

SVATS MPO

Mercer County Long Range Transportation Plan Update 2021 - 2045

November 2021

Prepared for:



Prepared by:





Table of Contents

Executive Summary	5
Acknowledgements	5
Introduction.....	6
Long Range Transportation Plan History & Background	6
Federal Guidance	6
State Guidance	7
Planning Partners	8
People & Places	9
Location	9
Land Use	9
Population.....	14
Environmental Justice	16
Outreach	38
Literature Review	45
Goals & Objectives.....	46
Emerging Trends and Disruptors	47
Economic Forces.....	47
New Mobility & Evolving Technologies.....	49
Resiliency	57
Transportation System	59
Roadways	59
Transit.....	62
Bicycle and Pedestrian Network.....	64
Freight.....	66
Aviation Facilities.....	69
Performance Measurement.....	71
Transportation Plan.....	86
LRTP, TIP, and TYP	86
Project Prioritization.....	86
Funding Sources	87
Fiscal Constraint.....	89
Programming Phases	89
Environmental Agency Involvement and Mitigation	90
Air Quality Conformity.....	90
Programming.....	91
Project Listing	91

Highway Projects	93
Bicycle and Pedestrian Projects	97
Local Projects	101
Betterments	102
Studies	106
Policies	107

List of Exhibits

Exhibit 1 – Federal and Statewide Planning Factors	7
Exhibit 2 – Location Map	10
Exhibit 3 – Existing Land Use	11
Exhibit 4 – Future Land Use Map	12
Exhibit 5 – Tourism Destinations	13
Exhibit 6 – Mercer County Population Over Time	14
Exhibit 7 – Mercer County Age Distribution	14
Exhibit 8 – Mercer County Population Density	15
Exhibit 9 – Top 10 Municipalities by Poverty Rate	17
Exhibit 10 – Top 10 Municipalities by Minority Population	18
Exhibit 11 – Low Income Populations by Census Block Group	19
Exhibit 12 – Minority Populations by Census Block Group	20
Exhibit 13 – High Poverty Areas by Census Block Group	21
Exhibit 14 – High Minority Areas by Census Block Group	22
Exhibit 15 – High Poverty and Minority Areas by Census Block Group	23
Exhibit 16 – Top 10 Municipalities by LEP Households	24
Exhibit 17 – Mercer County Zero Car Household Rate by Census Tract	26
Exhibit 18 – Pavement Condition by High Poverty and Minority Block Groups	28
Exhibit 19 – Pavement Condition by High Poverty and Minority Block Groups (Insets)	29
Exhibit 20 – Bridge Condition by High Poverty and Minority Block Groups	30
Exhibit 21 – Bridge Condition by High Poverty and Minority Block Groups (Insets)	31
Exhibit 22 – Crash History by High Poverty and Minority Block Groups	32
Exhibit 23 – Crash History by High Poverty and Minority Block Groups (Insets)	33
Exhibit 24 – LRTP Projects by High Poverty and Minority Block Groups	36
Exhibit 25 – Public Survey Responses by Top 10 Municipalities	37
Exhibit 26 – Age of Survey Respondents	39
Exhibit 27 – Race of Survey Respondents	39
Exhibit 28 – Survey Most Important Topics	40
Exhibit 29 – Survey Most Needed Improvements	40
Exhibit 30 – Long Term Anticipated Travel Behaviors	41
Exhibit 31 – Public Survey Points of Concern	42
Exhibit 32 – Literature Review Plans Reviewed	45
Exhibit 33 – Estimated Quarterly U.S. Retail E-Commerce % of Total Retail Sales 2012-2021	47
Exhibit 34 – Automation Levels	49
Exhibit 35 – Mercer County Potential ROP Projects	54
Exhibit 36 – Emergency Detour Routes	55
Exhibit 37 – Extreme Weather Vulnerability Study Predicted Risk Score	58
Exhibit 38 – High Traffic Roadways in Mercer County	59
Exhibit 39 – Mercer County Average Daily Traffic Volumes	60
Exhibit 40 – Mercer County Truck Percentage	61
Exhibit 41 – Transit Ridership by Mode	62

Exhibit 42 – Shenango Valley Shuttle Service (SVSS Transit Routes)	63
Exhibit 43 – Bicycle and Pedestrian Trail Facilities	65
Exhibit 44 – Employment by Freight Related Industry	66
Exhibit 45 – Inbound and Outbound Commodities (2020)	66
Exhibit 46 – Mercer County Freight Network	68
Exhibit 47 – Grove City Operations by Year	69
Exhibit 48 – Airports in Proximity to Mercer County	69
Exhibit 49 – Greenville Airport Satellite View	70
Exhibit 50 – Grove City Airport Satellite View	70
Exhibit 51 – Safety Performance Mercer County	71
Exhibit 52 – Crash History Map	72
Exhibit 53 – Mercer County Interstate System Performance	73
Exhibit 54 – Mercer County Non-Interstate NHS System Performance	73
Exhibit 55 – Pavement Condition (IRI)	75
Exhibit 56 – Mercer County Bridge System Performance	76
Exhibit 57 – Bridge Condition Map	77
Exhibit 58 – System Reliability Performance	78
Exhibit 59 – LRTP Projects on CMP Corridors	80
Exhibit 60 – Tier II Transit Performance Measurement	81
Exhibit 61 – Transit Safety Performance Measures	82
Exhibit 62 – LRTP Report Card Assessment	83
Exhibit 63 – Yearly Funding by Source from 2026 Onward	88
Exhibit 64 – Funding Category Assumptions Available for LRTP Projects	88
Exhibit 65 – Project Programming Phases	89
Exhibit 66 – All LRTP Categories	92
Exhibit 67 – Highway Projects	93
Exhibit 68 – LRTP Highway Projects	96
Exhibit 69 – Bicycle and Pedestrian Trail Projects	98
Exhibit 70 – Bicycle and Pedestrian Trail Projects Map	100
Exhibit 71 – Local Project Listing	101
Exhibit 72 – Betterment Identification of Traffic Signal Improvements	103
Exhibit 73 – Betterment Identification of Safety Improvement Locations	104
Exhibit 74 – Betterment Key Bicycle and Pedestrian Corridors	105
Exhibit 75 – Studies	106
Exhibit 76 - Policies	107

List of Appendices

Appendix A – Outreach Summary	110
Appendix B – LRTP Report Card	153
Appendix C – Project Prioritization Criteria	155
Appendix D – Project Programming Schedule	157
Appendix E – Betterment Lists	171
Appendix F – Air Quality Conformity Determination	194

Executive Summary

The Mercer County Long Range Transportation Plan focuses transportation investments and recommends studies and policies to encourage a prosperous future and improve safety and quality of life for Mercer County residents and businesses through the year 2045. The plan was led by a Steering Committee and developed in cooperation with Mercer County Regional Planning Commission, the Shenango Valley Area Transportation Study Metropolitan Planning Organization, the Pennsylvania Department of Transportation, Federal Highway Administration, and a broad variety of stakeholders and the public of Mercer County.

The goals and objectives of the plan are to enhance economic vitality, improve quality of life, and preserve and enhance existing transportation assets such as roads and bridges. The plan includes insights from recently completed planning documents, corridor studies, and countywide plans. The over-arching themes heard from the outreach were the need for improvements to pavement condition, the desire to spur economic growth through transportation improvements at freight bottlenecks, a need for mobility options such as expanded transit service for residents to access jobs and resources, and the desire to improve quality of life and enhance tourism through the development of multi-use trails and improved access to regional destinations.

This plan includes a fiscally constrained listing of roadway, bridge, transit, and airport projects, as well as a recommended listing of bicycle and pedestrian projects and locally championed projects. Highway projects were prioritized using the Decision Lens ranking criteria which were customized for Mercer County in 2016. The plan also includes recommendations for further studies and policy recommendations. This plan also includes expanded betterment lists which document safety, signal, and multimodal needs so that these improvements may be considered during the PennDOT Connects process on pavement betterment projects. The fiscally constrained plan was adopted by the Shenango Valley Area Transportation Study Metropolitan Planning Organization on November 9, 2021. The fiscally constrained projects were found by PennDOT's Interagency Consultation Group to be in conformity of all applicable air quality standards.

Acknowledgements

Steering Committee

MCRPC

Matt Stewart
Brian Barnhizer

PennDOT District 1

Lyndsie DeVito
Courtney Lyle

PennDOT CPDM

Kevin McCullough
Brandon Leach
Matt Crea

Federal Highway Administration

Eugene Porochniak
Ronnique Bishop

Municipal Leaders

Melissa Phillips, City of Sharon
Jeremy Coxe, City of Hermitage
Rich Stachel, Pine Township
Paul Hamill, Town of Greenville

Consultant Team – McCormick Taylor

Ashley Tracy, Michelle Goddard
Rob Watts, Carrie Hill Machuga

Stakeholders

Buhl Farm Park

Community Action Partnership of Mercer County
George Junior Academy
Greenville Reynolds Development Corporation
Mercer County Area Agency on Aging
Mercer County Bridge Engineer
Mercer County Commissioners
Mercer County Community Transit
Mercer County Conservation District
Mercer County Department of Public Safety
Mercer County Emergency Management Agency
Mercer County Housing Authority
Mercer County Regional Council of Governments
PA Department of Conservation and Natural Resources
PA Environmental Protection Agency
PA Fish and Boat Commission
PA Historic Preservation Office
Penn Northwest Development Corporation
Springfield Township
Stoneboro Borough
US Army Corps of Engineers
US Environmental Protection Agency Region 3
US Fish and Wildlife Service

Introduction

Long Range Transportation Plan History & Background

Long Range Transportation Plans (LRTPs) are a requirement for Metropolitan Planning Organizations (MPOs) to receive federal funding. The Mercer County Planning Commission (MCRPC) assists the Shenango Valley Area Transportation Study Metropolitan Planning Organization (SVATS MPO) with updating its LRTP every five years. The LRTP covers a horizon of at least 20 years; this plan is for 2021 to 2045.

LRTPs typically include an assessment of the existing transportation system, provide planning context, outline goals and objectives, identify performance measures, and prioritize projects that meet the goals and objectives. Then, priorities are compared against financial guidance, and a fiscally constrained plan is prepared.

The previous Mercer County LRTP was adopted in 2016. Since then, a number of things have changed. Mercer County is an orphan maintenance area of the National Ambient Air Quality Standards (NAAQS) for the 1997 8-hour ozone as a result of the 2018 South Coast II court decision. However, through PennDOT's collaborative Financial Guidance Work Group process, the decision was made to direct CMAQ funding towards counties that are currently in nonattainment or maintenance of the NAAQS. As a result, the County will not have Congestion Mitigation and Air Quality (CMAQ) funds to allocate towards projects. The MPO has also conducted corridor safety studies and bicycle and pedestrian circulation studies which generated specific improvement project ideas on corridors identified in the 2016 LRTP. The roadway network functional classification and National Highway System also underwent a thorough review and adjustment in 2020 according to Federal Highway Administration (FHWA) guidance surrounding roadway function, accessibility, and traffic conditions. These changes influence design standards, project funding eligibility, and project oversight.

Performance-based planning is a data-driven process that serves to assess the performance of the transportation system in three key areas (safety, condition, and performance), identify locations in need of improvements, and program projects that will lead to better future assessments and an improved transportation system. This process helps MPOs and states prioritize projects to keep their respective parts of the transportation system in good order. The federal performance measures are discussed in more detail in later chapters.

Federal Guidance

FHWA oversees the LRTP process. There are 10 Federal planning factors to be considered and assessed in LRTPs, as required by the Fixing America's Surface Transportation (FAST) Act which was signed into law in 2015. The federal planning factors are as follows:

1. **Economic Vitality** - Support the economic vitality of the United States, the States, non-metropolitan areas, and metropolitan areas, especially by enabling global competitiveness, productivity, and efficiency.
2. **Safety** - Increase the safety of the transportation system for motorized and non-motorized users.
3. **Security** - Increase the security of the transportation system for motorized and non-motorized users.
4. **Personal and Freight Mobility** - Increase the accessibility and mobility of people and for freight.
5. **Environment** - Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns.
6. **Mode Interconnectivity** - Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.
7. **System Management** - Promote efficient system management and operation.
8. **System preservation** - Emphasize the preservation of the existing transportation system.

9. **Reliability and Stormwater** - Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation.
10. **Tourism** - Enhance travel and tourism.

State Guidance

The Pennsylvania Department of Transportation (PennDOT) updates the statewide LRTP every five to seven years. The PennDOT statewide LRTP update is currently in process in Fall 2021. The current statewide LRTP was adopted in August 2016 and considered in the 2016 Mercer County LRTP. The goal areas of *PA On Track* are System Preservation, Safety, Personal and Freight Mobility, and Stewardship. These goal areas correspond to the FAST Act planning factors as described in **EXHIBIT 1**. *PA On Track*'s performance measures are also listed in this chart. Performance measures, targets, incentives, and penalties are evolving as agencies adopt and embrace performance-based planning.

Exhibit 1 – Federal and Statewide Planning Factors

FAST Act	PA On Track Goal Area	PA On Track Performance Measures
System preservation	System Preservation	Percent of pavements in good and poor condition, pavement structure index, percent of poor bridges, load-restricted bridges, average age of bus fleet
System Management		
Safety	Safety	Total number of fatalities and serious injuries, rate of crashes with fatalities and serious injuries per vehicle mile traveled, in work zones, at rail crossings, and related to bicycles and pedestrians
Security		
Personal and freight mobility	Personal and freight mobility	Annual hours of truck and auto delays and cost, annual transit ridership for fixed route and shared ride services, percent or number of freight bottlenecks eliminated
Mode interconnectivity		
Economic Vitality	Stewardship	Annual savings through Next Generation implementation, timely delivery of approved local and HOP projects, number of municipal officials trained through Local Technical Assistance Program on coordination of transportation and land use planning
Environment		
Reliability and Stormwater		
Tourism		

Planning Partners

The MPO's planning partners include federal, state, and local authorities that collaborate toward the common goals of safety and mobility in the transportation system within Mercer County.

The SVATS MPO is responsible for Mercer County's portion of the Youngstown PA-OH Transportation Management Area (TMA) shared with Eastgate Regional Council of Governments in Ohio. The TMA is designated as part of an urban area containing 200,000 or more population.

Mercer County's state planning partners include PennDOT District 1 based out of Oil City, PA and the Center for Program Development and Management at PennDOT's Central Office in Harrisburg, PA. The FHWA Pennsylvania Division based in Harrisburg, PA is a key planning partner that further coordinates the plan development with FHWA headquarters. Local planning partners include the Mercer County Regional Council of Governments (MCRCOG), the authority that is responsible for providing transit service through the Shenango Valley Shuttle Service and Mercer County Community Transit. Municipal leaders are valued planning partners and were invited to participate in the process through involvement with the project decision-making team known as the Steering Committee. Each of these planning partners was critical to the development of this LRTP.

Steering Committee

LRTP development was driven by a series of Steering Committee meetings. Members were invited by the MPO and consisted of planning partners including PennDOT District 1-0, PennDOT Central Office, the FHWA PA Division office, municipal leaders, and the MPO. The Steering Committee's roles were to guide the process, make key decisions, review planning products, and provide feedback. The meetings were conducted virtually due to in-person meeting restrictions resulting from the COVID-19 pandemic. Five Steering Committee meetings occurred roughly every other month for the duration of the plan and covered the following topics:

1. **Kickoff Meeting (December 2020)** – The plan approach, schedule, and key milestones and deliverables were discussed.
2. **Outreach Preparation Meeting (January 2021)** – Details of the public involvement plan were reviewed and Steering Committee members offered ideas for effective local outreach.
3. **Project Workshop (April 2021)** – The Steering Committee reviewed and discussed findings from the outreach efforts to date. General themes of the comments were examined and discussed for ways to frame the LRTP discussion.
4. **Prioritization and Constraint (July 2021)** – The prioritization and financial constraint of possible projects were discussed.
5. **Plan Review (September 2021)** – The draft plan outline and final outreach strategy were reviewed.

People & Places

Location

Mercer County is located on the western border of Pennsylvania and shares the Youngstown metropolitan area with Ohio. It is part of PennDOT District 1. Mercer County's proximity to the Interstates 79, 80, and 376 and National Highway System (NHS) routes of US 62 and SR 0018 make it an important transportation hub for regional and interstate travel and provide many opportunities for business development. It is also less than a two-hour drive to population centers such as Erie, Pittsburgh, Youngstown, and Cleveland, which make it a prime location for freight movement and a convenient stop along I-80 for cross-country travel (**EXHIBIT 2**).

Land Use

Land use in each municipality is dictated by the zoning code or lack of zoning code. Many areas are rural or agricultural in nature. The existing land use for Mercer County includes widely distributed urbanized areas along with farmland, forest, open spaces, and floodplains (**EXHIBIT 3**). The Shenango River and Reservoir and Lake Wilhelm are significant water features with State Parks and community parks nearby. The future land use for Mercer County, as noted in the 2006 Mercer County Comprehensive Plan, includes targeted mixed-use growth areas adjacent to existing urbanized areas, dedicated greenways and open space, and targeted industrial and manufacturing economic growth areas (**EXHIBIT 4**).

Tourism

Mercer County boasts a variety of destinations for tourists, ranging from unique shopping to outdoor adventure. A comprehensive map of tourist destinations gleaned from the [Visit Mercer County](#) website can be found in **EXHIBIT 5**. These sites are grouped into the main categories of shopping, attractions, golf, disc golf, historical sites, and natural sites. There are also sites just outside of the county which have regional tourism draws such as the Amish communities in Lawrence County and Lake Pymatuning in Crawford County. Identifying and tracking access to tourist sites is an important part of long-range planning as it influences quality of life and economic vitality. Proximity and accessibility to tourist destinations plays a role in LRTP project prioritization.

Exhibit 2 – Location Map

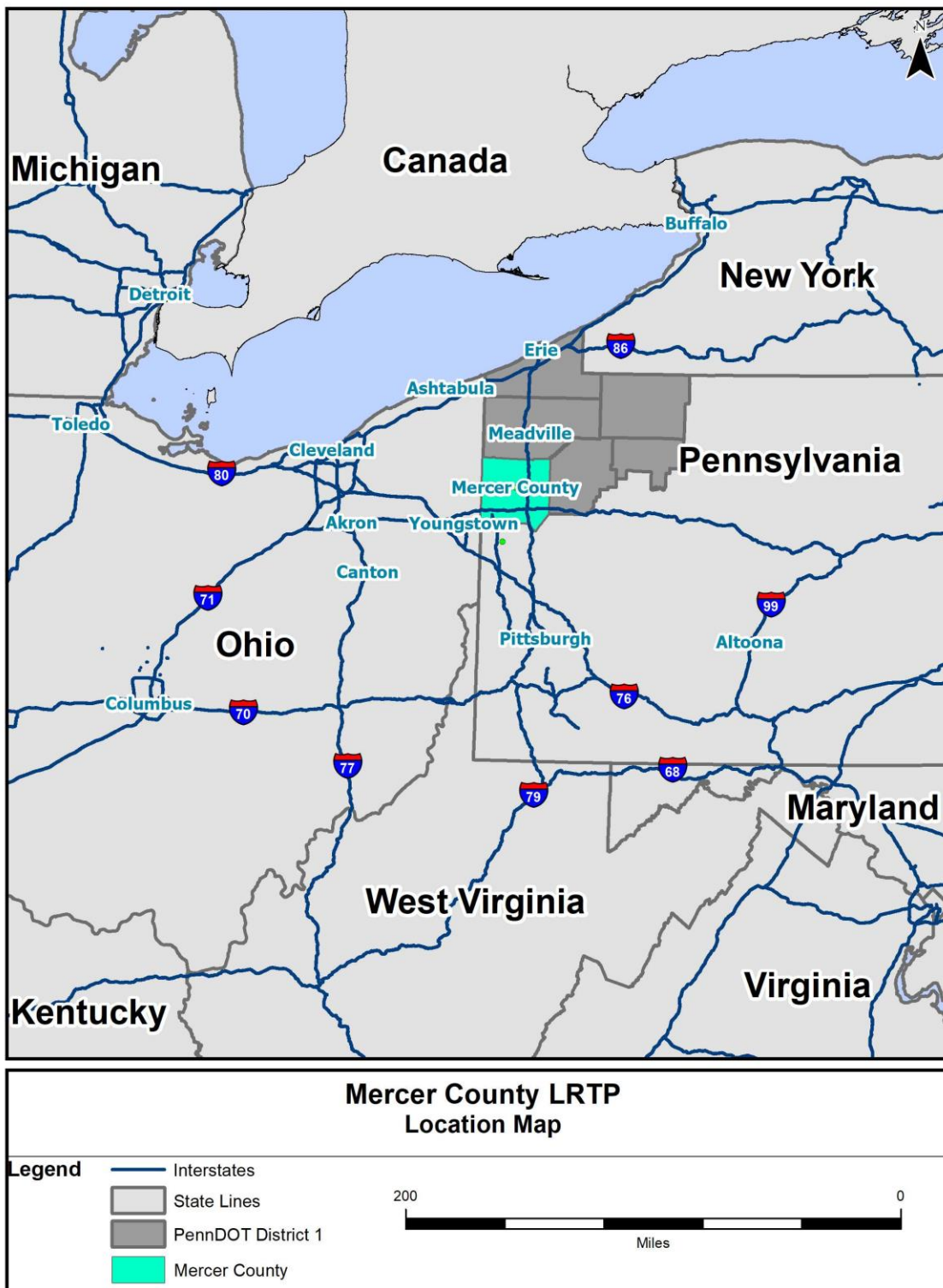


Exhibit 3 – Existing Land Use

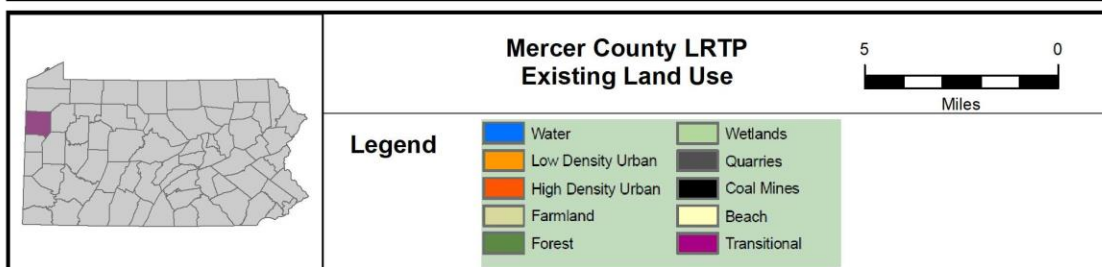
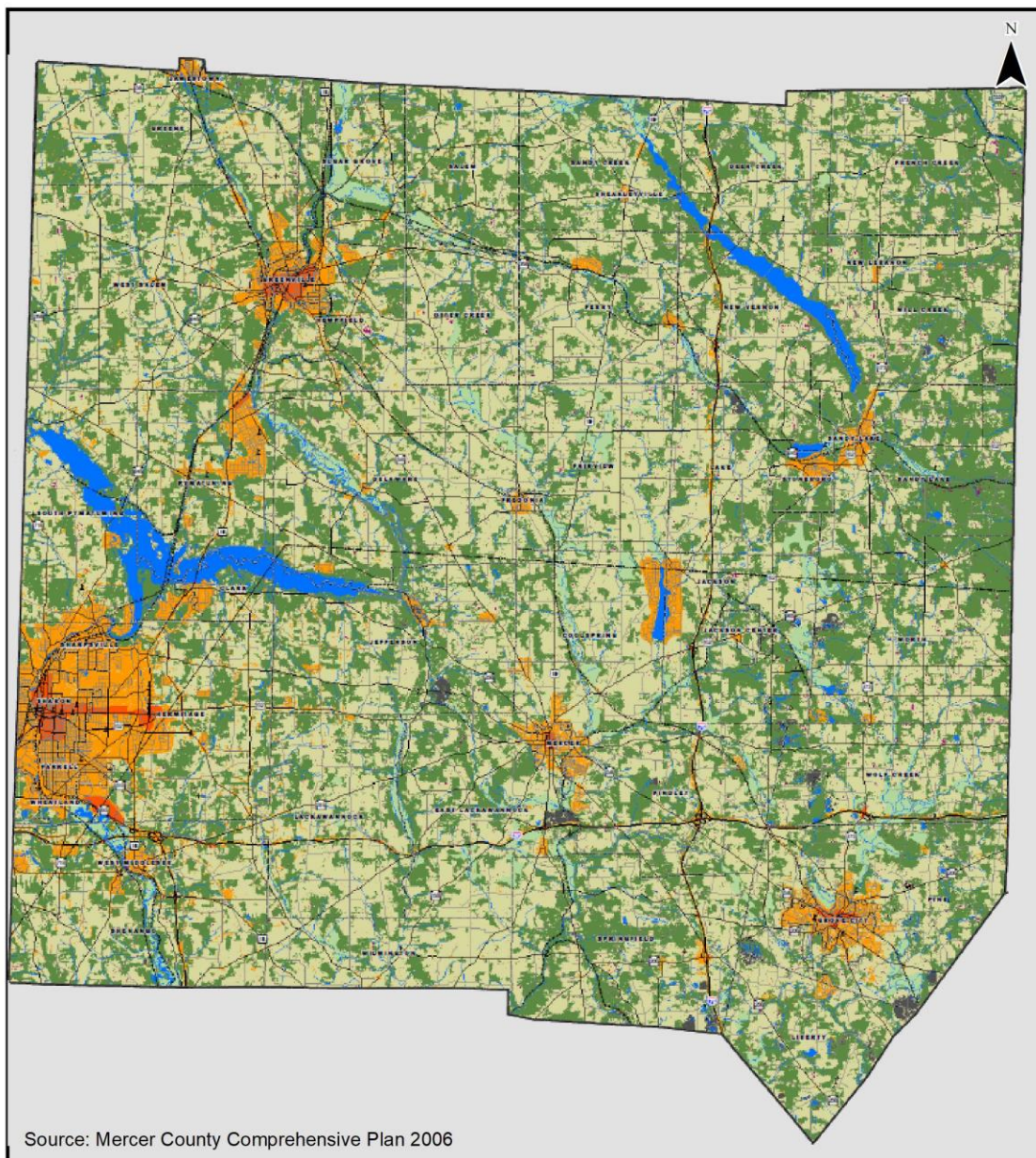


Exhibit 4 – Future Land Use Map

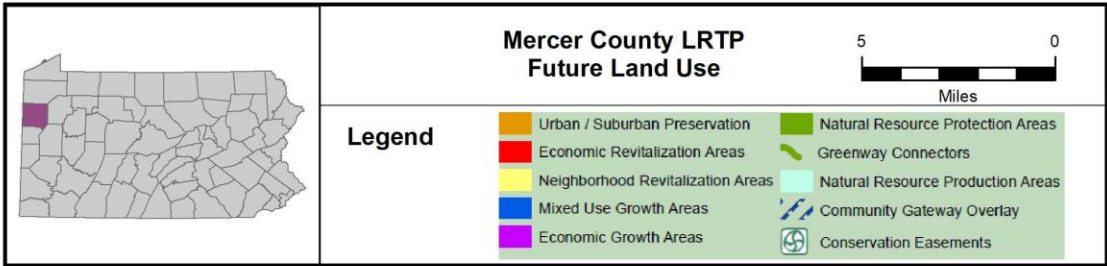
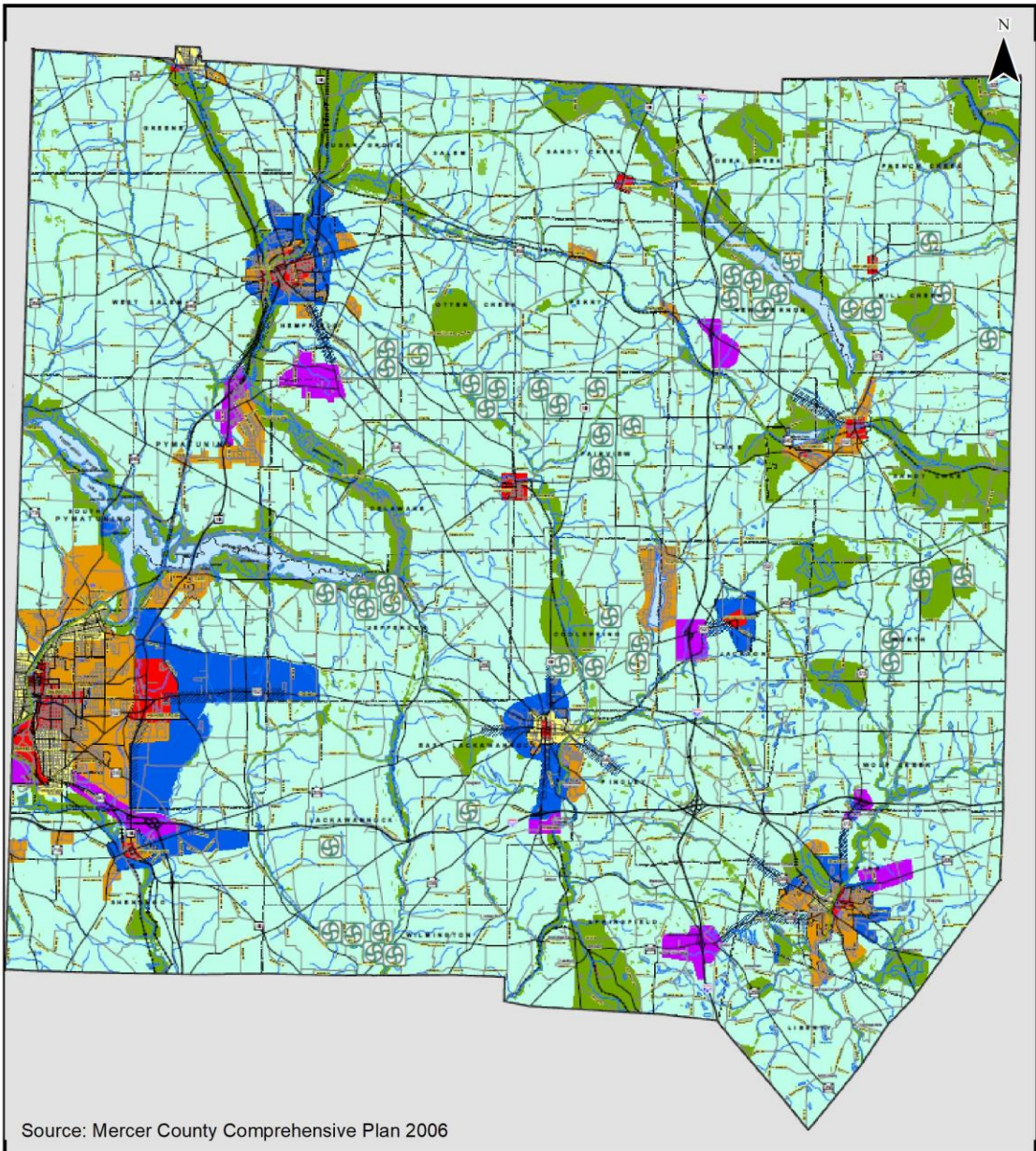
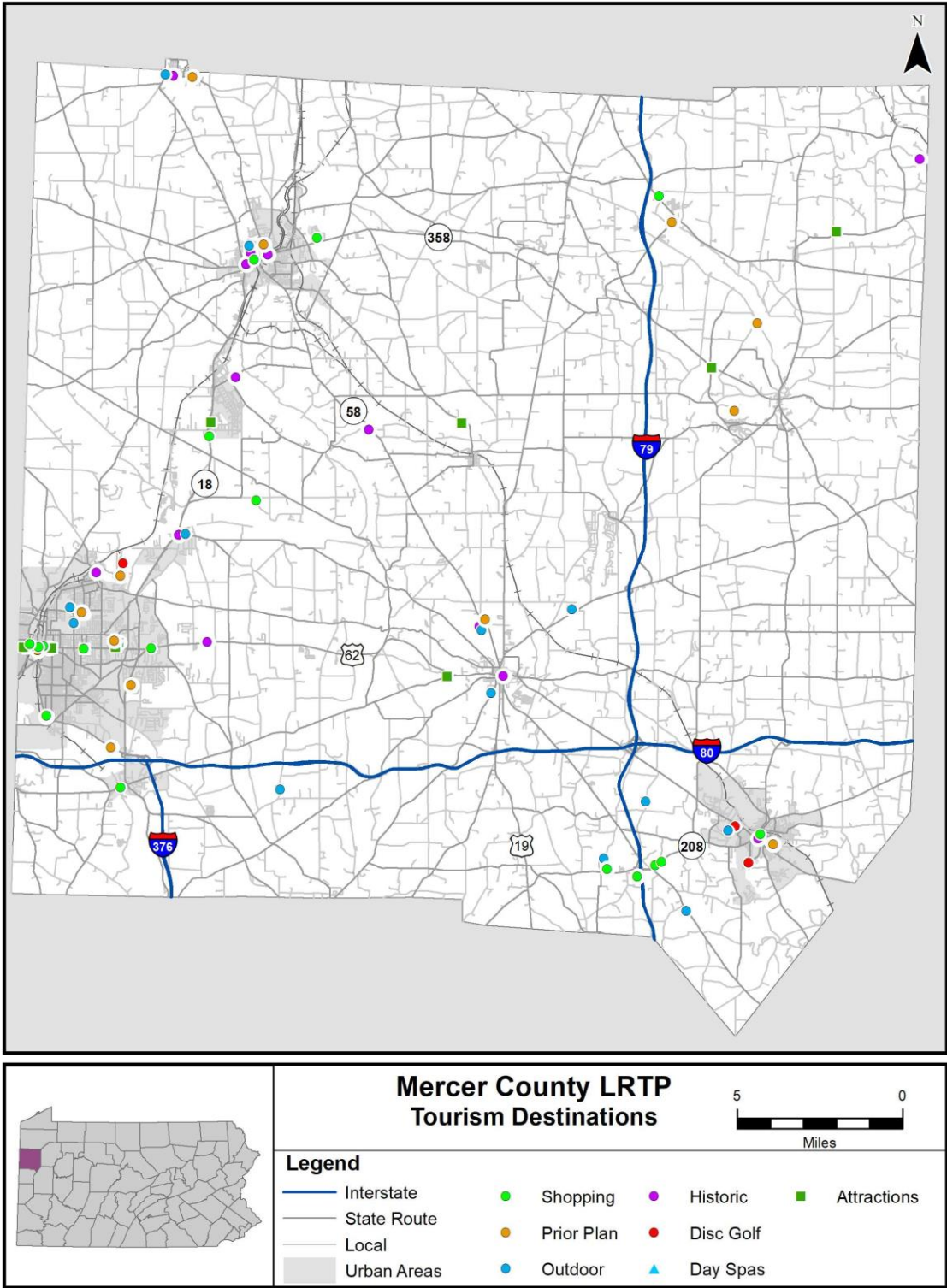


Exhibit 5 – Tourism Destinations



Population

Mercer County is home to a population of approximately 110,700 people according to the latest population estimates from the American Community Survey (ACS). The 2020 Census data is in limited release as of the writing of this plan. The county has seen a steady decline in population since the 1980's due to various factors including the aging population and the closing of some significant manufacturing facilities. The current population is approximately 18,000 fewer people from its recorded peak of approximately 128,300 in 1980 (**EXHIBIT 6**). Population centers and urbanized areas include Sharon, Farrell, Hermitage, Greenville, Mercer, and Grove City, along with smaller communities such as Stoneboro, Sandy Lake, and others located throughout rural and lower population density land (**EXHIBIT 8**). The most recent population projections from the Center for Rural Pennsylvania in March 2014 show Mercer County's population increasing slightly to approximately 123,000 by 2040.

The population in Mercer County trends older with a median age of 45.5 years, which is higher than both the statewide average of 40.8 years and the national average of 38.1 years (**EXHIBIT 7**). The combination of a declining and aging population creates unique circumstances for long range planning. Many regions in Pennsylvania are facing aging populations and the special planning considerations that come with them. These planning needs are important to consider, as many of the senior population are on fixed incomes and rely on public transportation for healthcare appointments, grocery shopping, and social activities. Many people approaching retirement age and older are expressing the desire to "age in place". The quality of life of an aging population is greatly impacted by access to safe mobility choices for all types of activities.

Exhibit 6 – Mercer County Population Over Time

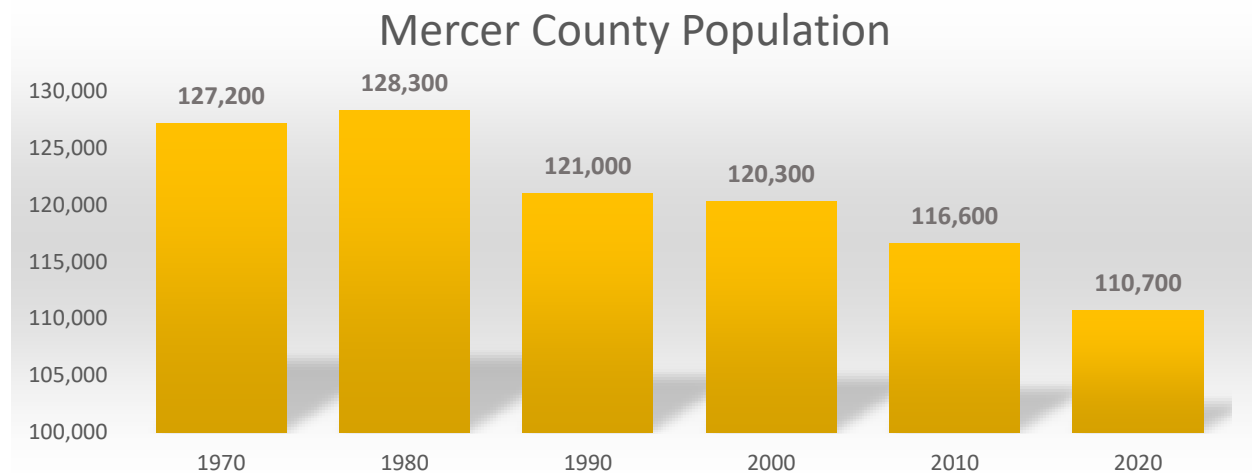
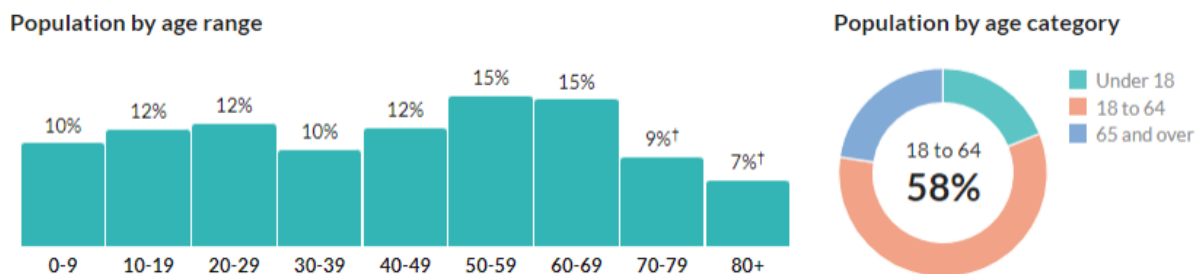
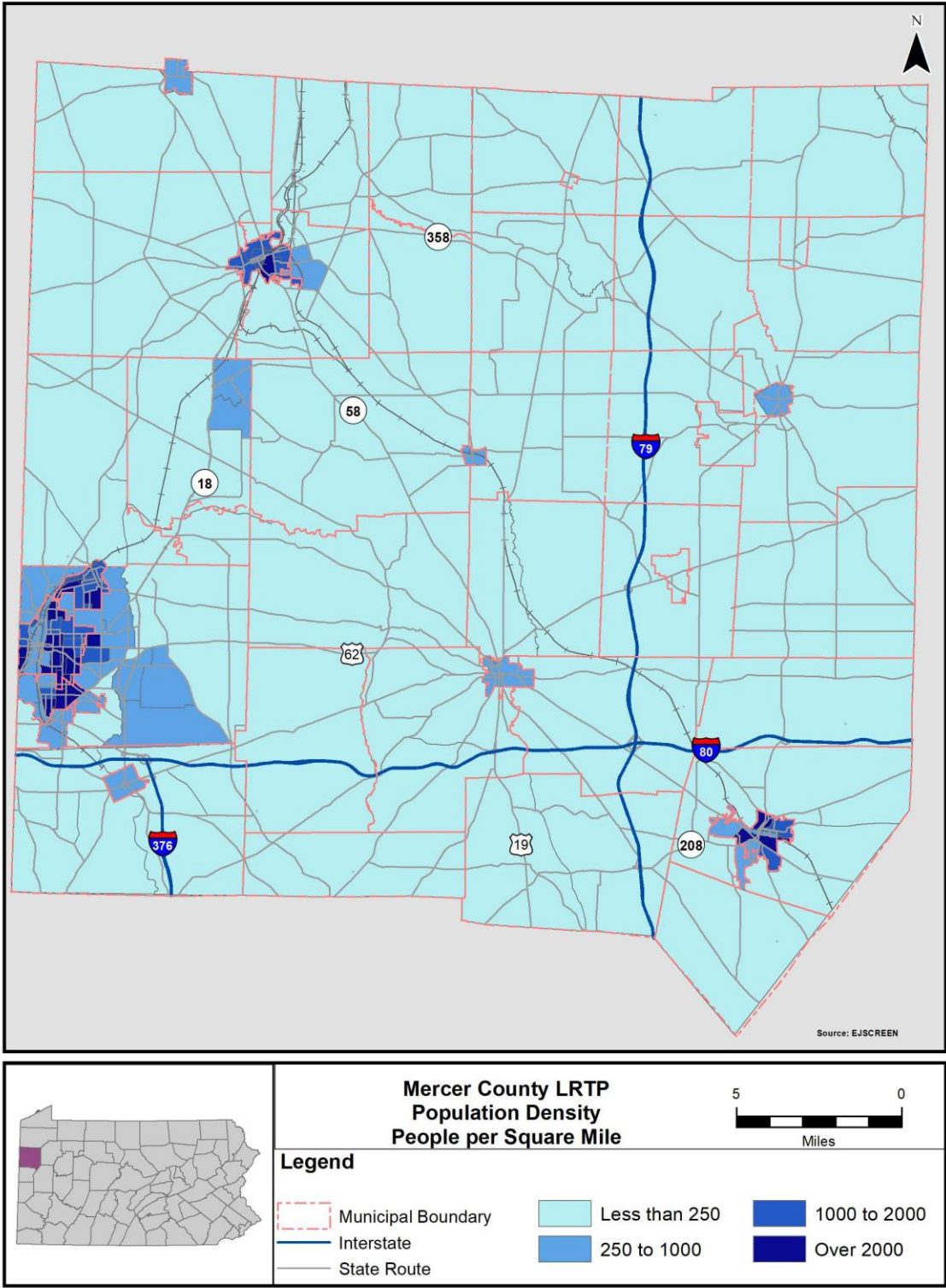


Exhibit 7 – Mercer County Age Distribution



SOURCE: US CENSUS REPORTER

Exhibit 8 – Mercer County Population Density



Environmental Justice

Mercer County is home to a diverse population in terms of race, ethnicity, and income classes. Regional long range planning efforts must include representation from residents and communities within the region. Planning efforts should meaningfully engage all residents and proposed projects should not adversely impact any traditionally marginalized groups.

Environmental Justice (EJ) refers to the policy set forth by *Title VI of the Civil Rights Act of 1964* that states, for the purposes of long range transportation planning, MPOs must specifically address EJ in the process of developing and advancing transportation programs and projects. The core principle is that all individuals in a community should enjoy the same protection from hazards, equal access to resources and infrastructure, and benefits from the economic and social influences and opportunities regardless of race, color, national origin, ability, English proficiency, or income. It also means that decisions made regarding the community are made in a way that is fair and honest. Historically these populations have been negatively affected and under-served by traditional planning efforts, especially during the interstate expansion era. A Benefits and Burdens analysis is performed on projects during each LRTP and Transportation Improvement Program (TIP) cycle to provide a deeper understanding of the potential impacts and benefits of each project on minority and low-income populations.

Key Points

- Nearly 13% of Mercer County residents are living in poverty. Some localized areas of the county have more than 50% of residents considered low income.
- Racial minorities represent roughly 6.8% of Mercer County's population. Most of that population is Black or African American with smaller groups of American Indian and Asian populations.
- In Mercer County, 18.8% of the population has some kind of disability. The most common disability, at 9.4%, falls into the category of Ambulatory Difficulty, or a serious difficulty walking or climbing stairs.
- 21% of Mercer County residents are over the age of 65, up from 18% in 2010.
- 10% of Mercer County households do not have access to a personal vehicle.
- Bicycle and pedestrian crashes tend to be clustered in more urban, highly travelled areas of the county which also tend to be in areas of high minority or low-income populations.

Planning Implications

- A Benefits and Burdens analysis identifies potentially disadvantaged populations and how proposed transportation improvements will impact these groups.
- An aging population will require considerations for how those individuals can engage with our transportation system to access necessary care and everyday errands when they can no longer drive a personal vehicle.
- Enhanced transportation options and infrastructure for modes other than personal vehicles should be considered to improve access for the aging population as well as others who do not have access to a vehicle for a variety of reasons.
- Strategies to avoid, mitigate, or minimize any disproportionate and adverse impacts that may arise will be coordinated closely with PennDOT District 1-0, FHWA, FTA, and community stakeholders.
- SVATS MPO is continuing to engage low income, minority, and other traditionally underserved populations in all planning processes to ensure that the needs and interests of these groups are represented and addressed as transportation improvements are planned.

EJ Core Elements Methodology and SVATS MPO Approach

SVATS MPO utilizes a methodology set out in the 2019 *South Central Pennsylvania Environmental Justice Unified Process and Methodology Guide*, developed by FHWA PA Division, FTA Region III, PennDOT Central Office, PennDOT Engineering District 8-0, and six MPOs within District 8-0. The guide outlines strategies for completing an EJ analysis as identified by FHWA and FTA and the specific core activities that MPOs in Pennsylvania should include in an EJ analysis.

The four Core Elements are: (1) Identification of EJ populations; (2) Assessment of conditions and identification of needs; (3) Evaluation of burdens and benefits; and (4) Identification and addressing of disproportionate and adverse impacts. These elements have been incorporated into the following analysis.

Identification of EJ Populations

High levels of minority and low-income residents are the two main indicators used to identify EJ populations. For the purposes of this analysis, the definitions used by the Pennsylvania Department of Environmental Protection (DEP) were used. The following data was sourced from the PA DEP EJ Viewer, US Environmental Protection Agency (EPA) EJScreen tool, and the US Census Bureau 2019 American Community Survey (ACS) estimates.

Income and Poverty

According to the US Census Bureau and 2019 American Community Survey data, the median household income in Mercer County is \$54,543, nearly \$10,000 lower than the median income for the state of Pennsylvania (\$63,463). Nearly 13% of Mercer County residents are living in poverty, compared to 12% of all Pennsylvania residents. As of 2020, the US Census Bureau's Poverty Threshold for a family of four with two adults and two children was \$26,246. 2019 American Community Survey data in **EXHIBIT 9** highlights the municipalities with the highest levels of poverty in the county.

Exhibit 9 – Top 10 Municipalities by Poverty Rate

Municipality	Population Below Poverty Level	% Population Below Poverty Level
Farrell City	1,511	33%
Jamestown Borough	205	28%
Sharon City	3,570	27%
New Lebanon Borough	48	24%
Sandy Lake Borough	148	24%
Sheakleyville Borough	46	22%
Wheatland Borough	126	21%
Greene Township	244	19%
Pymatuning Township	559	18%
Town of Greenville	815	18%

SOURCE: US CENSUS BUREAU, 2019 ACS DATA

The US EPA EJScreen tool was used to demonstrate the levels of low-income populations at the Census Block Group (BG) level throughout the county, as shown in **EXHIBIT 11**. These BGs are mostly concentrated around Sharon and Farrell in the southwestern portion of the county, with several of those with more than 50% of residents considered low income. Low-income households are most in need of enhanced transit services, improvements to walkability and bikeability, and access to the internet and other resources, and benefit from safety improvements at intersections.

Minority Population

The 2019 ACS estimates Mercer County's non-white population at roughly 7,500, or 6.8% of the roughly 110,000 total population. Most of the non-white population identified as Black or African American with smaller groups of American Indian and Asian populations. The municipalities in Mercer County with the largest minority populations are listed in **EXHIBIT 10** and include many of the same municipalities with high rates of population living below the poverty level. Minority populations were mapped by BG using the EPA EJScreen tool in **EXHIBIT 12**. These BGs are concentrated in Sharon and Farrell and include many of the same BGs as are noted in **EXHIBIT 11**, Low Income Population by Census Block Group.

Exhibit 10 – Top 10 Municipalities by Minority Population

Municipality	Non-White Population	% Non-White Population
Farrell City	2,203	47%
Findley Township	620	22%
Sharon City	2,225	17%
Wheatland Borough	48	8%
Hermitage City	1120	7%
Pine Township	282	6%
West Salem Township	146	4%
Pymatuning Township	120	4%
Grove City Borough	264	3%
Sandy Lake Borough	16	3%

SOURCE: US CENSUS BUREAU, 2019 ACS DATA

Mercer County Environmental Justice

Considering the low-income and minority demographic data reviewed above, higher than average poverty and minority populations were identified by Census BG based on the thresholds established by the PA DEP and their EJ Viewer tool. High poverty areas were designated by identifying those BGs with a population of residents in poverty greater than or equal to 20% of the total population of that BG, of which there are twenty-five (25) (**EXHIBIT 13**). Similarly, high levels of minority population were designated by identifying the BGs with a population of non-white residents greater than or equal to 30% of the total population. Eleven (11) BGs are considered high minority population areas (**EXHIBIT 14**).

In total, 35 BGs in Mercer County have high poverty and minority populations, as shown in **EXHIBIT 15**. Many BGs overlap in terms of poverty and minority population, particularly in the Farrell and Sharon areas. For the remainder of this Benefits and Burdens analysis, these 35 areas will be combined and assessed as a group.

Exhibit 11 – Low Income Populations by Census Block Group

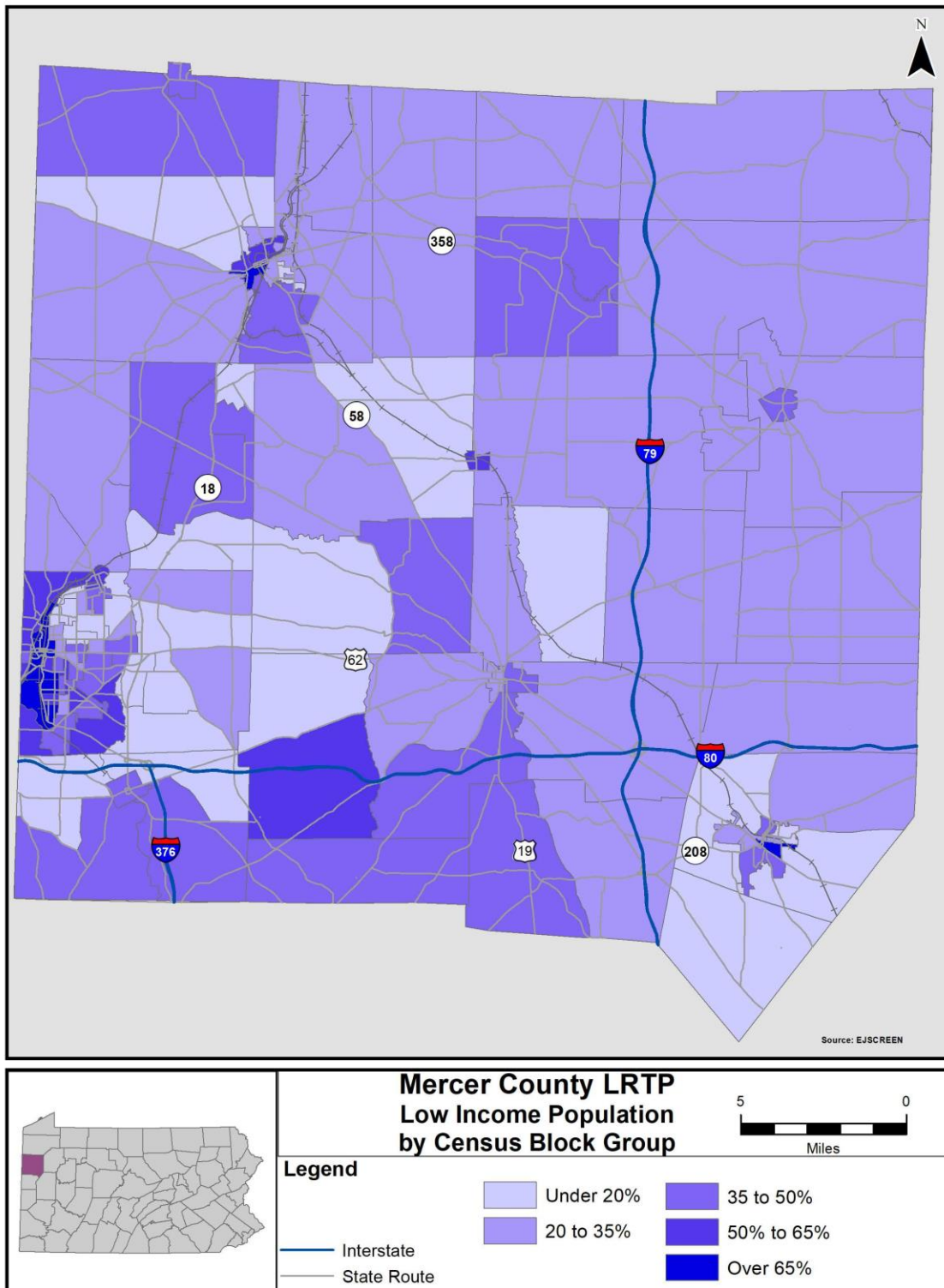


Exhibit 12 – Minority Populations by Census Block Group

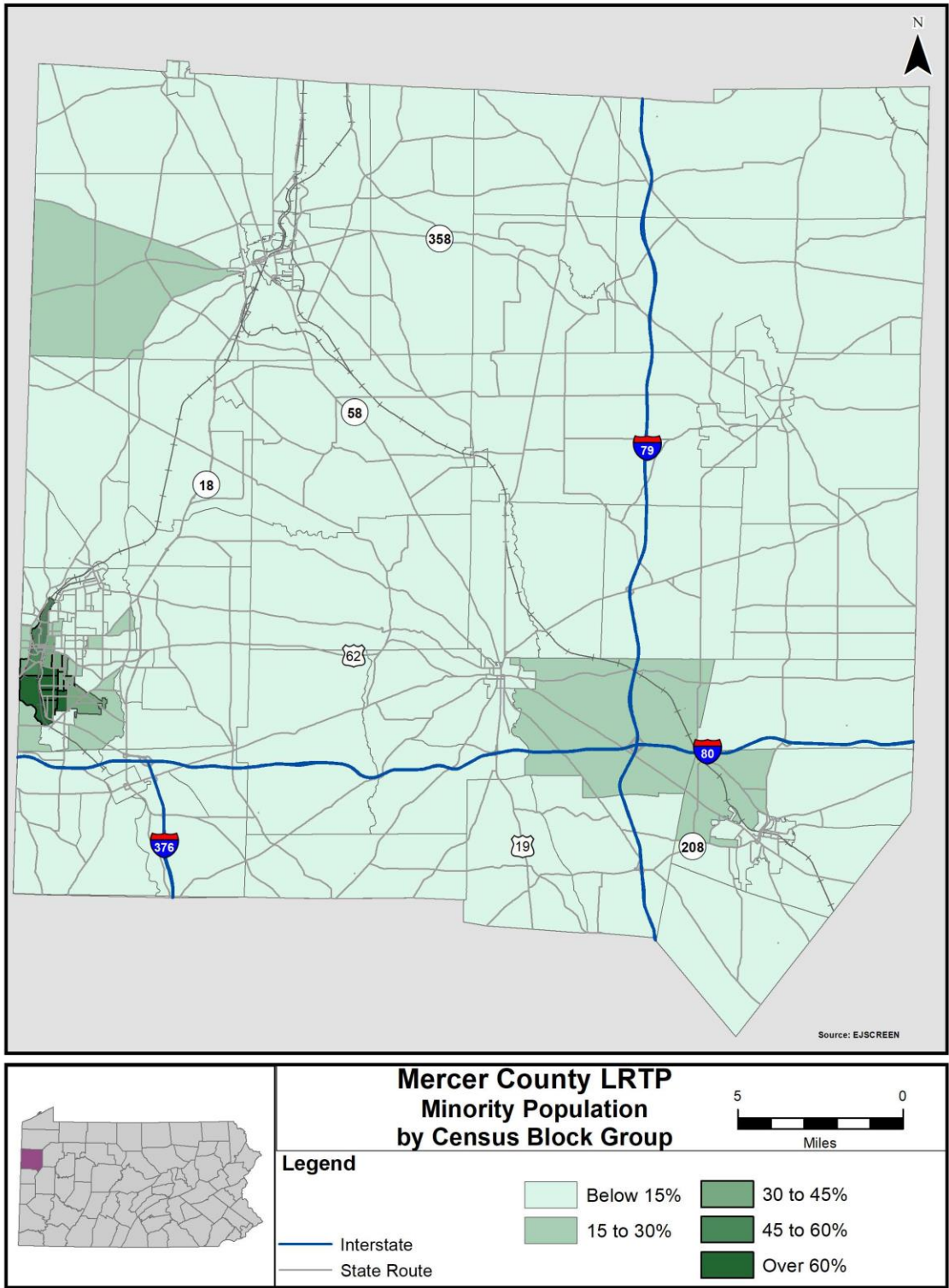


Exhibit 13 – High Poverty Areas by Census Block Group

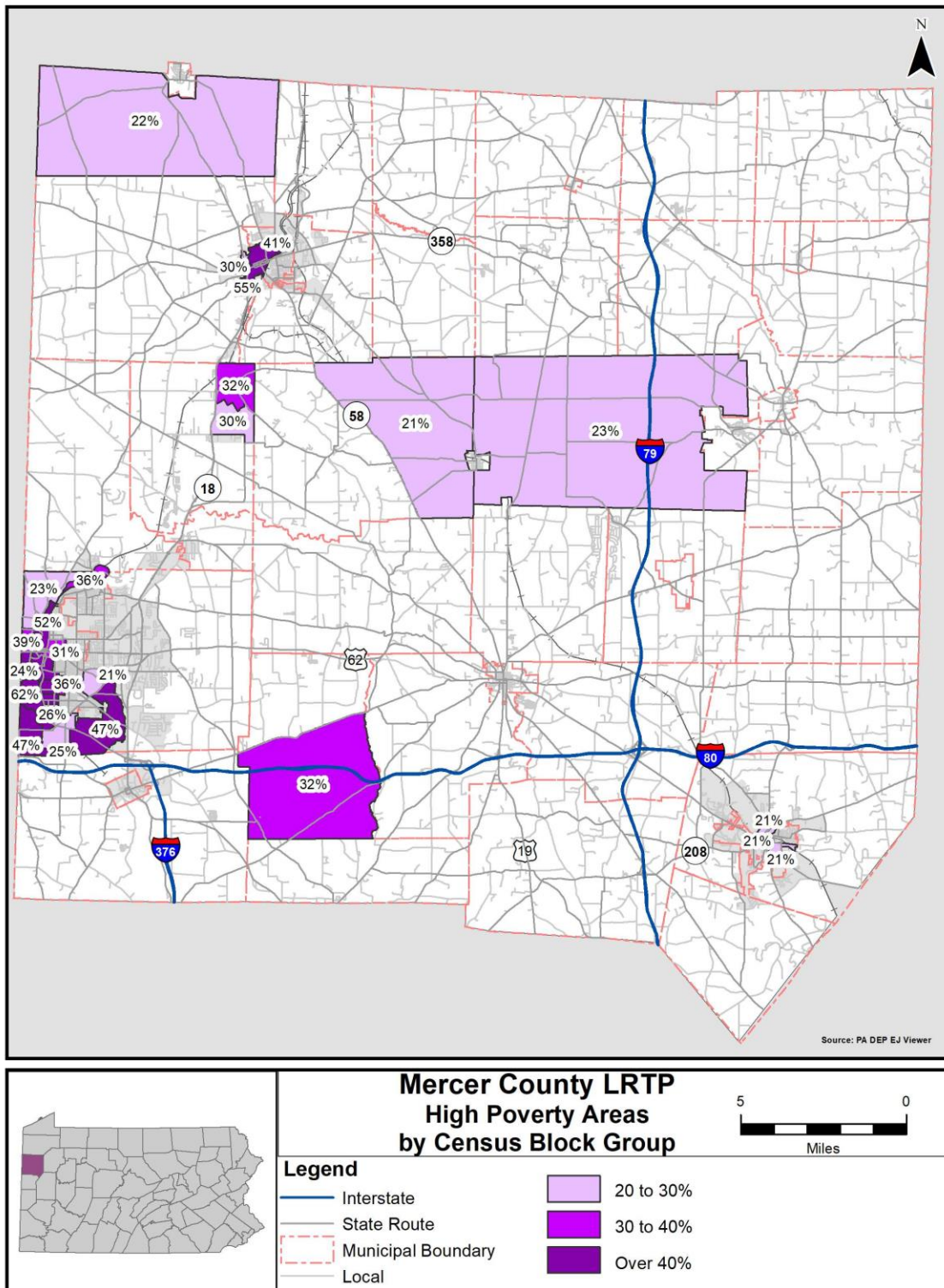


Exhibit 14 – High Minority Areas by Census Block Group

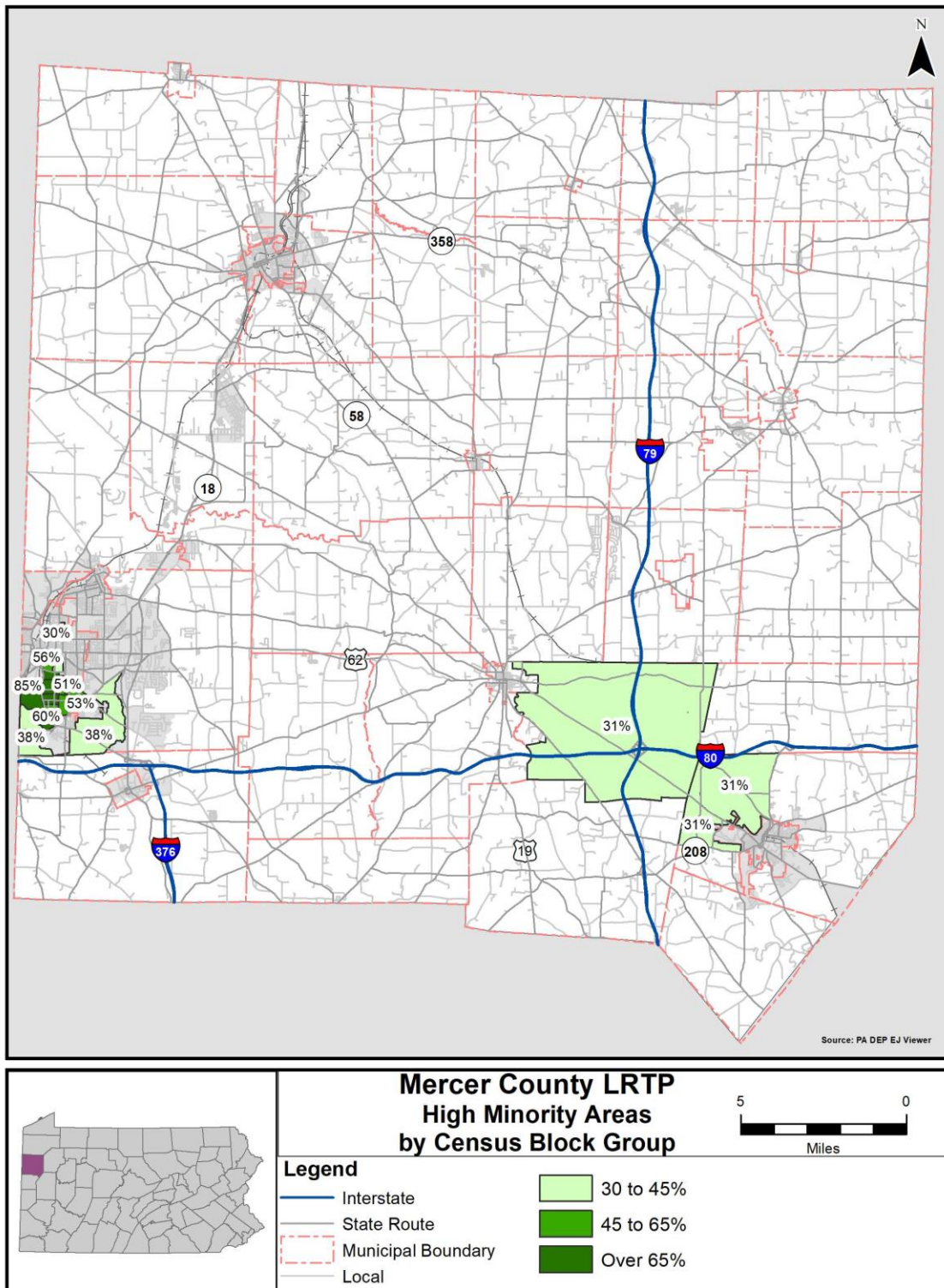
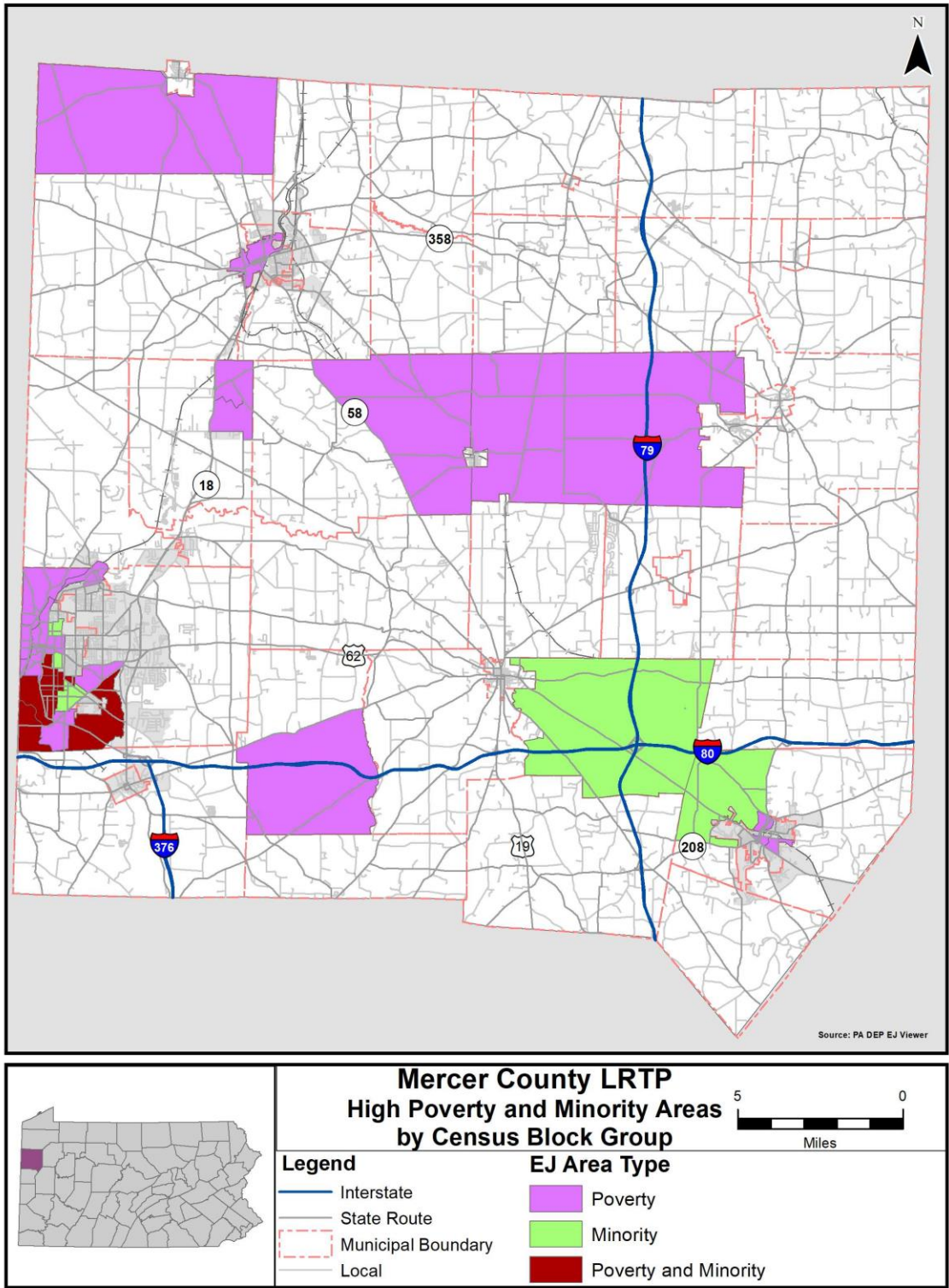


Exhibit 15 – High Poverty and Minority Areas by Census Block Group



Other Potentially Disadvantaged Populations

While income and minority demographic data are the two characteristics traditionally included within EJ analyses, other populations should be given consideration in the planning processes. These groups are considered 'disadvantaged' or 'traditionally underserved', and SVATS MPO seeks to address their needs and interests in the planning and programming of transportation projects.

Limited English Proficiency

Limited English Proficiency (LEP) populations are another important part of public involvement in planning processes. SVATS MPO adopted an [LEP Plan](#) to outline procedures to provide meaningful access to information and services provided by the MPO to LEP persons. According to 2019 ACS data, more than 95% of Mercer County residents speak only English at home. The next largest group of languages fall into the category of 'Other Indo-European Languages' at just under 3% of the population. This may be attributed to the large Amish population in the county who speak a derivation of English and German known as Pennsylvania Dutch.

As noted in **EXHIBIT 16** the largest number of LEP households are in the larger, more populated areas like Sharon and Hermitage in 2019. Again, there are several municipalities noted that overlap with the poverty and minority populations.

Exhibit 16 – Top 10 Municipalities by LEP Households

Municipality	Total LEP Households
Sharon City	69
Hermitage City	27
Lackawannock Township	22
Fairview Township	19
Farrell City	18
Sharpsville Borough	15
Delaware Township	14
East Lackawannock Township	13
Town of Greenville	11
Grove City Borough	10

SOURCE: US CENSUS BUREAU, 2019 ACS DATA

Persons with a Disability

Disabilities can have profound effect on an individual's ability to interact with the larger community and use transportation services. Disabilities may include physical, mental, and cognitive disabilities and often limit an individual's independence. Those living with disabilities should be considered in efforts to improve accessibility to places in the county, especially among modes such as public transit or shared ride services.

In Mercer County, 18.8% of the population has a disability, according to the 2019 ACS. The most common disability falls into the category of Ambulatory Difficulty, which is defined by the US Census Bureau as having serious difficulty walking or climbing stairs. Other common disabilities noted in the ACS data are Independent Living Difficulty (having difficulty doing errands alone because of a physical, mental, or emotional problem) and Cognitive Difficulty (having difficulty remembering, concentrating, or making decisions because of a physical, mental, or emotional problem). The higher rates of these types of disabilities may be attributable to the County's aging population, as these medical concerns tend to be more common as people age.

Senior Population (65+ years of age)

The population of Mercer County is above both statewide and national averages and continues to age. There are many factors contributing to that trend including the facts that people are living longer in general and that many young people have moved from the county for a variety of reasons. The median age in the county is 45.5 years, five years older than the median age in Pennsylvania, 40.8 years. According to the 2019 ACS data, 21.2% of the county population is over the age of 65. In the 2010 US Census, that population was approximately 18%.

During the Stakeholder focus group meetings, a representative from the Mercer County Area Agency on Aging noted that seniors use transportation not just for errands like grocery shopping or doctor's appointments, but also for social events and visiting family. It was also noted that the individuals considered 'younger seniors' (60-70 years old, of the Baby Boomer generation) are more active, more interested in the ability to remain in their homes and "age-in-place" than previous generations.

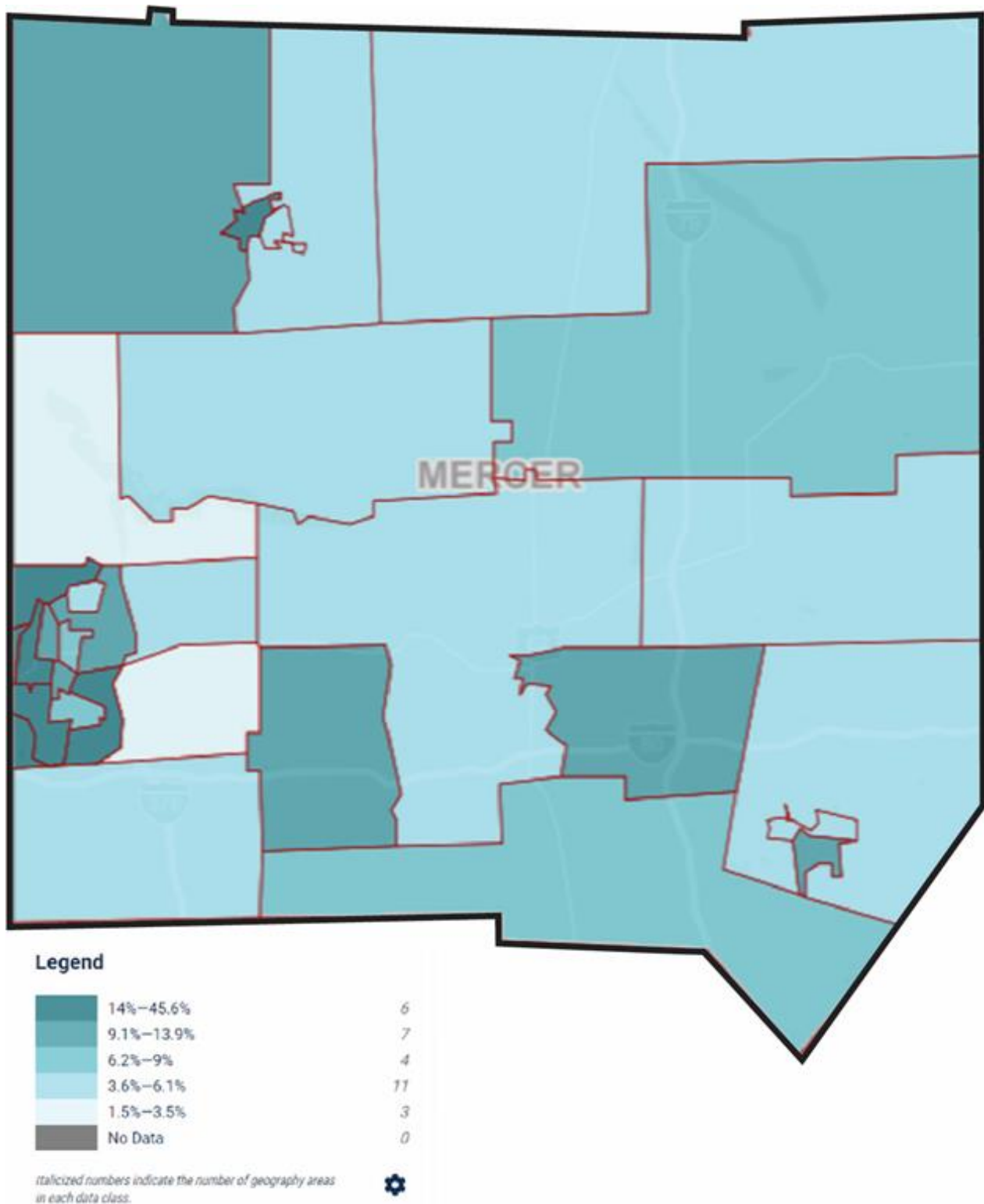
Female Head of Household

The average family size in Mercer County is 2.74 people, which is slightly smaller than the average of 3 people per family in Pennsylvania as a whole. More than a quarter (28.2%) of families in Mercer County are led by a female householder with no spouse or partner present, and 4.5% of families are led by a female householder with children. Traditionally, these households are considered disadvantaged because women tend to make less than their male counterparts in general and tend to lack support as they are the only adult in the household.

Zero Car Households

Another key population that is considered traditionally disadvantaged and underrepresented in planning processes is the population without access to a personal vehicle. No matter the reason for this lack of personal vehicle, this population generally relies on bicycle or pedestrian infrastructure or public transportation to move around the community and access the resources they need in daily life. Overall, approximately 10% of the population of Mercer County have no vehicle available to them. When broken down by Census Tract, higher rates of households without access to a vehicle are concentrated in roughly the same areas where higher rates of low income and minority populations, as shown in **EXHIBIT 17**. This data was not available at the BG level with 2019 ACS data.

Exhibit 17 – Mercer County Zero Car Household Rate by Census Tract



SOURCE: AMERICAN COMMUNITY SURVEY 2019, CENSUS TRACT LEVEL DATA

Assessment of Conditions and Needs in EJ Areas

As demographic data was analyzed and mapped, the condition of transportation assets was also assessed related to the identified high poverty and minority areas. Combining both sets of data will help to identify unmet needs and gaps in the transportation system that more significantly impacts these populations.

Pavement Condition

EXHIBIT 18 overlays the high poverty and minority areas and existing pavement condition on state roads. Pavement condition is measured by the International Roughness Index (IRI). IRI categorizes pavement as Excellent, Good, Fair, or Poor. **EXHIBIT 19** includes insets in Farrell, Sharon, Greenville, and Grove City to show details for these areas. There are isolated areas in all three insets in or near the high poverty and minority areas where many state roads are in fair or poor condition.

Bridge Condition

EXHIBIT 20 and **EXHIBIT 21** similarly overlays the high poverty and minority areas with existing bridge conditions. PennDOT classifies bridge condition as Good, Fair, and Poor. Statewide, PennDOT has made a concerted effort to repair or replace Poor condition bridges in recent years, and while PennDOT District 1-0 has seen a reduction in Poor condition bridges in Mercer County overall, there are clusters of Fair and Poor condition bridges in high poverty and minority areas, especially in the Sharon/Farrell area. There are currently action plans and additional funding is being sought to address these poor condition bridges.

Crash History

EXHIBIT 22 and **EXHIBIT 23** show bicycle and pedestrian crashes in Mercer County in high poverty and minority areas. Clusters of crashes including fatalities and bicycle and pedestrian crashes are clustered in Sharon/Farrell and Greenville, with smaller clusters in Grove City. Many of these high poverty and minority areas are in the more urban, highly populated areas of the county with more people walking, so have higher crash rates. Bicycle and pedestrian crashes are spread out in the more rural areas of the county. This could be due to a variety of reasons including lack of infrastructure for biking and walking, the distances between those rural areas and other resources, or the higher likelihood that households in those areas have access to a personal vehicle.

The more populated high poverty and minority see more crashes due to the increased opportunity for traffic conflicts between pedestrians, cars, and bicycles. Low-income individuals are less likely to have access to a vehicle and more likely to rely on walking or biking. There were eight fatal crashes in the Sharon/Farrell high poverty and minority areas. SR 3008 (State Street), which runs through the high poverty and minority areas in Sharon, sees significant numbers of these crashes. This is a highly travelled street through a very populated and busy area with increased opportunities for conflicts between vehicles and bikes or pedestrians. Planning efforts and policies are endeavoring to provide dedicated walking space and sidewalks for pedestrians in these areas.

Exhibit 18 – Pavement Condition by High Poverty and Minority Block Groups

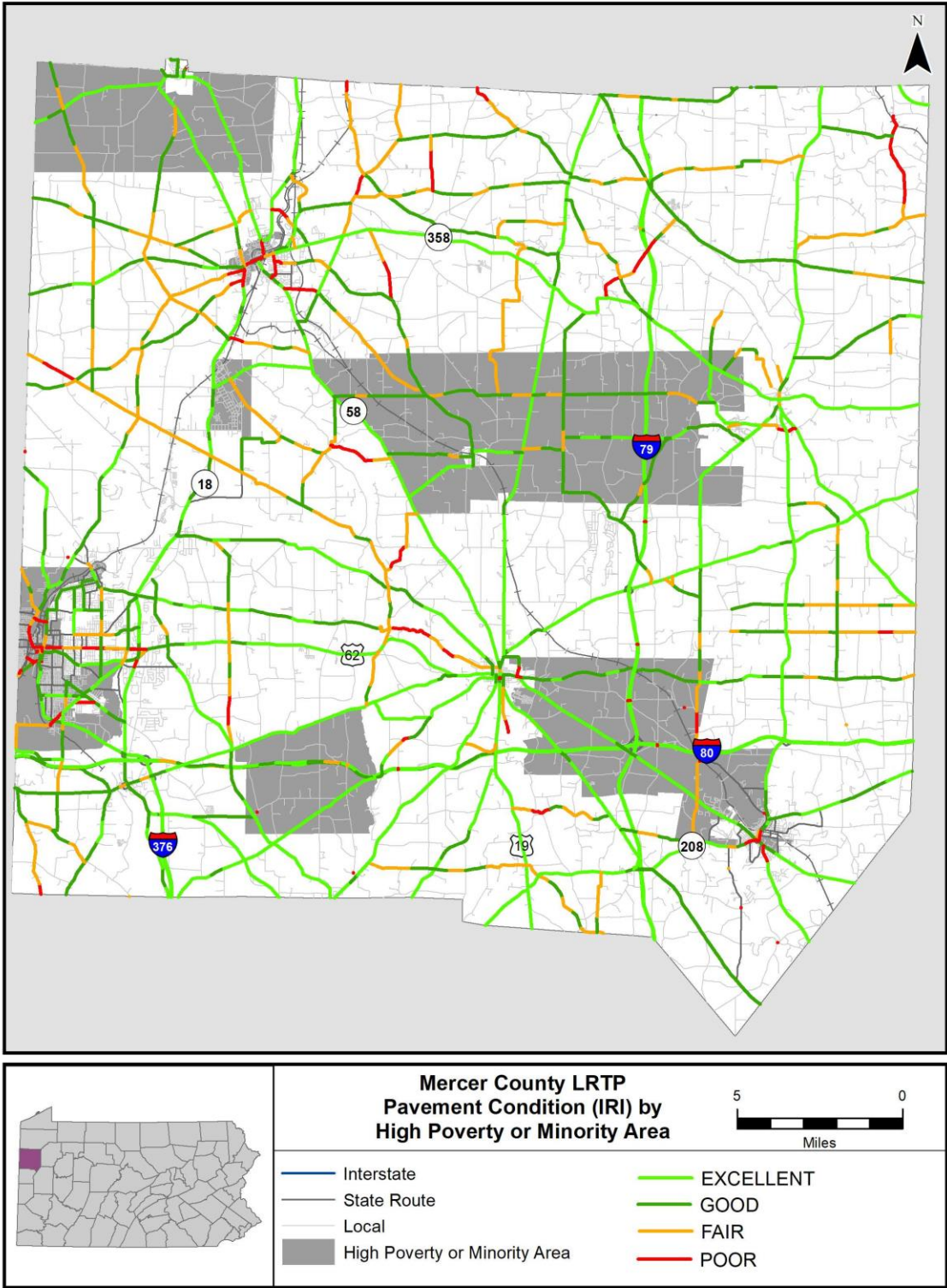


Exhibit 19 – Pavement Condition by High Poverty and Minority Block Groups (Insets)

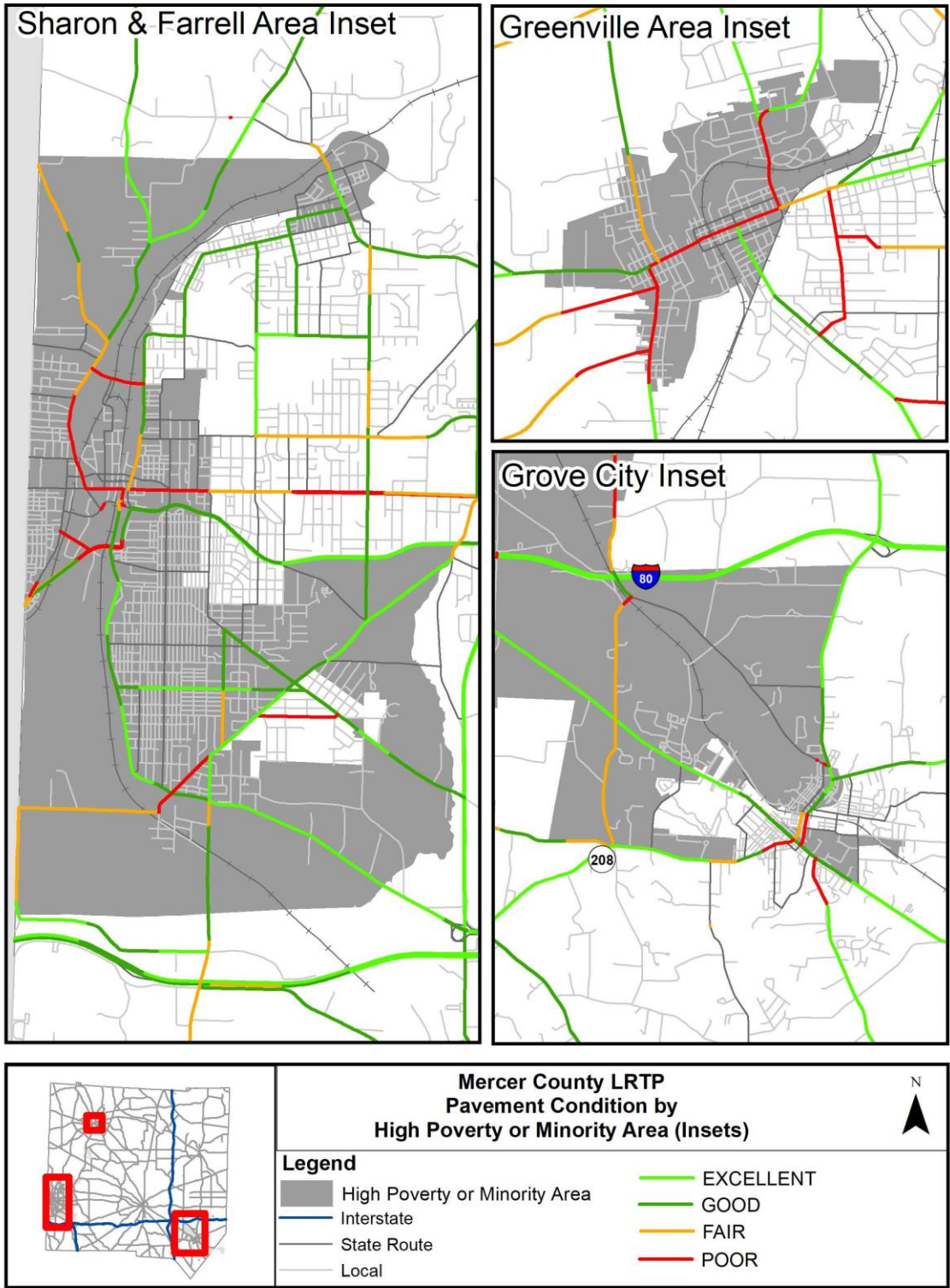


Exhibit 20 – Bridge Condition by High Poverty and Minority Block Groups

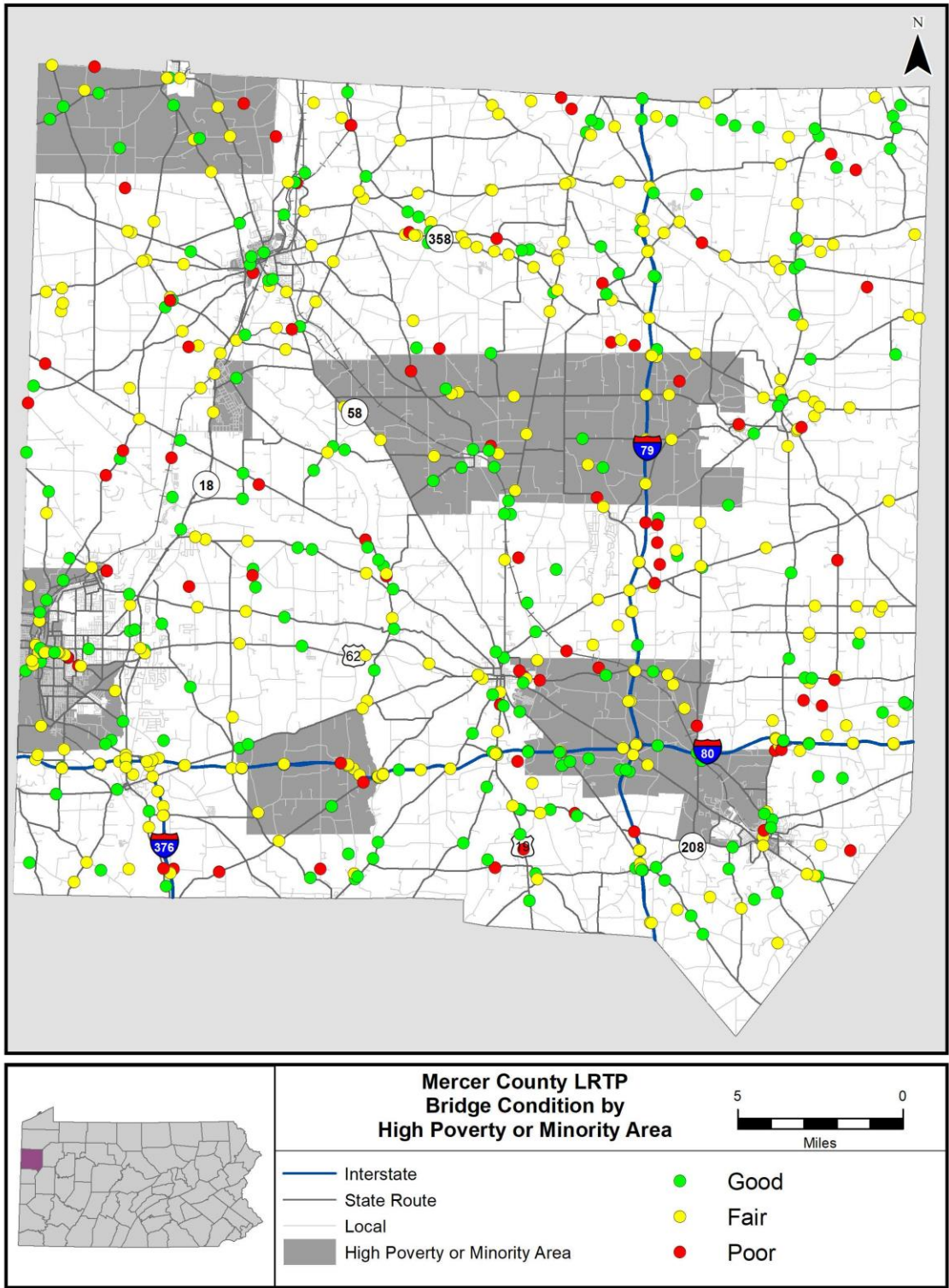


Exhibit 21 – Bridge Condition by High Poverty and Minority Block Groups (Insets)

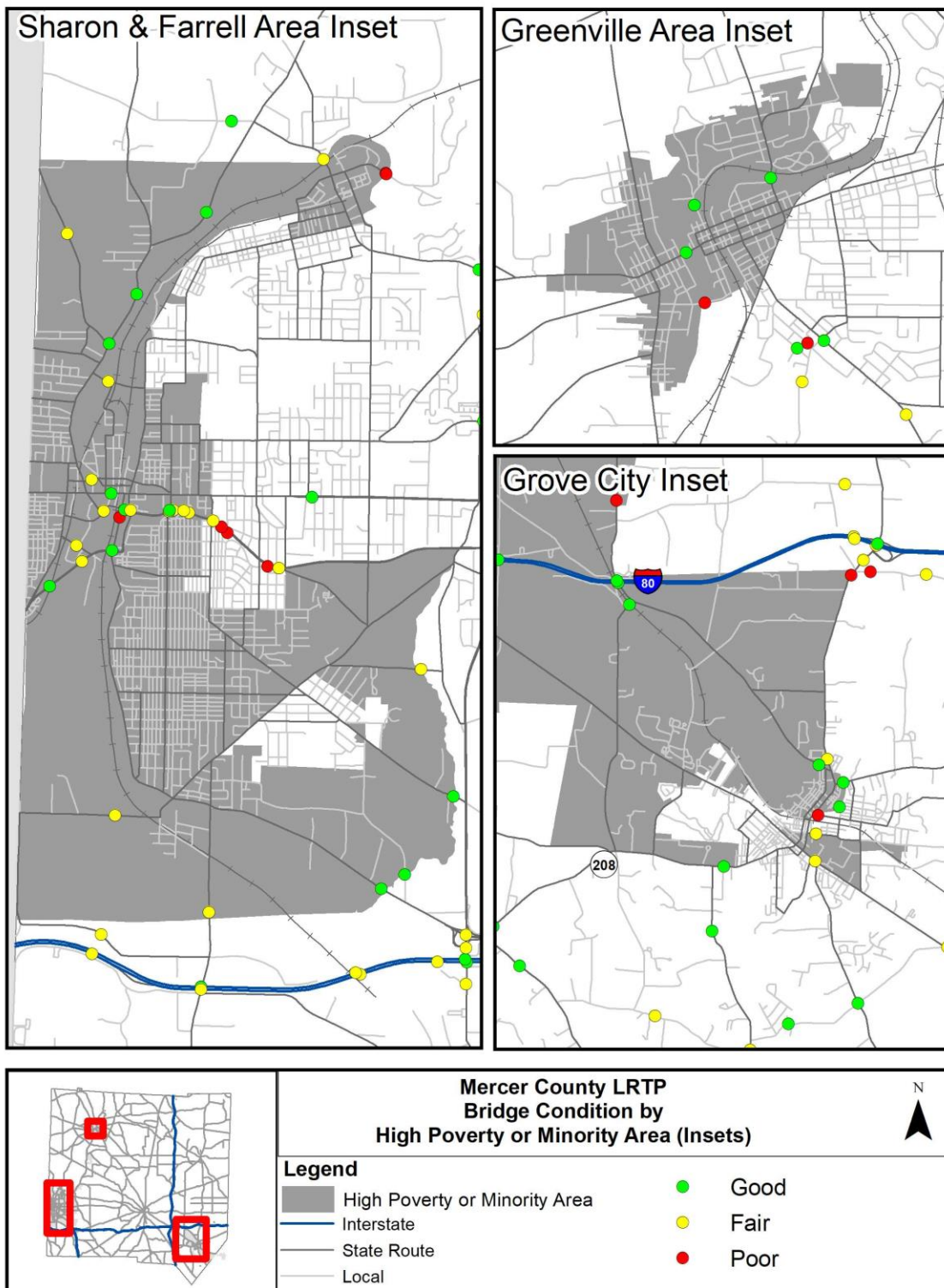


Exhibit 22 – Crash History by High Poverty and Minority Block Groups

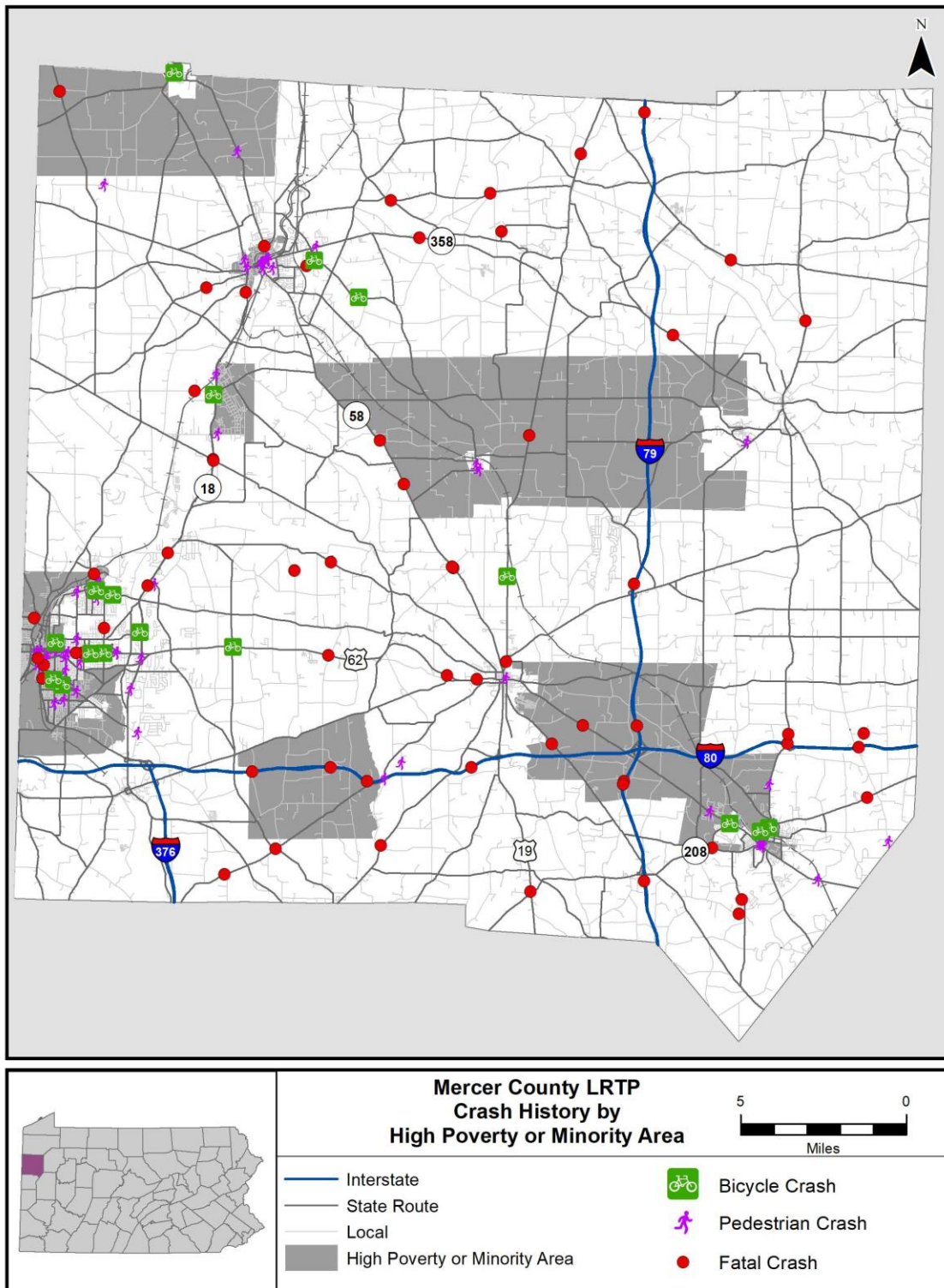
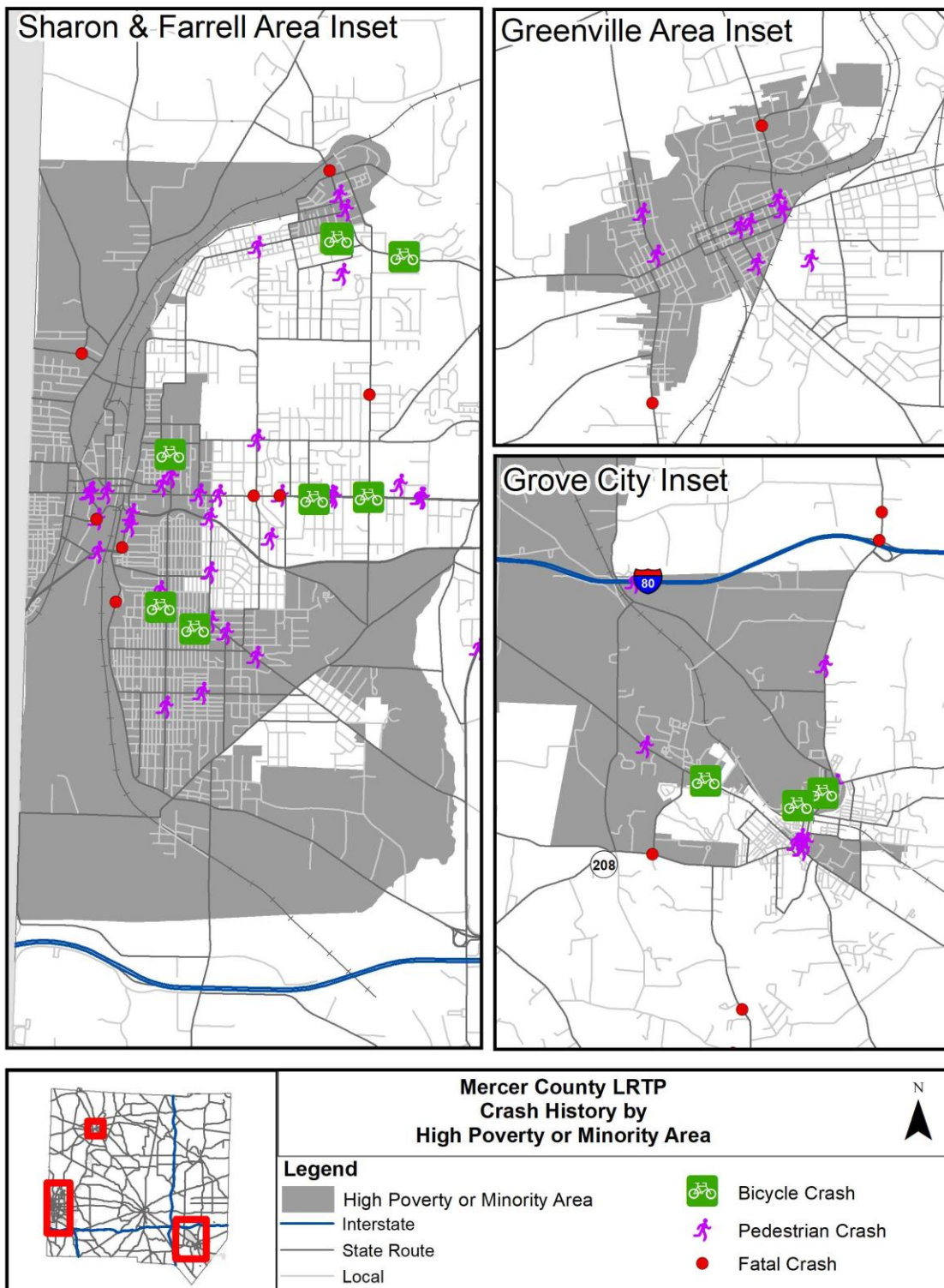


Exhibit 23 – Crash History by High Poverty and Minority Block Groups (Insets)



Benefits & Burdens Evaluation

A Benefits and Burdens analysis serves to examine the equity of a transportation plan by reviewing identifying any disproportionate impacts on high poverty and minority populations. Transportation needs will continue to grow as our infrastructure ages, and funding has been decreasing from all typical funding sources. Prioritizing transportation improvements is more important now than ever, and the benefits and burdens of each project must be weighed when those prioritization decisions are made. These decisions involve assessment of the people served by the improvement, the cost of the project, and the impact the project may have on the surrounding communities.

Different types of projects result in different types and significance of impacts. Impacts can range from temporary traffic disruptions and noise during construction to permanent disconnections of the transportation network or significant changes in safety within the network. Impacts should be considered from all perspectives – some projects will positively impact some community members while negatively impact others.

This LRTP includes a variety of projects located in the identified BGs (**EXHIBIT 24**), such as the Greenville SR 0018 & Packard Avenue intersection improvement project (GREEN_D1) which will improve pedestrian safety, sight distance, and accessibility; the Kidds Mill Road project (LRTP_H8) which will improve access and enhance economic vitality for the block groups near the Greenville Reynolds development, the reconfiguration of the SR 0418 (Mercer Avenue) and Council Street intersection (LRTP_H41B) to improve sight distance and safety, and the SR 0418 (Mercer Avenue) at Morefield Road intersection reconfiguration (LRTP_H10) which will improve safety and accessibility. This LRTP also identifies a myriad of sidewalk and multi-use trail investments and betterment needs to improve safe bicycling and walking opportunities as funding opportunities arise. This LRTP also supports a comprehensive transit study to be completed to study routes and timetables to improve services. These projects, betterments, and studies are expected to benefit high poverty and minority populations.

Any project that proposes to alter any transportation asset beyond simple maintenance or preservation activities requires a planning study before any designs are made or funding allocated. During a planning study, extensive public outreach is conducted to ensure all voices are heard and all needs and interests are considered. When projects are formally added to the TIP, a formal Benefits & Burdens evaluation will be conducted to further quantify positive and negative impacts to high poverty and minority populations.

Future Planning Efforts

As the projects proposed in this LRTP are further studied and programmed for design and construction, strategies to avoid, mitigate or minimize any disproportionate and adverse impacts that may arise will be coordinated closely with community stakeholders, PennDOT District 1-0, FHWA, and FTA.

SVATS MPO is continually learning and updating processes to meaningfully consider impacts to high poverty and minority populations and proactively working to make strategic investments in communities with significant levels of high poverty and minority populations or other potentially disadvantaged populations. In future updates to the TIP and other planning documents, additional analyses will be conducted following the framework outlined in the *South Central Pennsylvania Environmental Justice Unified Process and Methodology Guide*, learning best practices from other planning partners utilizing this framework across the state.



Outreach to Environmental Justice Communities

As discussed in the EJ Benefits and Burdens analysis above, SVATS MPO is continuing to engage low income, minority, and other traditionally underserved populations in all planning processes including the LRTP. The team assembled a focus group of community leaders who serve various traditionally under-represented communities. Participants included the Community Action Partnership of Mercer County, George Junior Republic, Mercer County Area Agency on Aging, Mercer County Housing Authority, and MCRCOG which runs the fixed route transit Shenango Valley Shuttle Service. These groups provided important feedback which was primarily focused on providing their communities with transportation access to education, employment centers, and services like healthcare. More details can be found in the Stakeholder Focus Groups section of this plan.

A public survey was made available from February to March 2021 and was promoted by LRTP Steering Committee members, Stakeholder Focus Group participants, and through Facebook advertisements based on user location. Some of the municipalities found in the top 10 survey response zip codes can also be seen in at least two of the Environmental Justice lists above, including Greenville, Hermitage, Sharon, Sharpsville, and Wheatland. Public survey summary results can be found in Appendix A. The top 10 municipalities by survey response are shown in **EXHIBIT 25**.

Exhibit 24 – LRTP Projects by High Poverty and Minority Block Groups

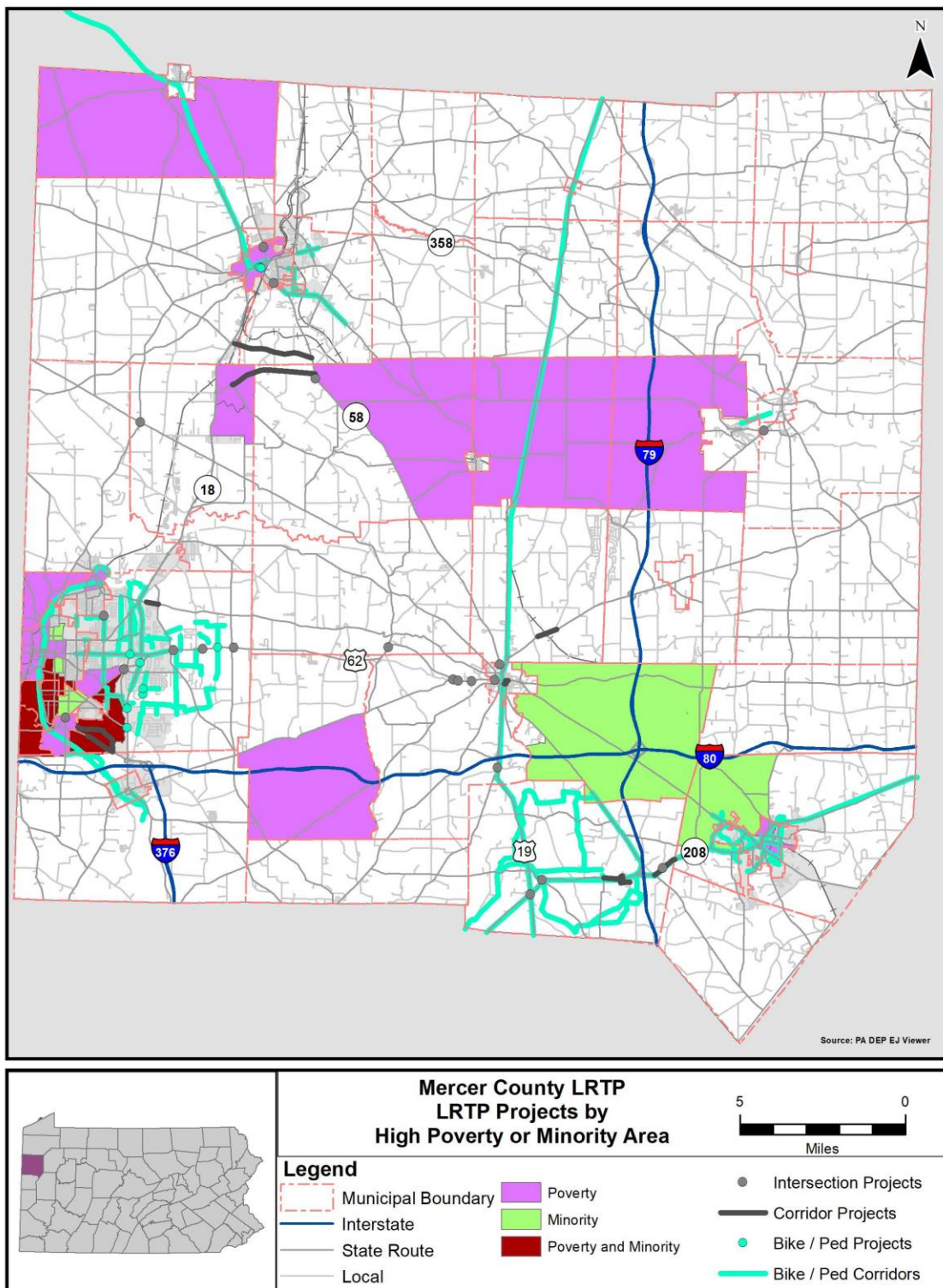
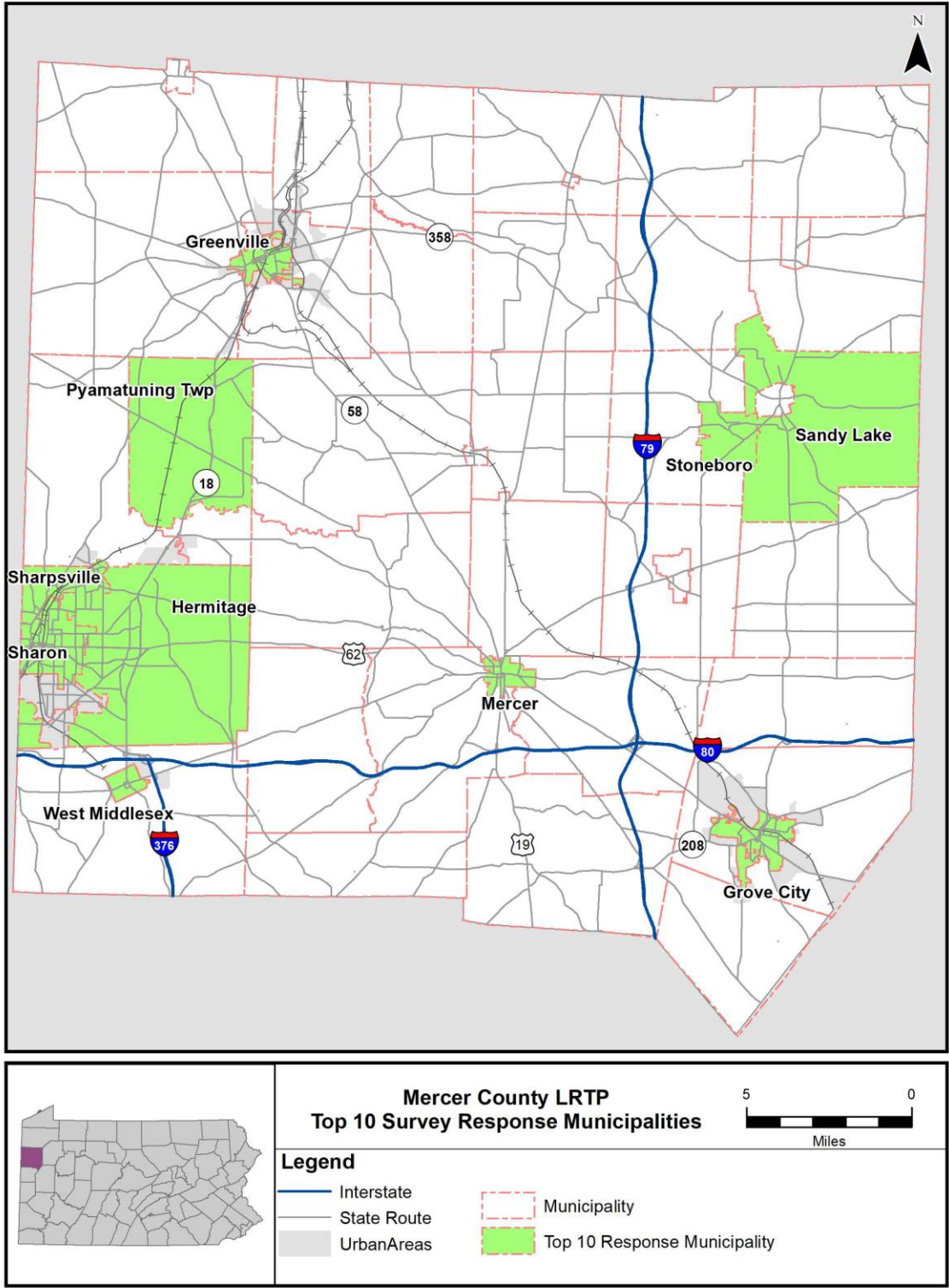


Exhibit 25 – Public Survey Responses by Top 10 Municipalities



Outreach

A community-driven plan is one plan that is most likely to succeed. The outreach efforts followed SVATS MPO's Public Participation Plan (PPP). Despite restrictions on in-person meetings due to the COVID-19 pandemic during the development of this plan, the public outreach was tailored to make participation as easy and flexible as possible in a safe way. The public engagement effort for this LRTP update was conducted virtually, included virtual public meetings and online surveys. The public was involved early in the planning process to provide input and later in the planning process for review of the draft plan and recommendations.

Virtual Public Meeting #1: LRTP Update Kickoff – February 2021

The initial public outreach focused on notifying the community that the MPO was undertaking the LRTP update and soliciting public input for the plan. LRTP update information was shared on the MPO website, complemented by informational flyers and paper surveys at informational outposts across the county to collect input from those unable or unwilling to participate online. The MPO coordinated with local facilities to make these materials available.

Online Survey – February 2021

An online survey collected public input related to priorities and local concern areas during the initial public outreach period from February to March 2021. Steering Committee members were encouraged to share the survey and plan update information with their networks to reach a broad cross section of the county. The public survey was advertised via Facebook and a press release to local media. Through advertisement metrics, the LRTP update information reached 11,164 users reached on Facebook, which resulted in 421 visits to the public survey and 382 unique responses received, which is an exceptional response compared to traditional methods of promotion for LRTPs.

The team used the ArcGIS Survey123 online survey tool and incorporated an interactive map and targeted survey questions on the following topics:

Vision & Goals

- Overall goals or priorities
- Condition assessment of existing transportation
- Personal use of current modes of transportation
- Policy and funding questions

Specific Issues & Concern Areas

- Transportation concern areas
- Locations for future amenities

Demographics & Contact information

- Zip code
- Demographic questions
- Sign up for future LRTP-related emails

Survey results were compiled and analyzed to glean overall trends and identify concern areas that could be addressed by the LRTP. Some of the top priorities and key themes collected in the survey are listed below.

Respondent Demographics

Respondents were asked to provide their age, race, and home zip codes. 50% of respondents were over the age of 55 (**EXHIBIT 26**), and more than 80% were white (**EXHIBIT 27**). The top five zip codes appearing in the responses were 16148 (Hermitage), 16125 (Greenville), 16137 (Mercer), 16146 (Sharon), and 16127 (Grove City), but surveys were submitted from a total of 29 zip codes in Mercer County and eastern Ohio.

Exhibit 26 – Age of Survey Respondents

Age of Survey Respondents

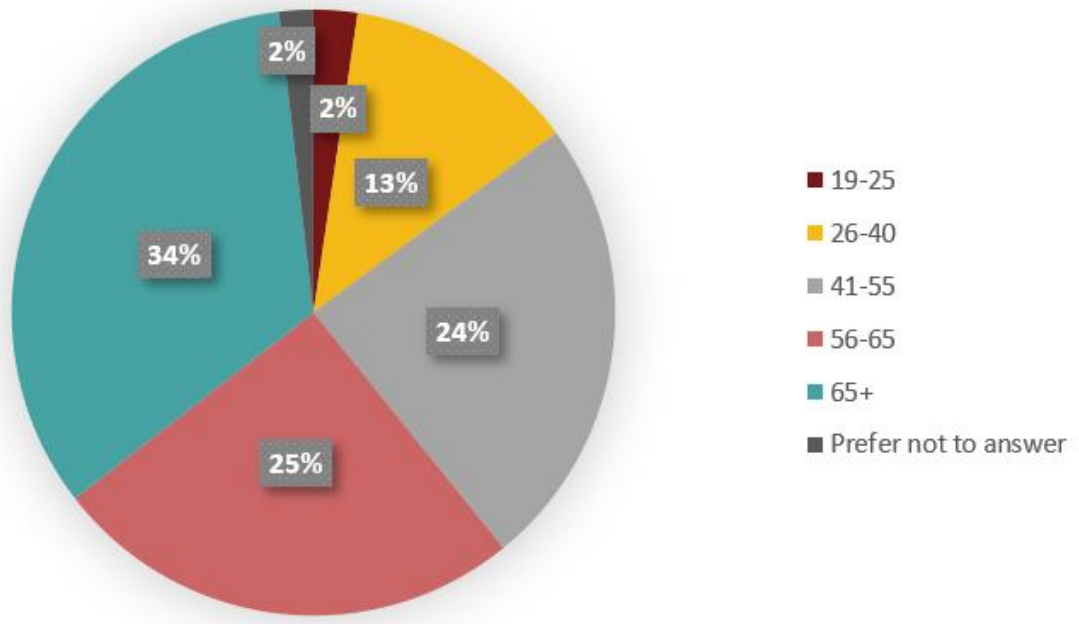
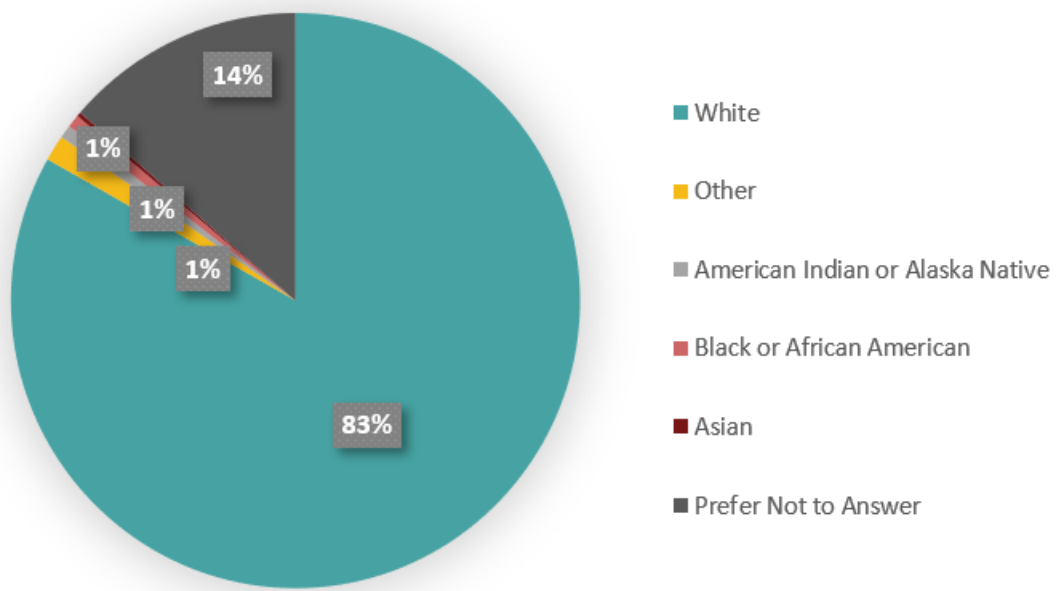


Exhibit 27 – Race of Survey Respondents

Race of Survey Respondents



Most Important Topics

Respondents rated several transportation-related topics on a scale from Very Important (5) to Very Unimportant (1). When these rankings were averaged across all responses, the survey respondents ranked the topics in the following order of importance (**EXHIBIT 28**). Roadway safety remains the #1 priority between 2016 and 2021. Sidewalks and trails received a noticeable increase in ranking, followed by truck and freight access, parking, and public transit. Interstate access, tourism, and bicycle amenities decreased in ranking.

Exhibit 28 – Survey Most Important Topics

Category	Current LRTP (2021)	Prior LRTP (2016)	Difference
Roadway Safety	1	1	Same
Pavement Condition	2	2	Same
Economic Vitality	3	3	Same
Sidewalks & Trails	4	7	Increased
Environmental Sustainability	5	5	Same
Interstate Access	6	4	Decreased
Truck & Freight Access	7	9	Increased
Tourism	8	6	Decreased
Parking	9	10	Increased
Public Transit	10	11	Increased
Bicycle Amenities	11	8	Decreased

Most Needed Improvements

Respondents also rated the current state of the regional transportation infrastructure. The survey question asked respondents to rate each aspect of the infrastructure as Adequate (3), Needs Minor Improvement (2), or Needs Major Improvement (1). When these ratings were averaged across all responses, the respondents rated these topics in the following order of most in need of improvement (**EXHIBIT 29**). Local road pavement condition ranked #1 in need of most improvement, which beat out economic vitality. The public survey in 2021 separated the pavement question between “local roads” and “US and State Routes”. Sentiments regarding pavement condition support the current trend toward asset management projects.

Exhibit 29 – Survey Most Needed Improvements

Category	Current LRTP (2021)	Prior LRTP (2016)	Difference
Local Road Pavement Condition	1	*	*
Economic Vitality	2	1	Decreased
US/SR Pavement Condition	3	3	Same
Sidewalks & Trails	4	2	Decreased
Tourism	5	5	Same
Roadway Safety	6	6	Same
Bicycle Amenities	7	4	Decreased
Interstate Access	8	10	Increased
Environmental Sustainability	9	7	Decreased
Public Transit	10	8	Decreased
Truck & Freight Access	11	9	Decreased
Parking	12	11	Decreased

Long-Term Effects of COVID-19 on Travel

The survey asked respondents to share how they expected their long-term choices regarding housing, shopping, and travel to change after the pandemic. They were asked to indicate whether they would do each activity more, less, or the same amount. In general, most responses for each activity showed that the behavior would be the same after the pandemic (**EXHIBIT 30**). The largest increase of 46% is for travel to parks and trails which is unsurprising as parks and trails offer fresh air and recreational space. Online shopping is also expected to be significantly higher at 34%. Interestingly, views on moving and public transportation are more polarized, with a similar proportion expecting both less and more frequent use.

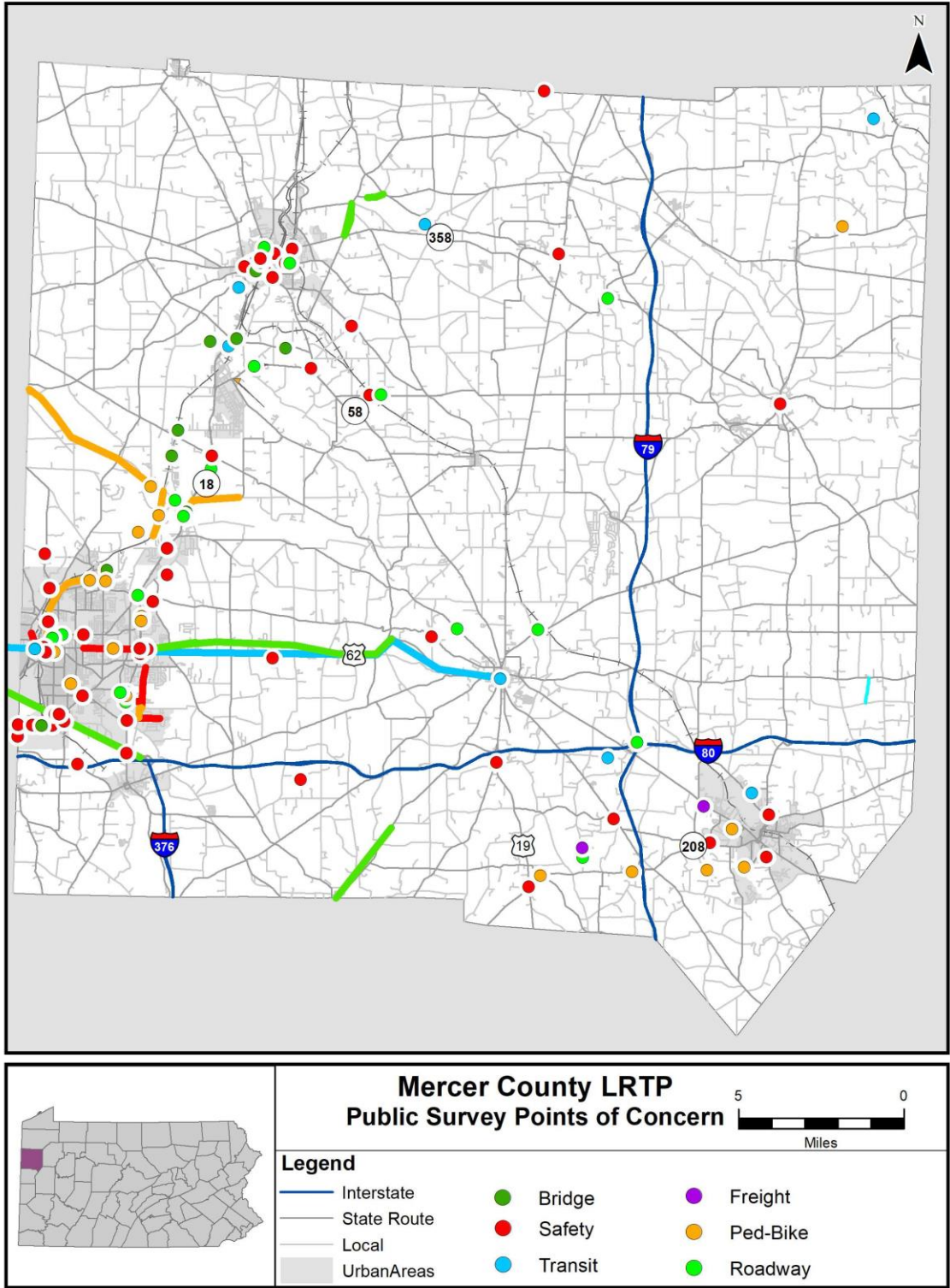
Exhibit 30 – Long Term Anticipated Travel Behaviors

Activity	Less	Same	More
Drive to work	12%	81%	7%
Drive children to school	8%	58%	34%
Take public transportation	22%	63%	15%
Shop online	8%	58%	34%
Have items like groceries delivered	22%	52%	26%
Consider moving	25%	45%	29%
Travel to parks and trails	3%	51%	46%

Areas of Concern

The public used the GIS-based survey platform to provide specific areas of concern. Concerns were organized according to categories including bridge, freight, pedestrian or bicyclist, roadway, safety, and transit (**EXHIBIT 31**). Respondents were asked to describe the issue and if desired, to send further information to the team. Every point of concern was reviewed in detail by a subcommittee of the Steering Committee and used to compile project listings, identify maintenance action items, and generate areas in need of improvements for betterments. Many concerns fell under the jurisdictions of local municipalities and were forwarded to the appropriate agencies.

Exhibit 31 – Public Survey Points of Concern



Public Meeting #2: Draft LRTP for Public Review – October 2021

The second major public outreach activity occurred from October through November 2021 to provide the required 30-day public comment period. The plan document and associated information was made available on the MPO website including:

- Draft LRTP document
- Short comment form

The request for public comment was promoted with a press release, legal notice, and coordination with Steering Committee members and other stakeholders. Hard copies of the draft document and comment form were made available at locations throughout the county for those without adequate internet access and those who prefer to review materials in hard copy. The materials were advertised through Facebook and seen by 20,008 accounts, with 37 clicking the link to read the document and one comment about pavement quality.

Stakeholder Focus Groups

Six virtual focus group meetings were held in March 2021 to gather targeted input on transportation needs. A short summary of feedback including transportation priorities from each focus group is included below. The issues and specific concern areas were collected and used by the Steering Committee in developing the project listings and priorities. Mercer County Planning Commission, PennDOT District 1-0, and McCormick Taylor representatives attended all six focus group interviews. The complete list of attendees and focus group meeting summaries are available in Appendix B. Stakeholders were organized into the following groups:

- Municipal Representatives
- Social Services & Environmental Justice
- Economic Development
- Multimodal Transportation
- Highway Professionals
- Environmental Agencies

Municipal Representatives

The top priorities for the municipal representatives were related to increasing development and growth, downtown revitalization, and addressing safety and traffic congestion concerns. Each municipality identified specific locations of potential development and where safety improvements are desired. Other concerns related to flooding, landslides, and stormwater issues were expressed. The pandemic caused a lot of municipalities to lose retail and restaurant businesses and associated tax income, necessitating the municipalities to think more about how to encourage the diversification of businesses and industries in their communities through ordinances, marketing, and collaboration with other agencies.

Social Services & Environmental Justice

The social service groups shared top priorities related to access to education and employment centers, especially by public transit outside of the urbanized areas of the county. Access to high-speed internet is also a priority for these groups to assist in connecting their communities with education, employment, and other services. Reliable transportation is important to access social and recreational activities which can be difficult when relying on public transit or friends and family. Representatives from the Area Agency on Aging also noted that the 60+ age group is expected to



Entrance to George Junior Republic

continue to grow in Mercer County. They have found that this generation of seniors is more active, more interested in aging-in-place, and more technologically savvy than previous generations, and expect their transportation needs to reflect that.

Economic Development

Economic development stakeholders discussed trends in freight movement, warehousing, employment, growth opportunities, new industries, and safety for large vehicles and passenger vehicles. They discussed the locations throughout the county that create safety concerns and 'pinch points' for freight movements and other economic activity.

Multimodal Transportation

Discussion in the multimodal stakeholder group focused on increasing access and connections for pedestrian and bicycle traffic. It was agreed that personal vehicles are the dominant transportation mode in Mercer County, but that could change in the future if existing infrastructure is improved and connections are made between available paths and trails and popular destinations. Access to active transportation and recreation is becoming more important as people have more flexibility to work remotely away from large cities, and these resources can be real assets in attracting and retaining residents. It was noted that there are challenges in using the transit system to get to work in places outside of the Valley; there are additional needs in terms of routes and timetables for transit. The transit agency is planning to complete a comprehensive study in the coming years.

Highway Professionals

The highway stakeholders included representatives from PennDOT and Mercer County who discussed specific locations that need improvements, bridge rehabilitations or replacements, potential corridor studies, as well as flooding and stormwater issues. It was agreed that the County and PennDOT have coordinated well over the last several years to maintain the transportation network. Both are focusing on low-cost improvements to keep the system in good repair in efforts to make the best use of limited funding.

Environmental Agencies

Mercer County volunteered to pilot a new program and method for conducting Agency Coordination Meetings (ACM). Agency Coordination typically happens toward the end of LRTPs, but the guidance from PennDOT around that is changing. Rather than just including the agencies to inform them of the potential impacts of the planned projects, they were included early in the planning process as a targeted stakeholder group for the focus group interviews.

Discussion in the focus group centered on ways to better connect agency resources such as the State Parks and Army Corps Recreational Areas to the wider transportation network to improve public access. These types of facilities saw large increases in attendance with the pandemic as people sought outdoor activities, which highlighted transportation, parking, and access issues. Each agency also discussed challenges related to their respective environmental areas. These concerns included updating data resources, specific species requiring additional attention and conservation, flooding, and access to water resources. Emerging technology like electric vehicle charging and solar power facilities were also discussed as positives when looking toward the future.



Upper Shenango River Water Trail

Literature Review

Studies completed since 2016 were reviewed and relevant project improvements from those studies were included in this LRTP update (**EXHIBIT 32**). The effort to include specific project recommendations as implementable projects in the current LRTP is critical so that they can be prioritized against existing projects and moved through the LRTP process to be programmed on the TIP. The general themes of the recently completed studies were related to safety and multimodal transportation, which reflect the common themes heard from the public and stakeholders.

Exhibit 32 – Literature Review Plans Reviewed

Plan	Year
Southeastern Mercer County Bike & Pedestrian Master Plan	2017
US 62 Corridor Safety Study (Hermitage-Mercer)	2019
Borough of Greenville Pedestrian Circulation Study	2019
S.R. 0062 Canadian National Railway Overpass Study	2020
SR 0058 Safety Study	2019
PennDOT District 1 Bicycle and Pedestrian Plan	2020
PennDOT Extreme Weather Vulnerability Study	2017
Hermitage Trails and Sidewalks Prioritization Plan	2017
Western RTMC Region Regional Operations Plan Draft	2019
Congestion Management Process	2018



Goals & Objectives

Based on targeted discussions with the public and stakeholders and a thorough literature review, the goals and objectives are categorized as follows:

Mercer County LRTP Goals & Objectives

Enhance Economic Vitality

- Improve access to local, regional, and national markets
- Provide transportation mobility choices for regional travel
- Ensure travel time reliability
- Increase and support tourism
- Encourage vibrant towns

Improve Quality of Life

- Improve safety and security for motorized and non-motorized modes
- Improve transportation mobility choices
- Provide access to natural resources
- Promote environmental stewardship
- Provide and enhance recreational opportunities

Pursue System Preservation and Enhancements

- Pursue proper stormwater management & interagency communication
- Enhance pavement quality
- Prioritize bridge maintenance
- Emphasize project delivery and intergovernmental cooperation

Emerging Trends and Disruptors

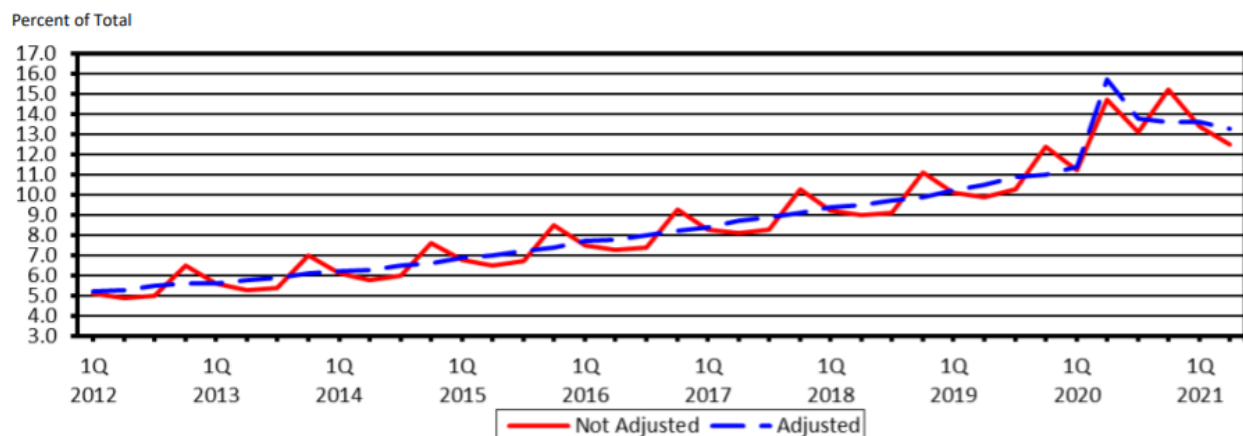
Long range planning is currently faced with a wide set of challenges. New technologies are developing rapidly, and people are changing how they live, work, and play. Some things remain constant: people will always need a safe and reliable transportation system. The early identification of emerging trends and so-called “disruptors” is key in the planning process so that policies can be in place to support these developments in a way that positions Mercer County to embrace and benefit from these changes.

Economic Forces

Freight & E-Commerce


EXHIBIT 33 from the U.S. Census Bureau Department of Commerce illustrates the share of e-commerce as a percent of national retail sales rising steadily from approximately 5% in 2012 to approximately 13% in 2021. The spike in 2020 is attributed to the pandemic restrictions on in-person shopping and the industry-wide transition to online ordering and home delivery. Ignoring the spike in 2020, the general trend is increasing, and e-commerce is likely to reach a share of more than 20% of national retail sales in the next 10-15 years. Many reasons exist for the shift, including better access to internet service, free shipping, faster delivery times, ease of payment and broader product selection. As more of the consumer population becomes computer- and app-savvy, more may choose the opportunity to purchase online from retailers large and small. This trend impacts land use and development, as same-day delivery services depend on local warehouses and distribution centers to be close to population centers. Mercer County would be a prime location, given its interstate access and proximity to cities in Pennsylvania and Ohio. Rising e-commerce will also impact land use, both in terms of increased need for distribution centers in industrial and commercial areas, and decreased need for physical retail space in commercial and mixed-use areas.

Exhibit 33 – Estimated Quarterly U.S. Retail E-Commerce % of Total Retail Sales 2012-2021



Adaptive Reuse

In recent years, in-person shopping facilities like malls have been closing due to rising rents, increased maintenance costs, and lower foot traffic as people turn to e-commerce. As stores close, more consumer activity shifts to e-commerce which exacerbates the cycle. A looming question for local authorities is what to do with these large, unused retail spaces. They are typically located in popular destinations near community resources with good connections to the transportation system. Some malls around the country have been finding new life as medical outposts for regional health systems, community college satellite campuses, and repurposed office space for businesses. Mercer County's economic leaders are considering repurposing vacant and underutilized sites for medical products manufacturing, warehousing, and customer service call centers. MCRPC can facilitate the transition by revisiting “allowed uses” in the zoning code where applicable.



The City of Hermitage has been actively planning and pursuing a Town Center concept for the underutilized Shenango Valley Mall property near the intersection of US 62 Business (E. State Street) and SR 0018. The Hermitage Town Center project was awarded a \$1.2M Multimodal Transportation Fund Grant in 2021, which will be used to upgrade the existing shopping center to have a more park-like, livable, mixed-use place with a sense of community and town center feel.

Another vacant site in Mercer County that is looking toward adaptive reuse is the former Trinity Site in Greenville. An ideal development candidate would be mixed-use and provide transportation connections to existing infrastructure in the downtown to improve revitalization efforts.

Telecommuting

One effect of the pandemic saw some employers switching to entirely virtual Work from Home (WFH) employment. Moving forward, there may be lasting changes in the workforce resulting from this experiment, including workers that want to remain remote full-time, or those who choose a hybrid schedule. This would apply to a smaller portion of the workforce in Mercer County, as many are in the manufacturing and service industries. Only 12% of public survey respondents expected to work from home more in the long-term. It is still an important consideration for both work and school environments. Traffic patterns may change, spreading the peak hours and creating more mid-day traffic. Land use patterns may also change as some companies decide to reduce the size of their offices and close physical locations completely.

With telecommuting, there is much more choice about where to work and live. Mercer County has an opportunity to capitalize on this choice, because it offers a high quality of life for a lower cost of living. The county provides significant recreational opportunities and an adaptive political climate, which may be attractive to younger generations. Stakeholders indicated that they believe people are moving to Mercer County due to this situation. Time will tell if these changes are permanent, but Mercer County could easily attract residents from Pittsburgh, Erie, Youngstown, and other local populated areas.

A key factor in attracting remote workers is access to high-speed internet such as broadband. Internet also plays a strong role in equity for low income and minority populations, with some political efforts working toward making internet access a basic human right. The right-of-way on roadways is often used for broadband infrastructure. The nearby Southwestern Pennsylvania Commission (SPC), serving the Pittsburgh metropolitan area, is conducting a regional broadband study.

Another interesting concept for internet access is the new satellite-based internet company StarLink. From entrepreneur Elon Musk, StarLink is launching satellites into orbit that provide high speed internet in very remote locations. The system is currently in beta testing in Canada. According to the StarLink website, areas of Mercer County could receive StarLink service as early as 2021. Satellite internet is ideal for locations where physical internet infrastructure has been a challenge or not available at all. Other satellite internet providers, such as Viasat and HughesNet, could also be options to expand high-speed internet coverage in Mercer County.

As more school assignments are done virtually on tablets and computers, internet access becomes more critical to educational attainment and social well-being. The ability to learn entirely online also extends to those seeking advanced degrees and can provide much more flexibility. Adults seeking post-secondary education can virtually attend a college or university anywhere in the world, while maintaining a job and staying close to family and friends. These new tools can allow Mercer County to retain larger portions of the population if residents can remain in the county, instead of moving away for educational and work opportunities.

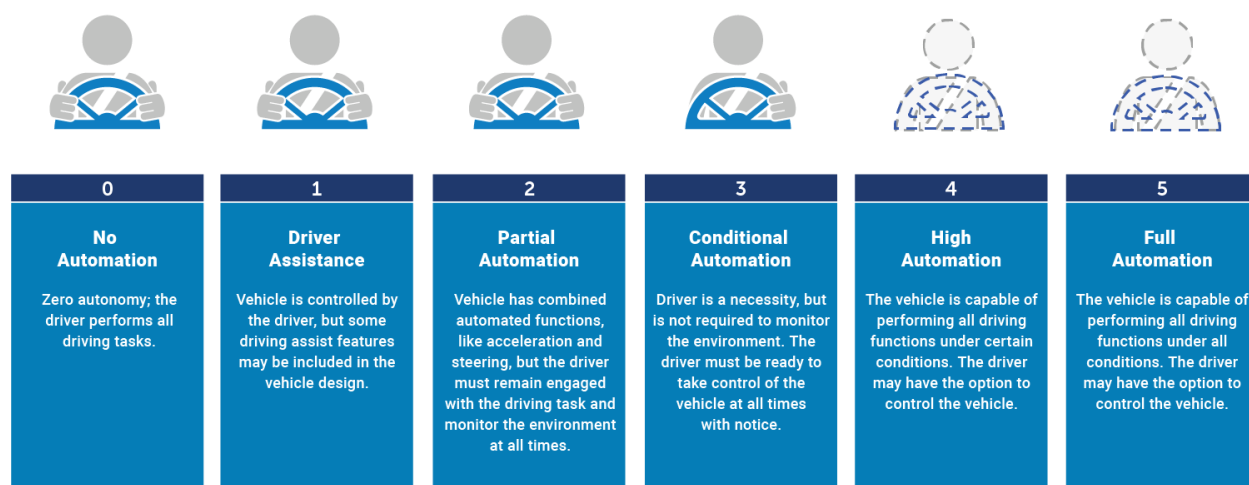
New Mobility & Evolving Technologies

Connected and Autonomous Vehicles

Connected vehicles are those that can communicate with other connected vehicles and infrastructure. They have significant onboard computing power to transmit and accept data from their surroundings that can help other vehicles determine safe following speeds, traffic signal phasing, safety hazards, and identify congestion. Most technological advances are developed by private vehicle manufacturers, but local authorities play a supporting role by providing reliable communication networks such as 5G infrastructure and upgraded traffic signals that can send and receive data.

Self-driving vehicles are also becoming more commonplace on our state roads. More privately owned vehicles are incorporating semi- and fully-autonomous technologies. The Society of Automotive Engineers outlines levels of automation from 0 to 5, with 5 being a fully self-driving vehicle (**EXHIBIT 34**). A self-driving vehicle has an onboard computer that makes lane positioning, speed, and braking decisions based on inputs such as video and LIDAR mapping. The condition of infrastructure such as signs and pavement markings plays an important role in providing visibility to the computer. PennDOT and municipalities can assist in the safe transition to autonomous vehicles by maintaining their assets and providing properly retroreflective and legible signs and pavement markings.

Exhibit 34 – Automation Levels



SOURCE: SOCIETY OF AUTOMOTIVE ENGINEERS

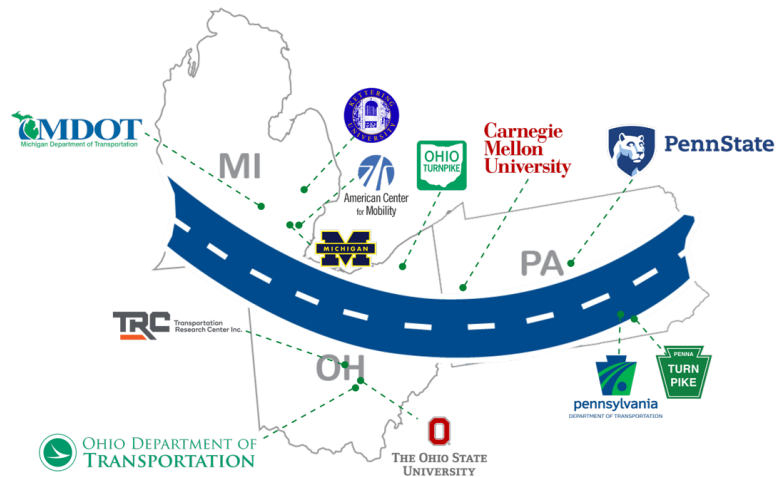
The COVID-19 pandemic highlighted the nationwide truck driver shortage, as freight demand increased. The trucking industry lacks sufficient manpower for long-haul trucking, and the industry faces significant turnover and reduced retention rates. Demand for freight transportation between warehousing centers and delivery routes making those first- and last-mile connections is expected to remain high. Shipping companies such as FedEx and UPS are actively researching the conversion of some long-haul routes to autonomous or semi-autonomous vehicles. PennDOT is a partner in the regional connected and autonomous vehicle initiatives, so the MPO should keep close coordination with PennDOT on technologies. Mercer County's interstates are the likeliest place for early adoption of new technologies, and private self-driving vehicles are being used on all roadways regardless of their status as a state- or locally-owned road.

Autonomous vehicles also provide new venues for accessibility for people without driver's licenses, the disabled, the elderly, and school age children. They also are expected to increase safety by eliminating human error in driving.

Smart Belt Coalition

PennDOT is part of the Smart Belt Coalition. This coalition is a test bed for new technology. From the [Smart Belt Coalition website](#): “Formed in 2016, the Smart Belt Coalition (SBC) is a strategic transportation collaborative comprised of 12 organizations, including five transportation agencies and seven research and academic institutions, located throughout Michigan, Ohio, and Pennsylvania. The purpose of the SBC is to foster collaboration amongst multiple agencies and research affiliates from Michigan, Ohio, and Pennsylvania, involving research, testing, policy, standards development, deployments, outreach, and funding pursuits in the area of connected and automated vehicle technology as well as other innovations in the transportation industry.” The twelve members of the SBC currently include:

1. Michigan DOT
2. Ohio DOT
3. PennDOT
4. Ohio Turnpike
5. Pennsylvania Turnpike
6. American Center for Mobility
7. University of Michigan
8. Kettering University
9. Transportation Research Center
10. Ohio State University
11. Penn State
12. Carnegie Mellon University



In 2020, the Smart Belt Coalition coordinated to test the deployment of [Level 1 Automation](#) on Interstate 80 for truck platooning. This involved the lead truck manually operating while the following trucks were automated to follow. All vehicles had an operator at all times. This is important as e-commerce advances, freight movement becomes more localized, and demand continues to grow. Automation will help to alleviate industry issues with long-haul trucking and safety concerns.

Programs undertaken at the federal level are focused on enabling activities to advance technology, incorporate connected and automated vehicles (C/AV), and update national policies in anticipation of their deployment. The following objectives are identified by FHWA:

- Advance knowledge of Connected Vehicle (CV) and Automated Vehicle (AV) systems.
- Collect benefits and costs and implementation lessons learned information from high priority CV and AV applications.
- Support State and local, and transit agency integrating CV environment deployments.
- Define the Federal role in facilitating and encouraging deployment of automated systems.

Research conducted by Carnegie Mellon University in 2014 surveyed transportation planners at the largest 25 MPOs in the United States. Only one of these MPOs, the Delaware Valley Regional Planning Commission, Philadelphia, PA, mentioned C/AV in their LRTP. Most MPOs indicated that uncertainty drives discussions of how C/AV will impact transportation system investment decisions. It is not yet clear which technologies will emerge, what their cost will be, and who will bear those costs. Outcomes of C/AV may affect congestion and operations, accessibility, mobility, productivity, value of time, vehicle miles traveled, air quality and noise, energy usage, parking, land use, non-motorized modes, vehicle cost, ownership, freight, transit, equity, and security.

Ride Sharing

Uber and Lyft are the major ride sharing companies operating in the region. They have evolved to replace traditional taxis and operate mostly outside of regulatory structure. The public survey indicated that ride sharing use is low in Mercer County. Of the 372 respondents who completed this survey question, only 37 or roughly 10% of respondents indicated that they use ridesharing more than 'Never/Infrequently' and only seven indicated that they use these services daily. While there are many households in Mercer County without a vehicle who are dependent on friends, family, and public transit for rides, these ridesharing services may be too expensive and unreliable to be a benefit.

Micromobility

Micromobility is a term that encompasses modes of transportation such as e-bikes and e-scooters which provide a relatively quick way to get from one place to another. Transportation hubs may be provided that connect transit stops and many of these modes of transportation. Typically using these services has basic requirements such as a smartphone and the application for each service provider, which raises equity questions for those without access to a smartphone. During stakeholder interviews, the Mercer County Community Action Partnership (MCCAP) envisioned a system where e-scooters could be deployed to help people with their first- and last-mile connections to transit. A vision would be that the e-mobility stations are near parks, transit stops, or existing public services, and docking stations could provide WiFi and charging ports. Transit buses are equipped with real-time tracking software so people can see where their bus is along the route and plan accordingly.

E-bike and bike share stations are another form of micromobility. In some places, agencies are dedicating curb space to solar-powered mobility stations. Planners in Pittsburgh took time to consider how to handle e-scooters before allowing them on their streets. They set policies with respect to curb usage where the scooters are allowed to be parked, charged, and driven. The [Pittsburgh Mobility Collective](#), part of the City of Pittsburgh's MovePGH initiative, is a micromobility work group that provides mobility hubs. This came together through collaboration from government agencies such as the Pittsburgh Department of Mobility and Infrastructure.

These micromobility modes can help to solve transportation challenges for those who do not own personal vehicles, who cannot obtain a driver's license, or in areas where public transit connections are lacking. Affordability and ease of use is important. Otherwise, the people who could see the most benefit from these services will not have access to them. Private ownership of e-bikes and e-scooters is on the rise as affordability increases. These modes can increasingly be seen on public trails in Mercer County.

It is important to proactively plan for these new technologies and services to ensure that they are accessible to all community members, and that the docking stations and discarded e-scooters do not become a public nuisance. Some considerations when planning for these new mobility solutions should include a variety of payment options like using existing public transit passes or options for purchasing rides in cash at convenience stores and placement of the docking stations in neighborhoods where there is the greatest need.

Electric Vehicles

PennDOT and the Pennsylvania Department of Environmental Protection (DEP) are working together to facilitate the transition to more electric vehicles by educating the public and providing the necessary infrastructure. According to the joint PennDOT and DEP webinar called *Amped 2021*, a total of over 28,000 electric vehicles were registered in Pennsylvania as of February 2021. Sales forecasts show electric vehicles to be 25% of total vehicle sales by 2030. Electric vehicle demand also surged despite the COVID-19 pandemic. Nationally, electric vehicle sales rose 15% in 2020, which created a 40% increase in market share for electric vehicles in 2020, despite the overall drop in auto sales in 2020.

To encourage increased purchase of electric vehicles, the PA DEP provides incentives for individuals and grant programs for businesses, non-profits, and organizations. PennDOT has created an internal cross-

departmental working group to coordinate studies and infrastructure efforts and coordination with other agencies. In May 2021, PennDOT began developing the statewide *Electric Vehicle Mobility Plan*, which builds on previous research by the PA DEP, including the [PA Electric Vehicle Roadmap](#). This planning effort involves evaluating current electric vehicle infrastructure, identifying mobility challenges, and identifying ways to build the electric vehicle network. It is expected to be complete by 2022.

PennDOT is also participating in two pilot programs to install electric vehicle and compressed natural gas facilities and amenities like restaurants along the I-78/I-81 and I-80 corridors. The I-80 pilot program is lead by the Illinois Department of Transportation and involves multiple states; it is still in the early planning stages, but the effort aims to install infrastructure along I-80 from New Jersey to the border between Iowa and Nebraska border, passing through Mercer County along the way. Private entities also play an important role in electric vehicle infrastructure. Many grocery stores are now offering electric vehicle only parking spaces. Partnerships between auto manufacturers such as Tesla and gas stations such as Sheetz to provide super charging stations adds a critical layer of coverage for the EV network. There is potential for ancillary services while people wait for their batteries to be charged.

Intelligent Traffic Systems (ITS)

Advanced Traffic Management Systems (ATMS) describes the use of real-time traffic data from probes and sensors compiled and assessed at a Traffic Management Center (TMC) to adjust signal timings and improve system efficiency and mobility in real time. PennDOT TMCs oversee operations of highway and major roadways through the use of ITS and coordination with service patrols, emergency responders, and other agencies.

Transportation Systems Management and Operations (TSMO)

TSMO describes the practice of evaluating and improving performance of the transportation system from a system-wide perspective, not just one strategy, project, or corridor. TSMO strategies are coordinated across jurisdictions and agencies with the aim of improving safety and mobility for all modes of transportation. The menu of TSMO strategies may include:

- Hard shoulder running
- Ramp metering
- Reversible lanes
- Road weather management
- Smart signals
- Traffic incident management
- Traveler information
- HOV lanes
- Park and rides
- Variable speed limits
- Connected and autonomous vehicle deployment
- Access management
- Active transportation and demand management
- Bicycle and pedestrian safety
- Congestion pricing
- Electronic toll collection
- Express toll lanes
- Freeway management
- Freight management
- High-occupancy toll (HOT) lanes
- Integrated corridor management
- Managed lanes
- Special events management
- Traffic signal program management
- Transit priority and integration
- Work zone management

PennDOT describes its [TSMO business areas](#) as follows: inclement weather, ITS and traffic signals, work zones, traffic incidents, special events, bottlenecks, traffic management centers, traveler information, and connected and autonomous vehicles. PennDOT has a committee for Transportation Systems Management & Operations Western Region, which is comprised of the current Northwest and Southwestern Regions and Jefferson County. Its counties are Allegheny, Armstrong, Beaver, Butler, Clarion, Crawford, Erie, Fayette, Forest, Greene, Indiana, Jefferson, Lawrence, Mercer, Venango, Warren, Washington, and Westmoreland.

There are two major reports published on the TSMO Western Region, including the [Regional Operations Plan](#) (2019) and the [Regional ITS Architecture reports for the Northwestern region](#) (2005). Several signal improvement projects have been completed across Mercer County following the previous Regional Operations Plan (ROP) which was published in 2007, including Mercer Borough signals project, the I-80 traffic surveillance project at the I-79 and I-80 Interchange. Other ITS projects include the SR 0058 signals project in Grove City and the Hermitage and Sharon Traffic Signals Project along State Street and SR 0018.

The ROP identifies Mercer County as a key location for Smart Corridor project initiatives (**EXHIBIT 35**). A series of corridors near I-80 in Mercer County including US 19, US 62, and PA-18 were identified which could benefit from Smart Corridor Initiatives. Strategies include combining adaptively adjusted traffic signal timings with incident detection and arterial dynamic messaging signs (DMS) to improve operations on parallel corridors when an incident occurs on I-80. Emergency detour routes can be found in **EXHIBIT 36**.

Other Mercer County specific projects mentioned in the ROP include:

- TS.05 – PA 18 Traffic Signal Improvements - Upgrade signal equipment and detection, as well as improving timing/coordination on PA-18 in Mercer County.
- TS.09 – Grove City Signal Improvements - Upgrade signal equipment, including detection, and improve timing along signalized corridor of PA-58 (Main Street) through Grove City in Mercer County.
- TI.22 – West Middlesex Interchange ITS - Install CCTV camera and Arterial DMS at PA-18/PA-318
- FA-06 – Mercer County Smart Corridor Initiatives - Institute Smart Corridor Initiatives along the corridors of US 19, US 62, and PA-18 in Mercer County. Consider adaptive signal technology and increased coordination of signal timing and operations during detours related to incidents on I-80 and other major parallel corridors.

Study recommendations include:

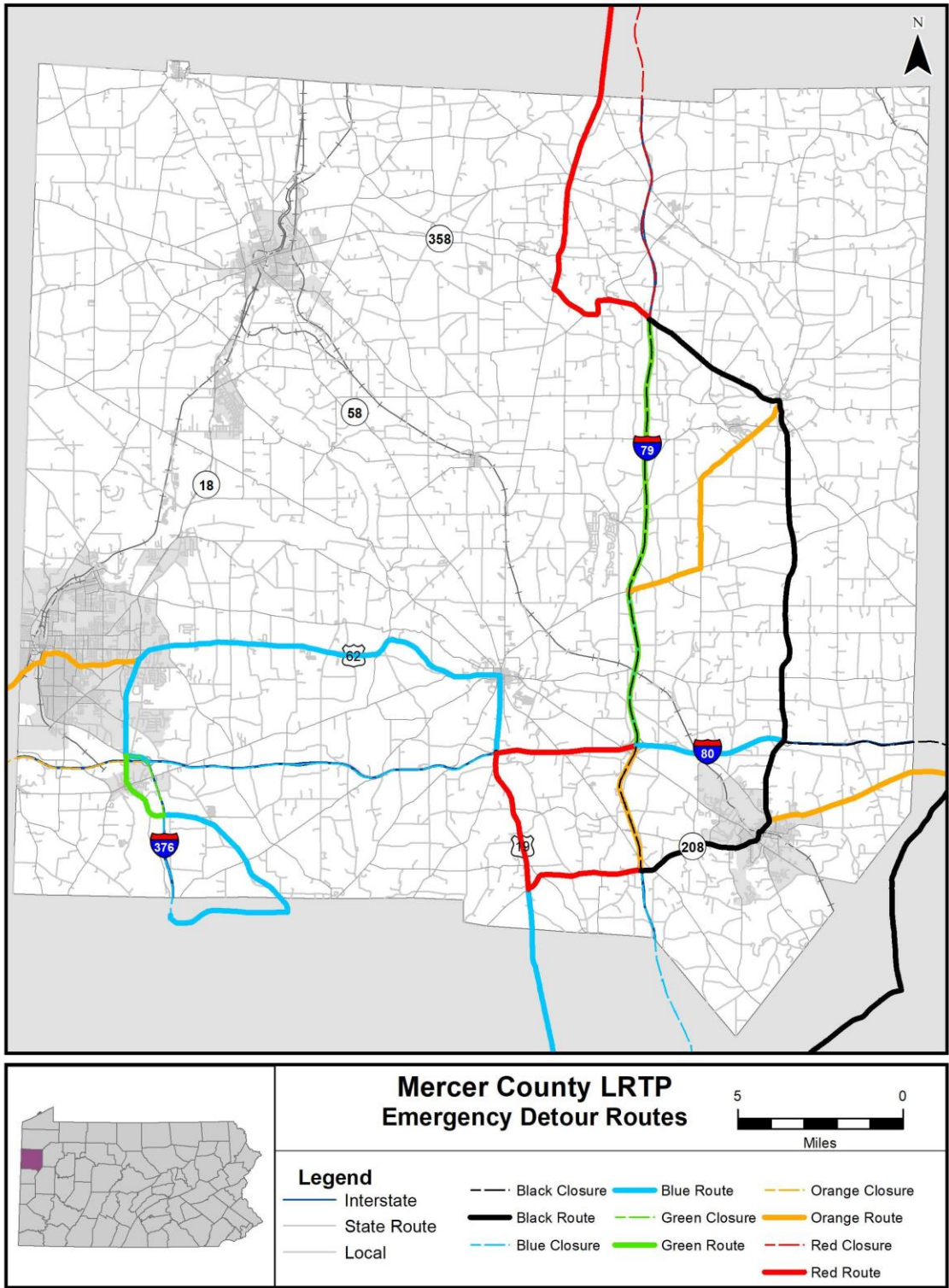
- Regional Winter Truck Restriction Study
- Regional Truck Parking Study

The current SVTS FFY 2021 TIP includes TSMO upgrades near the I-80 and US 19 interchange. This LRTP includes a new type of betterment map that summarizes the recommendations of the 2019 comprehensive countywide signal study, as well as the above ROP recommendations for inclusion in asset management projects. Municipalities and other agencies are encouraged to pursue the special funding sources for these operational improvements.

MERCER COUNTY
POTENTIAL ROP
PROJECTS



Exhibit 36 – Emergency Detour Routes





Integrated Corridor Management (ICM)

ICM is a subset of TSMO strategies that is applied to a specific corridor. ICM refers to an infrastructure management process where authorities coordinate to manage individual corridors across all modes of transportation for the most efficient movement of people and goods. For example, selecting a geographic corridor and coordinating services between traffic operations, transit, micromobility, ridesharing, taxi, freight, and others. One such example would be coordinating transit stops with the placement of micromobility and bikeshare stations so that travelers have options for first- and last-mile connections to the transportation network. Carsharing services such as Car2go and ZipCar could also be important pieces of this system.

Data is a large backbone for the assessment of the effort, as well as coordination between the services. It is important for travelers to understand where a transit vehicle is on the route so they can make informed decisions about getting to their destinations. Freight vehicles rely on real-time information reported through overhead message signs, and emergency responders may use real-time data feeds such as the Regional Integrated Transportation Information System (RITIS) portal. Historical incident data can help emergency management teams prepare for closure and emergency detour situations. Truck parking availability and occupancy is also monitored, and as electric vehicle charging stations become more widely available and in demand, occupancy and capacity of charging stations will need to be monitored. The MPO could support data sharing among agencies and commercial operators to inform parking investment decisions.

Resiliency

Resiliency refers to how the transportation system handles and adapts to increasingly strong weather. Along with the rest of the country, Mercer County has experienced stronger storms and flooding on a more frequent and severe basis. In 2017, PennDOT conducted the [Extreme Weather Vulnerability Study](#) which identified infrastructure in danger of negative impacts from climate change. It identified key elements of a changing climate that will affect infrastructure across the state, including increased maximum temperatures, increased severity and frequency of precipitation events, and more frequent freeze thaw cycles. All of these have negative impacts on infrastructure.

The plan identified roadways that are high risk for vulnerability in Mercer County (**EXHIBIT 37**). They are as follows:

- SR 0018 north of Shenango Reservoir
- SR 0058 to the west and east of Jamestown and southeast of Mercer
- SR 0258 northwest of Mercer
- SR 0760 Broadway Avenue
- SR 2007 Springfield Church Road
- SR 2014 Scrubgrass Road east of Mercer
- SR 3015 Church Street
- SR 3039 Valley Road in the vicinity of SR 3022 Rutledge Road
- SR 4019 Methodist Road

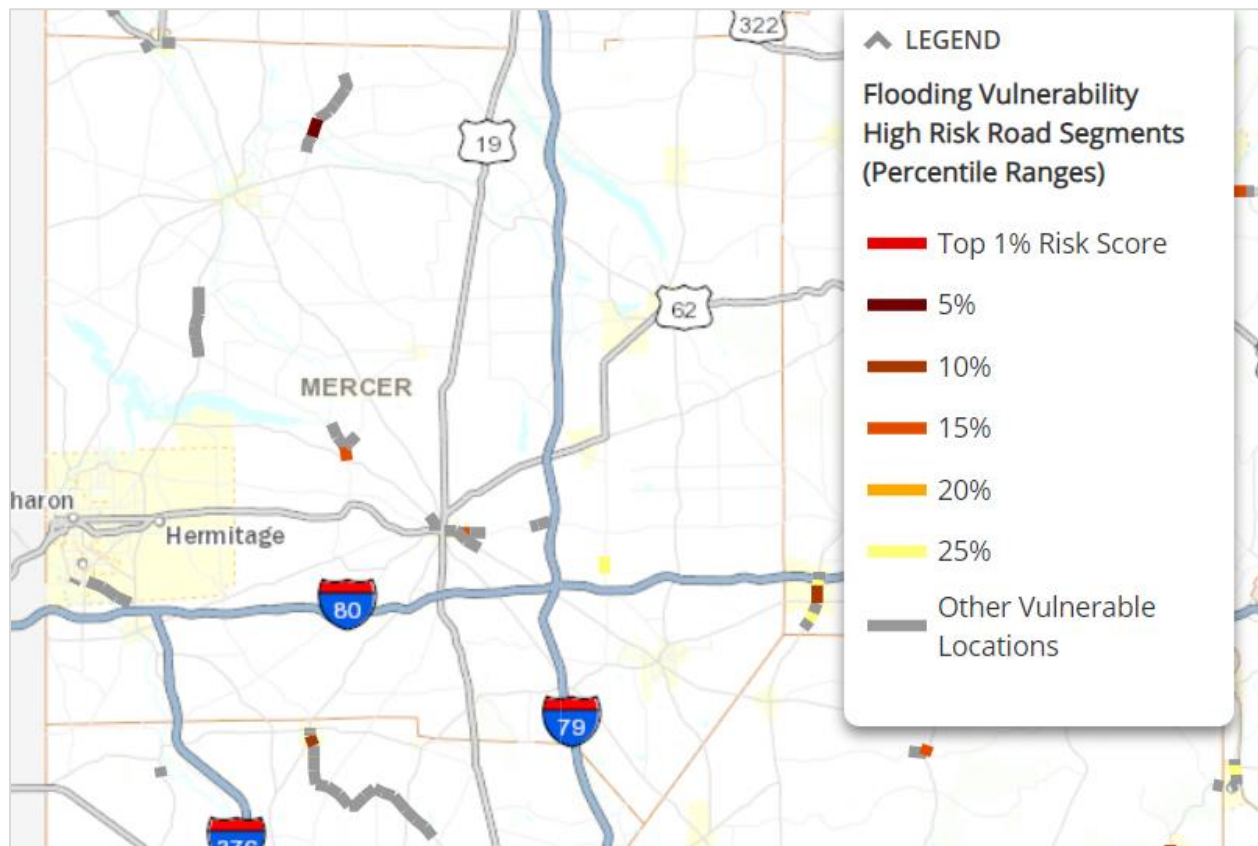


SR 4014 Crestview Drive Washout 2021

The local experience is that Mercer County, along with the rest of PennDOT District 1, is currently faring better than other parts of the state because of its fairly flat geography, which helps reduce the frequency of landslides and slope failures. It also has relatively low-density population in most of the county and fewer manmade pervious surfaces in those areas that create additional stress on the stormwater infrastructure. However, flooding is a lasting concern and roadway wash outs such as those seen in the image are becoming more common.

Debris accumulates in pipes and under bridges, which clog the stormwater infrastructure and exacerbate flooding. Increased and regular maintenance of the system can help lessen the impact of stormwater surges. Municipal subdivision and land development ordinances (SALDOs) also play a role in local stormwater management. SALDOs can help to improve resiliency and system reliability by containing stormwater best practices such as reducing impervious surfaces such as large paved areas; identifying local infrastructure improvements such as drainage swales, recharge zones, and permeable pavement. The US 62 and SR 0058 corridor studies both identify specific areas in need of drainage improvements. These are included in the betterment maps toward the end of this report.

Exhibit 37 – Extreme Weather Vulnerability Study Predicted Risk Score



Transportation System

Roadways

There are currently 2,038 linear miles of roadway in Mercer County, with 740 owned by PennDOT, 39 miles owned by other agencies, and 1,262 miles owned by local county or municipalities. Traffic volumes were examined across Mercer County from PennDOT's Traffic Information Repository (TIRe) website ([EXHIBIT 38](#)). Interstate 80 regularly has the highest ADT in the county, hovering around 28,000 to 30,000 vehicles per day. I-80 is followed by I-79, I-376, and sections of US 62, SR 0018, SR 0058, and SR 0358 ([EXHIBIT 39](#)). Interstate 80 continues to be a major thoroughfare for freight traffic, with truck percentages reaching near 50% and expected to continue to rise. Any interstate detour onto state and local roads will include significant trucks. In 2020, traffic volumes had generally decreased due to the COVID-19 pandemic related restrictions, but volumes are beginning to return to pre-pandemic levels.

Exhibit 38 – High Traffic Roadways in Mercer County

Route	Location	Average Daily Traffic	Truck Percentage	Count Year	PennDOT Traffic Monitor Site
I-80	East of US 19	28,100	46%	2021	3655
I-79	North of I-80	21,200	24%	2018	4799
I-376	South of SR 0018	17,500	15%	2019	4734
SR 0018	North of SR 0518	18,200	6%	2020	3607
SR 0062	East of SR 3037	9,700	8%	2017	3643
SR 3008	West of SR 0018	13,700	2%	2019	3722
SR 0358	East of SR 4023	4,200	10%	2019	3685
SR 0058	South of Golf Road	4,300	11%	2020	3631
SR 0518	North of State Street	7,600	4%	2019	14009
SR 3025	North of SR 3008	12,000	2%	2018	3736

Exhibit 39 – Mercer County Average Daily Traffic Volumes

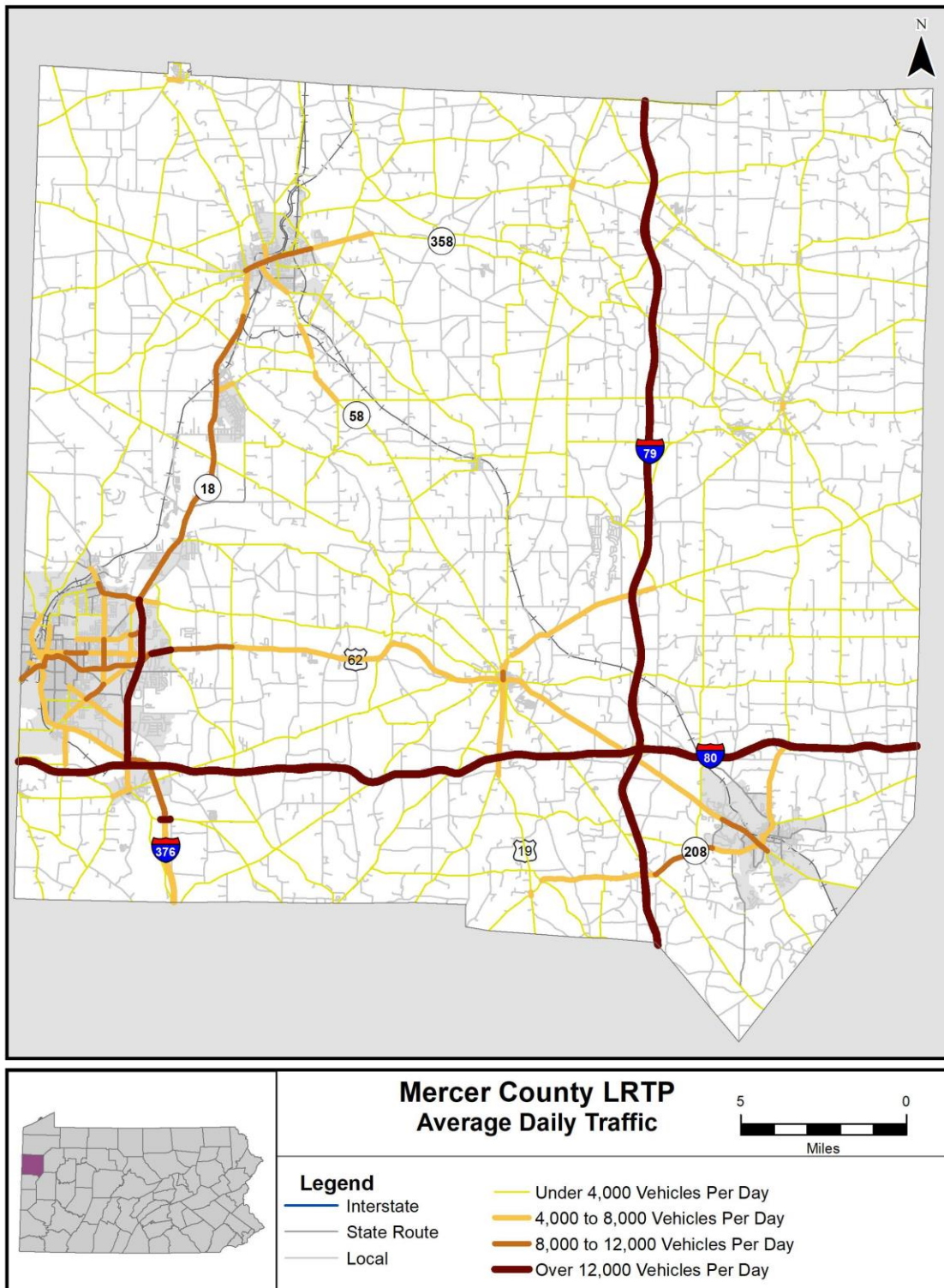
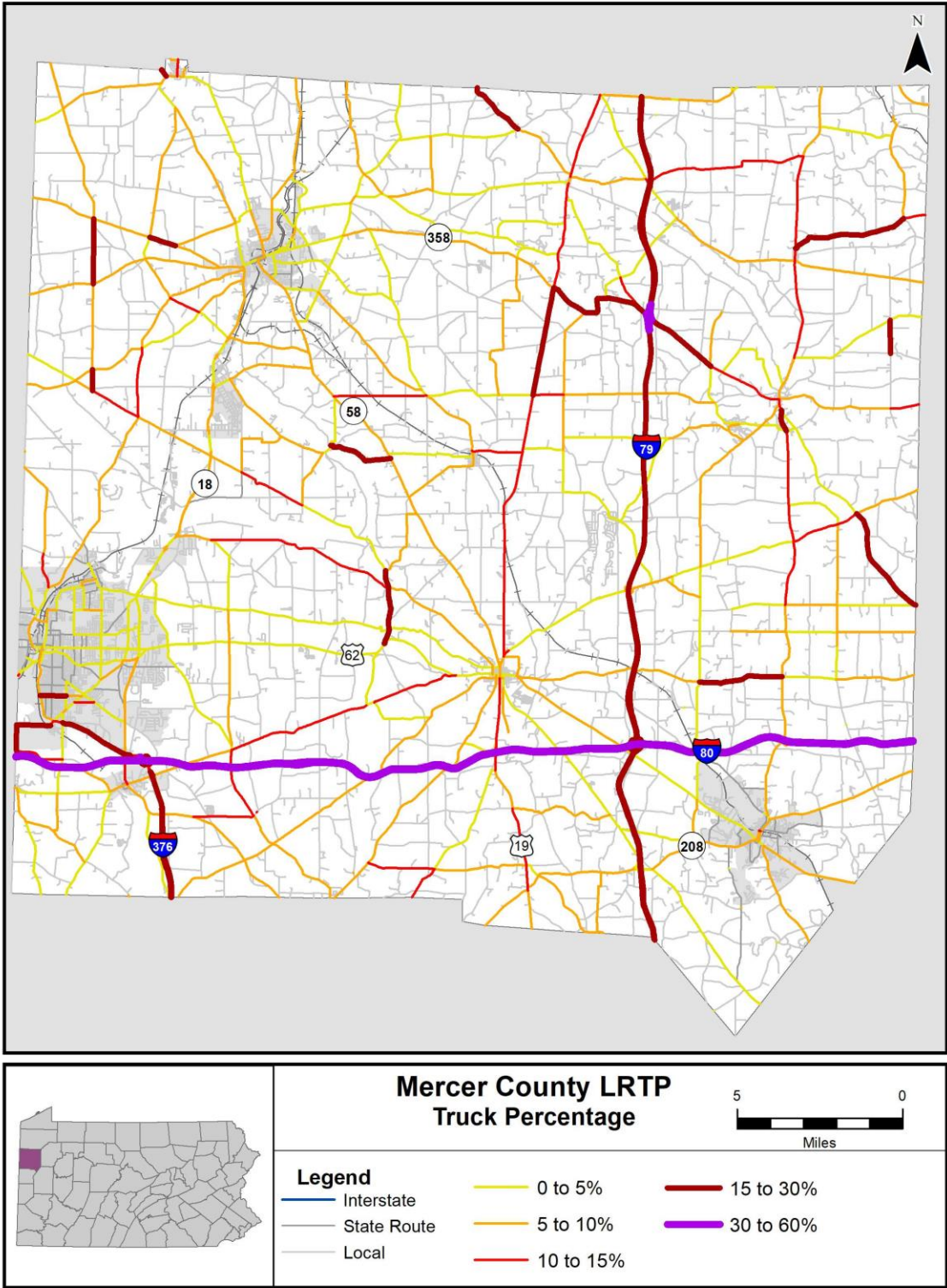


Exhibit 40 – Mercer County Truck Percentage



Transit

Mercer County is home to the Mercer County Community Transit (MCCT) paratransit service and Shenango Valley Shuttle Service (SVSS) fixed route bus service. MCCT is a door-to-door advanced registration program that is funded by state and federal grants and the Mercer County Area Agency on Aging, Inc. Discounted service is available to Senior Citizens aged 60 or older and qualified disabled residents.

MCRCOG is the administrator of the SVSS which covers a service area surrounding Farrell, Sharon, and Hermitage, commonly referred to as the “Valley”. It also runs a longer route between the Valley, the Mercer County Courthouse in Mercer, and the Grove City outlets. In recent years, MCRCOG has transitioned to using the MYSTOP smartphone application for trip planning, service alerts, and real-time bus tracking. SVSS operates the following daily routes which are shown in **EXHIBIT 42**:

Central Route - Service between Downtown Sharon and the Shenango Valley Mall along the State Street corridor.

Courthouse Route - Service between the Shenango Valley and the Mercer County Courthouse and Grove City Outlet Mall.

Express Route - Service between Longview Road and Wal-Mart along the Route 18 corridor.

Northern Route - Service between Downtown Sharon and the Shenango Valley Mall via Sharpsville.

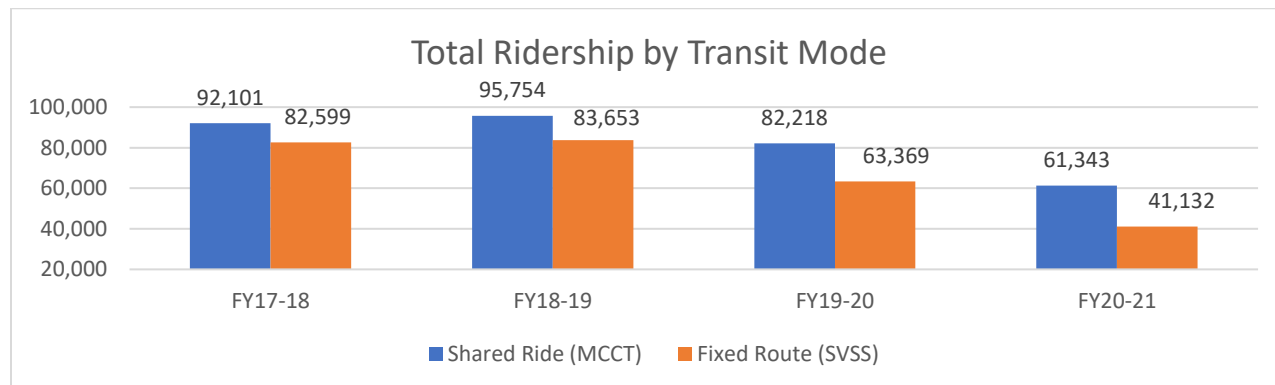
Southern Route - Service between Downtown Sharon and the Shenango Valley Mall via Farrell and Wheatland.

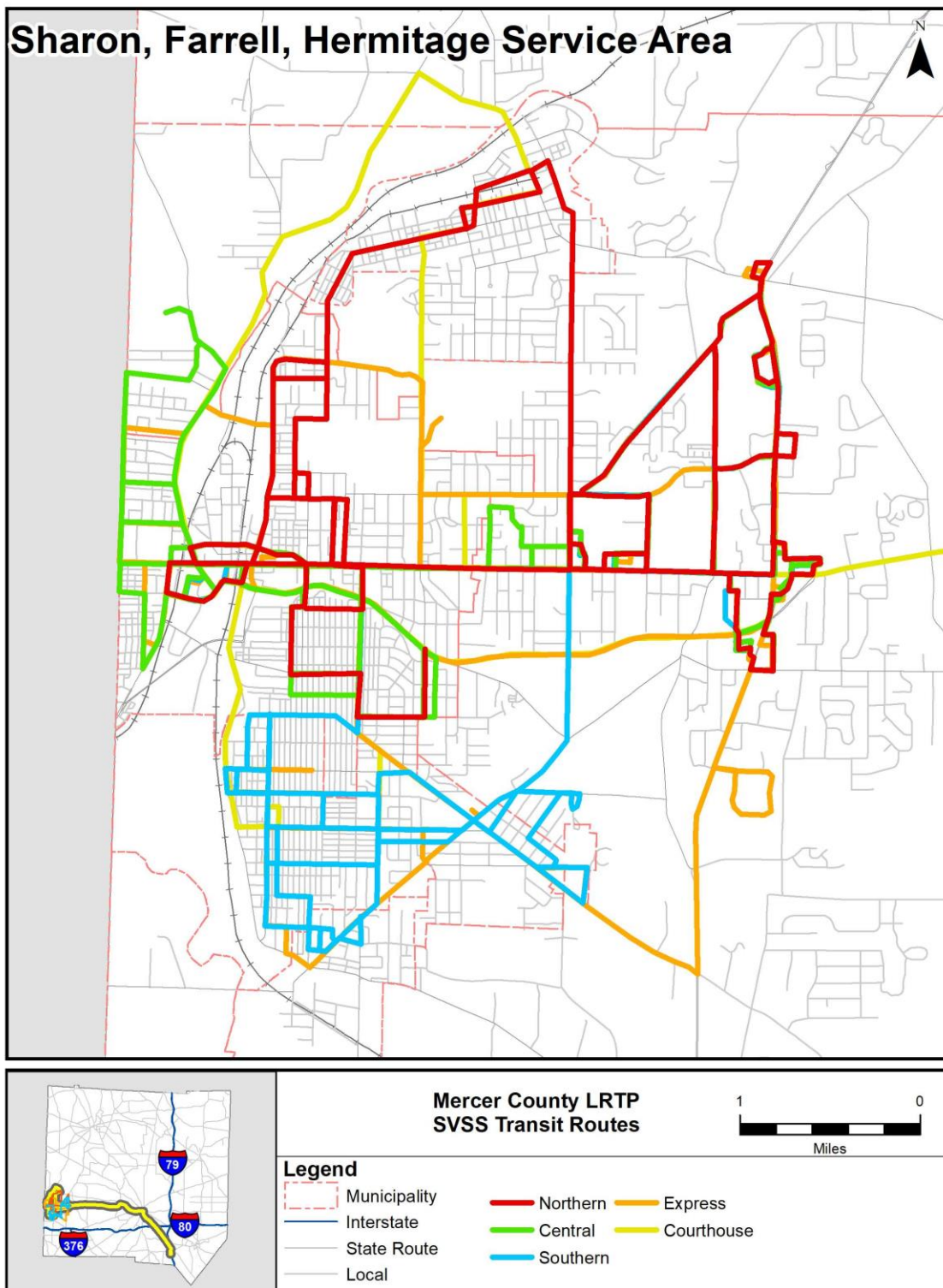


SVSS Fixed-Route Transit Bus

Many public comments were received with respect to geographic coverage, timetables, and availability of public transit services throughout the broader county. It is important for social equity for transit to be made available for every community to have an opportunity to reach education, healthcare, and work safely and reliably. MCRCOG plans to undertake a comprehensive study of services and needs in the next few years. Previous planning efforts include the [2016 Coordinated Public Transit Human Services Transportation Plan](#). It should be noted that there are currently no intercity bus services such as Greyhound or Megabus servicing Mercer County. **EXHIBIT 41** shows the transit ridership by mode between SVSS and MCCT for Fiscal Years (FY) 2017 through 2021. The COVID-19 pandemic has had dramatic negative impacts on ridership for Mercer County and other transit providers throughout the nation.

Exhibit 41 – Transit Ridership by Mode





Bicycle and Pedestrian Network

Mercer County is home to many natural and recreational amenities such as Lake Wilhem, Sandy Lake, Lake Latonka, and the Shenango Reservoir. Jamestown in Mercer County serves as a trail town connecting the Shenango Trail with Lake Pymatuning, a regional tourist destination. Greenville could also serve as another trail town for the Shenango Trail. **EXHIBIT 43** illustrates the existing trails in Mercer County, including the John C. Oliver Loop Trail around Lake Wilhem in Maurice K. Goddard State Park, the Kidds Mill Trail and Shenango River Water Trail, and the Trout Island Trail near the Shenango Reservoir. Inactive railroads are also identified as potential Rails to Trails locations.

Progress has been made in recent years to convert excess road space to cycle tracks and bicycle lanes, such as in the City of Sharon along SR 0518 (Sharpsville Avenue) which extends along Thornton Avenue to Buhl Park. Springfield Township near the Grove City Outlets has also been working to add multi-use pedestrian facilities crossing SR 0208 between hotels and the Grove City Outlets which are a regional tourist destination.

Some boroughs and cities in Mercer County have well-developed sidewalk networks, but the majority of suburban and rural communities currently lack sidewalks, trails, and sidepaths. Studies and planning efforts have been completed in recent years as residents and municipal leaders express interest in walking and cycling for transportation, recreation, and tourism.

Some of the challenges associated with programming bicycle and pedestrian projects includes local municipal engagement and an organized volunteer group who sponsors each trail system. Some municipal leaders are unwilling to accept maintenance agreements and liability exposure for building additional sidewalks and trails.

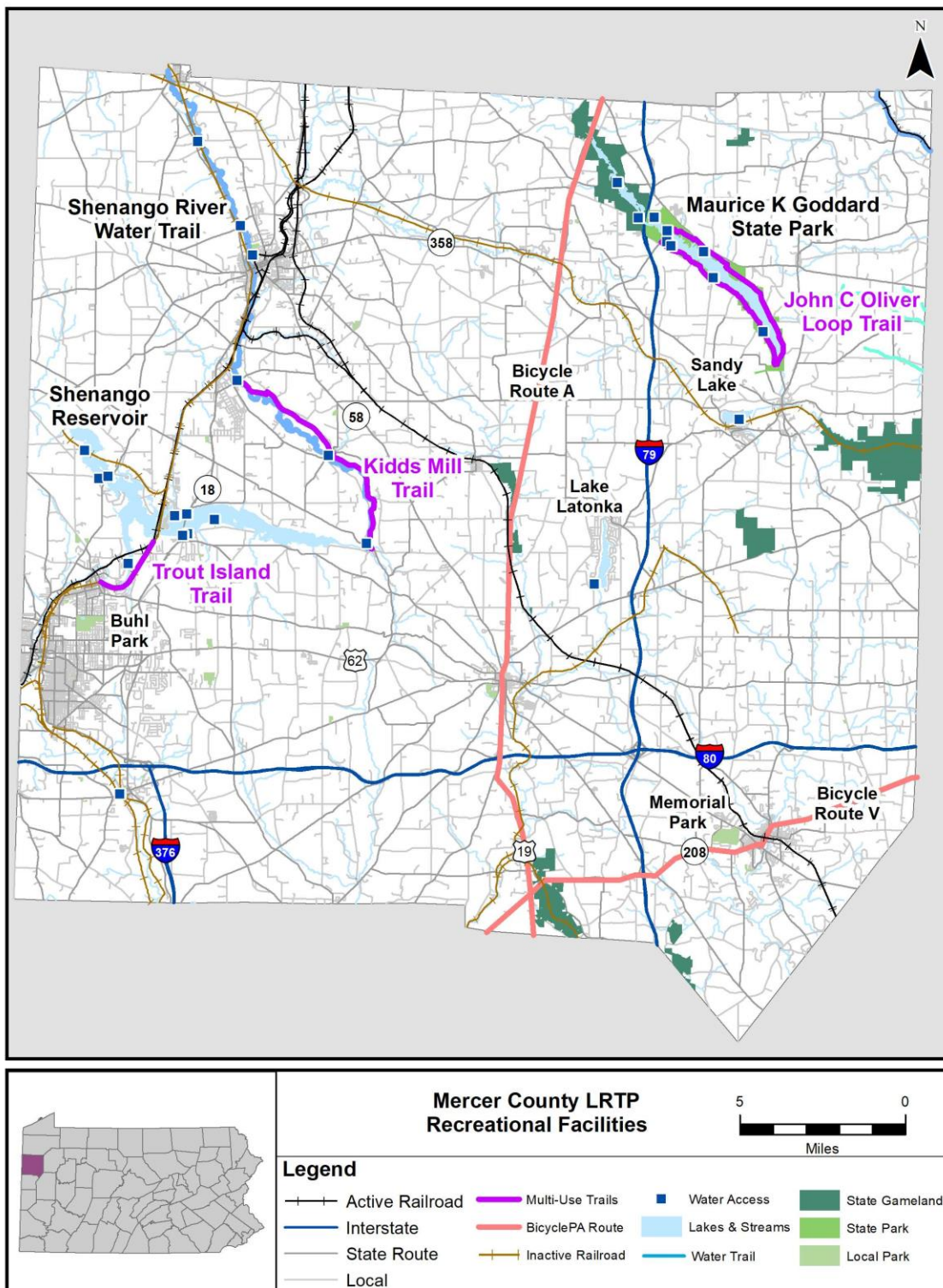


Sharpsville Avenue Bicycle Lane



Grove City Premium Outlets

Exhibit 43 – Bicycle and Pedestrian Trail Facilities



Freight

Historically, Mercer County has been a manufacturing hub. While the steel industry has generally declined in the greater region, there are still active manufacturing facilities such as Joy Cone, Werner Ladder, NMLK Steel, and industrial parks located throughout the county in the Sharon flats, Greenville-Reynolds business park, Wheatland industrial area, Cooper's Commons, and other locations. Leaders for these commercial and industrial business parks have been focused on attracting new development to the area.

At the time of the development of this LRTP, [PennDOT's draft Freight Movement Plan](#) was under public comment period. The SVATS MPO freight profile includes statistics about freight-related employment (**EXHIBIT 44**). Health care and social assistance, manufacturing, and retail trade dominate the freight-related industries in the county. The plan also includes statistics about the commodities moved in and out of the county (**EXHIBIT 45**). Primary iron and steel products were the top commodities moved both inbound and outbound.

PennDOT's [2016 Comprehensive Freight Movement Plan](#) (CFMP) includes an appendix breaking down the freight data according to Partnerships for Regional Economic Performance (PREP) regions. Mercer County is included in the Northwest PREP region. Based on future projections in the report, total freight tonnages and values are expected to almost double statewide and in each PREP region through 2040. In 2040, the report projects that the Northwest region will move 102,669,947 tons (\$110,977,000) in freight into, out of, and within the region.

Exhibit 44 – Employment by Freight Related Industry

Industry	Percentage
Manufacturing	17%
Retail Trade	14%
Transportation and Warehousing	4%
Construction	4%
Wholesale Trade	3%
Healthcare and Social Assistance	21%
Accommodation and Food Services	9%
Mining, Quarrying, Oil and Gas Extraction	0%

SOURCE: 2021 PENNDOT FREIGHT MOVEMENT PLAN (DRAFT)

Exhibit 45 – Inbound and Outbound Commodities (2020)

Inbound	Tons (1000s)	Inbound	Tons (1000s)
Primary iron or steel products	1,451,709.2	Primary iron or steel products	1,701,146.5
Warehouse & distribution center	477,889.6	Processed milk	459,483.4
Dairy products	455,328.6	Gravel or sand	459,443.5
Petroleum refining products	440,340.7	Grain	294,967.1
Gravel or sand	273,128.7	Warehouse & distribution center	269,604.3
Broken stone or riprap	217,950.8	Metal scrap or tailings	211,265.9
Processed milk	106,550.2	Lumber or dimension stock	159,249.5
Primary forest materials	93,706.7	Miscellaneous field crops	129,709.7
Plastic matter or synthetic fibers	82,177.9	Dairy products	99,043.0
Concrete products	73,195.7	Primary lead smelter products	75,222.4

SOURCE: 2021 PENNDOT FREIGHT MOVEMENT PLAN (DRAFT)

Freight Network

The main areas of industrial activity are clustered around the interstates and NHS routes. The NHS in Mercer County was reassessed in 2020. The 2021 Moving Ahead for Progress (MAP-21) federal legislation automatically upgraded any roadway with a functional classification of Primary Arterial or higher to the NHS; as such, some roadways were put onto the network that should not have been eligible and others were not included simply due to their functional classification. FHWA and State DOTs have been working to review and upgrade the NHS designations as appropriate. The Mercer County NHS changes were approved in 2021 which expanded the US 62 NHS designation to I-79 based on its regional proximity to other state routes. This is reflected on the freight map.

The majority of freight in Mercer County is transported by truck, though many cities and boroughs are still tied directly into the railroad system, as most of the settlement in the county developed around significant rail access and rail support industries. The cities of Sharon and Farrell have a major rail yard and industrial corridor surrounding the railroad tracks; other notable rail connections are in Greenville and Grove City, Reynolds Industrial Park, and Wheatland Borough. Canadian National / Bessemer & Lake Erie Railroad and Norfolk Southern have active rail lines in Mercer County. Proximity to rail infrastructure, interstate access, and intermodal facilities broadens the county's access to regional and national markets.

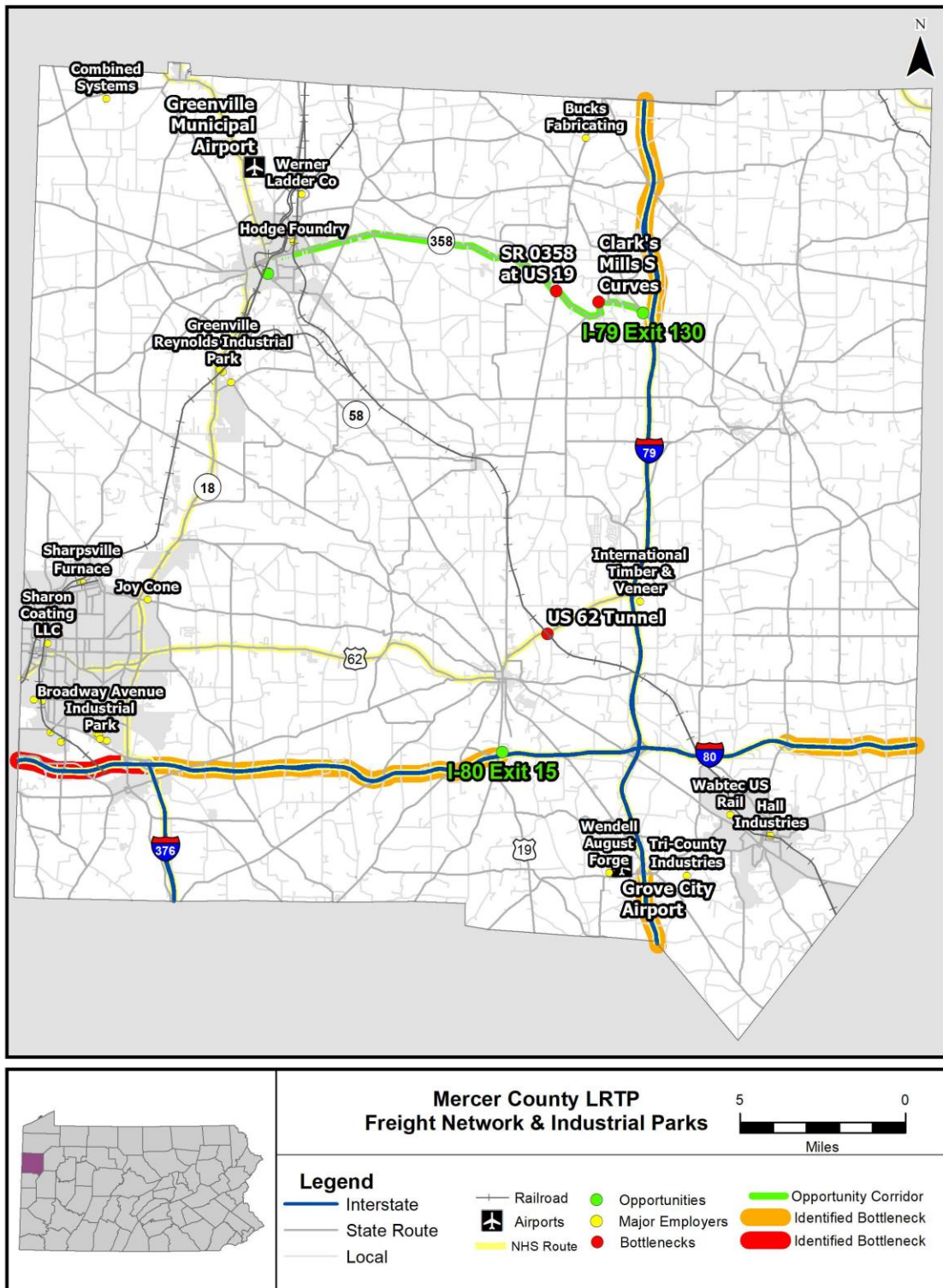
Trucking is largely dependent on the interstate system with more outbound than inbound truck traffic. This is already evident by the amount of truck traffic on I-80 through Mercer County, where trucks comprise nearly 50% of total traffic. Future impacts of interstate dependence include growing congestion, needs for transloading and intermodal facilities, and increased demand for warehousing. With respect to future freight projections, FHWA predicts growth in VMT by single-unit trucks at an average of 2.3% per year to 2049. FHWA attributes this increase to continued growth in construction activity, distribution and delivery of consumer goods, and other economic activities that depend heavily on local trucking. VMT by combination trucks is also expected to increase by 1.6% annually over the forecast period, reflecting the outlook for sustained growth in shipping-intensive sectors of the economy such as U.S. goods manufacturing and international trade. This growth is likely to be seen most intensively on interstates such as I-80 and I-79 in Mercer County.

Freight Bottlenecks

[PennDOT's OneMap](#) platform provides data about a range of transportation and infrastructure in Pennsylvania, including Truck Bottleneck Rankings. 2019 OneMap data shows the most severe bottleneck is near the Pennsylvania/Ohio state line on I-80. Other bottlenecks exist on I-80 between I-376 and I-79 and from SR 0173 to the Mercer and Venango county lines. The Sharon and Hermitage areas are home to many of the larger manufacturing facilities, and it is to be expected that trucks traveling to and from those areas would use the western portion of I-80. Bottlenecks are also found on I-79 where it crosses both the northern and southern borders of Mercer County.

During the stakeholder interviews, freight and business development stakeholders discussed the current trends in Mercer County regarding freight movement, warehousing, employment, growth opportunities for new industries, and large vehicle safety. They also identified locations throughout the county that create safety concerns and 'pinch points' for freight movements and other economic activity along SR 0358, and potential sites for development such as I-79 Exit 130, I-80 Exit 15, and Cooper's Commons in Grove City. These are shown in **EXHIBIT 46**.

Exhibit 46 – Mercer County Freight Network



Aviation Facilities

Aviation facilities are a component of the overall transportation system in Mercer County. There are two public use airports in Mercer County, one in Greenville (FAA Identifier: 4G1, **EXHIBIT 49**) and one in Grove City (FAA Identifier: 29D, **EXHIBIT 50**). The Greenville airport is located approximately 3 miles north of Greenville along SR 0058. The Grove City airport is located approximately 0.5 miles west of I-79 along SR 0208 by the Grove City Outlets. The regional tourist destination SkyDive PA also operates from this airport. According to the FAA Traffic Flow System Management Counts system, Grove City airport operations have been growing consistently over the past 5 years, almost doubling their annual operations in 2020 from 2016 (**EXHIBIT 47**). Greenville had between 34 and 102 operations annually in the same period.

There are private airports, recreational aviation facilities, and medical heliports that are not available to the general public scattered throughout the county. International, domestic, and local airports within 90 minutes of Mercer County are reported in **EXHIBIT 48**. Planned investments for both airports are included in Appendix D.

Exhibit 47 – Grove City Operations by Year

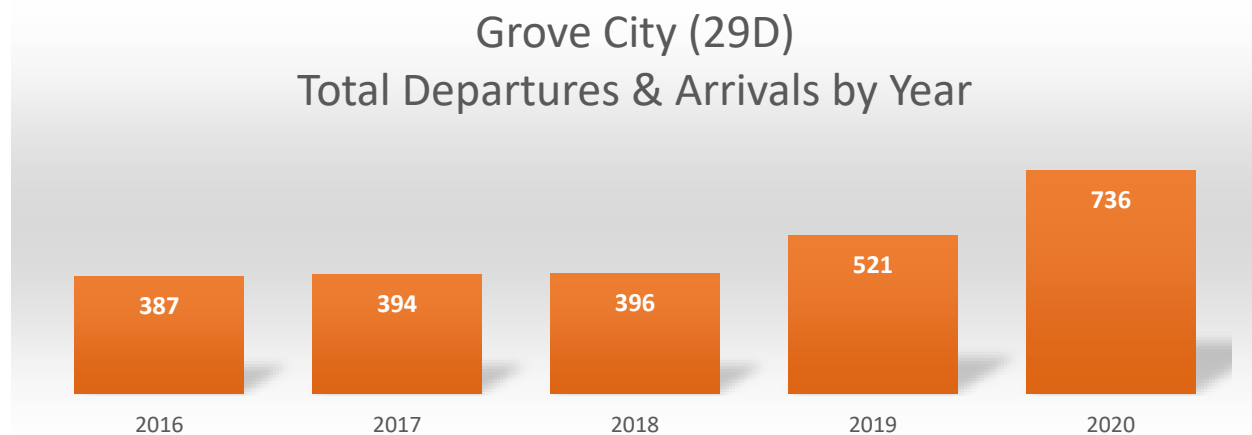


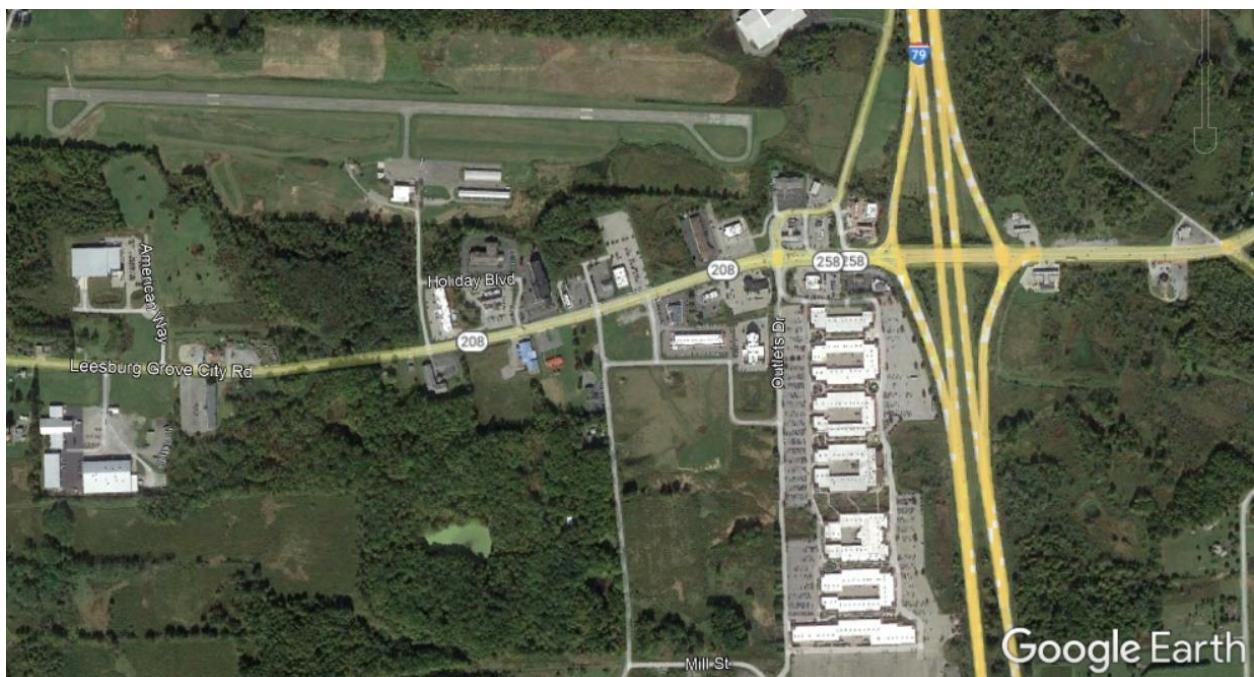
Exhibit 48 – Airports in Proximity to Mercer County

Type	Distance (miles)	Airport Code	Airport Location	Airport Name
International	60	PIT	Pittsburgh, PA	Pittsburgh International Airport
	70	ERI	Erie, PA	Erie International Airport
	100	CLE	Cleveland, OH	Cleveland Hopkins International Airport
Domestic	31	FKL	Franklin, PA	Venango Regional Airport
	37	YNG	Vienna, OH	Youngstown-Warren Regional Airport
	79	LBE	Latrobe, PA	Arnold Palmer Regional Airport
	80	DUJ	Reynoldsville, PA	DuBois Regional Airport
	84	CAK	North Canton, OH	Akron-Canton Regional Airport
	115	JHW	Jamestown, NY	Chautauqua County-Jamestown Airport
	118	BFD	Lewis Run, PA	Bradford Regional Airport
Local	46	BTP	Butler, PA	Butler County Airport
	47	BFP	Beaver Falls, PA	Beaver Falls County Airport
	56	JFN	Jefferson, OH	Northeast Ohio Regional Airport

Exhibit 49 – Greenville Airport Satellite View



Exhibit 50 – Grove City Airport Satellite View



Performance Measurement

Federal performance management and performance-based planning is a critical endeavor from PennDOT and FHWA. Performance measurement is required by the FAST Act (40 CFR 490). The FHWA final rule for performance measures became effective in June 2016. This rule established the statewide and metropolitan transportation process to support these performance measures.

To support the performance management process, data about the condition, deterioration rates, and others are used as tools to identify the status of the current system and then plan for the future, taking action to address issues before they become more costly. There are many sources of data for performance measurement, including the three performance measures (PM) that the MPOs report to FHWA each year: Safety (PM-1), Pavement and Bridge Condition (PM-2), and System Performance (PM-3). FTA also requires Transit Asset Management (TAM) and a transit safety plan and review to be completed.

PM-1 Safety

Safety has been identified as the top priority locally across all modes. SVATS MPO's current safety performance is described in **EXHIBIT 51**. The MPO adopted PennDOT's statewide targets. Currently there are no penalties for missing these targets. The spirit of performance-based planning is to track activities, reflect on those activities, and make changes if needed to increase system performance.

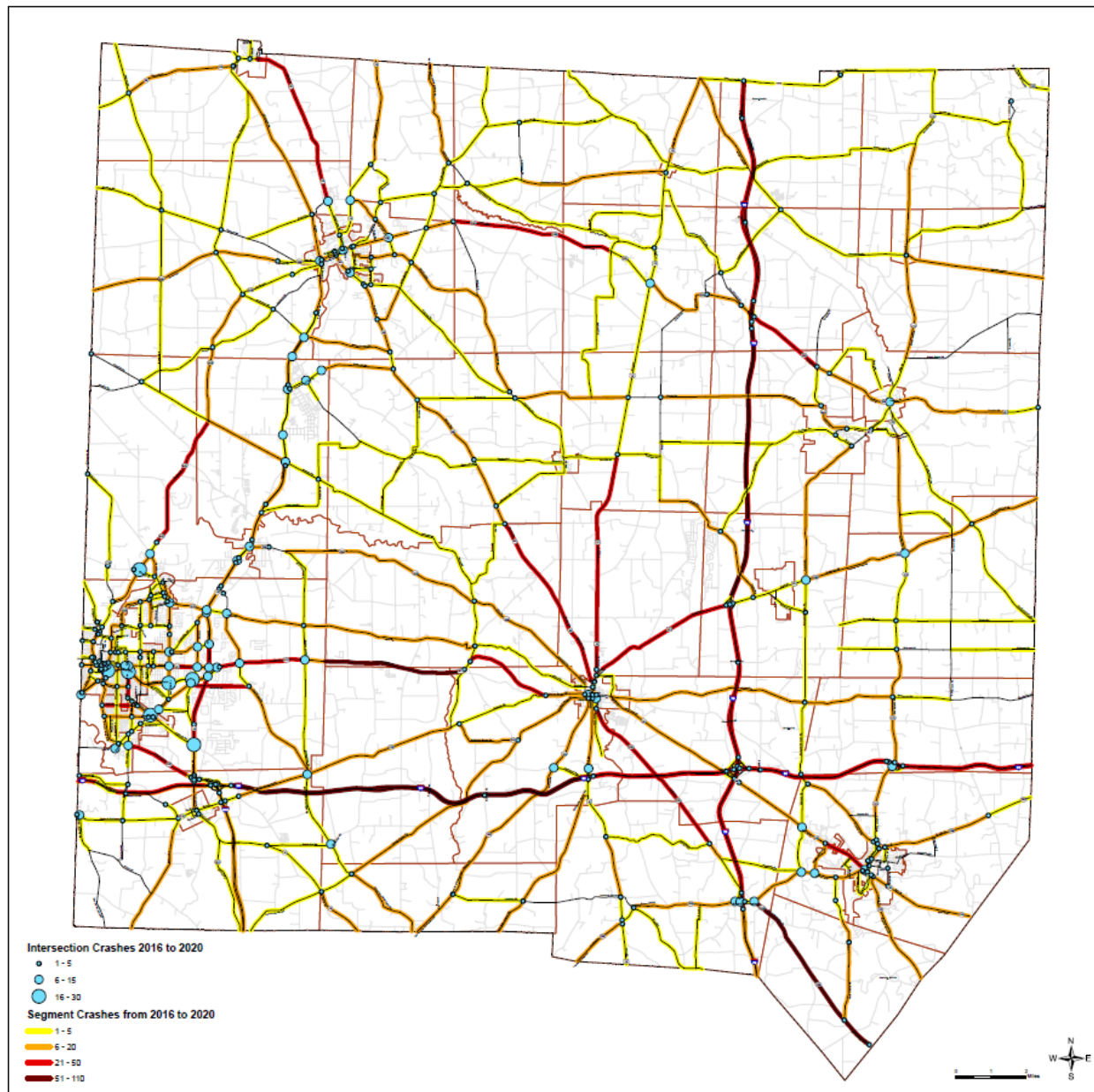
Exhibit 51 – Safety Performance Mercer County

Safety Performance Measure	Statewide Baseline (2014-2018)	Statewide Target (2016-2020)	SVATS MPO Baseline (2014-2018)	SVATS MPO Target (2016-2020)
Number of fatalities	1,182.00	1,171.90	12.8	12.1
Rate of fatalities per 100 million VMT	1.169	1.148	1.095	0.993
Number of serious injuries	3,839.60	4,400.30	51.2	50.5
Rate of serious injuries per 100 million VMT	3.797	4.309	4.379	4.144
Number of non-motorized fatalities and serious injuries	679	781.7	6	5.8

SVATS MPO is aware of the statewide safety improvement targets and will continue to monitor, assess, identify, and prioritize improvements to move further toward a safer transportation system. Thirteen of the 29 projects included on the fiscally constrained highway project list are focused on improving safety on intersections and along corridors. Most recent studies completed (US 62 in 2019, SR 0058 in 2019, I-80 in 2020), ongoing (US 19 at SR 0208 in 2021) and planned (SR 0358) in Mercer County relate to corridor safety improvements. Aside from the highway project listing, the betterment maps identified for bicycle and pedestrian infrastructure, roadway shoulder widening and guide rail upgrades, and low-cost safety improvements will be critical to maintaining and improving safety.

The PennDOT District 1 Safety Manager closely tracks the crash history in Mercer County. **EXHIBIT 52** shows a compilation of the previous five years of crash data (2016-2020). PennDOT has begun using quantitative crash analysis methods to predict the number of expected crashes and then compare that number to actual observed crashes. From this, an “excess cost” is calculated and assigned to each roadway segment and intersection. The “excess cost” data was used in project prioritization. This serves to identify intersections that could be eligible for Highway Safety Improvement Program (HSIP) funding. A safety line item is included in the programming beyond the initial period to account for projects at these locations, and appropriate improvements may be included during routine maintenance, and are shown on safety betterment maps.

Exhibit 52 – Crash History Map



PM-2 Pavement & Bridge Condition

Pavement

A key index of roadway quality is the International Roughness Index (IRI); the index is an annual inventory of pavement quality conducted by PennDOT using specialized equipment that quantifies pavement smoothness. IRI is an expression of the ride quality of the roadway as experienced by vehicle passengers. When it comes to pavement quality, a lower IRI is better. Overall Pavement Index (OPI) is the metric used to measure the overall pavement structure.

PennDOT District 1-0 and Mercer County take pride in their innovative approaches to maintaining their extensive system of roadways and bridges, from pioneering the Recycled Asphalt Pavement process to maintain pavement surfaces on state highways, to its precast bridge program that facilitates rapid bridge replacement. District 1-0 has historically been ranked #1 in the state in pavement quality (IRI) and highly ranked for the lowest number of state-owned poor bridges. **EXHIBIT 53** shows the current interstate system performance and **EXHIBIT 54** shows the non-interstate NHS system performance in Mercer County. FHWA tracks this measure only for Interstate and non-interstate NHS routes.

Exhibit 53 – Mercer County Interstate System Performance

Interstate Routes				
Measure	2017 Baseline	2019 2-Year Target	2021 4-Year Target	2020 Actual
% in Good Condition	67.2%	N/A	60%	95.56%
% in Poor Condition	0.4%	N/A	2%	0%

Exhibit 54 – Mercer County Non-Interstate NHS System Performance


NHS Non-Interstate Routes				
Measure	2017 Baseline	2019 2-Year Target	2021 4-Year Target	2020 Actual
% in Good Condition	36.8%	0.35	33%	53.67%
% in Poor Condition	2.3%	0.04	5%	1.00%

Asset management refers to maintaining the condition of the existing infrastructure. Many tools exist to help PennDOT plan for deterioration of its assets. The Pavement Asset Management System (PAMS) is a tool that takes into account the existing condition and materials of the roadway structure including roadway condition measurements such as IRI and OPI, age, deterioration rates, budget scenarios, and possible treatments. PAMS runs a simulation calculating overall risk and the lowest life cycle cost (LLCC) treatment. 5

This approach to LLCC is a shift from the “worst first” programming methodology, which prioritizes work on the poorest condition assets at the expense of rehabilitation and preventative maintenance on other assets in better condition. PAMS recommends the timing of each treatment. Treatments range from crack sealing and coating, to patching, to mill and overlay, to full depth reconstruction. If a recommended treatment is missed



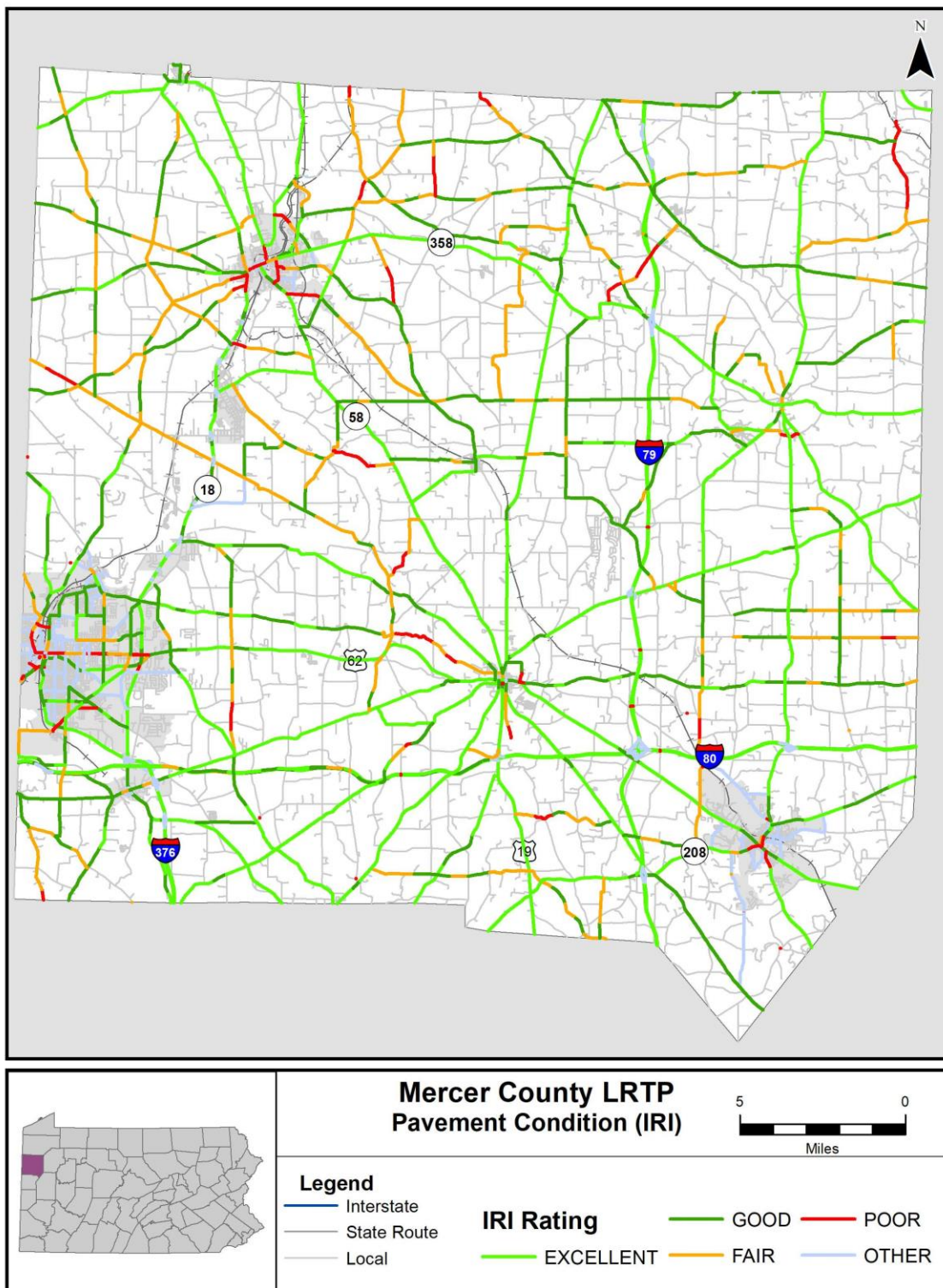
Freshly Repaved Roadway



in the timeframe window that it is suggested, other more costly treatments may be warranted in later years. Therefore it is important to stay as closely on the recommended maintenance schedule as possible when programming roadway rehabilitations. PAMS outputs may change according to data inputs and budget constraints, so these tools should serve as guidance and be regularly monitored and communicated between PAMS administrators, PennDOT Districts, MPOs, and others with maintenance responsibilities. A list of planned Highway and Bridge asset management projects prioritized by PennDOT is included in Appendix D.

Mercer County's current system IRI is shown in **EXHIBIT 55**. Pavement condition was the #2 priority for the public in Mercer County, with local road pavement condition being identified as #1 in need of improvements, more than US and State Routes. Local federal aid roads have great potential for improvement. Coordination with local municipalities and systemwide data collection on local road IRI is critical for diagnosis.

Exhibit 55 – Pavement Condition (IRI)



Bridge

There are a total of 591 bridges in Mercer County; 424 are state-owned and 167 are locally-owned. Of the locally-owned bridges over 20' span, Mercer County owns 151 bridges and shares ownership of 4 bridges with municipalities and neighboring counties; 12 bridges are solely owned by municipalities. Mercer County owns the majority of the local bridges. While this can add complexity to coordination, it is a net benefit due to its centrally managed and consistent bridge programming. Bridges are inspected regularly and rated from Good to Fair to Poor. It should be noted that bridge condition ratings have changed nomenclature from the prior LRTP where functionally obsolete (FO) and structurally deficient (SD) bridges are simply described as “poor or worse” condition. The July 2021 condition ratings for the state-owned bridges show that 36% are good, 58% are fair, and 5% are poor condition. Of the local bridges, 35% are good, 35% are fair, and 31% are poor. It should be noted that “Poor” condition bridges are not an indication of unsafe conditions; poor can be assigned to a bridge that does not meet current design standards. Many locally-owned bridges are reaching their expected design life and the County is pursuing additional funding sources to address these bridges. **EXHIBIT 56** shows the performance of the NHS system bridges in the county, which are part of federal performance measures. **EXHIBIT 57** shows the current bridge conditions across the county.

Exhibit 56 – Mercer County Bridge System Performance

Bridge Measures (NHS)				
Measure	2017 Baseline	2019 2-Year Target	2021 2-Year Target	2020 Actual
% in Good Condition	25.6%	25.8%	26%	26.51%
% in Poor Condition	5.5%	6%	2.25%	0%

The Bridge Asset Management System (BAMS) is a tool that PennDOT uses to take into account bridge ownership and maintenance responsibilities, bridge funding and budget expectations, structure types and materials, age, and deterioration rates. BAMS runs a simulation calculating overall risk and the lowest life cycle cost (LLCC) treatments. This approach to LLCC is a shift from the “worst first” programming methodology, which prioritizes work on the poorest condition assets at the expense of rehabilitation and preventative maintenance on other assets in better condition.

BAMS recommends the timing of each treatment. Treatments range from low-cost efforts such as bituminous overlays, epoxy coating, and painting, to component replacement such as the deck, substructure rehabilitation, and superstructure replacement or rehabilitation, all the way up to full bridge replacement. The BAMS tool was run to a 2045 horizon year using the LLCC treatments for state-owned bridges. This information was incorporated into the LRTP infrastructure condition prioritization criteria. BAMS outlines how many times work should be done within the LRTP horizon, and the type of work. BAMS outputs may change according to data inputs and budget constraints, so these tools should serve as guidance and be regularly monitored and communicated between BAMS administrators, PennDOT Districts, and MPOs. Interviews were held with the PennDOT District 1-0 Bridge Engineer and Mercer County Bridge Engineer to identify bridge priorities for the transportation system. A list of planned local and PennDOT bridge projects is included in Appendix D.

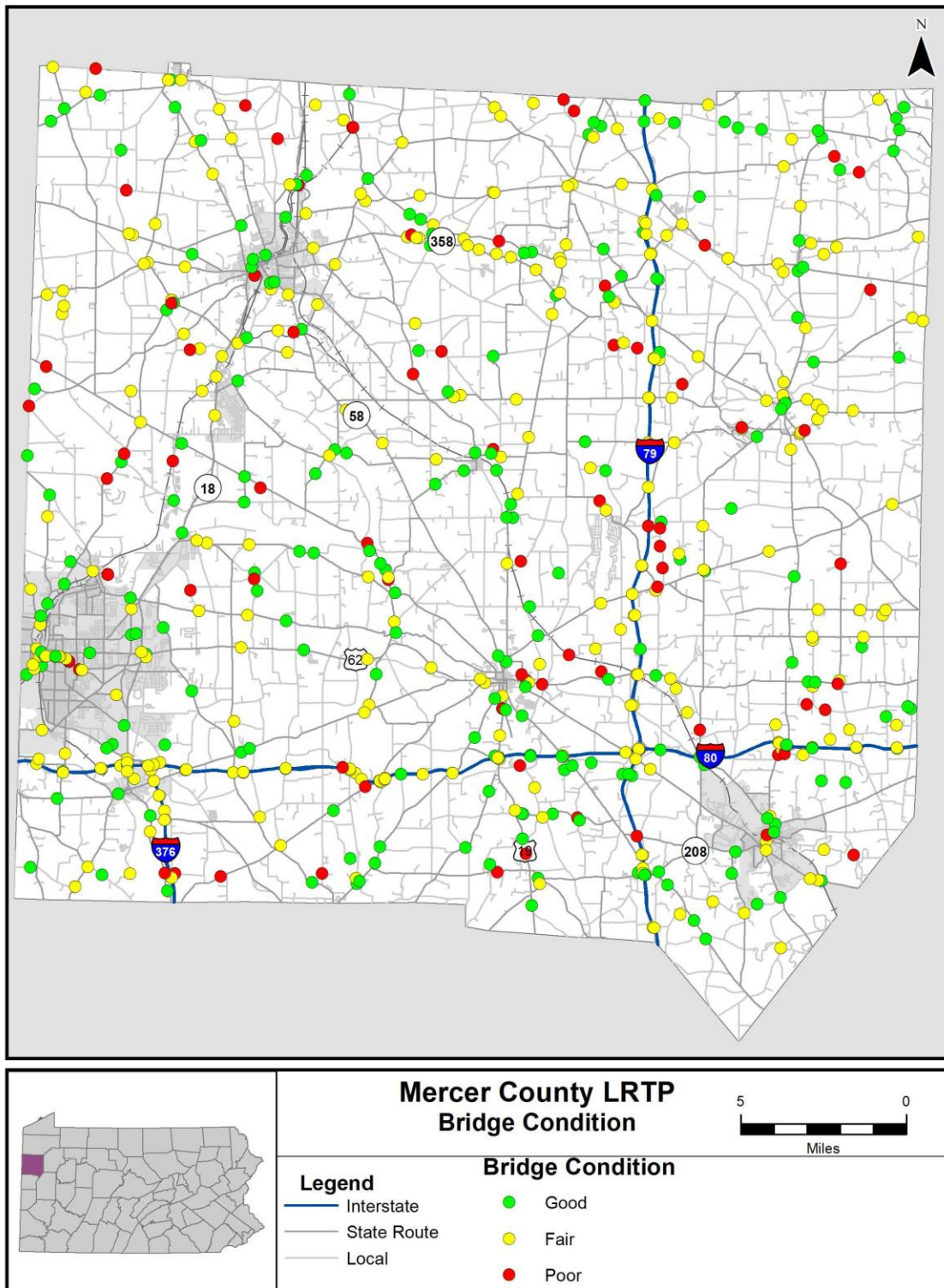


Ohi Street Bridge in Greenville



Bridge Deck Deterioration

Exhibit 57 – Bridge Condition Map



PM-3 System Performance

The PM-3 System Performance measures are a reliability index that is a measure of travel time reliability on interstates and non-interstate NHS routes (**EXHIBIT 58**). PM-3 also typically covers air quality but is not applicable to Mercer County as it is in attainment. The travel time reliability statistics are complex and are derived from and calculated by FHWA's National Performance Management Research Data Set (NPMRDS). Three measurements are used to define system performance—two measurements for overall person travel (Interstate and Non-Interstate NHS) and the third is specific to Interstate truck travel, as follows:

- Percentage of person-miles traveled on the Interstate System that are reliable
- Percentage of person-miles traveled on the non-Interstate NHS that are reliable

Both of these reliability measures reference, “Level of Travel Time Reliability”, which is a ratio between a more congested travel time (80th percentile) and a normal travel time (50th percentile). The measure gives the percentage of person-mile travelled on the Interstate or NHS system that is considered reliable. The statistic only considers daytime travel between 6:00 AM and 8:00 PM.

- Truck Travel Time Reliability (TTTR) Index – Interstate System only


The truck measure references the “Truck Travel Time Reliability Index”. The measure compares congested travel time (95th percentile) to normal travel time (50th percentile) on a roadway segment across various times of the day. Then, the TTTR Index is generated by multiplying each segment's largest ratio of the five periods by its length, then dividing the sum of all length-weighted segments by the total length of Interstate.

Mercer County has adopted the PennDOT statewide targets, which call for maintaining the baseline through the 2-Year and 4-Year windows. States are permitted to adjust their 4-Year targets at the 2-Year point.

Supplementary to this performance measure, Mercer County prepares the Congestion Management Process (CMP) plan which was last updated in 2018. The CMP incorporates data from RITIS and other sources to examine the worst corridors for travel time reliability and congestion. That being said, Mercer County is generally less congested compared to other counties and the decreasing population and traffic volumes are helping ease congestion. Signal upgrades and transit ridership also help to reduce congestion. The CMP data was referenced in the project prioritization process to help move forward projects that further decrease congestion. Many LRTP Highway projects are on corridors monitored by the CMP (**EXHIBIT 59**).

Exhibit 58 – System Reliability Performance

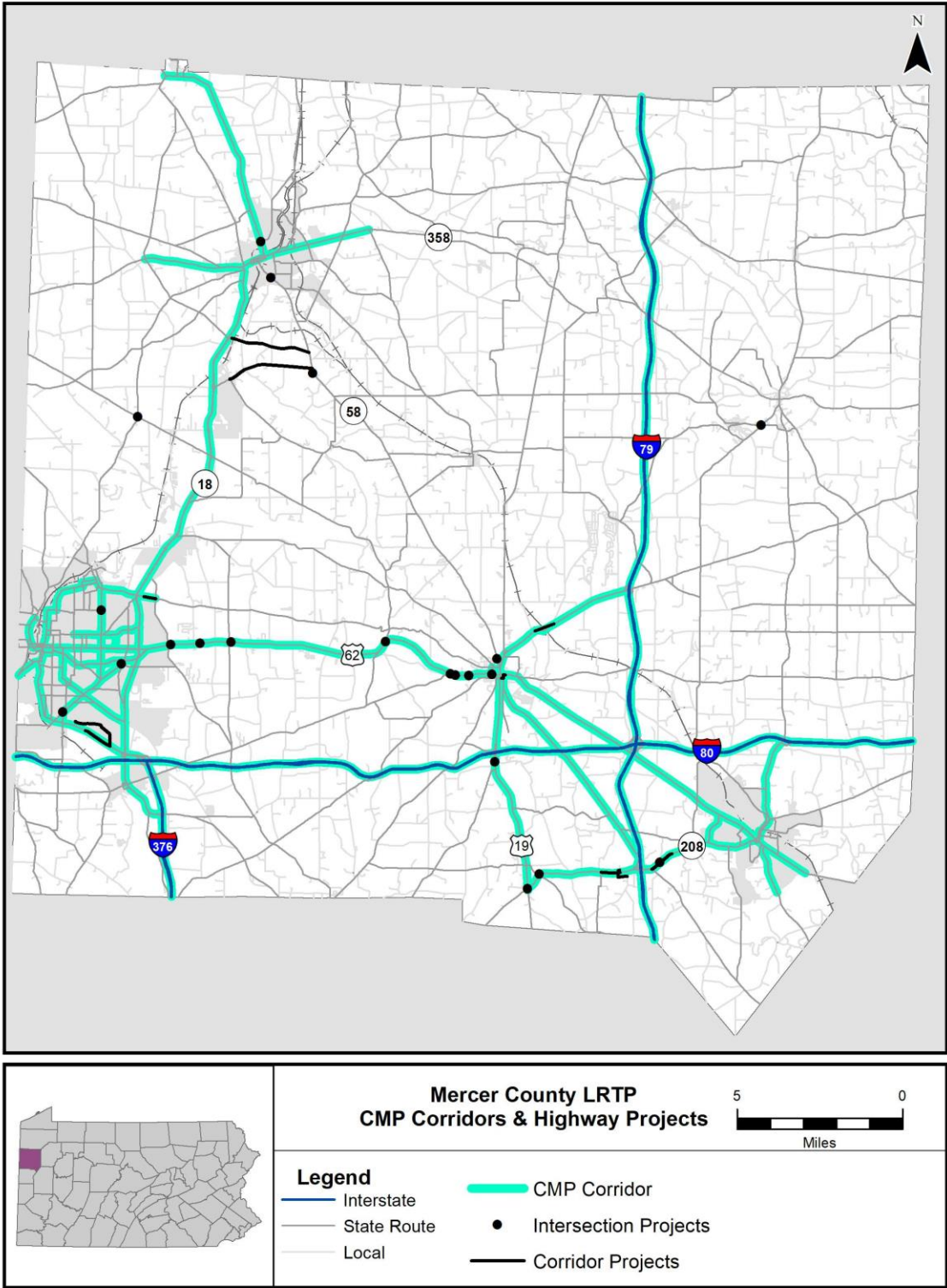
Travel Time Targets				
Measure	2017 Baseline	2019 2-Year Target	2021 4-Year Target	2021 New Target
Interstate Reliability	89.8%	89.8%	89.8%	89.5%
Non-Interstate NHS Reliability	87.4%	N/A	87%	-
Truck Reliability Index	1.34	1.34	1.34	1.40



In addition to the federal reporting requirements for interstate and non-interstate NHS, Mercer County regularly tracks the performance of various state and local roads with its Congestion Management Process. The latest CMP was updated in 2018. The CMP looks at data to identify the worst corridors by congestion and reliability. Data collection procedures in support of the CMP have evolved – historically, the CMP was examined through an intensive series of data collection processes such as GPS-enabled floating car travel time runs. In recent years, big data sources such as INRIX, RITIS, and Streetlight offer historical travel time information with a high level of geographical and temporal detail. This means that more roadways can be examined as part of the process without significantly increasing the data collection efforts. The CMP includes the three interstates, major US routes such as US 19 and US 62 and many 3-digit arterial state routes, and some local federal aid routes such as Kerrwood Drive and George Junior Road.

The CMP informs the LRTP by influencing project prioritization. Projects that include congestion improvements on corridors with documented poor congestion and reliability as reported by the CMP score higher than those that are on adequate corridors. A map showing the LRTP Highway projects overlaying the CMP corridors is shown in **EXHIBIT 59**. Many highway projects are on corridors that are monitored by the CMP. These projects along with the signal improvements listed on the signal betterment maps as recommended by the Mercer County Signal Inventory should improve travel time reliability and congestion throughout the county.

Exhibit 59 – LRTP Projects on CMP Corridors



TAM - Transit Asset Management

MCRCOG runs the fixed-route Shenango Valley Shuttle Service, which falls into the Tier II transit performance measures. They are required to report on their rolling stock, equipment, and facilities. The Tier II Transit Performance measures are in **EXHIBIT 60**. The transit TIP is included in Appendix D.

Transit safety is set forth in the Federal Transit Administration (FTA) Public Transportation Safety Program and National Public Transportation Safety Plan. MCRCOG administers the SVSS fixed-route transit and paratransit services. In 2020, MCRCOG developed their Agency Safety Plan (ASP). The ASP includes the Preventative Safety System Program (PSSP) which sets safety performance targets and outlines safety procedures for the organization. There are four main categories of safety measures, with seven targets under each. The main categories are fatalities, injuries, safety events, and system reliability. The safety targets were set in 2021 based on previous years of SVSS safety performance data. The targets were adopted by the SVATS MPO in August 2021 (**EXHIBIT 61**).

The PSSP and safety performance will be assessed annually in July by MCRCOG, where it can choose to set new targets, which the MPO may elect to adopt. MCRCOG will follow the PSSP by communicating regularly with staff, providing training, monitoring best practices, measuring performance, identifying and mitigating hazards, and establishing appropriate rules and regulations to achieve its targets. The PSSP outlines the roles and responsibilities of all staff within the agency to establish a culture of safety.

Exhibit 60 – Tier II Transit Performance Measurement

Transit Performance			
Performance Measure	Asset Class	Current Performance	FY 2020-2021 Target
Rolling Stock (Revenue Vehicles)			
Age - % of revenue vehicles within a particular asset class that have met or exceeded their Estimated Service Life (ESL)	AO - Automobile	15%	16%
	BR-Over-the-road Bus	--	12%
	BU - Bus	18%	29%
	CU - Cutaway	44%	42%
	VN - Van	62%	64%
	SV - Sports Utility Vehicle	75%	17%
Equipment (Non-Revenue Vehicles)			
Age - % of non-revenue/service vehicles within a particular asset class that have met or exceeded their ESL	Automobiles	39%	46%
	Other Rubber Tire Vehicles	100%	50%
Facilities			
Condition - % of facilities with a condition rating below 3.0 on the FTA TERM scale	Administrative / Maintenance Facilities	26%	30%
	Passenger / Parking Facilities	20%	83%

Exhibit 61 – Transit Safety Performance Measures

Area	Fatalities		Injuries		Safety Events		System Reliability
	Total	Rate	Total	Rate	Total	Rate	
Mode	Events	per vehicle revenue mile	Events	per vehicle revenue mile	Events	per vehicle revenue mile	Miles between Major Mechanical Failures
Fixed Route	0	0 per 100,000	1	1 per 100,000	1	1 per 10,000	9,800
Paratransit	0	0 per 100,000	1	1 per 100,000	1	1 per 10,000	60,000

Local Performance Measurement

In 2016, the Mercer LRTP introduced a report card for self-assessment on a voluntary basis. The report card categories are tied directly to the goals and objectives established locally and are intended to be used by the MPO to drill down further than the state and federal performance measures to assess how recent projects have helped the county achieve its goals. **EXHIBIT 62** summarizes the result of this assessment.

In most categories, the MPO has met or exceeded its goals. As this was a voluntary self-assessment, there are no penalties for not meeting a target. The locations that did not meet the targets are being monitored. This helps to identify locations where further coordination needs to happen. Key findings are as follows:

- As a result of this assessment, further coordination with the safety unit at PennDOT District 1 was conducted regarding the specific locations of crash assessments that showed a slight increase in the near-term. It is believed that driver behavior patterns are the cause of the increase in crashes, but more years of crash data need to be collected to evaluate outliers in crash patterns.
- Pavement quality is slightly down since 2016 in general but is still in overall good condition. PennDOT is moving towards a LLCC structure. This means in some years the IRI may drop, but it is the best investment strategy for pavement performance.
- The intergovernmental training on stormwater maintenance has been coordinated on an ongoing basis with interested municipalities rather than an annual training.
- PennDOT has replaced the Linking Planning to NEPA (LPN) forms with the PennDOT Connects form which must be completed for every project.

Overall, the MPO and PennDOT worked together to score well on this voluntary report card. The MPO also has the opportunity to review and assess its own targets for the next five years and choose to be more or less aspirational. The revised report card is included in Appendix B.

Exhibit 62 – LRTP Report Card Assessment

SVATS MPO LRTP Report Card - Monitoring Performance		Current (2017-2021)	
		Goal	Actual
Quality of Life			
Safety and Security	Number of HSIP-funding applications or safety improvement projects implemented, number of Roadway Safety Audits	5	13
	Total crash rate, fatality, or serious injury accidents reduced where enhancements were made	Yes	Progress
Improve Mode Choice and Inter-Governmental Cooperation	Number of roadway betterment and new construction projects that include sidewalks and bicycle amenities	5	8
Access to Natural Resources, Improving Mode Choice, Recreational Opportunities, and Vibrant Spaces	Number of TA, STU, and Multimodal Transportation Fund application that directly impact mode choice, recreational opportunities, and revitalization	5	22
Environmental Stewardship	Percent of Planning projects with Linking Planning to NEPA (LPN) forms completed	-	PennDOT Connects Completed
	Number of projects with coordination between multiple agencies (MCRPC, PFBC, PHMC, DEP, DCNR, etc.)	5	All

Exhibit 62 – LRTP Report Card Assessment (Continued)

SVATS MPO LRTP Report Card - Monitoring Performance		Current (2017-2021)	
		Goal	Actual
Economic Vitality			
Travel Time Reliability and Access to Local, Regional, and National Markets	Congestion Management Process plan to monitor travel time along congested roadways to maintain/improve travel time reliability and congestion, updated quadrennially	1x	1
Improving Mode Choice to Regional Travel	Plan developed and projects implemented to improve non-automobile access to intercity travel options (i.e., Coordinated Services Plan, re-establishment of intercity bus stop)	Yes	Yes
Access to local, regional, and national markets	Number of plans or projects related to freight movement completed	2	2
Improving Recreational Opportunities and Connecting Tourist Destinations	Prioritization scheme developed for regional land and water trail system	Yes	To Be Done
	Number of recreational trail funding applications	2	20 MTF applications 2 TA awarded

Exhibit 62 – LRTP Report Card Assessment (Continued)

SVATS MPO LRTP Report Card - Monitoring Performance		Current (2017-2021)	
		Goal	Actual
System Preservation and Enhancement			
Project Delivery and Intergovernmental Cooperation	Annual Stormwater Management and Highway Occupancy Permit (HOP) Training for municipal officials conducted	Yes	Support on Ongoing Basis
Pavement Quality	Percent of Systemwide Good or Excellent IRI Values Improving	Yes	No
Bridge Maintenance	Percent of Poor Bridges Improving	Yes	Yes
Project Delivery	Number of LRTP projects completed or programmed	5	8
Intergovernmental Cooperation	Number of issues addressed on the Maintenance / Quick Hit project listing	20	All

Transportation Plan

LRTP, TIP, and TYP

The Long Range Transportation Plan (LRTP), Transportation Improvement Plan (TIP), and Twelve Year Program (TYP) all work together. The LRTP is a 20+ year document, focusing on all modes of transportation, examining the how and the why of each project, and serving as the incubator for new project ideas. The TYP is a 12-year cycle document with a longer-term focus. The TIP is a three-year cycle document, focusing more on the funding and timing of specific project phases. The TIP contains asset management projects as well as capital projects. Mercer County's current TIP is the [SVATS MPO FFY 2021 TIP](#). The MPO develops the LRTP and PennDOT develops the TYP, and both contribute projects that will eventually be programmed onto the TIP and built.

Project Prioritization

Once the LRTP projects were grouped and categorized, the Highway projects were prioritized. In 2016, a comprehensive update of the project ranking framework was undertaken using the Decision Lens tool administered by PennDOT Central Office. Municipal and agency leaders participated in the development of the prioritization framework which was then accepted by the SVATS MPO Coordinating Committee. The Decision Lens model ranks each project based upon categories customized for the LRTP, including safety & security, infrastructure condition, economic vitality, accessibility & mobility, traffic congestion, feasibility, and environmental impacts.

For the 2021 LRTP Update, the overall category weightings were assumed to remain the same, but a number of subitems were enhanced to include new and more data-driven criteria such as incorporating the Excess Cost of crashes for the safety measure, using the Congestion Management Process (CMP) data for the congestion measure, referencing asset management data in the infrastructure condition measure, and including more specific poverty and minority population data for the Environmental Justice measure. Most highway projects retained similar rankings, although some were shifted as projects recommended by recent studies made their way into the listing. A highly ranked project may not be fully funded in the LRTP, because it is assumed to either be assisted by others such as the railroad or private developers, or to be submitted for a competitive funding source. Enhanced project prioritization criteria appear in Appendix C.

Funding Sources

PennDOT releases fiscal guidance annually. The guidance from June 2021 is summarized in **EXHIBIT 63**, highlighting the categories that are regularly available for all activities including the heightened asset management activities. **EXHIBIT 64** shows the percentages allotted to these categories that were assumed to be available for LRTP projects. As Mercer County is in attainment as of 2019, it is no longer receives Congestion Mitigation and Air Quality (CMAQ) funds as were shown in the 2016 LRTP. The funding categories are as follows, typically referred to by these acronyms:

- National Highway Performance Program (NHPP)
- Surface Transportation Program (STP)
- State Highway capital funds (581)
- State Bridge construction (185)
- Bridge Off-System Program (BOF)
- Highway Safety Improvement Program (HSIP)
- Transportation Alternatives (TA Set-Aside)
- Surface Transportation Program – Urbanized Areas (STU)



SR 0062 C.N. Railroad Tunnel

Discretionary funds—known in the past as “spike” funds—along with grant funds (Multimodal, Green Light Go, TIGER, BUILD/RAISE, etc.) are not included in the fiscal assumptions as they are competitive and unpredictable from year to year. Therefore, the project program in this LRTP assumes the worst-case funding scenario. As funding and project costs are clarified, the TIP will be reviewed regularly and amended by the MPO to allocate funding, keep projects moving, and add the next set of project priorities.

The asset condition requirements of the FAST Act are redirecting more money towards the Interstate Asset Management program, which shows decreased funding in the NHPP programs. More funding is needed to address infrastructure condition, while less money is made available for other capital or capacity-adding improvements. The MPO programs the entirety of the STU funds, and smaller portions of the NHPP, HSIP, STP funds for LRTP projects. To make the most use of resources, elements from LRTP projects should be considered for inclusion when asset management projects such as repaving and betterments are coming through. Identification here is the first step, further coordination between PennDOT and the MPO is necessary.

The TA Set-Aside is one dedicated source of funding for multimodal projects, coming in at about \$41,000 per year. Most bicycle and pedestrian projects must apply for supplemental and competitive funding sources and require engaged project sponsors to shepherd each project through the process.

Exhibit 63 – Yearly Funding by Source from 2026 Onward

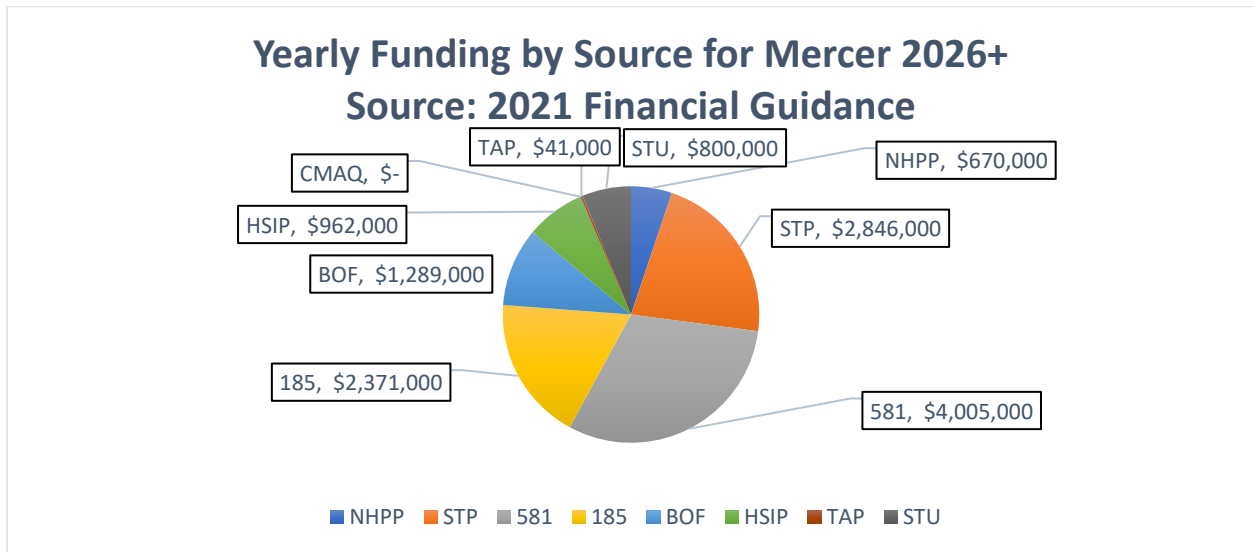


Exhibit 64 – Funding Category Assumptions Available for LRTP Projects

Year	NHPP (\$)	STP(\$)	581(\$)	185(\$)	BOF(\$)	HSIP(\$)	TA (\$)	STU(\$)
2023	61,400	230,000	0	0	1,289,000	865,800	41,000	800,000
2024	51,850	227,920	0	0	1,289,000	865,800	41,000	800,000
2025	42,700	227,840	0	0	1,289,000	865,800	41,000	800,000
2026	33,500	227,680	0	0	1,289,000	865,800	41,000	800,000
2027	201,000	1,366,080	0	0	7,734,000	5,194,800	246,000	4,800,000
2028								
2029								
2030								
2031								
2032	435,500	2,959,840	0	0	16,757,000	11,255,400	533,000	10,400,000
2033								
2034								
2035								
2036								
2037								
2038								
2039								
2040								
2041								
2042								
2043								
2044								
2045								

Fiscal Constraint

A fiscal constraint was applied using an assumption of yearly funds available to Mercer County over the life of the plan. Cost estimates were prepared for each highway project at a planning level using a percentage of construction cost set aside for Preliminary Engineering (P), Final Design (F), Right-of-Way (R), and Utilities (U). Preliminary engineering and final design were assumed at 7.5% of construction cost, with right-of-way and utilities at 5% each of construction cost. A contingency of 20% was added to the construction cost to account for unknown or unforeseen costs. All planning-level forecasts should be carefully reviewed before moving a project forward to account for new project area information and fluctuations in unit costs.

The programming assumes steady, or “flat” funding levels after 2026 according to the PennDOT’s fiscal guidance. The proportion of funding assumed available to program for LRTP projects was decided on through discussions with PennDOT District 1-0; note that availability of funds in certain years is subject to change due to many factors including federal infrastructure funding and unforeseen needs. Inflation in project costs is adjusted for the Year of Expenditure (YOE). Accounting for inflation over future years results in the decreased buying power of the dollars over the life of the plan since the funding remains consistent while construction costs increase with inflation. According to guidance from PennDOT’s Center for Program Development and Management, inflation was assumed to be 3% per year compounded over the life of the plan.

Programming Phases

The fiscal constraint groups projects into project-delivery phases in which they are likely to have a funding source: Current, Mid-Range, and Long Range. The “Current” phase represents the Transportation Improvement Program (TIP) which has dedicated funding for four-years from 2021 to 2024, plus two non-TIP years covering 2025 and 2026; the “Mid-Range” phase represents the remainder of the Twelve Year Program (TYP), which covers the years 2027 to 2033; the “Long Range” phase represents the remaining time between the end of the current TYP and the next TYP from 2034 to 2045, which extends beyond the minimum required 20-year planning horizon year of 2041 (**EXHIBIT 65**).

Exhibit 65 – Project Programming Phases

Phase	Years	Additional Information
Current	2021-2024 (Years 1-4) 2025-2026 (Years 5-6)	This phase is the current TIP + 2 years. Projects on this list are occurring at the present time, may have already occurred, or are planned to begin over the next few years. Some studies fall into this category to kick off a list of projects that could be included and resolved in the next LRTP update.
Mid-Range	2027-2033 (Years 7-12)	These are the higher priority projects that will ideally advance to the TIP within the next dozen years. Some projects in this phase are split-funded between this phase and the long range phase.
Long Range	2034-2045 (Years 13-25)	Projects in this phase are supported but will not likely occur within the next 12 years for a variety of reasons including funding, cost, and lower priority through Decision Lens ranking.

Environmental Agency Involvement and Mitigation

Historically the LRTP process has included an Agency Coordination Meeting. However, PennDOT's processes and policies around environmental agency engagement have changed. Agencies are now provided a forum earlier in the plan process rather than at the end. In this LRTP, agencies were interviewed at a stakeholder focus group meeting to gather input and identify areas of concern and opportunities for collaboration.

The MPO works with all agencies to avoid, minimize, and mitigate impacts from projects on the LRTP, TYP, and TIP. The PennDOT Connects process further facilitates the identification of potential impacts of projects early in the conceptual design process so that agencies can be contacted to review and comment on strategies to reduce negative impacts.

All projects are designed and coordinated to minimize and mitigate their environmental impacts. Wetland impacts are the most common form of mitigation requirements. Wetland banking for each watershed will be explored in the Shenango River watershed. The strategies discussed to mitigate potential environmental impacts from the LRTP involve early identification of potential impacts to the environment and communities, tracking threatened and endangered species, coordinating with agencies early on project locations, providing multimodal access, and implementing stormwater and erosion control measures throughout the county.

Threatened and endangered species impacts will be identified and mitigated as deemed appropriate by the Pennsylvania Fish and Boat Commission (PFBC) and Department of Conservation and Natural Resources (DCNR). The project sponsor will work with Pennsylvania Historical and Museum Commission (PHMC) to identify key cultural and historic resources, as well as archaeological sites, and implement advanced mitigation strategies as needed. Additional consideration will be given to decommissioned historical bridges for re-purposing to parks and bicycle and pedestrian trails.

Stormwater and erosion will be addressed by coordination with the County Conservation District, including maintaining erosion control on construction sites, maintaining the existing stormwater systems, providing ongoing support to municipalities and providing communication between involved agencies, and preserving open space in floodplains.

Multimodal connectivity will be improved to bring awareness of environmental issues to the public eye, to reduce vehicular emissions and noise, and to minimize the impact of climate change by meeting EPA emissions budgets through the travel demand forecasting and Air Quality Conformity Process.

There are no projects on the LRTP project listing that will likely be burdensome to low income or minority populations. The projects are generally positive in nature for these populations. A main need heard in the outreach was to enhance non-motorized travel and access for populations that do not have access to private vehicles. MCRCOG is planning to undertake a comprehensive route study.

Air Quality Conformity

The fiscally constrained project listing was analyzed by PennDOT's Interagency Consultation Group (ICG) for air quality impacts. The conformity determination process for the SVATS TIP and LRTP demonstrated that these planning documents meet the Clean Air Act and Transportation Conformity rule requirements for the 1997 ozone NAAQS. The air quality resolution for the SVATS MPO 2021-2024 TIP and 2021-2045 LRTP can be found in Appendix F.



Programming

Project Listing

To address all modes of transportation, the project team consulted with airport, district, and local bridge engineers, and transit officials to get their prioritized project listing to complete the list of projects for the LRTP. The LRTP list of projects were a result of stakeholder outreach such as Highway, Bicycle and Pedestrian Projects, Betterments, Studies, local projects, and policies (**EXHIBIT 66**).

PennDOT's Bureau of Aviation (BOA) compiled and updated the project listing for Mercer County's two airports. The BOA develops their own long term planning document which contains a list of projects for eight years into the future. District 1-0's Bridge Engineer and the Mercer County Bridge Engineer provided the MPO with their prioritized bridge lists based on bridge conditions and deficiency ratings and provided costs for upgrades. The MRCOG oversees the transit operations within the county. MRCOG staff was asked to provide an updated look at their project priorities. As was the case during the 2016 update, Mercer County's transit agencies do not plan projects past the current phase of their TIP. Most projects are operational costs or minor equipment purchases, which makes projecting several years into the future challenging.

It should be noted that the Airport, Transit, and Bridge projects are in current year dollars, while the LRTP projects are in Year of Expenditure dollars. The prioritized project listing with funding sources and full descriptions can be found in Appendix D.



Roundabout at the US 62 and SR 3008 (E. State Street) Intersection, Completed in 2020

Exhibit 66 – All LRTP Categories

Category	Description
Highway Projects	Projects primarily affecting personal automobile and freight travel that are clearly defined and well developed; many of these projects were recommendations from earlier studies or were a clear solution to an identified concern. These projects aim to improve accessibility, mobility, safety, congestion, and aesthetics.
Bicycle & Pedestrian Projects	Projects primarily affecting bicycles and pedestrians that are clearly defined and well developed; many of these projects were recommendations from earlier studies or were a clear solution to an identified concern. These projects aim to address equity, mobility, recreation, and improve health and expand tourism.
Betterments <ul style="list-style-type: none"> - Signals - Safety - Bike/Ped 	<p>Betterment maps are used to identify locations where amenities are desired such as bicycle or pedestrian elements (widened shoulders, ADA ramps, sidewalks), signal upgrades, and safety improvements. These are identified to be completed, as they do not warrant standalone individual projects.</p> <p>With the emphasis on asset management, these lists can be considered during future roadway improvement or maintenance projects when they occur along the identified routes.</p>
Study	Studies are recommended when groups of comments focus on a particular area, but there is insufficient information to develop a specific project to address the expressed needs of the public and stakeholders.
Policy	Policy statements are more general recommendations for land use, municipal coordination, and improved procedures. For example, one challenge noted was the communication and understanding of the stormwater management regulations and procedures. A policy statement was included to recommend conducting stormwater management and highway occupancy permit training for municipal officials.
Local Projects	These projects were identified by stakeholders and the public along non-PennDOT roadways. These projects were mapped and included in the plan so that they can be incorporated into future municipal planning and project development efforts.

Highway Projects

Highway projects recommended by the LRTP are projects primarily affecting personal automobile and freight travel that are clearly defined and well developed; many of these projects were recommendations from earlier studies or were a clear solution to an identified concern. The prioritized project listing with funding sources and full descriptions can be found in Appendix D. Highway projects are listed in **EXHIBIT 67** and shown in **EXHIBIT 68**.

Not all projects on this listing were able to be fully programmed with the available funding. Those projects are marked with an asterisk in the listing and red on the map to indicate that they are aspirational. Some projects such as LRTP_H23 along SR 0208 and LRTP_H32 along SR 0062 may rely on special or private funding sources to move forward. As new funding sources become available, projects should be considered for development in the order they are prioritized.

Exhibit 67 – Highway Projects

ID	Project Name	Description
GREEN_D1	SR 0018 College Avenue & Packard Avenue Intersection Improvements	Install improvements to the SR 0018 College Avenue & Packard Avenue intersection near Thiel College including an intersection reconfiguration for better sight distance, reduction of skew, pedestrian crossing, and addition of turn lanes as required
LRTP_H23A*	SR 0208 Two-Way Left Turn Lane from Old Ash to Oakley Kelly Road & from SR 0258 to Pine Township Line	Widening for a two-way left turn lane along SR 0208 as development occurs
LRTP_H1	Broadway Avenue (SR 0760) Phase 4 Truck Improvements	Truck and freight-related intersection and roadway improvements along Broadway Boulevard from approximately Industrial Road through Kirila Boulevard to the interstate ramps
LRTP_H10	Mercer Avenue (SR 0418) at Morefield Road Intersection Geometry Upgrades	Realign intersection approaches to provide a conventional four-way plus intersection to improve sight distance
LRTP_H32*	US 62 Railroad Tunnel Reconstruction	Reconstruction of US 62 railroad tunnel to current specifications and realignment of US 62 to provide better sight distance through tunnel
US62_E3	US 62 at Bestwick Road Turn Lanes and Realignment	Realignment of the Bestwick Road intersection and widening along US 62 to accommodate the addition of a dedicated left-turn lane on US 62 South (westbound); coupled with review and potential modification of the existing 45-55 mph speed limit boundary to shift the transition point to the west of the intersection
LRTP_H13	Mercer Truck Route Improvements on SR 2008 & SR 2011	Truck route improvements such as intersection geometry for ease of diverting trucks eastbound around downtown Mercer through SR 0258 at SR 2008 (Butler Street and South Pitt Street) and Pitt Street/SR 0258 at Market Street/SR 0058

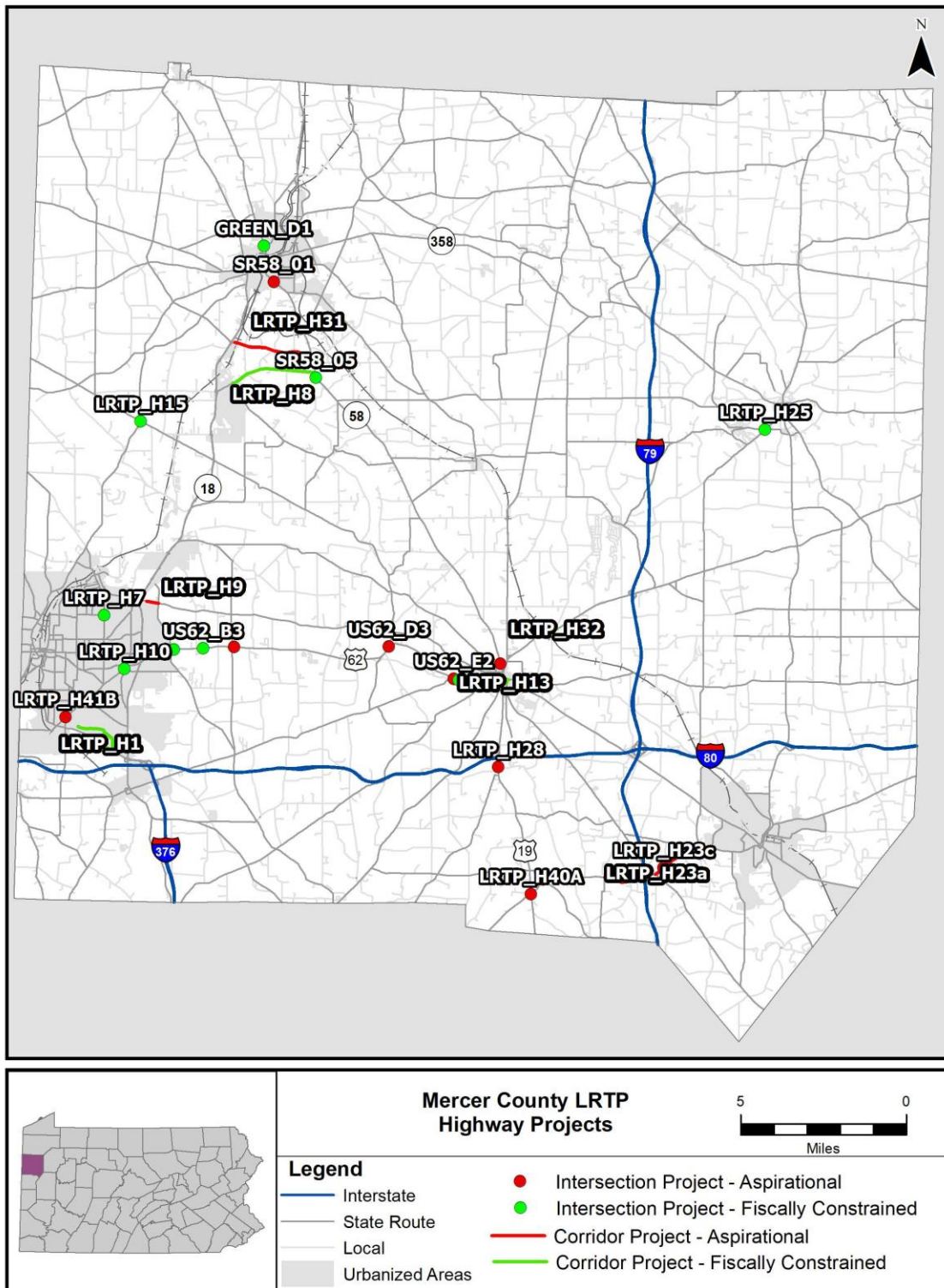
Exhibit 68 – LRTP Highway Projects (Continued)

ID	Project Name	Description
LRTP_H25	SR 0845 at SR 1004 Intersection Reconfiguration, Signal Improvements & Pedestrian Improvements	Improvement of traffic signal and geometry at intersection along with pedestrian amenities for school students to cross safely between points west to the east
US62_B3	US 62 at Robertson Road Turn Lanes	Widening of US 62 at Robertson Road to install dedicated turn lanes
LRTP_H7	Hazen Road (SR 3016) at Buhl Farm Drive (SR 3025) Intersection Improvements	Improvements to Hazen Road and Buhl Farm Drive intersection for congestion, including pedestrian elements connecting the sidewalks on the east side of Hazen Road in Hermitage to new sidewalks along the west side of Hazen Road in Sharpsville
US62_F2	US 62 at Maple Street Traffic Signal with Turn Lanes	Add a traffic signal and widen US 62 to add left-turn lanes in each direction at the Maple Street (SR 0258) intersection
LRTP_H8	Kidds Mill Road (SR 4012) Truck Climbing Lane	Truck climbing lane on Kidds Mill Road to connect the east-west corridor that leads to the Greenville Reynolds Industrial Park from points east along SR 0058
US62_E4	US 62 Center Turning Lane between Autumn Road and Landis Drive	Widening of US 62 to install a two-way left-turn lane (TWLTL)
US62_C6*	US 62 at Neshannock Road Turn Lanes	Widening of US 62 at Neshannock Road to install dedicated turn lanes
SR58_01*	SR 0058 at SR 4011 (Columbia Ave) and T470 (Hamburg Rd) Access Management Improvements	Install pavement markings and delineators, Intersection Control Beacon, and curbing to control access at intersection
LRTP_H31*	Wasser Bridge Road (SR 4003) Reconstruction	Full depth reconstruction and widening of Wasser Bridge Road to improve freight access to Greenville Reynolds Industrial Park
US62_E2*	US 62 Eastbound Climbing Lane to west of Bestwick Road	Widen US 62 to install an additional climbing lane
LRTP_H23B*	SR 0208 Parallel Collector Road & Oakley Kelly Road Realignment	Realignment of the intersection of Collector Road & Oakley Kelly Road for improved access and sight distance
LRTP_H41B*	SR 3015 (Mercer Avenue) Intersection Skew Corrections at SR 0418 Council Street and Grandview Drive	Improvements to reduce intersection skew and improve sight distance at crossroads to SR 3015 Mercer Avenue

Exhibit 68 – LRTP Highway Projects (Continued)

ID	Project Name	Description
US62_A234	US 62 Shoulder Widening with Barrier east of Keel Ridge Road	Widening of US 62 South (WB) shoulder, additional barrier along shoulder, and update of drainage features
LRTP_H15	SR 0846 & Rutledge Road (SR 3022) Intersection Realignment	Intersection realignment to eliminate offset intersection and improve sight distance
LRTP_H23C*	SR 0208 and Pine Road Realignment	Realignment of the intersection of SR 208 at Pine Road to provide more favorable sight distance
LRTP_H9*	Lamor Road (SR 3020) Reconstruction Continuation	Continuation of Lamor Road reconstruction east of the Joy Cone facility
SR58_05	SR 0058 (Seg 0310/0622 to Seg 0310/1402) Kidds Mill Curve Correction	Project to include roadway realignment to address curvature and sight distance issues
SR58_06*	SR 0058 (Seg 530/1489 TO Seg 530/2202) Coolspring Township Turn Lanes	Construct center left-turn lane with an exclusive left turn onto Coolspring Road
US62_D3*	US 62 at Valley Road Turn Lanes and Realignment of Valley Road	Widen US 62 from west of the Valley Road intersection to approximately Kyle Road (T 580) to install turn lanes and wider shoulder to enhance access and sight-distance through the horizontal curve section and realign Valley Road
LRTP_H40A*	SR 0208 and US 19 Intersection Improvements (under Study in 2021)	Improvements to sight distance at the offset intersections *to be determined from study
LRTP_H40B*	SR 0208 and Leesburg Station Road/SR 2002 Intersection Improvements (under Study in 2021)	Improvements to curve geometry *to be determined from study
LRTP_H28*	US 19 at SR 0402 Old Mercer Road Reconstruction	Reconstruction of US 19 to eliminate vertical crest sight distance issues and improve safety for side streets on Old Mercer Road

Exhibit 68 – LRTP Highway Projects



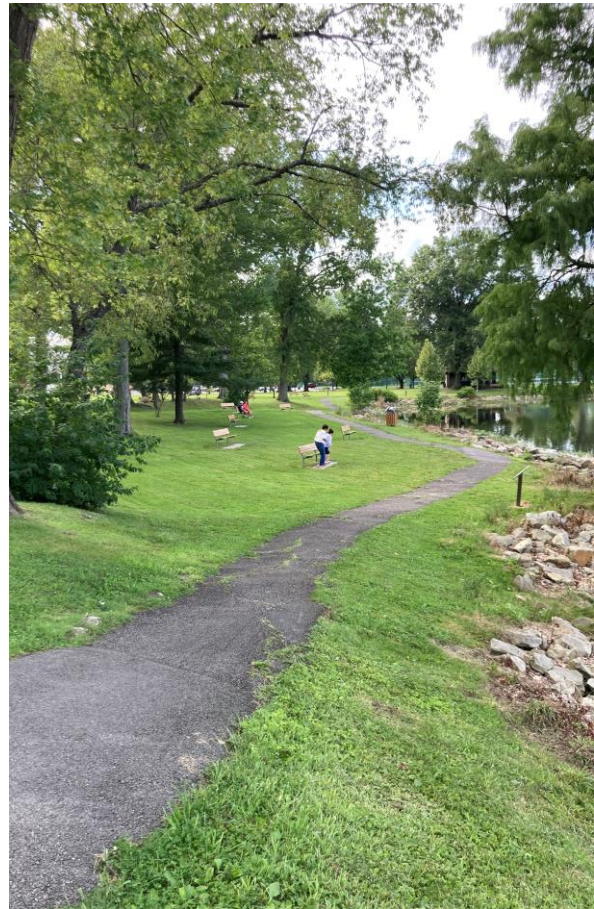
Bicycle and Pedestrian Projects

Bicycle and pedestrian projects were identified. **EXHIBIT 69** is the project listing and **EXHIBIT 70** is the map.

The bicycle and pedestrian project listing has grown significantly since 2016's LRTP. In 2016, there were 12 identified bicycle and pedestrian specific projects. Since then, the Greenville Pedestrian Circulation Study, the Southeast Mercer County Bicycle and Pedestrian Plan, the Hermitage Trails and Sidewalk Priorities Plan, the US 62 safety study, and the public and stakeholder outreach sessions have added to that desired list.

Many more locations were identified in need of widened shoulders, which are on the betterment maps. The direction we are hearing from municipal leaders and the public is more multimodal transportation.

As this list of potential projects grows, it will be imperative for the MPO to establish a group that evaluates and prioritizes each potential project and shepherds it through competitive funding applications. Currently the Transportation Alternatives Program (TAP) funding has \$41,000 set aside per year for multimodal transportation improvements. There are millions of dollars of desired improvements, and those should be focused in areas that best serve the populations, connect destinations, and provide safe alternatives to walking on the street. The success of these projects depends on project sponsorship, the communication between agencies to express when improvements are coming through.



Walking Trail at Buhl Park

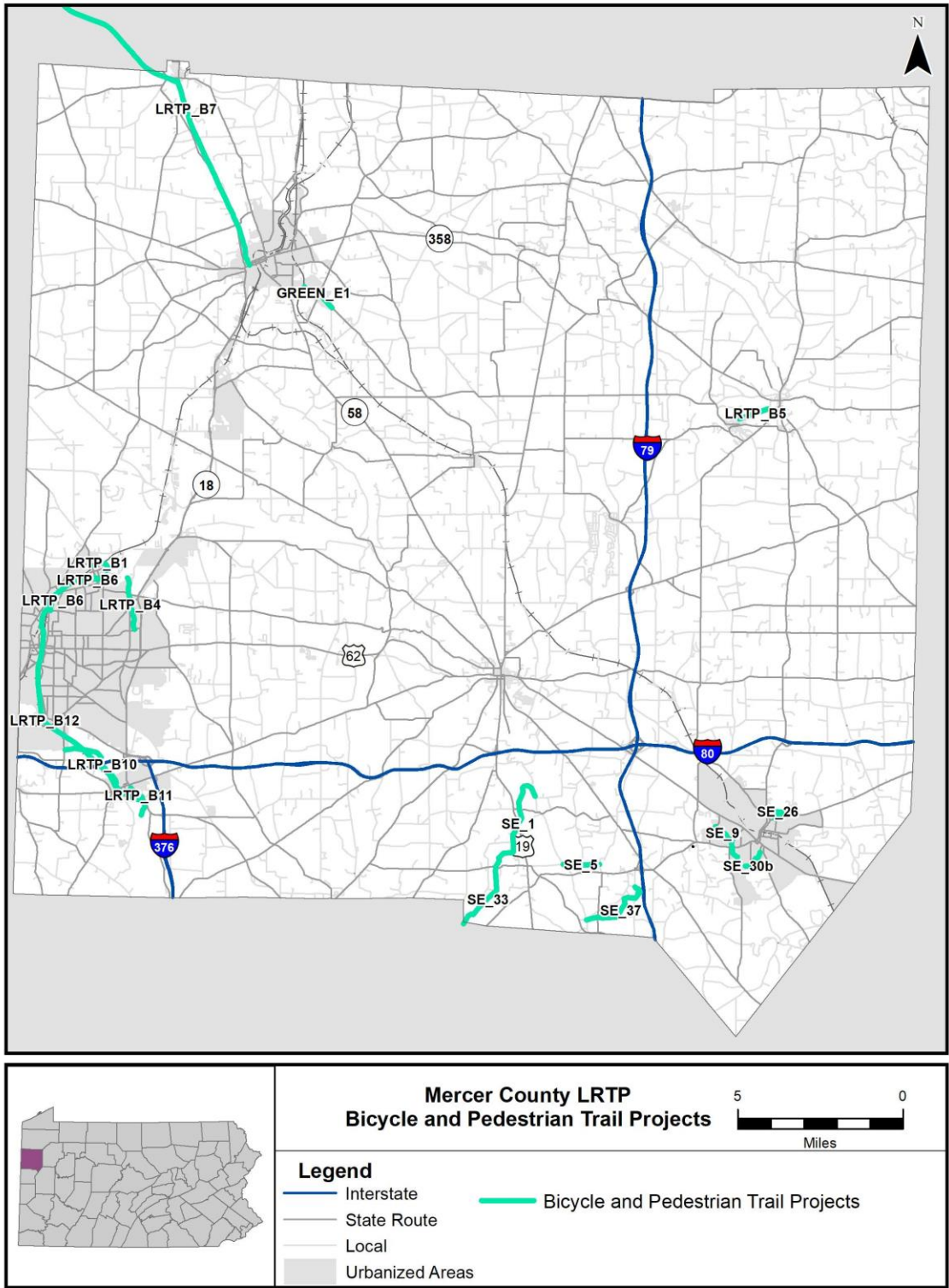
Exhibit 69 – Bicycle and Pedestrian Trail Projects

ID	Project Name	Project Description
LRTP_B1	Erie Tow Path and Canal Park Trail Extension	Trail extension connecting the existing ~700 foot length tow path that extends from the parking lot of the Sharpsville Area Recreation Park to the historic Erie Extension Canal Lock #10 around the Shenango River north of Sharpsville along borough-owned land, making a connection to the existing Trout Island Trail which extends approximately 2.5 miles north from the trailhead along the Shenango River
LRTP_B4	Pine Hollow Run Trail	Trail connecting to the Trout Island Trail along Pine Hollow Run in Hermitage
LRTP_B5	Sandy Lake to Stoneboro Trail	Trail connecting Stoneboro and Sandy Lake parks
LRTP_B6	Sharpsville to Sharon Hike/Bike Trail	Trail connecting Sharpsville at Trout Island Trail down to Sharon at Thornton Avenue using abandoned rail bed or onstreet means
LRTP_B7	Shenango Trail	Shenango trail construction within the Mercer County portion of the trail from Greenville to Jamestown, Stone Arch to Depot Street section
LRTP_B10	West Middlesex River Trail	River trail from West Middlesex along abandoned rail corridor
LRTP_B12	West Middlesex Trail by Water Treatment Plant	River trail from West Middlesex starting near the water treatment plant on the east side of the river
US62_D6	Multi-use Trail near US 62 and Darby Road	Multi-use trail installation from Robertson Road to Darby Road
GREEN_E1	Multi-use Trail to Elementary	New multi-use trail from Greenville Elementary School to Hempfield Park
SE_1	Springfield Falls Trail	This alignment primarily utilizes existing abandoned railroad right-of-way to connect Springfield Falls to Old Mercer Road. The trail crosses Perry Hwy. at two locations, once to connect to the Volant route heading south, and then again as it heads north to connect to the Woodland Rd. sidepath.
SE_5	Old Ash Road Connector Trail	This portion of the loop connects the Falls Rd. sidepath to the Spring Rd. connection, as well as terminates at Old Ash Rd. A planned paved trail by Springfield Twp. will connect directly to this route on its eastern tip, just north of the Springfield Falls community building.
SE_33	Volant Connector Trail	The Volant connector trail utilizes the existing abandoned railroad corridor to traverse the Neshannock Creek valley. This southern connection to Volant allows local and visiting trail users to extend their trips to include the many historic and antique shops in Volant, as recommended in the destination analysis.

Exhibit 69 – Bicycle and Pedestrian Trail Projects (Continued)

ID	Project Name	Project Description
SE_37	Watts Lake Trail	As an alternative to the Veterans Rd. sidepath alignment, this off-road trail would avoid the significant grade and right-of-way challenges of that route by traversing the edges of farm fields and some forested areas before joining back to the sidepath at the southern edge of the Outlets.
SE_9	Memorial Park Trail	This alignment provides a connection into and through Memorial park. The southern gateway from SR-208 features a boardwalk before entering the park property. Once in the park, the east fork connects to the high school campus and sidepath, while the west fork follows adjacent to the existing park drive.
SE_26	Vic Hughes Little League Loop Trail	This internal trail circles around the fields of the Vic Hughes Little League Complex, creating an internal loop that allows increased recreational opportunities for those attending or participating in events on the property. This portion is recommended for local funding, as it is a shorter, internal park trail loop.
SE_30a	Memorial Park Southern Gateway Trail	An off-road trail connecting from the southern gateway into Memorial Park across SR-208. The alignment continues as a sidepath along Lake Dr. before cutting east into the Hunter Farms property and the existing network of paved trails that connect and loop around the property.
SE_30b	Greenwood Drive Trail to Memorial Park	Additional connectivity into Hunter Farms is provided from a sidepath alignment along the west side of Greenwood Dr. This route would connect to the residential neighborhoods at Clark St. and then continue north through the Borough property until reaching the junction with the proposed widened sidewalk.

Exhibit 70 – Bicycle and Pedestrian Trail Projects Map



Local Projects

Local projects were identified by stakeholders and the public along non-state-owned roadways. These projects were included in the plan so that they can be incorporated into future municipal planning and project development efforts (**EXHIBIT 71**). Appended to the local project list are the leftover Highway and Bicycle & Pedestrian projects that were unable to be funded by the year 2042 given the fiscal constraint due to their cost, ranking, and available funding sources; if these projects are desired to be moved forward, reprioritization can take place to examine updated data, and funding could be pursued locally or with innovative partnerships.

Exhibit 71 – Local Project Listing

ID	Municipality	Local Projects
1	West Middlesex Borough	West Middlesex Borough Sidewalks
2	City of Sharon	Budd Street Truck Circulation
3	City of Sharon	US 62 & Spencer Ave Access
4	Grove City Borough; Hempfield Township	Grove City Parking Lot Access Management Plan
ID	Municipality	Highway Projects
3	City of Hermitage	Christy Road Bike/Ped Traffic Calming
9	City of Hermitage	Lamor Road (SR 3020) Reconstruction Continuation
18	Greene Township; Pymatuning Township	Shenango River Boat Launch Parking Lots
31	Hempfield Township; West Salem Township	Wasser Bridge Rd (SR 4003) Reconstruction
32	Coolspring Township	US 62 Railroad Tunnel
ID	Municipality	Bicycle and Pedestrian Projects
2	Sharpsville Borough; City of Hermitage; City of Sharon	Sharpsville to Sharon Hike/Bike Trail
8	Shenango Township; West Middlesex Borough	West Middlesex River Trail
10	Greenville; Hempfield Township	Hempfield Twp Elementary School Bike/Ped Connections
11	City of Hermitage	Pine Hollow Run Trail

Betterments

A roadway betterment consists of surface treatments or corrections to the existing roadway, preferably within the existing right-of-way, to maintain and bring the infrastructure to the current design standards for that classification of highway. This may involve full-depth base repair, shoulder widening, increased lane widths, correction of super-elevation, as well as drainage improvements, guide rail updates, and sidewalks. PennDOT gathers data and assesses pavement condition yearly and endeavors to apply these roadway treatments on a cyclical basis to maintain the roadway surface and underlying base.

As more emphasis is placed and more funding allocated to asset management, it is important to combine routine maintenance projects with desired improvements from the LRTP projects to conserve financial resources. This can best be accomplished by early coordination and communication of desires and cooperation on funding sources.

While betterments are typically done to improve pavement and subgrade quality, they can also be used to bring other facilities up to standards, such as bicycle and pedestrian facilities, signals, drainage, and low-cost safety improvements. During the public and stakeholder outreach and literature review, critical gaps in pedestrian and bicycle infrastructure as well as preferred walking and biking routes were identified. The purpose of these maps is to highlight critical routes so that amenities can be considered for upgrades or new construction when scoping future roadway betterments along the identified routes.



Curbing & Stormwater Upgrades

The betterment maps have been expanded from the 2016 LRTP to include signal improvements (**EXHIBIT 72**), safety improvements (**EXHIBIT 73**), and areas in need of wider shoulders for bicyclists and pedestrians and drainage upgrades (**EXHIBIT 74**). These betterments are not intended to serve as a comprehensive list of locations that may benefit from improvements, only those that were communicated through outreach or existing studies. These can be logged into the PennDOT Connects system so that each project manager is aware of the community's needs during project scoping and development.

Exhibit 72 – Betterment Identification of Traffic Signal Improvements

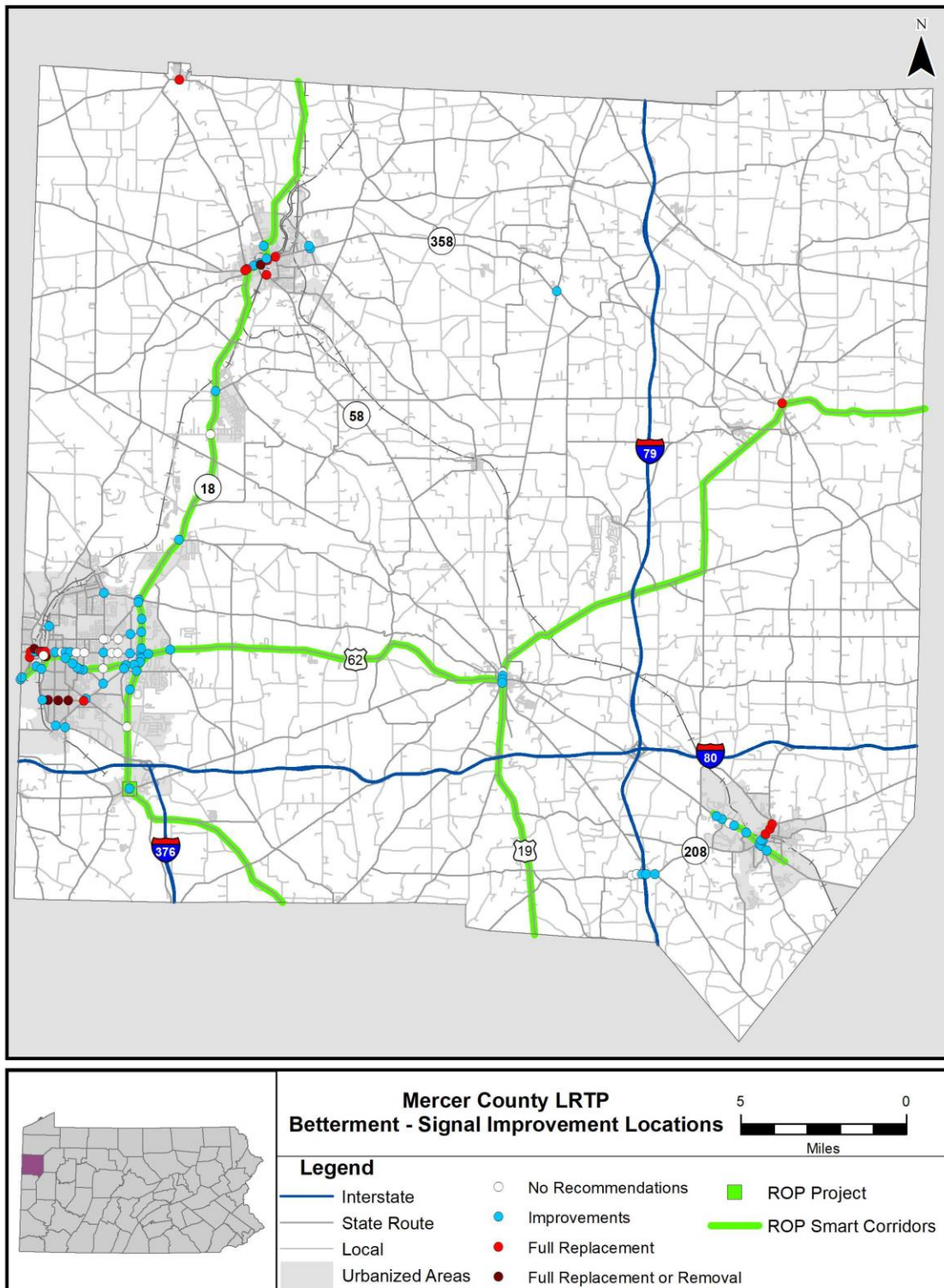


Exhibit 73 – Betterment Identification of Safety Improvement Locations

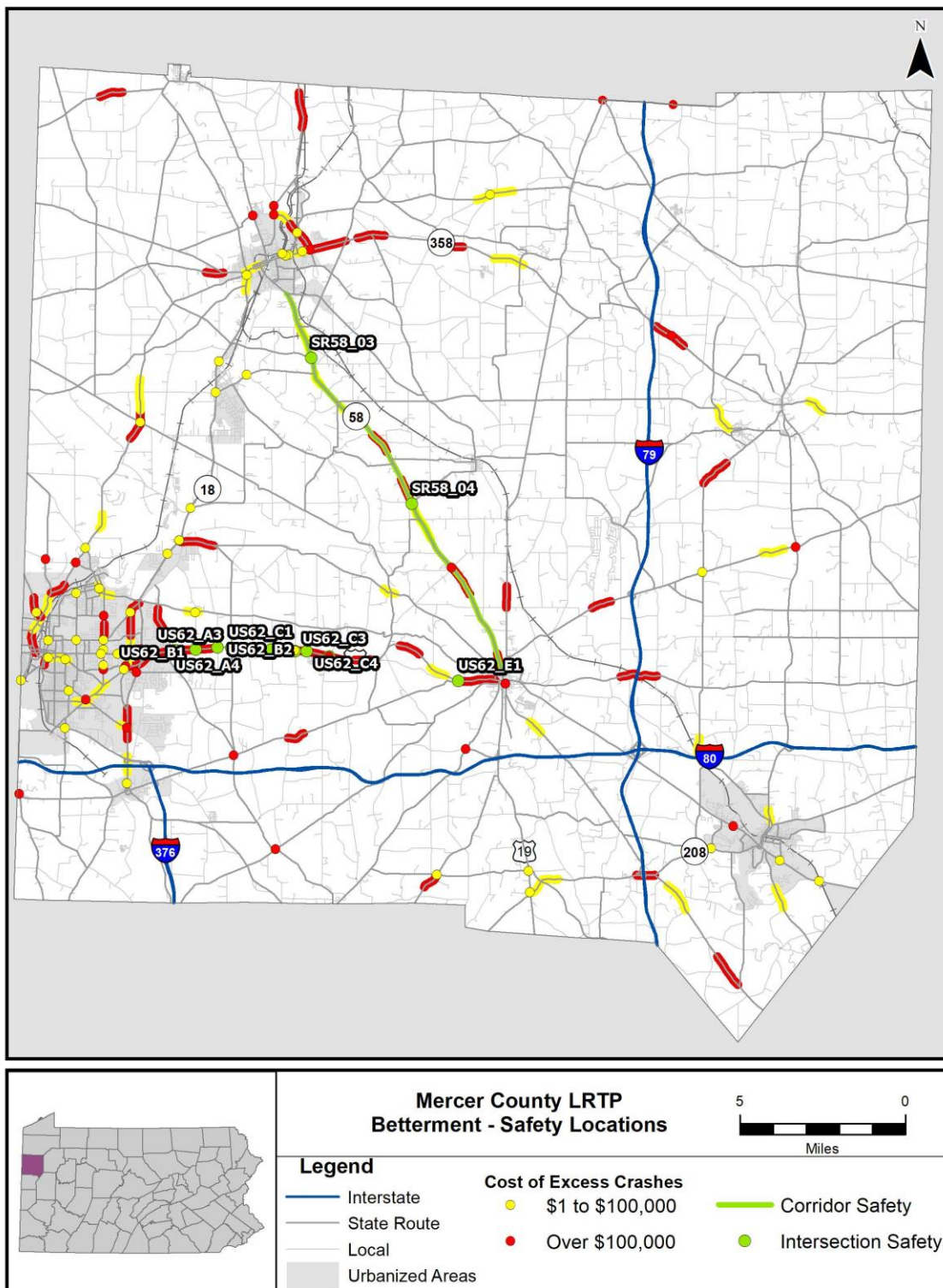
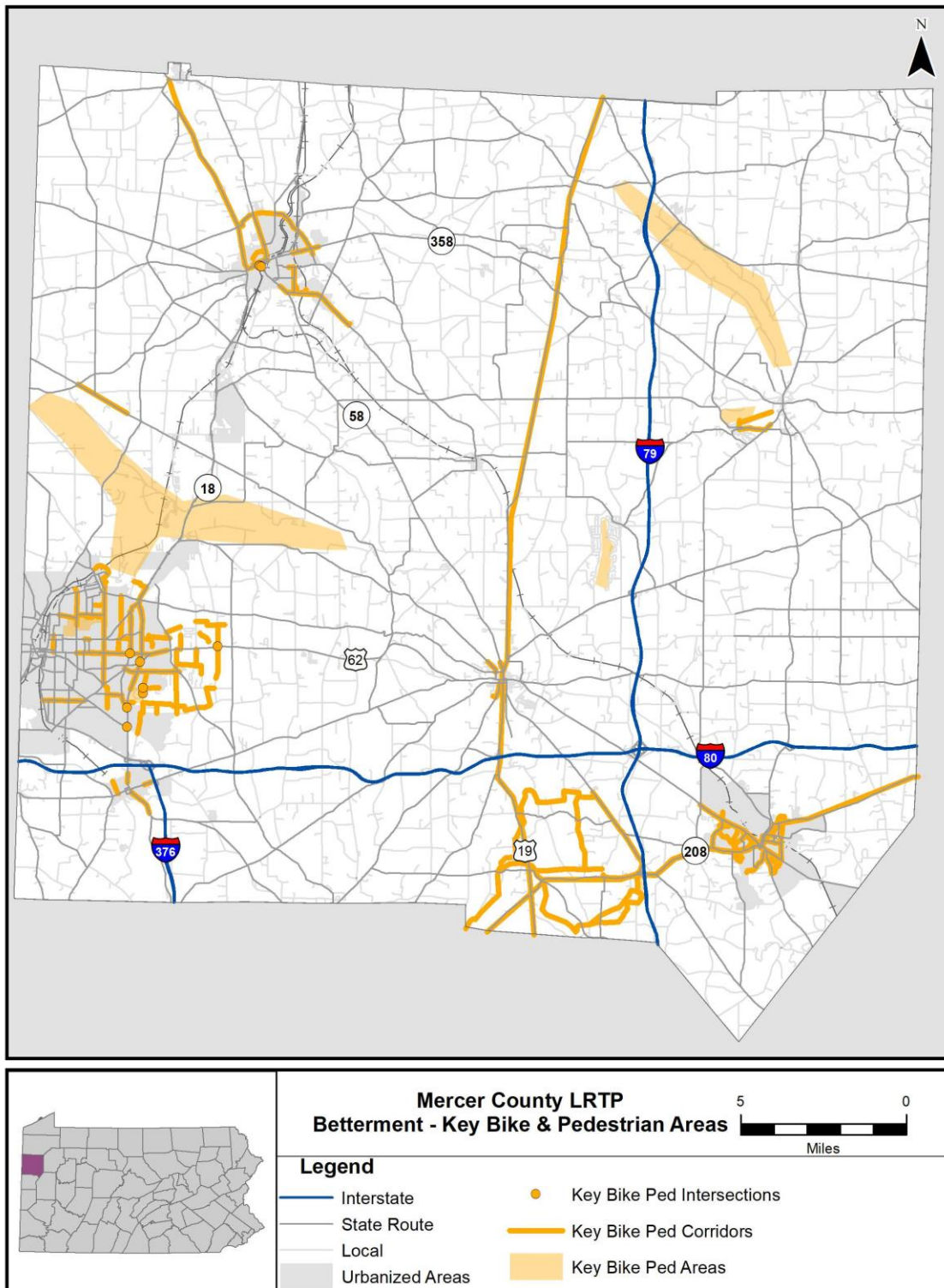


Exhibit 74 – Betterment Key Bicycle and Pedestrian Corridors



Studies

Planning studies are recommended when groups of comments focused on a particular area, but there was insufficient information to develop a specific project or set of projects to address the needs (**EXHIBIT 75**). For instance, access and safety issues were reported along SR 0358. A corridor study is recommended along the corridor to identify targeted solutions. For this reason, the “SR 0358 Safety Study” was added to the plan so that safety improvements can be programmed in the near term and future years.

Studies are assumed to be financed through avenues such as the Unified Planning Work Program (UPWP); the studies and their recommended projects may move more quickly through the implementation schedule and the remaining line items and studies may be shifted forward.

Exhibit 75 – Studies

ID	Study Name	Study Description	Recommended By
1	Regional Truck Parking & Winter Travel Restriction Study	This study would examine truck parking infrastructure in both state-owned and private lots, particularly with respect to interstate travel and regional economic development. The study will also examine truck travel restrictions during the winter and develop infrastructure and maintenance strategies to improve the freight network and accessibility and safety for freight travel.	Western RTMC Regional Operations Plan 2019
2	SR 0358 Corridor Study	Truck circulation study for the Greenville area, including Reynolds Industrial Park, Wasser Bridge Road, Kidds Mills Road, as well as northeast of Town of Greenville, the Werner Ladder plant and Hodge Foundry, Clarks Mills S-Curves and access to the interstate. At a minimum, specific recommendations from this study should include intersection and roadway improvements and programs to enhance truck and freight mobility and access to industry in the area. Study expanded to include multimodal improvements	SVATS MPO 2016 LRTP
3	Bicycle and Pedestrian Priority Study	A comprehensive evaluation of all recommended bicycle and pedestrian projects in the county, identify project sponsors and funding sources, and develop a plan for pursuing funding for bicycle and pedestrian project implementation. Prioritization framework to be applied to all projects.	SVATS MPO 2021 LRTP
4	C/AV, Freight, and Electrification Study	This study would examine the current infrastructure and develop infrastructure and policy recommendations to support connected and autonomous vehicles and electrification of personal and freight vehicles.	SVATS MPO 2021 LRTP
5	Transit Development Plan (TDP)	The TDP will analyze the need for transit in a defined area, evaluate the services that are provided, and develop strategies to match the service to the identified transit needs.	MCRCOG

Policies

Policy statements are general recommendations for coordination, land use, and improved procedures (**EXHIBIT 76**). Responsible parties may include municipalities, state agencies, the regional planning commission, private entities, and others.

Exhibit 76 - Policies

ID	Responsible Parties	Recommended Policy
1	Municipalities, PennDOT	Coordinate future development along the divided portion of SR 0018 with PennDOT to include modifications to access management, allowing appropriate development while maintaining safety and providing sidewalk infrastructure where appropriate. This may apply to the Reynolds Development area.
2	SVSS, MCCT, PennDOT	Pursue an advertising campaign for SVSS and MCCT to make residents aware of services that are being offered; improve coordination between PennDOT and transit agencies so drivers can be aware of roadway construction and planned detours; develop a plan for bus pull-offs and shelters, particularly considering public private partnerships at establishments such as Walmart to provide shelters on their property; continue to pursue recommendations set forth in the Updated Coordinated Public Transit - Human Services Transportation Plan including regionalization, centralization of information, investments in technology, service maintenance and expansion, continued service to elderly and disabled, and progress monitoring
3	PennDOT, DEP, MCRPC, Private Developers	Encourage the development of electric vehicle infrastructure on public and private property by connecting interested developers with available grants and funding sources through DEP
4	PennDOT, MCRPC	Stay engaged and up-to-date on regional connected and autonomous vehicle initiatives through the Smart Belt Coalition and others; engage and train private developers
5	MCRPC, Municipalities	Provide flexible zoning to encourage diversification of land uses for economic development, discuss contemporary planning issues such as accessory dwelling units (ADUs) for the aging population, enable mixed-use and transit-oriented development to allow people to live, work, and play in the same location, identify strategies for key parcels such as retail centers that are prime for adaptive reuse
6	Hotels, Grove City Premium Outlets, Springfield Township, MCRPC	Determine potential solutions for a private, cooperative shuttle service between Springfield Township near the Grove City Outlets and Grove City Borough, as well as regional destinations like the Pittsburgh International Airport and downtown Pittsburgh. Private shuttle is preferred over a public transportation service due to limitations on the public transportation services competing with private entities operating in this area. Develop an official parking procedure for routing and parking tour buses.
7	MCRPC, Urban Municipalities, MCCAP, SVSS	Develop a framework for the adoption of shared micromobility such as e-scooters and e-bikes as needed; coordinate with other agencies such as Community Action Partnership and SVSS to identify locations that best serve the communities. This working group could be modeled off of the Pittsburgh Mobility Collective group.
8	Pine Township, Grove City Borough, PennDOT, MCRPC	Improve truck routing through Grove City and Pine Township to reduce congestion through downtown Grove City

Exhibit 76 - Policies (Continued)

ID	Responsible Parties	Recommended Policy
9	Town of Greenville, Hempfield Township, MCRPC	Implement the Hadley Rd (SR 0358) / Williamson Rd (SR 4006) access management plan through developer funding to ensure safe and efficient traffic operations as development occurs; pursue the development of a sidewalk network
10	Municipalities, PennDOT, MCRPC	Continue pursuing a Complete Streets Policy at the Hermitage Town Center to improve bicycle and pedestrian accessibility and safety, particularly encouraging developers to align their sidewalks so that pedestrians can continue along an uninterrupted path
11	PennDOT, East Lackawannock Township, Mercer County, Penn Northwest, Private Developers	Advertise the I-80 Exit 15 area for commercial or industrial development; upgrade roadway infrastructure as appropriate to support development
12	PennDOT, New Vernon Township, Mercer County, Penn Northwest, Private Developers	Advertise the I-79 Exit 130 area for commercial or industrial development; upgrade roadway infrastructure as appropriate to support development
13	Multi-Municipal, MCRPC, PUC, Rail Owners	Develop a highway/rail crossing plan to eliminate crossing hazards
14	Jamestown Borough, Town of Greenville, Sharpsville Borough, MCRPC, Mercer County Chamber of Commerce, Visit Mercer County PA, Mercer County Trails Association	Work with trail groups, bicyclist advocacy groups, and municipal officials to develop a trail town marketing strategy to bring economic development benefits and recreational awareness to Jamestown, Greenville, and Sharpsville
15	MCRPC, Mercer County Trails Association, Municipalities, Others	Develop a countywide "Active Transportation Committee" to identify common goals for recreational opportunities, identify trail gaps, review existing studies, develop a prioritization plan for multimodal projects, and champion projects through funding applications
16	Multi-Municipal, MCRPC	Improve coordination between MCRPC, municipalities, and PennDOT for municipal comprehensive plans, the LRTP, and the statewide transportation plan. Continue advancing coordination efforts between organizations, educating partners about internal processes and how each agency operates. Have meaningful conversations about ensuring the transportation planning process is continuing, cooperative and comprehensive (3C). Continue holding quarterly planning meetings with all partners and look for other opportunities to advance this collaboration.
17	Multi-Municipal, MCRPC, PennDOT, DEP, Conservation District	Provide ongoing municipal officials training for stormwater management and Highway Occupancy Permits to clarify the process, introduce appropriate points of contact, and improve cooperation between entities

Exhibit 76 - Policies – (Continued)

ID	Responsible Parties	Recommended Policy
18	MCRPC, PennDOT, Multi-Municipal	Encourage development of escrow accounts for maintaining HOP installed infrastructure such as inlets and traffic signals to alleviate unforeseen cost impacts of maintenance
19	City of Sharon	Pursue economic development along Dock Street through business incentives and freight upgrades
20	Springfield Township, Pine Township, Grove City Borough	Implement access management plan along SR 208 corridor as development occurs through developer funding sources, public private partnership to alleviate congestion and improve circulation and safety in the vicinity of the I-79 / SR 208 interchange
21	MCRPC, PennDOT, Municipalities along US 19	Locate a public place that is willing to host a bus stop and re-establish a regional intercity bus station to bring intercity bus travel (e.g. Greyhound) back to Mercer County. Potential candidate locations for this would be near the interchange of I-79 and I-80 due to its proximity to easy highway access, or somewhere along the existing intercity bus routes along US 19 in Mercer Borough or I-80 Interchange 15
22	MCRPC, MCTA, PMHC, PennDOT Cultural Resources	Develop a plan for prioritized trail segments and coordinate with the Pennsylvania Museum and Historical Commission to repurpose decommissioned bridges into multimodal bicycle and pedestrian bridges or parks
23	PennDOT District 1, MCRPC	Continue to work toward educating the MPO boards and other transportation stakeholders with educational programs about various aspects of transportation planning, programming, components of transportation infrastructure, and the roles and responsibilities of the SVATS MPO
24	MCRPC, Multi-Municipal, PennDOT, Industry Representatives	Work, as needed, at understanding the effects on the transportation system and land use related to new generators of heavy vehicle and freight traffic in Mercer County. For example in emerging industries such as online retail warehousing and distribution or drilling (e.g. Marcellus and Utica shale). This includes examining ground transportation to and from new sites, pipeline and warehouse construction, travel behaviors of temporary workforces, etc.



Appendix A – Outreach Summary



Project: Mercer County Long Range Transportation Plan Update
Subject: Focus Group Meeting #1 – Municipal Representatives
Date: Thursday, March 11, 2021; 10:30am – 12:00pm
Location: Microsoft TEAMS Meeting
Attendees: MCRPC - Matt Stewart
PennDOT District 1 - Tom McClelland, Lyndsie DeVito, Courtney Lyle
McCormick Taylor - Carrie Machuga, Ashley Tracy
Municipal Leadership Representatives:

- Mercer County Bridge Engineer - Brad Elder
- Mercer County Regional Council of Governments – Kim DiCintio
- Town of Greenville - Paul Hamill
- City of Hermitage – Jeremy Coxe
- City of Sharon – Bob Fiscus
- Stoneboro – John Sweet
- Springfield Township – Lucinda Lipko
- Springfield Township – Dave Swartz

Focus Group Distribution List:

Representing	Name	Email	Phone
MCRPC	Matt Stewart	mstewart@mcrpc.com	724-981-2412
PennDOT District 1	Lyndsie DeVito	ldevito@pa.gov	814-678-7174
PennDOT District 1	Courtney Lyle	clyle@pa.gov	814-678-7046
PennDOT District 1	Tom McClelland	thmcclella@pa.gov	
City of Sharon	Bob Fiscus	rfiscus@cityofsharon.net	
City of Hermitage	Jeremy Coxe	jcoxe@hermitage.net	724-981-0800, #1265
Town of Greenville	Paul Hamill	paulrhamill@gmail.com	724-588-4333
Mercer County Bridge Engineer	Brad Elder	belder@mcc.co.mercer.pa.us	
MCRCOG	Kim DiCinto	kimd@mccog.com	724-981-1561
Stoneboro	John Sweet	js189@zoominternet.net	814-336-9033
Springfield Township	Lucinda Lipko	llipko@springfield-mercer.org	
Springfield Township	Dave Swartz	dswartz@springfield-mercer.org	
McCormick Taylor	Ashley Tracy	antracy@mccormicktaylor.com	412-923-5002
McCormick Taylor	Carrie Machuga	cmmachuga@mccormicktaylor.com	412-329-4420

Meeting Summary:

Introductions

Carrie Machuga welcomed all attendees and asked all in attendance to introduce themselves. She gave a brief overview of the Long Range Transportation Plan, which is a guiding document for the next 20 years of transportation investments throughout Mercer County. The purpose of today's Focus Group meeting is to identify specific areas of concern and opportunity, and each municipality's local and countywide goals. Carrie led the attendees through a series of discussion topics.

Summary of Discussion

- What are your top priorities related to transportation for your municipality?
 - **Greenville (Paul)** – We want to divert truck traffic away from Main Street and make Greenville a more bike-friendly, pedestrian friendly area. Trucks hitting the raised crosswalks on Main Street shake the buildings. In the future we may go for stamped crosswalks that have less intense vibration on buildings. The bump-outs for the planters make plowing and winter maintenance difficult.
 - **Hermitage (Jeremy)** – We want to continue working on the main corridors of Route 18, East State Street, and the area near the freeway to improve pavements, pedestrian, bikeways, and trail amenities. Our main priority is the preservation of existing infrastructure. We are planning for a vibrant walkable town center at the intersection of Route 18 and East State Street, and at Routes 18 and 62. We are also transitioning to radar technology on traffic signals to avoid in-pavement loop detectors, new mast arms, etc. One issue is that there's never enough local money for paving.
 - **Bridges/Overall (Brad)** – agreed there's never enough funding for local bridges either. I spoke with and received comments back from all 3 commissioners. All mention local bridges, rail connections to Sharpsville, Wheatland NLMK, and Cooper's Commons (Action Item: MT to get more information about specifics), the tunnel project on US 62 near Mercer as priorities. They also want to make sure that I-80 remains toll-free. Should broadband internet be considered in a LRTP? We are trying to get more communities connected. The director of Southwestern Pennsylvania Commission (SPC) made some comments about broadband as well, and SPC is considering a broadband study. This is important for Mercer

- County especially with teleworking becoming more prevalent. There has been some growth in residency due to the pandemic.
- **MCRCOG (Kim)** – Our organization is looking at providing new services to different areas, such as bus shelters and stations in different parts of communities. I will follow up to identify specific locations with drivers. (Action Item: MCRCOG to identify specific locations of desired bus stops and share with MCRPC.) Matt stated that the locations of those stops would be helpful, since Transportation Alternative funding may be an option to build them. Kim said there was a missed opportunity on Route 18 near the Women's Care Center to put in a bump out. We are looking for opportunities when roads are being redone, what amenities can be added. Lyndsie DeVito mentioned that the PennDOT Connects process is intended to help make those connections.
 - **Stoneboro (John)** – We have an issue on Route 845 coming into town from Greenville, by the lake where it used to flood. It no longer floods since improvements were made. Kids frequently walk across the street there to go to the lake, and the community wants to remove the passing zone designation. The US 62 tunnel east of Mercer is getting bad with concrete spalling. Matt updates that something will be done with the tunnel. It's under study right now and will eventually be improved. Matt brings up the Intersection of Route 845 and US 62 which is a blinker light right now. John states that there have not been any bad accidents recently, but there was a fatality six or seven years ago and the presence of school buses complicates things. It has not qualified for the safety funding in recent years due to the statistics.
 - **Springfield Township (Dave)** – Our biggest concern is the US 19 section from Iron Bridge Inn Restaurant to approximately 0.5m south of the Village of Leesburg. Within that area are three intersections, with a high number of collisions on Leesburg Station Road due to people running stop signs. They run the stop signs even though they are very visible and recently were upgraded to be larger and include advance warning signs. Folks continue to be distracted. The other intersection is at the interchange of Route 18 – traffic congestion is starting to get worse in this area, and queues are stacking up heavily. These intersections are part of the I-79 and I-80 detour plans. When either of those two interstates are closed, we get a lot of traffic on US 19 through those two intersections. They're just stop signs, and it creates a lot of back up. In the village district itself, drivers appear to be confused about speed limits changing between 45mph and 55mph. We also have passing zones. That area is mostly

village, residential, and agricultural zoning. Speeding is a major concern. The elderly cross the road to get their mail in the area, and it's a passing zone. Our township would like to see the passing zones eliminated. A standardized 35 or 45mph speed limit would be preferable, instead of 55mph, to slow the traffic down. Another area of concern is the interchange at SR 208, I-79 at Exit 113 – the traffic is flowing well right now, but with Tri County Industries reopening the landfill nearby, there will be a large influx of truck traffic on the interchange coming from I-79, and 208. We are concerned that the queueing and stacking areas at the interchange may not be sufficient. They estimate 400 truck trips per day. In general, township wide, the speeding is an issue, and we would like to see more enforcement of speed limits. Matt noted that MCRPC included the possibility of a study in that area in our last LRTP and they are hoping to get a consultant on board to look at that soon. The Springfield Township Bike and Pedestrian Master Plan may be a good source of projects, as well. Tom stated that the Tri County landfill should have done a Traffic Impact Study.

- Tom also mentioned, if there is anything PennDOT can do to help connect rural areas to broadband, i.e. providing partnership for fiber optic lines, etc. in those rural areas.
- What are your overarching transportation goals, not just in your specific jurisdiction, but countywide – we heard themes of walkability, accessibility, US 62 tunnel, anything else?
 - **East Lackawanna Township** – there is limited fiber optic cable in the East Lackawanna Township area due to rural and Amish residents. The lack of demand for cable in the area makes it less cost effective for the companies to install the infrastructure.
 - **Springfield (Dave)** - Route 208/I-79 we want beautification around the interchange as a regional welcoming area. It's a bit unsightly right now. Two colleges are accessed through this interchange (Grove City and Westminster College). Matt says this project is on the radar, and each partner's role needs to be determined before proceeding. Tom mentions PennDOT has a Highway Beautification Manager and put his email in the chat (Action Item: Tom offered to provide Dave with the Highway Beautification Manager's contact information). A majority of the work is on the sponsor, but PennDOT is happy to partner. The Roadside Manager is Cheryl Weimer, and Michelle Morningstar would be another good point of contact at PennDOT.

- What do you anticipate your municipality to look like in 20 years?
 - **Hermitage (Jeremy)** – We completed the Hermitage 2030 Comprehensive Plan in 2019/2020. Just this month we updated the new zoning ordinance, it is available on the website. Our main focus is the vibrant city centers, hoping to work with a private developer to redevelop the Shenango Valley Mall site. It's a dying mall that could become a vibrant city center.
 - **Mercer County (Brad)** – Commissioners looked at traffic trends in Mercer County, which are declining. Traffic may continue to decline as people go to work, school, doctor, etc. less in-person. On the flip side, truck deliveries are up, and autonomous vehicles are coming. Maybe in the future, we'll have more home-based businesses that may affect traffic patterns. With COVID and folks leaving urban areas to come to the suburbs, and the suburbanites going to even more rural areas, there is some population change. The commissioners have been seeing residential and industrial growth (such as the haul industries in Grove City). The Shenango Valley Mall site is another priority for the commissioners.
 - **MCROG (Kim)** – Our next priority is to do a Strategic Plan in the next couple of years to identify gaps in service, where we need to change routes, etc. with strong input from the communities. Matt wonders how Uber/Lyft/rideshares are disrupting how people are using transit, and how future funding for transit could have an impact on what services are able to be offered? Kim says the Ubers/Lyfts are not affecting transit service too much right now, but that could change in five years. She also agrees that the PA Turnpike Commission funding situation is also to be determined and could have a big impact on their operation.
 - **Stoneboro (John)** – Stoneboro and Sandy Lake are small areas, but are seeing growth. The lake was sold to a private individual and there is more building around the lake happening recently. In Stoneboro alone, nine new residences were built on US 62 in recent years. We expect more traffic into and out of the lake area. The person who bought the lake wants to build 15 cabins on the other side of the lake, but that has not been approved by township yet.
 - **Springfield Township (Dave)** – We are looking for modest developments in our township, to possibly diversify from the major retail district of the

Grove City Outlets. With the COVID pandemic, some shops closed. Prime Group still seems to be viable in the area, but we want to diversify more. Hotels and restaurants are good. We aren't in the center/hub of the tourism area in Mercer County, but there are a lot of natural and manmade tourist attractions around us. Economic Development Authority (EDA) is very active in our township to bring in development. If Grove City expands the airport, that should bring new air travel into the area which would bolster the dining and hotel stays.

- **Sharon (Bob)** – We want to see ease of access to different modes of transportation. We plan a modest level of redevelopment but focus mainly on revitalization. We have issues with truck traffic going through newly revitalized areas. We've added bike lanes to encourage multimodal use.
- Are there specific locations in your municipality that need improvements? For example, turn lanes, curves, signals, intersection skew, flooding, etc.?
 - **Sharon (Bob)** – Anywhere in the downtown commercial district. It's almost a monthly occurrence that a mast arm or light pole is taken down by a truck. We need alternative routes for truck traffic, particularly around Sharpsville Avenue and cross streets.
 - **Greenville (Paul)** – York Street flooding is an ongoing problem. At the intersection of SR 58/Main Street, trucks are getting stuck on the poles and bells at the corners. The bump outs in the winter are struck by the trucks. It's tight through downtown. We need an alternate route to get the trucks around downtown. We need to get trucks off of Main Street, period. Matt mentions that we have a freight expert joining us at a different focus group who has knowledge on balancing access and freight so he may have some ideas.
 - **Mercer County (Brad)** – A short list of projects from the Commissioners: Several are around the SR 358 corridor between US 19 and I-79, including beautification at the interchange with I-79 and SR 358, as well as improving sight distance there. There is an ongoing issue at the sharp S-curves near Clarks Mills. Matt agrees, this was brought up in the previous LRTP and by business owners. Commissioners mention the need for a roundabout at SR 358 and US 19. As for County-wide concerns, there are a lot of dirt and gravel roads in poor condition in rural municipalities. Could the millings that come from state roads be diverted to locally owned roads for improvements? The Conservation District's dirt and gravel roads

- programs was mentioned. Driving Surface Aggregate (DSA) has been used to improve the roads and drainage on those types of roads.
- **Hermitage (Jeremy)** – We drafted a Comprehensive Recreation Study, and another plan came out of that, which is a trail and sidewalk plan for the entire community. We are really looking for additional funding opportunities to connect trails between neighborhoods, schools, etc. Other projects that should be on the LRTP radar – there was a study about 15 years ago for the Broadway/Dock Street/MLK Corridor. Part of the corridor was completed, the I-376 to industrial park portion. Lamore Road near North Keel Ridge and Joy Cone is another project. Matt mentions there was an idea of Joy Cone building a separate access road, but that project had stalled. Jeremy says it's still a possibility, but the property owners posed challenges. Joy Cone is close to a residential area. They have a 500,000 SF space right now, another facility at 120,000 SF space, and are looking to add another 300,000 SF to their facility. There is also the US 62 study done from Hermitage to Mercer that lists improvements along US 62. We also did a county signals study, which inventoried all the signals and prioritized a list of improvements.
 - Tom is curious about specific flooding and landslide issues that folks are aware of throughout the county.
 - **Jeremy** – there are some issues on the border of Hermitage, Wheatland, and Farrell near the Shenango River. Ohio Street near the asphalt plant and the Wheatland Industrial Area floods in a hard rain. Is that going to be addressed as part of the repaving in 2021, or is it just mill and fill? Tom states that for now, it is likely just a mill and fill. Tom says PennDOT recognizes earth movement issues around the Shenango River and keeps track of slide locations. He encouraged all of the attendees to share known earth movement/slide concerns with PennDOT.
 - **Dave** – There is one area of concern on SR 208 just to the west of Old Mercer Road caused by beaver dams. The backup of the water is about 10" away from the surface of SR 208, which is a common problem when we have a hard rain. We are looking for help on what we're allowed to do with the beavers and drainage issues.
 - **Lyndsie** – The PennDOT Connects process is set up to take these into account. PennDOT will enter these concerns into the system now, so that as projects do come up in the future, improvements can be accounted for and addressed if feasible. Topics include anything ranging from flooding,

transit, utilities, rail. Anything the municipalities can provide now is helpful. (Action item: municipalities may email Lyndsie at ldesito@pa.gov or Courtney Lyle or Municipal Services.)

- Aside from what was mentioned already, are there any existing municipal planning documents that we should reference?
 - Hermitage (Jeremy) – We host many on the website.
 - Matt – Will send the write-ups on the welcome area in Springfield Township. (Action item: Matt to forward details about welcome area.)
 - Lyndsie – The District 1 Bicycle Study has been finalized. (Action item: Lyndsie to forward D1 Bicycle Study on OneDrive.)
- Are there major planned construction activities (public or private, transportation, economic development, etc.) or major anticipated changes to the local transportation system of which we should be aware?
 - Bridge (Brad) – Commissioners are aware of industrial growth at the Greenville Reynolds Industrial Park, as well as around Cooper's Commons near Grove City. Around the interchange of US 19 at I-80, the county has 200+ acres available for potential development. There is nothing definitive happening yet, but some interest in it. Around the interchange of SR 358 and I-79, there is a working group with Commissioner Boyd focusing on growth of oil and gas and opportunities for economic development there. There are no plans yet, but available land and locational advantages. Sewer or water are a challenge, as they are not currently in place there.
- Miscellaneous
 - Tom is curious about engagement from the other municipalities. Matt explains that we have received comments from other municipalities via email and have also asked them to participate in the survey.
 - Brad - regarding the survey, should we all do that? Carrie explains that it is the public survey with more general questions than what was asked today, and a map that allows folks to point out specific areas of concern. Carrie will put the link in the chat box. (Action Item: municipalities may take the public survey here <https://bit.ly/MercerLRTP>)

Municipal Focus Group Follow Ups

Task	Responsibility	Status
Follow up with Brad about specifics on the Commissioner's comments around rail connections	McCormick Taylor	Ongoing
Share any specific locations of desired bus stops	MCRCOG	Ongoing
Follow up with the Highway Beautification Manager at PennDOT or contact Lyndsie DeVito at ldevito@pa.gov to discuss issues and opportunities for partnerships	Municipalities	Ongoing
Log issues and opportunities into PennDOT Connects forms	PennDOT	Ongoing
Provide details of Springfield Township beautification plan around I-79 interchange with SR 208	MCRPC	Complete
Provide finalized version of D-1 Bicycle Plan	PennDOT	Complete
Attendees to take the public survey: https://bit.ly/MercerLRTP	Municipalities	Ongoing

Mercer County Long Range Transportation Plan

Social & Community Services Stakeholder Focus Group

Date: March 17, 2021

Time: 9:00am to 10:30am

I. Introductions

- LRTP Consultant Team – Carrie Machuga, Ashley Tracy, Michelle Goddard
- MCRPC – Matt Stewart, Brian Barnhizer
- PennDOT – Courtney Lyle, Lyndsie DeVito
- Stakeholders – Sandy Swogger (Mercer County Area Agency on Aging), Andrea Donatucci (George Junior), Wilma Torres (Community Action Partnership of Mercer County), Kim DiCintio, Jill Boozer, Mike Dash (Mercer County Regional Council of Governments/Community Transit), Holly Nogay (Mercer County Housing Authority)

II. Long Range Transportation Plan Overview

III. Discussion:

- What are the major transportation concerns for the group which you represent?
 - Wilma, Community Action Partnership – We work with housing programs for veterans, the homeless, disabled, and those in recovery. One major issue we see is transportation to the Mercer County Courthouse. We also deal with senior independent living. We have nine apartment buildings operated through HUD. Regular transportation is needed on a daily basis. The bus stops aren't in the community, but on the main roads. People have asked if we can get more community stops. A lot of people we work with do not have driver's licenses, so they rely on family and friends for transportation, but they must pay for gas money or depend on their schedules. It's cheaper for them to take transit. But when you have children with you, it's more difficult.
 - Andrea, George Junior – We are one of the largest employers and we also take residents from 5 states – PA, OH, WV, MD, DE. Our employees come from PA and OH. It is difficult for our employees to get here, and difficult for the families to visit at our campus. Getting them around Mercer County is a challenge.
 - Sandy, Mercer County Area Agency on Aging – Our biggest issue with transportation is the long wait to get picked up after appointments. We use Mercer County Community Transit and taxi services. The lack of transportation in rural areas is a challenge as timeframes are limited. Folks who need to go to the

doctor who live in a rural area, if their appointment is at 2pm or later, it is really difficult to get them back. There is also limited transportation to out-of-county facilities (ex. Veterans Affairs facility in Butler). We also manage the Medical Assistance Transportation program. Between the two modes, we are sometimes unable to take people where they need to go. Another issue we have is limited funding for 60- to 64-year-olds. Their trips are very costly, but 65+ we can do with state and federal funds.

- Kim, Mercer County Community Transit – We echo Sandy in that serving customers outside of the Shenango Valley is difficult. PennDOT subsidizes 85% of the trip for 65+ and people with disabilities. There is a lack of subsidies for anyone under 65 or without disabilities, so that funding is where issues arise.
- How does transportation play a role in your community? How does it affect other aspects of daily life?
 - Wilma, Community Action Partnership – Transportation affects what people can do. A lot of the population we serve is homeless, and they don't have money for transit. If veterans have to go to Butler to the VA hospital, that is a challenge. It affects their health when they can't get to where they need to and miss appointments. Most also do not have access to computers, so they can't do Telehealth.
 - Andrea, George Junior – A lot of our families don't have access to transportation or funds. They are not fully benefiting from our programs because we spend so much time transporting. Reuniting families with children is a high priority, but sometimes the families live across the state or in another state. When we do have visitors come to our facility, they don't have transportation access to patronize and sustain the local businesses.
 - Sandy, Mercer County Area Agency on Aging – The role that transportation plays in senior life is a social one: it helps them to participate with others and go to the senior centers. Older citizens have lost the ability to transport themselves. Having the transit and shared ride program take where they need to go is good – at that age, visiting the hairdresser is an important part of their life, as well as medical appointments. They don't have the ability to do Telehealth unless they have family members who can help them with the technology. Our Medical Assistance Transport program helps clients of all ages to pick up prescriptions, take them to appointments, drug treatments, etc. Transportation is vital.

- Holly, Housing Authority – I agree with the information provided earlier. I am concerned with the opportunity for parents to participate in their children's lives, such as taking their children to sports events. They need transportation to look for jobs, visit family within Mercer County (Sharon, Farrell, etc.). A lot do not have transportation to do all the things we take for granted. There are entities that will help with some of the medical, food transportation, but not for the extracurriculars that are important, socially and mentally, for the community.
- What do you anticipate your community to look like in 20 years?
 - Wilma, Community Action Partnership – So much is dependent upon funding. We have service funding, but not enough to increase our internal capacity. Hopefully in the future we'll be able to provide more services if funding goes up. One thing I would like to see in a nearer time frame, is more transportation for employment. We have a Work Ready Program, but the challenge is folks won't apply because they have no transportation. It stifles the number of people employed. To be dependent on public transportation, people have to walk blocks, or miles to the job site (or to a transit stop to get to work). Access to transportation on secondary roads would be good. I recommend looking to see who the major employers are and what their transportation needs are. Ashley asks specifically if there are any locations on secondary roads that could be shared? Wilma states that she isn't sure if there are bus routes from the Mercer Apartments on South Otter Street to the Valley and back – or if the service times are frequent enough that they don't have to wait three hours. We know there is no bus line in Stoneboro, but there is an elderly complex there. They have issues getting to the doctor. Even if there was reliable transportation one day per week in those rural areas, that would be helpful for them.
 - Jill, Mercer County Community Transit – We have a fixed route that connects the Valley, courthouse, and outlets. It leaves Farrell at 7am and ends at the courthouse at 4:25pm. The schedules can be found online. Anyone 60+ should never have an issue during the day getting to a medical appointment. We will take them to hairdresser and socialization. We also have a funding source for veterans needing transportation.
 - Andrea, George Junior – Outside of our family visitation issue, getting our own staff to the facility is a big concern. Without job growth and these transportation issues, some businesses may not survive the next few years. Finding staff members with transportation and the ability to work is an ongoing issue – we

have staff from Ohio, Pittsburgh, and Erie. About 20% of our current employees do not have transportation. Because we need staff, sometimes we go and pick them up or let them spend the night so they can work their next shift. Workforce development is a big issue right now. Funding for juvenile services continues to change. We may look at new service avenues in the future, maybe expanding to adult services. Our transportation needs will increase with that growth.

- Sandy, Mercer County Area Agency on Aging – More people will enter the 60+ age group with the Baby Boomers aging. I think we'll be doing more evening programs as people will continue to work longer into their senior years. I hope that transit can be increased in the coming years. The people who are 60 now, in 20 years, will be more technically savvy and not need as much transportation for health since they can do Telehealth. Our goal is to improve their lives so they can continue to be healthy and active. The cost to have a car and insurance is overwhelming for seniors on fixed incomes.
- Matt, MCRPC – Have you seen already people embracing technology and driving later? Sandy – yes, the 60-somethings are very savvy and are on Facebook and Twitter. The 70- and 80-year-olds, not so much. A lot of folks have been ordering groceries and picking them up now with COVID. We haven't talked much about autonomous and self-driving vehicles, but I think the seniors would like that because it gives them independence. 20 years ago, our most used service was the Congregate Meal Program. We'd have 120 people at our Farrell site, coming in for the meals and activities there. These days we're lucky to get 40 people daily. People are now coming in for exercise programs instead. The younger seniors are more interested in health and wellbeing. Many seniors into jogging and doing road races – it's amazing the number of 60+ folks who registered last year for runs.
- Ashley – The McQuiston Center near Sandy Lake that's adjacent to the old rail line – if that ever got developed as a hiking trail, would they use that? Sandy – The younger seniors would like to get out in the fresh air. We have people come in to walk along the carpeted path in our gyms. Indoor is preferable for the older population since it's climate controlled and padded if they fall.
- Holly, Housing Authority – We see a lot of blight and homes torn down around our properties. We are hoping in the future to partner with the city to develop green spaces to eliminate the blight. That would include small green spaces with walking paths, beautification, flowers, chairs, access points for people to charge their phones, etc. I've been here for 28 years, and the seniors today are not the

same as before. They are far more active. I would foresee various kiosks at our community buildings to interact as a group, do things online, join evening programs to develop life skills, attend rehab sessions. It would be great just to have a space for people to go in and just talk if they needed to. A lot of self-employment is going on online these days, and we want to help them do it properly. Another interesting facet of transportation we may need is motorized scooter hubs – you could pay either by coins or credit card, and you can take them from one area to another. It would be something to offer to our people.

- Matt, MCRPC – That captures what we hear of as “micromobility”, which so far has not been big in our region. I’m assuming it happens in bigger cities because of the density, but maybe as technology evolves, it will become more widespread in our smaller urban areas.
- Courtney, PennDOT D1 – We haven’t had any specific conversations within the District about micromobility, but we will need to think about it as we move forward. I am not sure what the permitting process would be.
- Matt, MCRPC – The state is going through that permitting policy question right now with the motorized robots they are using to deliver packages. 10 years from now, will we be seeing them on Mercer County roads? There are lots of questions, concerns, and unknowns about that policy and micromobility.
- Kim, MCRCOG – It’s all based on funding and staffing for us. We would love to increase our coverage and operating hours. We’re having trouble finding employees to operate the buses. It’s difficult to say what it’ll look like in 20 years. We are planning to start our strategic plan, hopefully in the next year. We’ll study all our routes and check ridership, demand, look at microtransit, external forces, etc. This is different from the Coordinated Services plan.
- Matt, MCRPC – Eastgate may be involved in a new Coordinated Plan, but he isn’t certain.
- What specific transportation improvements would be most beneficial to the group you represent?
 - Andrea, George Junior – Transportation from Pittsburgh to Grove City, Butler and New Castle to Grove City, within Mercer to the Valley area, and the Slippery Rock area. A lot of students from Slippery Rock work at our facility during the summer months. It’s shift work. The students take their own transportation.

Some of our workers are from Ohio, and we've even made arrangements to provide overnight housing for some employees to make the trip easier.

- Sandy, Mercer County Area Agency on Aging – Would we get more riders if we made a bigger loop with our transit service that covered Sandy Lake, Grove City, and Greenville? We need more affordable transportation. We can help with medical appointments, but not everything else, especially for folks under 60 and non-medical visits. Is there some type of funding to reduce those costs? The medical appointments need to occur between 11am and 2pm so they can get home in time. Paying a taxi to wait while you complete your appointment is very costly.
- Matt – Do you have an estimate of how many use fixed transit versus county shuttle service?
 - Jill, MCRCOG – before COVID our combined ridership was about 100-180k trips per year.
- Sandy, Mercer County Area Agency on Aging – Most of the people coming to our exercise programs drive themselves. We probably see decreased transit usage annually because our meal program attendance has decreased. Even with Mercer County having food deserts, we are finding they aren't using the program as much.
- Holly, Housing Authority – We have more people moving in with no income. The transportation to get here and the wait time to get back home is a problem. The time span of getting from point A to B is an issue – we have a lot of people who use bus lines to get their groceries. They can't wait for 1.5 hours to pick up the bus again to get home. A few times we've considered using Uber to pick people up when they are stranded. We do income recertification monthly. We have a lot of elderly that use the door-to-door services, and families that use the bus lines, but we do not have a bus stop at our main office, the facility at Jefferson Avenue in Sharon. Normally we have a good flow of individuals that come in monthly for recertification paperwork. We also get a lot of applications. They come in on a rolling basis throughout the month, and sometimes they can't get in for the first appointment because they do not have a ride and end up coming later in the month.
 - Matt, MCRPC – It would be beneficial for us to have a separate conversation sometime to talk in-depth about your services.

- Kim, MCRCOG – Funds are the largest part of the lack of transportation service hours in the county.
- Carrie, McCormick Taylor - thanked all in attendance for joining and providing insights and closed the meeting.

Mercer County LRTP Stakeholder Focus Group

Project: Mercer County Long Range Transportation Plan Update
Subject: Focus Group Meeting #3 – Economic Development
Date: Thursday, March 11, 2021; 10:30am – 12:00pm
Location: Microsoft TEAMS Meeting
Attendees: MCRPC - Matt Stewart, Brian Barnhizer
PennDOT District 1-0 - Tom McClelland, Lyndsie DeVito, Courtney Lyle
McCormick Taylor - Carrie Machuga, Rob Watts
Economic Development Stakeholders:

- Federal Highway Administration – Dan Walston
- Greenville Reynolds Development Corp. – Bradley R. Gosser
- Mercer County Commissioners – Scott Boyd, Matthew McConnell
- Penn Northwest Development Corporation – Kerri Erickson

Stakeholder Distribution List:

Federal Highway Administration	Dan Walston	Christopher.Walston@dot.gov	
Greenville Reynolds Development Corp.	Bradley R. Gosser	bgosser@greenvillereynolds.com	724-646-1144
Mercer County Commissioners	Scott Boyd	sboyd@mcc.co.mercer.pa.us	724-662-7533
Mercer County Commissioners	Matthew McConnell	mmcconnell@mcc.co.mercer.pa.us	724-662-7532
Penn Northwest Development Corp.	Kerri Erickson	kerri@penn-northwest.com	
PennDOT District 1-0	Lyndsie Devito	ldevito@pa.gov	814-678-7174
PennDOT District 1-0	Courtney Lyle	clyle@pa.gov	814-678-7046
PennDOT District 1-0	Tom McClelland	thmcclella@pa.gov	814-678-7085

Discussion:

- What do you expect the economic performance of Mercer County to look like over the next 20 years?
 - Commissioners would like to see a surge with growth around the Shell Cracker Plant in Beaver County, which could be an engine to draw in other related industries.
 - Opportunities for freight/warehousing economy growth in Mercer County. Look at neighboring and regional corridor MPOs that have connection with Mercer County.
 - Concern about impact of tolling bridges on I-80 (instead of tolling the roadway) on local economy.
 - Mercer County is considered as a secondary market for industry/manufacturing. The infrastructure is here and the Pittsburgh/Cranberry area and eastern PA areas are getting saturated. (More cost-effective to locate in Mercer, too)
 - Expecting a transition from commercial real estate to cold storage (medical in particular).
 - Labor is a current issue but should ease once COVID restrictions lifted and programs scale back.
 - Expecting a conversion of retail to call centers (more employees)
- What transportation projects are needed to support development?
 - Concern about tolling on I-80
 - The roadway network is good/diverse overall.
 - Call centers could put pressure on surrounding street networks associated with employee trips.
 - Traffic signals on the Route 18 Corridor add travel time/delay for freight trips. Signal timing/progression helps.
 - Truck routing to Route 358 – Concerns about roadway alignment (especially curves)
 - Greenville Reynolds Park has decent access to interstates 79 and 80 within 20 minutes.
 - Truck drivers going through Greenville from north, various other routes and access is pretty good, perhaps better than other locations.
 - S-curves in Clarks Mills are a concern for trucks.
 - Line of sight at the I-79/Route 358 interchange is a safety concern.

- Route 358/US 19 interchange could be an opportunity for a roundabout. The current signal causes undue delay.
 - Improvements here would help to keep the area marketable for development.
- Development at the US 19/I-80 interchange would require interchange improvements to accommodate higher truck traffic.
 - County has interest at interchange, large parcel available for development.
- Are there specific areas where freight movement has a challenge or reaches a bottleneck? Any plans for intermodal facilities or expansions, such as truck to rail, etc.?
 - Complaints about truck traffic through downtown Sharon (especially to/from the Westinghouse Plant)
 - Impacts to ease of ongoing development/redevelopment (J. Landino?)
 - Route 62 tunnel height restrictions limit freight movement.
 - Rail is an interesting concept – some companies may consider shifting from truck to rail if highway truck traffic/congestion increases.
 - Weight limits on some rail bridges restrict use. Bridge in downtown Sharon creates somewhat of a dead end for rail line.
 - Potential large transload facility in Crawford County fell through because of rail limitations.
 - Key industries have invested in rail freight/improvements.
 - Sharpsville – Interest in transload facility but has not moved forward.
 - Interest at Greenville Reynolds Industrial Park, but rail has limitations there.
 - Trinity North and South Plant sites being marketed, and both have rail sidings. Difficulty getting semi-trucks to site, so rail would be the easiest way to get materials/product in and out. Significant truck traffic would stress existing roadway network there.
 - North site would likely be zoned as light assembly, and South site has potential to attract heavier industry.
 - Follow-up with Greenville Economic Area Development Corp.
 - PennDOT perspective on bottlenecks – Smaller built-up communities with state road junctions (i.e., Mercer) see a lot of truck traffic, creating congestion at intersections and even damage to poles, signs, etc. if roads/intersections are too tight for trucks to maneuver.
 - Joy Cone manufacturing near Lemor Road and Route 18 has seen a lot of HOP projects to improve access to the plant. Similar partnering needed to keep up with growth in other areas.

- Joy Cone has been a 'good neighbor' by directly truck traffic to the plant off of local streets, landscaping to buffer between the plant and residential area, etc.
 - City of Hermitage recently passed zoning changes which may help keep freight traffic off local streets.
- What are the current major industries in the county? Do you think that will remain the same or change in the next 20 years?
 - New Industries/Opportunities:
 - Call centers
 - Shell Cracker Plant (and spin-off industries in plastics) in I-376 corridor
 - Pittsburgh Airport connection
 - Hermitage area (expected growth)
 - Greenville-Reynolds (expected growth)
 - New buildings and large sites up to 150 acres available in Reynolds East Business Park
 - Filtration companies (growth expected) – Expanding facility at the old paperboard plant near Reynolds High School, will have additional transportation needs
- Are there certain areas of the county where you anticipate seeing growth or development?
 - I-79/Route 358 interchange
 - US 19/I-80 interchange
 - Hermitage and Sharon areas
 - Greenville area
 - Grove City (ex., Hall Industries)
 - New demand for residential development could lead to population growth with people relocating from urban areas because of the ability to work remotely.
 - Need to increase broadband infrastructure to support this move to remote work

- What are your goals for economic development within Mercer County? (downtown revitalization, supporting small businesses, attracting large businesses, increasing tourism, etc.)
 - Build off opportunities from the Shell Cracker Plant
 - New housing development
 - Highlight connection to Pymatuning Lake (recreation/tourism opportunities)
 - Keep infrastructure and connected trails in good condition
 - Thiel College, Grove City College (“town and gown” opportunities)
 - Consider appearance of gateways/interchanges (highway beautification)
 - Marketing opportunities
 - Adopt a highway/interchange
 - Design options for interchanges
 - Public art on public infrastructure (walls, bridges)
 - Sharon, Greenville, Grove City have active downtown development groups working to revitalize local business communities
 - Trend toward investment in traditional downtown areas
 - Pittsburgh Airport – Looking at downsizing facilities, but could improve situation in Mercer County if it was designated as a hub.

- Does the current transportation system meet the needs of current economic activity in Mercer County? Is it prepared for changes in economic activity in the future?
 - A key concern is the change in freight and projected trends (I-80 in particular); Travel dynamics have changed with a large percentage of trucks on the interstates.
 - Data tools improving (FAF), and getting closer to local freight impacts/operations
 - GIS systems and GPS (big data) improving tools/forecasts
 - Funding is a big challenge. There has been a recent shift in prioritizing funding toward interstates.
 - Bridge improvements are needed to accommodate rail traffic, specifically double stacks
 - Norfolk Southern had planned to pay for bridge improvements within a 40-mile radius of their facility in Sewickley, PA
 - Rail freight vs. truck freight mix → Where to invest in infrastructure?
 - E-Commerce is influencing growth in truck freight, and rail is not a viable substitute for that type of freight.

- What do you see as transportation challenges for residents and employees commuting for work or business in Mercer County?
 - Need to consider interaction between commercial vehicle traffic and residential-oriented traffic
 - Focusing on geometrics, clearances, signals to determine the right approach
 - Past decline in population/employment provided “slack” for growth, so new development/redevelopment has not put too much pressure on existing transportation network or communities
 - Bridges are a major concern – Mercer County owns too many, and is undertaking projects to address issues (rehab, repair, and replace). Commissioners would like to see stimulus directed toward structures.
 - Bridges getting to the point where restrictions are required which makes routes longer when large vehicles must find alternate routes
 - Bridge/Road Postings
 - Trying to use the CB alert system to inform drivers
 - GPS devices (Google Maps, Waze, etc.) often route trucks to local routes using the fastest/most direct route but can often put trucks on roads where they can’t maneuver safely.
- What transportation improvements would be most beneficial to support the economic activity within the county?
 - Dirt/Gravel/Unpaved roads – Consider using a hard pack material (if not pavement or tar/chip) and implementing drainage improvements
 - This could be especially helpful around recreational areas.
 - County Conservation District program to improve Low Volume Roads
 - Snowmobiling/ATV trail systems
 - PA is losing out on recreational visits to adjacent states
 - We can learn from other states about how they do it/make it work
 - Open low volume roads and consider systems of connected facilities
 - Policy for using state roads for off-road vehicle is being discussed in Central Office, and there may be some changes coming.

Mercer County LRTP Stakeholder Focus Groups

Environmental Agency Stakeholder Focus Group

Date: March 23, 2021

Time: 2:30 – 4:00 p.m.

I. Introductions

- LRTP Team – Carrie Machuga, Ashley Tracy, Michelle Goddard, Matt Stewart, Brian Barnhizer
- PennDOT District 1-0 – Lyndsie DeVito, Autumn Kelley, Ronald Johnson, Angela Jaillet-Wentling
- Agency Partners – Jay Russell (Mercer County Conservation District), Josh Wisor (PA Fish and Boat Commission), Bill Calahan (PA State Historic Preservation Office), Mark Scarpitti (PA Dept. of Conservation and Natural Resources – MK Goddard State Park), Kimberly Yeakle (PA Environmental Protection Agency), Joy Gillespie (US Environmental Protection Agency Region 3), Jennifer Kagel (US Fish and Wildlife Service), Bill Spring (US Army Corps of Engineers – Shenango Recreation Area), John Chopp (US Army Corps of Engineers)

II. Long Range Transportation Plan Overview

III. Agency Coordination Overview

IV. Discussion:

- Describe the current state of transportation infrastructure in Mercer County related to your agency's resources
 - DCNR – Recently the Creek Road Scenic Byway road has been improved, though there is probably more we can do for residents and tourists. We receive comments about the Lake Wilhelm Road causeway. Cyclists are worried about cars parked on the side of the road. It's a popular area for eagle watching, fishing, etc. – there was some bridge work done this year. Matt wonders how the Lake Wilhelm biking community feels about that project area. The decision was made to restrict parking on both sides, so that bikes could ride on the shoulder on both sides, and people can use the crosswalks to cross the street. In the past, when vehicles parked on one side of the road, it created a lot of safety concerns for cyclists. The downside to restricting parking is that it's an extremely popular eagle watching area, place to watch sunsets, etc. – on top of that, in the summertime, it's one of the only areas with shade near the bridge so it was a

popular fishing area. We have accessibility issues walking from the marina lot to the viewing/fishing spot, which can be about 0.5 mile. If you know the area, there is no good place to put a parking lot, so it's difficult to determine an ideal solution.

- Shenango Recreation Area – We need unique signage to get people excited. Tourism is a big part of transportation and the local economy. We are holding larger recreational and historical events. We had Eagle Fest this year which gave us an additional 800 clicks on the traffic counter. We also host veteran fishing tournaments, historical reenactments, Earth Day, etc. We want to make sure tourists can navigate the local area around the reservoirs. Tourism and marketing will increase demand on the infrastructure. Another entity to contact is the Tourism Bureau, at VisitMercerCountyPA.com, they would have good insights from a tourism perspective. We want to leverage private partnerships to do more with less. A new marina owner just took over the lease and has plans for “glamping” sites. We are also looking into partnerships with the Shenango River Watchers, Law Enforcement, and Shenango Friends Group to increase tourism. We want to become a regional destination.
- Army Corps of Engineers – We have some PennDOT advance compensation sites for wetland banking just north of Mercer, in Crawford County. There is one entrepreneurial bank within the County. We have mutual agreements with the Game Commission in and around Shenango Park to mitigate and offset resource impacts.
- Mercer County Conservation District – Related to comments at Maurice K Goddard State Park, our dirt and low volume road program has been successful with limited funds for drainage and base projects. Municipalities and local road owning entities can apply for those funds. With our DSA aggregate, we are finding that the traffic in some park areas may exceed the volume recommendations for that type of surface. If the DCNR park property is served by a municipally owned road, they can apply. New Vernon Township has been successful with the program.
- SHPO – We want to integrate the resources of the county with planning, development, tourism, and tie them together holistically. We are interested in how we can use hiker-biker trails, highways, recreational areas and tie them together. Specifically, within the last month, we went live with our new data management system called “PA Share” which is our system for investigating historic resources, submitting projects, integrating surveys, etc. We’ve had

preliminary conversations about using the principles of L RTPs for historic resource mitigation planning, which we would like to explore further in the future. A more concrete issue is that Mercer County has not been inventoried for historic resources in the past 30 to 40 years. Most of the communities are long overdue for a comprehensive survey and inventory. Matt states he will follow up with Bill after the meeting, to determine whether it is something that the planning commission should be involved with. SHPO has funding from our Keystone Preservation Project grants to do these types of inventories.

- For agencies owning land within the county, are there any transportation issues with accessing these properties? Are there any planned improvements to these properties that may increase traffic? What transportation improvements could help increase public access or awareness of your resources?
 - Shenango Recreation Area - what about offering vistas and overlook areas for the valleys and lakes, etc.? We could capture some short tourism trips and help the local economy. I can't think of aware of any in particular at Shenango Reservoir right now, but there may be spots elsewhere. Route 18 running north-south goes over Shenango Lake, we have some access areas close by but not really any overlooks with views. Lake Wilhelm causeway is the most popular place, again that we know of.
 - Carrie, McCormick Taylor – Are there are any fishing spots with parking issues, that may need wider shoulders or dedicated parking issues? PFBC will reach out to see if they can get a list of problem areas for angler access issues.
 - Josh followed up after the meeting – “The roads around the Shenango reservoir need upgrading, specifically Beaver Pond Road, and Golden Run Rd. The latter I think is owned by USACE.”
 - MK Goddard State Park – Our attendance went up about 100,000 in the past year with people getting outside more during the pandemic. The biggest impact for us is that we don't have areas where people can pull off. We have limited spots that are good for fishing from shore (i.e., for those without a boat). In Pymatuning, they use their break walls as fishing piers. We need to expand the fishing opportunities without needing to go out onto the lake on a boat.
 - Matt mentions the impact of Pymatuning traffic on Jamestown during the summer months. The state route through Jamestown is getting a large

betterment project over the next couple of years. If there is such a location that gets more tourism demand, it's likely there.

- What are your agency's main environmental concerns within the county? How is transportation related to those concerns?
 - SHPO – Our biggest concern is the lack of updated data. And the “traditional” way of looking at historic resource planning is not enough.
 - USFWS – Depending on the specific project locations, definitely coordinate with us to see what kind of species may be nearby. For example, we have massasauga rattlesnake, northern long eared bats, Indiana bats, federally-listed mussels. The Bald Eagle is also of interest. There are two mussels under federal review that may be listed soon – the longsolid and round hickory nut mussel. There are some changes to the Migratory Bird Act, which were provided in a link in an email. There are also important mammal areas, Bald Eagle Nest and buffer zone mapping, which also are provided in a link. Another initiative for FHWA is providing habitat for pollinators along right-of-way and other public lands. PennDOT has a new program called the Voluntary Prelisting Conservation Program where they generate credits for four species of pollinators that may be listed. The program focuses on conservation mowing, building pilot sites, seeding, etc. to offset projects that impact those pollinators. We are all for partnerships with the game commission, Army Corps, and others.
 - Mercer County Conservation – Flooding is an issue. We have several flood-control dams in the area. It can be taxing on the local roads. 2020 was okay, but 2019 had a lot of high intensity storms. There are low roads that are close to streams and rivers, like in the Town of Greenville. In many areas, we see culverts with debris and plugging which creates problems coming out of farm fields in rural areas. Carrie wonders about specific locations of landslides? Municipal road owners call the Conservation District for locations where the streams have eroded enough to come closer to the road. Findley Township around Plantation Park was getting a lot of flooding. Some of the flooding has to do with the debris in stream. Maintenance would definitely help. Near Scrubgrass, businesses were complaining about trees being in the water causing flooding. Culverts and drainage improvements around the state routes in the Hadley area would be helpful. Flooding signage would also be helpful to warn travelers.

- Michelle mentions the data layers – we want to make sure we have access to as many data layers as available, up-front, so if anyone has any ideas they want to share now, that would be helpful.
 - PFBC – Josh will look into what they can share and how that can be accomplished similar to what Jen provided.
 - Carrie encouraged anyone with data sources to send it directly to her and she can distribute to the rest of the team.
- Army Corps – At the federal level, we are looking at a Watershed Analysis. We are working with a biologist to build a watershed model to represent all of the individual elements within the Shenango Basin. Any geospatial data this group can provide would greatly benefit our efforts. And vice-versa, the Corps can share information when we determine where the nutrient loading is coming from and how it impacts water quality, how to mitigate with riparian restoration, erosion control, etc.
- Are there any planned or anticipated projects of which we should be aware? Such as park improvements, stormwater mitigation, MS4 projects, etc.
 - DEP – We are currently considering electric vehicle charging infrastructure. We don't have any grants open right now, but with Mercer having three major interstates, it seems very applicable. Signage will be important to navigate travelers to this EV infrastructure. Solar projects are another big thing for our agency right now. Our office has provided outreach for PJMQ. PJM – PA is one of 13 states that is involved with the electricity grid for that.
 - Mercer Conservation District – Grid scale solar is also on our radar as we work with DEP for permitting. We have no projects currently underway, but we have a permit under review. Matt notes this is becoming a hot topic across the state with municipalities, so it will be good to get ahead with this.
 - Army Corps – We are also looking at solar projects in general. We had a local company reach out about floating solar farms – not sure if it will stick but it's something to be aware of. Shenango Recreation Area successfully obligated \$750,000 through a FHWA program for campground asphalt work, which will get underway the week of March 29.
 - EPA – Joy will send several resources to Carrie and she can share with everyone. There are three items: Watershed Resource Inventory, EJ Screen, and NEPA

Assist. With that, we also recommend that EJ considerations are a part of decision making.

- Carrie thanked everyone for their participation and closed the meeting.

Mercer County Long Range Transportation Plan

Multimodal Stakeholder Focus Group

Date: March 24, 2021

Time: 9:00am to 10:30am

I. Introductions

- LRTP Team – Carrie Machuga, Ashley Tracy, Matt Stewart, Brian Barnhizer
- PennDOT District 1-0 – Lyndsie DeVito, Courtney Lyle, Tom McClelland
- PennDOT Central Office – Roy Gothie
- Stakeholders – Ryan Voisey (Buhl Farm Park), Kim DiCintio, Jill Boozer, Mike Dash (Mercer County Regional Council of Governments)

II. Long Range Transportation Plan Overview

III. Discussion:

- What is the current state of multimodal infrastructure within Mercer County? What modes are most or least used?
 - Kim, MCRCOG – Personal vehicles are still the #1 mode. We provide a countywide bus system and fixed route service in Shenango Valley.
 - Tom, PennDOT D1 – Agree that personal vehicles are the primary mode. There are definitely opportunities for trails. We've been working on a trail project near the Grove City Outlets. There's another trail near Grove City, a north-south trail just outside the Borough. The North Country Trail tracks somewhere in Mercer County as well. Up in the Greenville area, there are ballparks with trails connecting them. We did an early action project on Highland Ave in Hermitage near Buhl Farm Park with enhanced pedestrian crossings, decorative crosswalks, and early warning signs. Those decorative crosswalks have held up well. PennDOT's main focus is asset management and maintenance. Using the PennDOT Connects to interface with municipalities is important. Matt mentions the Trout Island Trail, and that Buhl Park is a huge draw for bicycles and pedestrians in the entire Shenango Valley. Hunter Farms Park is the one near Grove City with the trail. Interest in bicycle and pedestrian travel seems to be continuously growing since the last LRTP.
- How do you anticipate multimodal activity to change over the next 20 years? What changes or improvements are needed to prepare for those use changes?

- Ryan, Buhl Farm Park – We can attest to increased usage with the pandemic in all facets of our facilities between tennis, bicycle pump track, four miles of downhill mountain biking trails and Dum Dum golf course. We're trying to get more accurate numbers on attendance, and we purchased data collection tubes to place at the entrances and pedestrian counters to place along the trails. We were featured on a nationally recognized YouTube channel last year (AdventuresinGolf from California). The episode was named "Only Free Golf Course in the World?" – as we are one of the only free 9-hole golf courses in the world. We'd love to work with partners to get the community access to this amenity. A few other planned additions to the park – the recent project in Sharon and Hermitage carrying the bicycle lanes up to Sharpsville, we needed to create safer access for cyclists to enter the park. We're adding new safer bike lanes through the main entrance, instead of traveling down Forker Avenue. We are also creating a pathway parallel with Fourth Street in Sharpsville that connects to the school district, which ties the bike lane coming from Sharon into the park, so they can ride their bicycles through the park and jump into the bike lane that starts in Sharpsville.
- Matt, MCRPC - those 3 communities (Sharon, Hermitage, Sharpsville) have been very interested in creating better linkages to the park, and have worked with PennDOT to fund some of those. In 20 years, I'll be interested to see what the Mercer County Trails Association can do. Communities that have invested in a bike and trail network seem to build momentum for support, funding, etc. Mercer County has some success stories, but Venango County to the east has seen more as well as locations in Ohio, where trails are funded differently. Our funding scenario doesn't look great, but there will be more emphasis on Complete Streets in the future. Our State Street project will add sidewalks into Hermitage.
- Roy, PennDOT Central Office –Bicycle Route A runs north-south through the county, and Route V is the east-west route. A lot of our long-distance bicycle routes are not user friendly for families/recreational use, as they are for mainly experienced adult cyclists. As our trail networks advance, can we relocate some of these routes off the road? This could be accomplished with wider shoulders, better rumble strip guidelines, and at least 2' wide berm if not more, if we can squeeze it in. Matt mentions again that the D-1 Bicycle Plan was recently finalized, which has some of those recommendations. In the long term, PA is an aging state. AARP notes that 75% members want to age in place, so we may see

more people who are aging out of driving in the coming years. We need sidewalk network expansion and lighting improvements in communities to support that.

- Kim, MCRCOG – We have the fixed route and door-to-door services. We understand the hours are limited. Next year we will start our strategic plan, including a customer satisfaction survey and a route analysis, so we can determine the current needs of the county. Currently we offer fixed route transit in the summertime to Buhl Farm Park. Senior citizens can also make an appointment with door-to-door service to get to the park for recreation.
- Roy, PennDOT Central Office – Another consideration as we move ahead will be E-bikes. Sales of E-bikes are up substantially. In other countries they outsell electric cars. Some mountain bikes have electric motors. The limitations to cycling in some communities with hills are overcome by the assistance from an e-bike. This is favorable especially to the older populations.
- What aspects of the county's multimodal infrastructure work well? What doesn't work well?
 - Roy, PennDOT Central Office – In general across the state, trail connections and state route crossings are a challenge. PennDOT is working out of Central Office to map all trail crossings on state routes. We'll create a data dictionary for each location with posted speed, lane widths, user types (ATV, snowmobile, hiker-biker, etc.) so that we can plan around these trail crossings when a resurfacing project comes through. We're looking at signage inventory as well and creating a way for local governments to add their trail crossings into the map. This effort will be mostly done by the end of September 2021. The pilot project is in PennDOT District 4, and then the map will be available for each District to go out and conduct the inventory with DCNR.
 - Matt, MCRPC – The Hunter Farm Park trail is one where there have been plans to extend that trail to Memorial Park. As you know, we did the Southeast Mercer County Pedestrian Master Plan, and this was a high priority recommendation. One of the areas where we stall out is where the trail crosses Route 208. There are some right-of-way challenges, and we need to be sure the crossing is at a safe location. The two main trails that Mercer County Trails Association has been supporting are Shenango Trail and Trout Island Trail. It's not so much that there are gaps in these trails, but rather that there are Phase 1 segments built, and impediments to continuing them including bridge crossings over creeks, active railroad crossings, ROW, etc. ROW is the #1 impediment.

- Ryan, Buhl Farm Park – Our biggest obstacle was last year when PennDOT was finishing the bicycle lane up Thornton Avenue from Sharon, the park side was easy since the bike lane was carried into the North Forker entrance. We still got kids and adults coming to the pump track. We feel like we have solved the issue of funneling cyclists to the right places. We're working on signage right now to improve traffic and safety.
- Tom, PennDOT D1 – When Tom was in traffic unit, there was a process on State Routes where if a municipality wanted to put up bicycle lanes or sharrows, there was a permit process and program. If we learn of the needs ahead of time, we can put that into PennDOT Connects so that bike amenities can be considered.
- Matt, MCRPC - Getting municipalities to sign maintenance agreements is a huge challenge. There is a recent example in Mercer Borough where there were plans in a project to have sharrows along Route 19, but the borough would not agree to maintain the pavement markings. A similar situation happened at the West Middlesex bridge, which has no actual sidewalk, but a wide shoulder. Unfortunately, it comes down to the opinions of whoever is in charge at municipality, regardless of whether the MPO and PennDOT support it. At the bridge north of downtown Sandy Lake, there was a lot of conversation about multimodal amenities, but the maintenance agreements may be too much for the municipality. Brian agrees, adding that municipalities think it will be a significant ongoing cost and liability exposure.
- Tom, PennDOT D1 – We try to educate the municipality as well. Municipalities sometimes shy away from it due to winter maintenance. We had an example in Crawford County with a bridge over a railroad that involved three municipalities. The case went to a judge who ordered them to maintain it. This year, we had a lot of snow and they didn't end up spending as much as they expected.
- What are your main concerns about multimodal infrastructure related to the group you represent?
 - Ryan, Buhl Farm Park – I was not aware that there was a fixed route service that comes to the park. It's great that it's available, but how do we communicate and market that to the individuals without access to transportation? There are not only physical benefits, but positive mental and emotional well being effects from spending time at the park.

- Carrie wonders if the education, communication, awareness of trails is a concern countywide? Matt thinks locals are generally aware of what exists, and the Mercer County Trails Association does a good job of communicating. However, there has been a challenge in prioritizing trails and pushing things forward. The momentum seems to fluctuate from year to year. Other ongoing tasks include maintenance of vegetation, pavement markings, and street sweeping. The last L RTP identified locations of additional infrastructure needs, focusing specifically on bike and pedestrian needs. Building these facilities comes down to the funding and other challenges we discussed.
- Courtney, PennDOT District 1 – With PennDOT Connects, we are trying to keep track of any areas of concern even if there is not a current project. As we're able to do more of this, we can build a larger database of wants and needs to help the municipalities. If it's something we don't normally do, we help them time their projects to get the most out of the funding.
- Matt, MCRPC – I am optimistic about this process and that we'll see the fruits of this labor in the next 10 years. We've been able to get the municipalities to apply for Transportation Alternatives or Surface Transportation Urban funding. I get the sense that our District is well aware of specific needs.
- What areas should the county prioritize over the next 20 years?
 - Tom, PennDOT D1 – I think we need to prioritize any missing connections. Technology keeps advancing. We hear about the hyperloop, high speed rail, electric vehicles, autonomous vehicles, and we need to think about the challenges and opportunities and how we can keep our transportation infrastructure flexible to meet them.
 - Roy, PennDOT Central Office – We need to think about the county has in terms of zoning. There needs to be bike parking within communities to access places like grocery stores, pharmacies, etc. That could be accomplished with less parking for cars and set aside a few spots for bikes. We also need universal charging stations so people can park and charge the e-bikes. Perhaps the county doesn't have significant electric vehicle charging infrastructure yet. At these places, people could also charge wheelchairs, scooters, and bikes. I also suggest a network of sidewalks in the community and to identify gaps and fill them in to improve the network in a systematic way. I'll point to Bedford County and the municipality of Bedford. They do an audit of the sidewalks and send letters to the property owners if the sidewalk is in poor condition. They also do that

inspection before the property is sold, and it must be fixed or they'll do it and charge you for it. The area is very conservative but has identified the need to maintain sidewalks for the population and worked with the community to enforce it. Street trees are also important. Shaded sidewalks are important in summertime. Designers need to think about what tree species are being used and how they interact with the sidewalk (i.e., avoid root systems that may push up the concrete and damage the sidewalks). If the local communities have not developed an Active Transportation Plan yet – WalkWorks and the Department of Health have a fourth round of funding coming up to do that soon.

- Matt, MCRPC – I'd note that in the past, as streetscapes are designed with trees, the business owners complain that the trees block the sight of their signs, and create maintenance from leaves falling, etc. It can be difficult to get everyone to agree. Pedestrian paths need to be thoughtfully designed, and as low maintenance as possible for municipality and property owners.
- Ryan, Buhl Farm Park – I want to reiterate the point of quality paths and sidewalks. We have an opportunity here to keep people in the area. When you look at our real estate in the Shenango Valley, there are a lot of people buying homes now. Agents say that people are moving here from the cities since they are working remotely. We're in a unique area that has access to city life, retail, environmental resources, and parks. If we can connect these together to provide a high quality of life, we can retain youth as they graduate high school and go to college. We want them to come back. That's extremely important. An example on a bigger scale is when Australia hosted the Olympics, they put their funds toward quality transportation and multimodal options. They're still reaping benefits from that. It's the same in Mercer, just on a smaller scale.
- Matt, MCRPC – Agreed, the Shenango Valley Chamber of Commerce has really seemed to change their strategy in the past 20 years, rather than just focusing on retaining businesses, they are focused on quality of life improvements, to attract and retain the workforce and employers.
- Roy, PennDOT Central Office – I am on PennDOT's post-COVID planning group, looking for what may happen in the next five or more years. One thing we're looking forward to seeing is how vehicle miles travelled changes in the next year with people working remotely. We're at about 85% of the traffic volume that we had year-over-year right now. With those VMT changes, it may change what projects are needed. The county may change the zoning. Single family zoning tends to restrict business activities. This is important for folks who are operating

businesses out of their homes – which may currently be illegal. We need to consider that long-term.

- Matt, MCRPC - Agreed, the county has been looking at zoning flexibility. We can have conditional uses for home-based businesses.
- Are there any planned or anticipated additions or improvements to existing multimodal infrastructure? (New or extended trail systems or bike lanes, paths; additional transit services, etc.)
 - Ryan, Buhl Farm Park – We are adding a one-mile hiking trail that weaves through the existing mountain bike trails, which is near the free golf course. Within the next year, we are going to renovate the wetland area inside the park. We're creating the trails for exercise and education. It will all tie into our master plan of creating the opportunities within the park. We want to do an environmental learning center eventually and link the pathway from that to our wetland area and our fitness trail.
 - Matt, MCRPC – like we have discussed, there are plans to expand the multimodal path on Route 208 near the outlet malls. Another phase funded to be constructed next year. The State Street sidewalk project is a larger TIP project. A lot of our TA and STU projects and Multimodal projects with sidewalks have been built in the past year. We've finished a lot. Greenville Allen Avenue project is in the works.
 - Kim, MCRCOG – we will have a better idea of specifics in our future planning efforts. We'll need to work closely with the MPO on this. We are likely working with our consultant Delta to do the plan. Prior to COVID we did a lot of outreach and marketing, we realize that all of that needs to be continuous to work. I pulled the numbers for March 2021 and March 2020 prior to the meeting. Our current numbers are 266 trips a day on fixed route and 165 on shuttle. Prior to COVID, we were at 372 trips a day on fixed route and 358 on shuttle. We have a ways to go to get back to normal.
- Are there any planning documents that we should reference that identify these plans?
 - Southeastern Mercer County Pedestrian Master Plan
 - D1 Bicycle Plan
 - Greenville Pedestrian Circulation Plan
 - Hermitage Trails and Sidewalks Plan

Mercer County Long Range Transportation Plan

Highway Stakeholder Focus Group

Date: March 31, 2021

Time: 9:00am to 10:30am

I. Introductions

- MCRPC – Matt Stewart, Brian Barnhizer
- McCormick Taylor – Carrie Machuga, Rob Watts
- PennDOT District 1-0 – Lyndsie DeVito, Courtney Lyle, Tom McClelland, Brian McNulty, Mark Nicholson, Darrell Chapman, Greg Maser, Ben Vincent, Ed Orzechowski, Ron Johnson,
- PennDOT District 11-0 – Kathryn Power
- Mercer County – Brad Elder, Frank Jannetti, John Nicklin

II. Long Range Transportation Plan Overview

III. Discussion:

- What are some county-wide concerns with the bridge or roadway system?
 - Mark Nicholson – SR 318 over I-376 has low clearance and has seen some collisions; SR 62 over I-79 may need rehab or replacement and PennDOT is considering whether a 4-lane bridge needed
 - Rob – Are there any candidates for bridge removals?
 - Brad Elder – The County is increasing closed/posted County/local bridges (faster than they can rehab/replace) which raises concerns for maintenance and moving larger vehicles. Open-grid decks are concern – the County is considering non-traditional funding to manage those.
 - County owns 160 over-20-foot bridges. They do regular inspections and have good condition data.
 - Municipal-owned bridges should be captured and prioritized in LRTP – Brad is tracking these, and the County inspects municipal-owned over 20-foot structures.
 - Frank Janetti – Local emergency response is impacted with bridge closures (causing longer response times, etc.). Coordination with emergency management is needed

- The main concern is more for closures related to construction – EMS does not always know about some municipal projects.
- LRTP team will get additional documents and data from PennDOT, including the Twelve-Year Plan, five-year paving plan, etc.
 - There may be an opportunity to meet with PennDOT District 1 units for specific plans/concerns
- Matt Stewart – The Planning Commission is Integrating congestion management processes (CMP) documentation (as they are connected to the Youngstown Metro Area) – There were 24 corridors identified, roughly six that are more critical, including:
 - State Street in Sharon
 - The Grove City corridor (SR 58) during rush hour
 - Non-recurring congestion
 - The team can review CMP and find larger issues and low-cost solutions.
- The west end of I-80 near Ohio state line is a concern – incident management, weather related, etc. (MM 0-15 corridor)
 - Detour routes using 376 to reduce queuing
 - New message boards and cameras (project letting in November)
- Four new traffic signals in downtown Mercer will be connected to the PennDOT Traffic Management Center to adjust timing to reduce congestion when traffic is detouring through Mercer.
- District plans for new technology (ITS, fiber, etc.) – TSMO funding for message boards and cameras, District ROP
- SR 62 Corridor – the NHS designation change (Kilridge to I-79) will affect the system, and the railroad bridge east of Mercer creates a pinch point.
 - Safety concerns were highlighted in the corridor study.
- What aspects of the transportation infrastructure are doing well? What doesn't work well?

- Conditions in the County (bridge and pavement) are among the best in the District. County bridge management is leading in the District.
- There are good relationships between PennDOT District 1, the MPO and other partners.
- The MPO is great at using STU funding for bike/ped improvements and coordination with multimodal projects.
- The District Bridge Unit works to manage bridges and extend structure life (maintenance first).
- Focusing on low-cost improvements and making sure the system stays in a state of good repair.
- The District is using techniques for maintaining small bridges, and the in-county bridge crew can support municipalities. (Ex., Beam casting for smaller bridges)
- The MPO is planning for ways to use safety funding (such as HSIP), conducting analysis, cost benefit ratios, in coordination with the District.
 - Implementing these low-cost countermeasures provide more 'bang for the buck'.
- PennDOT Connects coordination with the MPO has been positive. The MPO is involved in the meetings when new projects go on to the TIP, and helping to capture the challenges for each project.
 - The system is not perfect, but it is an improvement. Municipal coordination can be a challenge.
- Roundabouts – there were no concerns with SR 62 roundabout for winter maintenance or public feedback. It is a good example of PennDOT Connects coordination with City of Hermitage to incorporate their needs and goals.
- The County Conservation District Dirt and Gravel Roads Program has success with DSA to improve dirt and gravel roads and drainage.
- A challenge is always funding for maintenance. There are smaller budgets for mid-cycle improvements, which can create capital projects that include bigger problems. Maintenance budgets have been flat for ~10 years (statewide).

- District betterment cycles are industry standard with a focus on core maintenance activities, and they try to go above and beyond if possible.
 - TIP and County maintenance budgets are definitely connected.
- Do you know of specific concern locations? This may include safety concerns, high crash locations, poor bridge or pavement conditions, congestion, etc.
 - Greg – The SR 18/Rutledge Road intersection has raised public concerns. The intersection was realigned two years ago, and there have been two fatalities since – all in the westbound direction, involving older drivers. Legislators are asking why it was not a signal, and there is a perception of sight distance issues. The current sight distance is acceptable and an improvement on previous conditions. The District has made some small tweaks made since realignment, including new signs, moved stop bar.
 - General public concerns with that section of SR 18 – limited access, busy road, jug handles, and concerns about high-speed rear-end crashes with a signal
 - PennDOT conducted a study in 2010 .
 - SR 18/Williamson Road – This intersection is already in LRTP and TIP. It is an off-set, four-way intersection. There was an inquiry from Michelle Brooks' office.
 - The SR 358 corridor may be a candidate for a study. Specific concerns include:
 - SR 358 – curves by Elder's Tractor Sales east of I-79 towards Sandy Lake
 - SR 358/I-79 interchange – realign the off-set ramps
 - Sight distance, beautification, crashes at the interchange
 - SR 358 intersection with 19 – potential location for a roundabout
 - I-79 SB off ramp at SR 208 (Exit 113) appeared in crash data – Greg Maser will look closer at data to determine what types of crashes occur there.
 - I-80 EB to I-79 SB ramp is a high crash area (more frequent than the other three ramps) – frequent truck rollovers in all weather conditions
 - I-80 (state line to MM19) sees a lot of truck incidents, high truck volumes (close to 50% trucks and projected to continue increasing)

- I-80 truck traffic is going up, especially with PTC tolls going up
- What changes or improvements would be most beneficial or impactful?
 - Improved emergency services communications related to interstate detours – notify local police to help move traffic along detour routes
 - Real time emergency services communication with PennDOT with the state radio system
- Are there any planned or anticipated projects of which we should be aware?
 - Hermitage town center improvements (grant-funded)
 - Potential development at I-80, Exit 15
 - Complete streets came up as a focus for the last LRTP, and sometimes comes up in project development. Interest is growing, but it is not a county-wide concern.
 - Grove City, Greenville, Hermitage have done studies and are implementing improvements with multimodal and TA funding
 - Funding is dedicated for these specific types of projects, and can't be used for other roadway work. District is working through the PennDOT Connects process to help municipalities apply for funding for additional improvements.
 - The MPO is working to target planning studies to locate the improvements where they are needed, wanted, etc.



Appendix B – Report Card

SVATS MPO LRTP 2021 Update Report Card		Current (2021-2026)		Mid-Term (2027-2033)		Long-Term (2034-2045)	
		Actual	Goal	Actual	Goal	Actual	Goal
Quality of Life							
Safety and Security	Number of HSIP-funding applications or safety improvement projects implemented, number of Roadway Safety Audits		5		10		10
	Total crash rate, fatality, or serious injury accidents reduced where enhancements were made		Yes		Yes		Yes
Improve Mode Choice and Inter-Governmental Cooperation	Number of roadway betterment and new construction projects that include sidewalks and bicycle amenities		5		10		10
Access to Natural Resources, Improving Mode Choice, Recreational Opportunities, and Vibrant Spaces	Number of TA, STU, and Multimodal Transportation Fund applications that directly impact mode choice, recreational opportunities, and revitalization		5		5		5
Environmental Stewardship	Projects follow the PennDOT Connects Process		Yes		Yes		Yes
	Projects coordinated early with multiple agencies (MCRPC, PFBC, PMHC, DEP, DCNR, PACD, etc.)		Yes		Yes		Yes
Economic Vitality							
Travel Time Reliability and Access to Local, Regional, and National Markets	Congestion Management Process plan to monitor travel time along congested roadways to maintain/improve travel time reliability and congestion, updated quadriennially		1x		1-2x		2-3x
Improving Mode Choice to Regional Travel	Plan developed and projects implemented to improve non-automobile access to intercity travel options (i.e. Coordinated Services Plan, re-establishment of intercity bus stop)		Yes		Yes		Yes
Access to local, regional, and national markets	Number of plans or projects related to freight movement completed		2		4		4
Improving Recreational Opportunities and Connecting Tourist Destinations	Prioritization scheme developed for regional land and water trail system		Yes		-		-
	Number of recreational trail funding applications		2		4		4
System Preservation and Enhancement							
Project Delivery and Intergovernmental Cooperation	MPO provide ongoing support for stormwater management and Highway Occupancy Permits (HOP) for municipal officials		Yes		Yes		Yes
Pavement Quality	Systemwide good or excellent IRI values better than the statewide average		Yes		Yes		Yes
Bridge Maintenance	Percent of poor bridges better than the statewide average		Yes		Yes		Yes
Project Delivery	Number of LRTP projects completed or programmed		5		20		20
Intergovernmental Cooperation	Coordination with county maintenance on areas for improvements gathered by outreach		20		5		5



Appendix C – Project Prioritization

SVATS MPO LRTP 2021 Update - Project Prioritization Criteria				
Criteria	Weight	Detail	Criteria	Score
Safety & Security 20.31				
Existing Crashes	41.72	Will project improve safety on a route listed in the high crash locations in Mercer County?		
		No		0
		Yes with Excess Cost >\$0 to 100k		0.5
		Yes with Excess Cost >\$100k		1
Safety	38.27	How many of the following issues are likely to be addressed by the project? Roadway and shoulder width; sight distance; intersection skew; substandard geometry, curve radius, or superelevation; detour route improvement	None will be addressed One will be addressed Two+ will be addressed	0 0.5 1
Multimodal Safety	20.01	Will project improve safety for pedestrians or cyclists or provide a dedicated multimodal space?		
		No		0
		Yes		0.75
		Yes + proximity to school, bus stop, medical, commercial area, 0 vehicle households (identified through ACS)		1
Condition 17.3				
Infrastructure Condition	100	How many of the following conditions exist? Poor or fair pavement condition; Poor intersection operations; Ped/bike facilities or ADA ramps deteriorated; Poor drainage Bridge eligible for rehab/replacement; poor facility access; due for rehabilitation from BAMS or PAMS in 5 years	Good condition/none exist One condition exists Two+ conditions exist	0 0.5 1
Economic Vitality 14.96				
Economic Competitiveness	69.54	How many improvements will the project provide in the following categories: Critical Urban Freight Corridor (CUFC) asset, truck bottleneck, access to existing or future commercial or industrial land use, access to a Central Business District (CBD), a connection to the NHS	None will be addressed One will be affected Two will be affected Three+ will be affected	0 0.5 0.75 1
Tourism	30.46	Does the project influence local and regional tourism? Connects local tourist destinations; improves downtown revitalization efforts; connects to regional destinations; provides reason to stay a 2nd day;	None will be addressed One will be addressed Two+ will be addressed	0 0.5 1
Accessibility / Mobility 14.34				
Mode Interconnectivity	64.67	How many of the following modes are affected by the project? Auto, Truck, Bus, Bicycle, Pedestrian, Rail, Air, Pipeline	One will be affected Two will be affected Three+ will be affected	0 0.5 1
Recreational Access	35.33	Does the project provide access to locations on the regional tourism map, or provide additional recreational opportunities?	No Yes	0 1
Traffic Congestion 13.06				
Congestion	45.6	Does the project add turning lanes, travel lanes, signal upgrades, and/or improve congestion on a corridor included on the MPO's Congestion Management Process	No Yes Yes + PM Peak Period Total Delay and/or Travel Time Reliability ranked within the top 10 CMP corridors Yes + PM Peak Period Total Delay and Travel Time Reliability ranked within the top 5 CMP corridors	0 0.5 0.75 1
Traffic Volume	28.87	What is the average annual daily traffic (AADT)?	AADT < 4,000 AADT > 4,000 to 8,000 AADT > 8,000 to 12,000 AADT > 12,000	0 0.25 0.5 1
Percent Trucks	25.53	What is the overall percentage of medium/heavy duty commercial trucks?	0-5% 5-10% 10% or higher	0 0.5 1
Feasibility 11.37				
Planning Consistency	42.56	Is the project consistent with the local comprehensive plan, completed transportation plans, and federal / state planning direction?	Project not mentioned in any planning documents Project generally mentioned in planning document Project specifically listed in planning study	0 0.5 1
Project Readiness	36.86	At what stage is the project in the planning process?	MPO approached about project Conceptual alternatives Preliminary design started Final design complete; PennDOT reviewing	0.25 0.5 0.75 1
ROW and Utility	20.58	Is significant ROW, utility, or railroad coordination anticipated? Significant: large property acquisition required, utility relocations or RR impacts Minor: only small property acquisitions or municipal owned utility coordination Low or no: improvements done within existing ROW	Significant coordination Minor coordination Low or no coordination	0 0.5 1
Environmental Impacts 8.66				
Environmental Justice (EJ)	59.09	How will the project affect low-income or minority populations?	Below low income rate of 20% or non-white rate of 30% Low income between 20-30% or non-white between 30-45% Low income above 30% or non-white above 45% (1.5x rate)	0 0.5 1
Environmental Resource	40.91	What is the anticipated level of environmental impact from this project? Large impacts: significant anticipated impact on wetlands, public parks, waterways, Minor impacts: smaller amounts of impact to resources; disturbance area is smaller No impact: no disturbance outside existing ROW Benefit: improves system resiliency through stormwater improvements	Large impact Minor impact Low or no impact Benefit	0 0.5 0.75 1



Appendix D – Project Programming

MCRPC LRTP Update 2021 - Project Programming (11/8/21) - Roadway Projects

ID	Project Name	Description	Municipality	Near Term		Mid-Range							Long-Range											
				2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
GREEN_D1	SR 0018 College Avenue & Packard Avenue Intersection Improvements	Install improvements to the SR 0018 College Avenue & Packard Avenue intersection near Thiel College including intersection reconfiguration for better sight distance reduction of skew, pedestrian crossing, and addition of turn lanes as required	Town of Greenville	\$ 3,725,443	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
LRTP_H23A*	SR 0208 Two-Way Left Turn Lane from Old Ash to Oakley Kelly Road & from SR 0258 to Pine Township Line	Widening for a two-way left turn lane along SR 0208 as development occurs	Springfield Township	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
LRTP_H11	Broadway Avenue (SR 0760) Phase 4 Truck Improvements	Truck and freight-related intersection and roadway improvements along Broadway Boulevard from approximately Industrial Road through Kirila Boulevard to the interstate ramps	City of Hermitage	\$ -	\$ 110,873	\$ 114,199	\$ 156,834	\$ 1,615,387	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
LRTP_H10	Mercer Avenue (SR 0418) at Morefield Road Intersection Geometry Upgrades	Realign intersection approaches to provide a conventional four-way plus intersection to improve sight distance	City of Hermitage	\$ -	\$ -	\$ 95,512	\$ -	\$ 67,553	\$ 695,791	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
LRTP_H32*	US 64 Railroad Tunnel Reconstruction	Reconstruction of US 62 railroad tunnel to current specifications and realignment of US 62 to provide better sight distance through tunnel	Cookspring Township	\$ -	\$ -	\$ 103,309	\$ 106,409	\$ 146,135	\$ -	\$ 1,860,410	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
US62_E3	US 62 at Bestwick Road Turn Lane and Realignment	Realignment of the Bestwick Road intersection and widening along US 62 to accommodate the addition of a dedicated left-turn lane on US 62 South (westbound); coupled with review and potential modification of the existing 45-55 mph speed limit boundary to shift the transition point to the west of the intersection	East Lackawannock Township	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 124,581	\$ 128,318	\$ 176,224	\$ 2,178,129	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
LRTP_H13	Mercer Truck Route Improvements on SR 2008 & SR 2011	Truck route improvements such as intersection geometry for ease of diverting trucks eastbound around downtown Mercer through SR 0258 at SR 2008 (Butler Street and South Pitt Street) and SR 0258 at Market Street/SR 0058	Mercer Borough	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 96,282	\$ -	\$ -	\$ -	\$ 350,701	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
LRTP_H25	SR 0845 at SR 1004 Intersection Reconfiguration, Signal Improvements & Pedestrian Improvements	Improvement of traffic signal and geometry at intersection along with pedestrian amenities for school students to cross safely between points west to the east	Stoneboro Borough and Sandy Lake Township	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 57,023	\$ -	\$ 40,331	\$ 415,406	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
US62_B3	US 62 at Robertson Road Turn Lane	Widening of US 62 at Robertson Road to install dedicated turn lanes	City of Hermitage	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 92,310	\$ 95,079	\$ 130,575	\$ 1,613,907	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
LRTP_H7	Hazen Road (SR 3016) at Buhl Farm Drive (SR 3025) Intersection Improvements	Improvements to Hazen Road and Buhl Farm Drive intersection for congestion, including pedestrian elements connecting the sidewalks on the east side of Hazen Road in Hermitage to new sidewalks along the west side of Hazen Road in Sharpsville	City of Hermitage	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 223,572	\$ -	\$ 316,250	\$ 1,628,088	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
US62_F2	US 62 at Maple Street Traffic Signal with Turn Lanes	Add a traffic signal and widen US 62 to add left-turn lanes in each direction at the Maple Street (SR 0258) intersection	Mercer Borough	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 223,572	\$ 230,279	\$ 316,250	\$ 3,908,851	\$ -	\$ -	\$ -	\$ -	\$ -
LRTP_H8	Kidds Mill Road (SR 4012) Truck Climbing Lane	Truck climbing lane on Kidds Mill Road to connect the east-west corridor that leads to the Greenville Reynolds Industrial Park from points east along SR 0058	Pymatuning Township & Delaware Township	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 862,037	\$ 555,122	\$ 4,655,933	\$ -	\$ -
US62_E4	US 62 Center Turning Lane between Autumn Road and Landis Drive	Widening of US 62 to install a two-way left-turn lane (TWLTL)	East Lackawannock Township	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 485,231	\$ -
US62_C6	US 62 at Neshannock Road Turn Lanes	Widening of US 62 at Neshannock Road to install dedicated turn lanes	City of Hermitage	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
SR5B_01	SR 0058 at SR 4011 (Columbia Ave) and T470 (Hamburg Rd) Access Management Improvements	Install pavement markings and delineators, Intersection Control Beacon, and curbing to control access at intersection	Town of Greenville	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
LRTP_H31	Wesser Bridge Road (SR 4003) Reconstruction	Full depth reconstruction and widening of Wesser Bridge Road to improve freight access to Greenville Reynolds Industrial Park	Hempfield Township	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
US62_E2	US 62 Eastbound Climbing Lane to west of Bestwick Road	Widen US 62 to install an additional climbing lane	East Lackawannock Township	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
LRTP_H23B*	SR 0208 Parallel Collector Road & Oakley Kelly Road Realignment	Realignment of the intersection of Collector Road & Oakley Kelly Road for improved access and sight distance	Springfield Township	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
LRTP_H41B	SR 3015 Mercer Avenue Intersection Skew Corrections at SR 0418 Council Street and Grandview Drive	Improvements to reduce intersection skew and improve sight distance at cross roads to SR 3015 Mercer Avenue	Wheatland Borough	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
US62_A234	US 62 Shoulder Widening with Barrier east of Keel Ridge Road	Widening of US 62 South (WB) shoulder, additional barrier along shoulder, and update of drainage features	City of Hermitage	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 61,252	\$ 63,090	\$ 86,643	\$ 1,070,914	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
LRTP_H15	SR 0846 & Rutledge Road (SR 3022) Intersection Realignment	Intersection realignment to eliminate offset intersection and improve sight distance	Pymatuning Township	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 77,026	\$ 79,317	\$ 108,956	\$ 1,122,344	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
LRTP_H23C	SR 0208 and Pine Road Realignment	Realignment of the intersection of SR 208 at Pine Road to provide more favorable sight distance	Springfield Township	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
LRTP_H9	Lamor Road (SR 3020) Reconstruction Continuation	Continuation of Lamor Road reconstruction east of the Joy Cone facility	City of Hermitage	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
SR5B_05	SR 0058 (Seg 0310/0622 to Seg 0310/1400) Kidds Mill Curve Correction	Project to include roadway realignment to address curvature and sight distance issues	Delaware Township	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 147,985	\$ 152,425	\$ 209,330	\$ -	\$ 2,664,939	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
SR5B_06	SR 0058 (Seg 130/1489 TO Seg 130/2101) Cookspring Township Turn Lanes	Construct center left-turn lane with an exclusive left turn onto Cookspring Road	Cookspring Township	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
US62_D3	US 62 at Valley Road Turn Lanes and Realignment of Valley Road	Widen US 62 from west of the Valley Road intersection to approximately Kyle Road (T 180) to install turn lanes and wider shoulder to enhance access and sight distance through the horizontal curve section and realign Valley Road	Jefferson Township	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
LRTP_H40A	SR 0208 and US 19 Intersection Improvements (under study in 2021)	Improvements to sight distance at the offset intersections *to be determined from study	Springfield Township	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
LRTP_H40B	SR 0208 and Leesburg Station Road/SR 2002 Intersection Improvements (under study in 2021)	Improvements to curve geometry *to be determined from study	Springfield Township	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
LRTP_H2B	US 19 at SR 0402 Old Mercer Road Reconstruction	Reconstruction of US 19 to eliminate vertical crest sight distance issues and improve safety for side streets on Old Mercer Road	East Lackawannock Township	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

*these project costs are either not included, or included at a reduced amount as funding is expected to come from developers or other special grant sources

MCRPC LRTP Update 2021 - Project Programming (11/8/21) - Studies

ID	Study Name	Description	Source	Cost Range
STUDY_1	Regional Truck Parking & Winter Travel Restriction Study	This study would examine truck parking infrastructure in both state-owned and private lots, particularly with respect to interstate travel and regional economic development. The study will also examine truck travel restrictions during the winter and develop infrastructure and maintenance strategies to improve the freight network and accessibility and safety for freight travel.	Western RTMC Regional Operations Plan 2019	35-40k
STUDY_2	SR 0358 Corridor Study	Truck circulation study for the Greenville area, including Reynolds Industrial Park, Wasser Bridge Road, Kidds Mills Road, as well as northeast of Town of Greenville, the Werner Ladder plant and Hodge Foundry, Clarks Mills S-Curves and access to the interstate. At a minimum, specific recommendations from this study should include intersection and roadway improvements and programs to enhance truck and freight mobility and access to industry in the area. Study expanded to include multimodal improvements	SVATS MPO 2016 LRTP	80-90k
STUDY_3	Bicycle and Pedestrian Priority Study	A comprehensive evaluation of all recommended bicycle and pedestrian projects in the county, identify project sponsors and funding sources, and develop a plan for pursuing funding for bicycle and pedestrian project implementation. Prioritization framework to be applied to all projects.	SVATS MPO 2021 LRTP	50-60k
STUDY_4	C/AV, Freight, and Electrification Study	This study would examine the current infrastructure and develop infrastructure and policy recommendations to support connected and autonomous vehicles and electrification of personal and freight vehicles.	SVATS MPO 2021 LRTP	40-50k
STUDY_5	Transit Development Plan (TDP)	The TDP will analyze the need for transit in a defined area, evaluate the services that are provided, and develop strategies to match the service to the identified transit needs.	MCRCOG	40-60k

**MCRPC LRTP Update 2021 - Project Programming (11/8/21) -
Bike and Pedestrian Projects**

ID	Project Name	Description	Source	Cost Estimate Year	Cost Estimate
LRTP_B1	Erie Tow Path and Canal Park Trail Extension	Trail extension connecting the existing ~700 foot length tow path that extends from the parking lot of the Sharpsville Area Recreation Park to the historic Erie Extension Canal Lock #10 around the Shenango River north of Sharpsville along borough-owned land, making a connection to the existing Trout Island Trail which extends approximately 2.5 miles north from the trailhead along the Shenango River	SVATS MPO 2016 LRTP	2016	\$ 462,500
LRTP_B4	Pine Hollow Run Trail	Trail connecting to the Trout Island Trail along Pine Hollow Run in Hermitage	SVATS MPO 2016 LRTP	2016	\$ 1,381,250
LRTP_B5	Sandy Lake to Stoneboro Trail	Trail connecting Stoneboro and Sandy Lake parks	SVATS MPO 2016 LRTP	2016	\$ 360,000
LRTP_B6	Sharpsville to Sharon Hike/Bike Trail	Trail connecting Sharpsville at Trout Island Trail down to Sharon at Thornton Avenue using abandoned rail bed or onstreet means	SVATS MPO 2016 LRTP	2016	\$ 812,500
LRTP_B7	Shenango Trail	Shenango trail construction within the Mercer County portion of the trail from Greenville to Jamestown, Stone Arch to Depot Street section	SVATS MPO 2016 LRTP	2016	\$ 700,000
LRTP_B10	West Middlesex River Trail	River trail from West Middlesex along abandoned rail corridor	SVATS MPO 2016 LRTP	2016	\$ 2,025,000
LRTP_B12	West Middlesex Trail by Water Treatment Plant	River trail from West Middlesex starting near the water treatment plant on the east side of the river	SVATS MPO 2016 LRTP	2016	\$ 227,000
US62_D6	Multi-use Trail near US 62 and Darby Road	Multi-use trail installation from Robertson Road to Darby Road	US 62 Corridor Safety Study (Hermitage-Mercer)	2019	\$ 500,000
GREEN_E1	Multi-use Trail to Elementary	New multi-use trail from Greenville Elementary School to Hempfield Park	Greenville Pedestrian Circulation Study	2019	\$ 2,600,000

*see source studies for more detailed cost breakdowns

**MCRPC LRTP Update 2021 - Project Programming (11/8/21) -
Bike and Pedestrian Projects**

ID	Project Name	Description	Source	Cost Estimate Year	Cost Estimate
SE_1	Springfield Falls Trail	This alignment primarily utilizes existing abandoned railroad right-of-way to connect Springfield Falls to Old Mercer Road. The trail crosses Perry Hwy. at two locations, once to connect to the Volant route heading south, and then again as it heads north to connect to the Woodland Rd. sidepath.	Southeastern Mercer County Bike & Pedestrian Master Plan	2017	\$ 4,600,000
SE_5	Old Ash Road Connector Trail	This portion of the loop connects the Falls Rd. sidepath to the Spring Rd. connection, as well as terminates at Old Ash Rd. A planned paved trail by Springfield Twp. will connect directly to this route on its eastern tip, just north of the Springfield Falls community building.	Southeastern Mercer County Bike & Pedestrian Master Plan	2017	\$ 1,200,000
SE_33	Volant Connector Trail	The Volant connector trail utilizes the existing abandoned railroad corridor to traverse the Neshannock Creek valley. This southern connection to Volant allows local and visiting trail users to extend their trips to include the many historic and antique shops in Volant, as recommended in the destination analysis.	Southeastern Mercer County Bike & Pedestrian Master Plan	2017	\$ 2,700,000
SE_37	Watts Lake Trail	As an alternative to the Veterans Rd. sidepath alignment, this off-road trail would avoid the significant grade and right-of-way challenges of that route by traversing the edges of farm fields and some forested areas before joining back to the sidepath at the southern edge of the Outlets.	Southeastern Mercer County Bike & Pedestrian Master Plan	2017	\$ 2,400,000
SE_9	Memorial Park Trail	This alignment provides a connection into and through Memorial park. The southern gateway from SR-208 features a boardwalk before entering the park property. Once in the park, the east fork connects to the high school campus and sidepath, while the west fork follows adjacent to the existing park drive.	Southeastern Mercer County Bike & Pedestrian Master Plan	2017	\$ 400,000
SE_26	Vic Hughes Little League Loop Trail	This internal trail circles around the fields of the Vic Hughes Little League Complex, creating an internal loop that allows increased recreational opportunities for those attending or participating in events on the property. This portion is recommended for local funding, as it is a shorter, internal park trail loop.	Southeastern Mercer County Bike & Pedestrian Master Plan	2017	\$ 400,000
SE_30a	Memorial Park Southern Gateway Trail	An off-road trail connecting from the southern gateway into Memorial Park across SR-208. The alignment continues as a sidepath along Lake Dr. before cutting east into the Hunter Farms property and the existing network of paved trails that connect and loop around the property.	Southeastern Mercer County Bike & Pedestrian Master Plan	2017	\$ 400,000
SE_30b	Greenwood Drive Trail to Memorial Park	Additional connectivity into Hunter Farms is provided from a sidepath alignment along the west side of Greenwood Dr. This route would connect to the residential neighborhoods at Clark St. and then continue north through the Borough property until reaching the junction with the proposed widened sidewalk.	Southeastern Mercer County Bike & Pedestrian Master Plan	2017	\$ 400,000

*see source studies for more detailed cost breakdowns

Date: 8/27/21			FFY 2021 SVTS TIP																												
RPT# TIP200																															
Project Information							FFY 2021 Costs						FFY 2022 Costs						FFY 2023 Costs						FFY 2024 Costs						
County	S.R.	Sec.	Project	Project Title	Phase	Area	Fed.	Federal	St.	State	Local	Total	Fed.	Federal	St.	State	Local	Total	Fed.	Federal	St.	State	Local	Total	Fed.	Federal	St.	State	Local	Total	
Mercer			98261	Mercer Local Brdg Line	C	BRDG																			BOF	1,156,000	183	216,750		1,372,750	
Mercer			98276	Mercer STU Line Item	+C	HRST							STU	673,108				673,108	STU	300,000				300,000	STU	300,000				300,000	
Mercer			106423	Mercer Highway/Bridge Line Item	C	BRDG									185	742,158		742,158			185	54,500		54,500			185	550,248		550,248	
Mercer			106423	Mercer Highway/Bridge Line Item	C	SAMI							HSIP	520,000				520,000	HSIP	660,000				660,000	HSIP	610,000				610,000	
Mercer			106423	Mercer Highway/Bridge Line Item	C	BRDG			185	150,139		150,139	BOF	206,000	183	46,047		252,047	BOF	639,000	183	209,563		848,563	BOF	143,000	183	26,813		169,813	
Mercer			106423	Mercer Highway/Bridge Line Item	C	HRST	STP	926,915	581	418,513		1,345,428			581	438,148		438,148			581	32,000		32,000			581	80,000		80,000	
Mercer			110125	Mercer 2021 AWPM	C	HRST	STP	65,476				65,476																			
Mercer			115824	Mercer Guiderail Upgrades - 2022	C	SAMI			581	21,352		21,352																			
Mercer		L00	1671	Kelly Rd Brs T-388 (Dual)	F	BRDG			183	28,800		28,800																			
Mercer		L00	1671	Kelly Rd Brs T-388 (Dual)	F	BRDG	BOF	153,000	179	9,600		162,600																			
Mercer		L00	1671	Kelly Rd Brs T-388 (Dual)	C	BRDG			183	248,063		248,063			183	82,579		82,579													
Mercer		L00	1671	Kelly Rd Brs T-388 (Dual)	C	BRDG			179	82,688		82,688			179	41,367		41,367													
Mercer		L00	1745	Ohl Street Bridge	C	BRDG									183	90,000		90,000	BOF	480,000	179	30,000		510,000							
Mercer		T20	111434	Alan Avenue Sidewalk Project	+C	TENH	TAU	41,000				41,000																			
Mercer		T20	111434	Alan Avenue Sidewalk Project	+C	TENH	TAP	140,373				140,373	TAU	41,000				41,000	TAU	41,000				41,000	TAU	41,000				41,000	
Mercer		481	1665	Gilmore Rd (T-481) Bridges	P	HRST	sSTP	80,000				80,000																			
Mercer		481	1665	Gilmore Rd (T-481) Bridges	+R	BRDG	sSTP	20,000				20,000																			
Mercer		481	1665	Gilmore Rd (T-481) Bridges	+C	BRDG	sSTP	865,883				865,883																			
Mercer		784	112678	Hosack Road (T-784) Bridges	P	HRST	sSTP	80,000				80,000																			
Mercer		784	112678	Hosack Road (T-784) Bridges	R	HRST	sSTP	20,000				20,000																			
Mercer		784	112678	Hosack Road (T-784) Bridges	+C	BRDG	sSTP	534,117				534,117																			
Mercer	18	S01	110234	PA 18/SR 4006 Intersection	+F	HRST	STP	150,000				150,000																			
Mercer	18	S01	110234	PA 18/SR 4006 Intersection	+U	HRST							STP	25,000				25,000													
Mercer	18	S01	110234	PA 18/SR 4006 Intersection	+R	HRST							STP	25,000				25,000													
Mercer	18	S01	110234	PA 18/SR 4006 Intersection	+C	SAMI												HSIP	800,000					800,000							
Mercer	18	S04	110764	PA 18/SR 4005 Intersection	P	HRST	STP	214,000				214,000																			
Mercer	18	S04	110764	PA 18/SR 4005 Intersection	+C	HRST							STP	450,000				450,000	STP	200,000				200,000							
Mercer	18	08M	98384	PA 18: Birchwood-Rutledge	C	HRST	NHPP	91,249				91,249																			
Mercer	18	23M	109773	PA 18: PA 358 - Mill Hill Rd.	P	HRST	STP	463,200	581	115,800		579,000																			
Mercer	18	23M	109773	PA 18: PA 358 - Mill Hill Rd.	F	HRST									581	75,000		75,000			581	75,000		75,000							
Mercer	18	23M	109773	PA 18: PA 358 - Mill Hill Rd.	U	HRST															581	25,000		25,000							
Mercer	18	23M	109773	PA 18: PA 358 - Mill Hill Rd.	R	HRST															581	25,000		25,000							
Mercer	18	23M	109773	PA 18: PA 358 - Mill Hill Rd.	C	HRST												STU	500,000	581	790,000		1,290,000	STU	500,000	581	710,000		1,210,000		
Mercer	18	24M	114013	SR 18: SR 358 to Four Lane	+P	HRST	NHPP	100,000				100,000																			
Mercer	18	24M	114013	SR 18: SR 358 to Four Lane	+F	HRST							NHPP	100,000				100,000													
Mercer	18	24M	114013	SR 18: SR 358 to Four Lane	+U	HRST							NHPP	25,000				25,000													
Mercer	18	24M	114013	SR 18: SR 358 to Four Lane	+R	HRST							NHPP	11,000				11,000													
Mercer	18	24M	114013	SR 18: SR 358 to Four Lane	+C	HRST												STP	1,129,000					1,129,000	STP	567,000				567,000	
Mercer	18	24M	114013	SR 18: SR 358 to Four Lane	+C	HRST												NHPP	248,000					248,000	NHPP	56,000				56,000	
Mercer	19	B07	84914	SR 19 over Johnston Run	P	BRDG									185	30,000		30,000			185	20,000		20,000							
Mercer	19	B07	84914	SR 19 over Johnston Run	C	BRDG			185	300,000		300,000			185	600,000		600,000													
Mercer	19	B12	97277	SR 19 Br/Otter Ck Trib 3	F	BRDG															185	50,000		50,000							
Mercer	19	B12	97277	SR 19 Br/Otter Ck Trib 3	R	BRDG															185	25,000		25,000							
Mercer	19	B12	97277	SR 19 Br/Otter Ck Trib 3	+C	BRDG																					185	600,000		600,000	
Mercer	19	B17	90032	US 19/Nesh Ck Trib	C	BRDG			185	811,852		811,852			185	150,905		150,905													
Mercer	19	B19	1725	SR 19 Bridge over Shenango River Tributary	C	BRDG															185	830,811		830,811			185	169,189		169,189	
Mercer	19	14M	97907	US 19 Corridor Improvements	C	HRST			581	807,464		807,464			581	1,747,000		1,747,000													
Mercer	19	15M	113974	SR 19: SR 358 to SR 1011	+P	HRST	STP	50,000				50,000																			
Mercer	19	15M	113974	SR 19: SR 358 to SR 1011	F	HRST									581	25,000		25,000													
Mercer	19	15M	113974	SR 19: SR 358 to SR 1011	U	HRST															581	10,000		10,000							
Mercer	19	15M	113974	SR 19: SR 358 to SR 1011	R	HRST															581	10,000		10,000							
Mercer	19	15M	113974	SR 19: SR 358 to SR 1011	C	HRST												STP	1,060,000	581	265,000		1,325,000	STP	700,000	581	175,000		875,000		

Date: 8/27/21			FFY 2021 SVTS TIP																												
RPT# TIP200																															
Project Information							FFY 2021 Costs						FFY 2022 Costs						FFY 2023 Costs						FFY 2024 Costs						
County	S.R.	Sec.	Project	Project Title	Phase	Area	Fed.	Federal	St.	State	Local	Total	Fed.	Federal	St.	State	Local	Total	Fed.	Federal	St.	State	Local	Total	Fed.	Federal	St.	State	Local	Total	
Mercer	58	B14	58003	SR 58: Wolf Creek Brdg	C	BRDG																		185	500,000		500,000		185	500,000	500,000
Mercer	58	SBP	78850	SR 58/Shen River Trib #3 - Streambed Paving	C	BRDG			185	50,000		50,000																			
Mercer	62	STU	111622	Sharon Gateway Project	+C	TENH	STU	112,592				112,592																			
Mercer	62	STU	111622	Sharon Gateway Project	+C	TENH	STP	122,328				122,328																			
Mercer	62	STU	111622	Sharon Gateway Project	+C	TENH	NHPP	473,791				473,791																			
Mercer	62	S01	105775	US 62/State St Intersection	+C	HRST	STP	115,000				115,000																			
Mercer	80	TS1	114778	I-80 Mercer County ITS Addition - TSMO	+P	SAMI	STP	10,000				10,000																			
Mercer	80	TS1	114778	I-80 Mercer County ITS Addition - TSMO	+F	SAMI	STP	7,500				7,500																			
Mercer	80	TS1	114778	I-80 Mercer County ITS Addition - TSMO	+U	SAMI	STP	20,000				20,000																			
Mercer	80	TS1	114778	I-80 Mercer County ITS Addition - TSMO	+C	SAMI	STP	187,500				187,500	sSTP	225,000				225,000													
Mercer	80	TS2	114779	I-80/SR 19 Interchange ITS Addition - TSMO	+P	SAMI	STP	10,000				10,000																			
Mercer	80	TS2	114779	I-80/SR 19 Interchange ITS Addition - TSMO	+F	SAMI	STP	5,000				5,000																			
Mercer	80	TS2	114779	I-80/SR 19 Interchange ITS Addition - TSMO	+U	SAMI	STP	10,000				10,000																			
Mercer	80	TS2	114779	I-80/SR 19 Interchange ITS Addition - TSMO	+C	SAMI	STP	67,000				67,000	STP	13,000				13,000													
Mercer	80	TS2	114779	I-80/SR 19 Interchange ITS Addition - TSMO	+C	SAMI							sSTP	105,000				105,000													
Mercer	173	01S	98397	PA 173 and Yankee School Rd Intersection	C	HRST	STP	200,000	581	50,000		250,000	STP	200,000	581	50,000		250,000													
Mercer	208	T19	111435	Springfield Twp Multimodal Trail Ph 2	+C	TENH							TAP	574,920				574,920													
Mercer	258	03M	109139	PA 258: E. South - Blossom	C	HRST			581	977,934		977,934																			
Mercer	322	01M	114012	SR 322: Venango Cty to Crawford Cty	+P	HRST	NHPP	200,000				200,000																			
Mercer	322	01M	114012	SR 322: Venango Cty to Crawford Cty	+F	HRST							NHPP	200,000				200,000													
Mercer	322	01M	114012	SR 322: Venango Cty to Crawford Cty	+U	HRST							NHPP	25,000				25,000													
Mercer	322	01M	114012	SR 322: Venango Cty to Crawford Cty	+R	HRST							NHPP	25,000				25,000													
Mercer	322	01M	114012	SR 322: Venango Cty to Crawford Cty	+C	HRST													NHPP	1,000,000					1,000,000	NHPP	1,000,000				1,000,000
Mercer	518	M01	99927	PA 518: Sharon to Sharpsville	+P	HRST	STP	50,000				50,000																			
Mercer	518	M01	99927	PA 518: Sharon to Sharpsville	+U	HRST	STP	15,000				15,000																			
Mercer	518	M01	99927	PA 518: Sharon to Sharpsville	+R	HRST	STP	15,000				15,000																			
Mercer	518	M01	99927	PA 518: Sharon to Sharpsville	C	HRST							STP	2,060,000				2,060,000	STP	500,000	581	640,000		1,140,000							
Mercer	518	M02	111321	SR 518: SR 18 to Division Street	P	HRST									581	50,000		50,000			581	50,000		50,000							
Mercer	518	M02	111321	SR 518: SR 18 to Division Street	F	HRST															581	50,000		50,000			581	50,000		50,000	
Mercer	518	M02	111321	SR 518: SR 18 to Division Street	U	HRST															581	25,000		25,000							
Mercer	518	M02	111321	SR 518: SR 18 to Division Street	R	HRST															581	25,000		25,000							
Mercer	518	M02	111321	SR 518: SR 18 to Division Street	+C	HRST														STP					1,603,000						1,603,000
Mercer	518	S01	111157	SR 518/3025 Intersection	+P	SAMI	HSIP	210,000				210,000	HSIP	90,000				90,000													
Mercer	518	S01	111157	SR 518/3025 Intersection	+F	SAMI							HSIP	300,000				300,000													
Mercer	518	S01	111157	SR 518/3025 Intersection	+U	SAMI							HSIP	50,000				50,000													
Mercer	518	S01	111157	SR 518/3025 Intersection	+R	SAMI							HSIP	50,000				50,000													
Mercer	518	S01	111157	SR 518/3025 Intersection	+C	HRST													HSIP	350,000					350,000	HSIP	400,000				400,000
Mercer	718	A02	1486	Broadway Avenue, Phs 1	F	HCON	CAQ	1,158	581	289		1,447																			
Mercer	718	A05	104111	Broadway Avenue - Ph 3	C	HRST	STP	44,475				44,475																			
Mercer	718	04M	109145	PA 718: Middlesex - Broadway	P	HRST			581	100,000		100,000																			
Mercer	718	04M	109145	PA 718: Middlesex - Broadway	F	HRST								581	50,000		50,000			581	50,000		50,000								
Mercer	718	04M	109145	PA 718: Middlesex - Broadway	U	HRST								581	25,000		25,000														
Mercer	718	04M	109145	PA 718: Middlesex - Broadway	R	HRST								581	25,000		25,000														
Mercer	718	04M	109145	PA 718: Middlesex - Broadway	C	HRST															581	1,500,000		1,500,000			581	1,500,000			1,500,000
Mercer	718	05M	109750	PA 718: Bank Pl - River Rd	P	HRST								581	75,000		75,000			581	75,000		75,000								
Mercer	718	05M	109750	PA 718: Bank Pl - River Rd	F	HRST														581	50,000		50,000				581	100,000		100,000	
Mercer	718	05M	109750	PA 718: Bank Pl - River Rd	U	HRST																						581	25,000		25,000
Mercer	718	05M	109750	PA 718: Bank Pl - River Rd	R	HRST																						581	25,000		25,000
Mercer	718	05M	109750	PA 718: Bank Pl - River Rd	C	HRST																						581	1,500,000		1,500,000
Mercer	1002	B00	88484	SR 1002 Brdg/Otter Creek	C	BRDG			185	543,083		543,083																			
Mercer	2002	B01	58081	SR 2002: Neshannock Ck Br	C	BRDG								185	1,260,874		1,260,874			185	739,126		739,126								
Mercer	2006	B00	1925	Blacktown Rd Brdg/I-79	P	BRDG	BOF	28,000	185	7,000		35,000																			
Mercer	2006	B00	1925	Blacktown Rd Brdg/I-79	C	BRDG															185	150,000		150,000			185	750,000			750,000

Date: 8/27/21			FFY 2021 SVTS TIP																											
RPT# TIP200																														
Project Information							FFY 2021 Costs						FFY 2022 Costs						FFY 2023 Costs						FFY 2024 Costs					
County	S.R.	Sec.	Project	Project Title	Phase	Area	Fed.	Federal	St.	State	Local	Total	Fed.	Federal	St.	State	Local	Total	Fed.	Federal	St.	State	Local	Total	Fed.	Federal	St.	State	Local	Total
Mercer	2102	B00	88482	Clintvill Rd Br over I-79	C	BRDG	BOF	600,000				600,000	BOF	200,000				200,000												
Mercer	2102	B01	88483	Clntville Rd Br 2 ov I-79	C	BRDG	BOF	600,000				600,000	BOF	200,000				200,000												
Mercer	2104	B00	78943	SR 2104 Brdg over I-79	C	BRDG							BOF	640,000	185	160,000		800,000												
Mercer	3007	B02	97292	SR 3007/W. Brch Nesh Ck	U	BRDG									185	10,000		10,000												
Mercer	3007	B02	97292	SR 3007/W. Brch Nesh Ck	R	BRDG									185	10,000		10,000												
Mercer	3007	B02	97292	SR 3007/W. Brch Nesh Ck	C	BRDG													185	200,000				200,000						
Mercer	3008	A00	96362	SR 3008: State St Stscp	C	HRST	STP	36,606				36,606																		
Mercer	3008	A03	109077	State St. Pedestrian Improvements	+R	TENH	NHPP	80,960				80,960																		
Mercer	3008	A03	109077	State St. Pedestrian Improvements	C	HRST							NHPP	450,000	581	87,500		537,500												
Mercer	3021	STU	111163	Hermitage Bikeway Project	C	HRST	STU	33,500				33,500																		
Mercer	4017	B01	97324	SR 4017 Brdg/Lil Sheng Rv	R	BRDG			185	15,000		15,000																		
Mercer	4017	B01	97324	SR 4017 Brdg/Lil Sheng Rv	C	BRDG			185	1,250,000		1,250,000			185	200,000		200,000												
Mercer	7204	L00	1670	Old Mercer Rd (T-401) Br	P	BRDG	BOF	123,000	183	8,063	2,687	133,750	BOF	77,000	183	29,437	9,813	116,250												
Mercer	7204	L00	1670	Old Mercer Rd (T-401) Br	F	BRDG													BOF	160,000	183	30,250	9,750	200,000						
Mercer	7204	L00	1670	Old Mercer Rd (T-401) Br	U	BRDG													BOF	4,000	183	750	250	5,000						
Mercer	7204	L00	1670	Old Mercer Rd (T-401) Br	R	BRDG													BOF	16,000	183	3,000	1,000	20,000						
Mercer	7407	STU	1693	McKinley Ave Brdg - STU	C	BRDG	STU	653,908				653,908	STU	126,892				126,892												
Totals for: Mercer								8,027,531		5,995,640	2,687	14,025,858		7,687,920		6,101,015	9,813	13,798,748		8,087,000		6,540,000	11,000	14,638,000		7,076,000		6,978,000		14,054,000
Overall Totals:								8,027,531		5,995,640	2,687	14,025,858		7,687,920		6,101,015	9,813	13,798,748		8,087,000		6,540,000	11,000	14,638,000		7,076,000		6,978,000		14,054,000
d Discretionary					e Economic Development		f Flex		fd Flexed		s Spike		+ Indicates phase qualifies for TOLL funds				* Includes Conversion Amount				Obligations have occurred				^ PE-NEPA, FD-PSE CO, UTL-Fnl UTL Clr, ROW-Cond ROW, CON-Let					

LOCAL BRIDGES PROJECT PROGRAMMING SCHEDULE					CURRENT		MID-RANGE		LONG RANGE		Total
					TIP +2: FFY 2021-2026		FFY: 2027-2032		FFY: 2033-2045		
Project #	Project Title	Municipality	Mode	Phase	Cost	Phase	Cost	Phase	Cost		
LOCAL BRIDGE (SPAN LESS THAN 20 FEET)											
0101	HALFWAY RD. GREENE TWP.	43/208 - GREENE	Bridge (Local Less <20 ft)	PFRC	\$ 255,938					\$ 255,938	
0213	KO ROAD,SUGAR GROVE TWP	43/227 - SUGAR GROVE	Bridge (Local Less <20 ft)	PFRC	\$ 238,875					\$ 238,875	
0407	OLD PERRY HWY.SANDY CK.	43/222 - SANDY CREEK	Bridge (Local Less <20 ft)	C	\$ 138,332					\$ 138,332	
0720	MAYSVILLE RD.,W.SALEM	43/228 - WEST SALEM	Bridge (Local Less <20 ft)	C	\$ 37,361					\$ 37,361	
0905	PILGRIM RD.,OTTER CREEK	43/217 - OTTER CREEK	Bridge (Local Less <20 ft)	C	\$ 37,361					\$ 37,361	
1216	KLEIN ROAD,MILL CREEK	43/215 - MILL CREEK	Bridge (Local Less <20 ft)	C	\$ 37,361					\$ 37,361	
1305	MORTIMER RD.S.PYMATUNING	43/225 - SOUTH PYMATUNIN	Bridge (Local Less <20 ft)	C	\$ 37,361					\$ 37,361	
1602	STOCK FARM RD. LAKE TWP.	43/213 - LAKE	Bridge (Local Less <20 ft)	PFRC	\$ 315,656					\$ 315,656	
1912	S. BEND RD.,JEFFERSON TWP	43/211 - JEFFERSON	Bridge (Local Less <20 ft)	C	\$ 37,361					\$ 37,361	
2104	N. COTTAGE RD.,JACKSON	43/210 - JACKSON	Bridge (Local Less <20 ft)	PFRC	\$ 195,000					\$ 195,000	
2337	SPENCER AVE SHARON	43/302 - SHARON	Bridge (Local Less <20 ft)	PFRC	\$ 893,750					\$ 893,750	
2338	SMITH AVE.,SHARON	43/302 - SHARON	Bridge (Local Less <20 ft)	C	\$ 138,332					\$ 138,332	
2403	MCCONNELL RD.LACKAWANNOCK	43/212 - LACKAWANNOCK	Bridge (Local Less <20 ft)	C	\$ 37,361					\$ 37,361	
2705	GILMORE RD.,WOLF CREEK	43/230 - WOLF CREEK	Bridge (Local Less <20 ft)	PFRC	\$ 32,813					\$ 32,813	
2708	GILMORE RD.,WOLF CREEK	43/230 - WOLF CREEK	Bridge (Local Less <20 ft)	C	\$ 37,361					\$ 37,361	
3017	TOWER RD.,SPRINGFIELD TWP	43/226 - SPRINGFIELD	Bridge (Local Less <20 ft)	PFRC	\$ 255,938					\$ 255,938	
0606	DEER CREEK RD.,FRENCH CREEK	43/207 - FRENCH CREEK	Bridge (Local Less <20 ft)			PFRC	\$ 28,125			\$ 28,125	
0907	LINN-TYRO RD.,OTTER CREEK	43/217 - OTTER CREEK	Bridge (Local Less <20 ft)			PFRC	\$ 30,938			\$ 30,938	
1716	ANDERSON R.,SANDY LAKE	43/223 - SANDY LAKE	Bridge (Local Less <20 ft)			PFRC	\$ 33,750			\$ 33,750	
1919	WEST RIVER RD.,JEFFERSON	43/211 - JEFFERSON	Bridge (Local Less <20 ft)			PFRC	\$ 27,000			\$ 27,000	
0216	RILEY RD.,SUGAR GROVE TWP	43/227 - SUGAR GROVE	Bridge (Local Less <20 ft)					PFRC	\$ 316,875	\$ 316,875	
2815	CAMPGROUND RD.,SHENANGO	43/224 - SHENANGO	Bridge (Local Less <20 ft)					PFRC	\$ 182,000	\$ 182,000	

* - non-county-owned local structure; P = preliminary engineering; F = final design; R = right-of-way, utilities, etc.; C = construction

LOCAL BRIDGES PROJECT PROGRAMMING SCHEDULE					CURRENT		MID-RANGE		LONG RANGE		Total
					TIP +2: FFY 2021-2026		FFY: 2027-2032		FFY: 2033-2045		
Project #	Project Title	Municipality	Mode	Phase	Cost	Phase	Cost	Phase	Cost		
LOCAL BRIDGE (SPAN GREATER THAN 20 FEET)											
0803	OHL ST.,GREENVILLE	43/403 - GREENVILLE	Bridge (Local Greater >20 ft)	FRC	\$ 1,520,000					\$ 1,520,000	
2107	HOSACK RD,JACKSON TWP.	43/210 - JACKSON	Bridge (Local Greater >20 ft)	PFRC	\$ 682,500					\$ 682,500	
2108	HOSACK RD,JACKSON TWP.	43/210 - JACKSON	Bridge (Local Greater >20 ft)	PFRC	\$ 658,125					\$ 658,125	
2303 2304	KELLY ROAD,HERMITAGE	43/303 - HERMITAGE	Bridge (Local Greater >20 ft)	FRC	\$ 4,895,351					\$ 4,895,351	
2606	OLD MERCER RD E.LACK TWP	43/204 - EAST LACKAWANNO	Bridge (Local Greater >20 ft)	PFRC	\$ 1,588,600					\$ 1,588,600	
2650*	MCKINLEY AVE.MERCER BORO.	43/407 - MERCER	Bridge (Local Greater >20 ft)	PFRC	\$ 629,688					\$ 629,688	
2707	EAST GILMORE RD,WOLF CRK	43/230 - WOLF CREEK	Bridge (Local Greater >20 ft)	PFRC	\$ 1,293,906					\$ 1,293,906	
2717	EAST GILMORE RD.,WOLF CRK	43/230 - WOLF CREEK	Bridge (Local Greater >20 ft)	PFRC	\$ 879,450					\$ 879,450	
0000	HARRISVILLE RD.,WORTH TWP	43/231 - WORTH	Bridge (Local Greater >20 ft)	PFRC	\$ 322,988					\$ 322,988	
0613	CREEK RD.,FRENCH CREEK TP	43/207 - FRENCH CREEK	Bridge (Local Greater >20 ft)	PFRC	\$ 720,000					\$ 720,000	
0702	WISE ROAD,WEST SALEM TWP.	43/207 - FRENCH CREEK	Bridge (Local Greater >20 ft)	PFRC	\$ 792,000					\$ 792,000	
0712	S.BARRY RD, W. SALEM TWP.	43/207 - FRENCH CREEK	Bridge (Local Greater >20 ft)	C	\$ 37,361					\$ 37,361	
0724	COSSITT RD,WEST SALEM TWP	43/207 - FRENCH CREEK	Bridge (Local Greater >20 ft)	PFRC	\$ 715,500					\$ 715,500	
1111	CARPENTER RD. NEW VERNON	43/216 - NEW VERNON	Bridge (Local Greater >20 ft)	PFRC	\$ 731,250					\$ 731,250	
1317	SHENANGO PK.RD.PYM.TWP.	43/220 - PYMATUNING	Bridge (Local Greater >20 ft)	PFRC	\$ 516,000					\$ 516,000	
1507	MARSTELLAR RD.,FAIRVIEW	43/205 - FAIRVIEW	Bridge (Local Greater >20 ft)	PFRC	\$ 1,453,156					\$ 1,453,156	
1714	TRIPLE LINK, SANDY LAKE	43/223 - SANDY LAKE	Bridge (Local Greater >20 ft)	C	\$ 37,361					\$ 37,361	
2007	TAIT RD,COOLSPRING TWP.	43/201 - COOLSPRING	Bridge (Local Greater >20 ft)	PFRC	\$ 1,067,813					\$ 1,067,813	
2111	HOSACK ROAD,JACKSON TWP.	43/210 - JACKSON	Bridge (Local Greater >20 ft)	PFRC	\$ 909,563					\$ 909,563	
2113	S.FOSTER RD.,JACKSON TWP.	43/210 - JACKSON	Bridge (Local Greater >20 ft)	PFRC	\$ 468,563					\$ 468,563	
2339	SERVICE AVE,SHARON	43/302 - SHARON	Bridge (Local Greater >20 ft)	PFRC	\$ 893,750					\$ 893,750	
2611	ANDRUSKY RD,FINDLEY TWP.	43/206 - FINDLEY	Bridge (Local Greater >20 ft)	PFRC	\$ 528,000					\$ 528,000	
2904	BEND RD. WILMINGTON TWP.	43/229 - WILMINGTON	Bridge (Local Greater >20 ft)	PFRC	\$ 1,320,313					\$ 1,320,313	
3103	LINCOLN AVE.,GROVE CITY	43/404 - GROVE CITY	Bridge (Local Greater >20 ft)	PFRC	\$ 598,203					\$ 598,203	
3113	TIE LINE RD,PINE TOWNSHIP	43/219 - PINE	Bridge (Local Greater >20 ft)	PFRC	\$ 468,000					\$ 468,000	
0850*	LEBANON AVE.,GREENVILLE	43/403 - GREENVILLE	Bridge (Local Greater >20 ft)			PFRC	\$ 1,094,275			\$ 1,094,275	
1851*	ORANGEVLE OVER TOWEL WRK	43/225 - SOUTH PYMATUNIN	Bridge (Local Greater >20 ft)			PFRC	\$ 526,500			\$ 526,500	
2350*	PRINDLE ST. SHARON CITY	43/302 - SHARON	Bridge (Local Greater >20 ft)			PFRC	\$ 1,230,775			\$ 1,230,775	
0903	BUSH RD,OTTER CREEK TWP.	43/217 - OTTER CREEK	Bridge (Local Greater >20 ft)			PFRC	\$ 665,600			\$ 665,600	
1512	RUNKLE LANE,FAIRVIEW TWP.	43/205 - FAIRVIEW	Bridge (Local Greater >20 ft)			PFRC	\$ 455,000			\$ 455,000	
1812	S.ORANGEVILLE RD.,S.PYM.	43/225 - SOUTH PYMATUNIN	Bridge (Local Greater >20 ft)			PFRC	\$ 3,422,250			\$ 3,422,250	
1916	HASSEL RD,JEFFERSON TWP	43/211 - JEFFERSON	Bridge (Local Greater >20 ft)			PFRC	\$ 535,500			\$ 535,500	
2209	CREEK ROAD,WORTH TOWNSHIP	43/231 - WORTH	Bridge (Local Greater >20 ft)			PFRC	\$ 821,250			\$ 821,250	
2313	SILVER ST SHARON	43/302 - SHARON	Bridge (Local Greater >20 ft)			PFRC	\$ 1,886,625			\$ 1,886,625	
2603	OAKLAND RD.,FINDLEY TWP.	43/206 - FINDLEY	Bridge (Local Greater >20 ft)			PFRC	\$ 1,046,250			\$ 1,046,250	
2716	DAUGHERTY ROAD,PINE TWP.	43/219 - PINE	Bridge (Local Greater >20 ft)			PFRC	\$ 160,000			\$ 160,000	
3121	DAUGHERTY RD,PINE TWP.	43/219 - PINE	Bridge (Local Greater >20 ft)			PFRC	\$ 1,603,875			\$ 1,603,875	

* - non-county-owned local structure; P = preliminary engineering; F = final design; R = right-of-way, utilities, etc.; C = construction

LOCAL BRIDGES PROJECT PROGRAMMING SCHEDULE					CURRENT		MID-RANGE		LONG RANGE		Total
					TIP +2: FFY 2021-2026		FFY: 2027-2032		FFY: 2033-2045		
Project #	Project Title	Municipality	Mode	Phase	Cost	Phase	Cost	Phase	Cost		
LOCAL BRIDGE (SPAN GREATER THAN 20 FEET)											
0208	GROOVER RD,SUGAR GROVE	43/227 - SUGAR GROVE	Bridge (Local Greater >20 ft)					PFRC	\$ 607,750	\$ 607,750	
0650*	FRENCH CREEK TWP.	43/207 - FRENCH CREEK	Bridge (Local Greater >20 ft)					PFRC	\$ 322,969	\$ 322,969	
0817	HAMBURG RD,HEMPFIELD TWP.	43/209 - HEMPFIELD	Bridge (Local Greater >20 ft)					PFRC	\$ 357,500	\$ 357,500	
1308	COLT ROAD,PYMATUNING TWP.	43/220 - PYMATUNING	Bridge (Local Greater >20 ft)					PFRC	\$ 607,750	\$ 607,750	
1311	COLT RD,PYMATUNING TWP.	43/220 - PYMATUNING	Bridge (Local Greater >20 ft)					PFRC	\$ 607,750	\$ 607,750	
2319	WALNUT ST.,CITY OF SHARON	43/302 - SHARON	Bridge (Local Greater >20 ft)					PFRC	\$ 1,217,125	\$ 1,217,125	
3206	BLACK RUN,LIBERTY TWP.	43/214 - LIBERTY	Bridge (Local Greater >20 ft)					PFRC	\$ 1,740,375	\$ 1,740,375	
3208	AMSTERDAM RD,LIBERTY TWP.	43/214 - LIBERTY	Bridge (Local Greater >20 ft)					PFRC	\$ 1,132,625	\$ 1,132,625	

* - non-county-owned local structure; P = preliminary engineering; F = final design; R = right-of-way, utilities, etc.; C = construction

Appendix D - Airport TIP Greenville

Greenville Municipal Airport Projects Report													
SFY	FFY	Project Description	National Priority	BOA Priority	Status	FAA-AIP	Fed-BG	State AD	State CB	Other	Multi Modal	Local	Project Amount
2020	2021	Snow Removal Equipment Building, Ph. I: Design	38		TAC		\$ 90,000	\$ 5,000	\$ -	\$ -	\$ -	\$ 5,000	\$ 100,000
2021	2022	Acquire Airport Maintenance Equipment Ph. II	38	75	N		\$ -	\$ 150,000	\$ -	\$ -	\$ -	\$ 50,000	\$ 200,000
2021	2022	Snow Removal Equipment Building, Ph. II: Construction	38		FYP		\$ 300,000	\$ 16,667	\$ -	\$ -	\$ -	\$ 16,667	\$ 333,334
2022	2023	Install Windcone and Refurbish Rotating Beacon	40		FYP		\$ 150,000	\$ 8,333	\$ -	\$ -	\$ -	\$ 8,334	\$ 166,667
2023	2024	Improve Airport Drainage Ph. I: Design	42		FYP		\$ 90,000	\$ 5,000	\$ -	\$ -	\$ -	\$ 5,000	\$ 100,000
2024	2025	Develop Airport Hazard Zoning Ordinance	0	50	FYP		\$ -	\$ 10,800	\$ -	\$ -	\$ -	\$ 1,200	\$ 12,000
2025	2026	Relocating the Airport Electrical Systems to the Electrical Vault	18		TYP		\$ -	\$ 158,333	\$ -	\$ -	\$ -	\$ 158,333	\$ 316,666
2025	2026	Construct (replace) AVGAS Fuel System and Jet A Fuel System (2-10,000 Tanks)	18	20	TYP		\$ -	\$ 150,000	\$ -	\$ -	\$ -	\$ 50,000	\$ 200,000
2025	2026	Improve Airport Drainage, Ph. II: Construction	42		TYP		\$ 360,000	\$ 20,000	\$ -	\$ -	\$ -	\$ 20,000	\$ 400,000
2026	2027	Acquire Easements and Obstruction Removal	78		TYP		\$ 315,000	\$ 17,500	\$ -	\$ -	\$ -	\$ 17,500	\$ 350,000
2026	2027	Rehabilitate Aircraft Parking Apron	58		TYP		\$ 237,500	\$ 13,194	\$ -	\$ -	\$ -	\$ 13,194	\$ 263,888
2027	2028	Construct T-Hangar 10 units	31	45	TYP		\$ -	\$ 287,500	\$ -	\$ -	\$ -	\$ 287,500	\$ 575,000
2027	2028	Install Security/Perimeter Fencing	40		TYP		\$ 300,000	\$ 16,667	\$ -	\$ -	\$ -	\$ 16,667	\$ 333,334
2027	2028	Construct T-Hangar T/W	47		TYP		\$ 427,500	\$ 23,750	\$ -	\$ -	\$ -	\$ 23,750	\$ 475,000
2027	2028	Install Automatic Weather Observation System	44		TYP		\$ 150,000	\$ 8,333	\$ -	\$ -	\$ -	\$ 8,333	\$ 166,666
2028	2029	Construct Parallel Taxiway	57		TYP		\$ 403,750	\$ 22,431	\$ -	\$ -	\$ -	\$ 22,431	\$ 448,612
2028	2029	Expand Apron 180' x 150'	44		TYP		\$ 228,000	\$ 12,667	\$ -	\$ -	\$ -	\$ 12,667	\$ 253,334
2028	2029	Rehabilitate T-Hangar Taxiway	64		TYP		\$ 285,000	\$ 15,833	\$ -	\$ -	\$ -	\$ 15,833	\$ 316,666
2028	2029	Extend Parallel Taxiway MITL Lighting	44		TYP		\$ 617,500	\$ 34,306	\$ -	\$ -	\$ -	\$ 34,306	\$ 686,112
2028	2029	Construct Conventional Hangar	0	45	TYP		\$ -	\$ 250,000	\$ -	\$ -	\$ -	\$ 250,000	\$ 500,000
2028	2029	Construct T-Hangar Access Taxiways	57		TYP		\$ 285,000	\$ 15,833	\$ -	\$ 7,500	\$ -	\$ -	\$ 308,333
2028	2029	Construct Airport Access Road and Automobile Parking Area	21	20	TYP		\$ -	\$ 225,000	\$ -	\$ -	\$ -	\$ 75,000	\$ 300,000
2028	2029	Construct T-Hangar T/W (Design Only)	47		TYP		\$ 85,500	\$ 4,750	\$ -	\$ -	\$ -	\$ 4,750	\$ 95,000
2029	2030	Construct T-Hangar Taxiway	0		TYP		\$ 451,250	\$ 25,069	\$ -	\$ -	\$ -	\$ 25,069	\$ 501,388

6/16/221 Note: Projects highlighted in gray are in the Four Year Plan.

Appendix D - Airport TIP Grove City

Grove City Regional Airport Projects Report													
SFY	FFY	Project Description	National Priority	BOA Priority	Status	FAA-AIP	Fed-BG	State AD	State CB	Other	Multi Modal	Local	Project Amount
2020	2021	Update Airport Master Plan	62		TAC		\$ 237,500	\$ 13,194	\$ -	\$ -	\$ -	\$ 13,194	\$ 263,888
2021	2022	Rehab Terminal Hangar (Public Use)	29	71	FYP		\$ -	\$ 150,000	\$ -	\$ -	\$ -	\$ 50,000	\$ 200,000
2021	2022	Construct Snow Removal Equipment Building, Phase I	36		FYP		\$ 150,000	\$ 8,333	\$ -	\$ -	\$ -	\$ 8,334	\$ 166,667
2023	2024	Construct Snow Removal Equipment Building, Phase II	36		FYP		\$ 300,000	\$ 16,667	\$ -	\$ -	\$ -	\$ 16,667	\$ 333,334
2025	2026	Acquire Airfield Maintenance Equipment	0	20	TYP		\$ -	\$ 112,500	\$ -	\$ -	\$ -	\$ 37,500	\$ 150,000
2025	2026	Construct Partial Taxiway	46		TYP		\$ 675,000	\$ 37,500	\$ -	\$ -	\$ -	\$ 37,500	\$ 750,000
2026	2027	Rehabilitate Runway 10-28, Ph I: Design	66		TYP		\$ 150,000	\$ 8,333	\$ -	\$ -	\$ -	\$ 8,334	\$ 166,667
2026	2027	Extend Runway 10-28, 500 feet	51		TYP		\$2,850,000	\$ 158,333	\$ -	\$ -	\$ -	\$ 158,333	\$ 3,166,666
2026	2027	Improve Airport Drainage (stormwater permitting)	41		TYP		\$ 14,250	\$ 792	\$ -	\$ -	\$ -	\$ 792	\$ 15,834
2026	2027	Rehabilitate Access Road and Expand Parking (2,700sy) 3,500 sy	15		TYP		\$ 190,000	\$ 10,556	\$ -	\$ -	\$ -	\$ 10,556	\$ 211,112
2026	2027	Rehabilitate Runway 10-28, Ph II: Constructon	66		TYP		\$ 720,000	\$ 40,000	\$ -	\$ -	\$ -	\$ 40,000	\$ 800,000
2026	2027	Rehabilitate Corporate Hangar and T-Hangar	29		TYP		\$ 200,000	\$ 11,111	\$ -	\$ -	\$ -	\$ 11,111	\$ 222,222
2026	2027	Expand Apron	38		TYP		\$ 277,500	\$ 15,417	\$ -	\$ -	\$ -	\$ 15,417	\$ 308,334
2027	2028	Construct Admisistration Building, 6,000 sf	0	23	TYP		\$ -	\$ 450,000	\$ -	\$ -	\$ -	\$ 450,000	\$ 900,000
2027	2028	Construct Conventional Hangar 6,400 sf	0	45	TYP		\$ -	\$ 250,000	\$ -	\$ -	\$ -	\$ 250,000	\$ 500,000

6/16/221 Note: Projects highlighted in gray are in the Four Year Plan.

A project on the Transit TIP is for planning purposes only and is not a commitment of federal and/or state funds until a contract has been executed with the appropriate agencies.



Appendix E – Betterment Lists

Appendix E – Betterment Lists

Exhibit 1 – Betterment Identification of Traffic Signal Improvements

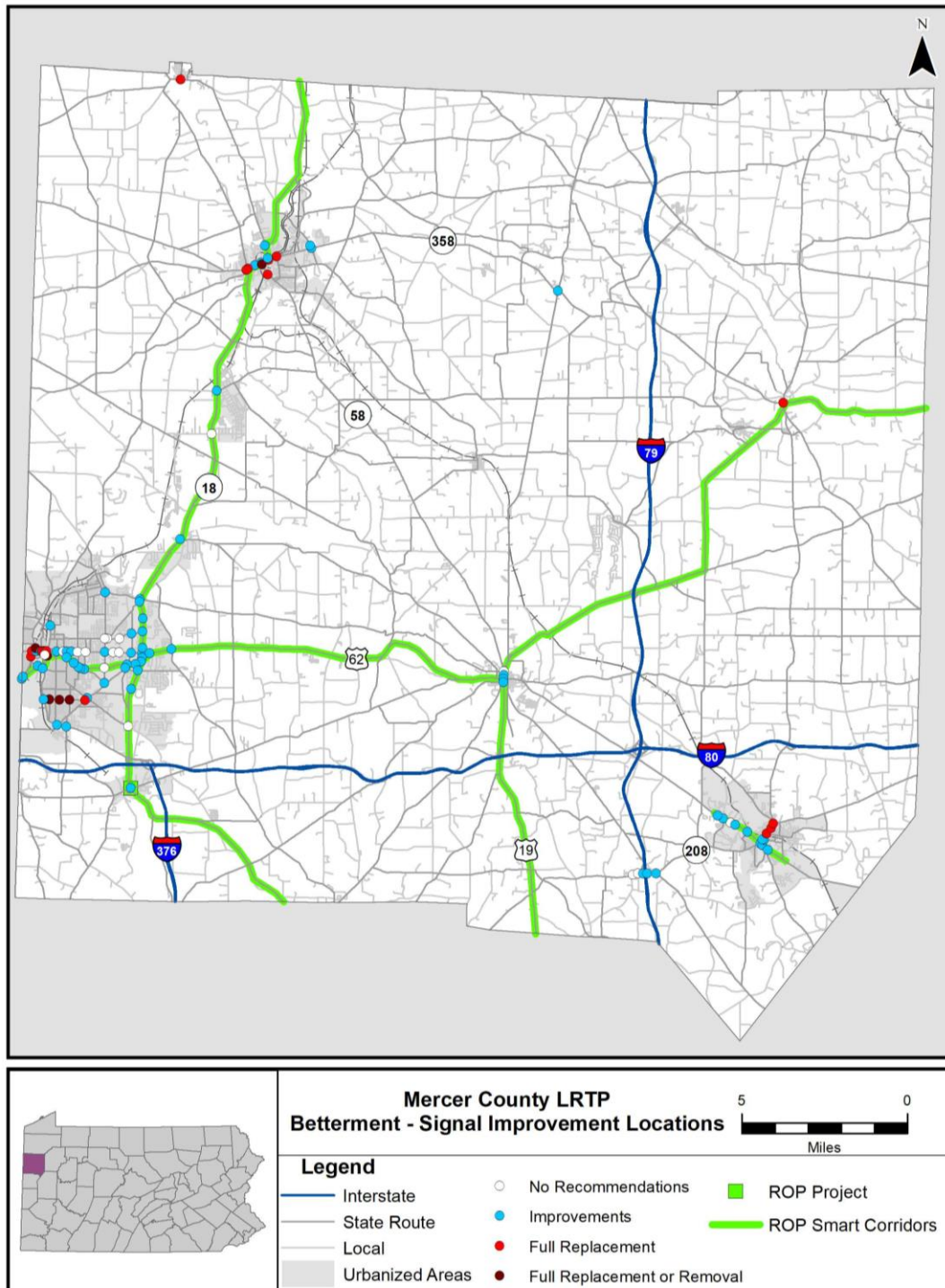


Exhibit 2 - Betterment Identification of Traffic Signal Improvement List

ID	Location	Recommendation Category	Municipality
F01	Mercer Avenue at Sharon-New Castle Avenue	Improvements	City of Farrell
F02	Mercer Avenue at Roemer Boulevard	Full Replacement	City of Farrell
F03	Roemer Boulevard at Indiana Avenue	Full Replacement or Removal	City of Farrell
F04	Roemer Boulevard at Beechwood Avenue	Full Replacement or Removal	City of Farrell
F05	Roemer Boulevard at Spearman Street	Full Replacement or Removal	City of Farrell
F06	Roemer Boulevard at Martin Luther King Jr. Boulevard	Improvements	City of Farrell
H01	North Hermitage Road at Lamor Road	Improvements	City of Hermitage
H02	North Hermitage Road at Dutch Lane at Sheetz Driveway	Improvements	City of Hermitage
H03	North Hermitage Road at Wal-Mart Driveway	Improvements	City of Hermitage
H04	North Hermitage Road at Highland Road	Improvements	City of Hermitage
H05	Highland Road at Dutch Lane	Improvements	City of Hermitage
H06	Highland Road at Kerrwood Drive at Fire Station Driveway	None	City of Hermitage
H07	Highland Road at Clarksville Road at Church Driveway	None	City of Hermitage
H08	Highland Road at Buhl Farm Drive	None	City of Hermitage
H09	East State Street at Buhl Farm Drive	Improvements	City of Hermitage
H10	East State Street at Ellis Avenue at Hermitage Towne Plaza	None	City of Hermitage
H11	East State Street at Kerrwood Drive	None	City of Hermitage
H12	East State Street at Maple Drive at Dutch Lane	Improvements	City of Hermitage
H13	East State Street at Hermitage Road	Improvements	City of Hermitage
H14	North Hermitage Road at Indian Run Road at Mall Driveway	Improvements	City of Hermitage
H15	East State Street at Shenango Valley Expressway at Mall Driveway	Improvements	City of Hermitage
H16	East State Street at Keel Ridge Road	Improvements	City of Hermitage
H17	South Hermitage Road at Glimcher Boulevard	Improvements	City of Hermitage
H18	South Hermitage Road at Shenango Valley Expressway	Improvements	City of Hermitage
H19	Shenango Valley Expressway at Glimcher Boulevard at Kohls Driveway	Improvements	City of Hermitage

(more details on improvements can be found in the Mercer County Signal Inventory study)

Exhibit 2 - Betterment Identification of Traffic Signal Improvement List (Continued)

ID	Location	Recommendation Category	Municipality
H20	Shenango Valley Expressway at Maple Drive	Improvements	City of Hermitage
H21	Shenango Valley Expressway at Buhl Farm Drive	None	City of Hermitage
H22	Mercer Avenue at Buhl Farm Drive at Pine Hollow Boulevard	Improvements	City of Hermitage
H23	Mercer Road at Maple Drive at Morefield Road	Improvements	City of Hermitage
H24	South Hermitage Road at Morefield Road	Improvements	City of Hermitage
H25	South Hermitage Road at Carroll Lane at Innovation Way	Improvements	City of Hermitage
H26	South Hermitage Road at Longview Road	None	City of Hermitage
S01	South Irvine Avenue at Addison Road at Thomas Avenue Connector	Improvements	City of Sharon
S02	South Irvine Avenue at Shenango Valley Freeway at Emanuel Place	Improvements	City of Sharon
S03	Shenango Valley Freeway at Budd Street	Improvements	City of Sharon
S04	Budd Street at Dock Street	Improvements	City of Sharon
S05	Connelly Boulevard at Shenango Valley Freeway at Sharpsville Avenue	Full Replacement or Removal	City of Sharon
S06	Irvine Avenue at Connelly Boulevard at Columbia Street	Full Replacement	City of Sharon
S07	West State Street at Irvine Avenue	Full Replacement	City of Sharon
S08	West State Street at Water Avenue	Improvements	City of Sharon
S09	North Water Avenue at Silver Street	Full Replacement or Removal	City of Sharon
S10	East State Street at Shenango Avenue	Improvements	City of Sharon
S11	East State Street at Chestnut Avenue	Full Replacement	City of Sharon
S12	East State Street at Railroad Street	Full Replacement	City of Sharon
S13	East State Street at Dock Street	Full Replacement	City of Sharon
S14	East State Street at Sharpsville Avenue	Full Replacement	City of Sharon
S15	East State Street at Oakland Avenue	Improvements	City of Sharon
S16	East State Street at Jefferson Avenue	None	City of Sharon
S17	East State Street at Euclid Avenue at Stambaugh Avenue	Improvements	City of Sharon
S18	East State Street at Case Avenue	Improvements	City of Sharon
S19	East State Street at Forker Boulevard at Spencer Avenue	None	City of Sharon
S20	East State Street at Buhl Boulevard	None	City of Sharon
S21	Connelly Boulevard at Smith Avenue at Pine Hollow Boulevard	Improvements	City of Sharon

(more details on improvements can be found in the Mercer County Signal Inventory study)

Exhibit 2 - Betterment Identification of Traffic Signal Improvement List (Continued)

ID	Location	Recommendation Category	Municipality
S22	Connelly Boulevard at Service Avenue	Improvements	City of Sharon
S23	Connelly Boulevard at Spencer Avenue	Improvements	City of Sharon
S24	Connelly Boulevard at Myers Avenue	Improvements	City of Sharon
S25	Connelly Boulevard at Stambaugh Avenue	Improvements	City of Sharon
S26	Sharpsville Avenue at Clark Street	Improvements	City of Sharon
C01	North Hermitage Road at Lake Road	Improvements	Clark Borough
G01	Main Street at Columbia Avenue	Full Replacement	Greenville
G02	Main Street at College Avenue at Prairie Way	Full Replacement	Greenville
G03	Main Street at Mercer Street	Improvements	Greenville
G04	Main Street at Water Street	Improvements	Greenville
G05	Main Street at High Street	Full Replacement	Greenville
G06	Main Street at 3rd Street at Clarksville Street	Full Replacement	Greenville
G07	Mercer Street at Clinton Street	Full Replacement or Removal	Greenville
G08	Mercer Street at York Street at Steward Avenue	Full Replacement	Greenville
G09	College Avenue at Shenango Street	Improvements	Greenville
G10	College Avenue at Packard Avenue	Improvements	Greenville
GC01	West Main Street at Ivan Drive at Industrial Drive	None	Grove City Borough
GC02	West Main Street at Breckenridge Street	Improvements	Grove City Borough
GC03	West Main Street at Highland Avenue	Improvements	Grove City Borough
GC04	West Main Street at Center Street	Improvements	Grove City Borough
GC05	Main Street at Broad Street	Improvements	Grove City Borough
GC06	Main Street at College Drive at Liberty Street	Improvements	Grove City Borough
GC07	Broad Street at Pine Street	Improvements	Grove City Borough
GC08	Center Street at Pine Street	Improvements	Grove City Borough
GC09	Broad Street at Lincoln Avenue	Full Replacement	Grove City Borough
GC10	Broad Street at Chestnut Street	Full Replacement	Grove City Borough
GC11	Broad Street at North Street	Full Replacement	Grove City Borough
J01	Liberty Street at Depot Street	Full Replacement	Jamestown Borough
M01	Greenville Avenue at Erie Street at Franklin Street at North Street	None	Mercer Borough
M02	Erie Street at Venango Street	Improvements	Mercer Borough
M03	Erie Street at Market Street	Improvements	Mercer Borough
M04	Erie Street at Butler Street	Improvements	Mercer Borough

(more details on improvements can be found in the Mercer County Signal Inventory study)

Exhibit 2 - Betterment Identification of Traffic Signal Improvement List (Continued)

ID	Location	Recommendation Category	Municipality
SA01	Main Street at Franklin Street at Lake Street	Full Replacement	Sandy Lake Borough
SH01	Walnut Street at Mercer Avenue	Improvements	Sharpsville Borough
WM01	Sharon Road at Pulaski Road at Main Street	Improvements	West Middlesex Borough
W01	Broadway Avenue at Mercer Avenue at Church Street	Improvements	Wheatland Borough
W02	Broadway Avenue at Council Avenue	Improvements	Wheatland Borough
HE01	Hadley Road at Williamson Road	Improvements	Hempfield Township
HE02	Williamson Road at Mall Driveway	Improvements	Hempfield Township
PE01	Perry Highway at Hadley Road	Improvements	Perry Township
PI01	West Main Street at Wal-Mart Driveway	Improvements	Pine Township
PI02	West Main Street at George Junior Road	Improvements	Pine Township
PY01	North Hermitage Road at Reynolds Industrial Park Road at Colt Road	Improvements	Pyamatuning Township
PY02	North Hermitage Road at Edgewood Drive	None	Pyamatuning Township
SP01	Leesburg Grove City Road at Springfield Commons Drive at Hoss's Driveway	None	Springfield Township
SP02	Leesburg Grove City Road at PA 258 at Outlets Drive	None	Springfield Township
SP03	Leesburg Grove City Road at I-79 Southbound Ramps	Improvements	Springfield Township
SP04	Leesburg Grove City Road at I-79 Northbound Ramps	Improvements	Springfield Township
SP05	Leesburg Grove City Road at Mercer Grove City Road	Improvements	Springfield Township

(more details on improvements can be found in the Mercer County Signal Inventory study)

Exhibit 3 – Betterment Identification of Safety Improvement Locations

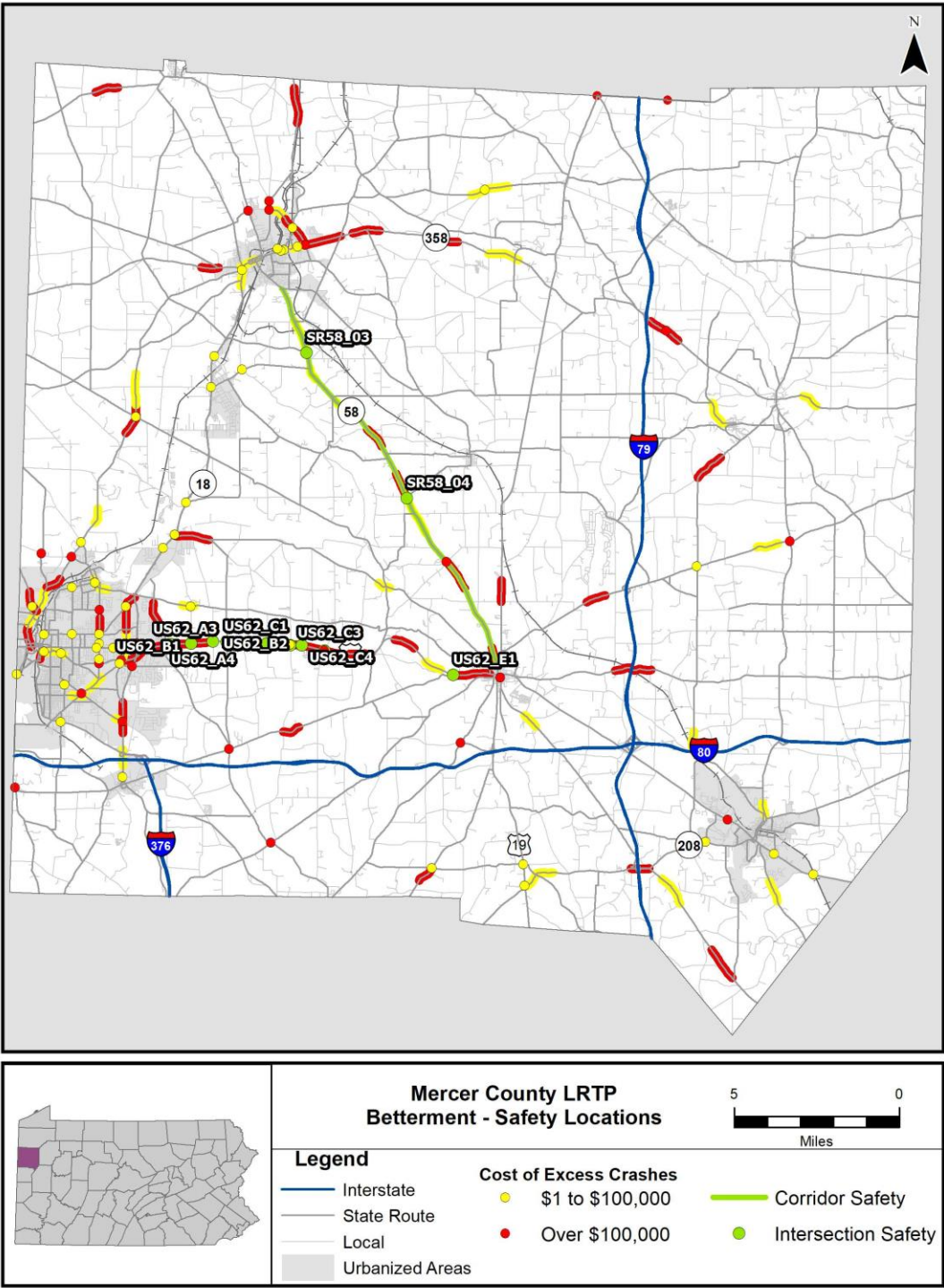


Exhibit 4 - Betterment Identification of Safety Improvement List

ID	Project Title	Desired Improvements	Municipality	Source
US62_A3	US 62 South (WB) Shoulder Maintenance Upgrades	Review, assess, and (where applicable) complete miscellaneous maintenance repairs including vegetation clearing, drainage improvements, erosion repair, guiderail updates, or signing and pavement marking updates	City of Hermitage	Safety Study
US62_A4	US 62 Shoulder Widening w Barrier	Widen US 62 South (WB) shoulder, add barrier along shoulder, and update drainage features.	City of Hermitage	Safety Study
US62_B1	US 62 at Robertson Rd Intersection treatments	Installation of low-cost intersection treatments that may include sign treatments, sign lighting/beacons, enhanced delineation, whole intersection treatments, (e.g. Speed Reduction Pavement Markings, Smooth Lane Narrowing), or feedback treatments (e.g. Dynamic Speed Feedback Displays).	City of Hermitage	Safety Study
US62_B2	US 62 at Darby Rd Intersection Treatments	Installation of low-cost intersection treatments that may include sign treatments, sign lighting/beacons, enhanced delineation, whole intersection treatments, (e.g. Speed Reduction Pavement Markings, Smooth Lane Narrowing), or feedback treatments (e.g. Dynamic Speed Feedback Displays).	City of Hermitage	Safety Study
US62_C1	US 62 at Neshannock Intersection Treatments	Installation of low-cost intersection treatments that may include sign treatments, sign lighting/beacons, enhanced delineation, whole intersection treatments, (e.g. Speed Reduction Pavement Markings, Smooth Lane Narrowing), or feedback treatments (e.g. Dynamic Speed Feedback Displays).	City of Hermitage	Safety Study
US62_C2	US 62 at Horvath Reno Intersection Treatments	Installation of low-cost intersection treatments that may include sign treatments, sign lighting/beacons, enhanced delineation, whole intersection treatments, (e.g. Speed Reduction Pavement Markings, Smooth Lane Narrowing), or feedback treatments (e.g. Dynamic Speed Feedback Displays).	Jefferson Township	Safety Study

Exhibit 4 - Betterment Identification of Safety Improvement List (Continued)

ID	Project Title	Desired Improvements	Municipality	Source
US62_C3	US 62 at Charleston Intersection Treatments	Installation of low-cost intersection treatments that may include sign treatments, sign lighting/beacons, enhanced delineation, whole intersection treatments, (e.g. Speed Reduction Pavement Markings, Smooth Lane Narrowing), or feedback treatments (e.g. Dynamic Speed Feedback Displays).	Jefferson Township	Safety Study
US62_C4	US 62 at ForestBrooke Intersection Treatments	Installation of low-cost intersection treatments that may include sign treatments, sign lighting/beacons, enhanced delineation, whole intersection treatments, (e.g. Speed Reduction Pavement Markings, Smooth Lane Narrowing), or feedback treatments (e.g. Dynamic Speed Feedback Displays).	Jefferson Township	Safety Study
US62_C5	US 62 at BendRd Intersection Treatments	Installation of low-cost intersection treatments that may include sign treatments, sign lighting/beacons, enhanced delineation, whole intersection treatments, (e.g. Speed Reduction Pavement Markings, Smooth Lane Narrowing), or feedback treatments (e.g. Dynamic Speed Feedback Displays).	Lackawannock Township	Safety Study
US62_E1	US 62 at Bestwick Intersection Treatments	Installation of low-cost intersection treatments that may include sign treatments, sign lighting/beacons, enhanced delineation, whole intersection treatments, (e.g. Speed Reduction Pavement Markings, Smooth Lane Narrowing), or feedback treatments (e.g. Dynamic Speed Feedback Displays).	East Lackawannock Township	Safety Study
SR58_03	PA 58 at SR 4003 (Wasser Bridge Rd)	Improve intersection signage, replace faded signs, and trim trees north and south of intersection for sight distance.	Hempfield Township	Safety Study
SR58_04	PA 58 at SR 3022/T595 (Line Rd)	Install cross road sign.	Delaware Township	Safety Study
SR58_09	PA 58 SR 4027 (Fredonia Rd) to SR 2010 (Penn Ave)	Widen shoulders to meet design criteria and regrade existing drainage swales along the corridor to include recoverable slopes.	Town of Greenville, Hempfield, Delaware, Jefferson, Coolspring Townships	Safety Study

Exhibit 4 - Betterment Identification of Safety Improvement List (Continued)

ID	Intersection
INTR01	SR 3007 (Pulaski Mercer Rd) at SR 3011 (New Wilmington Rd)
INTR02	SR 0846 (Saranac Dr) at T-301 (Buckeye Dr)
INTR03	SR 0318 (Hubbard Middlesex Rd) at SR 3001 / Local Road (Sharon Bedford Rd / State Line Rd)
INTR04	SR 0258 (Pitt St) at SR 2008 / Local Rd (Butler St)
INTR05	SR 2008 (Pitt St) at SR 0258 (Butler St)
INTR06	SR 0318 (Middlesex Mercer Rd) at SR 3011 (Keel Ridge Rd / Bethel New Wilmington Rd)
INTR07	SR 0358 (Hadley Rd) at T-697 (Barney Slater Rd)
INTR08	SR 0058 (Jamestown Rd) at SR 4006 / T-301 (Porter Rd / Williamson Rd)
INTR09	SR 0158 (Mercer Rd) at SR 3028 / T-429 (Steingrabe Rd / Vickerman Rd)
INTR10	SR 0062 (Sharon Mercer Rd) at T-546 (Bend Rd)
INTR11	SR 0173 (Sandy Lake Rd) at SR 0965 (Jackson Center Polk Rd)
INTR12	SR 0018 (Conneaut Lake Rd) at T-300 (High Rd)
INTR13	SR 0058 (Mercer Rd) at Local Road (Fulling Mill Rd)
INTR14	SR 0718 (Ivanhoe Rd) at T-301 (Buckeye Dr)
INTR15	SR 4020 (Sheakleyville Greenville Rd) at T-642 (Long Hill Rd)
INTR16	SR 0058 (Main St Exit) at T-876 (Fleming Dr)
INTR17	SR 4012 (Kidds Mill Rd) at Local Road (North River Rd)
INTR18	SR 0062 / SR 0965 (Main St / Henderson Rd) at SR 0062 / SR 2007
INTR19	SR 0019 (Perry Hwy) at SR 0208 / T-329 (Leesburg Grove City Rd / Leesburg Rd)
INTR20	SR 0208 (Center St Exit) at SR 2005 / T-804 (Irishtown Rd / Center Church Rd)
INTR21	SR 0062 (State St / Sharon Mercer Rd) at T-300 / T-301 (Charleston Rd / Greenfield Rd)
INTR22	SR 0062 (State St) at SR 3037 (Neshannock Rd)
INTR23	SR 0018 (Hermitage Rd) at T-585 (East Lake Rd)
INTR24	SR 0846 (Saranac Dr) at SR 3022 (Rutledge Rd)
INTR25	SR 3020 (Lamor Rd) at Local Rd (Robertson Rd)
INTR26	SR 0846 (Saranac Dr) at T-302 (Tamarack Dr)
INTR27	SR 2002 (Leesburg Station Rd) at SR 2001 (New Castle - Mercer Rd)
INTR28	SR 0019 (Perry Hwy) at SR 2002 (Leesburg Station Rd)
INTU01	SR 0062 (Shenango Valley Hw) at SR 3025 (Buhl Farm Dr)
INTU02	SR 0062 (Shenango Valley Expwy) at SR 0418 / SR 3035 (Maple Dr)
INTU03	SR 0018 (Hermitage Rd) at Private Dwy (Indian Run Dr / Shenango Valley Mall Rd)
INTU04	SR 0358 (Hadley Rd) at SR 4006 / T-300 (Williamson Rd)
INTU05	SR 0018 (Hermitage Rd) at SR 0518 / T-412 (Longview Rd)
INTU06	SR 0018 (Hermitage Rd) at T-491 / Local Rd (Morefield Rd)
INTU07	SR 0018 (Conneaut Lake Rd) at SR 4006 / T-301 (Williamson Rd)
INTU08	SR 0418 (Mercer Ave) at SR 0518 (New Castle Ave)
INTU09	SR 3025 (Buhl Farm Rd / Mercer Ave) at SR 3016 (Hazen Rd)
INTU10	SR 0058 (Main St) at Local Rd (Breckenridge St)
INTU11	Local Rd (Idaho St) at SR 3017 (Indiana Ave)
INTU12	SR 0018 (Hermitage Rd) at SR 4012 / T-651 (Reynolds Industrial Park Rd / Colt Rd)
INTU13	SR 0018 (Hermitage Rd) at SR 9113 / T-472 (Jughandle Rd / Crestview Dr)
INTU14	SR 3025 (Buhl Farm Rd) at Local Rd (King Dr)
INTU15	SR 0418 (Mercer Ave / Maple Dr) at Local Rd (Maple Dr / Morefield Rd)

Exhibit 4 - Betterment Identification of Safety Improvement List (Continued)

ID	Intersection
INTU16	SR 3008 (State St) at Local Rd (Kerrwood Dr)
INTU17	SR 0018 (Hermitage Rd) at SR 0258 (Lake Rd)
INTU18	SR 0518 (Walnut St) at Local Rd (Ridge Ave)
INTU19	SR 0018 (Hermitage Rd) at SR 0258 (Lake Rd)
INTU20	SR 0062 (Connely Blvd) at Private Dwy (Private Dwy)
INTU21	SR 0062 (Connely Blvd) at Local Rd (Stambaugh Ave)
INTU22	SR 3014 / Local Rd (Highland Rd) at SR 3021 / Local Rd (Forker Blvd)
INTU23	SR 3025 (Buhl Farm Rd) at Local Rd / Private Dwy (Theota Dr / Private Dwy)
INTU24	SR 0018 (Hermitage Rd) at T-573 (Thomason Rd)
INTU25	SR 3025 (Buhl Farm Dr) at SR 3014 (Highland Rd)
INTU26	SR 0062 (Irvine Ave) at Local Rd (Addison Rd / Thomas Ave Exit)
INTU27	SR 0518 (Ridge Ave) at SR 3021 / Local Rd (10th St)
INTU28	SR 0718 / SR 0760 (Broadway Ave) at SR 0418 / SR 0718 (Council Ave)
INTU29	SR 4017 (Leech Rd) at SR 4006 (Williamson Rd)
INTU30	SR 3019 (Orangeville Rd) at Local Rd (East St)
INTU31	SR 0358 (Main St) at Local Rd (3rd Ave)
INTU32	SR 0208 (Center St Exit) at T-808 (George Junior Rd)
INTU33	SR 3035 (Dutch Ln) at Local Rd (Clarksville Rd)
INTU34	SR 0518 (Sharpsville Ave) at Local Rd (Meek St)
INTU35	SR 3008 (State St) at Local Rd (FNB Blvd)
INTU36	SR 0358 (Main St) at Local Rd (2nd Ave)
INTU37	SR 0358 (Hadley Rd) at T-792 (8th Ave)
INTU38	SR 3008 (State St) at Local Rd (Lyle Dr)
INTU39	SR 0018 (New Castle Rd) at Local Rd (Chestnut St)
INTU40	SR 0018 (Clarksville St) at SR 0846 (Orangeville Rd)
INTU41	SR 0058 (Main St) at Local Rd (Madison Ave)
INTU42	SR 4017 (Main St) at Local Rd (1st Ave)

Exhibit 4 - Betterment Identification of Safety Improvement List (Continued)

ID	Location
SEGR_01	SR 62 (Franklin Rd) Segment 570 Offset 2311 to Segment 580 Offset 1026
SEGR_02	SR 62 (Sharon Mercer Rd) Segment 230 Offset 996 to Segment 240 Offset 788
SEGR_03	SR 358 (Hadley Rd) Segment 430 Offset 2675 to Segment 440 Offset 966
SEGR_04	SR 358 (Hadley Rd) Segment 210 Offset 1806 to Segment 220 Offset 1121
SEGR_05	SR 846 (Saranac Dr) Segment 130 Offset 2051 to Segment 140 Offset 500
SEGR_06	SR 62 (Sharon Mercer Rd) Segment 340 Offset 570 to Segment 340 Offset 1902
SEGR_07	SR 58 (Greenville Rd) Segment 530 Offset 1489 to Segment 530 Offset 2343
SEGR_08	SR 58 (Mercer Rd) Segment 370 Offset 1291 to Segment 380 Offset 341
SEGR_09	SR 208 (Grove City Leesburg Rd) Segment 110 Offset 1730 to Segment 110 Offset 1980
SEGR_10	SR 2001 (New Castle - Mercer Rd) Segment 20 Offset 5 to Segment 20 Offset 455
SEGR_11	SR 62 (Sharon Mercer Rd) Segment 220 Offset 626 to Segment 230 Offset 343
SEGR_12	SR 58 (Mercer Rd) Segment 410 Offset 999 to Segment 420 Offset 239
SEGR_13	SR 58 (Mercer Rd) Segment 470 Offset 1127 to Segment 480 Offset 518
SEGR_14	SR 62 (State St) Segment 190 Offset 2026 to Segment 200 Offset 818
SEGR_15	SR 318 (Middlesex Mercer Rd) Segment 190 Offset 261 to Segment 190 Offset 2680
SEGR_16	SR 58 (Kinsman Rd) Segment 50 Offset 1012 to Segment 50 Offset 2558
SEGR_17	SR 358 (Hadley Rd) Segment 270 Offset 403 to Segment 270 Offset 2095
SEGR_18	SR 18 (Conneaut Lake Rd) Segment 640 Offset 2826 to Segment 650 Offset 570
SEGR_19	SR 62 (Franklin Rd) Segment 420 Offset 67 to Segment 420 Offset 1086
SEGR_20	SR 19 (Perry Hw) Segment 230 Offset 1593 to Segment 230 Offset 2655
SEGR_21	SR 358 (Hadley Rd) Segment 180 Offset 1160 to Segment 190 Offset 220
SEGR_22	SR 62 (Sharon Mercer Rd) Segment 330 Offset 1057 to Segment 330 Offset 3497
SEGR_23	SR 2014 (Scrubgrass Rd) Segment 90 Offset 1410 to Segment 100 Offset 391
SEGR_24	SR 258 (Mercer Grove City Rd) Segment 30 Offset 1604 to Segment 40 Offset 521
SEGR_25	SR 62 (Sharon Mercer Rd) Segment 290 Offset 1805 to Segment 290 Offset 3246
SEGR_26	SR 62 (Sharon Mercer Rd) Segment 260 Offset 157 to Segment 260 Offset 1474
SEGR_27	SR 62 (State St) Segment 150 Offset 94 to Segment 160 Offset 379
SEGR_28	SR 258 (Mercer Grove City Rd) Segment 80 Offset 109 to Segment 90 Offset 676
SEGR_29	SR 846 (Saranac Dr) Segment 70 Offset 344 to Segment 70 Offset 1467
SEGR_30	SR 258 (Lake Rd) Segment 380 Offset 161 to Segment 380 Offset 1256
SEGR_31	SR 4020 (Sheakleyville Grnville Rd) Segment 80 Offset 1890 to Segment 90 Offset 75
SEGR_32	SR 2007 (Springfield Church Rd) Segment 70 Offset 1109 to Segment 70 Offset 2370
SEGR_33	SR 258 (Butler Pk) Segment 230 Offset 536 to Segment 230 Offset 2250
SEGR_34	SR 965 (Jackson Ctr Polk Rd) Segment 40 Offset 10 to Segment 40 Offset 1604
SEGR_35	SR 58 (Mercer St) Segment 280 Offset 1172 to Segment 290 Offset 694
SEGR_36	SR 845 (Linden St) Segment 30 Offset 1856 to Segment 30 Offset 3895
SEGR_37	SR 58 (Mercer Rd) Segment 430 Offset 633 to Segment 440 Offset 771
SEGR_38	SR 208 (Leesburg Grove City Rd) Segment 40 Offset 2483 to Segment 50 Offset 652
SEGR_39	SR 58 (Mercer Rd) Segment 310 Offset 622 to Segment 310 Offset 1402
SEGR_40	SR 62 (Franklin Rd) Segment 670 Offset 617 to Segment 670 Offset 1370

Exhibit 4 - Betterment Identification of Safety Improvement List (Continued)

ID	Location
SEGR_41	SR 358 (Hadley Rd) Segment 300 Offset 1667 to Segment 310 Offset 560
SEGR_42	SR 173 (Slippery Rock Rd) Segment 40 Offset 676 to Segment 40 Offset 2082
SEGR_43	SR 358 (Hadley Rd) Segment 260 Offset 616 to Segment 260 Offset 1218
SEGR_44	SR 3020 (Lamor Rd) Segment 40 Offset 930 to Segment 40 Offset 1730
SEGR_45	SR 846 (Saranac Dr) Segment 150 Offset 1880 to Segment 160 Offset 732
SEGR_46	SR 62 (Sharon Mercer Rd) Segment 310 Offset 120 to Segment 310 Offset 2543
SEGR_47	SR 58 (Mercer Rd) Segment 340 Offset 136 to Segment 340 Offset 1286
SEGU_01	SR 3035 (Dutch Ln) Segment 30 Offset 2360 to Segment 40 Offset 2094
SEGU_02	SR 18 (Hermitage Rd) Segment 184 Offset 1567 to Segment 190 Offset 500
SEGU_03	SR 846 (River Rd) Segment 10 Offset 830 to Segment 10 Offset 2368
SEGU_04	SR 62 (Connelly Bl) Segment 40 Offset 1018 to Segment 50 Offset 1283
SEGU_05	SR 62 (Shenango Valley Ex) Segment 100 Offset 882 to Segment 110 Offset 564
SEGU_06	SR 3011 (Keel Ridge Rd) Segment 200 Offset 1366 to Segment 200 Offset 2690
SEGU_07	SR 718 (Water Av) Segment 130 Offset 1977 to Segment 140 Offset 488
SEGU_08	SR 258 (Lake Rd) Segment 500 Offset 2190 to Segment 510 Offset 608
SEGU_09	SR 62 (State St) Segment 130 Offset 1452 to Segment 140 Offset 600
SEGU_10	SR 4006 (Williamson Rd) Segment 70 Offset 829 to Segment 80 Offset 328
SEGU_11	SR 358 (Vernon Rd) Segment 120 Offset 204 to Segment 120 Offset 498
SEGU_12	SR 3019 (Orangeville Rd) Segment 10 Offset 936 to Segment 10 Offset 1495
SEGU_13	SR 3025 (Buhl Farm Dr) Segment 40 Offset 1135 to Segment 40 Offset 2178
SEGU_14	SR 173 (Sandy Lake Rd) Segment 100 Offset 545 to Segment 100 Offset 1735
SEGU_15	SR 358 (Hadley Rd) Segment 170 Offset 840 to Segment 180 Offset 1160
SEGU_16	SR 718 (Water Av) Segment 170 Offset 749 to Segment 170 Offset 1615
SEGU_17	SR 418 (Mercer Av) Segment 50 Offset 1530 to Segment 50 Offset 2384
SEGU_18	SR 718 (Water Av) Segment 150 Offset 2393 to Segment 160 Offset 1005
SEGU_19	SR 3035 (Maple Dr) Segment 10 Offset 1511 to Segment 20 Offset 428
SEGU_20	SR 18 (Clarksville St) Segment 520 Offset 2090 to Segment 530 Offset 99
SEGU_21	SR 518 (Longview Rd) Segment 10 Offset 75 to Segment 10 Offset 1100
SEGU_22	SR 62 (Connelly Bl) Segment 50 Offset 1450 to Segment 50 Offset 2182
SEGU_23	SR 18 (New Castle Rd) Segment 160 Offset 1152 to Segment 170 Offset 580
SEGU_24	SR 4006 (Williamson Rd) Segment 60 Offset 450 to Segment 60 Offset 1320
SEGU_25	SR 3006 (Roemer Bl) Segment 50 Offset 719 to Segment 50 Offset 1712
SEGU_26	SR 518 (Walnut St) Segment 140 Offset 1684 to Segment 140 Offset 2498

Exhibit 5 – Betterment Key Bicycle and Pedestrian Corridors

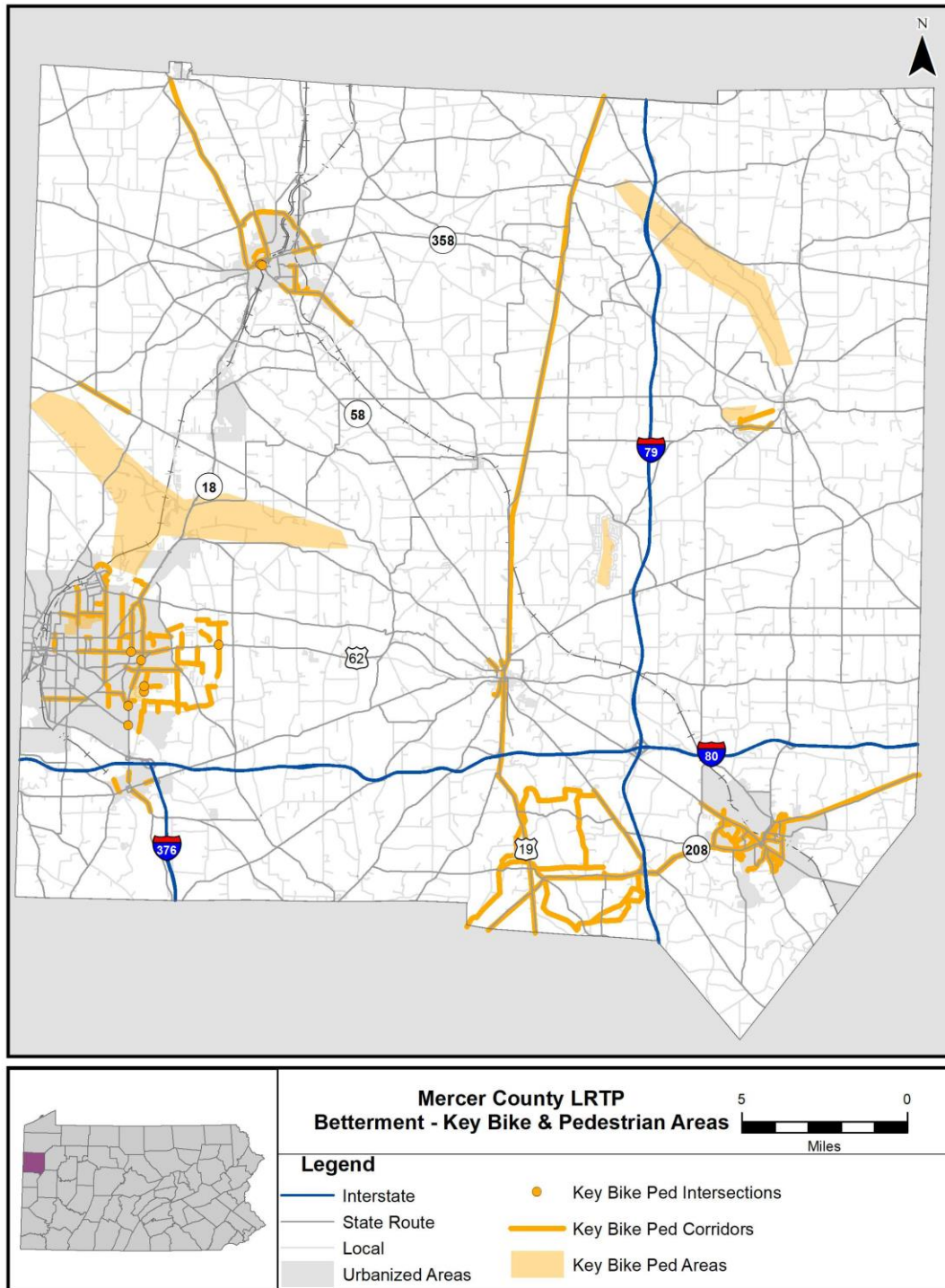


Exhibit 6 - Betterment Key Bicycle and Pedestrian Corridors List

ID	Project Title	Desired Improvements
LRTP_H3	Christy Road Bike/Ped Traffic Calming	Sidewalk connections and pedestrian crossings along Christy Road to connect neighborhoods and Lindenpointe
LRTP_B2	Hempfield Twp Elementary School Bike/Ped Connections	Sidewalk connection between the Hempfield Township elementary and high schools, as well as from residential area to the west, to the park in the southeast
LRTP_B3	Mercer Sidewalks	Sidewalk connection to the grocery store and to Dairy Queen
LRTP_B8	SR 18 Hermitage Sidewalk Extension to Linden Pointe	Sidewalk connection along US 18 south to Linden Pointe which is used like a trail system
LRTP_B11	West Middlesex School District SR 18 Sidewalks to School	Sidewalk connection between residential area and school along US 18
Green_A125	Hadley Road Sidewalks	New sidewalk along Hadley Rd (SR 358) north side, SR 4031 to Williamson Rd New sidewalk along Hadley Rd (SR 358) south side, Woodfield Rd to Williamson Rd New sidewalk along Hadley Rd south side, east of Williamson Rd
Green_A34	Williamson Road Sidewalks	New sidewalk along Williamson Rd, north of Hadley Rd New sidewalk along Williamson Rd, south of Hadley Rd
Green_B1	Donation Road Sidewalk	New sidewalk along Donation Rd south side, school to Mehard Ave
Green_B2	Mehard Avenue Sidewalk	New sidewalk along Mehard Ave west side, Donation Rd to Fredonia Rd
Green_B3	E Greenville Dr Sidewalk	New sidewalk along E Greenville Dr/Hempfield Dr
Green_B4	Fredonia Rd Sidewalk	New sidewalk along Fredonia Rd north side, S Mercer St to Greenville Elementary
Green_B5	S Mercer St Sidewalk	New sidewalk along S Mercer St east side, Borough line to Fredonia Rd
Green_C1	Main Street Streetscape	Main Street Safety & Streetscape Improvements
Green_C2	Trail Town Amenities	Shenango Trail Town Amenities
Green_C3	Downtown Greenville Bike Facilities	Downtown Greenville Bike Facilities
Green_D2	Thiel College Gateway Sign	Thiel College Gateway Sign

Exhibit 6 - Betterment Key Bicycle and Pedestrian Corridors List (Continued)

ID	Project Title	Desired Improvements
Green_F1	Greenville Pedestrian Crosswalks and Signal Upgrades	Borough-wide pedestrian crosswalks and signals
Green_F2	Greenville Sidewalk Improvement Program	Borough-wide sidewalk improvement program
SE_2	Falls Road Sidepath	SIDEPATH - Utilizing the existing right-of-way, this route connects Springfield Falls along Falls Rd. to the intersection with the off-road trail at Old Mercer Rd. Some grade and slope challenges exist, primarily around the Springfield Falls access point.
SE_3	Meadow Road Sidepath	SIDEPATH - The sidepath begins at the intersection of Old Mercer Rd. and Woodland Rd., continuing east and north along Woodland, then east on Meadow Rd. The route then continues through farm property to loop around the fishing lake on the west side of Butler Pike. A crossing point at Butler Pike allows direct connection to the KOA.
SE_4	Spring Road Sidepath	SIDEPATH - A sidepath along Spring Rd. completes the off-road paved trail loop connecting the KOA to Springfield Falls, and to the old railroad alignment down to Volant. Steep slopes and limited right-of-way create pinch points in some areas along Spring Rd., and an off-center intersection at Milburn Rd. must be crossed.
SE_34	Springfield Falls to VFW Sidepath	SIDEPATH - Connecting Springfield Falls down to the #2 VFW complex, this sidepath alignment traverses the #284 State Game Lands property. By primarily remaining on the abandoned railroad spur right-of-way, limited earthwork is needed and grade changes are favorable to a trail experience.
SE_35	Veterans Road Sidepath	SIDEPATH - A sidepath facility along Veterans Rd. would allow for a connection from the southern end of the loop directly to the Grove City Premium Outlets. A potential public space installation at the southern end of the Outlet property would create a potential trailhead connection. Concerns include severely restricted right-of-way.
SE_36	SR 0208 Widened Sidewalks to Outlets	WIDENED SIDEWALK - This widened sidewalk alignment connects the sidepath along the Outlet property to the under-construction Springfield Twp. sidepath and widened sidewalk along SR-208. This would complete the final loop connection to the planned facilities and the greater Western Loop network.

Exhibit 6 - Betterment Key Bicycle and Pedestrian Corridors List (Continued)

ID	Project Title	Desired Improvements
SE_6	SR 0208 Bike Lanes West of Outlets	BIKE LANES - This route creates dedicated bike lanes along SR-208 from the Grove City Premium Outlets, then continues north on Old Ash Rd. to connect to the planned off-road trails just north of the Springfield Twp. community building. This route complements the proposed off-road trails by serving road-oriented cyclists.
SE_7	SR 0208 Bike Lanes East of Outlets	BIKE LANES - Connecting Grove City and Pine Twp. to the west side of the I-79 corridor was a critical goal of the study. Bike lanes along SR-208 meet the needs of riders most likely to make the longer-distance ride from the Borough to the Outlets. Existing wide, paved shoulders along the roadway require minor overall modification. The I-79 bridge deck itself was a point of major discussion and analysis during the course of the study. Although the deck itself is substantial in width and fairly young in its lifespan, it was not deemed appropriate to reconfigure or modify the deck to accommodate any additional facilities such as the addition of curbed sidewalks, a sidepath, or protected bike lanes. After consulting with stakeholders and PennDOT, restriping the bridge to accommodate bike lanes was deemed a feasible alternative.
SE_8	Butler Pike Bike Lanes	BIKE LANES - The Butler Pike bike lanes allow a more direct connection to the northern KOA property for those who prefer to ride on the road. Challenges along the roadway include some areas of limited right-of-way or areas of needed tree clearing.
SE_10	George Junior Road Bike Lanes	BIKE LANES - These bike lanes on George Jr. Rd. begin at the intersection with SR-208 and continue north along the western edge of Memorial Park, and through the intersection with W. Main St. up to the George Jr. School campus.
SE_11	SR 0258 W Main Street Bike Lanes	BIKE LANES - The bike lanes along W. Main St. (when combined with the widened sidewalk route) allow multimodal connectivity from the high school to the shopping areas northwest of the Borough. As an alternate, a sidepath is recommended instead the bike lanes and widened sidewalk.
SE_15	Broad and Center Street Sharrows	SHARROWS - The installation of sharrows and signage along Broad and Center Streets would alert cyclists and motorists that the one-way traffic loop through Olde Town is a shared-use space. The sharrow facility was voted as the preferred option over a cycletrack along Broad St.
SE_16	W Poplar and Stewart Avenue Sharrows	SHARROWS - Sharrow and signage installations along W. Poplar St. and Stewart Ave. increase the visibility for residents and students connecting into the Grove City Area high School campus and into Memorial Park.

Exhibit 6 - Betterment Key Bicycle and Pedestrian Corridors List (Continued)

ID	Project Title	Desired Improvements
SE_19	Carrie Way and Ivan Drive Sharrows	SHARROWS - The addition of sharrows and signage along Carrie Way and Ivan Dr. connects the mobile home park on the west side of George Jr. Rd. to the additional routes proposed W. Main St. Low traffic volumes and travel speeds make bike lanes unnecessary along this route.
SE_20	Pine Street Sharrows	SHARROWS - Pine St. sharrows and signage begin at the intersection of Madison St. and Pine St., and continue west to the intersection of Broad St. and Pine., connecting to the sharrow loop through Olde Town Grove City. Right-of-way constraints do not allow bike lanes on this route.
SE_23	Lincoln Avenue Bike Lanes and Sharrows	BIKE LANES + SHARROWS - Bike lanes along Lincoln Ave. begin at the intersection with Madison St. and its sidepath alignment, continuing west to the bridge over Wolf Creek. Sharrows on the narrow bridge then connect to the bike lanes along N. Broad St.
SE_24	N Broad Street Bike Lanes	BIKE LANES - The bike lanes along N. Broad St. stretch from the Blair St. intersection south of the railroad tracks, and continue north to the intersection with Barkeyville Rd. Right-of-way limitations restrict the area around the railroad crossing, and would require widening and curb adjustment.
SE_25	Barkeyville Road Bike Lanes	BIKE LANES - The bike lanes along Barkeyville Rd. are a continuation of the N. Broad St. bike lanes, stretching from that intersection east to Forest Dr., just east of the Grove City District Court property. This route increases connectivity to the little league fields from surrounding areas.
SE_27	W Main Street Bike Lanes	BIKE LANES - The installation of bike lanes along W. Main St. creates a direct bike connection from Memorial Park and the high school campus south along Main to the Grove City College gateway at the intersection of Liberty St. and E. Main St, just past the Wolf Creek bridge.
SE_28	SR 0208 Bike Lanes and Sharrow by Uber Way	BIKE LANES + SHARROW - The portion of SR-208 between Uber Way and Main St. has limited pavement and right-of-way that does not allow for bike lanes on both sides of the roadway. An eastbound bike lane combined with a westbound sharrowed lane overcome this challenge.
SE_29	SR 0058 Bike Lanes	BIKE LANES - The western most bike lane alignment on W. Main St. connects the commercial areas east of George Jr. Rd. with the Walmart and Country Market shopping centers on the west side of the intersection. This completes a bikeable connection from shopping to Grove City College

Exhibit 6 - Betterment Key Bicycle and Pedestrian Corridors List (Continued)

ID	Project Title	Desired Improvements
SE_32	Greenwood Drive Sidewalks to Memorial Park	WIDENED SIDEWALK - Limited right-of-way and physical constraints along this portion of Greenwood Dr. limit the width of potential improvements. A sidewalk varying between 5-8 ft here would serve to provide connectivity for pedestrians to Olde Town and Grove City College. Retaining walls and easements may be required.
HBPP_A8	A8 E. State Street	Establish sidewalks from the E. State Street and Shenango Valley Freeway Intersection where missing gaps occur to Hudson Baseball Field.
HBPP_A9	A9 N. Hermitage Road	Establish sidewalks where missing gaps occur from Highland Road to E. State Street.
HBPP_A10	A10 McConnell Road	Establish pedestrian facilities from McConnell Road to the existing trails around the high school.
HBPP_C1	C1 N. Hermitage Road	Establish pedestrian facilities from the intersection of Highland Road to 1025 N Hermitage Rd.
HBPP_A1	A1 Forker Blvd	Establish sidewalks from Putman Drive to Hazen Road. Establish sidewalks from the corner of Hazen Road and Forker Boulevard to S. 4th Street.
HBPP_A2	A2 Highland Ave	Establish sidewalks from Buhl Boulevard to Boyd Drive along Highland Road.
HBPP_B5	B5 N. Buhl Farm Drive	Establish pedestrian facilities from the intersection of Hazen Road and N. Buhl Farm Drive to E. State Street.
HBPP_C4	C4 Buhl Farm Park	Establish pedestrian facilities within Buhl Farm Park to connect to the intersection of Hazen Road and N. Buhl Farm Drive.
HBPP_A11	A11 N. Hermitage Road	Establish sidewalks from the existing sidewalk at 1650 N Hermitage Rd to the first driveway on Lamor Road.
HBPP_A12	A12 N. Hermitage Road	Establish sidewalks from the existing sidewalk to Valley View Road.
HBPP_C2	C2 N. Hermitage Road	Establish pedestrian facilities from 1435 N Hermitage Rd to Dutch Lane.
HBPP_C3	C3 N. Hermitage Road	Establish pedestrian facilities from Dutch Lane to Lamor Road.
HBPP_D1	D1 N. Hermitage Road	Establish pedestrian facilities from N. Hermitage Rd to the existing Trout Island Trail.
HBPP_D2	D2 Lamor Road	Establish pedestrian facilities from Lamor Road to the proposed facilities crossing Clarksville Rd.
HBPP_D3	D3 Clarksville Road	Establish pedestrian facilities from the proposed facilities crossing Clarksville Rd to the proposed facilities on Dutch Lane.
HBPP_D6	D6 Highland Road	Establish pedestrian facilities from Highland Road along Pine Hollow Run to the Dutch Lane and N. Hermitage Road intersection.

Exhibit 6 - Betterment Key Bicycle and Pedestrian Corridors List (Continued)

ID	Project Title	Desired Improvements
HBPP_A3	A3 E. State Street	Establish sidewalks where missing gaps occur between Route 18 and the Sharon City line along E. State Street.
HBPP_A4	A4 N. Kerrwood Drive	Establish sidewalks where missing gaps occur from Highland Road to E. State Street.
HBPP_A5	A5 S. Buhl Farm Drive	Establish sidewalks from E. State Street to Mercer Avenue.
HBPP_D19	D19 Rombold Road	Establish pedestrian facilities from the intersection of S. Buhl Farm Drive and Mercer Avenue to Rombold Road. Establish pedestrian facilities from Rombold Road to UPMC Horizon Shenango Valley to Maple Drive.
HBPP_D4	D4 Dutch Lane	Establish pedestrian facilities along Dutch Lane to Highland Rd.
HBPP_D5	D5 Dutch Lane	Establish pedestrian facilities along Dutch Lane between Highland Rd and E. State Street.
HBPP_D9	D9 McConnell Road	Establish pedestrian facilities from McConnell Road to Shenango Valley Mall and Hermitage Hills Boulevard.
HBPP_D20	D20 N. Keel Ridge Road	Establish pedestrian facilities from the existing high school trails across N. Keel Ridge Rd.
HBPP_D21	D21 E. State Street	Establish pedestrian facilities from E. State Street to Whippoorwill Drive development.
HBPP_D22	D22 Whippoorwill Drive	Establish pedestrian facilities from the proposed facilities crossing N. Keel Ridge Rd up to the proposed facilities above Whippoorwill Dr.
HBPP_E2	E2 Shenango Valley Fr	Intersection improvement at Route 18.
HBPP_E4	E4 Shenango Valley Fr	Intersection improvement at entrance to Glimcher Boulevard.
HBPP_D10	D10 E. State Street	Establish pedestrian facilities from E. State Street along S. Robertson Road (along the Eastern edge of the VFW Golf Course property).
HBPP_D11	D11 Robertson Road	Establish pedestrian facilities from Robertson Road to Whispering Pines Park.
HBPP_D23	D23 Robertson Road	Establish pedestrian facilities along property lines to N. Darby Rd.
HBPP_D24	D24 N. Darby Road	Establish pedestrian facilities from Whispering Pines connection to Robertson Road connection.
HBPP_E14	E14 E. State Street	Crosswalk Improvement at S Darby Rd.
HBPP_A6	A6 S. Hermitage Road	Establish Sidewalks from the Shenango Valley Freeway/S. Hermitage Road intersection to Presidential Boulevard (LindenPointe).
HBPP_A7	A7 Panin Road	Establish sidewalks from Christy Rd to Wilhelm Rd along Panin Rd.
HBPP_A13	A13 S. Hermitage Road	Establish sidewalks from Hann Hill Road for 0.15 mile toward LindenPointe.

Exhibit 6 - Betterment Key Bicycle and Pedestrian Corridors List (Continued)

ID	Project Title	Desired Improvements
HBPP_B1	B1 Rombold Road	Establish pedestrian facilities from Bolde Drive to Maple Drive. Establish pedestrian facilities from Rombold Road to S. Hermitage Road.
HBPP_B2	B2 Christy Road; Sample Road; Spangler Road	Establish pedestrian facilities from the southwest corner of LindenPointe to Sample Road. Establish pedestrian facilities from Christy Road to Spangler Road. Establish pedestrian facilities from Sample Road to Silver Ridge Court.
HBPP_D17	D17 S. Hermitage Road	Establish pedestrian facilities from S. Hermitage Road to LindenPointe.
HBPP_D18	D18 S. Hermitage Road	Establish pedestrian facilities from the LindenPointe trail and Christy Road intersection to Christy Road.
HBPP_E5	E5 Christy Road	Christy Road at LindenPointe trails - assumes a raised crosswalk.
HBPP_E6	E6 S. Hermitage Road	Crosswalk Improvement at Hann Hill Road.
HBPP_E9	E9 Christy Road	Crosswalk Improvement at Panin Road.
HBPP_E13	E13 S. Hermitage Road	Intersection Improvement at Longview Road.
HBPP_B3	B3 Virginia Road	Establish pedestrian facilities for 0.15 miles between two proposed Non-Roadway Multi-Use trails.
HBPP_B4	B4 S. Darby Road	Establish pedestrian facilities from Whispering Pines to Hermitage Athletic Complex.
HBPP_D7	D7 Sample Road	Establish pedestrian facilities from Sample Road north to E. State Street.
HBPP_D16	D16 S. Hermitage Road	Establish pedestrian facilities from the LindenPointe trail and Christy Road intersection to Sample Road.
HBPP_D8	D8 Sample Road	Establish pedestrian facilities from Sample Road to the proposed facilities connecting to Christy Rd.
HBPP_D12	D12 VFW Golf Course	Establish pedestrian facilities along Southern edge of the VFW Golf Course property.
HBPP_D13	D13 Lorenwood Drive	Establish pedestrian facilities from Lorenwood Drive through the Hermitage Athletic Complex to Virginia Road.
HBPP_D14	D14 Virginia Road	Establish pedestrian facilities from Virginia Road to Miller Road.
HBPP_D15	D15 Miller Road	Establish pedestrian facilities along Miller Road to S. Keel Ridge Road and continue to connect to proposed Non-Roadway Multi-Use Trail.
16LRTP_01	SR 3022 btw SR 4002 and TR 392	Key bicycle and pedestrian route as shown on 2016 LRTP
16LRTP_02	Porter Rd btw SR 4005 and SR 0358	Key bicycle and pedestrian route as shown on 2016 LRTP
16LRTP_03	SR 0058 btw SR 0058 and SR 4006	Key bicycle and pedestrian route as shown on 2016 LRTP

Exhibit 6 - Betterment Key Bicycle and Pedestrian Corridors List (Continued)

ID	Project Title	Desired Improvements
16LRTP_04	SR 4005 btw SR 0358 and SR 0322	Key bicycle and pedestrian route as shown on 2016 LRTP
16LRTP_05	Alan Ave btw Race St and SR 0018	Key bicycle and pedestrian route as shown on 2016 LRTP
16LRTP_06	SR 0358 btw 3rd Ave and SR 4006	Key bicycle and pedestrian route as shown on 2016 LRTP
16LRTP_07	SR 4027 between SR 0058 and Park	Key bicycle and pedestrian route as shown on 2016 LRTP
16LRTP_08	Mehard Ave btw Donation Rd and SR 4027	Key bicycle and pedestrian route as shown on 2016 LRTP
16LRTP_09	Trout Island Trail Connection	Key bicycle and pedestrian route as shown on 2016 LRTP
16LRTP_10	N Buhl Farm Dr to Trout Island Trail	Key bicycle and pedestrian route as shown on 2016 LRTP
16LRTP_11	SR 3021 and SR 3016 Connection to Buhl Park	Key bicycle and pedestrian route as shown on 2016 LRTP
16LRTP_12	Wakefield Dr btw SR 3025 Connection to School	Key bicycle and pedestrian route as shown on 2016 LRTP
16LRTP_13	E State Street SR 3008	Key bicycle and pedestrian route as shown on 2016 LRTP
16LRTP_14	SR 0018 N Hermitage Rd to Walmart and Lamor	Key bicycle and pedestrian route as shown on 2016 LRTP
16LRTP_15	Dutch Lane	Key bicycle and pedestrian route as shown on 2016 LRTP
16LRTP_16	N Kerrwood Dr	Key bicycle and pedestrian route as shown on 2016 LRTP
16LRTP_17	Morefield Road	Key bicycle and pedestrian route as shown on 2016 LRTP
16LRTP_18	SR 3006 Roemer Blvd	Key bicycle and pedestrian route as shown on 2016 LRTP
16LRTP_19	SR 0518 Thornton Ave	Key bicycle and pedestrian route as shown on 2016 LRTP
16LRTP_20	4th Ave	Key bicycle and pedestrian route as shown on 2016 LRTP
16LRTP_21	SR 0208	Key bicycle and pedestrian route as shown on 2016 LRTP
16LRTP_22	Grove City Creek Outlet Trail	Key bicycle and pedestrian route as shown on 2016 LRTP
16LRTP_23	SR 0058 E Main St and SR 0173	Key bicycle and pedestrian route as shown on 2016 LRTP
16LRTP_24	Poplar St	Key bicycle and pedestrian route as shown on 2016 LRTP
16LRTP_25	Greenwood Dr	Key bicycle and pedestrian route as shown on 2016 LRTP
16LRTP_26	Memorial Park	Key bicycle and pedestrian route as shown on 2016 LRTP
16LRTP_27	Memorial Park Extension	Key bicycle and pedestrian route as shown on 2016 LRTP
16LRTP_28	SR 0058 Mercer	Key bicycle and pedestrian route as shown on 2016 LRTP
16LRTP_29	SR 0258 Maple St	Key bicycle and pedestrian route as shown on 2016 LRTP
16LRTP_30	SR 0158 Shenango St	Key bicycle and pedestrian route as shown on 2016 LRTP

Exhibit 6 - Betterment Key Bicycle and Pedestrian Corridors List (Continued)

ID	Project Title	Desired Improvements
16LRTP_31	US 19 Mercer	Key bicycle and pedestrian route as shown on 2016 LRTP
16LRTP_32	Sandy Lake Trail	Key bicycle and pedestrian route as shown on 2016 LRTP
16LRTP_33	SR 0845 Trail to School	Key bicycle and pedestrian route as shown on 2016 LRTP
16LRTP_34	SR 0018 Sharon Rd	Key bicycle and pedestrian route as shown on 2016 LRTP
16LRTP_35	SR 0018 New Castle Rd	Key bicycle and pedestrian route as shown on 2016 LRTP
16LRTP_36	SR 0318 Mercer W Middlesex Ave	Key bicycle and pedestrian route as shown on 2016 LRTP
16LRTP_37	West Middlesex Trail	Key bicycle and pedestrian route as shown on 2016 LRTP



Appendix F – Air Quality Conformity Determination

Transportation Conformity Determination Report
1997 Ozone NAAQS

*Transportation Conformity Determination
Mercer County, PA Portion of the
Youngstown-Warren-Sharon, OH-
PA Area*

2045 Long Range
Transportation Plan (LRTP)

September 2021

Table of Contents

EXECUTIVE SUMMARY.....1

1.0 BACKGROUND.....2

2.0 SVATS LRTP.....3

3.0 TRANSPORTATION CONFORMITY PROCESS.....4

4.0 TRANSPORTATION CONFORMITY REQUIREMENTS.....4

5.0 CONCLUSION.....6

APPENDIX A: Regionally Significant Project List (Mercer County)

Executive Summary

As part of its transportation planning process, the Shenango Valley Area Transportation Study (SVATS) completed the transportation conformity process for the region's 2045 Long Range Transportation Plan (LRTP). This report documents that both the current Transportation Improvement Program (TIP) and LRTP meet the federal transportation conformity requirements in 40 CFR Part 93. The TIP and the associated air quality significant projects remain unchanged from the previous conformity determination.

Clean Air Act (CAA) section 176(c) (42 U.S.C. 7506(c)) requires that federally funded or approved highway and transit activities are consistent with ("conform to") the purpose of the State Implementation Plan (SIP). Conformity to the purpose of the SIP means that transportation activities will not cause or contribute to new air quality violations, worsen existing violations, or delay timely attainment of the relevant NAAQS or any interim milestones. EPA's transportation conformity rules establish the criteria and procedures for determining whether metropolitan transportation plans, transportation improvement programs, and federally supported highway and transit projects conform to the SIP.

On February 16, 2018, the United States Court of Appeals for the District of Columbia Circuit in *South Coast Air Quality Mgmt. District v. EPA* ("South Coast II," 882 F.3d 1138) held that transportation conformity determinations must be made in areas that were either nonattainment or maintenance for the 1997 ozone national ambient air quality standard (NAAQS) and attainment for the 2008 ozone NAAQS when the 1997 ozone NAAQS was revoked. These conformity determinations are required in these areas after February 16, 2019. The *Youngstown-Warren-Sharon, OH-PA* area (encompassing Mercer County) was maintenance at the time of the 1997 ozone NAAQS revocation on April 6, 2015 and was also designated attainment for the 2008 ozone NAAQS on May 21, 2012. Therefore, per the South Coast II decision, this conformity determination is being made for the 1997 ozone NAAQS.

This conformity determination was completed consistent with CAA requirements, existing associated regulations at 40 CFR Parts 51.390 and 93, and the *South Coast II* decision, according to EPA's *Transportation Conformity Guidance for the South Coast II Court Decision* issued on November 29, 2018.

1.0 Background

1.1 Transportation Conformity Process

The concept of transportation conformity was introduced in the CAA of 1977, which included a provision to ensure that transportation investments conform to a State Implementation Plan (SIP) for meeting the Federal air quality standards. Conformity requirements were made substantially more rigorous in the CAA Amendments of 1990. The transportation conformity regulations that detail implementation of the CAA requirements were first issued in November 1993, and have been amended several times. The regulations establish the criteria and procedures for transportation agencies to demonstrate that air pollutant emissions from metropolitan transportation plans, transportation improvement programs and projects are consistent with (“conform to”) the State’s air quality goals in the SIP. This document has been prepared for State and local officials who are involved in decision making on transportation investments.

Transportation conformity is required under CAA Section 176(c) to ensure that Federally-supported transportation activities are consistent with (“conform to”) the purpose of a State’s SIP. Transportation conformity establishes the framework for improving air quality to protect public health and the environment. Conformity to the purpose of the SIP means Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) funding and approvals are given to highway and transit activities that will not cause new air quality violations, worsen existing air quality violations, or delay timely attainment of the relevant air quality standard, or any interim milestone.

1.2 National Ambient Air Quality Standards

The CAA requires the EPA to set NAAQS for pollutants considered harmful to public health and the environment. A nonattainment area is any area that does not meet the primary or secondary NAAQS. Once a nonattainment area meets the standards and additional redesignation requirements in the CAA [Section 107(d)(3)(E)], EPA will designate the area as a maintenance area.

Mercer County is currently designated as a maintenance area under the 1997 8-hour ozone NAAQS. The County is in attainment of the 2008 and 2015 8-hour ozone, 2006 24-hour PM_{2.5} and 2012 annual PM_{2.5} NAAQS. Transportation conformity requires nonattainment and maintenance areas to demonstrate that all future transportation projects will not prevent an area from reaching its air quality attainment goals.

1997 8-hour Ozone NAAQS

The EPA published the 1997 8-hour ozone NAAQS on July 18, 1997 (62 FR 38856), with an effective date of September 16, 1997. An area was in nonattainment of the 1997 8-hour ozone NAAQS if the 3-year average of the individual fourth highest air quality monitor readings, averaged over 8 hours throughout the day, exceeded the NAAQS of 0.08 parts per million (ppm). On May 21, 2013, the EPA published a rule revoking the 1997 8-hour ozone NAAQS, for the purposes of transportation conformity, effective one year after the effective date of the 2008 8-hour ozone NAAQS area designations (77 FR 30160).

On February 16, 2018 the D.C. Circuit reached a decision in *South Coast Air Quality Management District v. EPA*, Case No. 15-1115. In that decision, the court vacated major portions of the final rule that established procedures for transitioning from the 1997 ozone NAAQS to the stricter 2008 ozone NAAQS. By court decision, the *Youngstown-Warren-Sharon, OH-PA* area was designated as an “orphan” maintenance area since the area was maintenance for the 1997 ozone NAAQS at the time of its revocation (80 FR 12264, March 6, 2015) and was designated attainment for the 2008 NAAQS in EPA’s original designations for this NAAQS (77 FR 30160, May 21, 2012).

2008 and 2015 8-hour Ozone NAAQS

The EPA published the 2008 8-hour ozone NAAQS on March 27, 2008 (73 FR 16436), with an effective date of May 27, 2008. EPA revised the ozone NAAQS by strengthening the standard to 0.075 ppm. Thus, an area is in nonattainment of the 2008 8-hour ozone NAAQS if the 3-year average of the individual fourth highest air quality monitor readings, averaged over 8 hours throughout the day, exceeds the NAAQS of 0.075 ppm. Mercer County was designated as an attainment area under the 2008 8-hour ozone NAAQS, effective July 20, 2012 (77 FR 30088).

In October 2015, based on its review of the air quality criteria for ozone and related photochemical oxidants, the EPA revised the primary and secondary NAAQS for ozone to provide requisite protection of public health and welfare, respectively (80 FR 65292). The EPA revised the levels of both standards to 0.070 ppm, and retained their indicators, forms (fourth-highest daily maximum, averaged across three consecutive years) and averaging times (eight hours). Under the Clean Air Act, the EPA administrator is required to make all attainment designations within two years after a final rule revising the NAAQS is published. Mercer County is in attainment of the 2015 8-hour ozone NAAQS.

2.0 SVATS LRTP

The Long Range Transportation Plan (LRTP) serves as the official transportation plan for a metropolitan area. The LRTP documents the current and future transportation demand and identifies long-term improvements and projects to meet those needs. The plan guides decision-making about transportation improvements in Mercer County. Federal regulations require that the LRTP:

- Consider all modes of transportation
- Cover at least a twenty year period
- Consider federal planning factors
- Be fiscally constrained
- Provide for public participation
- Be updated at least every five years

The planning factors specified in federal regulations provide the framework for developing an LRTP. In addition, PennDOT provides guidance to help MPOs prepare LRTPs, and local policies and plans also play a role in the development of an LRTP that illustrates how transportation investments will address current and future needs.

The February 16, 2018 *South Coast vs. EPA* Court decision did not vacate EPA's revocation of the 1997 ozone standard and the decision does not change the area's attainment status. Therefore, while such areas might be required to meet conformity requirements as part of anti-backsliding controls, such areas are not considered nonattainment or maintenance areas under the Transportation Planning Rule (23 CFR 450.104). Such areas continue to complete 5-year plan update cycles as described in 23 CFR 450.324(c). The 5-year metropolitan transportation plan update cycle continues to apply from the date of the most recent MPO metropolitan transportation plan adoption (not the most recent FHWA/FTA conformity determination). While these areas have a 5-year plan cycle for transportation planning purposes, as a result of the court decision they must still meet the 4-year frequency requirements for conformity determinations on LRTPs and TIPs as required by 40 CFR 93.104.

Appendix A provides a listing of the regional significant projects that are funded in the TIP and LRTP within Mercer County. Regionally significant projects include transportation projects (other than exempt projects as defined under 40 CFR 93.126-127) that are on a facility which serves regional transportation needs.

3.0 Transportation Conformity Process

Per the court's decision in *South Coast II*, beginning February 16, 2019, a transportation conformity determination for the 1997 ozone NAAQS will be needed in 1997 ozone NAAQS nonattainment and maintenance areas identified by EPA¹ for certain transportation activities, including updated or amended TIPs and LRTPs. Once USDOT makes its 1997 ozone NAAQS conformity determination, conformity will be required no less frequently than every four years. This conformity determination report will address transportation conformity for the SVATS updated LRTP and existing FY 2021-2024 TIP.

¹ The areas identified can be found in EPA's "Transportation Conformity Guidance for the South Coast II Court Decision, EPA-420-B-18-050, available on the web at: www.epa.gov/state-and-local-transportation/policy-and-technical-guidance-state-and-local-transportation.

4.0 Transportation Conformity Requirements

4.1 Overview

On November 29, 2018, EPA issued **Transportation Conformity Guidance for the South Coast II Court Decision**² (EPA-420-B-18-050, November 2018) that addresses how transportation conformity determinations can be made in areas that were nonattainment or maintenance for the 1997 ozone NAAQS when the 1997 ozone NAAQS was revoked, but were designated attainment for the 2008 ozone NAAQS in EPA's original designations for this NAAQS (May 21, 2012).

The transportation conformity regulation at 40 CFR 93.109 sets forth the criteria and procedures for determining conformity. The conformity criteria for TIPs and LRTPs include: latest planning assumptions (93.110), latest emissions model (93.111), consultation (93.112), transportation control measures (93.113(b) and (c), and emissions budget and/or interim emissions (93.118 and/or 93.119).

For the 1997 ozone NAAQS areas, transportation conformity for TIPs and LRTPs for the 1997 ozone NAAQS can be demonstrated without a regional emissions analysis, per 40 CFR 93.109(c). This provision states that the regional emissions analysis requirement applies one year after the effective date of EPA's nonattainment designation for a NAAQS and until the effective date of revocation of such NAAQS for an area. The 1997 ozone NAAQS revocation was effective on April 6, 2015, and the *South Coast II* court upheld the revocation. As no regional emission analysis is required for this conformity determination, there is no requirement to use the latest emissions model, or budget or interim emissions tests.

Therefore, transportation conformity for the 1997 ozone NAAQS can be demonstrated by showing the remaining requirements in Table 1 in 40 CFR 93.109 have been met. These requirements, which are laid out in Section 2.4 of EPA's guidance and addressed below, include:

- Latest planning assumptions (93.110)
- Consultation (93.112)
- Transportation Control Measures (93.113)
- Fiscal constraint (93.108)

4.2 Latest Planning Assumptions

The use of latest planning assumptions in 40 CFR 93.110 of the conformity rule generally applies to a regional emissions analysis. In the 1997 ozone NAAQS areas, the use of latest planning assumptions requirement applies to assumptions about transportation control measures (TCMs) in an approved SIP. However, the Mercer County SIP maintenance plan does not include any TCMs.

² Available from <https://www.epa.gov/sites/production/files/2018-11/documents/420b18050.pdf>

4.3 Consultation Requirements

The consultation requirements in 40 CFR 93.112 were addressed both for interagency consultation and public consultation.

As required by the federal transportation conformity rule, the conformity process includes a significant level of cooperative interaction among federal, state, and local agencies. For this air quality conformity analysis, interagency consultation was conducted as required by the Pennsylvania Conformity SIP. This included conference call(s) or meeting(s) of the Pennsylvania Transportation-Air Quality Work Group (including the Pennsylvania Department of Transportation (PennDOT), DEP, EPA, FHWA, FTA and representatives from larger MPOs within the state).

Meeting and conference calls were conducted on April 21, 2021 and July 29, 2021 to review all planning assumptions and to discuss the template and content for transportation conformity analyses in 1997 ozone orphan areas.

The TIP, LRTP and associated conformity determinations have undergone the public participation requirements as well as the comment and response requirements according to the procedures established in compliance with 23 CFR part 450, SVATS's Public Participation Plan, and Pennsylvania's Conformity SIP. The draft document was made available for a 30-day public review and comment period, which included a public meeting.

4.4 Fiscal Constraint

The planning regulations, Sections 450.324(f)(11) and 450.326(j), require the transportation plan to be financially constrained while the existing transportation system is being adequately operated and maintained. Only projects for which construction and operating funds are reasonably expected to be available are included. The SVATS, in conjunction with PennDOT, FHWA and FTA, has developed an estimate of the cost to maintain and operate existing roads, bridges and transit systems in the region and have compared the cost with the estimated revenues and maintenance needs of the new roads over the same period. The SVATS TIP and LRTP have been determined to be financially constrained.

5.0 Conclusion

The conformity determination process completed for the SVATS TIP and LRTP demonstrate that these planning documents meet the Clean Air Act and Transportation Conformity rule requirements for the 1997 ozone NAAQS.

Appendix A

Regionally Significant Project List

Mercer County

Air Quality Significant Projects in Mercer County LRTP

Project Name	Description	Municipality
SR 0018 College Avenue & Packard Avenue Intersection Improvements	Install improvements to the SR 0018 College Avenue & Packard Avenue intersection near Thiel College including an intersection reconfiguration for better sight distance, reduction of skew, pedestrian crossing and addition of turn lanes as required	Town of Greenville
SR 0208 Two-Way Left Turn Lane	Widening for a two-way left turn lane along SR 0208 from Old Ash to Oakley Kelly Road & from SR 0258 to Pine Township Line as development occurs	Springfield Township
Broadway Avenue (SR 0760) Phase 4 Truck Improvements	Truck and freight-related intersection and roadway improvements along Broadway Boulevard from approximately Industrial Road through Kirila Boulevard to the interstate ramps	City of Hermitage
US 62 at Bestwick Road Turn Lanes and Realignment	Realignment of the Bestwick Road intersection and widening along US 62 to accommodate the addition of a dedicated left-turn lane on US 62 South (westbound); coupled with review and potential modification of the existing 45-55 mph speed limit boundary to shift the transition point to the west of the intersection	East Lackawannock Township
US 62 at Robertson Road Turn Lanes	Widening of US 62 at Robertson Road to install dedicated turn lanes	City of Hermitage
Hazen Road (SR 3016) at Buhl Farm Drive (SR 3025) Intersection Improvements	Improvements to Hazen Road and Buhl Farm Drive intersection for congestion, including pedestrian elements connecting the sidewalks on the east side of Hazen Road in Hermitage to new sidewalks along the west side of Hazen Road in Sharpville	City of Hermitage
US 62 at Maple Street Traffic Signal with Turn Lanes	Add a traffic signal and widen US 62 to add left-turn lanes in each direction at the Maple Street (SR 0258) intersection	Mercer Borough
US 62 Center Turning Lane between Autumn Road and Landis Drive	Widening of US 62 to install a two-way left-turn lane (TWLTL)	East Lackawannock Township
US 62 at Neshannock Road Turn Lanes	Widening of US 62 at Neshannock Road to install dedicated turn lanes	City of Hermitage
Wasser Bridge Road (SR 4003) Reconstruction	Full depth reconstruction and widening of Wasser Bridge Road to improve freight access to Greenville Reynolds Industrial Park	Hempfield Township

Project Name	Description	Municipality
Lamor Road (SR 3020) Reconstruction Continuation	Continuation of Lamor Road reconstruction east of the Joy Cone facility	City of Hermitage
SR 0058 (Seg 530/1489 TO Seg 530/2202) Coolspring Township Turn Lanes	Construct center left-turn lane with an exclusive left turn onto Coolspring Road	Coolspring Township
US 62 at Valley Road Turn Lanes and Realignment of Valley Road	Widen US 62 from west of the Valley Road intersection to approximately Kyle Road (T 580) to install turn lanes and wider shoulder to enhance access and sight-distance through the horizontal curve section and realign Valley Road	Jefferson Township

Air Quality Significant Projects in Mercer County FY 2021-2024 TIP

Project Name	Description	Municipality
PA 173: Kocher Rd to Main Street (MPMS 109154)	This project entails widening and reconstruction of State Route 173 from Kocher Drive to East Main Street in Grove City Borough. Also included is highway restoration (paving, drainage and signal improvements) along State Route 173 from West Main Street to Cranberry Road.	Grove City Borough
PA 18/SR 4005 Intersection (MPMS 110764)	This project includes congestion reduction and safety improvements at the intersection of PA 18 and North 3rd Street and the intersection of PA 18 and SR 4005 (High Street) in the Borough of Greenville. Work involves the improvements to signal equipment along with intersection improvements including signal coordination, detection, and lane configuration as needed.	Greenville Borough