

Reevaluation: State Route 1 Bridge over Branch at Log Mile 2.89  
Haywood County, Tennessee  
TN-PIN: 128113.04  
Date: 09/30/2019  
Page EC-1

## 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, [US Fish and Wildlife Service] USFWS, [Federal Highway Administration] FHWA, and [Tennessee Department of Transportation] 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  
SUITE 900 - JAMES K. POLK BUILDING  
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NASHVILLE, TENNESSEE 37243-0334**

Date: 09/30/2019

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

Subject: Reevaluation of State Route 1 Bridge over Branch at Log Mile 2.89,  
Haywood County, Tennessee, PIN 128113.04

Dear Mr. Fottrell:

This reevaluation of environmental, social and economic effects is for the entire project. The entire project for State Route (SR) 1 Bridge over Branch, at Log Mile (LM) 2.89 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 1799003 - National Highway Performance Program (NHPP) Grouping. The STIP Page is included in **Appendix A**.

Federal and State project numbers for 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-NH-1(383)	38002-1217-94
Right of Way	BR-NH-1(383)	38002-2217-94
Construction	BR-NH-1(383)	38002-3217-94

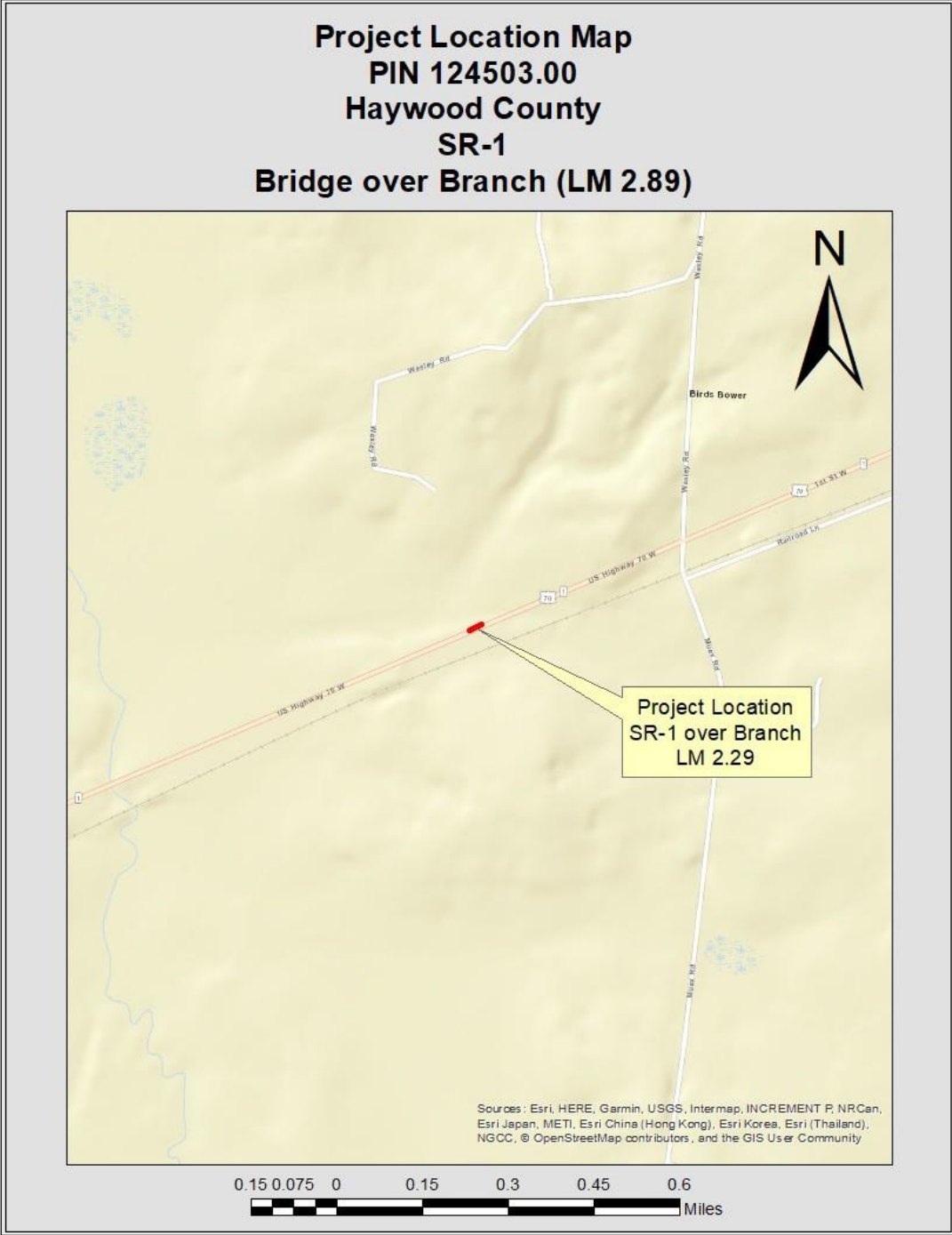


Figure 1. Project location map of the SR-1 Bridge over Branch, LM 2.89.

## Purpose and Need

The purpose of the proposed project is to improve the structural integrity of the SR-1 Bridge over Branch at LM 2.89 by replacing the existing structure that has insufficient structural elements as indicated by the overall sufficiency rating of 35.7.

## Project History

A Programmatic Categorical Exclusion (PCE) was approved on 10/09/2018 based on the TDOT Transportation Investment Report (TIR), completed on 04/02/2018, and the National Bridge Inventory (NBI) Tennessee Inventory and Appraisal Report published 07/27/2018. The project was first advanced under project PIN 124503.00, which was subsequently changed to PIN 128113.04 as a 'Design Build' project.

According to the 07/27/2018 NBI - Tennessee Inventory and Appraisal Report, (located in the **Technical Appendices of the PCE in Appendix B**), the subject SR-1 Bridge received a sufficiency rating of 35.7.

The 2018 TIR stipulated that traffic control for the proposed project would involve a detour of 26.8 miles, which exceeds the 25-mile threshold for detours in a rural area, thereby classifying the project as a D-List CE. Coordination with FHWA on 08/09/2018 determined that the project would not require FHWA approval since the project would contain a local alternate detour route of 21 miles which is under the 25 miles threshold and could be processed as a PCE.

However, the processing of the proposed project as a PCE was incorrect in that according to the 2018 TIR, the subject project would also impact over half an acre of wetland. This impact would have classified the proposed project as a D-List CE.

Since the approval of the PCE, Preliminary Plans dated 06/12/2019 were made available detailing an increase in ROW acquisition totaling approximately 1.95 acres. A reevaluation of the project is now required, and the proposed project is being processed as a D-List CE.

The PCE approved 10/09/2018 with the Technical Appendices and FHWA coordination dated 08/09/2018 can be found in the **Technical Appendices of the PCE in Appendix B** of this environmental document. A copy of the Preliminary Plans can be found in **Appendix C**.

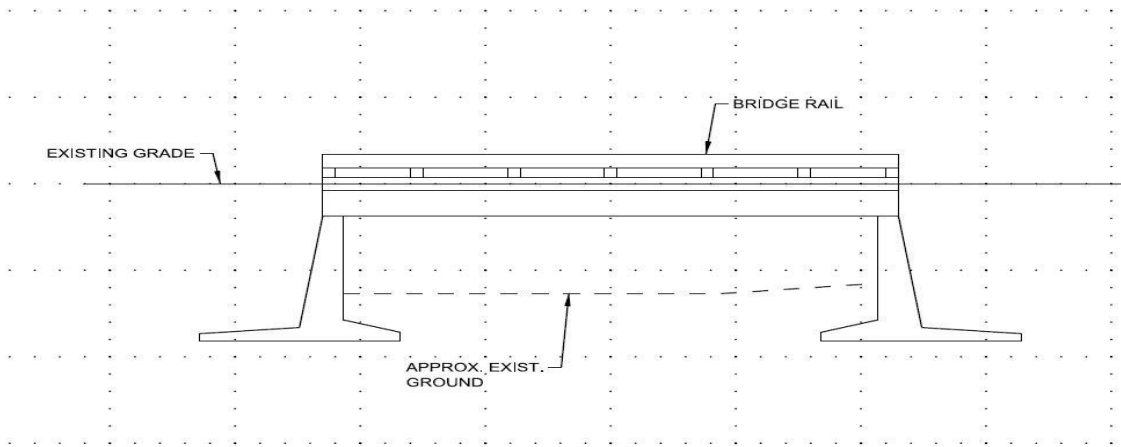
## Project Description

The Tennessee Department of Transportation (TDOT), in cooperation with the Federal Highway Administration (FHWA) proposes to replace the SR-1 Bridge over Branch at LM 2.89. A project location map is provided in **Figure 1**.

Existing Conditions and Layout

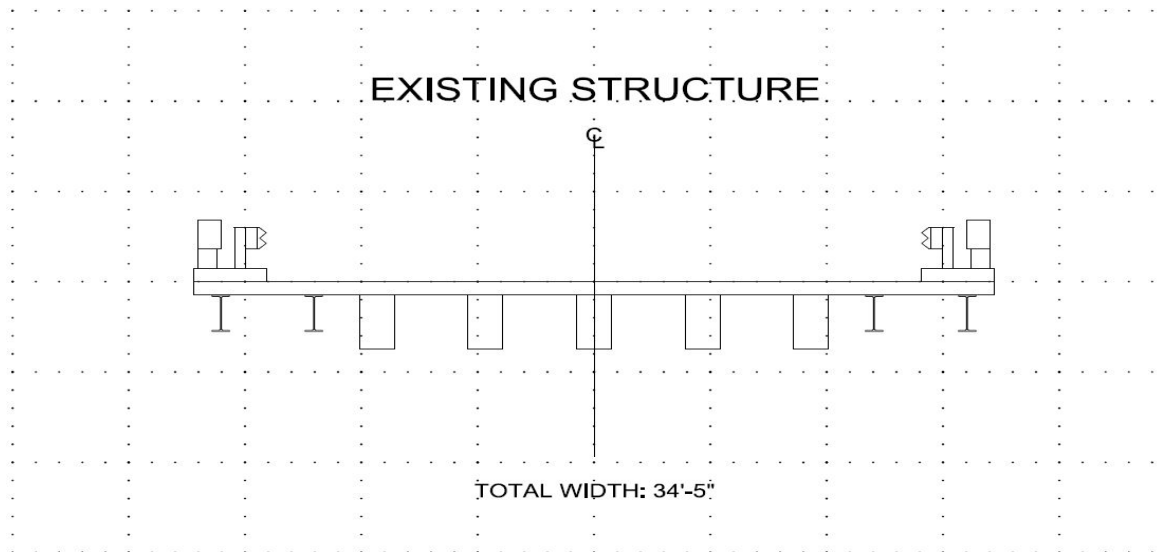
According to the 04/02/2018 TIR, the current bridge structure is a single span precast concrete slab bridge, built in 1959, with an out-to-out width of 34.5 feet, and an overall bridge length of 46 feet, (see **Figures 2 and 3**). The existing roadway along the bridge consists of two, 12-foot wide travel lanes (one in each direction) and is classified as a Rural Arterial Road.

**EXISTING STRUCTURE (INLET)**



**Figure 2. Existing Bridge Profile of SR-1 over Branch, LM 2.89 structure as noted in 04/02/2018 TIR.**

**EXISTING STRUCTURE**



**Figure 3. Existing width of SR-1 over Branch, LM 2.89 structure as noted in 04/02/2018 TIR.**

According to the 04/20/2018 TIR, the proposed replacement bridge would be a reinforced concrete box bridge with two barrels, each being 18 feet long, and a total vertical clearance of 16 feet. The replacement bridge would maintain the same grade and alignment as the existing. The proposed bridge length would decrease to a little over 38 feet. The roadway would be widened to accommodate eight-foot shoulders, thereby increasing the out-to-out width of the proposed bridge to 45.5 feet. The project would also extend 150 feet to the east, and west, to install guardrail and taper the shoulders back to the existing roadway.

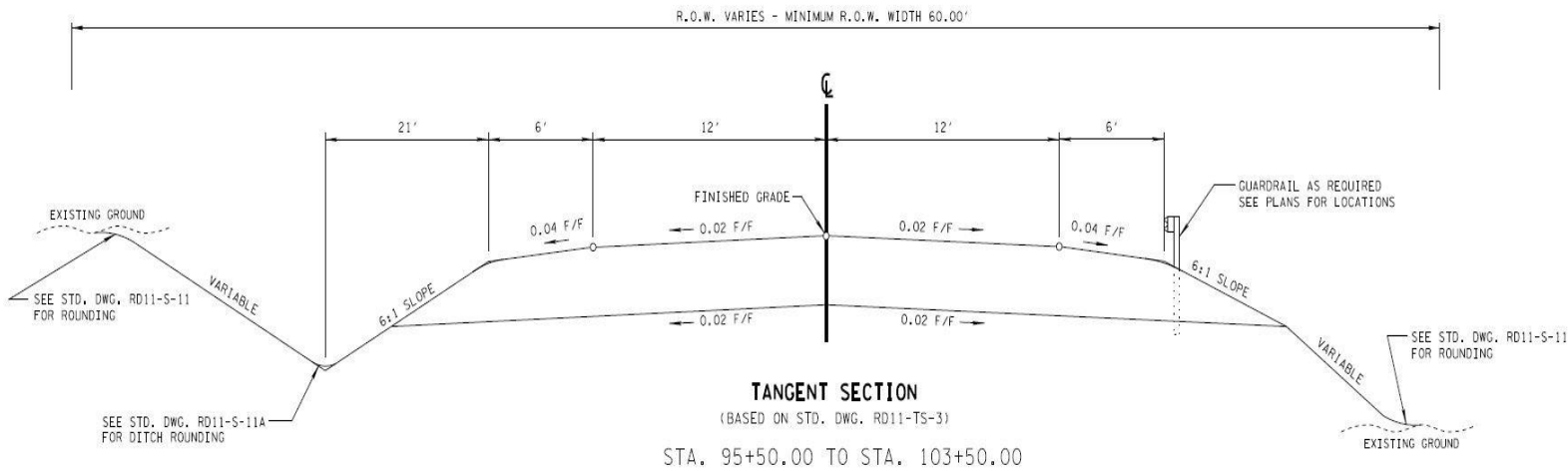
**Design Modifications and Updates which have occurred since Approval of the PCE**

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 1.95 acres.
2. The proposed bridge structure would now be a single reinforced concrete box culvert measuring 18 feet by 16 feet with Class "B" Rip Rap.
3. The proposed roadway shoulders would be reduced from eight feet to six feet.

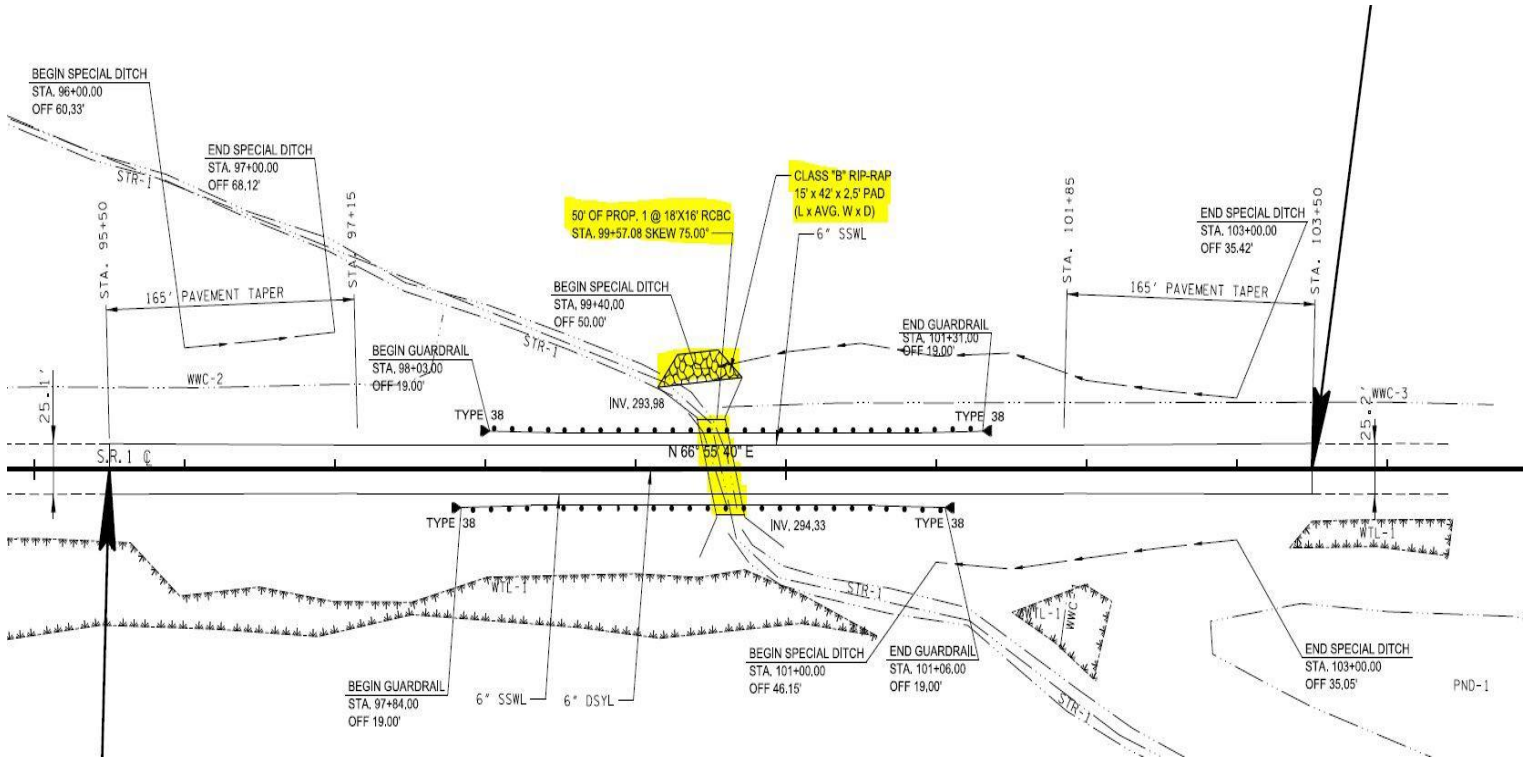
**Proposed Typical Section**

The Typical Section in the Preliminary Plans dated 06/12/2019 show the proposed roadway layout of SR-1 consisting of two, 12-foot travel lanes, one in either direction, six-foot-wide shoulders, and guardrail in specified locations (see **Figure 4**).



**Figure 4. Typical Section of SR-1 over Branch, LM 2.89 according to the 06/12/2019 Preliminary Plans.**

According to the Proposed Layout Sheet in the 2019 Preliminary Plans, the proposed project would now construct a single reinforced concrete box culvert measuring 18 feet by 16 feet and install Class B rip rap (see **Figure 5**).



**Figure 5. Proposed Layout of the SR-1 over Branch, LM 2.89 according to 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 two tracts of land will be affected resulting in 0.34 acre of estimated ROW." Preliminary Plans dated 06/12/2019 list an increase in ROW acquisition from 0.35 to 1.95 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**. A copy of 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 9/04/2018, from the TDOT Ecology section, multiple water resources were identified within the project limits. The water resources were identified as follows: one stream (STR-1), three wet weather conveyances, (WWC-1, WWC-2, WWC-3), and one wetland (WTL-1). The 2016 EBR also provides an impact table depicting proposed impacts to the identified water resources as shown in the table below, (see **Table 1**). As noted, the proposed project would impact a total of 0.94 acre to WTL-1 and 1,051 feet of STR-1, WWC-1, WWC-2 & WWC-3. See the table below.



Labels	Type *	Function	Quality	Impacts **		
				Permanent	Temporary	Total
<b>Wetlands</b>						
WTL-1	Slope	Wildlife Habitat, Drainage		0.26 ac.	0.68 ac.	0.94 ac.
					Total	0.94 ac.

Labels	Type *	Function	Quality	Impacts **		
				Permanent	Temporary	Total
<b>Streams</b>						
STR-1	Intermittent		Undetermined at this time	270 ft		270 ft
WWC-1	WWC		Undetermined at this time	173 ft		173 ft
WWC-2	WWC		Undetermined at this time	243 ft		243 ft
WWC-3	WWC		Undetermined at this time	365 ft		365 ft
					Total	1,051 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 the Approved PCE (10/09/2018).**

### **Threatened and Endangered Species**

According to the 2018 EBR, the TDEC Natural Heritage Database was reviewed on 07/30/2018 with one record of specie, Prairie False-foxglove, observed within a one mile radius of the project limits and one specie, Reniform sedge, was 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 commitment 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, nest can be removed or destroyed, and measures implemented to prevent future building at the site, (e.g. closing off area using netting).

On 07/25/2019 the TDOT Ecology Section, after reviewing Preliminary Plans dated 06/12/2019, provided the following response: "Based on the plans dated 6/12/2019, the environmental boundaries report dated 9/04/2018 for PIN #124503.00 is still valid for this project."

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 can be found in Appendix E.

### **Floodplain Management**

The proposed project is located on the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) for Haywood County, Panel 310 of 400, Map Number 47075C0310D.

According to the FEMA FIRM, the proposed project is located in Zone X and is therefore determined to be outside a FEMA defined floodplain, floodway, or study area. 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**

According to the original PCE approved 10/09/2018, the TDOT Air and Noise section provided a technical response on 08/09/2018, that stated, "This project is in Haywood County which is 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 08/09/2018 also stated, "This project qualifies as a categorical exclusion under 23 CFR 771.117 and does not require Mobile Source Air Toxics (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."

On 06/21/2019, after reviewing the 2019 Preliminary Plans, the Air and Noise section determined that the original findings remain valid.

The original TDOT Air and Noise Section response can be found in the **Technical Appendices of the PCE in Appendix B**. The updated Air and Noise Section response 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 the 2018 TN- SHPO concurrence remains valid, which states, "Considering the information provided, we find that no architectural resources eligible for listing in the National Register of Historic Places will be affected by this undertaking."

### **Archaeology Coordination**

On 06/17/2019, after reviewing the Preliminary Plans dated 06/12/2019, the TDOT Archaeology 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."

The original Historic Preservation and Archaeological survey findings and TN-SHPO concurrence letter 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 the 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 Consultation was additionally sent to the Absentee Shawnee Tribe and the Thlopthlocco Tribal Town on 07/15/2019. Both tribes claimed interest in Haywood County since the approval of the PCE. Neither tribe responded.

The original consultation, correspondence from the Chickasaw Nation and Shawnee Tribe, and technical response from the TDOT Cultural Resources Section on 10/05/2018 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 to the Absentee Shawnee Tribe and Thlopthlocco Tribal Town can be found in **Appendix H**.

**Environmental Commitments**

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

**Multimodal Coordination**

The TDOT Multimodal Transportation Resources Division provided a technical response dated 06/19/2019 that stated, "This project accommodate bicyclists [six-foot] 6' shoulders in a rural area."

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 one census block group within Haywood County, Tennessee; Census Tract (CT) 9305, Block Group (BG) 2. The table below, (see **Table 2**), 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**

<b>Census Tract (CT)/ Block Group (BG)</b>	CT 9305 BG 2	Haywood County
%Minority/Non-White	62.9%	55.6%
Exceeds County Average by 10% or More	No	
BG Pop. Avg. > 50%	Yes	
Meet EJ Criteria	Yes	
<b>Census Tract (CT)/ Block Group (BG)</b>	CT 9305 BG 2	Haywood County
%Low-Income/ Below Poverty Line	22.3%	19.1%
Exceeds County Average by 10% or More	No	
BG Pop. Avg. > 50%	No	
Meet EJ Criteria?	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 group does not contain a minority population average that exceeds the county average by 10 percent or more, however, the identified block group does contain minority population averages that equal 50 percent or more of the block group. Block groups that satisfy either of these criteria are considered to be EJ populations.

### Low Income Populations

As shown, the affected block group does not contain a low-income population average that exceeds the county average by 10 percent or more nor does the identified block group contain low-income population averages that equal 50 percent or more of the block group. Block groups that do not satisfy either of these criteria are considered not 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 group contains an EJ population. According to the 10/09/2018 PCE, the proposed bridge replacement project would detour traffic for approximately 26 miles with a local route that would detour traffic approximately 21 miles. However, there would not be disproportionately high or adverse impact to this population as compared to the rest of the project area. Additionally, there are no relocations or other adverse human health or environmental effects on minority or low-income populations associated with this project with all benefiting equally from the proposed improvements.

In a letter from TDOT's Title VI Program Director dated September 20, 2019, located in **Appendix J**, it was determined that "there does not appear to be any Title VI nor Environmental Justice issues [with the proposed project]."

**Conclusion**

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 does not qualify 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.  
**Joseph D. Santangelo** Santangelo

Date: 2019.09.30 14:12:43 -05'00'

Date: 09/30/2019

Joseph Santangelo  
TDOT Environmental Supervisor

Concurrence:

  
Federal Highway Administration  
Environmental Program Engineer

Date: 10/1/19

CMA

cc: Tammy Sellers  
Klint Rommel  
Sharon Sanders

Technical Appendices