

MIFFLIN MOVES!

The Mifflin County, PA
Active Transportation Plan

June 1, 2023



ACKNOWLEDGEMENTS

MIFFLIN COUNTY COMMISSIONERS

Kevin P. Kodish
Mark Sunderland
Robert Postal

MIFFLIN COUNTY PLANNING COMMISSION

Thomas Lake, Chair
Dan Dunmire, Vice Chair
Michele Bair
William Campbell
Daniel Firth
Robert Nulton
David E. Pennebaker
J. Neal Shawver
Kent Spicher
Kay Semler, Alternate
Cyle Vogt, former Chair

MIFFLIN COUNTY PLANNING AND DEVELOPMENT DEPARTMENT

Mark Colussy, Director

CONSULTANTS

Gannett Fleming, Inc.
McMahon, a Bowman Company
KCI Technologies, Inc.

ADVISORY COMMITTEE & KEY STAKEHOLDERS

County

Allison Fisher, Mifflin County Human Services
Nick Felice, MCIDC

Municipal

Ryan Harshbarger, Bratton Township
Kelly Shutes, Derry Township
Kim Zimmerman, Lewistown Borough
Jim Zubler, Downtown Lewistown Inc.

Community & Economic Development

Rhonda Kelley, Juniata River Valley Chamber of Commerce
Jenny Landis, Juniata River Valley Visitors Bureau
Kristy Hine, Geisinger – Lewistown Hospital
Vance Varner and Paul Maidens, Mifflin County School District

Transportation

PennDOT Multimodal Deputate
Mark Schultz, Albert Carlson, Ryan Collins, Jamie Biblehimer, PennDOT District 2
Steve Herman, Katherine Wilde (former staff), SEDA-COG MPO

Local Business and Citizen Participants

Chris Johnston and Nick Johnston, Two Brothers Bicycle/Bike Company

Funding Acknowledgement

This project was funded by PennDOT with in-kind services from the Mifflin County Planning and Development Department.

TABLE OF CONTENTS

Introduction..... 1

- About Mifflin Moves!..... 1
- Active Transportation Is 1
- Planning for Active Transportation Is Important 1
- How Mifflin Moves! was Prepared 3
- Plans and Studies Relevant To Active Transportation in Mifflin County 4

Existing Conditions 8

- About Mifflin County 8
- Community Development Patterns 9
- Circulation System 10
- Natural Features 11
- 2020 Demographics..... 12
- Community Mobility and Travel Patterns..... 13
- Community and Economic Development 15
- Local Destinations 16

Strategic Assessment 18

- Accessibility and Equity 18
- Safety 19
- Connectivity 21
- Comfort and Convenience 23
- Culture and Experience 24
- Development Policies 24
- Community Needs, Key Issues, and Gaps 26

Vision and Goals 28

- A Vision for A More Active Future 28
- Who Benefits From the Active Transportation Network 28
- Goals..... 29

The Active Transportation Network 33

- The Network..... 33
- Active Transportation Toolbox..... 34
- Illustrative Pilot Projects 44

Implementing the Plan 61

- Build A Coalition To Build A Network! 61
- Implementation Priorities 65

- References..... 71

LIST OF FIGURES

Figure 1 PA Active Transportation Plan, Middle Susquehanna Bicycle and Pedestrian Plan.....	2
Figure 2 Mifflin Moves! Public Input Map.....	3
Figure 3 Timeline of Relevant Plans and Studies.....	4
Figure 4 Mifflin County Location, Context and Municipalities.....	8
Figure 5 Community Context Images	8
Figure 6 County Land Use Map	9
Figure 7 Natural Features	11
Figure 8 Mifflin County Age Demographic Data (2020).....	12
Figure 9 Public Housing Locations	12
Figure 10 Commute Patterns and Means of Transportation to Work.....	13
Figure 11 Recent Economic Development Initiatives	15
Figure 12 Designated Growth Areas, which are limited to central Mifflin County	15
Figure 13 Local Employment and Service Destinations.....	16
Figure 14 Active Transportation Crashes	19
Figure 15 Crashes involving a Pedestrian	19
Figure 16 Crashes involving a Bicycle.....	20
Figure 17 Crashes involving a Horse and Buggy.....	20
Figure 18 Crash Locations (2016-2021).....	20
Figure 19 Greenways, Trails, and Bicycle Routes in Mifflin County	21
Figure 20 Map of the Trail System	22
Figure 21 Conceptual logo for Three Chiefs Trail / Juniata River Trail.....	22
Figure 22 Pilot Project Locations.....	44
Figure 23 Goals	61
Figure 24 Conceptual trail map for the Three Chiefs Trail (formerly the Juniata River Trail).....	65
Figure 25 PennDOT Bicycle Safety Campaign	69
Figure 26 Conceptual trail signage.....	70
Figure 27 Conceptual interpretive signage.....	70

LIST OF TABLES

Table 1 Representatives on the Steering Committee.....	3
Table 2 Relevant Plans.....	4
Table 3 Local Active Transportation Plans and Implementation Status	5
Table 4 Vulnerable or Mobility-Limited Populations.....	18
Table 5 Trail Connectivity Feedback.....	21
Table 6 Local Policy Review for Active Transportation Provisions	24
Table 7 Active Transportation Toolbox Items.....	33
Table 8 Pilot Projects by Network Element.....	44
Table 9 Recommended Facilities for Pilot Project A: Lewistown Station to Market Square.....	45
Table 10 Recommended Facilities for SR 1005/Electric Avenue	50
Table 11 Recommended Facilities for Allensville Streetscape.....	52
Table 12 Recommended Facilities for Reedsville Growth Area	54
Table 13 Recommended Facilities for Three Chiefs Trail – Yeagertown to Reedsville.....	56
Table 14 Recommended Facilities for Ferguson Valley Road	58
Table 15 Mifflin County Active Transportation Leaders.....	62
Table 16 Active Transportation Leaders Partners and Allies	63
Table 17 Implementation Alignment with Past Plans and Studies	66
Table 18 Competitive Grants for Active Transportation Infrastructure	67

EXECUTIVE SUMMARY

Why An Active Transportation Plan

Citizens are walking, biking, and using non-motorized means of travel in Mifflin County today. Some choose this active travel for its health and environmental benefits while others walk, bike, or roll out of necessity, regardless that walking and bicycling conditions in many places are not adequate—not continuous, not comfortable, and not convenient.

Mifflin Moves! aims to inform county and partner investments in a network of travel paths for active transportation and in programs and events that demonstrate how walking and bicycling can be integrated in rural and small town culture and economic development.

What this Plan Includes

- Goals and strategies that give direction for physical design and operational safety improvements, education and awareness for all travelers, and interpretation of the natural, historic, and cultural place environment that is Mifflin County.
- An active transportation network that designates select community centers, corridors, and scenic roadways as places for pedestrian, bicycle, and trail facilities that provide safe, reliable access to daily destinations and a means for citizens and visitors to explore and experience Mifflin County's towns, villages, and landscapes.
- A toolbox of pedestrian, bicycle, and trail facilities and support features curated for Mifflin County.
- Illustrative pilot projects that demonstrate how the county and communities can improve active transportation conditions in communities and along and across major road and water corridors, and reach into the rural landscape with scenic bikeways.

What Mifflin Moves! Progress will Take

- Political support to make the transportation system more equitable. See Chapter 1 for recognition of national, state, and regional active transportation planning efforts and for a history of related plans and studies.
- Greater awareness for people who need or choose to walk, bike, or roll. See Chapter 2 for a demographic analysis of Mifflin County and its populations that are dependent on low-cost travel options and Chapter 4 for a table that describes how active transportation offers benefits for individuals of all walks of life and businesses, too.
- Recognition that existing walking and bicycling conditions fall short of being safe, accessible, and convenient for daily use. See Chapter 3 for a characterization of current conditions.
- Local leadership to advance pilot projects and to identify additional projects for network improvement; to develop educational programs about safe active travel on foot or on bike; to promote use of the network for activities and events, familiarizing citizens with its connections to daily destinations. See Chapter 4 for broad strategies and Chapter 6 for priority implementation activities.
- Financial investments in physical improvements, programs, activities, and events from the county and diverse public and private sector partners. Again, see Chapter 6.





Section 1: Introduction

Image Source: Mike Buffington

01

INTRODUCTION

CREATING A PLAN FOR MIFFLIN COUNTY



ABOUT MIFFLIN MOVES!

Mifflin Moves! encourages active transportation as a safe and healthy way to move around the county. This plan explores opportunities to improve safety and access, strengthen connections, and expand community amenities for walking, biking, and other forms of human-powered travel. Recommendations give County and local partners the policy, project, and activity tools to make biking, walking, and rolling safe and comfortable for everyone.



ACTIVE TRANSPORTATION IS...

Active transportation is travel or transportation that is primarily human-powered. Walking, biking, riding a scooter, using a wheelchair, pushing a stroller—these are all forms of active transportation!

Active transportation may also include electric-assisted bicycles and electric mobility scooters, as well as horse and buggy, since these forms of travel are driven at similar low speeds and require similar parking accommodations.

This plan uses the phrase **walking, biking, and rolling** as general examples of active transportation with rolling used to represent varied options with wheels, such as wheelchairs, scooters, and buggies.



Image Sources: Jenny Landis (top),
Public Domain (middle),
Michelle Brummer (bottom)

PLANNING FOR ACTIVE TRANSPORTATION IS IMPORTANT

Walking, biking, and rolling bring real benefits to individuals, to the community, and to the transportation system. Examples of active transportation benefits are listed below.

Realizing these benefits, however, requires meaningful active transportation planning—**designing purposefully for walking, biking, and rolling** rather than an afterthought. This means ensuring that streets, roads, trails and sidewalks are designed for safe, comfortable travel that is accessible for all travelers.

A key component of planning is to consider corridors and connections to **ensure travelers can get from A-to-B safely and comfortably without gaps in the network**. Planning for active transportation also includes education and enforcement, providing information to cyclists and pedestrians on how to ride and walk safely and interact with other users, and also education for drivers on how to safely interact or share the road with cyclists, walkers, and other active transportation.

An inclusive, low-cost way to travel. Expanding mobility options for all users provides cost-effective travel solutions, as travelers can avoid costly vehicle and fuel expenses, and biking and rolling may not require a license or insurance, expanding mobility options to more users (including those unable to drive).



A way to exercise the body, relax the mind, and improve health. Walking and biking are healthy ways to stay active and exercise, with health benefits for all ages. Regular physical activity helps reduce rates of chronic health issues including obesity, asthma, and risk for heart disease.



Eyes on the neighborhood and improved community connections. Traveling at low speed allows travelers to observe and interact with people and places along their travel path, cultivating awareness for neighbors, businesses, and local landmarks.



An avenue for economic diversity. In addition to the businesses and jobs in support of active transportation— (like bike shops and mechanics, bike rentals and tour services), active transportation infrastructure can increase foot traffic and visitors, and help communities strengthen an identity as a destination.



A sustainable option that does not use fossil fuels or produce carbon emissions. Biking, walking, and rolling have fewer negative impacts on the environment.

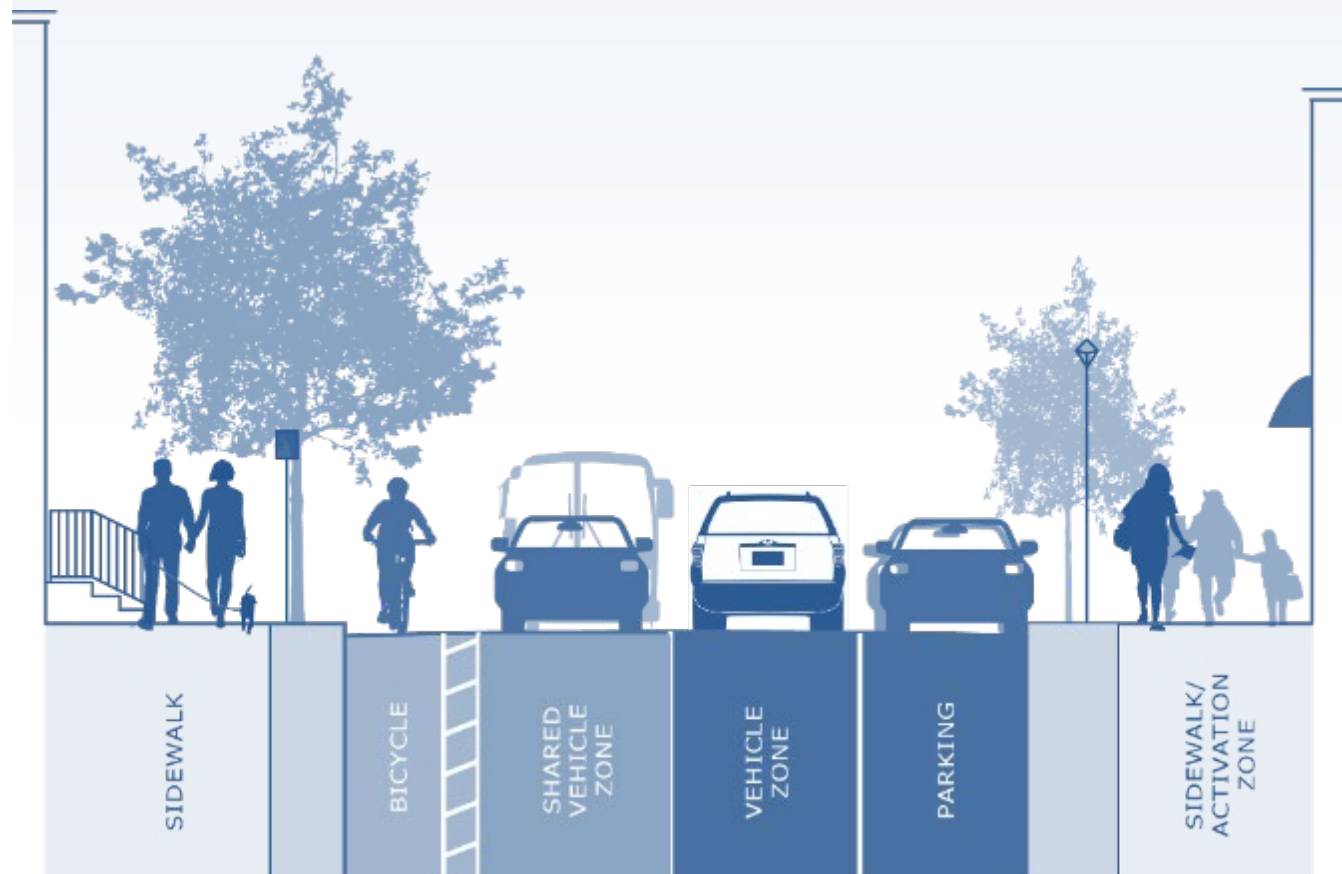


What are Complete Streets?

Complete Streets are designed and operated to **encourage safe travel for all users** by designated space, and in some instances priority, to a range of travel modes. The image below provides a sample cross-section of a complete street, where bikes, pedestrians, shared vehicles (including transit or ride sharing) and vehicles have defined travel lanes or areas.

Complete Streets are a paradigm shift in transportation planning and engineering processes, to bring renewed focus on **community-oriented and context-specific policies and designs**, and emphasizing non-driving options. This means that agencies consider and incorporate all modes—including walking, biking, rolling, riding transit, moving goods, driving, and more—in transportation planning projects. This framework ensures the street successfully enhances multimodal accessibility, safe travel options, and reflects the needs of the community, with an emphasis on **improving equity by supporting active transportation and transit**.

Municipalities across the U.S. are committing to complete streets policies or projects, from local to the state and federal levels. Policies can be adopted at any level, and can range from executive orders or commitments to encourage Complete Streets concepts and consider all modes, to practice-ready guidance and checklists of requirements to incorporate in design plans.



A National Movement, a State Initiative, and a Regional Priority with Local Momentum

Public support for expanding trails, bike lanes, and other infrastructure for walking and biking is on the rise. According to a 2020 national poll by the League of American Bicyclists, 78% of people surveyed agreed that their community would be a better place to live if bicycling were safer. Additionally, 60 percent of survey respondents supported increasing federal funding for biking and walking. This movement was boosted by the bicycle boom of 2020 when the COVID-19 pandemic prompted people to opt for less populous transport and ways to get outside and get active.

Along with this interest and popularity is a focus on policy that enables safer and more inclusive transportation. For example, the Bipartisan Infrastructure Law (BIL) expanded funding and program support for infrastructure to support walking and biking.

Pennsylvania likewise recognizes the importance of planning for active transportation and has dedicated resources to advancing these modes statewide. As the 2020 PA Active Transportation Plan states: *"biking and walking are integral elements of Pennsylvania's transportation system that contribute to community health, economic mobility, and quality of life."* Across the state, PennDOT is collaborating with local communities to complete on-road active transportation developments in state and local projects.

Seeing growing interest in active transportation for transport and recreation across the region, SEDA-COG partnered with the Susquehanna Greenway Partnership to produce the Middle Susquehanna Bicycle and Pedestrian Plan (Figure 1).

This plan crafted a vision for the region:

"where walkable and bikeable communities are connected to each other, to the river, and to the Middle Susquehanna region and where walking and bicycling are accepted, expected, and welcome ways to travel and recreate as part of daily life and the visitor experience in the region."

The Middle Susquehanna Bicycle and Pedestrian Plan established a regional vision of the Susquehanna River as the spine for a regionwide active transportation strategy. *Mifflin Moves!* takes the concepts and momentum established by SEDA-COG's plan and applies it to the Juniata River corridor with aim to make connections along the river and to local destinations.



Figure 1 PA Active Transportation Plan, Middle Susquehanna Bicycle and Pedestrian Plan

HOW MIFFLIN MOVES! WAS PREPARED

Process

Mifflin County invited a range of stakeholders to steer the plan's development as existing conditions were examined, goals were framed, as the "tools" (bicycle and pedestrian facilities) suitable for small town and rural communities were selected, and as potential pilot projects were identified.

Members of the steering committee (listed in Table 1) brought varying perspectives to the project, ensuring that community and mobility improvements were meaningful and practical for rural communities. Members represented local leaders, professionals from local, regional, and state transportation planning and engineering agencies, biking and walking enthusiasts and advocates, and other community partners.

Public Engagement

To encourage public participation, the County and consultant team hosted an informational meeting, distributed flyers about the projects, used an interactive online map to collect input and specific areas of concern or interest, participated in local events, and shared these outreach results at Commissioners' meetings.

The interactive map garnered the most valuable input (Figure 2). Citizens were asked to "mark the map" with problem points along the paths they walk, bike, or roll and with desired routes for future non-motorized travel. From this tool, the team collected 122 total inputs, including 48 problem points and 65 desired pedestrian and bicycle routes or paths, as well as general comments about active transportation availability and condition in the County.

Table 1 Representatives on the Steering Committee

Community Partners

- Juniata River Valley Chamber of Commerce
- Juniata River Valley Visitors Bureau
- Two Brothers Bicycle/Bike Company
- Downtown Lewistown Inc.
- Geisinger – Lewistown Hospital

Agency Partners

- Mifflin County Planning and Development Department
- SEDA-COG MPO
- PennDOT Multimodal Deputate and District 2

What we heard...

Sample feedback collected from community events, meetings, and submitted comments.

"I walk all around my neighborhood. Safe places to walk and bike are what we need for our communities."

"Sidewalks are important along major corridors."

"We travel 45-minutes to ride the Lower Trail. It would be great to have a rail-trail closer to home!"

"I see people walking and biking along rural roadways, especially where it is flat."



Figure 2 Mifflin Moves! Public Input Map

PLANS AND STUDIES RELEVANT TO ACTIVE TRANSPORTATION IN MIFFLIN COUNTY

Interest in safer and more accessible walking, biking, and rolling conditions is documented in several recent planning studies. These studies, shown in Figure 3, provide important context and suggest projects and other priorities that are integrated in this plan. The number of publications across the last three years demonstrates the growing enthusiasm for active transportation in the county. Key takeaways from each plan or study relevant to *Mifflin Moves!* are listed in Table 2. A more comprehensive review of these recommendations— and any implementation status to-date is included the following page, on Table 3 Local Active Transportation Plans and Implementation Status.



Figure 3 Timeline of Relevant Plans and Studies

Table 2 Relevant Plans

PLANS AND STUDIES RELEVANT TO ACTIVE TRANSPORTATION IN MIFFLIN COUNTY			
Plan	Lead Agency	Year	Key Takeaways
The Charter Plan for Downtown Lewistown	SEDA-COG; Downtown Lewistown, Inc.	2000	Outlines the connection of Victory Park with Rec Park, as envisioned by residents
Lewistown Kish Riverwalk Trail and Feasibility Study	Downtown Lewistown, Inc.	2005	Explored the Victory Park to Rec Park connection in detail
Juniata / Mifflin County Greenway Open Space and Rural Recreation Plan	Juniata and Mifflin Counties	2009	Explores a vision for expanded and connected open space and recreational assets, such as trails and parks.
Visions for the 21st Century: The Mifflin County Comprehensive Plan	Mifflin County	2014	Guides land use, infrastructure, and public/community services; prioritizes bicycle and pedestrian routes for study/development.
A Feasibility Study for the Main Line Canal Greenway Trail	Allegheny Ridge Corporation	2019	Evaluates the feasibility of a multi-use trail from Alfarata (Huntingdon County) to Victory Park that would also serve as the local 9/11 Memorial Trail segment.
Middle Susquehanna Bicycle and Pedestrian Plan	SEDA-COG	2019	Explores a regional network that specifically looks to connect communities to each other and to the Susquehanna River.
Success Together: Mifflin County Strategic Plan 2020-2025	Mifflin County Commissioners and leadership	2020	Identifies pilot projects to foster a “better place to live, work, and play” in the county.
Lewistown Amtrak Station Facility Operations and Program Assessment	PennDOT	2020	Analyzes the station and surrounding neighborhood, including the need for bike/pedestrian access to nearby attractions.
Lewistown Junction Train Station Analysis	PennDOT	2020	Explores design concepts for connecting the Lewistown Junction Station to Lewistown Borough (approximately 1/2 mile).
Mifflin County Trail Feasibility Study	Mifflin County	2020	Evaluates the extension of the Juniata River Trail in Victory Park to Rec Park and to the Stone Arch Bridge.
Community Health Needs Assessment	Geisinger Lewistown Hospital	2021	Prioritizes chronic disease prevention and management through health care access and physical activity.
Connecting Victory Park to the Stone Arch Bridge: Advancing the Lewistown Multiuse Trail System with Clean Water Benefits	Mifflin County Conservation District	2022	Advances the trail network and connectivity in Lewistown, with a focus on integrating bioretention and stormwater management designs and practices.

Table 3 Local Active Transportation Plans and Implementation Status

Plan	Bicycle And Pedestrian Recommendations	Implementation Status
Juniata / Mifflin County Greenway Open Space and Rural Recreation Plan (2009)	Pursue a comprehensive network of greenway corridors (9 total). Connect the Mid-State Trail and Standing Stone Trail.	This 2009 plan led to the feasibility study of two trail extensions 1) from Victory Park to the Stone Arch Bridge and 2) from Victory Park to Rec Park in 2020. Other greenways and trail connections remain as candidates for off-road trail corridors.
Visions for the 21st Century: The Mifflin County Comprehensive Plan (2014)	Prioritize 4 of the 9 greenways: <ul style="list-style-type: none"> Main Line Canal Greenway (Juniata County to Lewistown; Lewistown to Huntingdon County) Kishacoquillas Creek Greenway (Lewistown to Reedsville; Reedsville to Belleville) Back Log Mountain/Shade Mountain Greenway (West of Juniata River) Jacks Mountain Greenway (West and East of the Kish Creek) Proposed connection along Green Avenue Extension linking the Lewistown Intermediate School and Blossom Hill development. Juniata RiverWalk Extensions from Victory Park east to Rec Park (Kish RiverWalk), southeast to the Stone Arch Bridge at Jack's Creek, and west toward retailers along the Lewistown/Granville border and ultimately to the Granville Township Heritage Park. Re-visit the abandoned Kishacoquillas Valley Railroad right-of-way from north of Yeagertown to Reedsville and to Belleville, 12 miles of continuous linear open space; the right-of-way has reverted to private ownership.	No progress to date. Development pressure has been limited and land conservation efforts have been limited. No progress to date. SR 2004/Green Avenue Extension remains a complete street candidate. The extension initiative is advancing as the Three Chiefs Trail. Extensions were studied in 2020; a western extension along existing utility rights-of-way is programmed for construction in 2023. No progress to date. The right-of-way remains a candidate for a future off-road trail corridor from Reedsville to the Belleville area along the Kish Creek.
A Feasibility Study for the Main Line Canal Greenway Trail (2019)	Proposed two-phase interim use of on-road routes until a multi-use off-road trail is developed along the canal corridor. <ul style="list-style-type: none"> Phase 1 from John Street in McVeytown to Victory Park in Lewistown Phase 2 from Kistler Avenue in Kistler to John Street in McVeytown. Interim improvement called for "Share The Road"/ "Bike Route" signage along the on-road corridor and trailhead maps.	The interim on-road routes were revised following the national designation of the September 11 th National Memorial Trail, which passes through Mifflin County between its Shenksville, PA and New York City nodes.
Success Together: Mifflin County Strategic Plan 2020-2025 (2019)	Continue to support and enhance recreation facilities and opportunities. <i>(Strategy B7)</i> Emphasize our natural resources as a focal point for advancing quality of life and community character. <i>(Strategy B8)</i> Promote the river as a focal point. <i>(Strategy B5)</i>	This initiative to rallied community support for sustaining and enhancing rural resources. No significant actions have been taken.
Lewistown Amtrak Station Facility Operations and Program Assessment Report (2020)	Improve bicycle and pedestrian access between the station and downtown Lewistown (<1 mile). Expand intercity bus service; augment with multimodal connections and pedestrian amenities.	See the supplemental Station Analysis below.
Lewistown Junction Train Station Analysis (2020)	Bicycle and pedestrian access to be improved in three segments: <ul style="list-style-type: none"> Area 1: Lewistown Junction Station – install or improve bike path, ADA access, lighting, and track crossing. Area 2: Memorial Bridge – install wayfinding features (e.g., directional cues) at the bridge access points, lighting improvements at the connection to Market Street, and bike path improvements on the bridge. Area 3: Lewistown town center – install bike path improvements; lighting and wayfinding improvements, e.g., human-scale lighting, directional cues, and information kiosks. 	No progress to date.
Mifflin County Trail Feasibility Study (2020)	The Victory Park to Stone Arch Bridge Park is suggested as the first of the two trail extensions, as it is a shorter route with fewer obstacles than Recreation (Rec) Park to Kish Park segment. This will provide immediate public benefits, extending the river trail further east and connecting the four existing parks. (Phase I) Extend the trail from Recreation (Rec) Park to Kish Park. (Phase II)	Extension of the Rothermel Trail west is the first trail extension priority. Victory Park to Stone Arch Bridge Park is a second priority.
Community Health Needs Assessment (2021) and Action Plan	Partner with local agencies to expand transportation services to access health and social services. Leverage relationships with health-related community non-profits to promote physical activity across our service regions. <ul style="list-style-type: none"> Offer free or reduced cost exercise or education programs for community members. Support community races, fun runs, walks and other events that promote physical activity. Participate in or host free community health fairs targeting diverse populations. Support community health and wellness educational programs.	These documents recognize that Geisinger, the private health system, does not provide transportation infrastructure or services but can encourage active transportation as a physical activity and a mode of low-cost travel to health and other community services. Existing relationships and new partnerships may need to be facilitated.

Aligning *Mifflin Moves!* with Regional Active Transportation Efforts

Each of the plans outlined in Tables 2 and 3 focuses on an element of active transportation (such as a specific trail or geography) or a community feature (such as access to open space, economic development, and health conditions). *Mifflin Moves!* synthesizes the findings of these plans with a comprehensive review of existing conditions, toward a better understanding of the gaps and opportunities in the active transportation conditions—the network and the mobility it provides—within Mifflin County.

The recommendations in this plan equip the county, its partners, and other local stakeholders with a step-by-step map to create a more connected network, with a toolkit of strategies, conceptual designs, and policies to make it happen. Fundamental to the success of this map is its alignment with local and regional activities and projects.

SEDA-COG establishes the transportation priorities for the region and prioritizes projects for state and federal funding. Building on the analyses and recommendations from *Mifflin Moves!*, county leaders can engage SEDA-COG’s subcommittee, the Middle Susquehanna Active Transportation Committee, and advocate for facilities during project identification, development, and funding discussions.

In addition to SEDA-COG, this plan should be shared with a wide spectrum of local officials, businesses, community members, public works staff, as well as the agencies, advocates, and associations engaged in active transportation efforts.

The following list reflects a sample of the regional efforts with which this plan aspires to both support and leverage:

- **Aligning with efforts to improve walking and biking:**
 - Pennsylvania Department of Health (PA DOH) [WalkWorks Program](#)
 - Pennsylvania Department of Transportation (PennDOT) [PennDOT Connects Program](#) and [Active Transportation Plan](#)
 - SEDA-COG [Regional Advisory Committee / Middle Susquehanna Bicycle and Pedestrian Plan](#)
- **Aligning with efforts to strengthen communities and economic development:**
 - Juniata River Valley Chamber of Commerce
 - Juniata River Valley Visitors Bureau
 - Downtown Lewistown, Inc.
 - Central PA Regional Livability Initiative
- **Aligning with efforts to support community health:**
 - [Geisinger Community Health Needs Assessment](#)
 - [Primary Health Network](#)
 - [Center for Community Action](#)

In support of aligning these efforts, building partnerships, and ensuring the plan reflects the county’s needs, these stakeholders assisted plan development through sharing of data, insights, and feedback.



Section 2: Existing Conditions

Image Source: Michelle Brummer

EXISTING CONDITIONS

CURRENT CONDITIONS ACROSS THE COUNTY

ABOUT MIFFLIN COUNTY

Mifflin County is located in Central Pennsylvania and is one of eleven counties in the SEDA Council of Governments (SEDA COG) region (Figure 4). Mifflin County shares borders with Huntington, Centre, Union, Juniata, and Snyder Counties.

In total, the county covers approximately 415 square miles and includes sixteen municipalities, as depicted in Figure 4. Many of the communities in Mifflin County are rural with agricultural and woodland landscapes. The images in Figure 5 reflect some of the natural and man-made contexts across Mifflin County's communities, ranging from rural land and trails to neighborhoods and downtown cores.

As of 2020, the resident **population of Mifflin County was 46,143** and comprised 19,075 total households.ⁱⁱ Population density averaged approximately 113 people per mi². Lewistown, serves as the county seat and is the most densely populated area with nearly 1 in 5 county residents living in the borough, despite covering less than one percent of total land area (2.05 square miles).ⁱⁱⁱ

Lewistown is also central location for employers, services, retailers, and other attractions. In contrast to Lewistown's activity and density, Mifflin County is comprised of many rural communities and lands. Kish Valley (also known as the Big Valley) is one such major settlement for Amish communities in the region.

Together, the images below demonstrate the broad spectrum of contexts and environment considerations for this plan, as well as the range of active transportation use cases the county must consider (e.g., walkable downtowns and safe routes for longer connections across rural and suburban environments).^{iv}

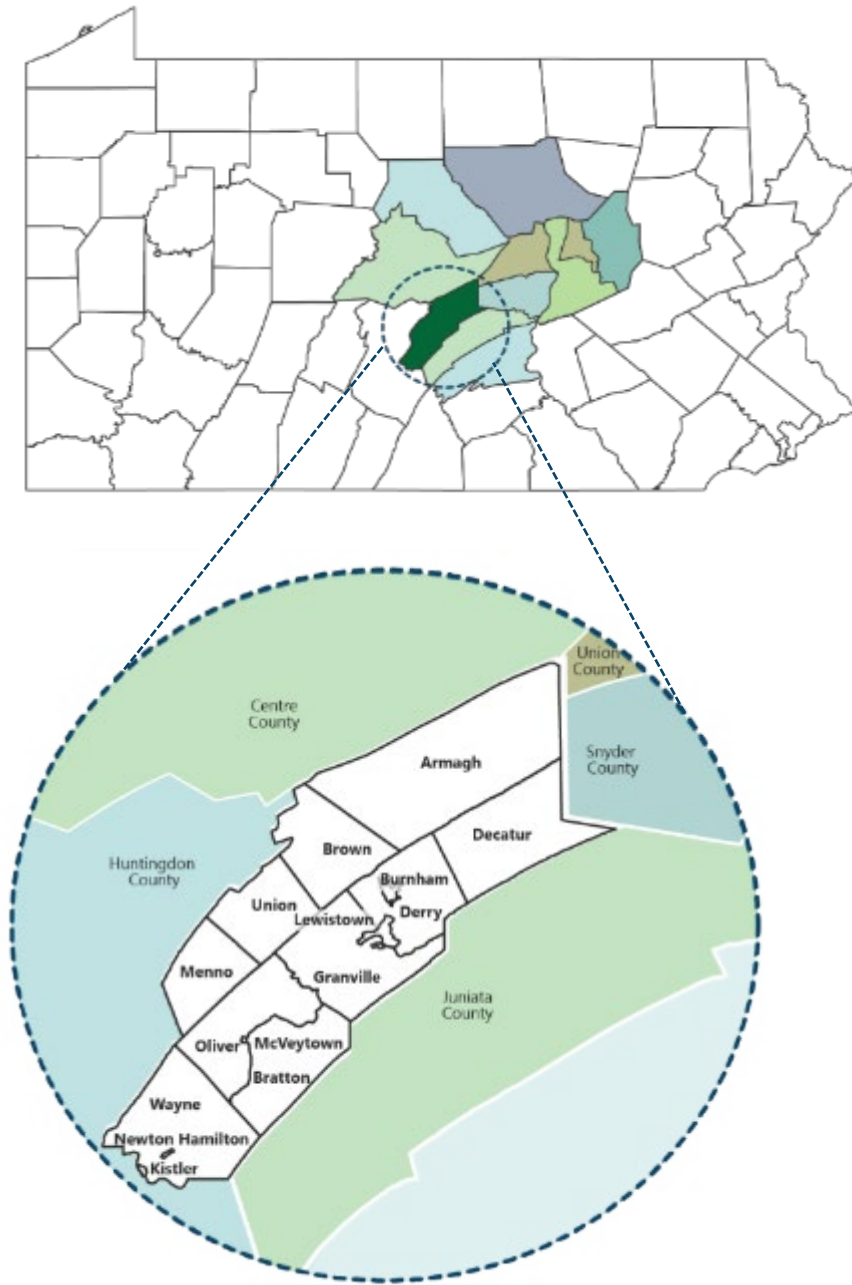


Figure 4 Mifflin County Location, Context and Municipalities

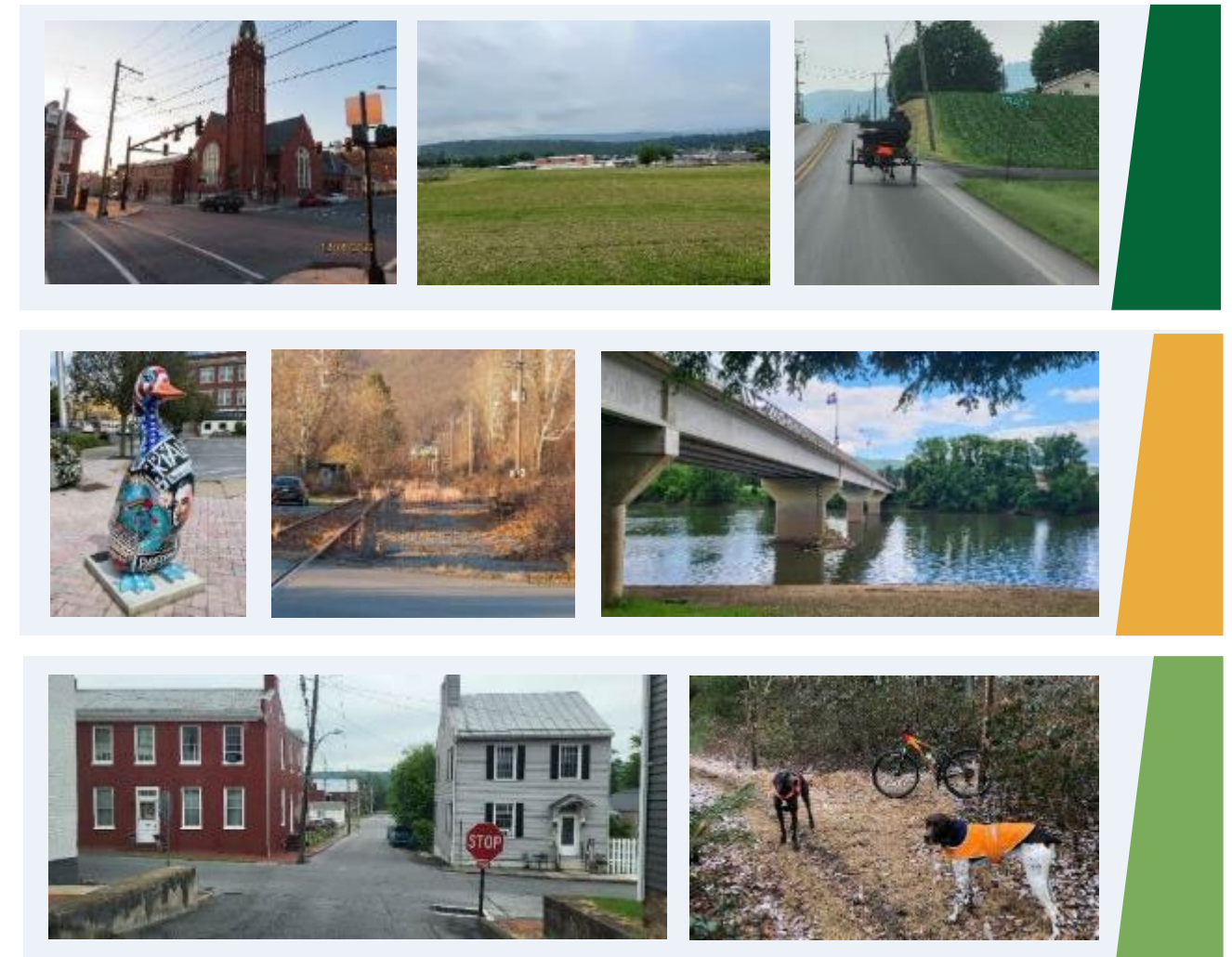


Image Sources (top left to bottom right): Mark Colussy, Natasha Manbeck, Michelle Brummer; Community Initiatives, Mark Colussy, Michelle Brummer; Michelle Brummer, Two Brothers Bicycle Company

Figure 5 Community Context Images

COMMUNITY DEVELOPMENT PATTERNS

The land use and development pattern in Mifflin County is primarily rural with significant agricultural and wooded land cover as shown in Figure 6. This means that jobs, houses, and other destinations in many communities are far apart, making it harder to travel on foot or by bike. The South-Central district, including the boroughs of Lewistown and Burnham, features most of the county's density including the majority of multifamily housing and retail.

LEGEND

- Single-Family (Detached)
- Single-Family (Attached)
- Multifamily
- Mobile Home
- Agriculture/Undeveloped
- Water
- Parks and Recreational
- Wooded/Forest
- Transportation
- Utility
- Industrial
- Retail
- Office
- Institutional

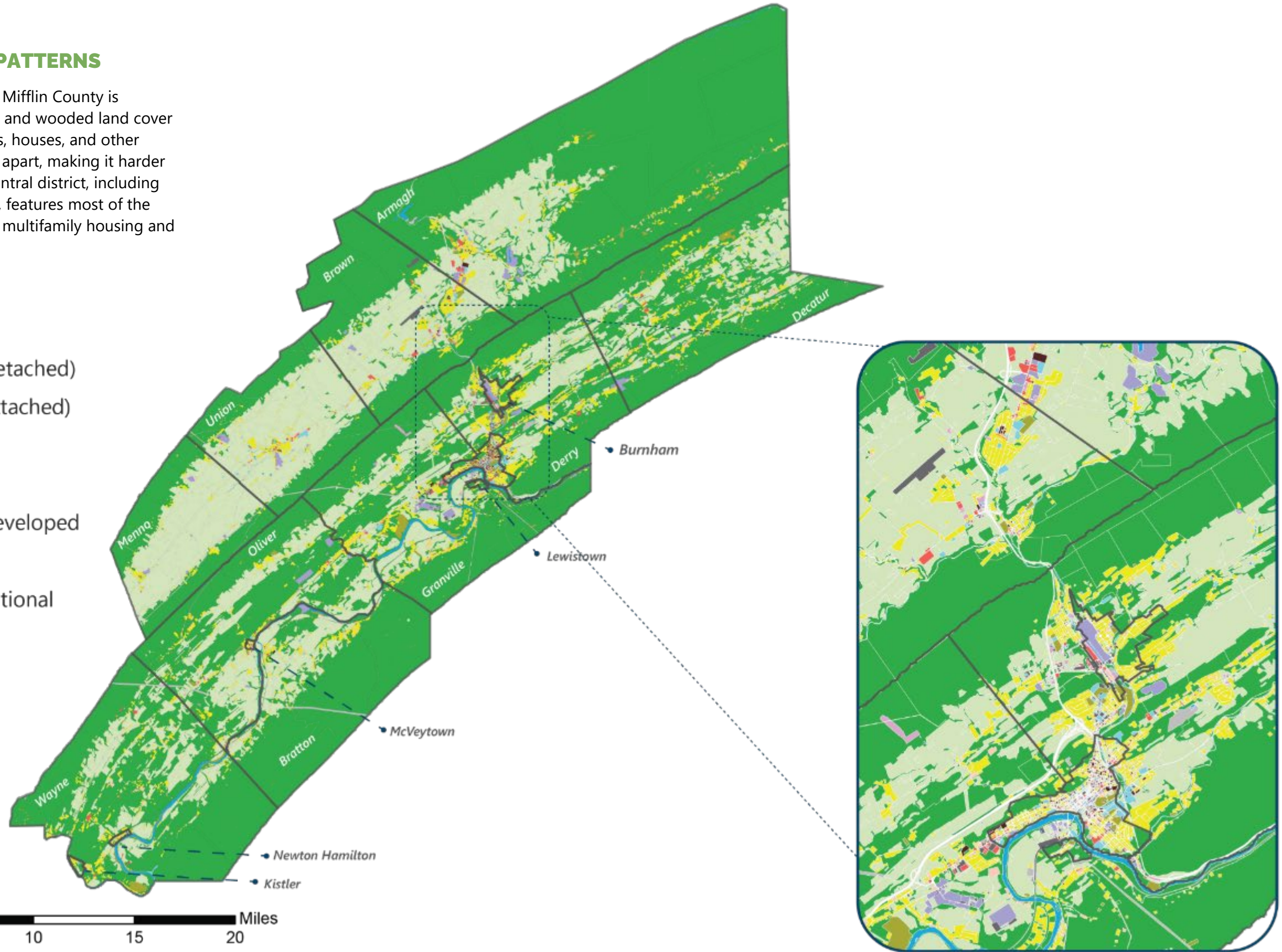


Figure 6 County Land Use Map

CIRCULATION SYSTEM

Mifflin County has a multimodal network, providing connections throughout the County and across the state. The components of this circulation system are outlined in this section with a focus on key corridors and services available, and examples of each shown at right. Details on these services and future connectivity goals can be reviewed in *SEDA-COG and Williamsport MPO Coordinated Public Transit-Human Services Transportation Plan (2019)* and *Visions for the 21st Century: The Mifflin County Comprehensive Plan (2014)*.

Active Transportation

The facilities most relevant to active transportation include the following:

- Sidewalks networks
- Trails and other off-road paths
- Bicycle infrastructure

As details about the existing active transportation network and amenities are detailed throughout this plan, this section focuses on a preliminary assessment: there is limited active transportation infrastructure available in the County. In particular, there is opportunity to increase walkable, bikeable first and last-mile connections to the transportation services included in this circulation system analysis (e.g., walkable access to train and bus stations, vanpool pick-up points, or bikeable options along key corridors).

Key Corridors and Roadways

The key corridors of Mifflin County include U.S. Routes 522 and 322 connecting to Harrisburg and State College metropolitan areas, and U.S. Route 22 and its business route that services Lewistown. PA State Route 655 is a corridor that traverses Menno, Union, and Brown townships before terminating in Reedsville. PA 103 is a rural connector that runs along the Juniata River from Lewistown Borough to Wayne Township (and extending beyond the County border).

Aside from these Arterials and Collectors, the majority of the roadways are local streets and minor rural collectors, owned and maintained by the municipalities. The more populous boroughs often feature grids of local streets and alleys.

Intercity Connections

Mifflin County features multiple intercity buses and the region's only passenger rail station.

Amtrak Rail Service. The Lewistown Junction train station is located approximately a mile southwest of Downtown Lewistown and is served by the Amtrak Pennsylvanian route, which links New York City and Pittsburgh. This route currently provides east- and west- bound daily interstate service, running along the Juniata River as it passes through Mifflin County. In 2022, Governor Wolf announced an expansion from once to twice daily service.

Intercity Bus Services. Most of the County's available intercity bus service is provided by Fullington Trailways. Fullington operates several routes along Route 322, from Harrisburg to Western Pennsylvania destinations such as State College and Pittsburgh and with a bus terminal in Downtown Lewistown. Greyhound also offers intercity connections with two round trips between Harrisburg to Pittsburgh with stops in Lewistown and State College.

Local Transit Services

Paratransit and On-demand Service. All Mifflin County residents are eligible for on-demand, shared-ride transport service through the Mifflin-Juniata Regional Services Corporation (M-J RSC) Call-A-Ride Service (C.A.R.S.). C.A.R.S. requests must be made no later than noon on the day before the requested travel (e.g., request by 12pm Thursday for a Friday trip).

Carpool and Vanpool Coordination. Vanpool groups are a shared transport service that operates like a carpool or fixed-route transit options, but with a larger vehicle to support many riders. Riders will meet at a given location and travel together to their shared destination (e.g., a major employer). In Mifflin County, the Centre Area Transportation Authority (CATA) operate more than 30 CATACOMMUTE vanpool groups with many that pass through or connect the county. CATA also provides an online platform for connecting and supporting commuters interested in traditional carpools.

Fixed-Route Transit Service. There are currently no operators of fixed-route transit or public transportation service in Mifflin County, though pilot deployments of service have been previously proposed, studied, and remain a potential. The *2002 Mifflin County Public Transportation Study* recommended two routes: (1) a route from Mifflin Commons to the Industrial Park with stops at the hospital, the courthouse, Walmart, and Weis; and (2) a route from Walmart to Belleville with stops at several stores and shopping plazas, two high schools, and at health care providers.



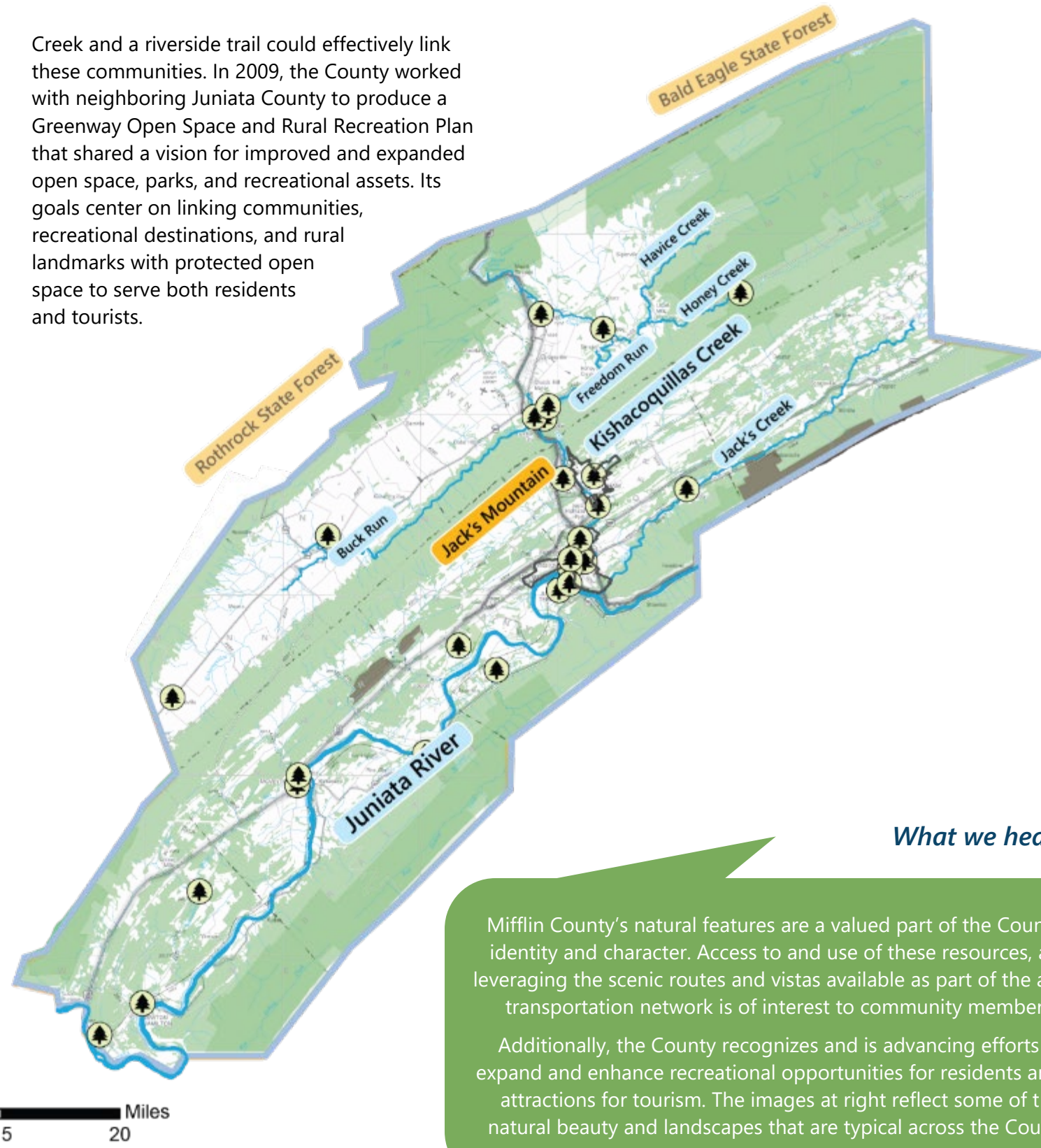
Image Sources (top to bottom): Chuck Gomez for Amtrak, Amtrak Corporate Collection, www.history.amtrak.com; Fullington Tours, www.fullingtontours.com; SEDA-COG, www.seda-cog.org; CATA Commute, www.catabus.com

NATURAL FEATURES

Land use development and circulation in Mifflin County has been largely shaped by two natural features: the Juniata River system and the surrounding Appalachian Ridge and Valley range. As shown in the Figure 7, forests and open space make up the majority of Mifflin County's land area—about 90 percent of the total land, with 65 percent of the land reported as forest areas and 25 percent agriculture and open space, according to *Visions for the 21st Century*. Development is often clustered around water features (e.g., Kishacoquillas Creek and Juniata River). These features are also major resource and amenity for the area and its residents.

When exploring opportunities to advance active transportation, natural features can be barriers or enablers to biking and walking. The steep hills and mountain ranges present a significant barrier that plans must consider; in this plan, connections focus on linking across and within the two valley areas. Likewise, Mifflin County's water features may seem like significant barriers to cross but bridges, where present, provide connections. For example, Lewistown, Burnham, and Reedsville each touch the Kishacoquillas

Creek and a riverside trail could effectively link these communities. In 2009, the County worked with neighboring Juniata County to produce a Greenway Open Space and Rural Recreation Plan that shared a vision for improved and expanded open space, parks, and recreational assets. Its goals center on linking communities, recreational destinations, and rural landmarks with protected open space to serve both residents and tourists.



LEGEND

- Public Parks
- Rivers and Water Features
- Natural Resource Area
- Wooded/Forest
- State Game Lands

What we heard...

Mifflin County's natural features are a valued part of the County's identity and character. Access to and use of these resources, and leveraging the scenic routes and vistas available as part of the active transportation network is of interest to community members.

Additionally, the County recognizes and is advancing efforts to expand and enhance recreational opportunities for residents and as attractions for tourism. The images at right reflect some of the natural beauty and landscapes that are typical across the County.



Image Sources Two Brothers Bicycle Company

Figure 7 Natural Features

2020 DEMOGRAPHICS

Age

In 2020, the county residents had a **median age of 44 years** (compared to a median age of 40.9 across Pennsylvania) and more than **1 in 5 Mifflin residents were 65 or older**.

Certain municipalities were younger, with children (under 18) comprising more than a third of residents in Menno and Union Townships and 24 percent of Lewistown residents (compared to 20.7 percent statewide).^v Figure 8 depicts this demographic context.

Understanding demographics is important as **these two age groups (youth and senior adults) are often mobility limited** or reliant on other adults to make trips (e.g., arranging rides with family or paratransit services to access appointments, school, events, etc.). These groups gain independence from expanded mobility options, helping older adults stay active and providing youth with connections to school, jobs, etc.

Race and Ethnicity

In 2020, the majority of residents in Mifflin County identified as white (94.6 percent), with three percent identifying as two or more races. Though predominantly white, the county has experienced increased diversity and, as of 2020, approximately two percent of Mifflin County residents identify as Hispanic.

Mifflin County is home to one of the largest Amish populations in the eastern U.S. Five different Amish groups are represented, residing in 32 districts and primarily in the Big Valley, and with recent expansion into Ort and Ferguson Valleys. As estimated, **Amish residents account for around nine percent of the county's total population**. This aligns with estimates of 1 in 10 residents who speak a language other than English at home and the very small 1.2 percent of residents who report speaking Spanish at home.^{vi} Given the concentration of Amish residents in the Big Valley, active transportation improvements in this area must also consider the use of buggies on the roadways.

Poverty and Income Distribution

According to the 2020 US Census, the median income in Mifflin County was \$52,641, well below the statewide median income of \$63,627. As of November 2022, the county and state had similar rolling 12-month average unemployment rates, at 4.5 percent.

Mifflin County experiences a 13.9 percent poverty rate, slightly above the statewide average of 12 percent. Lewistown Borough has the most residents currently living in poverty (approximately 1,700 people), representing 14 percent of the Borough or 27 percent of the county's total population living in poverty). Mifflin County also experiences concentrations of poverty in its rural communities. In Brown Township, more than 1,000 residents experience poverty, reflecting 26 percent of the township's population. It is important to note that child poverty is a critical issue: **one in five children experiencing poverty in the county** (21.8%).

Many of the services available to lower income residents, such as housing assistance, shelter service, senior housing, and other local and HUD-funded assistance are centered in the greater Lewistown area. Figure 9 shows the location of affordable public housing and supportive housing across the county, with a call-out to the density of locations in Lewistown.

Individuals living with a Disability

About **1 in 7 residents report living with a disability** (14.8 percent), with 7.1 percent experiencing an ambulatory difficulty that makes it harder to move and travel. These rates similar to the statewide average (14.0 percent and 7.3 percent, respectively).^{vii}

Many residents experiencing ambulatory difficulty will rely on mobility assistance devices, such as electric mobility scooters, to move around their homes and neighborhoods. The county's first public charger located at the Giant Food Store on Charles Street is reportedly used for mobility scooter charging. Though motorized, electric mobility scooters are a form of active transportation and those who use them benefit from safer infrastructure (e.g., space to ride on a sidewalk rather than traveling on the shoulder of a busy roadway).

46,143
Total Population

According to the 2020 US Census, reflecting a 1% decline compared to the 2010 census data.

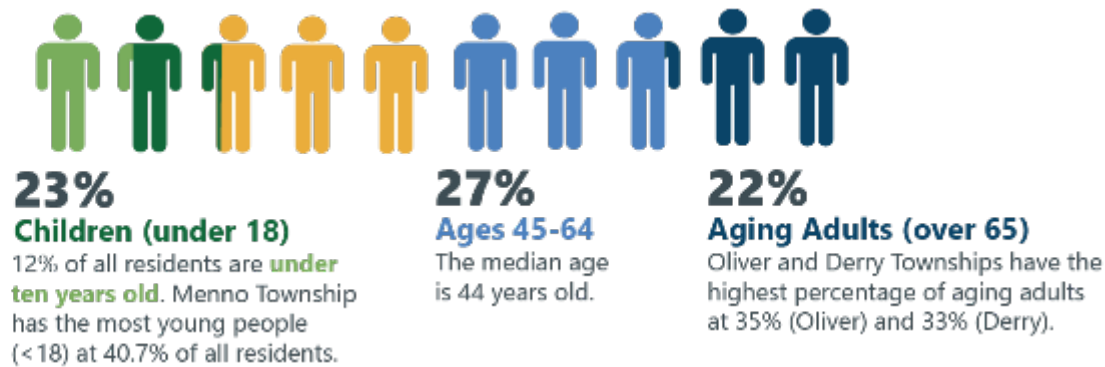


Figure 8 Mifflin County Age Demographic Data (2020)

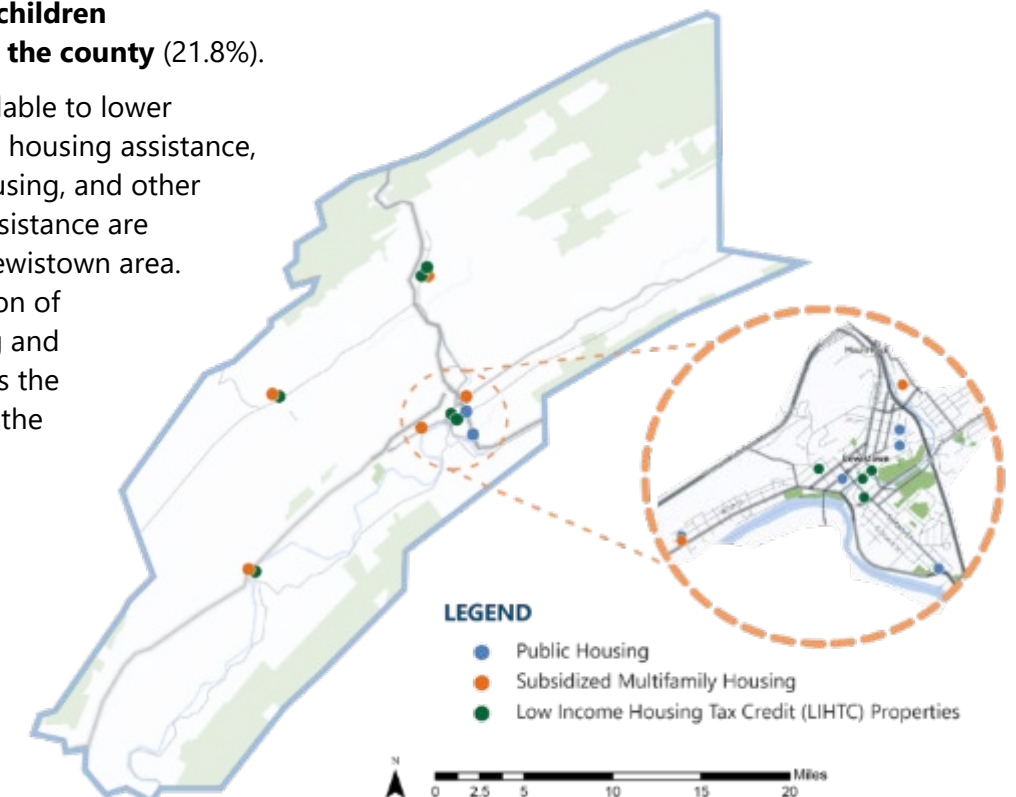


Figure 9 Public Housing Locations

COMMUNITY MOBILITY AND TRAVEL PATTERNS

Access to a Personal Vehicle

Active transportation is critical for the **1,799 Mifflin County households (9.4%) that are zero-car households**. This figure, including more than 30 percent of households in Menno and Union Townships^{viii}, likely includes the significant Amish population, who primarily travel on foot or by scooter, bike, or horse-drawn buggy.

However, the County's low density and dispersed development patterns make it difficult to reach regular destinations without a car. Even in the towns and villages where places are close together and jobs, schools, or other services are easy to get to by foot, bike, or bus, these areas often lack safe facilities to support walking and biking. Similarly, a lack of frequent transit service and limited hours of operations makes it difficult to travel reliably and efficiently without a personal vehicle.

The dependency on personal vehicles is a cost-burden: **county households spend around 29 percent of their income on transportation costs**.^{ix} Household budgets benefit significantly from access to mobility options that do not require access to a personal vehicle and its associated costs, including fuel, insurance, and maintenance and repair.

A few years ago, the County's shelter services addressed the severe burden of vehicle ownership and costs by sponsoring two bikes for low-income clients to use for work commutes. The program was limited to just one year and was an initial attempt to demonstrate how safe, affordable transportation options and facilities can advance equity by reducing transportation costs and improving access to jobs, services, and other destinations.

Active Transportation is Important: Providing Mobility Connections for All.

In Mifflin County, active transportation unlocks safer, more accessible mobility options particularly for residents who may not have access to a personal vehicle. For example, consider the following individuals who rely on reliable, accessible transport options (with the percentage of total county population provided):

- 22.5% individuals under age 18
- 21.6% adults over age 65
- 14.8% persons with disabilities
- 9.4% zero-car households
- Amish and Plain Sect communities primarily travel on foot or by scooter, bike, or horse-drawn buggy

Improving active transportation does more than provide 'lifeline' or critical service, however, and should be seen as an opportunity for 'lifestyle' or quality of life impacts that support safe, healthy and sustainable travel options for all.



Commute Patterns

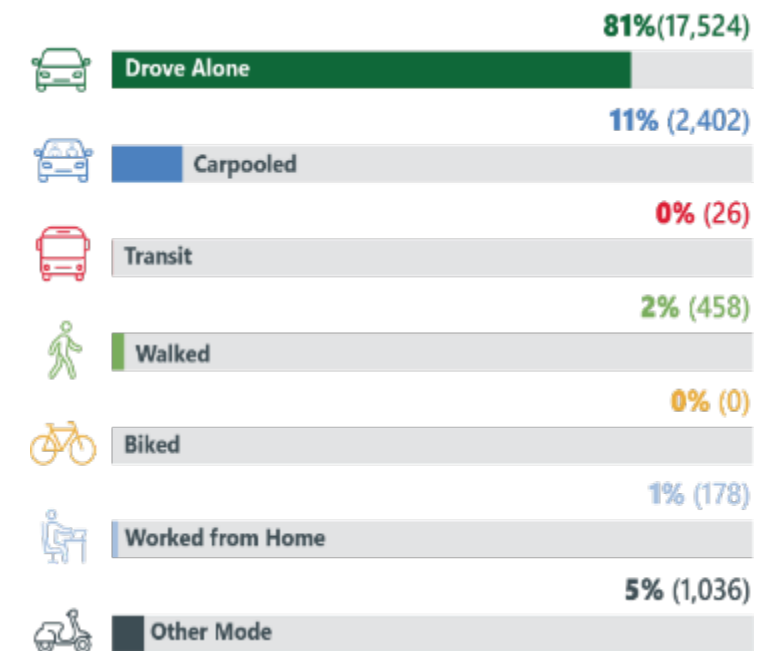
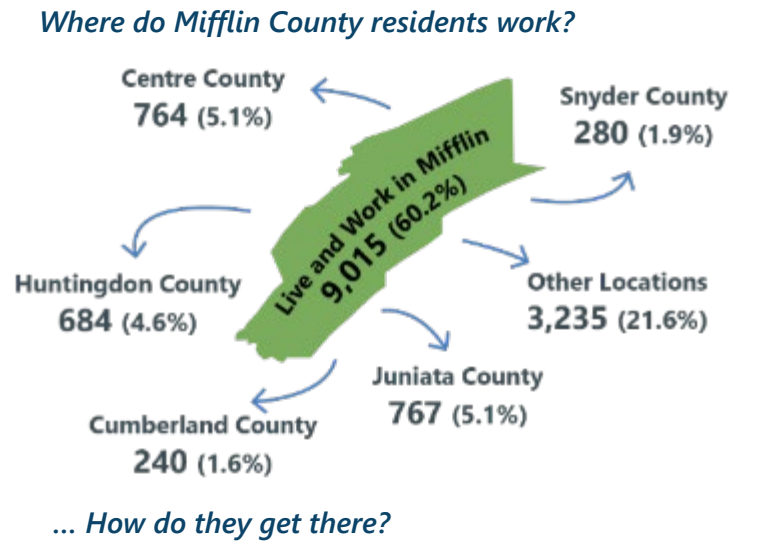
Approximately half of Mifflin's labor force lives and works within the county, with the remainder commuting to jobs outside the county. Figure 10 depicts where Mifflin County workers live— from where local employees are commuting, noting the total number of employees from each county and the percentage of Mifflin's workforce. The average commute is 24.1 minutes, slightly less than the statewide average of 27 minutes.^x

Means of Transportation to Work

Driving is the most popular commuting method for residents of the County, with 81 percent of residents driving alone and another one percent carpooling. Transit and active transportation account for less than three percent of workers' commutes (0.1% riding transit and 2.1% walking), and the remaining residents work at home. See Figure 10 for percentages and numbers of individuals by mode. Of note, the most recent data was collected in 2020 and may not reflect shifting work patterns due to the pandemic (e.g., expanded work-from-home or flexible arrangements). Data may fail to capture those who walk or bike seasonally or for part-time work. Stakeholders noted that many people walk to work, especially in the greater Lewistown area.

Safe Routes to School

The Mifflin County School District estimates that 8-10 of the 105 students living within 1.5 miles of their school building walk or bike to school. Per the PA Department of Education, students living beyond 1.5 miles of a school must be offered bus transportation.



Source: American Community Survey (ACS), 2020

Figure 10 Commute Patterns and Means of Transportation to Work

EXISTING CONDITIONS

- 22.5% individuals under age 18
- 21.6% adults over age 65
- 9.4% zero-car households
- Amish and Plain Sect communities

Health and Active Lifestyles

Healthy and active habits help to reduce rates of chronic health conditions such as obesity.

According to the Centers for Disease Control and Prevention (CDC), more than **one-third of Mifflin County residents do not engage in any physical exercise or activity**; 33.8 percent report no physical activity outside of their job.^{xi}

Only 18 percent of residents reported 30 or more minutes of daily activity—standard guidance from the CDC and other health organizations. This low rate of activity is reflected in the health conditions across the county.

The Pennsylvania Department of Health (PA DOH) reports that nearly **three-quarters of Mifflin County residents (72%) are overweight, and half of this group meets criteria for obesity (34%)**. Obesity is a growing issue among younger residents as well, affecting 24 percent of high-school students and 18 percent of grade school-aged children (grades K-6). Across the county, 12 percent of adults are living with diabetes, and 8 percent are diagnosed with heart disease.^{xii} In fact, many adults view their health as less than good: in a CDC-led survey of adults, 1 in 4 respondents reported being in 'fair or poor' health.

These and other issues are outlined in the *Community Health Needs Assessment (CHNA)* prepared by Geisinger for its western region service area, including the Mifflin County population served by the Geisinger Lewistown Hospital. The CHNA identifies regional health needs and provides targeted strategies to address disparities and improve access to care. The CHNA has an Implementation Plan that outlines actions associated with each goal, and provides tools to track progress. Actions relevant to *Mifflin Moves!* include:

1. Encouraging initiatives to support availability of healthy lifestyle choices (e.g., accessible options for walking, biking, or transit); and
2. Improving access to care for residents without reliable transportation (e.g., zero car households, or people experiencing mobility differences).^{xiii}

Initiatives to encourage walking are an area of interest to support both goals, with recommended actions such as preparing a map or other resource to show walkable routes or engaging in wellness challenges, such as setting a goal of 10,000 steps a day. Supporting alternative transportation options, such as walking, biking, or transit, is a key step in reducing barriers to car



COMMUNITY AND ECONOMIC DEVELOPMENT

Active transportation is an important ingredient in the County's community and economic development efforts. While many employers and residents currently view active transportation as a 'nice-to-have' feature, there is growing awareness of this infrastructure as a critical, 'need-to-have' part of a community. Interest and momentum for encouraging active transportation lifestyles (e.g., supporting walking and biking) is seen in recent developments, design, and business initiatives.

During *Mifflin Moves!* public meetings, attendees agreed:

"walkable, bikeable communities are a desirable community feature."

Economic Context

Healthcare and manufacturing are the major industries in the County, with each sector comprising about 1 in 5 jobs. Retail trade ranks as the third largest industry, and about 8.5 percent of jobs are in the public sector or relate to government.

Economic Development Initiatives

Mifflin County engages in several economic development efforts to identify strategies and strengthen economic growth (see Figure 11).

Mifflin County participates in a **Regional Livability Initiative** to market Mifflin and other SEDA-COG counties as attractive places to live, work, and visit. This effort aims to recruit young workers and talent into the larger towns and cities in central PA. ^{xiv} Focus Central PA acts as the region's collective economic development corporation for this and similar initiatives.

In 2020, Mifflin County Commissioners and leadership developed a countywide community



Figure 11 Recent Economic Development Initiatives

improvement program, **Success Together**, to identify methods to make Mifflin County communities "better place to live, work, and play." Goals of the initiative include 1) identifying and advancing economic opportunities; 2) enhancing quality of life and community character; 3) expanding marketing and communication efforts, and 4) building local leadership and capacity to continue these efforts. ^{xv} *Mifflin Moves!* plan aims to expand and improve safety and mobility through active transportation—well aligned with strategies to advance the quality of life and community character goal.

Downtown Lewistown, Inc.'s **Keystone Communities Designation for Granville Township, Derry Township, Burnham Borough and Lewistown Borough** leverages state tax credits for industry investment in facilities and jobs—five projects aiding four industrial and commercial firms in the last five years alone. The designation also provides priority ranking for Keystone Communities Program grants for local programs and projects, including trail projects endorsed by the designee. In fact, Keystone Communities funding contributed to the improvement of West Water Street Curb & Sidewalk upgrades that connected the Kish Riverwalk with Victory Park including the pedestrian walkway across Route 522/22.

Designated Growth Areas

The County has identified planned growth areas, or specific areas where development is both expected and encouraged (Figure 12). To encourage this growth, the County and municipalities can adopt and administer policies (e.g., adopt ordinances to shape growth patterns and development types) and can prepare the physical environment (e.g., invest in roadway improvements, or expand infrastructure such as sewer, water, and other utilities). The Mifflin

County Comprehensive Plan, Visions for the 21st Century, identifies four growth areas in Derry, Granville, Reedsville, and Milroy townships.

For these areas, the plan recommends that the local leaders "expand requirements for new development to include bicycle, pedestrian, and transit facilities in planned growth areas" to encourage greater accessibility, walkability, and to generate community. *Mifflin Moves!* provides recommendations that feature the designated planned growth areas.

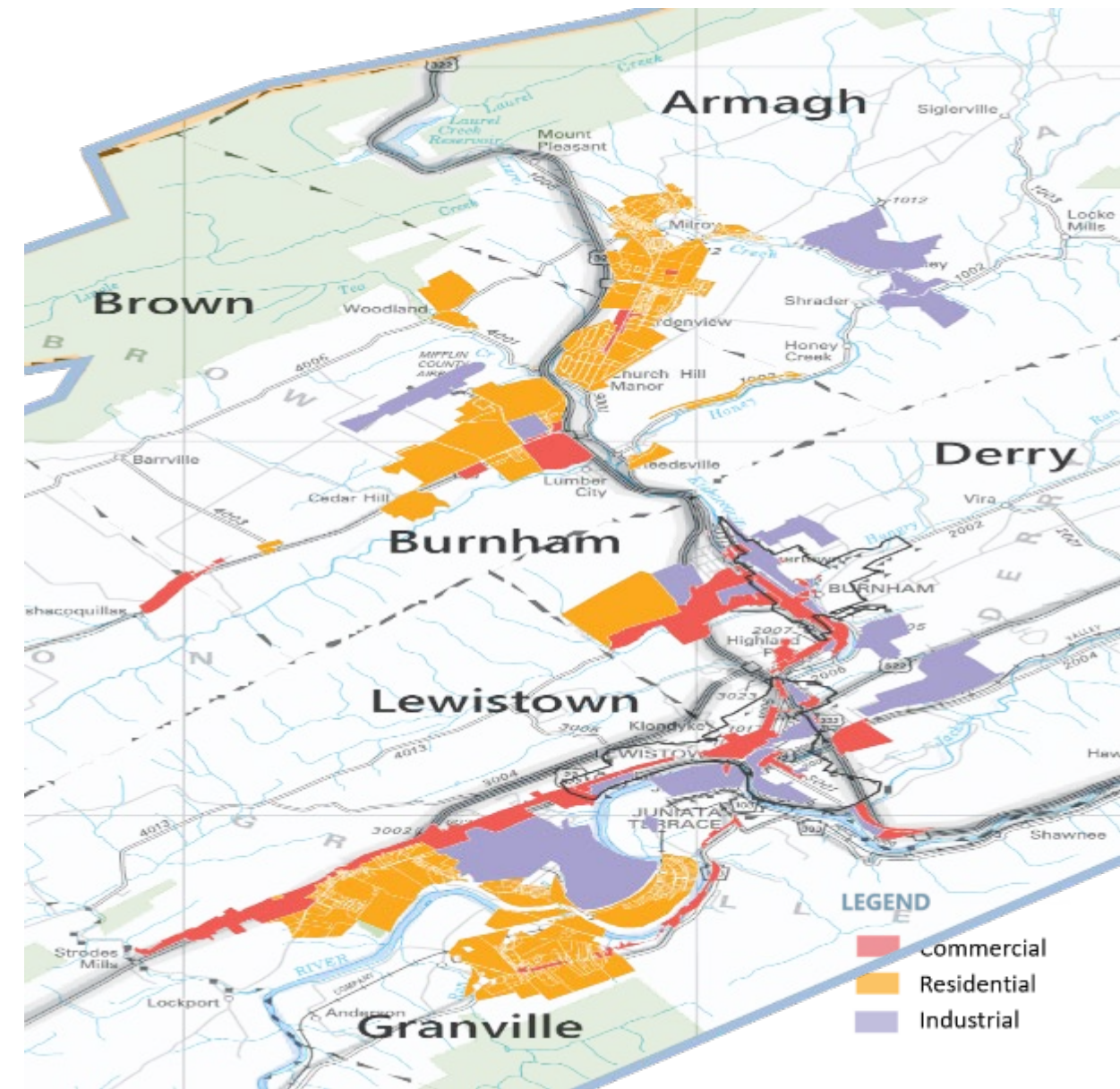


Figure 12 Designated Growth Areas, which are limited to central Mifflin County

LOCAL DESTINATIONS

The following map (Figure 13) illustrates major destinations across Mifflin County. Destinations include:

- › **Civic and School Destinations**, Mifflin County School District and Mount Union School District school buildings and administrative buildings; Civic properties, such as municipal buildings, courthouses, and other public service amenities.
- › **Work Destinations**, including the major employers of the county. (Note the school district, listed above, and Geisinger hospital, listed within service destinations, are two of the major employers in the county as well.)
- › **Retail and Service Destinations**, including hospitals and healthcare centers, grocery stores (with a focus on larger supermarket stores).
- › **Cultural: Leisure and Tourism** destinations refer to the seasonal activities and events, cultural heritage or history landmarks, and natural features such as the parks and waterways that draw visitors to the county. Examples of local events include farmers markets and produce stands, First Fridays, Country Memory Days, and the annual Goose Day Celebration in September.

Within Mifflin County there are concentrations of employment, essential services, and economic activity. These concentrations are found in Lewistown, Reedsville, and along corridors like Electric Avenue and Logan Street, shown at right.

Lewistown in particular serves as the economic core of the county, with the greatest density of major employers, stores, and annually generating approximately 20 percent of the county's annual retail sales.

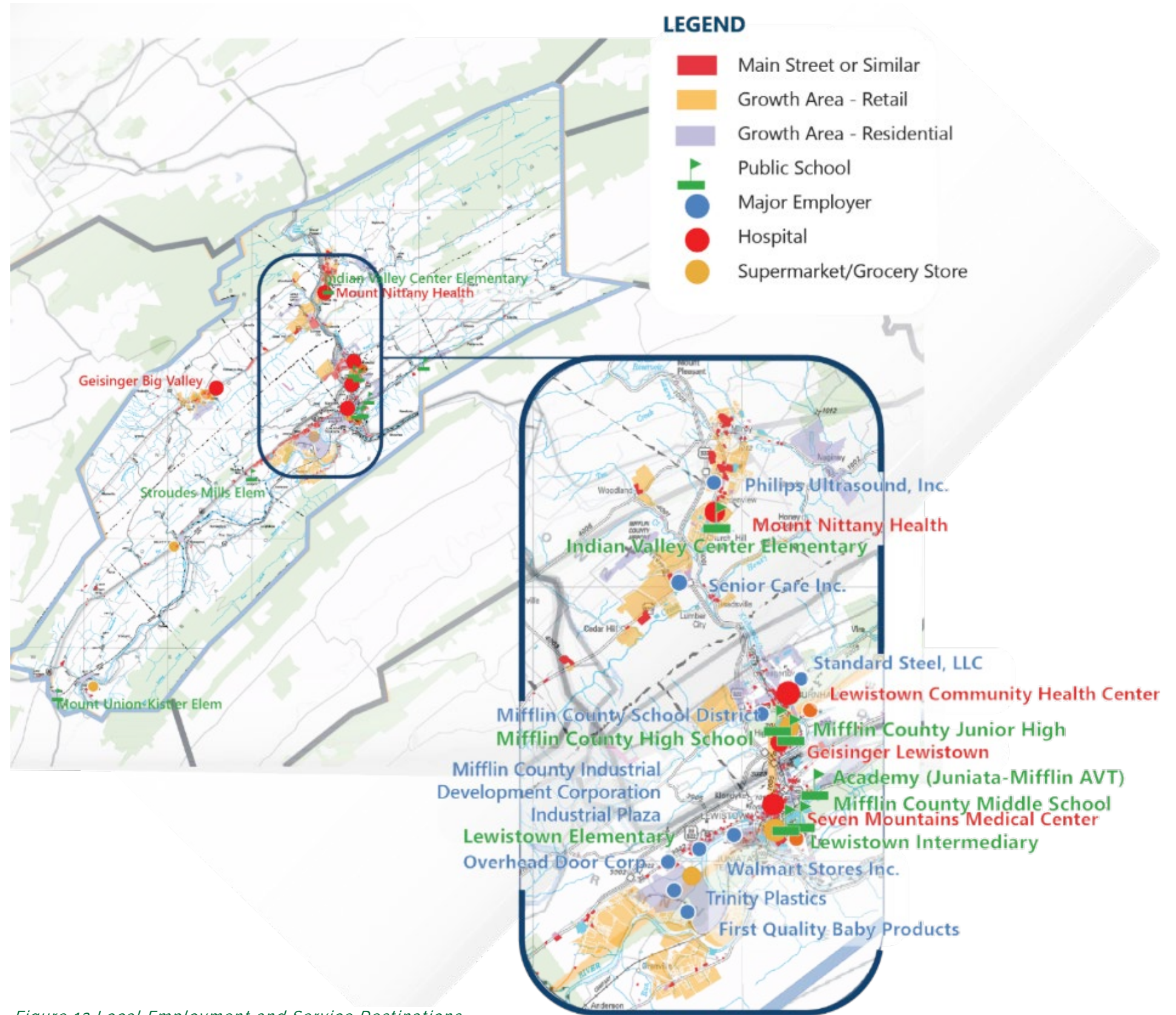


Figure 13 Local Employment and Service Destinations



Section 3: Strategic Assessment

Image Source: Michelle Brummer

STRATEGIC ASSESSMENT

NEEDS AMONG CITIZENS, GAPS ACROSS THE NETWORK

The following section explores the current condition of the active transportation network and experience in Mifflin County. This includes strategic assessment of the conditions, organized into six key areas:



1 Accessibility and Equity, with a focus on exploring how active transportation serves and supports the County's most vulnerable populations.

2 Safety, including an analysis of active transportation crashes that occurred over the last five years.

3 Connectivity of the network, in terms of reliable availability of facilities and access to key destinations.

4 Comfort and Convenience, and the amenities and features that make active transportation an attractive and enjoyable option.

5 Culture and Experience elements that shape the user experience of walking and biking in Mifflin County.

6 Existing Policies and Programs that govern the design of facilities and support walking and biking.

The section concludes with a summary of Mifflin County community needs, safety and accessibility issues, and existing gaps in the network.

ACCESSIBILITY AND EQUITY

Active transportation presents new ways to connect communities and improve access to essential services, especially critical for the County's vulnerable populations who may not drive or have access to a vehicle. To understand the existing constraints on accessibility (e.g., auto-dependent land uses) and opportunities, the accessibility evaluation focuses on four subgroups of residents that are typically dependent on lower-cost and alternative – often active – transportation options.

These groups are represented in Table 4, with details on the representation of a given community and the municipality in which there may be concentrations of vulnerable or mobility limited populations.

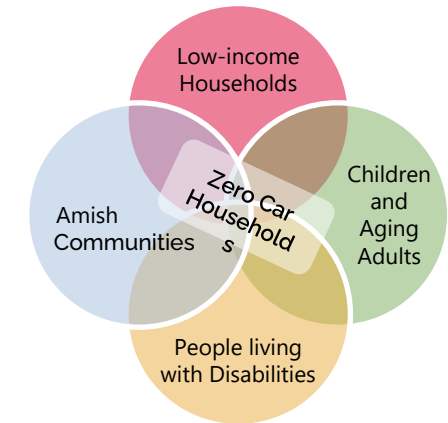


Table 4 Vulnerable or Mobility-Limited Populations

CONCENTRATIONS OF VULNERABLE OR MOBILITY-LIMITED POPULATIONS				
Population	Amount	Percent	Concentrations	Other Takeaways
Zero Car Households	1,799 units ¹	9.4%	Menno, Union, Brown, Armagh	Approximately one-third of households in Menno and Union Townships, and 14% of Lewistown households are car-free.
Plain Sect Communities	4,090 people ²	8.9%	Menno, Union, Brown, Armagh	The Big Valley community, spanning several municipalities, is the second largest plain sect community in Pennsylvania.
Low-income Population	6,307 people ³	13.9%	Lewistown, Brown	Lewistown has the greatest number of residents living in poverty, at 14% (1,696 individuals). Brown township has the greatest share of residents living in poverty, at 26.4% (1,073 residents).
Individuals Living with a Disability	6,758 people ³	14.8%	Lewistown, Derry	Lewistown has the highest number and percentage of residents living with a disability, at 19.8% (1,587 residents). Neighboring Derry township has 1,256 residents living with a disability (18.2%).

Data Sources: (1) American Community Survey (ACS), 2020. (2) [Young Center for Anabaptist and Pietist Studies, Elizabethtown College, 2020](#). (3) U.S. Census, 2020.

SAFETY

Safety is commonly measured by reviewing crash data and exploring the environmental or behavioral factors that may have contributed to the crash. This can help planners evaluate and prioritize the placement of safety interventions across the roadway network. However, it is important to remember that crash data does not paint the full picture of safety in an area, as the data fail to account for 'near-miss' events (e.g., conflicts or encounters that do not result in a crash) and does not include unreported safety incidents. Cyclists and pedestrian may not feel compelled to report a minor crash and may not recognize an injury until the adrenaline of the event subsides.

The following analyses consider five years of reported crash data involving bicyclists, pedestrians, and horse and buggy travelers retrieved from PennDOT. The data was sourced from PennDOT's public crash database, which is compiled through partnerships with law enforcement and other safety personnel, and available at www.crashinfo.penndot.gov. Additional crashes involving these users may have occurred in the study area but were not reported to PennDOT.

Figure 14 Active Transportation Crashes depicts crash totals across all active modes for the years 2016-2021. Crashes became less frequent over this 5-year period but could be closer to zero.

TOTAL REPORTED CRASHES INVOLVING ACTIVE TRANSPORTATION (COUNTYWIDE), (2016-2021)

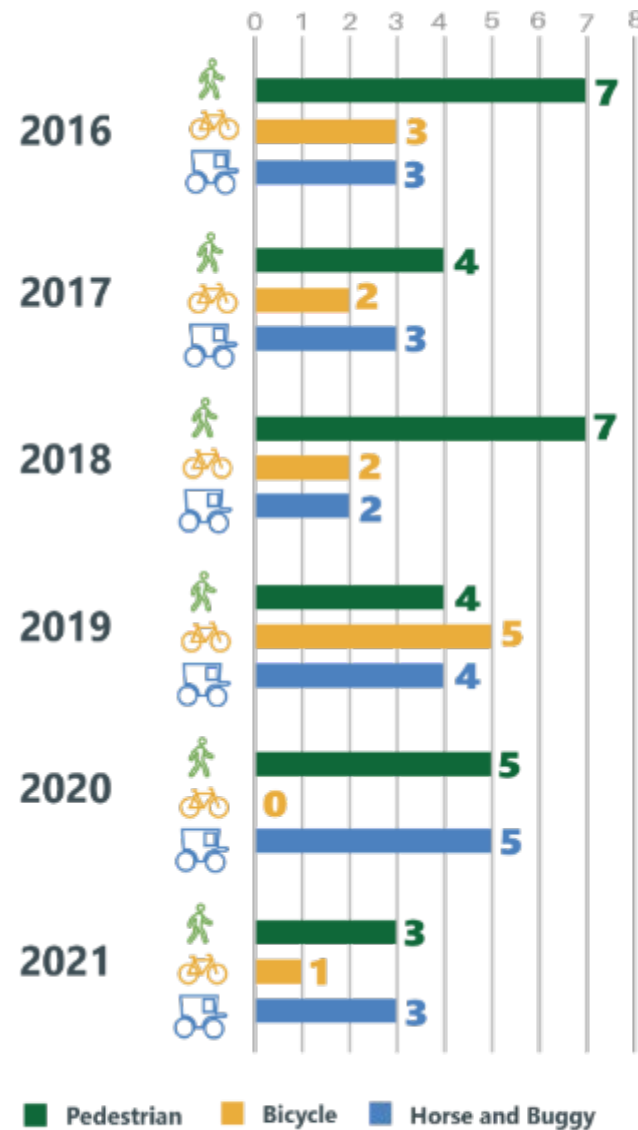


Figure 14 Active Transportation Crashes

Pedestrian Crashes

Figure 15 reflects the data for reported crashes involving pedestrians between 2016 and 2021, including severity (i.e., crashes that resulted in a death or serious injury). During this period, there were 31 crashes involving pedestrians. While this accounts for only 1.2 percent of all crashes, pedestrian crashes account for nearly a third of the traffic fatalities (30.3%), highlighting the disproportionate safety concerns of pedestrians and other vulnerable roadway users. Every pedestrian crash included in this analysis resulted in an injury; six crashes resulted in serious injuries and, tragically, three individuals died as a result of crashes. Of the fatal crashes, two involved drunk drivers. There were, in total, five pedestrian crashes that involved driver impairment or alcohol. Additional contributory factors include aggressive driving, reported in more than 20 percent of crashes, and distracted driving, which impacted at least five reported crashes.

PEDESTRIAN CRASHES (2016-2021)

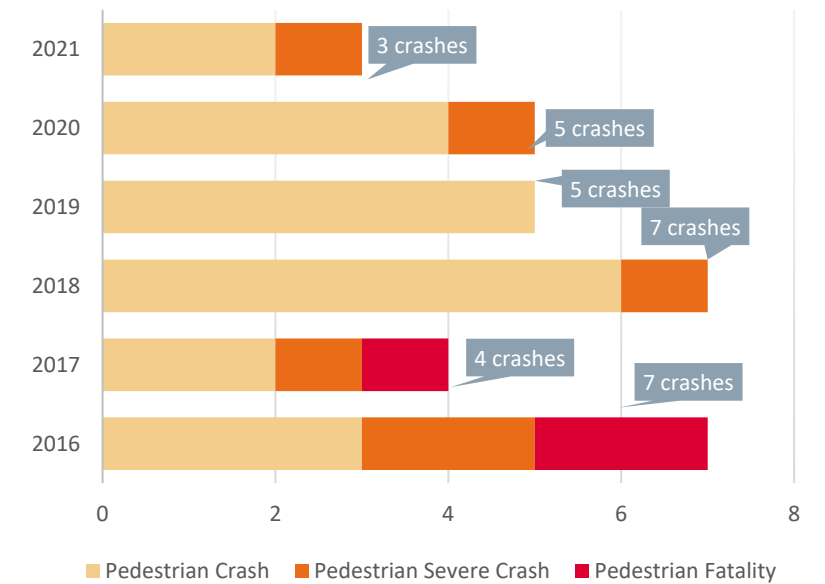
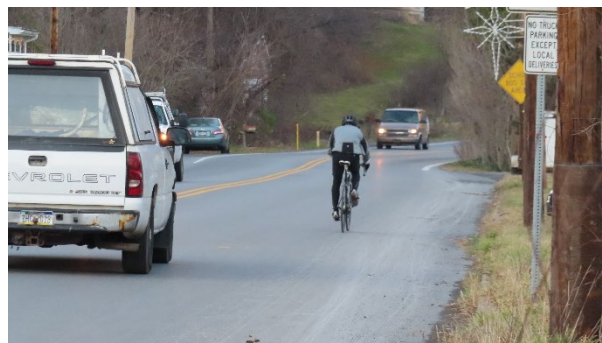


Figure 15 Crashes Involving a Pedestrian



Safety depends on the interactions of multiple modes, especially when sharing the lane.

First responders were invited to share active transportation safety issues and concerns in each of their jurisdictions. The Mifflin County Regional Police Department, Granville Police Department, Pennsylvania State Police, and Fame EMS noted the following observations:

- Occasional bicycle and pedestrian crashes;
- Frequent use of SR 1005 Logan Ave / Electric Avenue from Kish Park to the Greater Lewistown Plaza (Weis, CVS, Citizens Bank, etc.), especially by students going to and from school;
- Regular observation of bicyclists and pedestrians on Main Street in Reedsville;
- Students walking along rural roads to reach bus stops;
- Pedestrians walking along the railroad and along US 322 through the narrows;
- Frequent bicycle use in neighborhoods; in parks; and on SR 103, especially between Juniata Terrace and Lewistown;
- Motorized scooters on SR 103 and SR 333; and
- Pedestrian, bicycle, and scooter use in the vicinity of Walmart, where crossing streets is a challenge.

Bicycle Crashes

Figure 16 reflects the reported crash data for incidents involving cyclists. During this timeframe (2016 and 2021), there were nine bicycle crashes, most of which were severe (i.e., resulting in a major injury). Two-thirds of crashes resulted in serious injuries, with the remainder reported as minor or unspecified/suspected injury crashes. One of the bicycle crashes was a result of aggressive driving.

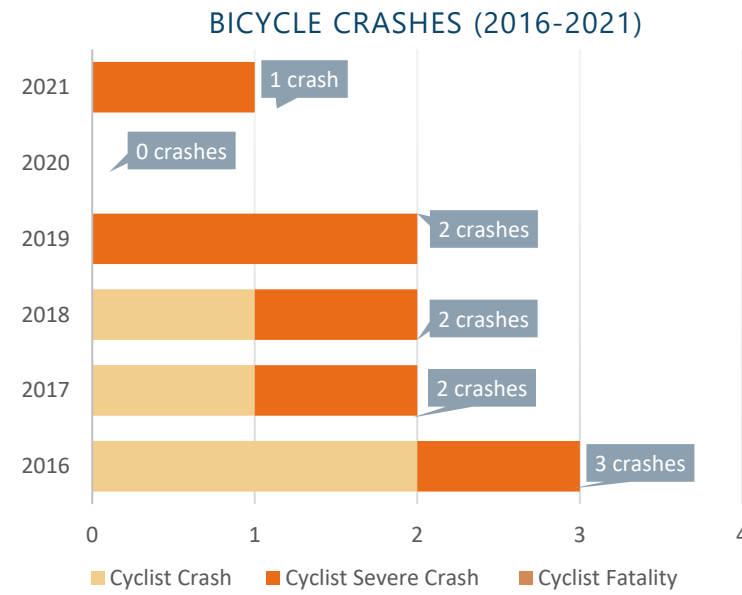


Figure 16 Crashes involving a Bicycle

Horse and Buggy Crashes

Figure 17 shows the number and severity of crashes involving horse and buggy vehicles that occurred between 2016 and 2021. During these years, Mifflin County reported twenty horse and buggy crashes, however, this depicts a trend of increased frequency and severity of crashes in the last three years. Two-thirds of the crashes resulted in an injury, with six reported serious injury crashes. Common illegal driving behaviors associated with these crashes include aggressive driving, a factor in more than one-third of crashes; distracted driving, reported in two crashes; and alcohol, involved in at least one crash.

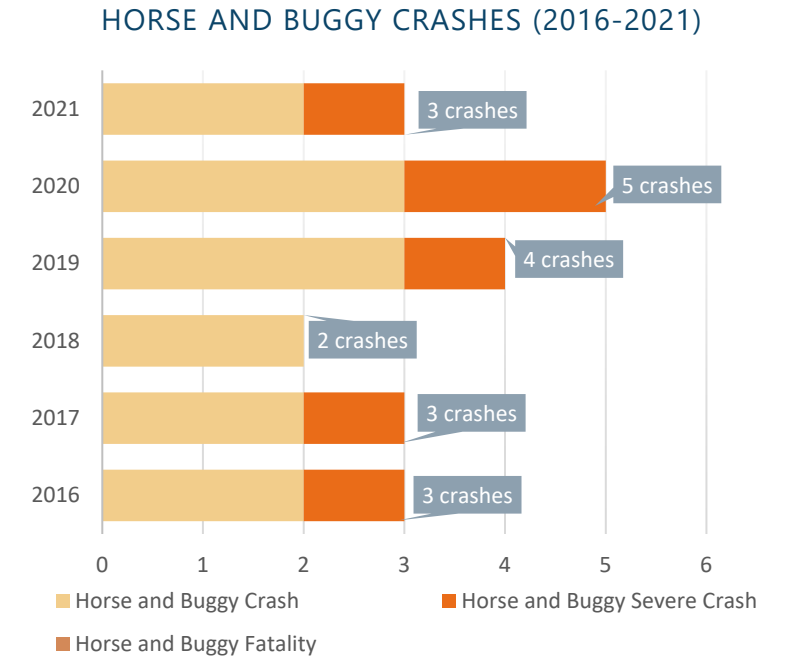


Figure 17 Crashes involving a Horse and Buggy

Safety Hot Spots: Crashes by Location

The maps in Figure 18 reflect the location of pedestrian, bicycle, and horse and buggy crash locations, to see "hot spots" or areas with higher crash frequency. Pedestrian and cyclist crash hot spots occur in denser, more developed areas (e.g., Lewistown or Reedsville), while horse and buggy crashes are centralized around State Route 655, a major connector that serves many plain sect communities and markets.

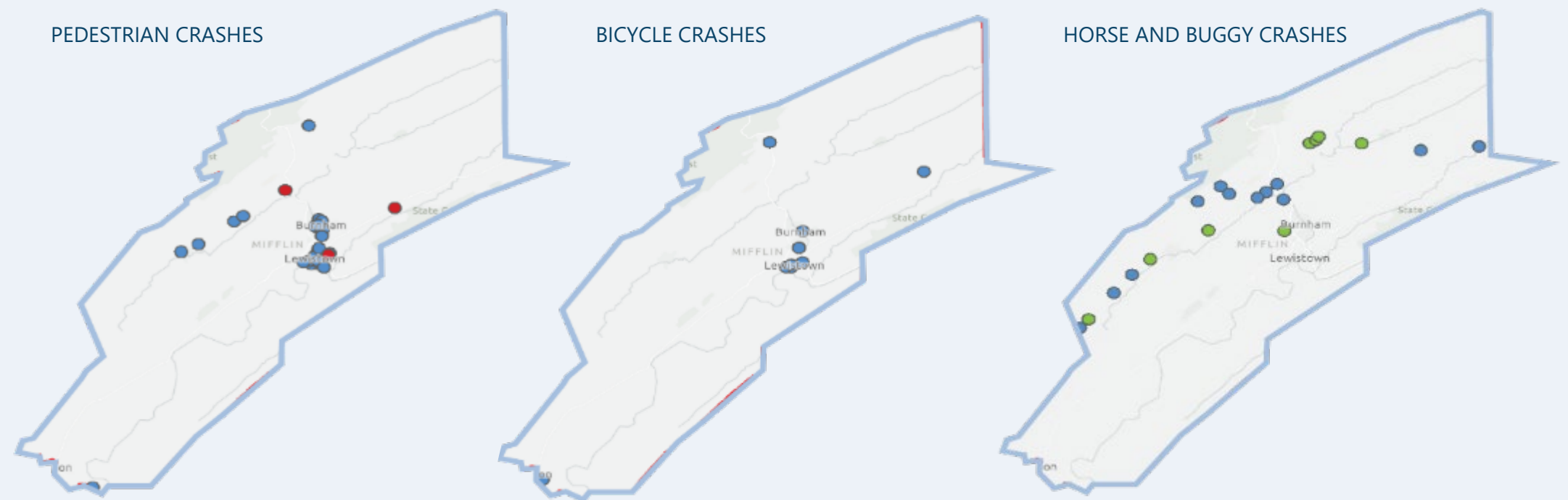


Figure 18 Crash Locations (2016-2021)

CONNECTIVITY

Active transportation connectivity is the idea that a system of safe, accessible networks and routes connects major destinations, including walkable and bikeable last-mile connections.

The 2010 *Juniata-Mifflin County Greenways, Open Space, and Rural Recreation Plan* provided a vision and a plan for addressing gaps in the two-county trail network as well as other open space and recreational amenities.

Figure 19 shows a map of existing trails plus planned greenways, trails, and bicycle trails in Mifflin County from the plan, with an emphasis on the regional greenways along ridgetops and waterways and local greenways that connect valley communities to those natural features.

Table 5 shares public input related to active transportation connectivity gaps and opportunities.

Table 5 Trail Connectivity Feedback

TRAIL CONNECTIVITY FEEDBACK	
The following comments reflect feedback from public meetings related to active transportation connectivity.	
<p>Trail Network: Interest in more trails and an expanded trail network.</p>	<ul style="list-style-type: none"> Rothermel Trail and Riverwalk Trail are noted as trails in good condition. Interest in a trail that connects downtown Lewistown to Locust Campground Better link trails to the community (i.e., providing access so people do not have to drive to trailheads to access the trail). Interest in working with DCNR to open state game lands as bikeable areas/trails.
<p>Pedestrian Facilities: Identified need to improve sidewalks and other pedestrian facilities.</p>	<ul style="list-style-type: none"> Sidewalk conditions are generally poor in Lewistown Borough. Newton-Hamilton Borough and Lewistown are noted as examples of areas that have made improvements in sidewalks/pedestrian networks.
<p>Other Connectivity Considerations: Perceived connectivity could be enhanced by investing in active transportation amenities.</p>	<ul style="list-style-type: none"> Biking is perceived as safer and more desirable on lower volume roads. Mifflin County's topography can be a significant constraint (including steep drop-offs on the edge of rural roadways). Interest in amenities for biking, walking, and other active transportation, especially at trailheads or along major routes (e.g., water stations).

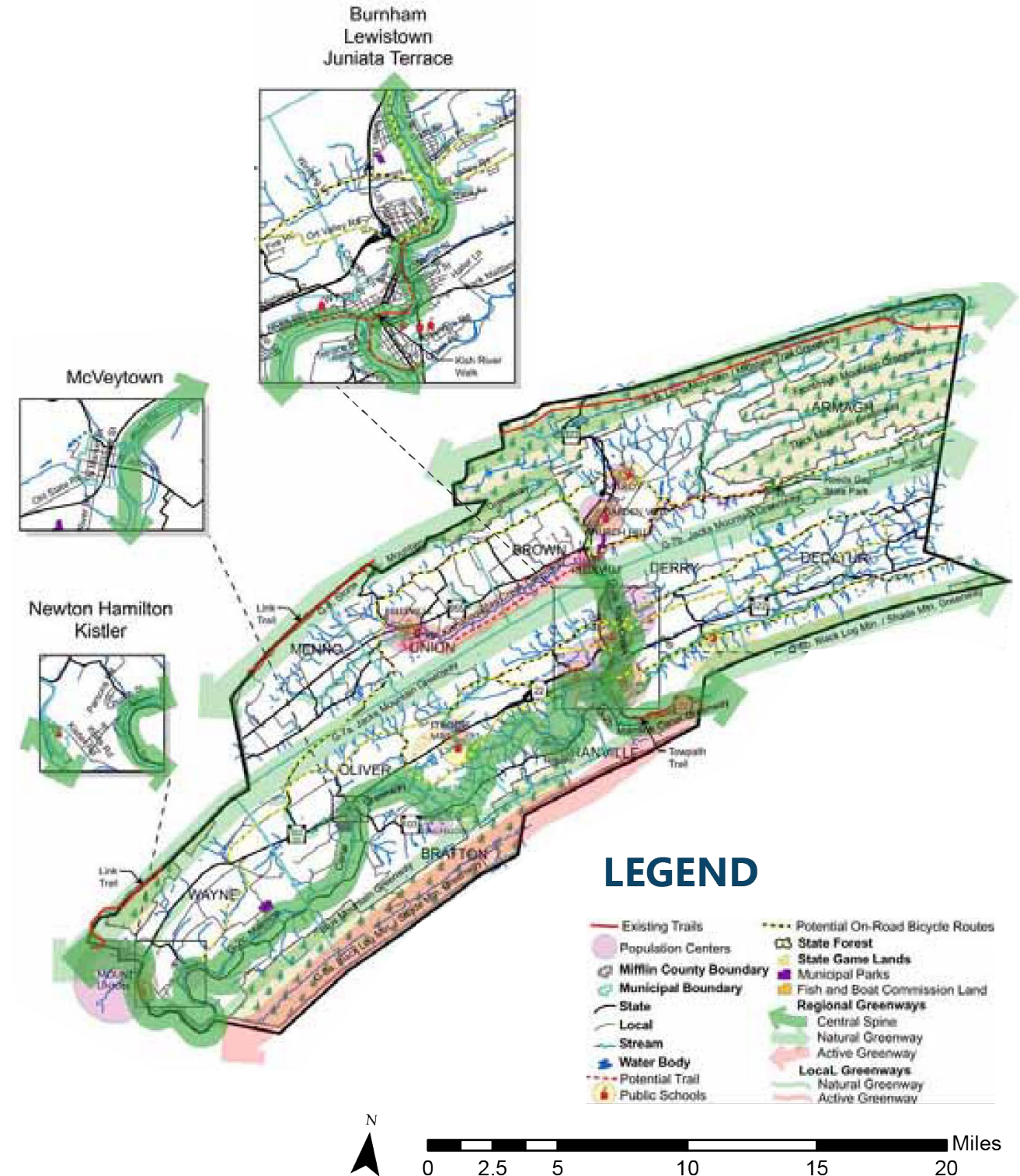


Figure 19 Greenways, Trails, and Bicycle Routes in Mifflin County

Source: *Juniata/Mifflin County Greenway, Open Space, and Rural Recreation Plan*

Three Chiefs Trail, formerly known as the Juniata River Trail Project

The Juniata River and its tributaries connect communities throughout Huntingdon, Mifflin, and Juniata County. Mifflin County aims to interconnect communities and the rural landscape along the Juniata River system, incorporating existing and planned trails (Figure 20).

- › **Victory Park Walking Trail.** This 0.21-mile multi-use trail offers scenic views of the Juniata River from South Juniata Street to River Access Road and the park's boat launch with shade trees and benches.
- › The **Downtown Connector** is a 0.23-mile on-street trail between Victory Park and the Kish RiverWalk.
- › **Kish RiverWalk.** This 0.21-mile multi-use trail connects Main Street, one block south of Monument Square, with the Rec Park along the southside of Kish Creek. Future **Kish RiverWalk** system segments include: a) the **Kish RiverWalk Extension** north to Derry Township Community Park (Kish Park), through Mann's Narrows, to Reedsville and possibly further; b) a **Juniata RiverWalk** from Victory Park to the Stone Arch Bridge at Jack's Creek; c) a **Jack's Creek Trail** to the east, and d) a **Juniata Canal Trail** from Victory Park to the Locust Campground along the north side of the Juniata River.

The concept for the Juniata Canal trail was folded into the **Main Line Canal Greenway**, a 31-mile corridor spanning Mifflin and Huntingdon Counties, and later into the September 11th (9/11) National Memorial Trail corridor. A 2019 Feasibility Study inventoried all trails near the river and provided recommendations for interim on-road improvements and long-term off-road trail facilities.

- › **Rothermel Trail.** The first phase of the Juniata Canal Trail was constructed as the S.H. Rothermel Walking Trail. It extends the Victory Park Trail to Crystal Springs Avenue (0.72-mile), with 0.49-mile extension to Lewistown's western border scheduled for construction in 2023.

The existing trail facilities – **Victory Park Trail, Downtown Connector, Kish RiverWalk, Rec Park, and Rothermel Trail** (soon to be extended) – total 2.93 miles or 4.72 kilometers—long enough to host 5k events.

In 2019, students from Bucknell University prepared a conceptual logo and various signage examples for the county's consideration. The logo is shown in Figure 21. A conceptual trail map and interpretive signage are shown in Figure 24 (page 62) and Figure 27 (page 67), respectively.



Figure 21 Conceptual logo for Three Chiefs Trail /Juniata River Trail

In 2021, the County proposed renaming this river trail network the **Three Chiefs Trail**, citing expectations to extend beyond the river and into communities, and in reference to the area's Native American heritage and history. The full Three Chiefs Trail system will take many years to complete. The County is currently studying the Juniata RiverWalk from Victory Park to the Stone Arch Bridge.

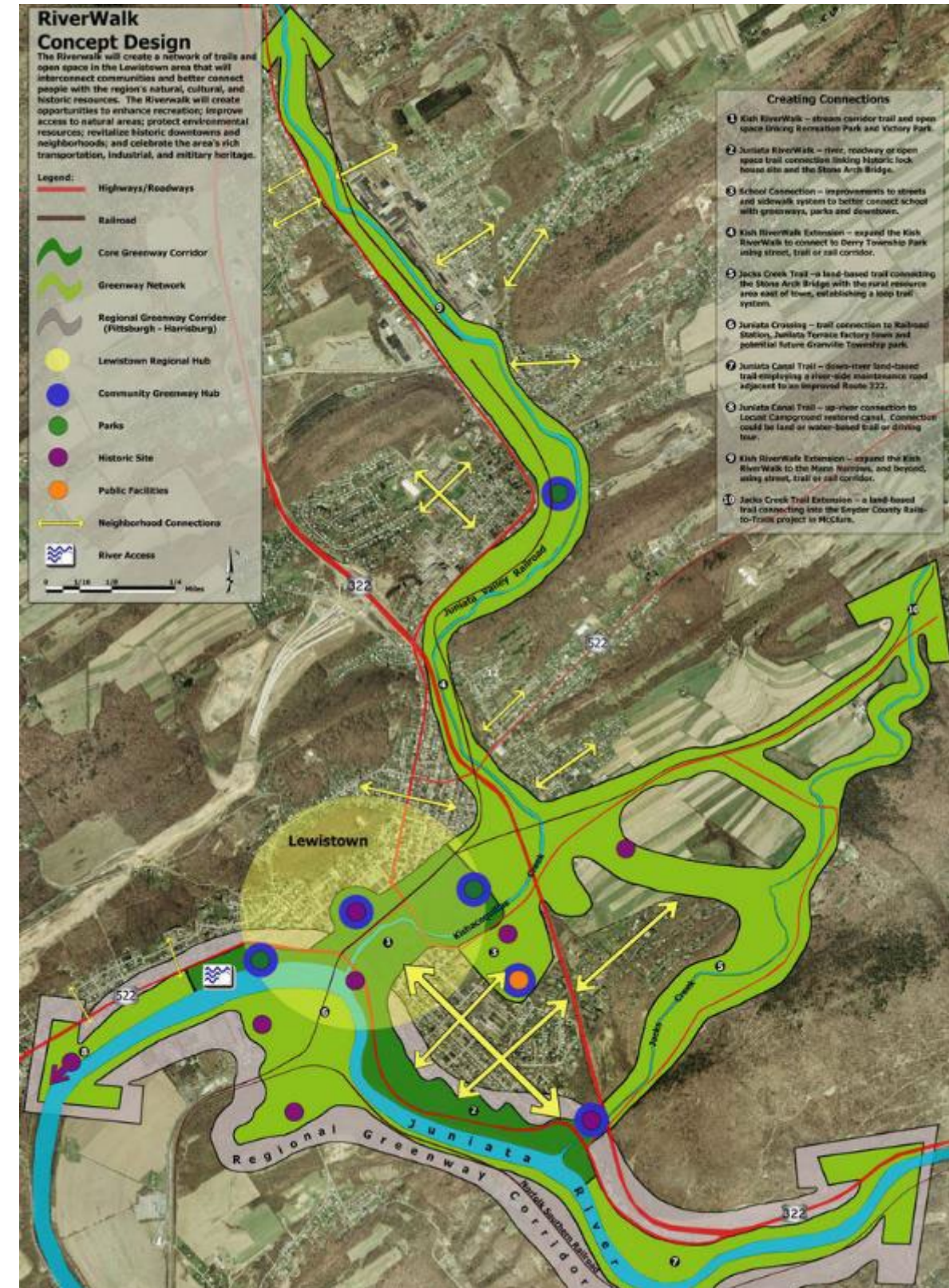


Figure 20. Three Chiefs Trail System

Image Source: Mifflin County (or Brian S. Auman / Landscape Architecture)

COMFORT AND CONVENIENCE

Connectivity, safety, and accessibility are not only measured in the facilities available, but the ease of using and connecting to and across the system. Elements like wayfinding and sense of place are important for ensuring the facilities are comfortable and convenient for walking, biking, and rolling.

This includes **wayfinding**, or directional cues such as signage to inform bikers and walkers of the route, and to provide reassurance along the way. If possible, consider resources to share wayfinding details in advance so walkers, bikers, and other visitors can plan accordingly. For example, trailheads often feature information signs or kiosk with maps and trail details, and information about nearby communities to support travelers to the best routes to their ultimate destination.

As an additional safety benefit, wayfinding features can also alert drivers to expect to interact with travelers walking or biking. Likewise, **pedestrian-scale lighting** helps travelers 'see and be seen.' While tall, cobra head style lamps are required for driver sightlines and visibility, streetlamps and shorter (less than 25-foot) lighting options better illuminate pedestrian or bike facilities so travelers can see (and be seen by others) more clearly, improving safety and perceived safety.

Convenience for active transportation includes providing bike racks, posts, or other adequate secured **bicycle parking options**. Additional amenities to support specific walking and biking needs include repair stations for bicycles or designs that allow **protection from weather** (e.g., awnings, transit stop shelters, or covered bike parking), and providing **benches** – a place to rest and relax.

CULTURE AND EXPERIENCE

Active transportation infrastructure encourages residents and visitors to more closely interact with and appreciate the details of the community they experience on along their trip. Part of planning for active transportation is placemaking, or using design to create a sense of place and to craft or reflect a local identity. Highlight the county's history, arts, and culture can help illustrate the character of the county. For example:

- › Providing culture or history details in wayfinding design to make the information more engaging or educational. This can include kiosks or interpretive signage.
- › Public art, such as murals, banners, or sculptures can be destinations themselves or attractive features along a journey. These elements can function as a gateway or feature to define a specific area.

Cultural amenities are an important and sometimes more achievable first step in building an active transportation community of practice. This also includes prioritizing the facilities and designs that make active transportation an attractive, comfortable, enjoyable, and convenient option. In Mifflin County, there is visible and supported initiatives and programming to engage residents and visitors as they walk on the roadways, including geese sculpture, murals, and banners, among other considerations such as lighting, window displays, and bike parking facilities. However, there are currently few features that support these two assessment areas in Mifflin County, outside of Market Square in Lewistown and Main Street and Reedsville. Banners, geese in Lewistown, etc.

Design elements that support active transportation comfort and convenience:



Image Sources :Mark Colussy, Michelle Brummer, Rhonda Kelley, Mark Colussy, Mark Colussy

POLICIES

Local ordinances can directly inform the design, maintenance, and improvement of active transportation infrastructure. For example, subdivision and land development ordinances (also referred to as SALDO) or zoning ordinances can prescribe locations and design specifications for sidewalk or paths, bike parking, street design, public art, and the maintenance responsibilities for these elements.

The Mifflin County SALDO, applicable to development in six municipalities, and a sampling of local ordinances were reviewed for their current active transportation provisions. Results are shown in Table 6.

The official map is another planning tool authorized by the Pennsylvania Municipalities Planning Code. It enables a municipality to designate desired land for future public facilities, such as streets, parks, trails, etc., and to allow one year for the municipality to negotiate land donation or purchase if the property is proposed for development. There are no known municipal official maps adopted by Mifflin County or its municipalities.

Table 6 Local Policy Review for Active Transportation Provisions

LOCAL POLICIES		
Policy	Subject Area	Key Active Transportation Takeaway
MIFFLIN COUNTY		
Subdivision and Land Development Ordinance (SALDO) ^{xvi}		Application: The Mifflin County SALDO applies to the six municipalities that do not maintain local ordinances, including: Bratton Township, Wayne Township, Juniata Terrace Borough, Kistler Borough, McVeytown Borough, and Newton Hamilton Borough.
	Sidewalks	<ul style="list-style-type: none"> Minimum sidewalk width for all sidewalks and pathways is 4 feet. <i>Suggested Improvement: Update to 5 feet minimum width.</i> Sidewalks are required for streets that: (1) provide access to community facilities, (2) serve commercial, industrial, or mixed-use development, (3) already feature sidewalks, e.g., continue existing sidewalks from adjoining subdivisions and land developments, or, if sidewalks are determined necessary for public safety (for streets meeting the public safety criterion, recommendations from the municipal governing body will be reviewed by the commission to make this determination).
	Access Management	<ul style="list-style-type: none"> The number of driveways and driveway intersections on a major street should be minimized and avoided where possible. <i>Suggested Improvements: Require alignment of new street access with existing streets to create 4-way intersections. Define minimum driveway spacing.</i>
	Other Relevant Requirements	<ul style="list-style-type: none"> The design of streets, service drives, and pedestrian ways in non-residential areas – commercial, industrial, or otherwise should provide for safe and hazard free internal circulation. <i>Suggested Improvement: Limit on-street parking adjacent to intersections (e.g., no parking within 30' of an intersection). This will enable daylighting, i.e., giving pedestrians better visibility of other roadway users and ensuring they are also more visible to approaching vehicles.</i>
BOROUGH OF LEWISTOWN		
Subdivision and Land Development Ordinance (SALDO)	Sidewalks	<ul style="list-style-type: none"> Minimum sidewalk width is 4-feet. <i>Suggested Improvement: Update to 5-foot minimum widths. Consider 10-foot to 12-foot minimums along bus routes (e.g., near intersections) to allow for the installation and maintenance of bus shelters.</i> Sidewalks are required if streets: (1) provide access to community facilities, (2) serve commercial or mixed-use development, (3) serve medium density residential development, or (4) already feature sidewalks (e.g., sidewalks are required to continue existing sidewalks from adjacent parcels.); the Borough can also require sidewalks on streets if the council determines that sidewalks are necessary for public safety.
	Access Management	<ul style="list-style-type: none"> The number of driveways and driveway intersections on a major street should be minimized and avoided where possible.

BROWN TOWNSHIP		
Subdivision and Land Development Ordinance (SALDO)	Sidewalks	<ul style="list-style-type: none"> Minimum sidewalk width is 4 feet. <i>Suggested Improvement: Update to 5-foot minimum width.</i> Sidewalks are required if streets: (1) provide access to community facilities, (2) serve commercial or mixed-use development, (3) serve medium density residential development, or (4) already feature sidewalks (e.g., required to continue existing sidewalks from adjacent parcels.).
Zoning Ordinance	Goals	<ul style="list-style-type: none"> "...safe and convenient pedestrian, bicycle and vehicle circulation, with an emphasis on avoiding conflicts between vehicles backing out of garages across sidewalks." "Allow for the development of fully integrated, mixed-use pedestrian-oriented neighborhoods."
	Sidewalks	<ul style="list-style-type: none"> Minimum sidewalk width of 3 feet on local/collector streets (plus 5-foot planting strip). <i>Suggested Improvements: Update to 5-foot minimum width. Add a human-scale lighting requirement (e.g., <25 feet tall).</i>
	Traditional Neighborhood Development (TND) Overlay Optional but if used, allows substantial density bonuses. The overlay is voluntary but enforceable.	<ul style="list-style-type: none"> Provide street linkages to allow connections with existing or future developments. If direct access between properties is not practical, the Township may require provision of bicycle and pedestrian access (via an easement). Minimum sidewalk width is 5 feet. Sidewalks are to be provided along both sides of each street or courtyard unless there is integration of walking paths or trails. Density bonus for Including public usage greenway land in new subdivisions (up to 4 dwelling units per acre or per 2,500 feet of pathways). Developers are to install street lights that are decorative, dark in color, and no taller than 25 feet in height. Commercial areas should be "principally oriented towards pedestrian customers" both in direction and design of the storefront, the facilities and infrastructure, and in the amenities available (i.e., pedestrian-scale lamps, benches, trash receptacles).
BOROUGH OF BURNHAM		
Subdivision and Land Development Ordinance (SALDO)	Sidewalks	<ul style="list-style-type: none"> Minimum sidewalk width is 4-foot wide, in commercial areas, recreation areas, shopping centers, and other community facilities sidewalk the minimum width is 5-feet. <i>Suggested Improvement: Update to 5-foot minimum widths.</i> Sidewalks are required on both sides of the street in subdivisions with: (1) typical lot width of 90-feet or less at building setback lines, or (2) where semi-detached, row, or multifamily structures are planned. Sidewalks may also be required on both sides of the street if it would be desirable to continue sidewalks (from existing, adjacent subdivisions) or to provide access to community facilities (schools, shopping areas, recreation areas).

COMMUNITY NEEDS & OPPORTUNITIES

Based on the evaluation of these six areas—Accessibility and Equity, Safety, Connectivity, Comfort and Convenience, Culture and Experience, and Policies—the following emerged as community needs and opportunities for an active transportation network in Mifflin County.

1. Equitable transportation options.

The existing infrastructure and travel patterns in Mifflin County reflect a general dependency on motorized travel, even within walkable or bikeable distances of community destinations.

However, the County also features several communities that use and rely on non-driving travel options, including a significant Amish Population, and many zero-car households. These communities need equitable travel options to access essential services, jobs, stores, family, and friends.

Too often, using active transportation in the County without available infrastructure means traveling involves unsafe conditions. For example, consider the following gaps:

- **Lack of pedestrian networks.** Examples include access to cross major roadways and access destinations, such as West 4th Street in Lewistown, and in villages such as Allensville, Belleville, and Milroy.
- **Limited connectivity to walkable destinations.** The connection between downtown Lewistown and the Lewistown Junction Train Station is a notable gap for the community, as these destinations are more likely to car-free travel (e.g., first and last-mile connections to the train) and are within a walkable distance.
- **Physical and functional barriers to multimodal/complete streets.** On streets such as SR1005/Electric Avenue (in Highland

Park) and U.S. 322 (between Lewistown and Derry Township), the opportunity to travel without depending on a vehicle is limited despite the proximity of destinations and the number of essential services that could be reached by foot, bike, or transit. This walkability is hindered by the current infrastructure. Beyond active transportation lanes, paths, or sidewalks, this also refers to the lack of adequate lighting, signage, or devices to calm traffic in these areas.

Bridges can present a similar physical constraint on walkable, bikeable routes to key destinations. Bridges are often narrower than the adjacent roadway, forcing pedestrians and cyclists to travel within the lane or in the shoulder and therefore more exposed to traffic. For example, residents referenced the unsafe corridors and bridges that link to river access points in McVeytown. This constrained, unsafe route is used by many cyclists in the warmer months, including younger adults and children.

The rail corridor in Lewistown can also present a physical barrier to safely accessing or moving through the area. It would be valuable to assess (and address) the safety issue of people walking along the railroad, even if it is an infrequent occurrence.

On rural roadways, the right-of-way must be assessed for the suitability for bicycle use and facilities, including evaluation of traffic volumes and speed versus the available shoulder width and consistency.

2. Education and encouragement to accept active transportation into small town and rural culture and infrastructure.

Active transportation can be a necessary lifeline for communities, enabling more equitable mobility options to access care, jobs, and other destinations. For the Mifflin County communities

that rely on personal vehicles, this will be a paradigm shift that requires significant education and encouragement. Highlighting some of the values of active transportation, including the benefits to health, equity, and economic vitality, is important.

Likewise, it is important to consider and advocate for active transportation as a means to address Mifflin County's chronic health issues by providing healthy transport options and exercise opportunities to residents.

3. Public interest in recreational travel routes.

There is significant public interest in expanding and improving access to recreational routes and trails across the county. This is especially pronounced among families in the county, who utilize the trail system for family-friendly activities in the region.

Advancing recreational routes requires significant coordination across municipalities, advocacy groups and alliances, and tourism agencies that may want to be involved in development or help support trail maintenance.

To develop and advance recreational routes, the County will need to be an active partner in state, advocacy, and local coordination to assess suitability. This can also include efforts to brand and market the routes as destinations and activities to generate interest in the County for visiting and living (e.g., improving amenities for residents and attracting new residents).

One example of a current recreational route initiative—and this strategic approach to advancing the route—is the multistate September 11th National Memorial Trail. This trail has been the focus of dedicated stakeholder coordination, development of a signage plan specific to local access and connecting riders to nearby destinations, and public events to support development of the trail.

4. Leverage active transportation for economic development.

Making it easier and more enjoyable to move from A-to-B in a way that can be used by all users, is always good business. Active

Transportation is an amenity that is increasingly leveraged to attract employers and employees, and can similarly draw in visitors and new residents. For example, recreational routes are a recognized tourism market across Pennsylvania and strengthening these connections from trails to Mifflin's many communities is a way to encourage visitors to explore the rich history and culture the County has to offer.

While these routes offer opportunity to slow down and enjoy the scenic natural beauty of the area, walking paths and bike routes through downtown areas and villages can similarly provide the chance to slow down and appreciate the shops, stores, and the character of communities as one travels. This can encourage foot traffic and walk-in business, and bring a greater awareness and appreciation of local businesses and offerings.

Lastly, improving connectivity throughout Mifflin County will allow communities to benefit from travelers who walk, bike, or roll between destinations. For example, improving the former Kish Valley Railroad right-of-way to connect Yeagertown with Reedsville will generate activity at both ends of this connection, enabling Yeagertown and Reedsville to benefit from increased foot traffic, potential customers or visitors, and the opportunity to bring in new business by providing services and goods for people walking, biking, and rolling.



Section 4: Vision and Goals

Image Source: Michelle Brummer

VISION AND GOALS

PLANNING FOR AN ACTIVE FUTURE







A VISION FOR A MORE ACTIVE MIFFLIN COUNTY

What's Different in 2035?

By 2035, residents, workers, and visitors walk, bike, and roll regularly because **active transportation offers safe travel choices, bolsters public health, and supports our economy.** There is something for everyone!

WHO BENEFITS FROM THE ACTIVE TRANSPORTATION NETWORK

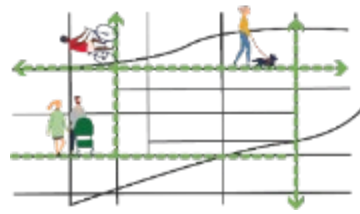
The table of benefits and user profiles below explores the ways in which residents, workers, and visitors will benefit from a more robust, safe, and connected active transportation network.

	<i>All ages All walks of life</i>	<i>All travelers All lifestyles</i>	<i>All communities All economies</i>
 Safety	<p>Enables safe choices</p> <p>Promotes non-motor safety</p>	<p>Integrates pedestrians, bicyclists, and “rollers” as equal and expected travelers</p> <p>Enhances access for public transportation users</p>	<p>Reduces crashes and associated time and cost</p>
 Health	<p>Increases independence</p> <p>Reduces isolation</p>	<p>Builds physical activity into daily life</p> <p>Encourages healthy lifestyles</p>	<p>Increases social engagement with community</p>
 Economy	<p>Offers low-cost travel options</p> <p>Offers alternatives to car ownership</p>	<p>Creates reliable commuting options</p> <p>Expands tourism options</p>	<p>Increases customer foot traffic for businesses</p>
 Who Uses the Network?	<p>Parents of young children Can walk with a stroller or wagon to a park or library, encouraging healthy family time and making social connections within the community along the way.</p> <p>Youth Can build healthy habits, responsibility, and independence as they walk and bike to and from school, a park, or a job, or just for fun.</p> <p>Active retirees Can walk or bike to volunteer, shop, and access healthcare, maintaining independence and physically and socially active lives as they age.</p> <p>Residents of all ages Can conveniently combine exercise with errands. Form some, this might literally entail fulfilling a prescription for health and healing from their health care provider.</p>	<p>Residents who live car-free Including persons with disabilities and Amish and Mennonite community members, can make local trips for work, shopping, services, and social life and public transportation for longer trips.</p> <p>Visitors Can take in the character of Mifflin County, experiencing the sights and sounds of its historic towns and villages and scenic agricultural valleys at a relaxed travel pace.</p> <p>Transit riders Have a safe and accessible path to and from their local transit stop or station to their destination.</p>	<p>Workers Whose jobs are located near the network have a reliable, low-cost option for commuting.</p> <p>Restaurants and retailers Restaurants, cafes, and tourism businesses located along walking and biking routes gain customers to serve.</p> <p>Community organizations Can host programs and events along the network, encouraging attendees to arrive on foot or by bike.</p>

GOALS

Mifflin Moves! and the vision for a more walkable, bikeable and connected Mifflin County is designed around, and towards, four goals:

1



Establish a Network

Establish a network for walking, biking, and rolling, where active travel is intuitive, safe, and comfortable for users of all ages, abilities, and lifestyles.

2



Encourage an Active Lifestyle

Encourage active transportation as an inclusive, low-cost, and healthy way to travel within and between communities.

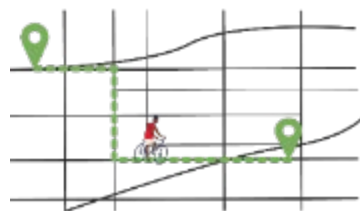
3



Enhance the Network Experience

Enhance the network experience with design features that reflect the history, character, and culture of Mifflin County.

4



Expand Community Connections

Expand connections among community destinations.

GOAL 1: ESTABLISH A NETWORK

- Designate and improve select locations for safe and comfortable walking, biking, and rolling for users of all ages and abilities,

How we measure success...

Increase in the number of miles of sidewalks, trails, and on-road bicycle facilities designated in the network.

Reduce the number of crashes and near miss events involving pedestrians, cyclists, and other non-motorized roadway users on the network, and throughout the county.

Benefits

- ✓ Predictable locations for cyclists, pedestrians, and other travelers using active modes
- ✓ Reduced exposure to dangerous conditions (E.g., conflict points or higher speed, higher volume roadways)
- ✓ Improved perception of safety
- ✓ Reduced traffic stress (or increased comfort) for cyclists, pedestrians, and other travelers using active modes
- ✓ Increased independence through reduced reliance on driving—especially for aging adults, young adults Amish residents, and other members of zero-car households.

Strategies

> EDUCATE

- Publicize the active transportation network. Regularly report the status of network development projects.
- Develop information for first-time walkers, cyclists, rollers, and others interested in using the network.
- Develop messaging and signage for drivers on how to safely interact with walkers, cyclists, buggies, etc.

> ENCOURAGE

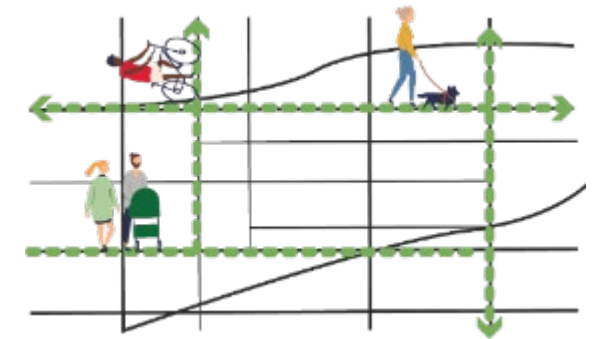
- Encourage local police to observe traffic for bicycle and pedestrian safety on their patrols.

> EVALUATE

- Solicit locations for safety audits and conduct audits via LTAP or PennDOT Connects Technical Assistance.
- Review candidate TIP projects from an active transportation perspective; submit comments to SEDA-COG and its Active Transportation Advisory Committee.
- Develop a tool to identify areas suited for active transportation and any specific improvement needs.

> ENGINEER

- Work with PennDOT, municipal, or other facility owners to address safety/security audit findings, and to identify facilities to improve safety for active transportation.
- Integrate active transportation considerations and elements into policy and regulations/ standards.



GOAL 2: ENCOURAGE AN ACTIVE LIFESTYLE

- Promote active transportation as an inclusive, low-cost, and healthy way to move in and among communities.



How we measure success...

Increase **the number of people biking, walking, rolling regularly** (i.e., the number of non-motorized/active transportation trips) on the network.

Increase **the number of marketing placements** (online and in-print) promoting the active transportation network and what it has to offer.

Benefits

- ✓ Increased physical activity across all ages and communities
- ✓ Reduced rates and/or risk of chronic health issues (e.g., asthma, obesity, heart disease, diabetes)
- ✓ Reduced rates and/or risk of childhood obesity
- ✓ Lower healthcare costs
- ✓ Improved mental health (e.g., reduced stress, increased independence, increased exposure to nature)

Strategies

> EDUCATE

- Develop and share education about how to use the network and move around the County.
- Develop driver education and messaging on how to safely interact with walkers, cyclists, buggies, etc.
- Share route information to help travelers plan trips.

> ENCOURAGE

- Encourage community organizations to develop programs and events that use the active transportation network as a venue for activities.
- Encourage health care providers to write prescriptions for physical activities (walking, biking, or rolling).
- Partner with local institutions, schools, and employers to develop programs that support active transportation (e.g., bicycle parking, wellness credits, or reimbursement).
- Promote tools to support safer connections, including route planners and platforms to enable meetups.

> EVALUATE

- Work with local public health leaders to track and health-related data across different populations.
- Develop self-report tools to capture hard-to-measure metrics like level of stress, or perceived health.

> ENGINEER

- Include bike and pedestrian travelers in local traffic counts.

GOAL 3: ENHANCE THE NETWORK EXPERIENCE

- Enhance active travel with design features that reflect the history, character, and culture of Mifflin County.

How we measure success...

Increase **the number of signs** (wayfinding, interpretive, distance/mileage) on the network.

Develop and maintain an **online resource** with information about the active transportation network and amenities (for example, hosted on the County website).

Benefits

- ✓ Frequent, high-quality events and programming to engage all communities and encourage walking, biking, and rolling
- ✓ Enhanced civic pride, sense of place and belonging in the community

Strategies

> EDUCATE

- Promote the network as venue for education about local features.
- Develop a webpage or other online resource to host information about biking and walking in Mifflin County (e.g., an inventory of active transportation facilities, amenities, and network connectivity; tips for walking and biking, and other useful information). This could be incorporated on the existing County website.

> ENCOURAGE

- Promote the network as venue for self-directed education about local features.
- Encourage community organizations to develop programs and events around features located along the network.

> EVALUATE

- Solicit interpretive sites/features to be incorporated into the network.
- Develop wayfinding signage to promote community features about history, culture, and character.

> ENGINEER

- Develop educational materials and content to include on wayfinding assets and signage, and to integrate in local events and programming.



GOAL 4: EXPAND COMMUNITY CONNECTIONS

- Expand connections to, and between, community destinations.

How we measure success...

Increase **the number of destinations** accessible by the network.

Benefits

- ✓ Increased equity through improved accessibility to essential services, care, and destinations important to quality of life
- ✓ Increased mobility, especially among zero-car households (e.g., more options available to make connections or trips, on a range of modes)
- ✓ Expanded opportunities for convenient and regular physical activity, including improved access to recreation

Strategies

> EDUCATE

- Regularly report the status of network additions and their development projects.

> ENCOURAGE

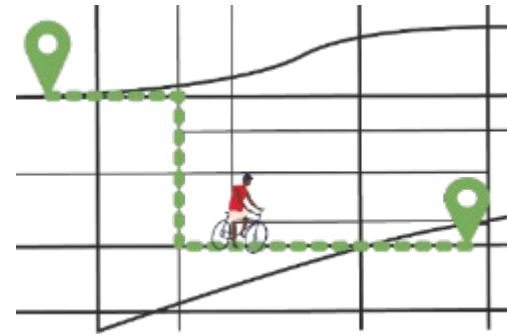
- Encourage destination owners along the expanded network to install walk-, bike-, and roll-friendly amenities on their properties.

> EVALUATE

- Solicit desired connections and extensions for the future. Continue to monitor use across the county and identify locations ripe for active transportation facilities or policies (e.g., integrating walkable, bikeable considerations into new developments).

> ENGINEER

- Work with local leaders to identify opportunities to construct or install facilities or amenities for biking, walking, and rolling. This includes sidewalks on-road bicycle facilities, shared use paths, or other infrastructure, as well as supportive amenities such as bike parking, transit shelters, benches, and signage





Section 5: Active Transportation Network

Image Source: Michelle Brummer

ACTIVE TRANSPORTATION NETWORK

TOOLS TO BUILD THE NETWORK

MIFFLIN MOVES!: PLAN TO ACTION

This plan, with its analyses, vision, and recommendations, aims to be a resource for planners, leaders, and communities. This section outlines how Mifflin County can achieve the ambitious goals of establishing a network, encouraging active transportation, enhancing the network experience and expanding connections. Discussion of the network focuses on the design and alignment of bicycle and pedestrian routes that connect key destinations such as Boroughs, parks and recreational areas, trails, and other community hubs.

The Active Transportation Network

The Active Transportation Network identifies areas where people walk, bike, and roll today and where improvements to existing conditions could make walking, biking, and rolling safer, more comfortable, and more convenient. These are also places where programs and events help to promote active transportation as a means to travel, exercise, and spend time outdoors.

So, where are projects, programs, and events needed?

In towns, neighborhoods, and villages,

- Where residents—of all ages, lifestyles, travel choices and limits—live and will live in the coming decades.
- Where businesses draw customers, clients, and visitors.

Along **streets** and **creeks** between towns, neighborhoods, and villages,

- Because not everyone lives, works, and shops in their hometown.

On select **scenic, rural roads** through the open landscape.

Active Transportation Toolbox

To support and guide network development, this section provides an Active Transportation Toolbox with a sampling of facilities appropriate in the small town and rural communities of Mifflin County.

These design and planning tools include facilities (e.g., sidewalks and lanes), features (e.g., wayfinding and public art), and the functional needs (e.g., access management) that can enable a more walkable, bikeable County. Items are organized by category and indexed in Table 7. The section concludes with pilot projects of three types—Active Communities, Community Connectors, and Scenic Bikeways—that demonstrate toolkit in action.

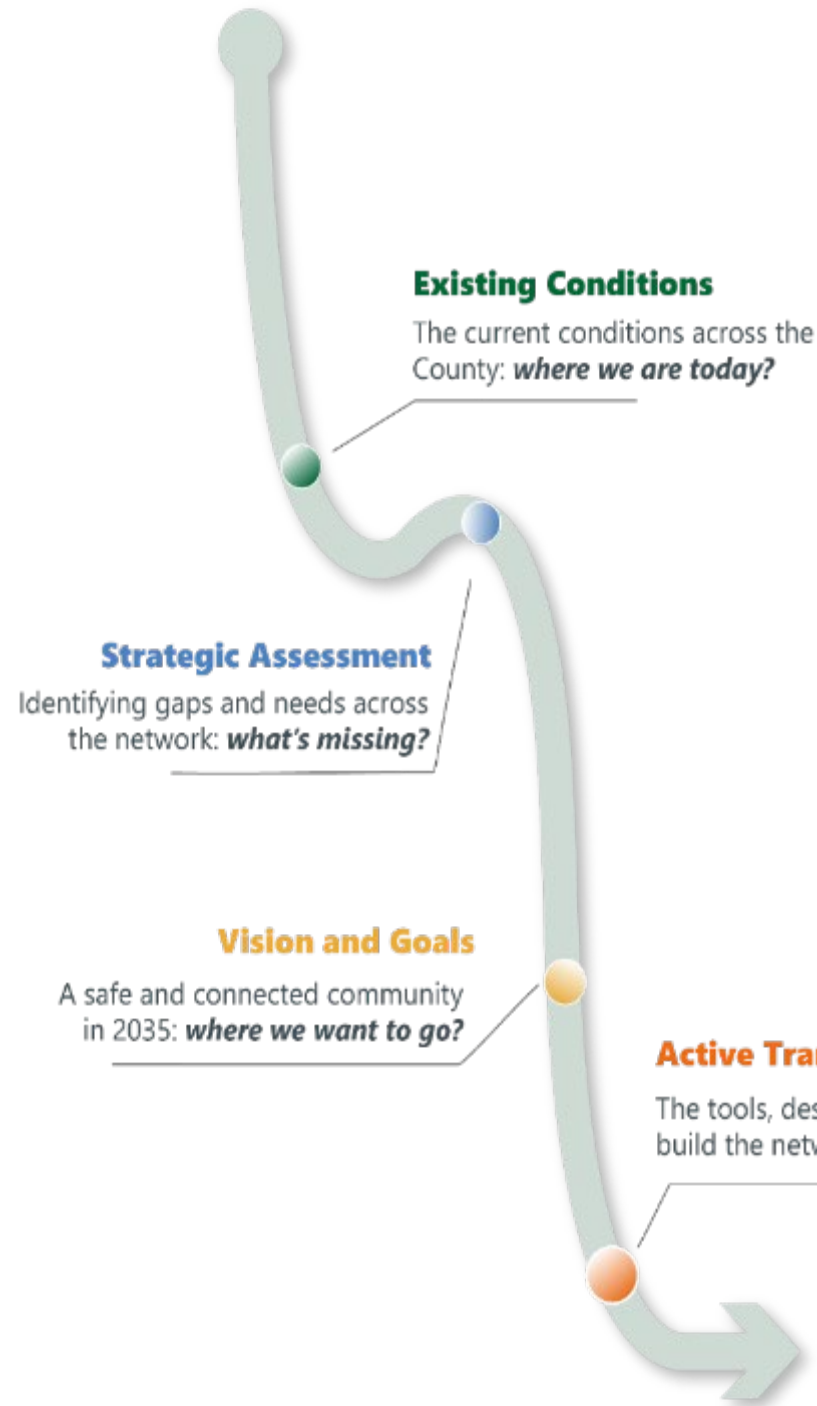


Table 7 Active Transportation Toolbox Items

<p>Pedestrian Facilities</p> <ul style="list-style-type: none"> • Sidewalk • Walking Path • Shared Use Path 	<p>Traffic Calming and Control</p> <ul style="list-style-type: none"> • Pavement Markings /Reduced Lane Widths • On-street Parking • Speed Hump Table • Gateway Treatment • Curb Extension • Chicanes • Roundabout • Road Diet • Property Access • Defined Driveways • Driveway Spacing • Intersection Alignment 	<p>Active Transportation Amenities</p> <ul style="list-style-type: none"> • Pedestrian-Scale Lighting • Street Trees • Streetscape Amenities and Furniture • Bicycle Parking • Bicycle Repair Station • Trailheads • Kiosk/Interpretive Signage • Banners • Public Art
<p>Bicycle Facilities</p> <ul style="list-style-type: none"> • Paved Shoulder* • Shared Travel Lane (Sharrow) • Bike Lane • Bike Box 	<p>Signage and Wayfinding Amenities</p> <ul style="list-style-type: none"> • Regulatory/warning signs • Bicycle Route Signage • Post Signs/Pavement Markings 	<p>Buggies and Wagons</p> <ul style="list-style-type: none"> • Paved Shoulder • Warning Signs • Spot Improvements
<p>Crossings</p> <ul style="list-style-type: none"> • Marked Crosswalk • Trail Crossing • Pedestrian Signal • Flashing Warning Device • Median or Refuge Island • Curb Extension or Bulb-out 		

ACTIVE TRANSPORTATION TOOLBOX

PEDESTRIAN FACILITIES

SIDEWALK

Walkway parallel to the road that is intended for use by pedestrians, often with access points to adjacent land uses. The walkway is typically physically separated from the roadway with a curb and/or verge. The verge may contain grass, vegetation, pavers, and sometimes trees. Sidewalks are typically concrete, but can be constructed with asphalt, bricks, or pavers.

Surface Materials: Concrete, Brick, Pavers

Dimensions: 5 feet wide (minimum). The verge, when provided, may range in width though 4 feet is a typical minimum.

Example: Many throughout towns and neighborhoods. Shown below is South Main Street, Lewistown.



Image Source: Michelle Brummer

WALKING PATH

Walkway for use by pedestrians of all abilities. Walking paths may be adjacent to roadways and serve as an alternative design treatment to sidewalks. Walking paths are also prevalent in parks or within other developed sites to provide pedestrian connections and support active recreation.

Surface Materials: Asphalt, Crushed Stone

Dimensions: < 8 feet wide (6 feet typical)

Example: Kish Park Trail



Image Source: Mark Colussy

BICYCLE FACILITIES

SHARED USE PATH

A combined bikeway **and** walkway designed for shared use by bicyclists and pedestrians of all abilities, as well as other non-motorized modes of transportation. Trails along or adjacent to a roadway are physically separated from vehicular traffic by a verge, fencing, or other barrier. These off-road paths, such as trails, provide low-stress connections with no or limited interaction with motor vehicles.

Surface Materials: Asphalt, Crushed Stone

Dimensions: 10-12 feet wide (8 feet is permissible where there are constraints). When a trail is adjacent to a roadway, a 5 foot wide verge is recommended between the edge of the shoulder and the trail. If this width is not feasible, a suitable physical barrier is recommended.

Example: Victory Park



Image Source: Michelle Brummer

PAVED SHOULDER

A portion of the roadway adjacent to the travel lane that can be enhanced with signage, striping, or coloring to serve as functional space for bicyclists and pedestrians to travel, particularly when other dedicated facilities are not feasible.

Dimensions: 4 feet wide (minimum); provide greater width based on feasibility and traffic. For example, wider shoulders of 6 feet to 10 feet should be considered on corridors with high usage by bicyclists and horse and buggies.

Example: Electric Avenue/Logan Avenue (shown at 6th St)



Image Source: Michelle Brummer

SHARED TRAVEL LANE (SHARROW)

A roadway with signage and pavement markings to indicate the use of a travel lane by both bicycles and motor vehicles. Pavement markings may include a "sharrow," which is a bicycle symbol with two chevron arrows denoting the direction of travel.

Shared lanes alert motorists to potential presence of cyclists, provide wayfinding and encourage safe passing of bicyclists by motorists; Recommend proper lateral position for bicyclists; and reduce the incidence of wrong-way bicycling.

Dimensions/Design: Shared lane pavement marking or "sharrow" placed in accordance with per MUTCD, Section 9C.07. Bicycle May Use Full Lane Sign (R4-11), per MUTCD, Section 9B.06

Example: Pine Street, Philadelphia, PA

Image Source: Carrie Long



BICYCLE FACILITIES

BIKE LANE

A portion of the roadway that has been designated by striping, signage, and pavement markings for the preferential or exclusive public use by bicyclists. Bike lanes are located directly adjacent to vehicle travel lanes and operate in the same direction as traffic.

Bike lanes provide separate space dedicated for cyclists, which can offer added comfort for less experienced riders; Allow bicycles to operate on a roadway without impeding vehicle traffic, and encourage predictable positioning by bicyclists at intersections.

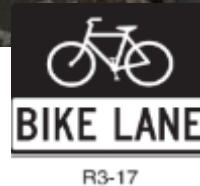
Dimensions: 5 – 7 feet wide (4 feet minimum, exclusive of gutter).

Design: Longitudinal lane markings (required) separating bike lane from motor vehicle lane and/or parking lane. A bike lane symbol and arrow in the pavement may be used, as well as an R3-17 Bike Lane sign.

Example: Porter Street, Philadelphia, PA



Image Source: Carrie Long



Variations of Bike Lanes

Colored Bike Lane

A bike lane with green colored pavement to increase visibility, particularly in areas of conflict. Colored pavement can be used as a corridor treatment or at a spot location, such as an intersection or other conflict area.

Example: Spruce Street, Philadelphia, PA



Image Source: Carrie Long

Buffered Bike Lane

A bicycle lane with a striped buffer area that separates the vehicular travel lane and the shoulder used for the bike lane.

Dimensions: 2-3 feet wide buffer (2-foot minimum) plus bike lane

Example: Spruce Street, Philadelphia, PA



Image Source: Carrie Long

Physically Separated Bike Lane

A bicycle lane located within or directly adjacent to the roadway and is physically separated from vehicle traffic with a vertical element (e.g., bollard or another delineator).

Dimensions: 1-3 feet wide separator plus bike lane

Example: 22nd Street, Philadelphia, PA



Image Source: Carrie Long

BIKE BOX

A bike box is a pavement marking that gives priority to bicycles moving through a signalized intersection. When the signal is red, cyclists move into this designated area—getting ahead of the traffic queue. A two-stage turn bike box allows cyclists to pass through the intersection, then wait in the bike box before continuing.

Dimensions Bike box areas should be 12-16 feet in depth if at the head of a travel lane, and extend the width of the lane(s). Turning boxes may be the width of the bike lane or the travel lane.

Example: 22nd Street, Philadelphia, PA



Image Source: Carrie Long

RESOURCES

The following manuals and publications were used as references for bicycle planning and design considerations.

- **Guide for the Development of Bicycle Facilities**, Fourth Edition (2012), AASHTO.
- **Bikeway Selection Guide** (2019), FHWA.
- **Urban Bikeway Design** (2011), National Association of City Transportation Officials (NACTO).
- **Transportation Safety Planning and the Zero Deaths Vision: A Guide for Metropolitan Planning Organizations and Local Communities** (2018), FHWA
- **Small Town and Rural Multimodal Networks** (2016), FHWA.
- **Pennsylvania Trail Design and Development Principles: Guidelines for Sustainable Non-motorized Trails** (2013), PA DCNR
- **Guide for the Planning, Design and Operation of Pedestrian Facilities**, Second Edition (2021), AASHTO.
- **Complete Street Guidance** ([web-based resource](#)), Institute of Transportation Engineers (ITE).

CROSSINGS

PEDESTRIAN SIGNAL

Traffic signal equipment for pedestrians can include pedestrian pushbuttons, accessible pedestrian signals, passive detection for bicyclists or pedestrians, pedestrian signal heads, and pedestrian countdown signal heads.

Accessible pedestrian signals (APS) communicate information about the *WALK* and *DON'T WALK* intervals for pedestrians who are blind or have low vision.

Countdown pedestrian signal heads show how much time remains before the traffic signal changes.

Example: 3rd Street and South Main Street, Lewistown



Image Source: Michelle Brummer

MARKED CROSSWALK

Pavement markings designating a location for pedestrians to cross a road, often connecting sidewalks, paths, or multi-use trails. Crosswalks must be a minimum of 6 feet wide. High visibility crosswalks, also known as continental design, are most visible to motorists.

Dimensions: Typical crosswalk patterns feature striping that is 12-24-inches wide, with at least 12 inches of spacing between lines. While retroreflective white is standard, PennDOT has approved elect decorative crosswalk patterns (e.g., brick, herringbone, or courtyard style) and colors.

Example: Main Street, Reedsville



Image Source: Michelle Brummer

> Variations of Marked Crosswalks

Decorative Crosswalk

Special paving treatments for crosswalks, which can include brick/pavers, colored, or stamped asphalt, or thermoplastic pavement markings. Decorative crosswalks can be designed to reflect the unique character or identity of an area or neighborhood.

Example: Monument Square, Lewistown



Image Source: Michelle Brummer

Raised Crosswalk/Raised Intersection

Marked and elevated areas that are an extension of the sidewalk at mid-block locations or intersections. They can be used to calm traffic, increase pedestrian safety, and add to community character. When used for traffic calming, they are most effective when placed in a series. They may be constructed of asphalt, or brick or stone pavers to complement to enhance local character.

Example: Harrisburg



Image Source: Michelle Brummer

Mid-Block Crosswalk

A crosswalk that is not located at an intersection. Additional warning devices are required to increase pedestrian safety compared to typical crosswalks at intersections. A mid-block crosswalk can include advance signage and pavement markings. Other treatments could include a pedestrian refuge island or raised crosswalk.

Example: 3rd Street, Highland Park, Derry Township



Image Source: Michelle Brummer

CROSSINGS

FLASHING WARNING DEVICE

A flashing warning device can be used in combination with pedestrian crossing signs and a marked crosswalk at uncontrolled crossing locations. Signs and flashing warning devices can be side-mounted or overhead. Additionally, flashing warning devices can be user-activated. Rectangular Rapid Flashing Beacons (RRFBs) are one example of a flashing warning device.

Example: Hale Street at South Main, Street, Lewistown



Image Source: Michelle Brummer

MEDIAN OR REFUGE ISLAND

Medians or raised islands between travel lanes can be designed with landscaping, hardscaping, welcome signs, or provide a mid-point refuge for pedestrian crossings. Medians help to slow traffic by defining travel lanes and can be used to reduce conflicts by physically preventing left turns and restricting turning movements to specific locations.

Example: Juniata Street and Market Street Intersection



Image Source: Michelle Brummer

CURB EXTENSION OR BULB-OUT

Areas of expanded curbing that extend across a parking lane and may narrow a travel lane. Curb extensions create shorter crossing distances for pedestrians while increasing available space for street furniture and plantings. Curb extensions can also serve as a traffic calming measure.

Example: Harrisburg



Image Source: PennDOT

TRAIL CROSSING

Trail crossings are locations where a multi-use trail crosses a roadway. Trail crossings may be within the area of an intersection, mid-block, or grade separated. Based on AASHTO guidelines, mid-block trail crossings can be considered a four-leg intersection.

Mid-block trail crossings often involve mutual yielding, such that motorists must yield to pedestrians in the crosswalk and bicyclists/pedestrians must stop/yield to motorists if they cannot stop in time. Roadway trail crossings typically include marked crosswalks and ADA curb ramps corresponding to the width of the trail, along with warning signs. Flashing warning devices or signals may be considered for some trail crossings.

Example: Juniata Street, Lewistown



Image Source: Michelle Brummer

TRAIL ACCESS

TRAILHEADS

Trailheads are locations where people can access trails. Trailheads often include facilities that support trail use and the needs of trail users. Facilities provided at trailheads can include vehicle parking, bicycle racks, bicycle repair stations, drinking fountains, restrooms, benches, trash and recycling receptacles, benches, and trail information kiosks. The size and facilities at a trailhead are often dependent upon the location and number of anticipated trail users.

Example: Juniata Street, Lewistown

Image Source: Mark Colussy



TRAFFIC CALMING AND CONTROL

Traffic calming measures include **physical changes to a roadway to reduce speeds and cut-through traffic**. Traffic calming strategies are typically used on neighborhood roadways and can be implemented in conjunction with bicycle and pedestrian infrastructure to slow traffic and create a safer and more comfortable environment for walking and biking. The Active Transportation Toolbox includes several common traffic calming measures, and PennDOT's [Traffic Calming Handbook](#) (Publication 383) provides details regarding the appropriate placement and design of traffic calming measures.

PAVEMENT MARKING / REDUCED LANE WIDTHS

Reducing excessive lane widths can help to slow traffic by providing a defined area for travel. Also, a reduction in lane widths can provide additional space for bicyclists and pedestrians. Lane widths can be defined by edge line striping, curbing, or other physical roadside treatments.

Example: US 522, Oliver Township



Image Source: Michelle Brummer

ON-STREET PARKING

Provision of on-street parking on one or both sides that reduces roadway width. Parked vehicles also provide a buffer between traffic and pedestrians on the sidewalk.

Surface Materials: Asphalt, Crushed Stone

Dimensions: < 8 feet wide (6 feet typical)

Example: Reedsville



Image Source: Mark Colussy

SPEED HUMP OR SPEED TABLE

Raised humps in the roadway, typically 3-4 inches high, intended for low volume and low speed roadways. Speed humps are most effective when placed in a series, and are the most popular traffic calming measure due to effectiveness at reducing speeds, ease of implementation, and relatively low cost. Speed tables are speed humps with a longer flat top.

Option: Speed tables at a crosswalk create raised pedestrian crossings, which provide better visibility for pedestrians.



Image Source: Michelle Brummer

ROUNDBABOUT

An intersection design treatment that reduces conflict points and slows traffic. Approaching traffic yields to traffic circulating around the roundabout. Splitter islands at the entries help to slow and direct traffic and serve as pedestrian refuge areas. In some situations, roundabouts can provide increased capacity and reduced delay when compared with traffic signals.

Example: 5th Avenue and N Beech Street, Burnham Borough



Image Source: Mark Colussy

› **Mini-Roundabout:** A roundabout with a small diameter and traversable central island. Mini-roundabouts (or neighborhood traffic circles) offer similar benefits but with a smaller footprint and less cost. Typically used in urban or small town settings on roadways with low speeds.

Example: Staten Island, NYC



Image Source: [NYC Street Design Manual](#)

TRAFFIC CALMING AND CONTROL

CHICANES AND MEDIANS AT GATEWAYS

These design tools are used to alert drivers to a different environment (e.g., more residential or developed) and cues to slow down and behave differently. Chicanes are horizontal diversions that cause the travel lane to deflect travel path to a curved movement. Similarly, median treatments and gateways are special treatments, used independently or with chicanes, at the entrance to an area or neighborhood that alert drivers to slow down due to a change in environment. Gateway treatments can include signage to identify the area or neighborhood. Other potential gateway treatments include landscaped medians or landscaped areas on the roadside.

Example: King Road, Malvern, PA



Image Source: Natasha Manbeck

ROAD DIET

A road diet refers to removing travel lanes from a roadway, often to create space for other uses (such as bicycle and pedestrian facilities). Road diets can be used to improve safety, calm traffic, and create on-street parking, bicycle lanes, shared use paths, or bus only lanes. The most common type of road diet is transforming a four-lane undivided roadway into a three-lane cross section with one lane in each direction and a two-way left-turn lane.

Example: Pottstown, PA



Photo: Michael Ronkin



Photo: Michael Ronkin

Image Source: [Going on a Road Diet, FHWA Public Roads - September/October 2011](#)

RESOURCES

The following manuals and publications were used as references for traffic calming device selection and design considerations.

- **Manual of Uniform Traffic Control Devices (MUTCD)** (2009), Federal Highway Administration (FHWA).
- **Pennsylvania's Traffic Calming Handbook**, Publication 383 (July 2012), PennDOT.
- **A Policy on Geometric Design of Highways and Streets, Sixth Edition** (2011), American Association of State Highway and Transportation Officials (AASHTO).
- **Traffic Engineering Manual**, Publication 46 (2009, Change 1 - March 2014), PennDOT.
- **Design Manual, Part 2 (DM-2): Contextual Roadway Design**, Publication 13 (June 2022), PennDOT.
- **Design Manual, Part 2 (DM-2): Highway Design**, Publication 13M (2015, Change 8 - June 2022), PennDOT.
- **Roadside Design Guide**, Fourth Edition (2011) AASHTO.

ACCESS MANAGEMENT

Access refers to **how vehicles access properties**. Access management refers to the **means of controlling where vehicles access properties**, using measures such as limiting the number of driveways and intersections with local roads. The Active Transportation Toolbox includes a few common access management measures. In addition, PennDOT's [Access Management: Model Ordinances for Pennsylvania Municipalities Handbook](#) provides additional resources for access management strategies.

DRIVEWAY SPACING

Adequate spacing to reduce conflicts points and create a safer environment for walking and biking.

Example: Driveways to S Logan Boulevard and Cedar Street lacks adequate spacing



Driveways to N Logan Boulevard and Freedom Avenue are offset from the intersection



Image Source: Michelle Brummer

INTERSECTION AND DRIVEWAY ALIGNMENT

Providing joint or cross access between adjacent properties allows circulation between the properties and reduces the number of driveways and conflict areas along a roadway. Joint and cross access can be used in combination with shared parking.

Example: (location TBD)



Image Source: TBD

DEFINED DRIVEWAY LOCATIONS

Properties may have parking lots in the front—i.e., the parking pavement abuts directly with the road. This poses safety issues as movement is less predictable (e.g., knowing when or where to expect someone turning in or out of a lot). Defined access points such as driveways, curbs, or other delineators help channel movement to specific areas and allows drivers and other travelers to know where to look to negotiate movement.

Example: 701 Electric Avenue (with defined driveways versus uncontrolled site access at adjoining properties)



Image Source: Michelle Brummer

RESOURCES

Access management is a consideration in many of the traffic control, roadway design, and specific pedestrian/bicycle design publications previously noted. The following handbook provides local guidance on access management consideration.

- **Access Management: Model Ordinances for Pennsylvania Municipalities Handbook**, Publication 574 (April 2005, Updated February 2006), PennDOT.

SIGNAGE AND WAYFINDING AMENITIES

REGULATORY AND WARNING SIGNS

Signage can be used to alert drivers to the potential presence of other transportation modes in the roadway, as well as to remind drivers of the applicable laws for use of the roadway.

Example: Many, throughout towns and neighborhoods. Sample signage shown below.



BICYCLE ROUTES

Roadways designated with wayfinding signs for bicycle travel shared with motor vehicles. They may include facilities such as bicycle lanes, but they are not a facility type in themselves. Some bicycle routes are designated for long distance travel.

Example: Stroudsburg, PA



Image Source: Michelle Brummer

POST SIGNS AND PAVEMENT MARKINGS

Small, simple stand-alone signs or pavement markings that are used to identify a facility and provide basic information, such as directional arrows or mileage.



Image source: [PA DCNR](#)

KIOSK/INTERPRETIVE SIGNAGE

Signage or other resource that serves to provide detailed information about the facility, such as a map, trail rules, and emergency information. Kiosks can also provide interpretive information about the history of an area. Kiosks are often located at a trailhead or a rest stop along a trail.

Example: Rothermel Trail



Image Source: Mark Colussy

BANNERS AND PUBLIC ART

Banners help to announce and publicize special events, as well as to create an identity and sense of place. Vertical banners may be attached to street light poles or may be freestanding. Public art may be incorporated into streetscapes through elements such as: planters and/or benches embellished by local artists, unique bike racks, or other art installations. Public art helps to provide character to streetscapes.

Example: Wild Geese: Flock Together (Juniata River Valley)



Image Source: [Community Partnerships](#)

BICYCLE AND PEDESTRIAN AMENITIES

PEDESTRIAN-SCALE LIGHTING

Pedestrian-scale streetlights, 10 to 12 feet in height, help provide security along sidewalks, as well as help to create aesthetic appeal to the streetscape.

Example: Monument Square, Lewistown



Image Source: Mark Colussy

STREET TREES

Street trees provide shade for pedestrians, help with stormwater management, and help to create a sense of place. The tree canopy has a calming effect on traffic with the increased sense of enclosure. The type and location of street trees should be chosen based on site conditions. Street trees can be placed between the sidewalk and curb or between the sidewalk and front yard.

Example: Reedsville



Image Source: Mark Colussy

STREETScape AMENITIES AND FURNITURE

Benches, trash receptacles, and bicycle racks create a more comfortable and convenient environment for walking, biking, and enjoying the street. The design of the streetscape furniture or amenities should be consistent to convey the unique character of the community. Amenities should be placed so they do not obstruct pedestrian walkways, building entrances, or fire hydrants.

Example: Monument Square, Lewistown



Image Source: Mark Colussy

BICYCLE PARKING

A frame that is permanently anchored to the ground and used to secure bikes when not in use. Bicycle racks should be located in visible areas and near major destinations such as employment centers, business and retail districts, parks, and transit.

Placement: Placement of bicycle racks should consider dimensions when occupied and must maintain clear walkways, particularly when placed along sidewalks. Bicycle racks should be setback 2-3 feet from the curb when installed along a street. Bicycle racks can be located under shelters or building overhangs.

Example: Mifflin County Middle School, Lewistown



Image Source: Mark Colussy

BICYCLE REPAIR STATION

A piece of equipment consisting of a simple bicycle stand and tools necessary to perform minor repairs and adjustments. The tools are typically securely attached to the stand, which can be used to hang the bike and allow the pedals and wheels to spin while making adjustments. Repair stations should be located in visible areas, particularly along bicycle routes or near recreational resources.

Example: Pennovation Center, Philadelphia, PA



Source: University of Pennsylvania

BUGGIES AND WAGONS

The Big Valley in Mifflin County is home to thousands of Amish people, including various sects of the Old Order Amish as well as Mennonite communities. As a result, **horse drawn buggies and wagons operate on many roadways and share travel lanes with motorized vehicles and bicycles.** The design of active transportation infrastructure should consider use of the roadways by buggies and wagons. In many cases, treatments can mutually benefit both buggies and bicyclists.

PAVED SHOULDERS

Increasing shoulder width on corridors with high use by buggies and wagons can increase safety. Wider shoulders can also support on-road cycling. The application of edge line rumble strips should be carefully evaluated and considered for roadways with high use by buggies and cyclists.

Example: 6th Street at SR 1005/Electric Avenue, Highland Park, Derry Township



Image Source: Michelle Brummer

WARNING SIGNS

Posting warning sign, such as W11-14 with a symbol of a horse and buggy, can alert motorists and make them aware of the presence of horse and buggies using the roadway.



SPOT IMPROVEMENTS

There are different types of treatments that can be considered at specific locations to address safety concerns on corridors with high buggy use. This can include hill climbing/downhill buggy lanes, buggy pull-off lanes, intersection lighting, flattening vertical crests or horizontal curves, or providing advanced warning systems with flashing beacons.

RESOURCES

Example resources specifically related to design treatments and safety considerations for horses, buggies, and similar active transportation uses are listed below.

- Amish Safety Strategic Plan, Geauga County (2016), Ohio Department of Transportation, District 12.
- Improving Safety for Slow Moving Vehicles on Iowa's High-Speed Rural Roadways. (2009), Iowa State University - Center for Transportation Research.
- Horse and Buggy Driver's Manual, Publication 632 (2019).
- Design Manual, Part 2 (DM-2): Contextual Roadway Design, Publication 13 (January 2023, Change No. 2), PennDOT.

ILLUSTRATIVE PILOT PROJECTS

The following pilot projects demonstrate application of the Active Transportation Toolbox to Mifflin County. Six projects (shown in Table 8 and Figure 22) are categorized by network element—Active Communities, Community Connectors, or Scenic Bikeways— and

outlined for planning considerations, potential designs (and associated costs), and potential partners. One project, the SR 1005/Electric Avenue through Highland Park, is a pilot project for both the Towns and Neighborhoods element and the Complete Street Corridors element.

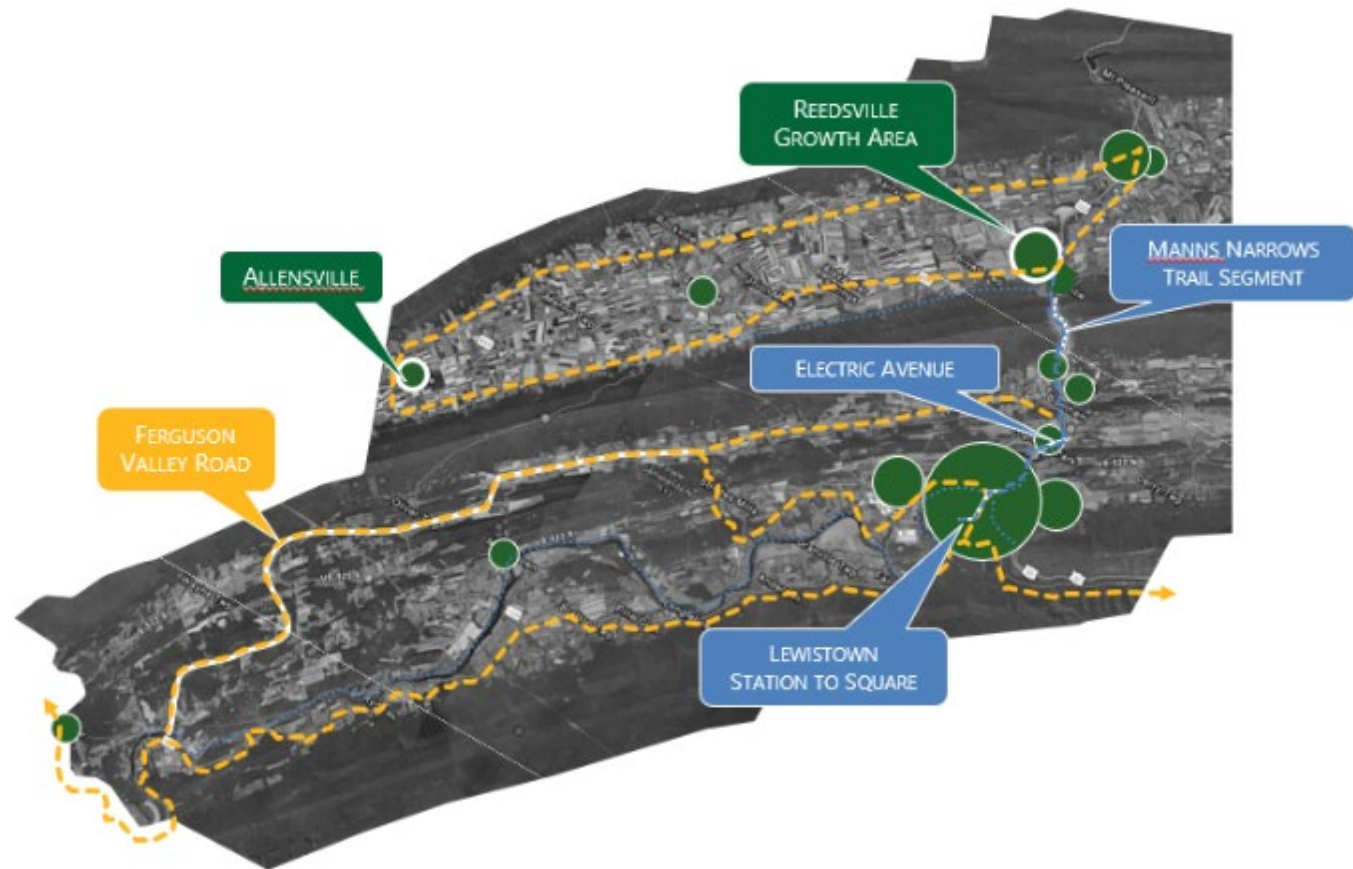


Figure 22 Pilot Project Locations

Table 8 Pilot Projects by Network Element

NETWORK ELEMENTS	PILOT PROJECTS
Active Communities	
Lewistown	A Complete Street Network from the Lewistown Train Station to the Monument Square Bus Shelter accommodating for bicycles, pedestrians, and motor vehicles (as recommended in the Train Station Study)
Towns and Neighborhoods	Active transportation facilities, specifically on-road bicycle accommodation and pedestrian crossings of SR 1005/Electric Ave through Highland Park in Derry Township
Rural Villages	Active transportation facilities for SR 655 through Allensville in Menno Township
Planned Growth Areas	Active transportation development policy (i.e., development regulations) for the newly developing area of Reedsville along SR 655 just west of US 322 in Brown Township
Community Connectors	
Complete Streets Corridors	SR 1005/Electric Ave through Highland Park in Derry Township – see above
Off-Road Trails	Three Chiefs Trail: Kish Park to Reedsville phase – shared use path/trail through Mann’s Narrows along Kish Creek (land acquisition)
Scenic Bikeways	
On-Road Touring Routes	Ferguson Valley Road from Newton-Hamilton to Strodes Run Road

PILOT PROJECT A: COMPLETE STREET FROM LEWISTOWN TRAIN STATION TO DOWNTOWN BUS SHELTER

Active Community **Lewistown**



Location, Context, and Facilities

The Lewistown Junction Train Station has received recent attention for a series of proposed upgrades: to the station building, the surrounding area, and to the frequency of train service. In 2020, PennDOT published a Concept Design for the station including recommended improvements for connecting infrastructure. In 2022, Governor Wolf announced expanded Amtrak service between New York and Pittsburgh (from once to twice daily service).

The station is within walking distance to downtown Lewistown (0.5 mile), but accessibility is constrained by a lack of safe active transportation facilities and amenities. The County and its partners recognize that improving multimodal connections to the station will unlock accessibility for visitors and commuters and generate activity.

The following recommendations reflect analyses completed by PennDOT, as part of the Lewistown Junction Station Concept Design – Station Site Study and Regional Study.

Assessment of Needs

Less than a mile from downtown, the opportunities to improve mobility through this pilot project are significant. The most critical need or issue is that the train station currently lacks multimodal connections—including walking and biking facilities. There is interest to co-locate an intercity bus stop at the station, to allow direct transfer between services, and to expand the station’s role as an intermodal hub. The 2020 report notes that expanded bus service would require roadway improvements to enable adequate turning radii and other movements, and would benefit from additional bus stop amenities such as a shelter and wayfinding.

The report proposes pedestrian improvements both at the station site (e.g., enhancing the safety of track-crossing with raised pavement or other interventions, improving and defining walkways within the parking area) and connecting to Lewistown via Route 103 and Belle Avenue. Proposed design alternatives include a dedicated multiuse, off-road path to be shared by pedestrians and cyclists, or a dedicated off-road pedestrian path complemented by an on-road bike lane.

Improving lighting conditions is a critical addition to the pilot project site to improve perceived safety and comfort.

Other missing pieces at the station, today, are the features that make walking and biking a convenient, safe, and comfortable option.

Especially given the sites role as a connector for visitors unfamiliar with the borough, wayfinding and directional cues, banners, signage, and other traveler information such as kiosks would improve the pedestrian experience.

Implementation and Funding Opportunities

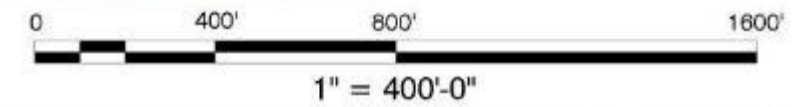
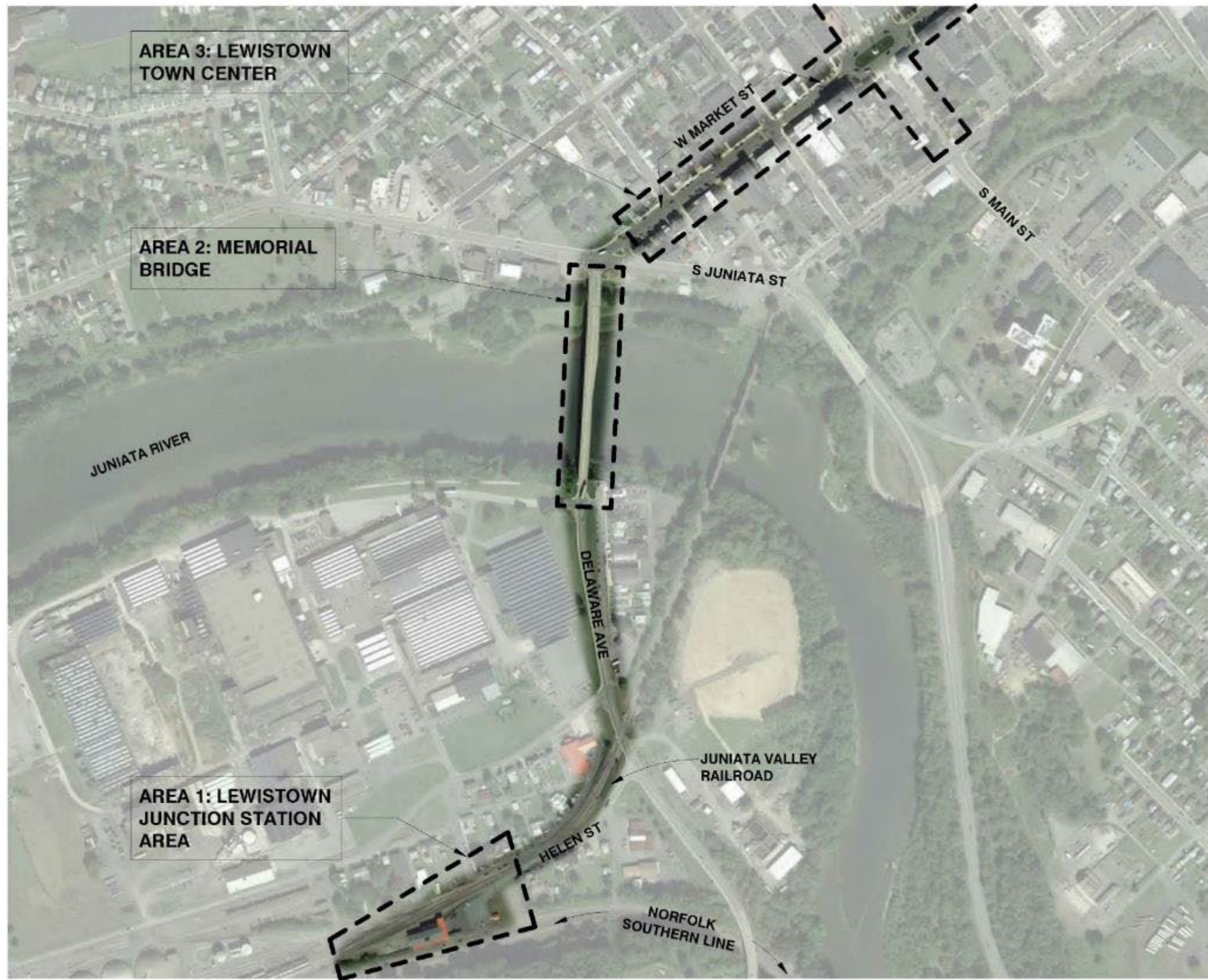
This pilot project area may be eligible for the following federal and state funding opportunities:

- ✓ PennDOT Multimodal Grant Program
- ✓ PA DCED/CFA Multimodal Grant Program
- ✓ Transportation Alternatives Set-Aside Program

Table 9 Recommended Facilities for Pilot Project A: Lewistown Station to Market Square

Recommendation	Detail and Considerations	Locations
Station and site	Reconfigure and clarify pedestrian access to the station with clear walkways and enhanced pedestrian waiting areas, amenities, etc.	Throughout station site, including through parking areas and to the platform
Improve/Widen Sidewalks	Improve network to provide continuous 5-foot sidewalks	Along Delaware Avenue
Dedicated Bike and Pedestrian Path	Provide a dedicated on-road bike lane connecting the Station to the Square	Helen Street to Delaware Avenue to Market Street
Signage and Wayfinding	Install wayfinding features (signage, kiosks, or other directional cues) along the route from the Station to the Square, with an emphasis on intersections Consider welcoming signs and banners to establish the station area as a gateway to downtown Lewistown	<ul style="list-style-type: none"> • Delaware Avenue at Memorial Bridge • Juniata Street at Market Streets • Market Street, at intersections
Multimodal Access	Service a bus/shuttle loop (to Lewistown Station) Expand or construct a bus stop and waiting area	Connecting to Helen Street at the east side of the site, adjacent to the parking lot

Next Step and Cost Estimate: Bicycle-Pedestrian Connection Feasibility Study to refine the concepts of the prior study to a specific, feasible design; include cost-sharing strategies among eligible community and transportation agencies; \$35,000-\$60,000



SITE PLAN - REGIONAL CONNECTION



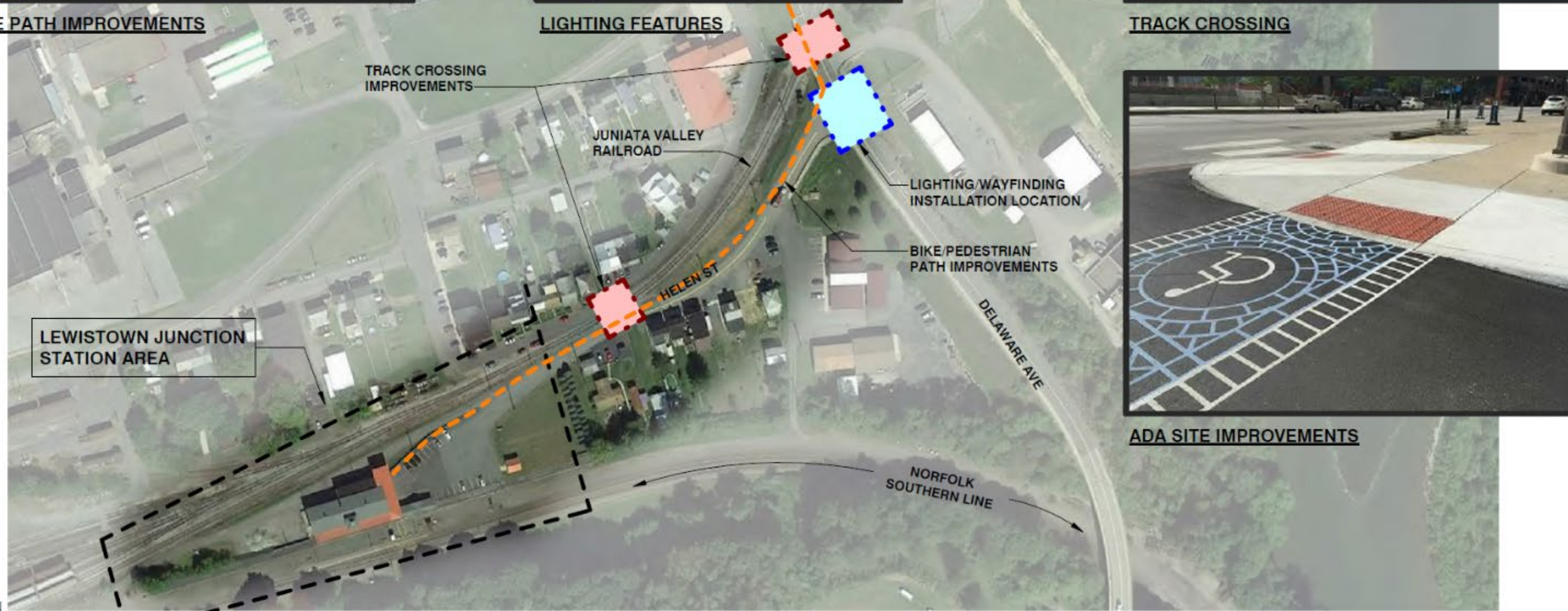
BIKE PATH IMPROVEMENTS



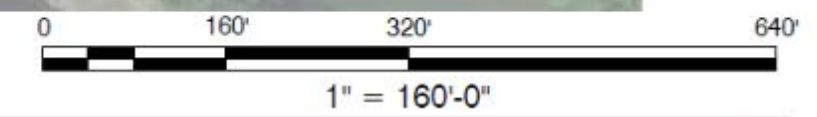
LIGHTING FEATURES



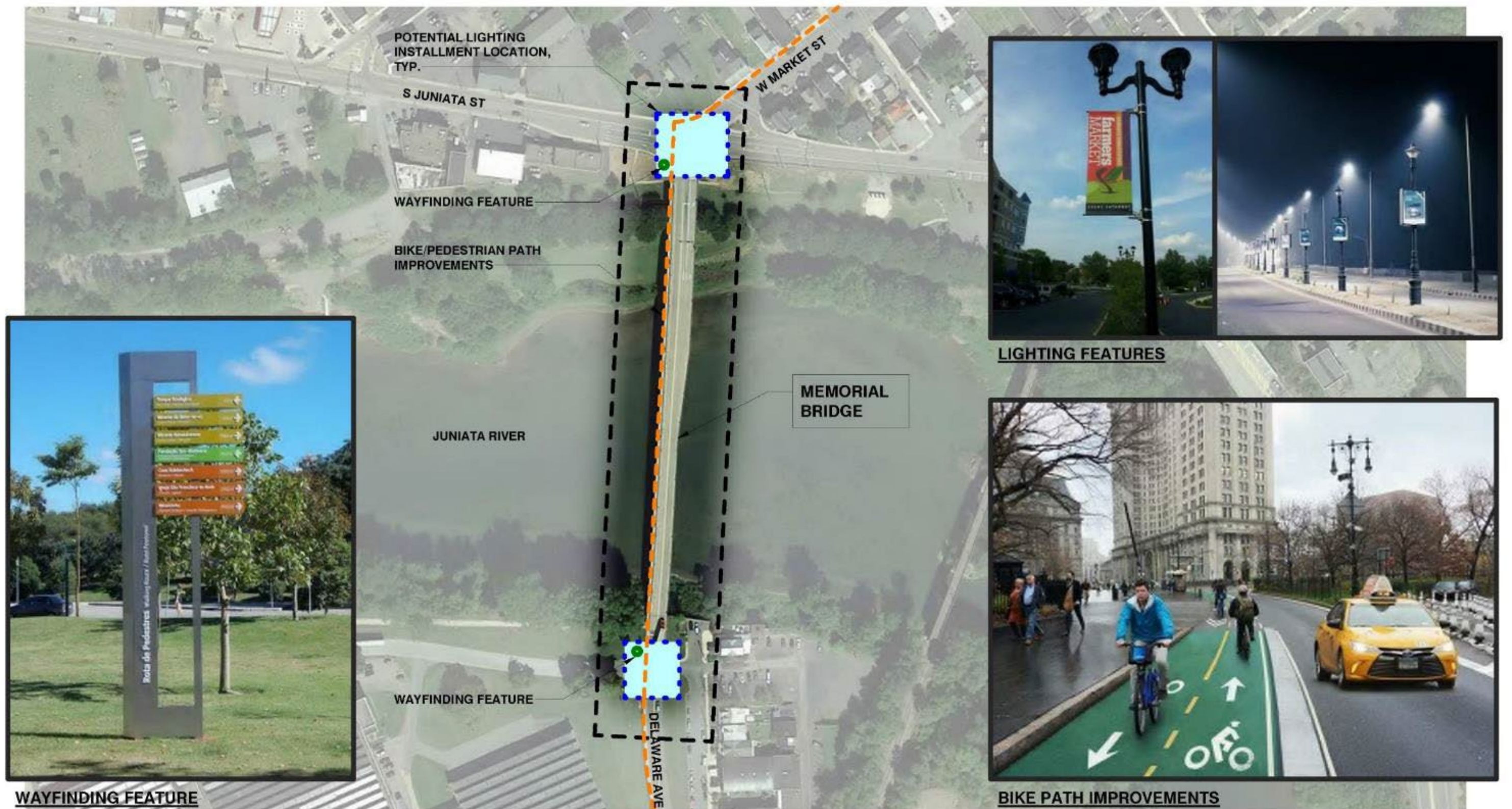
TRACK CROSSING



ADA SITE IMPROVEMENTS



AREA 1 PROPOSED INTERVENTIONS



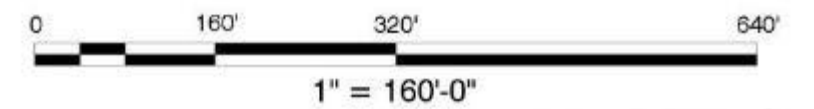
WAYFINDING FEATURE

LIGHTING FEATURES

BIKE PATH IMPROVEMENTS

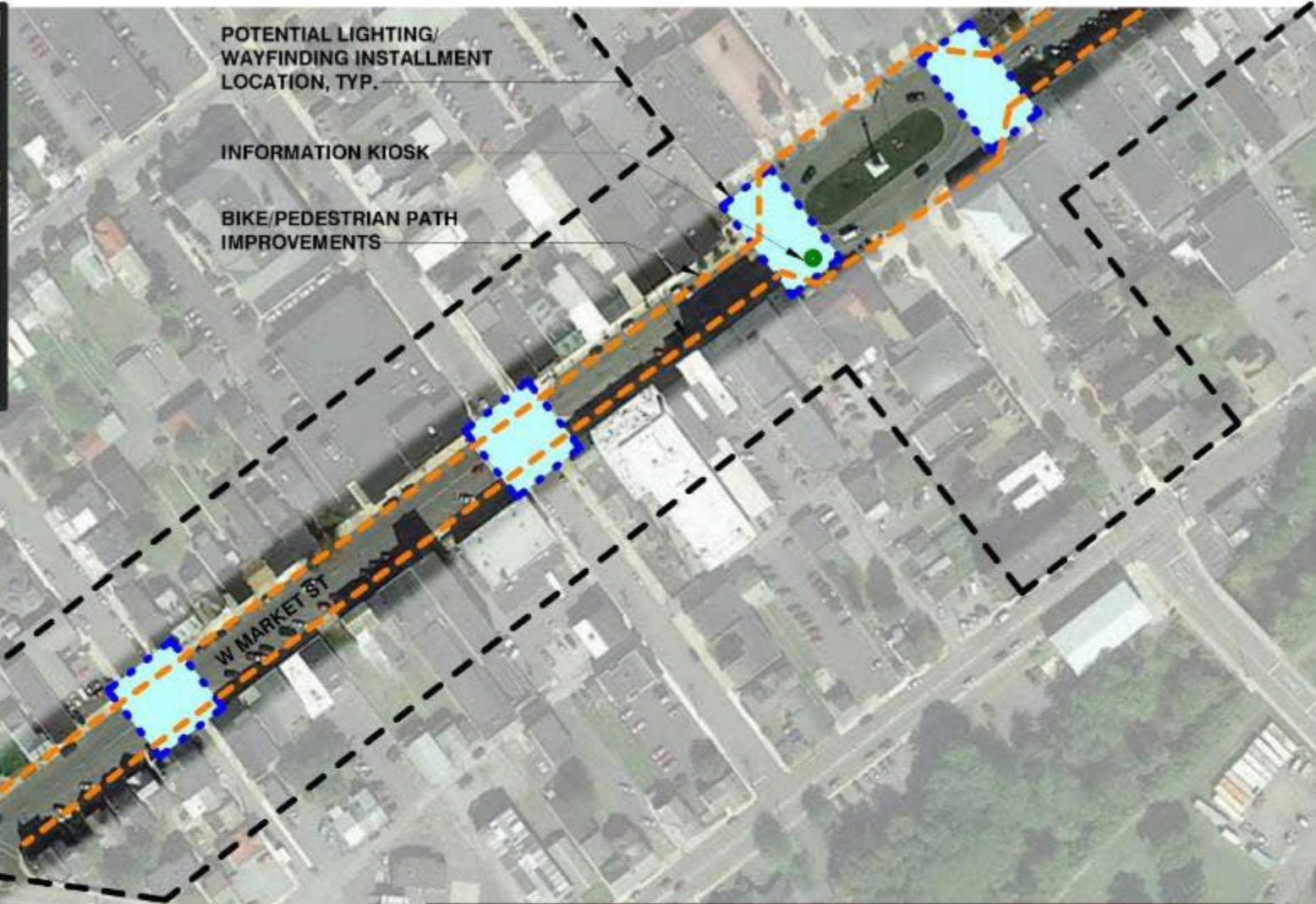


AREA 2 PROPOSED INTERVENTIONS





PEDESTRAIN/BIKE PATH IMPROVEMENTS

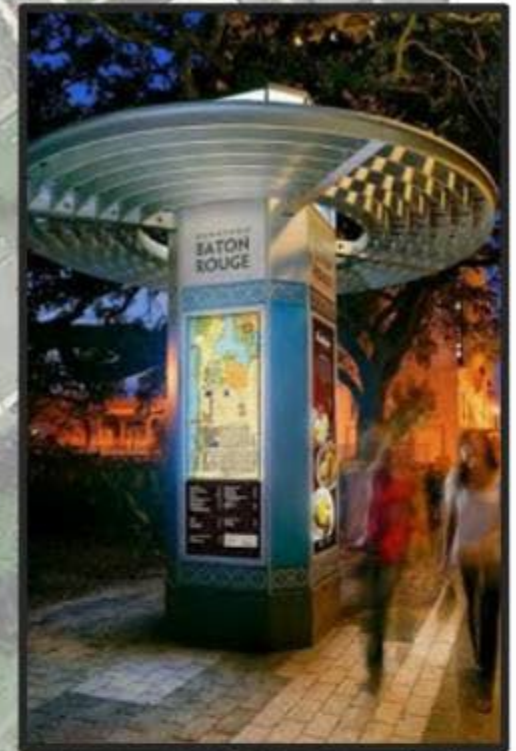


LEWISTOWN TOWN CENTER

W MARKET ST

S JUNIATA ST

JUNIATA RIVER



INFORMATION KIOSK



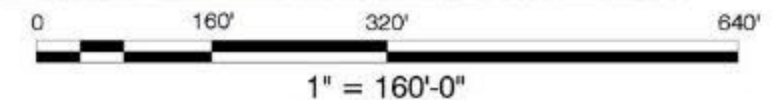
WAYFINDING FEATURE



LIGHTING FEATURE



WAYFINDING FEATURE



AREA 3 PROPOSED INTERVENTIONS

PILOT PROJECT B: SR 1005 / ELECTRIC AVENUE (AND S. LOGAN AVENUE), HIGHLAND PARK

Active Community Towns and Neighborhoods, Community Connector Complete Street Corridor in Derry Township

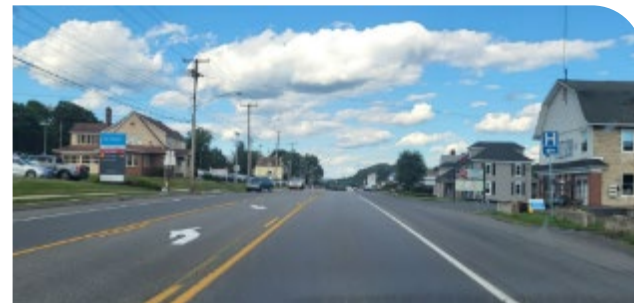


Location and Context

The second pilot project is a segment of Electric Avenue, spanning from Ort Valley Road to 8th Street/Kish Pike. This falls within the Highland Park neighborhood, with high-density residential by Electric Avenue. The corridor is primarily commercial with restaurants and services available along Electric Avenue and adjacent streets. A Geisinger Lewistown Hospital and medical campus connects to this corridor at 3rd and 4th streets. Local high and junior high schools are about half of a mile north of Electric Avenue. Access to US 322/522 is available via ramps.

Current Facilities

This three-lane corridor features one lane each direction, with a turn lane and an 8-foot shoulder on the right side (no left shoulder available). Approximately 9,500 vehicles traverse the segment each day (9,476 AADT), with trucks comprising two percent of traffic. There are three signalized intersections with crosswalks, and numerous access points (e.g., driveways) as well as parking lots without defined access points.



Assessment of Needs

This pilot project is located in an area with a walkable development pattern and many community destinations located within the neighborhood walkshed (e.g., Mifflin County Junior High and High Schools, the hospital, parks, and several restaurants). However, the pedestrian facilities in this area need to be improved to create a safe and effective environment for walking and biking.

The existing sidewalk is inconsistent on this corridor. Driveways and limited access management results in frequent conflict points between pedestrians and drivers. This conflict also includes areas in which the parking lot and travel lanes are directly connected without any curb, verge, or other physical barrier.

This is more prevalent on the southside of the roadway. There are wide shoulders available on both sides of the road that may support biking or other forms of active/motorized transport.

Implementation and Funding Opportunities

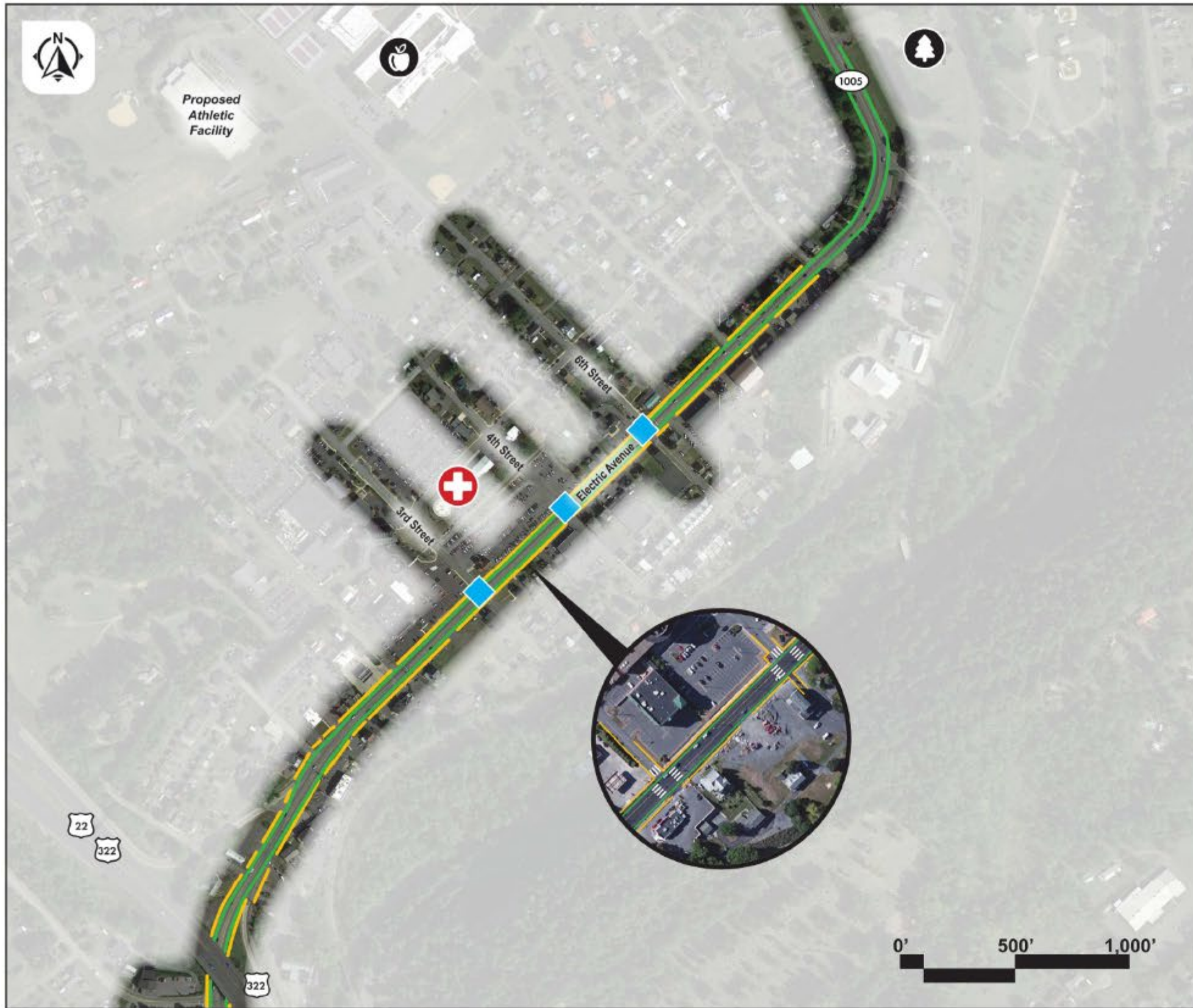
This pilot project area may be eligible for the following federal and statewide funding opportunities:

- ✓ PennDOT Multimodal Grant Program
- ✓ PA DCED / CFA Multimodal Grant Program
- ✓ Transportation Alternatives Set-Aside Program
- ✓ Partnering with local businesses or county leaders to support sponsorship of safety improvements or programs

Table 10 Recommended Facilities for SR 1005/Electric Avenue

Recommendation	Detail and Considerations	Locations
Improve Sidewalks	Improve network to provide continuous 5' sidewalks with a focus on consistency (e.g., alternatives where not available)	Throughout the corridor
Pedestrian Crossings	Enhance pedestrian crossings, including implementation of pedestrian refuge islands where feasible	<ul style="list-style-type: none"> • 3rd Street • 4th Street • 6th Street
Dedicated Bike Lanes	Consider dedicated striped bike lanes (or sharrows, where gaps in the network exist)	
Traffic Calming	Consider incorporating median or refuge islands on the corridor to calm vehicular flow (e.g., reduce speed)	
Signage and Wayfinding	Add signage to alert drivers to expect non-motorized travelers, and to share wayfinding cues to people walking, biking, or rolling	
Access Management	Reconfigure property access (i.e., driveways) to reduce conflict points and limit complications for turning vehicles.	
Amenities	Install bike parking at destinations along SR1005	

Next Step and Cost Estimate: PennDOT Connects project coordination (Project ID:81491) with District 2, SEDA-COG MPO, and Mifflin County; officials/staff time



3rd Street Intersection.



Sidewalks and intersection crosswalks at 3rd Street and 4th Street to provide access to destinations on South side of SR 1105/ Electric Avenue.

Proposed Improvements

- █ Sidewalk
- █ Bike Lane
- Crosswalk
- ◆ Intersection Crosswalks

Destinations

- Mifflin County Junior Highschool
- Kish Park
- Geisinger - Lewistown Hospital

Pilot Project B: SR 1005/ELECTRIC AVENUE IMPROVEMENT

PILOT PROJECT C: ALLENSVILLE STREETScape & CROSSING IMPROVEMENT (SR655)

Active Community Rural Village in Menno Township



Location and Context

The third pilot project focuses on the Main Street of Allensville, a rural community in Menno Township. SR655 is the roadway serving as the key destination for municipal services and commercial activity—including the Menno Township building, library, fire company, post office, as well as two churches and several local businesses and tourist attractions. The surrounding area is primarily residential, including significant agricultural land uses.

Current Facilities

This segment of SR655 is 20-feet wide, with one lane in each direction and a two-foot shoulder on either side of the road. Daily traffic is around 2,000 vehicles (1,942 AADT), with 11% being truck traffic. The posted speed limit is 35mph, however, the limit increases to 55mph just outside the area, requiring drivers to significantly adjust their behavior. There are numerous intersecting roadways and access points (e.g., driveways), but no signalized intersections or crosswalks.

Assessment of Needs

The walkability of the corridor is constrained by limited facilities and by the lack of pedestrian amenities or design elements to encourage people to enjoy the corridor by foot or by bike. There are segments of sidewalk available on Main Street, but the sidewalk is inconsistent. The sidewalk is narrow and often abuts directly with the roadway without any physical delineation to separate pedestrians (like a curb, or a verge).

The proximity of the available sidewalk is further exposed to traffic due to the limited shoulder available that does not provide much protection from travel lanes. The shoulders are less than two feet in width; additionally, this is too narrow to be a bikeable shoulder (4' minimum width).

Additional amenities and design features could support the area in feeling more welcoming and to give a sense of arrival to visitors. For example, business signage that is visible (and not temporary) may attract new visitors and shoppers to the commercial activity on the corridor.

The area would feel more welcoming with human-scale lighting to provide a sense of enclosure and safety. Currently, the only available lighting is provided from high-mounted streetlamps on utility poles—the same cobra head style used on a highway.

Implementation and Funding Opportunities

This pilot project may be eligible for the following federal and statewide funding opportunities:

- ✓ PennDOT Multimodal Grant Program
- ✓ PA DCED / CFA Multimodal Grant Program
- ✓ Transportation Alternatives Set Aside Program

Table 11 Recommended Facilities for Allensville Streetscape

Recommendation	Detail and Considerations	Locations
Improve Sidewalks and Shoulders <i>(alternatives where not available)</i>	Widen sidewalks (note utility pole placement) Focus on sidewalk availability on the north side of Main Street, with safe crossing to direct users to that facility Wider shoulder on both sides for bikes/buggies	Zook Road to Kish Bank
Add Pedestrian Crossings	Implement designated pedestrian crossings At the three identified crossings, consider adding pedestrian-scale lighting to improve visibility Consider a user-activated rapid-flashing beacon	<ul style="list-style-type: none"> • Huey Street (Post Office) • Zook Road (Church) • Water Street (Township Building)
Gateway Treatments	Add a small island/median between travel lanes at the east and west ends of the village. Add a "Welcome to Allensville" signage	Small Island location to be west of Zook Road, east of APM
Signage and Wayfinding	Signage to alert motorists to bikes/buggies and pedestrians; consider wayfinding signage to direct active transportation users to preferred facilities	

Next Step and Cost Estimate: PennDOT Connects project coordination (Project ID:81491) with District 2, SEDA-COG MPO, and Mifflin County; officials/staff time



Gateway medians at east and west ends of Allensville to calm traffic.



Sidewalks and Huey Street intersection crosswalks to provide access to destinations.

Proposed Improvements

- Sidewalk
- Gateway Median
- Three Marked Intersection Crosswalks
- Two Marked Mid-Block Crosswalks
- Crosswalk

Destinations

- S Kish Bank
- ⛪ St. Paul Lutheran Church
- ✉ US Postal Service
- ⛪ Allensville Community Church

Pilot Project C: Allensville Streetscape and Crossing Improvement

**PILOT PROJECT D:
REEDSVILLE GROWTH AREA IN
BROWN TOWNSHIP**

Active Community Planned Growth Area



Location and Context

Reedsville is a small but growing village serving the eastern Kish Valley. The local business community includes retail and grocery stores, service providers (such as an animal hospital, garage, self-storage, and hotel), as well as an assisted living facility. Within the community are amenities including a place of worship, fire company, and municipal building. This pilot project focuses on SR655, from Feather Lane to US322.

Current Facilities

The segment of SR655 varies in design as it approaches the commercial area and ramps to US322. To the west, SR655 is 25-foot wide with one lane in each direction and shoulders on either side of the road. A third turn lane is available, beginning from the driveway to Sheetz. There is a signalized intersection (Carriage House Lane/Gateway Drive), however the intersection has crosswalks on two legs of the intersection and the crosswalks do not connect to sidewalks or other pedestrian facilities.

The surrounding parcels adjacent to this pilot project are designated as growth area for the county, with expected new developments in the near future. It would be valuable to plan ahead for better connectivity to the existing services and commercial amenities, and to set a foundation as a walkable area (and ensuring new developments can easily integrate into this network).

Assessment of Needs

At present, the design of the corridor matches its low-density and undeveloped context. This assessment focuses on future build-out per the Brown Township zoning map and how the existing conditions do or do not support that vision.

There are no consistent sidewalks along this corridor. The crosswalks (two directions, or legs) at Carriage House Lane do not connect to pedestrian facilities—i.e., only to minimal concrete areas. The only lighting is cobra head-style lighting (no pedestrian or human-scale lighting). While there are some shoulders available, the widths vary and are often complicated by driveways and inconsistent curbing. Improving or providing these facilities and amenities will ensure the growth area is able to accommodate and support new walkable developments.

Implementation and Funding Opportunities

This pilot project may be eligible for the following statewide funding opportunities:

- ✓ PA DCED Municipal Assistance Program
- ✓ PennDOT Connects Planning Funds; coordinated via the SEDA-COG MPO

Table 12 Recommended Facilities for Reedsville Growth Area

Recommendation	Detail and Considerations	Locations
Gateway Treatments	Install gateway treatments, such as an island or median, to alert drivers to the change in community/landscape context.	
Improve Sidewalks and Shoulders	Improve pedestrian (on-road, on-street) access paths (e.g., walkable shoulder or sidewalk)	Throughout due to narrow width
Add Pedestrian Crossings	Add pedestrian signals at signalized intersections Improve pedestrian crossing with higher visibility treatments (e.g., striping)	Carriage House Lane at Sheetz Drive
Signage and Wayfinding	Add "Bicycles May Use Full Lane" signage	Within the growth area
Amenities	Install bike parking. Consider a bicycle repair station, co-located with bike parking	Retail destinations and public spaces (parks)
Lighting and Design Elements	Install pedestrian-scale lighting and trees to enhance the pedestrian experience (comfort)	



Next Step and Its Cost Estimate: Active Transportation Improvement Plan for the Reedsville Growth Area; this could be paired with a land use planning update to review and consider alternatives to the current zoning map; \$25,000-\$50,000+ depending on the level of public/stakeholder involvement



Access to future development north of SR 655 to align with Shelley Drive.



Proposed Improvements

-  Street or Trail Connection
-  Intersection/Aligned Access

Destinations

-  Kish Bank
-  Mountain View Mennonite Chapel
-  Mifflin County Youth Park

Pilot Project D: Reedsville Growth Area

**PILOT PROJECT E:
THREE CHIEFS TRAIL: KISH PARK
TO REEDSVILLE**

Community Connector Off-Road Trail through Mann's Narrows



Location and Context

The Three Chiefs Trail is a part of the Juniata River Trail that continues from the river into the community; in particular, this off-road trail is planned to cover 3.1 miles from the cement plant to the Fire Academy property. The fourth proposed pilot project focuses on the connection between the communities of Reedsville and Yeagertown. This one 1.2-mile segment spans from SR 1005/Main Street in Yeagertown to SR 1005/Main Street in Reedsville, by Station Hill Road, traveling along Mann's Narrow through a rural, forested area.

Current Facilities

This pilot project is an off-road trail that is not paved or otherwise designed for transportation uses. The connector is an abandoned railroad alignment that reverted to private ownership in the last century and now has multiple owners. Today, the alignment is informally used as a multimodal connector between Yeagertown and Reedsville neighborhoods.

Local residents report that Reedsville Junior and Senior High School students are known to when they miss the bus use the former rail right-of-way to get to school. (An example route: walking to Yeagertown, towards Logan Avenue then Cedar Street, continuing until reaching the school.)

Assessment of Needs

Formalizing the connection with an off-road trail will require the signage to direct travelers, adding trailhead amenities as appropriate, and clearing the surface and vegetation to support walking and biking. This may include adding crushed stone, pavement, or other natural material.

Implementation and Funding Opportunities

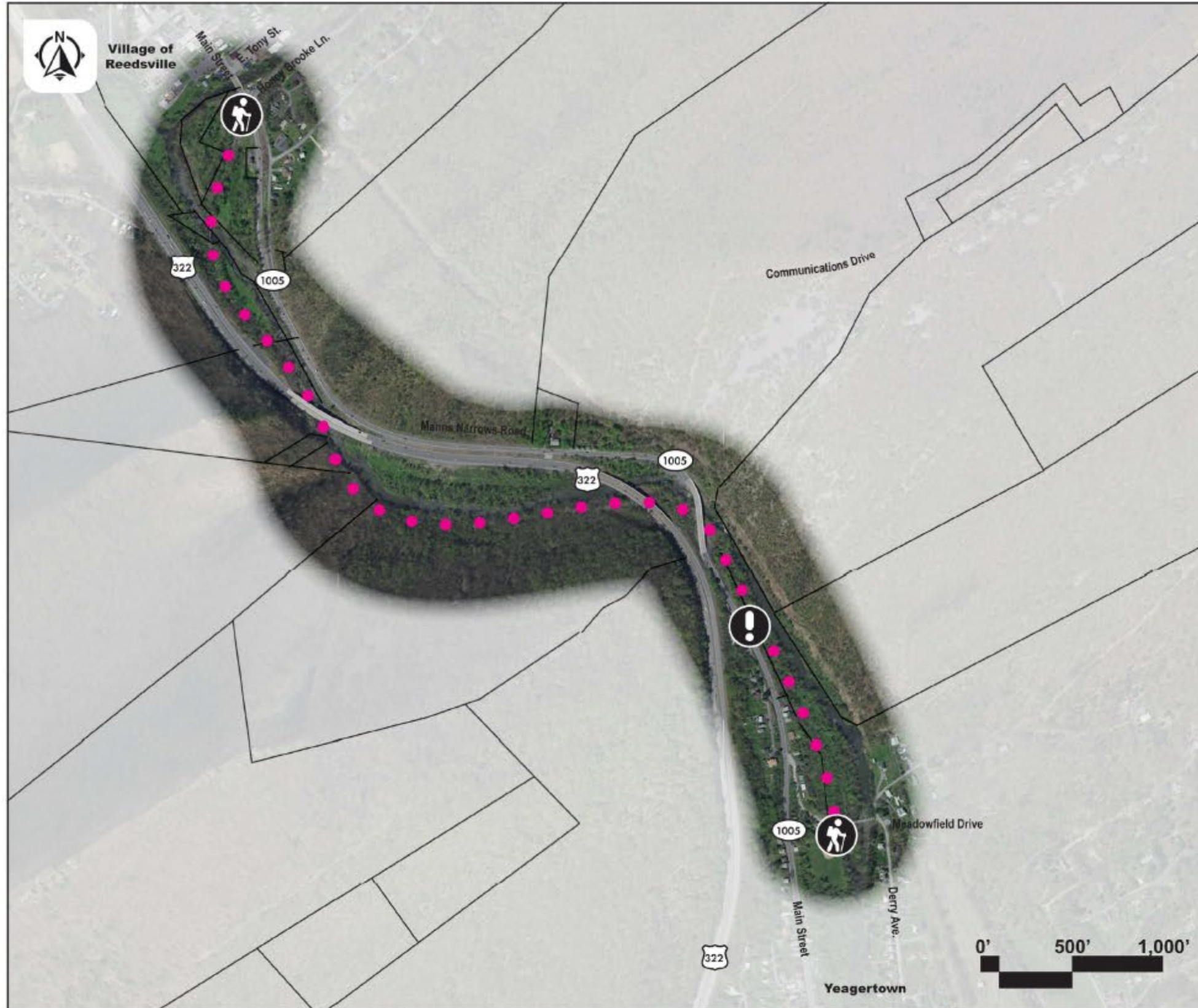
This pilot project may be eligible for the following statewide funding opportunities:

- ✓ PA DCED Greenways, Trails, and Recreation Program (GTRP)
- ✓ WeConserve PA Clean Trail Grant
- ✓ PA DCNR Community Conservation Partnerships Program Grants
- ✓ Partnering with volunteer or advocacy groups to support for trail maintenance.

Table 13 Recommended Facilities for Three Chiefs Trail – Yeagertown to Reedsville

Recommendation	Detail and Considerations	Locations
Formalize and manage the former railroad right-of-way as the Manns Narrows Segment of the Three Chiefs Trail, or if additional land is available, as a linear park.	Short-term: 1. Acquire the former railroad right-of-way through Manns Narrows from willing landowners. Property will need to be surveyed to define a parcel (if land is donated or purchased fee simple) or to define a right-of-way (if trail easement is granted). 2. Evaluate the closed bridge on Meadowfield Drive for bicycles and pedestrians use to cross Kish Creek into Burnham. 3. Acquire and improve the trailhead at the south end of Reedsville; develop a trailhead (signage and trail access) at the Meadowfield Drive ballfield.	Between Yeagertown (SR1005) and Reedsville (SR 1005)
Connect Kish Park to the Manns Narrows Segment of the Three Chiefs Trail.	Longer-term: 1. Evaluate on-street and off-road alignments from Kish Park north to Burnham/Yeagertown. Improve. Designate and sign.	Between Kish Park to Yeagertown

Next Step: Land/trail access acquisition by donation, sale, or easement



Trailhead access on the south side of Reedsville.




Trailhead access at the ballfield along Meadowfield Drive in Yeagertown.

Proposed Improvements

 Off Road Trail Connection

Destinations

 Trail Head

 Emergency Trail Access

Pilot Project E: Three Chiefs Trail – Yeagertown To Reedsville

PILOT PROJECT F: FERGUSON VALLEY ROAD FROM NEWTON-HAMILTON TO STRODES RUN ROAD

Scenic Bikeway On-Road Touring Route



Location and Context

While many of the active transportation pilots aim to improve safety for all users, this pilot focuses on supporting safer riding for confident, experienced, adult cyclists and for buggies. The selected segment extends through rural farmland and woodlands, spanning Oliver and Wayne Townships, and is used as an on-road touring route for experienced cyclists. This segment has been identified as part of the locally preferred interim on-road alignment for the September 11th National Memorial Trail. Ultimately, the on-road portion may be replaced by, or supplemented with, an off-road trail following the towpath of the Juniata River Canal.

These current and proposed activities emphasize that, while Mifflin County does not recommend this roadway for most active transportation trips, interim safety interventions and updates that can have an impact on the safety of the touring cyclists and other active transportation users (such as buggies) that are using this corridor.

Current Facilities

This is a 14.25-mile segment of Ferguson Valley Road (locally owned), with two travel lanes and no shoulders, organized into three segments:

- › SR 3017 from Newton-Hamilton to Atkinson Mills. This is a 5.5-mile segment traversing six bridges serving around 600 vehicles per day.
- › SR 4013 in Atkinson Mills, to SR 4007 (Jacks Mountain Road), to SR 3009 (Furnace Road). This is a 5.5-mile segment that includes three bridges.
- › SR 4013 at Furnace Road to Strodes Run Road: a 3.25-mile segment with three bridges. (Continues as state-owned.)

Assessment of Needs

Interim improvements can help improve visibility for all users and can cue drivers to expect cyclists

on the roadway and prepare accordingly. This includes clearing vegetation, installing signage, and providing amenities for touring cyclists.

Implementation and Funding Opportunities

The following recommendations may be eligible for the following funding or technical assistance opportunities:

- ✓ PennDOT Connects Local Technical Assistance Program (LTAP). PennDOT provides free technical assistance to assist municipalities in planning and system improvement.

LTAP provides a subject matter expert to answer a municipality's questions and guide its planning activities about a

specific site (i.e., corridors like Ferguson Valley Road) or subject (i.e., single or mixed modes, safety, design standards, or signage). Assistance may be provided in-person or remotely, and can be requested [online](#).

- ✓ Private sponsorship or provision of amenities. For example, bicycle parking and repair stations could be provided by local businesses as a courtesy.
- ✓ September 11th National Memorial Trail Alliance, specifically for trail signage and amenities.

Table 14 Recommended Facilities for Ferguson Valley Road

Recommendation	Detail and Considerations	Locations
Shared Lane (interim)	Consider shared travel lane (sharrow) markings and signage along interim on-road route. Unit cost: \$230 per symbol (source)	Interventions to be considered throughout the corridor.
Signage and Wayfinding	Install route wayfinding to help cyclists and motorists navigate the interim on road route. Add 'shared lane'/'share the road' signage	
Spot/Safety Improvements	Consider small-scale spot improvements to reduce conflicts or provide safe facilities. May include minor shoulder widening and other safety improvements	
Amenities	Install bike parking at key destinations. Consider a bicycle repair station (co-locate with bike parking in select locations)	
Vegetation Maintenance	Conduct regular audits of the corridor to evaluate vegetation and locate debris, and commit to addressing these issues as they arise.	
Speed Enforcement	Consider speed enforcement activities along the corridor to generate awareness for safer speeds.	

Next Step and Its Cost Estimate: PennDOT Connects coordination with District 2, SEDA-COG MPO, and Mifflin County; officials/staff time



Furnace Road Intersection.



Route 522 Intersection.

Proposed Improvements

- On-Road Bikeay
- ◆ Key Wayfinding Intersection

Pilot Project F: Ferguson Valley Road Scenic Bikeway – Newton-Hamilton To Strodes Mill Run Road



Mifflin Moves
The Mifflin County Active Transportation Plan, 2023

Gannett Fleming, Inc.
McMahon, a Bowman Company
KCI Technologies, Inc.



Section 6: Implementing the Plan

Image Source: Michelle Brummer



Image Sources (top and bottom): Mike Buffington

BUILD A COALITION TO BUILD A NETWORK!

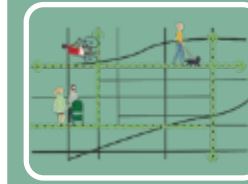
There are many public and private sector stakeholders with a stake in citizens safe and equitable access to community and employment destinations across the small town and rural communities of Mifflin County. They can bring their knowledge, relationships, and other resources to assist in promoting and building active travel options for individual and community benefits.

This section outlines a plan to guide Mifflin County leaders, residents, and other stakeholders to advance *Mifflin Moves!* recommended plans, policies, and programs. Identifying the right individuals and agencies to champion the plan is a critical step to making the vision of a more walkable, bikeable county a reality. In addition to the steps for implementing the plan and improving the County's active transportation network, devices to allow for continuous evaluation, refining, and tracking progress.

Implementation is organized into the following areas:

- › County Leadership
- › Partners and Allies
- › Implementation Organization and Priority Activities
- › Performance Measures

In these areas, implementation activities and priorities are organized around the four *Mifflin Moves!* goals, reviewed in Figure 24.



Goal 1: Establish a Network

- Advance Pilot Projects
- Enhance County and Local Policies to be Consistent with National Policies and Programs



Goal 2: Encourage an Active Lifestyle

- Host Active Transportation Events



Goal 3: Enhance the Network Experience

- Enhance the network as a civic space.



Goal 4: Expand Community Connections

- Measure and Report Progress.

Figure 23 Goals

County Leadership

Advancing active transportation relies on the ability of local leaders to champion the concepts and mobility goals of a more connected, multimodal network. This may include the following local government actions and involvement to advance *Mifflin Moves!* concepts and develop and maintain the active transportation network:

- › County officials and staff work collaboratively with the (proposed) Mifflin Moves Active Transportation Board and PennDOT to develop bicycle and pedestrian facilities along and across the County’s roadway network.
- › County officials and public works staff budget annually for maintenance of locally owned sidewalks and trails, streets and roads, and signals and signage in the local right-of-way, and/or they partner with volunteers for in-kind maintenance services.
- › Local police departments or safety personnel incorporate walking and biking routes in their patrols.

Table 15 outlines select Mifflin County Leadership and departments to lead and support active transportation efforts in the county. Example roles or responsibilities, as well as the specific alignment or stake in *Mifflin Moves!* is noted for reference.

Table 15 Mifflin County Active Transportation Leaders

County and Countywide	Stake in Mifflin Moves!	Role; Responsibility	Focus Areas
Mifflin County Board of Commissioners	Quality of life	Lead (County Officials); budgeting for county departments and initiatives; approval to pursue external funding programs	<ul style="list-style-type: none"> ▪ Juniata River Trail development
Mifflin County Planning Commission	Managed growth and development	Advisory to Commissioners on development standards and proposed development; review of county CDBG program applications	<ul style="list-style-type: none"> ▪ Development plan reviews for compliance and suggested active transportation enhancements
Mifflin County Planning and Development Office	Managed growth; infrastructure improvement; resource conservation	Lead (Staff); advocacy for transportation improvements; county subdivision and land development ordinance; review of all proposed development in the county	<ul style="list-style-type: none"> ▪ Update County SALDO ▪ Model municipal development policy language and ordinance provisions ▪ Juniata River Trail development ▪ Liaise with MSATC
Active Transportation Advisory Board	Lead/Guide implementation of Mifflin Moves (plan)	Champion; advocacy and advice to Commissioners and planning staff; outreach in local communities	<ul style="list-style-type: none"> ▪ Develop active transportation education programs, e.g., bicycle, lock, helmet, and light donations, bicycle clinic/rodeo for youth, bike maintenance and repair ▪ Development plan reviews for compliance and suggested enhancements ▪ Coordinate with MSATC
Mifflin County GIS Department		Technical Support: GIS data acquisition and maintenance for infrastructure, features, and facilities; physical conditions, use/demand etc.	<ul style="list-style-type: none"> ▪ Maintain an inventory of active transportation infrastructure by status (i.e., planned, under development, complete) and condition (good, fair, poor); update every 3 years with planning/GIS intern support ▪ Coordinate with SEDA-COG MPO and MSATC for regional consistency
Mifflin County Human Services	Safe, low-cost access to jobs, shopping, services, and recreation for low-income residents	Advocacy; promotion of the active transportation network as a means to travel about the county	<ul style="list-style-type: none"> ▪ Coordinate active transportation programs for low-income residents, e.g., free bike-share! ▪ Promote other programs and events to low-income residents
Mifflin County Industrial Development Corporation	Worker access to the Industrial Plaza and other business sites	Advocacy; promotion of the active transportation network as a commuting route	<ul style="list-style-type: none"> ▪ Host walk- and bike-to-work special events ▪ Provide bike racks at larger business sites within Mifflin County’s growth areas ▪ Promote private contributions to active transportation projects or project elements
Juniata Valley Chamber of Commerce	Worker access to business sites; customer access		
Juniata Valley Visitors Bureau	Safe, low-cost access and convenience to visitor attractions via active transportation options	Advocacy; promotion of the active transportation network as a means to travel about the county	<ul style="list-style-type: none"> ▪ Promote (i.e., publish) the active transportation network and its access to attractions ▪ Quantify active transportation access to local attractions; work with MC GIS to map attractions, active transportation routes, and amenities
Mifflin County School District	Safe, low-cost access to school facilities for students and families; safe spaces for physical education and athletic training; signage design and fabrication (Mifflin County Academy)	Advocacy; promotion of the active transportation network as a means to reach schools and other community destinations; programs to teach active travel safety	<ul style="list-style-type: none"> ▪ Connect all schools to the community with active transportation facilities (sidewalks, pedestrian, or multi-use paths, ▪ Host walk- and bike-to-school special events
Police and other first responders (fire companies and EMS)	Public Safety	Partner; enforcement of traffic laws for all modes.	<ul style="list-style-type: none"> ▪ Identify travel safety issues and concerns – both facility presence/design and human behaviors; share with ATAB

PARTNERS AND Allies

The following pages provide a table of identified stakeholders to engage as potential partners for *Mifflin Moves!* implementation. Resources refers to the skills, networks, or funding support that each partner brings to the plan and its implementation (i.e., data, skills, networks, relationships, funding, or other resources).

Table 16 Active Transportation Leaders Partners and Allies

Stake in Mifflin Moves!	Role; Resources	Interest or Support
Federal and State Government, and affiliates		
Federal and State Officials	Equitable public investment in their constituent communities and their quality of life	Ally; advocacy for investment through letters of support
PennDOT Multimodal Deputate	State AT Plan implementation	Partner; PennDOT Multimodal Fund, PennDOT Connects Technical Assistance or Special Studies
PA Department of Community and Economic Development (DCED)	Access to Community and Economic Development	Partner; CFA Multimodal Fund
PA Department of Conservation and Natural Resources (DCNR)	Access to community parks and public recreation lands	Partner; various trail planning and development funds administered under the Community Conservation Partnership Program (C2P2)
PA Department of Health	Improved public health/reduced rates of chronic disease; improved access to health care, i.e., free, and low-cost travel options	Partner; technical assistance in implementing and expanding community programs and events, such as Walk Works
PennDOT D2	State Road Improvements	Partner; project programming; PennDOT Connects coordination
PA Downtown Center, affiliated with PA DCED	Accessibility to downtown destinations	Ally; networking, training, and technical assistance for bicycle and pedestrian safety, convenience, and comfort
Regional Government		
SEDA-COG MPO, including Middle Susquehanna Active Transportation Committee	Equitable transportation options	Partner; transportation project development and programming; regional education campaigns
SEDA-COG Joint Rail Authority	Railroad right-of-way use and preservation	Partner/Ally; policy and coordination for active transportation improvements along railroad rights-of-way
SEDA-COG	County/Regional economic development	Partner; development assistance, including business project funding
Southern Alleghenies MPO, Huntingdon County Active Transportation Committee, Mt Union Borough	Kistler-Mt Union bike-ped connection(s)	Partner; local coordination for the seamless development of active transportation facilities between Kistler and Mt Union
Local Government		
Municipal Governing Bodies and Planning Commissions	Quality of life for local residents	Partner; network extension
Municipal Authorities and Facilities		Partner; network extension

	Stake in Mifflin Moves!	Role; Resources	Interest or Support
Police and other first responders (fire companies and EMS)	Public Safety	Partner; enforcement of traffic laws for all modes.	<ul style="list-style-type: none"> Identify travel safety issues and concerns – both facility presence/design and human behaviors; share with ATAB
Private and Non-Profit Organizations			
Utilities, such as First Energy		Partner; network extension	<ul style="list-style-type: none"> Right-of-way access across private land for active transportation facilities, taking appropriate security measures where needed Make financial contributions to projects, which may count as local matching funds toward state and federal grant programs
9/11 National Memorial Trail (NMT) Alliance	On-road trail improvement and promotion' off-road trail development	Partner; NMT promotion; signage design	<ul style="list-style-type: none"> Promote NMT segment openings
Downtown Lewistown, Inc.	Accessibility to downtown destinations	Partner; Lewistown network improvement/extension; event promotion	<ul style="list-style-type: none"> Promote active transportation as a means to travel throughout downtown Lewistown Facilitate development of these trail sections by coordinating/promoting the organization's non-profit status in securing/leveraging funds and donation of private property for tax benefits Encourage private provision or contributions toward active transportation amenities
Geisinger	Facilities for safe walking, biking, and rolling that contribute to public health	Partner; network promotion and programs for use; improvements to SR 1005/Electric Avenue	<ul style="list-style-type: none"> Promote awareness and use of the active transportation network and associated programs and events
Center for Independent Living	ADA access to jobs, shopping, services, and recreation	Ally; network promotion and programs for use; best practices for universal access	<ul style="list-style-type: none"> Same as above
United Way	Safe access to jobs, shopping, services, and recreation	Partner; network and event promotion	<ul style="list-style-type: none"> Same as above
Media			
Lewistown Sentinel			
Radio, e.g., MERF Radio			
Community Facebook groups			
Civic organizations of all ages	Quality of life; civic awareness and engagement	Ally; public education & communications	<ul style="list-style-type: none"> Publish, post, or otherwise give public notice to progress reports; events; calls for event volunteers

IMPLEMENTATION ORGANIZATION AND PRIORITY ACTIVITIES

Mifflin County will need to mobilize capacity from its departments, partners and allies, and the broader community to focus attention on active transportation. This organizational effort is described below as Goal 0.

GOAL 0: ESTABLISH AN ACTIVE TRANSPORTATION ADVISORY BOARD

0.1 Establish an Active Transportation Advisory Board

- › Recruit members for the Active Transportation Advisory Board (ATAB).

The Active Transportation Advisory Board (ATAB) will support the County's goals by focusing on the existing network conditions, gaps, and opportunities to advance and improve mobility countywide. A guiding principle of the ATAB is that the network is for all ages and abilities; as such, the board should reflect a diversity of communities, experiences, identities, and abilities. Forming the ATAB could be achieved with an initial charter for one or two years.

- › Organize the ATAB.

Members. The Board should reflect a blend of local stakeholders, business owners, residents who use active modes, and partner agencies involved in similar activities.

Charge or Duties. The primary purpose of the ATAB is to explore, evaluate, and make recommendations on active transportation issues and opportunities in Mifflin County.

Set a Meeting Schedule. The board should meet regularly to advance the initiatives and recommendations of *Mifflin Moves!*, respond to emerging issues or opportunities, and coordinate engagement efforts in support of

active transportation (e.g., funding opportunities, partnerships, events). After the work program (0.2 below) is developed and task forces begin their work, the ATAB may meet less frequently but still regularly, so that all members can hear about the progress each task force is making.

0.2 Create a 1-year Work Program from the priority activities.

- › Select a few varied priority activities—no less than two and no more than five.

Priority activities are listed under each goal beginning on page 66.

Varied activities will allow ATAB members to have choice in how they can best help advance *Mifflin Moves!*. Some members may be skilled and/or networked in advancing a pilot project. Others may be suited to develop a program or event. And still others may prefer to work on ATAB development or on public education and communications, described under 0.3.

- › For each activity, establish a one-year objective.

Answer three key questions: What will the activity or task(s) accomplish? What condition will be different as a result of the completed activity or tasks(s)? How does that change represent progress for *Mifflin Moves!*? Each answer should be specific and unique.

- › Assess what resources are available and what resources are needed.

ATAB member knowledge, skills, and time are internally available but may not be sufficient to complete the activity. Identify what additional resources (knowledge, skill, time, funding) are needed; if sources are not known, seek guidance from the county or a state or regional partner.

- › Develop a task force for each activity.

The task force will work together to complete the activity. Each task force should include at least three to five members, and may include other citizens interested in assisting with the activity.

0.3 Equip the ATAB to Lead, and Engage

- › Direct the ATAB to free training and resources.

The Mifflin County Planning and Development Department, assisted by the SEDA-COG MPO, should identify free training courses, materials, and other resources to inform and inspire the ATAB members.

- › Engage with the public regularly.

ATAB members should talk about active transportation in their everyday conversations with neighbors and co-workers, and participate in community events to raise awareness for active transportation. Example opportunities include trail clean-ups, group bike rides or walks, and representing the ATAB mission at events.

- › Communicate consistently.

Branding. Developing a brand or logo helps establish a uniform identity for the active transportation network and the associated activities/events. The logo at below (Figure 20) represents one example—a proposed logo for the Three Chiefs/Juniata River Trail.^{xvii}

Public Communication Strategies. The communication approaches, formats, and plans will be guided by the ATAB, and should consider both public-facing communications and those internal/among partners and allies. Examples include newsletters and other resources, maps and details about active transportation facilities/

trails, and other community information/events. Communication will incorporate progress or other news, including accomplishments and improvements to the network.



Figure 24
Conceptual trail map
for the Three Chiefs
Trail (formerly the
Juniata River Trail)

The following priority activities offer guidance for implementing the goals, strategies, and pilot projects. Activities are organized around each of the four goals.

GOAL 1: ESTABLISH A NETWORK

1.1 Advance Pilot Projects

› Select one pilot project.

Select one pilot project from the six in Mifflin Moves! (A-F on pages), another location identified in the relevant plans and studies (see Table 17), or other location in need of physical improvement or with opportunity for active transportation connection. The project's development will be led by an ATAB task force.

› Develop a one-page project description.

Use Mifflin Moves! and other plans and studies to lay out a case for the project. Update performance data, where available; request assistance from the Mifflin County Planning and Development Department or SEDA-COG MPO.

Define the project purpose, need, and concept.

- What condition is to be improved or accomplished? (Purpose)
- Why is the current condition inadequate? (Need)
- What improvement has been suggested? (Concept)

Define the project stakeholders:

- Who owns the land, facility (facilities), access, etc.?
- Who maintains the land, facility (facilities), access, etc.?
- Who is responsible for law/rule enforcement?
- Whose policy or standards will need to be met?

Identify one or more case studies:

- Where has a such and improvement or

- change been implemented?
 - What particular success or challenge was met?
 - What lessons were learned in the process?
- › Meet with stakeholders and relevant partners and allies to refine project purpose, need, and concept.

An ATAB task force should convene a meeting and facilitate a constructive review of the proposed project. Changes to the proposed project, its description, and even its timing should be openly considered. An initial discussion of project ownership, resources and capacity should be part of this discussion.

› Assess resources and capacity to complete the project.

Further coordination among the project owner and partners may be needed to achieve a local commitment to the project.

› Request technical assistance to help address unknowns.

Technical assistance for assessing needs and planning guidance is available through PennDOT Connects. Requests are submitted through the county's transportation planning partner, the SEDA-COG MPO.

› Pursue local and external funding to make improvements.

Monitor external funding opportunities and coordinate funding pursuits regionally where feasible. Table 18 provides a summary of current funding opportunities and competitive grant programs dedicated to support active transportation infrastructure. As Mifflin County's regional transportation planning agency, the SEDA-COG MPO and the Middle Susquehanna Active Transportation Committee can provide technical assistance for state and federal transportation funding programs.

Table 17 Implementation Alignment with Past Plans and Studies

Plan	Implementation Alignment
The Charter Plan for Downtown Lewistown (2000) / Lewistown Kish Riverwalk Trail and Feasibility Study (2005)	In the Plan's/Study's spirit of interconnecting parks and public spaces throughout Lewistown, extend the Juniata River Trail, now the Three Chief's Trail, throughout the greater Lewistown area.
Juniata / Mifflin County Greenway Open Space and Rural Recreation Plan (2009)	A. Develop segments of the Three Chiefs Trail from concept to feasibility to design/construction: 1) from Victory Park to the Stone Arch Bridge and 2) from Victory Park to Rec Park. B. Consider other greenways and trail connections remain as future candidates for off-road trail corridors.
Visions for the 21st Century: The Mifflin County Comprehensive Plan (2014)	C. Obtain land ownership or easement for greenways with trails, e.g., Kishacoquillas Creek Greenway with trail on the former Kish Valley Railroad alignment. D. SR 2004/Green Avenue Extension remains a complete street candidate. E. See Item A above. F. The former Kish Valley Railroad right-of-way remains a candidate for an off-road trail corridor from Reedsville to the Belleville area.
A Feasibility Study for the Main Line Canal Greenway Trail (2019)	G. Coordinate with PennDOT and District 2 to assess the need for vehicular and bicycle improvements to the locally preferred on-road corridor (Pilot Project F) and to program improvements. H. Enhance the corridor experience with NMT signage, wayfinding signage and maps, and interpretive environmental signage. I. Follow with coordinated local, state, and national promotion.
Success Together: Mifflin County Strategic Plan 2020-2025 (2019)	J. Explore interest in serving on the Active Transportation Advisory Board among past participants.
Lewistown Amtrak Station Facility Operations and Program Assessment Report (2020)	K. See item K below.
Lewistown Junction Train Station Analysis (2020)	L. Improve each segment (Area 1, Area 2, and Area 3; individually or as a multi-part project) from concept to feasibility to design/construction.
Mifflin County Trail Feasibility Study (2020)	M. See Item A above.
Community Health Needs Assessment (2021) and Action Plan	N. Coordinate with Geisinger to provide community events, programs, and activities on the active transportation network. O. Invite Geisinger as a stakeholder to project development discussions for SR 1005/Electric Avenue improvements.

Table 18 Competitive Grants for Active Transportation Infrastructure

Program (Administering Agency)	Program Details	Eligible Project Phases				Anticipated Timing
		Planning	Design	Right-of-Way	Construction	
Transportation Alternatives Set Aside (TA) Pennsylvania Department of Transportation (PennDOT) SEDA-COG	<ul style="list-style-type: none"> Federal transportation funds Match requires funding all pre-construction activities \$50,000 minimum and \$1 million maximum 2-year timeframe to complete design, right-of-way, and utility clearance 				✓	Summer 2023
CFA/DCED – Multimodal Transportation Fund (MTF) Commonwealth Financing Authority (CFA) with Department of Community and Economic Development (DCED)	<ul style="list-style-type: none"> Annual competitive grant program for state funds (Act 89) 30% match; \$100,000 minimum; \$3 million maximum 2- to 3-year timeframe to complete the grant funded activities Design and engineering cannot exceed 10% of the grant award 		✓	✓	✓	Annual: March-July
PennDOT – Multimodal Transportation Fund (MTF) PennDOT	<ul style="list-style-type: none"> Annual competitive grant program for state funds (Act 89) 30% match (based on grant award); \$100,000 minimum; \$3 million maximum 3-year timeframe to complete the grant funded activities Design and engineering cannot exceed 10% of the grant award 			✓	✓	Annual: September- November
Greenways, Trails and Recreation Program (GTRP) CFA with DCED and Department of Conservation of Natural Resources (DCNR)	<ul style="list-style-type: none"> Annual competitive grant program for state funds (Act 13) 15% match; \$250,000 maximum 2- to 3-year timeframe to complete the grant-funded activities Design and engineering cannot exceed 10% of the grant award 		✓		✓	Annual: February-May
Community Conservation Partnerships Program (C2P2) DCNR	<ul style="list-style-type: none"> Annual competitive grant program Federal and state funds available for trails and improving access to recreational opportunities Match requirement depends on program, 20% - 50% 	✓	✓		✓	Annual: January-April
Municipal Assistance Program (MAP) DCED	<ul style="list-style-type: none"> Grant program with rolling applications (always accepting applications) 50% match required 	✓				Annual: February-April
WalkWorks Program PA Downtown Center	<ul style="list-style-type: none"> Annual competitive grant program No matching funds required Typically, less than 1 year to complete the grant funded activities 	✓				Annual: April-May
Community Challenge Grant AARP	<ul style="list-style-type: none"> Quick-action project that increase mobility options and connectivity in communities Grant awards typically \$15,000 or less 				✓	Annual: January-March
Smart Growth Grant National Association of Realtors	<ul style="list-style-type: none"> Educational programs and activities that support active transportation Level One: up to \$1,500 Level Two: up to \$5,000 Level Three: up to \$10,000 	✓				Rolling Basis: January-October
T-Mobile Hometown Grants T-Mobile, Smart Growth America, Main Street America	<ul style="list-style-type: none"> Competitive grant program selected on a quarterly basis Community projects that foster connections in towns with populations less than 50,000 \$50,000 maximum 				✓	Annual: March, June, September, December
USDOT Transportation Programs applicable to active transportation	<ul style="list-style-type: none"> Bolstered by IIJA/BIL: Safe Routes to School (SRTS); Transportation Alternatives Created by IIJA/BIL: Safe Streets and Roads for All Funds (SS4A); Safe Streets and Roads for All Funds (SS4A) 	✓	✓	✓	✓	Varies by program; see grants.gov for details

1.2 Enhance county and local policies in line with national policies and programs.

› Learn about Vision Zero and Safe Routes to School

Mifflin County, through public departments and through the ATAB, can champion efforts to improve conditions for biking, walking, and rolling by getting involved in established active transportation initiatives. Two examples include the Vision Zero (also referred to as Towards Zero) program and Safe Routes to School.

Vision Zero. Vision Zero is a global initiative centered on the idea that traffic deaths are preventable, and aims to reduce traffic crashes targeted Vision Zero campaign to amplify and spread awareness of Vision Zero principles. This includes consistent messaging on the principles of Vision Zero, such as targeting zero deaths, using “crash” instead of “accident” in conversation, and holding that no traffic death is acceptable, and crashes are preventable.

Safe Routes to School. Safe Routes to School is a national program centered on creating safer options for students to walk and bike to school. The national program is realized by local programs and initiatives to improve and encourage walkable/bikeable commutes, often through interventions like crossing guards and signage, providing access to traffic safety education, and general roadway safety.

Both Vision Zero and Safe Routes to School provide online clearinghouse sites with resources to kick-off campaigns or initiatives in communities, build awareness and recruit volunteers, and promote public efforts and events. For example, Safe Routes to School participating may center on building coalitions with local school administrators and parents, creating or adapting educational materials, and identifying strategies to address gaps in how students walk, bike, or roll to school.

IMPLEMENTING THE PLAN

› Prepare Model Policy Language

A Complete Streets Policy formalizes a commitment to planning and maintaining transportation infrastructure for all users and modes, including biking, walking, rolling, transit, and goods movement. A complete streets policy would be relevant to any municipality with an active transportation corridor or network.

Municipalities across Pennsylvania have used a variety of approaches to adopt and implement their Complete Street policies.

- The City of [Franklin, PA](#) adopted a Complete Streets Policy, which focused on encouraging an interdisciplinary approach to traffic safety design and system management.
- [Elizabethtown, PA](#) paired its Complete Streets Policy with a checklist to evaluate how proposed designs will impact or improve active transportation criteria (e.g., safety, ADA accessibility, streetscape design and multimodal integration).
- [Reading, PA](#) advanced Complete Streets through executive order that outlined expectations for community-focused and context-sensitive design methodologies.
- [Williamsport, PA](#) reports use of a complete streets ordinance requiring placement of pavement markings, signage, and other amenities along designated active transportation (bike) routes.
- While most SEDA-COG municipalities have yet to adopt a formal Complete Streets policy, complete streets principles are considered and scored in the Long Range Transportation Plan [candidate project evaluation process](#).

County and municipal leaders should explore these examples (and others) and determine which approach is best for their small town and rural communities. The SEDA-COG MPO may be able to provide more examples.

› Update County SALDO with additional active transportation provisions

Updates to Existing Ordinances. The Strategic Assessment identified several potential updates to local policies and ordinances to support active transportation. These include updated sidewalk specifications and recommendations, provision of bicycle and pedestrian amenities, and increasing ‘daylighting’ through parking requirements.

A model Zoning Overlay, similar to the TND Overlay in Brown Township, a zoning overlay for select, higher density, mixed-use areas growth areas of Mifflin County would expand the zoning ordinance to include active transportation considerations (e.g., requiring integrated access management to reduce conflicts with sidewalk users) or amenities. This could include signage requirements for business and residents.

› Educate Municipal Leaders on Model Ordinance Language

PennDOT and Pennsylvania’s local government associations provide training for local officials and public works staff on a wide variety of transportation topics, including active transportation. These trainings are available as in-person sessions and online webinars—many at no cost to the registration. These sessions typically provide an opportunity for questions, whereby participants can ask how a principle or standard should be applied in a specific, e.g., small town or rural, environment.

GOAL 2: ENCOURAGE AN ACTIVE LIFESTYLE

2.1 Host Active Transportation Events

› Organize and plan a range of active transportation events.

The most effective way to encourage riding bikes, transit, or walking is to bring others along with you! This can mean friends and family, coworkers, or serving as an advocate or ambassador for alternative forms of transport (e.g., helping others understand biking routes).

Organizing group rides, walks, or trips can help travelers acclimate to new modes. For example, organizing recurring short bike ride events that demonstrate possible connections between destinations. This can capitalize on events like Bike Months, which occurs each May. A list of potential active transportation events is provided below for reference:

- Group Bike Rides
- Bike Riding Classes
- Bike Repair Classes
- Walking School Buses
- Open Streets Events
- Walk/Bike Fundraiser Event
- BioWalks
- Bike Month
- National Bike Anywhere Friday
- National Trails Day
- National Bike your Park Day
- Bike to School Day

2.2 Develop Programs and Initiatives to Encourage Active Transportation

› Establish Public Safety Campaign.

Develop campaigns to inform drivers and other roadway users to traffic safety laws such as “Share the Road,” and to alert travelers to watch for pedestrians and cyclists. Real-time data such as speed radar and enforcement, and pedestrian warning signals can be integrated into this outreach. Messages can be shared as videos, on social media, in press, or on agencies’ websites.

Enforce State Traffic Laws. Fundamental to safe interactions is a shared understanding of traffic laws. The PA Motor Vehicle Code defines the laws to which drivers, cyclists, pedestrians, and more must adhere. In many cases, bicyclists are beholden to the same rules as motorized users such as traffic signal or intersection movements, right-of-way, and use of the lane.

In Pennsylvania, drivers are required to provide a four-foot clearance when passing cyclists. Figure 25 depicts one of PennDOT’s public campaigns to ensure drivers know and adhere to this law. Other safety-critical laws or practices could be part of an enforcement strategy, i.e., efforts to reduce distracted driving or walking.



Figure 25 PennDOT Bicycle Safety Campaign

One awareness strategy is to display a variable message sign (VMS) at key times and in a key location. For example, a VMS could be displayed in advance of peak bicycle season and when schools reopen (e.g., April and August). These messages could relate to any relevant traffic safety information, such as safe passing distance or “share the road.”

› Develop programs to provide resources for biking and walking.

Bike Rental Program. Bike rental and bike share programs provide flexible opportunities for residents and visitors to use bikes for commuting, recreation, or leisure. With these systems, an operator maintains a collection of bicycles to be rented, borrowed, or used by individuals at a low cost. These programs vary in how they are structured and operated, with the shared goal of removing barriers to safe, affordable, and active transportation options.

Developing a bike rental, share, or library program for Mifflin County should focus on low-cost or free options, to remove any financial barriers to biking and walking. As such, the program would be best managed by a local services or non-profit agency. The County (and the ATAB) could facilitate the program and provide ongoing support, but should not be responsible to own or maintain the bicycles.

Lewistown is well-suited for this type of program, and could be organized through partnerships with the local community service providers, Visitor’s Bureau, Downtown Lewistown, and local organizations that may be interested in hosting docking or check-in/out.

The following locations are identified as candidate siting locations for a docked bike station or a rental pick-up/drop-off area:

1. The Mifflin County Library in Lewistown, centrally located to Monument Square and the commercial, downtown district.

2. Lewistown Community Center, providing nearby access to recreational amenities and proximity to the Mifflin County Housing Authority
3. Giant Grocery Store (at Charles and Brown Streets), an essential destination and providing connections to nearby retail and residential areas.
4. Mifflin County Academy, on Pitt Street in the Eastern part of the Borough, providing access to current residential areas and in a growth area.
5. Lewistown Junction Train Station, to support first/last-mile connections.

Bike repair and maintenance can often be coordinated through agreements with local repair shops or with volunteers offering repair services.

› Develop Public Information for Active Transportation

Developing materials for cyclists, in particular, that review safe cycling behavior and elements (e.g., signals, passing; and knowing when you are visible to motorists’ line of sight). These instructive messaging materials can be provided live or online as web-based modules/webinars.

Publicizing walkable options for the corridor through public materials, online resources (e.g., trail maps or other details), and through improved wayfinding systems that highlight safer options as they are implemented, and provide reassurance to travelers. This may include developing a website to host safety information for bicycle and pedestrian resources and facilities in and around the County.

› Types of Bike Rental and Bike Share Programs

- **Traditional bike rental programs** are often structured based on hourly or daily rates. For example, a visiting family may rent several bikes for a day of trail cycling. Often, these programs refer to bicycle(s) being checked out (and in) at a given rental facility.
- **Bike share programs**, similar to rentals, allow users to use any bike from a system of available bicycles. This includes docked bike share systems, where bicycles are parked at docking stations throughout the community—riders are able to use a self-serve kiosk to check-out a bike and, when their trip is completed, return the bike to any docking station. In many cases, these short-term rentals are structured such that individuals pay a small subscription to access the bikes, but then can check-out bikes and ride for free for the first hour (i.e., most commutes or trips would be free). Visitors and other non-subscribing users can still borrow bikes for a small fee; Many bikeshares partner with visitor bureaus to offer coupons so tourists can use the system for free.
- **Bike library programs**, a variation of bike share, are community-led and maintained programs that pair donated bicycles with interested individuals. Individuals can ‘check-out’ and a bicycle for hours, weeks, or more. In some instances, bike library programs are hosted by or at local libraries, allowing the program to utilize the library card check-out and return software to track rentals. Mifflin County operated a version of bike library program: the County’s shelter services sponsored two bikes that were available for low-income clients to borrow for commuting.



GOAL 3: ENHANCE THE NETWORK EXPERIENCE

3.1 Enhance the network as a civic space.

- › Install mile markers and wayfinding signage to local amenities.

Network signage helps people feel comfortable and confident in their use of the network. Mileage markers help people track the length of their daily, weekly, or monthly exercise, while distance-to-destination signs tell how far they are from destinations and amenities—for the current trip and for future trip planning.

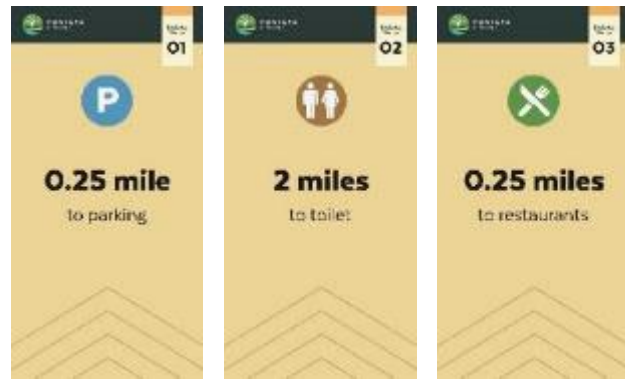


Figure 26 Conceptual trail signage

- › Add interpretive signage about the natural and man-made environment along the network.

Interpretive signage about the surrounding environment distinguishes one route or trail from all others. Signage can call out native flora and fauna, scenic vistas, historic transportation features such as canal corridors, and sites of historic industry or events.

In 2019, students at Bucknell University prepared a conceptual package of signage for the Juniata River Trail, now known as the Three Chiefs Trail. The package included a trail logo, a map, trail markers (Figure 26) and interpretive signage (Figure 27). QR codes depicted the option for signage to connect readers with additional information.



Figure 27 Conceptual interpretive signage

GOAL 4: EXPAND COMMUNITY CONNECTIONS

4.1 Measure and Report Progress.

- › Establish and track implementation measures of success, measures of effectiveness.

Evaluation is an invaluable component of implementation. By tracking the success or effectiveness of projects and policies, Mifflin County can more quickly identify areas in need of investment (e.g., dedicating resource to address areas not performing at expected levels, or identifying the areas that are exceeding expected ridership/walking rates and evaluating how to best strengthen these trends).

Metrics. Examples of success measures as suggested in this plan include increases in...:

- ✓ The number of people biking, walking, rolling regularly (i.e., the number of non-motorized/ active transportation trips) on the network.
- ✓ The number of biking or walking events.
- ✓ The number of bike classes/safety classes.
- ✓ The number of marketing placements (online and in-print) promoting the active transportation network and what it has to offer.
- ✓ The number of signs (wayfinding, interpretive, distance/mileage) on the network.

...as well as reductions in:

- ✓ The number of crashes and near miss events involving pedestrians, cyclists, and other non-motorized roadway users on the network, and throughout the county.

Progress on these active transportation metrics and network implementation should be tracked at the county and local levels.

To prepare these metrics, the County may consider the following datasets and data collection efforts:

- Bicycle and pedestrian counts (point-in-time counts manually conducted, or deploy pneumatic counters on key corridors).
- Walk audits (including signage audits) to track the condition of walking/biking infrastructure, as well as the placement and quality of amenities and signs.
- Annual reported crash data (plus reporting from emergency personnel engagement, etc.)
- Public surveys, including platforms to report near-miss events or other data.
- Public data including ACS, US Census (estimates), and Household travel surveys.

Progress Reporting should be shared at least two times per year, including status on active projects, notable accomplishments, and any upcoming activities relevant to active transportation or implementation (e.g., upcoming events, grant opportunities, or construction projects).

Benchmarking and learning. As municipalities and the county track progress and metrics for implementation, all communities should contribute to a shared benchmarking tool to monitor the implementation across the network. Consider developing a shared resource for documenting successful approaches, lessons learned, and other useful information with Mifflin County colleagues and community partners. Likewise, resources to enable transferring successes and experiences to and from other counties will help all to learn and apply best practices.

Active Transportation Checklist provided to ensure developers are aware of, and plan based on the considerations noted in *Mifflin Moves!*

REFERENCES

- ⁱ Vision Statement of the Pennsylvania Active Transportation Plan. PennDOT, 2020. Available at: <https://www.dot.state.pa.us/public/PubsForms/Publications/PUB%20787.pdf>
- ⁱⁱ Population data according to the US Census (2020), Available at XXXXX
- ⁱⁱⁱ Population data according to US Census (2020)
- ^{iv} Population data according to US Census (2020)
- ^v Population data about age – census / ACS
- ^{vi} Population data – Amish population, Hispanic
- ^{vii} Population data – living with a disability
- ^{viii} Zero- car households, ACS data
- ^{ix} <https://htaindex.cnt.org/map/> Mifflin County, Housing and Transportation Affordability Index.
- ^x LEHD on the map data about inflow/outflow. Average time to work from ACS.
- ^{xi} CDC Population Level Analysis and Community Estimates (PLACES), 2019 <https://www.cdc.gov/places/about/index.html>
- ^{xii} CDC Places, 2019
- ^{xiii} Geisinger Community Health Needs Assessment 2021
- ^{xiv} Focus Central PA Livability Initiative
- ^{xv} Success Together Plan
- ^{xvi} Mifflin County SALDO (2006) http://www.co.mifflin.pa.us/dept/PlanningDev/Documents/mifflin_county_subdivision_and_land_development_ordinance_-_amended_2006.pdf
- ^{xvii} Source: 2021 Mifflin County Planning Commission Annual Report <http://www.co.mifflin.pa.us/dept/PlanningDev/Documents/AnnualReports/2021%20Annual%20Report.pdf>