communities understand the best ways to apply for grants, and to plan for and deliver transformative infrastructure projects and services.
- FHWA's Policy on Using Bipartisan Infrastructure Law Resources to Build a Better America.
- FHWA Links to Technical Assistance and Local Support.

Program-Specific Notes

Federal-aid and other DOT funding programs have specific requirements that projects must meet, and eligibility must be determined on a case-by-case basis. See links to program guidance for more information.

- RAISE (Infrastructure Investment and Jobs Act (Pub. L. 117-58) (IIJA), also known as the Bipartisan Infrastructure Law (BIL), § 21202): Funds capital and planning grants.
- INFRA (IIJA § 11110): For projects that improve safety, generate economic benefits, reduce congestion, enhance resiliency, and hold the greatest promise to eliminate freight bottlenecks and improve critical freight movements.
- RCP (IIJA § 11509 and div. J, title VIII, Highway Infrastructure Programs, para. (7)): See RCP Program Notice of Funding Opportunity for full details. Planning grants and Capital Construction Grants must relate to a transportation facility that creates a barrier to community connectivity.
- SS4A (IIJA § 24112): Discretionary program funds regional, local, and Tribal initiatives through grants to prevent roadway deaths and serious injuries. Projects must be identified in a comprehensive safety action plan (§ 24112(a)(3)).
- Thrive (Department of Transportation Appropriations Act, 2022 (Pub. L. 117-103, div. L, title I): Technical assistance, planning, and capacity-building support in selected communities.

- RRIF (Chapter 224 of title 49 U.S.C.): Program offers direct loans and loan guarantees for capital projects related to rail facilities, stations, or crossings. Pedestrian and bicycle infrastructure components of "economic development" projects located within ½-mile of qualifying rail stations may be eligible. May be combined with other grant sources.
- TIFIA (Chapter 6 of title 23 U.S.C.): Program offers secured loans, loan guarantees, or standby lines of credit for capital projects. Minimum total project size is $10 million; multiple surface transportation projects may be bundled to meet cost threshold, under the condition that all projects have a common repayment pledge. May be combined with other grant sources, subject to total Federal assistance limitations.
- FTA / ATI (49 U.S.C. 5307): Multimodal projects funded with FTA transit funds must provide access to transit. See Bicycles and Transit, Flex Funding for Transit Access, the FTA Final Policy Statement on the Eligibility of Pedestrian and Bicycle Improvements Under Federal Transit Law, and FTA Program & Bicycle Related Funding Opportunities.
    - Bicycle infrastructure plans and projects must be within a 3-mile radius of a transit stop or station. If more than 3 miles, within a distance that people could be expected to safely and conveniently bike to the particular stop or station.
    - Pedestrian infrastructure plans and projects must be within a ½ mile radius of a transit stop or station. If more than ½ mile, within a distance that people could be expected to safely and conveniently walk to the particular stop or station.
    - FTA funds cannot be used to purchase bicycles for bike share systems.
- FTA TOD: Provides planning grants to support community efforts to improve safe access to public transportation for pedestrians and cyclists. The grants help organizations plan for transportation projects that connect communities and improve access to transit and affordable housing, not for capital purchases.
- FTA AoPP (Further Consolidated Appropriations Act, 2020 (Pub. L. 116-94); Consolidated Appropriations Act, 2021 (Pub. L. 116-260)): Promotes multimodal planning, engineering, and technical studies, or financial planning to improve transit services in areas experiencing long-term economic distress, not for capital purchases.
- NHTSA 402 (23 U.S.C. 402): Project activity must be included in the State's Highway Safety Plan. Contact the State Highway Safety Office for details.
- NHTSA 405 (23 U.S.C. 405): Funds are subject to eligibility, application, and award. Project activity must be included in the State's Highway Safety Plan. Contact the State Highway Safety Office for details. The Bipartisan Infrastructure Law expanded the eligible use of funds for a Section 405 Nonmotorized Safety grant beginning in FY 2024; however, for FY 2023 grants, FAST Act eligible uses remain in place.
- BFP, (IIJA, Div. J, title VIII, para. (1)), BIP (23 U.S.C. 124), BRR (Department of Transportation Appropriations Act, 2022): For specific highway bridge projects and highway bridge projects that will replace or rehabilitate a bridge must consider pedestrian and bicycle access as part of the project and costs related to their inclusion are eligible under these programs.
- CRP (23 U.S.C. 175): Projects should support the reduction of carbon dioxide emissions from on-road highway sources.
- CMAQ (23 U.S.C. 149): Projects must demonstrate emissions reduction and benefit air quality. See the CMAQ guidance at www.fhwa.dot.gov/environment/air_quality/cmaq/ for a list of projects that may be eligible for CMAQ funds. CMAQ funds may be used for shared use paths, but not for trails that are primarily for recreational use.

- HSIP (23 U.S.C. 148): Projects must be consistent with a State's Strategic Highway Safety Plan and (1) correct or improve a hazardous road location or feature, or (2) address a highway safety problem. Certain non-infrastructure safety projects can also be funded using HSIP funds as specified safety projects.
- RHCP (23 U.S.C. 130): Projects at all public railroad crossings including roadways, bike trails, and pedestrian paths.
- NHPP (23 U.S.C. 119): Projects must benefit National Highway System (NHS) corridors and must be located on land adjacent to any highway on the National Highway System (23 U.S.C. 217(b)).
- PROTECT (23 U.S.C. 176): Funds can only be used for activities that are primarily for the purpose of resilience or inherently resilience related. With certain exceptions, the focus must be on supporting the incremental cost of making assets more resilient.
- STBG (23 U.S.C. 133) and TA Set-Aside (23 U.S.C. 133(h)): Activities marked "$SRTS" means eligible only as an SRTS project benefiting schools for kindergarten through 12th grade. Bicycle transportation nonconstruction projects related to safe bicycle use are eligible under STBG, but not under TA (23 U.S.C. 217(a)). There is broad eligibility for projects under 23 U.S.C. 206, 208, and 217.
- RTP (23 U.S.C. 206): Projects for trails and trailside and trailhead facilities for any recreational trail use. RTP projects are eligible under TA Set-Aside and STBG.
- SRTS (23 U.S.C. 208): Projects for any SRTS activity. FY 2012 was the last year for dedicated - funds, but funds are available until expended. SRTS projects are eligible under TA Set-Aside and STBG.
- PLAN (23 U.S.C. 134 and 135): Funds must be used for planning purposes, for example: Maps: System maps and GIS; Safety education and awareness: for transportation safety planning; Safety program technical assessment: for transportation safety planning; Training: bicycle and pedestrian system planning training.
- NSBP (23 U.S.C. 162): Discretionary program subject to annual appropriations. Projects must directly benefit and be close to a designated scenic byway.
- FLTTP (23 U.S.C. 201-204): Projects must provide access to or within Federal or tribal lands. Programs include: Federal Lands and Tribal Transportation Programs (Federal Lands Access Program, Federal Lands Transportation Program, Federal Lands Planning Program) and related programs for Federal and Tribal lands such as the Nationally Significant Federal Lands and Tribal Projects (NSFLTP) program.
    - Federal Lands Transportation Program (23 U.S.C. 203): For Federal agencies for projects that provide access within Federal lands.
    - Federal Lands Access Program (FLAP) (23 U.S.C. 204): For State and local entities for projects that provide access to or within Federal or tribal lands.
- TTP (23 U.S.C. 202): For federally-recognized tribal governments for projects within tribal boundaries and public roads that access tribal lands.
- TTPSF (23 U.S.C. 202(e)(1) and 23 U.S.C. 148(a)(4)): Grants available to federally recognized Indian tribes through a competitive, discretionary program to plan and implement transportation safety projects.