

January 2022

EISENHOWER DRIVE EXTENSION PROJECT

Adams and York Counties, Pennsylvania



ENVIRONMENTAL ASSESSMENT

This page intentionally left blank

**Environmental Assessment
for the Eisenhower Drive Extension Project**
MPMS #58137

Prepared by:

U.S. Department of Transportation Federal Highway Administration
and
Pennsylvania Department of Transportation Engineering District 8-0

Pursuant to 42 USC 4332(2)(c)

and as applicable

Executive Order 11990, Protection of Wetlands; Executive Order 11988, Floodplain Management
Executive Order 12898, Environmental Justice; and 49 USC Section 303(c) Section 4(f)

Approved By: _____ Date: 01/18/2022

The following persons can be contacted for information regarding this project:

Benjamin Singer, P.E. Project Manager,
PennDOT District 8-0,
2140 Herr Street, Harrisburg, Pennsylvania 17103

(717) 787-6690, besinger@pa.gov

Jonathan Crum,
USDOT | FHWA | Pennsylvania Division
228 Walnut Street, Harrisburg, Pennsylvania 17101

(717) 221-3735, Jonathan.Crum@dot.gov

This page intentionally left blank

TABLE OF CONTENTS

1.0	INTRODUCTION / PROJECT DESCRIPTION	3
2.0	PROJECT PURPOSE AND NEEDS.....	9
2.1	EXISTING ROADWAY NETWORK	11
2.2	PURPOSE AND NEEDS	15
3.0	PROJECT DEVELOPMENT	17
3.1	TIMELINE	19
3.2	ENVIRONMENTAL OVERVIEW.....	21
3.3	ALTERNATIVES DEVELOPMENT.....	23
4.0	ENVIRONMENTAL CONSEQUENCES	39
4.1	NATURAL RESOURCES	41
4.1.1	Streams, Rivers, and Watercourses	42
4.1.2	Wetlands.....	45
4.1.3	Floodplains	48
4.1.4	Threatened and Endangered Species	52
4.1.5	Geology and Groundwater.....	54
4.1.6	Agricultural Resources.....	57
4.1.7	Vegetation, Invasive Species, and Pollinators	63
4.1.8	Wildlife	65
4.2	CULTURAL RESOURCES	67
4.2.1	Above-Ground Resources	68
4.2.2	Archaeological Resources	76
4.3	SOCIOECONOMIC RESOURCES.....	79
4.3.1	Hazardous or Residual Waste Sites	80
4.3.2	Air Quality	84
4.3.3	Noise	86
4.3.4	Environmental Justice and Title VI.....	94
4.3.5	Displacements and Tax Base	99
4.3.6	Community Facilities and Services	102
5.0	INDIRECT EFFECTS	105
6.0	CUMULATIVE EFFECTS	109
7.0	SECTION 4(f) EVALUATION.....	117

8.0	PERMITTING	121
9.0	PUBLIC AND AGENCY COORDINATION	125
9.1	SUMMARY OF PUBLIC INVOLVEMENT ACTIVITIES.....	127
9.1.1	Local Municipality/Borough/County Meetings	127
9.1.2	Project Website.....	128
9.1.3	Public / Elected Officials Meetings.....	129
9.2	AGENCY COORDINATION.....	131
9.3	FUTURE COORDINATION	131
10.0	PREFERRED ALTERNATIVE	133
10.1	IDENTIFICATION OF PREFERRED ALTERNATIVE.....	135
10.2	MITIGATION COMMITMENTS.....	137
	LIST OF FIGURES	143
	LIST OF TABLES	147
	LIST OF PHOTOS.....	151
APPENDICES		
APPENDIX A: PROJECT MAPPING		
APPENDIX A-1: PROJECT RESOURCE MAPPING		
APPENDIX A-2: DETAILED ENVIRONMENTAL IMPACT MAPPING		
APPENDIX B: GLOSSARY OF TERMS		
APPENDIX C: ACRONYMS		
APPENDIX D: LAWS, REGULATIONS AND EXECUTIVE ORDERS		
APPENDIX E: MEMORANDUM OF AGREEMENT (MOA)		
APPENDIX F: DISTRIBUTION LIST		
APPENDIX G: LIST OF PREPARERS		
APPENDIX H: DRAFT INDIVIDUAL SECTION 4(f) EVALUATION		

1.0 INTRODUCTION / PROJECT DESCRIPTION



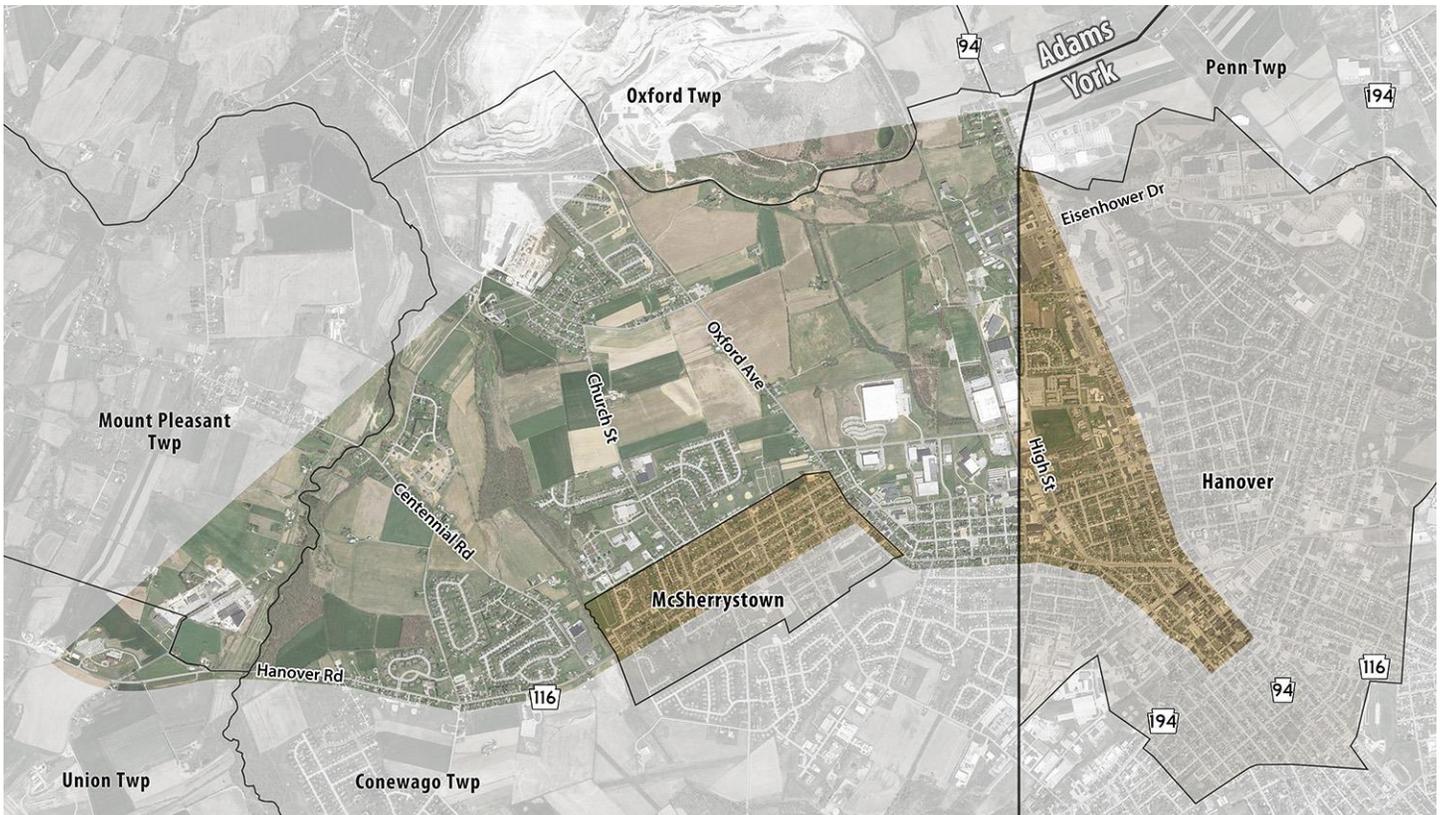
This page intentionally left blank

The Pennsylvania Department of Transportation (PennDOT) in coordination with the Federal Highway Administration (FHWA), is proposing transportation improvements in Adams and York Counties, Pennsylvania to facilitate safe and efficient travel and to meet the transportation needs of the community. The project area includes portions of Conewago, Union, Mount Pleasant, and Oxford Townships and McSherrystown Borough in Adams County and Penn Township and Hanover Borough in York County, see Figure 1. The proposed project includes extending Eisenhower Drive from its current terminus at High Street via a new roadway through Conewago Township, to a terminus at State Route (SR) 0116 (Hanover Road) west of McSherrystown and is known locally as the Eisenhower Drive Extension Project.

The project consists of a two-lane collector roadway with associated stormwater management facilities and roundabouts at Oxford Avenue, Church Street, Centennial Road, and near the intersection of Hanover Road. Traffic signals and stop signs will be considered at other intersections, as appropriate.

Roadways are grouped into classifications, or systems, to characterize their service. Eisenhower Drive is a non-state-maintained roadway and is classified as a **Collector**. **Collector** means, Eisenhower Drive is a road that provides land access services and traffic circulation, distributes trips from high-capacity urban roads through residential neighborhoods to ultimate destinations, and collects traffic from local streets and channels to urban roads.

Figure 1: Eisenhower Drive Extension Project Area



The project area encompasses mixed land uses that include residential, agricultural, commercial, and industrial uses. A variety of transportation modes exists within the project area including vehicular, transit (bus routes), freight rail, bicycle, and pedestrian.

In accordance with FHWA regulations, the proposed project connects logical termini (High Street and Hanover Road) and is of sufficient length to assess a broad scope of environmental matters, would be a reasonable expenditure if no additional transportation improvements are completed in the area, and does not restrict alternatives for other reasonably foreseeable transportation projects.

FHWA (as the lead federal agency on this highway project) and PennDOT (as the project sponsor) are producing this Environmental Assessment (EA) pursuant to the National Environmental Policy Act (NEPA) to document the preliminary engineering and environmental review process; agency coordination and public outreach efforts; impact assessments; and avoidance, minimization, and mitigation efforts undertaken for the proposed action.



Photo 1: Intermittent Tributary to Plum Creek



Photo 2: Hanover Square

This EA intends to be reader-friendly, clear, and concise; therefore, detailed technical data are contained in the technical files for the project and this document only summarizes the findings. A list of these technical files is provided below:

<p>Design-Related Technical Files</p>	<ul style="list-style-type: none"> • Eisenhower Alternatives Analysis Report • Eisenhower Drive Extension Traffic and Operation Alternatives Analysis Report • Purpose and Needs Statement • New Alignment Alternatives - Dismissal Narrative (January 2019) • Alternatives Dismissal Narrative (August 2019)
<p>Natural Resources Technical Files</p>	<ul style="list-style-type: none"> • Wetland Identification & Delineation and Phase 1 Bog Turtle Habitat Assessment Report • Phase 2 Bog Turtle Survey Report • Geological Desktop Study • PNDI Receipt (602909) • DCNR and USFWS Species Correspondence • Agricultural Operations Summary • NRCS-CPA-106 (AD-1006) Form for Farmland Impact Conversion Rating
<p>Cultural Resources Technical Files</p>	<ul style="list-style-type: none"> • Reconnaissance Survey Report • Historic Resource Survey Forms • Determination of Effect Report • Phase I/II Archaeological Investigation for Eisenhower Drive Extension
<p>Socioeconomic Resources Technical Files</p>	<ul style="list-style-type: none"> • Preliminary Technical Noise Report • Phase I Environmental Site Assessment Report • Environmental Justice and Title VI Memorandum

Project mapping (project resource mapping and detailed environmental impact mapping), glossary and acronyms, laws and regulations, distribution list, and list of preparers are provided in the Appendices of this report.

The Eisenhower Drive Extension Project (preliminary engineering and environmental phases) is included in the Adams County Transportation Planning Organization's 2021-2024 Transportation Improvement Program (TIP) and the 2015-2040 Long Range Transportation Plan. Funding is programmed in the 2021 State Transportation Improvement Program and PennDOT's Twelve-Year Plan (TYP) for final design. PennDOT anticipates state and potential federal funding for this project, but the extent of federal funding is unknown at this time. Funding to supplement these phases in the future will be included in the 2023-2034 TYP update and identified in the 2015-2040 Long Range Transportation Plan, which is undergoing its next update and will be adjusted as the project advances.

2.0 PROJECT PURPOSE AND NEEDS



Existing Roadway Network

Purpose and Needs

This page intentionally left blank

2.1 EXISTING ROADWAY NETWORK

Traffic moving from the north to the west within the project area utilizes SR 0094 and SR 0116 which are locally known as Carlisle Street, and Third Street, Main Street, and Hanover Road. Generally, Carlisle Street near Eisenhower Drive is a five-lane roadway that transitions to a three-lane roadway and has a posted speed limit of 35 miles per hour (mph). The Third Street, Main Street, and Hanover Road corridor is predominantly a two-lane roadway with additional width for a parking lane and has a posted speed limit of 25 miles per hour. In portions of the corridor, there are intersection improvements to facilitate left turn travel movements. Additionally, these roadways have uncontrolled access with numerous signalized and unsignalized intersections as well as numerous commercial, industrial, and residential entryways which influence congestion and cause travel delays. The congestion and travel delays result in motorists finding alternative travel paths and utilizing roadways that are not meant for higher traffic volumes such as Eisenhower Drive (west), High Street, Kindig Lane, and Oxford Avenue.

Origin-Destination (OD) studies are used to determine travel patterns of traffic in an area of interest for a period of time. They are useful in assisting long-range traffic planning, especially when there are substantial changes anticipated due to infrastructure improvements.

An origin and destination study conducted in 2015 for the project indicated that nearly half of the traffic that entered the corridor during the morning rush hour traveled through and exited the project area. Conversely, nearly three-quarters of the traffic passed through the project area during the evening commute. The origin and destination results indicate that regional travel contributes to the congestion and poor roadway levels of service (LOS), see graphic on following page describing the different LOS.



Photo 3: Oxford Avenue and Main Street

The full results of the project traffic analysis are detailed in the Eisenhower Drive Extension Traffic and Operation Alternatives Analysis (2019), located in the project technical file. The analysis found that:

- The Average Annual Daily Traffic (AADT), 16,100 vehicles per day (VPD) along Hanover Road, through the Borough of McSherrystown, is currently near capacity for a two-lane roadway. Traffic volumes are expected to grow to a projected AADT of 19,700 VPD for the year 2042 No Build.
- With no programmed improvements within the project area, Year 2042 No Build analyses show that PM peak hour conditions will degrade to unacceptable levels of service at the unsignalized intersections, with vehicles on the side streets waiting on average over eight minutes to enter or cross Main Street in McSherrystown.
- The following intersections are currently operating unacceptably (LOS E or LOS F):
 - Main Street and Fifth Street (unsignalized) – AM and PM Peak
 - Main Street and Second Street (unsignalized) – AM and PM Peak
 - High Street and Kindig Lane (unsignalized) – PM Peak
- The following intersections are projected to operate unacceptably (LOS E or LOS F) in the 2042 No Build Scenario:
 - Carlisle Street and Eisenhower Drive (signalized) – PM Peak
 - Main Street and Fifth Street (unsignalized) – AM and PM Peak
 - Main Street and Second Street (unsignalized) – AM and PM Peak
 - Main Street/Third Street and Oxford Ave/Elm Ave (SR 2008) (signalized) – PM Peak
 - Hanover Road and Littlestown Road (SR 2019)/Bender Road (unsignalized) – PM Peak
 - Oxford Avenue and Kindig Lane (unsignalized) – PM Peak

Level of Service	Description
A	Free flow. Motorists have a high level of physical and psychological comfort.
B	Reasonably free flow. Motorists still have a high level of physical and psychological comfort.
C	Stable flow, at or near free flow. Most experienced drivers are comfortable and roads remain safely below capacity.
D	Approaching unstable flow. Freedom to maneuver within the traffic stream is much more limited and driver comfort levels decrease.
E	Unstable flow, flow is irregular and there are virtually no usable gaps. Drivers' level of comfort is poor.
F	Forced or breakdown flow. Every vehicle moves in lockstep with the vehicle in front of it, with frequent slowing required.

- High Street and Kindig Lane (unsignalized) – AM and PM Peak
- High Street and Eisenhower Drive (unsignalized) – PM Peak
- The roadway width of Carlisle Street is reduced from a five-lane section at Eisenhower Drive to a three-lane section south of Kuhn Drive/Dart Drive. The current AADT on Carlisle Street is expected to increase from 19,100 VPD to approximately 24,000 VPD north of Eisenhower Drive and increase from 15,600 VPD to 19,000 VPD at Elm Avenue, which would exceed the capacity of a two-lane roadway. Intersection capacity analyses at the Carlisle Street/Eisenhower Drive and Carlisle Street/Elm Avenue intersections indicate that multiple turning movements are projected to operate at unacceptable levels of service (LOS E or LOS F).
- High Street is a two-lane, local street that provides an alternate parallel route to Carlisle Street, and is heavily used by both passenger vehicles and tractor trailers (5%). The Kindig Lane approach at its intersection with High Street is stop sign controlled and currently experiences congestion throughout a typical day, with vehicle queues extending across the existing railroad crossing throughout the PM peak period. Increases in traffic volumes will exacerbate these conditions. This queuing also affects operations at business driveways along Kindig Lane.



Photo 4: Carlisle Street and Eisenhower Drive

Crash data for the project area, from 2010 to 2014, shows clusters of crashes along Carlisle Street, Third Street, Main Street, and Hanover Street corridor. The crash rates (crashes per millions of vehicle-miles traveled) for most of the roadways within the project area are above the statewide average rates for similar roadway types. There are a substantial number of rear-end and angle type crashes within the project limits. These crash types are indicative of the congestion outlined above. With limited gaps in the traffic flow, drivers may need to turn when conditions are out of their comfort zone. Additionally, on-street parking and stop-and-go traffic can cause increases in rear-end crashes. Specific crash data was observed from 2010 through 2014:

- 88 crashes occurred on Third Street, Main Street, and Hanover Street corridor, in Adams County with two (2) of these crashes resulting in fatalities and three (3) of the crashes involving a pedestrian. Crash rates of 1.90 and 2.18 were calculated for two sections of the roadway; between Second Street and Fifth Street and Fifth Street and Oxford Avenue, respectively. These rates are above the statewide average rate of 1.77 for similar roadways.

- 142 crashes occurred on Carlisle Street in York County with ten of the crashes involving a pedestrian and two (2) of those pedestrian crashes resulting in a fatality. Crash rates of four segments between Eisenhower Drive and Elm Avenue ranged from 2.02 to 4.17, which are above the statewide average rate of 1.77 for similar roadways.

The Third, Main, and Hanover Street corridor currently has very narrow outside shoulders, no medians, and unrestricted on-street parking, which impedes access for emergency vehicles and limits the available space for moving disabled vehicles out of the travel lanes. The current outside shoulder widths vary from approximately one (1) to six (6) feet which also impacts bicycle usage along the corridor. The current roadways are not designated bike routes, and for that reason, cyclists traveling through the corridor will experience varying roadway conditions. Cyclists traveling the project area roadways must travel along shoulders as well as sidewalks for safe passage. Pedestrian facilities are present along SR 0094 and SR 0116 within portions of McSherrystown and Hanover Boroughs allowing pedestrian movement to and from neighborhoods to shops, places of worship, and other community amenities throughout the project corridor.

Motorists face several physical constraints that pose challenges to east-west connectivity of the local and regional roadway network in the project area. These include the CSX Railroad and Conewago Creek. While the number of daily trains along the CSX corridor is limited (2-3 daily trips), the train activity results in direct impacts to traffic within the region. This results in further congestion, delays, and safety concerns along the Third, Main, and Hanover Street corridor.

In addition, the industrial and commercial development along High Street, Kindig Lane, and the existing Eisenhower Drive corridors result in active truck traffic throughout the area. The primary sources for truck traffic include the industrial developments along Kindig Lane. Truck traffic is prohibited from using some east-west local road connections between High Street and Carlisle Street (e.g. Kuhn Drive, Clearview Drive). Therefore, typical truck traffic patterns for these major trip generators include Main Street in McSherrystown, as well as High Street, Elm Avenue, and Carlisle Street in Hanover Borough.

2.2 PURPOSE AND NEEDS

Based on the conditions discussed in the previous sections of this EA, the primary purpose of the project is to facilitate safe and efficient travel within the project area to meet both the current and future transportation needs of the area. Anticipated transportation improvements will reduce congestion and accommodate planned growth throughout this portion of the region, including a reduction in impacts of truck and commuter traffic within the project area. The secondary purpose of this project is to provide a functional and modern roadway that maximizes current design criteria within and surrounding the project area.

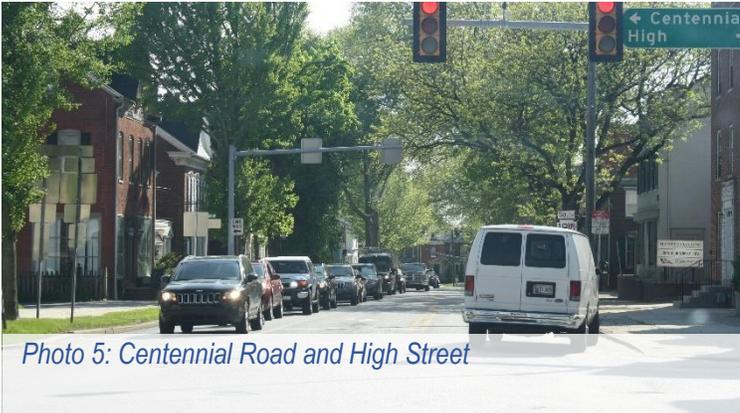


Photo 5: Centennial Road and High Street



Photo 6: Elm Street and Carlisle Street

Three project needs were identified:

- Traffic congestion results in poor levels of service.
- Poor traffic safety along Hanover Road and Carlisle Street.
- Limited mobility and poor roadway connectivity/linkages.

The Purpose and Need Statement providing detailed purpose and need support information is located in the project technical files.

This page intentionally left blank

3.0 PROJECT DEVELOPMENT



Timeline

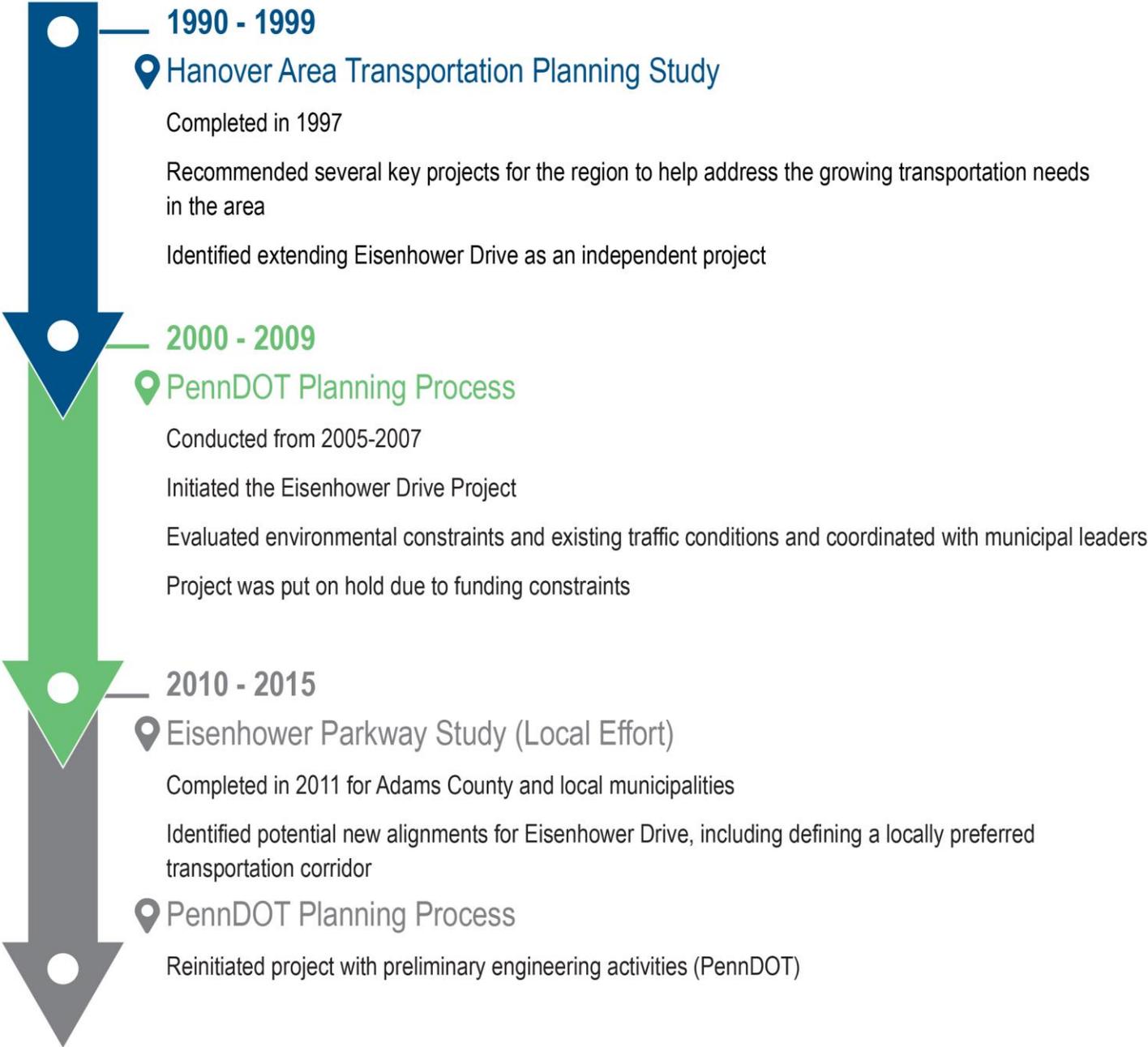
Environmental Overview

Alternatives Development

This page intentionally left blank

The Eisenhower Drive Extension Project was identified over 20 years ago by PennDOT in the Hanover Area Transportation Planning Study (1997). Since that time, a variety of studies and investigations have occurred. Below is a timeline summary for the Eisenhower Drive Extension Project since the first planning study was initiated.

3.1 TIMELINE





2016 - 2019

📍 Preliminary Engineering

- Conducted Scoping Field view to identify existing conditions and environmental resources as well as discuss potential alternatives and determine the appropriate level of NEPA documentation
- Developed conceptual design alignment alternatives and identified general environmental constraints using secondary-source data
- Initiated field studies (Wetlands, Bog Turtle Habitat Assessment, and Cultural Resources Above- and Below-Ground Surveys)
- Met with resource and regulatory agencies at an Agency Coordination Meeting
- Met with state and municipal officials, the public, business owners, and other entities approximately 2-3 times per year
- Conducted preliminary engineering and impact assessment for the build alternatives
- Identified potential mitigation needs
- Held public meetings
- Identified Preferred Alternative

2020

- 📍 Prepared the EA for agency/public review and comments
- 📍 The project was put on hold due to COVID-19 restrictions before the availability of EA could be announced

2021

- 📍 Project reinitiated by PennDOT after COVID-19 restrictions eased

2022

- 📍 Complete and circulate EA for agency/public review and comment
- 📍 Hold Public Hearing for EA
- 📍 Anticipated Preliminary Engineering Completion

Preliminary engineering activities and Design Field View are expected to be completed and a NEPA decision from FHWA is anticipated. If a Finding of No Significant Impact (FONSI) is issued by FHWA for the Preferred Alternative, the project will be advanced into the final design phase of the project development for that alternative.

3.2 ENVIRONMENTAL OVERVIEW

The Eisenhower Drive Extension project area encompasses the following municipalities: Conewago Township, Union Township, Mount Pleasant Township, Oxford Township, Penn Township, McSherrystown Borough, and Hanover Borough spanning Adams and York Counties. The project area transitions from densely developed in the south and east to rural/agricultural in the north and west. Suburban fringe development is interspersed within portions of the rural/agricultural areas along local roadways. Overall, the project area terrain consists of rolling lowlands with shallow valleys separated by rounded, isolated low hills.

The economic and community hub, including industrial, retail, restaurants, residential, and community facilities, are primarily located within McSherrystown and Hanover Boroughs, as well as southern Conewago Township. One nursing/assisted living facility is located in McSherrystown, but there are no hospitals within the project area; and several schools are located within and in the immediate vicinity of the project area. Within the project area, Environmental Justice (low-income and minority) and limited English proficient (speaks English “less than very well”) populations exist.

Other transportation modes within the project area include Rabbitransit. Rabbitransit, which is a regional public transportation provider, operates three main fixed bus routes that serve the Hanover area and run within or adjacent to the project area. There are no established bike routes located within or immediately adjacent to the project area; however, bicyclists could utilize the roadway network to traverse the project area. There are also pedestrian sidewalks predominately within portions of McSherrystown and Hanover Boroughs.

The project area also has various environmental features, including aquatic resources, agricultural land, and historic resources.



Photo 7: Intermittent Tributary to Plum Creek



Photo 8: Perennial Tributary to Slagles Run

The primary streams that either occur within the project area or feature tributaries within the project area include Plum Creek, the South Branch Conewago Creek, and Slagles Run. Approximately 26 acres of wetlands, associated with these streams, are present including multiple large wetland complexes along the Plum Creek corridor. In addition, floodplains and floodways associated with project area streams and tributaries occur primarily through the central and western portions of the project area.

There is a large band of productive agricultural lands extending through the middle of the project area that includes 30 active agricultural operations ranging in size from a couple of acres to more than 200 acres. Many of these operations are enrolled in various programs that are designed to protect productive agricultural lands and soils in Pennsylvania.

There are several listed or eligible historic resources, including two resources listed in the National Register of Historic Places (NRHP) (the listed Hanover Historic District and Conewago Chapel), and eight resources that are eligible for listing in the NRHP.

Additional information on environmental resources and impacts can be found in Section 4.0, Environmental Consequences.

3.3 ALTERNATIVES DEVELOPMENT

The alternative development process considered a broad range of transportation solutions to solve transportation needs in the area. The solutions were developed, analyzed, and advanced or dismissed based upon their ability to meet the identified project needs, impact on natural, cultural, and socioeconomic resources, public and agency input, traffic operations, and engineering design criteria. More information on the alternative development process is located in the Eisenhower Drive Extension Traffic and Operation Alternatives Analysis Report located in the project technical files.

The alternative development process was conducted in two phases:

- Conceptual Alternatives Development and Evaluation – identified a range of alternatives to aid in establishing general alternative corridor limits and assess if alternatives would meet the need and purpose, as well as established engineering design parameters and preliminary environmental impacts and concerns.
- Detailed Alternatives Development and Evaluation – focused on an additional detailed study of the alternatives advanced following the conceptual alternative development and evaluation phase of the project.



Photo 9: Main Street and Oxford Avenue



Photo 10: Hanover Square

Conceptual Alternatives Development and Evaluation

The conceptual alternatives analysis phase considered a range of alternatives on new alignment, partial new alignment alternatives, as well as options to improve the existing roadway network in order to address the failing LOS and improve safety within the project area. The conceptual alternatives included the No Build Alternative, Transportation Systems Management (TSM) Alternative, and a range of Build Alternatives. It should be noted that an existing signal improvement project (Project ID:

104371) was recently completed in Hanover Borough and is reflected in all analysis scenarios. This project installed adaptive signal controllers at the signalized intersections within the study area that are located in Hanover Borough.

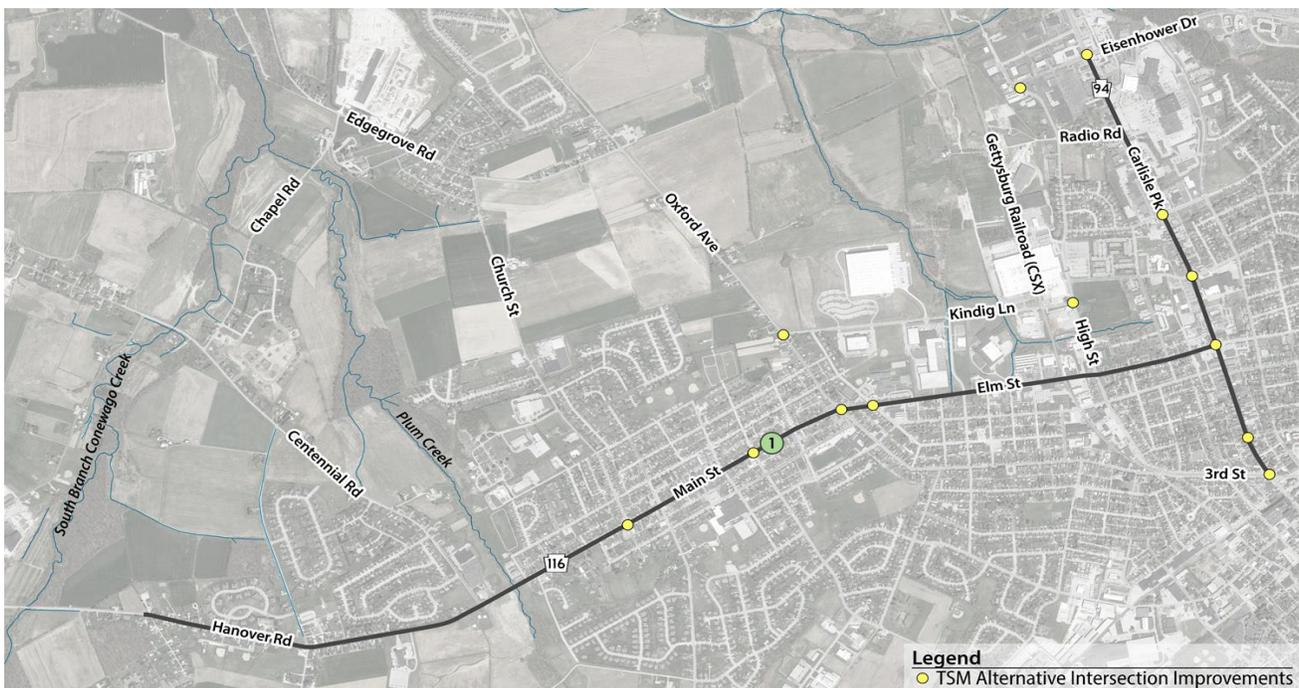
No Build Alternative

The No Build Alternative would consist of taking no action to improve the traffic or roadway system in the community.

TSM Alternative (Alternative 1)

The TSM Alternative consists of relatively low-cost transportation improvements or strategies that enhance the travel capacity of an existing roadway network by improving operational efficiency. These strategies include roadway and intersection improvements such as the installation of new traffic signals, revising existing signal timing, and construction of additional through lanes, left-turn lanes, and channelized right-turn lanes. Pedestrian accessibility and safety improvements are also proposed as a part of the TSM improvements. This includes pedestrian signal upgrades and sidewalk Americans with Disabilities Act (ADA) facility improvements. The TSM Alternative begins at the existing Eisenhower Drive and Carlisle Street intersection (located at the eastern edge of the project area) extends along Carlisle Street intersecting W. Elm Avenue and continues south on Carlisle Street to the intersection of Third and Carlisle Street. The alternative also proposes improvements west on W. Elm Avenue until Hanover Road, see Figure 2.

Figure 2: TSM Alternative

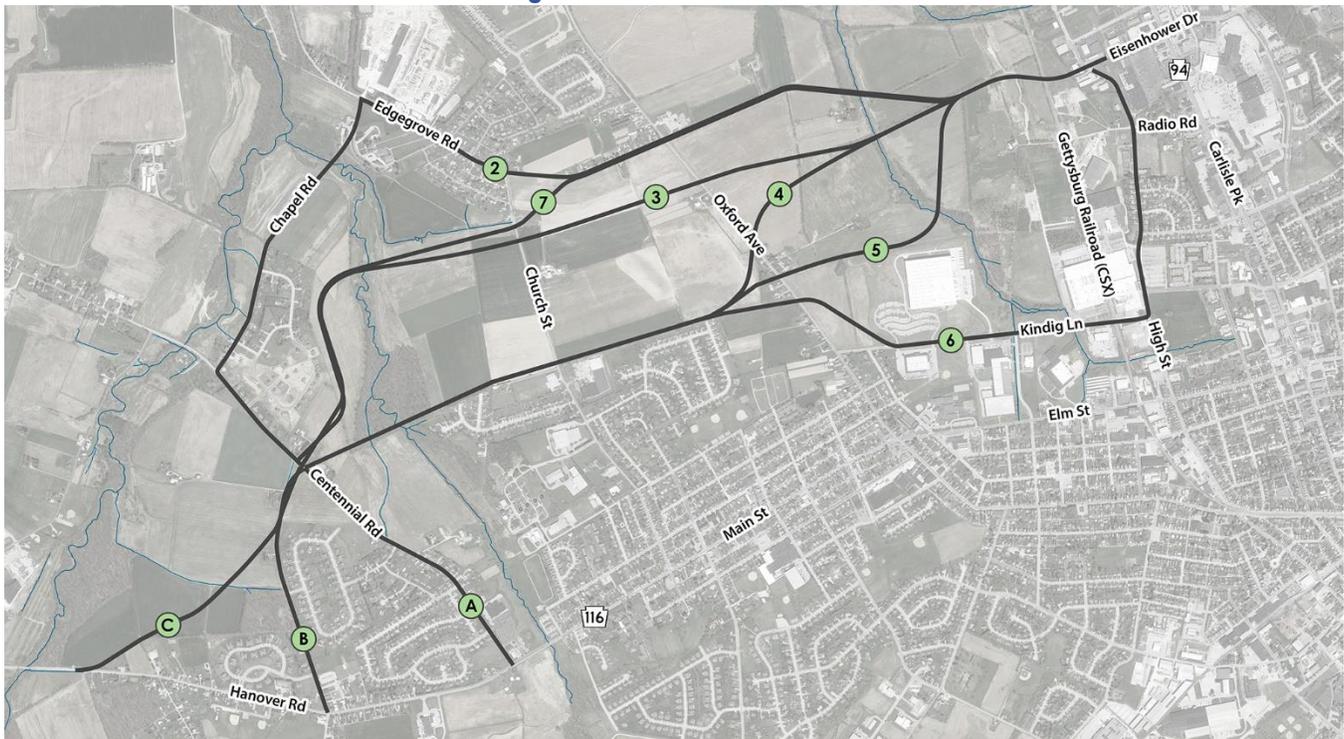


Build Alternatives (Alternatives 2-7 and A, B, C)

The Build Alternatives include transportation improvements that require off alignment construction or a combination of off alignment and reconstruction of a roadway. Six conceptual Build Alternatives (Alternatives 2-7) were initially identified.

These alternatives had minimal engineering design but were evaluated at a high level to establish preliminary impacts and determine if they meet the overall project purpose and need. Each of the alternatives start at the western terminus of Eisenhower Drive at High Street and extend westward on various alignments to a single location on Centennial Road. The alignment alternatives have three sub-alignment alternatives to extend from Centennial Road to Hanover Road (Alternatives A, B, and C), see Figure 3.

Figure 3: Build Alternatives



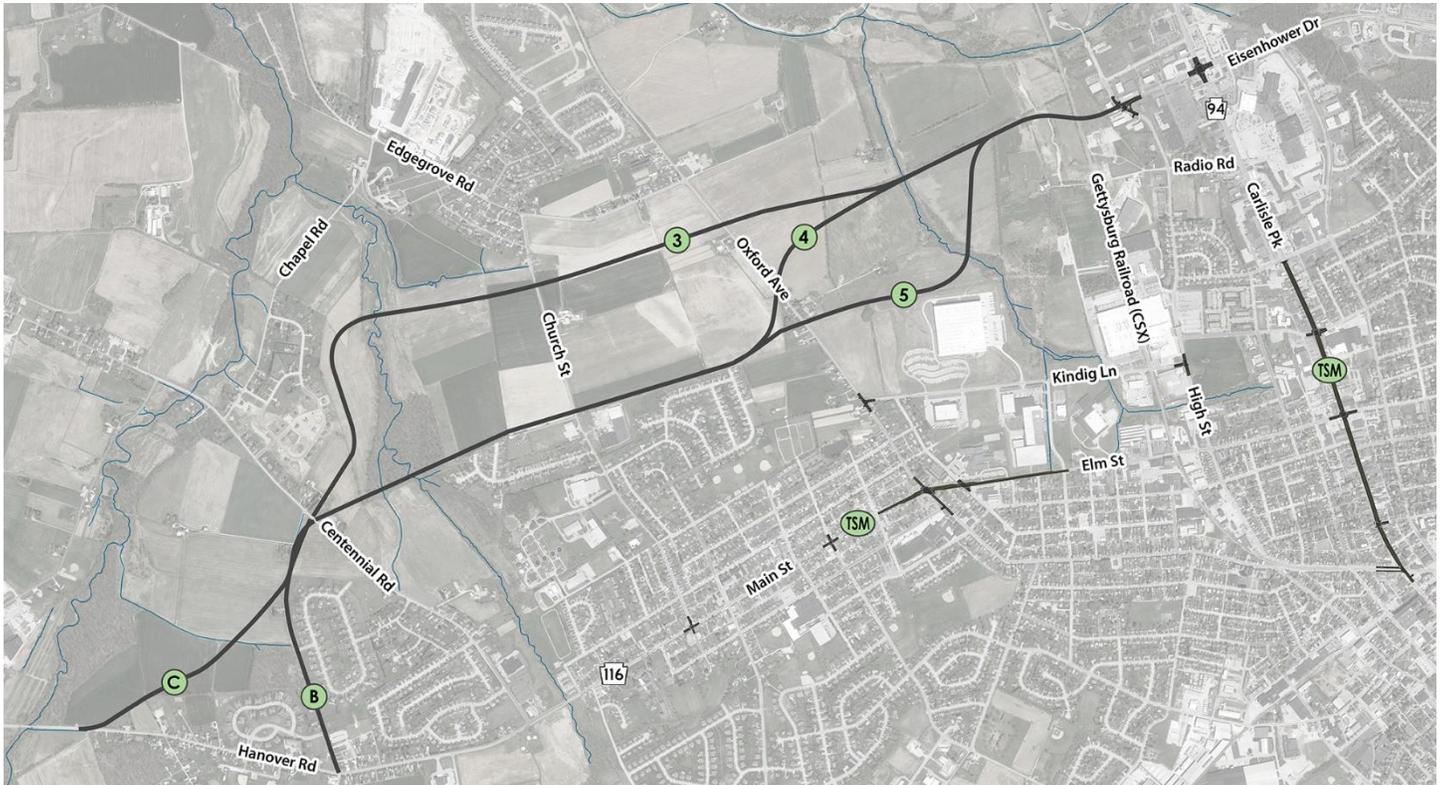
Analysis Overview

Based on the high-level corridor analysis relative to potential impacts and the ability to meet the need and purpose of the project, Alternatives 2, 6, and 7 and sub-alignment Alternative A were dismissed from further development and study. When compared to other potential alternatives, these alternatives were found to have excessive community impacts including additional congestion, including trucks, along residential streets and impacts associated with the widening of High Street, Edgemoor Road, and Centennial Road where development is immediately adjacent to the roadway. These alternatives also did not meet the project purpose and needs. The TSM Alternative and Alternatives 3, 4, and 5 and sub-alignment Alternatives B and C were advanced for alternatives development and evaluation. In addition, the No Build Alternative was primarily carried forward for comparison purposes with evaluation of the advanced build alternatives. See Table 1, Alternative Analysis Summary, at the end of this chapter for further summary of the analysis of each alternative.

Detailed Alternatives Development and Evaluation

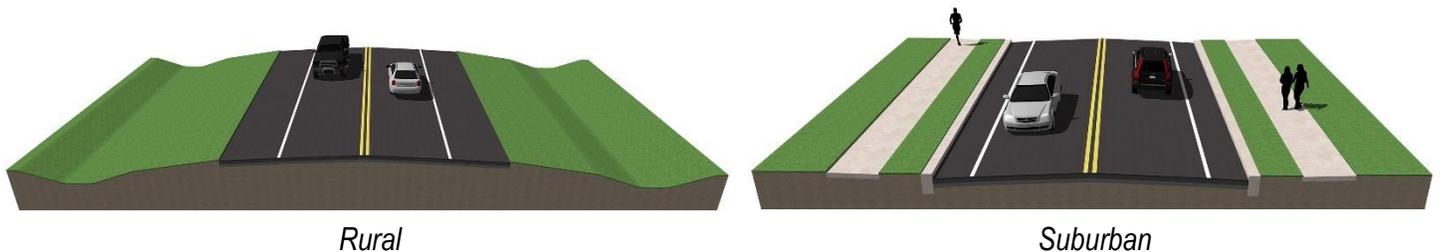
The detailed development and evaluation phase of the project included consideration of the No Build Alternative, TSM Alternative, and the Build Alternative alignments that were advanced for additional study following the conceptual alternative development and evaluation phase of the project (Alternatives 3, 4, 5, and sub-alignment Alternatives B and C), see Figure 4.

Figure 4: Detailed Alternatives



Part of the detailed evaluation included further engineering and refinement of the alternative design. This included the development of two roadway sections (rural and suburban) for the Build Alternatives. The rural corridor included 12-foot travel lanes, 8-foot shoulders, 12-foot for clear zone grading, and linear swale (2-foot deep with 4-foot bottom) adjacent to each travel lane. The suburban corridor included 12-foot travel lanes, 4-foot shoulder, 5-foot landscape buffer, and 5-foot sidewalk, see Figure 5.

Figure 5: Typical Sections



The appropriate roadway section was applied to the alternatives based on the community composition in which the alignment traversed. In addition, the TSM Alternative was further refined to identify specific improvements at 11 different intersections within the project area, see Figure 6 and following TSM detail graphics.

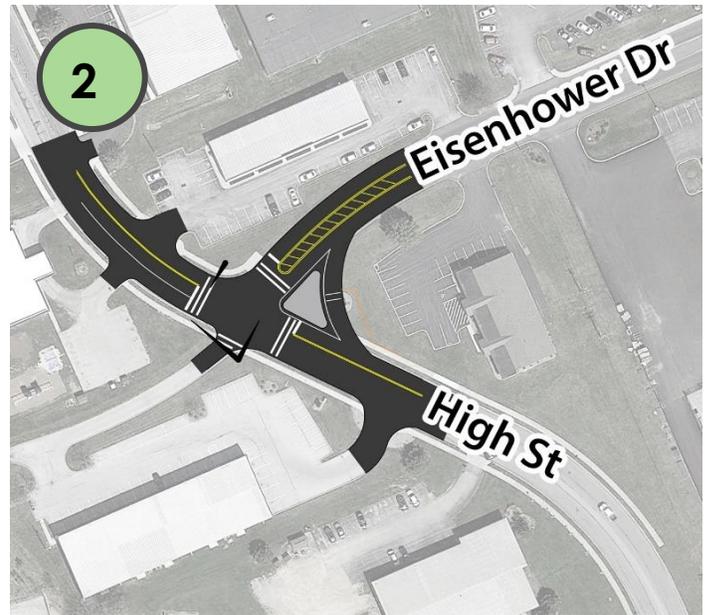
Figure 6: Detailed TSM Alternative





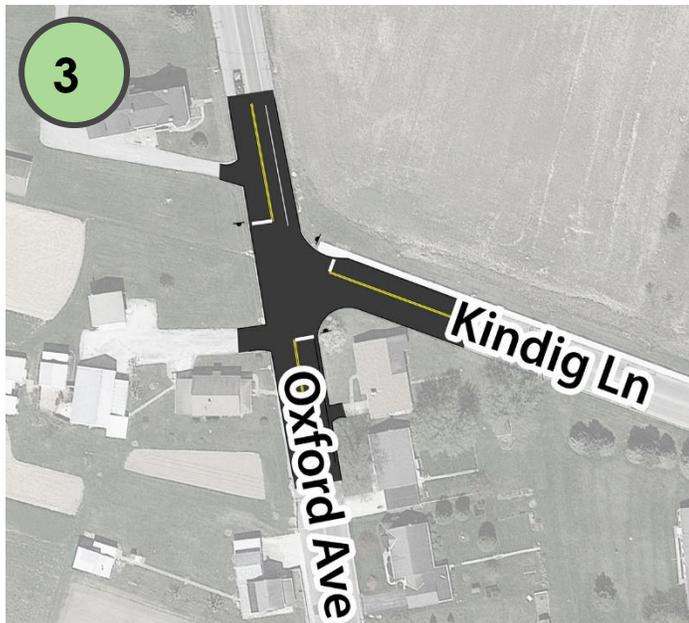
Carlisle Street & Eisenhower Drive

- Revise existing signal timing



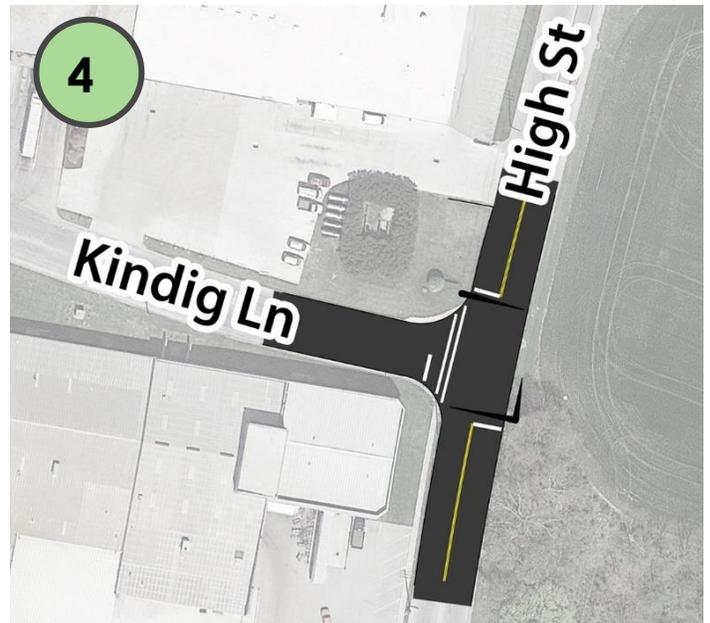
High Street & Eisenhower Drive

- Install new traffic signal
- Construct SB left turn lane
- Channelize NB right turn with yield



Oxford Avenue & Kindig Lane

- Convert to all-way stop controlled



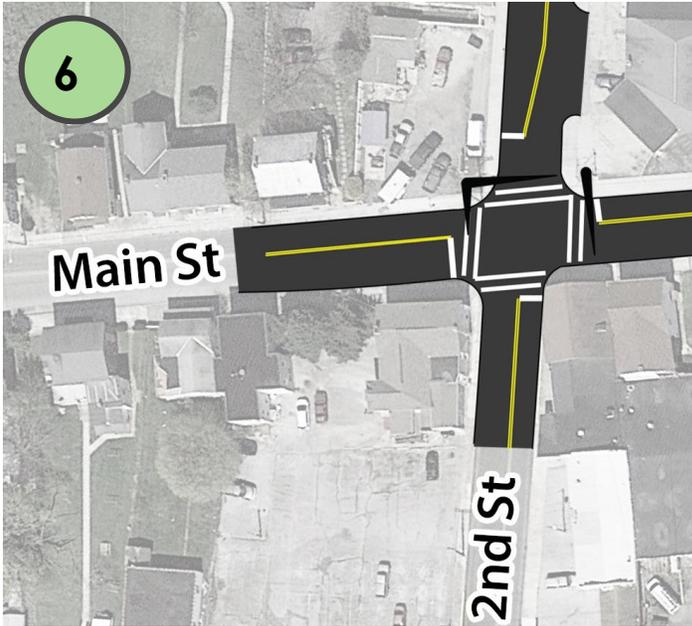
High Street & Kindig Lane

- Install new traffic signal



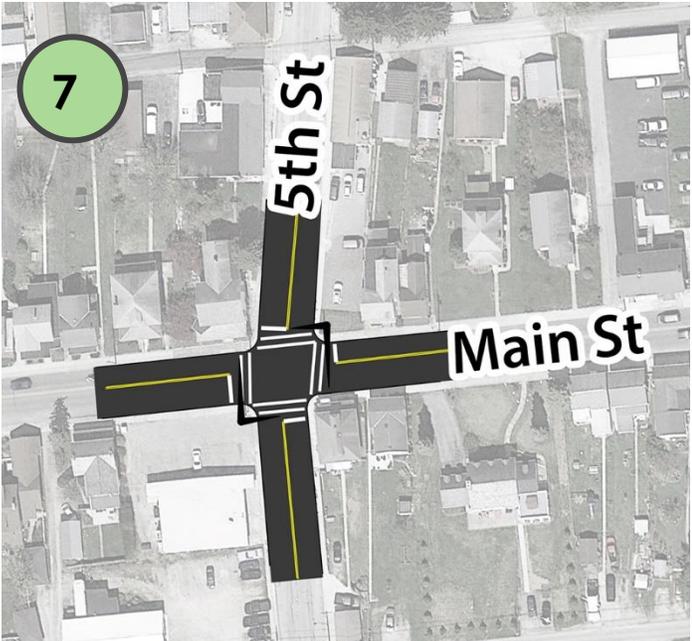
Clearview Road & Carlisle Street

- Construct additional NB through lane
- Construct additional SB through lane
- Reconstruct existing signal



Main Street & 2nd Street

- Install new traffic signal



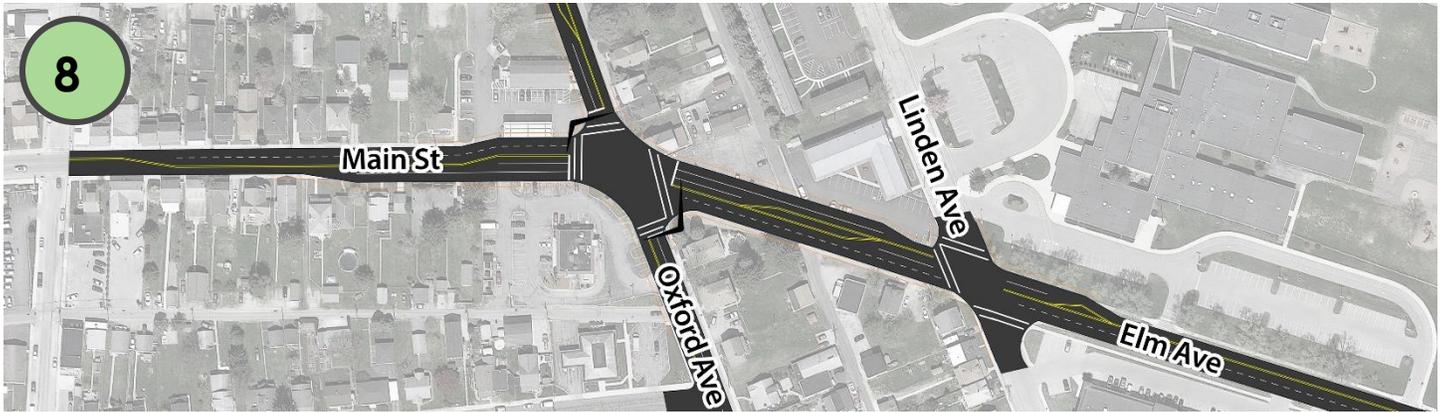
Main Street & 5th Street

- Install new traffic signal



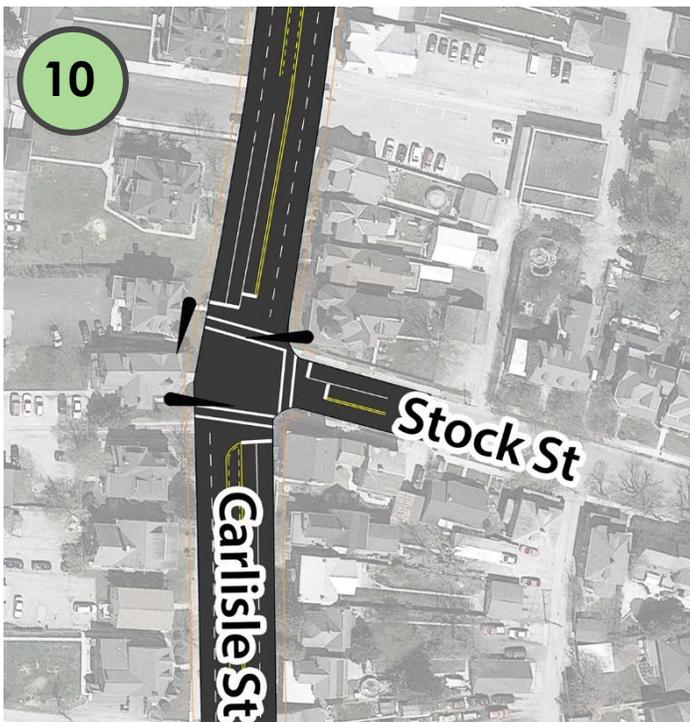
Elm Avenue (SR 3098) & Carlisle Street

- Construct additional NB through lane
- Construct additional SB through lane
- Reconstruct existing signal



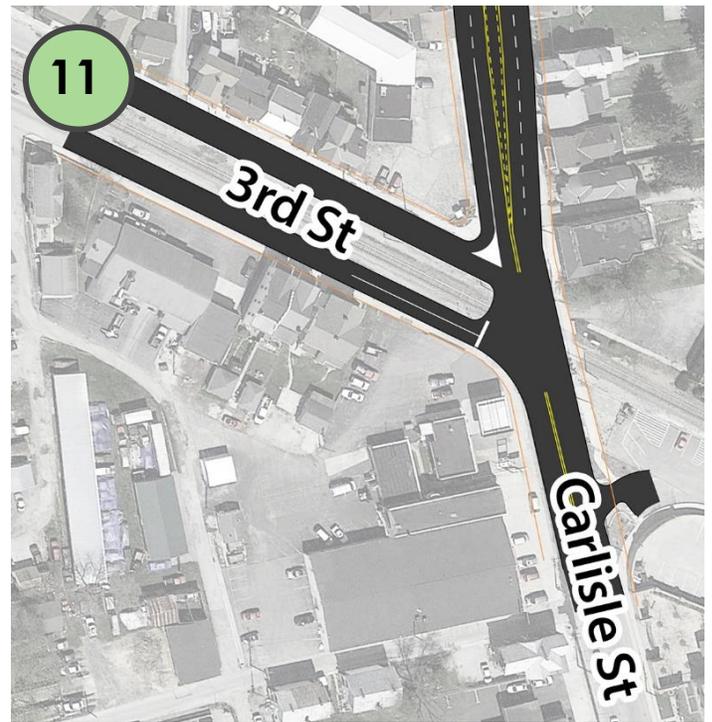
Main Street & Oxford Avenue

- Construct additional EB through lane
- Construct additional WB through lane
- Construct EB left turn lane
- Construct WB left turn lane
- Construct SB left turn lane
- Reconstruct existing signal



Stock Street & Carlisle Street

- Construct additional NB through lane
- Construct additional SB through lane
- Reconstruct existing signal



3rd Street & Carlisle Street

- Southern terminus of Carlisle Street widening

Additionally, a traffic study was conducted on each of the alternatives to understand the impact the proposed solutions would have on the roadway network in the future. The results of the traffic analysis can be found in the Eisenhower Drive Extension Traffic and Operation Alternatives Analysis report.

As a result of the detailed alternatives investigation, Alternatives 3 and 4, sub-alignment Alternative B, and the TSM Alternative were dismissed from further development and study as they had excessive environmental impacts and/or insufficiently met the project purpose and need when compared to the other alternative.

Alternatives 3 and 4 and sub-alignment Alternative B were dismissed in a memo titled New Alignment Alternatives – Dismissal Narrative (January 15, 2019), and later in project development, the TSM Alternative was dismissed in a memo titled Alternatives Dismissal Narrative (August 23, 2019). Both documents can be found in the project technical file as well as the Eisenhower Drive Extension Alternatives Analysis Report, which details the alternatives development process.

The following provides the justification for dismissing Alternatives 3, 4, sub-alignment Alternative B, and the TSM Alternative (It is important to note that when comparing the build alternatives at this phase of the project, specifically Alternatives 3, 4, and 5, the alternatives were not fully designed. Impacts were calculated using an average limit of disturbance width of 100-feet for the length of each alignment):

Alternative 3

Alternative 3 would have more impacts on agricultural resources, compared to Alternatives 4 and 5. There are five agricultural operations from which Alternative 3 would require right-of-way (ROW), that are considered to contain Productive Agricultural Land (PAL). Permanent impacts to PAL would total approximately 26.8 acres. This is not substantially greater than the amount of PAL impacted by Alternatives 4 or 5, but Alternative 3 would bisect at least seven fields on four of the five agricultural operations. Three of the four bisected operations would be left with remnant lots ranging in size between approximately 2 and 5 acres, which may be considered unusable by the property owners. Three of the five operations are Agricultural Security Areas (ASAs), and two of the three ASAs are also protected in the Adams County Agricultural Land Preservation Program. The impacts to agricultural resources are substantial compared to Alternatives 4 and 5.

Alternative 3 would travel through the northern fields of the Poist Chapel Farm and Devine Chapel Farm, which are NRHP-eligible resources, Section 4(f) properties, and PAL. In both properties, the alignment would bisect active agricultural farmland and separate active and historically associated fields from the historic farmsteads. The alignment would adversely affect both historic properties. The use of the Section 4(f) properties would be more substantial than Alternative 5 because the alignment would bisect active land from the farmstead and leave potentially unusable remnant lots for the property.

Alternative 3 was dismissed because it would cause more substantial impacts to both agricultural resources and Section 4(f) resources. It would bisect seven fields on four agricultural operations (compared to three fields on three operations in Alternative 5), more substantially impact ASAs (compared to Alternatives 4 and 5), severely impact land protected in the Adams County Agricultural Land Preservation Program and bisect both Section 4(f) properties. Additionally, the public, specifically the municipal and county staff and elected officials, oppose Alternative 3.

Alternative 4

Alternative 4 would have more substantial impacts on agricultural resources, compared to Alternative 5. Alternative 4 would impact five agricultural operations. The amount of PAL impacted by Alternative 4 is comparable to Alternative 5, but this alignment would bisect four distinct fields on two of the five agricultural operations, leaving each with an approximately 2- to

6-acre lots that may be considered unusable by the property owners. Alternative 4 would require ROW from five agricultural operations that are considered PAL, totaling approximately 21.5 acres of impacts to PAL. Three of the five operations are also designated as ASA, and two of the three ASA designated properties are designated as preserved farmland under the Adams County Agricultural Land Preservation Program.

Alternative 4 would bisect the eastern and southern fields of the Poist Chapel Farm and extend along the southern boundary of the Devine Chapel Farm. Both resources are eligible for the NRHP, Section 4(f) historic properties, and PAL. Alternative 4 would result in a finding of adverse effect on both resources. Alternative 4 would result in the use of two Section 4(f) historic properties, and the use of the Poist Chapel Farm would be greater in Alternative 4 than Alternative 5 due to the bisected farmland in the eastern and southern fields.

Alternative 4 was dismissed because it would result in impacts of greater magnitude to agricultural resources, historic properties, and Section 4(f) resources compared to Alternative 5. In addition, the public support for Alternative 4 is minimal from the municipal and county level, as well as the general public.

Sub-alignment Alternative B

Sub-alignment Alternative B was dismissed because upon further study it was determined that it did not meet the project need. Sub-alignment Alternative B would increase traffic volumes along Sunday Drive by 3,300 vehicles per day and require significant improvements at the intersection of Sunday Drive and Race Horse Road. Additional access points create conflict due to slowing and crossing traffic, which may increase crash frequency and congestion through the corridor. This would not sufficiently address the safety and congestion needs for the project. In addition, concerns regarding sub-alignment Alternative B were also raised by the municipal and county staff and elected officials.

TSM Alternative

The TSM Alternative does not meet the project purpose and need as effectively as the combination of Alternative 5 and Sub-alignment Alternative C (Alternative 5C), specific to safety. The predicted number of crashes for the TSM would be approximately 3% higher when compared to the No Build conditions. Conversely, the predicted number of crashes for Alternative 5C would be approximately 10% lower when compared to the No Build conditions.

The TSM Alternative would have a Section 106 adverse effect to the Hanover Historic District, and unavoidable impacts to a Section 4(f) resource. The TSM alternative has the potential to impact 22 contributing properties to the Hanover Historic District. Fourteen of these contributing properties would be displaced and the remaining eight properties would be potentially displaced.

The TSM Alternative would have an excessive impact on the community through significant property impacts. In total, including the properties within the Hanover Historic District, the TSM Alternative has the potential to displace 44 properties (17 multi-family properties containing 69 residential units, nine single-family properties, and 18 businesses) and impact an additional 86 properties with partial acquisitions, resulting in tax base impacts to the community. The TSM Alternative would also impact environmental justice populations, and it has the potential to encounter a greater amount of hazardous residual waste.

In addition, there is evidence of public opposition to the TSM Alternative based on feedback received from public involvement activities and feedback solicited via the project website. The source of opposition is the anticipated number of

property displacements as a result of the TSM Alternative in comparison to the much fewer displacements associated with Alternative 5C.

The TSM Alternative was dismissed because it did not meet the project need, specific to safety and resulted in excessive impacts to historic properties, Section 4(f) resources, and community resources.

See Table 1, Alternatives Analysis Summary for an overview of the alternatives analysis and see the project technical file for detailed information regarding the alternatives development process and the dismissal of Alternatives 3, 4, sub-alignment Alternative B and the TSM Alternative.



Photo 11: Elm Street and High Street Intersection



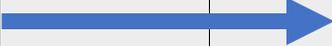
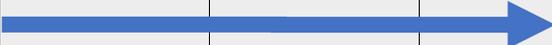
Photo 12: Main Street and Second Street

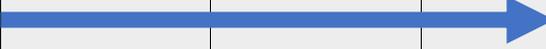


Photo 13: Carlisle Street and Eisenhower Drive Intersection

Table 1: Alternatives Analysis Summary

Alternatives	Conceptual Preliminary Alternatives Analysis	Alternatives Retained for Detailed Study	Alternatives Retained for Environmental Assessment Document	Summary of Analysis	Does Not Meet Project Need	Has Excessive Impacts
No Build Alternative				The No Build Alternative will be carried forward for detailed analysis as a part of the Environmental Assessment Document	X	
On-Line Alternatives						
Transportation Systems Management (TSM) Alternative				Based on the detailed resource evaluations, input from the local community, and coordination with agency representatives, the TSM alternative was dismissed from further studies. Justification for dismissal was previously discussed in the Detailed Alternatives Development and Evaluation writeup. In addition, the TSM Alternative falls short of addressing a key element of the purpose and need for the project, safety. The predicted number of crashes is expected to be 3% higher when compared to the No Build conditions.	X	X
Off-Alignment Alternatives						
Alternative 2				Alternative 2 was dismissed for displacement of the existing residential properties along Edgegrove Road and the result in multiple access points along the proposed alternative route. This caused both congestion and safety concerns which fell short of addressing the overall project purpose and need.	X	

Alternatives	Conceptual Preliminary Alternatives Analysis	Alternatives Retained for Detailed Study	Alternatives Retained for Environmental Assessment Document	Summary of Analysis	Does Not Meet Project Need	Has Excessive Impacts
Alternative 3				Alternative 3 displays the most potential for impacts to historic resources, Section 4(f) resources, and agricultural resources as previously discussed in the Detailed Alternatives Development and Evaluation writeup. In addition, the public, specifically the municipal and county staff, and elected officials, opposed Alternative 3.		X
Alternative 4				Alternative 4 demonstrated similar impacts as Alternative 3, though to a slightly lesser degree. However, the impacts are still large, especially when compared to Alternative 5. Justification for dismissal was previously discussed in the Detailed Alternatives Development and Evaluation writeup. Also, the public support for Alternative 4 is minimal from the municipal and county level, as well as the general public.		X
Alternative 5				Alternative 5 will be carried forward as the preferred off-alignment alternative. Alternative 5 is less impactful to Agricultural, Section 4(f), and Historic Resources.		

Alternatives	Conceptual Preliminary Alternatives Analysis	Alternatives Retained for Detailed Study	Alternatives Retained for Environmental Assessment Document	Summary of Analysis	Does Not Meet Project Need	Has Excessive Impacts
Alternative 6				Alternative 6 was dismissed because the combination of the at-grade rail crossing and truck traffic at the UTZ factory impacted this alternative's ability to meet the traffic congestion need.	X	
Alternative 7				Alternative 7 was dismissed because of the displacement of existing residential properties along Edgegrove Road as well as the need to maintain multiple access points along the proposed alternative route. This caused both congestion and safety concerns which fell short of addressing the overall project purpose and need.	X	
Sub-Alignment Alternative A				Sub-alignment Alternative A was dismissed because of traffic congestion and safety concerns associated with increasing traffic through residential areas and requiring traffic to return to Hanover Road/Main Street within an area of higher traffic congestion.	X	
Sub-Alignment Alternative B				Sub-alignment Alternative B was not supported by the Municipalities, County, or General Public. Sub Alternative B would increase traffic along Sunday Drive and require significant improvements at the intersection of Sunday Drive and Race Horse Road, and did not meet the safety and congestion needs of the project.	X	
Sub-Alignment Alternative C				Sub-alignment Alternative C will be carried forward as a part of the preferred off-alignment alternative.		

Alternatives Advanced for Evaluation in the EA

Following the two-phase alternative development and evaluation, Alternative 5 (east of Centennial Road) and sub-alignment Alternative C (west of Centennial Road) were found to meet the Purpose and Needs of the project while minimizing potential impacts to environmental resources and were advanced for evaluation in the EA. For the purpose of this evaluation, these two alternatives have been combined as one Build Alternative and will be referred to as Alternative 5C.

Alternative 5C is a complete off-alignment alternative located near the southern limits of the agricultural lands within the project area. It is proposed as a limited access roadway, allowing access at only main existing intersections within the project area.

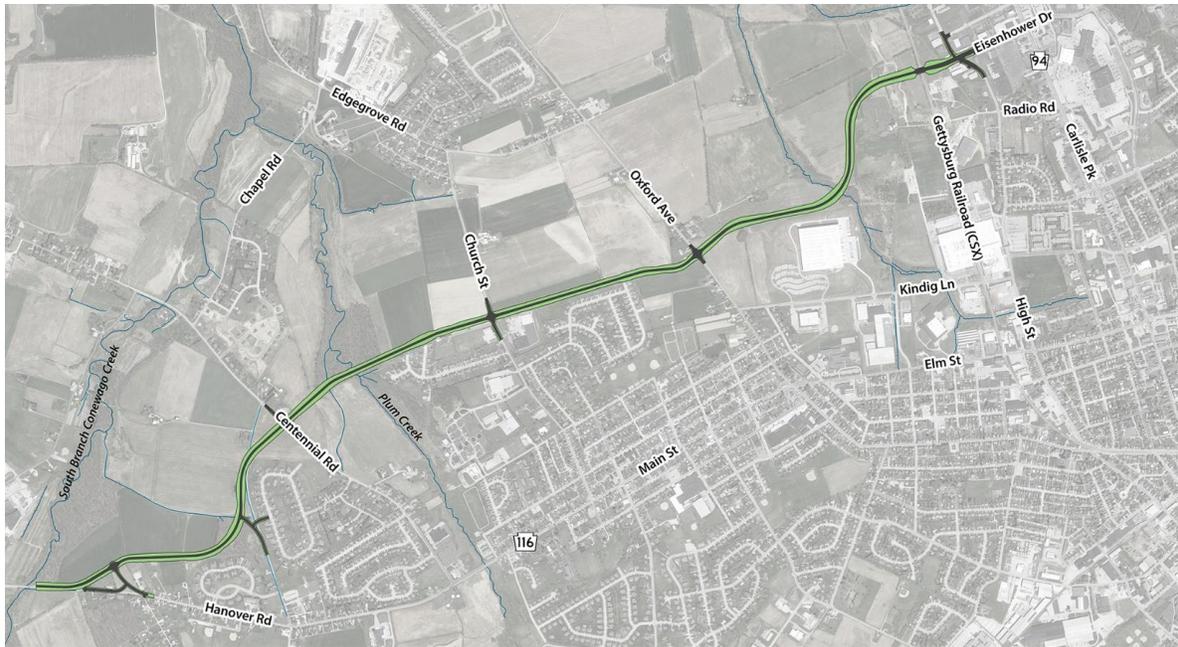
Beginning at the existing Eisenhower Drive and High Street intersection, Alternative 5C travels west over the CSX rail line and quickly turns southbound to extend along the eastern edge of the agricultural land. It then turns westbound crossing Oxford Avenue, Church Street, and Plum Creek along the southern edge of the agricultural land, adjacent to residential neighborhoods to the south. After crossing Plum Creek, Alternative 5C continues westbound and intersects with Centennial Road near the existing Centennial Road and Sunday Drive intersection. The intersections with Oxford Avenue, Church Street, and Centennial Road would be advanced as roundabouts. From the Centennial Road roundabout, Alternative 5C would continue west behind the residential community to another roundabout which would have two legs that connect to a relocated Hanover Road.

Traffic and safety impacts for Alternative 5C were evaluated for the design year and compared to the No Build conditions. Overall, all signalized intersections will operate at LOS D or better and delays will be reduced at unsignalized intersections by up to six minutes. Additionally, travel time through the study area will improve significantly. Traveling through the study area on Alternative 5C will take just over six minutes and, due to the shift of traffic to the new alignment, there will be a reduction of travel time along the existing roadways by over ten minutes. This same trip during the No Build conditions will take almost 27 minutes. The reduced congestion and the improved mobility and connectivity created by Alternative 5C is anticipated to reduce the number of crashes within the study area by 10 percent when compared to No Build conditions. This decrease is attributed to the shift of traffic from the existing roadway network, which consists of on-street parking, a significant number of driveways/access points, and narrow or non-existent clear zones, to a new alignment that incorporates 12-foot travel lanes, standard width shoulders, and clear zones.

Figure 7 includes the extent and Limits of Disturbance for Alternative 5C which were used to determine the impacts discussed in Section 4.0 Environmental Consequences of this EA. Appendix A provides the Project Mapping: Appendix A-1: Project Resource Mapping (large scale project resource mapping from the EA) and Appendix A-2: Detailed Environmental Impact Mapping within the project area.

In addition to Alternative 5C, the No Build Alternative will be considered in the EA for comparative purposes.

Figure 7: Alternative Advanced for Evaluation



4.0 ENVIRONMENTAL CONSEQUENCES



This section provides a summary of each resource evaluated in the project area; the impact to the resource by Alternative 5C and the No Build Alternative; and the avoidance, minimization and, if necessary, the mitigation measures proposed.

An impact boundary for Alternative 5C was developed to calculate impacts. The Alternative 5C impact boundary encompasses the following:

- proposed roadway cut and fill and bridge abutment and wingwall limits
- proposed addition of roundabouts;
- proposed permanent required ROW and proposed temporary construction access;
- proposed major on-site stormwater mitigation areas developed to date; and
- potential residential and commercial business displacements.

The following resources are not present within the project area; therefore, no further discussion of these resources is provided:

- coastal zones
- navigable waters
- wild and scenic rivers
- National natural landmarks
- Wildlife sanctuaries
- wilderness, natural and wild areas
- recreational resources
- State or Federal forest/park lands
- unique geological features
- national historic landmarks.

This section is broken into three categories: natural resources, cultural resources, and socioeconomic resources.

Appendix A provides the Project Mapping: Appendix A-1: Project Resource Mapping (large scale project resource mapping from the EA) and Appendix A-2: Detailed Environmental Impact Mapping within the project area.

Natural Resources

Streams
Wetlands
Floodplains
Threatened and Endangered Species
Geology and Groundwater
Agriculture
Vegetation, Invasive Species, and Pollinators
Wildlife

Cultural Resources

Above-Ground Resources
Archaeological Resources

Socioeconomic Resources

Community Impact Assessment
Environmental Justice and Title VI
Displacements and Tax Base
Air Quality and Noise
Hazardous Waste

This page intentionally left blank

4.1 NATURAL RESOURCES

Natural resources located within the project area include streams; wetlands; floodplains; threatened and endangered species; geology and groundwater; agricultural resources; vegetation, invasive species; and pollinators, and wildlife.

Streams
16 Watercourses
1,311 linear feet of impacts
5 new stream crossings
On- or off-site mitigation
Mitigation banking



Threatened and Endangered Species
Coordination with agencies for Shumard Oak and Bog Turtle
Detailed studies

Wetlands
17 wetlands
1.3 acres of impacts
On- or off-site mitigation
Mitigation banking



Wildlife
Present in the project area
No Further Action for Wildlife Crossing

Geology and Groundwater
Karst geology
Groundwater contamination
Groundwater wells



Floodplains
Detailed FEMA Floodplain
No increase to 100-year floodplain

Agriculture
Productive agriculture
12 farm operations
Impacts to PAL, ASA, ALPP, and FPPA resources

Vegetation, Invasive Species, and Pollinators
Present in the project area
Best Management Practices

4.1.1 Streams, Rivers, and Watercourses

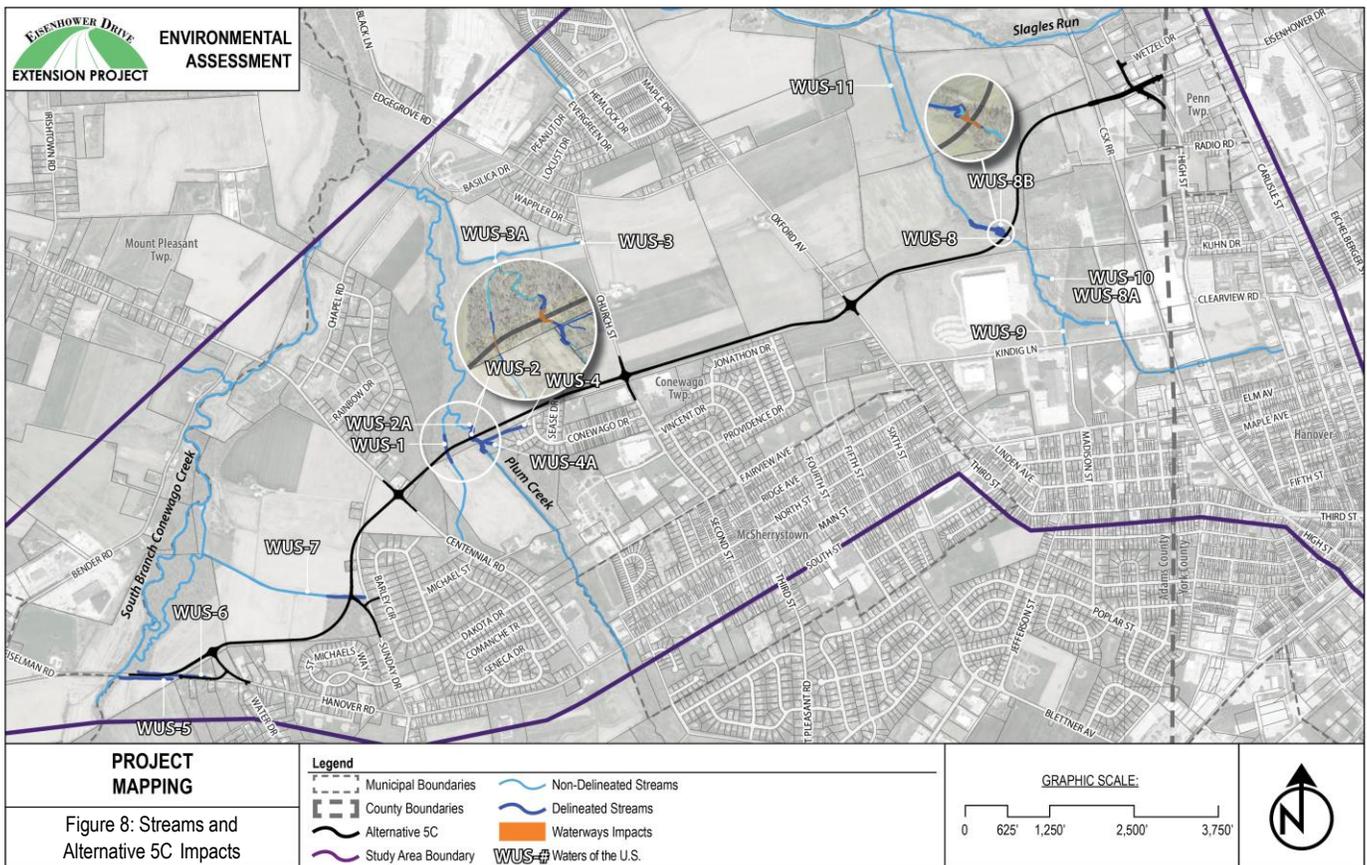
Identification

Watercourses were identified, delineated, and mapped within the project area in accordance with Chapter 105 of Title 25 of the Pennsylvania Code and Section 404 of the Federal Clean Water Act and its regulations at 33 C.F.R. Parts 320-330. Field investigations were conducted from November of 2016 through December of 2018 and resulted in the identification of 16 watercourses or Waters of the U.S. (WUS), which were in the Plum Creek-South Branch Conewago Creek and Headwaters South Branch Conewago Creek HUC-12 sub-watersheds (Figure 8). The primary streams that either occur within the project area or feature tributaries within the project area include Plum Creek, the South Branch Conewago Creek, and Slagles Run. Additional details on the watercourses identified in the project area can be found in the Wetland Identification & Delineation and Phase 1 Bog Turtle Habitat Assessment Report.

Streams

- 16 Watercourses
- 1,311 linear feet of impacts
- 5 new stream crossings
- On- or off-site mitigation
- Mitigation banking

Figure 8: Streams and Alternative 5C Impacts



Plum Creek (WUS-2)

- Is a perennial stream that flows in a northerly direction in the west-central portion of the project area
- Is a Warm Water Fishery (WWF) and Migratory Fishery (MF)

- Is not an Approved Trout Waters or stream with documented natural trout reproduction (i.e., wild trout stream)
- Has a Federal Emergency Management Agency (FEMA)-designated 100-year floodplain
- Is not considered a navigable waterway by the U.S. Army Corp of Engineers (USACE) or Pennsylvania Fish and Boat Commission (PFBC)
- Is listed in the Section 303(d) list of impaired waters based on the Aquatic Life and Recreational uses

Unnamed Tributaries to Plum Creek (WUS-1, WUS-2A, WUS-3, WUS-3A, WUS-4, WUS-4A)

- Include six intermittent watercourses located throughout the Plum Creek corridor in the west-central portion of the project area
- Are considered WWFs and MFs based on their association with Plum Creek
- Are not associated with Approved Trout Waters or streams supporting natural trout reproduction (i.e., wild trout stream)
- Are all at least partially located within the FEMA-designated 100-year floodplain of Plum Creek
- Are not considered navigable waterways by the USACE or PFBC
- Are listed in the Section 303(d) list of impaired waters based on the Aquatic Life and Recreational uses

Unnamed Tributaries to South Branch Conewago Creek (WUS-5, WUS-6, WUS-7)

- Include three intermittent streams in the southwestern portion of the project area
- Are considered WWFs and MFs based on their association with South Branch Conewago Creek
- Are not associated with Approved Trout Waters or streams supporting natural trout reproduction
- Are all at least partially located within the FEMA designated 100-year floodplain of South Branch Conewago Creek
- Are not considered navigable waterways by the USACE or PFBC
- Are listed in the Section 303(d) list of impaired waters based on the Aquatic Life and Recreational uses

Unnamed Tributaries to Slagles Run (WUS-8, WUS-8A, WUS-8B, WUS-9, WUS-10, WUS-11)

- Include two perennial and four intermittent streams in the eastern portion of the project area
- Are considered WWFs and MFs based on their association with Slagles Run
- Are not associated with Approved Trout Waters or streams supporting natural trout reproduction
- Include two streams partially located in a FEMA-designated 100-year floodplain in the northeastern portion of the project area
- Are not considered navigable waterways by the USACE or PFBC
- Are listed in the Section 303(d) list of impaired waters based on the Aquatic Life and Recreational uses

Impacts

Based on the current Limits-of-Disturbance (LOD) for Alternative 5C, there would be 1,311 linear feet of stream impact to eight watercourses (Table 2). Five new stream crossings are anticipated along the proposed Alternative 5C. They include an UNT to Slagles Run (WUS-8) in the eastern portion of the project area, Plum Creek (WUS-2) and an UNT to Plum Creek (WUS-1) in the west-central portion of the project area, and two UNTs to South Branch Conewago Creek (WUS-6, WUS-7) in the southwestern portion of the project area. Three additional streams (WUS-2A, WUS-5, WUS-8B) are situated adjacent to the proposed roadway and will be impacted by fill placement and pipe enclosures. Direct impacts to watercourses will be

adjusted during final design as additional avoidance and minimization efforts are evaluated and erosion and sediment controls are established.

Table 2: Stream Impacts by Stream and Stream Type

Stream ID	Stream Name	Stream Type	Alternative 5C Proposed Activity	Alternative 5C Impact (linear feet) ¹
WUS-1	UNT to Plum Creek	Intermittent	new culvert/bridge crossing	155
WUS-2	Plum Creek	Perennial	new bridge crossing	149
WUS-2A	UNT to Plum Creek	Intermittent	fill placement/pipe	26
WUS-5	UNT to South Branch Conewago Creek	Intermittent	fill placement/pipe	213
WUS-6	UNT to South Branch Conewago Creek	Intermittent	new culvert/bridge crossing	410
WUS-7	UNT to South Branch Conewago Creek	Intermittent	new culvert/bridge crossing	148
WUS-8	UNT to Slagles Run	Perennial	new bridge crossing	169
WUS-8B	UNT to Slagles Run	Intermittent	fill placement/pipe	41
Total Impact (acres / linear feet)				1,311
* Only impacted streams are shown in this table; 8 identified streams are avoided in Alternative 5C				
¹ Impact quantities are preliminary and are based on the overall potential impact in the current design LOD. Impacts will be further minimized and classified as permanent vs. temporary during final design				

The No Build Alternative would result in no impacts to project area watercourses.

Mitigation

PennDOT is currently in the process of considering mitigation options for unavoidable permanent impacts to watercourses associated with the proposed project. Erosion and sedimentation controls during construction will include protective fencing and other best management practices (BMPs). Post construction stormwater management concepts will include linear swales along the roadway as opposed to large basins to minimize the footprint of impacts. Additionally, other mitigation options being considered include on-site mitigation such as the utilization of open bottom culverts, larger bridge structures to increase the span of existing floodplains to improve stream corridor stability as well as allow animal passage, vegetative cover that would enhance the riparian corridor(s), localized streambank grading to decrease streambank erosion, and other stream restoration and enhancement mitigation measures as applicable. Should on-site mitigation options not fully compensate for the impacts, off-site mitigation locations within the Lower-Susquehanna River Watershed will be considered, as well as potential mitigation banking opportunities.

Temporary watercourse impacts will be restored and monitored in accordance with Chapter 105 and/or Section 404 permit conditions.

Mitigation commitments related to watercourse impacts will be defined during final design to satisfy Chapter 105 and Section 404 permit requirements and in coordination with the USACE, Pennsylvania Department of Environmental Protection (PA DEP), and the PFBC.

4.1.2 Wetlands

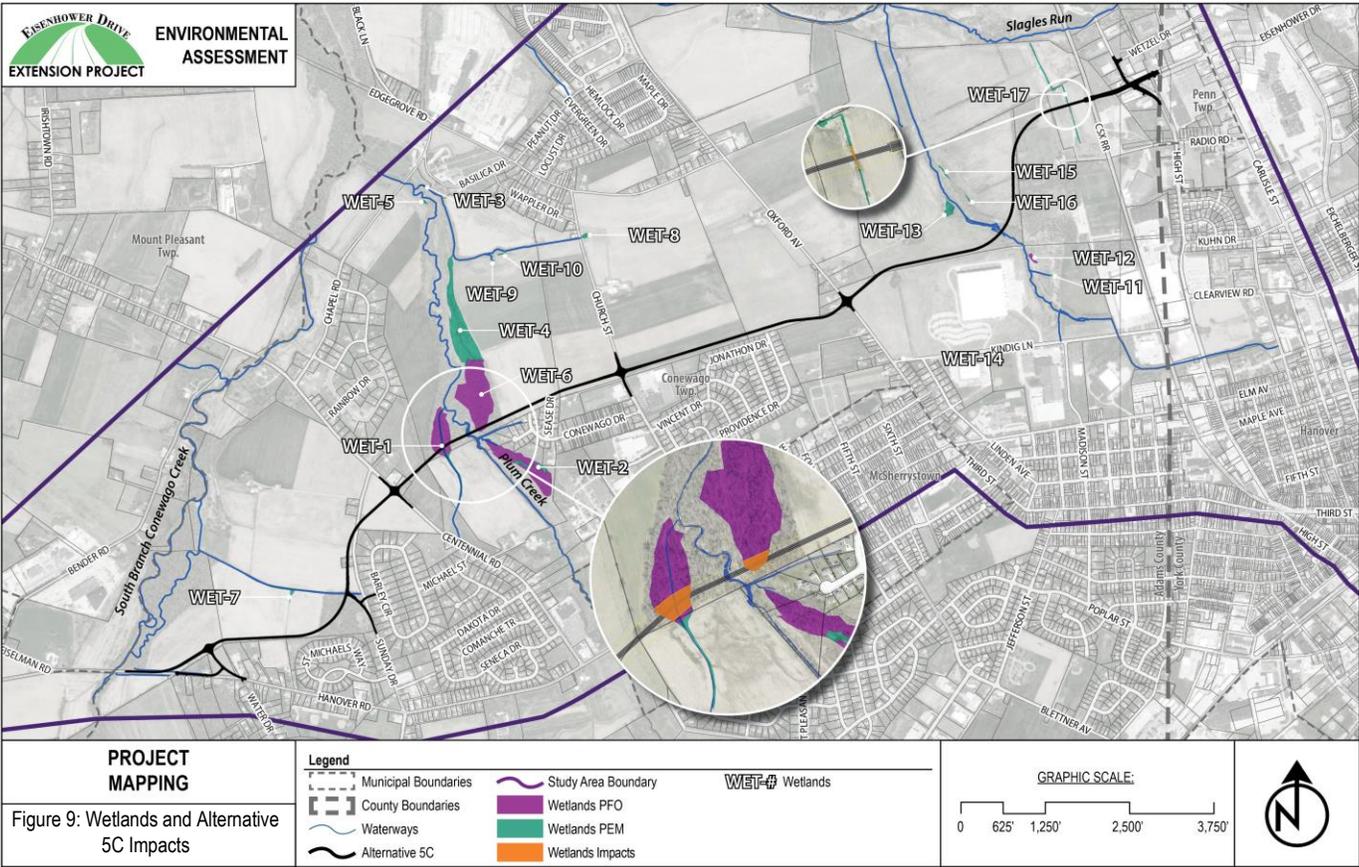
Identification

Wetlands were identified, delineated, and mapped within the project area in accordance with Chapter 105 of Title 25 of the Pennsylvania Code and Section 404 of the Federal Clean Water Act and its regulations at 33 C.F.R. Parts 320-330. Wetlands were identified using a combination of off-site review of secondary source information (e.g., National Wetlands Inventory (NWI) maps, soil survey maps, etc.) and on-site field investigations, which were conducted from November of 2016 through December of 2018. Fieldwork for the wetland identification and delineation was conducted in accordance with the USACE Wetland Delineation Manual, Technical Report Y-87-1 (1987), and the USACE Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region (2012).

Wetlands
 17 wetlands
 1.3 acres of impacts
 On- or off-site mitigation
 Mitigation banking

Field investigations resulted in the identification and delineation of 17 palustrine wetlands totaling approximately 26 acres within the project area (Figure 9). Multiple large wetland complexes were identified along the Plum Creek corridor. Additional details on the delineated wetlands and mapping of the boundaries can be found in the Wetland Identification & Delineation and Phase 1 Bog Turtle Habitat Assessment Report.

Figure 9: Wetlands and Alternative 5C Impacts



Under the Cowardin System of Wetland Classification, all 17 delineated wetlands were determined to be palustrine, which refers to non-tidal freshwater wetlands that are dominated by trees, shrubs, and other plants; are less than 20 acres in size; and have a maximum water depth of no more than 6.6 feet. Wetlands were further characterized into palustrine emergent (PEM – characterized by herbaceous and grass-like plants), palustrine scrub-shrub (PSS – dominated by woody vegetation less than 20 feet tall), or palustrine forested (PFO – dominated by woody vegetation 20 feet or taller) classifications. Of the 17 wetlands delineated in the project area, 12 were determined to be PEM wetlands, three (3) were determined to be PFO wetlands, and two (2) consisted of PFO and PEM components. Table 3 provides a summary of each wetland within the project area.

Table 3: Summary of Wetlands in the Project Area

Wetland ID	Wetland Size (acres)	Wetland Type	Main Watercourse/Drainage Associated with Wetland Location
WET-1	3.84	PFO/PEM	Plum Creek
WET-2	5.06	PFO/PEM	Plum Creek
WET-3	0.05	PEM	Plum Creek
WET-4	6.44	PEM	Plum Creek
WET-5	0.06	PEM	Plum Creek
WET-6	8.23	PFO	Plum Creek
WET-7	0.35	PEM	South Branch Conewago Creek
WET-8	0.14	PEM	Plum Creek
WET-9	0.03	PEM	Plum Creek
WET-10	0.05	PEM	Plum Creek
WET-11	0.03	PEM	Slagles Run
WET-12	0.18	PFO	Slagles Run
WET-13	0.52	PEM	Slagles Run
WET-14	0.01	PEM	Slagles Run
WET-15	0.10	PEM	Slagles Run
WET-16	0.05	PFO	Slagles Run
WET-17	0.87	PEM	Slagles Run
TOTAL	26.0		

Impacts

Based on the LOD in the current design, Alternative 5C would result in impacts to three (3) palustrine wetlands totaling 1.3 acres of impacts (Table 4). Impact quantities are preliminary and are based on the total potential impact in the current LOD for Alternative 5C. Direct impacts to wetlands will be adjusted and classified as permanent vs. temporary during final design as additional avoidance and minimization efforts are evaluated and erosion and sediment controls are established.

The majority of the acreage of wetland impact will occur along the Plum Creek corridor as a result of fill placement and construction of the new roadway. Due to the large wetland complexes along the Plum Creek corridor and other site constraints, full avoidance of wetland resources in this portion of the project area is not feasible.

Table 4: Wetland Impacts by Wetland and Wetland Type

Wetland ID	Wetland Size (acres)	Wetland Type	Alternative 5C Proposed Activity	Alternative 5C Impact (acres) ¹
WET-1	3.84	PFO/PEM	new roadway/fill placement	0.8
WET-6	8.23	PFO	new roadway/fill placement	0.4
WET-17	0.87	PEM	new culvert crossing	0.1
Total Impact (acres)				1.3
<p>* Only impacted wetlands are shown in this table; 14 delineated wetlands are avoided by Alternative 5C ¹ Impact quantities are preliminary and are based on the overall potential impact in the current design LOD. Impacts will be further minimized and classified as permanent vs. temporary during final design</p>				

The No Build Alternative would result in no impacts to palustrine wetlands within the project area.

Mitigation

PennDOT is currently in the process of considering mitigation options for unavoidable permanent impacts to wetlands associated with the proposed project. These options include mitigation banking opportunities, as well as on-site or off-site mitigation. PennDOT has acquired wetland banking credits which can be used to mitigate for wetland impacts within the Lower-Susquehanna River Watershed area. Due to the number of large improvement projects occurring in District 8-0, it is uncertain how many of these credits will be applied to this project versus another at this time. Therefore, if the credits do not fully compensate for the impacts, both on-site and off-site mitigation activities will be considered. Remnant upland parcels of low habitat value adjacent to existing streams and wetlands will be evaluated as potential wetland mitigation areas.

Mitigation commitments related to wetland impacts will be defined during final design to satisfy Chapter 105 and Section 404 permit requirements and in coordination with the appropriate agencies (PA DEP, PFBC, USACE). Temporary wetland impacts will be restored and monitored in accordance with Chapter 105 and/or Section 404 permit conditions.

4.1.3 Floodplains

Identification

Published FEMA maps were used to identify designated floodways and floodplains within the project area. FEMA published Flood Insurance Rate Maps (FIRM) and a Flood Insurance Study (FIS) contain the results of detailed studies performed on Plum Creek, the South Branch Conewago Creek, and Slagles Run to establish 100-year flood elevations.

Plum Creek, the South Branch Conewago Creek, and Slagles Run have detailed FEMA floodways and floodplains in or in the immediate vicinity of the project area (Figure 10).

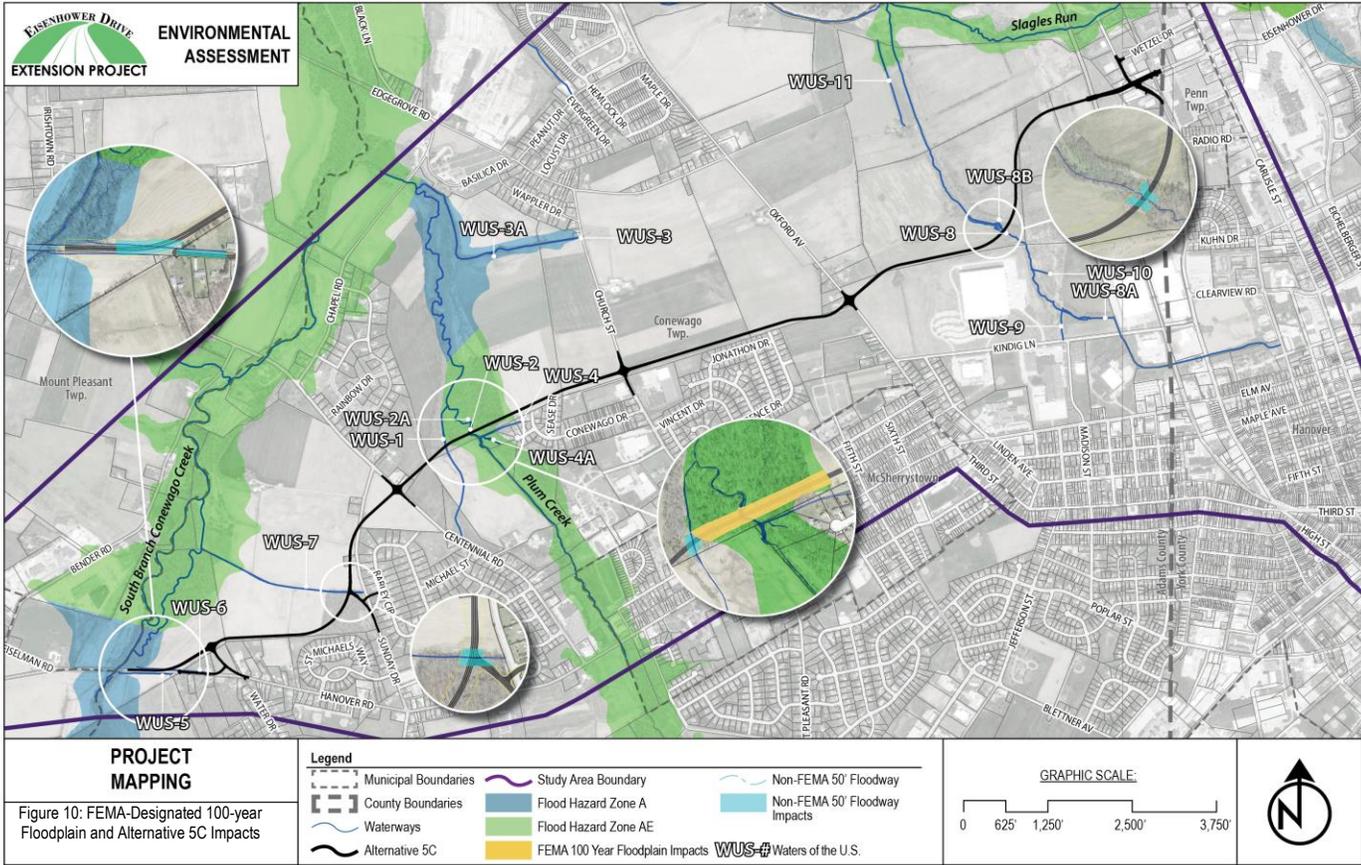
The northeastern portion of the project area features a detailed FEMA floodway and floodplain for Slagles Run, which is primarily located north of the existing Eisenhower Drive and continues approximately 4,250 feet west of the border of York and Adams counties. The Plum Creek corridor that extends north/south in the west-central portion of the project area features a FEMA-designated 100-year floodplain, as well as a detailed floodway that extends from the southern side of the project area northward to approximately 3,500 feet southeast of the confluence of Plum Creek with the South Branch Conewago Creek. Finally, the western and southwestern portions of the project area feature the FEMA-designated 100-year floodplain of the South Branch Conewago Creek. A detailed FEMA floodway also extends along the majority of the western side of the project area, stopping approximately 650 feet north of Hanover Road along the South Branch Conewago Creek corridor. According to federal regulations, when fill encroaches on a FEMA-delineated floodway, there is no allowable increase in the 100-year flood profile between existing and proposed conditions.

Floodplains

Detailed FEMA Floodplain

No increase to
100-year floodplain

Figure 10: FEMA-Designated 100-year Floodplain and Alternative 5C Impacts



Hydrologic and hydraulic (H&H) studies will be conducted during preliminary engineering to satisfy the requirements of the FHWA policy 23 Code of Federal Regulations (CFR) Part 650, Subpart A, Section 650.117. Peak flows will be computed using the hydrologic methods and models described in PennDOT Design Manual 2, Section 10.6.C, and hydraulic analyses will be performed using the USACE HEC-RAS River Analysis System program.

When streams do not feature FEMA-mapped floodways/floodplains, then it is assumed per PA DEP regulations (Chapter 105 of Pennsylvania Title 25), absent evidence to the contrary, that the floodway extends from the stream 50 feet landward from the top of bank. Therefore, any H&H studies conducted for stream crossings will be used to delineate the floodway/floodplain boundaries; otherwise, 50 feet from the top of bank on each side of the stream will be considered the regulated floodway. These floodway boundaries are mapped on Figure 10 for segments of streams that were officially delineated and lacked FEMA-mapped floodways/floodplains, which include WUS-1, WUS-5, WUS-6, WUS-7, WUS-8, and WUS-8B.

Impacts

Based on the current design, Alternative 5C would result in approximately 2.7 acres of impact to the FEMA-designated 100-year floodplain/floodway due primarily to the construction of a new crossing of Plum Creek and associated roadway. Because Plum Creek runs north/south through the project area, encroachment and fill placement in the floodplain cannot be avoided. The floodplain encroachments associated with Alternative 5C will be further minimized during Final Design engineering to avoid increases to the 100-year base flood elevation and are thus not anticipated to result in an increase to the potential for flood damages in the project area.

Because detailed H&H studies have yet to be conducted for this project, floodways for stream reaches in the Alternative 5C footprint that do not have FEMA-delineated floodway/floodplain boundaries were mapped as 50 feet landward from the top of each bank. Based on the current design, construction of Alternative 5C would result in approximately 2.5 acres of impact to non-FEMA designated floodways (see Table 5), due primarily to the construction of new roadway and stream crossings.

Table 5: Floodplain/Floodway Impacts for FEMA and Non-FEMA Delineated Streams

Stream ID	Floodplain/ Floodway Type	Alternative 5C Proposed Activity	Alternative 5C Impact (acres) ¹
WUS-2/WUS-2A²	FEMA 100-year floodplain/floodway	new roadway/fill placement, stream crossing	2.7
Total FEMA 100-Year Floodplain/Floodway Impacts			2.7
WUS-1	50-foot Floodway	new roadway/fill placement, stream crossing	0.4
WUS-5/WUS-6²	50-foot Floodway	new roadway/fill placement, stream crossing	1.3
WUS-7	50-foot Floodway	new roadway/fill placement, stream crossing	0.4
WUS-8/WUS-8B²	50-foot Floodway	new roadway/fill placement, stream crossing	0.4
Total Non-FEMA Floodway Impacts			2.5
* Only impacted floodplains/floodways are shown in this table			
¹ Impact quantities are preliminary and are based on the overall potential impact in the current design LOD. Impacts will be further minimized and classified as permanent vs. temporary during final design			
² Impacts for these pairs of streams were combined due to overlap of the floodplains/floodways			

Although Alternative 5C would result in approximately 2.7 and 2.5 acres of encroachments to the FEMA 100-year floodplain and non-FEMA floodways, respectively, no adverse floodplain impacts are anticipated to occur because the new structures would be designed to adequately convey the 100-year flood flows.

The No Build Alternative would have no impact on floodplains or floodways.

Mitigation

In accordance with 23 CFR Part 650.115 and 650.117, detailed H&H analyses will be conducted during final design for floodplain encroachments associated with Alternative 5C to ensure that structures are properly sized for the design flood and impacts to the base flood are minimized to the greatest extent possible.

Prior to construction of Alternative 5C, PennDOT will obtain all required state and federal water obstruction and encroachment permits. Any proposed fill within the 100-year floodplain will comply with FEMA regulations, and PennDOT will coordinate with the appropriate municipalities regarding consistency with local floodplain regulations.

It is not expected that Alternative 5C will result in an increase in the potential for flood damage in the project area, and therefore mitigation for floodplain impacts is not anticipated for this project. Should an increase in water surface elevation be identified later in final design, a Conditional Letter of Map Revision (CLOMR) will be submitted for FEMA compliance. PennDOT will coordinate with the municipalities as part of this submission.

4.1.4 Threatened and Endangered Species

Identification

Threatened and endangered (T&E) species are protected federally under the Endangered Species Act (ESA) of 1973 and are protected at the state-level in Pennsylvania through regulations contained within the Pennsylvania Fish and Boat Code (30 Pa.C.S. §§102, 2502, 2504, and 2506), the Game and Wildlife Code (34 Pa.C.S. §§ 102, 925, 2164-67, and 2924), the Wild Resource Conservation Act (32 P.S. §§ 5301-5314), and the Conservation of Pennsylvania Native Wild Plants (17 Pa. Code § 45.1-91).

Threatened and Endangered Species

Coordination with agencies for Shumard Oak and Bog Turtle
Detailed studies

The Pennsylvania Natural Diversity Index (PNDI) database operated by the Pennsylvania Department of Conservation and Natural Resources (DCNR) was accessed to determine if occurrences of threatened and endangered species and their habitats or other sensitive resources were known within the vicinity of the proposed project area. The PNDI receipt obtained through this search acts as preliminary coordination with the DCNR, Pennsylvania Game Commission (PGC), PFBC, and U.S. Fish and Wildlife Service (USFWS).

PNDI Coordination – The PNDI Receipt (PNDI- 602909) was obtained on June 20, 2019 and was updated on May 20, 2021 (see the project technical file). The PNDI receipts identified a potential impact to the PA-state endangered Shumard’s oak (*Quercus shumardii*) under the jurisdiction of the DCNR.

Bog Turtle – Adams and York Counties are within the known range of the federally threatened bog turtle (*Glyptemys muhlenbergii*). Although the preliminary PNDI Receipt (PNDI-602909) obtained on May 2, 2016 did not identify a known potential conflict with the bog turtle in the project area, a bog turtle habitat evaluation was still required per the PNDI Receipt in order to satisfy the bog turtle habitat screening requirements of the Pennsylvania State Programmatic General Permit (PASPGP). A Phase 1 Bog Turtle Habitat Assessment was completed in 2016 and 2017, and a Phase 2 (Presence/Probable Absence) Bog Turtle Survey was completed in 2018. The final versions of the Wetland Identification & Delineation and Phase 1 Bog Turtle Habitat Assessment Report and Phase 2 Bog Turtle Survey Report are available in the project Technical File. Based on the updated PNDI Receipt obtained on May 20, 2021, the project area no longer occurs within the current extant range of the bog turtle recognized by USFWS, and no further coordination regarding the species is required.

Impacts

The potential impacts under Alternative 5C would include the following:

PNDI Coordination – Coordination with the DCNR regarding the Shumard’s oak noted in the PNDI receipt was completed on July 15, 2019 and on May 26, 2021. The DCNR determined that no impact was likely to result from the proposed Alternative 5C Alignment. The DCNR correspondence is provided in the project technical file.

Bog Turtle – Although marginal potential habitat was identified from the Phase 1 Bog Turtle Habitat Assessment, no bog turtles were observed during the Phase 2 Bog Turtle Surveys. Coordination with the USFWS was completed on July 9, 2019, in which the agency determined that construction of the project will not affect the bog turtle. As noted above and per the updated PNDI Receipt obtained on May 20, 2021, the project area no longer occurs within the

current extant range of the bog turtle recognized by USFWS, and no further coordination regarding the species is required. The USFWS correspondence is provided in the project technical file.

The No Build Alternative would have no impacts on threatened or endangered species.

Mitigation

Because the project will not result in potential adverse impacts, no mitigation for threatened and endangered species is anticipated. The PNDI receipt and required agency coordination will be updated, as necessary, as the project moves through the final design and permitting stages.

4.1.5 Geology and Groundwater

Identification

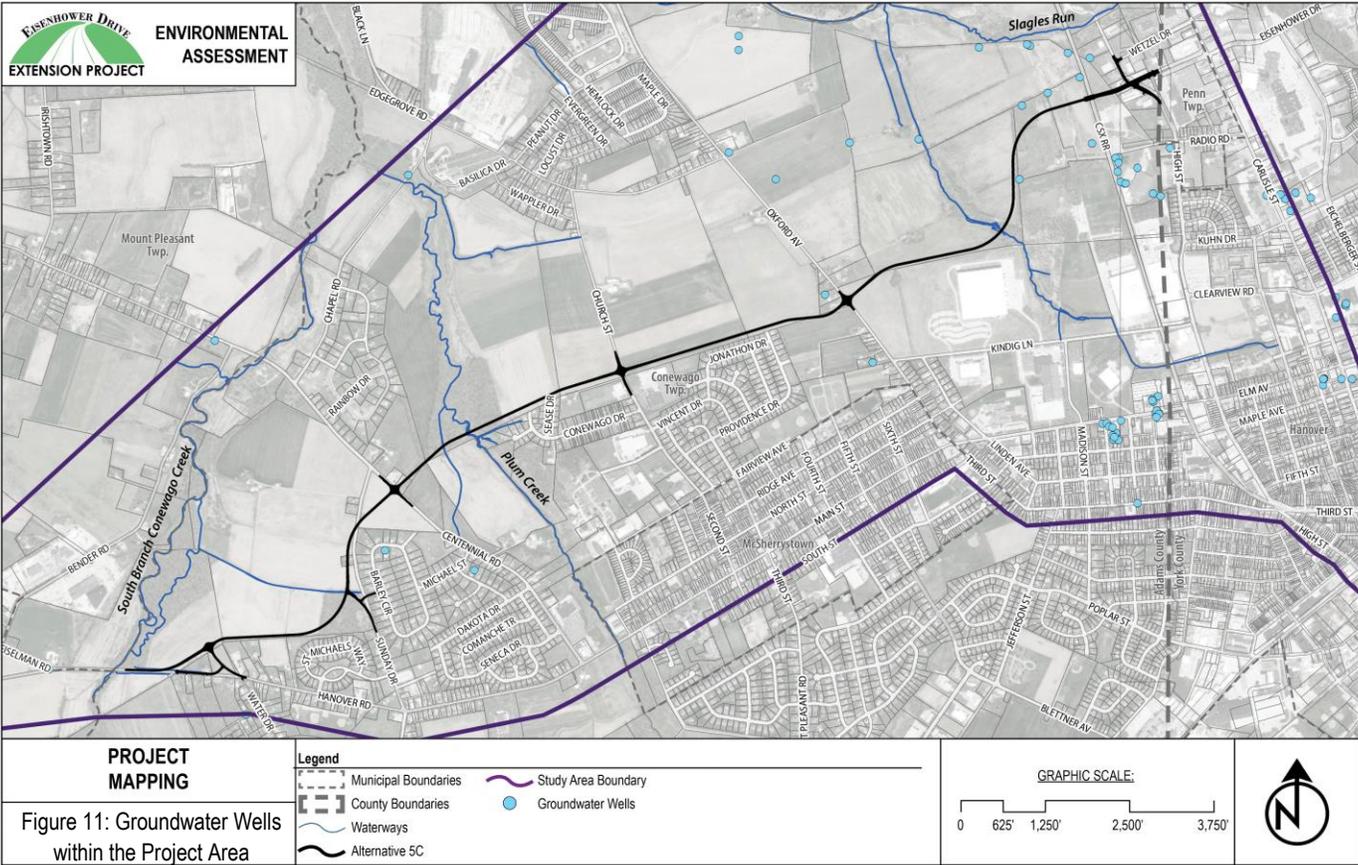
Soils, geology, and groundwater are major factors in determining the types of foundations, cut slopes, pavement sections, subsurface drainage, retaining walls, and bridges required for the project area. Soils and geology refer to the physical material that makes up the ground. These physical characteristics also determine the risk of erosion, acid runoff, and other types of behavior, which can affect the environment. Groundwater refers to the water that occurs underground in saturated zones beneath the land surface. The quality and quantity of groundwater sources can affect drinking water supplies and the hydrology of water bodies such as wetlands, streams, and ponds, as well as slope stability.

An online search of the Pennsylvania Groundwater Information System (PaGWIS), which is compiled by the Pennsylvania Topographic and Geological Survey, was conducted for approximate depths to bedrock and static water levels at the vicinity of the project site. According to well data within a 2.5-mile radius of the site, the depth to bedrock varied between five and 35 feet below ground surface (ft. bgs), with an average depth of approximately 15 ft. bgs. The depth of static water levels varied between eight and 187 ft. bgs, with an average depth of approximately 53 ft. bgs.

A review of PA DEP eMapPA and the PaGWIS website identified 160 PaGWIS Well Water Inventory records within approximately 500 feet of the project area (Figure 11). Based on the PA DEP database, the use of many of these wells was listed as observation, monitoring, mining, or abandoned. Seventeen wells were identified as withdrawal wells, with ten noted for domestic use, six for commercial use, and one for industrial use.

**Geology and
Groundwater**
Karst geology
Groundwater contamination
Groundwater wells

Figure 11: Groundwater Wells within the Project Area



According to the Geological Desktop Study, the geologic formations in the project area are largely comprised of carbonate bedrock (limestone and/or dolomite) and karst-like features. The carbonate bedrock portions of the project area are made up of the Conestoga Formation and the Kinzers Formation. Detailed information regarding each formation is in the Geological Desktop Study located in the technical file.

There are no unique geologic features in the project area.

Impacts

Preliminary subsurface and other studies were conducted to aid in assessing potential impacts to/from groundwater that would result from Alternative 5C. Additional geotechnical studies will be conducted during final design, and any concerns will be addressed during the final design stage of the project.

Hazardous Waste studies identified both confirmed and potential groundwater contamination at multiple sites throughout the project area. The Phase I Environmental Site Assessment Report, found in the project technical file, as well as the Hazardous Waste Discussion in this EA (Section 4.3.1) summarizes this information and provides recommendations on how to address the potential groundwater contamination during construction, which includes recommendations for further investigation/testing at five properties that occur along Alternative 5C.

Two of the domestic withdrawal wells identified in the PaGWIS database occur within 500 feet of Alternative 5C but are not located within the anticipated LOD for this alignment. Pre- and post-construction sampling of any groundwater wells (this excludes abandoned and closed-loop geothermal wells) would be determined during final design based on the potential for impacts during construction activities. Wells that are directly impacted by the project would be decommissioned and should follow the well decommissioning procedures outlined in the PA DEP Groundwater Monitoring Guidance Manual.

The karst like features in this area have caused numerous noted closed depressions and sinkholes throughout the project area. There is a potential for sinkholes during construction along the proposed Alternative 5C. Subsurface investigations should occur in final design to define areas of concern as the roadway and bridge designs are further developed. Areas of concern include: foundation stability which could impact project costs; and concerns in relation to the ultimate location and design of stormwater management BMPs which could impact the project's LOD. Should these investigations uncover concerns, the concerns will be addressed accordingly during final design and construction.

Construction of Alternative 5C has the potential to temporarily increase erosion during construction, disturb soils during cut and fill operations, and produce construction-related vibration; however, these impacts will subside upon the completion of construction.

The No Build Alternative would have no impact on geology or groundwater.

Mitigation

Erosion and sediment controls will be utilized during construction activities. Continued subsurface investigations to identify karst features and groundwater investigations including well monitoring and abandonment, will occur in final design, as required. In order to minimize the potential for sinkholes, the Geological Desktop Study recommends that the contractors should not allow water to pond, water that enters an excavation should be removed, and blasting should not occur.



Photo 14: Groundwater upwelling within a PEM wetland



Photo 15: Low-lying grove of trees with boulders in project area

4.1.6 Agricultural Resources

Identification

Laws that protect agricultural land in Pennsylvania include Pennsylvania Act 1979-100, Administrative Code of 1929 (Act 100); Pennsylvania Act 1981-43, Agricultural Area Security Law, as amended (Act 43); 4 Pa Code Chapter 7, §7.301 *et seq.*, Agricultural Land Preservation Policy (ALPP); and Farmland Protection Policy Act (FPPA), 7 USC §4201 as amended.

Agriculture

Productive agriculture
12 farm operations
Impacts to PAL, ASA, ALPP,
and FPPA resources



Photo 16: General agricultural resources landscape within the project area

Prime Agricultural Land is defined under the ALPP as active farmland devoted to agriculture (excluding timber) for at least the past three years, which falls into one of the five protected categories:

- preserved farmland (conservation easement),
- enrolled in an agricultural security area (ASA),
- preferential tax assessment like the Clean and Green Program,
- land zoned in agriculture, and/or
- soil capability classes I-IV.

Productive Agricultural Land (PAL) is defined per PennDOT’s Agricultural Resources Evaluation Handbook, Publication 324 as any land used for production, for commercial purposes, of crops, livestock, and livestock products. PAL is protected by Acts 100 and 43. Crops, livestock, and livestock products that are protected by Act 100/Act 43 include, but are not limited to:

- Field crops, including corn, wheat, oats, rye, barley, hay, potatoes, and dry beans;
- Fruits, including apples, peaches, grapes, cherries, and berries;
- Vegetables, including tomatoes, snap beans, cabbage, carrots, beets, onions, and mushrooms;
- Horticultural specialties, including nursery stock ornamental shrubs, Christmas trees, ornamental trees, and flowers;
- Livestock and livestock products, including cattle, sheep, hogs, goats, horses, poultry, fur-bearing animals, milk, eggs, and fur; and
- Aquatic plants and animals and their by-products.

PennDOT policy also considers barns and other agricultural buildings, land lying fallow due to crop rotation, and subsistence farms where the farm operator has land in agricultural production for his own “subsistence” use rather than primarily for commercial purposes as PAL. Land that is fallow due to participation in the United States Department of Agriculture (USDA) conservation reserve enhancement programs or commodity support programs is also considered to be land in agricultural production.

Acts 100 and 43 were enacted to protect PAL, excluding timber. Act 100 established the Agricultural Lands Condemnation Approval Board (ALCAB) and Act 43 enables the creation of ASAs.

- An ASA is a tract of agricultural land that has been officially designated as an agricultural district by the local municipality. ASAs are intended as a tool for protecting farmland from non-agricultural uses and qualifies land for consideration under the farmland preservation program (such as Agricultural Conservation Easements).
- An Agricultural Conservation Easement is a deed restriction in perpetuity that landowners voluntarily place on their property to protect farmland.
- ALCAB oversees the condemnation of farmlands and the associated ALCAB public hearing when an application for approval to condemn is submitted to the Secretary of Agriculture.
- The Clean and Green Program provides preferential tax assessment for land devoted to agricultural use, open space, and forest land.
- FPPA Prime Farmland Soils and Statewide Important Soils are soils that possess the best characteristics for crop production.

Agricultural resources were identified through background desktop research, review of aerial photographs, field views, and information obtained from state, county, and local agencies within the project area. In addition, owners and operators within the project area were interviewed in the Spring/Summer of 2019 to obtain specific information on the farm operation, history, and practices.

The project area consists of approximately 1,608 acres of productive agricultural land and includes 30 active agricultural operations ranging in size from a couple of acres to more than 200 acres. Thirteen of the operations are enrolled as ASA, three are preserved by agricultural conservation easements, 22 farms are enrolled in the Clean and Green Program, and ten farms are zoned for agricultural activities. Additionally, soils with Capability Classes I and II, and FPPA Prime Farmland Soils and/or Farmland of State Importance are present throughout the project area, see Figures 12 and 13.

Impacts

Alternative 5C would impact agricultural resources within 12 farming operations, including PAL, ASAs, preserved farms, farms enrolled in preferential tax assessments, soils with Capability Classes I and II, areas zoned as agriculture, and FPPA soils (see Figures 12 and 13, and Table 6).

Figure 12: Agricultural Resources and Alternative 5C Impacts

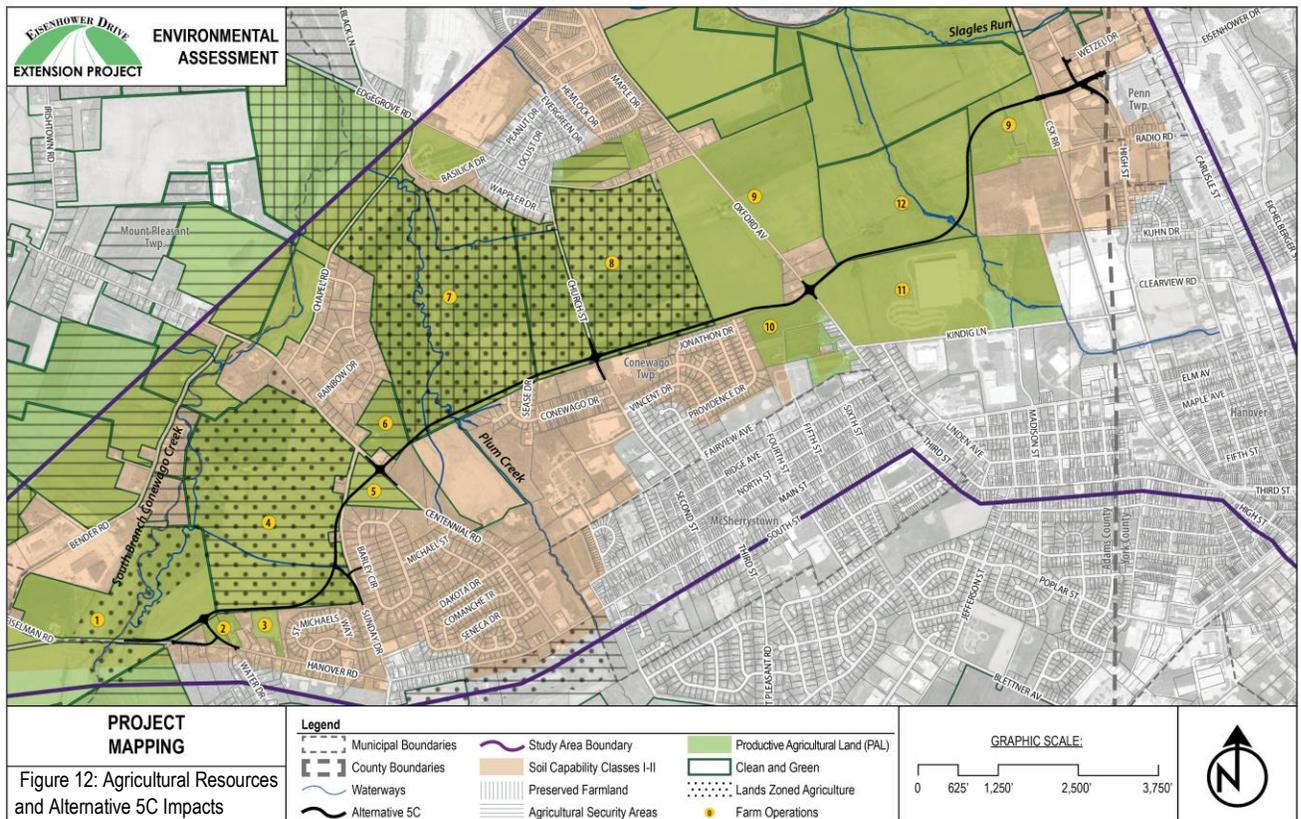


Figure 13: FPPA Soils and Alternative 5C Impacts

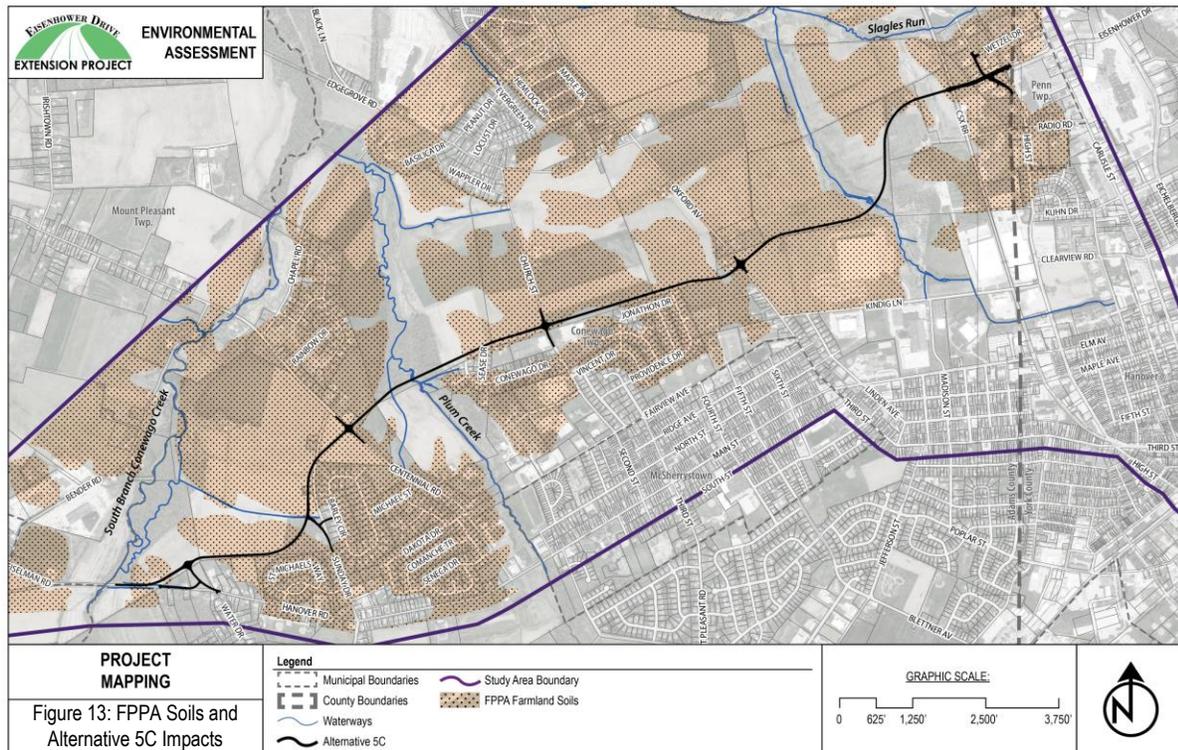


Table 6: Agricultural Impacts

Agricultural Resources	Total Impacts (Acres)	Number of Agricultural Operations Impacted
PAL	40.0	12
Preserved Farmland	2.9	2
ASA	23.8	5
Farmland Enrolled in Preferential Tax Assessment	32.4	7
Soil Capability Class I & II	28.5	11
Zoned Agricultural	21.2	4
FPPA	2.5	N/A

In addition, 11.4 acres of farmland, from seven operations may be deemed un-farmable as a result of Alternative 5C. These remnant parcels could either be too small to farm or access to the parcel could be severed. PennDOT will make every effort to maintain access to these parcels where applicable and will attempt to reduce the project's footprint so that parcels are still viable to farm.

Detailed agricultural resource impacts by farming operation are in the project technical files.

Productive Agricultural Land

Alternative 5C would directly impact 40.0 acres of PAL from 12 farming operations. Impacts to PAL as a result of Alternative 5C consists of land in crop rotation for soybeans, wheat, corn, hay, and snap beans. The impacts to PAL represent 2.5% of the total PAL within the project area.

For impacts to productive agricultural land that meet the applicability of Acts 100 and 43, PennDOT will comply with its policies set forth in PennDOT Publication 324, Agricultural Resources Evaluation Handbook.

ALPP

Alternative 5C would impact each of the five categories of ALPP protected farmland. In order to meet the project purpose and needs, impacts to Prime Agricultural Land as a result of Alternative 5C are unavoidable. Therefore, there is no feasible alternative to the conversion of Prime Agricultural Land under 4 PA Code Chapter 7, and 7.301 et seq. ALPP.

Preserved Farmland

Alternative 5C would impact 2.9 acres of preserved farmland, impacting two farming operations located in the north-central portion of the project area. These two farming operations signed agreements in July 2014 to preserve all but a 120-foot wide corridor along their southern property boundaries. Based on prior planning, Adams County worked with the agricultural land property owners to exclude the corridor from being enrolled in preserved farmland to allow for potential future transportation improvements. Alternative 5C closely follows the set aside corridor; however, the proposed ROW for Eisenhower Drive extends north into the preserved area for each of these farms.

Agricultural Security Areas

Alternative 5C would impact 23.8 acres of ASA from five farming operations. Impacted ASA operations from Alternative 5C are located between Oxford Avenue and Sunday Drive in the north-central and northwestern portion of the project area.

For impacts to productive agricultural land that meet the applicability of Acts 100 and 43, PennDOT will comply with its policies set forth in PennDOT Publication 324, Agricultural Resources Evaluation Handbook.

Preferential Tax Assessment

Seven farm operations enrolled in the Act 319 Clean and Green preferential tax program would be impacted by Alternative 5C. The impacts total 32.4 acres of farmland and are scattered throughout the project area.

Areas Zoned Agricultural

A total of 21.2 acres of agricultural zoned land would be impacted by Alternative 5C. These areas are primarily located in the north-central and western portion of the project area and include four farming operations.

Soil Capability Class I-IV

Eleven of the 12 farm operations along Alternative 5C contain soils with Capability Classes of I or II. Alternative 5C would impact 28.5 acres of soils with Capability Classes of I and II, specifically, 7.7 acres of Soil Capability Class I

and 20.8 acres of Soil Capability Class II. There are no soils with Capability Class III or IV impacted within the project area.

FPPA Soils

A total of 38.2 acres of FPPA protected soils are located within the limits of Alternative 5C within the project area. However, in coordination with the National Resources Conservation Service (NRCS) Pennsylvania State Soil Scientist, the western portion of the project area is the only area that requires NRCS coordination for FPPA impacts. The remainder of the project area is classified as "urban" per the census. As a result, Alternative 5C would impact 2.5 acres of FPPA soils. In compliance with FPPA, a NRCS-CPA-106 (AD-1006) form for Farmland Conversion Impact Rating for Corridor Type Projects has been drafted and is in the project technical file. The impacts calculated in the form are under the threshold required for coordination with NRCS.

The No Build Alternative would have no impact on agricultural lands.

Mitigation/Minimization

Impacts to agricultural lands from the Alternative 5C were minimized to the extent practicable by staying near property lines, avoiding bisecting farms where possible and limiting the corridor width for the Eisenhower Drive extension. Specifically:

- Alternative 5C was designed to run along the edge of farm properties, where practicable, to eliminate the need to bisect farming parcels.
- Original roadway sections included a shared use path and landscaped median. Both were eliminated, reducing the project footprint and therefore impacts to existing farmland.
- Stormwater management concepts for Alternative 5C utilize linear swales along the roadway as opposed to large basins to minimize the footprint of the impacts.

In addition, interviews with farm owners/operators identified areas critical to farm operation and access locations for farm vehicles/equipment. As the design of Alternative 5C progresses, these resources will be taken into consideration and will be avoided, or suitable access will be provided where practicable.

Mitigation for agricultural resource impacts will include just compensation for the required ROW acquisition and easements, as well as payment of required penalties for removal of land from certain tax assessment programs, such as Clean and Green, as applicable under the specific regulations.

4.1.7 Vegetation, Invasive Species, and Pollinators

Identification

The project area encompasses mixed land uses that include residential, agricultural, commercial, and industrial use. The vegetative communities within the project area are comprised mainly of productive agricultural land, disturbed meadows, maintained lawn, riparian woodlands, and large open-canopy and forested wetland complexes. Largely because of the extensive cover of croplands and developed properties within the project area, a detailed evaluation and vegetative land cover analysis was not considered appropriate for this project. Many of the vegetative communities in the project area were infested with invasive species such as Multiflora Rose (*Rosa multiflora*), Bush Honeysuckle (*Lonicera* spp.), Japanese Honeysuckle (*Lonicera japonica*), Garlic Mustard (*Alliaria petiolata*), Canada Thistle (*Cirsium arvense*), and Reed Canary Grass (*Phalaris arundinacea*).

Vegetation, Invasive Species, and Pollinators
Present in the project area
Best Management Practices

Executive Order 13751 requires the FHWA to limit, to the extent practicable, the spread of invasive species. PennDOT Publication 756 provides Best Management Practices (BMPs) to limit the spread of invasive species in the design, construction, and maintenance of highways.

Invertebrate pollinators (e.g., bees, butterflies, and moths) are economically critical to agriculture and ecologically critical to ecosystems. Pollinators use a variety of vegetative habitats in both urban and rural landscapes, including many of the habitats within the project area. Pollinator populations have been in decline for several years, and many state and federal agencies have developed policies to reverse this trend. In 2015, the FHWA published “Roadside Best Management Practices that Benefit Pollinators.” In 2017, The Pennsylvania Pollinator Protection Plan (P4;2017) was completed through a collaborative effort of 28 state, national, and private stakeholder organizations and includes general guidelines in considering pollinator habitat development along roadsides and ROWs. The PennDOT Pollinator Habitat Plan was developed in support of the P4 and State and Federal actions, and supports the establishment of pollinator habitat, applies vegetation management measures to sustain developed pollinator habitats, protects the species from vehicle/pollinator conflicts, partners with local community organizations through the PennDOT Adopt and Beautify Program, and promotes the importance of pollinators and their habitats in ROWs.

Impacts

The construction of Alternative 5C could result in the spread of invasive species and the elimination of plant species that pollinators use for larval hosts and foraging, unless otherwise mitigated.

The No Build Alternative would not result in the spread of invasive species nor implement strategies to control existing populations of them.

Mitigation

PennDOT BMPs included in Publication 756, Design Manual Part 2, and Publication 408 will be used to mitigate the spread of invasive species. In addition, disturbed earthen surfaces will be promptly seeded to minimize the colonization by invasive species. Wetland mitigation areas, riparian buffers, and stormwater management facilities may have specific invasive species performance standards as conditions of the USACE Section 404, PA DEP Chapter 105, and National Pollution Discharge Elimination System (NPDES) permits that will be implemented.

Per FHWA's Guidance on Pollinator Species, *Pollinators and Roadsides: Best Management Practices for Managers and Decision Makers*, several BMPs can be implemented that will be beneficial for pollinator species. Strategic reduced mowing and consideration of the timing of mowing as well as spot-spraying of herbicides vs. broadcast spraying or pellet dispersal will be recommended in future roadway maintenance plans to promote pollinators. In addition, seed mixes used for roadside planting, stormwater facilities, wetland mitigation areas, and riparian buffers will be augmented with plant species that provide forage and larval host species used by pollinators.

4.1.8 Wildlife

Identification

The project area encompasses mixed land uses that include residential, agricultural, commercial, and industrial use, and transitions from densely developed in the south and east to rural/agricultural in the north and west. Suburban fringe development is interspersed within portions of the rural/agricultural areas along local roadways. The vegetative communities within the project area are comprised mainly of productive agricultural land, disturbed meadows, maintained lawn, riparian woodlands, and large open-canopy and forested wetland complexes. Because of the extensive cover of croplands and developed properties within the project area, a detailed evaluation of project area wildlife species was not considered appropriate for this project. Based on field views of the project area, wildlife in the project area would be anticipated to include woodland and aquatic creatures such as deer, fox, chipmunks, raccoons, skunks, opossum, porcupine, squirrels, mice, turtles, snakes, etc. It is anticipated that the various species find shelter, food, and move throughout the project area within the agricultural fields, riparian woodlands, and large open-canopy and forested wetland complexes (predominantly within the vicinity of Plum Creek and the perennial UNT to Slagles Run).

Wildlife

Present in the project area
No Further Action for
Wildlife Crossing

Based on review of the PGC and the PFBC Wildlife Action Plan Mapping tool, (wildlifeactionmap.pa.gov), “species of greatest conservation need” are present within Adams and York Counties, and include the Allegheny woodrat, North American least shrew, and various bats, birds, reptiles, amphibians, and invertebrates. Because these species are identified by the state as a conservation need, it is assumed they could be considered target species per PennDOT Publication 13M (DM-2), Chapter 20 Wildlife Crossings. A target species is defined as a species that has been identified as the subject of conservation or monitoring actions. However, as noted in the previous paragraph, because of the extensive cover of croplands and developed properties within the project area, a detailed evaluation of project area wildlife species was not considered appropriate for this project.

Impacts

The construction of Alternative 5C could alter the movement of wildlife in the project area, and potentially result in increased wildlife road kills, unless otherwise mitigated.

The No Build Alternative would not result in impacts to project area wildlife.

Mitigation

Per PennDOT Publication 13M (DM-2), Chapter 20 Wildlife Crossings, PennDOT recognizes the importance of reducing impacts to wildlife and improving, or at the very least, maintaining habitat connectivity, when applicable. Based on Figure 20.7 Wildlife Accommodation Scenarios flowchart, “No Further Action” is required for the proposed project because public lands or lands under conservation easements do not exist on both sides of the proposed Alternative 5C alignment to ensure that future land use will meet target species’ needs. However, the potential to utilize wildlife crossings and exclusionary devices, including: open bottom culverts at perennial stream crossings; larger bridge structures to increase the span of existing floodplains to improve stream corridor stability as well as allow animal passage; the use of choke out designs at rock embankments; the use of herp fences at culverts; and installation of fish baffles in culverts, will be further investigated in final design and in coordination with the appropriate agencies (PA DEP, PFBC, USACE). These potential mitigation measures within the project area will provide wildlife passage and habitat connectivity within the project corridor.

This page intentionally left blank

4.2 CULTURAL RESOURCES

The cultural resources analysis was conducted in accordance with Section 106 of the National Historic Preservation Act, as amended (NHPA), 36 CFR 800, and Executive Order 11593. Cultural resources evaluated within the project area include above ground historic resources (including buildings and districts) and archaeological resources. Early in the process, Native American tribal consultation was undertaken, and Consulting Parties were solicited in consideration of the following:

- Federal regulations and laws require federal agencies (like FHWA) to consult with federally recognized Native American tribes on projects or policies that may affect culturally sensitive or important places, objects, or archaeological sites.
- Federal regulations and laws also require federal agencies (like FHWA) to solicit input from consulting parties. Certain individuals and organizations with a demonstrated interest in cultural resources may participate as consulting parties.

Native American Tribes and consulting parties have been notified of each cultural resource-related submission via email, letter, or PennDOT's publicly available website, Project for Pennsylvania Transportation and Heritage (PATH <https://path.penndot.gov>). PATH provides users with a searchable database of all PennDOT highway and bridge projects, and this project's coordination and relevant documentation has been posted to the website throughout the project development process.

Above-Ground Resources

10 historic resources
Adverse Effect
Agency and consulting
party coordination



Archaeological Resources

Field investigations
No Sites Discovered
No Impacts



4.2.1 Above-Ground Resources

Identification

An above-ground Reconnaissance Survey Report was completed in 2017. The purpose for the reconnaissance survey was to review the Area of Potential Effect (APE), identify known above-ground historic resources (buildings, structures or historic districts that are listed in, or eligible for listing in, the National Register of Historic Places), and recommend additional analysis for properties or districts that might be eligible for listing in the NRHP. The Reconnaissance Survey Report documented a total of 751 properties within the entire APE. The survey found two (2) resources listed in the NRHP, two (2) resources eligible for listing in the NRHP, and 21 properties or districts that required additional survey.

In 2018, architectural historians and historians researched and evaluated the properties or districts recommended for additional study. Only those properties or districts that would be potentially affected by the TSM and alternatives 3, 4, 5, A, B, and C were studied. This included two (2) historic districts, six (6) historic farms, one (1) historic railroad, and three (3) historic industrial or institutional properties. Architectural historians also reviewed the two (2) resources eligible for listing in the NRHP to determine whether they remained eligible. Through consultation with the Pennsylvania State Historic Preservation Office (PA SHPO) and consulting parties, PennDOT identified a total of ten (10) above-ground historic resources in the APE that are eligible for or listed in the NRHP. The historic resources are listed below and mapped on Figure 14.

- Conewago Chapel (Listed, SHPO Key # 001254)
- Devine Chapel Farm (Eligible, SHPO Key # 001930)
- Emeco Office and Factory Building (Eligible, SHPO Key # 208775)
- Gettysburg Railroad (Eligible, SHPO Key # 208778)
- Hanover Furniture Company (Eligible, SHPO Key # 208777)
- Hanover Historic District (Listed, SHPO Key # 079015)
- Henry Hostetter Farm (Eligible, SHPO Key # 001933)
- Hopkins Manufacturing Company (Eligible, SHPO Key # 077455)
- Poist Chapel Farm (Eligible, SHPO Key # 001920)
- Utz Potato Chip Company (Eligible, SHPO Key # 208782)

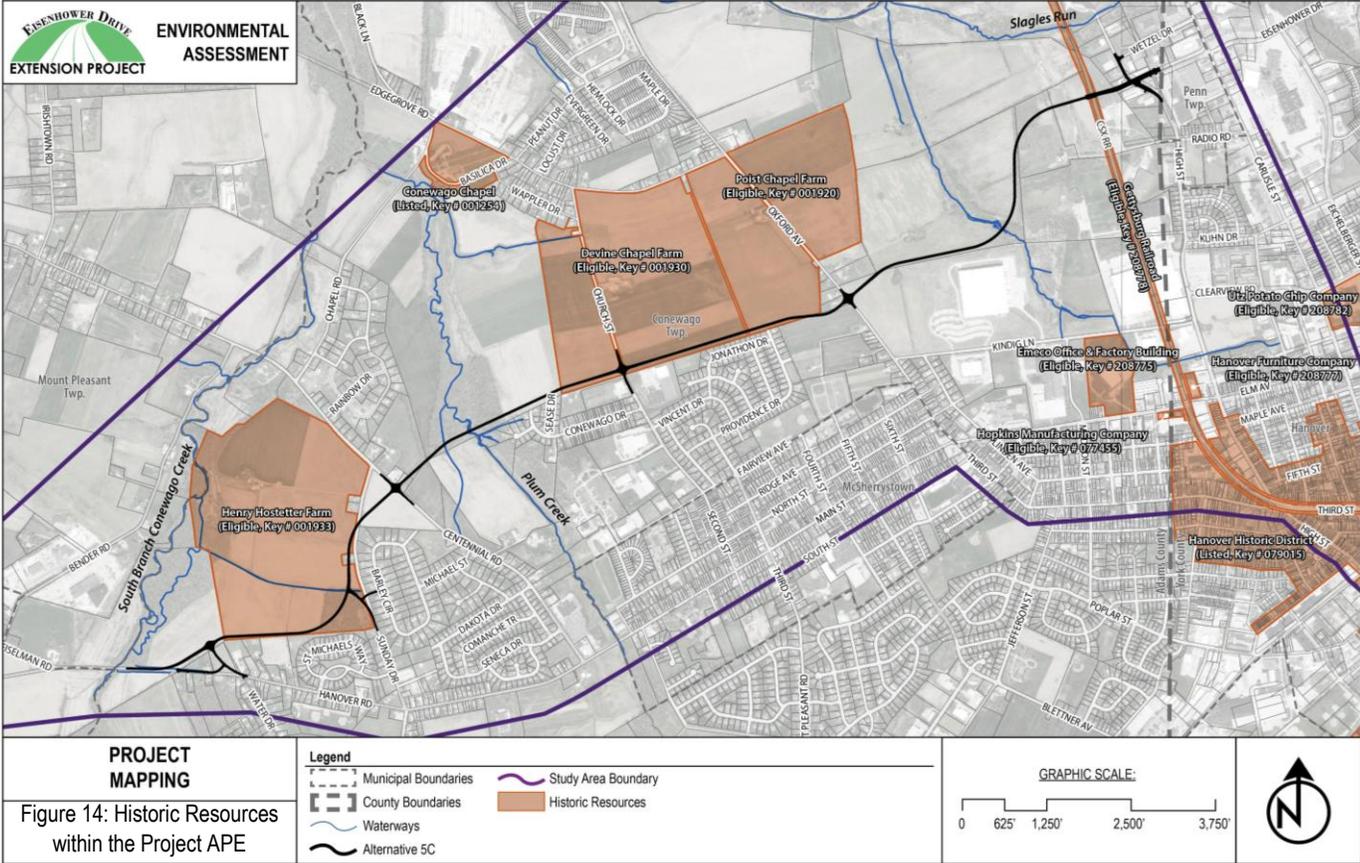
Above-Ground Resources

10 historic resources
Adverse Effect
Agency and consulting
party coordination

AREA OF POTENTIAL EFFECT (APE)

The geographic area where a proposed project can directly or indirectly alter the character or use of cultural resources.

Figure 14: Historic Resources within the Project APE



To be determined eligible for the NRHP, the resource must meet certain criteria defined by the National Park Service and outlined by the Secretary's Standards and Guidelines for Evaluation in 36 CFR 63.

The **Conewago Chapel** is listed in the NRHP. The brownstone chapel was constructed between 1785-1787 upon the site of an earlier chapel to accommodate the needs of a growing congregation. In 1787, the rectory was built to house the priests serving in a missionary capacity to the surrounding area. The chapel is listed under Criterion A for its association with the historic development of the region and Criterion C for its architectural significance.

The **Devine Chapel Farm** is a farmstead with a ca. 1787 dwelling, ca. 1860 barn and smoke house, two early 20th-century milk houses, and three late-20th century outbuildings. The farm was determined eligible for the listing in the NRHP under Criterion A, for its agricultural significance in the region.

The **Emeco Office and Factory** is a 1950s International Style office building and factory with several later additions. The resource is eligible for listing in the NRHP under Criterion A, for its historical association with furniture production in Hanover.

The **Gettysburg Railroad** is a standard gauge, single track rail line. The track extends north-northwest from Hanover and travels toward New Oxford before turning west-southwest toward Gettysburg. Construction of the line began in 1856 and was completed to Gettysburg in 1858. It is eligible for listing in the NRHP under Criterion A, for its association with settlement patterns, transportation, and Civil War history in the region.

The **Hanover Furniture Company** complex consists of a ca. 1904 brick building with several 20th century rear additions. The building housed several furniture firms over the course of the 20th century. The complex is eligible for listing in the NRHP under Criterion A, for its association with the historic furniture industry in Hanover.

The **Hanover Historic District** is located within the Borough of Hanover, and is roughly bound by Elm Avenue, Broadway, Eisenhower Drive, Hollywood Avenue, and the Borough boundary line. The district consists of 3,036 buildings, five (5) sites, six (6) structures, and one (1) object. The majority of the contributing buildings are residences. Over half of the contributing structures were built between ca. 1870 to 1919 and display a wide variety of architectural styles. The district is eligible for listing in the NRHP under Criterion A, in the areas of commerce, transportation, and industrial history. It is also eligible under Criterion C, for the architectural significance of the contributing resources.

The **Henry Hostetter Farm** is located in Conewago Township. The farm consists of agricultural fields, a ca. 1800 dwelling, ca. 1869 smokehouse, ca. 1875 barn, and a number of 20th-century outbuildings. The resource is eligible for listing in the NRHP under Criterion A for its agricultural significance in the region.

The **Hopkins Manufacturing Company** is a three story, brick factory built in 1892 with later additions. The factory first produced horse-drawn wagons and later transitioned to automobiles. The resource is eligible for listing in the NRHP under Criterion A, for its association with manufacturing and transportation history in the region.

The **Poist Chapel Farm** is located on Oxford Avenue in Conewago Township. The resource consists of a ca. 1880 dwelling, ca. 1932 barn, hog house, and corn crib, chicken coop, pumphouse, as well as agricultural fields. The resource is eligible for listing in the NRHP under Criterion A for its agricultural significance to the region.

The **Utz Potato Chip Company** complex is located on Carlisle Street in Hanover. The original portion of the building is a ca. 1949 brick structure with glass block glazing and streamline modern style details. The complex was expanded numerous times between 1953 and 1971 as the company grew rapidly. The Utz company was one of the companies that led Hanover to adopt the motto of “Snack Food Capital of the World.” The Utz Potato Chip complex is eligible for listing in the NRHP under Criterion A for its association with industry in the region. It is also eligible under Criterion C for its distinctive streamline modern architecture.



Photo 19: View of the Devine Chapel Farm barn, looking northeast

Impacts and Mitigation

PennDOT prepared a Determination of Effect Report in August 2019, analyzing the effect the No Build, TSM Alternative, and Alternative 5C would have on the NRHP listed or eligible resources. All other alternatives had previously been dismissed and PennDOT subsequently dismissed the TSM Alternative. Only the No Build and Alternative 5C are discussed herein. The PennDOT Cultural Resources Professional (CRP), acting on behalf of FHWA, determined that the project would adversely affect three historic properties, see Table 7. The PA SHPO concurred with this determination.

Table 7: Historic Resource Determinations of Effect

Property Name	No Build	Off-Alignment Build Alternative 5C
Conewago Chapel	<i>No Effect</i>	<i>No Effect</i>
Devine Chapel Farm	<i>No Effect</i>	<i>Adverse Effect</i>
Emeco Office and Factory Building	<i>No Effect</i>	<i>No Effect</i>
Gettysburg Railroad	<i>No Effect</i>	<i>No Effect</i>
Hanover Furniture Company	<i>No Effect</i>	<i>No Effect</i>
Hanover Historic District	<i>No Effect</i>	<i>No Effect</i>
Hopkins Manufacturing Company	<i>No Effect</i>	<i>No Effect</i>
Henry Hostetter Farm	<i>No Effect</i>	<i>Adverse Effect</i>
Poist Chapel Farm	<i>No Effect</i>	<i>Adverse Effect</i>
Utz Potato Chip Company	<i>No Effect</i>	<i>No Effect</i>

Based on the criteria for adverse effect in 36 CFR 800.5 and the definition of effect provided in 36 CFR 800.16, the No Build Alternative would not affect any of the ten (10) resources; however, the Hanover Historic District would continue to be impacted by the current and anticipated traffic and congestion on the Carlisle Street. Carlisle Street in Hanover Borough is expected to exceed capacity before the 2042 No Build scenario. An alternate route north/south would reduce future congestion and the need for traffic improvements along Carlisle Street. Therefore, any alternative that does not include a new alignment alternative would require improvements along Carlisle Street between Eisenhower Drive and Center Square, Hanover to provide the required LOS D or better.

The Alternative 5C would affect three (3) historic properties, each of which would be adversely affected. The proposed alternative extends along the southern boundaries of the Devine Chapel Farm and Poist Chapel Farm (see Figure 15) and the southern and eastern boundaries of the Henry Hostetter Farm (see Figure 16). For each historic farm, the alternative would require ROW primarily along the edge of the historic properties for the new roadway. The alignment would require 6.6 acres or 4.3% from the Devine Chapel Farm; 2.3 acres or 1.8% from the Poist Chapel Farm; and 6.1 acres or 3.7% from the Henry Hostetter Farm. Alternative 5C would also result in two small remnant lots totaling 5.6 acres on the Henry Hostetter Farm. These impacts would acquire and alter historically associated agricultural land in the resources and introduce new visual elements to the historic setting. The new roadway would diminish the integrity of setting, feeling, and association of the associated farmland, and it would remove portions of contributing land from the NRHP boundaries of the historic resources.

The Hostetter Farm, Devine Chapel Farm, and Poist Chapel Farm cannot be avoided by Alternative 5C without impacting and displacing numerous residential properties in the developments adjacent to the historic resources. The Preferred Alternative was designed to minimize impacts to each farm.

Figure 15: Alternative 5C in relation to Poist Chapel Farm and Devine Chapel Farm

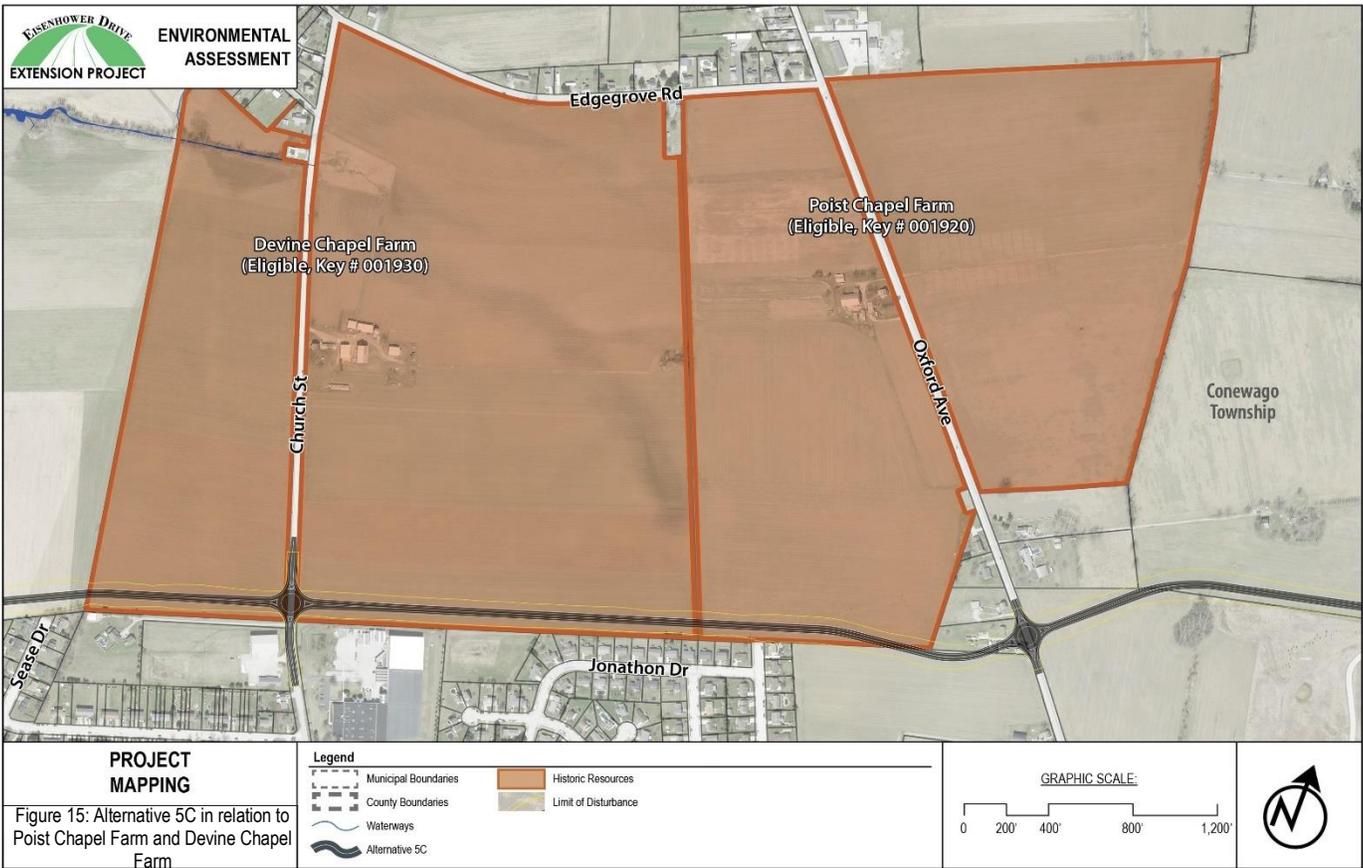
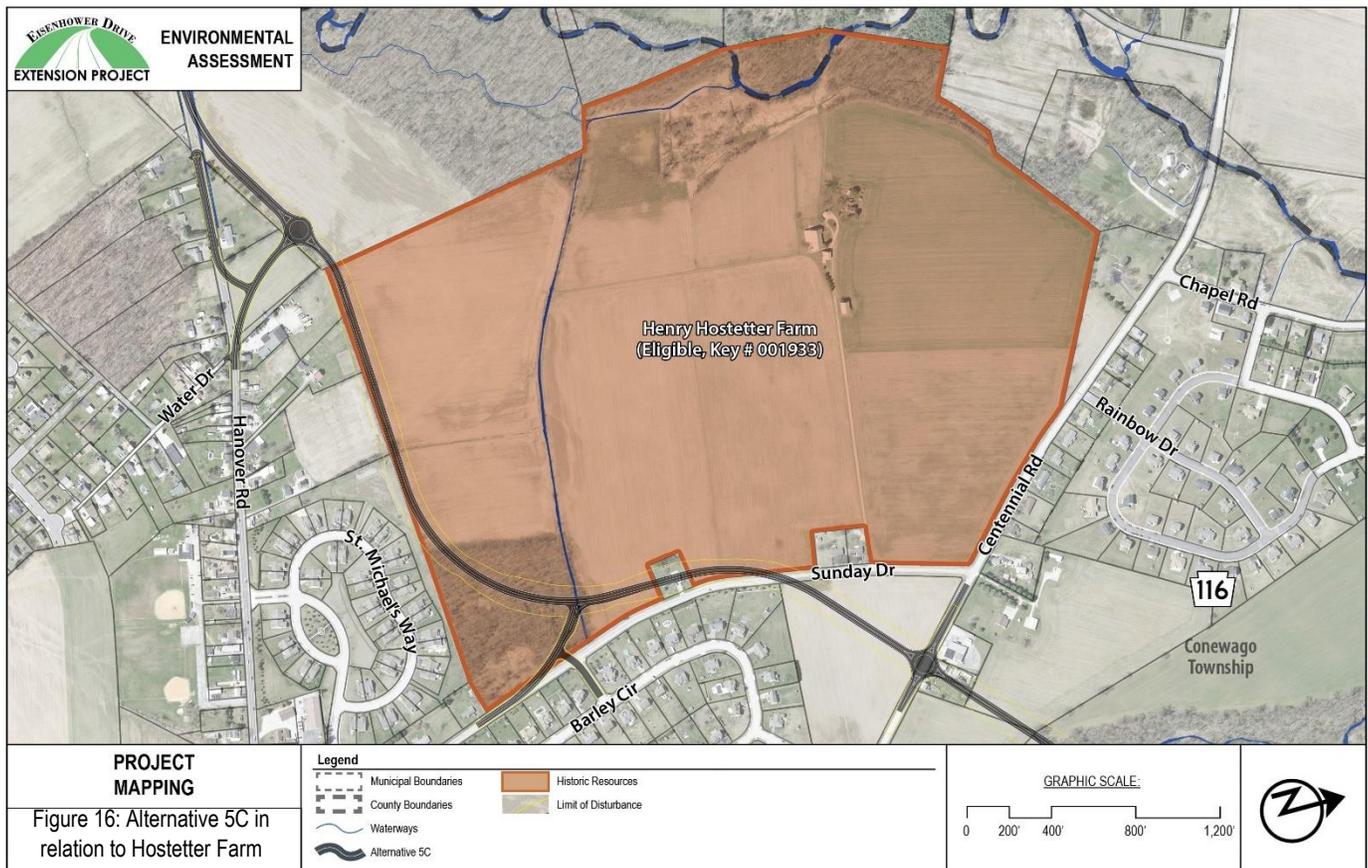


Figure 16: Alternative 5C in relation to Hostetter Farm



At the Devine Chapel Farm and Poist Chapel Farm, minimization efforts include limiting the size and location of the stormwater management swales or ditches along the roadway and locating larger stormwater drainage facilities outside the historic properties to the maximum extent possible. Vegetation between the roadway and the historic farms could minimize visual concerns, but noise analysis does not recommend barriers on the north side of the new roadway due to the distance between the roadway and the farmsteads.

At the Henry Hostetter Farm, the original alignment took a somewhat straighter course between Hanover Road through the agricultural properties to Sunday Drive and then along Sunday Drive to an area closer to the existing Sunday Drive/Centennial Road intersection. This alignment bisected a larger portion of the farm in the southeast corner of the property from the rest of the property and had greater impacts along Sunday Drive. When the Hostetter Farm was determined eligible for listing in the NRHP, the Alternative 5C alignment was revisited and refined to reduce its impact on the historic property while also achieving a 45-mph roadway (50-mph design speed). The alignment was shifted to hug the southern and eastern edges of the property and to make the curve through the wood lot as tight as it can be in order to minimize the amount of land that would be bisected from the main part of the property. The alignment also shifted away from the resource driveway. The alignment turns northeastward through the vacant lot north of the residential development, which further reduces the impact to the Hostetter Farm and avoids impacting the existing driveway and access point.

Alternative 5C includes the construction of a bridge over the Gettysburg Railroad. There are no contributing features in proximity to the project, and the bridge will span the boundary of the railroad. PennDOT determined that the project would not affect the Gettysburg Railroad and the PA SHPO concurred.

In accordance with 36 CFR 800.6, FHWA and PennDOT resolved adverse effects by developing mitigation in consultation with the PA SHPO and consulting parties. Consultation is complete and the commitments are described in a formal agreement document (Memorandum of Agreement [MOA]) that was shared with the PA SHPO and consulting parties and was fully executed in September 2020. PennDOT will make a donation to Historic Gettysburg Adams County, Inc. to support their barn grant program. The program provides funding to citizens to rehabilitate historic barns in Adams County. The final fully executed MOA is provided in Appendix E.

For more information on the impacts to the resources, please review the *Determination of Effect Report* in the technical files or via PATH (<https://path.penndot.gov>).

4.2.2 Archaeological Resources

The archaeological investigation was conducted in accordance with Section 106 of the NHPA, 36 CFR 800, and Executive Order 11593. In accordance with PennDOT's Section 106 Programmatic Agreement, PennDOT notified tribes of the project on February 1, 2017, via hard copy or PATH. The following tribes were notified:

1. Absentee-Shawnee Tribe of Oklahoma
2. Delaware Nation - Oklahoma
3. Delaware Tribe
4. Eastern Shawnee Tribe of Oklahoma
5. Seneca-Cayuga Tribe of Oklahoma
6. Shawnee Tribe
7. St. Regis Mohawk Tribe

Archaeological Resources

Field investigations
No Sites Discovered
No Impacts

The archaeological APE was approximately 3.7 miles long, 50 to 120 feet wide, and encompassed the Alternative 5C alignment from the existing western terminus of Eisenhower Drive to the proposed tie-in with Hanover Road. The APE equated approximately to 56.5 acres. Archaeologists assessed the APE and found areas with high, moderate, and low potential for pre-contact archaeological sites. Review of historic maps and aerials similarly revealed potential for historic-era archaeological sites. Background research revealed one previously recorded Native American open-habitation site within 50 feet of the APE (36AD0031).

The Phase I identification survey along the entire corridor consisted of a total of 1,186 shovel test pits (STPs). During the course of the Phase I survey, archaeologists uncovered a small concentration of pre-contact waste from stone tool manufacturing near site 36AD0031. Due to the potential for minor alignment shifts that could affect the known archaeology site location, a Phase II evaluation was completed to determine NRHP eligibility of the portion uncovered within the APE. The Phase II evaluation consisted of 10 test units (TUs) in the area where the pre-contact waste from stone tool manufacturing was uncovered. No features were encountered in the Phase II evaluation, though minimal pre-contact artifacts were uncovered. No artifact concentrations or activity area patterning could be identified due to the overall low artifact density. The sparse artifact collection only offers a glimpse of Middle to Late Archaic habitation involving chipped stone tool manufacturing or maintenance and fails to shed significant light on the occupation.

The portion of 36AD0031 investigated in the Phase II evaluation was determined not to be a potentially significant resource and it does not contribute to the potential NRHP eligibility of the 36AD0031 site. At the time of the final Phase I/II Archaeology Report, site 36AD0031 was not located within the archaeological APE. No sites were identified elsewhere in the APE and no additional archaeological investigations were warranted for the project as designed. The Final Phase I/II Archaeological Investigation Report for Eisenhower Drive Extension is located in the project technical file.

The PennDOT archaeologist, acting on behalf of FHWA, determined that Alternative 5C and the No Build Alternative would not affect NRHP eligible or listed archaeological resources. No mitigation is needed for archaeological resources.

The PennDOT archaeologist will review potential alignment shifts during Final Design and determine if additional testing is required.



Photo 20: Representative photograph of a shovel test pit



Photo 21: Representative photograph of a test unit

This page intentionally left blank

4.3 SOCIOECONOMIC RESOURCES

Socioeconomic resources present within the project area encompass: Community Facilities and Services, which include pedestrian and transit considerations, emergency management services (EMS), schools, places of worship, and community assets; Demographics and Economics, which include Environmental Justice (EJ) and Title VI analysis, residential and commercial displacements, and tax base analysis; Air and Noise analysis; and Hazardous or Residual Waste Site investigations.



Hazardous or Residual Waste Sites
17 properties investigated
Additional studies at five sites
Lead-based paint and asbestos containing material survey recommended

Environmental Justice and Title VI
Present in project area
No disproportionately high and adverse impacts
Limited English Proficiency
Present in project area
No adverse impacts

Displacements and Tax Base
8 Displacements
Relocation assistance

Community Facilities and Services
Benefits
No adverse impacts

Air
Project meets air quality conformance

Noise
Mitigation warranted in four areas for noise

4.3.1 Hazardous or Residual Waste Sites

Identification

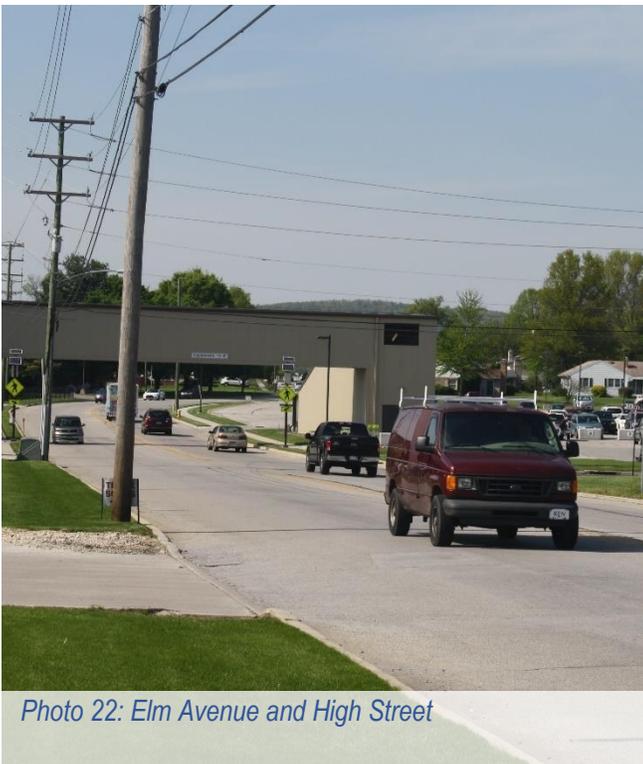
A Phase I Environmental Site Assessment Report (ESA) was completed for the Eisenhower Drive Extension Project, in accordance with the PennDOT Bureau of Environmental Quality Publication 281: The Transportation Project Development Process: Waste Site Evaluation Procedures Handbook, August 2018.

The Phase I ESA was completed to identify the potential presence of residual or other environmentally sensitive materials, and the following work was performed:

1. Review of environmental records, for sites included in Federal and State Environmental Databases which are located within a one-mile radius of the proposed project area;
2. A file review of pertinent documents held at the PA DEP Southcentral Regional Office;
3. Review of secondary source information available online through the PA DEP's website;
4. Review of historical aerial photographs, topographic maps, and Sanborn mapping;
5. Interviews with persons knowledgeable of the area; and
6. Site reconnaissance of the project area.

Seventeen sites with the potential for environmental concerns were identified within the vicinity of the project area.

Hazardous or Residual Waste Sites
17 properties investigated
Additional studies at five sites
Lead-based paint and asbestos containing material survey recommended



Impacts and Mitigation

Based on the information obtained during the Phase I ESA and preliminary engineering, 12 of the 17 properties investigated were given a recommendation of no further action, and Phase II/Phase III ESAs were recommended for the five (5) remaining sites, see Figure 17 and Table 8.

Figure 17: Phase I ESA Recommendations

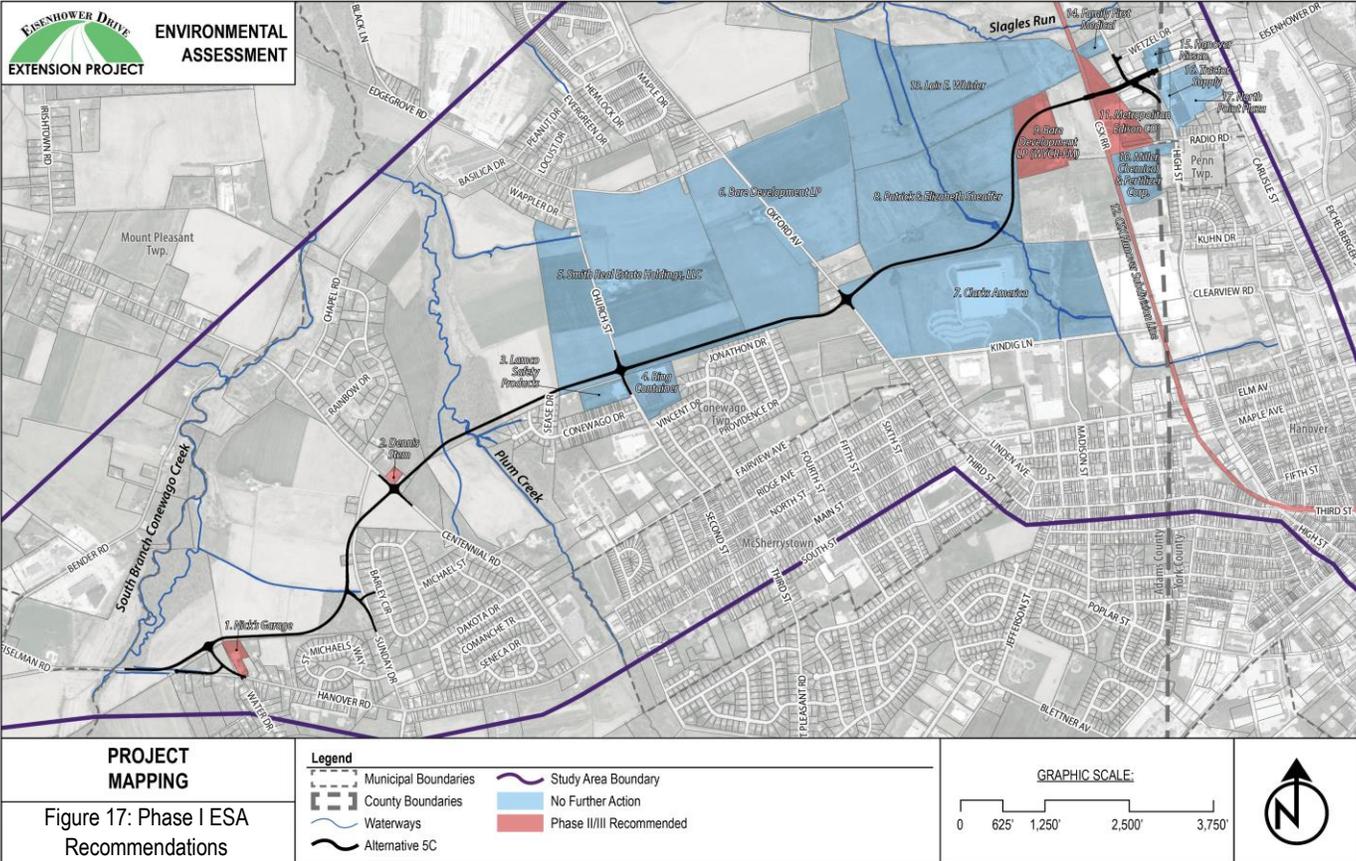


Table 8: Phase I ESA Recommendations

Current Site Name / Historic Site Name	Recommendations*
1. Nick's Garage / Earle Black's	Phase II/III ESA (PH II/III)
2. Dennis Stem / Mummert's Auto	PH II/III
3. Lamco Safety Products	No Further Action (NFA)
4. Ring Container / Mideastern Machinery	NFA
5. Smith Real Estate Holdings LLC	NFA
6. Bare Development LP	NFA
7. Clarks America	NFA
8. Patrick & Elizabeth Sheaffer	NFA
9. Bare Development LP (WYCR-FM)	PH II/III
10. Miller Chemical & Fertilizer Corp	NFA
11. Metropolitan Edison CO	PH II/III
12. CSX Hanover Subdivision Line	PH II/III
13. Lois E. Whisler Property	NFA
14. Family First and 2 Trone Rental Properties	NFA
15. Hanover Nissan / Liberty Nissan	NFA
16. Tractor Supply	NFA
17. North Point Plaza / Liberty Nissan	NFA

*See list below for detailed information regarding each site.

Additional testing at the five (5) Phase II/III recommended locations will ensure that the excavated areas will not pose a threat to human health and safety. Phase II/III investigations will be completed during final design. Descriptions of the proposed construction activities as well as the environmental concerns associated with each property are described below.

- The Nick's Garage site is located in the southwestern portion of the project area, north of Hanover Road. Alternative 5C will include construction activities associated with the installation of the roadway on the western portion of the Nick's Garage site, as well as along the northern site boundary (off-site). This site currently has a waste oil underground storage tank (UST) that parallels the proposed project corridor. Soil/groundwater sampling is recommended.
- The Dennis Stem/ Mummert's Auto site is located in the southwestern portion of the project area, southeast of the Centennial Road and Sunday Drive intersection. Alternative 5C will include construction activities associated with the installation of the roadway, including a roundabout. Due to past and current activities on this site as an auto center, a geophysical survey as well as soil/groundwater sampling have been recommended.
- The Bare Development LP (WYCR-FM) site is located in the northeastern portion of the project area, west of the Radio Road and CSX Hanover Subdivision Line intersection. Alternative 5C will include construction activities associated with the installation of the roadway and associated stormwater BMPs. Areas of this site contain residual contamination from the Miller Chemical fire. Soil and groundwater sampling are recommended. In addition, since there are known concentrations of arsenic, manganese, and cobalt, the development of a Health and Safety Plan (HASP) is required by a representative of the contractor prior to construction that includes preventative measures for these contaminants.

- The Metropolitan Edison CO site is located in the northeastern portion of the project area, northeast of the Radio Road and CSX Hanover Subdivision Line intersection. Alternative 5C will include the installation of the roadway and multiple stormwater BMPs on the northern half of the site. Based on the historic use of this site as an electric substation, a Phase II/III ESA is recommended.
- The CSX Hanover Subdivision Line bisects the northernmost portion of the project area from north to south. Alternative 5C will include construction activities associated with the installation of the roadway. Based on the current and historic use of the site as a railway, additional investigations (Phase II/III ESA) within the proposed Alternative 5C project area are recommended.

Additionally, the potential exists for the presence of asbestos containing material and lead-based paint in connection with the existing structures which are proposed for demolition. Interiors of structures slated for demolition will be investigated for drums, home heating oil tanks, and miscellaneous waste items prior to demolition. Additionally, a lead-based paint (LBP) and asbestos containing materials (ACM) survey should be conducted for impacted structures believed to pre-date 1978.

The No Build Alternative would have no impacts on hazardous waste sites. There would also be no net benefit with this alternative as there would be no mitigation of hazardous waste sites. The selection of Alternative 5C would result in a net benefit with regards to hazardous materials by remediating areas of known contamination. Detailed information for the hazardous waste sites is included in the Phase I ESA located in the project technical file.

4.3.2 Air Quality

Identification

The proposed Eisenhower Drive Extension Project was assessed for potential air quality impacts and conformity consistent with all applicable air quality regulations and requirements. In particular, the U.S. National Ambient Air Quality Standards (NAAQS) were assessed. The Environmental Protection Agency (EPA) established the NAAQS under authority of the Clean Air Act (42 U.S.C. 7401 et seq) and presents them as standards for harmful pollutants that are applied to outdoor air throughout the country. The EPA has set NAAQS standards for the following pollutants, sulfur dioxide (SO₂), particulate matter (PM₁₀), fine particulate matter (PM_{2.5}), carbon monoxide (CO), ozone (O₃), nitrogen dioxide (NO₂), and lead (Pb). In addition to these pollutants, Mobile Source Air Toxics (MSATs), greenhouse gases (GHGs), and climate change are included as air quality pollutants. Additional information regarding air quality pollutants can be found at <https://www.epa.gov/criteria-air-pollutants/naqs-table>.

Air
Project meets
air quality
conformance

The Eisenhower Drive Extension Project is included in the Adams County Transportation Planning Organization's 2019-2022 TIP and the 2040 Long Range Transportation Plan which were found to meet applicable Air Quality Conformity requirements and conforms to the State Implementation Plan.

Impacts and Mitigation

The Alternative 5C impact findings include the following:

CO – The project design will include the construction of roadways for which the 20-year forecasted daily volume would not exceed the established threshold level of 125,000 vehicles per day. It can therefore be concluded that the project would have no significant adverse impact on air quality as a result of CO emissions.

PM – Based on the most recent EPA classifications, Adams and York Counties have been designated as “in attainment” for all regional air pollutants listed within the NAAQS, including the PM_{2.5} and PM₁₀ standards. Because Adams and York Counties are listed as “in attainment”, the project will not require a project-level conformity determination. According to the PM_{2.5} and the PM₁₀ hot-spot analysis requirements established in the March 10, 2006, final transportation conformity rule (71 FR 12468), no further project-level air quality analysis for these pollutants is required.

MSATs – The project has been determined to generate minimal air quality impacts for the Clean Air Act criteria pollutants and does not have any MSAT concerns.

GHG and Climate Change – Alternative 5C is expected to reduce greenhouse gas emissions due to the reduction in traffic congestion. Related to climate change and extreme storm events, PennDOT has initiated a multi-phase effort aimed to better anticipate the consequences and impacts of extreme weather events and to identify funding priorities and strategies to improve transportation system resiliency. Alternative 5C will include the installation of stormwater infrastructure as part of the roadway construction. The stormwater infrastructure will meet design standards and provide resiliency to the roadway and bridge infrastructure in the event of future storms.

An air quality assessment was not completed for this project; however, based on the information presented above, the project will meet all applicable air quality requirements of NEPA and, as applicable, federal and state transportation

conformity regulations. As such, the Alternative 5C would not cause or contribute to a new violation, increase the frequency or severity of any violation, or delay timely attainment of NAAQS. No mitigation is proposed.

As a result of increased design year traffic volumes and increased congestion/decreased traffic speed, the No Build Alternative would be expected to negatively impact air quality.

4.3.3 Noise

Identification

A Preliminary Technical Noise Report was completed using the methodology described in PennDOT Publication No. 24, Project Level Highway Traffic Noise Handbook (November 2015) and FHWA criteria as described in 23 CFR Part 772. The *Preliminary Technical Noise Report* is located in the technical file for this project.

Noise
Mitigation warranted
in four areas
for noise

The identified noise-sensitive land uses within the Eisenhower Drive Extension Project include FHWA/PennDOT defined activities: Category B (residential), Category C (daycare centers, cemeteries, hospitals, playgrounds, etc.), and Category E (hotels, offices restaurants, other developed lands) land uses. See Table 9, Noise Abatement Criteria, from 23 CFR, Part 772.

Table 9: Noise Abatement Criteria

Activity category	Activity Leq(h)	Criteria ² L10(h)	Evaluation location	Activity description
A	57	60	Exterior	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B ³	67	70	Exterior	Residential.
C ³	67	70	Exterior	Active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails, and trail crossings.
D	52	55	Interior	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios.
E ³	72	75	Exterior	Hotels, motels, offices, restaurants/bars, and other developed lands, properties or activities not included in A-D or F.
F				Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical), and warehousing.
G				Undeveloped lands that are not permitted.

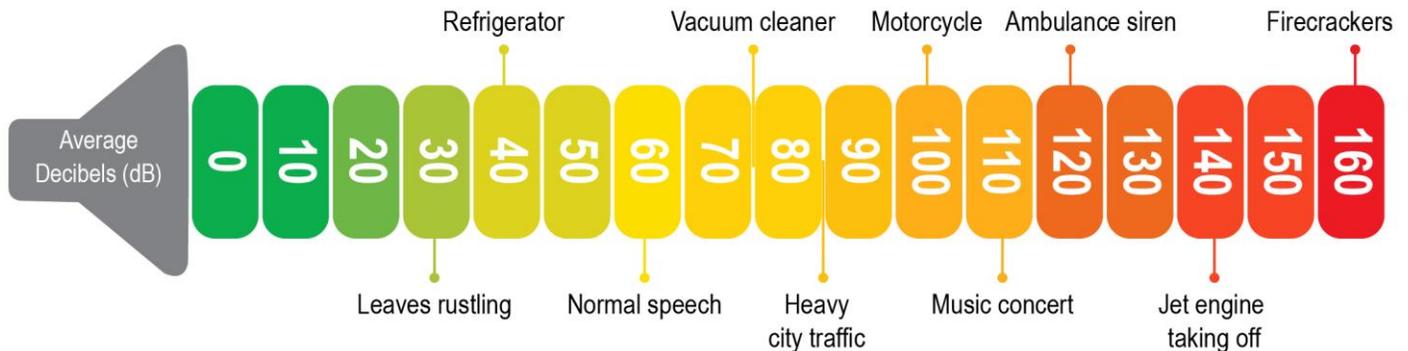
¹ Either Leq(h) or L10(h) (but not both) may be used on a project.

² The Leq(h) and L10(h) Activity Criteria values are for impact determination only and are not design standards for noise abatement measures.

³ Includes undeveloped lands permitted for this activity category.

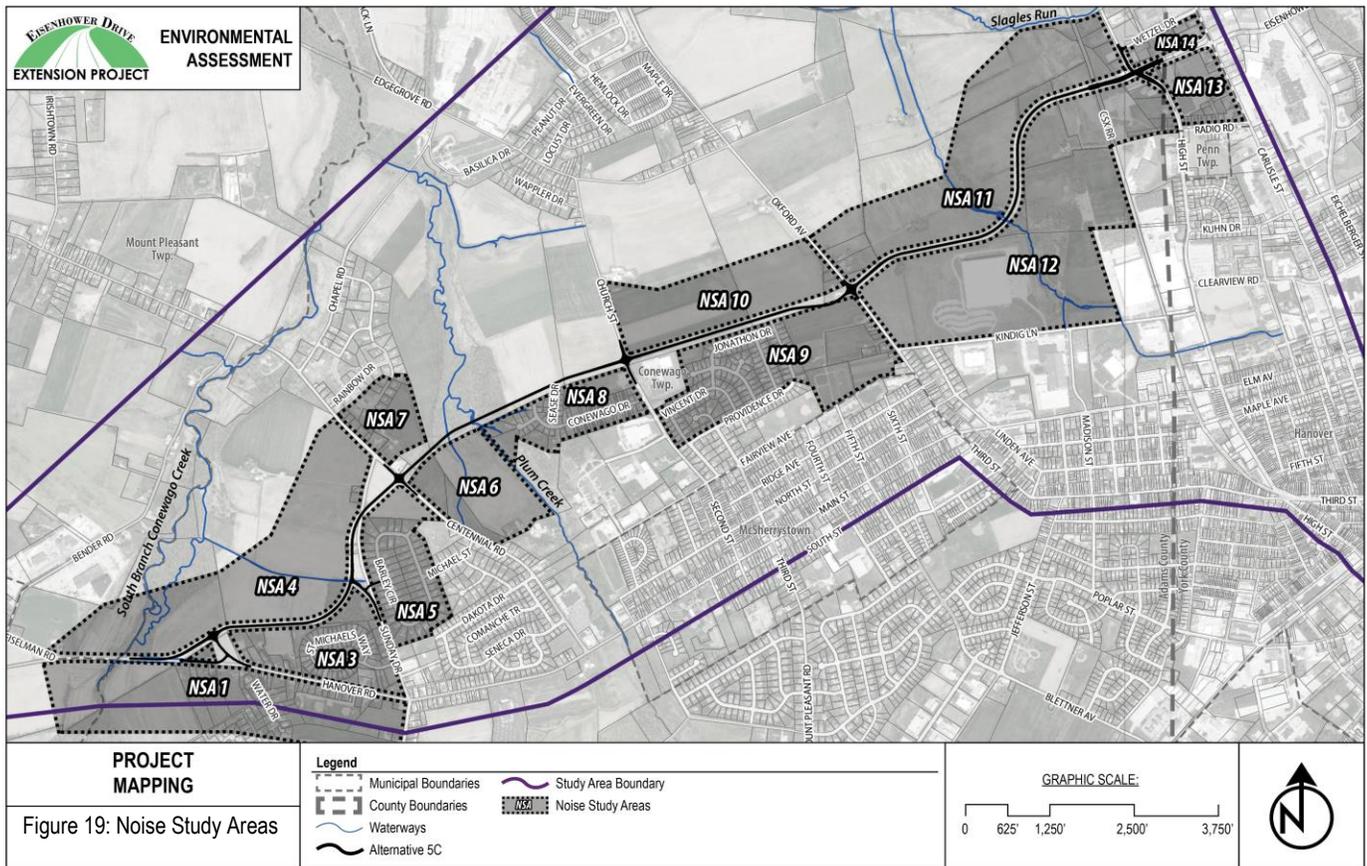
Categories B and C have an acceptable base noise level of 67 decibels (dB(A)) and Category E has an acceptable noise level of 72 dB(A). An example of these noise levels would be a normal conversation at three feet (60 dB(A)) or a vacuum cleaner from a distance of 10 feet (70 dB(A)). See Figure 18, for a visual representation of the average decibels and representative real-world examples.

Figure 18: Noise Levels of Common Sounds



The project area was divided into 14 Noise Study Areas (NSAs) (Figure 19). NSAs are groupings of receptor sites that, by location, form distinct communities within the project area and contain receptors with similar exposures to noise. These areas are used to evaluate traffic noise impacts and potential noise abatement measures for communities as a whole and to assess the feasibility and reasonableness of possible noise abatement measures.

Figure 19: Noise Study Areas



Within the 14 NSAs, existing noise levels were monitored or predicted at 141 receptor (receiver) locations or areas where frequent human outdoor activity occurs (29 monitored sites and 112 “modeled” sites). The No Build Alternative noise levels were predicted from the 2042 No Build traffic data and the Build Alternative noise levels were predicted based on the validated model, which was adjusted for future traffic volumes (2042), composition, and speeds specific to Alternative 5C. The Build Alternative model was then used to identify potential noise impacts that could warrant noise abatement. Noise abatement measures such as barriers would reduce noise levels in impacted areas; however, noise abatement measures must be determined to be warranted, feasible, and reasonable, according to federal and study guidance. See Figure 20 for an explanation of warranted, feasible, and reasonable.

Noise impacts are design year build condition noise levels that approach or exceed the noise abatement criteria for the future build scenario or create a substantial noise increase over existing noise levels. PennDOT has defined “approaches” for noise levels as 1 dBA below the noise-sensitive land use activity dBA standard and has defined an increase of 10-dBA over existing noise levels as a “substantial noise increase”. For this project, Categories B and C have a base acceptable noise level of 66 dB(A) and Category E has an acceptable noise level of 71 dB(A).

Figure 20: Explanation of Warranted, Feasible, and Reasonable for Noise Abatement Consideration

WARRANTED If noise levels exceed these thresholds, noise abatement consideration is warranted and abatement measures to reduce noise levels resulting from the project should be evaluated to determine if they are feasible and reasonable.	FEASIBLE To be considered feasible, abatement measures (barriers) should be able to achieve a 5 dBA reduction at the majority of the impacted receptors, physically be able to be constructed at the identified location while not causing an issue with safety, not restrict vehicular or pedestrian access, provide for maintenance and inspection of the abatement measure, and allow utilities and drainage to adequately function.	REASONABLE Noise abatement measures (barriers) must be cost-effective, achieve noise reduction goals, and be receptive to the affected property owners. For PennDOT projects, cost-effectiveness is met if the square footage of a barrier is 2,000 square feet per benefited receptor. Noise reduction goals are met if one benefited receptor receives a noise reduction of 7 dBA and the proposed noise abatement measure is acceptable by a majority of the affected property owners.
--	---	---

Impacts

The existing year condition, the future design year 2042 No Build Alternative condition, and the future design year 2042 Build Alternative condition were modeled, documented, and analyzed to determine the effects of the project at each of the 14 NSAs. See Table 10 for the Impact Noise Level Summary. Table 10 groups the impacts by NSA and provides ranges of noise level conditions. More detailed noise impacts by receptor in each NSA can be found in the Preliminary Technical Noise Report in the project technical file.

Table 10: Impact Noise Level Summary

NSA	Land Use Category	NAC Impact Level*	2015 Existing Worst-Case Traffic Noise Level [dB(A)]	2019 Measured Noise Level [dB(A)]	2042 No Build Predicted Noise Level [dB(A)]	2042 Build Predicted Noise Level [dB(A)]
NSA 1	B/C	66	49-69	64	50-70	50-69
NSA 2	B	66	69	65	69	60
NSA 3	B/C	66	42-64	41-45	44-65	49-64
NSA 4	B	66	59	50	60	63
NSA 5	B	66	41-56	38-49	41-58	44-63
NSA 6	B	66	69	66	70	0**
NSA 7	B	66	39-67	35-66	40-68	44-68
NSA 8	B	66	36-43	39-46	36-44	45-62
NSA 9	B/C	66	33-64	39-51	34-65	42-66
NSA 10	B	66	54-65	54-61	54-66	56-68
NSA 11	B/C	66	37-42	48-65	38-65	45-66
NSA 12	B/C	66	35-55	47-58	36-55	44-54
NSA 13	B	66	48-59	60	48-59	47-58
NSA 14	E	71	43	54	43	44
<p>* In accordance with 23 CFR 772.11(e), highway agencies shall use an approach level at least 1 dB(A) less than the Noise Abatement Criteria for Activity Categories A to E listed in Table 1 of 23 CFR 772.</p> <p>**Receiver removed from proposed noise analysis due to anticipated ROW displacement.</p>						

In the future Build Alternative, a total of 44 of the 141 receivers are predicted to be impacted under Alternative 5C. Eight (8) of the impacted receivers, representing 21 residences, have traffic noise levels that are equal to or exceeding the noise abatement criteria (NAC) [66 dB(A)] under the Alternative 5C. Thirty-six (36) of the impacted receivers, representing 87 residences, a private soccer field, and a private walking trail, have predicted traffic noise levels with substantial increases [10 dB(A)] over existing levels. These impacted receivers occur in nine (9) different NSAs.

NSA 3, 5, 8, 9,10,11, and 12 have 2042 Build Alternative noise levels that exceed the NAC criteria or substantially increase by 10 dB(A) and mitigation appears to be feasible from a constructability standpoint. Therefore, abatement has been considered and analyzed.

NSA 1 and 7 have 2042 Build Alternative noise levels that exceed the NAC criteria or substantially increase by 10 dB(A). While abatement is warranted, noise barriers are not feasible. Estimated wall lengths for these two NSAs are a minimum of 140 feet and this mitigation is not feasible due to the locations of driveways and access points. No further study is needed in these areas. In addition, NSA 6 (residential receiver) would be acquired as part of the project and abatement would not be warranted. NSA 2, 4, 13, and 14 would not have 2042 Build Alternative noise levels that exceed the criteria or substantially increase by 10 dB(A).

The noise levels associated with the 2042 No Build Alternative are higher than the existing noise levels by approximately 1 dB(A) on average. The No Build will not have a substantial increase in noise levels and therefore, will not have an impact on project area sensitive receptors.

Mitigation

For the seven NSAs that warrant noise abatement consideration under the Build Alternative, noise abatement measures (vertical noise barriers) were evaluated and determined to be warranted, feasible, and reasonable in four NSAs (3, 5, 8, and 9), and were determined not feasible or reasonable at the three remaining NSAs (NSAs 10, 11, and 12).

Table 11 provides a summary of the noise barrier analysis for Alternative 5C.

Table 11: Alternative 5C Preliminary Sound Barrier Analysis Summary

NSA	Number of Impacted ¹ Receptors	Total Number of Benefited Receptors	Optimized Barrier Length (FT)	Height above Ground from TNM (FT)	Square Footage of Optimized Barrier (SF)	Square Footage per Benefited Receptor (SF) (Max = 2,000)	Feasible? Reasonable? (YES/NO)
NSA 3	12	13	2,037	11'-15' (Avg. 12.51')	25,926	1,994	YES/YES
NSA 5	4	6	1,038	8'-13' (Avg. 12.41')	12,875	2,146 ²	YES/YES
NSA 8	33	48	2,223	20'-28' (Avg. 26.55')	59,027	1,230	YES/YES
NSA 9	46	36	1,902	16'-20' (Avg. 19.41')	36,927	1,026	YES/YES
NSA 10	3	0	388	28'	10,853	N/A	NO/NO
NSA 11	2	1	751	16'-20-' (Avg. 17.37')	13,045	13,045	NO/NO
NSA 12	10	0	1,515	28'	42,414	N/A	NO/NO

1. Impacted receptors are those that warrant the investigation of noise abatement. This occurs where the predicted noise levels meet any of the following criteria: Predicted Highway Traffic Noise levels equal or exceed Noise Abatement Criteria or Predicted Highway Traffic Noise substantially exceed (by 10 dB(A) or more) the existing Highways Traffic Noise levels.
2. There is a high potential for NSA 5 to pass the MaxSF/BR reasonableness criteria during the final design process using refined noise modeling methods.

The following summarizes the NSA community benefitted and the type of barrier considered. Figure 21 shows the locations of the NSA communities benefitted.

- NSA 3 – Community includes residential homes and businesses in northwest quadrant of Hanover Road/Sunday Drive intersection. The proposed barrier would be a single barrier extending approximately 2,037 feet west from the intersection.
- NSA 5 – The Area per Benefited Receiver for the preliminary optimized barrier associated with NSA 5 is 2,146 SF/BR, which exceed the 2,000 SF/BR maximum reasonableness criteria; however, because this is very close to the 2,000 SF/BR, there is a high potential for NSA 5 to pass the MaxSF/BR reasonableness criteria during the final design process using refined noise modeling methods. The reasonableness criteria to reduce design year exterior noise levels by at least 7 dB(A) for at least one benefitted receiver is met. Preliminary studies assume that at least

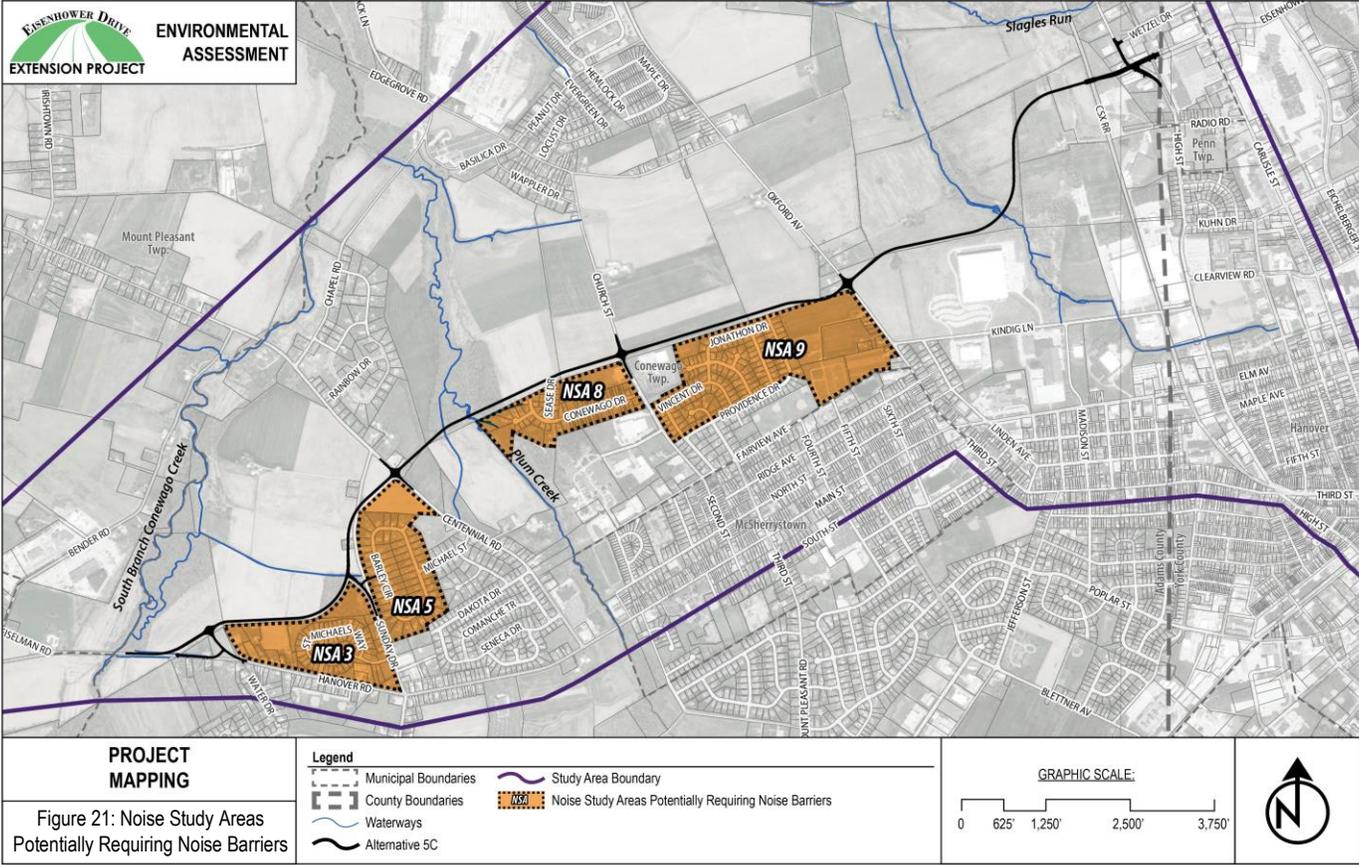
50% of the impacted and benefited receiver units desire the noise barrier. Therefore, the NSA 5 Preliminary Barrier is feasible and potentially reasonable. The NSA 5 community includes residential homes in the Barley Circle area. The proposed barrier would be a single barrier extending 1,038 feet behind the homes at Barley Circle.

- NSA 8 – Community includes residential homes in the Conewago Drive area. The proposed barrier would be a single barrier extending approximately 2,223 feet west from the Alternative 5C/Church Street intersection.
- NSA 9 – Community includes residential homes in the Sherry Village area. The proposed barrier would be a single barrier extending 1,902 feet behind the homes of Jonathan Drive.

In NSAs 10, 11, and 12 noise abatement is not feasible or reasonable. The explanations are as follows:

- NSA 10 – The single impacted residence is located along Oxford Avenue which is the primary noise source in this area. To properly mitigate the sound, driveways would be blocked, thereby cutting off access to homes. Acoustic analysis was conducted to see if setting a sound barrier along the Eisenhower Drive future build alternative could achieve PennDOT's feasible and reasonable criteria for the residences in this area. A maximum of 1 dB(A) noise reduction was achieved at the impacted residence, therefore the NSA 10 preliminary barrier would not be feasible.
- NSA 11 – The single impacted residence is located along Oxford Avenue which is the primary noise source in this area. To properly mitigate the sound, driveways would be blocked, thereby cutting off access to the homes. Acoustic analysis was conducted to see if setting a sound barrier along the Eisenhower Drive future build alternative could achieve PennDOT's feasible and reasonable criteria for the residences in this area. A maximum of 1 dB(A) noise reduction was achieved at the impacted residence, therefore the NSA 11 preliminary barrier would not be feasible.
- NSA 12 – Noise abatement measures were warranted at the Utz Soccer Fields due to a substantial increase in noise levels from existing and evaluated for feasibility and reasonableness. The evaluation results indicated that a reduction of 5dB(A) or more could not be achieved at the soccer fields even at the maximum sound barrier height of 28'. Therefore, noise abatement measures were not feasible, and reasonableness was not considered.

Figure 21: Noise Study Areas Potentially Requiring Noise Barriers



The exact location, abatement type and size, aesthetic treatment, and ROW requirements will be determined during the final design phase of the project and documented in the Final Noise Analysis Report. The final design noise analysis will refine the noise modeling effort and verify abatement warrants, feasibility, and reasonableness. This effort will also include coordination with the affected public to define the desires of the benefited communities.

During final design, traffic noise analyses will also be performed for undeveloped lands. If the undeveloped land is considered permitted for development, the appropriate Activity Category will be assigned based on the nature of the proposed development. If there is undeveloped land that is not permitted for development in the project area, the noise analysis will be completed to predict future noise levels for use by local planning officials.

4.3.4 Environmental Justice and Title VI

Presidential Executive Order (EO) 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, requires that each federal agency “shall make achieving EJ part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations...”

The three fundamental principles of EJ are as follows:

- To avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority populations and low-income populations.
- To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.
- To prevent the denial of, reduction in, or substantial delay in the receipt of benefits by minority and low-income populations.

EO 12898 expands upon the requirements of Title VI of the Civil Rights Act of 1964, 42 USC 2000d, which prohibits discrimination on the basis of race, color, and national origin in programs and activities receiving federal financial assistance.

Additionally, EO 13166, Improving Access to Services for Persons with Limited English Proficiency, requires federal agencies to examine the services they provide and identify any need for services to those with limited English proficiency (LEP). The EO requires federal agencies to ensure that recipients of federal financial assistance provide meaningful access to their LEP applicants and beneficiaries. Failure to ensure that LEP persons can effectively participate in or benefit from federally assisted programs and activities may violate the prohibition under Title VI of the Civil Rights Act of 1964, 42 USC 2000d and Title VI regulations against national origin discrimination.

Identification

Environmental Justice Populations

In order to determine the presence of Environmental Justice populations within the project area, the 2017 American Community Survey 5-year estimates, a dataset developed by the U.S. Census, was utilized to identify baseline demographic information within the project area. To supplement this information, discussions with the local community and field observations within the project area were conducted. Using the federal Council on Environmental Quality (CEQ) guidance document Environmental Justice: Guidance Under the National Environmental Policy Act, the community was considered a minority population when the minority population of the area exceeded 50-percent, or the minority population percentage of the area was meaningfully greater than the minority population percentage in the associated county. The community was considered low-income if the household income is at or below the Department of Health and Human Services (HSS) poverty guideline.

Environmental Justice and Title VI

Present in project area
No disproportionately high and adverse impacts

Limited English Proficiency

Present in project area
No adverse impacts

Demographic data were compiled for the project area block groups to analyze whether EJ populations are present within the project area. Following a comprehensive review of the datasets noted above, it was determined that both minority and low-income populations are located within the project area. Figures 22 and 23 depict where these populations exist.

More information on Environmental Justice can be found in the Environmental Justice Technical Data and Memo located in the project technical files.

CENSUS BLOCK GROUP

A Census Block Group is the smallest geographic area used by the U.S. Census Bureau to tabulate Census information. Block groups provide basic demographic data for a total population by age, sex, and race.

Figure 22: Minority Populations

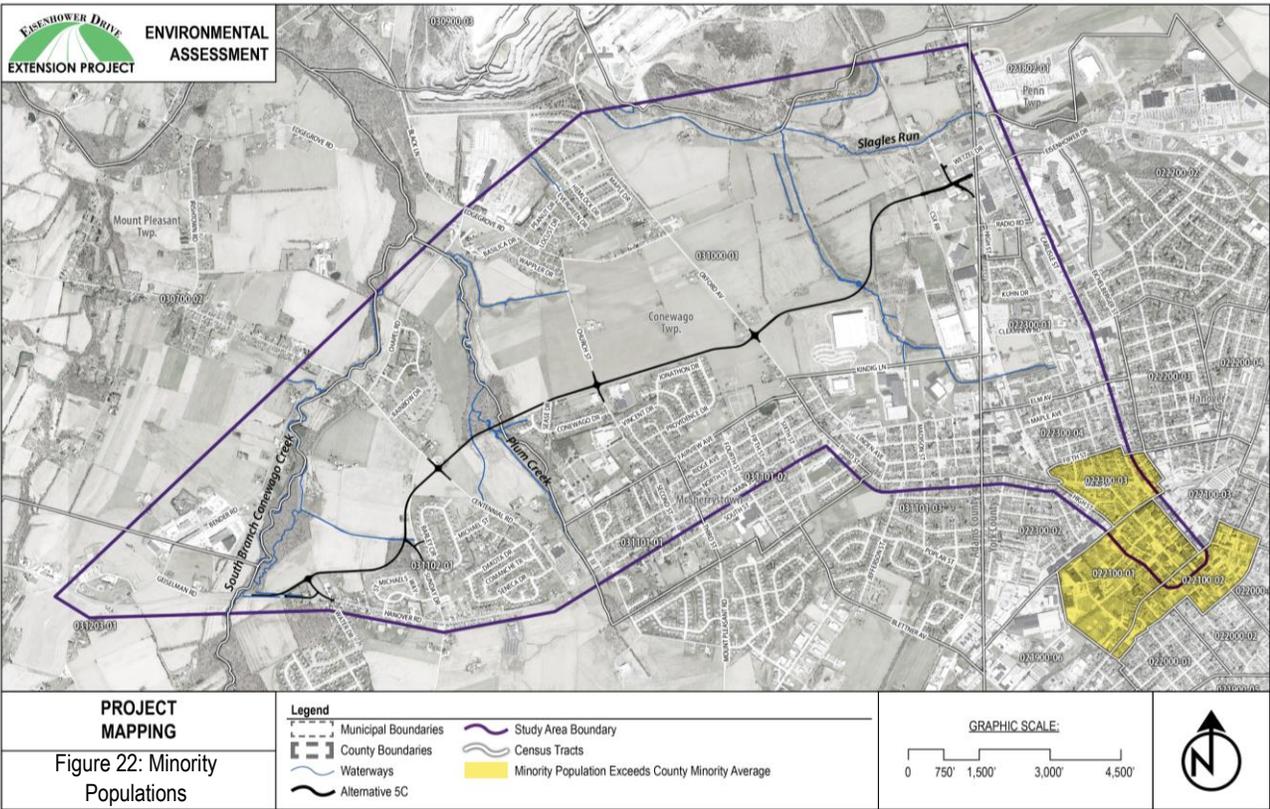
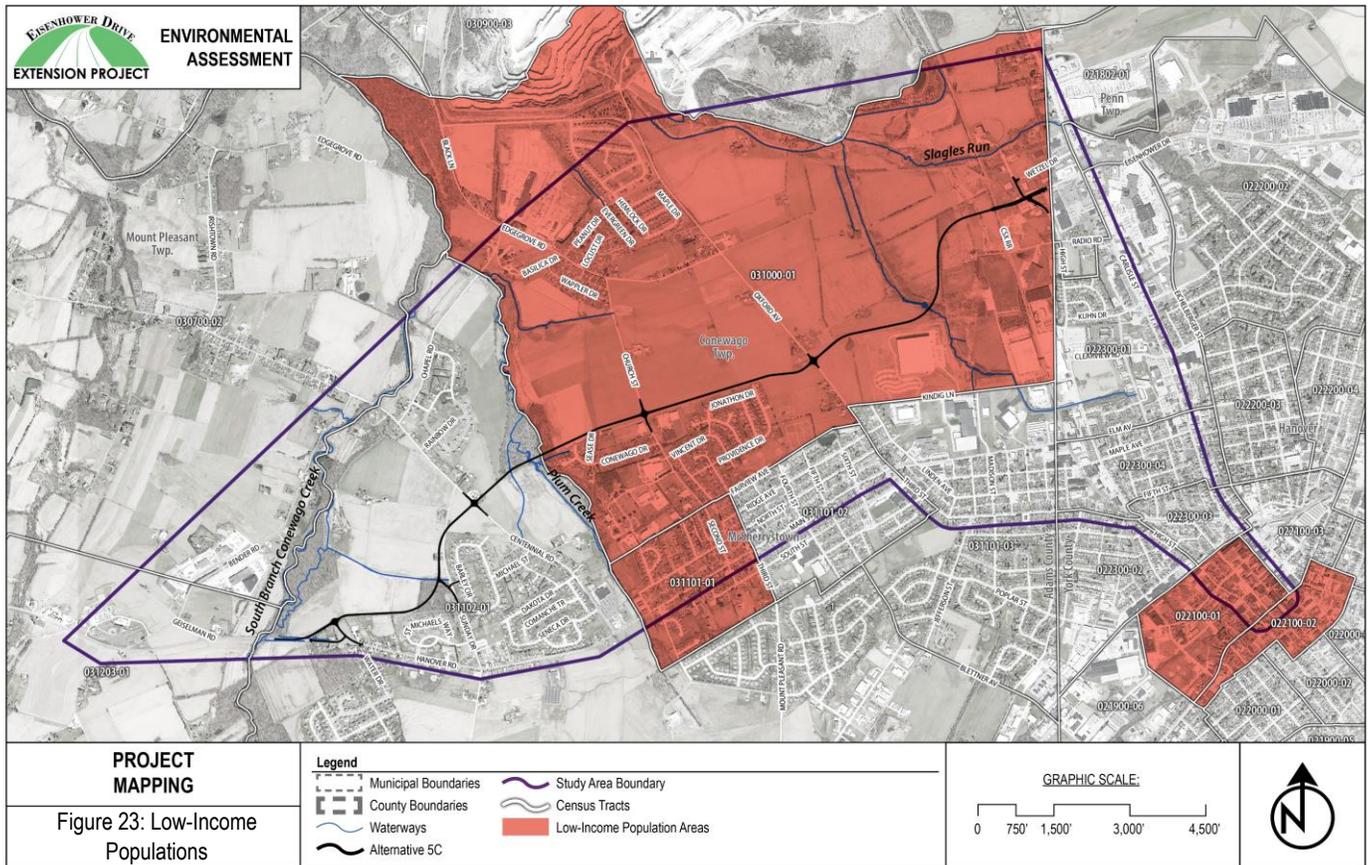


Figure 23: Low-Income Populations



Limited English Proficiency Populations

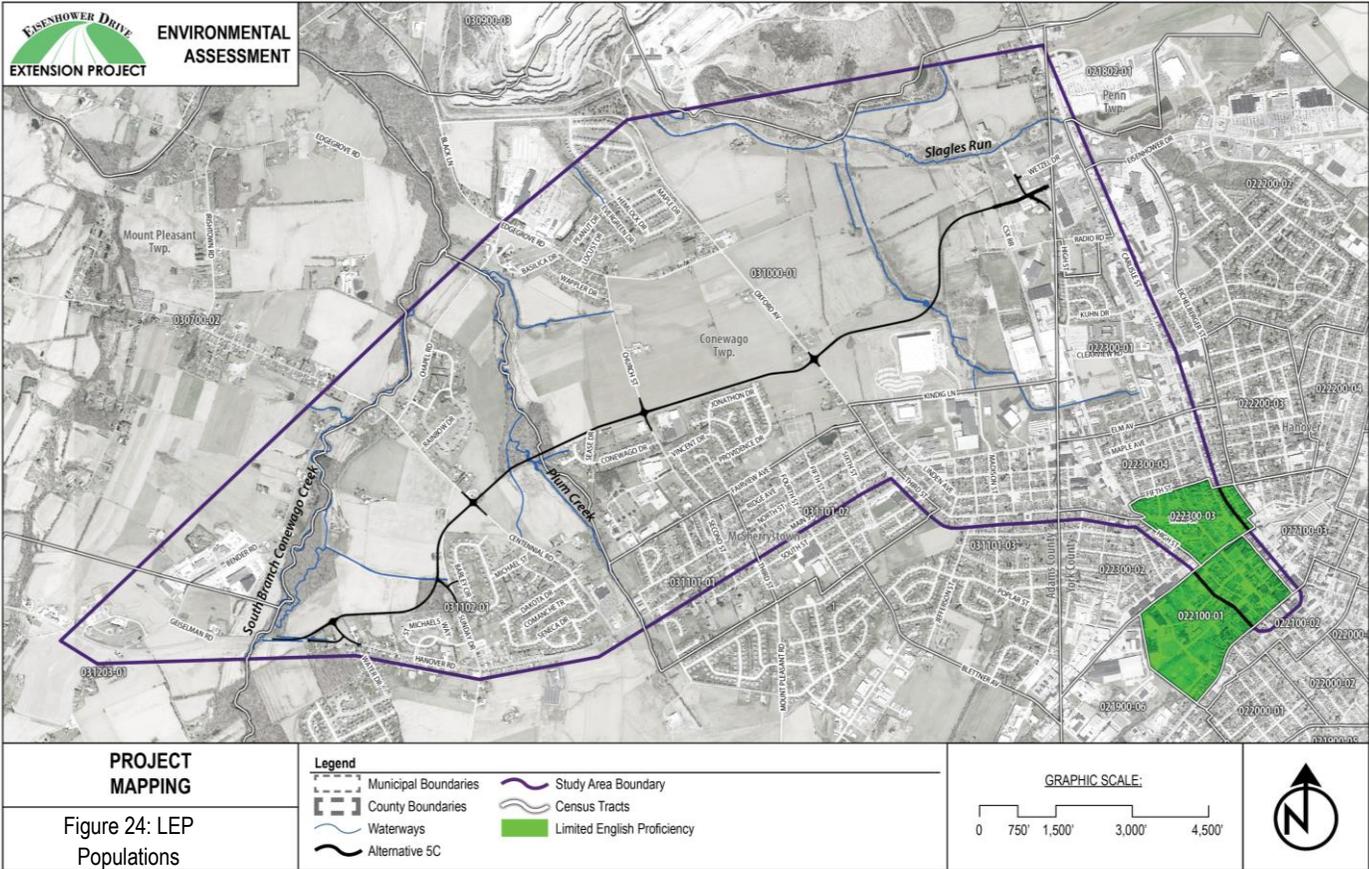
In order to determine the presence of LEP populations within the project area, the 2017 American Community Survey 5-year estimates was again utilized to identify baseline demographic information within the project area. To supplement this information, discussions with the local community and field observations within the project area were conducted. LEP populations were identified based on Census information as individuals 5 years and older that speak English “less than very well” or “not at all.”

Demographic data were compiled for the project area block groups to analyze whether LEP populations are present within the project area. Following a comprehensive review, it was determined that LEP populations are located within the project area. Figure 24 depicts where LEP populations exist.

During field studies in the project area, no community or commercial signs were noted in languages other than English, limited ethnic commercial establishments were noted, and no minority places of worship were identified. During the public workshops held for the project, (See Section 9.0, Public and Agency Involvement, for details on workshops and outreach), accommodations were provided to enable persons that had limited English capabilities to discuss the project in other

languages utilizing a phone translation service. Spanish speaking staff were also available at each of the workshops to directly speak to attendees about the project.

Figure 24: LEP Populations



Impacts and Mitigation

Environmental Justice Populations

According to the census data, field observations, and community outreach, Alternative 5C traverses through an area that does not contain a minority population. While Alternative 5C would traverse through an area that does have a higher percentage of households below poverty level, there would only be two (2) residential displacements in this area. The preferred alternative would have beneficial effects to both EJ and non-EJ populations by improving mobility and safety throughout the project area.

Overall, there are no notable adverse community impacts anticipated with this project. Impacts to minority and low-income populations will not be disproportionately high and adverse. Effects – both beneficial and adverse - resulting from the project are anticipated to be equitably distributed throughout the community. No disparate impacts are anticipated under Title VI and related statutes. No mitigation is required.

The No Build Alternative would have no impacts on Environmental Justice populations nor would it provide benefits for those populations.

Limited English Proficiency Populations

According to the census data, field observations, and community outreach, Alternative 5C traverses through an area that does not contain an LEP population. Therefore, there are no notable adverse impacts to LEP populations anticipated with this project. Benefits and burdens resulting from the project are anticipated to be equitably distributed throughout the community. However, accommodations for the public with limited English capabilities will continue to be offered and provided throughout this project.

The No Build Alternative would have no impacts on LEP populations nor would it provide benefits for those populations.

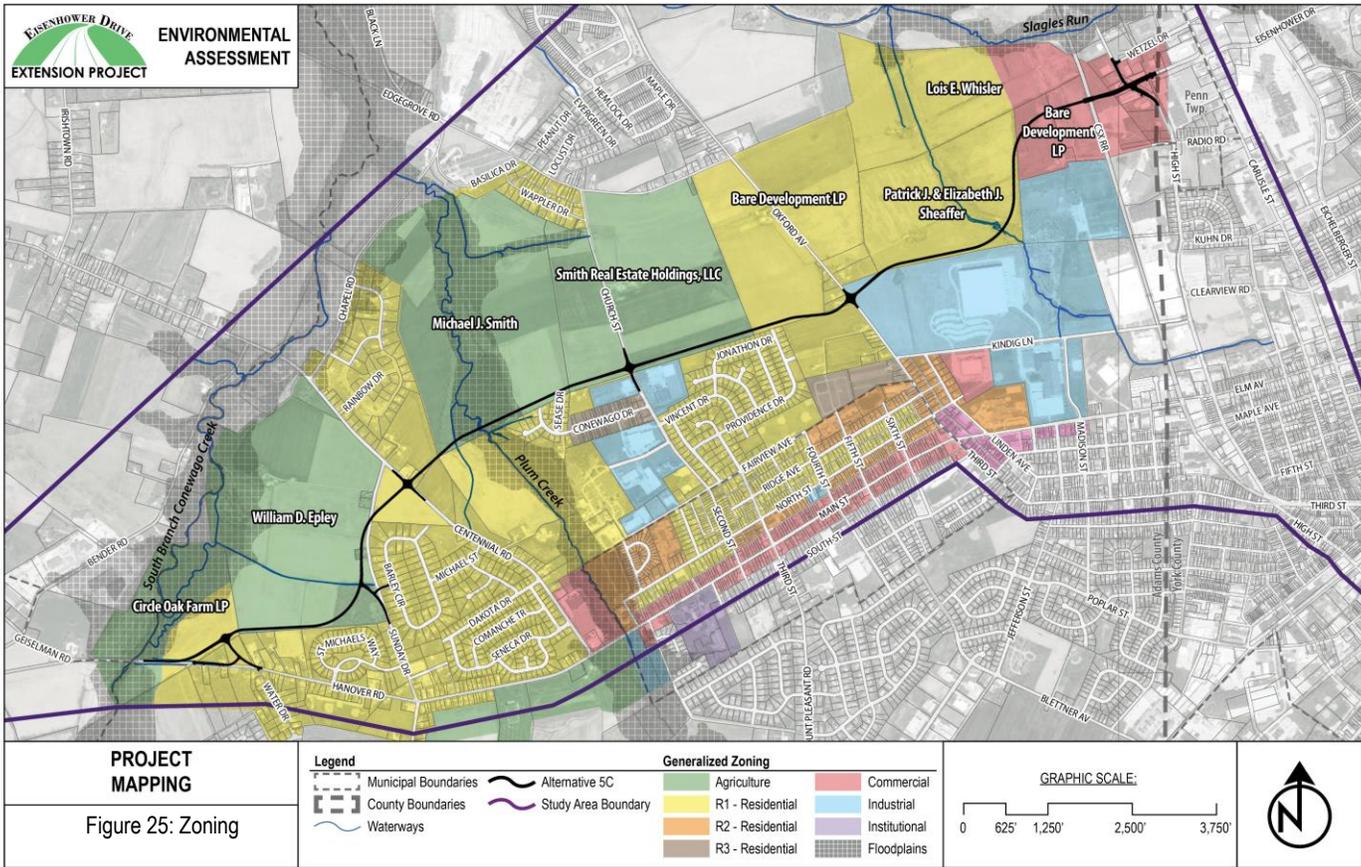
4.3.5 Displacements and Tax Base

Identification

The project area transitions from densely developed commercial/industrial to rural agriculture areas with a mix of residential homes and communities. Zoning throughout the project area generally matches the current land uses with a few exceptions. Within Conewago Township, large agricultural parcels immediately west of Oxford Avenue to the industrial zoned area have been zoned suburban residential (Figure 25).

Displacements and Tax Base
8 Displacements
Relocation assistance

Figure 25: Zoning

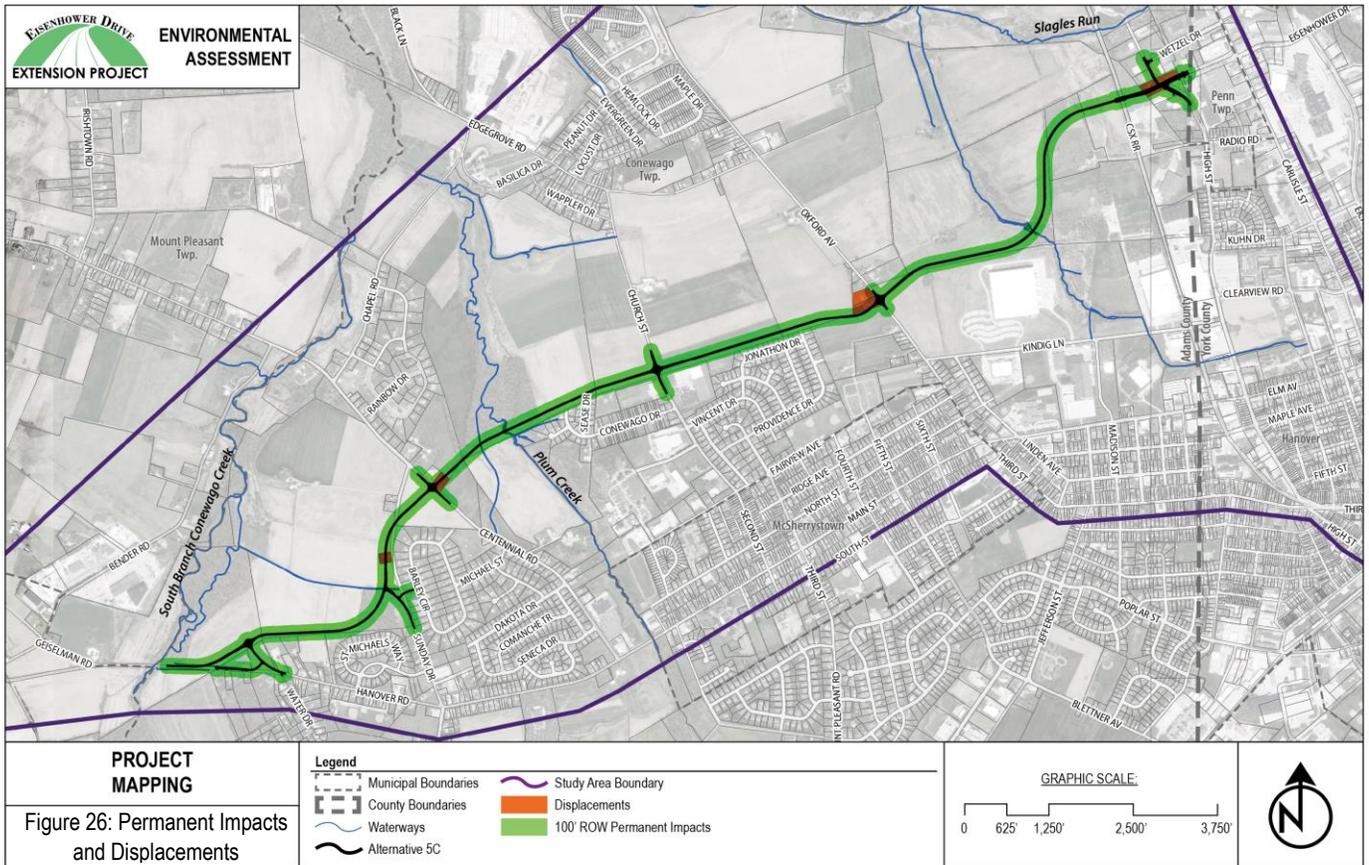


Impacts

During the development of Alternative 5C a concerted effort was taken to locate the alignment adjacent to property lines to minimize the overall impact on the parcels. As a result, Alternative 5C would partially impact 41 individual properties; many of these impacts would consist of partial land acquisition. Eight (8) of the 41 properties would displace residential and/or commercial structures. Of the eight (8) displacements, five (5) are residential and one (1) is a residential property that also houses a home-based business (Figure 26). The two commercial relocations house six (6) individual businesses which include a daycare facility, hair salon, nail salon, spa, doctor’s office, and a hearing specialist. All the displacements and all

but one of the partial property impacts are located in Conewago Township. One partial property impact is located in Union Township.

Figure 26: Permanent Impacts and Displacements



Mitigation

As the project advances into final design and the extent of ROW required for the project is known, PennDOT staff will coordinate with the individual property owners and any tenants. All property acquisitions will be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisitions Policies Act of 1970, as amended; Title VI of the Civil Rights Act of 1964; and the Pennsylvania Eminent Domain Code of 1964. Relocation assistance will be available to those residential and commercial properties that are displaced.

Tax Base Assessment

Identification

Alternative 5C would require the conversion of property that is privately owned and currently taxed by local municipalities, counties, school districts, and fire district. The conversion of property from private ownership to state-owned land would reduce the tax base for each entity. An assessment was conducted to identify the extent of the tax base loss based on the extent of property that would need to be acquired to construct Alternative 5C. The 2019 Adams County Tax Parcel Viewer was used to identify the individual property parcels and their assessed value.

Impacts

Potential reduction in the local, county, and school district tax base was calculated for Adams County, Conewago and Union Townships, Conewago Valley School District, and Littlestown Area School District. The assessed value for each parcel was used to identify the tax requirement by each entity and then the portion of the property that would be acquired as part of the project determined the extent of tax base lost by each taxing entity. Adams County, Conewago and Union Townships, Conewago Valley School District, and Littlestown Area School District would lose less than 0.5% of their annual tax revenue. As there are no impacted properties in York County, there would be no real estate tax revenue loss in that area.

The No Build Alternative would have no impact on the tax base.

Mitigation

PennDOT and FHWA will seek to relocate businesses and residences within the same municipalities and school districts to offset any potential loss to the tax base. Mitigation for loss of tax revenue is not anticipated.

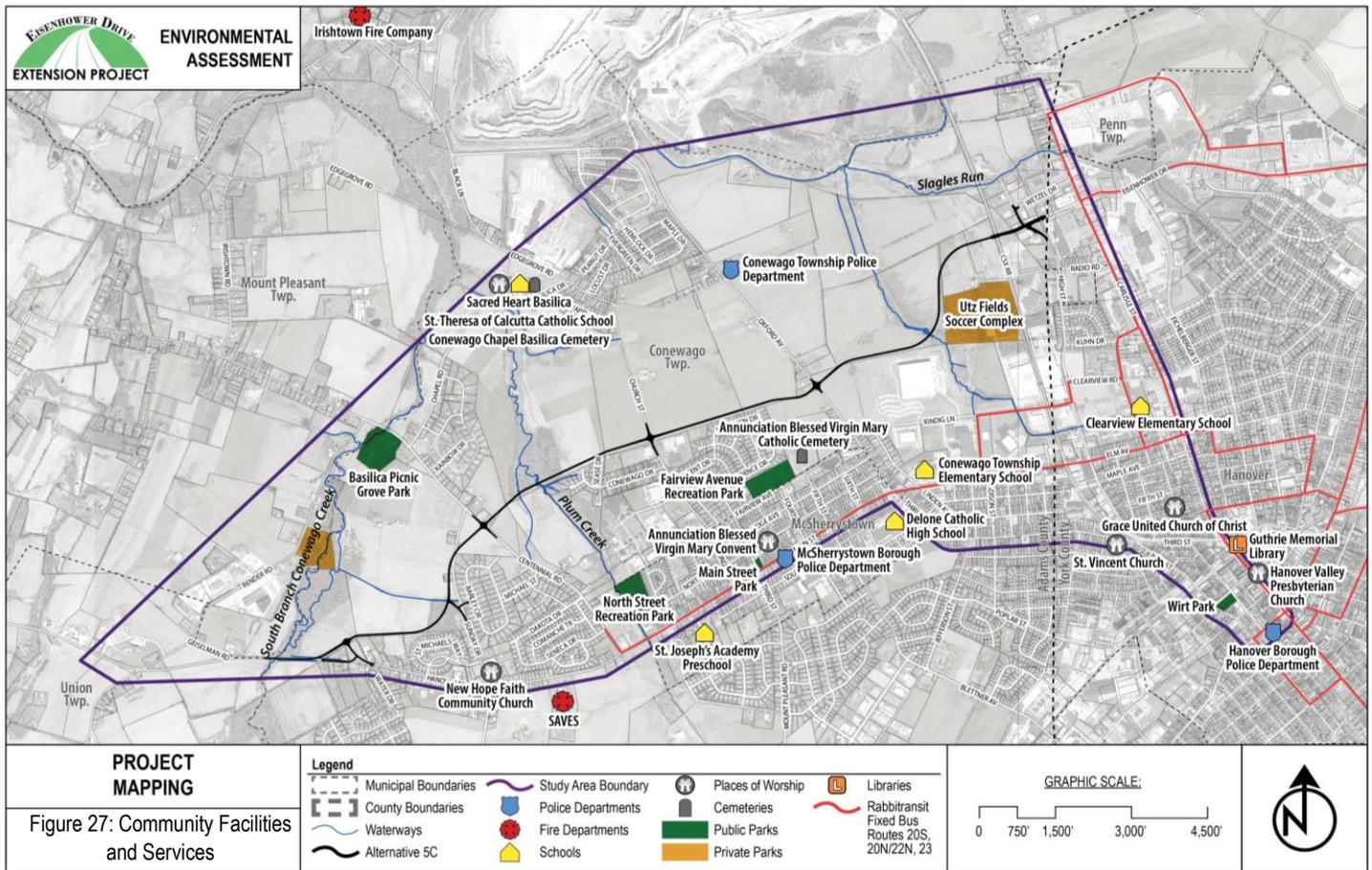
4.3.6 Community Facilities and Services

Identification

Community facilities and services noted in the project area include Emergency Management Services (EMS), schools, places of worship, cemeteries, parks and other recreational facilities, public transit services, and utilities, see Figure 27. No hospitals or other medical facilities were identified in the project area.

Community Facilities and Services Benefits
No adverse impacts

Figure 27: Community Facilities and Services



In York County, emergency management coordination and responses are handled by the York County Department of Emergency Services. All 911 calls are received in one centralized location and are then directed to the appropriate services. Full-time local police services in the York County portions of the project area are provided by the Hanover Borough Police Department and Penn Township Police Department. Fire protection and ambulance services are provided by the Hanover Area Fire and Rescue.

The Wirt Park Fire Station is located on North Franklin Street in Hanover, in the southeastern portion of the project area.

In Adams County, emergency management coordination and responses are handled by the Adams County Department of Emergency Services. All 911 calls are received by the Adams County Emergency Services Center and are then directed to the appropriate services. Local police protection is provided by the McSherrystown Borough Police Department, the Conewago Township Police Department, and the Eastern Adams Regional Police Department in Oxford Township. The police department facilities for McSherrystown Borough and Conewago Township both occur within the project area. Police protection in Union and Mount Pleasant Townships is provided by Pennsylvania State Police. Fire Protection and ambulance services are provided by Southeastern Adams Volunteer Emergency Services (SAVES) in McSherrystown Borough and Conewago, Union, and Mount Pleasant townships. The SAVES facilities are partially located on the southern portion of the project area off Hanover Road. In Oxford Township, fire protection and ambulance services are provided by the Irishtown Fire Company out of New Oxford.



The project area is serviced by the Hanover Public School District and South Western School District in York County, and by the Conewago Valley School District and Littlestown Area School District in Adams County. Two public schools are located in the project area, which include Clearview Elementary School in Hanover Borough and Conewago Township Elementary School. Three private schools are also within the project area including Delone Catholic High School and St. Joseph's Academy Preschool in McSherrystown Borough, and Saint Teresa of Calcutta Catholic School in Conewago Township. York County residents have access to the Guthrie Memorial Library located in Hanover Borough at the southeastern end of the project area.



Six (6) places of worship were identified in the project area including the St. Vincent Church, Hanover Valley Presbyterian Church, and Grace United Church of Christ in Hanover Borough, and the Annunciation BVM Convent in McSherrystown Borough, and the New Hope Faith Community Church and Sacred Heart Basilica in Conewago Township. Two cemeteries associated with the places of worship were identified, which include the Annunciation Blessed Virgin Mary Catholic Cemetery in McSherrystown Borough and the Conewago Chapel Basilica Cemetery in Conewago Township.



There are public and private recreational facilities in the project area. There are five (5) public recreational areas within the project areas including Wirt Park in Hanover Borough, Fairview Avenue Recreation Park, North Street Recreation Park, and Main Street Park in McSherrystown Borough, and Basilica Picnic Grove Park. These facilities offer open space areas with recreational sports fields, playgrounds, a dog park, and walking paths. Private recreation facilities include a baseball field off Bender Road in Mount Pleasant Township and the Utz Fields Soccer Complex in Conewago Township.



Rabbitransit, the Central Pennsylvania Transportation Authority, features three main fixed bus routes that serve the Hanover area. The bus routes that run within or adjacent to the project area include Route 20S, Route 20N/22N, and Route 23.

Impacts and Mitigation

Alternative 5C would result in no impacts on any public facilities or services. No EMS facilities, schools, places of worship, cemeteries, public parks, or public transit routes would be directly impacted by Alternative 5C. Coordination will occur with the local EMS providers and schools, transit, and other community facilities and services; therefore, no disruption of service is anticipated. No impacts to public safety or emergency services are anticipated. The proposed roadway will benefit some services by providing alternative travel routes and overall, a reduction in traffic to improve emergency response times within the project area.

The No Build Alternative would result in no impacts to public facilities and services within the project area.

5.0 INDIRECT EFFECTS



Identification

Impacts and Mitigation

This page intentionally left blank

Identification

The CEQ regulations require the examination of both the direct and indirect impacts of a project (40 CFR § 1508.25 [c]). Direct and indirect impacts can be defined as follows (from 40 CFR § 1508.8):

- Direct effects are caused by the action and occur at the same time and place as the action.
- Indirect effects are caused by the action and occur later in time or are farther removed in distance but are still reasonably foreseeable.

According to FHWA guidance, the determination or estimation of future impacts is essential to indirect impact analysis. However, the focus must be on reasonably foreseeable actions; those that are likely to occur or probable, rather than those that are merely possible. Direct impacts to project area natural, cultural, and socioeconomic resources are addressed in the EA document.

Indirect effects attributable to a Build Alternative for a project may include changes in land use and associated impacts on environmental resources. In addition, the definition of indirect effects also includes other potential environmental impacts caused by a Build Alternative, such as the future degradation or loss of streams and wetlands due to sedimentation, stormwater runoff, or changes in hydrology.

Impacts and Mitigation

The indirect effects analysis for Alternative 5C was completed by following the guidance outlined in PennDOT Publication 640, Indirect and Cumulative Effects (ICE) Desk Reference, and reviewing the municipal comprehensive plans, county and municipal zoning plans, and communication with the municipalities. As outlined in the reference guide, one of the most likely causes of indirect effects is related growth. The determination of potential indirect effects is based on a combined analysis of project type, project location, and growth pressure.

- Project Type
 - The Eisenhower Drive Extension project proposes a new transportation facility on new alignment. However, Alternative 5C would be designated as a “Limited Access” highway/roadway, allowing no direct access to any of the project area parcels.
- Project Location
 - Current zoning and land controls limit the development potential of the surrounding area.
 - The land adjacent to and south of Alternative 5C is densely developed and is predominantly residential and industrial.
 - The land adjacent to and north of Alternative 5C is “open land” currently in agricultural use. The majority of this land, west of Oxford Ave. is zoned agricultural, while the land east of Oxford Avenue is zoned residential. See Figure 25, Zoning Map, in Section 4.3.5 Displacements and Tax Base.
 - As outlined on Figure 12 in Section 4.1.6 Agricultural Resources, the agricultural operations slightly west of Oxford Avenue are all designated as ASAs, and the two large agricultural operations between Oxford Avenue and Centennial Road are ASAs and also designated as Preserved Farmland.

- Growth Pressure
 - Based on a review of the municipalities' comprehensive plans and coordination with the townships, development within the municipalities has been steady or slowing over the past 5 years, water and sewer utilities are available throughout the region, and the existing roadway network provides accessibility and mobility to the surrounding parcels.

Based on review of analysis above, it was determined that the potential for Alternative 5C to induce growth or substantial land use changes in the surrounding area is low.

The potential for Alternative 5C to result in indirect effects to project area resources was also evaluated. It was determined that indirect impacts to project area resources would not occur due to the low potential for project induced development as a result of Alternative 5C. Direct Impacts to project area resources are discussed in Section 4.0, Environmental Consequences. In addition, the proposed project will be designed so that stormwater runoff is contained and conveyed in an approved manner. Best Management Practices from approved Erosion and Sedimentation Control (E&SC) and Post Construction Stormwater Management (PCSWM) plans will be incorporated into the project designs to avoid potential indirect impacts. Because indirect impacts are not anticipated, no mitigation is recommended.

The No Build Alternative would have no indirect effects.

6.0 CUMULATIVE EFFECTS



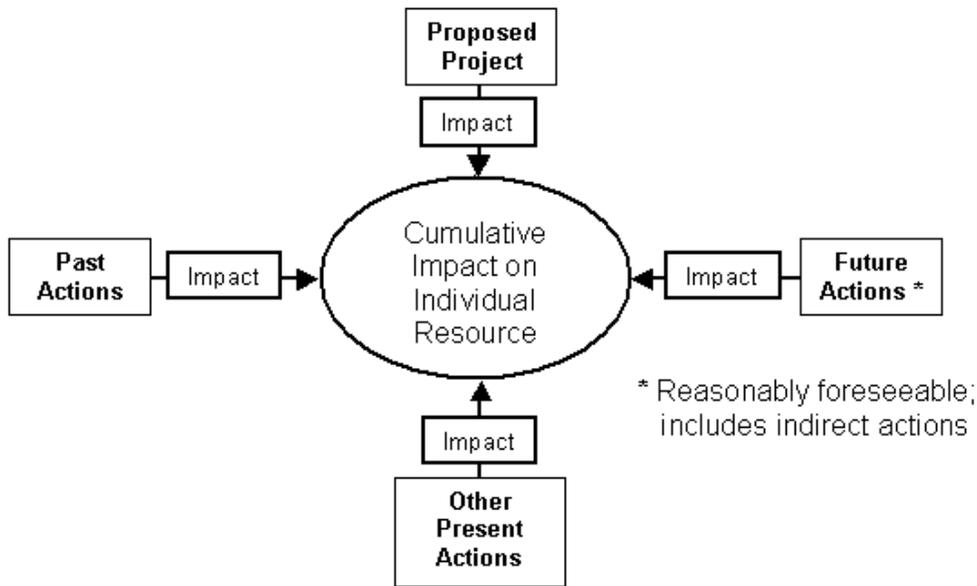
Identification

Impacts

Mitigation

This page intentionally left blank

Cumulative impact is the impact on the environment, which results from the incremental impact on a resource when combined with other past, present, and reasonably foreseeable future actions regardless of who (e.g. agency or individual) undertakes such action. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. Cumulative impacts are assessed for individual resources which have a direct or indirect effect from the project.



Based on the direct and indirect impacts for this project, a cumulative impact assessment was conducted for wetlands, agricultural resources, and above ground historic resources.

Resource Study Area

To assess potential cumulative impacts for individual resources, a resource study area (RSA) was developed. Agricultural resources were assessed at the county level for trends with a focus on Conewago Township. This RSA was also used to evaluate above ground historic resources and wetlands.

Time Frame

Settlement within western York and southeastern Adams County dates to the early 1700s. York County generally had slow growth and the area was predominantly agricultural until the mid-19th century, while Adams County growth continued to be slow until the 1950s when there were increases in population and industrial development. Over the following fifty years, the population of Adams County more than doubled, nearing 100,000 residents. By the 2000 census, 40% of the population was considered “urban,” an enormous shift over the last century. By percentage, Adams County was one of the four fastest-growing counties in the state as of 2006 (Adams County Historical Society 2017). Based on the settlement patterns and

development, the past time frame for the analysis is 1957 which captures the development trends associated with Adams County. The planning horizon is 2042 for the cumulative impact assessment.

Identification of Potential Impact Areas

To determine the extent of past impacts, a review of historic aerial photographs was conducted to identify developments that occurred between 1957 and the present day. For study purposes, the present day is considered 2010 to 2021. Future reasonably foreseeable developments include those private or public actions that are planned.

Within the RSA, there are only a few future developments or actions that were identified. They include:

- Eisenhower Drive Extension Project – PennDOT – Project included in the current TIP
- Carlisle Pike Resurfacing Project – PennDOT – Project included in the current TIP
- PA 116 Hanover Road Bridge Improvement – PennDOT – Project included in the current TIP
- Centennial Road Bridge Preservation Program – PennDOT – Project included in the current TIP
- Centennial Road Townhomes – Plan conditionally approved for 4 lot subdivision
- North Blettner Avenue – Plan approved for a private warehouse facility

These projects/actions will be used to aid in the identification of future impacts to the various resources.

Agricultural Resources (past, present and future)

Agricultural resources within Pennsylvania have been evolving overtime. In the late 1950s, there were nearly 12 million acres of farmlands in Pennsylvania with nearly 10% of that land located within Adams and York Counties. However, by 2017, Pennsylvania lost nearly 4.7 million acres of agricultural land and Adams and York Counties accounted for only 5.7% of Pennsylvania's agricultural area. Historically, the number of farms drastically decreased between the late 1950s and 1960s and generally decrease until 1997. Between 1997 and 2017, the trend changed to increase in the number of farm operations; however, the overall average size of the farm decreased (Table 12, Past Farmland Statistics and Trends). A review of aerial photographs for the Conewago Township area shows that commercial and residential lands have drastically impacted the agricultural lands. As shown on Figure 28, residential development began expanding in the 1960s with new developments occurring each decade. Additionally, development along Carlisle Road north of Hanover Borough expanded commercial and industrial development including the Hanover Mall in the 1970s. Present trends (last five years) show that development has continued with the issuance of 165 building permits (Figure 29). Additional trends within Conewago Township area includes the recent rezoning or pending consideration for rezoning of agricultural land to residential, commercial, or mixed used development. Changes to township zoning is the first step in advancing development. While these zoning changes are not included in this cumulative assessment as they are not approved development plans and are not necessarily reasonably foreseeable, it does indicate a trend away from agricultural activities for the general area.

Table 12: Past Farmland Statistics and Trends

	1959	1969	1978	1982	1997	2007	2017
Pennsylvania							
Number of Farms	100,052	62,824	56,202	55,536	45,457	63,163	53,157
Land in Farms (acres)	11,861,727	8,900,767	8,543,661	8,297,713	7,167,906	7,809,244	7,278,668
Avg. Farm Size (acres)	118	141	152	149	158	124	137
Adams County							
Number of Farms	2,055	1,437	1,166	1,199	984	1,289	1,146
Land in Farms (acres)	336,640	203,575	191,909	196,644	178,780	174,595	166,227
Avg. Farm Size (acres)	115	141	165	164	182	135	145
York County							
Number of Farms	4,673	2,978	2,349	2,303	1,698	2,370	2,067
Land in Farms (acres)	408,200	325,330	304,880	299,879	261,164	292,507	252,713
Avg. Farm Size (acres)	87	109	130	130	154	123	122

Figure 28: Cumulative Effects

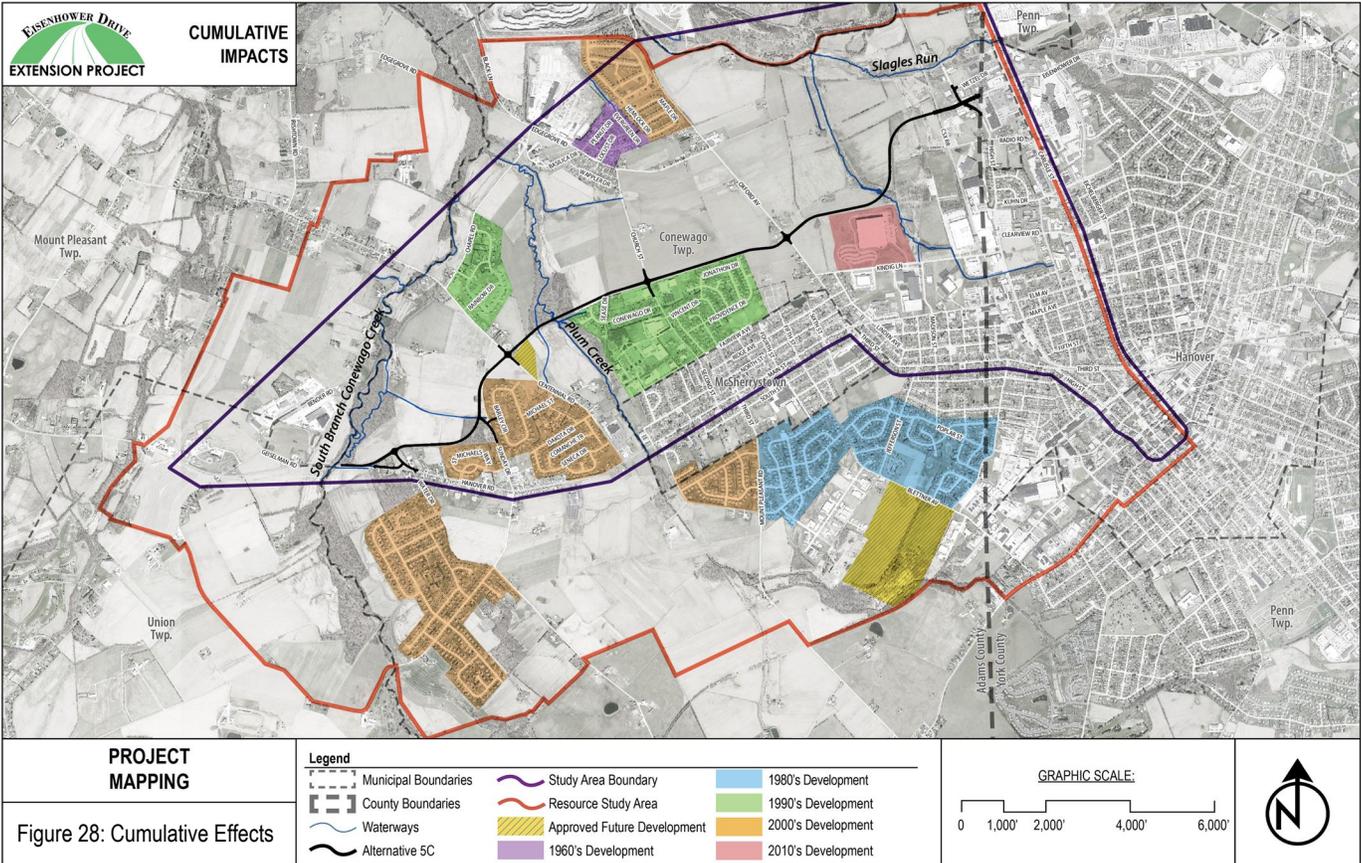
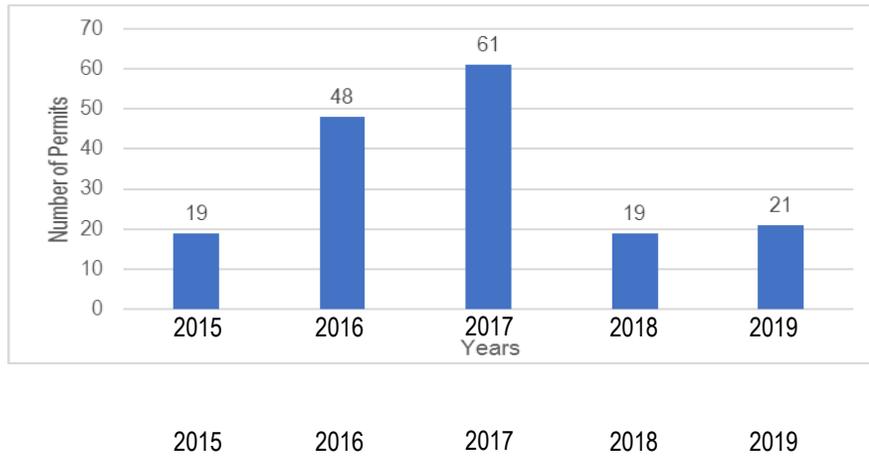


Figure 29: Building Permits Issued



Source: Conewago Township, 2019.

The agricultural RSA trends and impacts appear to be consistent with the Pennsylvania and county trends. Table 13 shows the past, present, and future estimated cumulative impacts which could occur to agricultural resources if the parcels fully develop.

Table 13: Agricultural Resources Cumulative Impacts

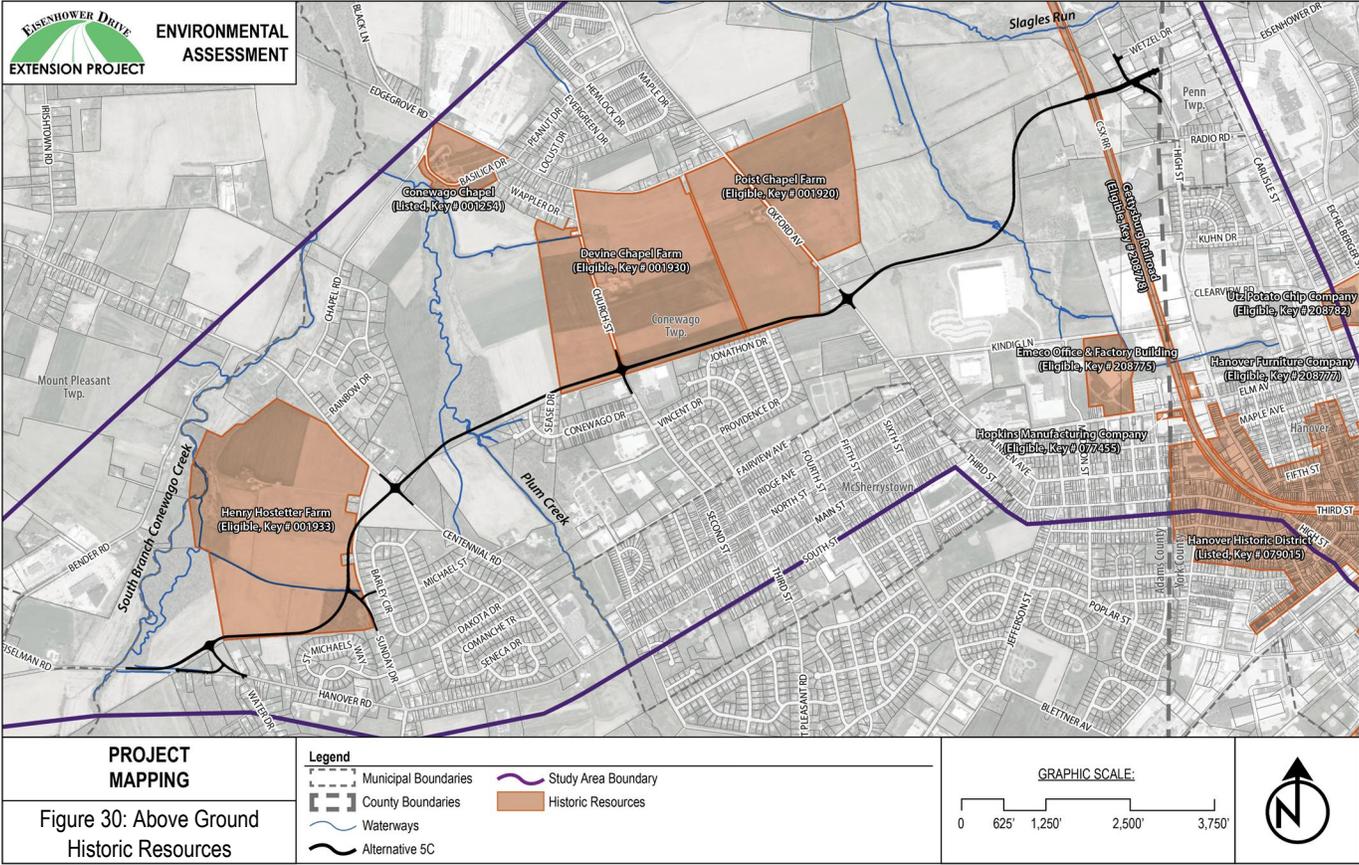
	Agricultural Resources
Past (post-1957)	undetermined
Present (2010 – 2020)	58.0 acres
Future	47.7 acres
Direct Project Impacts	40.0 acres
Indirect Impacts	0.0 acres
Other Development	7.7 acres
Cumulative Impact	105.7 acres

Above Ground Historic Resources (past, present, and future)

As established through the historic resource investigations (discussed in Section 4.2.1 of the EA), historically significant resources related to development patterns during the period of significance, extending from circa 1750 to 1968, were evaluated. The area is predominantly rural and adjacent to commercial/residential settlement which serviced the rural community. The construction of modern residential and commercial developments has worked to alter the rural landscape of the RSA which results in the loss of integrity for rural agricultural districts and historic settlement districts. This has led to identifying individual properties as representative examples of past settlement, industrial, agricultural, and construction patterns and practices. While several properties in the RSA have undergone evaluation, comprehensive investigations have not occurred on every property within the RSA, so it is impossible to determine the effect past redevelopment and remodeling has had on all historic-age structures. Alternative 5C, as currently designed, will adversely affect three historic properties (Devine Chapel Farm, Poist Chapel Farm, and Henry Hostetter Farm), requiring a total of 16.1 acres for new ROW (Figure 30). No reasonably future development was identified that would impact the known historic boundaries for the project area Above Ground Historic Resources. Other historic resources within the RSA boundary have the potential to be

threatened by future development. However, quantification of these impacts is not possible without first determining the eligibility of every property in the RSA.

Figure 30: Above Ground Historic Resources



Wetlands (past, present, and future)

Between 1956 to 1979, the National Wetlands Inventory estimated that Pennsylvania lost 28,000 acres of wetlands, an average of 1,200 acres per year. Wetland loss during this period is attributed partially to suburban development within Pennsylvania. However, historically, wetlands have been impacted by agricultural activities. Identifying historical wetland loss within the RSA is difficult as data sets are not readily available. The cumulative impact assessment is based on identifying the potential NWI wetlands that would be impacted from known past developments, directly by the project, indirectly by the project, and future development areas. Table 14 shows the past, present, and future estimated cumulative impacts which could occur to wetland resources if the project proceeds as planned and the parcels fully develop.

Table 14: Wetland Resources Cumulative Impacts

	Wetland Resources
Past (post-1957)	11.3 acres
Present (2010 – 2020)	0.0 acres
Future	13.8 acres
Direct Project Impacts	1.3 acres
Indirect Impacts	0.0 acres
Other Development	12.5 acres
Cumulative Impact	25.1 acres

Potential Mitigation

Mitigation to address the agricultural resource impacts is directly related to the policies and land use practices at the local level. Local officials would need to develop more stringent local polices to stem conversion of farmland and to enforce the existing conservation easements placed on properties. The continued viability of the Agricultural Security Area resulting from the direct project impacts will be assessed for the project in the Farmland Assessment Report (FAR) which is designed to preserve area farmlands.

Development requiring federal permits would require consideration of Above Ground Historic Resources under Section 106. If development in the RSA was sponsored by federal, state, or local entities or used federal funds or permits, the above ground historic resources could be provided some level of protection or preservation. The extent of the protection would be determined by the project sponsors and regularity agencies.

Federal and state regulatory agencies charged with wetlands protection are actively working to stop the loss of wetland resources through the implementation of "No Net Loss" programs. "No Net Loss" focuses on replacing individual wetlands lost under federal and state permit program, with the objective of having the wetlands replaced and replicated on-site or as close to on-site as possible. A trend towards actively increasing the number of wetlands is underway with a long-term goal towards, a "Net Gain of Wetland Resources". Additionally, in order to meet Pennsylvania's commitment to the Chesapeake 2000 Agreement, Pennsylvania has a set goal to create and/or restore a minimum of 400 acres of non-tidal wetlands per year within the Chesapeake watershed. These goals and regulations would help to mitigate the loss of wetlands in the RSA.

7.0 SECTION 4(f) EVALUATION



This page intentionally left blank

According to Section 4(f) of the U.S. Department of Transportation Act of 1966 and Section 2002 of PA Act 120, the use of publicly-owned parks, recreation area, and wildlife/waterfowl refuges, as well as public and private historic sites for transportation purposes may only occur if no feasible and prudent avoidance alternative to such use exists and if the project includes all possible planning to minimize harm to resources from such use. The Eisenhower Drive Extension project area includes both historic properties and recreation areas; however, Alternative 5C would only use three historic properties. See Figure 31 and Table 15.

A "Use" under Section 4(f) refers to an adverse impact to, or occupancy of, a Section 4(f) property. There are three conditions under which use occurs:

- Permanent acquisition of a Section 4(f) resource for transportation projects
- Temporary occupancy of a Section 4(f) resource that is adverse
- Proximity impacts that substantially impair a Section 4(f) resource

Figure 31: Section 4(f) Properties Along Alternative 5C

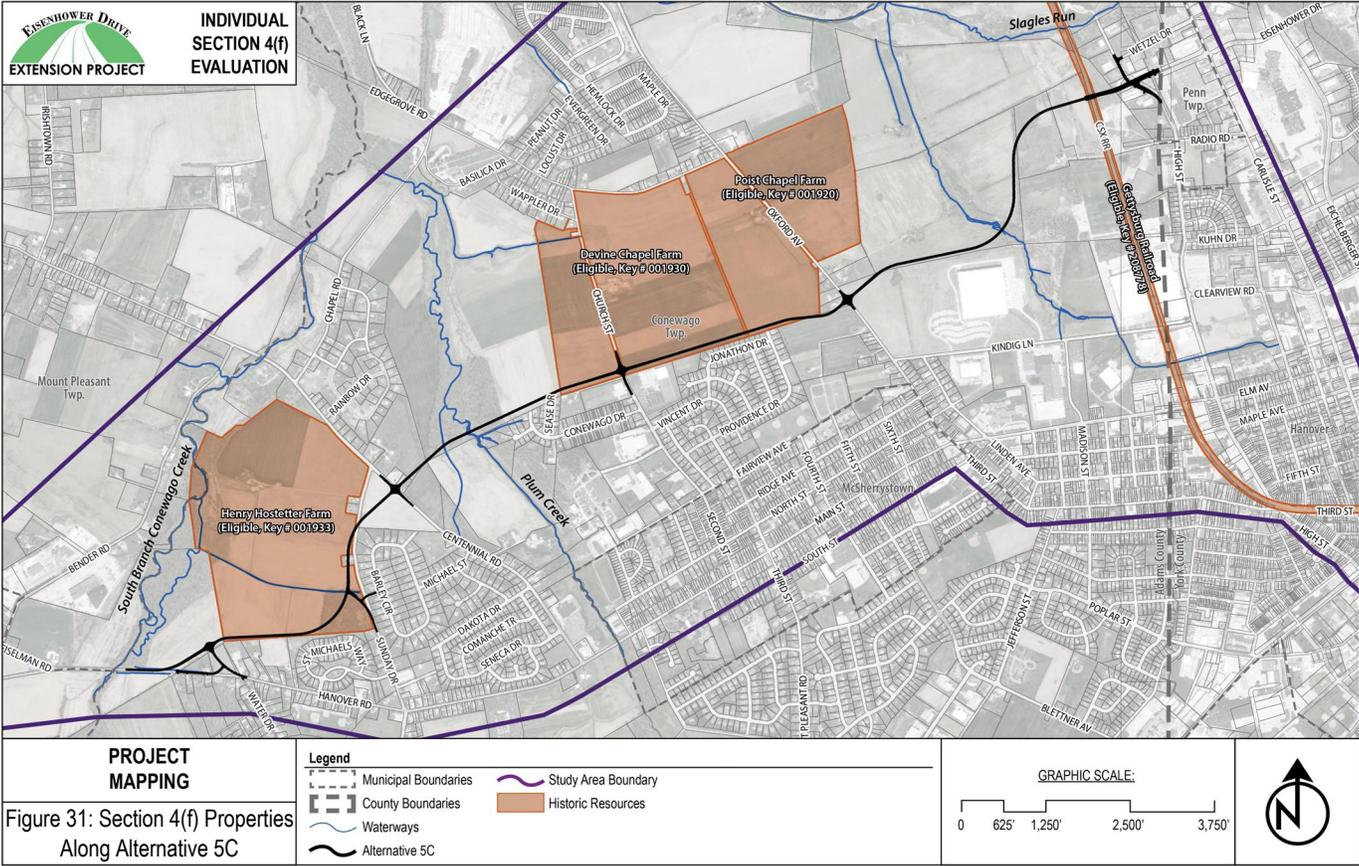


Table 15: Summary of Section 4(f) Resources

Section 4(f) Resource	Alternative 5C Impact*	Section 4(f) Use	Coordination and Mitigation
Devine Chapel Farm	6.6 acres of ROW	Use	PA SHPO Section 106 Concurrence on Adverse Effect. Mitigation approved.
Henry Hostetter Farm	6.1 acres of ROW, 5.6-acre remnant lot	Use	PA SHPO Section 106 Concurrence on Adverse Effect. Mitigation approved.
Poist Chapel Farm	2.3 acres of ROW	Use	PA SHPO Section 106 Concurrence on Adverse Effect. Mitigation approved.

*Impacts calculated based on current Alternative 5C plans and may differ slightly from the calculations presented in the Section 4(f) evaluation, which were based on a standard 100-foot-wide limit of disturbance used in the alternatives analysis.

Alternative 5C would have permanent impacts on three Section 4(f) properties: the Devine Chapel Farm, Henry Hostetter Farm, and Poist Chapel Farm. The impacts to the three Section 4(f) properties consist of ROW acquisition for the construction of the Eisenhower Drive extension. Section 106 analysis concluded that the effect on the farms would be adverse, so the Section 4(f) impact cannot be *de minimis*. Alternative 5C would also include a bridge over the Gettysburg Railroad. Although this adds a new visual element to the setting, there are no contributing railroad features in the project area and the new bridge will not use the Gettysburg Railroad. For more information on the effects to historic properties, refer to Section 4.2.1 Above-Ground Resources.

The Individual Section 4(f) Evaluation presented the avoidance alternatives (No Build Alternative, Alternative 2, and Sub-Alignment Alternatives A and B), the alternatives considered prior to detailed analysis (Alternatives 3, 4, 6, and 7), and the alternatives studied in detail (TSM Alternative and Alternative 5C). The Section 4(f) evaluation found that there does not appear to be a reasonable, feasible, and prudent avoidance alternative. According to the Assessment of Least Overall Harm, Alternative 5C appears to be the alternative that results in the least overall harm to Section 4(f) properties. The proposed design for Alternative 5C includes all possible planning to minimize harm.

FHWA and PennDOT resolved adverse effects by developing mitigation in consultation with the PA SHPO and consulting parties. Consultation is complete, and the commitments are described in a formal agreement document (MOA) that was shared with the PA SHPO and consulting parties. The MOA was fully executed in September 2020. PennDOT will make a donation to Historic Gettysburg Adams County, Inc. to support their barn grant program. The program provides funding to individuals and organizations to rehabilitate historic barns in Adams County. The fully executed MOA is provided in Appendix E.

Refer to the Draft Individual Section 4(f) Evaluation (Appendix H) for the full evaluation.

8.0 PERMITTING



This page intentionally left blank

Regulatory agency permits and approvals will be required as the Eisenhower Drive Extension Project continues into final design.

A NPDES permit is required for all point source discharges to WUS. The EPA has delegated the administration of these permits in Pennsylvania to PA DEP. Per PA DEP Chapter 102 regulations, based on the amount of earth disturbance (greater than one acre) and overall location (e.g., not occurring within a High Quality or Exceptional Value watershed) associated with the proposed project, it is anticipated that a General NPDES Permit for Stormwater Discharges Associated with Construction Activities will be required. Stormwater runoff from the project will be mitigated with post-construction stormwater controls.

The PA DEP and USACE require permits for encroachments or obstructions in any WUS or Waters of the Commonwealth, which includes wetlands and watercourses. In addition, PA DEP requires permits for highway obstructions in a FEMA 100-year floodplain or mapped floodway. A Joint Permit Application (JPA) will be required to obtain Chapter 105 and 106 Water Obstruction and Encroachment permits from PA DEP and a Section 404 permit from USACE. Section 401 of the Clean Water Act (CWA) (33 U.S.C. § 1251 et seq.) is triggered when the construction or operation of a facility requires federal license or approval under the CWA (e.g., a Section 404 permit) and would result in a discharge into WUS under Section 401(a)(1) of the CWA (33 U.S.C. § 1341). For these projects, a Section 401 Certification is required. States have the issuing authority for these certifications; thus, a Section 401 Water Quality Certification would be sought on this project through PA DEP as part of the Joint Permit process.

PennDOT will take measures to ensure that environmentally sensitive project activities are handled properly and in accordance with the contract provisions, project plans, and permits provided. PennDOT will continue to refine and advance these measures in the contract documents and provide for incentives and/or penalties based on the outcome.

This page intentionally left blank

9.0 PUBLIC AND AGENCY COORDINATION



**Summary of Public
Involvement Activities**

Agency Coordination

Future Coordination

This page intentionally left blank

9.1 SUMMARY OF PUBLIC INVOLVEMENT ACTIVITIES

Throughout the alternative’s analysis and preliminary engineering, coordination with multiple organizations, agencies, public entities, and individuals to receive input to develop the proposed improvement concepts for the Eisenhower Drive Extension project was conducted. Using this information, alternatives were developed and evaluated as to how they address the transportation purpose and needs, type and level of potential resource impacts, and public feedback and preferences.

9.1.1 Local Municipality/Borough/County Meetings

Since 2005, coordination with municipal and county staff and elected officials has been conducted. This has primarily included Conewago and Penn Townships, McSherrystown and Hanover Boroughs, and Adams County. Others who were also included in the coordination were Oxford, Union, and Mt. Pleasant Township, as well as York County. The project team used these meetings to provide project updates and gather thoughts and opinions from municipal and county leaders related to the alternatives under consideration. The input and comments received were documented and used to help shape the Build Alternative alignments. Table 16 provides an overview of the local official meetings.

Table 16: Local Municipality/Borough/County Meetings

Meeting Attendee(s)	Meeting Type	Date	Purpose
Hanover Borough Penn Township	Municipality/Borough Coordination	November 22, 2005	Provide project update and receive input related to environmental resources, traffic, and land use
Conewago Township Union Township McSherrystown Borough Adams County	Municipality/Borough/County Coordination	December 16, 2005	Provide project update and receive input related to environmental resources, traffic, and land use
Mt. Pleasant Township Oxford Township	Municipalities Coordination	January 13, 2006	Provide project update and receive input related to environmental resources, traffic, and land use
Conewago Township	Municipality Coordination	November 30, 2006	Update Township on project status and establish coordination steps moving into Alt. Analysis development
Conewago Township Union Township McSherrystown Borough Adams County	Municipality/Borough/County Coordination	April 1, 2015	Provide project overview and gain understanding of future development in townships/borough
Hanover Borough Penn Township York County	Municipality/Borough/County Coordination	May 28, 2015	Provide project overview and gain understanding of future development in townships/borough
York County Planning Commission	Traffic Modeling and Forecasting	September 23, 2015	Review of 2005/2006 Traffic Model and discussion of updates for traffic forecasts

9.1.2 Project Website

A website was created for the project and will continually be updated to include project specific information and schedules. The public can sign up to receive project updates and notifications via the “contact” link on the project website. The website address is www.eisenhowerdriveextension.com. While project outreach has been conducted with various stakeholders, the project website is the main repository for public information on the project.



Photo 24: Screenshot of project website

9.1.3 Public / Elected Officials Meetings

Public outreach for the project included two open house public meetings. The No-Build Alternative and various Build Alternatives were presented to the public at open houses in both 2018 and 2019. The public was provided the opportunity to complete a project survey that solicited their input and concerns for the alternatives.

PennDOT and the project team met with elected officials who represent the local communities in Adams and York Counties. These meetings were held to keep the local officials informed and gain feedback on the project. The following describes the meetings held to date:

- June 21, 2018: Introduced the project and outlined the conceptual alternatives
- May 9, 2019: Discussed the proposed design and engineering modifications since the last meeting

The first public open house meeting was held on June 21, 2018. PennDOT conducted the public open house meeting and public officials meeting to provide the purpose and needs for the project, present the alignment alternatives, and gather input from the public. Comment forms were provided to attendees of this meeting and approximately 106 comments were received during and after this meeting. Concerns that were expressed by those in attendance included impacts to property and farmlands with the build alternatives, traffic impacts, and limiting residential and commercial development along any future build alternatives.



Photo 25: Public Open House Plans Display on June 21, 2018

The second public open house meeting was held on May 9, 2019. This meeting focused on review of three alignment alternatives; the No-Build alternative, the TSM alternative, and Alternative 5C. Feedback was solicited through comment forms at the meeting as well as through the project website. Approximately 196 comments were received during and after this meeting. Similar concerns were received at this meeting that were identified at the first public open house meeting with comments concerned with property and farmland impacts, the impact of new traffic patterns, noise mitigation, and reducing congestion on existing travel corridors.



Photo 26: Public Open House Plans Display on May 9, 2019

A summary of the public open house meetings is included in Table 17.

Table 17: Public Meeting Summary

Outreach	Date	Purpose	Attendees
Public Officials Meeting/Public Open House Meeting	6/21/18	Discuss the purpose and need of the project and display the alignment alternatives. Gain feedback from attendees. The meetings included: <ul style="list-style-type: none"> • Board presentations • Fact sheets • Environmental Constraints station • ROW station • Comment form 	150
Public Officials Meeting/Public Open House Meeting	5/9/19	Discuss updates to the alternatives and gain feedback from attendees. The meetings included: <ul style="list-style-type: none"> • Board presentations • Fact sheets • Environmental Constraints station • ROW station • Comment form 	221
Website	Live on 1/14/19 Updated 4/17/19 5/9/19	<ul style="list-style-type: none"> • Display Purpose and Background • Project Updates • Project Timeline • Comment Form 	Over 200 subscribed

9.2 AGENCY COORDINATION

An Agency Coordination Meeting (ACM) was held in March of 2018. Project purpose and needs, environmental features, traffic data and analysis, and alignment alternatives were presented to the agency representatives in attendance. Project and environmental issues were shared with state and federal agencies that are either participating in the project or will be part of the environmental review process. Agency coordination will continue through final design and into the construction of the project. The USACE, Baltimore District and the EPA are Cooperating Agencies for this project.

9.3 FUTURE COORDINATION

As the project continues into final design and construction, the design team will continue to reach out to the public for input on the project. Future planned public outreach includes the following:

- Final Design Noise Analysis public outreach
- ROW coordination with property owners
- EMS and school coordination for traffic control measures
- The project website will be maintained and updated as the project proceeds through final design and construction.

Anticipated public coordination includes a public meeting or public hearing, if requested, before completing preliminary engineering. Additional special purpose meetings will continue through preliminary and final design.

This page intentionally left blank

10.0 PREFERRED ALTERNATIVE



Identification of the Preferred Alternative

Mitigation Commitments

This page intentionally left blank

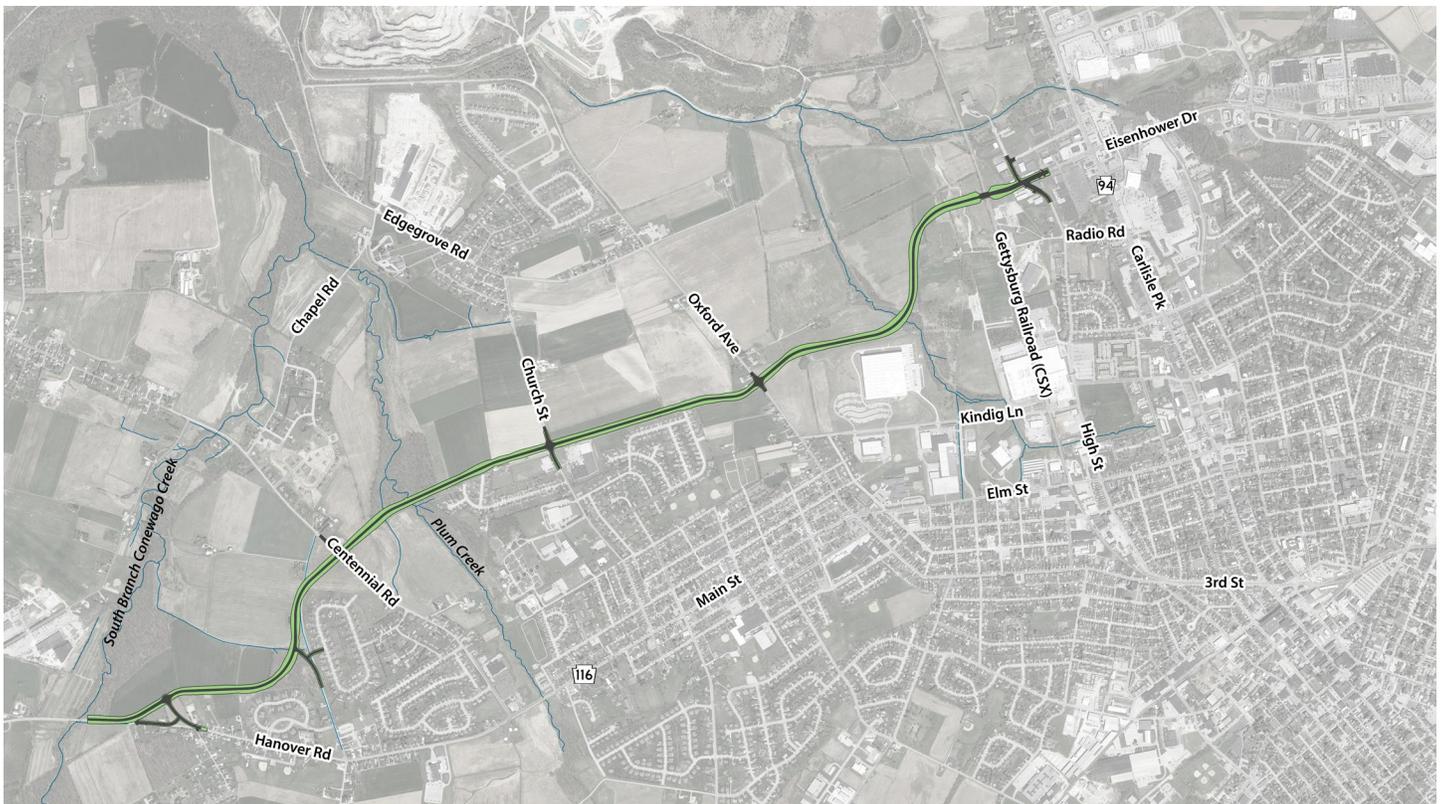
10.1 IDENTIFICATION OF PREFERRED ALTERNATIVE

An alternatives analysis effort was completed for the Eisenhower Drive Extension project. The analysis was guided by the need to facilitate a safe and efficient transportation system as well as provide a functional and modern roadway that meets current design criteria. The evaluation process for the Eisenhower Drive Extension Project included the following steps:

- Establish engineering parameters
- Evaluate alternatives with regards to addressing project purpose and need
- Evaluate alternatives with regards to environmental impacts
- Conduct initial agency and public involvement
- Develop conceptual alternatives
- Conduct detailed alternatives analysis and evaluate alternatives with regards to environmental impacts and ability to mitigate for adverse impacts
- Identify Recommended Preferred Alternative

The evaluation and preliminary engineering efforts culminated with the identification of a preferred Build Alternative. Based on the impact comparison and coordination with FHWA, Adams and York Counties, municipal leaders, resource agencies, consulting parties, and the public, the Build Alternative, (Alternative 5C) was identified as the Preferred Alternative, see Figure 32, and see Appendix A for detailed environmental impact mapping.

Figure 32: Preferred Alternative



Key elements of the Build Alternative include the following:

- Extension of the existing Eisenhower Drive from High Street to Hanover Road, west of McSherrystown
- Two-lane Suburban Center Corridor east of CSX rail corridor
- Two-lane Rural Corridor west of the CSX rail corridor
- New traffic signal and intersection improvements to the existing Eisenhower Drive and High Street intersection
- Bridge over the CSX rail corridor
- Bridge over Plum Creek
- Roundabouts at major intersections
- Realignment and modifications to existing Hanover Road, west of McSherrystown, to establish the new roadway as the primary movement
- Realignment of existing Sunday Drive to intersect with the proposed new roadway
- Signage improvements to assist in guiding motorists with the new traffic patterns
- Linear stormwater management facilities along the corridor, with small basin facilities adjacent to proposed roundabouts

The Build Alternative best meets the needs and purpose for the project by providing transportation improvements that address operational and safety concerns. The Build Alternative reduces traffic volumes on the existing roadway network by providing a direct east/west connection through the project area. The project is estimated to cost \$49 million (2021 construction estimate).

Based on the information presented in the EA, the Build Alternative, (Alternative 5C), is the Preferred Alternative for the Eisenhower Drive Extension Project.

10.2 MITIGATION COMMITMENTS

The Eisenhower Drive Extension project has been designed to avoid and minimize impacts, where practicable. Where impacts are unavoidable, mitigation commitments have been made to compensate for impacts as summarized in Table 18. Efforts will continue in final design to further minimize impacts and the mitigation commitments will be tracked through final design and carried into construction as necessary via PennDOT's Environmental Commitments and Mitigation Tracking System (ECMTS).



Photo 27: Aerial overview of eastern portion of the project area

Table 18: Mitigation Commitments

Resource	Impacts	Mitigation
Streams	<ul style="list-style-type: none"> Unavoidable permanent impacts to eight project area watercourses totaling 1,311 linear feet of stream impacts will occur. 	<ul style="list-style-type: none"> PennDOT is evaluating specific mitigation options for unavoidable permanent impacts to watercourses. These options will include on-site or off-site mitigation, as well as potential mitigation banking opportunities in the Lower Susquehanna River watershed area. E&S controls and post construction stormwater management concepts will be implemented. Further coordination with the USACE and PA DEP regarding mitigation of stream impacts will be conducted in final design.
Wetlands	<ul style="list-style-type: none"> Unavoidable permanent impacts to three palustrine wetlands totaling 1.3 acres of wetland impacts will occur. The majority of the acreage of wetland impact will occur along the Plum Creek corridor. 	<ul style="list-style-type: none"> PennDOT is evaluating specific mitigation options for unavoidable permanent impacts to wetlands associated with the proposed project. These options will include mitigation banking opportunities in the Lower Susquehanna River watershed, as well as on-site and off-site mitigation. Further coordination with the USACE and PA DEP regarding mitigation of wetland impacts will be conducted in final design.
Floodplains	<ul style="list-style-type: none"> 2.7 acres of impact to the FEMA-designated 100-year floodplain/floodway and 2.5 acres of impact to non-FEMA designated floodways will occur. The floodplain encroachments are not anticipated to result in an increase in base flood elevations. 	<ul style="list-style-type: none"> In accordance with 23 CFR Part 650.115 and 650.117, detailed H&H analyses will be conducted during final design to ensure that structures are properly sized for the design flood stage. All required state and federal water obstruction and encroachment permits will be obtained. Any proposed fill within the 100-year floodplain will comply with FEMA regulations, and PennDOT will coordinate with the appropriate municipalities regarding consistency with local floodplain regulations.
Threatened and Endangered Species	<ul style="list-style-type: none"> Agency coordination for the project resulted in the determination that the project poses no potential adverse impact on threatened and endangered species. 	<ul style="list-style-type: none"> The PNDI receipt and required agency coordination will be updated, as necessary, as the project moves through the final design and permitting stages. No mitigation for threatened and endangered species is currently anticipated.

Natural

Eisenhower Drive Extension Project
Environmental Assessment

Resource	Impacts	Mitigation
Stormwater	<ul style="list-style-type: none"> Additional impervious over existing conditions. Infiltration testing and subsurface investigations to identify karst features will continue in final design. 	<ul style="list-style-type: none"> Erosion and sediment controls will be utilized during construction activities to prevent sediment from earth moving activities from entering the streams. A general NPDES permit for stormwater discharges will be obtained. Water volume, rate, and quality will be treated on-site, on-site/adjacent, or off-site with post-construction stormwater controls. This approach will continue to be coordinated through the U.S. EPA and PA DEP.
Geology and Groundwater	<ul style="list-style-type: none"> Subsurface investigations to identify karst features and groundwater will continue in final design. 	<ul style="list-style-type: none"> In order to minimize the potential for sinkholes, the Geological Desktop Study recommends that the contractors should not allow water to pond, any water that enters an excavation site should be removed, and blasting should not occur. Groundwater wells outside of the limits of work but within proximity of construction activities that may cause impacts will be sampled pre- and post-construction (this excludes abandoned and closed wells).
Agriculture	<ul style="list-style-type: none"> Twelve farming operations, including PAL, ASAs, preserved farms, farms enrolled in preferential tax assessments, soils with Capability Classes I-II, areas zoned as agriculture, and FPPA soils will be impacted. 40.0 acres of impacts to PAL There is no feasible alternative to the conversion of Prime Agricultural Land under 4 PA Code Chapter 7, and 7.301 et seq. ALPP. 	<ul style="list-style-type: none"> For impacts to productive agricultural land that meet the applicability of Acts 100 and 43, PennDOT will comply with its policies set forth in PennDOT Publication 324, Agricultural Resources Evaluation Handbook. In compliance with FPPA, a NRCS-CPA-1006 form for Farmland Conversion Impact Rating for Corridor Type Projects will be coordinated with the NRCS Pennsylvania State Soil Scientist, if applicable. Property owners of acquired farmland will receive just compensation for the required ROW acquisition and easements, as well as payment of required penalties for removal of land from certain tax assessment programs, as appropriate.

Natural

Resource	Impacts	Mitigation
<p style="text-align: center;">Vegetation, Invasive Species, and Pollinators</p> <p style="text-align: center;">Natural</p>	<ul style="list-style-type: none"> Potential for the spread of invasive species. Potential for the elimination of plant species that pollinators use for larval hosts and foraging. 	<ul style="list-style-type: none"> Utilization of BMPs as outlined in PennDOT Publication 756, Design Manual Part 2, and Publication 408. Disturbed earthen surfaces will be promptly seeded to minimize colonization of invasive species. BMPs will be implemented that will be beneficial for pollinator species (strategic mowing and spot spraying). Seed mixes used for roadside planting, stormwater facilities, wetland mitigation areas, and riparian buffers will be augmented with plant species that provide forage and larval host species used by pollinators. NPDES permits will be implemented.
<p style="text-align: center;">Wildlife</p>	<ul style="list-style-type: none"> Present in the project area No Further Action for Wildlife Crossing based on Figure 20.7 Wildlife Accommodation Scenarios flowchart Potential for impacts to wildlife 	<ul style="list-style-type: none"> PennDOT will investigate the use of wildlife crossings and exclusionary devices. Mitigation measures will be further investigated in final design and in coordination with the appropriate agencies (PA DEP, PFBC, USACE).
<p style="text-align: center;">Historic Properties</p> <p style="text-align: center;">Cultural</p>	<ul style="list-style-type: none"> In conjunction with the PA SHPO, PennDOT determined that the project would adversely affect three historic properties; the Henry Hostetter Farm; the Devine Chapel Farm; and the Poist Chapel Farm. 	<ul style="list-style-type: none"> PennDOT is proposing to make a donation to Historic Gettysburg Adams County, Inc. to support their barn grant program. The program provides funding to citizens to rehabilitate historic barns in Adams County. The commitments have been described in a formal agreement document (MOA) and shared with the PA SHPO and consulting parties. The MOA was fully executed in September 2020.

Eisenhower Drive Extension Project
Environmental Assessment

Resource	Impacts	Mitigation
Displacements and Tax Base	<ul style="list-style-type: none"> • Eight Displacements 	<ul style="list-style-type: none"> • Displaced residents and businesses will receive relocation assistance in accordance with the Uniform Relocation Assistance and Real Property Acquisitions Policies Act of 1970, as amended; Title VI of the Civil Rights Act of 1964; and the Pennsylvania Eminent Domain Code of 1964. • ROW coordination with property owners, including interviews with farmers to discuss impacts and confirm nothing has changed since the initial interview, will occur in final design.
	<ul style="list-style-type: none"> • Four noise barriers are warranted, feasible, and reasonable using PennDOT criteria. 	<ul style="list-style-type: none"> • Additional refined noise modeling and coordination to define the desires of the benefited communities will occur during the final design phase of the project along with an analysis of undeveloped lands.
	<ul style="list-style-type: none"> • Five sites identified for environmental concerns. 	<ul style="list-style-type: none"> • Phase II/Phase III ESAs were recommended for five sites with potential for environmental concerns. • Potential exists for the presence of asbestos containing material and lead-based paint in connection with the existing structures which are proposed for demolition. Interiors of structures slated for demolition will be investigated for drums, home heating oil tanks, and miscellaneous waste items prior to demolition. Additionally, LBP and ACM survey will be conducted for impacted structures believed to pre-date 1978.
Section 4(f)	<ul style="list-style-type: none"> • Three Section 4(f) properties: the Devine Chapel Farm, Henry Hostetter Farm, and Poist Chapel Farm. 	<ul style="list-style-type: none"> • The Section 4(f) analysis found that there are no feasible and prudent avoidance alternatives. The proposed design for Alternative 5C includes all possible planning to minimize harm. • See cultural resources for description of mitigation proposed.
Noise		<ul style="list-style-type: none"> • Final design noise analysis public outreach
Traffic Control		<ul style="list-style-type: none"> • EMS, transit, school coordination related to traffic control during construction. • Continued municipal meetings to update local officials about the project status will occur in final design.
Public Outreach		<ul style="list-style-type: none"> • Continued updates to the project website as the project proceeds through final design and construction. • Final design noise analysis public outreach.

This page intentionally left blank

LIST OF FIGURES

This page intentionally left blank

Figure 1: Eisenhower Drive Extension Project Area	5
Figure 2: TSM Alternative	24
Figure 3: Build Alternatives	25
Figure 4: Detailed Alternatives	26
Figure 5: Typical Sections	26
Figure 6: Detailed TSM Alternative	27
Figure 7: Alternative Advanced for Evaluation	38
Figure 8: Streams and Alternative 5C Impacts	42
Figure 9: Wetlands and Alternative 5C Impacts	45
Figure 10: FEMA-Designated 100-year Floodplain and Alternative 5C Impacts	49
Figure 11: Groundwater Wells within the Project Area	55
Figure 12: Agricultural Resources and Alternative 5C Impacts	59
Figure 13: FPPA Soils and Alternative 5C Impacts	60
Figure 14: Historic Resources within the Project APE	69
Figure 15: Alternative 5C in relation to Poist Chapel Farm and Devine Chapel Farm	73
Figure 16: Alternative 5C in relation to Hostetter Farm	74
Figure 17: Phase I ESA Recommendations	81
Figure 18: Noise Levels of Common Sounds	87
Figure 19: Noise Study Areas	88
Figure 20: Explanation of Warranted, Feasible, and Reasonable for Noise Abatement Consideration	89
Figure 21: Noise Study Areas Potentially Requiring Noise Barriers	93
Figure 22: Minority Populations	95
Figure 23: Low-Income Populations	96
Figure 24: LEP Populations	97
Figure 25: Zoning	99
Figure 26: Permanent Impacts and Displacements	100
Figure 27: Community Facilities and Services	102
Figure 28: Cumulative Effects	113
Figure 29: Building Permits Issued	114
Figure 30: Above Ground Historic Resources	115
Figure 31: Section 4(f) Properties Along Alternative 5C	119
Figure 32: Preferred Alternative	135

This page intentionally left blank

LIST OF TABLES

This page intentionally left blank

Table 1: Alternatives Analysis Summary	34
Table 2: Stream Impacts by Stream and Stream Type.....	44
Table 3: Summary of Wetlands in the Project Area	46
Table 4: Wetland Impacts by Wetland and Wetland Type.....	47
Table 5: Floodplain/Floodway Impacts for FEMA and Non-FEMA Delineated Streams.....	50
Table 6: Agricultural Impacts	60
Table 7: Historic Resource Determinations of Effect	72
Table 8: Phase I ESA Recommendations	82
Table 9: Noise Abatement Criteria.....	86
Table 10: Impact Noise Level Summary	90
Table 11: Alternative 5C Preliminary Sound Barrier Analysis Summary	91
Table 12: Past Farmland Statistics and Trends	113
Table 13: Agricultural Resources Cumulative Impacts	114
Table 14: Wetland Resources Cumulative Impacts	116
Table 15: Summary of Section 4(f) Resources	120
Table 16: Local Municipality/Borough/County Meetings	127
Table 17: Public Meeting Summary	131
Table 18: Mitigation Commitments	138

This page intentionally left blank

LIST OF PHOTOS

This page intentionally left blank

Photo 1: Intermittent Tributary to Plum Creek	6
Photo 2: Hanover Square	6
Photo 3: Oxford Avenue and Main Street	11
Photo 4: Carlisle Street and Eisenhower Drive	13
Photo 5: Centennial Road and High Street	15
Photo 6: Elm Street and Carlisle Street	15
Photo 7: Intermittent Tributary to Plum Creek	22
Photo 8: Perennial Tributary to Slagles Run	22
Photo 9: Main Street and Oxford Avenue	23
Photo 10: Hanover Square	23
Photo 11: Elm Street and High Street Intersection	33
Photo 12: Main Street and Second Street	33
Photo 13: Carlisle Street and Eisenhower Drive Intersection	33
Photo 14: Groundwater upwelling within a PEM wetland	56
Photo 15: Low-lying grove of trees with boulders in project area	56
Photo 16: General agricultural resources landscape within the project area	57
Photo 17: Façade (east elevation) of the Poist Chapel Farm House, looking west	69
Photo 18: Façade (east elevation) of the Hostetter Farm dwelling, looking west	69
Photo 19: View of the Devine Chapel Farm barn, looking northeast	71
Photo 20: Representative photograph of a shovel test pit	77
Photo 21: Representative photograph of a test unit	77
Photo 22: Elm Avenue and High Street	80
Photo 23: High Street	80
Photo 24: Screenshot of project website	128
Photo 25: Public Open House Plans Display on June 21, 2018	129
Photo 26: Public Open House Plans Display on May 9, 2019	130
Photo 27: Aerial overview of eastern portion of the project area	137

This page intentionally left blank

APPENDICES



This page intentionally left blank

APPENDIX A: PROJECT MAPPING

This page intentionally left blank

APPENDIX A-1: PROJECT RESOURCE MAPPING

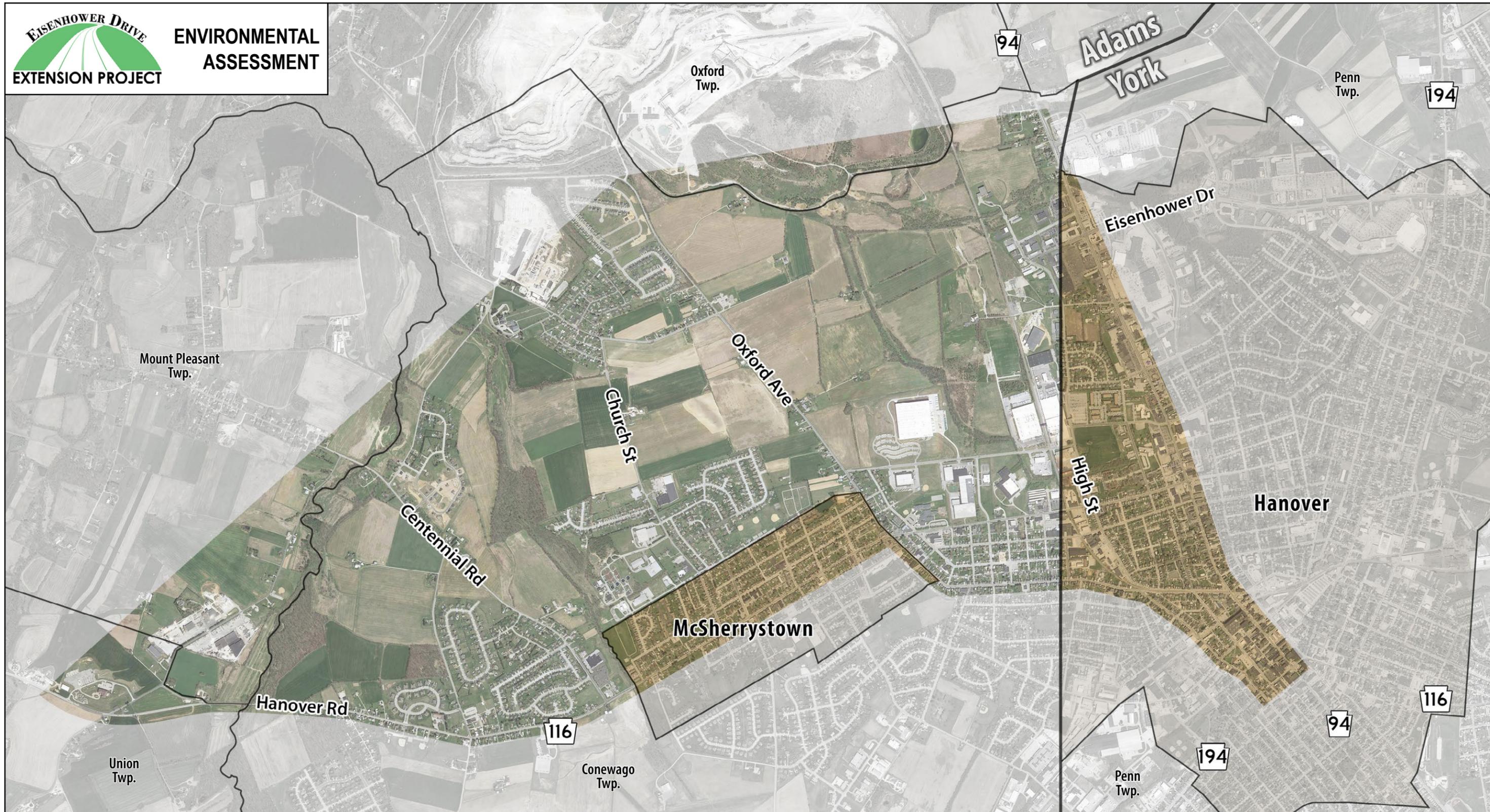
*Enlarged project resource mapping is provided for the following figures in the EA:

Figure 1: Eisenhower Drive Extension Project Area	Figure 19: Noise Study Areas
Figure 2: TSM Alternative	Figure 21: Noise Study Areas Potentially Requiring Noise Barriers
Figure 3: Build Alternatives	Figure 22: Minority Populations
Figure 4: Detailed Alternatives	Figure 23: Low-Income Populations
Figure 8: Streams and Alternative 5C Impacts	Figure 24: LEP Populations
Figure 9: Wetlands and Alternative 5C Impacts	Figure 25: Zoning
Figure 10: FEMA-Designated 100-year Floodplain and Alternative 5C	Figure 26: Permanent Impacts and Displacements
Figure 11: Groundwater Wells within the Project Area	Figure 27: Community Facilities and Services
Figure 12: Agricultural Resources and Alternative 5C Impacts	Figure 28: Cumulative Effects
Figure 13: FPPA Soils and Alternative 5C Impacts	Figure 30: Above Ground Historic Resources
Figure 14: Historic Resources within the Project APE	Figure 31: Section 4(f) Properties Along Alternative 5C
Figure 17: Phase I ESA Recommendations	Figure 32: Preferred Alternative

This page intentionally left blank



ENVIRONMENTAL ASSESSMENT



PROJECT MAPPING

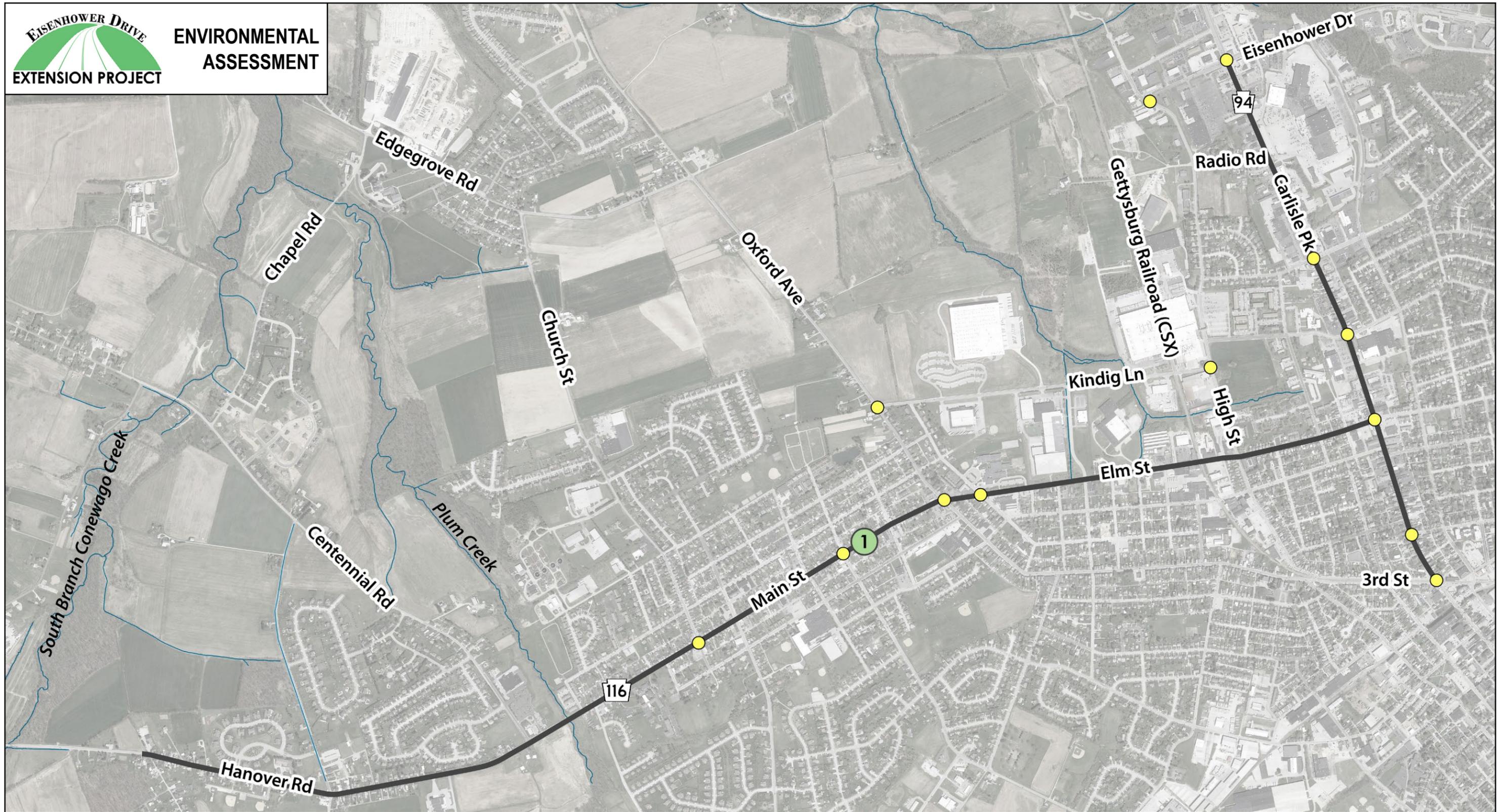
Figure 1:
Eisenhower Drive Extension Project Area

Legend

-  Municipal Boundaries
-  County Boundaries
-  Study Area Boundary

GRAPHIC SCALE:





**PROJECT
MAPPING**

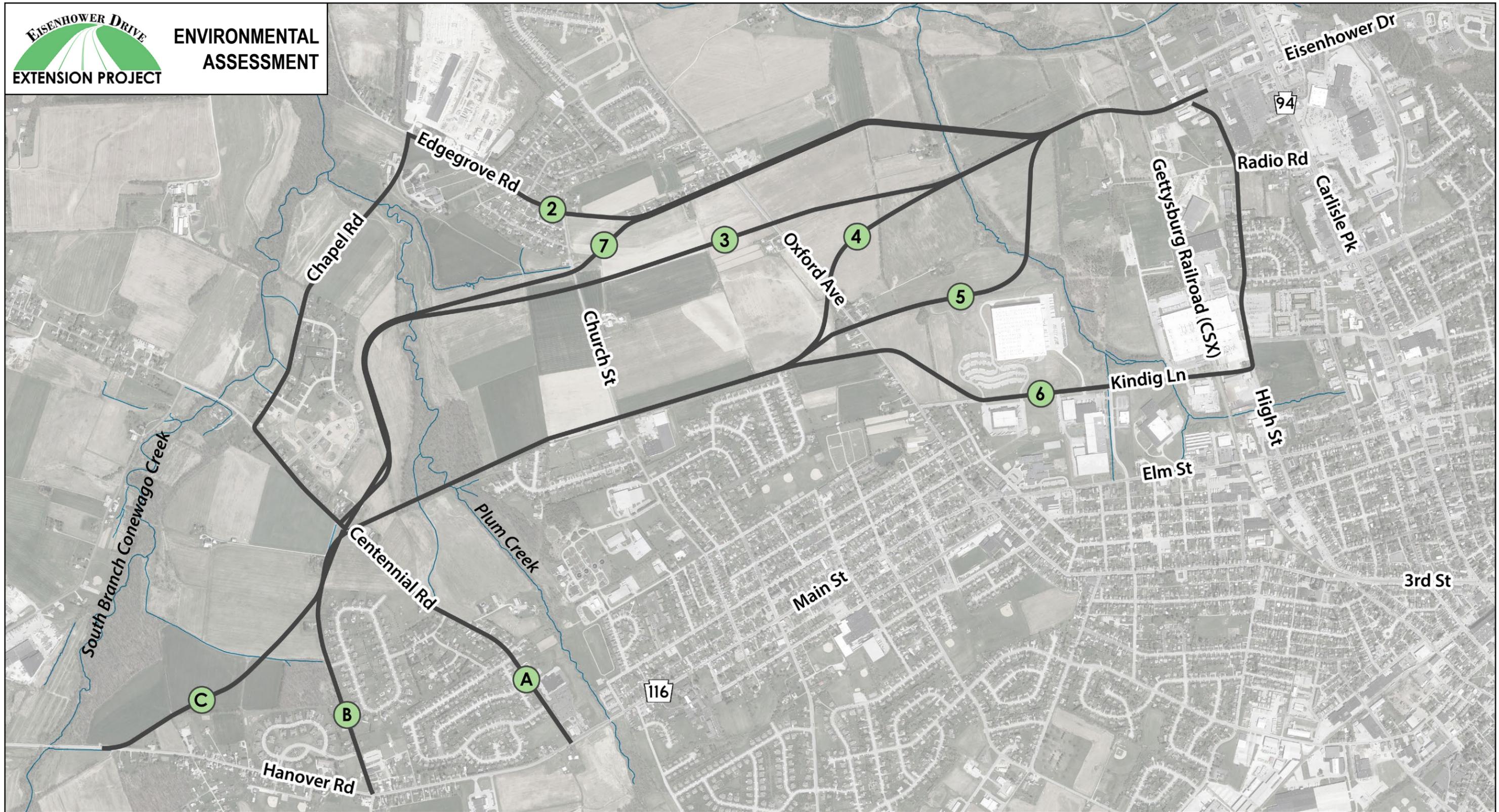
Figure 2:
TSM Alternative

Legend

-  TSM Alternative Alignment
-  TSM Alternative Intersection Improvements
-  Waterways

GRAPHIC SCALE:





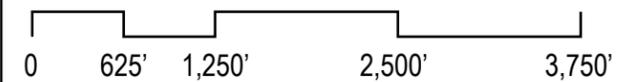
PROJECT MAPPING

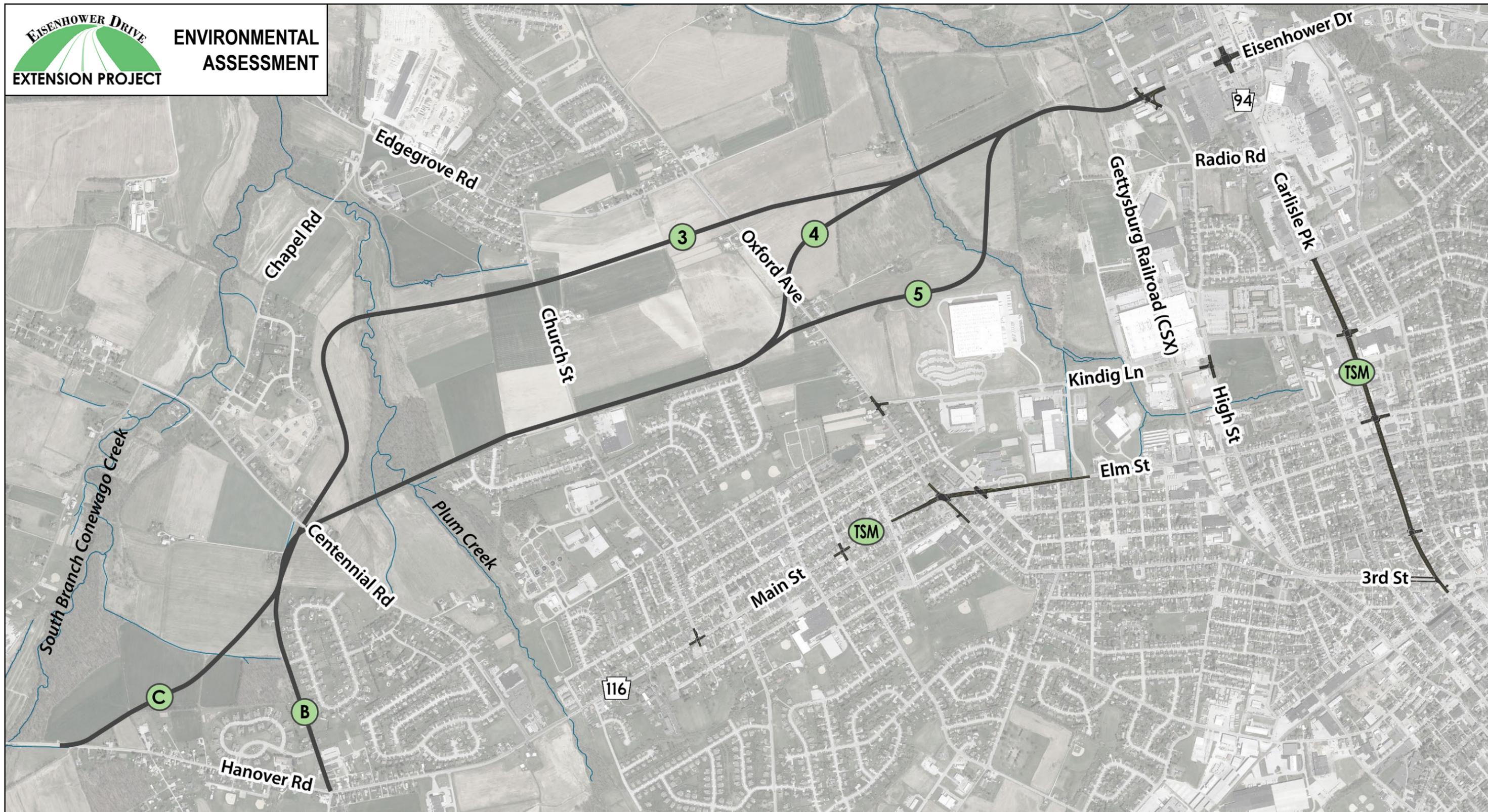
Figure 3:
Build Alternatives

Legend

-  Alignment Alternatives
-  Waterways

GRAPHIC SCALE:





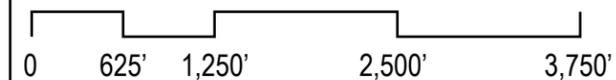
**PROJECT
MAPPING**

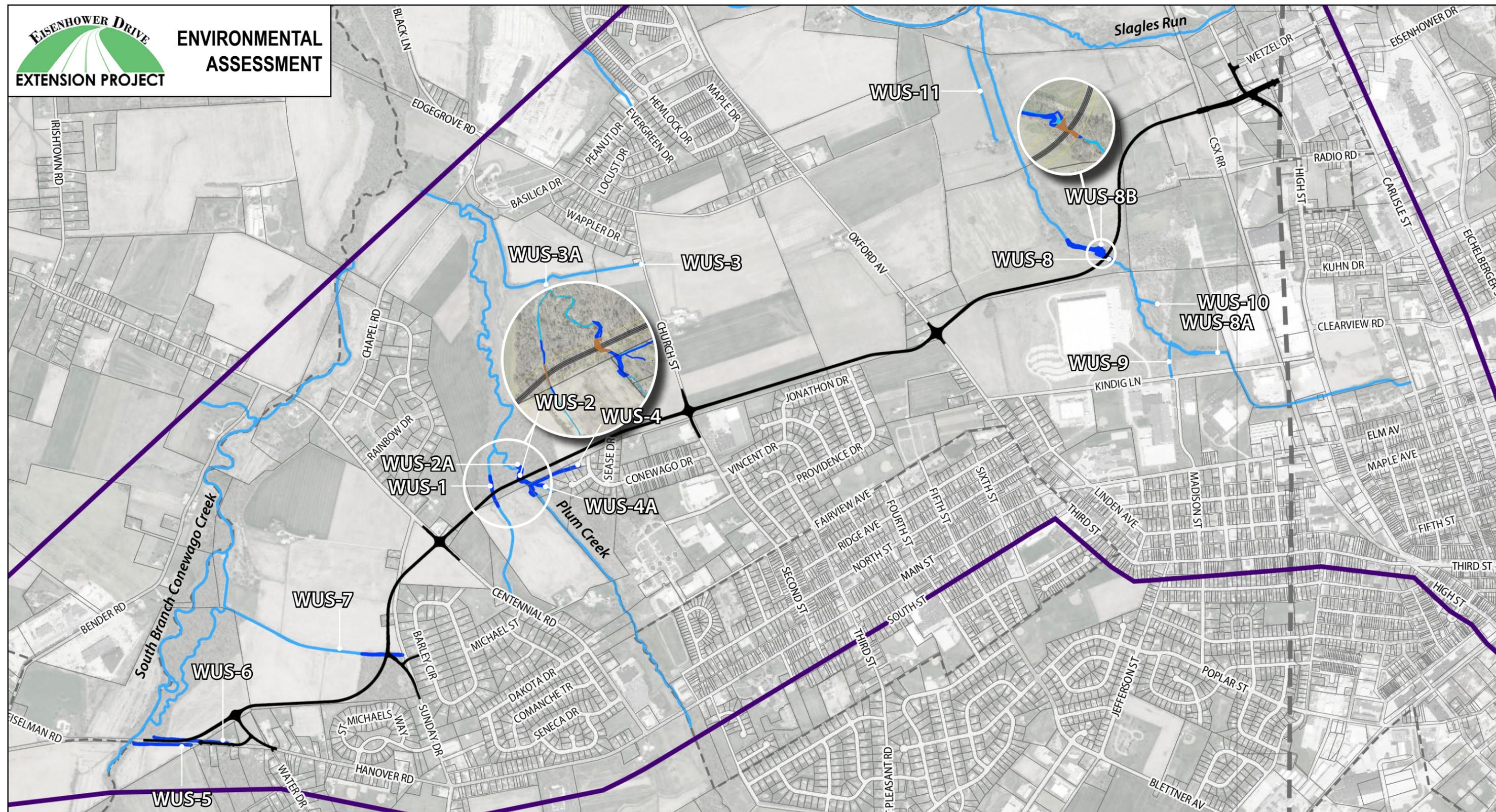
Figure 4:
Detailed Alternatives

Legend

-  Alignment Alternatives
-  Waterways

GRAPHIC SCALE:

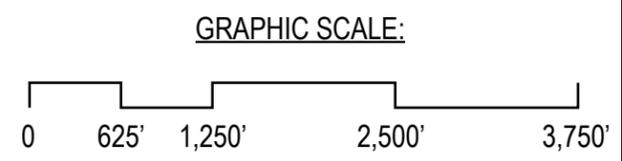




**PROJECT
MAPPING**

Figure 8:
Streams and Alternative 5C Impacts

- Legend**
- Municipal Boundaries
 - County Boundaries
 - Alternative 5C
 - Study Area Boundary
 - Non-Delineated Streams
 - Delineated Streams
 - Waterways Impacts
 - Waters of the U.S.

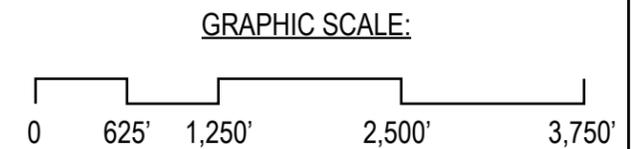


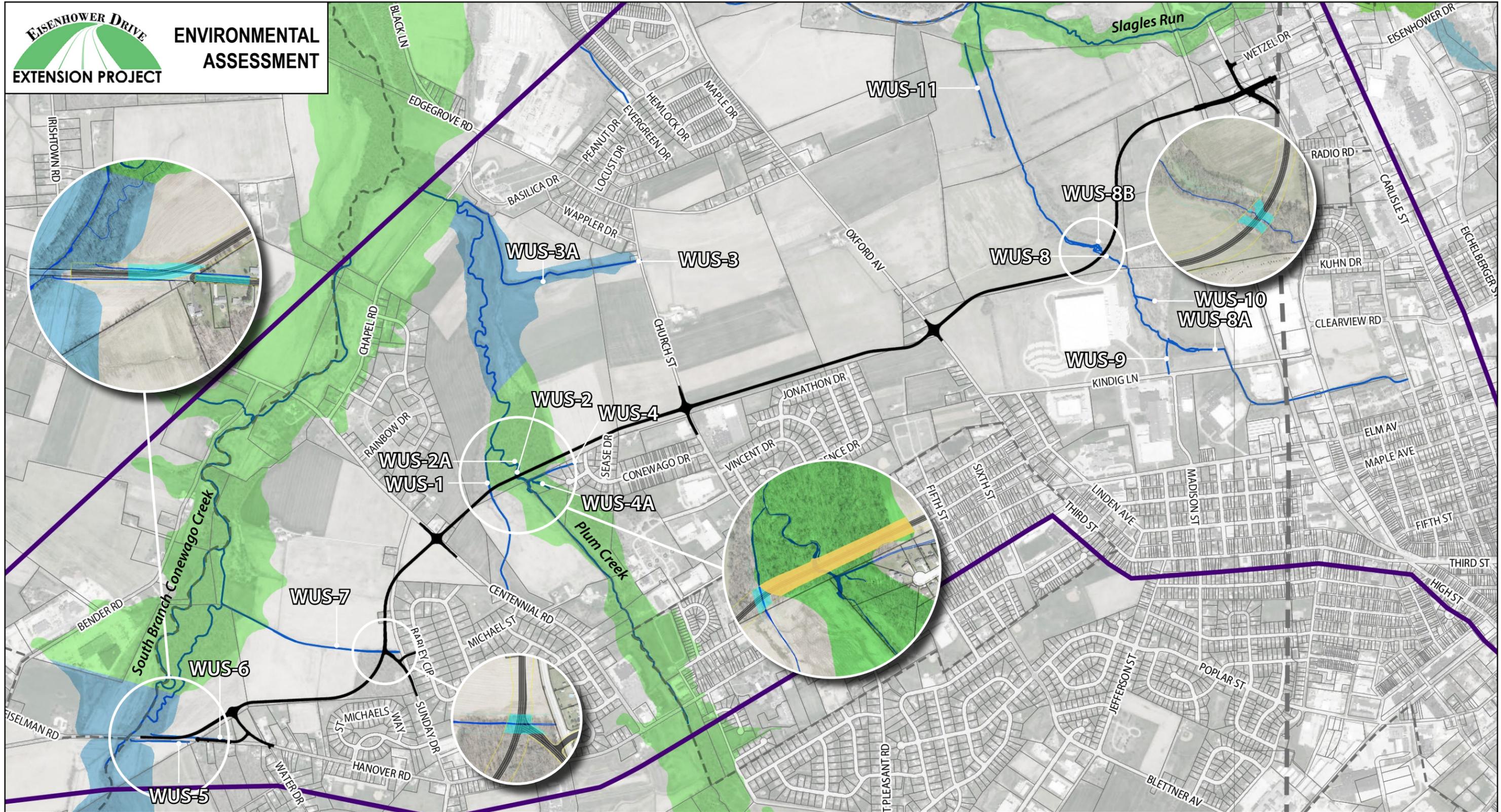


**PROJECT
MAPPING**

Figure 9:
Wetlands and Alternative 5C Impacts

Legend		WET-# Wetlands
Municipal Boundaries	Study Area Boundary	
County Boundaries	Wetlands PFO	
Waterways	Wetlands PEM	
Alternative 5C	Wetlands Impacts	





**PROJECT
MAPPING**

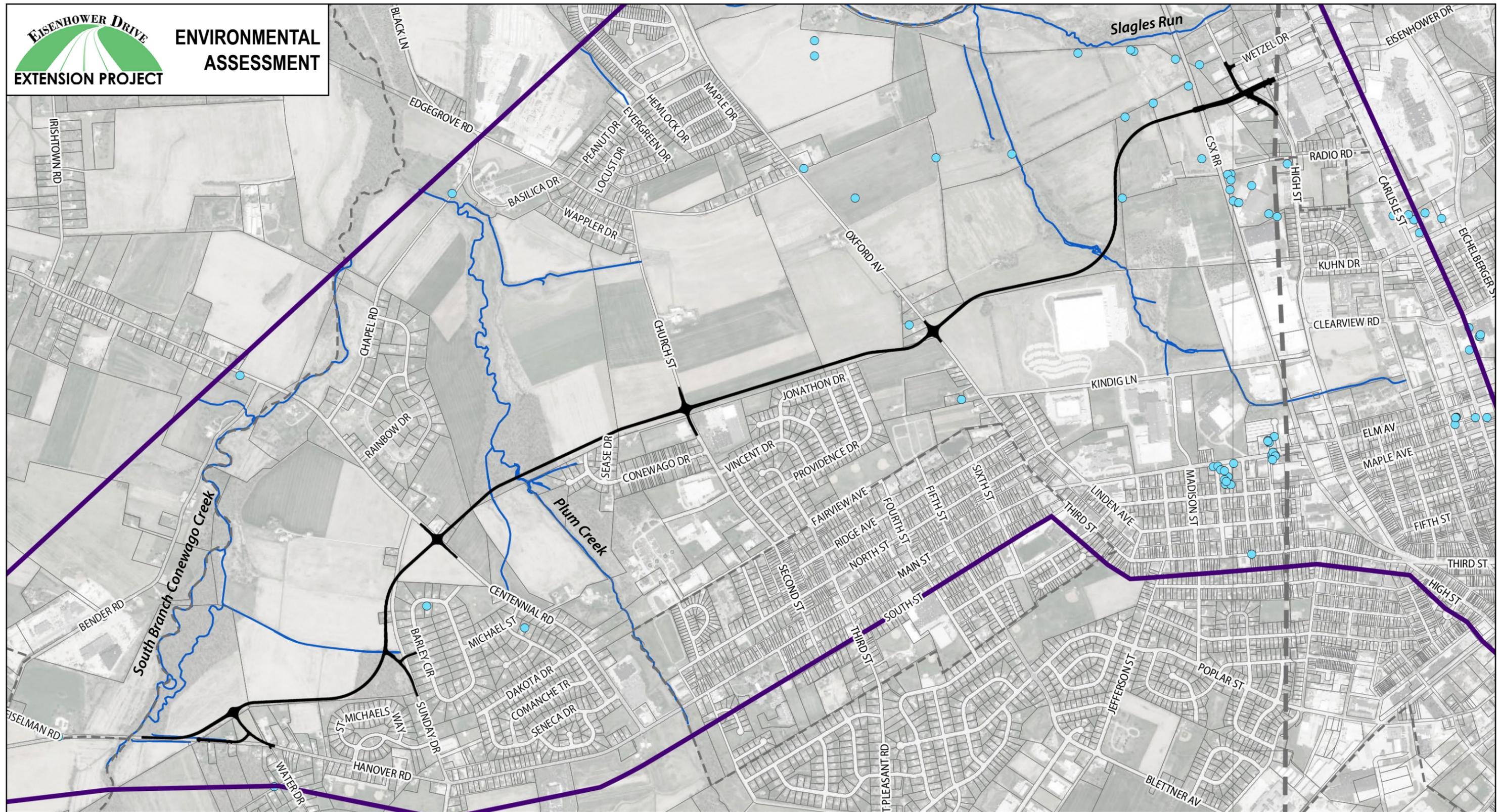
Figure 10:
FEMA-Designated 100-year Floodplain
and Alternative 5C Impacts

Legend

Municipal Boundaries	Study Area Boundary	Non-FEMA 50' Floodway
County Boundaries	Flood Hazard Zone A	Non-FEMA 50' Floodway Impacts
Waterways	Flood Hazard Zone AE	FEMA 100 Year Floodplain Impacts
Alternative 5C	FEMA 100 Year Floodplain Impacts	Waters of the U.S.

GRAPHIC SCALE:

0 625' 1,250' 2,500' 3,750'



**PROJECT
MAPPING**

Figure 11:
Groundwater Wells within the Project Area

Legend

-  Municipal Boundaries
-  County Boundaries
-  Waterways
-  Alternative 5C
-  Study Area Boundary
-  Groundwater Wells

GRAPHIC SCALE:



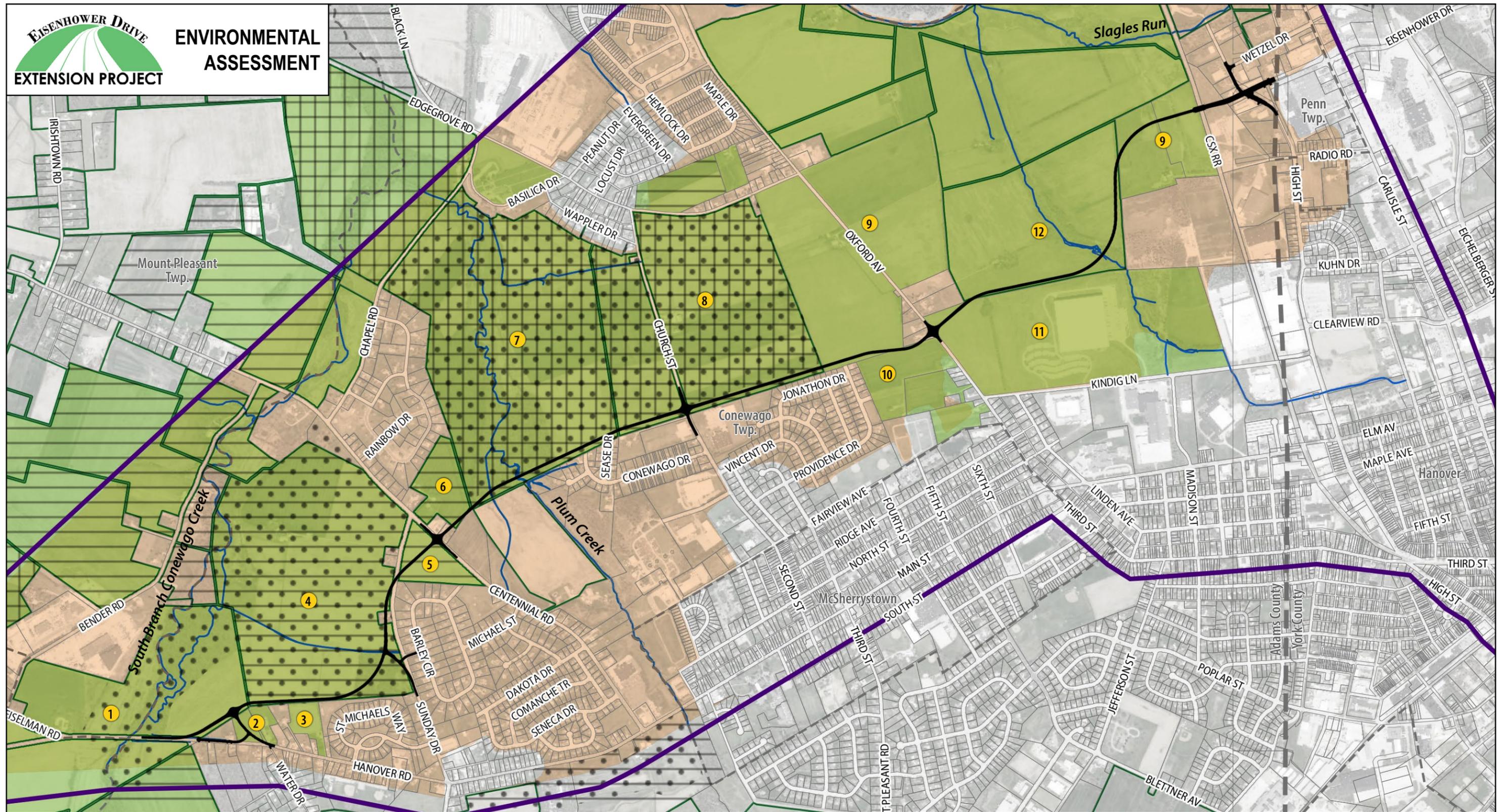
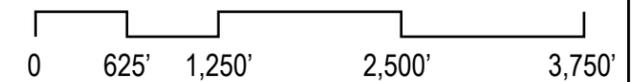


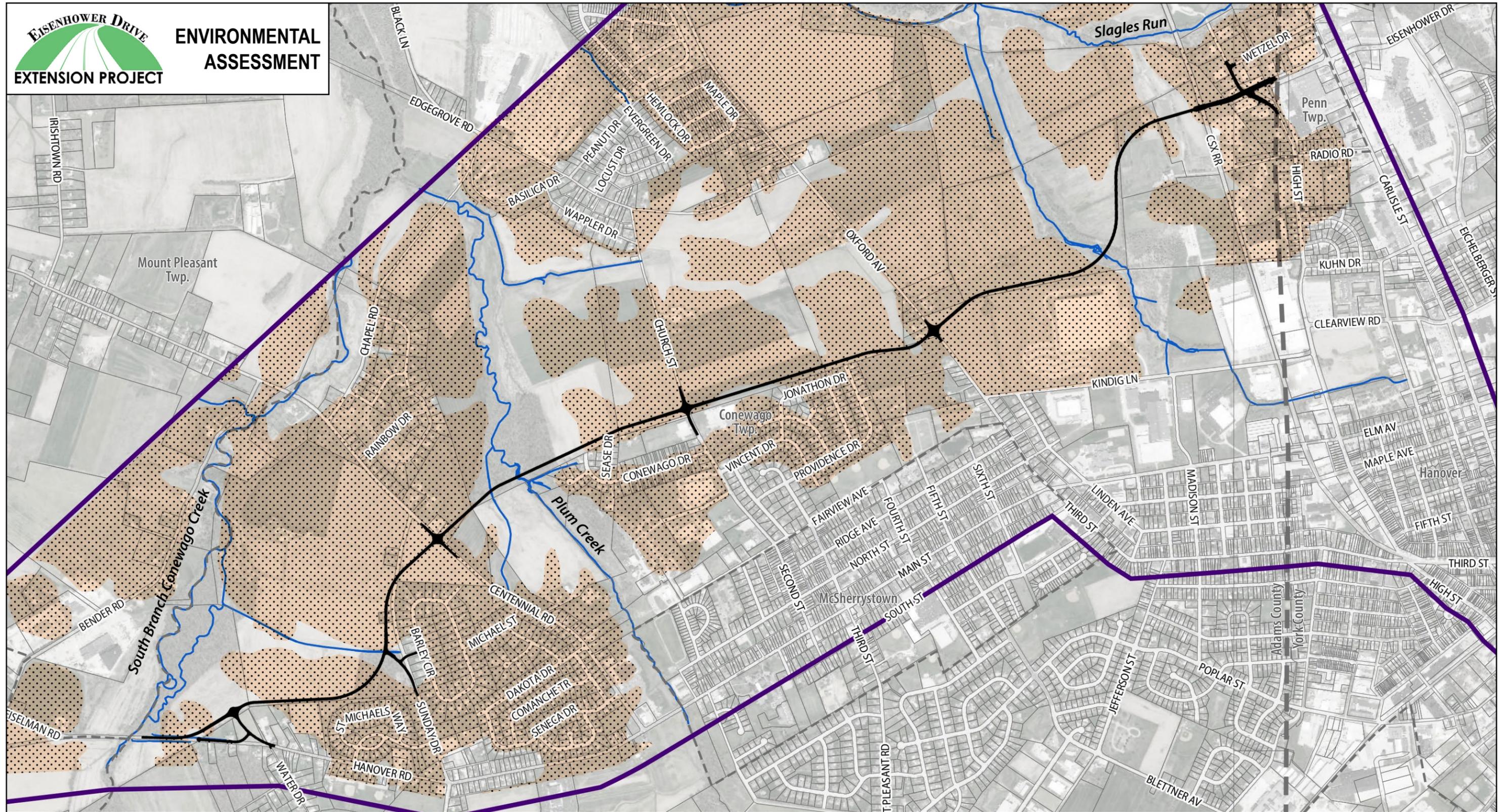
Figure 12:
Agricultural Resources and Alternative 5C Impacts

Legend

-  Municipal Boundaries
-  County Boundaries
-  Waterways
-  Alternative 5C
-  Study Area Boundary
-  Soils Capability Classes I-II
-  Preserved Farmland
-  Agricultural Security Areas
-  Productive Agricultural Land (PAL)
-  Clean and Green
-  Lands Zoned Agriculture
-  Farm Operations

GRAPHIC SCALE:





**PROJECT
MAPPING**

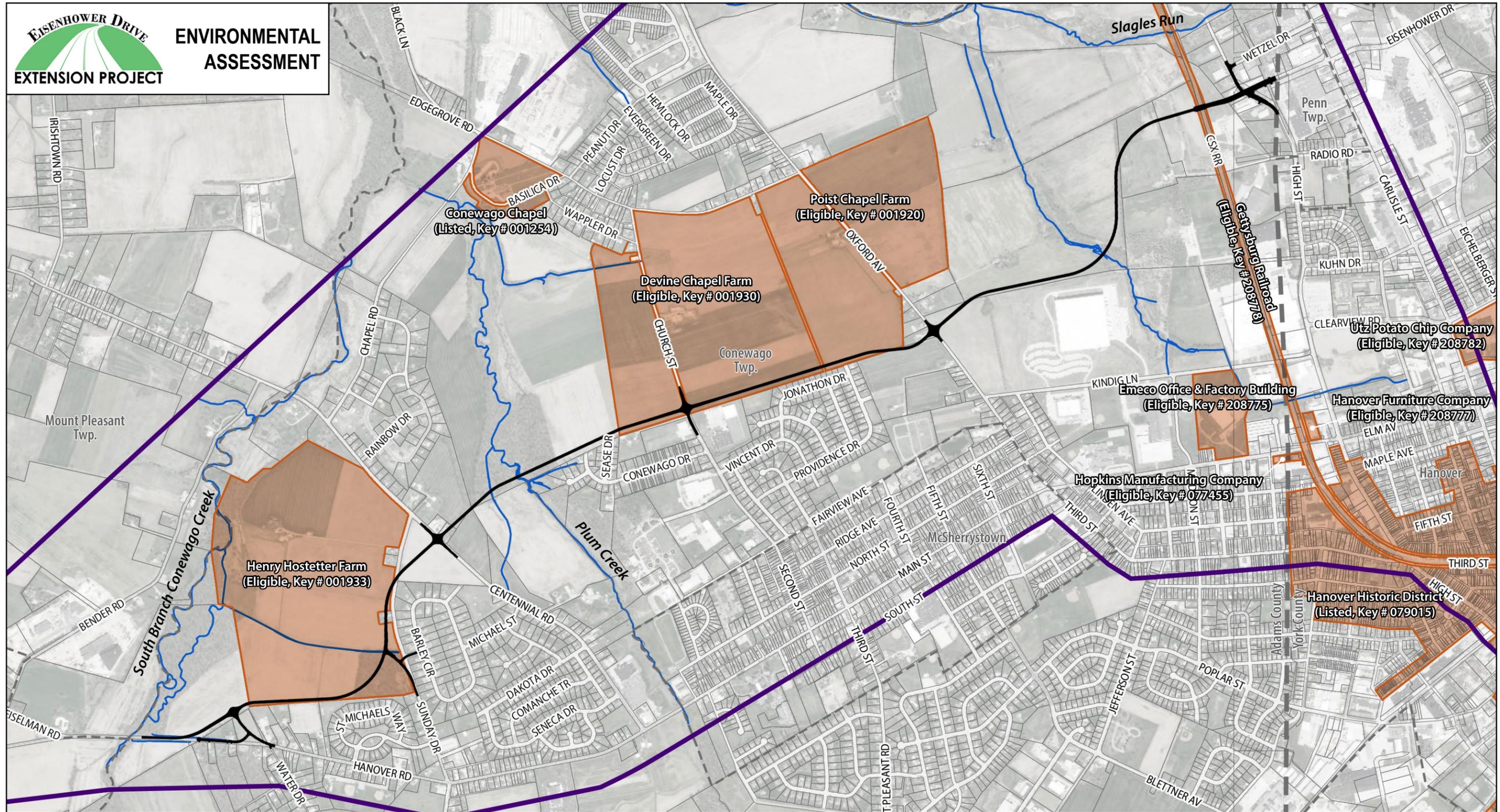
Figure 13:
FPPA Soils and Alternative 5C Impacts

Legend

- Municipal Boundaries
- County Boundaries
- Waterways
- Alternative 5C
- Study Area Boundary
- FPPA Farmland Soils

GRAPHIC SCALE:





**PROJECT
MAPPING**

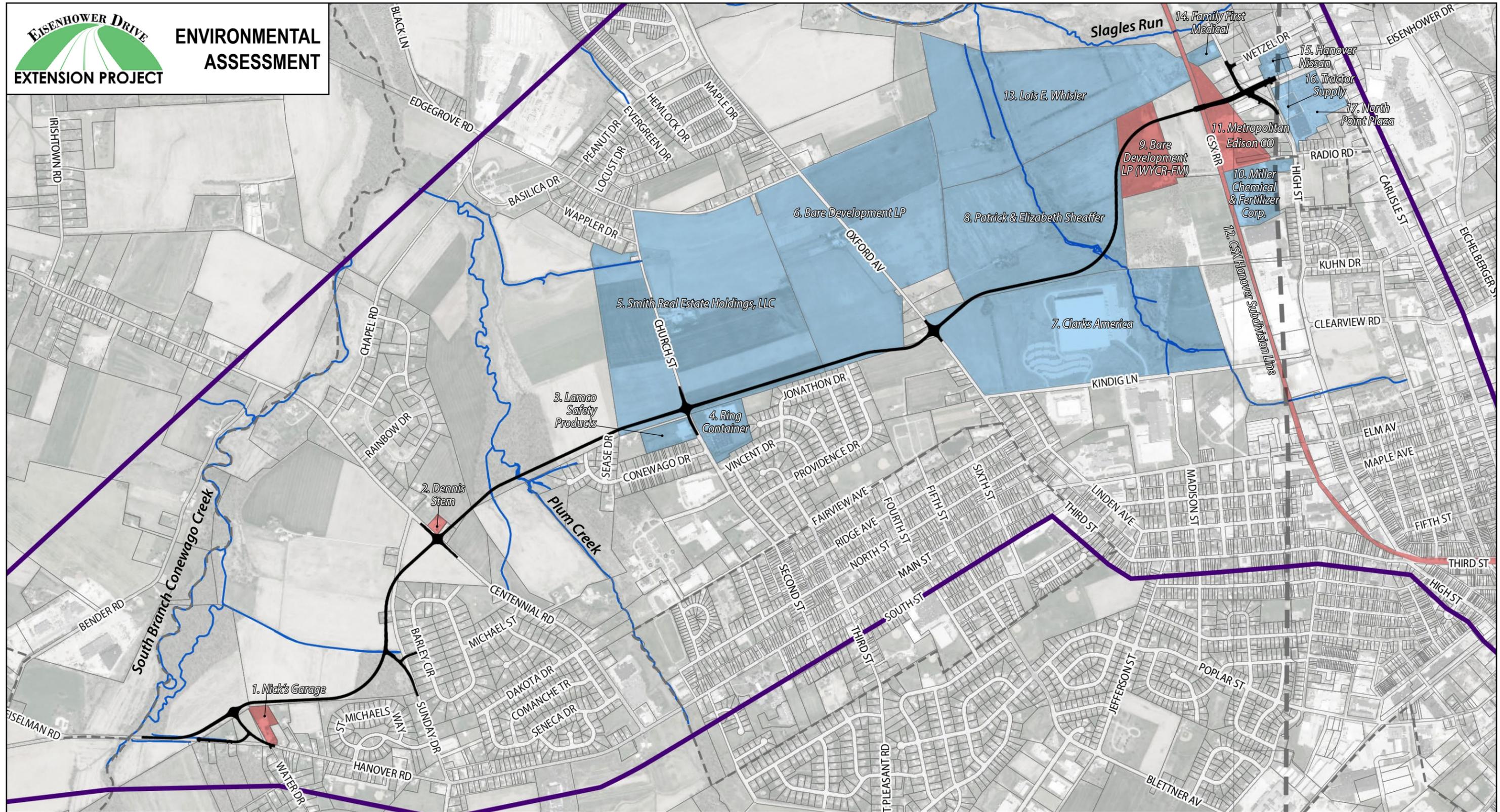
Figure 14:
Historic Resources with the Project APE

Legend

-  Municipal Boundaries
-  County Boundaries
-  Waterways
-  Alternative 5C
-  Study Area Boundary
-  Historic Resources

GRAPHIC SCALE:

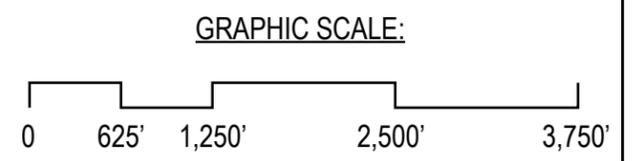


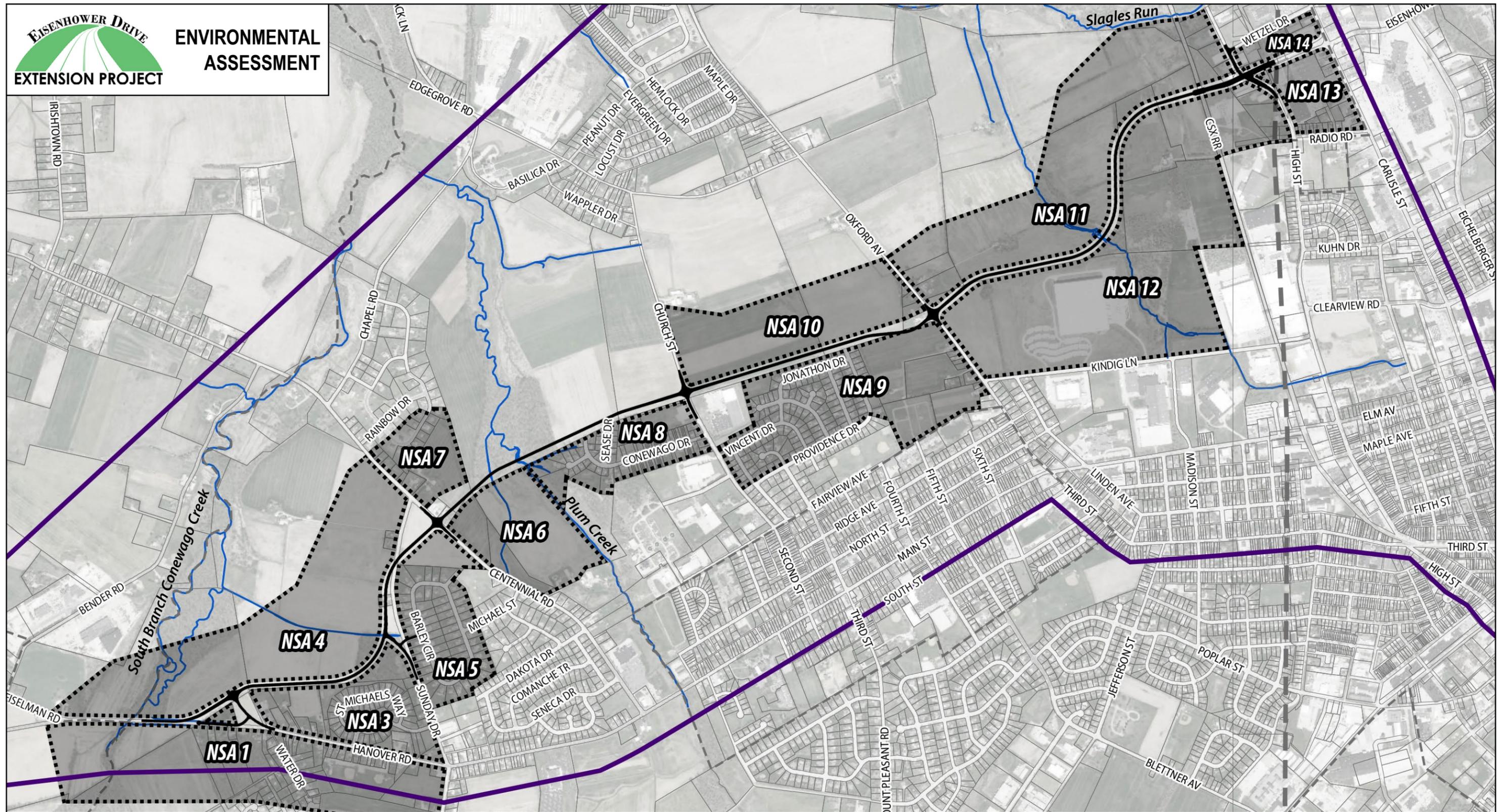


**PROJECT
MAPPING**

Figure 17:
Phase I ESA Recommendations

Legend	
	Municipal Boundaries
	County Boundaries
	Waterways
	Alternative 5C
	Study Area Boundary
	No Further Action
	Phase II/III Recommended





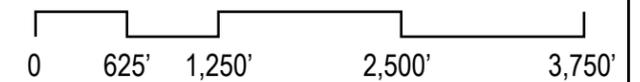
**PROJECT
MAPPING**

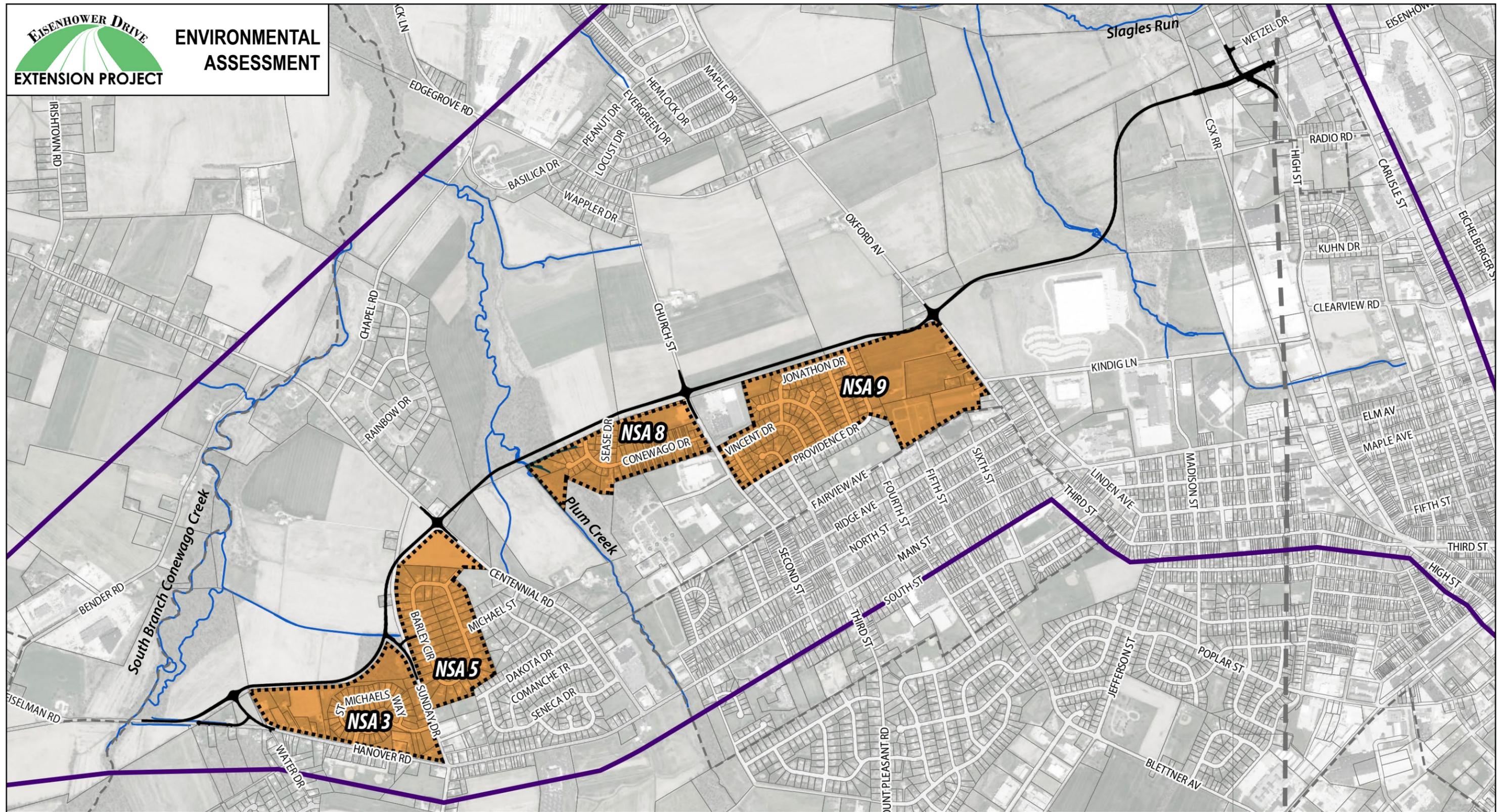
Figure 19:
Noise Study Areas

Legend

-  Municipal Boundaries
-  County Boundaries
-  Waterways
-  Alternative 5C
-  Study Area Boundary
-  Noise Study Areas

GRAPHIC SCALE:





**PROJECT
MAPPING**

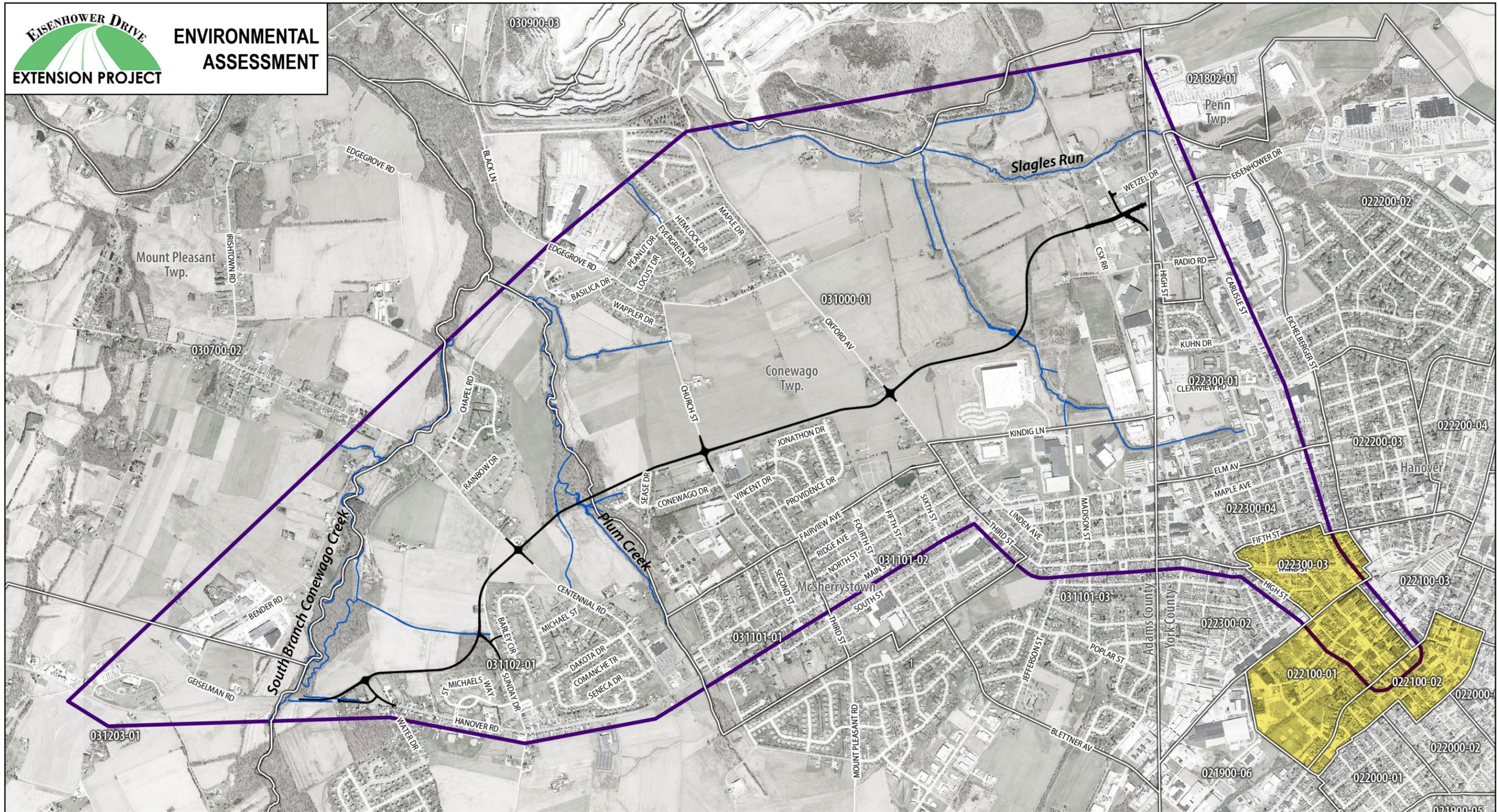
Figure 21:
Noise Study Areas Potentially Requiring
Noise Barriers

Legend

-  Municipal Boundaries
-  County Boundaries
-  Waterways
-  Alternative 5C
-  Study Area Boundary
-  Noise Study Areas Potentially Requiring Noise Barriers

GRAPHIC SCALE:

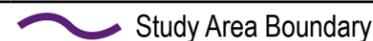




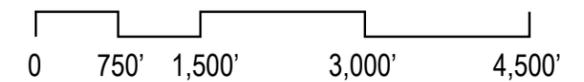
**PROJECT
MAPPING**

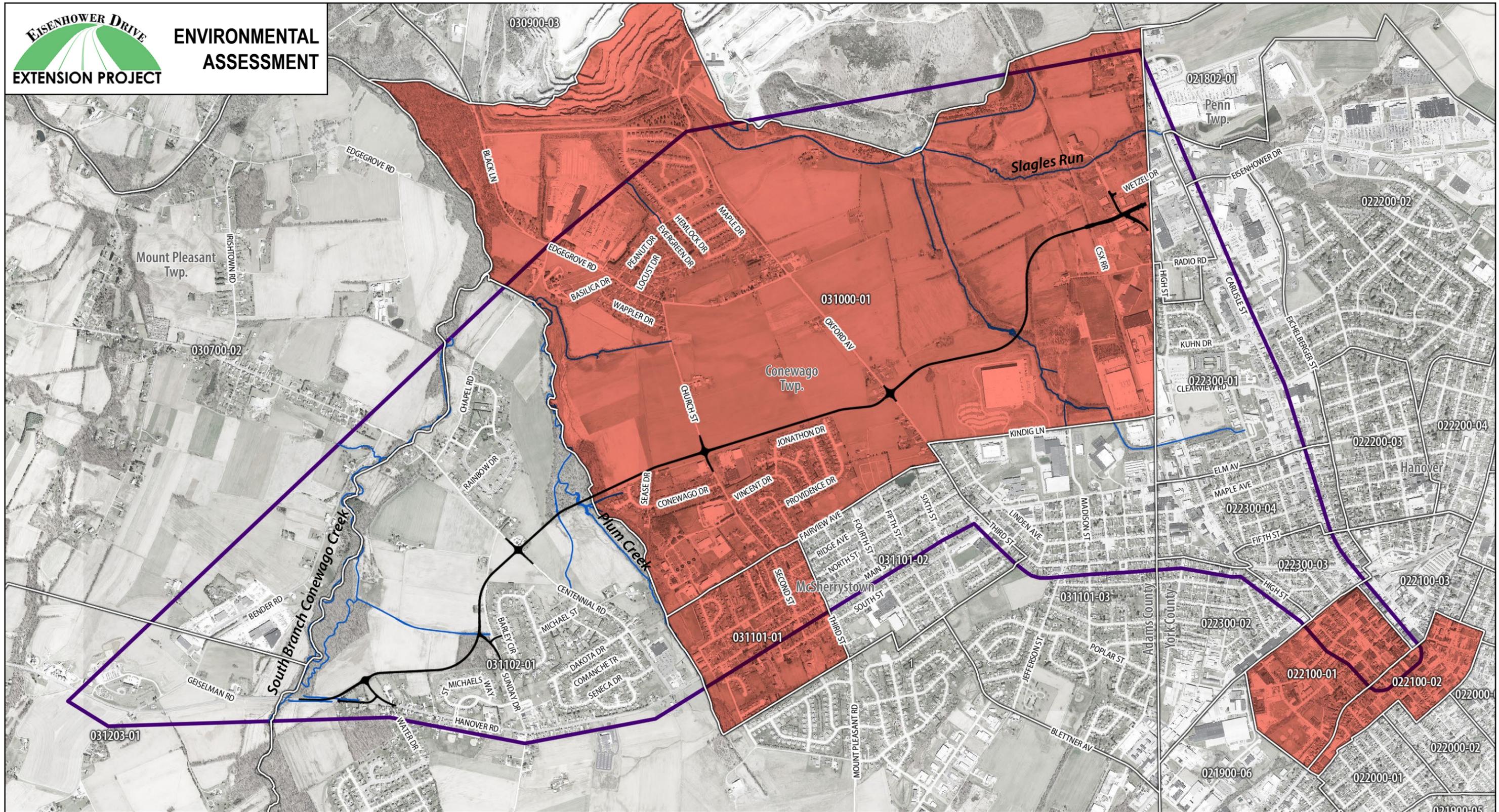
Figure 22:
Minority Populations

Legend

-  Municipal Boundaries
-  County Boundaries
-  Waterways
-  Alternative 5C
-  Study Area Boundary
-  Census Tracts
-  Minority Population Exceeds County Minority Average

GRAPHIC SCALE:



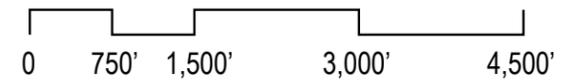


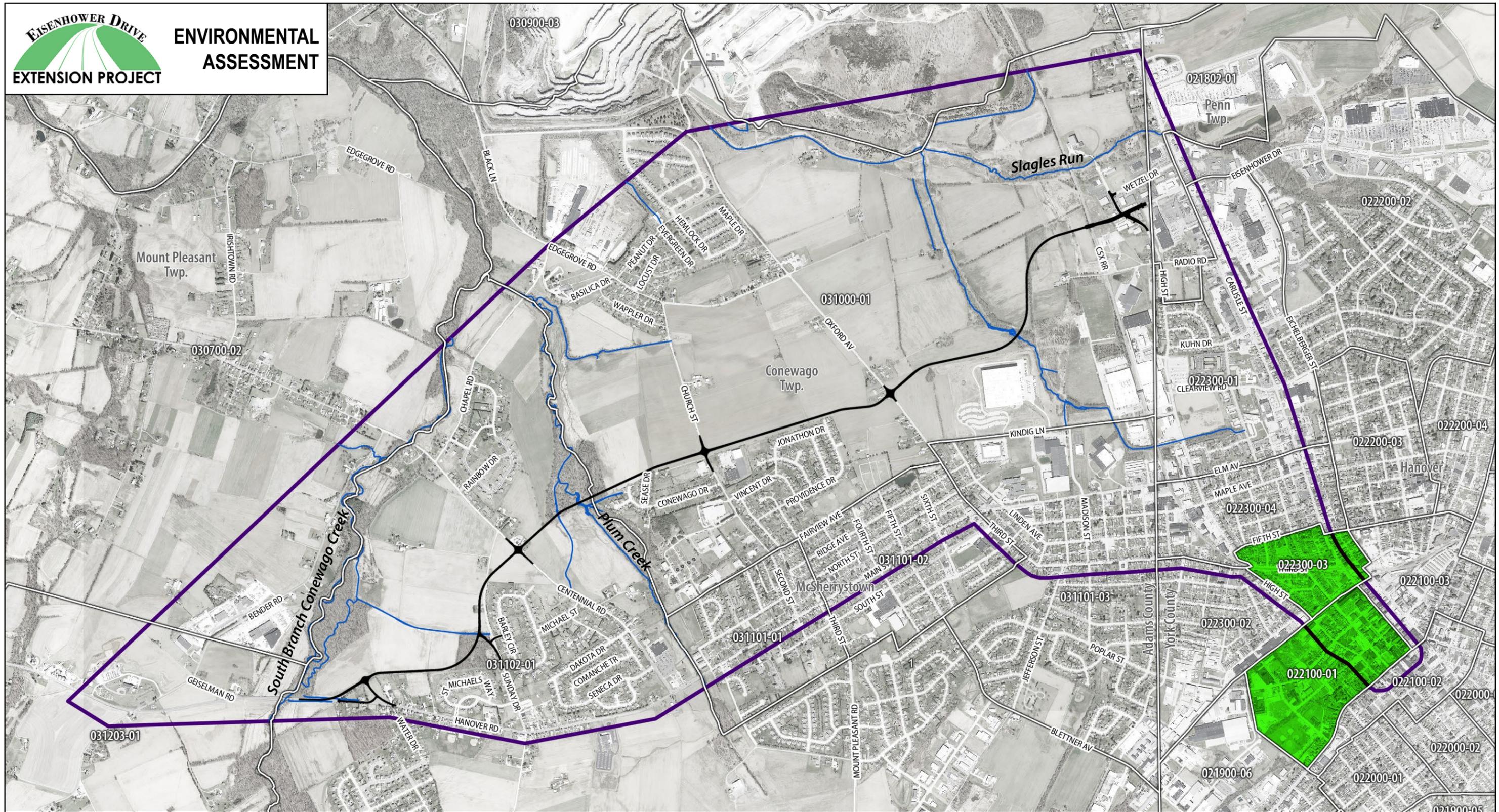
**PROJECT
MAPPING**

Figure 23:
Low-Income Populations

- Legend**
- Municipal Boundaries
 - County Boundaries
 - Waterways
 - Alternative 5C
 - Study Area Boundary
 - Census Tracts
 - Low-Income Population Areas

GRAPHIC SCALE:

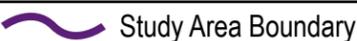
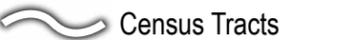




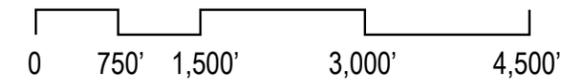
**PROJECT
MAPPING**

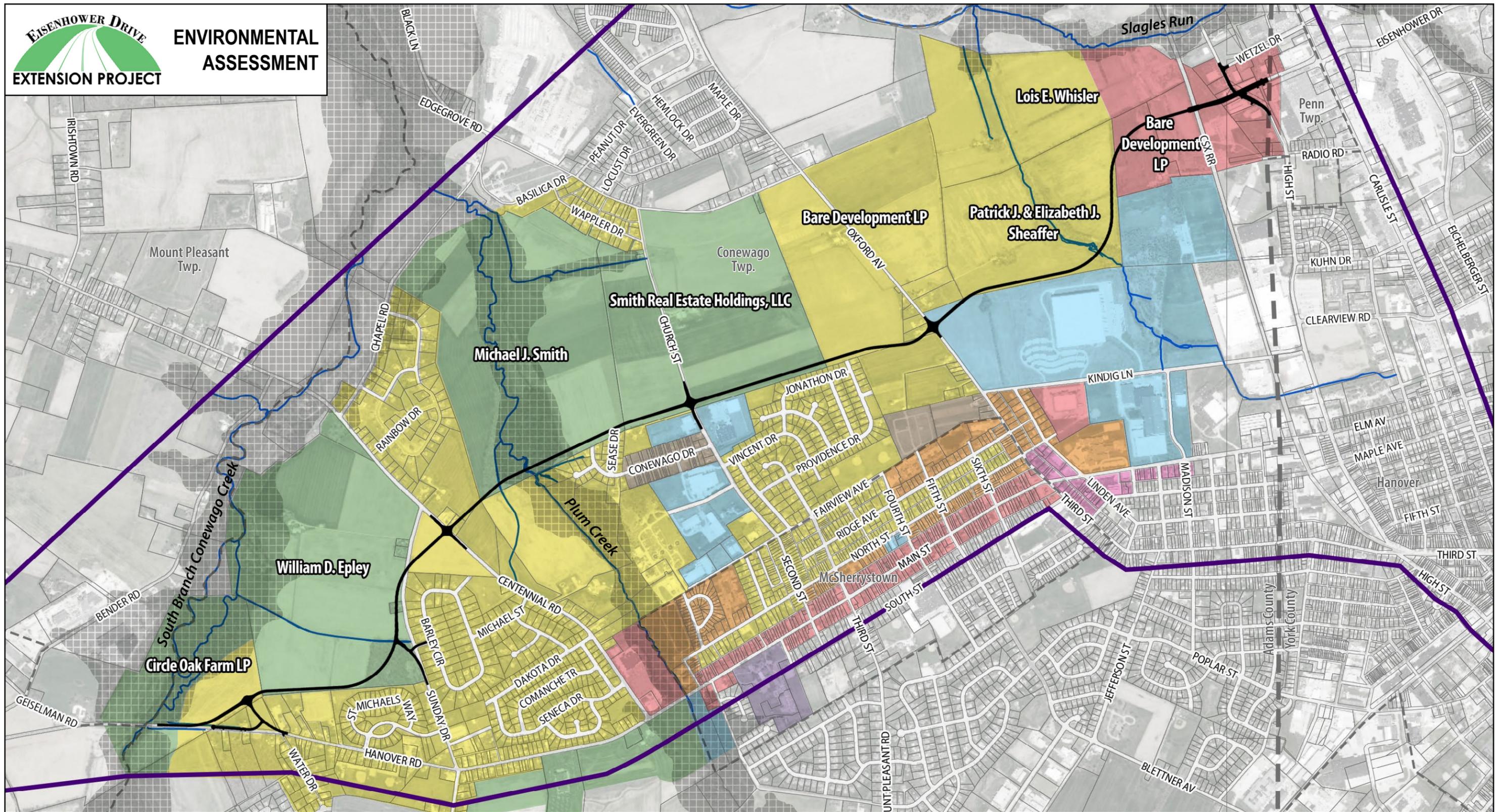
Figure 24:
LEP Populations

Legend

-  Municipal Boundaries
-  County Boundaries
-  Waterways
-  Alternative 5C
-  Study Area Boundary
-  Census Tracts
-  Limited English Proficiency

GRAPHIC SCALE:

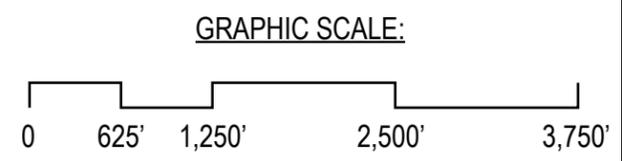


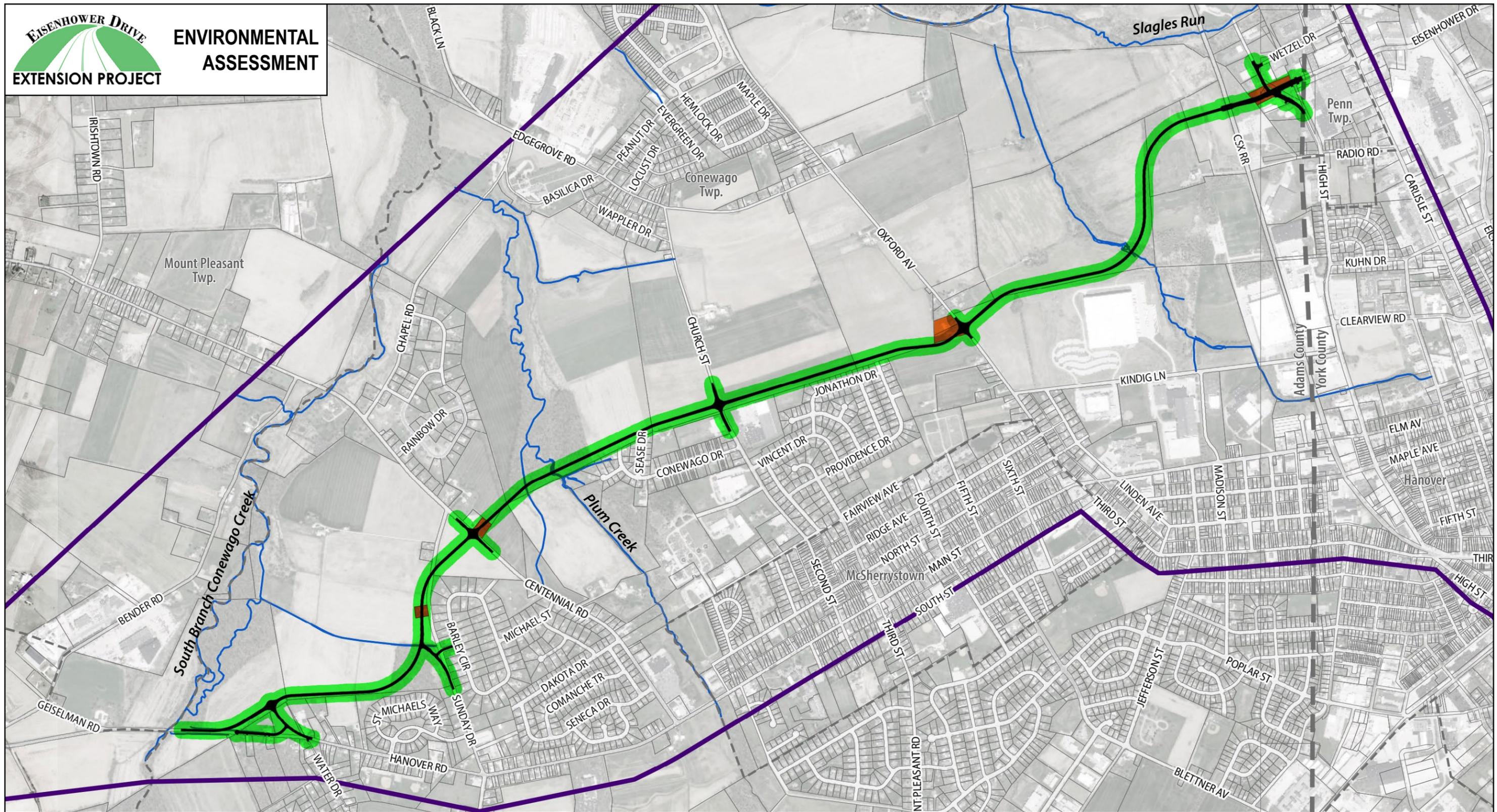


PROJECT MAPPING

Figure 25:
Zoning

Legend		Generalized Zoning	
	Municipal Boundaries		Agriculture
	County Boundaries		R1 - Residential
	Waterways		R2 - Residential
	Alternative 5C		R3 - Residential
	Study Area Boundary		Commercial
			Industrial
			Institutional
			Floodplains

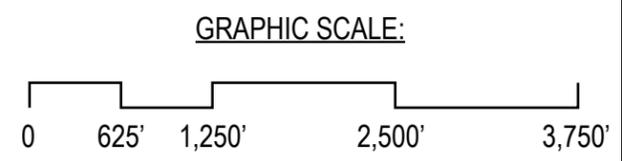


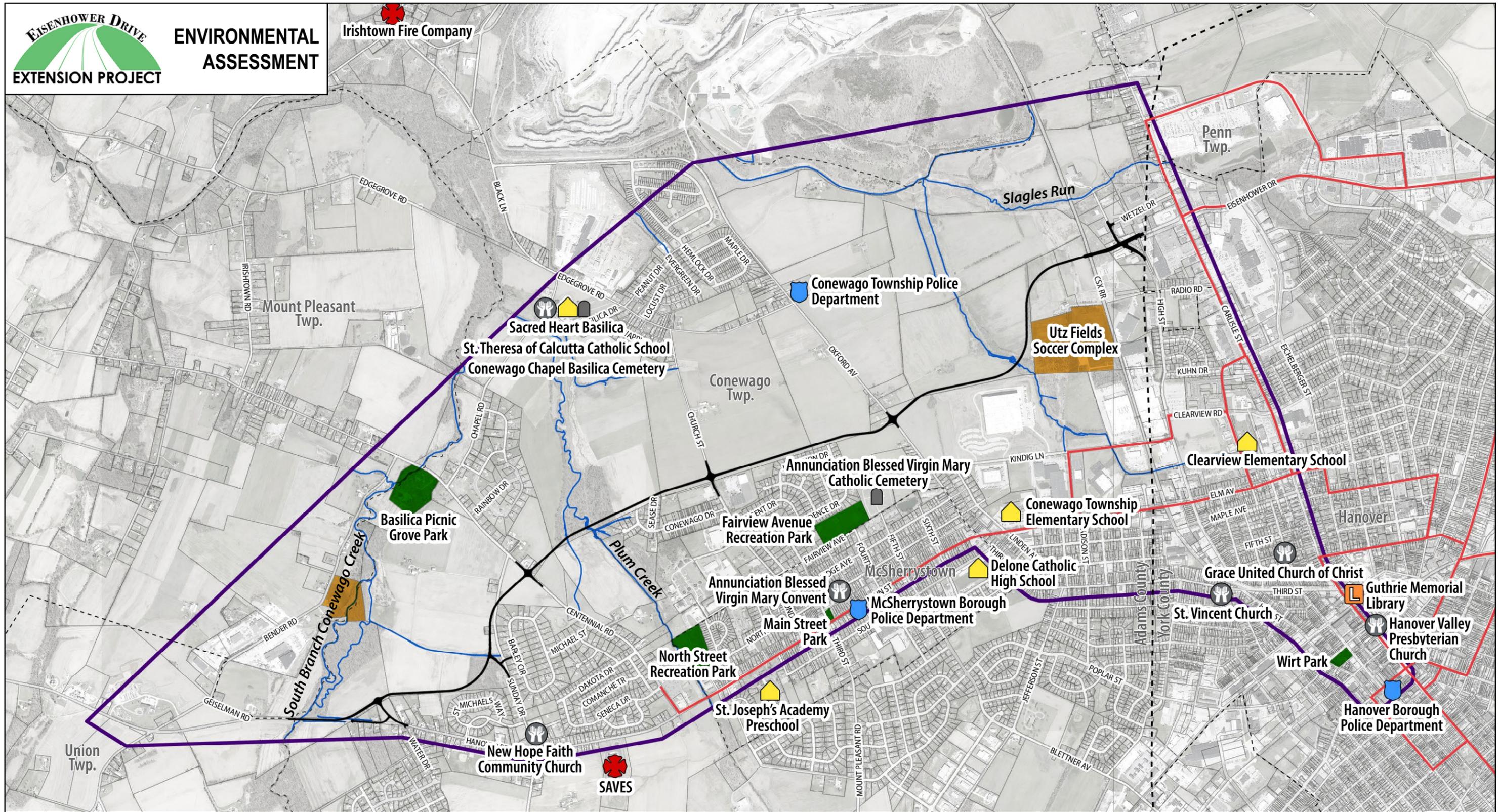


**PROJECT
MAPPING**

Figure 26:
Permanent Impacts and Displacements

- Legend**
- Municipal Boundaries
 - County Boundaries
 - Waterways
 - Alternative 5C
 - Study Area Boundary
 - Displacements
 - 100' ROW Permanent Impacts

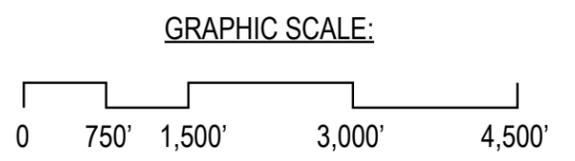


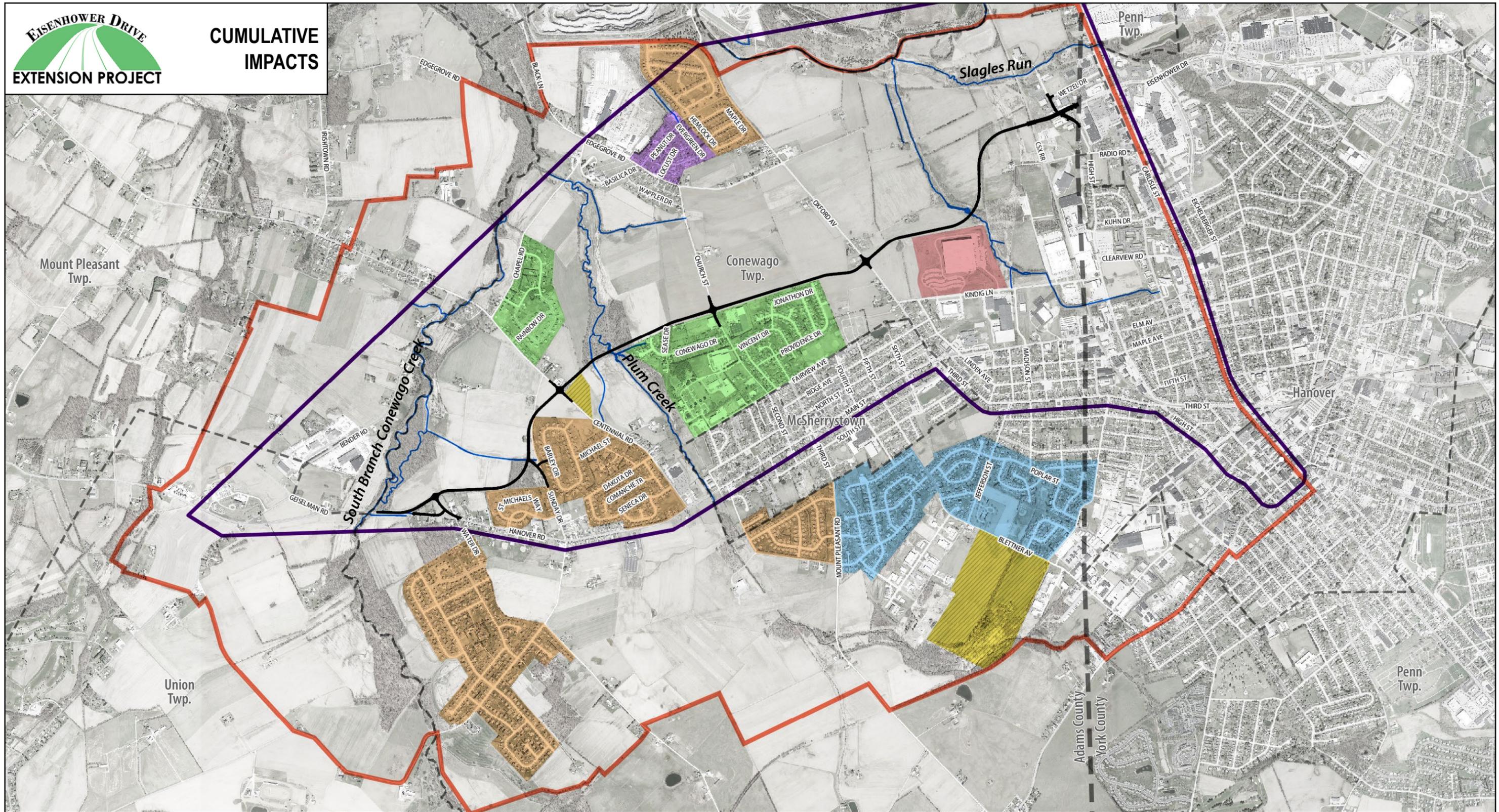


**PROJECT
MAPPING**

Figure 27:
Community Facilities and Services

Legend	
	Municipal Boundaries
	County Boundaries
	Waterways
	Alternative 5C
	Study Area Boundary
	Police Departments
	Fire Departments
	Schools
	Places of Worship
	Cemeteries
	Public Parks
	Private Parks
	Libraries
	Rabbitransit Fixed Bus Routes 20S, 20N/22N, 23





**PROJECT
MAPPING**

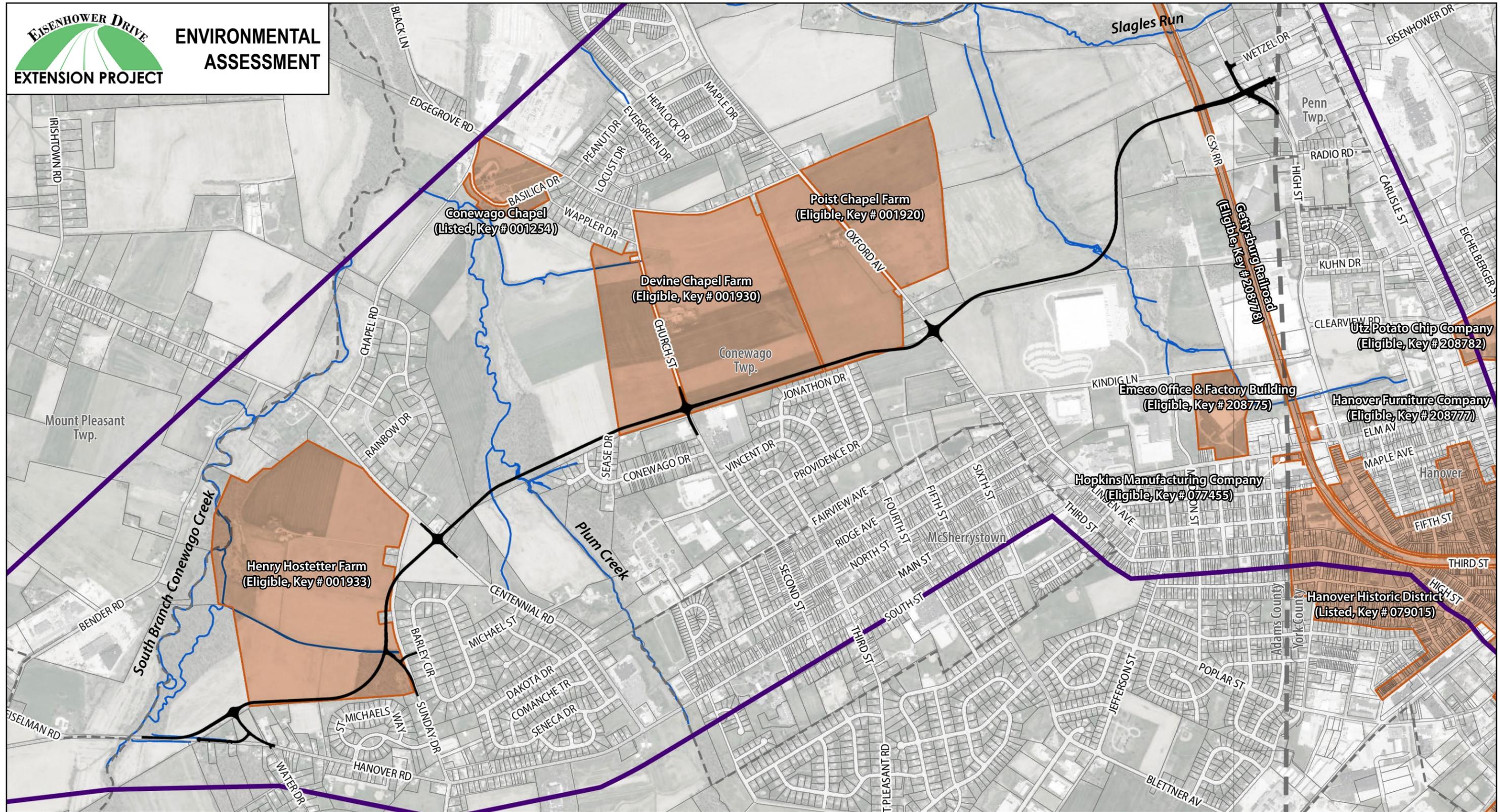
Figure 28:
Cumulative Effects

Legend

- | | | |
|----------------------|-----------------------------|--------------------|
| Municipal Boundaries | Study Area Boundary | 1980's Development |
| County Boundaries | Resource Study Area | 1990's Development |
| Waterways | Approved Future Development | 2000's Development |
| Alternative 5C | 1960's Development | 2010's Development |

GRAPHIC SCALE:





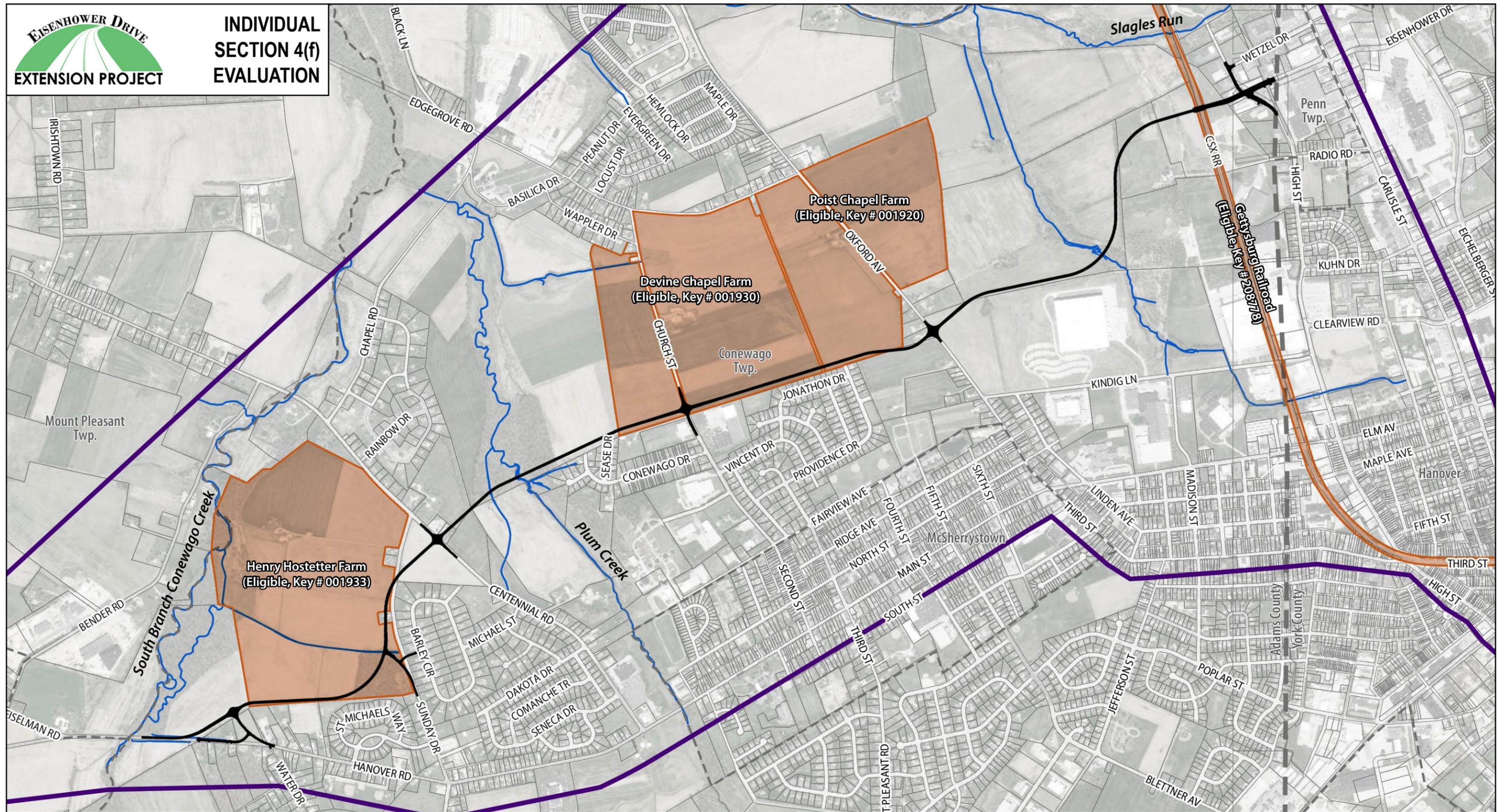
**PROJECT
MAPPING**

Figure 30:
Above Ground Historic Resources

Legend	
	Municipal Boundaries
	County Boundaries
	Waterways
	Alternative 5C
	Study Area Boundary
	Historic Resources

GRAPHIC SCALE:

0 625' 1,250' 2,500' 3,750'



**PROJECT
MAPPING**

Figure 31:
Section 4(f) Properties Along Alternative 5C

Legend

-  Municipal Boundaries
-  County Boundaries
-  Waterways
-  Alternative 5C
-  Study Area Boundary
-  Historic Resources

GRAPHIC SCALE:





**PROJECT
MAPPING**

Figure 32:
Preferred Alternative

Legend

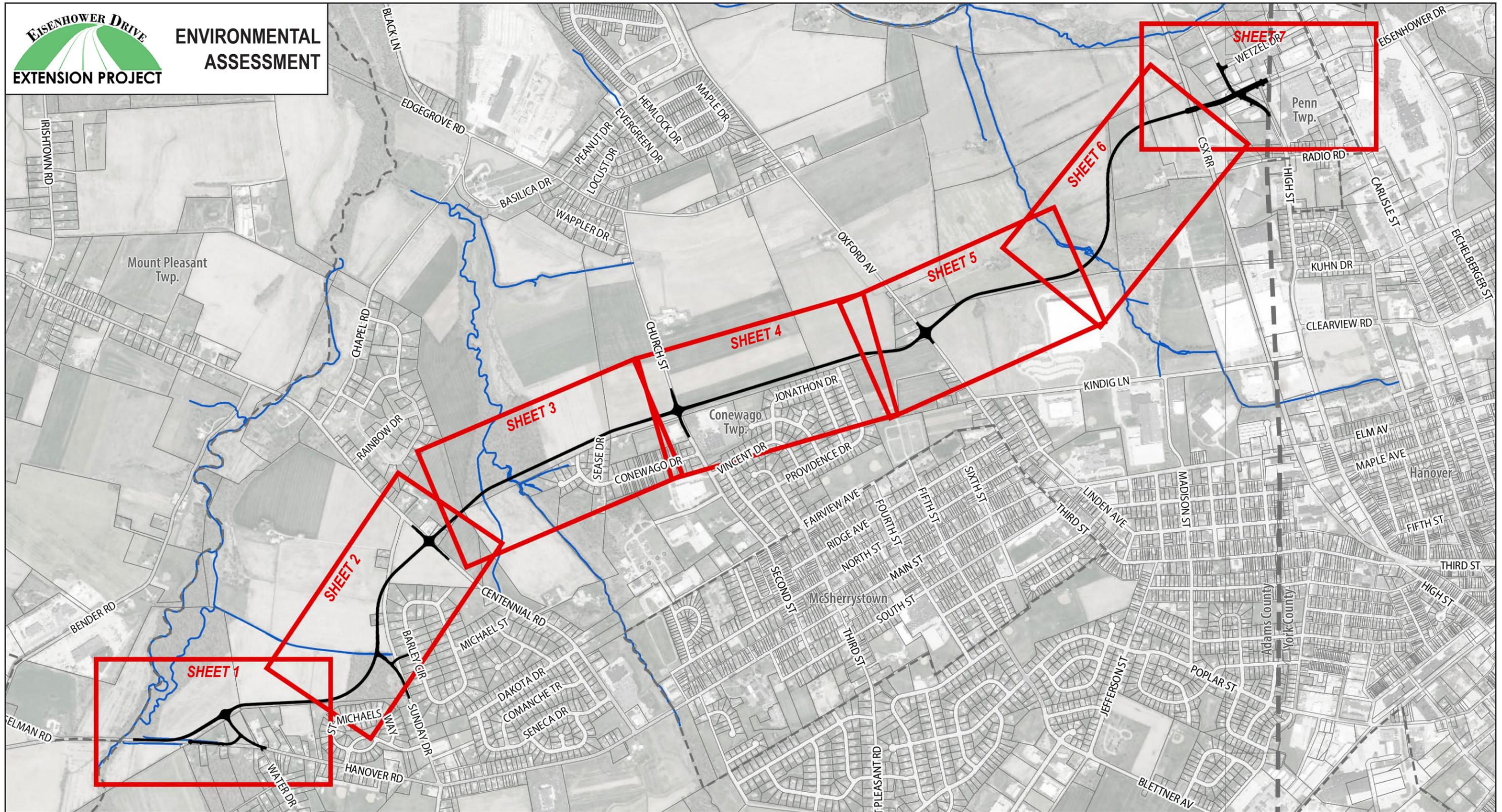
-  Preferred Alternative Alignment
-  Preferred Alternative Alignment Limit of Disturbance
-  Waterways

GRAPHIC SCALE:



APPENDIX A-2: DETAILED ENVIRONMENTAL IMPACT MAPPING

This page intentionally left blank

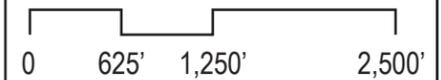


**PROJECT
MAPPING**

Legend

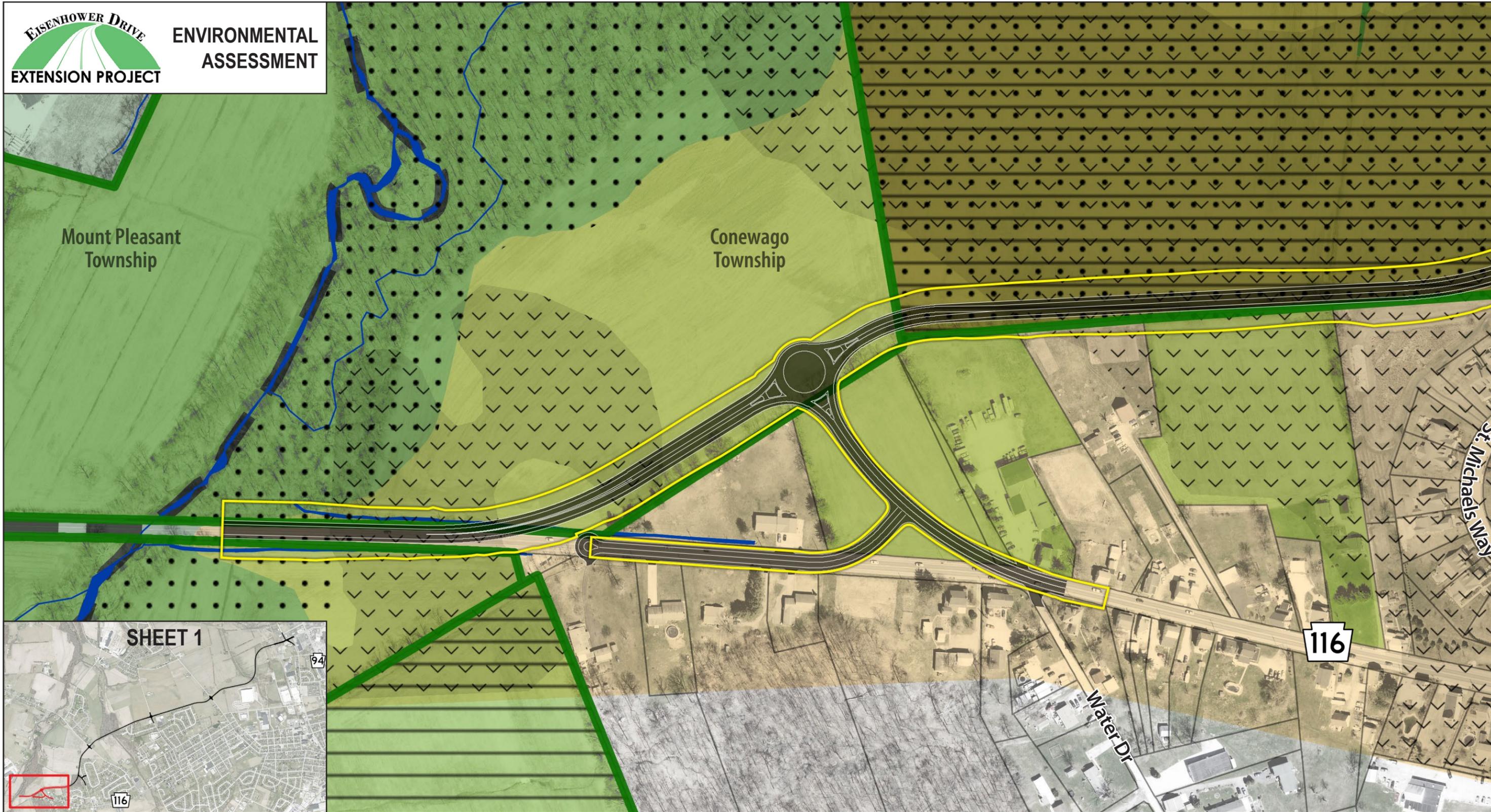
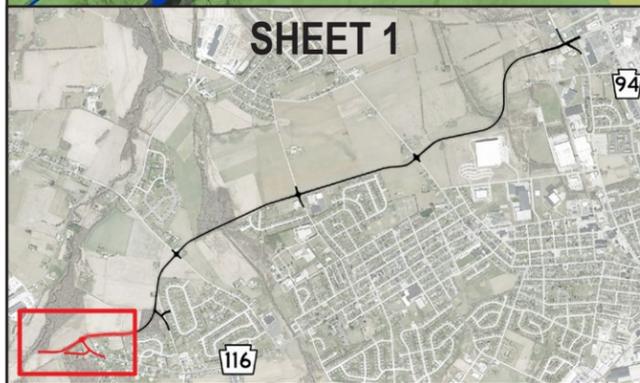
-  Municipal Boundaries
-  County Boundaries
-  Parcels
-  Waterways
-  Alternative 5C
-  Map Sheet Areas

GRAPHIC SCALE:



Mount Pleasant
Township

Conewago
Township

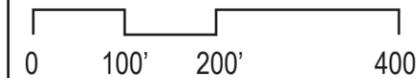


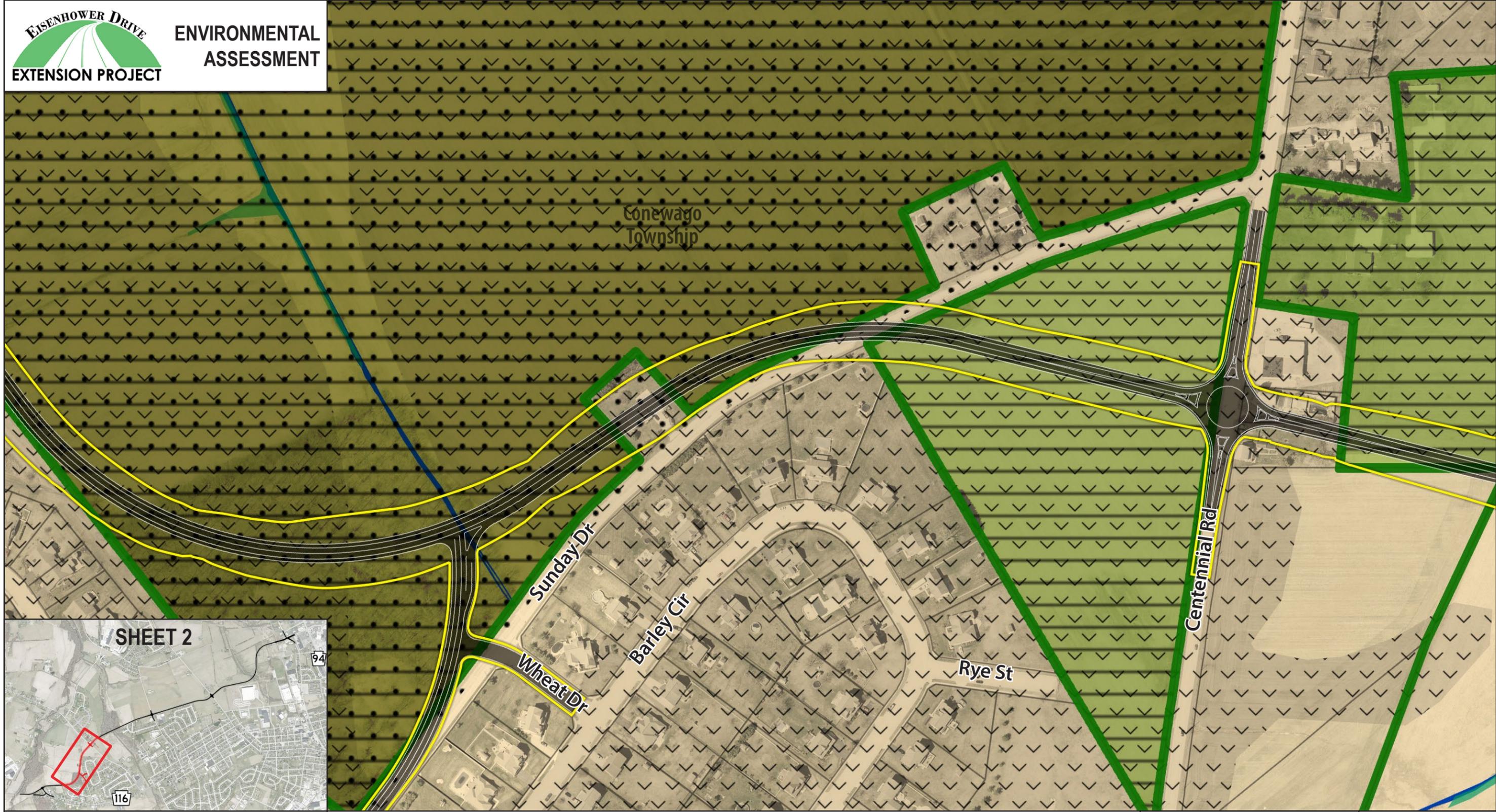
**PROJECT
MAPPING**

Legend

- | | | | |
|-------------------------|-----------------------------|--------------------|-------------------------------|
| Municipal Boundaries | Alternative 5C | Clean and Green | Soils Capability Classes I-II |
| Parcels | Limit of Disturbance | Historic Resources | FPPA Soils |
| Waterways | Agricultural Security Areas | Floodplains | |
| Lands Zoned Agriculture | Productive Ag. Land (PAL) | | |

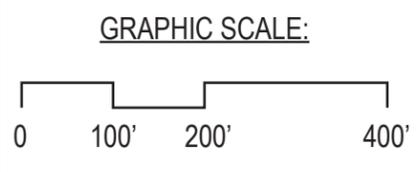
GRAPHIC SCALE:

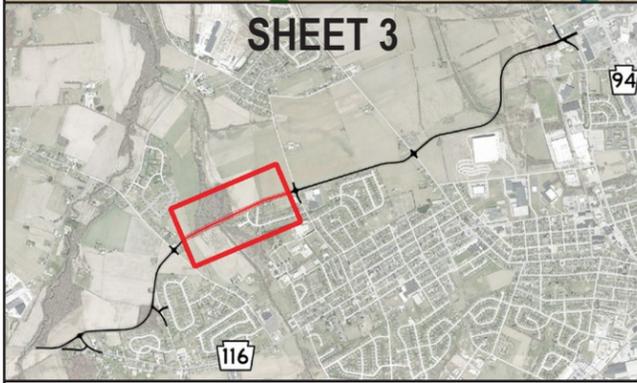
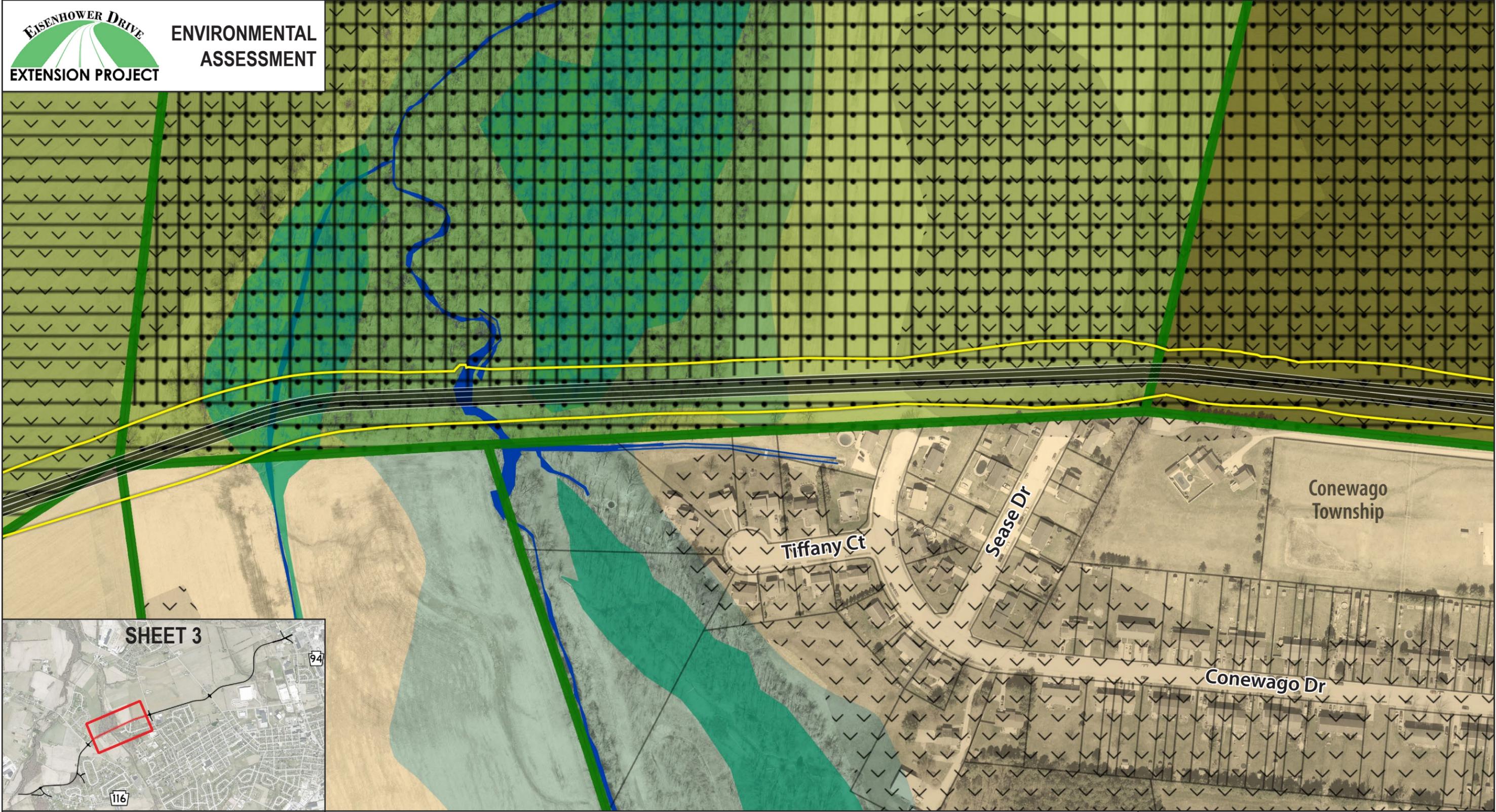




**PROJECT
MAPPING**

Legend							
	Parcels		Alternative 5C		Clean and Green		Soils Capability Classes I-II
	Waterways		Limit of Disturbance		Historic Resources		FPPA Soils
	Agricultural Security Areas		Wetlands		Productive Ag. Land (PAL)		
	Lands Zoned Agriculture						

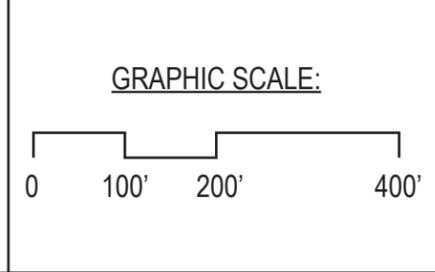


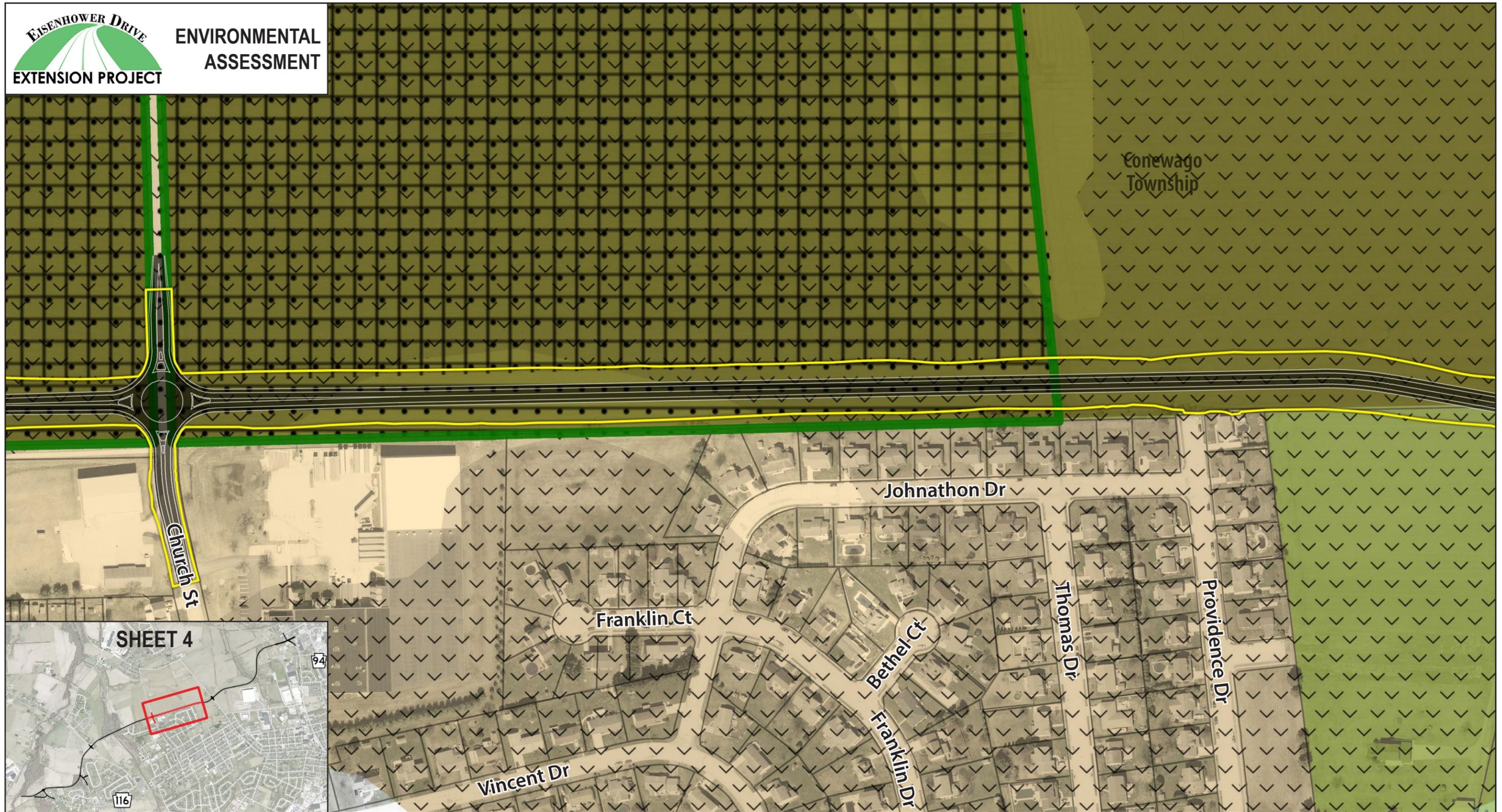


**PROJECT
MAPPING**

Legend

- | | | | |
|-----------------------------|----------------------|-------------------------|-------------------------------|
| Parcels | Alternative 5C | Lands Zoned Agriculture | Wetlands |
| Waterways | Limit of Disturbance | Clean and Green | Productive Ag. Land (PAL) |
| Preserved Farmland | Historic Resources | Floodplains | Soils Capability Classes I-II |
| Agricultural Security Areas | FPPA Soils | | |



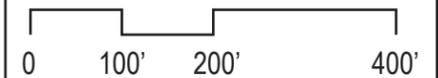


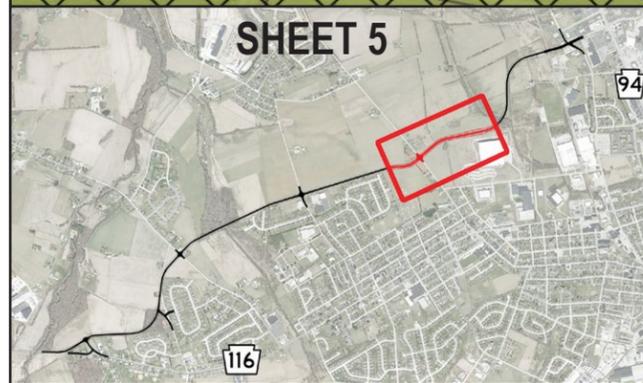
**PROJECT
MAPPING**

Legend

- | | | | |
|--------------------|-----------------------------|---------------------------|-------------------------------|
| Parcels | Alternative 5C | Lands Zoned Agriculture | Soils Capability Classes I-II |
| Waterways | Limit of Disturbance | Clean and Green | FPPA Soils |
| Preserved Farmland | Agricultural Security Areas | Historic Resources | |
| | | Productive Ag. Land (PAL) | |

GRAPHIC SCALE:





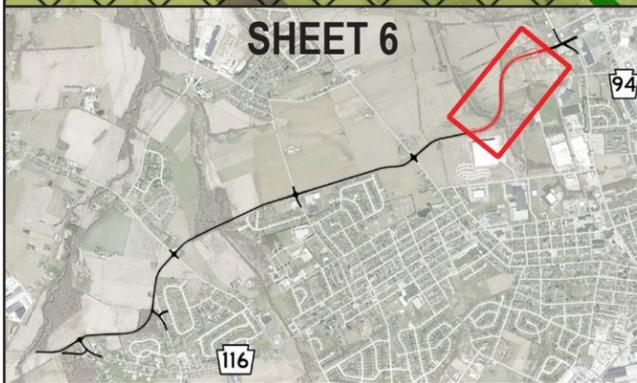
**PROJECT
MAPPING**

Legend

- | | | |
|--------------------|-------------------------------|---------------------------|
| Parcels | Alternative 5C | Wetlands |
| Waterways | Limit of Disturbance | Productive Ag. Land (PAL) |
| Clean and Green | Soils Capability Classes I-II | FPPA Soils |
| Historic Resources | | |

GRAPHIC SCALE:



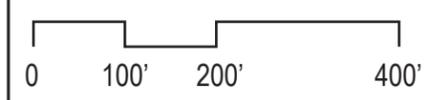


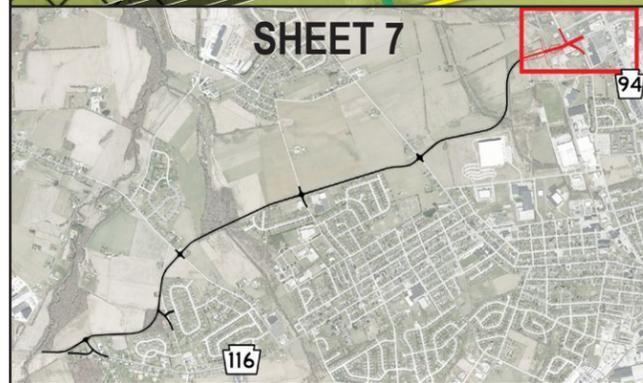
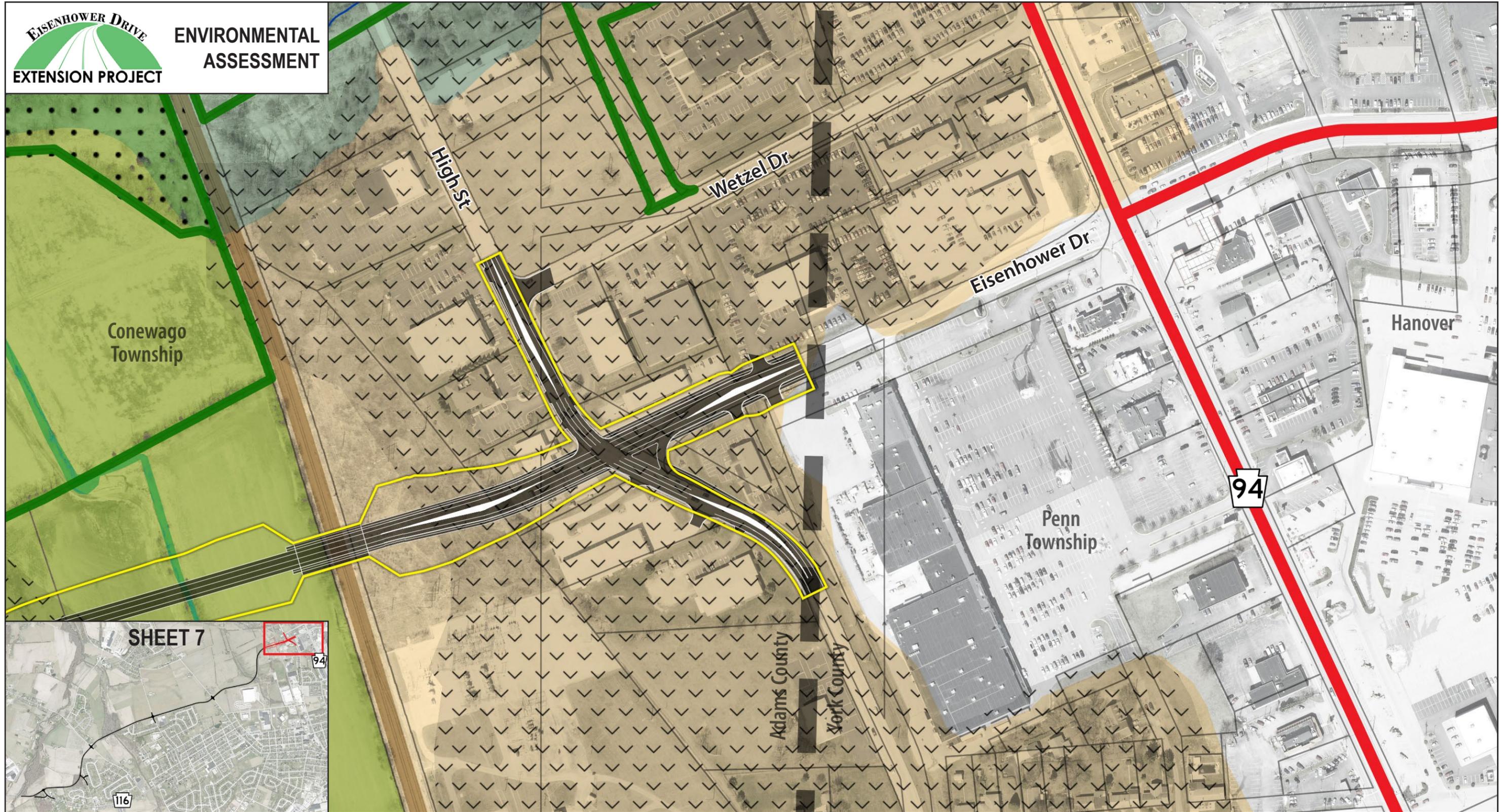
**PROJECT
MAPPING**

Legend

- | | | | |
|--------------------|-------------------------------|---------------------------|---------------|
| Parcels | Alternative 5C | Wetlands | Private Parks |
| Waterways | Limit of Disturbance | Productive Ag. Land (PAL) | |
| Clean and Green | Soils Capability Classes I-II | | |
| Historic Resources | FPPA Soils | | |

GRAPHIC SCALE:



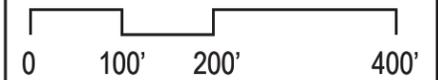


**PROJECT
MAPPING**

Legend

- | | | | |
|-------------------|---------------------------|--------------------|--|
| County Boundaries | Alternative 5C | Historic Resources | Soils Capability Classes I-II |
| Parcels | Limit of Disturbance | Floodplains | FPPA Soils |
| Waterways | Lands Zoned Agriculture | Wetlands | Rabbitransit Fixed Bus Routes 20S, 20N/22N, 23 |
| Clean and Green | Productive Ag. Land (PAL) | | |

GRAPHIC SCALE:



APPENDIX B: GLOSSARY OF TERMS

This page intentionally left blank

GLOSSARY OF TERMS

A

Act 2 groundwater sampling and analysis plan – The procedures and analytical requirements for Brownfields Assessment projects involving the collection of water, soil, sediment, or other samples taken to characterize areas of potential environmental contamination.

Act 43 – Pennsylvania Act 1981-43, Agricultural Area Security Law, as amended

Agency Coordination Meeting (ACM) - A monthly meeting sponsored by PennDOT and held with federal and state environmental review and regulatory agencies. The goal of these meetings is to review, discuss, and resolve environmental issues pertaining to transportation projects in Pennsylvania.

Agricultural Lands Condemnation Approval Board (ALCAB) – An independent administrative board with approval authority over the condemnation of land being used for productive agricultural purposes for certain types of transportation projects.

Agricultural Land Easements - USDA-NRCS works with eligible partners who purchase Agricultural Land Easements (ALE) that protect the agricultural use and conservation values of eligible land. ALEs can help farmers and ranchers keep their land in agriculture. The program also protects grazing land by conserving grassland, rangeland, pastureland and shrubland. Eligible partners include Indian tribes, state and local governments and nongovernmental organizations, such as Land Trusts that have farmland or grassland protection programs. USDA-NRCS does not work directly with landowners for ALE; instead NRCS provides financial assistance to entities that have existing land trust or protection programs

Agricultural Lands Preservation Policy (ALPP) – A Pennsylvania policy intended to protect and preserve the Commonwealth's prime agricultural land that includes productive agricultural land that falls into 1 of the 5 categories: preserved, ASA, preferential tax assessment, agricultural zoning and/or soil classes I-IV.

Agricultural Security Area – Special areas created at the municipal level and comprising at least 250 acres of viable agricultural land, which may be comprised of noncontiguous tracts that are at least 10 acres in size or a farm parcel less than 10 acres that has an anticipated yearly gross income from agricultural production of at least \$2000.00. An ASA may exist in more than one local government unit for the same parcel. ALCAB approval is required for Commonwealth agencies to condemn productive agricultural land within an ASA, except in the case of activities related to existing highways such as, but not limited to, widening roadways, the elimination of curves, or reconstruction.

Alignment – The line which represents the location of a highway being considered.

Alternative – One of a number of specific transportation improvement proposals, alignments, options, design choices, etc. in a study. Following analysis, one improvement alternative is chosen for implementation.

B

Base Flood Elevation (BFE) – The computed elevation to which floodwater is anticipated to rise during the base flood. Base Flood Elevations are shown on Flood Insurance Rate Maps and on the flood profiles.

Benefitted Receptor (BR) – The recipient of an abatement measure that receives a noise reduction at or above the minimum threshold of 5 dB(A), but not to exceed the highway agency's reasonableness design goal.

Best Management Practices (BMPs) – Implemented in order to eliminate or reduce the negative impacts of stormwater runoff by controlling flooding, reducing erosion, and improving water quality.

C

Capability Class – Categories used by the USDA, NRCS to designate the suitability of soil types for most farming practices. There are eight capability Classes, which are denoted with the Roman numerals I through VIII.

Capability Class I soils have the fewest limitations for agriculture and the widest range of use, while capability Class VIII soils have the most limitations to agricultural use. The capability Class designations are found in the county soil surveys published by the USDA. ALCAB approval is required for Commonwealth agencies to condemn productive agricultural land that is located on capability Class I, II, III, or IV soils.

Clean and Green – In 1973, Pennsylvanians passed a Constitutional Amendment permitting preferential assessment of farmland and forestland. The Pennsylvania Farmland and Forest Land Assessment Act, PA Act 319 (commonly known as the Clean and Green Act) is a voluntary program and generally requires a minimum of ten acres that will remain in the designated use (productive agriculture, agricultural reserve, forest reserve). This Act is designed to preserve farmland, forest land, and open space by taxing land according to its use rather than the prevailing market value. PA Act 319 is administered by the County Assessment Office. Rules and regulations governing the act are made by the Pennsylvania Department of Agriculture.

Code of Federal Regulations (CFR) – The codification of the general and permanent rules and regulations published in the Federal Register by the executive departments and agencies of the federal government of the United States.

Conditional Letter of Map Revision (CLOMR) – FEMA's comment on a proposed project that would, upon construction, affect the hydrologic or hydraulic characteristics of a flooding source and thus result in the modification of the existing regulatory floodway, effective BFEs, or SFHA.

Conformity – The U.S. Clean Air Act stipulates that any approved transportation project, plan, or program must conform to the SIP, a document which prescribes procedures for the implementation, maintenance, and enforcement of primary and secondary pollutants.

Corridor – Land between two termini within which traffic, transit, land use, topography, environment, and other characteristics are evaluated for transportation purposes

Cumulative Effects (According to NEPA) – Effects that are the result of incremental impacts of an action, when added to other past, present, and reasonably foreseeable future actions, regardless of which agency (federal or nonfederal) or person undertakes such actions.

D

DBA - Decibel scale readings that have been adjusted to attempt to take into account the varying sensitivity of the human ear to different frequencies of sound

Decommission – Abandon with proper procedure.

Design Manual – PennDOT Publication 10, published in six volumes, which defines criteria, processes, and procedures for the evaluation, assessment, engineering design, and development of highway and bridge projects.

Design Year – The future year specified and used by planners and engineers to assess the conditions (population, number of vehicles, etc.) which are to be the basis for the design of a proposed improvement. The design year of a transportation facility is typically 20 years after the facility has been opened for use.

Determination of Effect – A finding made by FHWA, with assistance from PennDOT and in consultation with the SHPO, which determines whether a proposed project affects a property included on or eligible for the NRHP.

Determination of Eligibility – The process of determining whether an historic property meets the criteria for eligibility for the NRHP (36 CFR 60). FHWA, with the assistance of PennDOT and the SHPO, applies NRHP criteria when deciding matters of historical significance for federally assisted projects. PennDOT and the SHPO are involved with 100% state-funded projects.

Direct Effects – Influences or occurrences caused by a given action and occurring at the same time and place as the action. Changes in noise levels, traffic volumes, or visual conditions are some examples of direct effects of a new highway.

Displacement – Required movement of residences or businesses due to the need for the property for transportation uses.

E

Easement – A property right that gives its holder an interest in land owned by someone else.

Encroachment – Intrusion into water resources such as streams, wetlands, and floodplains.

Environmental Assessment (EA) – An exploratory report which is prepared when the significance of impacts is not clearly known for federal projects that are not eligible for a CEE and do not appear to be of sufficient magnitude to require an EIS. An EA provides the analysis and documentation to determine if an EIS or a FONSI should be prepared.

Environmental Justice (EJ) – In accordance with Executive Order 12898, provides that the actions of a federal agency do not result in disproportionately high or adverse effects on minority or low-income populations.

Environmental Site Assessment (ESA) – prepared to assure potential buyers that their property isn't contaminated by hazardous materials or waste.

Environmentally Sensitive Materials (ESM) – means oil, oil products and any other substance (including any chemical, gas or other hazardous or noxious substance) which is (or is capable of being or becoming) polluting, toxic or hazardous.

F

Farmland Conversion Impact Rating (FCIR) – A procedure for quantifying impacts upon FPPA farmland (prime or unique farmland or additional farmland of statewide or local importance), according to CFR Section 658 and the federal FPPA of 1981 as amended. The rating is determined in two parts: 1) *Land Evaluation Criteria* by the USDA NRCS and 2) *Site Assessment Criteria* by the sponsoring federal agency for the project.

Farmland of Local Importance – Land identified by the concerned local agencies as important for the production of food, feed, fiber, and forage even though it was not designated as farmland of national or statewide importance.

Farmland of Statewide Importance – Land that has been designated by the State Rural Development Committee as being of statewide importance for the production of food, feed, fiber, and forage.

Farmland Protection Policy Act (FPPA) – Is intended to minimize the impact Federal programs have on the unnecessary and irreversible conversion of farmland to nonagricultural uses.

Federal Emergency Management Agency (FEMA) – An agency of the United States Department of Homeland Security that supports citizens and emergency personnel to build, sustain, and improve the nation's capability to prepare for, protect against, respond to, recover from, and mitigate all hazards.

Federal Highway Administration (FHWA) – An agency within the United States Department of Transportation that supports State and local governments in the design, construction, and maintenance of the Nation's highway system and various federally and tribal owned lands.

Federal Register – A daily publication of the U.S. Government Printing Office that contains notices, announcements, regulations, and other official pronouncements of U.S. government administrative agencies. Various printed announcements and findings related to specific environmental matters and transportation projects and activities appear in this publication.

Final Design Phase – The fourth of the five phases of PennDOT's Transportation Project Development Process. It includes preparation of final right-of-way plans for property acquisition and construction plans and specifications for bidding contracts.

Finding of No Significant Impact (FONSI) – An administration determination by FHWA based on the data from EA studies.

Flood Insurance Rate Map (FIRM) – A flood map created by the Federal Emergency Management Agency (FEMA) and used by the National Flood Insurance Program (NFIP) for floodplain management, mitigation, and insurance purposes.

Flood Insurance Study (FIS) – A compilation and presentation of flood risk data for specific watercourses, lakes, and coastal flood hazard areas within a community.

Floodplain – The area directly adjacent to and outside of the watercourse channel that conveys and attenuates flow associated with high-water flood events (such as 1-, 10-, 100-, and 500-year storm events).

Floodway – The portion of the floodplain which is regulated to remain free of obstruction to allow the 100-year floodwaters to freely discharge downstream.

FPPA Farmland – Soil phases/areas protected by the FPPA and 7 CFR 658. FPPA soils include prime farmland, unique farmland, farmland of statewide importance, and farmland of local importance.

Functional Roadway Classification – The organization of roadways into a hierarchy based on the character of service provided. Typical classifications include arterial, local, and collection roadways.

G

Geographic Information System (GIS) – A computer-based system that links the geographic location of map features to text information or databases.

Greenhouse Gases (GHG) – a gas that contributes to the greenhouse effect by absorbing infrared radiation, e.g. carbon dioxide and chlorofluorocarbons.

H

Hazardous Waste – An environmental impact category encompassing all types of permitted and unregulated materials, sites, and substances which require prudent handling and treatment to prevent harm or danger. Sites are often referred to as Waste Management Sites.

Health and Safety Plan (HASp) – A written document that describes the process for identifying the physical and health hazards that could harm workers, procedures to prevent accidents, and steps to take when accidents occur.

Historic Resource – A building, structure, site, district, or object which is significant in American history, architecture, archaeology, engineering, and culture.

Hydrologic and Hydraulic (H&H) Study – The study of the movement of water, including the volume and rate of flow as it moves through a watershed, basin, channel, or man-made structure.

Hydrologic Engineering Center River Analysis System (HEC RAS) – A computer program that models the hydraulics of water flow through natural rivers and other channels. HEC in Davis, California developed RAS to aid hydraulic engineers in channel flow analysis and floodplain determination.

I

Impacts – Positive or negative effects upon the natural or human environment resulting from transportation projects.

In Attainment – As per the EPA, this refers to a geographic area that meets or does better than the NAAQS.

Indirect Effects – Effects that can be expected to result from a given action and that occur later in time or further removed in distance yet are reasonably foreseeable in the future; for example, induced changes to land use patterns, population density, or growth rate.

J

Joint Permit – The permit required for the obstruction and/or encroachment of Pennsylvania waters or wetlands. One joint permit is submitted for Pennsylvania's water obstruction and encroachment permit and a federal (USACE) Section 9, Section 10, or Section 404 permit. The permit is also considered by the state as a request for water quality certification under Section 401 of the federal Clean Water Act (CWA).

K

Karst – Landscape underlain by limestone which has been eroded by dissolution, producing ridges, towers, fissure, sinkholes, and other characteristic landforms

L

Level of Service (LOS) – A rating system used by traffic engineers to determine a roadway's ability to provide adequate capacity for the volume of traffic (number of vehicles) using the road. The LOS is the operating conditions within the stream of traffic describing safety, traffic interruptions, speed, freedom to maneuver, comfort, and convenience. The six levels are designated "A" through "F" with "A" representing the best (free-flow) condition while "F" is the worst-possible (congested) condition.

M

Migratory Fishery (MF) – A protected water use designation per PA DEP that refers to the passage, maintenance and propagation of anadromous and catadromous fishes and other fishes which move to or from flowing waters to complete their life cycle in other waters.

Mitigation Measures – Measures taken to eliminate or reduce the negative impacts of a project.

N

National Ambient Air Quality Standards – Established by the EPA under authority of the Clean Air Act (42 U.S.C. 7401 et seq.), the NAAQS are standards for harmful pollutants and are applied to outdoor air throughout the country.

National Environmental Policy Act of 1969 (NEPA) – The National Environmental Policy Act was created to ensure federal agencies consider the environmental impacts of their actions and decisions.

National Historic Preservation Act (NHPA) – passed in 1966 primarily to acknowledge the importance of protecting our nation's heritage from rampant federal development.

National Register of Historic Places (NRHP) – The official list of our country's historic buildings, districts, sites, structures, and objects worthy of preservation. It was established as part of the National Historic Preservation Act of 1966 and is overseen by the National Park Service.

National Wetlands Inventory (NWI) Maps – Maps published by the USFWS which show wetland areas determined by stereoscopic analysis of high-definition aerial photography. Wetlands were identified on the photographs based on vegetation, visible hydrology, and geography in accordance with Classification of Wetlands and Deepwater Habitats of the United States (FWS/OBS 79/31 December 1979).

Natural Areas – Areas containing natural objects and features in an undisturbed condition.

Natural Resources – Land, fish, wildlife, water supplies and other assets belonging to, maintained by, or otherwise controlled by federal, state, or local government.

Noise Abatement Criteria (NAC) – Noise levels for various activities or land uses which represent the upper limits of acceptable traffic noise levels.

Noise Barrier – A structure designed to protect inhabitants of sensitive land use areas from noise pollution.

Non-Attainment Areas – Any county or other defined geographic region that the U.S. EPA has designated as a non-attainment area for a transportation-related pollutant (s) (such as ozone) for which NAAQS exist. The areas are ranked by the severity of their problem using marginal, moderate, serious, severe, or extreme. In accordance with the Clean Air Act Amendments of 1990, these areas must take specific emission-reduction measures.

No Build Alternative (also known as "No-Action Alternative") – Option of maintaining the status quo by not building transportation improvements. Usually results in eventual deterioration of existing transportation

conditions. Serves as a baseline for comparison of “Build” Alternatives.

P

Peak Hour – Time when a highway carries its highest volume of traffic, usually the morning or evening “rush” period when commuters travel to and from work.

Pennsylvania Department of Transportation (PennDOT) – PennDOT oversees transportation issues in the Commonwealth of Pennsylvania.

Pennsylvania Natural Diversity Index (PNDI) – The Pennsylvania Natural Heritage Program (PNHP) is a member of NatureServe, an international network of natural heritage programs that gather and provide information on the location and status of important ecological resources (plants, vertebrates, invertebrates, natural communities, and geologic features).

Permit – Written permission from an agency with governing authority over a regulated resource.

Phase I ESA – Identifies potential or existing environmental contamination liabilities.

Phase II ESA – A surface geophysical survey that is done to identify the existence and location of USTs and other underground concerns.

Phase III ESA – Evaluates the presence, or absence of, petroleum products or hazardous substances in the subsurface of a site. Typically involves the subsurface testing of vapor, soil, or groundwater.

PM 10 – Inhalable particles, with diameters that are generally 10 micrometers and smaller.

PM 2.5 – Fine inhalable particles, with diameters that are generally 2.5 micrometers and smaller.

Preliminary Engineering – Early phases of technical studies undertaken to determine all relevant aspects of transportation location, to identify feasible route alternatives or design options, and to assess various cost and benefit parameters before advancing the project into more detailed final design development.

Preserved Farmland – Land preserved for agricultural use through easements and deed restrictions.

Prime Agriculture – A phrase used in the Agricultural Land Preservation Policy to refer to the types of protected farmland. Prime agricultural land includes land which is currently devoted to active agricultural use and has been for the preceding three years.

Prime Farmland – Land that has the best combination of physical and chemical characteristics for producing food, feed, fiber, forage, oil seed, and other agricultural crops with minimum inputs of fuel, fertilizer, pesticides, and labor and without intolerable soil erosion, as determined by the Secretary of Agriculture. Includes land that possesses the above characteristics but is being currently used to produce livestock and timber. It does not include land that is already in or committed to urban development or storage.

Productive Agriculture – Any land used for production, for commercial purposes, of crops, livestock, and livestock products, including the processing or retail marketing of such crops, livestock, or livestock products if more than 50 percent of such processed or merchandised products are produced by the farm operator.

Project Purpose – A broad statement of the overall goals to be achieved by a proposed transportation improvement.

Public Hearing – A meeting designed to afford the public the fullest opportunity to express support of or opposition to a transportation project in an open forum at which a verbatim record (transcript) of the proceedings is kept.

Public Meeting – An announced meeting conducted by transportation officials designed to facilitate participation in the decision-making process and to assist the public in gaining an informed view of a proposed project at any level of the Transportation Project Development Process. Such a gathering may also be referred to as a Public Open House Meeting.

R

Right-of-Way (ROW) – Land acquired by purchase, gift, or eminent domain in order to build and maintain a public road.

Riparian – Land situated or associated with the banks of a natural watercourse or stream.

Roadway Classification – The U.S. DOT's FHWA classifies our nation's urban and rural roadways by road function. Each function class is based on the type of service the road provides to the motoring public, and the designation is used for data and planning purposes. Design standards are tied to function class. Each class has a range of allowable lane widths, shoulder widths, curve radii, etc.

S

Special Flood Hazard Area (SFHA) – The land area covered by the floodwaters of the base flood on National Flood Insurance Program (NFIP) maps. The SFHA is the area where the NFIP's floodplain management regulations must be enforced and the area where the mandatory purchase of flood insurance applies.

State Historic Preservation Officer (SHPO) – Is responsible for the operation and management of the Office of Historic Preservation, as well as long range preservation planning.

Stormwater Management (SWM) – An effort to reduce runoff of rainwater or melted snow into streets, lawns, and other sites and the improvement of water quality, according to the U.S. EPA.

Study Area – A geographic area, selected and defined at the outset of engineering or environmental evaluations, which is sufficiently adequate in size to address all pertinent project matters occurring within it.

T

Target Species – A species that has been identified as the subject of conservation or monitoring actions.

Technical File – A compilation of raw data from all of the technical studies (e.g. wetland surveys, noise analysis, agricultural surveys, etc.) conducted for a study.

Transportation Improvement Program (TIP) – A long-range transportation plan established by MPOs in each urbanized area which consists of a prioritized list of projects or project segments to be carried out within the next three years after adoption of the TIP.

Transportation Systems Management (TSM)

Alternative – A set of strategies that focus on operational improvements that can maintain and even restore the performance of the existing transportation system. This limited construction option is generally evaluated when major construction activities are proposed.

U

Unique Farmland – Land other than prime farmland that is used for production of specific high value food and fiber crops, as determined by the Secretary of Agriculture. Unique farmland possesses a special combination of soil quality, location, growing season, and moisture supply needed to economically produce sustained high quality or high yields of specific crops when treated and managed according to acceptable farm methods. Examples of such crops include citrus, tree nuts, olives, cranberries, fruits, and vegetables.

United States Army Corps of Engineers (USACE) – A federal agency under the Department of Defense and a major Army command.

United States Environmental Protection Agency (EPA) – An independent agency of the U.S. federal government for environmental protection.

United States Fish and Wildlife Service (USFWS) – An agency of the U.S. federal government with the U.S. Department of the Interior dedicated to the management of fish, wildlife, and natural habitats.

W

Warm Water Fishery (WWF) – A protected water use designation per PA DEP that refers to maintenance and propagation of fish species and additional flora and fauna which are indigenous to a warm water habitat.

Waste Site – Property, including structures on a property, which may have been impacted by hazardous or environmentally sensitive materials.

Watercourse – A natural or artificial channel along which water flows.

Watershed – The area drained by a river or river system enclosed by drainage divides.

Wetland – Areas inundated or saturated by surface water or groundwater at a frequency or duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

Wetland Complex – A group of interconnected wetlands.
Wetland Function Assessment – The use of a scientific model as approved by PennDOT and FHWA in assessing the function of a wetland. This involves the evaluation of benefits of the wetland on the natural and social environment.

APPENDIX C: ACRONYMS

This page intentionally left blank

ACRONYMS

A

AADT – Average Annual Daily Traffic

ACM – Agency Coordination Meeting

ACM – Asbestos Containing Materials

ADA – Americans with Disabilities Act

ALCAB – Agricultural Lands Condemnation Approval Board

ALPP – Agricultural Land Preservation Policy

APE – Area of Potential Effect

ASA – Agricultural Security Area

B

BGS – Below Ground Surface

BMP – Best Management Practice

C

CEQ – Council on Environmental Quality

CFR – Code of Federal Regulations

CLOMR – Conditional Metal of Honorary Changes (R 111)

CO – Carbon monoxide

CWA – Clean Water Act

D

dB(A) – Decibels

DCNR – Pennsylvania Department of Conservation and Natural Resources

E

EA – Environmental Assessment

ECMTS – Environmental Commitments and Mitigation Tracking System

EJ – Environmental Justice

EO – Executive Order

EPA – Environmental Protection Agency

ESA – Endangered Species Act

ESA – Environmental Site Assessment

E&SC – Erosion and Sediment Control

F

FAR – Farmland Assessment Report

FEMA – Federal Emergency Management Associate.

FHWA – Federal Highway Administration

FIRM – Flood Insurance Rate Maps

FIS – Flood Insurance Study

FONSI – Finding of No Significant Impact

FPPA – Farmland Protection Policy Act

ft. - Feet

G

GHG – Green House Gas

H

HASP – Health and Safety Plan

H&H – Hydrologic and Hydraulic

HSS – Health and Human Services

HUC – Hydrologic Unit Code

J

JPA – Joint Permit Application

L

LBP – Lead Based Paint

LEP – Limited English Proficiency

LOD – Limits-of-Disturbance

LOS – Level of Service

M

MOA – Memorandum of Agreement

MF – Migratory Fishery

MSATs – Mobile Source Air Toxics

N

NAAQS – National Ambient Air Quality Standards

NAC – Noise Abatement Criteria

NEPA – National Environmental Policy Act

NFIP – National Flood Insurance Program

NHPA – National Historic Preservation Act

NO₂ – Nitrogen dioxide

NPDES – National Pollutant Discharge Elimination System

NRCS – National Resources Conservation Service

NRHP – National Register of Historic Places

NSAs – Noise Study Areas

NWI – National Wetland Inventory

O

O₃ – Ozone

P

PA DEP – Pennsylvania Department of Environmental Protection

PaGWIS – Pennsylvania Groundwater Information System

PAL – Productive Agricultural Land

PASPGP – Pennsylvania State Programmatic General Permit

Pb – Lead

PCSWM – Post Construction Stormwater Management

PEM – Palustrine emergent

PennDOT – Pennsylvania Department of Transportation

PFBC – Pennsylvania Fish and Boat Commission

PFO – Palustrine forested

PGC – Pennsylvania Game Commission

PM – Particulate Matter

PNDI – Pennsylvania Natural Diversity Index

Project PATH – Project for Pennsylvania Transportation and Heritage

PSS – Palustrine scrub-shrub

R

ROW – Right-Of-Way

RSA – Resource Study Area

S

SF – Square Feet

SHPO – State Historic Preservation Office

SO₂ – Sulfur dioxide

SR – State Route

STP – Shovel Test Pits

T

T&E – Threatened and Endangered

TIP – Transportation Improvement Program

TSM – Transportation System Management

TYP – Twelve Year Plan

U

USACE – United States Army Corps of Engineers

USDA – United States Department of Agriculture

USFWS – United States Fish and Wildlife Service

UST – Underground Storage Tank

V

VPD – Vehicles Per Day

W

WWF – Warm Water Fishery

WUS – Waters of the United States

APPENDIX D: LAWS, REGULATIONS AND EXECUTIVE ORDERS

This page intentionally left blank

Laws, Regulations and Executive Orders Impacting Transportation Project Delivery

(This is not an all-inclusive list of applicable laws, regulations, and Executive Orders.)

Federal

Americans with Disabilities Act (ADA) of 1992 prohibits discrimination on the basis of disability in the services, programs, or activities of all state and local governments. Under the provisions of ADA, steps must be taken to make public involvement activities related to PENNDOT's Project Development Process accessible to persons with disabilities, including the provision of services and/or auxiliary aids to those with special needs.

Archaeological and Historic Preservation Act of 1966 (AHPA, also called the Archaeological Data Recovery Act) [16 U.S.C. § 469] requires agencies to notify the Secretary of the Interior when their actions will cause the loss or destruction of archaeological data.

Council of Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (40 CFR 1500-1508, Nov. 29, 1978) addresses documentation of environmental impacts, agency and public comments, decision making, and compliance.

Civil Rights Act of 1964 Title VI of the Civil Rights Act (42 USC 2000d et seq.) requires that each Federal agency ensure all programs or activities receiving Federal financial assistance that affect human health or the environment do not directly, or through contractual or other arrangements, use criteria, methods, or practices that discriminate on the basis of race, color, or national origin.

Clean Air Act Amendments (CAAA) of 1990 (42 U.S.C. 7400) calls for emission reduction measures in air quality non-attainment areas, including the consideration of transportation control measures as part of transportation improvement projects. These transportation control measures include, but are not limited to, mass transit, ridesharing, and carpooling.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980 known also as Superfund. It was passed in 1980 in response to some alarming and decidedly unacceptable

hazardous waste practices and management going on in the 1970s.

Endangered Species Act of 1973 (as amended) conserves endangered and threatened fish, wildlife, and plant species. (See Section 7 of this handout.)

Executive Order 11593 serves to protect, restore, and maintain the historic and cultural environment of the Nation. This regulation "institutes procedures to assure that Federal plans and programs contribute to the preservation and enhancement of non-Federally owned sites, structures, and objects of historical, architectural, or archaeological significance."

Executive Order 11988: Floodplain Management (as amended by Executive Order 12148) regulates long- and short-term adverse impacts associated with the modification of floodplains and is intended to restore and preserve the natural and beneficial values served by floodplains.

Executive Order 11990: Protection of Wetlands establishes the three phases of wetland mitigation, referred to as Mitigation Sequencing. The three phases include avoidance, minimization, and compensation for unavoidable wetland impacts

Executive Order 12898 of February 11, 1994: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations is intended to promote nondiscrimination in Federal programs substantially affecting human health and the environment, and to provide minority communities and low-income communities access to public information on, and an opportunity for public participation in, matters relating to human health or the environment.

Farmland Protection Policy Act (FPPA) of 1981 (7 CFR, Part 658, amended 1984, 1987, 1994) minimizes the extent to which Federal programs contribute to the unnecessary and irreversible conversion of farmland to non-agricultural uses. Defines and protects farmland including prime farmland soil, additional farmland soil of

statewide or local importance, and unique farmland sites.

Federal Aid Highway Act of 1956 (as amended) is a national program developed to “protect the interest of every citizen in a safe and adequate highway system”. This Act implemented the National System of Interstate Highways. Funding was provided by the issuance of bonds, which would be retired through revenue from gas taxes. Eighty (80) percent of the funding for this program would be provided through Federal aid while the remaining 20 percent would be the responsibility of the States.

Federal Highway Administration (FHWA) Regulations (23 CFR, Part 771, December 29, 1980, amended September 8, 1987) are the implementing regulations of the National Environmental Policy Act and 40 CFR 1500-1508 CEQ Regulations.

Fish and Wildlife Coordination Act (16 USC 661-666C) conservation, maintenance, and management of wildlife resources, Requires early coordination in project development with USFWS and State and Fish wildlife agency.

Historic Sites Act of 1935 forms the basis for the mandated by Congress that gave EPA authority to develop the RCRA program.

Public Hearings (23 USC 128) ensures adequate opportunity for public hearings on effects of alternatives project locations and major design features; as well as the consistency of the project with local planning goals and objectives.

Section 2 of the Fish and Wildlife Coordination Act (16 U.S.C. 661-666) addresses the conservation, maintenance, and management of wildlife resources and applies to any project which involves impoundment (surface area of 10 acres or more), diversion, channel deepening, or other modification of a stream or other body of water.

Section 4(f) of the Department of Transportation Act of 1966 (as amended 1968, 49 U.S.C. 303), requires the Federal Highway Administration to evaluate potential impacts on parks or recreation areas that are publicly owned or open to the public, wildlife or waterfowl refuges, or any significant historic sites. A Section 4(f) Determination is the administrative action by which FHWA confirms that, on the basis of extensive alternatives analysis, there are no “prudent and

feasible” alternatives to the taking of land from protected resources.

Section 7 of the Endangered Species Act, as amended (16 U.S.C. 1530-1543) addresses the conservation of threatened and endangered fish, wildlife, and plant species and requires Federal agencies to consult with the Department of the Interior regarding any action that is likely to jeopardize continued existence of such species or result in destruction/modification of critical habitat.

Section 106 of the National Historic Preservation Act of 1966 [16 U.S.C. 470(f)] governs the identification, evaluation, and protection of historical and archaeological resources affected by state and Federal transportation projects. Principal areas identified include required evaluations to determine the presence or absence of sites, the eligibility based on National Register of Historic Places criteria and the significance and effect of a proposed project upon such a site.

Section 401 (Water Quality Certification) of the Federal Clean Water Act of 1977 (33 U.S.C. 1251-1376, as amended, 1987) required for projects involving the discharge of materials into surface waters, including wetlands. The applicant must demonstrate that activities will comply with Pennsylvania water quality standards and other provisions of Federal and state law and regulation regarding conventional and non-conventional pollutants, new source performance standards, and toxic pollutants. (See also Chapter 105 Regulations under “State” list.)

Section 404 (Waterway Dredge or Fill Permits) of the Clean Water Act of 1977 (33 U.S.C. 1251-1376, as amended, 1987) regulates the discharge of dredged, fill or excavated materials in the waters of the United States. The required Section 404 Alternatives Analysis examines practical alternatives to the possible discharge of dredged or fill material into certain aquatic ecosystems, such as wetlands, mudflats, vegetated shallows, or other special aquatic systems. Criteria guiding such an analysis are derived from the provisions of Section 404(b)(1). The analysis is required before the issuance of a permit by the Corps of Engineers

Title VI of the Civil Rights Act of 1964 requires that each Federal agency shall ensure all programs or activities receiving Federal financial assistance that affect human health of the environment do not directly, or through contractual or other arrangements, use criteria, methods, or practices that discriminate on the basis of race, color, or national origin.

Uniform Relocation Assistance and Real Properties Acquisition Act of 1970, as amended by the Uniform Relocation Act Amendments of 1987 requires assessment and mitigation of impacts associated with displacement of residents and businesses.

State

Agricultural Land Preservation Policy (ALPP) 4 Pa Code Chapter 7 § 7.301 et seq. This policy outlines agricultural preservation standards that all state agencies must support. The ALPP is intended to protect and preserve the Commonwealth's "prime agricultural land" which includes five categories: preserved farmland, agricultural security areas, preferential tax assessed properties, agricultural zoning, and soil classifications

Chapter 93 of Pennsylvania Regulations, Title 25 (Water Quality Standards) sets water quality standards for waters of the Commonwealth including wetlands.

Chapter 102 of Pennsylvania regulations, Title 25 (Erosion and Sedimentation and Stormwater Management) controls construction activities to minimize erosion and sediment pollution.

Chapter 105 of Pennsylvania regulations, Title 25 (Wetlands and Waterway Crossings, Dam Safety and Encroachments Act) governs encroachments in waterways. "Encroachment" is defined as any structure or activity that in any manner changes, expands, or diminishes, the course, current, or cross-section of any watercourse, floodway, or body of water, including wetlands. Any activity that disturbs a wetland, whether or not it is associated with filling or fill materials, requires a Chapter 105 permit. The Department of Environmental Protection automatically forwards Chapter 105 permit applications to the Army Corps of Engineers to fulfill Section 401 (CWA) Water Quality Certification application requirements. However, these permits are issued independently.

Chapter 106 of Pennsylvania regulations, Title 25 (The Flood Plain Management Act) governs encroachments in floodplains. The Pa. Code states that if the project includes any quasi-public entity and/or governmental building within a flood plain, a flood plain management permit from DEP must be obtained. This provision applies to any property owned or operated by the Commonwealth, political subdivisions, and public utilities.

Stormwater Management Act (Act 167) of 1978 each county must prepare and adopt a watershed stormwater management plan for each watershed located in the county as designated by DEP, in consultation with the municipalities located within each watershed, and must periodically review and revise such plans at least every five years.

Pennsylvania Act 43 of 1981 enables landowners to propose the creation of Agricultural Security Areas (ASAs) to municipal governments. An ASA must contain a minimum of 250 acres of viable agricultural land. An ASA may be comprised of non-contiguous tracts, but these tracts must be at least 10 acres in size.

Pennsylvania Act 100 of 1979 established the Agricultural Lands Condemnation Approval Board (ALCAB) as an independent administrative board with approval authority over the condemnation of productive agricultural land for highway and waste disposal projects.

Pennsylvania Act 120 of 1970 outlines the powers and duties of PennDOT and requires PennDOT to coordinate transportation development projects with other public agencies and authorities. Section 2002 [sometimes called a "State 4(f)"] requires PennDOT to issue a written determination whenever lands from recreation areas, wildlife and waterfowl refuges, historic sites, forest, wilderness, game lands, and public parks are needed for state funded highway or transportation purposes

Pennsylvania Clean Streams Law of 1937 (last amended in 1989) is Pennsylvania's comprehensive water pollution control legislation. This law states that the Commonwealth has the right to "preserve and improve" the purity of its surface and ground waters.

Pennsylvania Eminent Domain Code, Act of June 22, 1964, authorizes the Relocation Assistance Program to ensure that all displaced persons who must relocate because of a highway construction project receive all the assistance and payments to which they are entitled by law.

Pennsylvania Fish and Boat Code on Waterways Protection and Endangered and Threatened Aquatic Species (30 PA Cons. State Section 2305, 58 PA Administration Code, Chapter 51) requires the Fish and Boat Commission to consider, in their evaluation of Chapter 105 permits (under the State Dam Safety and Encroachments Act), the effect of any proposed activity on any threatened or endangered fish, reptiles, and amphibians under their jurisdiction.

Pennsylvania Game Code Threatened and Endangered Species Protection (34 PA Cons. State Section 2102, Section 2161 et seq.), requires the Game Commission to consider, in their evaluation of Chapter 105 permits (under the State Dam Safety and Encroachments Act), the effect of the proposed activity on any threatened or endangered birds and mammals under their jurisdiction.

Pennsylvania History Code, Act 72 of 1988, as amended, established historic preservation as a Commonwealth policy. The History Code permits the Pennsylvania Historical and Museum Commission (PHMC) to advise public officials on the planning and implementation of undertakings affecting historic resources and requires Commonwealth agencies and political subdivisions to notify PHMC of activities, which may affect archaeological resources.

Pennsylvania Solid Waste Management Act requires each county to develop a County Solid Waste Management Plan to address solid waste that poses potential adverse effects to health or the environment and to address provisions for the opportunity for resource conservation or recovery.

APPENDIX E: MEMORANDUM OF AGREEMENT (MOA)

This page intentionally left blank

MEMORANDUM OF AGREEMENT
BETWEEN THE FEDERAL HIGHWAY ADMINISTRATION
AND
THE PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION
THROUGH ITS STATE HISTORIC PRESERVATION OFFICER,
PURSUANT TO 36 CFR § 800.6(b)(2)
REGARDING THE EISENHOWER BOULEVARD EXTENSION PROJECT, STATE ROUTE
0000, SECTION RWY
IN CONEWAGO TOWNSHIP, ADAMS COUNTY, PENNSYLVANIA

WHEREAS, the Federal Highway Administration (“FHWA”), proposes to extend Eisenhower Drive from where it currently ends at High Street to Hanover Road (SR 0116) west of McSherrystown (hereafter referred to as “the Project”);

WHEREAS, the FHWA, pursuant to 36 CFR § 800.4(c), has determined, in consultation with the Pennsylvania State Historic Preservation Officer (“SHPO”), acting on behalf of the Pennsylvania Historical and Museum Commission (“PHMC”), that Devine Chapel Farm, Poist Chapel Farm, Hanover Historic District, Utz Potato Chip Company, Hanover Furniture Company, Hopkins Manufacturing Company, Gettysburg Railroad, Emeco Office and Factory Building, and Henry Hostetter Farm are eligible for inclusion in the National Register of Historic Places (“National Register”);

WHEREAS, the FHWA, pursuant to 36 CFR § 800.5(d)(2), has determined that the Project will have an adverse effect on Devine Chapel Farm, Poist Chapel Farm, and Henry Hostetter Farm due to the destruction of a portion of the properties;

WHEREAS, the FHWA has consulted with the SHPO in accordance with Section 106 of the National Historic Preservation Act, 54 U.S.C. § 306108 (“NHPA”), and its implementing regulations (36 CFR § 800) to resolve the effects of the Project on historic properties;

WHEREAS, the FHWA, pursuant to 36 CFR § 800.3, has identified the following as consulting parties: Glenn Bange, Robert Breighner, Barbara Carbaugh, Mindy Crawford, Ray Dillon, Charles Doll, Sidney Gardner, Deborah Hickman, Historic Gettysburg-Adams County, Inc., Barbara Krebs, Craig Laughman, Main Street Hanover, Carly Marshall, Joan McAnall, R. Samuel Miller, Pennsylvania Archaeological Council, Preservation Pennsylvania, Charles Rider, Patrick Sheaffer, William Smith, Danielle Smith, Michael Smith, George Sneeringer, Carlton Stambaugh, Joni Swope, Glen Whisler, Lois Whisler, Brian Yealy, and William Zeigler. FHWA will continue to involve the public and consulting parties as stipulated under the National Environmental Policy Act (NEPA) of 1969, as amended, the NHPA, and 36 CFR § 800, in a manner consistent with FHWA and Pennsylvania Department of Transportation (“PennDOT”) Public Involvement Procedures;

WHEREAS, the FHWA has notified the Advisory Council on Historic Preservation (“ACHP”) of the adverse effect finding and the ACHP has declined to participate in resolving the adverse effects of the Project;

WHEREAS, PennDOT participated in the consultation regarding this Project and has been invited to sign this Memorandum of Agreement (“MOA”), thus becoming a party upon execution of this MOA;

NOW, THEREFORE, the FHWA and the SHPO agree that upon FHWA’s decision to proceed with the Project, FHWA shall ensure that PennDOT and the concurring parties implement the following stipulations in order to take into account the effects of the proposed action on historic properties.

1. Recitals

The recitals set forth above are incorporated by reference as a material part of the MOA.

2. Stipulations for Resolving Adverse Effects

- A. PennDOT shall make twenty thousand dollars (\$20,000) available to Historic Gettysburg-Adams County, Inc. (“HGAC”) to support their barn grant program subject to the terms and conditions of a separate agreement between them.
- B. The agreement between PennDOT and HGAC shall, among other things, require HGAC to:
 - a. Use the funds provided by PennDOT solely to award grants to owners of historic barns listed on the HGAC Adams County Barn Registry.
 - b. Ensure that the money is utilized solely for brick and mortar preservation of barns in Adams County;
 - c. Develop and execute criteria for awarding grants, but such criteria will consider the following: urgency of repairs, expected benefit to the longevity of the barn, historical significance, age, visibility, and unique aspects of the barn; and
 - d. Provide the parties to this MOA with a report detailing how the funds were spent within five (5) years of the execution of the agreement.

3. Administrative Stipulations

A. Personnel Qualifications

PennDOT shall ensure that all archaeological work carried out pursuant to this MOA is carried out by, or under the direct supervision of, a person or persons meeting, at a minimum, the Secretary of the Interior’s Professional Qualifications Standards for Archaeologists, and that all historic preservation work is carried out by, or under the direct supervision of, a person or persons meeting, at a

minimum, the Secretary of the Interior's Professional Qualification Standards for Architectural Historian Professionals (*see* http://www.nps.gov/history/local-law/arch_stnds_9.htm).

B. Late Discoveries

If any unanticipated discoveries of historic properties or archaeological sites are encountered during the implementation of this undertaking, PennDOT shall suspend work in the area of the discovery, and PennDOT shall immediately notify the FHWA. In compliance with 36 CFR § 800.13, FHWA shall notify, within 24 hours, the ACHP, the SHPO, and, if applicable, federally recognized tribal organizations that attach religious and/or cultural significance to the affected property. The SHPO, the FHWA, PennDOT, and Tribal representatives, as appropriate, may conduct a joint field view within 72 hours of the notification to the FHWA. The FHWA, in consultation with the appropriate parties, will determine an appropriate treatment of the discovery prior to the resumption of construction activities in the area of the discovery.

C. Amendments

Any party to this MOA may propose to FHWA that the MOA be amended, whereupon FHWA shall consult with the other parties to this MOA to consider such an amendment. Section 36 CFR § 800.6(c)(7) shall govern the execution of any such amendment.

D. Resolving Objections

- a. Should any party to this MOA object in writing to FHWA regarding any action carried out or proposed with respect to the Project, or implementation of this MOA, FHWA shall consult with the objecting party to resolve the objection. If after initiating such consultation FHWA determines that the objection cannot be resolved through consultation, FHWA shall forward all documentation relevant to the objection to the ACHP, including FHWA's proposed response to the objection. Within thirty (30) days after receipt of all pertinent documentation, the ACHP shall exercise one of the following options:
 - 1) Advise FHWA that the ACHP concurs in FHWA's proposed response to the objection, whereupon FHWA shall respond to the objection accordingly;
 - 2) Provide FHWA with recommendations, which FHWA shall take into account in reaching a final decision regarding its response to the objection; or
 - 3) Notify FHWA that the objection will be referred to comment pursuant to 36 CFR § 800.7 and proceed to refer the objection and comment. The resulting comment shall be taken into account by FHWA in accordance with 36 CFR § 800.7(c)(4) and § 110(1) of the NHPA.

- b. Should the ACHP not exercise one of the above options within thirty (30) days after receipt of all pertinent documentation, FHWA may assume the ACHP's concurrence in its proposed response to the objection.
- c. FHWA shall take into account any ACHP recommendation or comment provided in accordance with this stipulation with reference only to the subject of the objection; FHWA's responsibility to carry out all actions under this MOA that are not the subject of the objection shall remain unchanged.

E. Resolution of Objections by the Public

At any time during implementation of the measures stipulated in this MOA, should any objection pertaining to any such measure, or its manner of implementation, be raised by a member of the public, FHWA shall notify the parties of this MOA and take the objection into account, consulting with the objector and, should the objector so request, with any of the parties to this MOA to resolve the objection.

F. Duration

This MOA will expire if its terms are not carried out within five (5) years of the date of its execution. Prior to such time the FHWA may consult with the other signatories to reconsider the terms of the MOA and amend it in accordance with Administrative Stipulation C above.

G. Termination

- a. Any signatory may terminate this MOA by providing notice to the other parties, provided that the parties will consult during the period prior to termination to seek agreement on amendments or other actions that would avoid termination. Termination of this MOA will require compliance with 36 CFR § 800.
- b. If at any time during the course of the Project, PennDOT cancels the Project or withdraws its request for federal funding, PennDOT will so notify the FHWA. The FHWA will notify the other signatories to the MOA, and the ACHP, that it is terminating the Agreement. The FHWA, in consultation with those parties, will consider the effects of any Project-related activities undertaken prior to Project cancellation or withdrawal of the funding request, and the FHWA will assess its responsibilities and obligations pursuant to 36 CFR § 800 and determine steps to terminate the MOA.

H. Severability

The provisions of this MOA shall be severable. If any phrase, clause, sentence or provision of this MOA is declared to be contrary to the Constitution of Pennsylvania or of the United States or of the laws of the Commonwealth the applicability thereof to any government, agency, person or circumstance is held invalid, the validity of the remainder of this MOA and the applicability thereof to any government, agency, person or circumstance shall not be affected thereby.

I. Assignment

The responsibilities included in this MOA may not be assigned by any party to this MOA, either in whole or in part, without the written consent of the Signatories.

J. Notices

- a. The contact person for each of the signatories of the MOA shall be the following:
 - 1) For FHWA: Director of Program Development, 228 Walnut Street, 5th Floor, Harrisburg, PA 17101, Telephone Number: (717) 221-4545.
 - 2) For PennDOT: Director, Bureau of Project Delivery, 400 North Street, 7th Floor, Harrisburg, PA 17120, Telephone Number: (717) 787-3310.
 - 3) For SHPO: Deputy SHPO, 400 North Street, 2nd Floor, Harrisburg, PA 17120, Telephone Number: (717) 787-4215.
- b. Any signatory may change its designated contact person by providing written notice to the other signatories.

4. **Counterparts**

This MOA may be executed in counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

[Signature Page Follows]

Execution of this MOA by the FHWA and the SHPO, and implementation of its terms, is evidence that the FHWA has taken into account the effects of the undertaking on historic properties.

SIGNATORIES:

FEDERAL HIGHWAY ADMINISTRATION

By: _____ Date: _____

Name & Title: _____

PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION

By: Andrea L. MacDonald Date: 8/25/2020

Name & Title: Andrea L. MacDonald, Deputy SHPO

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION

By: Brian G. Thompson Digitally signed by Brian G. Thompson
Date: 2020.08.23 10:52:59 -0400 Date: _____

Name & Title: **Brian G. Thompson**
Director, Bureau of Project Delivery

Approved as to Legality and Form

By: Kenda Gardner Date: 8/26/20
for PennDOT Chief Counsel

By: _____ Date: _____
Deputy General Counsel

By: _____ Date: _____
Deputy Attorney General

APPENDIX F: DISTRIBUTION LIST

This page intentionally left blank

Organization	Contact	Address
Federal Agencies		
Advisory Council on Historic Preservation	Federal Permitting, Licensing, and Assistance Section: Preservation Specialist	Advisory Council on Historic Preservation Eastern Office of Review Suite 809, 1100 Pennsylvania Avenue, NW Washington, DC 20004
Federal Emergency Management Agency	Mitigation Division	Federal Emergency Management Agency 615 Chestnut Street One Independence Mall, Sixth Floor Philadelphia, PA 19106
Federal Highway Administration	Jon Crum	Federal Highway Administration Pennsylvania Division 5th Floor Federal Building 228 Walnut Street Harrisburg, PA 17101-1720
United States Army Corps of Engineers	John Gibble	U.S. Army Corps of Engineers Suite 205 401 East Louther Street Carlisle, PA 17013
United States Department of Agriculture, Natural Resources Conservation Service	Yuri Plowden	U.S. Department of Agriculture Natural Resources Conservation Service 359 East Park Drive, Suite 2 Harrisburg, PA 17111-2747
United States Department of Health and Human Services	Chief, Special Programs Group	U.S. Department of Health and Human Services Centers for Disease Control and Prevention National Center for Environmental Health Special Programs Group, MSF 29 4770 Buford Highway, NE Atlanta, GA 30341-3724
United States Department of Transportation, Federal Transit Administration		U.S. Department of Transportation Federal Transit Administration Office of Planning and Program Development Suite 500 1760 Market Street Philadelphia, PA 19103
United States Environmental Protection Agency	Barbara Rudnick	U.S. Environmental Protection Agency Region 3 1650 Arch Street (3RA10) Philadelphia, PA 19103-2029

Organization	Contact	Address
United States Fish and Wildlife Service	Jennifer Kagel	U.S. Fish and Wildlife Service Pennsylvania Field Office Suite 101 110 Radnor Road State College, PA 16801
State Agencies		
Pennsylvania Department of Agriculture		Pennsylvania Department of Agriculture Bureau of Farmland Protection Room 402 2301 North Cameron Street Harrisburg, PA 17110-9408
Pennsylvania Department of Community and Economic Development		Pennsylvania Department of Community and Economic Development Policy Office 400 North Street, 4 th Floor Harrisburg, PA 17120
Pennsylvania Department of Conservation and Natural Resources	Greg Podniesinski	Pennsylvania Department of Conservation and Natural Resources Office of Conservation Science Rachel Carson State Office Building, 6 th Floor 400 Market Street Harrisburg, PA 17101
	Ashley Rebert	Pennsylvania Department of Conservation and Natural Resources Bureau of Recreation and Conservation Rachel Carson State Office Building, 5 th Floor 400 Market Street Harrisburg, PA 17101
Pennsylvania Department of Environmental Protection		Pennsylvania Department of Environmental Protection Office of Policy Rachel Carson State Office Building, 15 th Floor 400 Market Street Harrisburg, PA 17101
	Kathleen Kolos Mike Larzelere	Pennsylvania Department of Environmental Protection Southcentral Regional Office 909 Elmerton Avenue Harrisburg, PA 17110

Organization	Contact	Address
Pennsylvania Department of Transportation	Ryan Shiffler	Pennsylvania Department of Transportation Bureau of Project Delivery Keystone Building 400 North Street, 7th Floor Harrisburg, PA 17120-0094
	Ben Singer Sharon Okin	Pennsylvania Department of Transportation Engineering District 8-0 2140 Herr Street Harrisburg, PA 17103
Pennsylvania Fish and Boat Commission	Bill Savage	Pennsylvania Fish and Boat Commission Environmental Services Division 495 East Rolling Ridge Drive Bellefonte, PA 16823
Pennsylvania Game Commission	Michael DiMatteo	Pennsylvania Game Commission Michael DiMatteo, Environmental Planning and Habitat Protection Chief 2001 Elmerton Avenue Harrisburg, PA 17110-9797
Pennsylvania Governor's Office of Policy and Planning		Pennsylvania Governor's Office of Policy Development 506 Finance Building Harrisburg, PA 17120
Pennsylvania Historical and Museum Commission		Pennsylvania Historical and Museum Commission Bureau of Historic Preservation Keystone Building, 2nd Floor NW 400 North Street Harrisburg, PA 17120
Pennsylvania Public Utility Commission (PUC)		Pennsylvania Public Utility Commission Commonwealth Keystone Building 400 North Street Harrisburg, PA 17120
Local Government		
Conewago Township	David Arndt Jr.	Conewago Township David Arndt Jr., Zoning Code Enforcement Officer 541 Oxford Avenue Hanover, PA 17331
Union Township	Carol Bollinger	Union Township Carol Bollinger, Secretary 255 pine Grove Road Hanover, PA 17331

Organization	Contact	Address
Mount Pleasant Township	Diane Groft	Mount Pleasant Township Diane Groft, Zoning Officer 780 Hanover Street P.O. Box 86 New Oxford, PA 17350
Oxford Township	Beverly Frey	Oxford Township Beverly Frey, Secretary 780 Hanover Street P.O. Box 86 New Oxford, PA 17350
Berwick Township	Jean Hawbaker	Berwick Township Jean Hawbaker, Secretary 85 Municipal Road Hanover, PA 17331
Penn Township	Kristina Rodgers	Penn Township Kristina Rodgers, Manager 20 Wayne Avenue Hanover, PA 17331
Hanover Borough	Nan Dunford	Hanover Borough Nan Dunford, Mayor 44 Frederick Street Hanover, PA 17331
McSherrystown Borough	Michael Woods	McSherrystown Borough 338 Main Street McSherrystown, PA 17334
York County Commissioners	Julie Wheeler	York County Julie Wheeler, President Commissioner 28 East Market Street York, PA 17401
York County Planning Commission	Felicia Dell	York County Planning Commission Felicia Dell, Director 28 East Market Street York, PA 17401
Adams County Commissioners	Randy Phiel	Adams County Randy Phiel, Director 117 Baltimore Street, Room 201 Gettysburg, PA 17325

Organization	Contact	Address
Adams County Planning Commission	Sherri Clayton-Williams	Adams County Planning Commission Sherri Clayton-Williams, Director 670 Old Harrisburg Road Suite 100 Gettysburg, PA 17325
Hanover Chamber of Commerce	Gary Laird, President	Hanover Chamber of Commerce 146 Carlisle Street Hanover, PA 17331
Emergency Services		
Southeastern Adams Volunteer Emergency Services (SAVES)		5865 Hanover Road Hanover, PA 17331
Consulting Parties		
	Glenn Bange	glenB@swamelectric.com
	Robert & Deborah Breighner	47 Jessica Dr. Gettysburg, PA 17325 Deborahb83@gmail.com
	Barbara Carbaugh	Bcarbaugh@radiohanover.net
Preservation Pennsylvania	Mindy Crawford	mcrawford@preservationpa.org
	Ray Dillon	634 Main St. McSherrystown, PA 17344 raywdillon@outlook.com
	Charles Doll	765 Irishtown Rd. Noe Oxford, PA 17350 powderhorn@embarqmail.com
	Sidney & Donna Gardner	276 Sunset Ave. Hanover, PA 17331 Sdgardner57@yahoo.com
	Frederick & Deborah Hickman	36 Main St. McSherrystown, PA 17344 ibuyum@yahoo.com

Organization	Contact	Address
Conewago Township <i>See Local Government list</i>	David Arndt, Jr.	541 Oxford Ave. Hanover, PA 17331 codes@conewagotwp.org
	Craig Laughman	claughman@utzsnacks.com
Adams County Office of Planning and Development	Carly Marshall	19 Baltimore St., Suite 101 Gettysburg, PA 17325 cmarshall@adamscounty.us
	Joan McAnall	jmcanall@radiohanover.net
Hanover Borough	Samuel Miller	smiller@hanoverboroughpa.gov
	Charles & Marion Rider	125 Main St. McSherrystown, PA 17344 Aar42062@yahoo.com
	Patrick & Elizabeth Sheaffer	151 Villa Vista Ave. Hanover, PA 17331 patsheaffer@comcast.net
	Danielle Smith	Danismith28@icloud.com
	Michael Smith	400 Chapel Road Hanover, PA 17331 Smithfarm56@yahoo.com
	William Smith	wmfsmith@yahoo.com
	George Sneeringer	316 Main St McSherrystown, PA 17344 gsneeringer@yahoo.com
	Carlton & Darleen Stambaugh	1115Moulstown Rd. Hanover, PA 17331 Carlton.arlene@gmail.com
	Donald & Joni Swope	386 Church St. Hanover, PA 17331 Joni.swope@gmail.com
	Glenn Whisler	gewhissler@gmail.com

Organization	Contact	Address
	Lois Whisler, Et Al	lwhisler@centurylink.net
	Brian & Lynn Yealy	22 Main St. McSherrystown, PA 17334 yealy@comcast.net
	William Zeigler	110 W. Elm Ave. Hanover, PA 17331 bzeigler@zeiglerfloor.com
Main Street Hanover	Justine Trucksess	146 Carlisle St. Hanover, PA 17331 jtrucksess@mainstreethanover.org
Pennsylvania Archaeological Council	Lisa Douglas	Lisadugas1928@gmail.com
State and Local Representatives		
Pennsylvania House of Representatives	Dan Moul	Honorable Dan Moul State Representative, 91 st Legislative District 30 West Middle Street Gettysburg, PA 17325
	Kate Klunk	Honorable Kate Klunk State Representative, 169 th Legislative District 118 Carlisle Street Hanover, PA 17331
Pennsylvania Senate	Doug Mastriano	Honorable Doug Mastriano State Senator, 33 rd District 37 South Main Street, Suite 200 Chambersburg, PA 17201
United States Congress	Scott Perry	Honorable Scott Perry U.S. Congressman, 4 th Congressional District 22 Chambersburg Street Gettysburg, PA 17325

Organization	Contact	Address
United States Senate	Robert P. Casey, Jr.	Honorable Robert P Casey, Jr. U.S. Senator 393 Russell Senate Office Building Washington, DC 201501
United States Senate	Patrick J. Toomey	Honorable Patrick J. Toomey U.S. Senator 248 Russell Senate Office Building Washington, DC 201501

APPENDIX G: LIST OF PREPARERS

This page intentionally left blank

LIST OF PREPARERS

U.S. Department of Transportation

Federal Highway Administration – Pennsylvania Division

Jonathan Crum – Environmental Protection Specialist

John Bork – Transportation Engineer

Pennsylvania Department of Transportation – Central Office

Drew Ames – PennDOT Bureau of Project Delivery

Ryan Shiffler, P.E. – PennDOT Bureau of Project Delivery

Pennsylvania Department of Transportation – District 8-0

Benjamin Singer, P.E. – Project Manager

Sharon Okin – Environmental Manager

Jeremy Ammerman – Cultural Resources

Steven McDougal – Cultural Resources

JMT

Neil Beach, P.E. – Project Manager

Michael Kenawell – Environmental Project Manager

Kenneth M. Yerges, P.E. – Sr. Highway Engineer

Amy Altimare – Sr. NEPA Specialist

Lindsey Allen – Sr. Architectural Historian

Kristin Aiosa – Sr. Environmental Scientist

Craig Nein – Biologist

Lori Cole – QA/QC Manager

Brad Heilman – Graphics

Aimee DiStefano – Graphics

Dariam Encarnacion – Document production

Susquehanna Civil Inc.

Crystalann Deardorff, P.E., C.B.S.I. – Noise

Stephanie Kern – Noise

Siobhan Kiernan, P.E. – Noise

Dawood Engineering.

Mark Conrad, P.E. – Hazardous Materials

Kevin Rucker – Hazardous Materials

This page intentionally left blank

APPENDIX H: DRAFT INDIVIDUAL SECTION 4(F) EVALUATION

This page intentionally left blank

January 2022

EISENHOWER DRIVE EXTENSION PROJECT

Adams and York Counties, Pennsylvania



DRAFT INDIVIDUAL SECTION 4(F) EVALUATION

This page intentionally left blank

**Individual Section 4(f) Evaluation
for the Eisenhower Drive Extension Project**
MPMS #58137

Prepared by:

Pennsylvania Department of Transportation Engineering District 8-0

Pursuant to 23 CFR §774

Approved By: _____ Date: _____

The following persons can be contacted for information regarding this project:

Benjamin Singer, P.E. Project Manager,
PennDOT District 8-0,
2140 Herr Street, Harrisburg, Pennsylvania 17103,

(717) 787-6690, besinger@pa.gov

Jonathan Crum,
USDOT | FHWA | Pennsylvania Division
228 Walnut Street, Harrisburg, Pennsylvania 17101,

(717) 221-3735, Jonathan.Crum@dot.gov

This page intentionally left blank

TABLE OF CONTENTS

- 1.0 INTRODUCTION / DESCRIPTION OF PROPOSED ACTION 2
 - 1.1 PROJECT DESCRIPTION 2
 - 1.2 AGENCIES INVOLVED 2
 - 1.3 PROJECT BACKGROUND 2
- 2.0 PROJECT PURPOSE AND NEED 3
- 3.0 IDENTIFICATION AND DESCRIPTION OF THE SECTION 4(F) PROPERTIES 4
- 4.0 ALTERNATIVES ANALYSIS 13
 - 4.1 IDENTIFICATION AND EVALUATION OF ALTERNATIVES THAT TOTALLY AVOID ALL SECTION 4(F) PROPERTIES
14
 - 4.2 IDENTIFICATION AND EVALUATION OF OTHER ALTERNATIVES CONSIDERED 19
- 5.0 ASSESSMENT OF LEAST OVERALL HARM 31
 - 5.1 SHIFTS/DESIGN MODIFICATION TO AVOID THE USE OF SECTION 4(F) PROPERTIES..... 31
 - 5.2 ALL POSSIBLE PLANNING TO MINIMIZE HARM TO SECTION 4(F) PROPERTIES..... 32
 - 5.3 DETERMINATION OF WHICH ALTERNATIVE RESULTS IN LEAST OVERALL HARM 33
- 6.0 COORDINATION WITH OFFICIALS WITH JURISDICTION 37
- 7.0 CONCLUSION..... 39

APPENDIX A: CORRESPONDENCE WITH THE OFFICIAL WITH JURISDICTION

APPENDIX B: CONSULTING PARTY COORDINATION

APPENDIX C: MEMORANDUM OF AGREEMENT

1.0 INTRODUCTION / DESCRIPTION OF PROPOSED ACTION

The Pennsylvania Department of Transportation (PennDOT) with funding from the Federal Highway Administration (FHWA) is evaluating options to alleviate congestion and improve safety along Eisenhower Drive, SR 0094 (Carlisle Street) and SR 0116 (Hanover Road, West Elm Street, Main Street, 3rd Street) in York and Adams County.

Under Section 4(f) of the US Department of Transportation Act of 1966, 49 USC 303 as amended, a project may use land from publicly-owned parks, recreation areas, wildlife/waterfowl refuges, and historic sites, public or private, for transportation purposes only if no feasible and prudent avoidance alternative to such use exists and if the project includes all possible planning to minimize harm to resources from such use. A project may also use land from a Section 4(f) property if FHWA determines the impact is *de minimis* (negligible). Projects use Section 4(f) property in one of three ways: permanent incorporation of land, adverse temporary occupancy per 23 CFR §774.13(d), or constructive use per 23 CFR §774.15.

1.1 PROJECT DESCRIPTION

PennDOT, in coordination with FHWA, is proposing transportation improvements in Adams and York Counties, Pennsylvania to facilitate safe and efficient travel and to meet the transportation needs of the community. The project area includes portions of Conewago, Union, Mount Pleasant, and Oxford Townships and McSherrystown Borough in Adams County and Penn Township and Hanover Borough in York County (see Figure 1). The project area encompasses mixed land uses that include residential, agricultural, commercial, and industrial uses. A variety of transportation modes exists within the project area including vehicular, transit (bus routes), freight rail, bicycle, and pedestrian.

1.2 AGENCIES INVOLVED

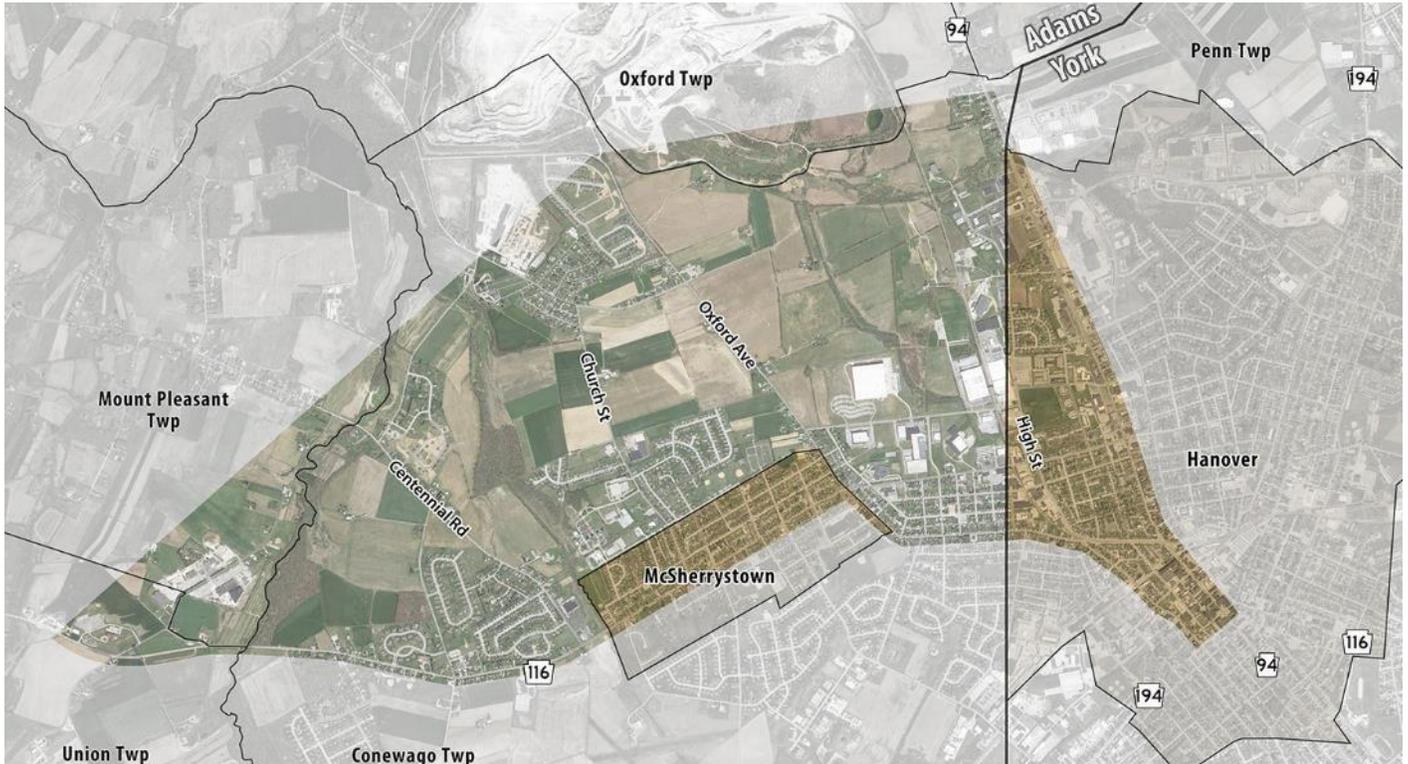
FHWA is partially funding the project and PennDOT is the project sponsor. The Official with Jurisdiction (OWJ) over the Section 4(f) properties is the Director of the Pennsylvania Historical and Museum Commission (PHMC), who is the Pennsylvania State Historic Preservation Officer (PA SHPO).

1.3 PROJECT BACKGROUND

PennDOT identified the Eisenhower Drive Extension Project over 20 years ago through the Hanover Area Transportation Planning Study (1997). Since that time, a variety of studies and investigations have occurred. Refer to the “Eisenhower Drive Extension Project Environmental Analysis – Section 3.1” for the project timeline.

Between 2016 and 2019, the alternatives analysis, preliminary engineering activities, Section 106 evaluations, and NEPA documentation occurred. On October 7, 2019 the Director of the PHMC determined that the Project would adversely affect historic resources. Due to the adverse effect finding, this project does not qualify for a *de minimis* impact finding.

Figure 1: Eisenhower Drive Extension Project Area



2.0 PROJECT PURPOSE AND NEED

The primary purpose of the project is to facilitate safe and efficient travel within the project area to meet both the current and future transportation needs of the area. Anticipated transportation improvements will reduce congestion and accommodate planned growth throughout this portion of the region, including a reduction in impacts of truck and commuter traffic within the project area. The secondary purpose of this project is to provide a functional and modern roadway that maximizes current design criteria within and surrounding the project area.

PennDOT analyzed the existing roadway network (described in the “Eisenhower Drive Extension Project Environmental Assessment - Section 2.1”) and documented the project purpose and needs (available in the project technical file). The following is a summary of the three project needs:

1. Traffic congestion results in poor levels of service.
 - SR 0116 (Main Street) is already near capacity through McSherrystown Borough and SR 0094 (Carlisle Street) in Hanover Borough is expected to exceed capacity before the 2042 No-Build scenario.
 - Three intersections in the project area already have unacceptable levels of service and five others are expected to degrade in the 2042 No-Build scenario. For example, vehicles on side streets in McSherrystown currently wait on average over 8 minutes to enter or cross Main Street.

2. Poor traffic safety along SR 0116 and SR 0094.
 - Crash rates for most roadways in the project study area are above the statewide average rates for similar roadway types. A substantial portion consist of rear-end crashes. Several crashes involve pedestrians and several resulted in fatalities.
 - SR 0116 and SR 0094 have on-street parking, narrow shoulders and no medians which leaves little to no room for disabled vehicles to move out of travel lanes or for vehicles to move out of the way of emergency service vehicles.
3. Limited mobility and poor roadway connections/linkages.
 - The existing railroad directly impacts traffic within the region, resulting in congestion, delay, and safety concerns.
 - Origin-Destination data collected in 2015 shows that drivers use local roads to avoid congestion, which only increases congestion and decreases mobility on the local roads.
 - Industrial developments on Kindig Lane, High Street, and Eisenhower Drive generate substantial truck traffic which further affect congestion on Main Street, High Street, Elm Avenue, and SR 0094.

3.0 IDENTIFICATION AND DESCRIPTION OF THE SECTION 4(F) PROPERTIES

Section 4(f) properties include publicly-owned parks, recreation areas, wildlife/waterfowl refuges, and historic sites, public or private. An historic resources survey was completed in which architectural historians examined all buildings, structures, and districts in the Area of Potential Effect (APE). The APE was a broad study area that encompassed all project alternatives. Determinations of eligibility were made for those resources that would be potentially impacted by the alternatives that were studied in detail. In total, ten above-ground historic properties are within the APE that are either listed in or determined to be eligible for listing in the National Register of Historic Places (NRHP). More information on the identification, impact, and mitigation of cultural resources is documented in the “Eisenhower Drive Extension Project Environmental Assessment – Section 4.2.1.”

- Conewago Chapel
- Devine Chapel Farm
- Emeco Office and Factory Building
- Gettysburg Railroad
- Hanover Furniture Company
- Hanover Historic District

- Hopkins Manufacturing Company
- Henry Hostetter Farm
- Poist Chapel Farm
- Utz Potato Chip Company

There are five public recreational areas within the project area, which are documented in the “Eisenhower Drive Extension Project Environmental Assessment – Section 4.3.6.”

- Wirt Park, Hanover Borough
- Fairview Avenue Recreation Park, McSherrystown Borough
- North Street Recreation Park, McSherrystown Borough
- Main Street Park, McSherrystown Borough
- Basilica Picnic Grove Park, Conewago Township

The build alternatives studied in detail in this Section 4(f) evaluation are Alternative 1 (TSM Alternative) and Alternative 5C. These alternatives intersect or overlap with six Section 4(f) properties, all of which are historic properties eligible for or listed in the NRHP. No other Section 4(f) properties would be impacted by the alternatives and are therefore not detailed in this Section 4(f) evaluation.

The **Devine Chapel Farm** is on Church Street in Conewago Township, Adams County (see Figure 2). The 154-acre farm contains a ca. 1787 dwelling, ca. 1860 barn and smoke house, two early 20th-century milk houses, and three late-20th century outbuildings. The farm was part of a large parcel once owned by The Basilica of the Sacred Heart, otherwise known as Conewago Chapel. The Conewago Chapel was founded by Jesuit priests who began conducting services within Conewago as early as 1730. The Devine Chapel Farm was one of multiple farms inhabited by church superiors who hired men to farm and care for the land. The farm was determined eligible for the listing in the NRHP under Criterion A, for its agricultural significance in the region. The farm meets or exceeds the Adams County average production values in both the 1850 and 1880 agricultural census and meets the registration requirements for the “Small Farms, Mechanization, and New Markets” and “Diversified Small-Scale Farming, Poultry, and Cannery Crops” periods of the Adams-York Diversified Field Crops, Cannery Crops, and Livestock Region of the Agricultural Resources of Pennsylvania Context.

The **Gettysburg Railroad** is a standard gauge, single track rail line, primarily traversing Adams County. The track extends north-northwest from Hanover and travels toward New Oxford before turning west-southwest toward Gettysburg. The railroad’s multiple extant features include three passenger stations, one freight depot, three minor culverts, multiple relay cabinets from the latter half of the twentieth century, several at grade crossings, and five bridges (none of which are within this project area, see Figure 3). The Gettysburg Railroad Company was incorporated in 1851. Construction of the line commenced in 1856 and was completed to Gettysburg in 1858 to become the westernmost rail line in the country at that

time. The Gettysburg Railroad (together with the Hanover Branch Railroad) played a significant and vital role in the transportation of supplies and wounded soldiers during the Civil War. The railroad carried President Abraham Lincoln to Gettysburg to deliver the Gettysburg Address in 1863. The Gettysburg Railroad, through a series of sales, mergers, and consolidations, eventually became a part of the Western Maryland Railway in 1917. Passenger service on the line spanning Hanover and Gettysburg ceased in 1942. It is eligible for listing in the NRHP under Criterion A, for its association with settlement patterns, transportation, and Civil War history in the region.

The **Hanover Historic District** encompasses approximately 885 acres in Hanover Borough, York County (see Figure 4). The borough built up around the intersection of five regional thoroughfares (Baltimore Street, Broadway, Carlisle Street, Frederick Street, and York Street). Two railroads, the Penn Central and the Western Maryland, pass through and merge in the district. When it was listed in the NRHP in 1997, approximately 87% of its 3,036 buildings, five sites, six structures, and one object contribute to the district. The majority of these contributing buildings are residences but there are also some commercial, railroad, and industrial buildings. The majority of buildings in the district are either frame or brick and the predominating architecture styles include the Colonial Revival and Queen Anne styles, the Pennsylvania German vernacular design, and the American Four-square form. Over half of the buildings date from ca. 1870 to ca. 1919 when the town experienced an economic boom brought on by railroad activity. Slightly less than half were built between ca. 1920 and ca. 1946. Its period of significance is from 1783 to 1946. It meets NRHP Criterion A in the areas of Commerce, Transportation, and Industry; and NRHP Criterion C in the area of Architecture.

The **Henry Hostetter Farm** is on Sunday Drive in Conewago Township, Adams County (see Figure 5). The 167-acre farm consists of agricultural fields, a ca. 1800 dwelling, ca. 1869 smokehouse, ca. 1875 barn, and several 20th-century outbuildings. The Henry Hostetter Farm was a successful and leading agricultural producer within Conewago Township, exceeding almost all local averages in both crop production and livestock numbers as demonstrated on the 1880 and 1927 Agricultural Censuses. The success and evolution of the Henry Hostetter Farm is echoed in its built environment. The farm was determined eligible for listing in the NRHP under Criterion A for its agricultural significance in the region. The farm meets or exceeds the registration requirements for change over time in the “York-Adams Diversified Field Crops, Cannery Crops, & Livestock Region” of the agricultural context.

The **Poist Chapel Farm** is on Oxford Avenue in Conewago Township (see Figure 2). The 126-acre farm consists of a ca. 1880 dwelling, ca. 1932 barn, hog house, and corn crib, chicken coop, pumphouse, as well as agricultural fields. The farm was part of a large parcel once owned by The Basilica of the Sacred Heart, otherwise known as Conewago Chapel. The Conewago Chapel was founded by Jesuit priests who began conducting services within Conewago as early as 1730. The Poist Chapel Farm was one of multiple farms inhabited by church superiors who hired men to farm and care for the land. In 1899, 126 acres and 2 perches of land on the far east side of the Chapel Farm property were sold by the church to John A. Poist; this sale included the farm that is now known as the Poist Farm. The resource is eligible for listing in the NRHP under Criterion A for its agricultural significance to the region. It meets or exceeds the registration requirements for the *Diversified Small-Scale Farming, Poultry, and Cannery Crops* period of the “Adams-York Diversified Field Crops, Cannery Crops, and Livestock Region” of the agricultural context.

The **Utz Potato Chip Company** is at the corner of Carlisle Street and Clearview Road in Hanover Borough (see Figure 6). The industrial property consists of the original ca. 1949 brick building and five additions that date between 1953 and 1971.

The building is situated on the northern half of the 9.8-acre parcel. The Utz Potato Chip Company was one of the first and most successful “snack” businesses to grow in the first half of the 20th century, supporting Hanover’s claim as the “Snack Food Capital of the World.” The resource is eligible for listing in the NRHP under Criterion A for its industrial significance. It played a major role in the industrial development of Hanover and the snack food industry of the region. It is also eligible under Criterion C for architectural significance. The complex, constructed over six campaigns, is a representation of the highly stylized Streamline Moderne style in its original 1949 building and the late Streamline Moderne style in its 1971 addition. The period of significance for the historic resource is 1949-1971.

Figure 2: Devine Chapel Farm and Poist Chapel Farm

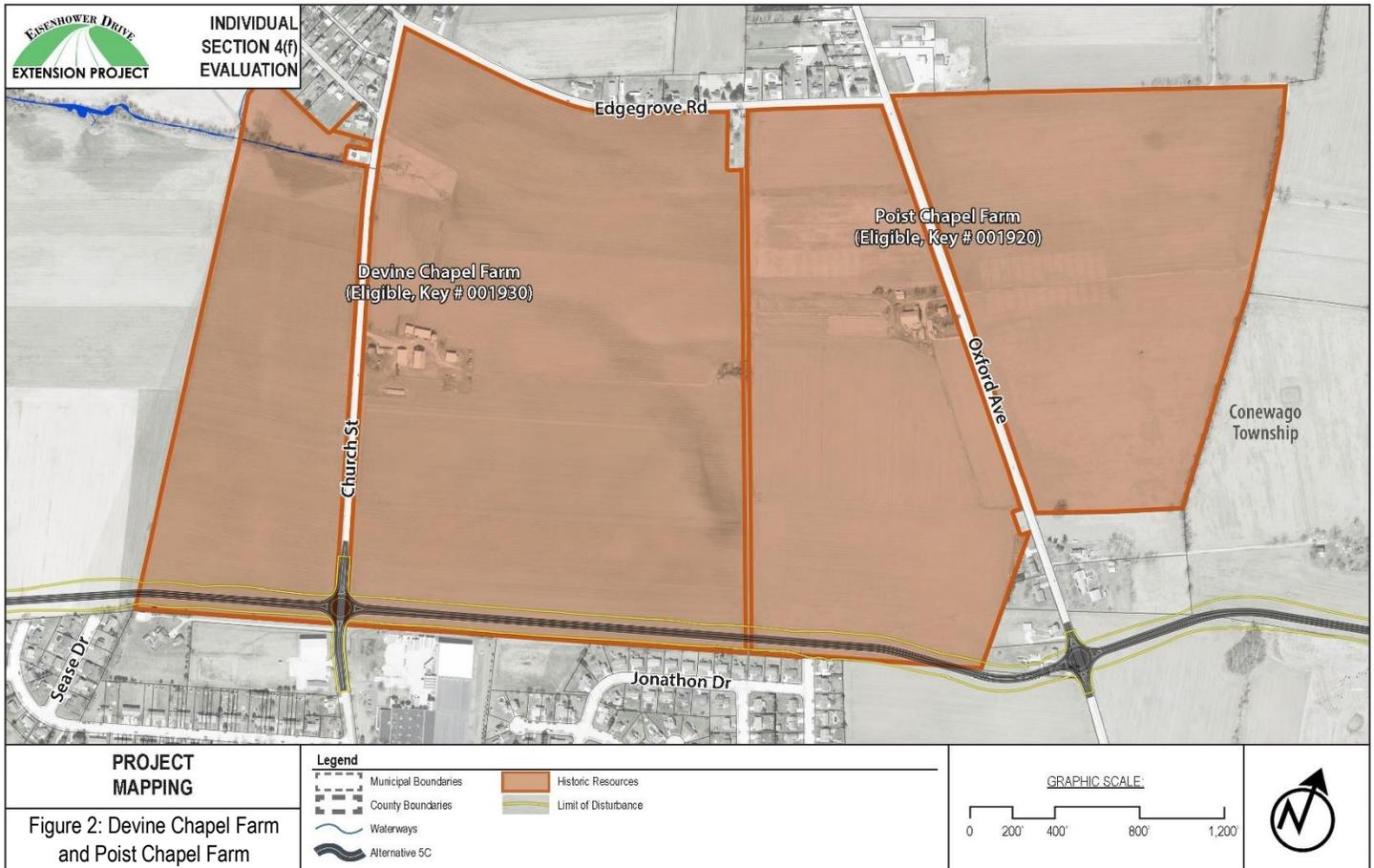


Figure 3: Gettysburg Railroad

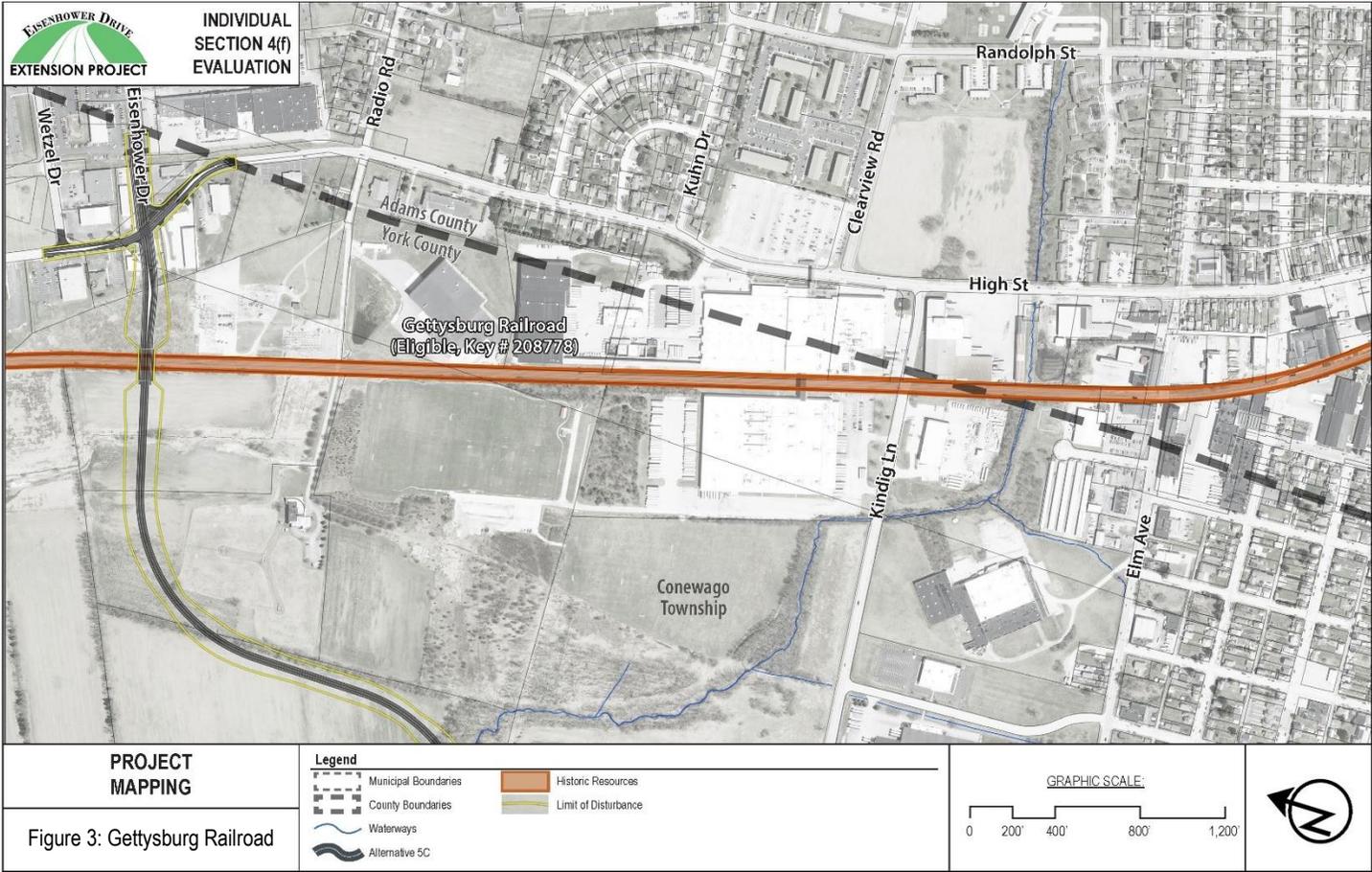


Figure 4: Hanover Historic District

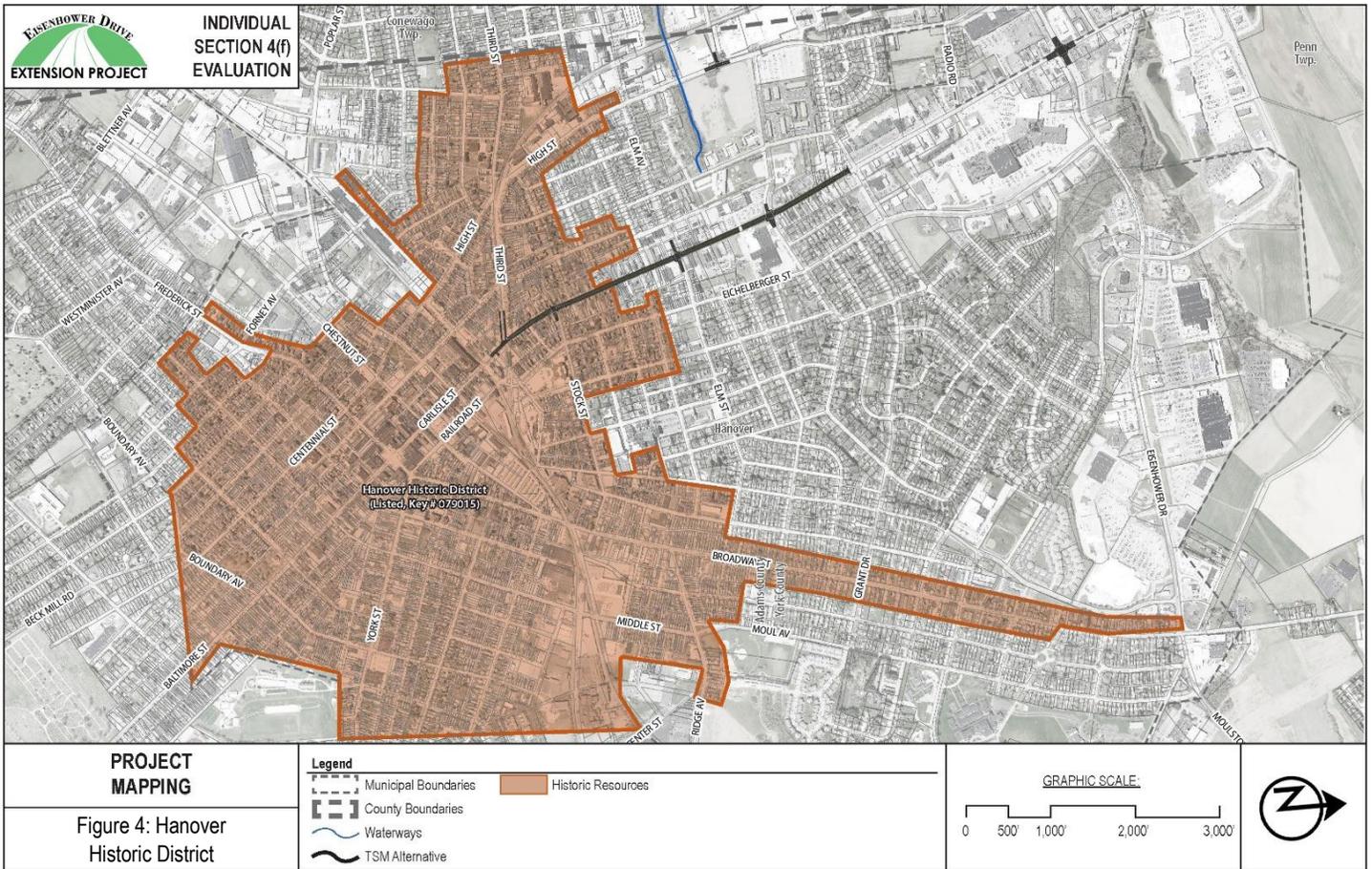


Photo 5: View of Hanover Historic District along Carlisle Street

Figure 5: Henry Hostetter Farm

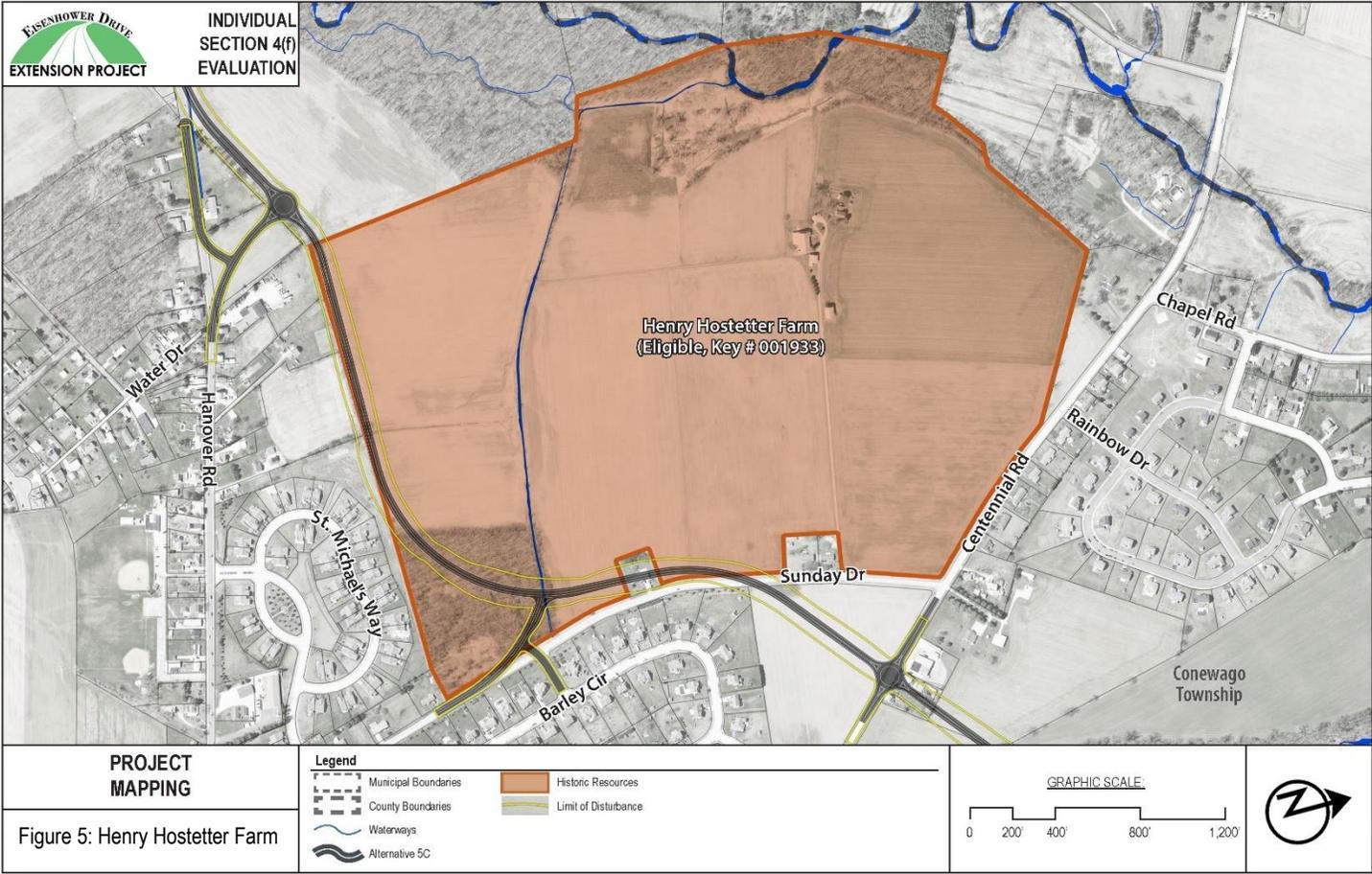


Photo 6: Henry Hostetter Farm House



Photo 7: Henry Hostetter Farm Barn

Figure 6: Utz Potato Chip Company



4.0 ALTERNATIVES ANALYSIS

This alternative analysis presents all project alternatives. It identifies those that meet the needs of the project and assesses the Section 4(f) use of each alternative. Refer to the “Eisenhower Drive Extension Project Environmental Assessment – Section 3.3” for an overview of the alternatives development process.

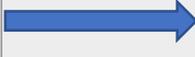
The Eisenhower Drive Extension Project began with six new or partial new alignment alternatives (Alternatives 2-7). Each alternative starts at the western terminus of Eisenhower Drive at High Street and extends westward on various alignments to a single location near the intersection of Centennial Road and Sunday Drive. The project has three sub-alignment alternatives to extend the new or partial new alignment alternative from the Centennial Road/Sunday Drive intersection to Hanover Road (Sub-Alignment Alternatives A, B, C).

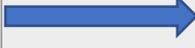
The alternatives development process was conducted in two phases:

- Conceptual Alternative Development and Evaluation – identified a range of alternatives to aid in establishing general alternative corridor limits and assess if alternatives would meet the purpose and need, as well as established engineering design parameters and preliminary environmental impacts and concerns.
- Detailed Alternatives Development and Evaluation – focused on an additional detailed study of the alternatives found to best meet the purpose and needs of the project.

Table 1 outlines all alternatives developed for the alternatives analysis. It identifies the total Section 4(f) avoidance alternatives, notes which were dismissed during the Conceptual Alternative Development and Evaluation phase, which were dismissed after the Detailed Alternatives Development and Evaluation phase, and which were carried forward into the Section 4(f) least overall harm analysis.

Table 1: Section 4(f) Alternative Analysis Summary

	Conceptual Analysis	Detailed Analysis	Least Overall Harm Analysis	Reason for Dismissal and/or Least Overall Harm Analysis
Total Avoidance Alternatives				
No Build				Dismissed – did not meet the project needs (appears not prudent)
Alternative 2				Dismissed – did not meet the project needs (appears not prudent)
Sub-Alignment Alternative A				Dismissed – did not meet the project needs (appears not prudent)
Sub-Alignment Alternative B				Dismissed – did not meet the project needs (appears not prudent)

	Conceptual Analysis	Detailed Analysis	Least Overall Harm Analysis	Reason for Dismissal and/or Least Overall Harm Analysis
Other Alternatives				
TSM Alternative (Alternative 1)				Carried to least overall harm, appears to result in more harm than Alternative 5C (conclusion to be made in Final Section 4(f) Evaluation only)
Alternative 3				Dismissed – impacts of extraordinary magnitude (appears not reasonable or prudent)
Alternative 4				Dismissed – impacts of extraordinary magnitude (appears not reasonable or prudent)
Alternative 6				Dismissed – did not meet the project needs and could not be constructed as a matter of sound engineering judgement (appears not reasonable, prudent, or feasible)
Alternative 7				Dismissed – did not meet the project needs (appears not reasonable or prudent)
Alternative 5C				Appears to be least overall harm alternative (conclusion to be made in Final Section 4(f) Evaluation only)

4.1 IDENTIFICATION AND EVALUATION OF ALTERNATIVES THAT TOTALLY AVOID ALL SECTION 4(F) PROPERTIES

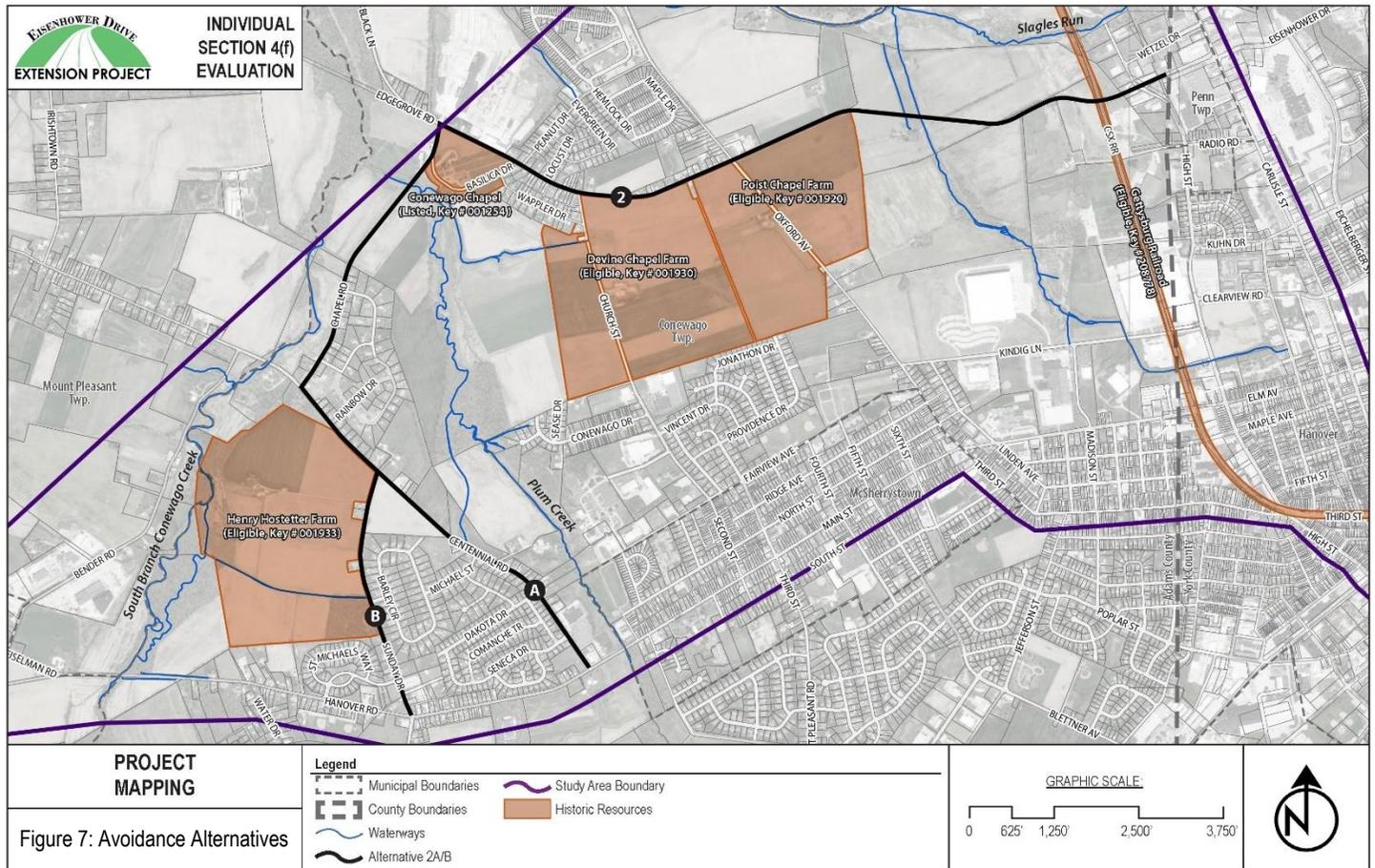
Under Section 4(f), the use of parks, recreation areas, wildlife/waterfowl refuges and historic sites for transportation purposes may only occur if no feasible and prudent avoidance alternative to such use exists and if the project includes all possible planning to minimize harm to resources from such use.

A feasible and prudent avoidance alternative, as defined in 23 CFR §774.17, avoids using Section 4(f) property and does not cause other severe problems of a magnitude that substantially outweigh the importance of protecting the Section 4(f) property. According to Section 4(f) regulations at 23 CFR §774.17, feasible and prudent is defined as:

- A. An alternative is not feasible if it cannot be built as a matter of sound engineering judgment.
- B. An alternative is not prudent if:

1. It compromises the project to a degree that it is unreasonable to proceed with the project in light of its stated purpose and need;
2. It results in unacceptable safety or operational problems;
3. After reasonable mitigation, it still causes:
 - a. Severe social, economic, or environmental impacts;
 - b. Severe disruption to established communities;
 - c. Severe disproportionate impacts to minority or low-income populations; or
 - d. Severe impacts to environmental resources protected under other Federal statutes;
4. It results in additional construction, maintenance, or operational costs of an extraordinary magnitude;
5. It causes other unique problems or unusual factors; or
6. It involves multiple factors listed above, that while individually minor, cumulatively cause unique problems or impacts of extraordinary magnitude.

Figure 7: Avoidance Alternatives



No Build Alternative

The No Build Alternative avoids all Section 4(f) properties. This consists of no comprehensive major improvements to any portion of the study area; the transportation network would continue to function as-is with only routine maintenance. The No Build Alternative will not add any measures to reduce congestion and will not accommodate any planned growth in the area. The project needs discuss reducing traffic congestion and improving safety, neither of which will be accomplished through this alternative. This alternative would not affect any historic property in the project area; however, this alternative does not meet the purpose and need of the project and therefore does not appear to be prudent. Based on these facts, the No Build Alternative does not appear to be a reasonable or prudent avoidance alternative.

Alternative 2

Alternative 2 is the only alignment alternative that has the potential to avoid known Section 4(f) properties. This alternative primarily utilizes existing roadway networks, which run adjacent to known historic properties (see Figure 7). To be considered a total avoidance alternative, all improvements to the roadway network would need to occur outside the boundaries of the Section 4(f) properties or within the existing right-of-way.

Alternative 2 includes off-alignment improvements at the east end of the project area before continuing on the existing roadway network west of Oxford Avenue. Beginning at the existing Eisenhower Drive and High Street intersection (located at the eastern edge of the project area), Alternative 2 would travel west over the Gettysburg Railroad and continue north about 30 degrees until the alignment intersects Edgegrove Road. Alternative 2 proceeds to travel westbound along Edgegrove Road until Chapel Road; following Chapel Road southbound until its intersection with Centennial Road.

The proposed roadway would have two 12-foot lanes (one in each direction). East of the Gettysburg Railroad, the typical section would include curbs and sidewalks. West of the Gettysburg Railroad, the typical section would include 8-foot shoulders. To achieve the desired typical section, the alternative would likely require roadway reconstruction, minor widening, and alignment and intersection improvements to improve safety on Edgewood and Chapel Roads.

Edgegrove Road comprises the northern boundary of the Devine Chapel Farm, the Poist Chapel Farm, and the Conewago Chapel. To be considered an avoidance alternative, any improvements to Edgegrove Road in the vicinity of the known Section 4(f) properties would need to occur on the north side of the roadway. This would result in impacts to the Conewago Township Police Department at the intersection of Oxford and Edgegrove roads, approximately 13 residential properties, and two commercial properties. More than 20 other properties on Edgegrove Road, in Edgegrove (a community that has not been evaluated for the NRHP), would be substantially impacted by this alternative, as many of the buildings are situated adjacent to the roadway. The extensive displacements of residences and businesses adjacent to the roadway, which Alternative 2 would require along Edgegrove Road, would result in serious disruption of community cohesion. There are two churches in Edgegrove and wider ROW and more traffic would also be a barrier to pedestrian traffic within the neighborhood. The overall impact of Alternative 2 through Edgegrove would be substantial.

Alternative 2 also utilizes a portion of Centennial Road between Chapel Road and Sunday Drive. This portion of Centennial Road is along the northern boundary of the Henry Hostetter Farm. Opposite the historic farm is a 21st-century residential development on Rainbow Drive with seven residential properties between Rainbow Drive and Sunday Drive. The residential properties are adjacent to and have direct access from Sunday Drive. To avoid impacts to the Section 4(f) property, roadway improvements would likely require right-of-way and limited displacements from the residential properties north of Centennial Road.

Alternative 2 was dismissed during the conceptual alternatives analysis phase due to the displacements and impacts to established communities (specifically, Edgegrove). It was also dismissed because it would not sufficiently address the project needs of safety and congestion. Alternative 2 includes partial or full reconstruction of existing roadways, which connect to multiple existing driveways. Due to number of driveways and proximity of buildings to the roadways, there are no reasonable solutions to limit access to this alternative. The increased traffic volume combined with the existing driveways along Edgegrove Road create vehicular conflicts due to slowing and turning traffic, impacting both safety and congestion along Edgegrove Road. Alternative 2 does not appear to be reasonable or prudent. It does not meet the needs of the project and would cause other substantial social and economic impacts.

Sub-Alignment Alternative A

Sub-Alignment Alternative A proposes to use Centennial Road to connect the terminus of an alignment alternative near the intersection of Centennial Road and Sunday Drive to Hanover Road/Main Street corridor west of McSherrystown (see

Figure 7). The typical section would provide two 12-foot lanes and 8-foot shoulders. To achieve the desired typical section, the alternative would likely require roadway reconstruction, minor widening, and alignment and intersection improvements to improve safety on Centennial Road.

The Henry Hostetter Farm is at the northern terminus of Sub-Alignment Alternative A, but there are no Section 4(f) properties along the sub-alignment. However, the alternative does not meet the project purpose and needs. Centennial Road is the eastern boundary to a large residential development which has three intersections on Centennial Road. There are also more than 20 residential properties and a grocery store plaza with driveways on Centennial Road. Minor roadway widening may be required to provide sufficient shoulders, but displacement appears unlikely. However, multiple access points would cause additional traffic congestion and safety concerns. The increased traffic volume combined with the existing driveways along Centennial Road create vehicular conflict due to slowing and turning traffic, impacting both safety and congestion along Centennial Road. This would not sufficiently address the safety and congestion needs for the project. The origin-destination study developed for this project indicated that many travelers enter and exit the study area via Race Horse Road to the south, Hanover Road to the west, and Carlisle Street to the north. Sub-Alignment Alternative A would require northbound travelers to turn right onto Hanover Road and then turn left onto Centennial Road. Drivers heading northeastward are unlikely to make a left turn in an area with high traffic congestion, particularly if they would need to take a circuitous route that sends them in a northwestward direction. There was considerable public opposition to this alternative, specific to safety concerns about adding traffic to an established residential community. Sub-alternative A was dismissed because of traffic congestion and safety concerns associated with increasing traffic through residential areas and requiring traffic to return to Hanover Road/Main Street within an area of higher traffic congestion.

While Sub-Alignment Alternative A avoids Section 4(f) property, it does not appear to be a reasonable or prudent avoidance alternative because it does not meet the project purpose and need.

Sub-Alignment Alternative B

Sub-Alignment Alternative B would utilize existing Sunday Drive to connect the terminus of an alignment alternative near the intersection of Centennial Road and Sunday Drive to Hanover Road/Main Street west of McSherrystown (see Figure 7). The typical section would provide two 12-foot lanes and 8-foot shoulders. To achieve the desired typical section, the alternative would likely require roadway reconstruction, minor widening, and realignment to improve safety. This alternative would include intersection improvements and traffic signal upgrades at the intersection of Sunday Drive/Race Horse Road and Hanover Road.

Sunday Drive is the eastern boundary of the Henry Hostetter Farm. Opposite the farm is a large residential development, with one access point and residential back yards adjacent to the roadway. South of the Henry Hostetter Farm is a residential retirement community with one access point on Sunday Drive. There are also seven residential properties, one church, and an alley road along Sunday Drive.

Improving the intersection of Sunday Drive/Race Horse Drive and Hanover Road would likely require the displacement of at least one commercial property. Sub-Alignment Alternative B would also require intersection improvements at Sunday Drive and Centennial Road in order to prioritize traffic traveling along this alternative. The current configuration requires vehicles on Sunday Drive to stop before turning onto Centennial Road. To best meet the project purpose and needs, traffic would need to move more efficiently between Sunday Drive and Centennial Road north of Sunday Drive. It would be difficult to

improve the intersection while also avoiding the Henry Hostetter Farm, which occupies the southwestern quadrant. Avoiding the Section 4(f) property would likely require displacing at least three residential properties on the north side of Centennial Road.

Similar to Sub-Alignment Alternative A, this alternative does not meet the project purpose and needs. The increased traffic volume combined with the existing driveways along Sunday Drive create vehicular conflict due to slowing and turning traffic, impacting both safety and congestion along Sunday Drive. This would not sufficiently address the safety and congestion needs for the project. There was considerable public and municipal and county official opposition to this alternative, specific to the impact on the residential community and the safety concerns about adding traffic adjacent to the retirement community access point.

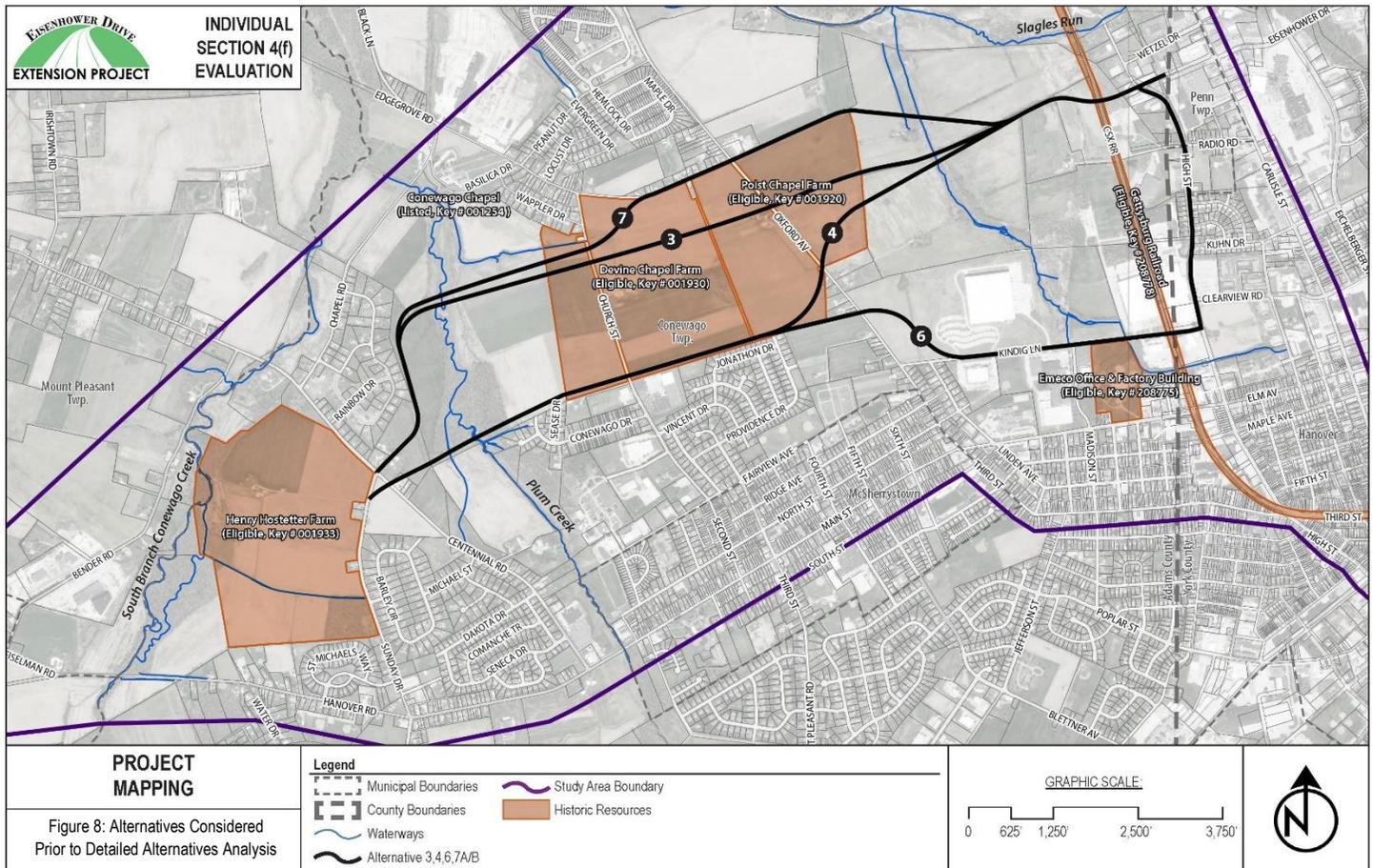
Sub-Alignment Alternative B does not appear to be a reasonable or prudent alternative because it does not meet the project purpose and need and requires additional residential and commercial displacements compared to Sub-Alignment Alternative A.

4.2 IDENTIFICATION AND EVALUATION OF OTHER ALTERNATIVES CONSIDERED

Alternatives Considered Prior to Detailed Alternatives Analysis

Alternatives 3, 4, 6, and 7 were considered prior to detailed alternatives analysis. They would each extend from the existing Eisenhower Drive to a point near the intersection of Centennial Road and Sunday Drive. Refer to Figure 8 for the locations of each of these alternatives. Alternatives 3 and 4 are complete off-alignment alternatives while Alternatives 6 and 7 would use some portion of the existing network. The following discussion will show that Alternatives 3 and 4 do not appear to be reasonable and prudent due to the substantial impacts to Section 4(f) and agricultural resources. Alternatives 6 and 7 do not appear to be reasonable and prudent because they do not meet the purpose and needs of the project.

Figure 8: Alternatives Considered Prior to Detailed Alternatives Analysis



During the alternatives analysis for the project, Alternatives 6 and 7 were dismissed first as they do not meet the needs of the project. Alternatives 3, 4, and 5 were each found to meet the needs and were then compared in order to evaluate the potential for substantial impacts. It is important to note that when comparing the build alternatives at this phase of the project, the alternatives were not fully designed. Impacts were calculated using an average limit of disturbance width of 100 feet for the length of each alignment.

Alternative 3

Alternative 3 is a complete off-alignment alternative located towards the northern half of the project area (see Figure 8). Beginning at the existing Eisenhower Drive and High Street intersection, Alternative 3 would travel west over the Gettysburg Railroad and continue westbound in a somewhat straight line, intersecting with Oxford Avenue and Church Street and crossing Plum Creek. After crossing Plum Creek, the alignment would continue southbound between Plum Creek and the adjacent residential neighborhood, and then intersect with Centennial Road near the existing Centennial Road and Sunday Drive intersection. The proposed roadway would have two 12-foot lanes (one in each direction). East of the Gettysburg Railroad, the typical section would include curbs and sidewalks. West of the Gettysburg Railroad, the typical section would include 8-foot shoulders.

Alternative 3 would result in the use of two Section 4(f) historic properties. The alignment travels through the northern fields of the Poist Chapel Farm and Devine Chapel Farm. In both properties, the alignment would bisect active agricultural farmland and separate active and historically associated fields from the historic farmsteads. The Alternative 3 alignment would require approximately 5.4 acres from the Poist Chapel Farm and approximately 5.6 acres from the Devine Chapel Farm. It would also likely result in an additional 4.8-acre remnant lot on the Devine Chapel Farm, thus bringing the Section 4(f) use on the Devine Chapel Farm to 10.4 acres. Alternative 3 would intersect the Gettysburg Railroad requiring a new bridge over the railroad, but there are no contributing railroad features. Although an aerial easement from the Gettysburg Railroad would be required, it would not constitute a Section 4(f) use. There would be no Section 4(f) use of the Gettysburg Railroad.

Alternative 3 would have more substantial impacts on agricultural properties, compared to Alternatives 4 and 5. There are five agricultural operations from which Alternative 3 would require ROW, that are considered to contain Productive Agricultural Land (PAL). Permanent impacts to PAL would total approximately 26.8 acres. This is not substantially greater than the amount of PAL impacted by Alternatives 4 or 5, but Alternative 3 would bisect at least seven fields on four of the five agricultural operations. Three of the four bisected operations would be left with remnant lots ranging in size between approximately 2 and 5 acres, which may be considered unusable by the property owners. Three of the five operations are Agricultural Security Areas (ASAs), and two of the three ASAs are also protected in the Adams County Agricultural Land Preservation Program. The impacts to protected farmland are substantial compared to Alternatives 4 and 5. The Devine Chapel Farm is one of the two properties that is both an ASA and in the land preservation program. The Poist Chapel Farm contains PAL, but it is not an ASA or protected in the land preservation program. Refer to Table 2, Figure 8, and Figure 11 for a comparative analysis of the impacts for Alternatives 3, 4, and 5.

Table 2: Impacts to Agricultural and Historic Properties for Alternatives 3, 4, and 5*

	Alternative 3	Alternative 4	Alternative 5
PAL operations impacted	5 operations	5 operations	7 operations
Impact to PAL properties	26.8 acres	21.5 acres	23.8 acres
Operations bisected	7 fields on 4 operations	4 fields on 2 operations	3 fields on 3 operations
Impact to ASAs	16.9 acres	12.7 acres	12.5 acres
Impact to preserved farmland	15.7 acres	2.2 acres	1.6 acres
Impact to historic properties	5.4 acres from Poist Chapel Farm (also bisected) 10.4 acres from Devine Chapel Farm, including remnant lot (farm bisected)	13.1 acres from Poist Chapel Farm, including remnant lot (farm bisected) 6.6 acres from Devine Chapel Farm	2.0 acres from Poist Chapel Farm 6.6 acres from Devine Chapel Farm

*Impacts calculated based on 100-foot-wide limit of disturbance

Alternative 3, along with the TSM Alternative and Alternative 4 and Alternative 5, was found to meet the project purpose and need. Prior to detailed analysis, these alternatives underwent a preliminary alternatives analysis to better understand their potential to impact certain environmental resources. Alternative 3 was dismissed because it would cause more substantial impacts to both Section 4(f) properties and agricultural properties. It would bisect seven fields on four agricultural operations (compared to three fields on three operations in Alternative 5), more substantially impact ASAs (compared to Alternatives 4 and 5), severely impact land protected in the Adams County Agricultural Land Preservation Program, and bisect both Section 4(f) properties. Alternative 3 does not appear to be a reasonable or prudent alternative due to the impacts to agricultural and historic properties relative to Alternative 4 and Alternative 5.

Alternative 4

Alternative 4 is a complete off-alignment alternative located towards the southern limits of the agricultural lands within the project area (see Figure 8). This alignment would travel west over the Gettysburg Railroad and continue westbound until just east of Oxford Avenue. East of Oxford Avenue, the alignment would turn southbound and cross Oxford Avenue between the existing intersections of Kindig Lane (to the south) and Edgegrove Road (to the north). Alternative 4 would then turn westbound and continue along the southern edge of the Poist Chapel Farm and Devine Chapel Farm, adjacent to residential neighborhoods to the south. After crossing Plum Creek, it would continue westbound and intersect with Centennial Road near the existing Centennial Road and Sunday Drive intersection. The proposed roadway would have two 12-foot lanes (one in each direction). East of the Gettysburg Railroad, the typical section would include curbs and sidewalks. West of the Gettysburg Railroad, the typical section would include 8-foot shoulders.

Alternative 4 would result in the Section 4(f) use of two historic properties. The alignment travels through the eastern and southern fields of the Poist Chapel Farm and travels along the southern boundary of the Devine Chapel Farm. The alignment would require approximately 7.0 acres from the Poist Chapel Farm for ROW. It would bisect active agricultural farmland, which would separate active and historically associated fields from the historic farmstead. The alignment east of Oxford Avenue would create a bisected field measuring approximately 13.9 acres, which appears to be sufficient in size to remain in active agricultural use. West of Oxford Avenue, the alignment would create an approximately 6.1-acre remnant lot that would be difficult to access and likely rendered unusable by the property owner. The alignment and remnant lot would bring the total Section 4(f) use on the Poist Chapel Farm to 13.1 acres. Alternative 4 would require approximately 6.6 acres from the Devine Chapel Farm. The alignment extends along the southern boundary of the historic resource and would result in the loss of active and historically associated farmland. Alternative 4 would intersect the Gettysburg Railroad requiring a new bridge over the railroad, but there are no contributing railroad features. Although an aerial easement from the Gettysburg Railroad would be required, it would not constitute a Section 4(f) use. There would be no Section 4(f) use of the Gettysburg Railroad.

Alternative 4 would have more substantial impacts on agricultural properties, compared to Alternative 5. Alternative 4 would impact five agricultural operations. The amount of PAL impacted by Alternative 4 is comparable to Alternative 5, but this alignment would bisect four distinct fields on two of the five agricultural operations, leaving each with an approximately 2- to 6-acre lots that may be considered unusable by the property owners. The Poist Chapel Farm is one of the operations bisected by Alternative 4, and the alternative would bisect two distinct fields on this historic farm, likely leaving a 6.1-acre remnant lot unusable by the property owner (described above). Refer to Table 2, Figure 8 and Figure 11 for a comparative analysis of the impacts for Alternatives 4 and 5.

Alternative 4 was found to meet the project purpose and need. Prior to detailed analysis, it underwent a preliminary alternatives analysis with Alternatives 3 and 5 to better understand their potential to impact certain environmental impacts. Alternative 4 was dismissed because it would result in impacts of a greater magnitude to historic farms properties compared to Alternative 5. Alternative 4 does not appear to be a reasonable or prudent alternative due to the impacts to agricultural and historic properties relative to Alternative 5.

Alternative 6

Alternative 6 includes improvements to the existing roadway network east of Oxford Drive and a new alignment to the west (see Figure 8). Beginning at the existing Eisenhower Drive and High Street intersection, Alternative 6 traverses south along High Street (which is a mixed-use neighborhood with residential and commercial properties) until Kindig Lane. The alignment then moves west on Kindig Lane (which is a commercial area) until Oxford Avenue. From Oxford Avenue, the alignment continues as an off-alignment road along the southern edge of the Poist Chapel Farm and Devine Chapel Farm, adjacent to the residential neighborhoods to the south. After crossing Plum Creek, Alternative 6 would continue westbound and intersect with Centennial Road near the existing Centennial Road and Sunday Drive intersection.

Alternative 6 would result in the use of two Section 4(f) historic properties. The alignment travels along the southern edge of the Poist Chapel Farm and the Devine Chapel Farm. It would require approximately 2.0 acres of active and contributing farmland from the Poist Chapel Farm and 6.6 acres of active and contributing farmland from the Devine Chapel Farm.

Two other Section 4(f) historic properties are located along the Alternative 6 alignment: the Gettysburg Railroad and the Emeco Office and Factory Building. The project would not result in a use of either property. The alignment would cross the Gettysburg Railroad at an existing at-grade crossing. The at-grade crossing does not contribute to the historic resource and there are no other contributing features within the railroad boundary. Any modifications to the at-grade crossing needed for Alternative 6 would not result in a use of the Gettysburg Railroad. Kindig Lane comprises the northern boundary of the Emeco property. It is unlikely that Alternative 6 would require land from the Emeco Property, as there is sufficient space on the north side of Kindig Lane to accommodate widening if needed. There would be no use of the Emeco property.

Alternative 6 utilizes two existing roads (High Street and Kindig Lane), so impacts to agricultural properties would be less substantial than the impacts caused by alternatives 3, 4, 5, and 7. However, this alternative was dismissed prior to detailed analysis and total agricultural impacts are not available.

This alternative was dismissed during the conceptual alternatives analysis phase because the alternative did not meet the project needs. Traffic analyses showed that the at-grade rail crossing adjacent to the intersection of Kindig Lane and High Street and the truck traffic at the adjacent Utz factory are barriers to meeting the current and projected traffic needs. Even after improvements, the intersection would not have been able to meet the required LOS D. The Utz manufacturing plant in the northwest quadrant has an entrance point approximately 100 feet north of the intersection on High Street, and an exit point approximately 200 feet west on Kindig Lane. The at-grade railroad crossing, approximately 400 feet west of the intersections, serves 3-4 daily trains. The existing truck traffic, the proximity of the driveways and railroad crossing to the intersection, and the additional projected traffic result in operational and safety concerns for the corridor. Alternative 6 does not appear to be prudent as it does not meet the project purpose and needs.

Alternative 7

Alternative 7 is primarily an off-alignment alternative, though it utilizes a small portion of Edgegrove Road (see Figure 8). Beginning at the existing Eisenhower Drive and High Street intersection, Alternative 7 would travel west over the Gettysburg Railroad for approximately 500 feet and then continue north about 30 degrees, bisecting farmland until the alignment intersects a private access road in line with Edgegrove Road. The alternative proceeds westbound along Edgegrove Road for approximately 3,230 feet then turns slightly southward and travels along the northern edge of the Devine Chapel Farm. After crossing Plum Creek the alignment would continue southbound between Plum Creek and the adjacent residential community, then intersect with Centennial Road near the existing Centennial Road and Sunday Drive intersection.

Alternative 7 would result in the use of two Section 4(f) historic properties. The alignment travels along the northern edge of the Poist Chapel Farm and the Devine Chapel Farm. It would require minimal ROW from the Poist Chapel Farm, primarily consisting of strips along Edgegrove Road for roadway reconstruction. The alternative would require active and contributing farmland from the Devine Chapel Farm.

Alternative 7 would intersect the Gettysburg Railroad requiring a new bridge over the railroad, but there are no contributing railroad features. Although an aerial easement from the Gettysburg Railroad would be required, it would not constitute a Section 4(f) use. There would be no Section 4(f) use of the Gettysburg Railroad.

Alternative 7 utilizes part of Edgegrove Road, so impacts to agricultural operations would be less substantial than the impacts caused by alternatives 3, 4, and 5. However, this alternative was dismissed prior to detailed analysis and total agricultural impacts are not available.

This alternative was dismissed because it would not sufficiently address the project needs of safety and congestion. Alternative 7 includes partial or full reconstruction of existing roadways, which have multiple existing driveways. Additional access points create conflict due to slowing and crossing traffic, which may increase crash frequency and congestion through the corridor.

Alternatives That Were Studied in Detail

Alignment Alternatives 2, 3, 4, 6, and 7 and Sub-Alignment Alternatives A and B were all dismissed prior to detailed study. The TSM Alternative, Alternative 5, and Sub-Alignment Alternative C were found to meet the project purpose and needs and retained for detailed study. During the detailed study, Alternative 5 and Sub-Alignment Alternative C were combined to be developed and evaluated as a single alignment, known as Alternative 5C. For the alternatives analysis, the impacts calculated for Alternative 5 and Sub-Alignment Alternative C assume a 100-foot limit of disturbance.

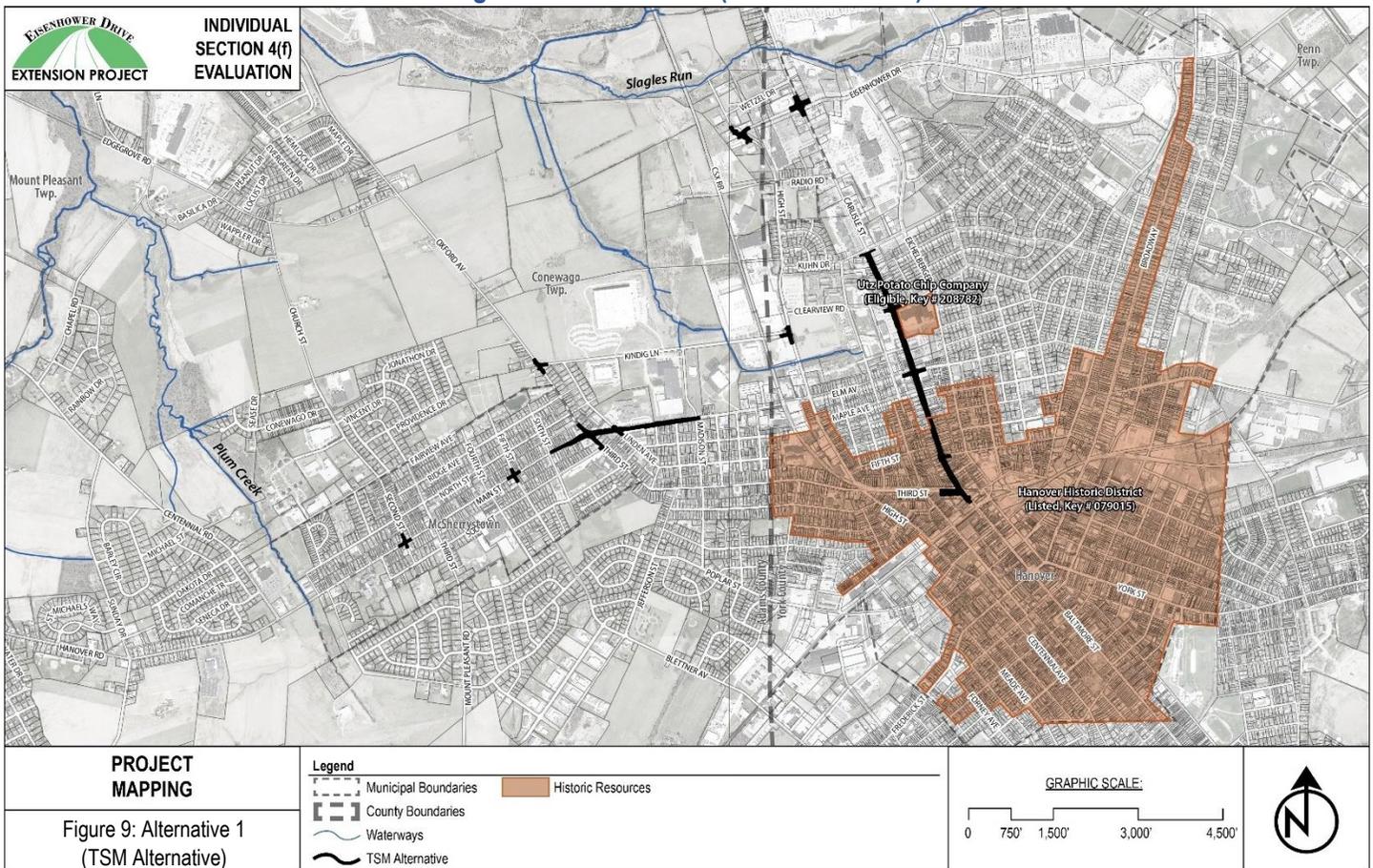
Alternative 1 (TSM Alternative)

The TSM Alternative consists of relatively low-cost transportation improvements or strategies that enhance the travel capacity of an existing roadway network by improving operational efficiency. The TSM alternative includes intersection improvements such as installing new traffic signals, revising existing signal timing, and constructing additional through lanes, left-turn lanes, and channelized right-turn lanes. Beginning at the existing Eisenhower Drive and Carlisle Street intersection, the TSM Alternative proposed improvements south along Carlisle Street, intersecting W. Elm Avenue and continuing south to the intersection of 3rd Street and Carlisle Street. The alternative also proposes improvements on W. Elm Avenue west of Carlisle Street to Hanover Road. The following improvements comprise the TSM Alternative (See Figure 9):

- Intersections:
 - High Street & Eisenhower Drive: install new traffic signal, construct southbound left turn lane, channelize northbound right turn with yield.
 - Carlisle Street & Eisenhower Drive: revise existing signal timing.
 - Oxford Avenue & Kindig Lane: convert to all-way stop controlled.
 - High Street & Kindig Lane: install new traffic signal.
 - SR 0116/Main Street & 2nd Street: install new traffic signal.
 - SR 0116/Main Street & 5th Street: install new traffic signal.

- SR 0116/Main Street/Elm Avenue & Oxford Avenue/SR 0116/3rd Street: construct additional eastbound through lane, construct additional westbound through lane, construct eastbound left turn lane, construct westbound left turn lane, construct southbound left turn lane, reconstruct existing signal.
- Clearview Road & Carlisle Street: construct additional northbound through lane, construct additional southbound through lane, reconstruct existing signal.
- Elm Avenue & Carlisle Street: construct additional northbound through lane, construct additional southbound through lane, reconstruct existing signal.
- Stock Street & Carlisle Street: construct additional northbound through lane, construct additional southbound through lane, reconstruct existing signal.
- Widening:
 - Carlisle Street from 3rd Street to Dart Drive / Kuhn Drive
 - Elm Avenue from Oxford Avenue/3rd Street to Madison Street

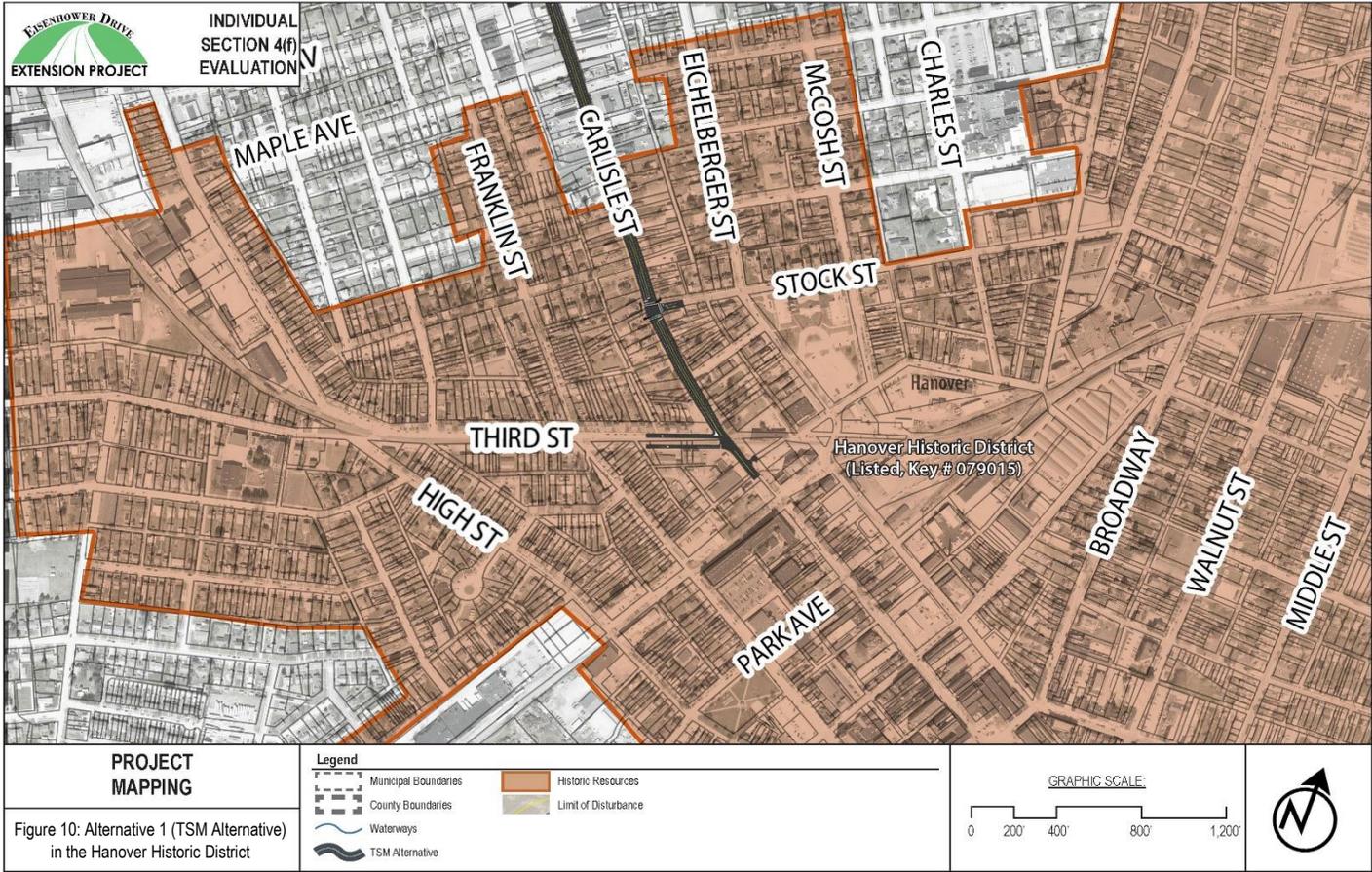
Figure 9: Alternative 1 (TSM Alternative)



These improvements are designed to the extent required to meet the needs of the project. The TSM Alternative would improve motorized and non-motorized safety and levels of service (LOS), reduce congestion, accommodate for planned growth, promote and enhance multi-modal connections, and reduce impacts of truck and commuter traffic within the project area. The levels of improvements were established based on the need to provide a minimum design year LOS D for the project area.

The TSM Alternative would result in the use of up to 22 contributing and 15 non-contributing properties within one Section 4(f) historic property. The southern portion of the TSM Alternative on Carlisle Street is located within the Hanover Historic District (see Figures 9 and 10). The alternative would extend approximately 0.4 mile along Carlisle Street from 3rd Street to the northern historic district boundary, just north of 5th Street. The proposed work within the historic district includes widening Carlisle Street from 3rd Street north and widening the intersection of Carlisle Street and Stock Street to accommodate additional turning lanes. The alternative has the potential to impact 22 contributing properties to the Hanover Historic District. Most of these contributing properties are 19th-century, single-family or multi-family residential buildings and several have been converted to commercial or office space. Fourteen of these contributing properties would be demolished and the remaining eight properties would be impacted with ROW acquisition. The streetscape would be substantially altered in this section of the historic district.

Figure 10: Alternative 1 (TSM Alternative) in the Hanover Historic District



The TSM Alternative is adjacent to the Utz Potato Chip Company, which is at the southeast corner of the intersection of Carlisle Street and Clearview Road. In the vicinity of this resource, the TSM Alternative includes widening Carlisle Street for an additional northbound and southbound through lane, and reconstructing the traffic signal at Clearview Road and Carlisle Street. All proposed work would be conducted outside of the National Register boundary. It will not alter access to or physically impact the property, nor will it affect any aspects of integrity that convey its significance. The PA SHPO concurred that the TSM alternative would not affect the Utz Potato Chip Company. The alternative would not use the Section 4(f) property, nor would it result in a constructive use.

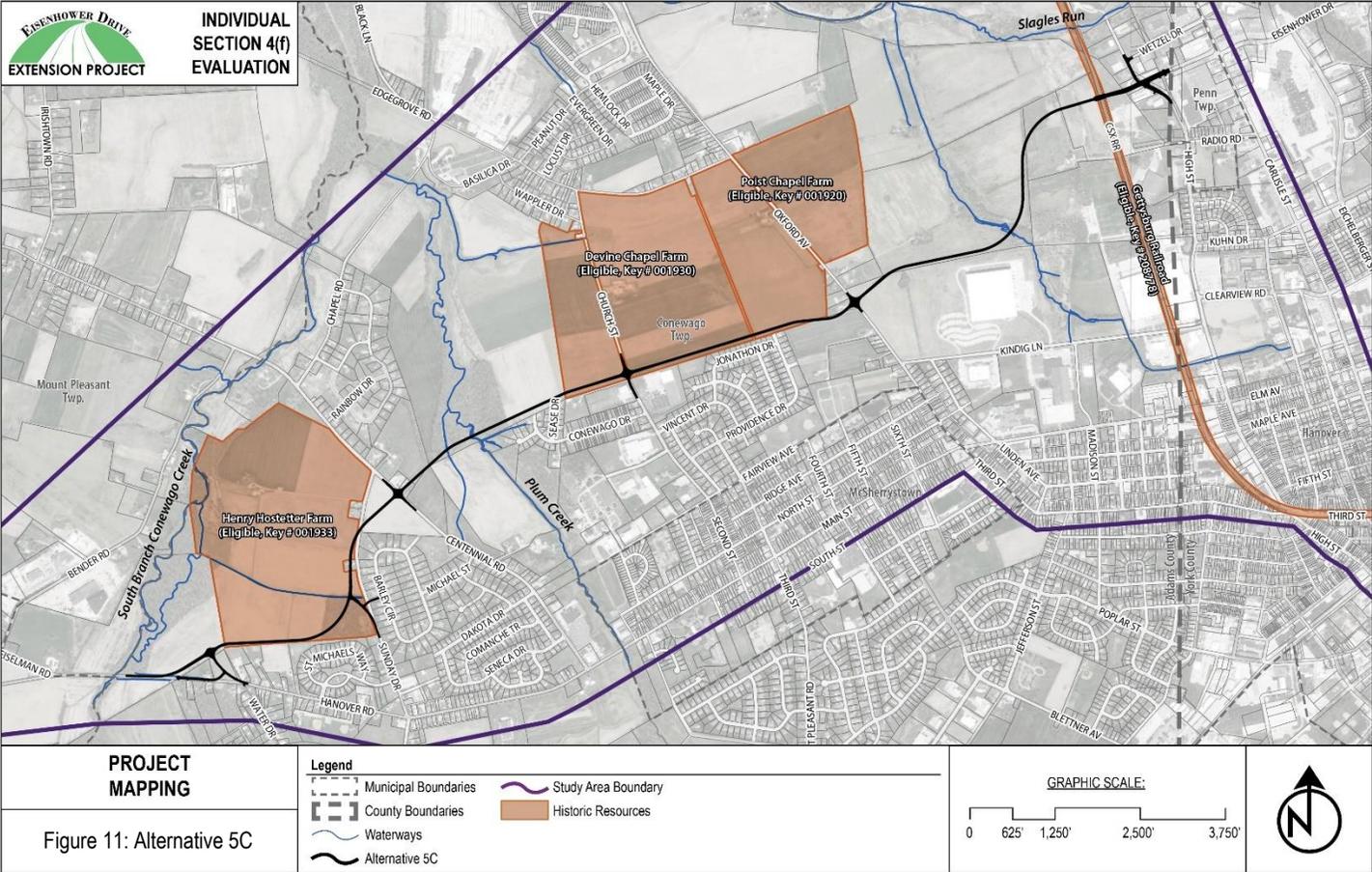
The TSM Alternative would disrupt an established mixed-use neighborhood along Carlisle Street, both within the Hanover Historic District and to the north of the district boundary. In total, including properties within the Hanover Historic District, the TSM Alternative would displace 44 properties (17 multi-family properties containing 69 residential units, nine single-family properties, and 18 businesses) and impact an additional 86 properties with partial acquisitions. By comparison, Alternative 5C would displace eight properties (five residential, one mixed-use, two commercial properties containing six businesses) and require partial acquisitions from 23 properties.

The TSM Alternative overlaps with low-income and minority environmental justice populations in the vicinity of the Hanover Historic District. Approximately 23 properties from the environmental justice communities would be displaced and an additional 20 would be partially impacted. These communities would also be subject to temporary impacts from lane closures, detours, and increased noise, vibration, and air quality impacts. By comparison, Alternative 5C would not temporarily or permanently affect environmental justice populations.

Alternative 5C

Alternative 5C is a complete off-alignment alternative located near the southern limits of the agricultural lands within the project area (see Figure 11, impacts to Section 4(f) resources are shown in more detail in Figures 2, 3, and 5). It is proposed as a new limited access roadway, wherein access would be limited to points where the new alignment would intersect existing roadways. The proposed roadway would have two 12-foot lanes (one in each direction). East of the Gettysburg Railroad, the typical section would include curbs and sidewalks. West of the Gettysburg Railroad, the typical section would include 8-foot shoulders. Throughout the corridor, the swales/stormwater facilities would be within the PennDOT ROW.

Figure 11: Alternative 5C



Alternative 5C encompasses Alternative 5, which extends from the western terminus of Eisenhower Drive to Centennial Road, and Sub-Alignment Alternative C, which connects the new alignment from Centennial Road to Hanover Road, west of McSherrystown. Beginning at the existing Eisenhower Drive and High Street intersection, Alternative 5C would travel west over the Gettysburg Railroad via a new bridge and quickly turn southbound to extend along the eastern edge of the agricultural land. It would turn westbound and extend behind the Clark America (Clarks Shoe) property. Alternative 5C would continue westbound, crossing Oxford Avenue, Church Street, and Plum Creek along the southern edge of the farms, adjacent to residential neighborhoods to the south. After crossing Plum Creek via a new bridge, Alternative 5C would continue westbound and intersect with Centennial Road near the existing Centennial Road and Sunday Drive intersection. From Centennial Road, Alternative 5C would continue west behind the residential community to a roundabout which would have two legs that connect to a relocated Hanover Road.

Roundabouts are proposed where Alternative 5C would intersect Oxford Avenue, Church Street, and Centennial Road. A new traffic signal and improvements would be made at the existing Eisenhower Drive and High Street intersection. The northern terminus of Sunday Drive would move from its current location at Centennial Road to the new alignment. At the western end of the project, Hanover Road would tie directly into the new Eisenhower Drive alignment, and a cul-de-sac would serve the residents at the western terminus of Hanover Road. East of this connection, Hanover Road would intersect the new alignment at a T-intersection.

Alternative 5C would use three Section 4(f) properties: Poist Chapel Farm, Devine Chapel Farm, and Henry Hostetter Farm. The use is the permanent incorporation of land, consisting of agricultural land historically associated with and contributing to the historic properties. The alternative would not impact associated buildings and all agricultural activities would continue on the remaining farmland. As a result of the determination of effect analysis and through consultation with the PA SHPO, a finding of adverse effect was made for all three historic properties. Due to the adverse effect finding, the Section 4(f) impacts are not *de minimis*.

Alternative 5C would involve permanent acquisition of 2.0 acres from the 126-acre Poist Chapel Farm and 6.6 acres from the 154-acre Devine Chapel Farm. The impacted land consists of PAL along the southern boundaries of both historic properties. The proposed roadway and drainage features would be located within the acquired ROW. A roundabout would be constructed where the new alignment intersects Church Street on the Devine Chapel Farm.

At the Henry Hostetter Farm, Alternative 5C would involve permanent acquisition of 7.3 acres for new PennDOT ROW and would leave two remnant lots, approximately 1.3 acres and 4.3 acres. Together, this comprises approximately 12.9 acres of the property, of which 4.8 acres are PAL and 8.1 acres are wooded. The proposed alternative would extend along the southern and eastern boundaries of the 167-acre historic property, through active agricultural land and a wood lot. The alignment utilizes a small portion of Sunday Drive, but most of it would require ROW from the historic property. The alignment would cross into the historic property boundary from the northeast, briefly travel along existing Sunday Drive, turn west and bisect the wood lot, and then travel along the southern border of the property. Sunday Drive would be modified to intersect the new alignment near the wood lot.

Alternative 5C would intersect the Gettysburg Railroad requiring a new bridge over the railroad, but there are no contributing railroad features. Although an aerial easement from the Gettysburg Railroad would be required, it would not constitute a Section 4(f) use. PennDOT and the PA SHPO concurred that the alternative would not affect the historic resource. There would be no Section 4(f) use of the Gettysburg Railroad.

All together (assuming the 100-foot-wide limit of disturbance used for the alternatives analysis), Alternative 5C would impact 12 agricultural operations (7 operations for Alternative 5 and 5 operations for Sub-Alignment Alternative C), permanently require approximately 35.0 acres of PAL (23.8 acres for Alternative 5 and 11.2 acres for Sub-Alignment Alternative C), 22.0 acres of ASAs (12.5 acres for Alternative 5 and 9.5 acres for Sub-Alignment Alternative C), and 1.8 acres from the land preservation program (for Alternative 5). Five of the agricultural operations are ASAs, including the Devine Chapel Farm and Henry Hostetter Farm. Two of the five ASAs (including the Devine Chapel Farm) are also largely protected in the Adams County Agricultural Land Preservation Program, however, the majority of Alternative 5C travels through areas of the properties that are excluded from the land preservation program.

To the extent possible, Alternative 5C is aligned adjacent to property lines to minimize the overall impact on the parcels. Alternative 5C would impact 32 individual properties (25 for Alternative 5 and 7 for Sub-Alignment Alternative C); many of these impacts would consist of partial land acquisition. Eight of the 32 properties would displace residential and/or commercial structures (7 displacements for Alternative 5 and 1 for Sub-Alignment Alternative C). Of the eight displacements, five are residential and one is a residential property that also houses a home-based business. The two commercial relocations are at the eastern terminus of Alternative 5; they house six individual businesses.

Alternative 5C was found to meet the project purpose and need. Prior to detailed analysis, Alternative 5 underwent a preliminary alternatives analysis with Alternatives 3 and 4 to better understand their potential to impact certain environmental impacts. Alternatives 3 and 4 were dismissed because they would result in more severe impacts to Section 4(f) properties and/or agricultural operations compared to Alternative 5 (see Table 2). Sub-Alignment Alternatives A and B do not meet the project purpose and needs. They have numerous access points and would cause additional traffic congestion and safety concerns by increasing traffic through the existing residential areas. There was considerable public opposition to both sub-alignment alternatives, specific to the impacts on the residential communities and the safety concerns about adding traffic adjacent to a retirement community access point. Compared to Sub-Alignment Alternatives A and B, Sub-Alignment Alternative C would have greater agricultural impacts but fewer displacements and fewer partial acquisitions.

5.0 ASSESSMENT OF LEAST OVERALL HARM

Two alternatives were determined to meet the purpose and needs of the proposed project and were studied in detail: the TSM Alternative and Alternative 5C.

5.1 SHIFTS/DESIGN MODIFICATIONS TO AVOID THE USE OF SECTION 4(F) PROPERTIES

The TSM Alternative extends into the Hanover Historic District. Current travel patterns show that traffic from the Littlestown Borough area travel along SR 0194 (Hanover Pike) through Center Square, Hanover to Carlisle Street to head north (and vice versa). An alternate route north/south would reduce future congestion and the need for traffic improvements along Carlisle Street. Therefore, any alternative that does not include a new alignment alternative would require improvements along Carlisle Street between Eisenhower Drive and Center Square, Hanover to provide the required LOS D or better. This would include improvements to the various corridors and intersections throughout the project area. To achieve the LOS D or better and meet the needs of the project, the TSM alternative would require widening Carlisle Street from 3rd Street north to Dart Drive/Kuhn Drive.

Eliminating elements of the TSM alternative, including eliminating lane widening or intersection improvements in the Hanover Historic District, would negatively affect the overall transportation network and result in a reduction in total network performance within the project area to below the required LOS D. This modification would result in an alternative that would not meet the project purpose and needs, which does not appear to be prudent. There are no TSM Alternative design modifications or shifts that would avoid use of the Section 4(f) property.

Alternative 5C traverses three Section 4(f) properties: Poist Chapel Farm, Devine Chapel Farm, and Henry Hostetter Farm. Shifting the alignment south to avoid the historic properties would displace and require ROW from residential and commercial properties, most of which are within four established residential developments.

Avoiding the Poist Chapel Farm would displace approximately five residential properties at the eastern end of Johnathan Drive and the northern end of Providence Drive, an area that comprises the northeast corner of a late 20th-century residential neighborhood east of Church Street. Avoiding the Devine Chapel Farm would displace approximately nine residential properties from the same residential neighborhood. It would displace one residential and two commercial

properties where the alignment would intersect Church Street and displace approximately six residential properties at the end of Sease Drive and Conewago Drive, from a late 20th-century residential neighborhood west of Church Street.

Avoiding the Henry Hostetter Farm would disrupt two established residential developments. The alignment would require partial acquisition from the rear yards of approximately 14 residential properties and at least one residential displacement from the late 20th-century residential development east of Sunday Drive. It would also require displacing at least 12 residences within an early 21st-century retirement community west of Sunday Drive.

Due to the proximity to adjacent established communities, there are no shifts or design modifications that can avoid the use of Section 4(f) properties without resulting in other severe problems of a magnitude that substantially outweighs the impacts to the Section 4(f) property. Alternative 5C does not involve impacts to any historic structures and does not impact the viable agricultural operations which are the bases of their eligibility.

5.2 ALL POSSIBLE PLANNING TO MINIMIZE HARM TO SECTION 4(F) PROPERTIES

The design for Alternative 5C incorporates all possible planning to minimize harm to Section 4(f) properties. It cannot be shifted to avoid the use of Section 4(f) properties without substantially and adversely impacting numerous residential and commercial properties. The proposed alignment is positioned along the southern edge of all three historic farms. As currently designed, Alternative 5C would require eight displacements. Shifting Alternative 5C to the south to avoid the Section 4(f) properties would require more than 30 residential and commercial displacements. In its current location, Alternative 5C would require use of Section 4(f) properties but it would substantially reduce the number of potential property displacements.

Minimization efforts at the Devine Chapel Farm and Poist Chapel Farm include limiting the size and locations of the stormwater swales or ditches along the roadway and locating larger stormwater drainage facilities outside the historic property boundaries to the maximum extent possible (stormwater engineering is still in design). Vegetation between the roadway and the historic farm would minimize the visual and audible effects of the proposed project.

Substantial minimization efforts were incorporated into the alternative at the Henry Hostetter Farm. Originally, the alignment took a straighter course between Hanover Road through the agricultural properties to Sunday Drive and then along Sunday Drive to an area closer to the existing Sunday Drive/Centennial Road intersection. This alignment bisected a portion of the farm in the southeast corner of the property from the rest of the property and had greater impacts to the property along Sunday Drive. When the Henry Hostetter Farm was determined eligible for listing in the NRHP, the design team revisited and refined the alignment to reduce its impact on the historic property, while also meeting the needs of the project. The designers shifted the alignment to hug the southern and eastern edges of the property and made the curve through the wood lot as tight as it can be in order to minimize the amount of land that would be bisected from the property. The alignment utilizes less of Sunday Drive and turns northeastward through the vacant lot east of the Section 4(f) property and north of the adjacent residential development, which further reduces the impact to the Henry Hostetter Farm and avoids impacting the existing driveway and access point.

Due to the adverse effect finding, PennDOT coordinated with FHWA, the PA SHPO, and consulting parties to resolve the adverse effects and drafted mitigation commitments in a formal agreement document (Memorandum of Agreement [MOA]).

The MOA was shared with the PA SHPO and consulting parties in August 2020. Within the MOA, PennDOT proposed to make a donation to Historic Gettysburg Adams County, Inc. to support their barn grant program. The program provides funding to citizens to rehabilitate historic barns in Adams County. The MOA was fully executed in September 2020 and is provided in Appendix C.

5.3 DETERMINATION OF WHICH ALTERNATIVE RESULTS IN LEAST OVERALL HARM

Based on the detailed analysis presented in Section 4.2 and the comparative analysis shown in Table 3, Alternative 5C appears to be the alternative that results in least overall harm.

Table 3: Least Overall Harm Analysis

Factors for Determining Least Overall Harm	TSM Alternative	Alternative 5C	Comparison
Impacts to Section 4(f) Properties	The alternative impacts one Section 4(f) property. The TSM Alternative would substantially alter the composition of a portion of Carlisle Street within and adjacent to the Hanover Historic District. Improvements would affect approximately 22 buildings that contribute to the district; between 14 and 22 of these properties would be displaced.	The alternative impacts three Section 4(f) properties. Alternative 5C would require 2.0 acres of the Poist Chapel Farm, 6.6 acres of the Devine Chapel Farm, and 7.3 acres of the Henry Hostetter Farm, along the boundaries of the properties. The alternative impacts active agricultural and wooded land; no buildings would be impacted.	The TSM Alternative would require the demolition and the loss of contributing structures. Alternative 5C only impacts land along the boundaries of the historic properties and does not impact the viability of the agricultural use of these properties.
1. The ability to mitigate adverse impacts to each Section 4(f) property (including any measures that result in benefits to the property).	Given the significant number of contributing structures demolished by this alternative, the impacts to the historic district cannot be completely mitigated.	The adverse impacts to the Poist Chapel Farm, Devine Chapel Farm, and Henry Hostetter Farm could be mitigated through the Section 106 process.	The impacts to historic properties caused by Alternative 5C can be mitigated better than the impacts caused by the TSM Alternative.

Factors for Determining Least Overall Harm	TSM Alternative	Alternative 5C	Comparison
<p>2. What is the relative severity of the harm to the protected activities, attributes, or features that qualify each Section 4(f) property for protection?</p>	<p>The TSM Alternative would involve demolishing at least 14 and up to 22 buildings that contribute to the Hanover Historic District. Carlisle Street, an historic thoroughfare in the district, would be permanently altered. The alternative would impact numerous contributing properties, as well as significantly diminish integrity of design, setting, feeling, association, materials, and workmanship of the Hanover Historic District.</p>	<p>Alternative 5C would involve acquiring active and contributing agricultural land from three historic farm properties; no buildings would be impacted by the alignment. The alternative would affect farmland, but it would not impact the viability of the agricultural use of the properties. The alternative would result in some diminished integrity of setting, feeling, and association of the farms.</p>	<p>The TSM Alternative would involve the demolition of 14 to 22 contributing buildings and have a greater effect on the integrity of the historic resource impacted.</p>
<p>3. What is the relative significance of each Section 4(f) property?</p>	<p>The Hanover Historic District is listed in the NRHP and has both historical (Criterion A) and architectural (Criterion C) significance spanning nearly three centuries.</p>	<p>The Poist Chapel Farm, Devine Chapel Farm, and Henry Hostetter Farm are eligible for listing in the NRHP and have historical (Criterion A) significance within the context of the region's agricultural history.</p>	<p>The Hanover Historic District is a larger historic resource, contains more contributing buildings and features, and meets more National Register criteria and areas of significance than the three farms.</p>

Factors for Determining Least Overall Harm	TSM Alternative	Alternative 5C	Comparison
<p>4. What is the view of the official(s) with jurisdiction over each Section 4(f) property?</p>	<p>The SHPO requested PennDOT consider a version of the TSM Alternative that would not require demolishing between 14 and 22 buildings, but such an approach would not meet purpose and need. It is the view of the SHPO that the TSM alternative would adversely affect the Hanover Historic District.</p>	<p>It is the view of the SHPO that Alternative 5C would adversely affect the Poist Chapel Farm, the Devine Chapel Farm, and the Henry Hostetter Farm.</p>	<p>Both alternatives would adversely affect all impacted Section 4(f) properties. PennDOT coordinated with the PA SHPO during the Determination of Effects and, based on comments and questions about the impacts to and the potential minimization efforts for the Hanover Historic District, the SHPO appeared to have more concerns with the TSM Alternative.</p>
<p>5. What is the degree to which each alternative meets the purpose and need for the project?</p>	<p>The alternative meets the purpose and need for the project. Crashes are expected to rise 3% compared to a no-build scenario, as defined in the Eisenhower Drive Traffic & Operational Alternatives Analysis (June 2019).</p>	<p>The alternative meets the purpose and need for the project. It is expected to reduce crashes by 9% compared to a no-build scenario, as defined in the Eisenhower Drive Traffic & Operational Alternatives Analysis (June 2019).</p>	<p>Both alternatives meet the purpose and need for the project, however the safety performance of Alternative 5C is preferable despite the addition of 3.5 miles of roadway and five new intersections.</p>

Factors for Determining Least Overall Harm	TSM Alternative	Alternative 5C	Comparison
<p>6. What is the magnitude of any adverse impacts to resources not protected by Section 4(f)?</p>	<p>The alternative would displace 44 properties (17 multi-family properties containing 69 residential units, nine single-family properties, and 18 businesses) and impact 86 additional properties.</p> <p>The alternative would disrupt an established mixed-use community on Carlisle Street.</p> <p>The alternative may have temporary and permanent impacts to environmental justice populations.</p> <p>There are 22 properties with potential hazardous waste concern. Nine would be full displacements requiring Phase II/III evaluation.</p>	<p>The alternative would displace 8 properties (five residential, one mixed-use, two commercial properties containing six businesses) and partially impact 24 additional properties.</p> <p>The alternative affects 1.8 acres of preserved farmland, 22.0 acres of agricultural security areas, four streams, and 1.3 acres of wetlands.</p> <p>There are 17 properties with potential hazardous waste concern. Five are recommended for Phase II/III investigation. One may be displaced.</p>	<p>The TSM Alternative would result in almost four times the number of partial impacts and almost six times the number of total displacements compared to Alternative 5C. It would have a larger impact on the established community, environmental justice populations, and the tax base.</p> <p>Alternative 5C would have greater impacts on natural resources in the project area, however the stream and wetland impacts will be mitigated.</p> <p>The TSM Alternative would have greater impacts on known and potential hazardous waste sites, requiring more mitigation.</p>
<p>7. What are the substantial differences in costs among the alternatives?</p>	<p>\$25-29 million</p>	<p>\$38-42 million</p>	<p>The TSM Alternative is less expensive than Alternative 5C.</p>

Based on the comparison provided in Table 3, the TSM Alternative appears to have greater impacts to both Section 4(f) property and other resources not protected by Section 4(f). Both alternatives adversely impact Section 4(f) properties; however, the impacts caused by the TSM Alternative appear to be more severe compared to the impacts caused by Alternative 5C. The TSM Alternative would impact more contributing features of a Section 4(f) property and have greater impacts to its integrity. Alternative 5C would impact agricultural resources and natural resources; however, the impacts to

the agricultural operations will not affect their viability and the impacts to streams and wetlands can be mitigated. The impacts to established communities, environmental justice populations, and the study area tax base are more severe and disruptive than the impacts to agricultural and natural resources. It appears that Alternative 5C would result in least overall harm to Section 4(f) properties.

6.0 COORDINATION WITH OFFICIALS WITH JURISDICTION

Only historic properties would be used by the proposed project. Therefore, the only Official with Jurisdiction (OWJ) is the Director of the PHMC, who serves as the PA SHPO. All coordination between PennDOT and the PA SHPO is documented on PennDOT's *PATH* website (<https://path.penndot.gov/>). Correspondence with the PA SHPO is provided in Appendix A. Documentation relating to consulting party coordination is provided in Appendix B.

The cultural resources scoping field view occurred on June 20, 2016. PennDOT and consultant staff toured the project area and developed a scope of work for cultural resources. The PennDOT Cultural Resources Professionals (CRPs) posted the Early Notification/Scoping Results Form to *PATH* on October 1, 2016. Through *PATH*, the CRP solicited consulting party participation from 33 contacts. PennDOT mailed letters to additional individuals and organizations based on their potential vested interest in historic preservation issues. In total, the Eisenhower Drive Extension Project involves 24 consulting parties and the PA SHPO.

PennDOT coordinated with the PA SHPO throughout the historic resource identification phase. On February 23, 2017, PennDOT shared the results of the reconnaissance survey, which was conducted to identify historic properties over 50 years of age within the APE. A total of 751 historic-age properties were surveyed, including previously recorded and newly documented properties. Based on the results of the reconnaissance survey and through consultation with the PA SHPO and consulting parties, PennDOT requested intensive level evaluations for 14 resources. PennDOT posted determinations of eligibility in July 2018 and solicited concurrence from the PA SHPO. Through consultation, PennDOT identified a total of 10 historic properties within the APE that are eligible for or listed in the NRHP.

As the project progressed, additional coordination with the PA SHPO and consulting parties occurred regarding alternatives and potential for effect. PennDOT hosted a public meeting on May 22, 2018 to present the project and the alternatives then under consideration and to solicit public feedback on the alternatives. PennDOT hosted a second public meeting on May 9, 2019 to provide a project update, present the preferred off-alignment alternative, and gather additional public input. The PennDOT CRP shared a memorandum summarizing the results related to an informal survey focusing on cultural resources that was included in the second public meeting. The PA SHPO and consulting parties were invited to attend the public meetings and consult with the PennDOT and consultant teams on determinations of eligibility and anticipated impacts. Opportunities to sign up as a Section 106 consulting party were also available at the public meetings.

PennDOT hosted a consulting party meeting on May 15, 2019. PennDOT sent invitations via *PATH* and mailed letters to all consulting parties, the PA SHPO, and all historic resource property owners and local historical societies. Fourteen consulting parties, composed primarily of property owners and elected officials, attended the meeting. The PA SHPO was unable to attend. The majority of the concerns voiced at the consulting party meeting related to the project alternatives and design of the project, not the project's potential to affect historic properties.

On August 22, 2019, PennDOT made a determination that the TSM Alternative would adversely affect the Hanover Historic District and that Alternative 5C would not adversely affect the three historic farms. The PA SHPO requested additional information on September 9, 2019, which PennDOT provided on September 11, 2019. The SHPO disagreed with PennDOT's finding on October 7, 2019, noting that it is the opinion of the PA SHPO that Alternative 5C would adversely affect all three historic farms. After additional consultation with the PA SHPO, PennDOT agreed with the adverse effect opinion and supplied additional requested information on November 8, 2019.

PennDOT, the PA SHPO, and consulting parties coordinated and resolved the adverse effect finding through agreed upon mitigation measures outlined in the MOA. The fully executed MOA is provided in Appendix C.

7.0 CONCLUSION

(Only included in the Final Section 4(f) Evaluation)

APPENDIX A: CORRESPONDENCE WITH THE OFFICIAL WITH JURISDICTION



Pennsylvania State Historic Preservation Office

PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION

March 1, 2017

Brian Thompson, Director
Bureau of Project Delivery
Attn: Jeremy Ammerman
PA Department of Transportation
PO Box 2966
Harrisburg, PA 17105

ER 2016-8477-001-C: Eisenhower Boulevard Extension, SR 0000 Section RWY, Conewago Township, Adams County, Reconnaissance Above Ground Survey

Dear Mr. Thompson,

Thank you for submitting information concerning the above referenced project. The Pennsylvania State Historic Preservation Office (PA SHPO) reviews projects in accordance with state and federal laws. Section 106 of the National Historic Preservation Act of 1966, and the implementing regulations (36 CFR Part 800) of the Advisory Council on Historic Preservation, is the primary federal legislation. The Environmental Rights amendment, Article 1, Section 27 of the Pennsylvania Constitution and the Pennsylvania History Code, 37 Pa. Cons. Stat. Section 500 et seq. (1988) is the primary state legislation. These laws include consideration of the project's potential effects on both historic and archaeological resources.

Thank you for submitting information concerning the above referenced project. This project is in its planning stage, therefore since potential effects are unknown as well as the APE, it is difficult for both agencies to determine an appropriate level of additional above ground survey. Below please find our comments regarding the submission.

- We concur, based upon the documentation provided that the resource “Brushtown Village,” Key # 001904 does not warrant further study. While the area may have been a linear village at one time, there has been modern construction, and it does not appear that the area as a whole has NRHP significance. However, once the APE has been refined, and there is a potential for effects, there may be individual properties that may warrant additional survey.
- We are unable to concur, based upon the documentation provided that the Mid-20th century residential district does not appear to have significance and does not warrant additional study; particularly since the suburb is directly adjacent to the Utz Potato Chip Factory. At a minimum, while researching the factory, it would be suggested that documentation be reviewed to determine if there is a correlation. If the refined APE/alternative(s) suggest that there will not be an effect, then no additional survey would be necessary.
- We are unable to concur, based upon the documentation provided, that Key # 001925 “Edgegrove” and Key # 001965, 001966, 00169 and 001971 “Conewago Township Blocks” are not worthy of additional survey as historic districts. As large groupings and having a cohesive history/development within each area, there is a potential for historic districts and/or individual resources. In addition, while perhaps outside of the current APE, Key #s 001967, 001968, 001970 and 001972 may be historically associated with the other key numbers within the APE, and that may be indicative of a larger “Conewago Township” resource.

If the alternative (s) selected for further study include these areas within their APE, then at that time, further study would in our opinion, be warranted. We strongly suggest that representatives from the PA SHPO and the District Above Ground CRP schedule a field view to those two areas once a more refined APE has been selected.

- We concur that the following properties warrant additional studies, however, if the alternative (s) will not have the potential to affect these resources, it may be prudent to consider waiting for a more refined APE before conducting further studies.

Key# 003844, 003846-58, 003868	McSherrystown Borough
Key # 077455	Hopkins Manufacturing Company
Key # 104055	St. Joseph's Academy
Key # 001901-1902	400 Chapel Road (farm)
Key # 001917	301 Oxford Avenue (farm)
Key # 001920	Oxford Avenue (farm)
Key #001922	539 Oxford Avenue (Keagy Farm)
Key #001923	687 Oxford Avenue (Farm)
Key #001929	810 Edgegrove Road (farm)
Key #001930	509 Church Street (farm)
Key #001933	326 Sunday Drive (farm)
Key #001934	3588 Centennial Road (farm)
Key #003679	5200 Hanover Road (farm)
Key #007147	600 Bender Road (farm)
Key #007148	485 Bender Road (farm)
Key #007150	100 Bender Road (farm)
Key #001974*	EMECO 805 W. Elm Avenue Utz Potato Chip Factory industrial Building on 570 Elm Avenue Farm at 5955 Hanover Road Farm at 225 North Oxford Avenue Delone Catholic High School Gettysburg Railroad

*Please verify – should Key #001974 be 001947?

- We concur with the PennDOT memo dated February 23, 2017, that individual abbreviated survey forms are not required for those properties that are within a potential historic district, or for individual properties on either Appendix B or C. However, if the alternative (s) should require that any of these buildings will be directly affected (i.e. Demolished), then at a minimum, an abbreviated survey form would be required and a determination of eligibility would need to be provided.

If you have questions, please contact Cheryl L. Nagle at 717.772.4519 or chnagle@pa.gov.

Sincerely,



Douglas C. McLearn, Chief
Division of Archaeology and Protection



Pennsylvania State Historic Preservation Office

PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION

October 7, 2019

Brian Thompson, Director
Bureau of Project Delivery
Attn: Jeremy Ammerman, District 8-0
PA Department of Transportation
P.O. Box 2966
Harrisburg, PA 17105

RE: ER 2016-8477-001-W; SR 0, Sec. RWY (MPMS 58137); Eisenhower Boulevard Extension; Conewago Township, Adams County; Above Ground Resources Assessment of Effect - Additional Information

Dear Mr. Thompson,

Thank you for submitting information concerning the above referenced project. The Pennsylvania State Historic Preservation Office (PA SHPO) reviews projects in accordance with state and federal laws. Section 106 of the National Historic Preservation Act of 1966, and the implementing regulations (36 CFR Part 800) of the Advisory Council on Historic Preservation, is the primary federal legislation. The Environmental Rights amendment, Article 1, Section 27 of the Pennsylvania Constitution and the Pennsylvania History Code, 37 Pa. Cons. Stat. Section 500 et seq. (1988) is the primary state legislation. These laws include consideration of the project's potential effects on both historic and archaeological resources.

Proposed Project

The proposed project intends to improve motorized and non-motorized safety and levels of service along Eisenhower Drive, SR 0094 (Carlisle Street), and SR 0116 (Hanover Road, West Elm Street, Main Street, 3rd Street), which are the main traffic corridors through McSherrystown, Hanover Borough, Conewago, and Penn Townships. PennDOT's preferred alternative is the Off-Alignment Build Alternative 5C (new roadway). This new roadway would begin at the current western terminus of Eisenhower Drive and continue for approximately six miles to tie into the existing SR 0116, east of the existing bridge crossing Conewago Creek South Branch. The proposed roadway would consist of two, 12-foot travel lanes, 8-foot shoulders, and swales/stormwater facilities within the PennDOT right-of-way.

Above Ground Resources Historic Properties

The following historic properties are within the Area of Potential Effects (APE) for the preferred alternative: Conewago Chapel (Key No. 001254); Devine Chapel Farm (Key No. 001930); Gettysburg Railroad (Key No. 208778); Henry Hostetter Farm (Key No. 001933); and the Poist Chapel Farm (Key No. 001920).

The Conewago Chapel was listed in the National Register of Historic Places (National Register) in 1975, under Criterion A and C, in the areas of Religion and Architecture, for the years 1785-1959. Although no formal boundary was delineated in the National Register nomination, the boundary is assumed to be the current tax parcel, which includes the church, associated buildings, and cemetery.

The Devine Chapel Farm was determined eligible for listing in the National Register in 2018, under Criterion A in the area of Agriculture, for the years 1787 to 1940, as a significant farm within the "Small Farms, Mechanization, and New Markets" and "Diversified Small-Scale

Farming, Poultry, and Cannery Crops” periods of the Adams-York Diversified Field Crops, Cannery Crops, and Livestock Region of the Agricultural Resources of Pennsylvania context. The boundary includes the current 154-acre tax parcel, which includes the farmstead and historically associated agricultural land.

The Gettysburg Railroad was determined eligible for listing in the National Register in 2018, under Criterion A in the area of Transportation. The period of significance for the railroad is 1856 to 1942, the year construction of the railroad began until passenger service on the line ceased operation. The National Register boundaries for the Gettysburg Railroad includes the existing CSX Transportation right-of-way between Gettysburg Station and the Western Maryland Railway Freight Depot in Hanover, to include the Gettysburg Station, New Oxford Passenger Station, the Hanover Union Station, and the Western Maryland Railway Freight Depot.

The Henry Hostetter Farm was determined eligible for listing in the National Register in 2018, under Criterion A in the area of Agriculture, for the years 1800 to 1968, as a significant farm that meets or exceeds the registration requirements for change over time within the York-Adams Diversified Field Crops, Cannery Crops, & Livestock Region of the Agricultural Resources of Pennsylvania Context. The boundary encompasses the 166.5-acre tax parcel, which includes the farmstead and historically associated agricultural land.

The Poist Chapel Farm was determined eligible for listing in the National Register in 2018, under Criterion A in the area of Agriculture, for the years 1880 to 1940, as a significant farm within the “Diversified Small-Scale Farming, Poultry, and Cannery Crops” periods of the Adams-York Diversified Field Crops, Cannery Crops, and Livestock Region of the Agricultural Resources of Pennsylvania context. The boundary encompasses the 125.9-acre tax parcel, which includes the farmstead and historically associated agricultural land.

Assessment of Effects

Based on the information received and available within our files, we concur with the findings of the agency that the proposed project would have No Effect on the National Register-listed Conewago Chapel and the National Register-eligible Gettysburg Railroad. We disagree, however, on the remaining agency effect assessments, as follows.

In our opinion, the proposed project will have an **Adverse Effect** on the **Devine Chapel Farm**, the **Henry Hostetter Farm**, and the **Poist Chapel Farm**. The proposed project will include acquisition and alteration of historically related agricultural lands (woodlots and agricultural lands) for the construction of a new roadway. The new roadway would introduce a visual element that is out of scale and agricultural character within the setting of the historic property and will diminish integrity of setting, feeling, and association. In our opinion, the construction of a new roadway within a portion of each historic farm would compromise the ability of the affected farmland to convey significance. The proposed changes would ultimately result in removal of the portions of farmland within each National Register boundary.

Devine Chapel Farm: We disagree with the agency’s assessment that “Although the alternative would directly alter the farmland, it alters only a small portion along the edge of the property, which would not diminish the setting, feeling, or association of the historic property or compromise its eligibility for listing in the NRHP.” In our opinion, the new roadway construction would result in physical destruction of a portion of the property. We also disagree with the statement that while a new roadway would introduce visual and audible elements to each historic property, “visual and audible elements would not affect the integrity of the property’s significant historic features, its farmstead and farmland.” The construction of a new roadway is occurring within historically associated and contributing farmland.

Henry Hostetter Farm: We disagree with the agency's assessment that "Although the woodlot was historically present on the property, it is not considered contributing to the property, its agricultural setting, or historic function." The woodlot in the southeast corner of the property is clearly visible on the 1939 historic aerial and as noted in the agricultural context, typical farm landscapes included small crop fields, some pasture, and small woodlots. In our opinion, the new roadway construction would result in physical destruction of a portion of the property, including the historically associated woodlot and agricultural lands, as well as introduce audible and visual elements within the boundary.

Poist Chapel Farm: We disagree with the agency's assessment that "Although the alternative would directly alter the farmland, it alters only a small portion along the edge of the property, which would not diminish the setting, feeling, or association of the historic property or compromise its eligibility for listing in the NRHP." In our opinion, the new roadway construction would result in physical destruction of a portion of the property. We also disagree with the statement that while a new roadway would introduce visual and audible elements to each historic property, "visual and audible elements would not affect the integrity of the property's significant historic features, its farmstead and farmland." The construction of a new roadway is occurring within historically associated and contributing farmland.

Continued Consultation

We understand that "avoidance and minimization efforts" were addressed in the Determination of Effects report; however, the report concluded that the overall project finding for the preferred alternative would result in No Adverse Effect to historic properties. Based on the SHPO response to the effects assessment provided above, please provide documentation of consideration of alternatives that avoid or minimize effects to the identified historic properties. In addition, please provide additional information supporting the project's purpose and need. It appears from the information presented, that while it was stated that a total of eight alternatives were originally explored, only three are provided for evaluation/consideration in the documentation, with only two (TSM and 5C/off-build alignment) thoroughly documented and evaluated. Have other non-construction alternatives that have not been documented in consultation to date, such as altering traffic patterns, increased signalization, etc. been considered?

Finally, please note that the submission in Project PATH notes that "Official comment forms and minutes from the public meeting [held May 9, 2019] will be posted upon the closure of the public comment period in early June of 2019"; however, it does not appear that the meeting minutes have yet been posted.

We look forward to continued consultation with you and other consulting parties regarding design minimization and mitigation.

For questions concerning this review and/or for future consultation, please contact Emma Diehl at emdiehl@pa.gov or (717) 787-9121.

Sincerely,



Douglas C. McLearn, Chief
Division of Environmental Review



Pennsylvania State Historic Preservation Office

PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION

November 27, 2019

Brian Thompson, Director
Bureau of Project Delivery
Attn: Jeremy Ammerman, District 8-0
PA Department of Transportation
P.O. Box 2966
Harrisburg, PA 17105

RE: ER 2016-8477-001-Y; SR 0, Sec RWY (MPMS 58137); Eisenhower Boulevard Extension;
Conewago Township, Adams County; Above Ground Resources – Assessment of Effect –
Additional Information

Dear Mr. Thompson,

Thank you for submitting information concerning the above referenced project. The Pennsylvania State Historic Preservation Office (PA SHPO) reviews projects in accordance with state and federal laws. Section 106 of the National Historic Preservation Act of 1966, and the implementing regulations (36 CFR Part 800) of the Advisory Council on Historic Preservation, is the primary federal legislation. The Environmental Rights amendment, Article 1, Section 27 of the Pennsylvania Constitution and the Pennsylvania History Code, 37 Pa. Cons. Stat. Section 500 et seq. (1988) is the primary state legislation. These laws include consideration of the project's potential effects on both historic and archaeological resources.

Above Ground Resources

Based on the additional information received in response to our letter of October 7, 2019, consideration has been given to alternatives that avoid and minimize effects. In our opinion and as agreed upon by the agency, the proposed project will result in an Adverse Effect to historic properties. Specifically, the project will have an **Adverse Effect** on the **Devine Chapel Farm**, the **Henry Hostetter Farm**, and the **Poist Chapel Farm**. The proposed project will include acquisition and alteration of historically related agricultural lands (woodlots and agricultural lands) for the construction of a new roadway, that will ultimately diminish integrity of setting, feeling, and association. The construction of a new roadway within a portion of each historic farm would compromise the ability of the affected farmland to convey significance and ultimately result in removal of the portions of farmland within each National Register boundary.

With regards to mitigation, we suggest consideration of a monetary donation to Historic Gettysburg-Adams County (HGAC) to assist in their agricultural documentation efforts as well as their barn preservation grant program; however, this should not preclude consideration of mitigation measures put forth by other consulting parties. We look forward to continued consultation with you and other consulting parties regarding mitigation.

For questions concerning this review and/or for future consultation regarding above ground resources, please contact Emma Diehl at emdiehl@pa.gov or (717) 787-9121.

Sincerely,

Douglas C. McLearn, Chief
Division of Environmental Review

APPENDIX B: CONSULTING PARTY COORDINATION



Meeting Minutes

Eisenhower Boulevard Extension Project

MPMS No.

ER No.

JMT Project No. 02-0308-012

May 15, 2019

A Section 106 Consulting Party Meeting was held at the Southeastern Adams Volunteer Emergency Services (S.A.V.E.S.) facility in Hanover, Pennsylvania on May 15, 2019 for the above referenced project. Please refer to the attachment for a list of meeting attendees.

The purpose of this meeting was to discuss with consulting parties the potential for the three alternatives to affect historic properties and to discuss ways the project team could avoid, minimize, and mitigate potential adverse effects. The meeting minutes are organized in a way that presents the Section 106-related discussions and comments first and other project-related questions and comments in a separate section at the end.

The meeting handouts included:

- Meeting Agenda
- Summary table of historic properties in the Area of Potential Effect (APE)
- Map of APE and historic properties
- Section 106 process flow chart
- Section 106 process explanation

The following items were discussed:

1. *Welcome and Introductions*

Jeremy Ammerman (JA), architectural historian for PennDOT District 8-0, began the meeting with introductions. All attendees introduced themselves by their name and whether they were affiliated with any of the historic properties in the project area. Representatives from the following properties/organizations were present (for a list of names, refer to the attached sign-in sheet):

- Hostetter Farm
- Poist Chapel Farm
- Utz Potato Chip Company
- Conewago Chapel
- Conewago Township Supervisors
- Adams County Planning Department
- Property owners

He explained the purpose of the meeting, which is to discuss the potential impact of the project alternatives on historic properties.

2. Section 106 and Consulting Parties

JA provided a brief overview of the Section 106 process. He called attention to the handouts provided to the attendees, particularly the colorful infographic which outlines the process for Section 106. JA described the directive of Section 106, which is to require federal agencies to consider how their project could affect historic properties. Within the context of Section 106, JA defined “historic property” as one that is eligible for or listed in the National Register of Historic Places. To have this designation, the property must be at least 50 years old, possess significance in one of four categories (generally: event, person, design, potential to yield information), and retain a certain level of integrity of location, design, workmanship, materials, setting, feeling, and/or association.

JA described the first two steps of the Section 106 process, which have already been undertaken for this project. The first step, project initiation, involved notifying the State Historic Preservation Office (SHPO) of the project, defining a preliminary study area or Area of Potential Effect (APE), and identifying consulting parties such as municipal governments, historical societies, and property owners. The second step, identifying historic properties, involved a reconnaissance survey and intensive level survey. The reconnaissance survey involved documenting every building over 45 years of age, which totaled 751 properties. The conclusion of the reconnaissance was a list of properties that needed to be studied in depth because they retained integrity and needed to undergo additional research and evaluation. The intensive level survey involved an in-depth analysis of 12 newly surveyed properties and a review of two previously surveyed properties. As a result of this analysis, PennDOT worked with the SHPO and identified two properties previously listed in the National Register of Historic Places and eight properties eligible for listing in the National Register.

JA briefly mentioned the third step (assessing effects) and fourth step (resolving adverse effects) but noted that they would be discussed in more depth later in the meeting.

3. Eisenhower Boulevard Extension Project – Alternatives Analysis

Matthew Nulton (MN), lead highway designer for JMT, provided an overview of the project to date. He began by noting that there are three current alternatives under consideration: no-build, transportation systems management (TSM), and one off-alignment alternative. He explained that the project began by identifying the needs of the area, which are to address roadway conditions and improve safety. Main Street in McSherrystown and Elm Street and Carlisle Street in Hanover are highly congested and experience significant delays during morning and evening rush hours. The crash rates along these routes are higher than the statewide average for similar roadway types and include both vehicular and pedestrian incidents. Roadway conditions make it difficult for emergency providers to respond efficiently because there is little room to get out of their way. MN noted that the purpose of the project is to facilitate safe and efficient travel for vehicles, bicyclists, and pedestrians through the area, and to reduce congestion, improve safety, accommodate growth, and reduce the impact of truck and commuter traffic on existing roads; essentially to address the project needs.

MN described how the team began with seven alternatives (besides the no-build alternative) and three sub-alternatives at the west end of the project. The team initially dismissed three alternatives and one sub-alternative because they would not meet the needs of the project and then dismissed two others alternatives and one sub-alternative based on public input after the last public meeting and anticipated impacts to historic properties and active and protected farmland. That left the TSM alternative (shown as alternative 1) and one off-alignment alternative and sub-alternative (shown as alternative 5C). MN briefly explained the TSM as the alternative that would make changes to the existing roadway network by upgrading intersections, adding or changing signals, widening roadways, and adding lanes in order to meet the project needs.

MN concluded by noting that the proposed roadway would have two 12-foot lanes (one in each direction), 8-foot shoulders, and swales/stormwater facilities. The roadway would be posted at 45 mph but designed at 50 mph. The team is still assessing noise impacts and stormwater requirements.

Ben Singer (BS), PennDOT Project Manager, reiterated that the team is still actively considering all three alternatives.

JA and MN noted that the TSM alternative has the potential for 53 property displacements while alternative 5C has the potential for 7 property displacements. MN clarified that displacement includes both full and partial property acquisition.

Section 106 Comments/Questions:

- Is it possible to limit the TSM alternative so it does not extend down SR 94 all the way into Hanover?
 - Traffic analyses show that these TSM improvements would be needed to meet the needs of the project.
- Does the SHPO have input on noise walls?
 - Yes, the SHPO and other consulting parties could weigh in on the design of noise walls along historic properties, if the noise analysis warrants walls and property owners agree to them. Communities benefiting from a noise wall would also be contacted and invited to provide feedback on the desired aesthetic.

4. Discussion about Assessing Effects

JA explained that the project is currently in step 3 of the Section 106 process, which is to determine effects on historic properties. He explained that this phase of the project has two parts: first, to identify whether there is an effect and second, to determine if the effect is adverse. JA provided definitions and explained that there are three designations: no property affected, historic property not adversely affected, or historic property adversely affected.



JA opened discussion with the no-build alternative, noting that the team did not believe this alternative would affect historic properties. No objections to this statement or other comments from consulting parties were voiced.

JA described the TSM alternatives and their potential to affect the Hanover Historic District. Within the historic district, JA and Lindsey Allen (LA), senior architectural historian for JMT, noted that the TSM alternative would directly affect approximately 20-30 properties, some of which would be full acquisitions. JA noted that these impacts would likely constitute an adverse effect to the Hanover Historic District because of the impact to contributing properties.

Section 106 Comments/Questions:

- Why would the improvements need to go so far into the Hanover Historic District?
 - Traffic analyses show that these improvements are necessary to meet the needs of the project.

JA described the potential impacts caused by Alternative 5C, including the three historic farms and the historic railroad. He clarified that the extension would bridge over the railroad, thereby not causing adverse effects to the historic resource. Regarding the Poist and Devine Chapel Farms, the alternative runs along the southern boundaries to maximize agricultural productivity and minimize impacts to the historic farms. At the Hostetter Farm, the alternative was modified to skirt the south/east edges to the extent possible in order to minimize impacts. This has the consequence of impacting a woodlot in the southeast corner of the property. JA explained that the team has undertaken farmer interviews and are still looking for additional feedback about how the proposed alternative would or would not impact land use. The team is still weighing all factors and have not come to a conclusion about whether the impact would be adverse or not adverse.

Section 106 Comments/Questions:

- Owners of the Poist Chapel Farm noted that the proposed alignment would not affect how they operate the farm.

5. Discussion about Mitigating Effects

JA described that the next step in the process, after assessing effects, would be to develop mitigation to make up for impacts, should they be adverse. JA listed a few common examples of mitigation projects, such as educational material for school programs, additional research and reporting, or plaques or markers. The goal is that the project would be educational and related to the properties impacted. He noted that PennDOT, the Federal Highway Administration (FHWA), and the SHPO enter into a legally binding document that obligates the Department to completing this work as part of the project.

Section 106 Comments/Questions:

- One consulting party suggested agricultural conservation for another local farm if conserved farmland is impacted on this project, and mentioned that the Land Conservancy of Adams County is an organization that does this type of thing.

6. *Next Steps and Q&A*

JA summarized the upcoming process for determining effects and developing mitigation and stressed that all of these steps include opportunities for consulting party participation and that the consulting parties and public can influence the outcome and propose mitigation and minimization ideas that could be incorporated into the project, even without an adverse effect finding. Consulting parties should look for email notifications and check the project website and Project PATH for updates.

Other non-Section 106-related consulting party questions and comments:

- Is it possible to limit the TSM alternative so it does not extend down SR 94 all the way into Hanover?
 - Traffic analyses show that these TSM improvements would be needed to meet the needs of the project.
- Please define “the corridor” that was referenced in the project information.
 - The corridor includes SR 116 and SR 94 generally through McSherrystown and Hanover.
- Is the point of the whole project to get traffic off of SR 94?
 - The goal is to allow traffic to move more efficiently through the project area, which includes SR 94.
- Initially thought that the point of the project was just to get traffic off Main Street, not to make changes in Hanover.
 - Based on traffic patterns, the two corridors (SR 94 and SR 116) could not be looked at separately.
- The majority of the off-alignment road is in Conewago but the TSM improvements are in McSherrystown and Hanover. Who would be responsible for the road? Will property owners bare any financial responsibility?
 - The new alignment would be a state route and PennDOT would be responsible for maintenance, including snowplow. If lights are installed at intersections, the township would be responsible only for maintaining the lights. The local property owners would not be responsible for any new financial burden of the state route. The maintenance fees generally come from the state gas tax.
- If the road is designed for 50 mph, will the curves accommodate that speed even if it’s posted lower? Will the actual speed be greater than that?
 - The curves will be designed to accommodate 50 mph, but speeding is a local enforcement issue.
- If there’s low enforcement, there’s bound to be higher speeds – are higher speeds taken into consideration in the noise analysis?
 - The noise analysis is based on the design speed (50 mph), not the posted speed (40 mph).
- Can speed limits be reduced to 40 mph on alternative 5C?
 - Its unlikely they would be lower, but the team can look into it. The road would be designed to be as safe as possible.
- Regarding the noise barriers, what type of treatments have been used on similar projects?



- Walls vary in color and patterns, there are options for earthen berms, plantings, retaining walls. The community affected would be involved in the decision making process. The SHPO and consulting parties may also be involved if it impacts historic properties.
- The project has always stressed the McSherrystown Main Street issues, but information in this meeting makes it sound like SR 94 is also the issue. If TSM is needed for SR 94, it doesn't look like Alternative 5C would do anything for SR 94. Traffic will still be an issue during rush hours, even with a new alignment. It's all local traffic who won't take the bypass.
- How do you know where these people are going?
 - The project included origin and destination (O&D) studies that indicate through traffic along the corridor. The project team was not able to provide details on the report.
- Conewago township people do not want this project.
 - BS and JA noted that no-build alternatives do get selected, and projects do not move forward. This is still an option for this project. JA explained that the significant recent growth in the broader Hanover area is changing the traffic patterns and that it will continue to change.
- The Adams County planner noted that there's a lot of construction in and around town, new subdivisions forthcoming, and that the TSM would do nothing to alleviate the problems in the long run. He is in favor of the build alternative.
- How wide is the roadway?
 - 40 feet
- How wide is the right-of-way?
 - This is still in design, to be determined.
- How far will the road be from rear property lines?
 - This is still in design, to be determined.
- Who controls roadway access? What's to prevent the area from being developed?
 - PennDOT controls roadway access. The state law regulates the process for obtaining a permit to connect to a limited-access roadway – it is different than a simple driveway permit. It is a lengthy and expensive process that is not always successful, even for PennDOT projects. PennDOT is not involved in local zoning and has no control over adjacent property development.
- We do not want the extension to turn into the Route 30 bypass.
- Would it be easier to gain access if elected officials change?
 - The process would remain the same regardless of who is in charge.
- Is consideration given to potential new development in the traffic models?
 - Not specifically, but growth is accounted for using local and historical trends.



The above represents a true and accurate account of the discussion during this meeting to the best of my knowledge. If there are any conflicts, misrepresentations, or omissions with the above statements, please contact the undersigned.

A handwritten signature in black ink, appearing to read 'Lindsey Allen', written in a cursive style.

Lindsey Allen

5/21/2019

Date

Copy:

Meeting Attendees

Project Team

Project File

Agenda

Meeting Title: Eisenhower Boulevard Extension Project – Consulting Party Meeting

Date: May 15, 2019

Time: 5:30 PM

Location: S.A.V.E.S. (Southeastern Adams Volunteer Emergency Services)
5865 Hanover Rd, Hanover, PA 17331

The purpose of this meeting is to introduce the Section 106 consultation process and discuss the alternatives analysis phase of this project.

5:30 – 5:40 PM	Welcome and Introductions	Jeremy Ammerman Lindsey Allen
5:40 – 5:55 PM	Section 106 and Consulting Parties	Jeremy Ammerman Lindsey Allen
5:55 – 6:15 PM	Eisenhower Boulevard Extension Project – Alternatives Analysis	Ben Singer Neil Beach
6:15 – 6:30 PM	Determining Effects – Discussion	Jeremy Ammerman Lindsey Allen
6:30 – 6:45 PM	Mitigating Impacts – Discussion	Jeremy Ammerman Lindsey Allen
6:45 – 7:00 PM	Next Steps and Q&A	Jeremy Ammerman Lindsey Allen

Additional Project Information

Project PATH: <https://search.paprojectpath.org/>

Project Name: Eisenhower Blvd Extension

MPMS Number: 58137

ER Number: 2016-8477-001



HISTORIC PROPERTIES IN THE AREA OF POTENTIAL EFFECT			
Resource Name	NRHP Evaluation	National Register of Historic Places Significance	Period of Significance
<p>Conewago Chapel (Key # 001254) 30 Basilica Drive, Conewago Twp.</p>	Listed	<p><u>Criterion A:</u> Significant contribution to early Conewago valley settlement and helped to establish religion in the area.</p> <p><u>Criterion C:</u> Architecturally significant Georgian style chapel and the oldest Catholic church building constructed of stone in the United States.</p>	1785-1959
<p>Devine Chapel Farm (Key # 001930) 509 Church Street, Conewago Twp.</p>	Eligible	<p><u>Criterion A:</u> Intact farmstead with associated farmland, significant for contributions to the agricultural history of the region.</p>	1787-1940
<p>Emeco Office and Factory Building (Key # 208775) 805 W. Elm Avenue, Conewago Twp.</p>	Eligible	<p><u>Criterion A:</u> Furniture manufacturing complex, significant to Hanover's longstanding furniture industry, particularly with the design of the 1006 Navy Chair.</p>	1953-1968
<p>Gettysburg Railroad (Key # 208778) Hanover to Gettysburg</p>	Eligible	<p><u>Criterion A:</u> Former railroad, significant to regional settlement patterns and transportation and for its important role during the Civil War, particularly with the Battle of Gettysburg and President Lincoln's Gettysburg Address.</p>	1856-1942
<p>Hanover Historic District (Key # 079015) Hanover Borough</p>	Listed	<p><u>Criterion A:</u> Historic district encompassing much of historic Hanover, significant in the areas of commerce, transportation, and history.</p> <p><u>Criterion C:</u> Architecturally significant combination of residential, commercial, and industrial buildings, most of which represent the Colonial Revival, Pennsylvania German vernacular, Queen Anne, and American Four-Square styles.</p>	1783-1946

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DISTRICT 8-0

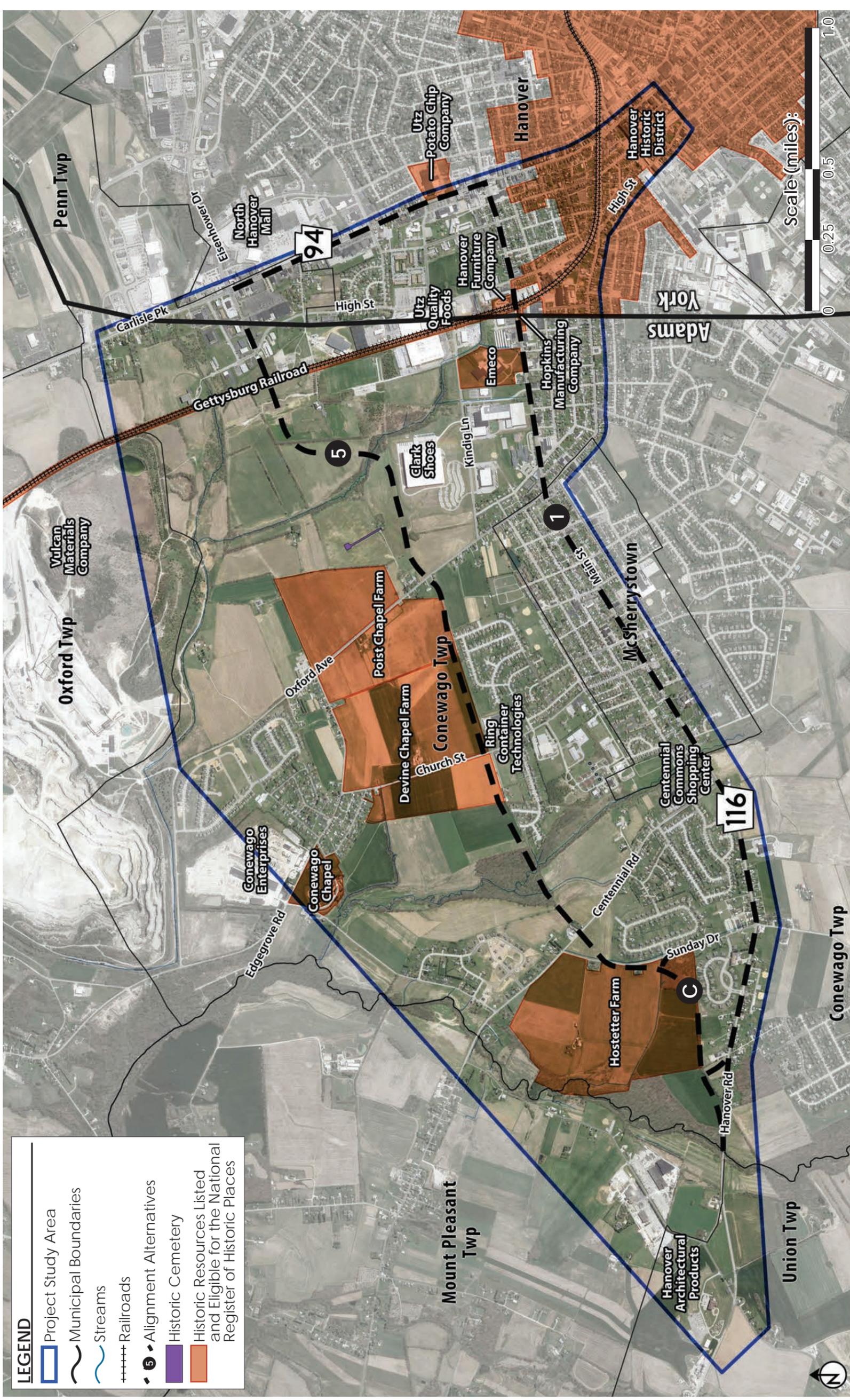


Resource Name	NRHP Evaluation	National Register of Historic Places Significance	Period of Significance
Hanover Furniture Company (Key # 208777) 549 W. Elm Ave, Conewago Twp.	Eligible	<u>Criterion A:</u> Brick and stone industrial building and additions, significant to Hanover's longstanding furniture industry, having consecutively housed four furniture manufacturers over 100 years.	1904-1968
Hopkins Manufacturing Company (Key # 077455) W. Elm Avenue, Conewago Twp.	Eligible	<u>Criterion A:</u> Brick industrial buildings and additions, significant as a manufacturer that evolved from horse-drawn carriages to automobiles during a transition in transportation history.	1892-1910
Henry Hostetter Farm (Key # 001933) 326 Sunday Drive, Conewago Twp.	Eligible	<u>Criterion A:</u> Intact farmstead with associated farmland, significant for contributions to the agricultural history of the region.	1800-1968
Poist Chapel Farm (Key # 001920) 444 Oxford Avenue, Conewago Twp.	Eligible	<u>Criterion A:</u> Intact farmstead with associated farmland, significant for contributions to the agricultural history of the region.	1880-1940
Utz Potato Chip Company (Key # 208782) 861 Carlisle Street, Hanover Boro.	Eligible	<u>Criterion A:</u> Company headquarters and manufacturer, significant for its role in the industrial development of Hanover and its snack food industry. <u>Criterion C:</u> Significant regional representation of the Streamline Moderne style of architecture.	1949-1971

Questions: contact Jeremy Ammerman, PennDOT District 8-0 Architectural Historian, jerammerma@pa.gov.

CULTURAL RESOURCES

LEGEND	
	Project Study Area
	Municipal Boundaries
	Streams
	Railroads
	Alignment Alternatives
	Historic Cemetery
	Historic Resources Listed and Eligible for the National Register of Historic Places



THE SECTION 106 PROCESS: A SUMMARY

Section 106 of the National Historic Preservation Act of 1966 (NHPA) requires Federal agencies to consider the effects of their projects on historic properties, and afford the Advisory Council on Historic Preservation a reasonable opportunity to comment.

Historic properties are defined as districts, sites, buildings, structures and objects that meet the qualifications for listing in the National Register of Historic Places (NRHP).

Procedures for implementing Section 106 are outlined in regulations issued by the Council (36 CFR, Part 800, "Protection of Historic Properties", 1999). These regulations are summarized below.

➤ INITIATE SECTION 106 PROCESS

The responsible Federal agency, in this case the Federal Highway Administration (FHWA), first determines whether it has a project that could affect historic properties.

The agency will initiate the Section 106 process by consulting with the appropriate State Historic Preservation Officer (SHPO), identifying other potential consulting parties, and developing a plan to involve the public during the process. The Pennsylvania Historical and Museum Commission's (PHMC) Bureau for Historic Preservation (BHP) serves as the SHPO for the Commonwealth of Pennsylvania.

Public involvement is a key ingredient in successful Section 106 consultation, and the views of the public will be solicited and considered throughout the process.

➤ IDENTIFY HISTORIC PROPERTIES

If an agency's project could affect historic properties, the agency proceeds to identify historic properties that may be affected by the project. Section 106 review gives equal consideration to properties that have already been listed in the NRHP as well as those that meet NRHP qualifications. Unlisted properties are evaluated against the National Park Service's (NPS) published guidelines (National Register Criteria for Evaluation, *National Register Bulletin 15*, 1991) in consultation with the SHPO and other identified consulting parties, as appropriate.

If an Agency finds that historic properties are present, it proceeds to assess possible adverse affects.

➤ ASSESS ADVERSE EFFECTS

The Federal agency's assessment of adverse affects is based on Council regulations. The agency consults with the SHPO and other identified consulting parties, as appropriate, during the assessment of adverse effects on the identified historic properties.

If the agency determines that the project will have No Adverse Effect, the agency proceeds with the project.

If the agency finds that there is an Adverse Effect, the agency begins consultation to identify ways to resolve the adverse effect.

➤ RESOLVE ADVERSE EFFECTS

The agency consults with the SHPO, and other identified consulting parties as appropriate, to avoid, minimize, or mitigate the adverse effect.

Consulting party comments will be considered by the agency, who will then make a final decision regarding findings and determinations.

Consultation usually results in a Memorandum of Agreement (MOA), which outlines measures that the agency will take to avoid, minimize, or mitigate adverse effects on historic properties.

➤ IMPLEMENTATION

If an MOA is executed, the agency proceeds with its project under the terms of the MOA.

➤ FAILURE TO RESOLVE ADVERSE EFFECTS

In some rare cases, agreement may not be reached regarding ways to avoid, minimize, or mitigate the adverse effects and consultation is terminated. In this case, the Council will provide comments to the agency who must then demonstrate consideration of the comments before making a final decision regarding the project.

Participate in Section 106 review of PENNDOT transportation projects that may affect historic resources in your community.

START

Project Details
The primary navigation screen to access project information.



Exempted from further review?

Section 106 Complete

Preservation Pennsylvania and PennDOT have partnered to present the Project for Pennsylvania Transportation and Heritage (ProjectPATH). ProjectPATH provides users with a searchable database of all transportation projects programmed on the Statewide Transportation Improvement Plan (STIP).
Log on to: www.paprojectpath.org

Not Exempt?

Posting
Identify Historic Resources in Area of Potential Effect.

No historic resources present?

Section 106 Complete

Documentation



Notification and Solicitation

Initiate consultation with tribes, agencies, State Historic Preservation Office, consulting parties, and the public.

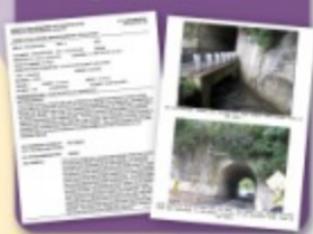
Historic Resources Present?

Posting
Assess Effects

No effect?

Section 106 Complete

Documentation



Notification and Consultation

Consult with tribes, agencies, State Historic Preservation Office, consulting parties, and the public.

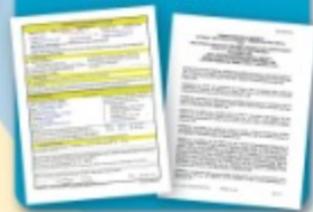
Effects?

Posting
Adverse Effect

No adverse effect?

Section 106 Complete

Documentation



Notification and Consultation

Consult with tribes, agencies, State Historic Preservation Office, consulting parties, and the public.

Adverse Effect?

Posting
Resolve Adverse Effect

PennDOT consults with the State Historic Preservation Office, tribes, consulting parties, and the public to reach an agreement about ways to avoid, minimize or mitigate adverse effects. The agreement is formalized in a document that defines the steps PennDOT and parties will follow to resolve the adverse effects.

Agreement documents may take one of several forms:

- Memorandum of Agreement (MOA) or Memorandum of Understanding (MOU)
- Programmatic Agreement (PA)
- Letter of Agreement (LOA)

Section 106 Complete

Eisenhower Extension Project
Sign-in

Consulting
Party
Meeting 5/15/19

Name

Address

Email

JOAN STREVIG

Mike Smith

Carly Marshall

Fr Joseph Howard

DONALD J. SMITH

Steven J Smith

CRAIG LAUGHMAN

Pat Steffer

JOAN McANALL

Joni Swape

NICK KRAUS

Barbara Cerbaugh

Kathy Todd

Eisenhower Extension Project
Sign-in

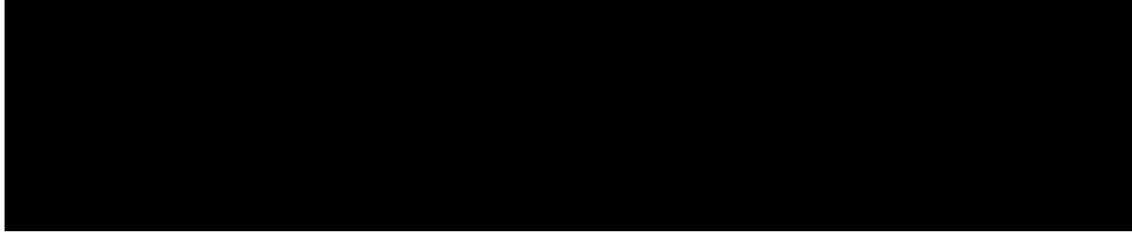
Consulting
Party 5/15/19
Meeting

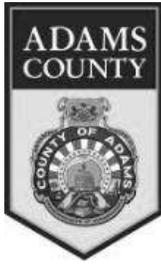
Name

Address

Email

Bill Epley





ADAMS COUNTY OFFICE OF PLANNING AND DEVELOPMENT

19 Baltimore Street, Suite 101 | Gettysburg, PA 17325
Ph: 717-337-9824 | Fx: 717-334-0786

Sherri Clayton, AICP, Director

August 13, 2018

Jeremy Ammerman
PA Department of Transportation
P.O. Box 2966
Harrisburg, PA 17105

RE: Section 106 Comments; Eisenhower Blvd Extension
S106-18-001 – Chapel Farms Rural Historic District
ER: 2016-8477-001
Description: Eisenhower Boulevard Between PA 116 and PA 94 Conewago
Township Extend Roadway

Dear Mr. Ammerman,

In accordance with the Historic Preservation Act, Section 106, the Adams County Office of Planning and Development has reviewed the Historic Resource Survey Form and evaluation for eligibility for the National Register of Historic Places. We respect the findings of the report in terms of the eligibility of Chapel Farms as a Historic District. That said, Adams County puts great value on our agricultural lands and landscapes for their historic import, as well as their long-standing and vital contribution to the local economy. The value we place on these resources is demonstrated through the preservation of the Enders Chapel Farm and the Divine Chapel Farm through Adams County's Agricultural Land Preservation program.

We fully support the Eisenhower Blvd Extension project, however we strongly urge PennDOT to select a route and design that would avoid splitting farms and be least disruptive to our historic and active agricultural landscapes.

Sincerely,

A handwritten signature in cursive script that reads "Carly Marshall".

Carly Marshall
Comprehensive Planner

From: Swope, Joni
To: [Ammerman, Jeremy D](#)
Subject: Re: PennDOT Project Status Update Eisenhower Blvd Extension
Date: Friday, August 17, 2018 4:31:51 PM

I have received information regarding the Eisenhower Blvd Extension. I attended the information meeting held at SAVES earlier as well during which questions I answered were unable to be answered. I am well aware, and have personally signed, one of the petitions from surrounding neighborhoods against the extension. I would think the numerous pathways and properties you provided as "ineligible" are significant enough to invoke reexamination of proceeding with the project. In addition, the estimated decrease in travel time saved appears to be extremely minimal for the dollars to be expended. To state such a great need to provide roadway from Hanover to Gettysburg is absurd. The existing Eisenhower Drive to Rt. 94N to Rt. 30W is a pathway that can be utilized. The route you are examining has increased, but only due to use as main fairway for residential developments which most traffic then ceases near "Brushstown". Those affected by the increased traffic time are the same who are opposed to the project. Therefore, they/we are obviously not overburdened by that "increased" traffic time. So, who is complaining? Who asked for this project? The surrounding neighborhoods did not.

The millions of dollars to be spent and increase to taxpayers to fund a project which they do not want is totally unwarranted.

Joni Swope
386 Church St, Hanover PA 17331
717-476-1416
swopej@cvcolonials.org



Cultural Resources Submission

DATE: May 14, 2019

SUBJECT:

District: 8-0
County: Adams Municipality: Conewago Township
SR: 0000 Section: RWY
Project Name: PA 272 Intersection Improvements
MPMS Number: 58137
ER Number: 2016-8477-001

TO: Andrea MacDonald, Director
Bureau for Historic Preservation
State Historic Preservation Office
PA Historical and Museum Commission

FROM: Jeremy Ammerman
District 8-0 Cultural Resources Professional
Bureau of Project Delivery, Highway Delivery Division
Environmental Policy and Development Section
Cultural Resources Unit

The Pennsylvania Department of Transportation (PennDOT), Engineering District 8-0, in cooperation with the Federal Highway Administration (FHWA), is working through preliminary design and alternative evaluations associated with the Eisenhower Boulevard Extension Project. This memorandum is designed to address and present information gathered from a public meeting for the project held on May 9, 2019. An informal survey was put together by the District 8 Cultural Resource Professional to capture public concerns related to historic resources within the project area. Over two hundred people were documented on the sign in sheet, and a total of eleven informal surveys were completed. Copies of the completed forms are attached to this document.

Viewing the forms only one of the forms completed identified themselves as a consulting party for the project. Currently to date twenty-four people are registered as consulting parties for this project. One of the forms did not answer the consulting party question, the remaining nine answered that they were not a consulting party on this project. The second questions asked on the form regarded the identified historic resources within the project area and provided an open option for other resources. Respondents were asked to rank the resources that they were most concerned about impacts to as a result of the project. Three resources (Hanover Furniture Company, Utz Potato Chip Company, and Emeco) received no response along with the other resource category. Conewago Chapel had four rankings all four placed the Chapel as most concerned. Divine Chapel Farm received four votes as the second most concerned resource. The remaining ranked resources were The Poist Chapel Farm, Gettysburg Railroad, Hostetter Farm and lastly the Hanover Historic District. Six returned forms did not contain a ranking of any resource.

The third question was geared toward the three alternatives which were presented at the public meeting. The first is the no build, the second being the Transportation System Management (TSM), and the third being Alternative 5C (offline new roadway). Results on this question were mixed as five forms included the no build as their most desirable option. This was followed by the TSM with three votes and the 5C alternative with two votes. One of the forms did not answer this question. Immediately following the ranking, a rational question regarding the respondents ranking was included. Three people had concerns about their property because of the proximity to the new offline alternative. Those same three respondents also expressed concerns regarding storm water.

While the results of some of the questions contained mixed answers with no dominant answer shining through, the survey functioned as intended. The survey provided some input into the public's thought about Cultural Resources related to the project in advanced of the consulting party meeting to be held On May 15, 2019 at SAVES. An influencing factor which could have affected the survey results were the placement of the cultural resources station being before the alternatives stations. Once the comment forms for the public meeting are gathered and finalized by the first week of June, this placement affect can be analyzed further. Upon finalization of public comments on the public meeting, those records will also be placed on the PAProjectPath website and distributed to all consulting parties.

If you have questions regarding this submittal, please contact or Jeremy Ammerman at 717.705.2667 or jerammerma@pa.gov.

Enclosure

4432/KWM/kwm

cc: J. Crum, FWHA
R. Shiffler, PennDOT BOD
B. Singer, PennDOT PM
S. Okin, PennDOT EM

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DISTRICT 8-0



May 9, 2019

Public Open House
Cultural Resource Survey

Are you currently a consulting party?

Yes

No

Please order the historic resources with your utmost concern for impact to least concern.

Conewago Chapel

Divine Chapel Farm

Hostetter Farm

Poist Chapel Farm

Emeco

Gettysburg Railroad

Utz Potato Chip Company

Hanover Historic District

Hanover Furniture Company

Other (Please include description below)



Please rank the three alternatives from most to least desirable.

- No Build
- Transportation System Management (TSM)
- Alternative 5C

Please provide some insight into your ranking.

Other Comments:

Please return to Jeremy Ammerman or email a copy to jerammerma@pa.gov.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DISTRICT 8-0



May 9, 2019

Public Open House
Cultural Resource Survey

Are you currently a consulting party?

- Yes
 No

Please order the historic resources with your utmost concern for impact to least concern.

Conewago Chapel

Divine Chapel Farm

Hostetter Farm

Poist Chapel Farm

Emeco

Gettysburg Railroad

Utz Potato Chip Company

Hanover Historic District

Hanover Furniture Company

Other (Please include description below)

Please rank the three alternatives from most to least desirable.

- 2 No Build
- 1 Transportation System Management (TSM)
- 3 Alternative 5C

Please provide some insight into your ranking.

property owner right next to SC -
- Concerns on water run off b/c water is already a problem
- noise
- possibility of business eventually going in along SC

Other Comments:

Please return to Jeremy Ammerman or email a copy to jerammerma@pa.gov.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DISTRICT 8-0



May 9, 2019

Public Open House
Cultural Resource Survey

Are you currently a consulting party?

Yes
 No

Please order the historic resources with your utmost concern for impact to least concern.

Conewago Chapel

Divine Chapel Farm

Hostetter Farm

Poist Chapel Farm

Emeco

Gettysburg Railroad

Utz Potato Chip Company

Hanover Historic District

Hanover Furniture Company

Other (Please include description below)



Please rank the three alternatives from most to least desirable.

- 2 No Build
- 1 Transportation System Management (TSM)
- 3 Alternative 5C

Please provide some insight into your ranking.

Other Comments:

Please return to Jeremy Ammerman or email a copy to jerammerma@pa.gov.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DISTRICT 8-0



May 9, 2019

Public Open House
Cultural Resource Survey

Are you currently a consulting party?

Yes

No

Please order the historic resources with your utmost concern for impact to least concern.

Conewago Chapel

Divine Chapel Farm

Hostetter Farm

Poist Chapel Farm

Emeco

Gettysburg Railroad

Utz Potato Chip Company

Hanover Historic District

Hanover Furniture Company

Other (Please include description below)

Please rank the three alternatives from most to least desirable.

- No Build
- Transportation System Management (TSM)
- Alternative 5C

Please provide some insight into your ranking.

*Home borders 5c build farm land
water issues now -*

Other Comments:

*Taxes
water problems*

Please return to Jeremy Ammerman or email a copy to jerammerma@pa.gov.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DISTRICT 8-0



May 9, 2019

Public Open House
Cultural Resource Survey

Are you currently a consulting party?

Yes

No

Please order the historic resources with your utmost concern for impact to least concern.

Conewago Chapel

Divine Chapel Farm

Hostetter Farm

Poist Chapel Farm

Emeco

Gettysburg Railroad

Utz Potato Chip Company

Hanover Historic District

Hanover Furniture Company

Other (Please include description below)



Please rank the three alternatives from most to least desirable.

- No Build
- Transportation System Management (TSM)
- Alternative 5C

Please provide some insight into your ranking.

HOME BOARDS 5C
STORM H2O

Other Comments:

Please return to Jeremy Ammerman or email a copy to jerammerma@pa.gov.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DISTRICT 8-0



May 9, 2019

Public Open House
Cultural Resource Survey

Are you currently a consulting party?

- Yes
 No

Please order the historic resources with your utmost concern for impact to least concern.

1 Conewago Chapel

2 Divine Chapel Farm

Hostetter Farm

3 Poist Chapel Farm

Emeco

4 Gettysburg Railroad

Utz Potato Chip Company

Hanover Historic District

Hanover Furniture Company

Other (Please include description below)



Please rank the three alternatives from most to least desirable.

~~No Build~~

~~Transportation System Management (TSM)~~

Alternative 5C

Please provide some insight into your ranking.

Other Comments:

Please return to Jeremy Ammerman or email a copy to jerammerma@pa.gov.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DISTRICT 8-0



May 9, 2019

Public Open House
Cultural Resource Survey

Are you currently a consulting party?

Yes

No

Please order the historic resources with your utmost concern for impact to least concern.

1. Conewago Chapel
2. Divine Chapel Farm
- Hostetter Farm
- Poist Chapel Farm
- Emeco
- Gettysburg Railroad
- Utz Potato Chip Company
- Hanover Historic District
- Hanover Furniture Company
- Other (Please include description below)



Please rank the three alternatives from most to least desirable.

- ~~No Build~~
- 1 Transportation System Management (TSM)
- 2 Alternative 5C

Please provide some insight into your ranking.

Other Comments:

Please return to Jeremy Ammerman or email a copy to jerammerma@pa.gov.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DISTRICT 8-0



May 9, 2019

Public Open House
Cultural Resource Survey

Are you currently a consulting party?

Yes

No

Please order the historic resources with your utmost concern for impact to least concern.

Conewago Chapel

Divine Chapel Farm

Hostetter Farm

Poist Chapel Farm

Emeco

Gettysburg Railroad

Utz Potato Chip Company

Hanover Historic District

Hanover Furniture Company

Other (Please include description below)



Please rank the three alternatives from most to least desirable.

- 1 No Build
- 2 Transportation System Management (TSM)
- 3 Alternative 5C

Please provide some insight into your ranking.

I'm concerned that my property could be historic since it is 90+ years old and attaches to the Post Chapel Farm. Could that be ~~more~~ researched?

Other Comments:

Judy White



Please return to Jeremy Ammerman or email a copy to jerammerma@pa.gov.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DISTRICT 8-0



May 9, 2019

Public Open House
Cultural Resource Survey

Are you currently a consulting party?

- Yes
 No

Please order the historic resources with your utmost concern for impact to least concern.

1 Conewago Chapel

2 Divine Chapel Farm

2 Hostetter Farm

2 Poist Chapel Farm

Emeco

3 Gettysburg Railroad

Utz Potato Chip Company

3 Hanover Historic District

Hanover Furniture Company

Other (Please include description below)



Please rank the three alternatives from most to least desirable.

- No Build
- Transportation System Management (TSM)
- Alternative 5C

Please provide some insight into your ranking.

Other Comments:

Please return to Jeremy Ammerman or email a copy to jerammerma@pa.gov.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DISTRICT 8-0



May 9, 2019

Public Open House
Cultural Resource Survey

Are you currently a consulting party?

Yes

No

Please order the historic resources with your utmost concern for impact to least concern.

#1 Conewago Chapel

#2 Divine Chapel Farm

Hostetter Farm

#3 Poist Chapel Farm

Emeco

Gettysburg Railroad

Utz Potato Chip Company

Hanover Historic District

Hanover Furniture Company

Other (Please include description below)



Please rank the three alternatives from most to least desirable.

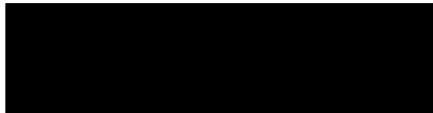
- 1 No Build
- 2 Transportation System Management (TSM)
- 3 Alternative 5C

Please provide some insight into your ranking.

Other Comments:

I DON'T LIKE ANY OF THE OPTIONS. DON'T KNOW THE ANSWER. I DO KNOW, WE WILL COME UP SHORT.

Fred Wilke



Please return to Jeremy Ammerman or email a copy to jerammerma@pa.gov.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DISTRICT 8-0



May 9, 2019

Public Open House
Cultural Resource Survey

Are you currently a consulting party?

Yes

No

Please order the historic resources with your utmost concern for impact to least concern.

Conewago Chapel

Divine Chapel Farm

Hostetter Farm

Poist Chapel Farm

Emeco

Gettysburg Railroad

Utz Potato Chip Company

Hanover Historic District

Hanover Furniture Company

Other (Please include description below)



Please rank the three alternatives from most to least desirable.

- No Build
- Transportation System Management (TSM)
- Alternative 5C

Please provide some insight into your ranking.

Other Comments:

Please return to Jeremy Ammerman or email a copy to jerammerma@pa.gov.



Please rank the three alternatives from most to least desirable.

- 1 No Build
- 3 Transportation System Management (TSM)
- 2 Alternative 5C

Please provide some insight into your ranking.

Other Comments:

Please return to Jeremy Ammerman or email a copy to jerammerma@pa.gov.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DISTRICT 8-0



May 9, 2019

Public Open House
Cultural Resource Survey

Are you currently a consulting party?

Yes

No

Please order the historic resources with your utmost concern for impact to least concern.

Conewago Chapel

Divine Chapel Farm

Hostetter Farm

Poist Chapel Farm

Emeco

Gettysburg Railroad

Utz Potato Chip Company

Hanover Historic District

Hanover Furniture Company

Other (Please include description below)

From: Danielle Smith
To: [Ammerman, Jeremy D](#)
Subject: [External] Re: PennDOT Project Status Update Eisenhower Blvd Extension
Date: Wednesday, May 15, 2019 9:51:09 AM

ATTENTION: This email message is from an external sender. Do not open links or attachments from unknown sources. To report suspicious email, forward the message as an attachment to CWOPA_SPAM@pa.gov.

We were intending to come to the event tonight (William F Smith Jr & Danielle Smith) but our daughter's college orientation is tonight (I thought I was Thursday).

My husband and I are both concerned about any plan for the extension which would cost any business or property owners their home, land, property.

Any option that utilizes emanate domain as a solution is unacceptable.

We will continue to read the information released and follow this project.

Please continue to send us information about upcoming opportunities to be involved.

William F Smith Jr & Danielle Smith

On May 14, 2019, at 2:27 PM, jerammerma@pa.gov wrote:

THE PROJECT UNDER DISCUSSION

Eisenhower Blvd Extension
Adams County

WHAT THIS IS ABOUT

PennDOT has posted information on the Project PATH website for this project
A memo was created to document results related to an informal survey focusing on cultural resources that was included in the public meeting.

Official comment forms and minutes from the public meeting will be posted upon the closure of the public comment period in early June of 2019.

WHO TO CONTACT AT PENNDOT Jeremy Ammerman(jerammerma@pa.gov)

FURTHER PROJECT DETAILS

MUNICIPALITY: CONEWAGO TWP (Adams)

SR: 0

SECTION: RWY

MPMS:58137

ER NUMBER: 2016-8477-001

PROJECT DESCRIPTION: EISENHOWER BOULEVARD BETWEEN PA 116 AND PA 94 CONEWAGO TOWNSHIP EXTEND ROADWAY

SECTION 106 Stage: Evaluation for Eligibility

SECTION 106 Effect:

To find this information, go to:

<https://search.paprojectpath.org/PostingDetails.aspx?ProjectID=46224&PostingID=28462>

WE ARE INTERESTED IN WHAT YOU THINK

But please reply by 05/14/2019

TO UNSUBSCRIBE

If you would like to stop receiving these notifications, please click the link below, or copy and paste it into your browser.

<https://search.paprojectpath.org/Unsubscribe.aspx?U=Z3R5NUpzcW9vemR6dEcycUNjOVNCaTZibnMwaXQ5aXE1>



ADAMS COUNTY OFFICE OF PLANNING AND DEVELOPMENT

670 Old Harrisburg Road, Suite 100 | Gettysburg, PA 17325
Ph: 717-337-9824 | Fx: 717-334-0786

Sherri Clayton-Williams, AICP, Director

December 4, 2019

Jeremy Ammerman
District 8-0
PA Department of Transportation
PO Box 2966
Harrisburg, PA 17105

RE: Eisenhower Blvd Extension, Adams County

Dear Mr. Ammerman,

We have reviewed the documents related to mitigation for an Adverse Effect to the Divine Chapel Farm, the Henry Hostetter Farm, and the Poist Chapel farm for diminished integrity of setting, feeling, and association of the historically agricultural lands related to the above referenced project. Generally, our office supports mitigation projects that will actively enhance, restore, or preserve resources that share the same or similar characteristics to those affected. In this case, we strongly support projects that would support the restoration or preservation of agricultural buildings or lands within a reasonable proximity to the aforementioned impacted resources.

Our comments on the proposed mitigation ideas are as follows.

Creation of a booklet to outline the history and connection of the Conewago Chapel and its historically associated properties. We agree that educational materials on the Conewago Chapel would be valuable, if implemented with a distribution/outreach strategy in partnership with one or more local historic preservation groups. This would, however, be our least preferred mitigation option of those presented.

Monetary donation to Historic Gettysburg Adams County (HGAC). We strongly support this option with the following conditions for implementation:

- Funds should be directed towards the Barn Grant Program and used directly on grants for barn restoration/preservation projects.
- Funds should be used within Conewago Township. However, because the barn grant program provides small grants to match an owner's investment, we feel it would be reasonable to also include Union, Mount Pleasant, and Oxford Townships in the area eligible for the funds' use, if the other consulting parties agree.

We would also support the following mitigation option:

Monetary donation to the Land Conservancy of Adams County (LCAC). The LCAC is a nonprofit land trust that preserves rural lands in Adams County. With the below conditions for implementation, this would be our preferred mitigation option of those currently presented, as it would serve to preserve other historically agricultural lands in the Township in perpetuity.

- Funds should be directed specifically towards agricultural land preservation, since the resources being adversely impacted are historically agricultural lands.

- Funds could be used to restore and preserve agricultural buildings on a farm being preserved through LCAC.
- Funds should be used within Conewago Township.

It should be noted that the Adams County Office of Planning and Development regularly partners with LCAC on land preservation projects through our Agricultural Land Preservation Program.

We appreciate the opportunity to participate as a consulting party for this project. If there are any questions concerning these comments, please contact Andrew Merkel at amerkel@adamscounty.us or (717) 337-9824.

Sincerely,

A handwritten signature in cursive script that reads "Carly Marshall". The signature is written in black ink on a white background.

Carly Marshall
Comprehensive Planner - Design/Cultural

APPENDIX C: MEMORANDUM OF AGREEMENT

MEMORANDUM OF AGREEMENT
BETWEEN THE FEDERAL HIGHWAY ADMINISTRATION
AND
THE PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION
THROUGH ITS STATE HISTORIC PRESERVATION OFFICER,
PURSUANT TO 36 CFR § 800.6(b)(2)
REGARDING THE EISENHOWER BOULEVARD EXTENSION PROJECT, STATE ROUTE
0000, SECTION RWY
IN CONEWAGO TOWNSHIP, ADAMS COUNTY, PENNSYLVANIA

WHEREAS, the Federal Highway Administration (“FHWA”), proposes to extend Eisenhower Drive from where it currently ends at High Street to Hanover Road (SR 0116) west of McSherrystown (hereafter referred to as “the Project”);

WHEREAS, the FHWA, pursuant to 36 CFR § 800.4(c), has determined, in consultation with the Pennsylvania State Historic Preservation Officer (“SHPO”), acting on behalf of the Pennsylvania Historical and Museum Commission (“PHMC”), that Devine Chapel Farm, Poist Chapel Farm, Hanover Historic District, Utz Potato Chip Company, Hanover Furniture Company, Hopkins Manufacturing Company, Gettysburg Railroad, Emeco Office and Factory Building, and Henry Hostetter Farm are eligible for inclusion in the National Register of Historic Places (“National Register”);

WHEREAS, the FHWA, pursuant to 36 CFR § 800.5(d)(2), has determined that the Project will have an adverse effect on Devine Chapel Farm, Poist Chapel Farm, and Henry Hostetter Farm due to the destruction of a portion of the properties;

WHEREAS, the FHWA has consulted with the SHPO in accordance with Section 106 of the National Historic Preservation Act, 54 U.S.C. § 306108 (“NHPA”), and its implementing regulations (36 CFR § 800) to resolve the effects of the Project on historic properties;

WHEREAS, the FHWA, pursuant to 36 CFR § 800.3, has identified the following as consulting parties: Glenn Bange, Robert Breighner, Barbara Carbaugh, Mindy Crawford, Ray Dillon, Charles Doll, Sidney Gardner, Deborah Hickman, Historic Gettysburg-Adams County, Inc., Barbara Krebs, Craig Laughman, Main Street Hanover, Carly Marshall, Joan McAnall, R. Samuel Miller, Pennsylvania Archaeological Council, Preservation Pennsylvania, Charles Rider, Patrick Sheaffer, William Smith, Danielle Smith, Michael Smith, George Sneeringer, Carlton Stambaugh, Joni Swope, Glen Whisler, Lois Whisler, Brian Yealy, and William Zeigler. FHWA will continue to involve the public and consulting parties as stipulated under the National Environmental Policy Act (NEPA) of 1969, as amended, the NHPA, and 36 CFR § 800, in a manner consistent with FHWA and Pennsylvania Department of Transportation (“PennDOT”) Public Involvement Procedures;

WHEREAS, the FHWA has notified the Advisory Council on Historic Preservation (“ACHP”) of the adverse effect finding and the ACHP has declined to participate in resolving the adverse effects of the Project;

WHEREAS, PennDOT participated in the consultation regarding this Project and has been invited to sign this Memorandum of Agreement (“MOA”), thus becoming a party upon execution of this MOA;

NOW, THEREFORE, the FHWA and the SHPO agree that upon FHWA’s decision to proceed with the Project, FHWA shall ensure that PennDOT and the concurring parties implement the following stipulations in order to take into account the effects of the proposed action on historic properties.

1. Recitals

The recitals set forth above are incorporated by reference as a material part of the MOA.

2. Stipulations for Resolving Adverse Effects

- A. PennDOT shall make twenty thousand dollars (\$20,000) available to Historic Gettysburg-Adams County, Inc. (“HGAC”) to support their barn grant program subject to the terms and conditions of a separate agreement between them.
- B. The agreement between PennDOT and HGAC shall, among other things, require HGAC to:
 - a. Use the funds provided by PennDOT solely to award grants to owners of historic barns listed on the HGAC Adams County Barn Registry.
 - b. Ensure that the money is utilized solely for brick and mortar preservation of barns in Adams County;
 - c. Develop and execute criteria for awarding grants, but such criteria will consider the following: urgency of repairs, expected benefit to the longevity of the barn, historical significance, age, visibility, and unique aspects of the barn; and
 - d. Provide the parties to this MOA with a report detailing how the funds were spent within five (5) years of the execution of the agreement.

3. Administrative Stipulations

A. Personnel Qualifications

PennDOT shall ensure that all archaeological work carried out pursuant to this MOA is carried out by, or under the direct supervision of, a person or persons meeting, at a minimum, the Secretary of the Interior’s Professional Qualifications Standards for Archaeologists, and that all historic preservation work is carried out by, or under the direct supervision of, a person or persons meeting, at a

minimum, the Secretary of the Interior's Professional Qualification Standards for Architectural Historian Professionals (see http://www.nps.gov/history/local-law/arch_stnds_9.htm).

B. Late Discoveries

If any unanticipated discoveries of historic properties or archaeological sites are encountered during the implementation of this undertaking, PennDOT shall suspend work in the area of the discovery, and PennDOT shall immediately notify the FHWA. In compliance with 36 CFR § 800.13, FHWA shall notify, within 24 hours, the ACHP, the SHPO, and, if applicable, federally recognized tribal organizations that attach religious and/or cultural significance to the affected property. The SHPO, the FHWA, PennDOT, and Tribal representatives, as appropriate, may conduct a joint field view within 72 hours of the notification to the FHWA. The FHWA, in consultation with the appropriate parties, will determine an appropriate treatment of the discovery prior to the resumption of construction activities in the area of the discovery.

C. Amendments

Any party to this MOA may propose to FHWA that the MOA be amended, whereupon FHWA shall consult with the other parties to this MOA to consider such an amendment. Section 36 CFR § 800.6(c)(7) shall govern the execution of any such amendment.

D. Resolving Objections

- a. Should any party to this MOA object in writing to FHWA regarding any action carried out or proposed with respect to the Project, or implementation of this MOA, FHWA shall consult with the objecting party to resolve the objection. If after initiating such consultation FHWA determines that the objection cannot be resolved through consultation, FHWA shall forward all documentation relevant to the objection to the ACHP, including FHWA's proposed response to the objection. Within thirty (30) days after receipt of all pertinent documentation, the ACHP shall exercise one of the following options:
 - 1) Advise FHWA that the ACHP concurs in FHWA's proposed response to the objection, whereupon FHWA shall respond to the objection accordingly;
 - 2) Provide FHWA with recommendations, which FHWA shall take into account in reaching a final decision regarding its response to the objection; or
 - 3) Notify FHWA that the objection will be referred to comment pursuant to 36 CFR § 800.7 and proceed to refer the objection and comment. The resulting comment shall be taken into account by FHWA in accordance with 36 CFR § 800.7(c)(4) and § 110(1) of the NHPA.

- b. Should the ACHP not exercise one of the above options within thirty (30) days after receipt of all pertinent documentation, FHWA may assume the ACHP's concurrence in its proposed response to the objection.
- c. FHWA shall take into account any ACHP recommendation or comment provided in accordance with this stipulation with reference only to the subject of the objection; FHWA's responsibility to carry out all actions under this MOA that are not the subject of the objection shall remain unchanged.

E. Resolution of Objections by the Public

At any time during implementation of the measures stipulated in this MOA, should any objection pertaining to any such measure, or its manner of implementation, be raised by a member of the public, FHWA shall notify the parties of this MOA and take the objection into account, consulting with the objector and, should the objector so request, with any of the parties to this MOA to resolve the objection.

F. Duration

This MOA will expire if its terms are not carried out within five (5) years of the date of its execution. Prior to such time the FHWA may consult with the other signatories to reconsider the terms of the MOA and amend it in accordance with Administrative Stipulation C above.

G. Termination

- a. Any signatory may terminate this MOA by providing notice to the other parties, provided that the parties will consult during the period prior to termination to seek agreement on amendments or other actions that would avoid termination. Termination of this MOA will require compliance with 36 CFR § 800.
- b. If at any time during the course of the Project, PennDOT cancels the Project or withdraws its request for federal funding, PennDOT will so notify the FHWA. The FHWA will notify the other signatories to the MOA, and the ACHP, that it is terminating the Agreement. The FHWA, in consultation with those parties, will consider the effects of any Project-related activities undertaken prior to Project cancellation or withdrawal of the funding request, and the FHWA will assess its responsibilities and obligations pursuant to 36 CFR § 800 and determine steps to terminate the MOA.

H. Severability

The provisions of this MOA shall be severable. If any phrase, clause, sentence or provision of this MOA is declared to be contrary to the Constitution of Pennsylvania or of the United States or of the laws of the Commonwealth the applicability thereof to any government, agency, person or circumstance is held invalid, the validity of the remainder of this MOA and the applicability thereof to any government, agency, person or circumstance shall not be affected thereby.

I. Assignment

The responsibilities included in this MOA may not be assigned by any party to this MOA, either in whole or in part, without the written consent of the Signatories.

J. Notices

- a. The contact person for each of the signatories of the MOA shall be the following:
 - 1) For FHWA: Director of Program Development, 228 Walnut Street, 5th Floor, Harrisburg, PA 17101, Telephone Number: (717) 221-4545.
 - 2) For PennDOT: Director, Bureau of Project Delivery, 400 North Street, 7th Floor, Harrisburg, PA 17120, Telephone Number: (717) 787-3310.
 - 3) For SHPO: Deputy SHPO, 400 North Street, 2nd Floor, Harrisburg, PA 17120, Telephone Number: (717) 787-4215.
- b. Any signatory may change its designated contact person by providing written notice to the other signatories.

4. **Counterparts**

This MOA may be executed in counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

[Signature Page Follows]

Execution of this MOA by the FHWA and the SHPO, and implementation of its terms, is evidence that the FHWA has taken into account the effects of the undertaking on historic properties.

SIGNATORIES:

FEDERAL HIGHWAY ADMINISTRATION

By: _____ Date: _____

Name & Title: _____

PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION

By: Andrea L. MacDonald Date: 8/25/2020

Name & Title: Andrea L. MacDonald, Deputy SHPO

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION

By: Brian G. Thompson Digitally signed by Brian G. Thompson
Date: 2020.08.23 10:52:59 -0400 Date: _____

Name & Title: **Brian G. Thompson**
Director, Bureau of Project Delivery

Approved as to Legality and Form

By: Kenda Gardner Date: 8/26/20
for PennDOT Chief Counsel

By: _____ Date: _____
Deputy General Counsel

By: _____ Date: _____
Deputy Attorney General