## **Tennessee Environmental Evaluation Report**

#### Interstate 40

Four Bridges over 8th Avenue: Ramp from I-40 East Bound to I-65 South Bound over 8th Avenue (SR-6), I-40 East Bound over 8th Avenue (SR-6), Ramp from I-65 North Bound to I-40 West Bound over 8th Avenue (SR-6), and I-40 West Bound over 8th Avenue (SR-6)

City of Nashville

**Davidson County** 

PIN 132293.00

Submitted Pursuant to the National Environmental Policy Act of 1969, 42 U.S.C. 4332(2)

## **Document Approval**

By signing below, the authorized signatory concurs that this document is in compliance with all applicable environmental laws, regulations and procedures. The authorized signatory has reviewed and verified the document's quality, accuracy, and completeness and that all source material has been compiled and included in the attachments and technical appendices.

**Tennessee Department of Transportation** 





## **Project Information**

### **General Information**

Route: Interstate 40

**Termini:** Four Bridges over 8th Avenue: Ramp from I-40 East Bound to I-65 South Bound over 8th Avenue

(SR-6), I-40 East Bound over 8th Avenue (SR-6), Ramp from I-65 North Bound to I-40 West Bound

over 8th Avenue (SR-6), and I-40 West Bound over 8th Avenue (SR-6)

Municipality: City of Nashville

**County:** Davidson County

**PIN:** PIN 132293.00

Plans: Environmental Technical Study Area (ETSA)

**Date of Plans:** 10/08/2024

**Type of Work** Bridge Replacement

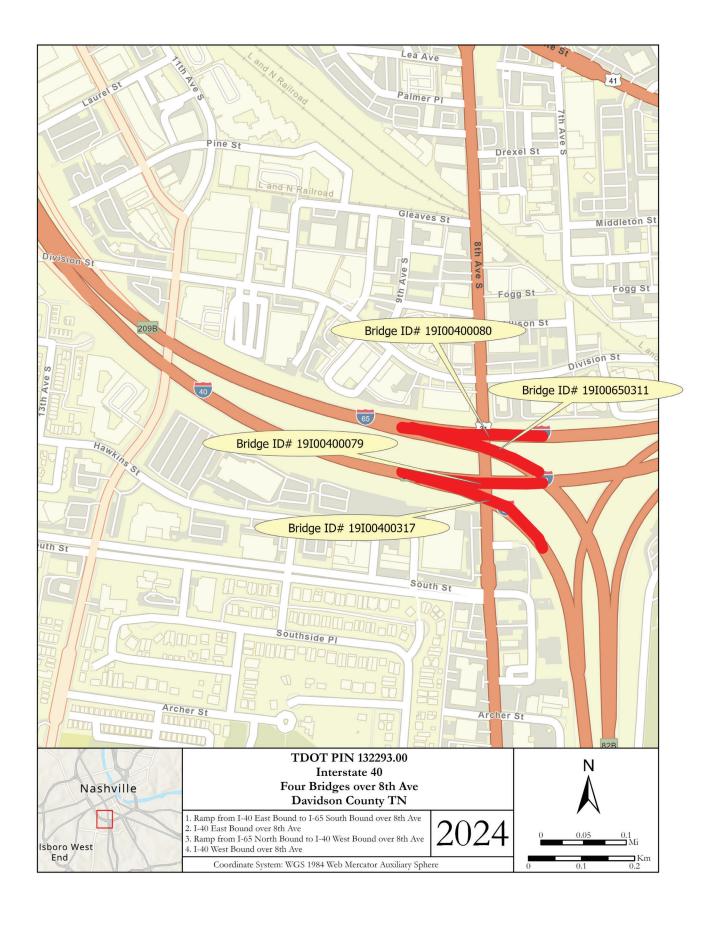
## **Project Funding**

Planning Area: Nashville Area Metropolitan Planning Organization (MPO)

**STIP/TIP:** Not Applicable (State-Funded)

Funding Source	Preliminary Engineering	Right-of-Way	Construction	
Federal	N/A	N/A	N/A	
State	PE-D: 19I040-S1-023	191040-S2-023	191040-S3-023	

# **Project Location**



## **Project Overview**

#### Introduction

The Tennessee Department of Transportation (TDOT) proposes to replace four interstate bridges over 8th Avenue S, in the City of Nashville, Davidson County, Tennessee:

- 1. Ramp from I-40 East Bound to I-65 South Bound over 8th Avenue (SR-6)
- 2. I-40 East Bound over 8th Avenue (SR-6)
- 3. Ramp from I-65 North Bound to I-40 West Bound over 8th Avenue (SR-6)
- 4. I-40 West Bound over 8th Avenue (SR-6)

Due to the proposed project being funded exclusively with state funds, this bridge replacement project qualifies as a Tennessee Environmental Evaluation Report (TEER).

## **Background**

Every two years, TDOT performs a comprehensive inspection and subsequent evaluation of all public bridges across the state in order to determine the status of their working condition and operating limits to ensure that they are in accordance with the Federal Highway Administration (FHWA) National Bridge Inspection Standards (NBIS). These inspections are recorded and published in the National Bridge Inventory (NBI) Tennessee Inventory and Appraisal Report. One of the components of this evaluation is the condition ratings. Condition ratings are used to describe the existing, in-place bridge as compared to the as-built condition. The physical condition of the deck, superstructure, and substructure components of a bridge are evaluated for a condition rating. Condition ratings are assigned codes ranging from 0-9, with zero being failed condition and 9 being excellent condition. Another component of the NBI are the appraisal ratings. Appraisal ratings are used to evaluate a bridge in relation to the level of service which it provides. The structure is compared to a new structure built to current standards for the particular type of road. Components evaluated and given an appraisal rating include the structural evaluation, deck geometry, the underclearance rating, waterway adequacy, and the approach roadway alignment. Appraisal ratings are assigned codes ranging from 0-9, with zero being a closed bridge and 9 being superior to present desirable criteria.

#### 1. Ramp from I-40 East Bound to I-65 South Bound over 8th Avenue (SR-6) (Bridge ID# 19100400317)

The most recent NBI Report, dated 03/12/2024, shows the following condition and appraisal ratings:

Bridge ID#: 19100400317					
Condition Ratings	Number	Rating	Description		
Deck	5	Fair Condition	all primary structural elements are sound but may have minor section loss, cracking, spalling or scour		
Superstructure	5	Fair Condition	all primary structural elements are sound but may have minor section loss, cracking, spalling or scour		
Substructure	5	Fair Condition	all primary structural elements are sound but may have minor section loss, cracking, spalling or scour		
Stream Channel and Channel Protection	N/A				
Appraisal Ratings	Number	Description			
Structural Evaluation	5	Somewhat better than minmum adequacy to tolerate being left in place as is			
Deck Geometry	9	Superior to present desirable criteria			
Underclearance Rating	5	Somewhat better than minmum adequacy to tolerate being left in place as is			
Approach Roadway Alignment	8	Equal to present desirable to criteria			
Scour Condition Rating	N/A				

Table 1. Ramp from I-40 East Bound to I-65 South Bound over 8th Avenue (SR-6) (Bridge ID# 19I00400317)

In the most recent Inspection Report (12/05/2023), the bridge received an Overall Condition Rating of "2 - Fair." The bridge was built in 1970 and has not been previously rehabilitated. On 12/06/2024, the TDOT Engineering Division, Structures Section provided the following additional comments:

- Overhangs, parapet rails are deteriorating, spalling, and show efflorescence.
- Areas of showing sign of full depth deterioration. Bridge had emergency deck repairs in 2023, when a section of the bottom 1-inch of the deck dropped onto 8th Avenue. That section didn't show any sign of the possibility of falling, visually looking at it.
- Abutments, backwalls, wing walls and overhangs at abutments are deteriorated, spalled, and missing sections.
- Beam corrosion and section loss, paint failure.
- Bearings are corroded, frozen in place, missing anchor bolts, rocked back.
- Joints are leaking.

#### 2. I-40 East Bound over 8th Avenue (SR-6) (Bridge ID# 19100400079)

The most recent NBI Report, dated 03/12/2024, shows the following condition and appraisal ratings:

Canditian Datings	Marine	Dating	Description	
Condition Ratings	Number	Rating	Description	
		Satisfactory	MEAA SECTION OF THE S	
Deck	6	Condition	structural elements show some minor deterioration	
		Satisfactory		
Superstructure	6	Condition	structural elements show some minor deterioration	
		Satisfactory		
Substructure	6	Condition	structural elements show some minor deterioration	
Stream Channel and		*		
Channel Protection	N/A			
Appraisal Ratings	Number	Description		
Structural Evaluation	6	Equal to present minimum criteria		
Deck Geometry	6	Equal to present minimum criteria		
	-	Somewhat better than minmum adequacy to tolerate being		
Underclearance Rating	5	place as is		
Approach Roadway				
Alignment	8	Equal to present desirable to criteria		
Scour Condition Rating	N/A			

Table 2. I-40 East Bound over 8th Avenue (SR-6) (Bridge ID# 19100400079)

In the most recent Inspection Report (12/04/2023), the bridge received an Overall Condition Rating of "2 - Fair." The bridge was built in 1972 and has not been previously rehabilitated. On 12/06/2024, the TDOT Engineering Division, Structures Section provided the following additional comments:

- Overhangs, parapet rails are deteriorating, spalling, and show efflorescence.
- Areas of showing signs of full depth deterioration.
- Abutments, backwalls, wing walls and overhangs at abutments are deteriorated, spalled and missing sections.
- Beam corrosion and section loss, paint failure.
- Bearings are corroded, frozen in place, missing anchor bolts.
- Joints are leaking.
- Bents showing signs of reinforcement beginning to corrode and expand.

#### 3. Ramp from I-65 North Bound to I-40 West Bound over 8th Avenue (SR-6) (Bridge ID# 19100650311)

The most recent NBI Report, dated 03/12/2024, shows the following condition and appraisal ratings:

Condition Ratings	Number	Rating	Description		
Deck	7	Good Condition	some minor problems		
Superstructure	6	Satisfactory Condition	structural elements show some minor deterioration		
Substructure	6	Satisfactory Condition	structural elements show some minor deterioration		
Stream Channel and Channel Protection	N/A				
Appraisal Ratings	Number	Description			
Structural Evaluation	6	Equal to present minimum criteria			
Deck Geometry	9	Superior to present desirable criteria			
Underclearance Rating	5	Somewhat better than minmum adequacy to tolerate being left in place as is			
Approach Roadway Alignment	8	Equal to present desirable to criteria			
Scour Condition Rating	N/A	T. Indiana Francisco de Caracteria de Caract			

Table 3. Ramp from I-65 North Bound to I-40 West Bound over 8th Avenue (SR-6) (Bridge ID# 19100650311)

In the most recent Inspection Report (01/23/2024), the bridge received an Overall Condition Rating of "2 - Fair." The bridge was built in 1970 and has not been previously rehabilitated. On 12/06/2024, the TDOT Engineering Division, Structures Section provided the following additional comments:

- Overhangs, parapet rails are deteriorating, spalling, and show efflorescence.
- Asphalt on top shows possible partial depth repair needed.
- Abutments, backwalls, wing walls and overhangs at abutments are deteriorated, spalled and missing sections.
- Beam corrosion and section loss, paint failure.
- Bearings are corroded, frozen in place, missing anchor bolts.
- Joints are leaking.

#### 4. I-40 West Bound over 8th Avenue (SR-6) (Bridge ID# 19100400080)

The most recent NBI Report, dated 03/12/2024, shows the following condition and appraisal ratings:

Condition Datings	Number	Deting	Description			
Condition Ratings	Number	Rating	Description			
Deck	5	Fair Condition	all primary structural elements are sound but may have minor section loss, cracking, spalling or scour			
Superstructure	5	Fair Condition	all primary structural elements are sound but may have minor section loss, cracking, spalling or scour			
Substructure	5	Fair Condition	all primary structural elements are sound but may have minor section loss, cracking, spalling or scour			
Stream Channel and Channel Protection	N/A					
Appraisal Ratings	Number	Description				
Structural Evaluation	5	Somewhat better than minmum adequacy to tolerate being left in place as is				
Deck Geometry	6	Equal to present minimum criteria				
Underclearance Rating	5	Somewhat better than minmum adequacy to tolerate being left in place as is				
Approach Roadway Alignment	8	Equal to present desirable to criteria				
Scour Condition Rating	N/A	man Person plant Person of the control of the Contr				

Table 4. I-40 West Bound over 8th Avenue (SR-6) (Bridge ID# 19100400080)

PIN 132293.00 Page 6

In the most recent Inspection Report (12/05/2023), the bridge received an Overall Condition Rating of "2 - Fair." The bridge was built in 1970 and has not been previously rehabilitated. On 12/06/2024, the TDOT Engineering Division, Structures Section provided the following additional comments:

- Overhangs, parapet rails are deteriorating, spalling, and show efflorescence.
- Areas of showing signs of full depth deterioration.
- Abutments, backwalls, wing walls and overhangs at abutments are deteriorated, spalled and missing sections.
- Beam corrosion and section loss, paint failure.
- Bearings are corroded, frozen in place, missing anchor bolts.
- Joints are leaking.

An Environmental Technical Study Area (10/08/2024) has been prepared and serves as the focus of this evaluation.

The ETSA, NBI reports, and Bridge Inspection Reports are included in the Technical Appendices.

## **Project Development**

#### Need

The proposed project is needed to address the various structural deficiencies for each of the four bridges, as described by the TDOT Engineering Division, Structures Section and in the most recently available inspection reports. Please refer to the Background section (above) of this document for specific information about the deficient bridge elements.

### **Purpose**

The purpose of the proposed project is to address the various deteriorated elements for each of the four subject bridges and to ensure each bridge meets current TDOT design standards.

## Range of Alternatives

Other than the selected design, were any alternative build designs developed for this project?

No

No-Build

In the development of design solutions that address the needs outlined above and achieve the purpose of the project, TDOT evaluated the potential consequences should the project not be implemented. This option, known as the No-Build alternative, assumed the continuation of current conditions and set the baseline from which the impacts of the selected design were compared. The No-Build Alternative was not selected, as it does not meet the purpose and need of the proposed project.

### **Public Involvement**

Has there been any public involvement for the project?

No

## **Project Design**

## **Existing Conditions and Layout**

Within the project area, I-40 is an eight-lane controlled access facility (four 12-ft lanes in each direction) divided by a grassy median and with 10-ft wide inside and outside shoulders. Once I-40 transitions to the four bridges, each bridge continues with two, 12-ft wide lanes before merging back into the four-lane typical sections.

All four bridges cross over 8th Avenue (SR-6), which consists of four, 12-ft lanes (two lanes in each direction) with 2-ft wide shoulders.

## **Proposed Project Description**

The proposed project would replace the four existing I-40 bridges over 8th Avenue. The replacement bridges would remain on the existing alignment and built within the footprint of the existing bridges, using accelerated bridge construction methods.

The proposed project would extend approximately 150-ft past the end of each bridge to tie in the new structures to the existing roadway. In addition, the gore area to the west of the four bridges, between the divided lanes of I-40, would be used as a staging area for materials and equipment.

## **Right-of-Way**

Does this project require the acquisition of right-of-way or easements?

No

#### Relocations

Will this project result in residential, business or non-profit relocations?

No

## **Changes in Access Control**

Will changes in access control permanently impact the functional utility of any adjacent parcels?

No

#### **Traffic Control Measures**

At this time, are traffic control measures and temporary access information available?

No

As Traffic Control information is made available, it will be included in future reevaluation efforts.

## **Environmental Studies**

#### **Water Resources**

#### Are there any water resources impacted within the project area?

No

In an Environmental Boundaries Report dated 11/5/2024, the TDOT Ecology Section determined that no streams, wetlands, or other features were identified within the proposed project area. The EBR is included in the Technical Appendices.

### **Species Coordination**

#### U.S. Fish and Wildlife Service (USFWS):

On 11/5/2024, the TDOT Ecology Section responded that the proposed project fits all conditions of the 2022 Grouped Programmatic No Effect Activities Agreement. The ESR response and the 2022 GPNEAA is included in the Technical Appendices.

#### Tennessee Wildlife Resources Agency (TWRA):

On 11/5/2024, the TDOT Ecology Section responded that the proposed project fits all conditions of the 2022 MOA between TDOT, FHWA, and USFWS. The ESR response and the 2022 TWRA MOA is included in the Technical Appendices.

#### **Tennessee Department of Environment and Conservation (TDEC):**

On 11/5/2024, the TDOT Ecology Section responded that the proposed project fits Condition #1 of the 2023 MOA between TDOT, FHWA, and TDEC Division of Natural Areas. The ESR response and the 2023 TDEC-DNA MOA is included in the Technical Appendices.

### Floodplain Management

**Flood Zone:** Zone X (White) - Area Determined to be Outside the 500-year Floodplain.

The project is not in a Federal Emergency Management Agency (FEMA) floodway, floodplain, or study area, and is located on the Flood Insurance Rate Map (FIRM) in Davidson County, Panels 243 (Not Printed) and 244 of 478, Maps # 47037C0243H (Not Printed) and 47037C0244J. A portion of the FEMA FIRMs are included in the Technical Appendices.

## **Air Quality**

#### **Transportation Conformity:**

On 10/14/2024, the TDOT Air Quality and Noise Section responded that the project is in Davidson County which is in attainment for all regulated criteria pollutants. Therefore, conformity does not apply to this project. The Air Quality and Noise ESR response in included in the Technical Appendices.

#### **Mobile Source Air Toxics (MSAT):**

On 10/14/2024, the TDOT Air Quality and Noise Section responded that the project qualifies as a categorical exclusion under 23 CFR 771.117 and, therefore, does not require an evaluation of MSATs per FHWA's "Interim Guidance Update on Air Toxic Analysis in NEPA Documents" dated January 2023. The Air Quality and Noise ESR response in included in the Technical Appendices.

#### Noise

In accordance with FHWA requirements and TDOT's Noise Policy this project is determined to be

Type III

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.

#### **Farmland**

Is this project exempt from the provisions of the Farmland Protection Policy Act (FPPA)?

Yes

**FPPA Exemption:** Small Acreage (3 acres or less for an existing bridge or interchange)

## Section 4(f)

Does this project involve the use of property protected by Section 4(f) (49 USC 303)?

No

## Section 6(f)

Does this project involve the use of property assisted by the L&WCF?

No

#### **Cultural Resources**

Are any Agreements/Exemptions regarding Cultural Resources applicable to this project?

Yes

**Agreement/Exemption:** Section 106 Interstate Exemption (2005)

### **Native American Consultation**

Does this project require Native American consultation?

No

As a solely state-funded project without a federal nexus, the proposed project does not require consultation with Native American tribes.

Are any EJ populations present within the project study area?

Yes

Are any disproportionately high and adverse effects on EJ populations anticipated as a result of this project?

No



Figure 1. Project Location Map with 2018-2022 ACS5-Year Estimates boundaries.

The EJ Analysis for the Selected Alternative was conducted using U.S. Census Bureau data from the 2018-2022 American Community Survey (ACS) 5-Year Estimates database (appendix A). This analysis was completed to identify the census block groups within the limits of the Selected Alternative and to determine whether the minority or low-income populations present within the census block groups are considered EJ populations. This analysis identified the following census block groups within the limits of the proposed project in Davidson County, Tennessee (see Figure 1):

- Census Tract (CT) 161, Block Group (BG) 1
- CT 162, BG 3
- CT 195.02, BG 3

For population analysis, TDOT assumes, according to FHWA Order 6640.23A, FHWA Actions to Address Environmental Justice in Minority Populations and Low-Income Populations:

- A minority population includes any readily identifiable group of minority persons who live in geographic
  proximity and who will be similarly affected by a proposed FHWA program, policy, or activity. Minority
  populations include Black or African American, Hispanic or Latino, Asian American, American Indian or
  Alaskan Native, and Native Hawaiian or Pacific Islander individuals.
- A low-income population includes any readily identifiable group of low-income persons who live in geographic
  proximity and who will be similarly affected by a proposed FHWA program, policy, or activity. Low-income
  populations include individuals whose median household income is at or below the poverty guidelines
  published yearly by the U.S. Department of Health and Human Services.

For population analysis, TDOT assumes that persons living in "geographic proximity" reside within the same US Census block group. Where the concentration of minority or low-income individuals is a readily identifiable group, this indicates the presence of an EJ population. TDOT has developed two threshold indicators to identify and report minority and low-income populations (EJ populations) present within a project study area. The TDOT thresholds include:

- 1. the percent of the block group population that is minority and/or low-income exceeds the county percentage by 10 percentage points or more and/or
- 2. minority and/or low-income individuals within the block group account for 50 percent or more of the overall block group population.

Environmental Justice Analysis Tables					
Minority Populations					
Census Tract (CT)/ Block Group (BG)	CT 161 BG 1	CT 162 BG 3	CT 195.02 BG 3	Davidson Co.	
% Minority/Non-White	34.7%	56.3%	23.1%	44.4%	
Exceeds County Average by 10% or More	No	Yes	No		
Is BG Population Avg. >50%	No	Yes	No		
Meet EJ Criteria?	No	Yes	No		
Low-Income Populations					
Census Tract (CT)/ Block Group (BG)	CT 161 BG 1	CT 162 BG 3	CT 195.02 BG 3	Davidson Co.	
% Low-Income/Below Poverty Line	12.6%	18.7%	10.6%	14.3%	
Exceeds County Average by 10% or More	No	No	No		
Is BG Population Avg. >50%	No	No	No		
Meet EJ Criteria?	No	No	No		

Source: U.S. Census Bureau, 2018-2022 American Community Survey (ACS) 5-Year Estimates. ACS data was accessed and reviewed on 11/18/2024 via the U.S. Census Bureau website.

Table 5. Environmental Justice Analysis

#### Minority Populations

As shown in the table above, the 2018-2022 ACS 5-Year Estimates data shows that the minority population percentage for Davidson County is 44.4% of the population. The three block groups within the limits of the Selected Alternative which have minority population percentages varying from 23.1% (CT 195.02, BG 3) to 56.3% (CT 162, BG 3).

Based on this EJ analysis, one of the identified BGs (CT 162, BG 3) contains a minority population percentage that exceeds the county percentage by more than 10% and exceeds 50% or more of the overall BG population. Therefore, CT 162, BG 3 is considered to have a minority EJ population.

#### Low-Income Populations

As shown in the table above, the 2018-2022 ACS 5-Year Estimates data shows that the low-income population percentage for Davidson County is 14.3% of the population. The three block groups within the limits of the Selected Alternative which have low-income population percentages varying from 10.6% (CT 195.02, BG 3) to 18.7% (CT 162, BG 3).

Based on this EJ analysis, none of the identified BGs contain low-income population percentages that exceed 50% or more of the overall BG population or exceed the county average by more than 10%. Therefore, none of the identified block groups within the limits of the Selected Alternative are considered to have low-income EJ populations.

#### Conclusion

In summary, based on this EJ analysis completed for the TEER, one minority EJ population (CT 162, BG 3) and zero low-income EJ populations were identified. The minority population percentage in CT 162, BG 3 (56.3%) exceeds the Davidson County minority population percentage (44.4%) by more than 10% and exceeds 50% of the total block group.

TDOT acknowledges that minority and low-income persons are present within the project area. However, the proposed project does not have the potential to cause disproportionate or adverse impacts to EJ populations when compared to the impacts borne by the overall population in and around the limits of the Selected Alternative. While some adverse impacts are anticipated due to construction, temporary impacts to traffic, and other minor environmental impacts, the improvements will be shared amongst all populations. Both EJ and non-EJ populations would receive benefits from the project, including the replacement of four interstate bridges which have reached the end of their service lives. TDOT will comply with Title VI to ensure that "No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance."

On 11/20/2024, the EJ Analysis was coordinated with the TDOT Civil Rights Division, who responded that: "Actions and steps taken are found to be in accordance with the mandates of Title VI of the 1964 Civil Rights Act, the National Environmental Policy Act of 1969, and 42.U.S.C. 4332(2), and Executive Order 12898. There does not appear to be any Title VI nor Environmental Justice issues."

The EJ Analysis and correspondence with the TDOT Civil Rights Division is included in the Technical Appendices.

### **Hazardous Materials**

#### Does the project involve any hazardous material sites?

No

On 10/11/2024, the TDOT Hazardous Materials Section confirmed that, based on the Environmental Technical Study Area, no known hazardous materials affect the proposed project. The ESR response is included in the Technical Appendices.

## **Multimodal Transportation**

Does this project include accommodations for bicycles and pedestrians?

No

#### Is there a policy exception?

Yes

On 10/15/2024, the TDOT Office of Active Transportation confirmed that exception VII.B.1 of the 2015 Multimodal Access Policy applies to the proposed project: "Controlled access facilities where non-motorized users are prohibited from using the roadway." The ESR response and 2015 Multimodal Access Policy are included in the Technical Appendices.

### **Environmental Commitments**

Does this project involve any environmental commitments?

No

### **Additional Environmental Issues**

Are there any additional environmental concerns involved with this project?

No

## **Conclusion**

#### **Review Determination**

This solely state-funded highway project qualifies for an environmental evaluation under the Tennessee Department of Transportation's current environmental procedures. This evaluation does not require Federal Highway Administration approval and has been documented in a Tennessee Environmental Evaluation Report.

#### **Reference Material**

All source material used in support of the information and conclusions presented in this document are included in the technical appendices. The technical appendices are compiled as a separate document and include information on funding, agency concurrence, applicable agency agreements, special commitment support, project plans, technical reviews, reports and any other additional information.

## **Preparer Certification**

By signing below, you certify that this document has been prepared in compliance with all applicable environmental laws, regulations and procedures. You can attest to the document's quality, accuracy, and completeness, and that all source material has been compiled and included in the technical appendices.

Document Preparer

# Acronyms

AADT	Annual Average Daily Traffic	NEPA	National Environmental Policy Act
ADA	Americans with Disabilities Act	NRCS	Natural Resources Conservation Service
APE	Area of Potential Effect	NRHP	National Register of Historic Places
BMP	Best Management Practice	PCE	Programmatic Categorical Exclusion
CAA	Clean Air Act	PIN	Project Identification Number
CE	Categorical Exclusion	PM	Particulate Matter
CEQ	Council on Environmental Quality	PND	Pond
CFR	Code of Federal Regulations	RCRA	Resource Conservation and Recovery Act
CMAQ	Congestion Mitigation and Air Quality	ROD	Record of Decision
DEIS	Draft Environmental Impact Statement	ROW	Right-of-Way
EA	Environmental Assessment	RPO	Rural Planning Organization
EIS	Environmental Impact Statement	SIP	State Implementation Plan
EJ	Environmental Justice	SNK	Sinkhole
EPA	Environmental Protection Agency	SR	State Route
EPH	Ephemeral Stream	STIP	State Transportation Improvement Program
FEIS	Final Environmental Impact Statement	STR	Stream
FEMA	Federal Emergency Management Agency	TDEC	TN Department of Environment and Conservation
<b>FHWA</b>	Federal Highway Administration	TDOT	Tennessee Department of Transportation
FIRM	Flood Insurance Rate Map	TIP	Transportation Improvement Program
FONSI	Finding of No Significant Impact	SHPO	State Historic Preservation Office
FPPA	Farmland Protection Policy Act	TPO	Transportation Planning Organization
GHG	Greenhouse Gas	TVA	Tennessee Valley Authority
GIS	Geographic Information System	TWRA	Tennessee Wildlife Resources Agency
IAC	Interagency Consultation	USACE	U.S. Army Corps of Engineers
LWCF	Land and Water Conservation Fund	USDOT	U.S. Department of Transportation
LOS	Level of Service	USFWS	U.S. Fish and Wildlife Service
MOA	Memorandum of Agreement	UST	Underground Storage Tank
MOU	Memorandum of Understanding	VMT	Vehicle Miles Traveled
MPO	Metropolitan Planning Organization	VPD	Vehicles Per Day

PIN 132293.00 Version 7.20.16 Page 18

**WWC** 

Wet Weather Conveyance

**MSAT** 

Mobile Source Air Toxics