

Reevaluation: State Route 436 (Reedy Creek Road) Bridge over Reedy Creek at Log Mile 0.68
Carroll County, Tennessee
TN-PIN: 128113.01
Date: Date: 09/27/2019
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Environmental Commitments

Commitments are involved on the project.

List of Environmental Commitments

The project will be developed in accordance with the Tennessee Department of Transportation's (TDOT) Standard Specifications for Road and Bridge Construction, which addresses sediment and erosion control and siltation; channelization; floodplains; construction impacts; utility relocation; and traffic maintenance and detours. Best Management Practices (BMPs) will be stringently implemented throughout the construction period.

1. Ecology (EDEC001) In accordance with the Memorandum of Agreement (MOA) between, USFWS, Federal Highway Administration, and TDOT addressing Cliff Swallow and Barn Swallow Nesting Sites, 09/30/2015, cliff swallow and barn swallow nests, eggs, or birds (young and adults) will not be disturbed between April 15 and July 31. From August 1 to April 14, nests can be removed or destroyed, and measures implemented to prevent future nest building at the site (e.g. closing off area using netting.)



**STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
ENVIRONMENTAL DIVISION
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Date: 09/27/2019

To: Mr. Gary Fottrell
Environmental Program Engineer
Federal Highway Administration
404 BNA Drive, Suite 508
Nashville, TN 37217

Subject: Reevaluation of State Route 436 (Reedy Creek Road) Bridge over Reedy Creek at Log Mile 0.68, Carroll County, Tennessee, PIN 128113.01

Dear Mr. Fottrell:

This reevaluation of environmental, social and economic effects is for the entire project. The entire project for State Route (SR) 436 (Reedy Creek Road) Bridge over Reedy Creek, at Log Mile (LM) 0.68 is now being advanced to the preliminary phase. This reevaluation has been conducted in accordance with 23 Code of Federal Regulations (CFR) 771.129.

The proposed project is listed in the State Transportation Improvement Program (STIP) for Fiscal Years 2017-2020 as STIP Number 1799001 - Surface Transportation Block Grant Program (STBGP) Grouping. The STIP Page is included in **Appendix A**.

Federal and State project numbers for the various stages of project development are listed in the table below.

Project Phases and Corresponding Project Numbers

Phase	Federal Aid	State Project Number
Preliminary Engineering	BR-STP-436(5)	09035-0220-94
Right of Way	BR-STP-436(5)	09035-2220-94
Construction	BR-STP-436(5)	09035-3220-94



Figure 1. Project location map of the SR-436 Bridge over Reedy Creek, LM 0.68.

Purpose and Need

The purpose of the proposed project is to improve the structural integrity of the SR-436 (Reedy Creek Road) Bridge over Reedy Creek at LM 0.68 by replacing the existing structure that has insufficient structural elements as indicated by the overall sufficiency rating of 47.1.

Project History

A Programmatic Categorical Exclusion (PCE) was approved on 10/08/2018 based on the TDOT Region 4 bridge inspection conducted on 10/02/2017, with results later summarized in a Transportation Investment Report (TIR), completed on 03/22/2018. This project was first advanced under project PIN 124139.00, which was subsequently changed to PIN 128113.01.

The 2018 TIR stipulated that ROW acquisition of approximately 1.13 acres would be required, classifying the project as a D-List CE. However, coordination with FHWA on 10/03/2018 determined that the project would not require FHWA approval since the acquisition was just slightly over one acre, and would be processed as a PCE. The PCE approved 10/08/2018 with the Technical Appendices and FHWA coordination dated 10/03/2018 can be found in the **Technical Appendices of the PCE in Appendix B** of this environmental document.

Since the approval of the PCE, Preliminary Plans dated 06/12/2019 were made available detailing an increase in ROW acquisition totaling approximately 4.24 acres. A reevaluation of the project is now required, and the proposed project now qualifies as a D-List CE. A copy of the Preliminary Plans can be found in **Appendix C**.

Project Description

The Tennessee Department of Transportation (TDOT), in cooperation with the Federal Highway Administration (FHWA) proposes to replace the existing SR-436 (Reedy Creek Road) Bridge over Reedy Creek at LM 0.68. A project location map is provided in **Figure 1**.

Existing Conditions and Layout

According to the 03/22/2018 TIR, the current bridge structure is a four span concrete bridge, as shown in **Figure 2**, built in 1960, with an out-to-out width of 22 feet, an overall bridge length of 90 feet, and a vertical clearance of 9.3 feet. The existing roadway along the bridge consists of two, nine foot wide travel lanes (one in each direction), and is classified as a Rural Major Collector.

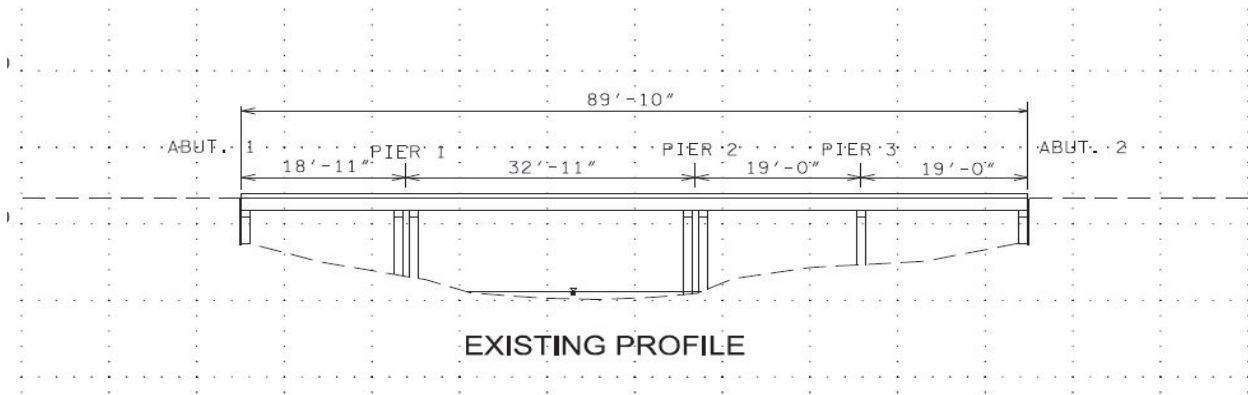


Figure 2. Existing Bridge Profile of SR-436 over Reedy Creek in the 03/22/2018 TIR.

According to the 03/22/2018 TIR, the proposed replacement bridge would be a single span pre-stressed concrete box beam structure. The replacement bridge would maintain the same vertical clearance as the existing by shifting the alignment 10 feet west and raising the grade approximately 2.5 feet. The proposed bridge length would remain the same. Travel lanes would be widened to 11 feet with three foot wide shoulders. The project would extend approximately 800 feet to the north, and south, to accommodate the alignment shift, the raised grade, and the proposed one lane signal to maintain traffic during construction

Design Modifications and Updates which have occurred since Approval of the PCE

According to Preliminary Plans dated 06/12/2019 the proposed project would consist of the following project design changes:

1. Increased Right-of-Way (ROW) acquisition totaling 4.24 acres
2. A 24-foot alignment shift of the centerline west of its original location instead of a 10-foot shift
3. An increase of the roadway shoulder width from three feet to four feet

Proposed Typical Section

The Typical Section in the Preliminary Plans dated 06/12/2019 show the proposed roadway layout of SR-436 (Reedy Creek Road) consisting of two, 11-foot travel lanes, one in either direction, four foot wide shoulders, and guardrail in specified locations (see **Figure 3**).

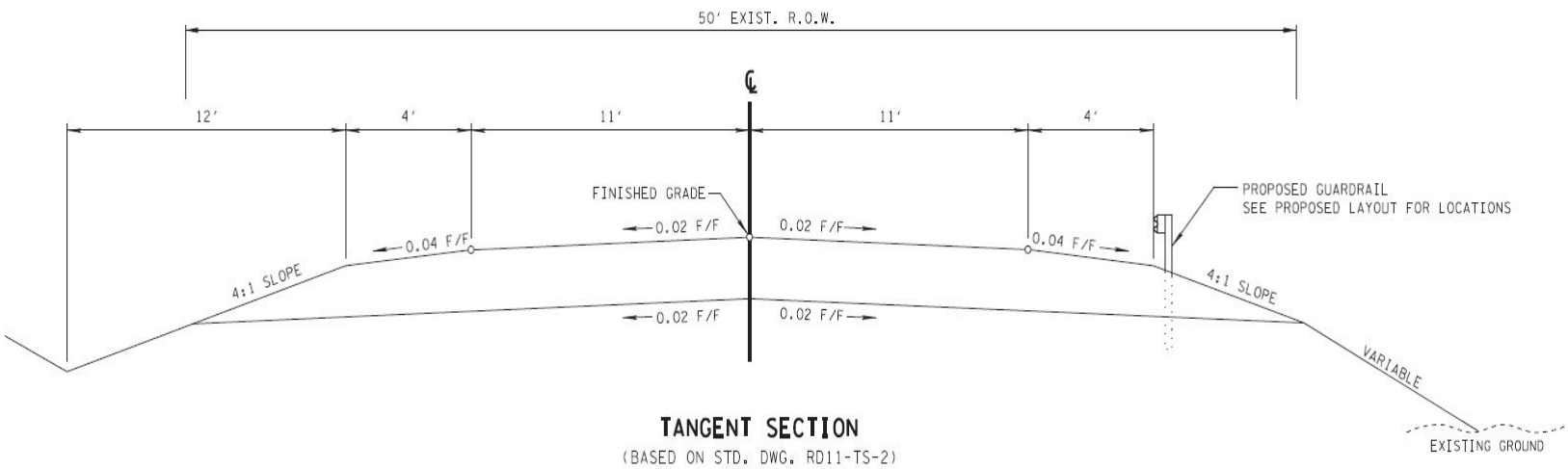


Figure 3. Typical Section of SR-436 over Reedy Creek, LM 0.68 in the 06/12/2019 Preliminary Plans.

According to the Proposed Layout Sheet in the 2019 Preliminary Plans, the proposed project would now shift the roadway alignment approximately 24 feet west of the original location of the centerline, (see Figure 4).

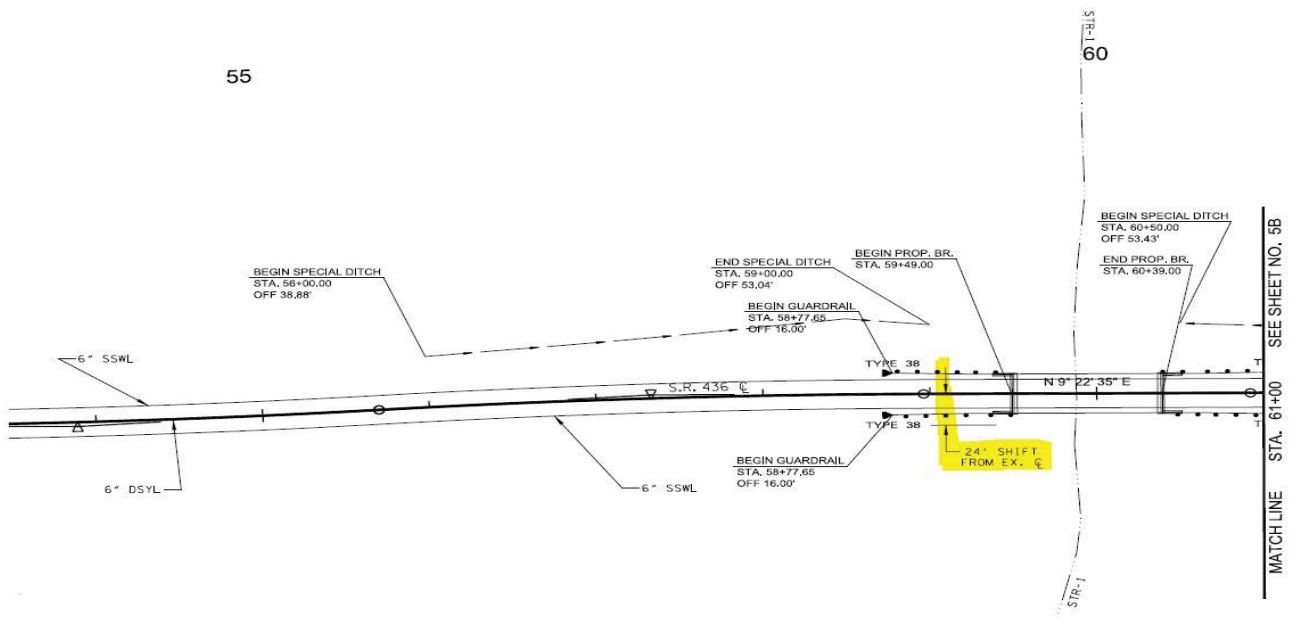


Figure 4. Proposed Layout of SR-436 over Reedy Creek, LM 0.68 in the 06/12/2019 Preliminary Plans.

The reevaluation of the environmental effects for this proposed project included the review of the proposed design plans with the information presented in the original PCE. This document has been updated to include areas not addressed in the original document and/or for which policy or regulations have resulted in the need for updated information or studies. Of particular interest to this Reevaluation are the following topics:

Right-of-Way Impacts

The approved PCE states, "It is estimated that four tracts of land will be affected resulting in 1.13 acres of estimated ROW." Since then, Preliminary Plans dated 06/12/2019 show an increase in ROW acquisition from approximately 1.13 to 4.24 acres.

Hazardous Materials

Coordination provided by the TDOT Hazardous Materials Section dated 06/17/2019 states:

"Based on the Preliminary Plans dated 12 June 2019, no known hazardous materials sites appear to affect this project as it is currently planned and no additional hazardous material studies are recommended at this time. The asbestos bridge survey has been completed, no asbestos was detected and the following project commitment has been submitted.

In the event hazardous substances/wastes are encountered within the right-of-way, their disposition shall be subject to all applicable regulations, including the applicable sections of the Federal Resource Conservation and Recovery Act, as amended; the Comprehensive Environmental Response, Compensation, and Liability Act, as amended; and the Tennessee Hazardous Waste Management Act of 1983, as amended. Databases reviewed include: Google Earth imagery, EPA [Environmental Protection Agency] National Priorities List, EPA EnviroMapper, TDEC [Tennessee Department of Environment and Conservation] Registered UST [Underground Storage Tanks] database, TDEC Division of Water Resources Public Data Viewer, TDOT IBIS [Integrated Bridge Information System], and others as necessary."

A copy the relevant Hazardous Materials coordination is included in **Appendix D**. The asbestos bridge survey is located in the **Technical Appendices of the PCE in Appendix B**.

Water Resources

According to the Environmental Boundaries Report (EBR) dated 06/16/2016, (located in the **Technical Appendices of the PCE in Appendix B**), from the TDOT Ecology section, The EBR identified four water resources within the project limits. Two of the water resources were classified as streams. Stream 1 (Reedy Creek, STR-1) is a perennial stream and STR-2 is an intermittent stream. The other two water resources were classified as wet weather conveyances. Wet Weather Conveyance 1 (WWC-1) is located on the southwest side of the existing bridge, and WWC-2 is located on the northeast side. The 2016 EBR lists no known impacts to either water resources in the water resource table, (see **Table 1**). No wetlands were identified within the project limits.

Labels	Type *	Function	Quality	Impacts **		
				Permanent	Temporary	Total
Wetlands						
						0.0 ac.
						0.0 ac.
						0.0 ac.
						0.0 ac.
						0.0 ac.
					Total	0.0 ac.

Labels	Type *	Function	Quality	Impacts **		
				Permanent	Temporary	Total
Streams						
STR-1	Perennial		Unassessed	0 ft		0 ft
STR-2	Intermittent		Unassessed	0 ft		0 ft
WWC-1	WWC		Unassessed	0 ft		0 ft
WWC-2	WWC		Unassessed	0 ft		0 ft
						0 ft
					Total	0 ft

* Identification of features has not been reviewed by regulatory agencies and determinations of stream type could possibly be changed.

** Estimated impacts are considered "Preliminary" and will not be completely accurate until the time of Permit Application

Table 1. Water Resources table from Approved PCE (10/08/2018).

Threatened and Endangered Species

According to the 2016 EBR, the TDEC Natural Heritage Database was reviewed on 08/23/2016 with no record found of any species observed within a one mile radius of the project limits and one specie, Prickly Hornwort, observed within a one to four mile radius.

Original coordination with the United States Fish and Wildlife Service (USFWS) documented in the approved PCE resulted in the following commitments for the proposed project:

"Cliff swallow and barn swallow nest, eggs, or birds (young and adults) will not be disturbed between April 15 and July 31. From August 1 to April 14, nests can be removed or destroyed, and measures implemented to prevent future building at the site, (e.g. closing off area using netting).

"TDOT has committed to seasonal removal on this project. The USFWS has given TDOT a finding of 'Not likely to Adversely Affect' for the Indiana bat and Northern long-eared bat, provided that all cutting on this project is done between October 15 and March 31."

Since the approval of the PCE, updated coordination with the USFWS and TWRA has taken place.

The updated USFWS coordination letter dated 07/29/2019 states:

"The Tennessee Department of Transportation (TDOT) has determined that the project is 'not likely to adversely affect' the federally endangered Indiana bat (*Myotis sodalis*) or threatened northern long-eared bat (NLEB) (*Myotis septentrionalis*) due to lack of suitable roosting habitat at the site and distance from known records. Personnel of the U.S. Fish and Wildlife Service have reviewed the subject proposal and offer the following comments.

Upon review of available information, we concur with TDOT's determinations of 'not likely to adversely affect' for the Indiana bat and NLEB. We would not anticipate impacts to these or any other federally listed or proposed species as a result of the project. Therefore, based on the best information available at this time, we believe the requirements of section 7 of the Endangered Species Act (Act) of 1973, as amended, are fulfilled for all species that currently receive protection under the Act."

The updated TWRA coordination letter dated 07/19/2019 states:

"The Tennessee Wildlife Resources Agency has reviewed the new information regarding the PIN 124139.00 changed to a new PIN128113.01 and the scope of work has not changed, therefore our previous comments are still valid on this proposed project."

On 07/30/2019 the TDOT Ecology Section provided the following response: "According to the plans dated 6/12/2019, the environmental boundaries report dated 9/16/2016 for PIN #124139.00 is still valid for this project. The commitment concerning federally endangered and threatened bat species has been removed. The commitment concerning barn and cliff swallows is still valid."

The EBR, agency coordination letters, and relevant correspondence can be found in the **Technical Appendices of the PCE in Appendix B**. The TDOT Ecology Section response and updated coordination letters can be found in **Appendix E**.

Floodplain Management

The proposed project is located on the Federal Emergency Management Agency (FEMA) Flood Rate Insurance Map (FIRM) for Carroll County, Panel 150 of 475, Map Number 47017C0150C, no changes have occurred since the approval of the PCE.

According to the FEMA FIRM, the proposed project is located in Zone A and is therefore determined to be in or near a FEMA defined floodplain however there is no detailed study. The design of the roadway system will be consistent with the Memorandum of Understanding (MOU) between FHWA and FEMA and with the floodplain management criteria set forth in the National Flood Insurance Regulations of Title 44 of Code of Federal Regulations (CFR). It will be consistent with the requirements of floodplain management guidelines for implementing Executive Order 11988 and FHWA guidelines 23 CFR 650A. A copy of the FEMA FIRM is included in **Appendix F**.

Air Quality

1. Transportation Conformity

On 07/01/2019, the TDOT Air and Noise Section provided a technical response that stated, "This project is in Carroll County which is still in attainment for all regulated criteria pollutants. Therefore, conformity does not apply to this project."

2. Mobile Source Air Toxics (MSAT)

The TDOT Air and Noise Section response dated 07/01/2019 also states, "This project qualifies as a categorical exclusion under 23 CFR 771.117 and does not require MSATs evaluation per FHWA's 'Interim Guidance Update on Air Toxic Analysis in NEPA [National Environmental Policy Act] documents' dated October 2016."

Noise Impacts

The Air and Noise Section response dated 07/01/2019 also stated, "This project is Type III in accordance with the FHWA noise regulation in 23 CFR 772 and TDOT's noise policy; therefore, a noise study is not needed."

The Air and Noise Section coordination can be found in **Appendix G**.

Section 4(f) and Section 6(f)

The proposed project will not require the use of any properties protected under the Department of Transportation Act's Section 4(f) provisions or require the acquisition or use of any properties protected under the Department of Interior's Land and Water Conservation Fund Section 6(f) provisions.

Cultural Resources/Section 106 Coordination

1. Architectural/Historical and Archaeological Resources

According to the approved PCE, separate Historic/Architectural and Archaeological, surveys were completed.

Historic Preservation Coordination

On 06/17/2019, after reviewing the Preliminary Plans dated 06/12/2019, the TDOT Historic Preservation Section determined that the original findings and 2018 TN-SHPO concurrence remains valid, which stated "Considering the information provided, we find that no archaeological resources eligible for listing in the National Register of Historic Places will be affected by this undertaking."

Archaeology Coordination

A Draft Negative Findings Archaeological Survey dated July 2018 was sent to the TN-SHPO. Correspondence from the TN-SHPO on 07/20/2018 determined that, 'no archaeological resources eligible for listing in the National Register of Historic Places will be affected.'

On 06/17/2019, after reviewing the Preliminary Plans dated 06/12/2019, the TDOT Archaeology Section determined that the original archaeological findings and TN-SHPO concurrence remains valid, which stated "Considering the information provided, we find that no archaeological resources eligible for listing in the National Register of Historic Places will be affected by this undertaking."

The original Historic Preservation and Archaeological survey findings and TN-SHPO concurrence letters can be found in the **Technical Appendices of the PCE in Appendix B**. The updated technical responses from both the TDOT Historic Preservation and Archaeology Sections can be found in **Appendix H**.

2. Section 106 Coordination

The approved PCE documented initial Section 106 Consultation with federally recognized tribes.

On 08/27/2019, the TDOT Cultural Resources Section provided a technical response after reviewing Preliminary Plans dated 06/12/2019, which states that updated Section 106 Native American Consultation was completed. Section 106 Consultation was additionally sent to the Absentee Shawnee Tribe and the Thlopthlocco Tribal Town on 07/16/2019. Both tribes claimed interest in Carroll County since the approval of the PCE. Neither tribe responded.

The original consultation, correspondence from the Chickasaw Nation, and technical response from the TDOT Cultural Resources Section on 09/28/2018 can be found in the **Technical Appendices of the PCE in Appendix B**. The updated technical response dated 08/27/2019 and Section 106 Consultation with the Absentee Shawnee Tribe and Thlopthlocco Tribal Town can be found in **Appendix H**.

Environmental Commitments

The proposed project has one commitment regarding cliff/barn swallows as described on the attached green sheet.

A second project commitment regarding the removal of trees has been vacated due to updated coordination with the USFWS dated 07/29/2019, located in **Appendix E**, stating, "Upon review of available information, we concur with TDOT's determination of 'not likely to adversely affect for the Indiana bat and NLEB.'"

Multimodal Coordination

The TDOT Multimodal Transportation Resources Division provided a technical response dated 06/19/2019 that stated, "This project does not accommodate bicyclists or pedestrians but rural nature of project as well as project scope do not justify multi-modal alternative."

The Multimodal Transportation Resources Division coordination dated 06/19/2019 can be found in **Appendix I**.

Environmental Justice

In compliance with Executive Order 12898, Federal Actions to Address Environmental Justice (EJ) in Minority Populations and Low-Income Populations, this evaluation provides an assessment of the project's potential to have a disproportionately high and adverse effect on environmental justice populations

The project encompasses two census block groups within Shelby County, Tennessee; Census Tract (CT) 9621, Block Group (BG) 2 and CT 9623, BG 4. The table below displays the population data for this block group comparing low-income and minority population data to that of the entire county as shown in the U.S. Census Bureau's 2013-2017 American Community Survey 5-Year Estimates, and presented on the Census Bureau's American FactFinder website. The FactFinder data is located in **Appendix J**.

Environmental Justice Analysis Table

Census Tract (CT)/ Block Group (BG)	CT 9621 BG 2	CT 9623 BG 4	Carroll County
%Minority/Non-White	5.6%	7.1%	15.1%
Exceeds County Average by 10% or More	No	No	
BG Pop. Avg.>50%	No	No	
Meet EJ Criteria	No	No	
Census Tract (CT)/ Block Group (BG)	CT 9621 BG 2	CT 9623 BG 4	Carroll County
%Low-Income/ Below Poverty Line	7.2%	8.0%	19.1%
Exceeds County Average by 10% or More	No	No	
BG Pop. Avg. >50%	No	No	
Meet EJ Criteria?	No	No	

Source: U.S. Census Bureau, 2013-2017 American Community Survey (ACS) 5-Year Estimates. ACS data was accessed and reviewed on 09/13/2019 via American FactFinder, from the U.S. Census Bureau website.

Minority Populations

As shown, the affected block groups do not contain a minority population average that exceeds the county average by 10 percent or more nor do the identified block groups contain minority population averages that equal 50 percent or more of the block groups. Block groups that do not satisfy either of these criteria are not considered to be EJ populations.

Low Income Populations

As shown, the affected block groups do not contain a minority population average that exceeds the county average by 10 percent or more nor do the identified block groups contain minority population averages that equal 50 percent or more of the block groups. Block groups that do not satisfy either of these criteria are not considered to be EJ populations.

Conclusion

Based on the EJ analysis conducted for the subject project using the demographic data provided by the 2013-2017 ACS 5-Year Estimates, the subject block groups do not contain an EJ population. Additionally, there are no relocations or other adverse human health or environmental effects on minority or low-income populations associated with this project.

Based on the findings of this Reevaluation developed on Preliminary Plans dated 06/12/2019, this federal-aid highway project now qualifies as a CE under 23 C.F.R 771.117(d) and exceeds the thresholds listed in Section IV(A)(1)(b) of the 2018 Programmatic Agreement between the FHWA and TDOT. This project no longer qualifies as a PCE and is now designated as a D-list CE. A space below is provided for your concurrence.

Sincerely Yours,

Digitally signed by Joseph D. Santangelo
Date: 2019.09.27 09:42:49 -05'00' Date: 09/27/2019

Joseph D. Santangelo

Joseph Santangelo
TDOT Environmental Supervisor

Concurrence:



Federal Highway Administration
Environmental Program Engineer Date: 10/1/19

CMA

cc: Tammy Sellers
Klint Rommel
Sharon Sanders
John Kahle

Technical Appendices