

MERCER COUNTY REGIONAL PLANNING COMMISSION

Acknowledgements

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Mercer County Board of Commissioners Ken Ammann, Commissioner

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East Lackawannock Township Board of Supervisors James P. Rust, Chairman

Mercer Borough
John Zohoranacky, Council President
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PA Department of
Transportation/District 1-0
Erin Wiley Moyers, Transportation
Planning Specialist

Credit/Disclaimer:

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Final Report

US Route 19 Corridor Study Mercer County Regional Planning Commission

June 2011

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GCCA

(Land Use Planning and Ordinance Preparation)

Olszak Management Consulting, Inc.

(Public Involvement)

Prepared for:

Mercer County Regional Planning Commission

In cooperation with:

Mercer Borough

East Lackawannock Township

Mercer County

PennDOT District 1-0, Oil City, Pennsylvania



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Executive Summary

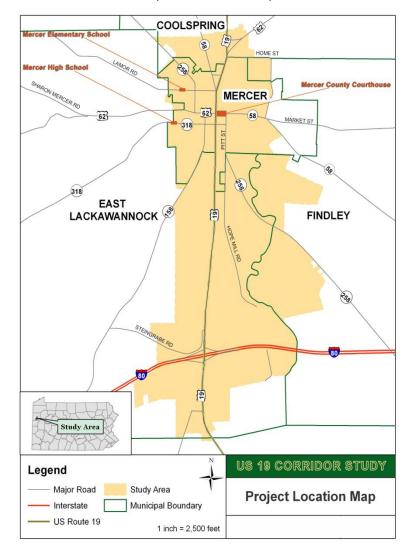
Concerns related to increased traffic conflicts, pedestrian safety, and mobility on the US Route 19 Corridor within Mercer Borough and East Lackawannock Township were identified by the Shenango Valley Area Transportation Study (SVATS) Metropolitan Planning Organization (MPO) following the completion of the Mercer Regional Multi-Municipal Comprehensive Plan (2005). The MPO found that the convergence of several well-traveled roadways (US 62, SR 58, SR 258), high levels of commercial truck traffic, out-dated traffic signals, and confusing intersection designs created difficulties for motorists and pedestrians. Funding was awarded through the Pennsylvania Community Transportation Initiative (PCTI) to complete a corridor study based on Smart Transportation principles. The purpose was to improve the existing conditions for all modes of travel along the corridor, enhancing the quality of life for residents, and strengthening the economic vitality of the project area.

Study Area

The US Route 19 Corridor study area is situated in Mercer County and encompasses portions of Lackawannock Township and Mercer Borough. The southern edge of the study area begins at the East Lackawannock Township border with Springfield Township and extends north through Mercer Borough to East Franklin Road in Coolspring Township. The project corridor is approximately four miles in length and the study area varies from a half a mile to 1 ½ miles in width.

The entire study area has excellent regional access thanks to the I-80 Interchange and close proximity to I-79, which is located approximately five miles to the east. Although US Route 19 ultimately connects Lake Erie to the Gulf of Mexico, most of the through traffic has shifted to I-79. The traffic volumes within the study area range from 3,300 vehicles per day south of I-80 to 12,000 within Mercer Borough.

Project Location Map



Project Goals and Objectives

The primary focus of the US Route 19 Corridor Study was to improve the existing conditions for all modes of travel along the US Route 19 Corridor, enhance the quality of life for residents, and strengthen the economic vitality of the project area.

Several different methods were used to gather public opinions about existing conditions and potential improvements, including oversight from a Project Advisory Committee, guidance from a Stakeholder Committee, two public surveys, and feedback from two public meetings. Based upon the information received as a result of this community engagement, the following goals were developed to guide the study and ultimately determine the success of the project:

1. Enhance Motorized Travel

- * Reduce congestion and enhance access to the central business district
- Improve traffic patterns and reduce conflicts
- Determine the most efficient travel pattern for heavy trucks
- Improve incident management for detours from Interstate 80

2. Provide a multi-modal transportation network

Improve the maintenance and connectivity of the sidewalk network

3. Ensure safe and efficient access throughout the project area

- Correct and better manage parking
- Establish an access management plan for US Route 19
- Mitigate points of conflict and address safety concerns at intersections

4. Manage land use

- Capitalize upon the I-80 Interchange and other regional attractions to support economic development goals
- Enhance the Victorian atmosphere of Mercer Borough
- Direct land uses to encourage context appropriate in-fill within the Borough and suitable new development in the Township

Project Area Concerns

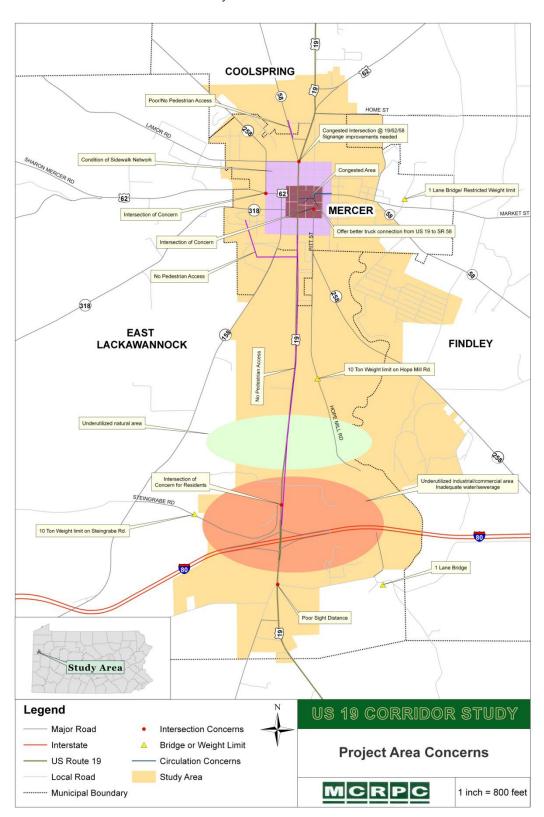
Project area concerns were identified through public input and field views of existing conditions. Public input was received from a range of interests such as emergency management officials, business owners, residents, developers, and elected officials. Based upon this information, the following project area concerns were identified:

- Lack of pedestrian access
- Confusing and/or congested intersections
- Conflicts or congestion caused by commercial/heavy trucks
- Underutilized industrial/commercial/natural areas

Field investigations were performed to document the deficiencies and to develop potential multi-modal transportation improvements.



Project Area Concerns



Scenario Planning

Four development scenarios were prepared to determine how the transportation network might be influenced by various land use patterns and development intensities (Table 11). The scenario planning activities for the US Route 19 Corridor began with Scenario 1 where public infrastructure (primarily sanitary sewer) was assumed to remain status quo with no significant new service areas. The extension of public sewerage influences Scenarios 2 and 3. Scenario 4 provides a full-build projection coupled with high-impact land use development at the I-80 interchange.

Table: Planning Scenarios

| Development Type | Scenario 1 | Scenario 2 | Scenario 3 | Scenario 4 |
|---------------------|--------------|-------------|-------------|-------------|
| Dwelling Units | 20 | 22 | 65 | 66 |
| | | | | |
| Commercial | 5,000 Square | 35,000 | 40,000 | 40,000 |
| Development | Feet | Square Feet | Square Feet | Square Feet |
| Industrial | 0 | 50,000 | 55,000 | 55,000 |
| Development | | Square Feet | Square Feet | Square Feet |
| Big Box/Destination | 0 | 0 | 0 | 500,000 |
| Retail | | | | |
| | • | | | |

The scenarios were all evaluated to determine their impact on the transportation system and to determine what level of transportation improvements would be required to achieve acceptable operations.



Land Use Alternatives

A variety of community planning tools exist to help Mercer Borough and East Lackawannock Township meet the project goals and objectives and achieve the preferred Land Use Scenario (sewer extension from the Borough to I-80 with Smart Growth). Local governments have a variety of options available to control both use and development styles depending upon community goals for the future. For instance, the Township has more undeveloped land along US Route 19 than the borough and should employ different methods to achieve their goals such as the development of the I-80 interchange and land use patterns that allow interconnections and reduce unnecessary access points along the corridor. Conversely, the Borough must focus on appropriate infill development and aesthetic considerations to preserve the Victorian-era structures in Mercer, which should be viewed as a regional asset and not just a Borough resource.

Both regulatory and voluntary methods were explored to help the Borough and Township achieve their goals. Concepts presented to the public, stakeholders and PAC included zoning amendments, tax incentives, façade improvement programs, historic designation, the enactment of an official map, and access and parking management strategies. Based upon the land use goals of the communities, input from the public, and guidance from the PAC, locally preferred recommendations were identified.

Transportation Alternatives

Based on the outcomes of the scenario planning process transportation alternatives were evaluated that will accommodate the planned future growth while meeting the project's goals and objectives. Public perceptions of existing conditions and support for specific alternatives were determined during public meetings, stakeholder interviews, agency coordination, and Project Advisory Committee meetings.

The alternatives were grouped into the following categories:

- Traffic Congestion
- Safety Improvements and Upgrades
- Heavy Truck Conflicts
- Multimodal Improvements

The key steps in the development and evaluation of alternatives included:

- 1. Understanding the Context
- 2. Determining the Needs
- 3. Defining the Project Purpose
- 4. Screening the Alternatives
- 5. Involving Agencies and the Public

Implementation Plan

The US Route 19 Corridor Study applied FHWA/FTA procedural guidance to link community planning to the National Environmental Policy Act (NEPA) process. The purpose of linking planning to NEPA is to facilitate the project development process, involve the public and stakeholders early, reduce project development costs, and reduce unforeseen circumstances that can delay projects.

The recommendations were prioritized first based upon need and then ease of implementation. The implementation plan includes an opinion of probable cost that is based upon a planning level investigation of the proposed improvements. For each project, a responsible party was identified that would be considered the project champion.

It should be noted that the conceptual cost estimates were developed using reasonable quantity, unitprice, and related assumptions for the anticipated improvement and do not account for three potentially significant categories— right-of-way, utilities, and environmental impacts or related mitigation requirements. It is anticipated that costs associated with any one of those categories will need to be addressed during subsequent project scoping or preliminary design stages for any given improvement.

Table: Project Implementation

| Map Key | Project Name/Action | Responsible Party | Opinion of Probable Cost | Priority Rating | Page Numbers |
|-------------|-------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|-------------------------------|------------------------|------------------------|
| | Traffic Cong | gestion | | | |
| TC-1, 2 | Retime Traffic Signals | Mercer Borough | \$181,000 | А | 83, 102, 108-109 |
| TC-2 | Traffic redirection at 5-legged intersection (prohibit US 19 North Bound Left, E North Street one-way entrance only) | Mercer Borough | \$169,000 | Α | 83-85, 102, 110-111 |
| TC-3 | Traffic redirection on North and South Diamond Streets | Mercer Borough | \$250,000 | Α | 86, 102, 112-113 |
| TC-4 | New connection to Hope Mill Rd | East Lackawannock Township | \$4,180,000 | А | 114-115 |
| TC-5 | Turn Lane on US 19 between Beaver and South Streets | Mercer Borough | \$120,000 | С | 88, 102, 116-117 |
| | Heavy Truck | Conflicts | | | |
| HTC-1 | Truck route to Market via Butler & Pitt Street | \$360,000 | А | 93-94, 102, 118-119 | |
| HTC- 2,3 | Truck Route to SR 158 via Steingrabe Road Option 1: On alignment, Option 2: Off alignment | East Lackawannock Township, PennDOT | \$3,620,000 to \$4,960,000 | В | 94, 102, 120-123 |
| | Safety Impro | vements | | | |
| SI-1,2 | Sight Improvements @ Old Mercer Road/Drake Road Option 1: Realignment, Option 2: Reconstruction | East Lackawannock Township, PennDOT | \$620,000 to \$2,040,000 | А | 89-92, 102, 124-127 |
| SI-3 | All way stop @ Butler St and Pitt St | Mercer Borough | \$5,000 | В | 93, 102, 128-129 |
| SI-4 | Study for improvement @ Steingrabe Rd & US 19 | East Lackawannock Township, PennDOT | \$30,000 | В | 93, 102, 130-131 |
| | Multi-Modal Imp | provements | | • | |
| MM-1 | Construct sidewalk to Walt's Grocery Store | Mercer Borough, Coolspring Township, Store Owner | \$77,000 | Α | 95, 102, 132-133 |
| MM-2 | Repair deficient sidewalks | Mercer Borough, Residents, Business Owners | \$1,980,000 | Α | 95, 102, 134-135 |
| MM-3 | Construct sidewalk to Dairy Queen | East Lackawannock Township, Store Owner | \$260,000 | В | 95, 102, 136-137 |
| MM-4 | Construct new sidewalks to complete network (shown on Potential Sidewalk Improvements Map) | Mercer Borough, Residents, Business Owners | \$700,000 | В | 95, 102, 138-139 |
| MM-5 | Widen shoulders on SR 158 from Beaver St to I-80 | East Lackawannock Township, PennDOT | \$7,550,000 | С | 95, 102, 140-141 |
| MM-6 | Hope Mill Road - Hiker/Biker Trail | Mercer Borough, East Lackawannock Township, Mercer County Trails Assoc. | \$1,760,000 | С | 95, 102, 142-143 |
| | Land U | se | | | |
| - | Adopt Recommended Zoning Amendments and Land Use Regulations | Borough Township | Nominal | А | 74 |
| - | Adopt Traditional Neighborhood Development District | Borough Township | Nominal | Α | 74-75 |
| - | Adopt Facade Improvement Program | Borough | Nominal | Α | 77 |
| - | Adopt Official Map | Township | Nominal | Α | 78-79 |
| - | Adopt Access Management Tools | Borough Township | Nominal | Α | 80 |
| - | Explore feasibility of establishing a Parking Authority | Borough | Nominal | Α | 81 |
| | | | | | |

Responsible party is identified for conceptual planning purposes only and does not imply an existing formal commitments of binding agreements.

^{***} Priority ratings are assigned as "A" for immediate, "B" for short to mid-term, and "C" for long-term

****Estimates are intended for conceptual use only, are based on year 2010 dollars, and include 25% contingency, 20-35%
engineering, 15% temporary traffic control & mobilization, and 12% construction inspection costs. They do not include potentially substantial costs related to right-of-way, utilities, and environmental impacts or related mitigation.

N. PITT ST W. NORTH ST E. NORTH ST N. MAPLE ST N. OTTER ST W. VENANGO ST E. VENANGO ST z **EAST ST** N. DIAMOND ST W. MARKET ST 62 [19] E. MARKET ST S. DIAMOND ST SHENANGO ST W. BUTLER ST_ E. BUTLER ST Ś ST OTTER ST FII Ś W. BEAVER ST Study Area E. SOUTH ST US 19 CORRIDOR STUDY Legend Sidewalk Repair (Priority A) Local Road **Potential Sidewalk Improvements** New Sidewalks (Priority B) Major Road US Route 19 1 inch = 400 feet

Figure: Potential Sidewalk Improvements

1.0 Project Introduction

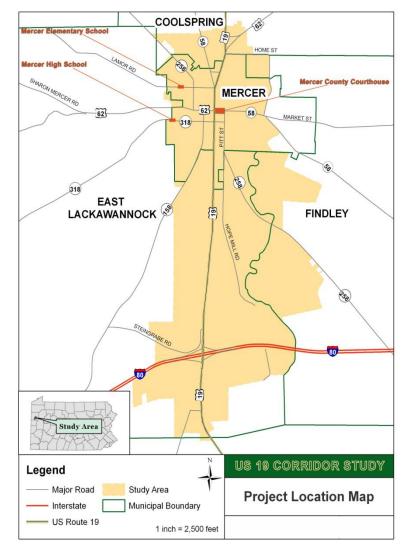
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Study Area

The US Route 19 Corridor study area is situated in Mercer County and encompasses portions of East Lackawannock Township and Mercer Borough (Shown in Figure 1). The southern edge of the study area begins at the East Lackawannock Township border with Springfield Township and extends north through Mercer Borough to East Franklin Road in Coolspring Township (Figure 1). The project corridor approximately four miles in length and the study area varies from a half a mile to 1 ½ miles in width to capture the development network of roadways that contribute to the travel demands and quality of life of the US Route 19 Corridor.

The entire study area has excellent regional access thanks to the I-80 Interchange and close proximity to I-79, which is located approximately five miles to the east. Although US Route 19 ultimately connects Lake Erie to the Gulf of Mexico, most of the through traffic has shifted to I-79. The traffic volumes within the study area range from 3,300 vehicles per day south of I-80 to 12,000 within Mercer Borough.

Figure 1: Project Location Map



Land uses vary along with the transportation contexts throughout the US Route 19 Corridor. Mercer Borough is a traditional main street community with an active downtown surrounded by strong residential neighborhoods. East Lackawannock Township is primarily agricultural with large expanses of undeveloped land, aside from the area adjacent to the I-80 interchange which contains typical interchange commercial and industrial development. The Borough's development has been heavily influenced by its designation as the Mercer County seat, which continues to affect every aspect of daily life within the study area including traffic congestion, parking, and economic viability. The proximity to I-80 and I-79 positions the Township to attract new growth and development in the future.

One of the interesting aspects of the corridor is the presence of Amish families that live within the US Route 19 Corridor Study Area. Amish families homestead on large farms throughout East Lackawannock Township. The Amish follow a lifestyle according to established religious beliefs, which includes living a simple rural lifestyle separate from the modern world. The Amish do not drive automobiles, but still affect the transportation network due to the use of a horse and buggy mode of transportation. The use of nonmotorized travel can create conflicts with faster moving motorized vehicles. Buggies also present special needs related to parking, as they have the need to tie-up their horses to a fixed post.



State Route 158

The Amish community indicated that US Route 19 is traveled by local Amish although State Route 158 is used more frequently to travel to Mercer Borough.

State Route 158 is also a well traveled route for the Amish Population to access shopping and other services in Mercer Borough

Roadway Characteristics

US Route 19 is classified as a Minor Arterial according to the Federal Functional Classification. However, this classification does little to convey the characteristics of the roadway and its surrounding land use context. The land use characteristics of US Route 19 transition from a Rural to Suburban Corridor in East Lackawannock Township to a Town/Village Center in Mercer Borough. The corresponding Smart Transportation Roadway Categories (Table 1) range from Community Arterial to a Community Collector and would be a Main Street for the segments within Mercer Borough.

| Table 1: US Route 19 Smart Transportation Roadway Categories |
|--------------------------------------------------------------|
|--------------------------------------------------------------|

| Roadway Class | Roadway Type | Desired Operating Speed (mph) | Average Trip Length (mi) | Volume | Intersection Spacing | Traditional Functional Classification |
|---------------|--------------|-------------------------------------|-----------------------------|-------------|-------------------------|---------------------------------------------|
| Arterial | Regional | 30-55 | 15-35 | 10000-40000 | 660-1320 | Principal Arterial |
| Arterial | Community | 25-55 | 7-25 | 5000-25000 | 300-1320 | Minor Arterial |
| Collector | Community | 25-55 | 5-10 | 5000-15000 | 300-660 | Major Collector |
| Collector | Neighborhood | 25-35 | <7 | <6000 | 300-660 | Minor Collector |
| Local | Local | 20-30 | <5 | <3000 | 200-660 | |

Within the project area, the land uses along US Route 19 are varied.

The road assumes different characteristics with each style of use, from a country road...



Rural Roadway



Interchange Development

...to a busy commercial intersection near the commercial and industrial development at the I-80 interchange. Travelers experience more congestion within the Borough as vehicles approach the central business district and confluence of US 19, US 62, SR 58, and SR 258.

The Main Street concept translates to how a roadway functions as an "anchor" to a community by its role and contribution to the character of a community. For instance, the Main Street concept includes a roadway that offers a sense of place through its land uses, architectural form, and design. A Main Street roadway has a supporting sidewalk network with...



Suburban Corridor



Main Street/Town Center

atmosphere. Typically, the surrounding land uses will include retail shops, restaurants, municipal buildings, libraries, etc.
Building design is usually high density with a close orientation to the street creating a "street face" and offering a human scale to the built environment. In other words, Mercer Borough is a great example of a Main Street

Community.

Project Goals and Objectives

The primary focus of the US Route 19 Corridor Study was to improve the existing conditions for all modes of travel along the US Route 19 Corridor, enhance the quality of life for residents, and strengthen the economic vitality of the project area. To complete this task, it was necessary to challenge local residents, business owners, elected officials, and stakeholders to answer the following questions:

- How should this area develop over time?
- What should the corridor look like in the future?
- How should the transportation system operate?

Several different methods were used to gather public opinions about existing conditions and potential improvements, including oversight from a Project Advisory Committee, guidance from a Stakeholder Committee, two public surveys, and feedback from two public meetings. Based upon the information received as a result of this community engagement, the following goals were developed to guide the study and ultimately determine the success of the project:

1. Enhance Motorized Travel

- * Reduce congestion and enhance access to the central business district
- Improve traffic patterns and reduce conflicts
- Determine the most efficient travel pattern for heavy trucks
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2. Provide a multi-modal transportation network

Improve the maintenance and connectivity of the sidewalk network

3. Ensure safe and efficient access throughout the project area

- Correct and better manage parking
- Establish an access management plan for US Route 19
- Mitigate points of conflict and address safety concerns at intersections

4. Manage land use

- Capitalize upon the I-80 Interchange and other regional attractions to support economic development goals
- Enhance the Victorian atmosphere of Mercer Borough
- Direct land uses to encourage context appropriate in-fill within the Borough and suitable new development in the Township

Public Outreach

The integration of land use and transportation must start with open communication among various stakeholders, including residents, business owners, elected officials, and state agencies. For the US Route 19 Corridor Study, a close partnership with the Borough, Township, and County was established, which helped identify critical points of interest and directed the investigation of alternatives.

Because the community was involved from the beginning, the US Route 19 Corridor Study met the Smart Transportation goal of understanding a community and its context first before designing solutions to address traffic concerns.

From the outset, the work program was geared to generate community-driven solutions with the help of a Project Advisory Committee. Additionally, a Stakeholder Committee was organized to represent various interests, such as the State Police, School District, and local businesses. All findings generated through focused outreach and data collection were presented to the community for feedback. Public meetings were structured to be educational and interactive. Meeting locations were chosen that were accessible and encouraged hands-on involvement in mapping exercises. Findings and solutions were discussed and revised based upon community goals and sound land use and engineering practices.

Special effort was taken to hear from the Amish community about concerns related to traffic, parking, and safety.



Amish Buggy

A higher level of outreach was necessary to understand how the transportation system affects daily life throughout the study area. For instance, the spike in parking demand when court is in session was identified through stakeholder interviews, while concerns with commercial trucks and directional signs were determined through focus group sessions. Two Personal Travel Surveys documented the concern with sidewalk connectivity and maintenance, which was then verified by the consulting team.

To learn what was important to the people who live and work in Mercer Borough and East Lackawannock Township, it was necessary to provide many opportunities for input. The plan for public involvement was continually adapted to respond to new opportunities to engage with the community or hear from hard to reach populations. Special effort was required to hear from the Amish community about concerns related to traffic conflicts on local roadways, parking, and safety concerns at specific intersections. The consulting team worked closely with East Lackawannock Township to meet with Amish families or provide transportation to attend Public Meetings. From this effort, it was determined that paved shoulders are needed to safely drive buggies on State Route 158, special parking is needed for the Amish to frequent shops in Mercer Borough, and safety improvements would improve access to an informal parking area used by Amish men to carpool to employment.

The Mercer Area School District was also engaged in the planning process. Interviews were held with the school district's transportation manager to identify concerns related to busing students or for those students who walk to school. Concerns were expressed related to speeding on West Market Street, although it was also noted that improvements to the sidewalk network adjacent to the High School have improved access. Interestingly, school representatives expressed similar safety concerns as those noted by the Amish population.



Mercer Junior-Senior High School

School officials identified a
desire to improve pedestrian
connectivity to Brandy
Springs Park in order to
support recreational
programming and after school
activities.

Project Advisory Committee

A Project Advisory Committee (PAC) comprised of representatives from the Mercer County Commissioners, Mercer Borough, East Lackawannock Township, Mercer County Regional Planning Commission (MCRPC), and PennDOT District 1-0 was established to assist the consulting team during the study. The PAC helped identify community issues and guided the overall planning process. This group was instrumental in directing data collection, identifying special interest groups, and reviewing project findings.

The PAC met six times during the project and participated in various one-on-one interviews and field views. They were instrumental in the efforts to understand community acceptance of recommendations and the pros and cons of land use scenarios. Because the PAC members had intimate knowledge of the project area, many solutions were considered that might otherwise have been overlooked. For instance, the intersection of US Route 19 and Steingrabe Road would not have been a concern if the analysis was strictly based upon crash data and traffic volumes.

Stakeholders

A Stakeholder Committee was formed to generate information specific to various fields of interest such as economic development or safety. The Stakeholder Committee was a diverse mix of business interests, regional and state agencies, and public service entities. Their wide ranging areas of expertise helped to bring to light both specialized and general transportation issues. For instance, the Pennsylvania State Police offered information related to safety concerns while the Penn Northwest Development Corporation provided updates on the market study commissioned for the County-owned property near the I-80 interchange. Other stakeholders offered insight into such issues as the congestion created by tractor trailer trucks, business goals, or specialized transportation needs for the elderly and disabled.

In addition to large group meetings with the Stakeholder Committee, one-on-one stakeholder interviews were conducted with local business owners, transportation providers, community and municipal service

providers, and residents. The Stakeholder Committee met several times throughout the course of the study and over 50 personal interviews were completed.

Because locally supported alternatives were identified, the proposed improvements reflect solutions that are both realistic and reflective of the community context.



Stakeholder Meeting

Public Meetings

Two public meetings were held for the project. The first public meeting was held in the Mercer Area High School and the second meeting was held at the Mercer United Methodist Church. Both included a presentation to discuss the project, review project goals, and present findings and recommendations.

The first public meeting was attended by approximately 20 people. A discussion was held related to the ability to walk in and around downtown Mercer Borough. The working session that followed the formal presentation was structured to examine concerns regarding pedestrian mobility, land use, and traffic congestion. Map stations were positioned around the room to help people identify specific locations of concern, which were then mapped and presented at subsequent meetings.

US Route 19 Corridor Study

Concerned about congestion?
Tired of looking for a place to park?
Tell us about it!

WHAT: US Route 19 Corridor Study Public Meeting

WHEN: Wednesday June 30, 2010 at 6:00 PM

WHERE: Mercer Area High School in the LGI Room (Large Group Instruction Room)

WHY: Tell us your future development goals and concerns with traffic and area roads in Mercer Borough and East Lackawannock Township

PROJECT SPONSOR- The Mercer County Regional Planning Commission & PennDOL District 1-0
FUNDING: Pennsylvania Community Transportation Initiative

Project Contacts:

Mail Stewart (MCRPC): 724-981-2412, x 3206 Erin Wiley Moyers (PennDOT): 814-678-7006 Scott Thompson-Graves (WR&A): 724-779-7940

Public Meeting Flyer

The second public meeting was geared to present potential solutions to identified deficiencies. It was attended by approximately 15 people. At this meeting, citizens were asked for their opinions of future land use scenarios. Four scenarios with potential traffic impacts were presented for discussion. Overwhelmingly, the response was to invest in public infrastructure to support new development at the I-80 interchange.



Public meeting

Personal Travel Survey

To understand the personal travel patterns of users of the US Route 19 Corridor, two separate travel surveys were conducted – an Online Personal Travel Survey and an Intercept Survey. Both surveys included questions related to specific travel habits as well as general information about the transportation system.

Online Survey

The Online Survey was made available to the public from April 13 through May 2, 2010. To encourage participation, each person who completed the survey was entered into a drawing for a \$200 cash prize. A total of 128 Online Surveys were completed. These surveys have been included on the CD-ROM.

Intercept Survey

An Intercept Survey was developed to supplement the data gathered via the Online Survey. Over 100 Intercept Surveys were completed. The Intercept Surveys were conducted at the following locations:

- 1. Subway
- 2. Country Fair Market
- 3. US Post Office
- 4. Family Dollar
- 5. Pizza Joes
- 6. Sheetz
- 7. Sapore Restaurant
- 8. Mercer Library
- 9. McDonalds
- 10. Burger King
- 11. Buy n' Fly
- 12. Dairy Queen
- 13. Walt's Grocery Store

Online Survey Highlights

- 37.5% of respondents live within the project area
- 67.2% of respondents are employed within the project area
- Concerns with intersections and the condition of sidewalks contribute to a feeling that children do not have safe access to walk to school
- 75% rated the corridor poor to very poor for ease of walking & bicycling
 - Limitations to walking include poor sidewalk network & safety concerns due to traffic
 - People were most likely to walk to the park, to restaurants, or to shop
- 58% rated the availability of parking poor to very poor
- 82% rated the condition of the highway network as adequate to good

Intercept Survey Highlights

- Confusing intersections and speeding on local roads are the primary traffic concerns
- 45% of respondents will walk if the trip is 15 minutes or less
- People are most likely to walk from work to:
 - The bank, a restaurant, or the Post Office

2.0 Existing Conditions

Community Character

Mercer County was formed in 1800 and the Borough of Mercer established in 1814 as the County seat. The Borough was developed in a grid pattern centered on a public square where the County Court House is located. There are still many homes and buildings in Mercer Borough that date back to the late 1800s and early 1900s that are well-preserved examples of period architecture. This community appeal is prized by many and is especially notable within the business district surrounding the Courthouse.



Mercer County Courthouse

The Courthouse that exists today was built in the early 1900s after at least two other buildings were destroyed by fire and is listed in the National Register of Historic Buildings. The dramatic dome of the county building serves as a landmark and a defining feature of the community as does the public square that surrounds the Courthouse. The "Diamond" as this area is called serves as a gathering place for residents and visitors and also serves to memorialize Mercer County residents who served in the armed forces.



Township Farm

East Lackawannock Township was formed in 1849 primarily as a farming community. The Township was dramatically influenced when I-80 was constructed in the early 1960s. This limited access highway bisected the township and created new development at the interchange with US Route 19. It is here where the township today has a small pocket of commercial and industrial uses. Community character within the township continues to be largely influenced by agriculture with the exception of the highway commercial development at the I-80 and US Route 19 interchange.

Population

The project area reflects a population trend common in Pennsylvania with a borough that is experiencing population decline and a township with a growing population base. Since 1970, there has been a population loss of almost 14 percent in Mercer Borough. On the other hand, East Lackawannock Township experienced a population increase of almost 30 percent. On a positive note, while the Borough has lost population, the loss has moderated over the past two decades.

Table 2: Population – 1970 to 2010

| Municipality | 1970 | 1980 | 1990 | 2000 | 2010 | Change % |
|----------------------------------|-------|-------|-------|-------|-------|----------|
| Mercer Borough | 2,773 | 2,532 | 2,444 | 2,391 | 2,002 | -27.8% |
| East Lackawannock Township | 1,314 | 1,709 | 1,606 | 1,701 | 1,682 | 28.0% |
| Total | 4,087 | 4,241 | 4,050 | 4,092 | 3,684 | -9.9% |

Sources: 2005 Mercer Regional Multi-Municipal Comprehensive Plan and 2010 US Census

Overall, the population of East Lackawannock Township of Mercer Borough declined by 10% from 2000 to 2010. At the same time the population of Pennsylvania increased by 3% and the United States increased by 10%.

To a large extent, the changes to population are dictated by age patterns. This is obvious in the "graying" of western Pennsylvania. According to Census 2000, the median age in 2000 was 37.4 years for Mercer and 40.3 years for East Lackawannock. As most children are born of women aged between 25 and 35, these demographic age characteristics are important. Recent data obtained from the Pennsylvania Department of Health, Vital Statistics, demonstrates local trends. Data from 2004-2008 shows a natural increase of children ages four and above in East Lackawannock Township, while the Borough saw 26 more deaths than births. Thus, without considering migration factors, the study area is experiencing a slow natural population loss.

Table 3: Population Projections – 2000 to 2020

| Municipality | 2000 | 2010 | 2020 | Change % |
|----------------------------------|-------|-------|-------|----------|
| Mercer Borough | 2,391 | 2,362 | 2,377 | 0.6% |
| East Lackawannock Township | 1,701 | 1,684 | 1,616 | -5.0% |
| Total | 4,092 | 4,046 | 3,993 | -2.4% |

Source: 2005 Mercer Regional Multi-Municipal Comprehensive Plan

Current Land Use

The land use characteristic in East Lackawannock Township is primarily rural residential with a strong agricultural flavor. Land use characteristics along US Route 19 south of the Borough include a mixture of residential, commercial, industrial, and rural uses. Located at the I-80/US Route 19 Interchange are highway commercial uses such as a motel and fast food restaurants, as well as a heavy industrial operation providing mineral extraction (gravel and aggregate). Additional industrial uses are located south of the interchange and include a storage yard (mulch), office uses, a trucking company, a building contractor, and vehicle repair services.



Within downtown Mercer, there is a mix of commercial and public services. A traditional "main street" atmosphere is present around the Courthouse with a mix of retail, personal services, and restaurants. Outside of the town center, the borough retains a traditional neighborhood atmosphere with the majority of residences being single-family homes. Land uses along US Route 19 north reflect strip commercial uses, which include gas stations, small restaurants/pubs, a car dealership, retail stores, and a pharmacy. The only industrial uses are found at the border with Findley Township while two educational facilities (Mercer Area School District – Elementary and Middle-High Schools) are located in the western half of the borough.

Central Business District

To the north of the study area is Coolspring Township. Coolspring Township includes commercial and institutional uses off US Route 19 and State Route 58, suburban residential areas to the immediate west of Mercer, and a few offices and an auto dealer along US 62 west. Uses located to the east in Findley Township that likely affect the project area include the Mercer Raceway Park and a large RV development called Plantation Park, which is a high-density recreational/residential use.

Public water and sewerage service is generally limited to the developed area of Mercer Borough with on-lot systems serving the majority of Township residents. The current water and sanitary sewer system extends south of the borough line to approximately the Ben Bissett Chevrolet dealership. There is no public service at the I-80 interchange, which has effectively limited development potential.

Mercer Borough is heavily influenced by the convergence of several US and State routes within the town center as well as the location of the Mercer County Courthouse and other county services.

Land Use Planning and Regulations

In 2005, the Townships of Coolspring, East Lackawannock, Findley, and Jefferson joined with Mercer Borough to adopt the Mercer Regional Multi-Municipal Plan. The Multi-Municipal Comprehensive Plan serves as the guiding policy document for these municipalities. The Future Land Use Plan outlined the desired development pattern and included the following use categories:

- Rural/Agricultural Areas
- Revitalization Areas
- Open Space Preservation Areas
- Growth Target Areas (0-10 Years)
- Future Growth Areas (10-20 Years)

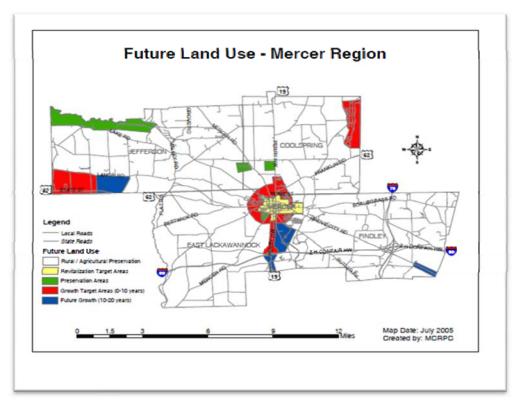


Figure 2: Multi-Municipal Comprehensive Plan Future Land Use

The Borough of Mercer is identified as a Revitalization Area. Downtown Mercer was described as a high-priority for revitalization "to ensure its long-term viability and its place as the centerpiece, not only of the Region, but the County as a whole." The residential areas of the Borough were noted as "worthy of preservation," and characterized as "quaint" and reminiscent of "historic Victorian."

The area immediately surrounding the Borough, including parts of Coolspring, Findley, and East Lackawannock Townships, are designated Growth Target Areas. This includes the US Route 19 Corridor, from Mercer Borough to the US Route 19/I-80 North Interchange quadrants. To the east of the US Route 19 Corridor and south of the interchange, the land is designated as "Future Growth" (10 to 20 years). To the west, future land use is designated as Rural/Agricultural. This same designation surrounds the Growth Target Areas.

Act 537 Sewage Facilities Plans

The Act 537 Sewage Facilities Plan is a requirement for most major sanitary sewer service expansions or treatment plant upgrades. The Borough of Mercer owns and operates its own sewage collection and treatment plant, the Mercer Borough Sewage Treatment Facility. Due primarily to plant malfunctioning, a "tap-in" ban was imposed by the Pennsylvania Department of Environmental Protection (DEP), which prohibits additional connections from new development to the treatment facility. In response to this action, the Borough entered into negotiations with the agency and, pending a formal consent order, it appears the following will result:

- ❖ The Treatment Facility will be allowed to take 40 new "tap-ins" per year until June 30, 2013, which, given development potential, would most likely be from East Lackawannock, Coolspring and Findley Townships. In addition, existing dwelling units that have malfunctioning septic systems would be connected to the public system.
- ❖ An updated Act 537 Plan will be prepared to identify necessary improvements to the Treatment Facility.

The update to the Mercer Borough Act 537 Plan (2010), with the various reviews is estimated to be completed by June 2011. Construction will follow, and compliance with the DEP requirments is expected by 2013. The Borough's 537 Plan related that the Borough has routinely been addressing Infill and Infiltration problems over the past five years by replacing or slip-lining existing sewers.

As sewerage service to the Interchange area appears to be the main obstacle to generating regional growth, the East Lackawannock and Findley Townships' Act 537 Plan was consulted. This Plan was completed in 2008, but unfortunately did not address the interchange area. Various sources indicate that this exclusion was due to the fact that no consensus could be reached on a strategy for sanitary sewer service for the Interchange area.

As noted in this Act 537 Plan Summary, Area #7 (Route 58/East Scrubgrass Road) and Area #8 (Plantation Park) are the priority areas for Findley Township. In East Lackawannock Township, the priorities are Westside along Lamor Road and State Route 62 (west). All areas are recommended for pressure systems at a cost of \$3.7 million. The Plan appears to be focused on existing development

adjacent to the Borough where malfunctioning systems exist.

There seems to be limited provision for new growth.

This 537 Plan further assumes that the Neshannock Creek Watershed Joint Municipal Authority will be the lead agency in obtaining funding to complete the recommended sewer line extensions. It is also suggested that they will renegotiate the existing treatment agreements with the Borough. Currently, Findley Township has a commitment for 125 Equivalent Dwelling Units (EDU), East Lackawannock has a commitment for 100 EDUs, and Coolspring has an agreement but with no specific number. The Findley-East Lackawannock Act 537 Plan projects the future need will be 400 EDUs, to be covered by a new agreement under the Neshannock Authority. An EDU is an

The lack of public water and sewerage along US Route 19 and at the I-80 interchange is the largest impediment to additional land development. unit of measurement that standardizes all land use types to the level of demand created by a single-family housing unit.

All effluent is to be transported to the Mercer Sewer Treatment Plant.

Zoning

Mercer Borough's Zoning Ordinance was last updated in 2002. The Borough has zoned the area around the Court House Square as C-1 Commercial, "Town Center." This district provides for a variety of retail and commercial uses, along with "dwellings above the first floor." To the immediate north, along US Route 19 and in the southern sector on US Route 19, is the C-2 General Commercial Area, which provides for retail and commercial uses. The primary difference is lot size. There is no fixed lot size for the C-1 District, while the C-2 District requires a minimum 10,000 square foot lot. Figure 3 represents the zoning districts for Mercer Borough.

The central area is surrounded by R-3, R-2, and R-1, which are all residential zoning districts. Areas along Scrubgrass Road are designated as Interstate Industrial, while the "P-O" Planned Opportunity District is in the northeast quadrant of the Borough.

Table 4: Zoning District Lots – Mercer Borough

| District | Lot Size | Width | Front Yard* | Side Yard | Residential Density** |
|-------------|--------------------|----------|-------------|-----------|--------------------------|
| C-1 | N/A | NA | NA | NA | NA |
| C-2 | 10,000 Square Feet | 100 Feet | 75 Feet | 10 Feet | NA |
| I | 10,000 Square Feet | 100 Feet | 75 Feet | Varies | NA |
| R-1 | 7,200 Square Feet | 60 Feet | 75 Feet | 10 Feet | 6 DU/Acre |
| R-2 and R-3 | 6,000 Square Feet | 60 Feet | NA | 10 Feet | 7.3+ |

^{*} Computed from the centerline of the street

Note: The "P-O" District allows for a wide variety of uses, primarily from the R-2 and R-2 Districts, with specific controls.

^{**} Residential density in dwelling units per acre

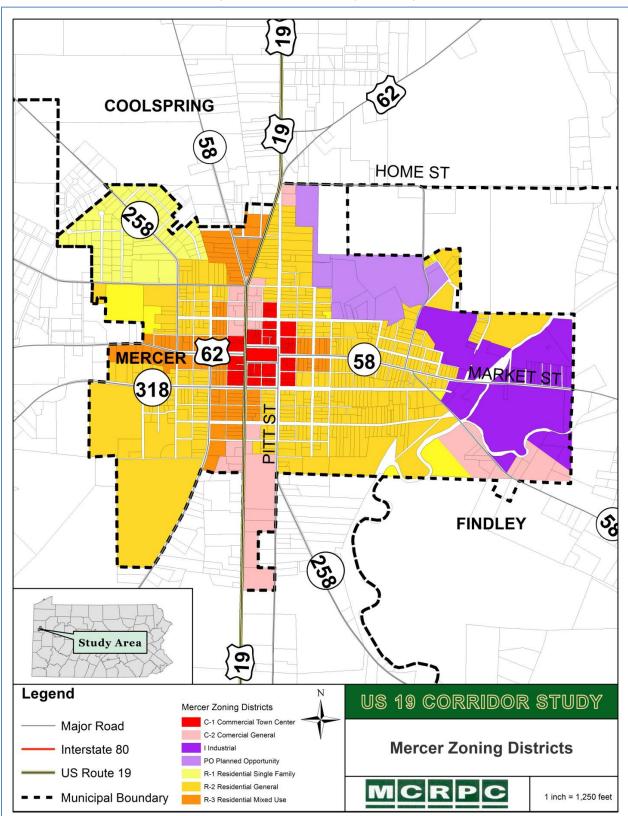


Figure 3: Mercer Borough Zoning

The Zoning Ordinance for East Lackawannock dates back to 1965 (shown in Figure 4). The Township has created a "General Business District-B-1," which is located south of Mercer Borough and abuts the Interchange Development District. The Interchange district straddles US Route 19 extending south to the border with Springfield Township. To the west of the Interchange Development District is the Agricultural-Residential District. The B-1 General Business District has a uniform depth of 400 feet to the west of US Route 19 and 275 feet east of the highway between the Interchange District and the Borough of Mercer. The B-1, General Business Zone, allows for a variety of offices, restaurants, medical services, personal services, automotive services, and one- and two-family dwellings. The Interchange Development Zone permits a very wide range of commercial, retail, motels, truck and auto-related activities, as well as the usual light industrial activities and "any other equivalent use." Beyond the strip of B-1 businesses, both east and west of US Route 19, there is the R-2 Residential District. This district permits residential, farming, schools, some outdoor recreation (golf courses), and hospitals.

Table 5: Zoning District Lots – East Lackawannock Township

| District | Lot Size | Width | Front Yard* | Side Yard | Residential Density** |
|----------|---------------------------------------|----------|-------------|-----------|--------------------------|
| R-1 | 20,000 Square Feet | 125 Feet | 100 Feet | 20 Feet | 2.2 DU/Acre |
| | | | 75 Feet | | |
| R-2 | 25,000 Square Feet | 125 Feet | 100 Feet | 20 Feet | 1.7 DU/Acre |
| | | | 75 Feet | | |
| B-1 | 15,000 Square Feet Water and Sewer | 100 Feet | | 10 Feet | |
| | 25,000 Square Feet On-Lot | 125 Feet | 75 Feet | 20 Feet | 2 to 3 DU/Acre |
| IDD | 20,000 Square Feet | NA | 100 Feet | NA | NA |

^{*} Measured from road centerline

Note: For on-lot systems, SEO approval is needed; density is usually under one dwelling unit per acre. Most of the Township, in the study area, uses on-lot septic.

^{**} In dwelling units per acre

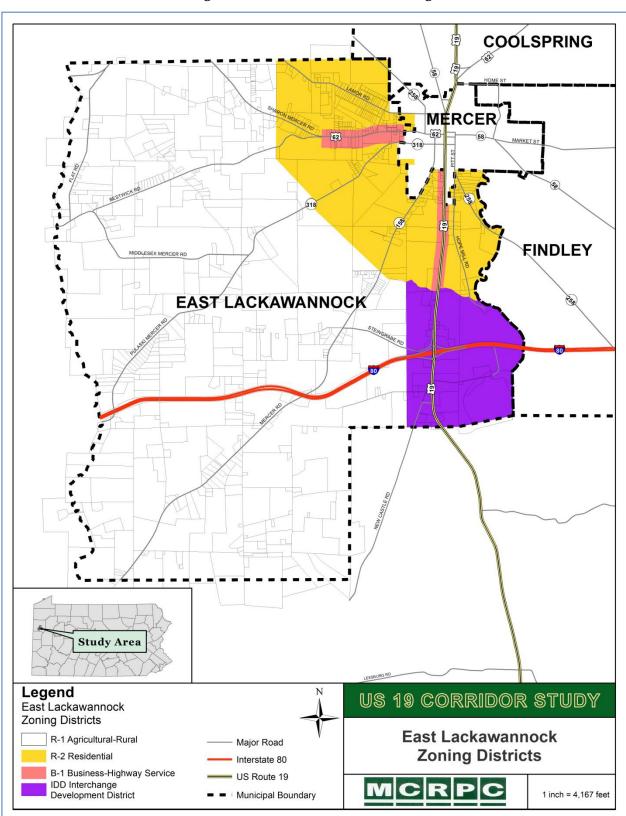


Figure 4: East Lackawannock Zoning

Subdivision and Land Development Ordinance

Mercer Borough enacted their Subdivision and Land Development Ordinance (SALDO) in 1973. It allows for the traditional two-step processing of subdivisions (preliminary and final plans), but allows a one-step process for "small subdivisions" where no new streets are involved. The design criteria require 50-foot street rights-of-way, with 22-foot cartways; cul-de-sacs are limited to 500 feet in depth. Maximum street grades are 6% for major facilities and 7% for minor streets. Intersections are controlled (right angles preferred), with clear sight triangles required. Storm drainage standards are included. There are also some regulations which appear to be zoning in nature (i.e. parking). No mention of water or sanitary sewers was found. Though dated in parts, this ordinance appears to present no impediments for development.

East Lackawannock Township does not have an enacted SALDO so the Mercer County ordinance applies. The County ordinance sets ten lots or less as a minor subdivision, with two exceptions. The first is any development that involves the construction of new public facilities. The second is when the proposed lot, if added to prior subdivisions on the same property, would exceed the ten-lot limit, over a ten-year period. In general, the ordinance defers to local land use ordinance(s) when the local ordinance(s) specify density, lot size, etc. That is the case with East Lackawannock. However, for major subdivisions, criteria for street design (cartway, right-of-way), sidewalks and curbing would apply. This includes criteria for street intersections (Section 405.8 sets road construction standards). Although most activity in the Township would be classified as minor, possible development in the Interchange area could very well be a major subdivision or land development.

Article V of the County ordinance sets forth land development standards. However, this section would only apply to larger developments, with building size of 40,000 square feet or more the tipping point for application of the County regulation. For developments that fall under the County ordinance, this Article contains processing, submission requirements, and design standards. Primary elements include:

- Transportation, access, and internal circulation
- Parking requirements, and design, including interconnections
- Stormwater management
- Landscaping
- Water, sewer, and utilities

Land Development Trends

Building permit data from Mercer Borough and East Lackawannock Township was reviewed to understand land development trends. The Borough can be described as fully developed with very limited opportunities for new construction. The Township is experiencing some residential growth, but it is scattered, not focused. The two traditional engines of growth are the economy and sewerage and water services. The lack of sewerage service is seen as a major impediment to development in the US Route 19 corridor, especially at the Interchange.

East Lackawannock

Permit data from 2006 to 2010 shows that the Township, on average, issued 17 building permits a year. However, for the most part, these are pole buildings, decks, barns, and residential additions, with only two to three single-family homes built per year. During the past four years, only one appears in the study area (on New Hope Road); the balance are scattered in rural areas. A permit of interest includes a new water tower for Acqua (2009) on Route 62, now under construction.

Mercer Borough

Permit data from Mercer Borough includes activity from 2006 to 2009 with the majority of developments mirroring those of the Township – decks, garages, and residential additions. Five residential dwellings were built, but two of these were replacements. Two were built by "Habitat for Humanity." That organization intends to build another home—as a demolition replacement. The Medicine Shoppe strip plaza on US Route 19 (South Street) and East Beaver Street was constructed in 2008, as was an addition to the Mercer Forge Corporation. To date, the Medicine Shoppe is the only tenant of the plaza. Local real estate sources report that the Borough's existing home sales in the area have been steady. The Borough of Mercer is considered as essentially "built out."



Development Potential

Within the study area are four sizeable parcels high potential for that have future development. All four properties are located in East Lackawannock Township adjacent to US Route 19. The parcels total approximately 640 acres (Figure 5). The county owned property is currently the subject of a market study and environmental assessment to determine economic development opportunities constraints. According to real estate

Table 6: Development Opportunities

| Potential Development Properties | | | |
|----------------------------------|---------|---------|--------------------------|
| Ownership | Name | Acreage | Existing Land Use |
| Public | Mercer | 221 | Industrial/Mineral |
| | County | | Extraction |
| Private | Kraynak | 156.8 | Forested/Open |
| | | | Space |
| Private | Winger | 65.2 | Open Space |
| Private | Unknown | 186.9 | Gravel Wash |
| | | | Operation |

professionals, the owners of the Kraynak and Winger properties have expressed interest in development and/or selling. The property where the Gravel Washing Operation was recently in operation was recently placed into bankruptcy and the ownership and status is unknown.

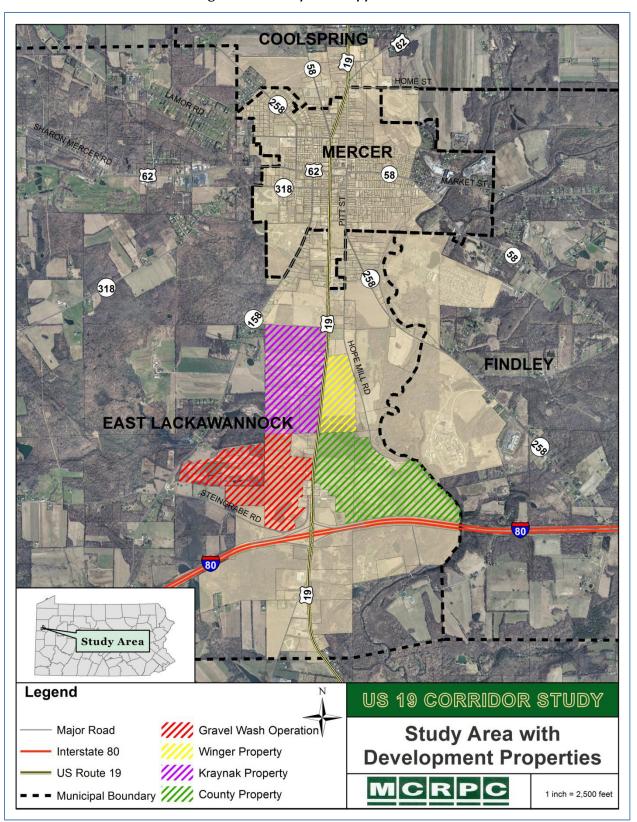


Figure 5: Development Opportunities

Major Employers and Facilities

Facilities contributing to the level of traffic on area roadways include major employers located within East Lackawannock Township and Mercer Borough (Figure 6). Various employers were contacted to document existing employment levels and identify future plans that might affect the transportation network.

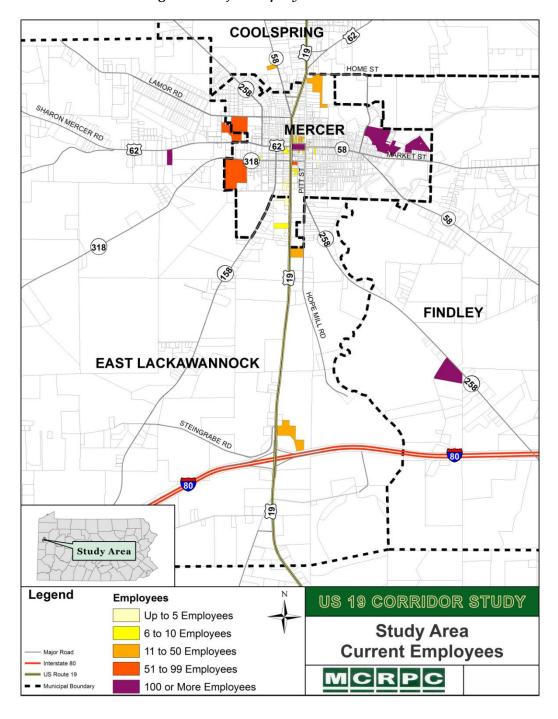


Figure 6: Major Employers and Facilities

Mercer County – The County of Mercer is the largest employer in the study area. Total County employment is 490, with 495 working in the Mercer Borough area. The approximate employment breakdown is as follows:

- Court House 125
- Domestic Relations (and AAA) 45 (Downtown)
- MH/MR and Children Services Offices 135 (Sharon/Mercer Road Route 62 West, which is just outside of the study area)
- County Jail 100 (Route 258 South, out of the study area)
- District Judge's Office 5 (Downtown Mercer)
- South Annex– 20 to 25 (Route 58 just north of the study area)
- 911 Center 60 (includes Sheriff's office, Downtown Mercer area)

Mercer Area Schools – The Mercer Area School District administration offices, elementary school and middle/high school are located within Mercer Borough. Student enrollment is about 650 and employment is estimated at 85. The elementary school is on Lamor Road in the Borough while the District's administration offices and middle and high schools are located on SR 318 West. School officials report they have recently completed modernization of their facilities and do not expect any expansions over the near term. It should be noted that the Department of Education enrollment projections estimated the school district to have a decline in population. However, enrollment has in fact increased although school officials indicate much of the growth is attributed to Jefferson Township, which is out of the study area. The Mercer Area School District busing system includes 21 buses and 10 vans, which transports elementary children and students outside of Mercer Borough. About four buses and two vans travel US Route 19 South and eight buses originate from a transportation contractor at SR 158 and Steingrabe Road, just west of the Interchange.



Mercer Area High School

Mercer Forge – This industry is along East Market, in Mercer Borough. Currently, there are 118 employed, with an anticipated increase to total 124. This firm receives about five to six tractor-trailer trucks a day and ships out the same.

Current employment is around 200 and plant officials expect no significant change over the next few years. However, there has been recent news about layoffs, with jobs being transferred to Mexico. The firm reportedly receives about six to seven tractor-trailer trucks per day and

Reznor/Thomas & Betts Corporation -

generates the same amount outgoing. A transportation concern is the 27-ton weight limit on a borough-owned bridge located on McKinley Avenue,

which is the only access road for the



McKinley Bridge

facility. Unfortunately, the Borough lacks the funding to repair or rehabilitate the bridge.

Mercer Raceway Park – The Mercer Raceway Park is located at the northern border of Mercer Borough in Findley Township. This park is open on Saturdays only and, while not a major employer, it does have a potential impact on local traffic patterns. Race season is typically April through October. They open at 3:30 p.m. (pits), with racing starting at 7:00 p.m. (various classes) with an average attendance of 1,500 to 1,700 persons. Special events could draw up to 2,000 fans. The track is being sold to a new owner, with higher purses and possible higher attendance in the future. Primary access to the Raceway is via Northwood Road. Borough officials report no special traffic issues from the facility. They believe this is due to staggered times for different race events. Borough police confirm that the Raceway has created

no special traffic congestion. Their only complaint is race fans often forget to observe red lights.

Ben Bissett Chevrolet
Dealership – Ben
Bissett Chevrolet is
located on US Route
19, just south of the
Mercer Borough line,
on the east side of the
road. Employment is
set at 30, and the
dealership reports sales
are currently good.

There are no plans for expansion, and no access problems have been reported.



Ben Bissett Chevrolet

Comfort Inn – The Comfort Inn is a 100-room hotel with a restaurant located on the northeast quadrant of the I-80, US Route 19 Interchange. Reported employment ranges from 15 to 20 persons.



Comfort Inn

Suburban Propane – This small business is a propane delivery company with four employees and usually operates two to four trucks (four during the winter season) located on US 19 just south of South Street.

SCI-Mercer – A state correctional facility is located on SR 258 to the east of the study area, and, given the road configuration, it is somewhat removed from the study area. It is included in this discussion, however, due to speculation relative to the prison participating in a regional sanitary sewer facility for the I-80, US Route 19 Interchange area. SCI-Mercer was dedicated in 1986 as a 180-inmate, minimum security facility. Since that time, it has been enlarged at various times, so its current capacity is 1,048 prisoners (Pennsylvania Department of Corrections). In the past, it has been proposed that a public entity would assume control over the existing sewer treatment plant of SCI-Mercer. The concept was that the plant would be enlarged and would serve as a central facility to provide sewerage service for the prison, the nearby County jail, as well as the Interchange area. To determine the feasibility of this proposal, contact was made with Michael Mahlmeister, the Deputy Superintendent-Facilities who reported that the existing plant is inadequate and not properly functioning. Consequently, there is no short-term possibility to use this plant for the region. In addition, while there is a need to rebuild or upgrade the sewer plant, there are no future plans to use it as a regional facility.

Traffic / Transportation Conditions

Data Collection

Field surveys were conducted to observe and document general transportation conditions for all modes of travel throughout the study area, including existing geometric conditions, traffic signal operations, and basic field observations. Global Positioning System (GPS) point data was also collected using handheld equipment to identify the exact location of the following within the US Route 19 study area:

- Sidewalk begin / end points
- **❖** Bicycle lane begin / end points
- Driveway locations
- Bus stop locations
- Posted speed limit boundaries

The GPS point data was overlaid onto a model of the study area in geographic information systems (GIS) format. Points in the GIS model were then connected to display where each of the elements listed above were located within the study area.

Automatic Traffic Recorders (ATRs) were used to collect hourly traffic volumes and vehicle classifications in various locations within the study area. Each ATR station recorded data in both directions of travel for a minimum of five consecutive days per location. Five ATR stations were located throughout the study area (Table 7, Figure 7, Appendix B).



GPS Data Collection

Table 7: ATR Data – Existing AADT Summary

| Location | AADT |
|---------------------------------------------|-------|
| Site 1: East Beaver St, East of East St | 1,100 |
| Site 2: Lamor Rd, West of Court St | 1,100 |
| Site 3: S Pitt St, South of Beaver St | 2,900 |
| Site 4: US Route 19, South of W South St | 8,500 |
| Site 5: US Route 19, South of Coolspring St | 6,900 |

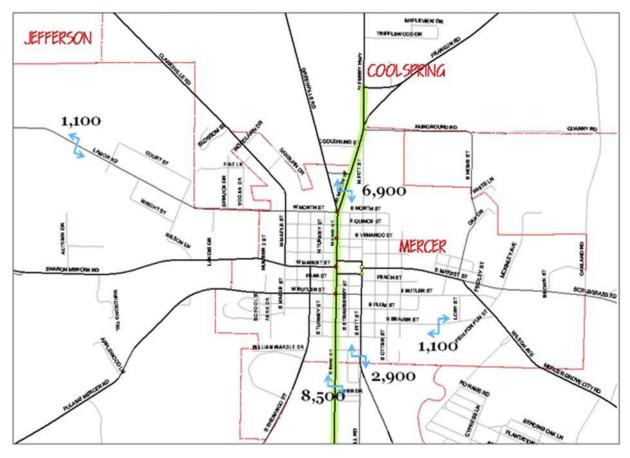


Figure 7: ATR Data – Existing AADT Summary

The total percentage of heavy vehicles throughout the study area ranges from approximately 3% to 13%. A further breakdown of that total shows that buses account for approximately 1%, single-unit trucks account for up to 8%, while tractor-trailer trucks account for less than 5% of the overall weekday traffic volume.

| | | 100 | 1000 | 15 | |
|---------------------------------|-----------------------|-------------------------|------|-----------------------|---------------------------|
| Location | Passenger Vehicles | Total Heavy Vehicles | Bus | Single-Unit Trucks | Tractor-Trailer Trucks |
| East Beaver St, East of East St | 96.8% | 3.2% | 0.0% | 3.1% | 0.1% |
| Lamor Rd, West of Court St | 90.9% | 9.1% | 0.9% | 8.0% | 0.2% |
| S Pitt St, South of Beaver St | 91.4% | 8.6% | 1.0% | 7.1% | 0.5% |
| US 19, South of W South St | 87.1% | 12.9% | 1.9% | 6.4% | 4.6% |
| US 19, South of Coolspring St | 89.0% | 11.0% | 1.1% | 7.2% | 2.7% |

Table 8: ATR Data - Existing Vehicle Classification Summary

Turning Movement Counts (TMCs) detail the total number of vehicles that turn in each direction (left, through, right) on each approach to a given intersection, as well as manual classification data identifying small trucks and large trucks. For TMC data collection purposes, small trucks included single-unit trucks with up to four axles; large trucks included buses and all tractor-trailer combinations. Peak hour TMCs were conducted at 20 locations (Figures 8 & 9, Appendix B) within the study area.

| Site 01: US 19 @ East Franklin St | Site 11: SR 62 @ Maple St |
|--------------------------------------------|-----------------------------------------------|
| Site 02: US 19/US 62 @ US 62 (Franklin Rd) | Site 12: SR 258 @ N. Diamond St |
| Site 03: US 19/US 62 @ North St | Site 13: Lamor Rd @ Maple St |
| Site 04: US 19 @ Venango St | Site 14: North St @ Shenango St |
| Site 05: US 19 @ US 62 (Market St) | Site 15: US 62 (Market St) at Shenango St |
| Site 06: US 19 @ SR 318 (Butler St) | Site 16: US 19 @ N. Diamond St |
| Site 07: US 19 @ Steingrabe Rd | Site 17: US 19 @ S. Diamond St |
| Site 08: US 19 @ I-80 Westbound Ramps | Site 18: SR 258 (Pitt St) @ Venango St |
| Site 09: US 19 @ I-80 Eastbound Ramps | Site 19: SR 62 (Market St) @ SR 258 (Pitt St) |
| Site 10: US 19 @ New Castle-Mercer Rd | Site 20: SR 258 (Pitt St) @ S Diamond St |

TMC's were collected in April/May 2010 during typical weekday morning, midday, and afternoon peak hours between approximately 7:00 to 9:00 am, 11:00 to 1:00 pm, and 3:00 to 5:00 pm, which were the highest travel periods of the day. Count durations varied between 30-minutes to 1-1/2 hours, depending on the relative importance and/or amount of traffic anticipated at a particular count location. All counts were compared, manually adjusted, and loosely balanced on a corridor-wide basis to develop a complete set of estimated AM and PM peak hour turning movement volumes for the existing conditions.

IERCER 62 158 Legend Major Road US 19 CORRIDOR STUDY Interstate 80 Mercer Borough US Route 19 **Turning Movement Count** Municipal Boundary Turning Movement Location - Full Count 1 inch = 2,500 feet ■ Turning Movement Location - Spot Count

Figure 8: Mercer Borough Intersection Turning Movement Count (TMC) Locations

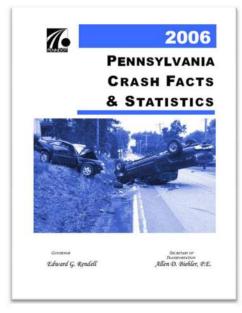
Legend US 19 CORRIDOR STUDY Major Road East Lackawannock Turning Movement Location Interstate 80 **Turning Movement Count** US Route 19 1 inch = 2,500 feet - Municipal Boundary

Figure 9: East Lackawannock Intersection Turning Movement Count (TMC) Locations

Safety

Historical crash data for select corridors within the study area was supplied by PennDOT for the three-year period from 1/1/2007 through 12/31/2009. Crash locations were plotted onto maps of the project area based on roadway segment and offset data included in the crash reports. Data was then reviewed and compiled to locate any notable crash clusters, calculate and compare crash rates, and identify any trends in the crash statistics based on crash type, condition, or probable cause. The following roads were included in the crash analyses:

- US Route 19/CoolSpring Street
- US Route 19/US 62/SR 58/Lamor Rd/North St. (5-legged)
- US Route 19/Venango Street
- US Route 19/US 62
- US Route 19/East Butler Street
- US Route 19/Beaver Street
- US Route 19/Steingrabe Road
- US 62/SR 258/Maple Street
- US 62/Steingrabe Road
- SR 58/Otter Street
- SR 58/Beaver Street
- SR 58/Shaffer Street



PennDOT Publication

Based on the crash data, no statistically significant crashes have been reported. It is important to note that only reportable crashes available in PennDOT's database were reviewed as part of this study. A "reportable crash" is defined by PennDOT's 2006 Pennsylvania Crash Facts & Statistics booklet as "a crash resulting in a death within 30 days of the crash; or injury in any degree, to any person involved; or crashes resulting in damage to any vehicle serious enough to require towing." Based on anecdotal evidence, additional minor, "non-reportable" or unreported crashes may have occurred. If so, it would be expected that those crashes have or follow characteristics similar to the data that was reviewed and, as such, would be addressed or improved by the same set of alternatives or recommendations developed throughout this study.

Traffic Operations

To quantify traffic operations, a capacity analysis was conducted using Synchro software. The Synchro model accounts for input such as turning movement volumes, lane arrangements, type of intersection control, traffic signal timing, etc., to estimate intersection capacity, delay, and level of service (LOS) in accordance with standard procedures outlined in the Transportation Research Board's (TRB's) "Highway Capacity Manual."

Intersection LOS is a letter grade based on the average delay per vehicle due to the traffic control in place at an intersection. Letter grades range from A through F, with LOS A representing the best operating conditions and LOS F representing the worst. Generally, an acceptable range of operations is defined as LOS C or better in rural areas and LOS D or better in urban areas. These criteria are specific to intersection control type based on the notion that higher levels of delay are generally expected and accepted at signalized intersections, whereas motorists' tolerance of delay at unsignalized intersections is typically lower.

| | I | | |
|-----|--------------------------|-----------------------------------|--|
| LOS | Control Delay (Seconds) | | |
| 103 | Signalized Intersections | Unsignalized Intersections | |
| Α | ≤ 10 | ≤ 10 | |
| В | > 10 and ≤ 20 | > 10 and ≤ 15 | |
| С | > 20 and ≤ 35 | > 15 and ≤ 25 | |
| D | > 35 and ≤ 55 | > 25 and ≤ 35 | |
| E | > 55 and ≤ 80 | > 35 and ≤ 50 | |
| F | > 80 | > 50 | |

Table 9: Intersection Level of Service (LOS) Criteria

Synchro analyses were conducted for the four existing signalized intersections and 18 unsignalized intersections in the study area for typical morning and afternoon rush hours. As the PM peak period was found to be the worst condition of the two study scenarios, it was used as the primary factor for the US Route 19 Corridor Study.

| Table 10: | LOS Table f | or PM Existing | Conditions |
|-----------|-------------|----------------|------------|
|-----------|-------------|----------------|------------|

| Signalized Operations | | Number of Existing Intersections |
|-------------------------|----------------------------|----------------------------------|
| Acceptable | Overall LOS A, B, or C | 3 |
| Marginal | Overall LOS D | 1 |
| Failing | Overall LOS E or F | 0 |
| Unsignalized Operations | | Number of Existing Intersections |
| Acceptable | Side-Street LOS A, B, or C | 18 |
| Marginal | Side-Street LOS D | 0 |
| Failing | Side-Street LOS E or F | 0 |

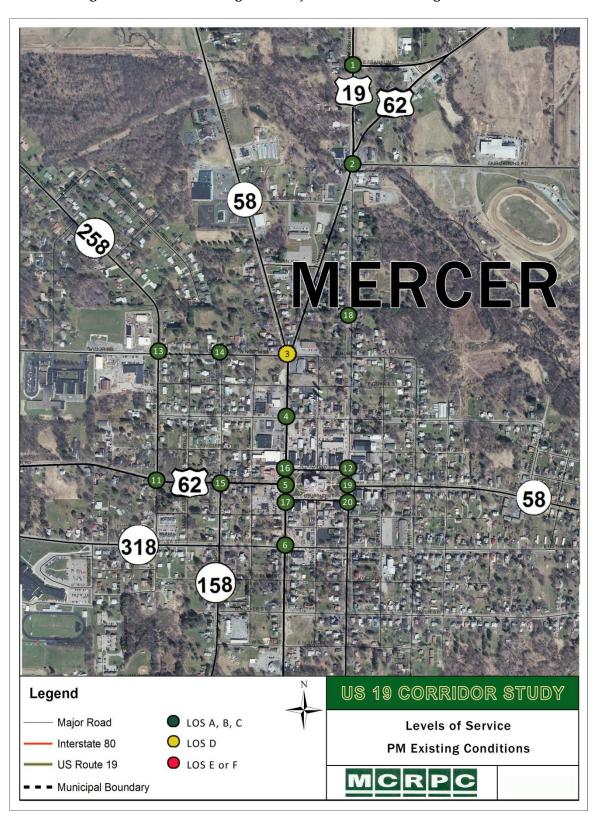


Figure 10: Mercer Borough Level of Service PM Existing Conditions



Figure 11: East Lackawannock Level of Service PM Existing Conditions

Pedestrian Transportation Network

Mercer Borough has a well-developed sidewalk network. Sidewalks are present within most of the three to five block area surrounding the town center, although there are gaps and locations where the sidewalk is in poor condition. An assessment of the condition of the sidewalk network was conducted through a pedestrian network audit. Field surveys were conducted on just over 44,000 feet of sidewalks to gather data related to sidewalk widths, surface conditions, crosswalks, and obstructions. Sidewalk conditions were mapped (Figure 9) and rated on a scale of 1 (very good) to 5 (very poor) as follows:

- **1.** Very Good: Sidewalk has a minimum width of 4 feet, maintenance / condition is good, curb ramps present
- **2.** Good: Sidewalk has a minimum width of 3-4 feet, no curb ramps, surface is cracked in some areas
- **3.** Fair: Sidewalk has a minimum width of 3-4 feet, no curb ramps, some heaving and cracked surface
- **4.** Poor: Sidewalk width less than 3 feet, no curb ramps, significant heaving and cracked surface
- **5.** Very Poor: Sidewalk width less than 3 feet, no curb ramps, significant heaving and cracked surface, portions missing, obstructions present



Figure 12: Sidewalk Conditions

Using this assessment, the sidewalk network in Mercer Borough was found to have a significant percent of its sidewalks in a deteriorated condition, although 72 percent were documented to be in fair condition or better.

- Good-Very Good = 44% or 19,415 feet
- Fair = 28% or 12,511 ft
- Poor = 17% or 7,358 ft
- Very Poor = 7% or 3,146 ft
- Missing = 4% or 1,641 ft



The quantitative analysis of Mercer Borough's pedestrian network helped to verify existing conditions. However, the need for improving connectivity was documented using the online and intercept surveys and during meetings with the public and stakeholders. For instance, the online and intercept surveys demonstrated that people feel it is difficult to walk or bicycle in Mercer Borough. People indicated that they like to walk for both exercise and recreation but expressed concerns regarding the condition of the sidewalks. Additionally, it was noted that children were not encouraged to walk to school due to fear of unsafe intersections and other safety concerns related to traffic.

By reviewing the physical condition of the sidewalk network to this level of detail, Mercer Borough can begin to estimate the level of investment needed to improve connectivity.

The sidewalk assessment was coupled with an investigation of the connectivity of pedestrian destinations. Desired pedestrian destinations were identified through public meetings, surveys, and interviews. The Central Business District was identified as the area that receives the highest amount of foot traffic, which is no surprise given the density of personal services, retail destinations, and number of employers. The majority of survey respondents who work in the borough stated that they prefer to walk during lunch for shopping or other personal trips as long as they can do so within a 15 minute time period. Residents also noted other destinations including the Dairy Queen, Walt's Grocery Store, Mercer Area High School, Mercer Area Elementary School, and Brandy Springs Park.

Each of these destination areas was mapped to determine which fell within the 15 minute "walkshed" identified in the project surveys, which was centered on the business district (Figure 13). The pedestrian destinations were reviewed based upon the condition of the sidewalk network to determine if people can easily walk to their desired destination. Using the desired pedestrian connections coupled with the sidewalk conditions assessment, the following priority improvement locations were identified:

- 1. Shenango Street
- 2. W. Butler Street
- 3. W. Market Street
- 4. W. Venango Street
- 5. W. North Street
- 6. S. Pitt Street
- 7. Hope Mill Rd
- 8. West Beaver Street
- 9. West South Street

This dual assessment generated the following priority new pedestrian links:

- 1. Connection to Walt's Grocery store
- 2. Connection south along US Route 19 to Dairy Queen
- 3. Connection between High School and Mercer Borough Park

Residents, workers, and visitors to Mercer Borough overwhelmingly expressed their desire to be able to walk around town for shopping, recreation, and exercise.

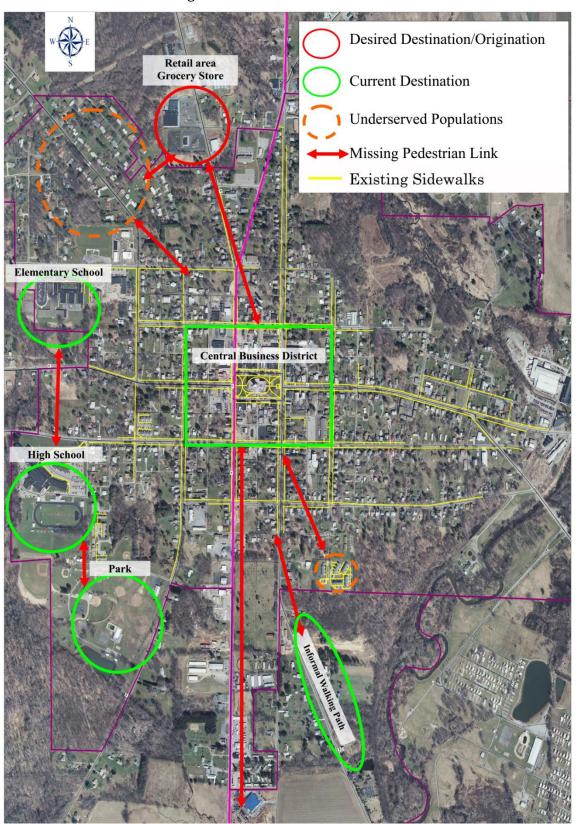


Figure 13: Pedestrian Destinations

Parking

Public input received at public meetings and from public surveys revealed a concern about parking availability, especially in the central business district and at locations surrounding the courthouse. The borough completed a parking plan in 1997, which was reviewed and used as a basis for investigating the current parking capacity. The adequacy and availability of parking was documented through a parking occupancy survey, which included data collection of use and turnover of parking completed during the AM, Mid-day, and PM peak hours.

Downtown Public Parking Plan (1997)

In 1997, the Mercer Borough Planning Commission prepared a Downtown Public Parking Plan to offer solutions to a documented lack of parking that was first identified in the Mercer Borough and Findley Township Joint Comprehensive Plan.

1997 Downtown Public Parking Plan: Summary of Findings & Recommendations

- Adequate Parking is available in Downtown Mercer with 406 Parking Spaces (On-Street Parking = 132 spaces and Off-Street Parking = 274) * Incorporated both public and private parking
- Parking signs should be redesigned for historic context and to offer better awareness of locations
- Parking education is needed to notify users of locations, restrictions, and promote shared parking opportunities
- 30 minute/Short Term Parking is needed at high turnover locations (banks, dry cleaner, Post Office, etc.)
- Crosswalk improvements were recommended that included a minimum line painting with an optimum solution of improved crosswalks to complement historic context at the following locations:
 - Erie and North Diamond Streets
 - Erie and South Diamond Streets
 - Pitt and North Diamond Streets

Parking Survey (2010)

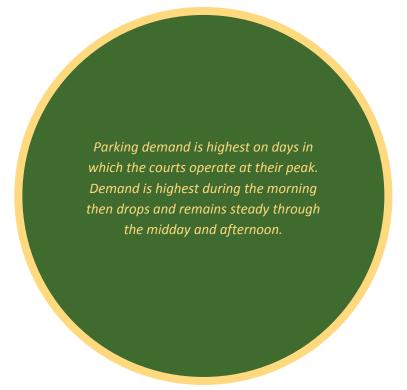
Data collection for the 2010 Parking Survey documented the extent and utilization of parking in the areas surrounding the Mercer County Courthouse. The findings of the data collection established that 329 Parking Spaces are available within a two block perimeter of the Courthouse, which includes municipal and county owned public and employee parking. All parking, with the exception of a \$2.00 borough-owned lot, is available free of charge with a two-hour time limit. A fine of \$7.00 is assessed for violation of the two-hour time limit.

Mercer Borough enforces parking rules through a parking officer who conducts regular patrols of all parking areas. Within a six month period from January through June 2010, violations generated just over \$6,000 in fines.

A parking occupancy survey was conducted to determine parking utilization on the roadways adjacent to the courthouse. Data collection for the survey was completed on separate occasions in order to capture typical and peak use of parking areas (Figure 14). Typical use was defined as an average day when court was not in session, and peak use was defined as when court was in session. Two peak use counts were taken to capture different court volume days. The Parking Survey included counts during the AM, Midday, and PM peak hours to establish the current demand for parking and circulation within the Central Business District. The parking area locations are as follows:

- Lot A: Parking lot on US 19
- Lot B: Street parking along US 19
- Lot C: Street parking along US 19
- Lot D: Street parking along E. Venango St
- Lot E: Parking lot on E. Venango St
- Lot F: Street parking along E. Venango St
- Lot G: Parking lot on Blackberry St
- Lot H: Street parking along N. Diamond St
- Lot I: Street parking along N. Diamond St
- Lot J: Street parking along N. Diamond St
- Lot K: Street parking along S. Diamond St
- Lot L: Street parking along E. Butler St
- Lot M: Street parking along E. Butler St
- Lot O: Street parking along E. Butler St
- Lot P: Street parking along Pitt St
- Lot Q: Street parking along Pitt St
- Lot R: Street parking along Pitt St
- Lot S: Street parking along Pitt St
- Lot T: Street parking along Pitt St
- Lot U: Street parking along Pitt St

The comparison of three sets of parking counts yields an interesting finding. Not surprisingly, parking is at a premium on the days in which the courts operate at peak demand. However, the level to which parking has the highest demand changes during the day. Parking occupancy significantly increases during the AM time frame, but drops and then remains steady for the midday and afternoon. Essentially, whether it was a peak use day or not, parking demand was consistent during the midday and PM peak hours. However, demand increased when factoring AM parking demand during a busy court schedule. Shown in Figure 14, high demand exists for locations nearest the Courthouse. Parking areas on North and South Diamond typically are 50-75 percent utilized on a typical day but hit full capacity in the mornings of high call days for court. The most underutilized parking space is the \$2 pay lot on Blackberry Street.



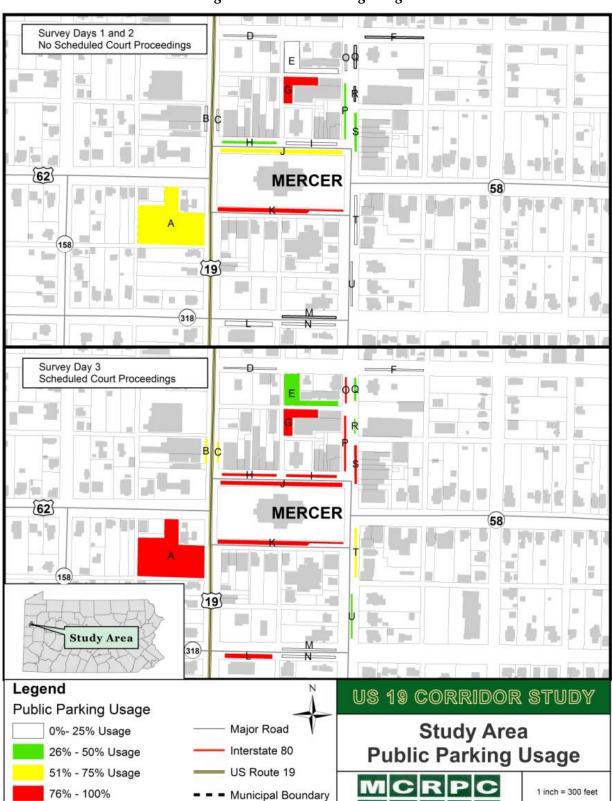


Figure 14: Public Parking Usage

Project Area Concerns

Project area concerns were identified through public input and field views of existing conditions. Public input was received from a range of interests such as emergency management officials, business owners, residents, developers, and elected officials. Based upon this information, the following project area concerns were identified:

- Lack of pedestrian access
- Confusing and/or congested intersections
- Conflicts or congestion caused by commercial/heavy trucks
- Underutilized industrial/commercial/natural areas

Field investigations were performed to document the deficiencies and to develop potential multi-modal transportation improvements (Figure 15).







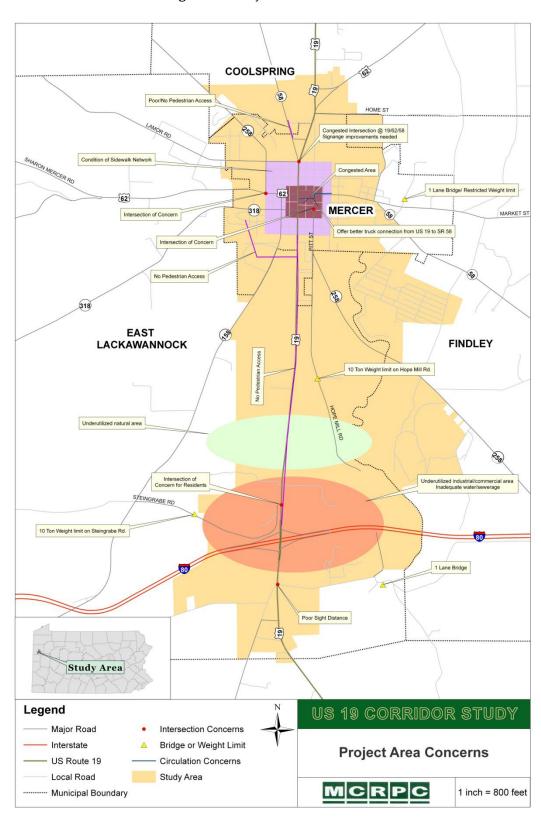


Figure 15: Project Area Concerns

3.0 Future Conditions

Establishment of Future Baseline

An integral aspect of establishing future baseline conditions is to predict future land use trends based on current land use regulations, past development trends, available land, access to transportation infrastructure, and access to utilities. The US Route 19 Corridor Study evaluated four land use scenarios. These scenarios were evaluated assuming the "no-build" transportation conditions that would result if no improvements were made to the existing road or pedestrian network.

The scenarios make both short-term (immediate to 5 year) and long-term (20-year) assumptions. Short-term assumptions are driven by existing market conditions and regional development patterns while long-term assumptions are influenced by local goals for development. For instance, commercial and industrial development are most likely to occur near the I-80 interchange area but the inventory of existing commercial and industrial real estate must be absorbed before new development can be expected.

Future Year Traffic Projections

In order to assess the future traffic conditions and develop improvement alternatives, the existing land use and projected development plans must first be translated into a set of future traffic projections. For this project, the "existing" or base-year 2010 traffic data was projected to a design-year of 2030. The future volumes were developed using a multi-step process:

- 1. Develop the base-year travel demand model.
- 2. Establish background traffic growth due to conditions outside the study area.
- 3. Establish internal traffic growth due to future development within the study area.
- 4. Combine the background and internal traffic growth to project total 2030 volumes.

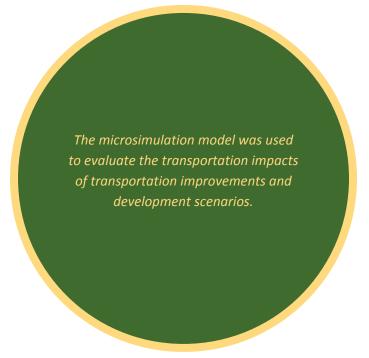
A base year 2010 travel demand model was created to evaluate the roadways and intersections throughout the study area. To model the existing roadway network, MCRPC's Geographic Information System (GIS) data covering Mercer Borough and East Lackawannock Township within the study area was field verified and converted into the model's transportation network. The calibrated base-year model was used to evaluate the impact that future year changes in background traffic or study area development have on the transportation network.

A project specific micro simulation model of the study area was developed to analyze the transportation impacts of the existing roadway and sidewalk network and the impacts of the future land use scenarios. The micro simulation model was able to assist in determining multimodal operations by modeling the usage and impacts of vehicles, buses, pedestrians, and heavy trucks at the same time, directly accounting for their interactions with one another. This model was also used to display the alternatives

to the public, visually presenting existing conditions and the transportation impacts of various land use scenarios.



VISSIM microsimulation of peak hour turning movements



Scenario Planning

Four development scenarios were prepared to determine how the transportation network might be influenced by various land use patterns and development intensities (Table 11). The scenario planning activities for the US Route 19 Corridor began with Scenario 1 where public infrastructure (primarily sanitary sewer) was assumed to remain status quo with no significant new service areas. The extension of public sewerage influences Scenarios 2 and 3. Scenario 4 provides a full-build projection coupled with high-impact land use development at the I-80 interchange.

| Development Type | Scenario 1 | Scenario 2 | Scenario 3 | Scenario 4 |
|-------------------------|--------------|-------------|-------------|-------------|
| Dwelling Units | 20 | 22 | 65 | 66 |
| | | | | |
| Commercial | 5,000 Square | 35,000 | 40,000 | 40,000 |
| Development | Feet | Square Feet | Square Feet | Square Feet |
| Industrial | 0 | 50,000 | 55,000 | 55,000 |
| Development | | Square Feet | Square Feet | Square Feet |
| Big Box/Destination | 0 | 0 | 0 | 500,000 |
| Retail | | | | |

Table 11: Planning Scenarios

The scenarios were all evaluated to determine their impact on the transportation system and to determine what level of transportation improvements would be required to achieve acceptable operations.



Scenario 1

Scenario 1 (shown in Figure 16) assumes that minimal growth will occur including single family residential or small scale commercial development. This scenario estimates that, over the 20-year projection period, approximately 20 new dwelling units will be built in the Mercer area. New units in the study area will likely be the result of limited new construction, or, in the Borough, as a result of the conversion of existing single unit dwellings to multi-family properties. Scenario 1 projects a limited amount of commercial development along US Route 19 or as adaptive reuse/redevelopment of properties within Mercer Borough.

The growth in traffic volumes and associated impact on traffic operations generally tracks the assumed development trend (Table 12, Figures 17 & 18).

Table 12: LOS Table for 2030 Scenario 1 PM Conditions

| Signalized Operations | | Number of Existing Intersections |
|-------------------------|----------------------------|----------------------------------|
| Acceptable | Overall LOS A, B, or C | 2 |
| Marginal | Overall LOS D | 0 |
| Failing | Overall LOS E or F | 2 |
| Unsignalized Operations | | Number of Existing Intersections |
| Acceptable | Side-Street LOS A, B, or C | 13 |
| Marginal | Side-Street LOS D | 2 |
| Failing | Side-Street LOS E or F | 3 |

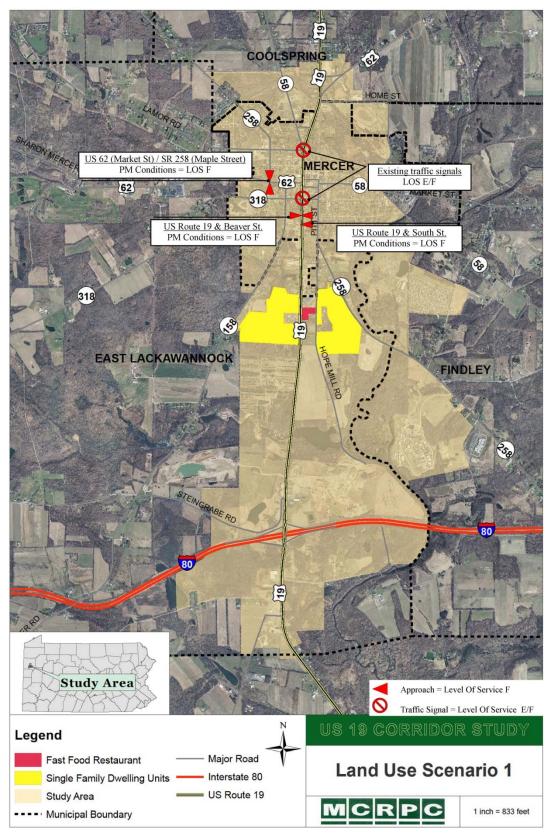


Figure 16: Scenario 1

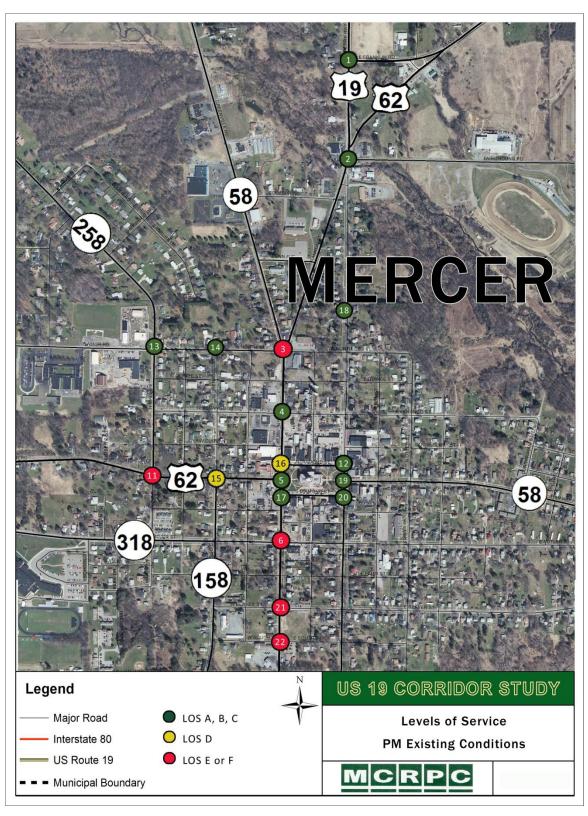


Figure 17: Mercer Borough Level of Service PM – Scenario 1

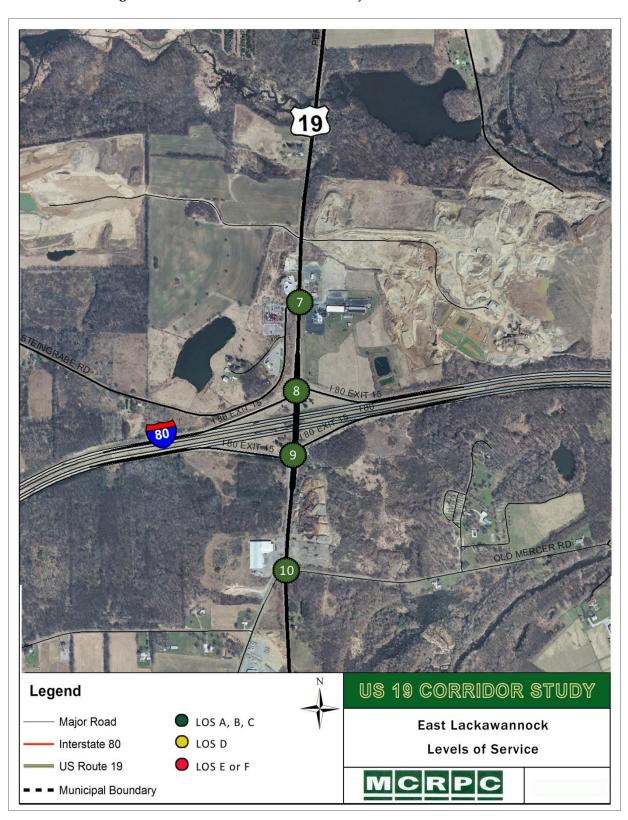
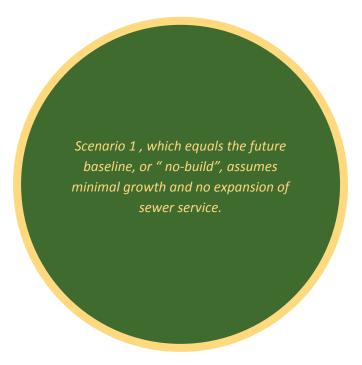


Figure 18: East Lackawannock Level of Service PM – Scenario 1

Two traffic signals are expected to operate at an overall LOS E/F. Three of the unsignalized intersections are expected to have approaches that fail, including the US 62/Market Street intersection which was highlighted as a key intersection of concern by the public.



Scenario 2

Scenario 2 (shown in Figure 19) assumes that public sewerage is made available at the I-80 Interchange. For this scenario the developed area of the interchange is served by a public treatment system, but service does not expand beyond this immediate area. No dramatic change in the pattern of residential development occurs with only 22 new residential dwelling units. Conversely, commercial development increases with 35,000 square feet of new commercial development. This new development would be consistent with highway commercial uses such as fast-food restaurants, a motel, branch bank, family restaurant, etc. Scenario 2 assumes that no large-scale retail (i.e., big box) is built due to the presence of competitive retail in Grove City and Sharon/Hermitage. Scenario 2 assumes some industrial development (50,000 sq. ft.) that would be either transportation-oriented (due to the Interstate proximity) or light industrial, with a potential of some associated office development. This scenario integrates the preliminary findings of an economic analysis of County-owned property located at the interchange to support flex space (single story building with warehouse serving light manufacturing industries). This growth in development has a similar growth in traffic volumes and associated impact on traffic operations (Table 13, Figures 20 & 21).

Table 13: LOS Table for 2030 Scenario 2 PM Conditions

| Signalized Operations | | Number of Existing Intersections |
|-----------------------|----------------------------|----------------------------------|
| Acceptable | Overall LOS A, B, or C | 1 |
| Marginal | Overall LOS D | 1 |
| Failing | Overall LOS E or F | 2 |
| Uns | ignalized Operations | Number of Existing Intersections |
| Acceptable | Side-Street LOS A, B, or C | 13 |
| Marginal | Side-Street LOS D | 2 |
| Failing | Side-Street LOS E or F | 3 |

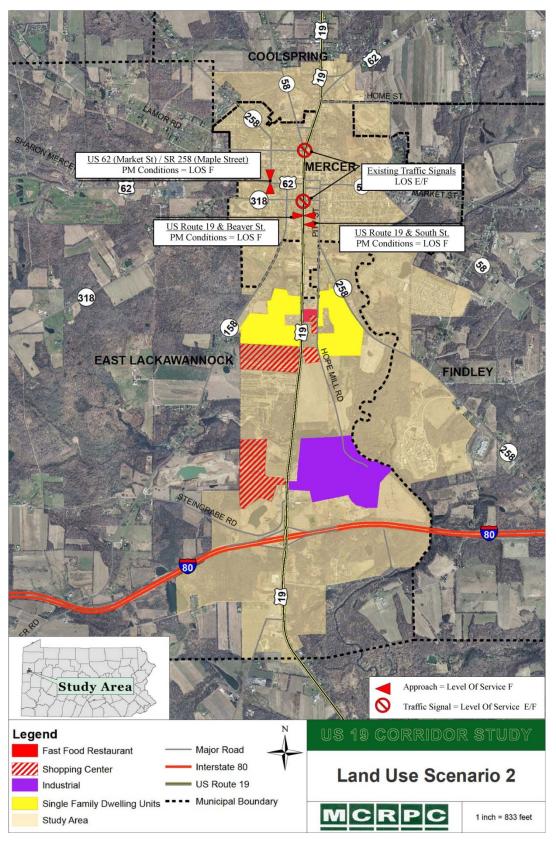


Figure 19: Scenario 2

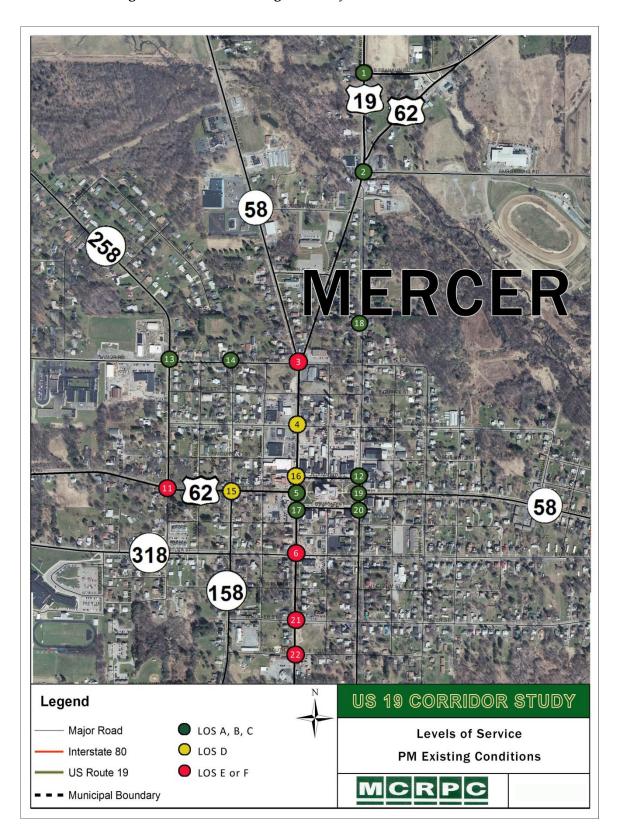


Figure 20: Mercer Borough Level of Service PM – Scenario 2

OEXIT 15 US 19 CORRIDOR STUDY Legend LOS A, B, C Major Road East Lackawannock O LOS D Interstate 80 **Levels of Service** US Route 19 LOS E or F Municipal Boundary

Figure 21: East Lackawannock Level of Service PM – Scenario 2

Two traffic signals are expected to operate at an overall LOS E/F. Three of the unsignalized intersections are expected to have approaches that fail, including the US 62/Market Street intersection which was highlighted as a key intersection of concern by the public.



Scenario 3

Scenario 3 (shown in Figure 22) assumes that the sanitary sewer system extends from the borough south to the I-80 Interchange. This scenario presents the greatest potential for new residential growth and anticipates a tripling of the growth of residential units in the study area with 65 new residential units. Additionally, new commercial and industrial development is projected with 40,000 sq. ft. of commercial development and 55,000 sq. ft. of industrial development occurring along US Route 19 and at the interchange. This scenario integrates the preliminary findings of an economic analysis of County-owned property located at the interchange to support flex space (single story building with warehouses serving light manufacturing industries).

Scenario 3 includes two variations. The first alternative reflects a linear style of development along the US Route 19 Corridor, similar to the growth along other roadways within the study area. With this development pattern, residential driveways add to the points of access along the corridor, creating additional points of conflict and congestion.



VISSIM microsimulation of linear style development



VISSIM microsimulation of smart growth development

The second alternative considered under Scenario 3 was a smart growth option where residential development was clustered and points of conflict reduced through access roads and street grids supporting residential developments. The smart growth philosophy places a priority on offering travelers multiple means by which to access their desired destination.

The level of traffic generated under both alternatives studied for Scenario 3 produces a similar growth in traffic volumes and associated impact on traffic operations (Table 14, Figures 23 & 24):

Table 14: LOS Table for 2030 Scenario 3 PM Conditions

| Signalized Operations | | Number of Existing Intersections |
|--------------------------------|-------------------------------------------------|----------------------------------|
| Acceptable | Overall LOS A, B, or C | 1 |
| Marginal | Overall LOS D | 0 |
| Failing | Overall LOS E or F | 3 |
| Unsignalized Operations | | Number of Existing Intersections |
| | | |
| Acceptable | Side-Street LOS A, B, or C | 13 |
| Acceptable Marginal | Side-Street LOS A, B, or C Side-Street LOS D | 13 3 |

Note: Additional study intersection includes Butler Street at Pitt Street and future development driveway at US Route 19

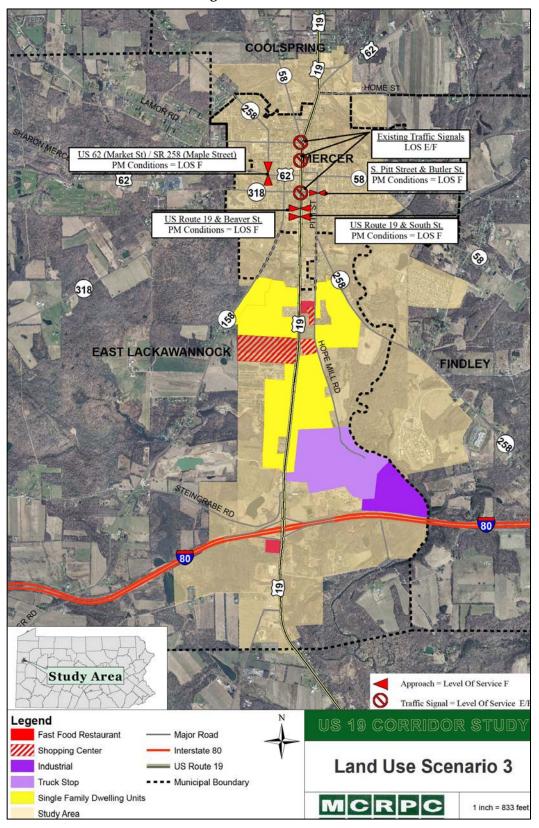


Figure 22: Scenario 3

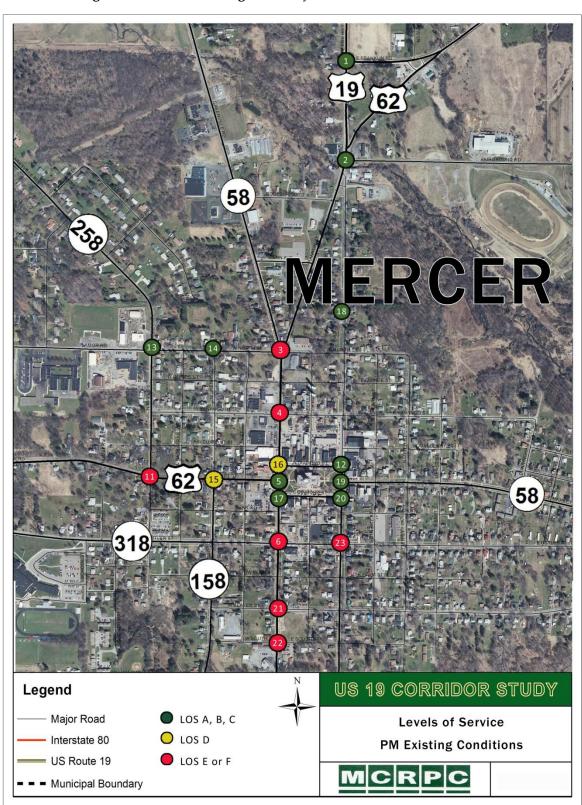


Figure 23: Mercer Borough Level of Service PM – Scenario 3

OEXIT 15 US 19 CORRIDOR STUDY Legend LOS A, B, C Major Road East Lackawannock O LOS D Interstate 80 **Levels of Service** US Route 19 LOS E or F Municipal Boundary

Figure 24: East Lackawannock Level of Service PM – Scenario 3

Traffic operations at three signals located on US Route 19 in Mercer Borough would operate at a LOS E/F, including the 5-legged intersection of US Route 19/SR 58/West North/East North St.

In addition four unsignalized intersections fail, including:

- US Route 62 / Market Street at SR 258 / Maple Street
- US Route 19 at Beaver Street
- US Route 19 at South Street
- Butler Street at South Pitt Street



Scenario 4

Scenario 4 (shown in Figure 25) represents a "what if" situation coupled with the land development pattern shown in Scenario 3. The inclusion of a large-scale retail development such as Wal-Mart or destination retail such as a Bass Pro shop at the I-80 Interchange was added to gauge the traffic impacts that would be anticipated if a major retail store was constructed in the interchange area. Given the accessibility afforded by an interchange along an Interstate coupled with the proximity of I-79 to the east, such development would be feasible if the proper infrastructure were in place and economic conditions improved. This scenario was developed to determine what additional improvements would be necessary beyond Scenario 3 with the additional development. The level of traffic generated under Scenario 4 produces higher traffic volumes and has a higher associated impact on traffic operations especially for unsignalized intersections (Table 15, Figures 26 & 27).

Table 15: LOS Table for 2030 Scenario 4 Conditions

| Signalized Operations | | Number of Existing Intersections |
|-------------------------|----------------------------|----------------------------------|
| Acceptable | Overall LOS A, B, or C | 1 |
| Marginal | Overall LOS D | 0 |
| Failing | Overall LOS E or F | 4 |
| Unsignalized Operations | | Number of Existing Intersections |
| Acceptable | Side-Street LOS A, B, or C | 9 |
| Marginal | Side-Street LOS D | 1 |
| Failing | Side-Street LOS E or F | 9 |

Note: Additional study intersections include Butler Street at Pitt Street and future development driveway at US Route 19

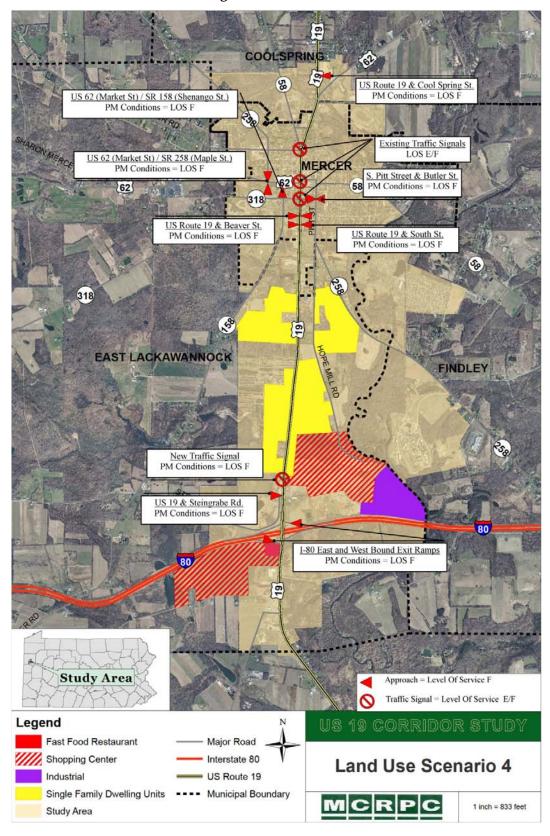


Figure 25: Scenario 4

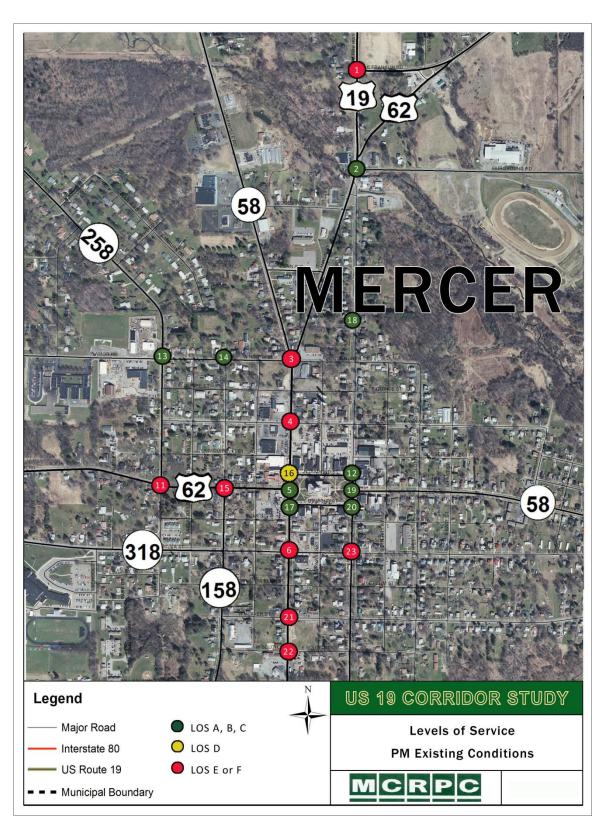


Figure 26: Mercer Borough Level of Service PM – Scenario 4

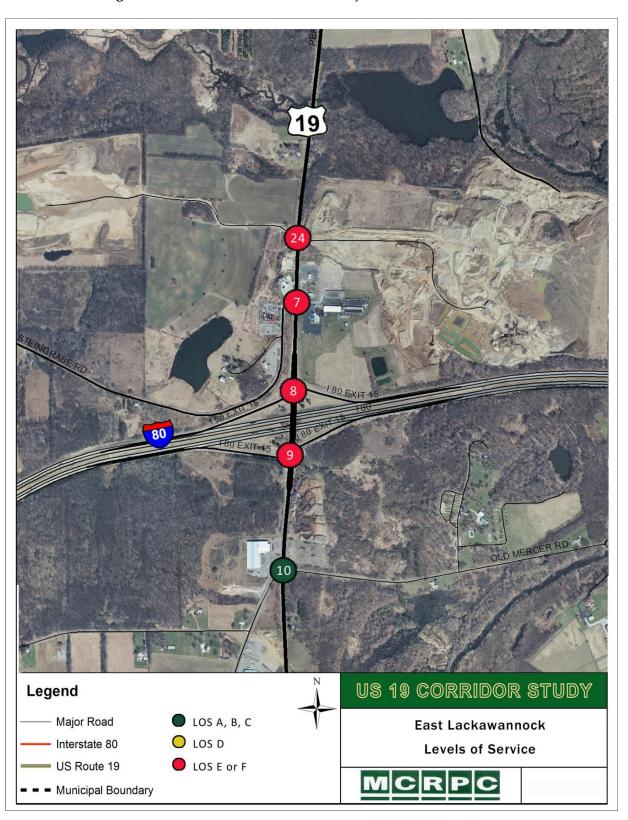


Figure 27: East Lackawannock Level of Service PM – Scenario 4

Under Scenario 4, traffic operations at three signals located on US Route 19 in Mercer Borough would operate at a LOS E/F. The intersection of US 62 / Market Street and SR 258 / Maple Street declines to a LOS F for both the northbound and southbound approaches of Maple Street to US 62.

- 1. The operations of the intersections of US Route 19 at Beaver Street and US Route 19 and South Street declines to a LOS F
- 2. Increased traffic levels on Pitt Street under Scenario 4 create a failing operational level of service at the intersection of Butler Street and South Pitt Street
- 3. Vehicles exiting Steingrabe Road onto US Route 19 experience increased delays, which results in a LOS F at this intersection primarily due to the additional retail development assumed under Scenario 4
- 4. Traffic levels rise at both I-80 exit ramps onto US Route 19 and create failing approaches for both the east and west bound exit ramps

Land Use Conflicts

To understand potential consequences associated with the projected land use scenarios, the Land Use Conflict Identification Strategy (LUCIS), which was developed by Professors Margaret Carr and Paul Zwick of the University of Florida, was applied (shown in Figure 17). LUCIS applies a basic premise that all land uses have intrinsic value that can be objectively quantified. For the purpose of the US Route 19 Corridor Study, three different land use classifications were considered:

- 1. **Conservation** the conservation classification was largely focused on environmental concerns, primarily flood plains and wetlands. This classification was also given to parcels where there was great importance that the use of the parcel should not change regardless of actual use.
- 2. **Urban** the category was divided into four sub categories; residential, industrial, business (offices), and commercial (retail).
- 3. **Agricultural** this category was split into two sub-groupings, crop farming and forestry.

All 1,200 parcels in the study area were rated in all land use categories and subcategories on a scale of one to five, with a ranking of one meaning that that development type would never happen, two representing that it was unlikely to happen, three was neutral, four that it may occur, and five was the assumption that it definitely would occur.

Once the parcels had been rated, a combined score of the three land uses was used to create a conflict score. Any total of nine or below was ignored. This represented an average of three (neutral) in each category. A numerical score of ten and eleven represents a minor potential conflict. A total of 23 of the nearly 1,200 study area parcels were so ranked. Scores of 12 and 13 are a bit more problematic, representing a moderate conflict potential. In those instances at least two of the three categories had a score of four or above, meaning the land was useful for a multitude of purposes. A total of six parcels rated a score of 12 and one was rated at 13. The final classification, major conflict, where the parcel has a conflict score of 14 or 15, was very rare in the analysis. One parcel was rated at 14 and none had a full 15 rating.

The two parcels with the highest potential conflict score (the parcels rated 13 and 14) include Plantation Park located on SR 58 in Findley Township, and a former campground located just west of US Route 19, south of I- 80. Both parcels border Neshannock Creek, have large stands of timber, and are currently developed to the point where they could readily handle both residential and commercial uses. Yet these two parcels, at least in the near term, are unlikely to change substantially, and, as they are large parcels, a mixture of the three uses can coexist without conflict unless intense new development was to occur.

Several of the parcels targeted as potential development locations in scenario planning have minor to moderate conflict scores. This is because these parcels are currently agriculturally oriented, primarily crop farming, but are also readily developable for at least low density urban uses. If public utilities such as sewerage would be made available to these parcels, it is likely that moderately intense urban development would occur. Some of these parcels also have wetland concerns, which raise the conflict scores higher. These parcels primarily front on US Route 19, but also have access to SR 158 and Hope Mill Road as well as SR 258. Because of the location, access and physical attributes of the land, these parcels have a more credible chance for change in land use than the two higher scoring parcels.

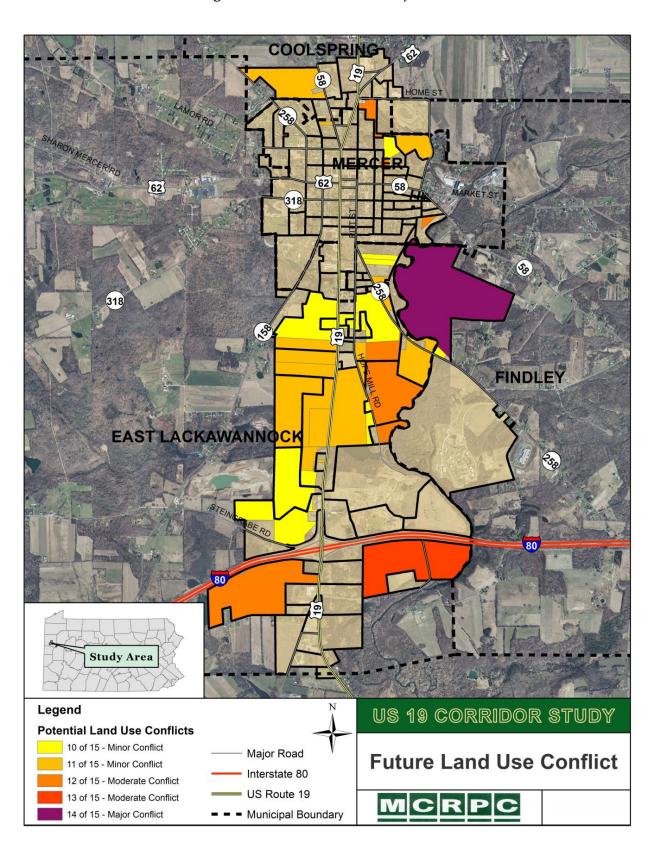


Figure 28: Future Land Use Conflict

4.0 Alternatives Analyses and Implementation Plan

Both land use and transportation alternatives were developed to meet the project's goals and objectives. The alternatives were then presented to the PAC, the community stakeholders, and the general public, to determine a set of locally preferred alternatives that will help them address existing deficiencies and achieve their long term vision for the corridor.

Land Use Alternatives

A variety of community planning tools exist to help Mercer Borough and East Lackawannock Township meet the project goals and objectives and achieve land use Scenario 3B (sewer extension from the Borough to I-80 with Smart Growth). Local governments have a variety of options available to control both use and development styles depending upon community goals for the future. For instance, the Township has more undeveloped land along US Route 19 than the borough and should employ different methods to achieve their goals such as the development of the I-80 interchange and land use patterns that allow interconnections and reduce unnecessary access points along the corridor. Conversely, the Borough must focus on appropriate infill development and aesthetic considerations to preserve the Victorian-era structures in Mercer, which should be viewed as a regional asset and not just a Borough resource.

Both regulatory and voluntary methods were explored to help the Borough and Township achieve their goals. Concepts presented to the public, stakeholders and PAC included zoning amendments, tax incentives, façade improvement programs, historic designation, the enactment of an official map, and access and parking management strategies. Based upon the land use goals of the communities, input from the public, and guidance from the PAC, locally preferred recommendations were identified. The following section summarizes the options explored.

Recommendations include actions to encourage appropriate infill development within the Borough and suitable new development patterns in the Township

Zoning

Zoning Amendments

Both Mercer Borough and East Lackawannock have enacted zoning ordinances and can use these as tools to achieve their goals for the future development of the project area. Specific recommendations for each municipal ordinance are included in Appendix A and address aspects such as access management for US Route 19, suitable new development for the Township, and encouraging appropriate infill development for the Borough.

Community preservation was a commonly heard theme throughout the study process and therefore it will be important for the elected officials to understand that Zoning Ordinance updates should focus on maintaining the traditional small town atmosphere of Mercer Borough while protecting the agricultural heritage and supporting economic development goals for development at the interchange in East Lackawannock Township. In summary, recommended land use regulations include:

❖ Buildings in the retail core should maintain the "street face" by keeping buildings close to the sidewalk with parking at the rear or side of buildings

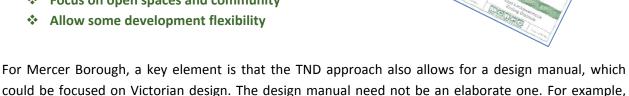
- Within the downtown area, residential uses should be encouraged for upper floors in order to maintain the integrity of the commercial main street
- Traditional neighborhood standards should be applied in the districts surrounding the commercial core
- Design standards for landscaping and lighting should be considered especially within the commercial core
- Access management standards should be applied along US Route 19

This recommendation meets the project's goals and objectives and is supported as the locally preferred alternative.

TND - Traditional Neighborhood Development District

This is a zoning element (Article VI) but is governed by Article VII-A of the Planning Code. Its purpose is to allow flexibility of development, especially in urban areas, and it can be either a separate zoning district or an overlay zone. Benefits include:

- Walkable, connected neighborhoods, requiring less vehicle travel
- Mixed-use development
- * Retaining residents and providing housing options
- Focus on open spaces and community



photos of local buildings that are good examples of that era could be used. It should provide a clear understanding of what the criteria developers should follow. This process also allows for a voluntary sketch plan presentation to encourage early interaction between the developer and the community. Sketch plans are less detailed than preliminary and final plans and most often include conceptual aspects of the development or subdivision, which allows the developer and municipality to discuss the project early on before significant expense is involved in finalizing the plan.

As East Lackawannock Township has no subdivision and land development ordinance of its own, the TND approach is the most practical way to guide quality residential development along the Route 19 corridor. A TND could be adopted as a regular zoning district or as an overlay zone, at the option of the Township and would be recommended for the area of either the "Winger property" or the "Tree Farm" (Kraynak) property, or perhaps both. This proposed TND amendment for the Township is blended with the TND concepts suggested for Mercer Borough, with a noticeable exception. Primarily, it is residential in nature only. Given the proximity of existing commercial areas in both the Township and the Borough, a mixed-use development is not warranted.

Special Note: During the 2010 Legislative Session the Pennsylvania General Assembly adopted Act 111. It will become effective in January of 2011. The act allows communities to also adopt TNDs and TND design manuals in the SALDO. For Mercer Borough this is yet another land use option, the Township does not have its own SALDO (See Sections 702-A and 708-A of the amended article).

This recommendation meets the project's goals and objectives and is supported as the locally preferred alternative.

Applying principles of Traditional
Neighborhood Development would help
the Borough and Township to achieve
the desired development scenario and
enhance community character.

Historic District Zoning

Historic zoning is another option available to local governments that desire to preserve historic resources. Through zoning, a municipality can control the use of the building and does not have to follow the procedures required to establish Historic Districts but rather would adhere to those authorized by the Pennsylvania Municipalities Planning Code (PA MPC), which provides for the zoning of "areas of historic significance" [Section 603(c) (7)]. Normally, zoning provisions include:

- **A** list of the historic resources
- **Standards for construction, additions, or demolitions**
- An advisory board
- Processing

Some care is needed to not delegate zoning powers. The advantage of this approach is that it can be integrated into an existing ordinance and does not represent a new layer of regulations. It would be adopted similar to any zoning amendment and could be either a standard or an "overlay" district.

This recommendation does meet the project's goals and objectives but was not supported as the locally preferred alternative.

Enhance Community Character

Throughout the study process, residents and business owners expressed their appreciation for the small-town atmosphere and quality of life in Mercer Borough and East Lackawannock Township and desire to further enhance the character of their community. A variety of possible methods were explored to encourage improvements to existing and future businesses and homes within the project area. However, it was clearly noted during meetings and through survey responses that incentives are preferred over regulatory methods to enhance community character. Elected officials also stated their preference to introduce incentives to encourage façade improvements rather than mandate specific design standards.

LERTA

The Local Economic Revitalization Tax Act (LERTA) was created to improve the economic and business climate of designated residential and commercial districts by lessening the tax burden on new development. LERTA allows municipalities, school districts, and counties to abate real estate taxes on assessable improvements within identified areas. There are specific steps needed to designate a LERTA district which include the presence of real estate that has been formally declared deteriorated, following criteria set forth in the State law. The exemption can be up to ten years; but, most communities opt for graduated steps over a shorter period. This approach calls for the cooperation of all taxing bodies and that of the County Assessor's Office. However, it is doubtful that LERTA can be legally tied to design requirements, so it would need to be used in concert with one of the approaches listed next.

This recommendation meets the project's goals and objectives but was not supported as the locally preferred alternative.

Tax Credits

Research has shown that the preservation of historic buildings can have economic benefits for communities. Through the federal and state Rehabilitation Tax Credit programs, property owners can receive substantial incentives for private investment in preservation. The Federal law allows up to a 20% tax credit relative to the rehabilitation of income-producing historic structures. This program has been widely used in Pennsylvania, with over 2,000 projects valued at \$3.9 billion since 1976. The Pennsylvania Historical and Museum Commission serving as the State Historic Preservation Office, administers the federal Rehabilitation Investment Tax Credit (RITC) program in partnership with the National Park Service (NPS) and the Internal Revenue Service (IRS). There are specific standards that must be followed and additional information, tax application forms, and instructions are available from the Bureau for Historic Preservation, which may be contacted in writing at Commonwealth Keystone Building, 400 North Street, Harrisburg, PA 17120 or by telephone at (717) 783-8946 or at http://www.portal.state.pa.us/portal/server.pt/community/phmc home/1426.

This recommendation meets the project's goals and objectives but was not supported as the locally preferred alternative.

Façade Improvement Program

The purpose of a Facade Improvement Program is to encourage property owners to improve the appearance of their buildings. Traditionally the Commonwealth dedicated funding and supported programs to assist municipalities implement façade programs in Pennsylvania. Available programs included Main Street and Elm Street, which offered low-interest loans or grants to property owners to help with the cost of improvements. The program can be tied to design criteria, which would help Mercer Borough achieve the goal of enhancing community appeal. The Department of Community and Economic Development (DCED) administered both the Main Street and Elm Street Programs, but funds have been dramatically reduced due to the State's current financial problems. More information can be accessed at the DCED website at http://www.newpa.com/.

This recommendation meets the project's goals and objectives and is supported as the locally preferred alternative.



Mercer streetscape

Creation of a Historic District

Governing bodies are authorized to protect the distinct historic character of their communities through Act 167 of 1961, which empowers local municipalities to create one or more historic districts within their boundaries. Through this legislation, municipalities can regulate the erection, reconstruction, alteration, restoration, or demolition of buildings within the historic district. The Pennsylvania Historical and Museum Commission (PHMC) can offer guidance in that process, and has published a booklet, "Historic Districts in Pennsylvania" to that end.

Generally, these steps are followed:

- 1. Complete the Historic Survey form (form available from PHMC)
- 2. Submit completed form to PHMC
- 3. Schedule a visit from PHMC staff to review the proposed district
- 4. Submit a draft historic district ordinance to PHMC staff
- 5. Work for public acceptance
- 6. Enact the ordinance
- 7. Submit a certified copy of the ordinance to PHMC
- 8. The PHMC needs to approve local adoption before it can become effective
- 9. Appointment of a local Historical Architectural Review Board (HARB) that must have an architect, licensed real estate broker, and code officer as members (minimum Board size is 5)

The writing of the ordinance is a key element. As this approach can involve some specific regulations on properties, it is important that the affected property owners "buy" into this concept. There are certain requirements that must be followed and additional information is available from the Bureau for Historic Preservation, which may be contacted in writing at Commonwealth Keystone Building, 400 North Street, Harrisburg, PA 17120 or by telephone at (717)783-8946 or at http://www.portal.state.pa.us/portal/server.pt/community/phmc_home/1426.

This recommendation meets the project's goals and objectives but was not supported as the locally preferred alternative.

Official Map

Authorized by the PA MPC, Article IV, the Official Map is a tool that allows a municipality to identify public lands and facilities identified by a Comprehensive Plan that has been adopted as per Article III, Section 302. Public facilities include existing and proposed streets – including widening – and pedestrian ways and easements. The Official Map is enacted by ordinance and is essentially a declaration that these areas may be needed to protect and promote the health, safety, and welfare of residents. The benefit of an Official Map is that it provides a means to legally reserve land for public use thereby delaying development of this site for a period of one year.

Municipalities facing development pressures or that are concerned with particular transportation issues similar to those identified through the US Route 19 Corridor Study would benefit from an Official Map. This regulatory option would be applicable to East Lackawannock in particular to support the recommendations and potential improvements associated with Scenario 3. With an Official Map, the Township can support the development of the County-Owned land located at the I-80 interchange. Aspects such as the pedestrian facilities, paving the shoulders of State Route 158, or the new connector road to Hope Mill Road would each be appropriate to identify through an Official Map.

The Official Map should not be confused with a taking of land from private ownership, but rather it allows the municipality to convey their future development goals and establish the means by which this can occur. The Department of Community and Economic Development (DCED), Center for Local Government Services can provide technical assistance to municipalities that wish to investigate this option further. Contacts and additional information can be accessed at the DCED website at http://www.newpa.com/.

This recommendation meets the project's goals and objectives and is supported as the locally preferred alternative.

An official map will provide the legal means to reserve land for a future road connection linking US Route 19 and Hope Mill Road.

Access Management

Access Management tools support improved traffic patterns and reduce the likelihood of vehicle crashes. Successful access management strategies include (source: http://www.accessmanagement.info FHWA Document Number FHWA-OP-03-066):

- Increasing spacing between signals and interchanges;
- Driveway location, spacing, and design;
- Use of exclusive turning lanes;
- Median treatments, including two-way left turn lanes (TWLTL) that allow turn movements in multiple directions from a center lane and raised medians that prevent movements across a roadway;
- Use of service and frontage roads; and
- Land use policies that limit right-of-way access to highways

Both Mercer Borough and East Lackawannock Township could benefit from these techniques and specific suggestions for amendment updates can be found in Appendix A.

This recommendation meets the project's goals and objectives and is supported as the locally preferred alternative.

Parking Management

The availability of parking was repeatedly identified as a priority concern by residents and business owners. Public input revealed a concern about parking availability, especially in the central business district and at locations surrounding the courthouse. The ability to establish an authority is given under the Municipality Authority Act of 1945. An authority is an entity established separately from the municipal governing body and acts independently of the municipality. An authority has many powers including the ability to own land, borrow money, or issue bonds to finance projects. The Department of Community and Economic Development (DCED), Center for Local Government Services can provide technical assistance to municipalities that wish to investigate this option further. Contacts and additional information can be accessed at the DCED website at http://www.newpa.com/. It is recommended that the Borough continue exploring the feasibility of establishing a Parking Authority to oversee and better manage parking for the municipality.

This recommendation meets the project's goals and objectives and is supported as the locally preferred alternative.



Borough Parking



Parking around Courthouse Square

Transportation Alternatives

Based on the outcomes of the scenario planning process transportation alternatives were evaluated that will accommodate the planned future growth while meeting the project's goals and objectives. Public perceptions of existing conditions and support for specific alternatives were determined during public meetings, stakeholder interviews, agency coordination, and Project Advisory Committee meetings.

The alternatives were grouped into the following categories:

- Traffic Congestion
- **Safety Improvements and Upgrades**
- Heavy Truck Conflicts
- Multimodal Improvements

The key steps in the development and evaluation of alternatives included:

- 1. Understanding the Context
- 2. Determining the Needs
- 3. Defining the Project Purpose
- 4. Screening the Alternatives
- 5. Involving Agencies and the Public

Traffic Congestion

The purpose of these alternatives was to reduce travel time and delay and improve access to the central business district, improve traffic patterns and reduce conflicts, and improve incident management for detours from I- 80. The following problems were addressed:

- **❖** The existing traffic signals along US Route 19 are not coordinated and cause unnecessary traffic delays, particularly during detours from I-80.
- ❖ The existing 5-legged intersection of US Route 19/US Route 62/SR 58/North Street is the most congested intersection in the study area.
- ❖ The existing configuration of the one-way pair of North and South Diamond Streets creates delay for traffic, particularly for travelers from North Diamond Street who turn onto westbound US Route 62.
- ❖ Transportation improvements that will be needed to accommodate the preferred land use scenario while maintaining the study area's quality of life.

Existing Traffic Signals (TC-1)

Coordination of the four traffic signals along US Route 19 was identified as a long term improvement in the 2007 Pennsylvania Regional Operations Plan for the Nortwest Region. This project will reduce traffic delay along US Route 19 within Mercer Borough and help mitigate the traffic impact of I-80 detours. The pros would be reduced congestion along US 19 and the cons would be the cost to upgrade existing traffic signal equipment. This project meets the project's goals and objectives and is a locally preferred alternative.

5-Legged Intersection (US 19/US 62/SR 58/North Street) (TC-2)

For the existing 5-legged intersection, five different alternatives were evaluated to reduce congestion and accommodate future growth along the corridor: (1) no build (2) retime the signal (3) retime the signal and add a turn lane on the southbound US Route 19/US Route 62 approach (4) retime the signal and make West North street one-way away from US Route 19, and (5) retime the signal and make East North Street one-way away from US Route 19 plus prohibit left turns from US Route 19 onto West North Street.

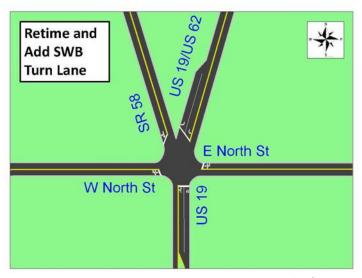
For Option 1 (no build), the pros would be no right of way impacts, construction costs, or community/business impacts. The cons would be no reduction in congestion. This alternative does not meet the project's goals and objectives.

For Option 2 (retime the signal), the pros would be no right of way impacts or physical changes, no community/business impacts, and less congestion at the US19/US62/SR58/North Street intersection. The cons would be a continuation of unacceptable operations. This alternative does not meet the project's goals and objectives.



Option 1 & 2

For Option 3 (retime the signal and add a turn lane on the southbound US Route 19/US Route 62 approach) the pros would be reduced congestion to an overall LOS D under the preferred land use scenario. The cons would be right of way impacts, construction cost, and community/business impacts. This alternative meets the project's goals and objectives.



Option 3

For Option 4 (retime the signal and make West North street one-way away from US Route 19) the pros would be no right of way impacts or physical changes, minimal community/business impacts, and reduction in congestion to an overall LOS C. The cons would be potential traffic diversion to neighboring roadways and impacts to school traffic on West North Street. Also, the eastbound left turning traffic on West North Street would most likely divert Venango Street and would result in additional congestion along Venango Street. This alternative meets the project's goals and objectives.



Option 4

For Option 5 (retime the signal and make East North Street one-way away from US Route 19 plus prohibit left turns from US Route 19 onto West North Street) the pros would be no right of way impacts or physical changes, minimal community/business impacts, and reduction in congestion (overall LOS D). The cons would be potential traffic diversion to neighboring roadways. This alternative meets the project's goals and objectives.



Option 5

Based upon input from the public and PAC, Option 5 was the locally preferred alternative.

North and South Diamond Streets (TC-3)

To mitigate the deficiencies at North and South Diamond Streets, three alternatives were studied: (1) no build, (2) Signalize both North and South Diamond Streets and (3) Switch the direction of traffic on North and South Diamond Streets. These alternatives were evaluated from an operations perspective using the projected traffic volumes from the preferred land use scenario.

For Option 1 (no-build), the pros would be no right-of-way impacts or construction costs. The cons would be no reduction in delay and the continuation of the difficulty turning from North Diamond Street onto US Route 62 westbound. This alternative does not meet the project's goals and objectives.

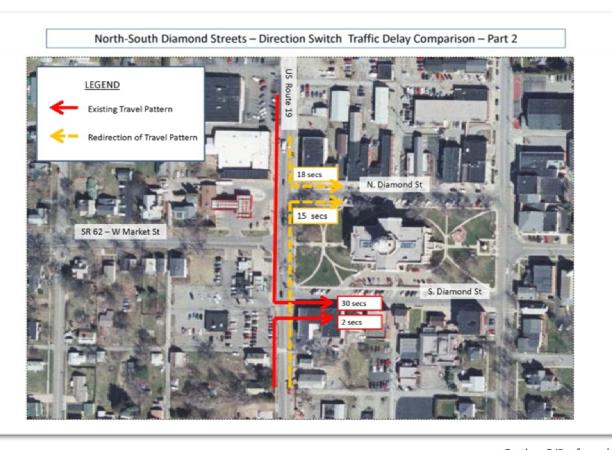
For Option 2 (North and South Diamond Street Signals) the pros would be facilitation of traffic moving from North Diamond Street onto US Route 62 westbound. The cons would be excessive queuing that would result from having three very closely spaced traffic signals. For example, traffic heading northbound during the PM peak hour along US Route 19 at the intersection of South Diamond Street and US Route 19 would extend past Butler Street. The congestion would also nearly double on US Route 62 heading eastbound, US Route 19 heading southbound, and along North Diamond Street heading westbound. This alternative does not meet the project's goals and objectives.



Option 2

Option 3 (Switch the direction of traffic on North and South Diamond Streets) North Diamond Street would be one way eastbound (away from US Route 19) and South Diamond Street would be one way westbound (toward US Route 19). The pros would be an improvement in safety and delay for traffic from Diamond Street to US Route 62 (traffic would make a right turn onto US Route 19 rather than a left turn) and reduction in delay for most traffic. The new travel times from the switch would be as follows:

- US 62 to Diamond Street decreases from 54 seconds to 38 seconds
- Diamond Street to US 62 decreases from 42 seconds to 25 seconds
- US 19 Southbound to Diamond St decreases from 30 seconds to 18 seconds
- US 19 Northbound to Diamond St increases from 2 seconds to 15 seconds



Option 3/Preferred

The cons would include the cost of construction and short term driver confusion as motorists adjust to the change in direction. This alternative meets the project's goals and objectives.

Based upon input from the public and PAC, the switching of the direction of traffic on North and South Diamond Streets was the locally preferred alternative.

Transportation Improvements for Locally Preferred Land Use Scenario (TC-5)

Additional traffic improvements were identified in order to accommodate the locally preferred land use scenario with minimal impact to the study area quality of life:

❖ Beaver Street and South Street at US Route 19 – Add two way left turn lane along US Route 19
The pros would be reduced delay for side street vehicles and the cons would be construction and potential right of way acquisition costs. These alternatives do meet the project's goals and objectives and are locally preferred alternatives.

The intersection of US Route 62 at North Maple Street was identified as an intersection that needs an exclusive eastbound left turn lane for acceptable side street Levels of Service. The pros would be reduced congestion and the cons would be construction and right of way acquisition costs. The option was presented to the public, and it was determined that the cons outweighed the pros. Future monitoring of the intersection for possible traffic signal installation was preferred.

Safety Improvements and Upgrades

The crash history for the past three years was reviewed and first responders were interviewed at stakeholders meetings in order to determine points of conflict and safety concerns at intersections. The following locations were identified as safety concerns along the corridor:

- ❖ The US Route 19 intersection with Mercer-New Castle Road and Old Mercer Road in East Lackawannock Township has limited sight distance and was identified by the Amish community as their top safety and operational concern along the corridor.
- ❖ The intersection of Butler Street and Pitt Street has sight obstructions and was identified as an intersection of concern by local law enforcement and emergency responders.
- The intersection of Steingrabe Road and US Route 19 was identified by the public, local businesses, and local law enforcement as an intersection of concern. Confusing traffic patterns, various points of access, and sight obstructions contribute to potential distractions, which can lead to crashes.

Mercer-New Castle Road and Old Mercer Road at US 19 (SI-1 & SI-2)

The alternatives that were studied include: (1) no build, (2) installing a flashing beacon and signs, (3) prohibiting turns from New-Castle Mercer Road and Drake Road and install median along US Route 19 to allow U-turns for Old Mercer Road, (4) Prohibit left turns from using New-Castle Mercer Road and Drake Road and realign Old Mercer Road, (5) reconstruct US Route 19 to improve sight distance.

For Option 1 (no build), the pros would be no right of way impacts or physical changes. The cons would be that the intersection will still pose a safety hazard. This alternative does not meet the project's goals and objectives.



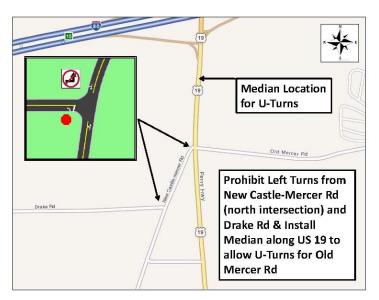
Option 1

For Option 2 (install flashing beacon and signs), the pros would be a modest improvement in safety and reduction in vehicle conflicts. The cons would be minor to moderate cost. This alternative does not meet the project's goals and objectives.



Option 2

For Option 3 (turn restrictions), the intersection of New Castle Mercer Road, left turns would be prohibited at both New Castle-Mercer Road and Drake Road onto US Route 19, right turn access would only be allowed from New Castle-Mercer Road, and left turning traffic would be re-routed to the southern connection of New Castle-Mercer Road and US Route 19. At the intersection of Old Mercer Road, left turns would be prohibited from Old Mercer Road and a median would be installed along US Route 19 south of the I-80 ramps to allow left turning traffic on Old Mercer Road to turn right and U-turn to head southbound. The pros of this alternative would be an improvement in safety at the intersection and reduction in conflicts. The cons would be moderate to high costs, driver confusion, and added travel time for motorists. This alternative does not meet the project's goals and objectives.



Option 3

For Option 4 (Prohibit left turns from using New-Castle Mercer Road and Drake Road and realign Old Mercer Road) at the intersection of New Castle Mercer Road, left turns would be prohibited at both New Castle-Mercer Road and Drake Road onto US Route 19 re-routed to the southern connection of New Castle-Mercer Road and US Route 19. Old Mercer Road would be realigned to the southern connection of New-Castle Mercer Road and US Route 19. This would simplify the intersection and improve sight distance. The pros of this alternative would be improvement in safety. The cons would be moderate to high costs and environmental impacts. This alternative meets the project's goals and objectives.



Option 4

For Option 5 (reconstruct US Route 19 to improve sight distance), the sight distance at the intersection of US Route 19 with New Castle-Mercer Road/Old Mercer Road would be improved by reconstructing US Route 19 to reduce the rise in the road. The pros would be that all turning movements are allowed as

they are today and the overall safety of the intersection would be improved. The cons would be a high cost and environmental impacts. This alternative meets the project's goals and objectives.



Option 5

The fourth and fifth options were the locally preferred alternatives to mitigate. Further study should occur during preliminary design to determine which option has the least impact and is the most cost effective solution once right-of-way and utility costs are determined.



Butler Street and Pitt Street (SI-3)

The intersection of Butler Street and Pitt Street has sight obstructions and was identified as an intersection of concern by local law enforcement and emergency responders. An all-way stop is recommended at this intersection. The pros would be a safer intersection and reduction in side street delay in the future. The cons would be short-term driver confusion. This alternative does meet the project's goals and objectives and is a locally preferred alternative.

Steingrabe Rd at US Route 19 (SI-4)

The intersection of Steingrabe Road and US Route 19 was identified by the public, local businesses, and local law enforcement as an intersection of concern. Short term improvements such as removal of signs and bushes were presented to the public as ways to improve sight distance. Further detailed investigation is recommended to identify appropriate improvements for this intersection as the area develops. Possible improvements could be new signing and pavement markings, rumble strips, a flashing warning device, intersection flashing beacon, or traffic signal.

Heavy Truck Conflicts

Several alternatives were evaluated to determine the most efficient travel patterns for heavy trucks through the study area. The largest sources of truck conflicts are trucks accessing SR 158 southwest of Mercer Borough and SR 58 east of Mercer Borough from the I-80 interchange. Trucks following the existing truck routes have difficulty making turns at intersections that were not constructed to handle heavy truck traffic. Trucks making these turns create congestion and noise and degrade the quality of life for businesses and residents.

Truck Route from US 19 to SR 58 (Market St) (HTC-1)

In this group, multiple alternatives were identified as potential truck routes from US 19 to SR 58. The alternatives included: (1) No-Build with the Truck route to SR 58 via South Diamond Street and Pitt Street, (2) Truck route to SR 58 via Beaver Street and Pitt Street, and (3) Truck route to SR 58 via Butler Street and Pitt Street.

For Option 1 (no-build) the pros would be no additional improvements since that is the current truck route for trucks traveling to and from the I-80 interchange. The cons would be that heavy vehicle traffic will still be present in the center of town where pedestrian traffic is heaviest near the courthouse and congestion problems that will remain from heavy truck traffic have not been resolved. This alternative does not meet the project's goals and objectives.

For Option 2 (truck route to SR 58 via Beaver Street and Pitt Street), the pros would be less truck traffic traveling through the center of Mercer Borough and less congestion and noise from heavy vehicles. The cons would be additional truck traffic on residential roadways, disrupting the nature of private neighborhoods. This alternative does not meet the project's goals and objectives.

For Option 3 (truck route to SR 58 via Butler Street and Pitt Street), the pros would be less truck traffic traveling through the center of Mercer Borough and less congestion and noise from heavy vehicles. The cons would be construction costs associated with the improvements needed at the corners of Butler Street and Pitt Street to accommodate heavy truck traffic. This alternative meets the project's goals and objectives and is a locally preferred alternative.

Truck Route to SR 158 via Steingrabe Road (HTC-2, HTC-3)

Two alternatives were identified for the truck route along SR 158 via Steingrabe Road. Both options include the upgrade of Steingrabe Road to accommodate heavy truck traffic. The differences between both options is that one maintains the current alignment of Steingrabe Road and US 19 and the other realigns Steingrabe Road to a location further north for better sight distance. The options range in price from \$3.5 to \$4.4 million dollars. The pros are more effective travel patterns for heavy truck traffic with a reduction in truck traffic and noise in downtown Mercer Borough and the cons are high construction costs. These alternatives meet the project's goals and objectives and are locally preferred alternatives. Additional study will be needed to determine the preferred alignment during preliminary design once information on utility and right-of-way costs and environmental impacts are determined.

Multi-Modal Improvements

In order to improve the maintenance and connectivity of the sidewalk network, reduce congestion, and enhance access to the central business district for pedestrians and bicyclists a variety of multi-modal alternatives were considered. Multimodal improvements are needed to improve connectivity and accessibility for alternative modes of travel and safety for horse-drawn buggy traffic. The lack of shoulders on state routes does not provide sufficient cart way to accommodate horse-drawn buggies and motorized vehicles. Pedestrians and bicyclists travel state routes, but there are no supporting amenities, which contributes to potential conflicts with motorized vehicles. The following problems were addressed and alternatives to address these multi-modal improvements were presented to the public (Figure 29):

- Walt's Grocery Store is located approximately 500 feet north of the Mercer Borough border and is where the majority of Mercer Borough residents shop for food. The grocery store is inaccessible for pedestrians because it lacks sidewalk connections to the borough. (MM-1)
- Mercer Borough has an existing sidewalk network with substandard or deteriorating surfaces (present in over 50 percent of the five block area surrounding the Courthouse), which creates unsafe travel for pedestrians and limits mobility. (MM-2)
- Pedestrians currently walk on US Route 19 to access the Dairy Queen, which creates conflicts with motorized vehicles. (MM-3)
- Mercer Borough has missing sidewalk segments, which limits pedestrian mobility. (MM-4)
- To access Mercer Borough, the Amish population travels SR 158, which has shoulders that are
 less than two feet in width and does not provide sufficient width to accommodate slower
 moving traffic such as horse drawn buggies or pedestrians. (MM-5) As an alternative a multi-use
 path could also be constructed.
- Hope Mill Road is used as an informal Hiker/Biker Trail but does not have adequate width to allow pedestrians and/or bicyclists to travel the road when motorized vehicles are present. (MM-6)

Sidewalks

Sidewalk repairs should be prioritized to repair or fill in the gaps in areas closest to where the majority of services are located first, which is the commercial core. Coordination with utility placements, storm water upgrades, or roadwork will allow for cost effective construction of sidewalks.

The sidewalk network ends at the borough lines both north and south along US 19. This highlights two major missing links that were highlighted by project stakeholders and the public: connections to the Dairy Queen south of town and Walt's Grocery Store north of the Borough.



Pedestrians in Borough

Improving the sidewalk and trail network would remove between 150 – 200 vehicles from the road and reduce automobile delay by over 10% during the evening rush hour.

Multi-Use Paths along Existing Roadways

Multi-use paths that allow bicyclists and walkers to travel safely are oftentimes more appropriate in townships than a sidewalk due to lower construction costs, ease of maintenance, and stormwater management issues. For instance, a multi-use path extending through the Township from the Borough line to the Interchange would create a recreational opportunity and link the borough's commercial core and residential neighborhoods with the businesses along US 19. A multi-use path or sidewalk could be installed parallel to US Route 19, which would provide positive, physical separation between vehicles and walkers / bicyclists. This would also improve safety and create opportunities for landscaping or other aesthetic improvements. The multi-use path can be incorporated into the Township's zoning ordinance as a requirement for new construction or reconstruction along US 19 from Mercer borough to the I-80 interchange.



Jogger in Township

To meet the public's stated desire for additional opportunities for recreational walking, multi-use paths were evaluated along US Route 19, Hope Mill Road, and SR 158. Construction aspects would be the same for each of these. Based upon feedback from the corridor's Amish community, an additional benefit from a multi-use path would be the removal of Amish traffic from the vehicle cartway since most Amish would use the trail for their buggies.

An off road trail for pedestrian and bicycle travel similar to the Multi-Use Path / Sidewalk option was

also evaluated. This option is notably different as the trail itself would not parallel any particular roadway and would function more for recreation or local access purposes than for continuous end-to-end travel. This concept is most appropriate to correspond with future preservation efforts for the large wetland area along Beaver Run between SR 158 and Neshannock Creek.

Bicycle

US Route 19 is one of seven designated PA Bicycle Routes. Route A follows US 19 for 199 miles beginning in the south at the Greene County line and extending north to Erie County. Bicycle Route A connects to Route Z, which follows the Erie Shoreline to Presque Isle State Park, connecting to the Seaway Trail — a Pennsylvania National Scenic Byway. US Route 19 through the project area has paved shoulders and offers adequate spacing for cyclists traveling on Bicycle Route A.



Bicyclist on State Route

Identified improvements such as the multi-use paths and paving shoulders along State Route 158 or Hope Mill Road will enhance the existing bicycle network (Route A) and offer complementary connections to area attractions. Future efforts to improve conditions for bicyclists can be as simple as ensuring that the shoulders are paved and striped to allow room for cyclists to avoid vehicles – similar to the segments of the existing route in place today.



PA Bike Route A

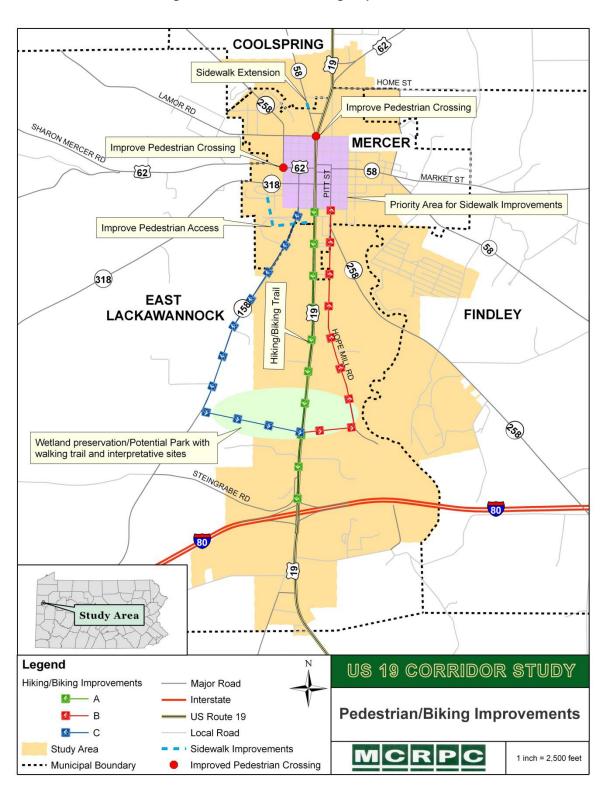


Figure 29: Pedestrian/Biking Improvements

Multimodal Locally Preferred Alternatives

Based on the problems identified, the following locally preferred alternatives were chosen by the public and PAC to address the multimodal problems listed above:

- Repair deficient sidewalks (MM-2)
- Construct new sidewalks to complete pedestrian network (MM-4)
- Construct sidewalk to Walt's grocery store (MM-1)
- Construct sidewalk to Dairy Queen (MM-3)
- Revise Township Zoning Ordinance to require developments to construct a multi-use trail along US 19
- Widen shoulders on SR 158 from Beaver Street to I-80 (MM-5)
- Construct hiker/biker trail on Hope Mill Road (MM-6)

The pros of these alternatives are that they provide connections to desired destinations and a means for the public to travel without using their vehicles. The cons would be the costs associated to construct these connections, ranging anywhere from \$60k to \$1.7 million. These alternatives meet the project goals and objectives.

Implementation Plan

The US Route 19 Corridor Study applied FHWA/FTA procedural guidance to link community planning to the National Environmental Policy Act (NEPA) process. The purpose of linking planning to NEPA is to facilitate the project development process, involve the public and stakeholders early, reduce project development costs, and reduce unforeseen circumstances that can delay projects.

The recommendations were prioritized (Table 16 and Figures 30 & 31) first based upon need and then ease of implementation. The implementation plan includes an opinion of probable cost (Table 16 and Appendix D) that is based upon a planning level investigation of the proposed improvements. For each project, a responsible party was identified that would be considered the project champion.

It should be noted that the conceptual cost estimates were developed using reasonable quantity, unitprice, and related assumptions for the anticipated improvement and do not account for three potentially significant categories— right-of-way, utilities, and environmental impacts or related mitigation requirements. It is anticipated that costs associated with any one of those categories will need to be addressed during subsequent project scoping or preliminary design stages for any given improvement.

Table 16: Project Implementation

| B./Inva | | | Oninian of | Deineitu | Dago | | |
|------------|-----------------------------------------------------------------------------------------------|-------------------------------------------|-----------------------------|--------------------|------------------------|--|--|
| Map Key | Project Name/Action | Responsible Party | Opinion of Probable Cost | Priority Rating | Page Numbers | | |
| | Traffic Cong | estion | | | | | |
| TC-1, 2 | Dating Tarffic Cinnals | Marray Barayah | ¢191.000 | _ | 83, 102, | | |
| 10-1, 2 | Retime Traffic Signals | Mercer Borough | \$181,000 | Α | 108-109 | | |
| TC-2 | Traffic redirection at 5-legged intersection (prohibit US 19 | Mercer Borough | \$169,000 | A | 83-85, 102, | | |
| 10-2 | North Bound Left, E North Street one-way entrance only) | Wercer Borough | \$105,000 | ^ | 110-111 | | |
| TC-3 | Traffic redirection on North and South Diamond Streets | Mercer Borough | \$250,000 | Α | 86, 102, 112-113 | | |
| TC-4 | New connection to Hope Mill Rd | East Lackawannock Township | \$4,180,000 | А | 114-115 | | |
| TC-5 | Turn Lane on US 19 between Beaver and South Streets | Mercer Borough | \$120,000 | С | 88, 102, 116-117 | | |
| | Heavy Truck (| Conflicts | | | | | |
| HTC-1 | Truck route to Market via Butler & Pitt Street | Mercer Borough, PennDOT | \$360,000 | А | 93-94, 102, 118-119 | | |
| HTC- | Truck Route to SR 158 via Steingrabe Road | East Lackawannock | \$3,620,000 to | _ | 94, 102, | | |
| 2,3 | Option 1: On alignment, Option 2: Off alignment | Township, PennDOT | \$4,960,000 | В | 120-123 | | |
| | Safety Improv | vements | | | | | |
| SI-1,2 | Sight Improvements @ Old Mercer Road/Drake Road | East Lackawannock | \$620,000 to | ^ | 89-92, 102, | | |
| 51-1,2 | Option 1: Realignment, Option 2: Reconstruction | Township, PennDOT | \$2,040,000 | Α | 124-127 | | |
| SI-3 | All way stop @ Butler St and Pitt St | Mercer Borough | \$5,000 | В | 93, 102, 128-129 | | |
| SI-4 | Study for improvement @ Steingrabe Rd & US 19 | East Lackawannock Township, PennDOT | \$30,000 | В | 93, 102, 130-131 | | |
| | Multi-Modal Imp | provements | | | | | |
| | | Mercer Borough, | | | | | |
| MM-1 | Construct sidewalk to Walt's Grocery Store | Coolspring Township, | \$77,000 | Α | 95, 102, 132-133 | | |
| | | Store Owner | | | 132-133 | | |
| | | Mercer Borough, | ** *** | А | 95, 102, | | |
| MM-2 | Repair deficient sidewalks | Residents, Business Owners | \$1,980,000 | | 134-135 | | |
| | | East Lackawannock | | | 95, 102, | | |
| MM-3 | Construct sidewalk to Dairy Queen | Township, Store Owner | \$260,000 | В | 136-137 | | |
| | Construct now sidewalks to complete naturals (shows on | Mercer Borough, | | | OF 102 | | |
| MM-4 | Construct new sidewalks to complete network (shown on Potential Sidewalk Improvements Map) | Residents, Business | \$700,000 | В | 95, 102, 138-139 | | |
| | rotential ordenan improvements map/ | Owners | | | | | |
| MM-5 | Widen shoulders on SR 158 from Beaver St to I-80 | East Lackawannock | \$7,550,000 | С | 95, 102, | | |
| | | Township, PennDOT Mercer Borough, East | | | 140-141 | | |
| | | Lackawannock | 44 757 757 | _ | 95, 102, | | |
| MM-6 | Hope Mill Road - Hiker/Biker Trail | Township, Mercer | \$1,760,000 | С | 142-143 | | |
| | | County Trails Assoc. | | | | | |
| Land Use | | | | | | | |
| - | Adopt Recommended Zoning Amendments and Land Use Regulations | Borough Township | Nominal | Α | 74 | | |
| - | Adopt Traditional Neighborhood Development District | Borough Township | Nominal | Α | 74-75 | | |
| - | Adopt Facade Improvement Program | Borough | Nominal | Α | 77 | | |
| - | Adopt Official Map | Township | Nominal | Α | 78-79 | | |
| - | Adopt Access Management Tools | Borough Township | Nominal | Α | 80 | | |
| | Explore feasibility of establishing a Parking Authority | Borough | Nominal | Α | 81 | | |
| - | | | | | | | |

Responsible party is identified for conceptual planning purposes only and does not imply an existing formal commitments of binding agreements.

^{***} Priority ratings are assigned as "A" for immediate, "B" for short to mid-term, and "C" for long-term

****Estimates are intended for conceptual use only, are based on year 2010 dollars, and include 25% contingency, 20-35%
engineering, 15% temporary traffic control & mobilization, and 12% construction inspection costs. They do not include potentially substantial costs related to right-of-way, utilities, and environmental impacts or related mitigation.

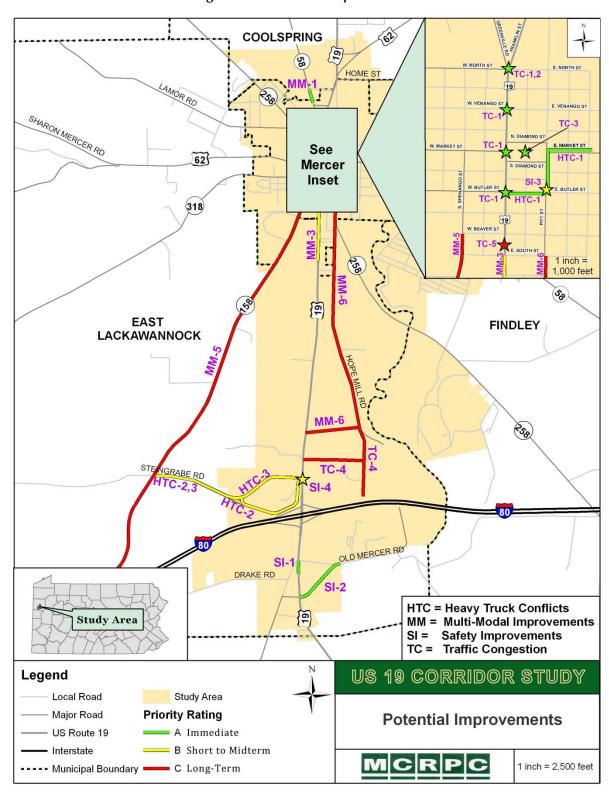


Figure 30: Potential Improvements

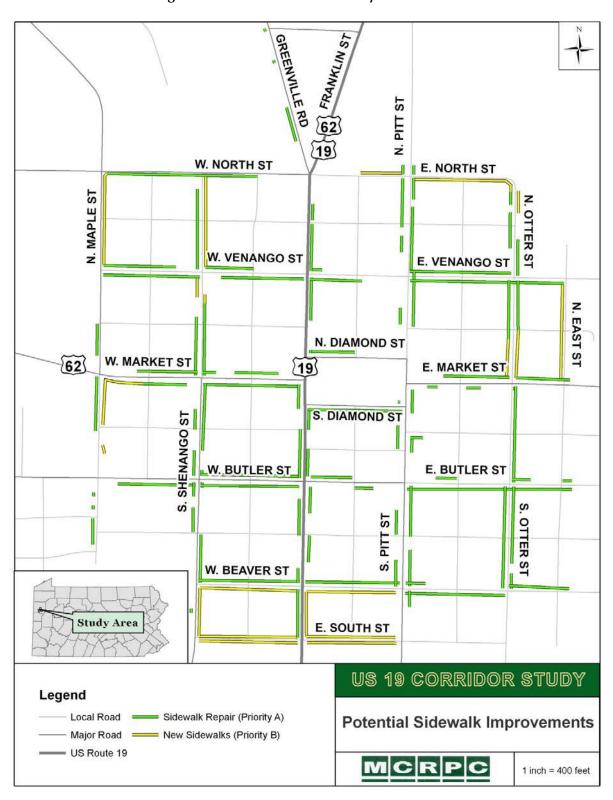


Figure 31: Potential Sidewalk Improvements

All locally preferred transportation alternatives are summarized on project implementation sheets. The sheets were based on PennDOT's level 2 project screening forms. The project implementation sheets can be found in Section 6.

5.0 Performance Evaluation

Once the Locally Preferred Alternative (LPA) was developed the overall plan for transportation and land use alternatives was evaluated to determine if it met the overall goals and objectives for the project.

The first step was to evaluate the performance of the selected improvements and preferred land use scenario, Scenario 3 with Smart Growth, from a traffic operations perspective (Table 17). The operations analysis was used to determine if the LPA would accommodate the preferred level of development without negatively impacting the quality of life for residents. These evaluations include the impact of improving the sidewalk and trail network which is projected to double the amount of pedestrian traffic and reduce peak hour congestion by 10% when compared to Scenario 3 without the LPA. By improving the sidewalk and trail networks, the roadway network will still maintain acceptable Levels of Service. It should be noted that the LPA condition assumes that all locally preferred alternatives are implemented.

Scenario Conditions Existing 2010 Scenario 1 **LPA** Scenario 3 **Signalized Operations Number of Intersections** Acceptable Overall LOS A, B, or C 3 2 3 Overall LOS D Marginal 1 0 0 1 Failing Overall LOS E or F 0 2 3 0 **Unsignalized Operations Number of Intersections** Acceptable Side-Street LOS A, B, or C 18 13 15 13 Side-Street LOS D 0 2 3 4 Marginal Side-Street LOS E or F Failing 0 3 4

Table 17: Locally Preferred Alternative Operations (PM Conditions)

As can be seen, the LPA adequately handles the projected traffic volumes for the preferred land use scenario. With three traffic signals operating at LOS C or better and one operating at LOS D, the LPA improves traffic operations when compared to Scenario 1 (No-Build) and maintains the existing conditions. With fifteen unsignalized intersections operating at LOS C or better, four operating at LOS D, and one operating at LOS E or F, the LPA improves traffic operations when compared to Scenario 1 (No-Build) and slightly degrades when compared to the existing conditions.

The next step was to cross reference the proposed projects and actions to determine if each of the projects goals and objectives was met (Table 18). As can be seen, each goal and objective will be met when the plan is implemented so the plan meets the established performance targets.

Table 18: Performance Measures

| | | | | | | | | | Р | rojects | and A | ctions | (Map K | (ey) | | | | | | | |
|-------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|------------------------------------------------|-----------------------------------------------------|--------------------------------------------------------------|---------------------------------------------------------------|------------------------------------------------------------|--------------------------------------------------------|----------------------------------------------------------------|--------------------------------------------------------|---------------------------------------------------|--------------------------------------|---------------------------------------------|-------------------------------------------------------|----------------------------------------------------------------|---------------------------------------------|--------------------------------------------------------------|-----------------------------------------------------------|-------------------------------------|--------------------|----------------------------------|---------------------------------------------------------|
| Goal | Objective | Upgrade and Retime Traffic Signals (TC-1,2) | Traffic Redirection at 5-legged intersection (TC-2) | Traffic Redirection at North and South Diamond Street (TC-3) | Turn Lane on US 19 between Beaver and South Streets (TC-5) | Truck Route to Market via Butler & Pitt Streets (HTC-1) | Truck Route to SR 158 via Steingrabe Road (HTC 2,3) | Sight Improvements @ Old Mercer Road/Drake Road (SI-1,2) | All Way Stop @ Butler Street and Pitt Street (SI-3) | Construct Sidewalk to Walt's Grocery Store (MM-1) | Repair Deficient Sidewalks (MM-2) | Construct Sidewalk to Dairy Queen (MM-3) | Construct New Sidewalks to Complete Network (MM-4) | Widen Shoulders on SR 158 from Beaver Street to I-80 (MM-5) | Hope Mill Road -Hiker/Biker Trail (MM-6) | Adopt recommended zoning amendments and land use regulations | Adopt traditional neighborhood development district (TND) | Adopt façade improvement program | Adopt official map | Adopt access management tools | Explore feasibility of establishing a parking authority |
| | Reduce congestion and enhance access to the central business district | Х | Х | Х | Х | Х | Х | | Х | Х | Х | Х | Х | | Х | | | | | | |
| Enhance | Improve traffic patterns and reduce conflicts | | х | Х | х | Х | Х | х | Х | Х | Х | Х | х | Х | Х | | | | | | |
| motorized travel | Determine the most efficient travel pattern for heavy trucks | | | | | Х | Х | | | | | | | | | | | | | | |
| | Improve incident management for detours from I-80 | Х | | | | | | | | | | | | | | | | | | | |
| Described. | | <u> </u> | | | | | | | | | | | | | | 1 1 | | | | | |
| Provide a multi-modal transportation network | Improve the maintenance and connectivity of the sidewalk network | | х | | | | | | | Х | Х | х | х | Х | Х | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| Ensure safe and efficient | Correct and better manage parking | | | | | | | | | | | | | | | | | | | | х |
| access throughout | Establish an access management plan for Route 19 | | | | | | | | | | | | | | | | | | | Х | |
| the project area | Mitigate points of conflict and address safety concerns at intersections | | | X | Х | | | Х | X | X | X | х | Х | | | | | | | | |
| | | | | | | | - | | | | | - | | | | | | | | | |
| | Capitalize upon the I-80 Interchange and other regional attractions to support economic development goals | | | | Х | | | | Х | | | | | | | Х | | | Х | | |
| Manage land | Enhance the Victorian atmosphere of Mercer Borough | | | | | | | | | | | | | | | | Х | Х | | | |
| use | Direct land uses to encourage context appropriate in-fill within the Borough and suitable new development in Township | | | | | | | | | | | | | | | Х | | Х | | | |

6.0 Project Implementation Sheets

All locally preferred transportation alternatives are summarized on project implementation sheets. The sheets were based on PennDOT's level 2 project screening forms. The forms provide the following information:

- Project name/action
- Opinion of probable cost assumed for further planning or engineering purposes
- Priority rating "A" for immediate", "B" for short to mid-term, "C" for long-term
- Responsible party Project Champion; does not imply existing formal commitments or binding agreements
- Funding Source Potential source of funding for project implementation
- Project partners Cooperating agencies or bodies needed for project implementation/approval;
 does not imply existing formal commitments or binding agreements
- Purpose and need statements Purpose is the reason for a project and need is data/statistics behind the purpose
- Associated goals/objectives of the project developed in the beginning of the project and serves as a way to measure the plan's performance
- Project description description of project needs and justification
- Land use transportation linkage how land use ties into the transportation components of the corridor and study area
- Land use/economic development opportunity potential economic opportunities created from the land use improvement recommendations
- Community issues and opportunities describes potential impacts and opportunities for community growth and development
- Public agency involvement
- Environmental relations any potential impacts to wetlands or agricultural resources
- Potential approach and solutions the locally preferred alternative and solutions to mitigate existing deficiencies and/or areas of concern
- Other alternatives studied

UPGRADE & RETIME TRAFFIC SIGNALS

| Мар Кеу: | TC-1 (pages 83, 101, 102) |
|------------------------------|---------------------------|
| Opinion of Probable Cost: | \$181,000 |
| Priority Rating: | A - Immediate |
| Responsible Party: | Mercer Borough |
| Project Partners: | PennDOT District 1, MCRPC |
| Funding Source: | CMAQ, TIP |

| Purpose: | To alleviate congestion |
|--------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Need: | The existing signals are not coordinated and contribute to traffic delays and unsafe traffic movements |
| US 19 Study Goals & Objectives: | Goal: Enhance motorized travel Objective: Reduce congestion and enhance access to the central business district; Improve incident management for detours from I-80 |
| Location Description: | Four traffic signals located along US 19 in Mercer Borough |
| Project Description/ Justification: | Install closed loop signal system and retime four traffic signals/Traffic congestion at peak rush hours, Vehicles have trouble making turns |
| Land Use Transportation Linkage: | Town Center, mixed use |
| Land Use/Economic Development Opportunity: | Infrastructure efficiency improvement |
| Community Issues & Opportunities: | Decrease delay and congestion |
| Public Agency Involvement: | Improve operational efficiency, improve system reliability |
| Environmental Impact: | N/A |
| Potential Approach & Solutions: | Increased efficiency, change intersection operations, ITS, modify intersection control, intersection control improvements, adjust signal timing |
| Alternative(s) Studied: | None |

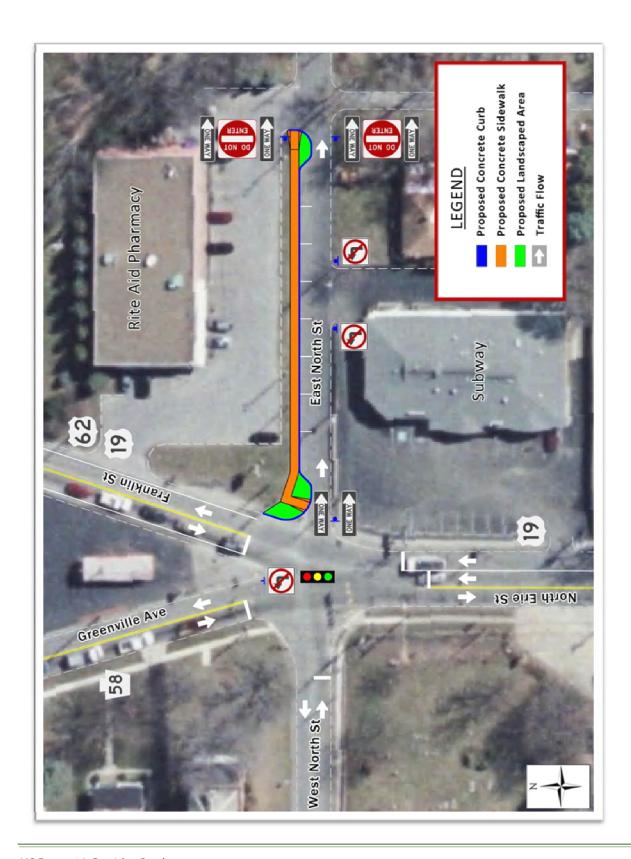


REDIRECTION 5-LEGGED INTERSECTION

TRAFFIC

| Мар Кеу: | TC-2 (pages 83-85, 101, 102) |
|------------------------------|----------------------------------|
| Opinion of Probable Cost: | \$169,000 |
| Priority Rating: | A- Immediate |
| Responsible Party: | Mercer Borough |
| Project Partners: | PennDOT District 1, MCRPC |
| Funding Source: | Safe Routes to School, CMAQ, TIP |

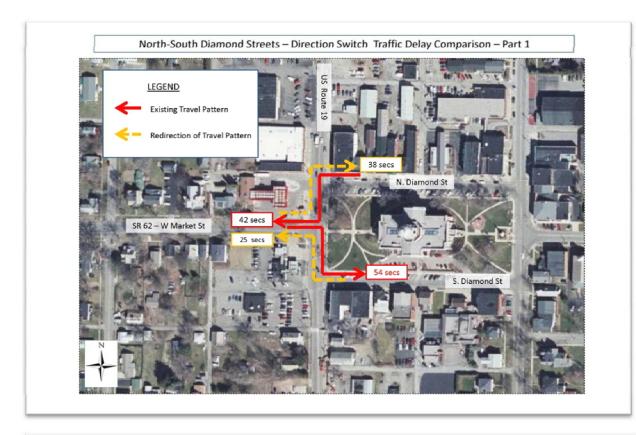
| Purpose: | To alleviate congestion |
|--------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Need: | The current design configuration of the US 19 intersection with US 62, SR 58 and North Street (5-legged) creates confusion for drivers and contributes to travel time delays |
| US 19 Study Goals & Objectives: | Goal: Enhance motorized travel; Provide a multi-modal transportation network Objective: Reduce congestion and enhance access to the central business district; Improve traffic patterns and reduce conflicts; Improve the maintenance and connectivity of the sidewalk network |
| Location Description: | The convergence of US 19, US 62, SR 58 and North Street in Mercer Borough |
| Project Description/ Justification: | Retime traffic signals and make E. North Street one-way from US 19 plus prohibit left turns from US 19 onto W. North Street/Traffic congestion at peak rush hours; vehicles have trouble making turns |
| Land Use Transportation Linkage: | Town Center, mixed use |
| Land Use/Economic Development Opportunity: | Infrastructure efficiency improvement |
| Community Issues & Opportunities: | Eliminates unneeded or unsafe traffic movements; decreases delay and congestion; improves safety |
| Public Agency Involvement: | Improve operational efficiency, improve system reliability |
| Environmental Impact: | N/A |
| Potential Approach & Solutions: | Increased efficiency; modify intersection control, new pavement markings and signs; adjust signal timing |
| Alternative(s) Studied: | Option 1: No Build; Option 2: Retime Signals; Option 3: Retime signals and add a turn lane on southbound US 19/US 62 approach, Option 4: retime signals and make W. North Street one-way from US 19 |



TRAFFIC REDIRECTION NORTH AND SOUTH DIAMOND STREETS

| Мар Кеу: | TC-3 (pages 86, 87 101, 102) |
|------------------------------|------------------------------|
| Opinion of Probable Cost: | \$250,000 |
| Priority Rating: | A - Immediate |
| Responsible Party: | Mercer Borough |
| Project Partners: | PennDOT District 1, MCRPC |
| Funding Source: | TIP, CMAQ |

| Purpose: | To alleviate congestion |
|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Need: | The existing traffic pattern on North and South Diamond Streets is inefficient and creates travel time delays and conflict at the intersection of North Diamond and US Route 19 |
| US 19 Study Goals & Objectives: | Goal: Enhance motorized travel; Ensure safe and efficient access throughout the project area Objective: Reduce congestion and enhance access to the central business district; Improve traffic patterns and reduce conflict; Mitigate points of conflict and address safety concerns at intersections |
| Location Description: | US 19 and North and South Diamond Streets (SR 58 and SR 258) surrounding courthouse square in Mercer Borough |
| Project Description/ Justification: | Switch the direction of North and South Diamond Streets/Traffic congestion at peak rush hours; vehicles have trouble making turns |
| Land Use Transportation Linkage: | Town Center, mixed use |
| Land Use/Economic Development Opportunity: | Infrastructure efficiency improvement |
| Community Issues & Opportunities: | Eliminates unneeded or unsafe traffic movements |
| Public Agency Involvement: | Improve operational efficiency, improve system reliability, improve connectivity on existing system, community development needs |
| Environmental Impact: | N/A |
| Potential Approach & Solutions: | Increased efficiency; modify intersection control, new pavement markings and signs |
| Alternative(s) Studied: | Option 1: No Build, Option 2: North and South Diamond Street Signals |





ADOPT OFFICIAL MAP FOR NEW CONNECTION TO HOPE MILL ROAD

| Мар Кеу: | TC-4 (pages 79, 101, 102) |
|------------------------------|---------------------------------------------------------------|
| Opinion of Probable Cost: | 4,180,000 (Developer)/(East Lackawannock Township) Nominal |
| Priority Rating: | A - Immediate |
| Responsible Party: | East Lackawannock Township, Developer |
| Project Partners: | MCRPC, Mercer County |
| Funding Source: | General Fund |

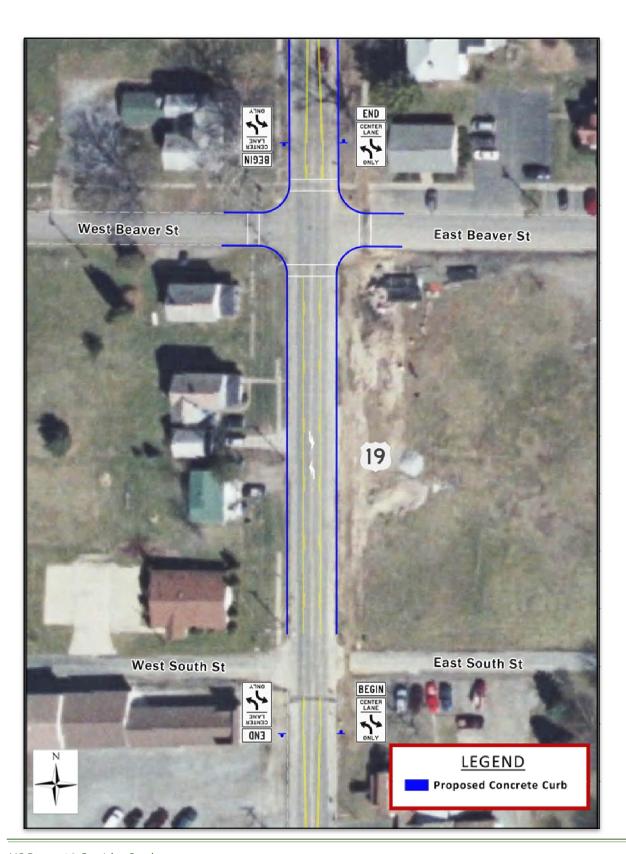
| Purpose: | To alleviate congestion |
|--------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Need: | Future development will overload the capacity of US Route 19 between I-80 and Mercer Borough |
| US 19 Study Goals & Objectives: | Goal: Enhance motorized travel; Ensure safe and efficient access throughout the project area Objective: Reduce congestion and enhance access to the central business district; Mitigate points of conflict and address safety concerns at intersections |
| Location Description: | East Lackawannock Township at County owned property near interchange (existing use – quarry) |
| Project Description/ Justification: | Adopt official map for new connection to Hope Mill road/Future traffic congestion at many times of day |
| Land Use Transportation Linkage: | Transition Area: I- 80 Interchange, commercial and industrial uses |
| Land Use/Economic Development Opportunity: | Redevelopment, infrastructure efficiency improvement |
| Community Issues & Opportunities: | Support community projects |
| Public Agency Involvement: | Economic and community development needs |
| Environmental Impact: | Potential impacts to wetlands, potential impacts to agricultural resources |
| Potential Approach & Solutions: | Industrial development access, increased efficiency, manage demand |
| Alternative(s) Studied: | None |



TURN LANE ON US ROUTE 19 BETWEEN BEAVER AND SOUTH STREETS

| Мар Кеу: | TC-5 (pages 88, 101, 102) |
|------------------------------|---------------------------|
| Opinion of Probable Cost: | \$120,000 |
| Priority Rating: | C – Long Term |
| Responsible Party: | Mercer Borough |
| Project Partners: | PennDOT District 1, MCRPC |
| Funding Source: | CMAQ, TIP |

| Purpose: | To alleviate congestion |
|--------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Need: | Future development will result create congestion at intersections of US 19 with Beaver Street and South Street |
| US 19 Study Goals & Objectives: | Goal:Enhance motorized travel; Ensure safe and efficient access throughout the project area; Manage land use Objective: Reduce congestion and enhance access to the central business district; Improve traffic patterns and reduce conflicts; Mitigate points of conflict and address safety concerns at intersections; Capitalize upon the I-80 interchange and other regional attractions to suport economic development goals |
| Location Description: | US 19 in Mercer Borough between Beaver and South Streets |
| Project Description/ Justification: | Install two-way left turn lane on US 19 between Beaver and South Streets/Traffic congestion at peak rush hours; vehicles have trouble making turns |
| Land Use Transportation Linkage: | Town Center, mixed use |
| Land Use/Economic Development Opportunity: | Infrastructure efficiency improvement |
| Community Issues & Opportunities: | Eliminates unneeded or unsafe traffic movements |
| Public Agency Involvement: | Improve operational efficiency, improve system reliability, improve connectivity on existing system, community development needs |
| Environmental Impact: | N/A |
| Potential Approach & Solutions: | Modify intersection control, new pavement markings and signs, turning lanes, curbing |
| Alternative(s) Studied: | None |



TRUCK ROUTE TO MARKET STREET VIA BUTLER AND PITT STREET

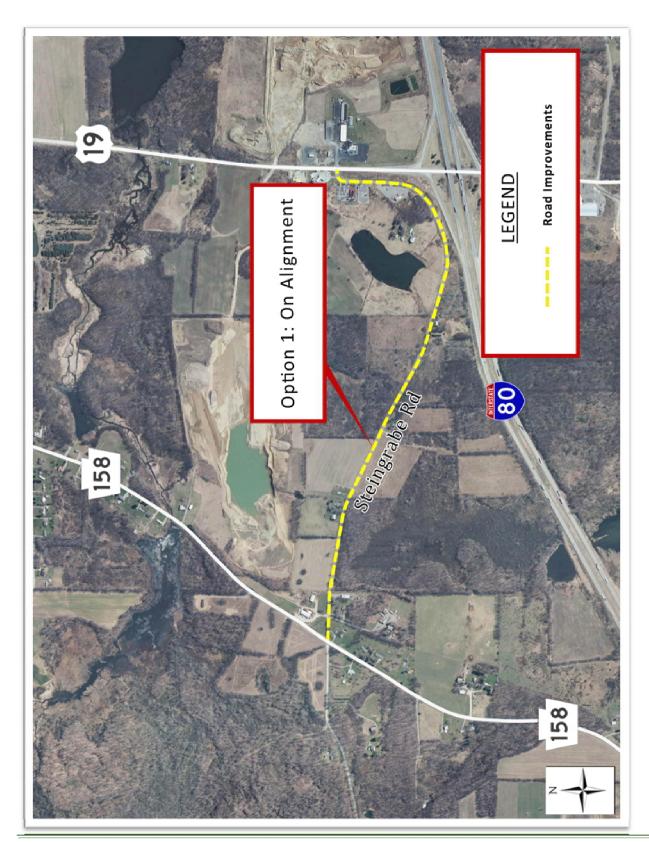
| Мар Кеу: | HTC-1 (93-94, 101, 102) |
|------------------------------|---------------------------|
| Opinion of Probable Cost: | \$360,000 |
| Priority Rating: | A - Immediate |
| Responsible Party: | Mercer Borough, PennDOT |
| Project Partners: | MCRPC, Trucking companies |
| Funding Source: | TIP |

| Purpose: | To identify new truck routing options to alleviate the traffic burden on US Route 19 and reduce the number of Heavy Trucks traveling through the Central Business District in Mercer Borough |
|--------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Need: | The convergence of several designated truck routes in Mercer Borough contributes to congestion, vehicle queuing and safety concerns |
| US 19 Study Goals & Objectives: | Goal: Enhance Motorized Travel Objective: Reduce congestion and enhance access to the central business district; Improve traffic patterns and reduce conflicts; Determine the most efficient travel pattern for heavy trucks |
| Location Description: | Mercer Borough |
| Project Description/ Justification: | Establish official truck route to SR58 (Market St) via Butler Street and Pitt Street/Traffic congestion at peak rush hours; vehicles have trouble making turns |
| Land Use Transportation Linkaae: | Town Center, mixed use |
| Land Use/Economic Development Opportunity: | Infrastructure efficiency improvement |
| Community Issues & Opportunities: | Eliminates unneeded or unsafe traffic movements |
| Public Agency Involvement: | Improve operational efficiency, improve connectivity on existing system |
| Environmental Impact: | N/A |
| Potential Approach & Solutions: | Use alternate routes, modify intersection control, new pavement markings and signs, curbing |
| Alternative(s) Studied: | Option 1: No Build, Option 2: Truck Route via Beaver Street and Pitt Street |

TRUCK ROUTE TO SR 158 VIA **STEINGRABE ROAD** (OPTION 1: ON ALIGNMENT)

| Мар Кеу: | HTC-2 (Alternative to HTC-3) (pages 94, 101, 102) |
|------------------------------|---------------------------------------------------|
| Opinion of Probable Cost: | \$3,620,000 |
| Priority Rating: | B – Short to Mid-Term |
| Responsible Party: | East Lackawannock Township, PennDOT |
| Project Partners: | MCRPC, Trucking companies |
| Funding Source: | TIP |

| | To identify a section of the alleriate that the configuration of the section of t |
|--------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Purpose: | To identify new truck routing options to alleviate the traffic burden on US Route 19 and reduce the number of Heavy Trucks traveling through the Central Business District in Mercer Borough |
| Need: | The convergence of several designated truck routes in Mercer Borough contributes to congestion, vehicle queuing and safety concerns |
| US 19 Study Goals & Objectives: | Goal: Enhance Motorized Travel Objective: Reduce congestion and enhance access to the central business district; Improve traffic patterns and reduce conflicts; Determine the most efficient travel pattern for heavy trucks |
| Location Description: | East Lackawannock Township near I-80 Interchange |
| Project Description/ Justification: | Establish official truck route to SR 158 via Steingrabe Road and make necessary upgrades to Steingrabe Road to accommodate heavy trucks/Vehicles have trouble making turns, road condition, turning movement restrictions |
| Land Use Transportation Linkage: | Rural |
| Land Use/Economic Development Opportunity: | Infrastructure efficiency improvement |
| Community Issues & Opportunities: | Eliminates unneeded or unsafe traffic movements, addresses community noise issues |
| Public Agency Involvement: | Improve operational efficiency, improve connectivity on existing system |
| Environmental Impact: | N/A |
| Potential Approach & Solutions: | Roadway reconstruction, widening |
| Alternative(s) Studied: | Option 2: Off Alignment |

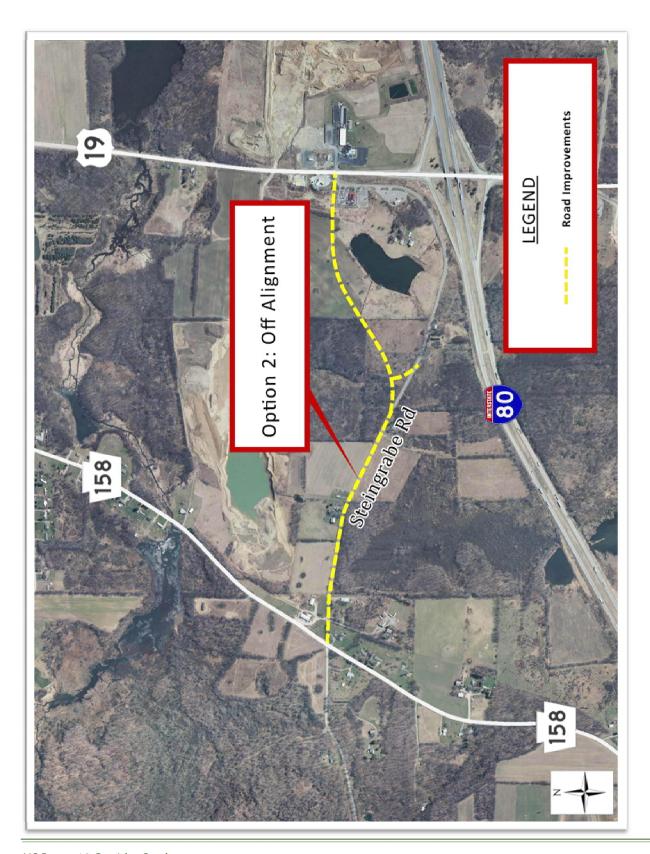


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TRUCK ROUTE TO SR 158 VIA STEINGRABE ROAD (OPTION 2: OFF ALIGNMENT)

| Мар Кеу: | HTC-3 (Alternative to HTC2)(pages 94, 101, 102) |
|------------------------------|-------------------------------------------------|
| Opinion of Probable Cost: | \$4,960,000 |
| Priority Rating: | B – Short to Mid-Term |
| Responsible Party: | East Lackawannock Township, PennDOT |
| Project Partners: | MCRPC, Trucking companies |
| Funding Source: | TIP |

| Purpose: | To identify new truck routing options to alleviate the traffic burden on US Route 19 and reduce the number of Heavy Trucks traveling through the Central Business District in Mercer Borough |
|--------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Need: | The convergence of several designated truck routes in Mercer Borough contributes to congestion, vehicle queuing and safety concerns |
| US 19 Study Goals & Objectives: | Goal: Enhance Motorized Travel Objective: Reduce congestion and enhance access to the central business district; Improve traffic patterns and reduce conflicts; Determine the most efficient travel pattern for heavy trucks |
| Location Description: | East Lackawannock Township near I-80 Interchange |
| Project Description/ Justification: | Establish official truck route to SR 158 via Steingrabe Road and make necessary upgrades to Steingrabe Road to accommodate heavy trucks/Vehicles have trouble making turns, road condition, turning movement restrictions |
| Land Use Transportation Linkage: | Rural |
| Land Use/Economic Development Opportunity: | Infrastructure efficiency improvement |
| Community Issues & Opportunities: | Eliminates unneeded or unsafe traffic movements, addresses community noise issues |
| Public Agency Involvement: | Improve operational efficiency, improve connectivity on existing system |
| Environmental Impact: | N/A |
| Potential Approach & Solutions: | Roadway reconstruction and realignment, widening, change access |
| Alternative(s) Studied: | Option 1: On Alignment |
| | |

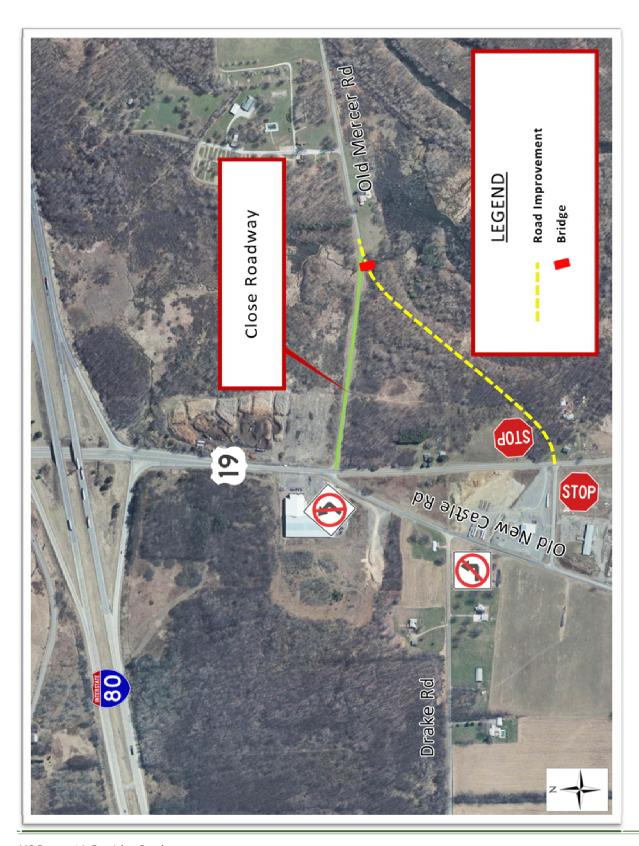


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SIGHT IMPROVEMENTS @ OLD MERCER ROAD/ DRAKE ROAD (OPTION 4: REALIGNMENT)

| Мар Кеу: | SI-1 (pages 89-92, 101, 102) |
|------------------------------|----------------------------------------|
| Opinion of Probable Cost: | \$2,040,000 |
| Priority Rating: | A - Immediate |
| Responsible Party: | East Lackawannock Township, PennDOT |
| Project Partners: | MCRPC |
| Funding Source: | TIP |

| Purpose: | To improve the safety for the traveling public by reducing points of conflict and improving sight distance |
|--------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Need: | Growing traffic levels, the presence of horse-drawn buggies and the number of Heavy Trucks traveling US Route 19 contribute to conflicts and safety concerns |
| US 19 Study Goals & Objectives: | Goal: Enhance motorized travel; Ensure safe and efficient access throughout the project area Objective: Improve traffic patterns and reduce conflicts; Mitigate points of conflict and address safety concerns at intersections |
| Location Description: | East Lackawannock Township south of I-80 Interchange |
| Project Description/ Justification: | Prohibit left turns from using New Castle-Mercer Road and Drake Road and realign Old Mercer Road/Serious traffic crashes occur, poor sight distance, traffic speeds |
| Land Use Transportation Linkage: | Rural |
| Land Use/Economic Development Opportunity: | Infrastructure efficiency improvement |
| Community Issues & Opportunities: | Eliminates unneeded or unsafe traffic movements, enhances opportunities for underserved or environmental justice populations |
| Public Agency Involvement: | Fatal/serious injury crash reduction, improve connectivity on existing system, improve operational efficiency |
| Environmental Impact: | N/A |
| Potential Approach & Solutions: | Roadway reconstruction and realignment, widening, change access |
| Alternative(s) Studied: | Option 1: No Build, Option 2: Install flashing beacon and signs, Option 3: Turn Restrictions, Option 5: Reconstruct US 19 to improve sight distance |

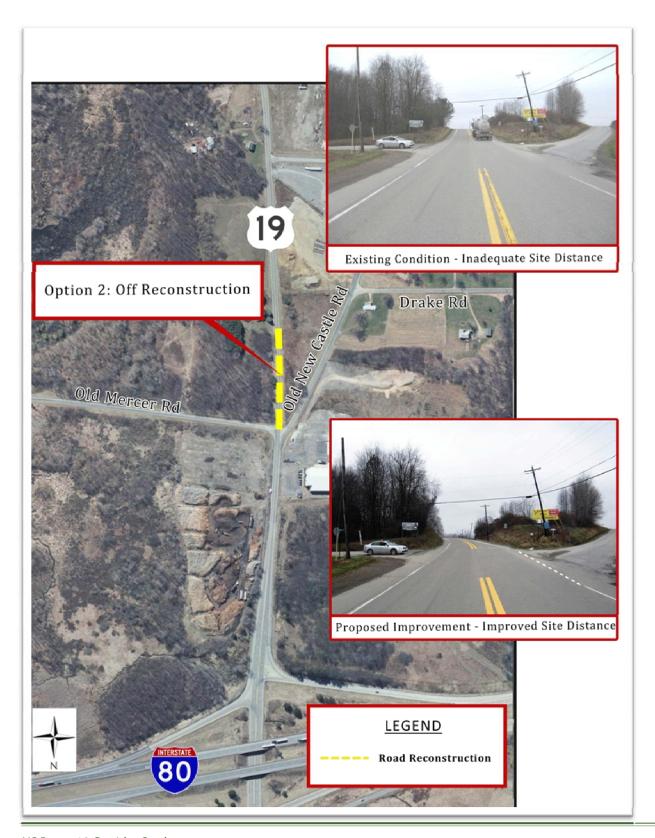


OLD MERCER ROAD/ DRAKE ROAD (OPTION 5: RECONSTRUCTION) Purpose: To imp conflict

SIGHT IMPROVEMENTS @

| Мар Кеу: | SI-2 (Alternative to SI-1) (pages 89- 92, 101, 102) |
|------------------------------|--------------------------------------------------------|
| Opinion of Probable Cost: | \$620,000 |
| Priority Rating: | A - Immediate |
| Responsible Party: | East Lackawannock Township, PennDOT |
| Project Partners: | MCRPC |
| Funding Source: | TIP |

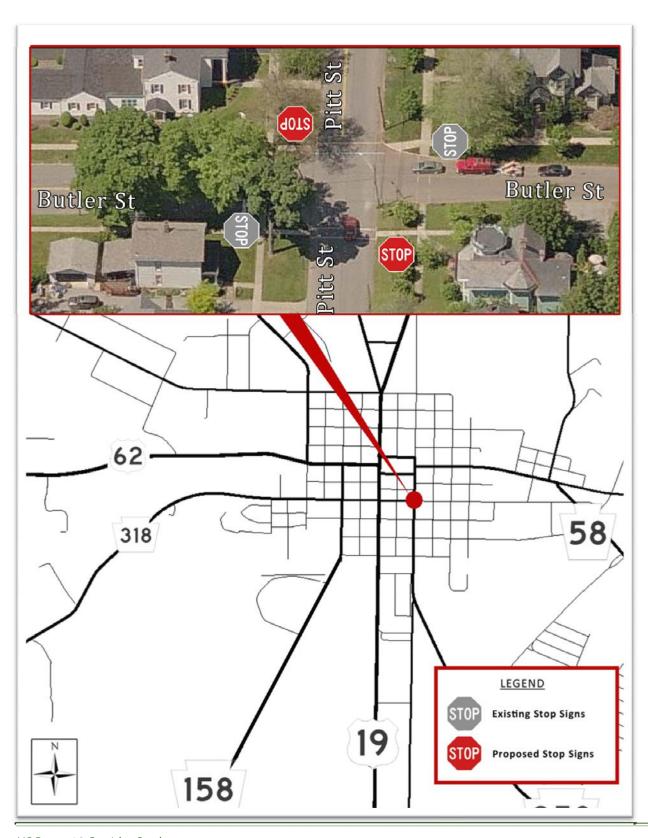
| Purpose: | To improve the safety for the traveling public by reducing points of conflict and improving sight distance |
|--------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Need: | Growing traffic levels, the presence of horse-drawn buggies and the number of Heavy Trucks traveling US Route 19 contribute to conflicts and safety concerns |
| US 19 Study Goals & Objectives: | Goal: Enhance motorized travel; Ensure safe and efficient access throughout the project area Objective: Improve traffic patterns and reduce conflicts; Mitigate points of conflict and address safety concerns at intersections |
| Location Description: | East Lackawannock Township south of I-80 Interchange |
| Project Description/ Justification: | Reconstruct US 19 to improve sight distance at Old Mercer Road & Drake Road/Serious traffic crashes occur, poor sight distance, traffic speeds |
| Land Use Transportation Linkage: | Rural |
| Land Use/Economic Development Opportunity: | Infrastructure efficiency improvement |
| Community Issues & Opportunities: | Eliminates unneeded or unsafe traffic movements, enhances opportunities for underserved or environmental justice populations |
| Public Agency Involvement: | Fatal/serious injury crash reduction, improve connectivity on existing system, improve operational efficiency |
| Environmental Impact: | N/A |
| Potential Approach & Solutions: | Roadway reconstruction, widening, change access |
| Alternative(s) Studied: | Option 1: No Build, Option 2: Install flashing beacon and signs, Option 3: Turn Restrictions, Option 4: Prohibit left turns from using New Castle-Mercer Road and Drake Road and realign Old Mercer Road |



ALL WAY STOP AT BUTLER STREET AND PITT STREET

| Мар Кеу: | SI-3 (pages 93, 101, 102) |
|------------------------------|----------------------------|
| Opinion of Probable Cost: | \$5,000 |
| Priority Rating: | B – Short to Mid-Term |
| Responsible Party: | Mercer Borough |
| Project Partners: | MCRPC, PennDOT |
| Funding Source: | Liquid Fuels, General Fund |

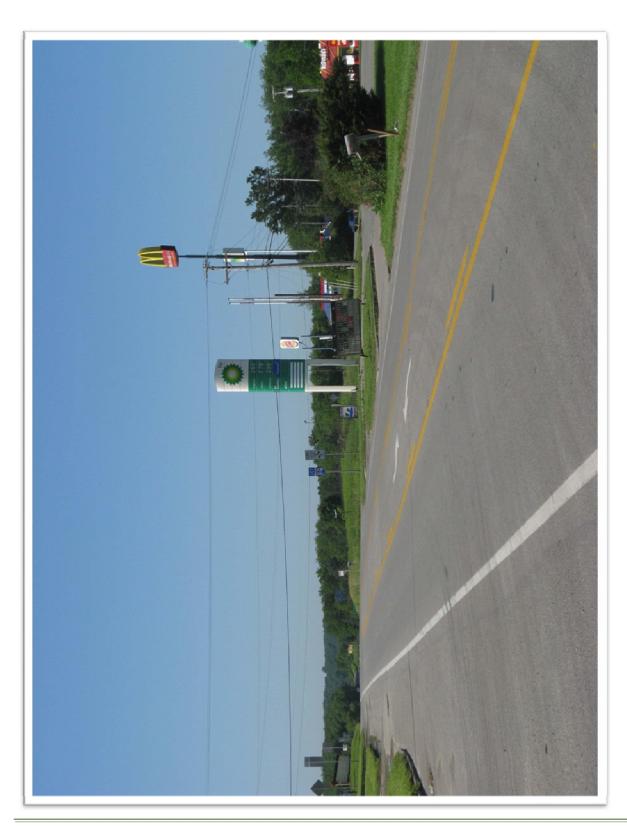
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|------|--------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| | Purpose: | To improve the safety for the traveling public by reducing points of conflict and improving sight distance | |
| | Need: | Identified as an intersection of concern by local law enforcement and emergency responders. Field verification of sight obstruction. Rising traffic levels from motorists avoiding Diamond Street will increase potential for crashes. | |
| | US 19 Study Goals & Objectives: | Goal: Enhance Motorized Travel; Ensure safe and efficient access throughout the project area; Manage land use Objective: Reduce congestion and enhance access to the central business district; Improve traffic patterns and reduct conflicts; Mitigate points of conflict and address safety concerns at intersections; Capitalize upon the I-80 interchange and other regional attractions to support economic development goals | |
| | Location Description: | Mercer Borough | |
| | Project Description/ Justification: | Install an all way stop at Butler Street and Pitt Street/Large number of crashes occur, poor sight distance, traffic speeds, there are poles and trees close to the road | |
| | Land Use Transportation Linkage: | Town/Village Neighborhood | |
| | Land Use/Economic Development Opportunity: | Infrastructure efficiency improvement | |
| | Community Issues & Opportunities: | Eliminates unneeded or unsafe traffic movements | |
| | Public Agency Involvement: | Fatal/serious injury crash reduction, improve operational efficiency | |
| | Environmental Impact: | N/A | |
| | Potential Approach & Solutions: | Modify intersection control, improve pedestrian/ADA elements | |
| | Alternative(s) Studied: | None | |
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STUDY OF IMPROVEMENTS AT STEINGRABE ROAD AND US ROUTE 19

| Мар Кеу: | SI-4 (pages 93, 101, 102) |
|------------------------------|----------------------------------------|
| Opinion of Probable Cost: | \$30,000 |
| Priority Rating: | B – Short to Mid-Term |
| Responsible Party: | East Lackawannock Township, PennDOT |
| Project Partners: | MCRPC |
| Funding Source: | TIP |

| Purpose: | To improve the safety for the traveling public by reducing points of conflict and improving sight distance |
|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Need: | Identified as an intersection of concern by the public, local businesses and local law enforcement. Confusing traffic patterns, various points of access, and sight obstructions contribute to potential distractions |
| US 19 Study Goals & Objectives: | Goal: Enhance Motorized Travel Objective: Improve traffic patterns and reduce conflicts |
| Location Description: | East Lackawannock Township, north of I-80 |
| Project Description/ Justification: | Further detailed study of improvements at Steingrabe Road & US 19/Large number of crashes occur, poor sight distance, traffic speeds, sight obstructions present, many points of access |
| Land Use Transportation Linkage: | Rural |
| Land Use/Economic Development Opportunity: | Infrastructure efficiency improvement |
| Community Issues & Opportunities: | Eliminates unneeded or unsafe traffic movements |
| Public Agency Involvement: | Fatal/serious injury crash reduction, improve operational efficiency |
| Environmental Impact: | N/A |
| Potential Approach & Solutions: | Modify intersection control, remove roadside obstacle, intersection control improvements, enhance sight lines, new pavement markings/signs |
| Alternative(s) Studied: | None |

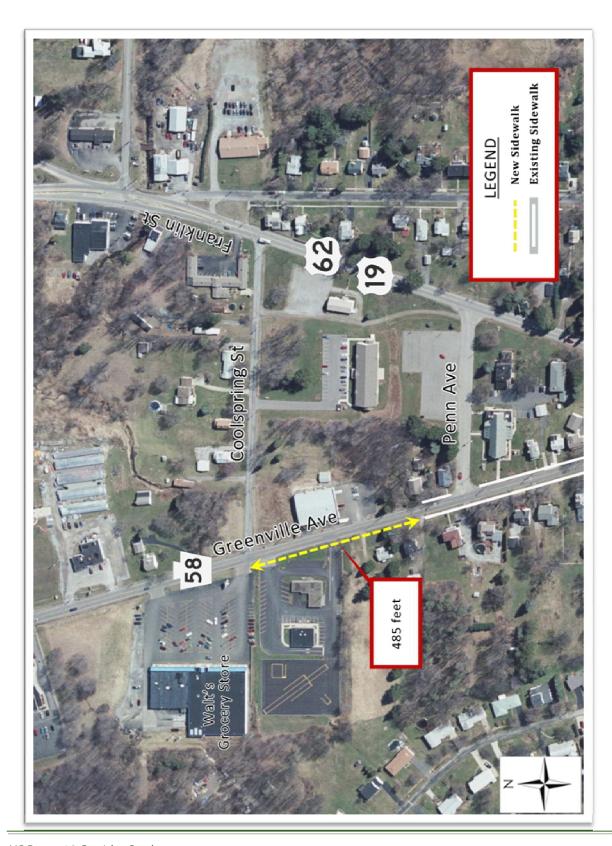


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CONSTRUCT SIDEWALK TO WALT'S GROCERY STORE

| Мар Кеу: | MM-1 (pages 95, 101, 102) |
|------------------------------|-----------------------------------------------------|
| Opinion of Probable Cost: | \$77,000 |
| Priority Rating: | A- Immediate |
| Responsible Party: | Mercer Borough, Coolspring Township, Store Owner |
| Project Partners: | MCRPC, PennDOT, DCNR |
| Funding Source: | TE, Safe Route to School, PCTI |

| Purpose: | To improve connectivity and accessibility for alternative modes of travel |
|--------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Need: | Walt's Grocery Store is located approximately 500 feet north of the Mercer Borough border and is where the majority of Mercer Borough residents shop for food. The grocery store is inaccessible for pedestrians because it lacks sidewalk connections to town |
| US 19 Study Goals & Objectives: | Goal: Enhance motorized travel and enable pedestrian access; Provide a multi-modal transportation network; Ensure safe and efficient access throughout the project area Objective: Reduce congestion and enhance access to the central business district; Improve traffic patterns and reduce conflicts; Improve the maintenance and connectivity of the sidewalk network; Mitigate points of conflict and address safety concerns at intersections |
| Location Description: | Mercer Borough and Coolspring Township |
| Project Description/ Justification: | Construct missing sidewalk connection to Walt's Grocery Store/ Road shoulders are not paved/wide enough, pedestrian facilities are lacking, bike and pedestrian interaction with vehicles is unsafe, alternates to vehicle travel are non-existent |
| Land Use Transportation Linkage: | Town/Village Neighborhood |
| Land Use/Economic Development Opportunity: | Enhancement of recreational opportunity |
| Community Issues & Opportunities: | Enhances opportunities for underserved or environmental justice populations |
| Public Agency Involvement: | Improve connectivity on existing system |
| Environmental Impact: | N/A |
| Potential Approach & Solutions: | Widening, improve road surface, new pavement markings/signs, improve pedestrian/ADA elements, bicycle improvements |
| Alternative(s) Studied: | None |



REPAIR DEFICIENT SIDEWALKS

| Мар Кеу: | MM-2 (pages 95, 101, 102) |
|------------------------------|-----------------------------------------------|
| Opinion of Probable Cost: | \$1,980,000 |
| Priority Rating: | A - Immediate |
| Responsible Party: | Mercer Borough, Residents, Business Owners |
| Project Partners: | MCRPC, PennDOT |
| Funding Source: | CDBG |

| Purpose: | To improve connectivity and accessibility for alternative modes of travel |
|--------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Need: | The borough has an existing sidewalk network with substandard or deteriorating surfaces, which creates unsafe travel for pedestrian and limits mobility. |
| US 19 Study Goals & Objectives: | Goal: Enhance motorized travel; Provide a multi-modal transportation network; Ensure safe and efficient access throughout the project area Objective: Reduce congestion and enhance access to the central business district; Improve traffic patterns and reduce conflicts; Improve the maintenance and connectivity of the sidewalk network; Mitigate points of conflict and address safety concerns at intersections |
| Location Description: | Mercer Borough |
| Project Description/ Justification: | Repair deficient sidewalks/Pedestrian facilities are lacking |
| Land Use Transportation Linkage: | Town/Village Neighborhood |
| Land Use/Economic Development Opportunity: | Infrastructure efficiency improvement |
| Community Issues & Opportunities: | Enhances opportunities for underserved or environmental justice populations, supports community projects/opportunity |
| Public Agency Involvement: | Improve connectivity on existing system |
| Environmental Impact: | N/A |
| Potential Approach & Solutions: | Improve pedestrian/ADA elements |
| Alternative(s) Studied: | None |



CONSTRUCT SIDEWALK TO DAIRY QUEEN

| Мар Кеу: | MM-3 (pages 95, 101, 102) |
|------------------------------|--------------------------------------------|
| Opinion of Probable Cost: | \$260,000 |
| Priority Rating: | B – Short to Mid-Term |
| Responsible Party: | East Lackawannock Township, Store Owner |
| Project Partners: | MCRPC, PennDOT |
| Funding Source: | TE, PCTI |

| Purpose: | To improve connectivity and accessibility for alternative modes of travel |
|--------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Need: | Pedestrians currently walk on US Route 19 to access the Dairy Queen, which creates conflicts with motorized vehicles |
| US 19 Study Goals & Objectives: | Goal: Enhance motorized travel; Provide a multi-modal transportation network; Ensure safe and efficient access throughout the project area Objective: Reduce congestion and enhance access to the central business district; Improve traffic patterns and reduce conflicts; Improve the maintenance and connectivity of the sidewalk network; Mitigate points of conflict and address safety concerns at intersections |
| Location Description: | East Lackawannock Township |
| Project Description/ Justification: | Construct missing sidewalk connection to Dairy Queen along US 19/Pedestrian facilities are lacking |
| Land Use Transportation Linkage: | Suburban Corridor |
| Land Use/Economic Development Opportunity: | Infrastructure efficiency improvement |
| Community Issues & Opportunities: | Enhances opportunities for underserved or environmental justice populations, supports community projects/opportunity |
| Public Agency Involvement: | Improve connectivity on existing system |
| Environmental Impact: | N/A |
| Potential Approach & Solutions: | Improve pedestrian/ADA elements |
| Alternative(s) Studied: | None |



CONSTRUCT NEW SIDEWALKS TO COMPLETE NETWORK

| Мар Кеу: | MM-4 (pages 95, 101, 102) |
|------------------------------|-----------------------------------------------|
| Opinion of Probable Cost: | \$700,000 |
| Priority Rating: | B - Short to Mid-Term |
| Responsible Party: | Mercer Borough, Residents, Business Owners |
| Project Partners: | MCRPC, PennDOT |
| Funding Source: | PCTI, CDBG |

| Purpose: | To improve connectivity and accessibility for alternative modes of travel |
|--------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Need: | The borough has an existing pedestrian network with missing sidewalk segments, which creates a lack of connectivity for pedestrian and limits mobility. |
| US 19 Study Goals & Objectives: | Goal: Enhance motorized travel; Provide a multi-modal transportation network; Ensure safe and efficient access throughout the project area Objective: Reduce congestion and enhance access to the central business district; Improve traffic patterns and reduce conflicts; Improve the maintenance and connectivity of the sidewalk network; Mitigate points of conflict and address safety concerns at intersections |
| Location Description: | Mercer Borough |
| Project Description/ Justification: | Construct new sidwalks to compelete pedestrian/bicycle network/Pedestrian facilities are lacking |
| Land Use Transportation Linkage: | Town/Village Neighborhood |
| Land Use/Economic Development Opportunity: | Infrastructure efficiency improvement |
| Community Issues & Opportunities: | Enhances opportunities for underserved or environmental justice populations, supports community projects/opportunity |
| Public Agency Involvement: | Improve connectivity on existing system |
| Environmental Impact: | N/A |
| Potential Approach & Solutions: | Improve pedestrian/ADA elements |
| Alternative(s) Studied: | None |

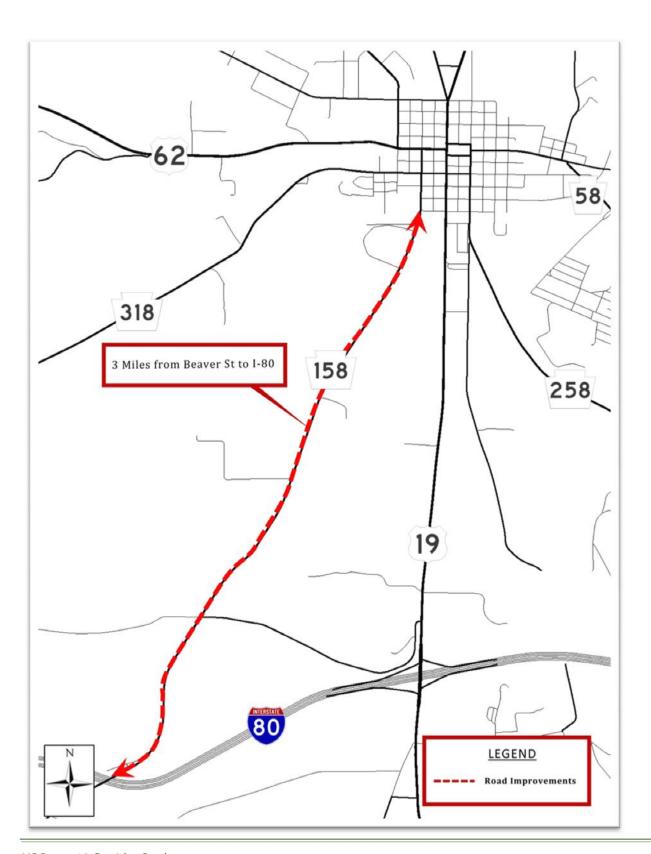


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WIDEN SHOULDERS ON SR 158 FROM BEAVER STREET TO I-80

| Мар Кеу: | MM-5 (pages 95, 101, 102) |
|------------------------------|----------------------------------------|
| Opinion of Probable Cost: | \$7,550,000 |
| Priority Rating: | C – Long Term |
| Responsible Party: | East Lackawannock Township, PennDOT |
| Project Partners: | MCRPC |
| Funding Source: | TIP |

| Purpose: | To improve connectivity and accessibility for alternative modes of travel and safety for horse-drawn buggy traffic |
|--------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Need: | The lack of shoulders on state routes does not provide sufficient cartway to accommodate horse-drawn buggies and motorized vehicles. Pedestrians and bicyclists travel state routes, but there are no supporting amenities, which contributes to potential conflicts |
| US 19 Study Goals & Objectives: | Goal: Enhance motorized travel; Provide a multi-modal transportation network Objective: Improve traffic patterns and reduce conflicts; Improve the maintenance and connectivity of the sidewalk network |
| Location Description: | East Lackawannock Township |
| Project Description/ Justification: | Widen shoulders on SR 158 from Beaver Street to I-80/Road shoulders are not paved/wide enough, pedestrian facilities are lacking, bike and pedestrian interaction with vehicles is unsafe, alternates to vehicle travel are non-existent |
| Land Use Transportation Linkage: | Rural |
| Land Use/Economic Development Opportunity: | Enhancement of recreational opportunity, infrastructure efficiency improvements |
| Community Issues & Opportunities: | Eliminates unsafe traffic movements, enhances opportunities for underserved or environmental justice populations |
| Public Agency Involvement: | Improve connectivity on existing system |
| Environmental Impact: | N/A |
| Potential Approach & Solutions: | Widening, improve road surface, new pavement markings/signs, improve pedestrian/ADA elements, bicycle improvements |
| Alternative(s) Studied: | None |



HOPE MILL ROAD -HIKER/BIKER TRAIL

| Мар Кеу: | MM-6 (pages 95, 101, 102) |
|------------------------------|------------------------------------------------------------------------------------------------|
| Opinion of Probable Cost: | \$1,760,000 |
| Priority Rating: | C – Long Term |
| Responsible Party: | Mercer Borough, East Lackawannock Township, Mercer County Trails Association |
| Project Partners: | MCRPC, PennDOT, DCNR |
| Funding Source: | TE, DCNR – Community Recreation & Conservation or Pennsylvania Recreational Trails, PCTI |

| i i | |
|--------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Purpose: | To improve connectivity and accessibility for non-motorized modes of travel |
| Need: | Pedestrians and bicyclists travel state routes, but there are no supporting amenities, which contributes to potential conflicts with motorized vehicles. |
| US 19 Study Goals & Objectives: | Goal: Enhance motorized travel; provide a multi-modal transportation network Objective: Reduce congestion and enhance access to the central business district; Improve traffic patterns and reduce conflicts; Improve the maintenance and connectivity of the sidewalk network |
| Location Description: | Mercer Borough and East Lackawannock Township |
| Project Description/ Justification: | Build hiker/biker trail along Hope Mill Road/ Road shoulders are not paved/wide enough, pedestrian facilities are lacking, bike and pedestrian interaction with vehicles is unsafe, alternates to vehicle travel are non-existent |
| Land Use Transportation Linkage: | Rural |
| Land Use/Economic Development Opportunity: | Enhancement of recreational opportunity |
| Community Issues & Opportunities: | Enhances opportunities for underserved or environmental justice populations |
| Public Agency Involvement: | Improve connectivity on existing system |
| Environmental Impact: | N/A |
| Potential Approach & Solutions: | Widening, improve road surface, new pavement markings/signs, improve pedestrian/ADA elements, bicycle improvements |
| Alternative(s) Studied: | None |

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