



May 5, 2016

**CATEGORICAL EXCLUSION  
TYPE C**

PIN/Project ID: P040692

To: Federal Highway Administration  
From: David Kelly, NEPA Manager, RPG4  
Environmental Services Office  
South Carolina Department of Transportation  
Project: I-85 Rehabilitation Project MM 77 to MM 84

**Project Description:**

The South Carolina Department of Transportation (SCDOT) proposes to reconstruct the pavement on Interstate 85 (I-85), beginning near mile marker 77 (south of SC 85 at Exit 77) and ending at approximately mile marker 84 (north of SC 110 at Exit 83) as the northern terminus (refer to Figure 1.1). This project consists of reconstruction by removing the existing asphalt pavement and replacing it with concrete pavement. Also, the CSX Railroad Bridge (CSX bridge) over I-85 at mile marker 80.7 will be replaced (refer to Figure 1.2).



I-85 Rehabilitation MM 77-84  
Environmental  
Assessment

Project  
Location Map

Figure  
1.1

1 inch = 3,000 feet

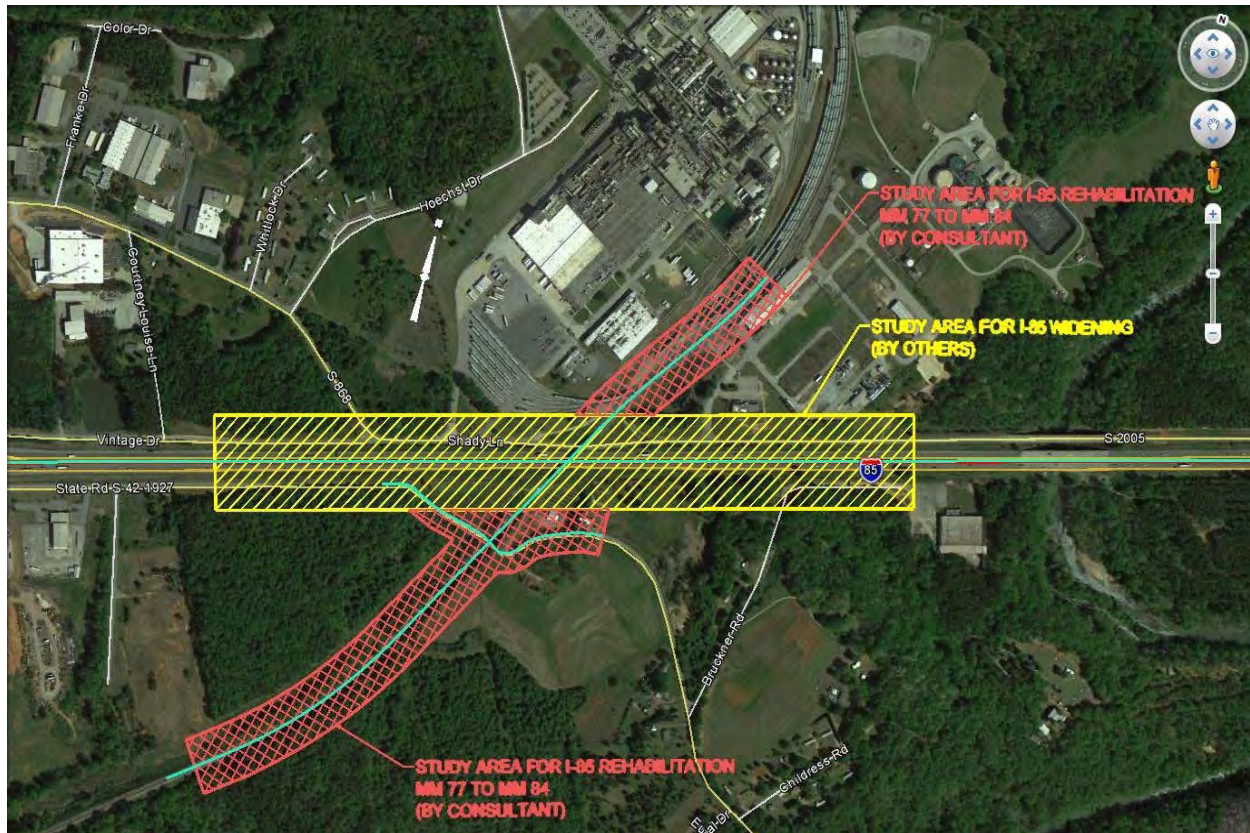


Figure 1.2 – Environmental Survey Areas

The CSX bridge does not meet the current standards for vertical clearance from the roadway and the reconstruction of the interstate would further decrease the vertical clearance. The replacement bridge will be constructed to accommodate a future widening of I-85 to eight lanes.

Reconstruction of this segment of I-85 from mile marker 77 to mile marker 84 would not result in impacts beyond the existing paved and unpaved shoulders because the reconstruction will be limited to the existing travel lanes and shoulders of the interstate. Therefore, no environmental survey studies were performed for those activities along the interstate reconstruction. Studies were performed for the area of the bridge replacement described above. Additionally, a separate project for the widening of a segment of I-85 from mile marker 80 to mile marker 96 was performed concurrently with this project. The results of surveys from that project, which identified wetlands, cultural resources, and protected species between mile markers 80 and 84, indicated there were no impacts to these resources as part of this project.

SCDOT assessed the possible effects of this project to the human and natural environment. A determination that no significant impact would occur was made. As such, the class of action appropriate for this project is a categorical exclusion, as provided by 23 CFR 771, Section 115(b).

#### Roadway Characteristics:

The approximately 7-mile project area is located in Spartanburg and Cherokee Counties. At mile marker 77, there are three (3) travel lanes in each direction, which are reduced to two (2) lanes just north of the interchange with Gossett Road (S-57) to the northern terminus at mile marker 84. The

existing condition of the pavement warrants reconstruction, which is being done with concrete pavement. Two lanes of traffic will be maintained within the existing pavement during reconstructing of the existing shoulders and lanes.

#### Bridge Characteristics:

An active portion of the CSX rail line crosses over I-85 between mile marker 79 and Exit 80. Currently, the minimum vertical clearance between the road and bridge that carries this portion of the rail line (CSX Bridge) is 15 feet, which is insufficient to meet the current state clearance requirement of 17 ft. Therefore, the bridge is to be replaced.

To accommodate replacement of the CSX bridge, approximately 1,500 linear feet (LF) of Dewberry Road, a frontage road north of I-85, will be realigned. The existing location of Dewberry Road will be reconstructed to serve as the I-85 Southbound Detour during construction. Additionally, approximately 4,100 LF of rail line will be realigned south of I-85. A wooden bridge over the railroad on Conway Black Road will be removed, and cul-de-sacs will be installed on both sides of the road.

The CSX Bridge relocation defines the area for which natural resource, cultural resource, and hazardous material studies were performed (see Figure 1.2, page 2). To complete the bridge replacement, acquisition of additional right-of-way will be necessary.

#### Alternatives Analysis

##### No-Build Alternative

The No-Build Alternative would entail leaving the roadway in its existing condition with no improvements to the pavement. Without reconstruction, the already distressed pavement surface would continue to degrade.

Additionally, the No-Build Alternative would result in the current CSX Bridge not being replaced. Consequently, the existing bridge clearance would remain substandard.

##### Build Alternative

Reconstruction of the pavement would be performed between mile markers 77 and 84 using concrete to replace the existing asphalt pavement for the entire length of the project. The replacement of the CSX bridge would be done to the east of the existing location. Because the topography slopes down to the east towards the Pacolet River, and since the CSX Bridge does not have sufficient vertical clearance, it was determined that constructing the replacement bridge to the east of the existing bridge and down the slope would make it easier and less expensive to provide sufficient vertical clearance (refer to Figure 1.3, page 4). As part of the analysis for the replacement bridge structure, a fracture critical bridge was determined to be the best choice for the replacement. This bridge type requires a minimum vertical clearance of 18 feet.

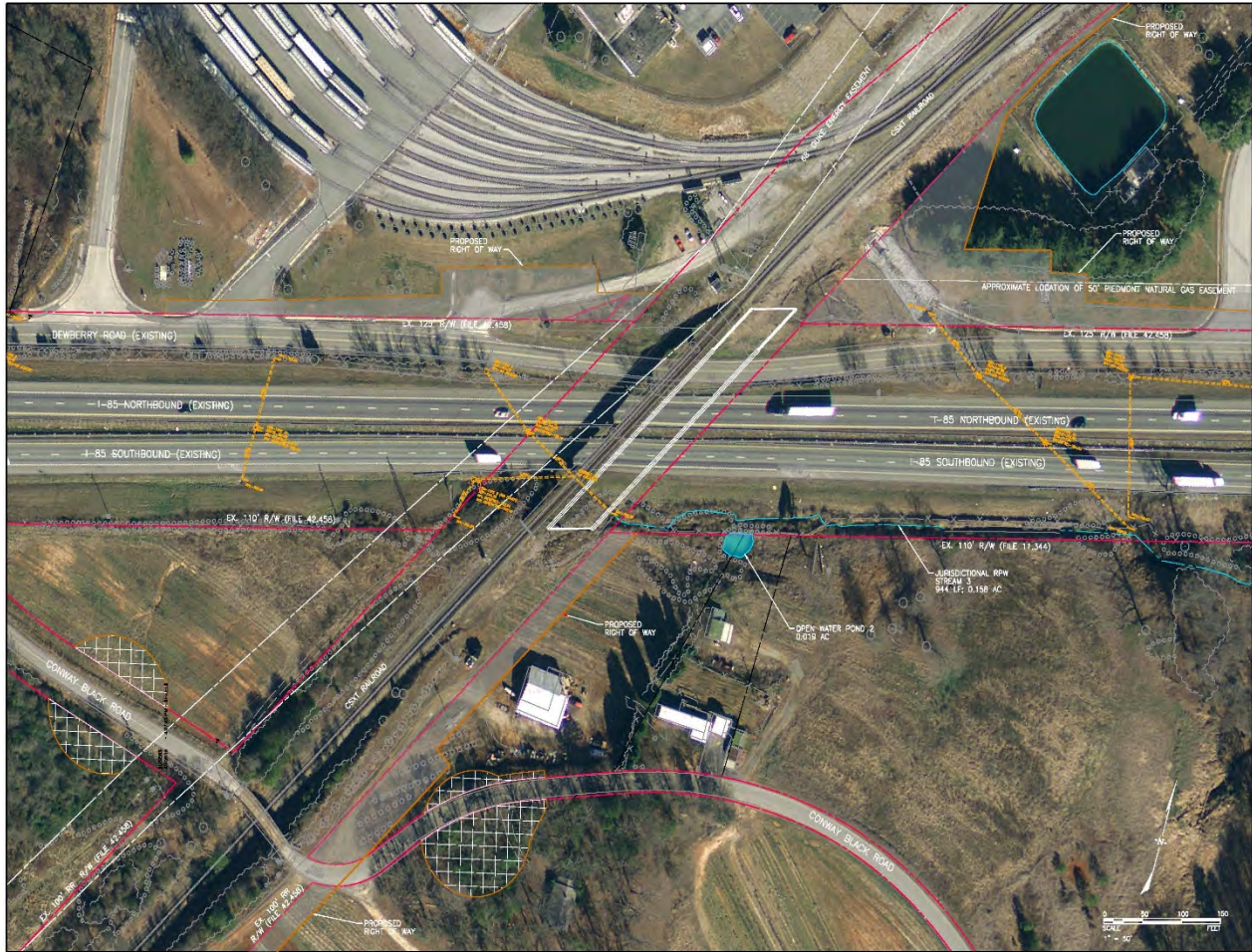


Figure 1.3 – Bridge Replacement Location

**Reasonable Availability of Funding:**

Transportation planning activities and National Environmental Protection Act (NEPA) requirements must be met before the Federal Highway Administration (FHWA) will issue a final decision on a transportation project. As part of the planning requirements, projects must be incorporated in a fiscally constrained Statewide Transportation Planning Program and “only if full funding can reasonably be anticipated.”<sup>1</sup> SCDOT engages in planning activities with local Metropolitan Planning Organizations (MPOs) and Councils of Government (COGs), who develop their respective Transportation Improvement Programs and Long-range Transportation Plans. Through this effort and with the approval of the SCDOT Commission, FHWA, and the Federal Transit Administration, the *SCDOT Statewide Transportation Improvement Program 2014-2019*<sup>2</sup> (STIP) (August 15, 2013, as revised), is generated to identify and prioritize fiscally constrained projects that will receive federal funding.

<sup>1</sup> Federal Highway Administration, *Supplement to January 28, 2008 Transportation Planning Requirements and Their Relationship to NEPA Process Completion*, February 9, 2011

<sup>2</sup> S.C. Department of Transportation, *Statewide Transportation Improvement Program October 1, 2013 – September 30, 2019*, August 15, 2013

The I-85 Rehabilitation Project is identified in the STIP (Revision 10 – August 21, 2014) to receive funding from the National Highway Performance Program (NHPP) in the amount of \$28,930,000, of which \$580,000 is allocated to right-of-way.

### **Endangered Species Survey:**

The U.S. Fish and Wildlife Service lists the northern long-eared bat (*Myotis septentrionalis*) and the dwarf-flowered heartleaf (*Hexastylis naniflora*) as federally protected species in Spartanburg County. A field survey of the project area was conducted on June 11, 2015 to determine the presence of each species (refer to Appendix A).

#### **Northern long eared bat**

The Northern long-eared bat (NLEB), *Myotis septentrionalis*, roosts underneath bark, in cavities, or in crevices of both live and dead trees during the summer. Individuals of the species have also been found, on occasion, roosting in man-made structures such as barns and sheds. Bridges/structures have been inspected and there is no evidence of bat activity. Based upon the issuance of the Final 4(d) rule, there are no project restrictions relative to the NLEB (see Appendix A).

#### **Dwarf-flowered heartleaf**

The dwarf-flowered heartleaf blossoms from mid-March to early-June with fruiting beginning in late May. It is typically found along bluffs and north-facing slopes, boggy areas along streams, and adjacent hillsides and ravines with acidic, sandy loam soils in deciduous forests. No potentially suitable habitat for dwarf-flowered heartleaf was observed within the study area and no individuals were found. Areas along the north facing slopes within the project area largely consist of a dense layer of early successional vegetation, as these areas are regularly maintained by the railroad. Although some mature hardwoods are present on the north facing slopes, the majority of the area was clear and in full sunlight, not the partial sunlight preferred by dwarf-flowered heartleaf. In addition, the soil map unit usually preferred by dwarf-flowered heartleaf, Pacolet, is not mapped in the study area and no other species of *Hexastylis* were observed during field surveys in the study area. It is anticipated that the proposed project would have no effect on dwarf-flowered heartleaf.

### **Wetlands and Streams:**

During the evaluation of a concurrent project, the widening of a segment of I-85, jurisdictional areas were delineated in a portion of the project area along the interstate.<sup>3</sup> An unnamed, perennial tributary to Pole Bridge Branch was identified immediately south of I-85, approximately one mile east of Gossett Road, and slightly east of the existing CSX bridge. It originates within the project study area and drains to the southeast for approximately 0.5 mile, where it discharges to Pole Bridge Branch.<sup>4</sup>

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<sup>3</sup> Mead & Hunt, *Jurisdictional Determination Request Proposed Interstate 85 Widening and Interchange Improvements Project From Mile Marker 80 to Mile Marker 96 Cherokee and Spartanburg Counties*, South Carolina, July 2015

<sup>4</sup> *Ibid*

A delineation was performed for this project for the area that was affected by the bridge replacement, which was not included in the delineation referenced above (refer to Figure 1.2, page 2). No additional wetlands were identified in this delineation (refer to Appendix B).

**404(b)(1) Guidelines:**

Section 404 of the Clean Water Act, administered by the U.S. Army Corps of Engineers (USACE), regulates alterations to jurisdictional waters/wetlands of the U.S. and requires a permit for activities that result in impacts. All direct impacts to wetlands and streams within the project area have been avoided. Because no impacts to jurisdictional waters/wetlands would occur during pavement reconstruction or during the replacement of the existing CSX bridge, no permits are required.

**Floodplains:**

This project will be designed and constructed in accordance with the SCDOT Hydraulic Design Requirements. The limits of construction will not encroach on any floodplains; therefore, the planned roadway improvements will have no significant impact on either flood elevations or flood widths (refer to Appendix C).

**Farmlands:**

An evaluation of the impact this project would have on farmland was performed pursuant to the Farmland Protection Policy Act (FFPA) of 1981 (as amended). Using the U.S. Department of Agriculture's Farmland Conversion Impact Rating Form NRCS-CPA-106 (refer to Appendix D), the total site assessment score is 24. Because the score is less than 160, no further consideration is necessary.

**Hazardous Waste and Underground Storage Tanks:**

A Limited Phase II Environmental Site Assessment, including a records review and field investigations, was performed to determine the presence of contamination within the project area (refer to Appendix E). Environmental records available through the South Carolina Department of Health and Environmental Control (SCDHEC) indicate significant known contamination associated with Auriga Polymers, Inc. (Auriga). A plume has migrated from Auriga and under SCDOT right-of-way. The contaminated areas may impact project construction, including the railroad tracks and embankment.

**Asbestos:**

An investigation of the CSX bridge was performed to determine the presence of Asbestos Containing Material (ACM) on the bridge structure (refer to Appendix F). No suspect materials were observed and, therefore, no further action recommended.

**Lead-Based Paint:**

Because the existing bridge structure will be demolished and replaced, a Lead-Based Paint (LBP) investigation of the CSX bridge was performed (refer to Appendix G). Lead in concentrations greater than 0.7mg/cm<sup>2</sup> was detected in the yellow caution striping located

on the concrete piers and in the silver paint applied to bridge components, excluding the handrails. Compliance with federal, state and local regulations as well as Subsection 202.4.2 of the *2007 Standard Specifications for Highway Construction* during demolition activities as well as when disposing lead contaminated waste is required to ensure environmental and worker health/safety.

**Air Quality:**

This project is not in an area designated as non-attainment by National Ambient Air Quality Standards. As such, no further assessment is required.

**Cultural Resources (Architectural, Archaeological):**

On May 8, 2015, background research of architectural resources located within a 1-mile radius of the project area was conducted using the ArcGIS database housed at the University of South Carolina. No above-ground architectural resources were recorded (refer to Appendix H). During a statewide bridge survey, Lichtenstein Consulting Services determined the Conway Black Road bridge over the CSX Railroad to be not eligible for listing on the National Register of Historic Places (NRHP). A survey of the project area was performed by an architectural historian on May 15, 2015. Two resources were identified in the architectural survey; however, neither are eligible for the NRHP.

On June 29, 2015, background research of archaeological sites located within 0.5 mile of the project area was conducted using the ArcGIS database. No recorded sites were identified (refer to Appendix H). Due to known disturbances within the CSX Railroad right-of-way, an archaeological survey was conducted just outside of the right-of-way on July 2-3, 2015. No archaeological sites were identified.

No historical or cultural resources eligible for the NRHP were identified in the study area; therefore, no impacts are expected.

**Noise:**

Procedures for the study and abatement of noise generated by highway traffic and construction are provided in 23 CFR 772. With the concurrence of FHWA, SCDOT's *Traffic Noise Abatement Policy* (rev. 9/1/14) describes the implementation of regulations. The reconstruction and bridge replacement activities associated with this project do not represent a Substantial Horizontal Alteration. As defined by 23 CFR 772, "A substantial horizontal alteration would occur on a project that halves the distance between the traffic noise source and the closest receptor between the existing condition to the future build condition." Also, this project does not include the addition of through traffic lanes, which is considered a significant change in vertical alignment or any other conditions that would qualify it as a Type I project. Therefore, the requirements for conducting noise studies under 23 CFR 772 are not applicable, and no noise study was performed.

**Section 4(f) / 6(f):**

Section 4(f) of the Department of Transportation Act of 1966 specifies that the use of land from publicly owned parks, recreational areas, wildlife and waterfowl refuges, or public

and private historical sites cannot be approved by the Federal Highway Administration unless (1) there are no existing feasible and prudent alternatives to the use of the land and (2) the proposed action includes all possible planning to minimize harm to the property.<sup>5</sup>

Section 6(f) of the Land and Water Conservation Fund (LWCF) Act of 1965 was established to provide funding to government agencies for the purchase of land and water resources as well as related easements. A provision of Section 6(f) prohibits the conversion of property acquired or developed with LWCF funding to non-recreational purposes without approval from the National Park Service.

No Section 4(f) or 6(f) properties were identified within the project boundaries.

**Summary:**

- No wetland or stream impacts
- No cultural resource impacts
- No noise impacts
- No impacts to federally threatened or endangered species
- No air quality impacts
- No floodplain impacts
- No farmland impacts
- No Section 4(f) or 6(f) impacts
- No residential or business relocations

**Hazardous materials**

There is known contamination in the soil and groundwater on the Auriga property. Should it become necessary to acquire additional right-of-way in the vicinity of property with known soil and groundwater contamination, it is suggested that an easement be acquired in lieu of a fee purchase.

**Environmental Commitments**

The Environmental Commitments Form is included as Attachment 1.

5/9/2016  
Date

  
SCDOT Environmental Coordinator

5/9/16  
Date

MICHELLE L HERRELL  
Federal Highway Administration


Digitally signed by MICHELLE L HERRELL  
DN: c=US, o=U.S. Government, ou=DOT FHWA/GlastonburyCT,  
ou=FHWA FHWA/GlastonburyCT, cn=MICHELLE L HERRELL  
Date: 2016.05.09 11:03:04 -04'00'

<sup>5</sup> U.S. Federal Highway Administration, *Environmental Review Toolkit Section 4(f) Overview*, Accessed July 2015 from <https://www.environment.fhwa.dot.gov/4f/index.asp>



**Attachment 1**

**SCDOT NEPA Environmental Commitments Form**

Date: <input type="text"/>	SCDOT NEPA ENVIRONMENTAL COMMITMENTS FORM	
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Project ID: <input type="text" value="P040692"/>	County: <input type="text" value="Spartanburg"/>	District: <input type="text" value="District 3"/>	Doc Type: <input type="text" value="CE-C"/>	Total # of Commitments: <input type="text" value="7"/>
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Project Name:

The Environmental Commitment **Contractor Responsible** measures listed below **are to be included in the contract and must be implemented**. It is the responsibility of the Program Manager to make sure the Environmental Commitment **SCDOT Responsible** measures are adhered to. If there are questions regarding the commitments listed please contact:

**CONTACT NAME:** Brad Reynolds, P.E **PHONE #:** (803) 737-1440

### ENVIRONMENTAL COMMITMENTS FOR THE PROJECT

<b>Lead-Based Paint</b>	Responsibility: <input type="text" value="CONTRACTOR"/>
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The existing structures shall be removed and disposed of by the Contractor in accordance with Subsection 202.4.2 of the Standard Specifications. The Contractor's attention is called to the fact that this project may require removal and disposal of structural components containing lead-based paints. Removal and disposal of structural components containing lead-based paints shall comply with all applicable Federal, State, and Local requirements for lead as waste, lead in air, lead in water, lead in soil, and worker health and safety.

<b>USTs/Hazardous Materials</b>	Responsibility: <input type="text" value="SCDOT"/>
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If avoidance of hazardous materials is not a viable alternative and soils that appear to be contaminated are encountered during construction, the South Carolina Department of Health and Environmental Control (SCDHEC) will be informed. Hazardous materials will be tested and removed and/or treated in accordance with the United States Environmental Protection Agency and the SCDHEC requirements, if necessary.

<b>Migratory Bird Treaty Act (all bridge and box culvert projects)</b>	Responsibility: <input type="text" value="CONTRACTOR"/>
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The federal Migratory Bird Treaty Act, 16 USC § 703-711, states that it is unlawful to pursue, hunt, take, capture or kill; attempt to take, capture or kill; possess, offer to or sell, barter, purchase, deliver or cause to be shipped, exported, imported, transported, carried or received any migratory bird, part, nest, egg or product, manufactured or not.

The Department will comply with the Migratory Bird Treaty Act of 1918 in regard to the avoidance of taking of individual migratory birds and the destruction of their active nests. At least four (4) weeks prior to construction/demolition of the bridges, the Resident Construction Engineer (RCE) will coordinate with SCDOT Environmental Services Compliance Office to determine if there are any active nests on the bridge. After this coordination, it will be determined whether construction/demolition can begin. After construction/demolition has begun, measures can be taken to prevent birds from nesting, such as screens, noise producers, and deterrents etc. If during construction or demolition a nest is observed on the bridge that was not discovered during the biological surveys, the contractor will cease work and immediately notify the RCE, who will contact SCDOT Environmental Services Compliance Office. SCDOT biologists will determine whether the nest is active and the species utilizing the nest. After this coordination, it will be determined whether construction/demolition can resume or whether a temporary moratorium will be put into effect. All costs for determining the need for, the placing of deterrents, and applying of all special actions including, but not limited to, removing nests and any costs associated with conducting work in compliance with the Migratory Bird Treaty Act as stated herein will not be paid for separately but will be considered to have been included with other items of work.

Project ID: P040692

SCDOT  
NEPA ENVIRONMENTAL COMMITMENTS  
FORM



**ENVIRONMENTAL COMMITMENTS FOR THE PROJECT**

**Water Quality**

Responsibility: SCDOT

The contractor will be required to minimize possible water quality impacts through implementation of construction BMPs, reflecting policies contained in 23 CFR 650B and the Department's Supplemental Specifications on Seeding and Erosion Control Measures (Latest Edition). Other measures including seeding, silt fences, sediment basins, etc. as appropriate will be implemented during construction to minimize impacts to Water Quality.

**Stormwater**

Responsibility: SCDOT

Stormwater control measures, both during construction and post-construction, are required for SCDOT projects with land disturbance and/or constructed in the vicinity of 303(d), TMDL, ORW, tidal, and other sensitive waters in accordance with the SCDOT's MS4 Permit. The selected contractor would be required to minimize potential stormwater impacts through implementation of construction best management practices, reflecting policies contained in 23 CFR 650 B and SCDOT's Supplemental Specifications on Seed and Erosion Control Measures (latest edition).

**Non-Standard Commitment**

Responsibility: CONTRACTOR

Wetlands & Streams

There are no impacts to wetlands or streams proposed as part of this project. Appropriate measures will be taken to ensure no impact to streams as a result of the bridge replacement activities and the bridge operations.

Project ID:

SCDOT  
NEPA ENVIRONMENTAL COMMITMENTS  
FORM



**ENVIRONMENTAL COMMITMENTS FOR THE PROJECT**

**Cultural Resources**

Responsibility:

The contractor and subcontractors must notify their workers to watch for the presence of any prehistoric or historic remains, including but not limited to arrowheads, pottery, ceramics, flakes, bones, graves, gravestones, or brick concentrations during the construction phase of the project, if any such remains are encountered, the Resident Construction Engineer (RCE) will be immediately notified and all work in the vicinity of the discovered materials and site work shall cease until the SCDOT Archaeologist directs otherwise.

Responsibility:

Responsibility:

## **Appendix A**

**Biological Field Survey Report  
Assessment of Federally Listed Threatened and Endangered Species For The  
Interstate 85 Rehabilitation MM 77 to MM 84 Railroad Bridge Replacement  
Project, Northern Long-Eared Bat 4(d) Rule Streamlined Consultation Form, and  
USFWS Concurrence**

*BIOLOGICAL FIELD SURVEY REPORT*

*September 2015*

**Assessment of Federally Listed Threatened and Endangered Species  
For The Interstate 85 Rehabilitation MM 77 to MM 84  
Railroad Bridge Replacement Project**

**SCDOT PIN 4692**

**Consultation Code: 04ES1000-2015-SLI-0655**

**Event Code: 04ES1000-2015-E-01191**

Prepared By:

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Prepared For:

South Carolina Department of Transportation

Environmental Services

Permitting Division

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**Interstate 85 Rehabilitation MM 77 to MM 84  
Railroad Bridge Replacement  
SCDOT PIN 4692  
Consultation Code: 04ES1000-2015-SLI-0655  
Event Code: 04ES1000-2015-E-01191  
Field Survey Findings  
September 11, 2015**

**Introduction**

*The Endangered Species Act of 1973* (ESA), as amended, requires federal agencies, in consultation with, and assisted by, the United States Fish and Wildlife Service (USFWS), to ensure that their actions are not likely to jeopardize the continued existence of endangered or threatened species or result in the destruction or adverse modification of critical habitat of such species.

The South Carolina Department of Transportation (SCDOT) proposes to rehabilitate I-85 from the vicinity of mile marker 77 (south of SC 85 Exit 77) on the southern terminus to approximately mile marker 84 (north of SC 110 Exit 83) on the northern terminus, in Spartanburg County, South Carolina. The project includes rehabilitation of existing travel lanes in each direction and the replacement of the CSX Bridge over I-85 at mile point 80.7. The replacement of the CSX Bridge will require realignment of approximately 3,500 linear feet of rail track and replacement of the bridge carrying Conway Black Road over the railroad. Approximately 2,500 linear feet of Shady Lane will be realigned to a location north of I-85.

The USFWS lists two federally protected species in Spartanburg County, dwarf-flowered heartleaf (*Hexastylis naniflora*) (Threatened) and northern long-eared bat (*Myotis septentrionalis*) (Threatened).<sup>1</sup> A copy of the official species list obtained through the Information for Planning and Conservation System (IPaC) is included in Appendix A.

**Methodology**

Current and historic aerial photographs, soil data, and topographic maps were viewed to determine areas of potentially suitable habitat for dwarf-flowered heartleaf and northern long-eared bat prior to the field survey. Figures depicting the project location and study area are included in Appendix B. In order to verify the presence or absence of these species, it was determined, based on available information, that a field survey needed to be completed during the appropriate survey windows for each species. The USFWS has identified the survey window as mid-March through early June for dwarf flowered heartleaf. A specific survey widow is not identified for northern long-eared bat; however, winter surveys are generally not as successful.<sup>2</sup>

The South Carolina Department of Natural Resources (SCDNR) Heritage Trust Program's online Rare, Threatened, & Endangered Species Inventory database was searched in order to obtain information concerning any known occurrences of federally protected species within the study area. According to the database, there are no known occurrences of federally protected species within the study area. The nearest occurrence of dwarf-flowered heartleaf is approximately two miles south of the study area. Public occurrence data is not available for northern long-eared bat.

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<sup>1</sup> USFWS, South Carolina List of At-Risk, Candidate, Endangered, and Threatened Species - Spartanburg County, [http://www.fws.gov/charleston/pdf/Endangered/species\\_by\\_county/spartanburg\\_county.pdf](http://www.fws.gov/charleston/pdf/Endangered/species_by_county/spartanburg_county.pdf) (September 10, 2015).

<sup>2</sup> *Ibid.*

**Interstate 85 Rehabilitation MM 77 to MM 84  
Railroad Bridge Replacement  
Field Survey Findings**

**September 11, 2015**

A literature search was performed for the federally listed species to determine habitat requirements and to find descriptions of the species that would facilitate identification during the field survey. Important sources of reference information included natural resource agency data and published reports, various botanical and faunal literature, and available USFWS Recovery Plans.

A known location of dwarf flowered heartleaf (SCDNR Bunched Arrowhead Natural Heritage Preserve) was visited prior to the field survey to specifically view individuals and suitable habitat for dwarf flowered heartleaf. The species was not observed at the Bunched Arrowhead Natural Heritage Preserve; however, ideal habitat for the species was documented for reference purposes.

Pursuant to Section 7 of the *Endangered Species Act of 1973*, two biologists from Michael Baker International, Inc. (Ed Smail and Danielle Cemprola) conducted a meandering pedestrian survey along all forested north facing slopes and other disturbed areas for dwarf-flowered heartleaf on June 11, 2015. Representative photographs of the study area and survey areas are included in Appendix C.

On September 3, 2015, the abandoned Conway Black Road Bridge over the rail road on the south side of I-85 was investigated for the presence of northern long-eared bat utilizing the Federal Highway Administration (FHWA) *Preliminary Bat Inspection Guidelines for Bridges/Structures*.<sup>3</sup> No evidence of northern long-eared bat was observed at the Conway Black Road Bridge. Photographs of the structure are included in Appendix C.

The Project Submittal Form and Bridge Inspection Form are included in Appendix D. A survey was completed as part of an adjacent project for the existing railroad bridge over I-85 and the survey forms for this project as also included in Appendix D.

### **Federally Protected Species Overview**

#### **Dwarf-flowered heartleaf**

*Status – Federally Threatened*

Dwarf-flowered heartleaf is a low growing herbaceous plant, rarely exceeding six inches in height.<sup>4</sup> The evergreen leaves are round to heart shaped, leather like, and 1.5-2.4 inches long.<sup>5</sup> The flowers are usually buried under leaf litter, urn-shaped, and purplish-beige with dark brown spots.<sup>6</sup> These flowers appear from mid-March till early June.<sup>7</sup>

Dwarf-flowered heartleaf is found in moist, acidic soils (usually Pacolet sandy loam) on the bases of bluffs, in ravines where it is frequently associated with mountain laurel (*Kalmia latifolia*) on northerly slopes, or on hummocks in Piedmont springhead seepage

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<sup>3</sup> Bridge Inspection Form

<sup>4</sup> *Ibid.*, p. 1676.

<sup>5</sup> Clemson University Cooperative Extension Service, *A Guide to South Carolina's Endangered and Threatened Species*, p. 47

<sup>6</sup> *Ibid.*

<sup>7</sup> *Ibid.*



forests where Pacolet soils occupy the adjacent upland.<sup>8,9</sup> Habitat areas are typically heavily forested with mature stands of mixed hardwoods preferably with partial sunlight.<sup>10</sup>

**Northern long-eared bat**

The northern long-eared bat roosts singly or in groups under bark on trees, in cavities of trees both dead and alive, in crevices or caves, and occasionally on man-made structures.<sup>11</sup> It is a medium sized bat approximately 3 to 4 inches long with a wingspan of 9 to 10 inches. It forages in the understory along ridges and slopes for an assortment of flying insects and may even take insects resting on vegetation. It breeds in the late summer and early fall prior to the females returning to hibernacula in caves. A single offspring is produced in late May to early July after females emerge from their hibernacula in caves and crevices.<sup>12</sup> Large caves with near constant temperatures and high humidity are preferred.<sup>13</sup>

**Biotic Communities**

Habitats observed within the study area consist largely of development/disturbed areas, mixed hardwood forest, and areas cleared for agricultural uses, with the mixed hardwood forest bordering the railroad corridor. The majority of the habitat where dwarf-flowered heartleaf would have the potential to occur exists on the north-facing slope of the railroad corridor within the project area. Photographs of representative habitats are in Appendix C.

Hardwoods within the project area typically consist of sweet gum (*Liquidambar styraciflua*), various oak species (*Quercus* sp.), red maple (*Acer rubrum*), black cherry (*Prunus serotina*), American beech (*Fagus grandifolia*), mockernut hickory (*Carya tomentosa*), princess tree (*Paulownia tomentosa*), winged sumac (*Rhus copallinum*), and eastern red cedar (*Juniperus virginiana*). Loblolly pine (*Pinus taeda*) and spruce pine (*Pinus glabra*) were also interspersed through the project area. The understory is composed of red maple, black cherry, American beech, eastern red cedar, Chinese privet (*Ligustrum sinense*), elderberry (*Sambucus canadensis*) and oak/sweet gum saplings. The herbaceous layer consists of ebony spleenwort (*Asplenium platyneuron*), poison ivy (*Toxicodendron radicans*), muscadine grape (*Vitis rotundifolia*), kudzu (*Pueraria montana*), blackberry (*Rubus argutus*), dog fennel (*Eupatorium capillifolium*), lespedeza (*Lespedeza cuneata*), Queen Anne's lace (*Daucus carota*), and various greenbrier (*Smilax* sp.).

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<sup>8</sup> Richard D. Porcher and Douglas A. Rayner, *A Guide to the Wildflowers of South Carolina*, 2001.

<sup>9</sup> Clemson University Cooperative Extension Service, *A Guide to South Carolina's Endangered and Threatened Species*, p. 47

<sup>10</sup> Walton Beacham, et al., editors, *Beacham's Guide to the Endangered Species of North America*, 2001, p. 1676.

<sup>11</sup> US Fish and Wildlife Service (USFWS), "Species Profile for northern long-eared Bat (*Myotis septentrionalis*)", <http://ecos.fws.gov/speciesProfile/profile/speciesProfile?scode=A0JE>, (March 30, 2015).

<sup>12</sup> *Ibid.*

<sup>13</sup> *Ibid.*

**Findings**

**Dwarf-flowered heartleaf**

No potentially suitable habitat for dwarf-flowered heartleaf was observed within the study area and no individuals were found. Areas along the north facing slopes within the project area largely consist of a dense layer of early successional vegetation, as these areas are regularly maintained by the railroad. Although some mature hardwoods are present on the north facing slopes, the majority of the area was clear and in full sunlight, not the partial sunlight preferred by dwarf-flowered heartleaf. In addition the soil map unit usually preferred by dwarf-flowered heartleaf, Pacolet, is not mapped in the study area and no other species of *Hexastylis* were observed during field surveys and mountain laurel was also not observed in the study area. Photographs of typical habitats observed in the study area are included in Appendix B.

Since suitable habitat was not observed, individuals were not found during pedestrian surveys, no other species of *Hexastylis* were observed during pedestrian surveys, and the preferred soil map unit is not mapped in the study area, it is anticipated that the proposed project would have **No Effect** on dwarf-flowered heartleaf.

**Northern long-eared bat**

The existing abandoned bridge at the crossing of the railroad by Conway Black Road (refer to attached Figures in Appendix B) was inspected for evidence of northern long-eared bats (visual, sounds, droppings, and staining). The project survey form is included in Appendix D and photos of the bridge are included in Appendix C. The rail road overpass at I-85 was inspected as part of an adjacent project and the survey form is included in Appendix D for reference. No evidence of bat presence was noted at either of the bridges. These two bridges in conjunction with forested habitat containing trees with at least 3-inch diameter breast height (DBH) adjacent to the rail road provide suitable habitat for northern long-eared bat.

Due to the presence of potential habitat, SCDOT will implement a clearing moratorium for northern long-eared bat and only allow clearing during the inactive season (November 15 through March 31). Prior to construction/demolition of the bridges/structures the Resident Construction Engineer (RCE) will coordinate with SCDOT ESO Compliance Office to perform an additional inspection 7 business days prior to initiating work at each bridge/structure location. After this coordination it will be determined whether construction/demolition can begin. Based on the results of the inspection(s), any bridges/structures suspected of providing habitat for any species of bat will be removed from work schedules until such time that SCDOT has obtained clearance from USFWS. If during construction/demolition bats are observed that were not discovered during the biological surveys, the contractor will cease work and immediately notify the RCE, who will contact SCDOT ESO Compliance Office. After this coordination, it will be determined whether construction/demolition can resume or whether a temporary moratorium will be put into effect.

**Interstate 85 Rehabilitation MM 77 to MM 84  
Railroad Bridge Replacement  
Field Survey Findings**

**September 11, 2015**

With the implementation of the clearing moratorium and inspection prior to construction, it is anticipated that the implementation of the proposed project is **not likely to adversely affect** the northern long-eared bat.

**Interstate 85 Rehabilitation MM 77 to MM 84  
Railroad Bridge Replacement  
SCDOT PIN 4692  
Consultation Code: 04ES1000-2015-SLI-0655  
Event Code: 04ES1000-2015-E-01191  
Field Survey Findings  
Addendum – May 9, 2016**

The original field survey findings recommended that a tree-clearing restriction be in place from April 1 to November 14 for the project and the bridges be inspected seven days prior to construction and demolition for the Northern long-eared bat. However, the U.S. Fish and Wildlife Service issued the final 4(d) rule for the Northern long-eared bat, and tree clearing restrictions and bridge inspections are no longer required. The project would have no effect to the Northern long-eared bat. The 4(d) form was submitted to the U.S. Fish and Wildlife Service on May 3, 2016 and they had no objections to the findings of the 4(d) form.

Appendix A  
IPaC Information



# United States Department of the Interior



FISH AND WILDLIFE SERVICE  
South Carolina Ecological Services  
176 CROGHAN SPUR ROAD, SUITE 200  
CHARLESTON, SC 29407  
PHONE: (843)727-4707 FAX: (843)727-4218  
URL: [www.fws.gov/charleston/](http://www.fws.gov/charleston/)

Consultation Code: 04ES1000-2015-SLI-0655

September 10, 2015

Event Code: 04ES1000-2015-E-01191

Project Name: Interstate 85 Rehabilitation - MM 77-84 - Rail Road Bridge Replacement  
(SCDOT PIN 0040692-B01)

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

## To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.), and projects affecting these species may require development of an eagle conservation plan ([http://www.fws.gov/windenergy/eagle\\_guidance.html](http://www.fws.gov/windenergy/eagle_guidance.html)). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment



United States Department of Interior  
Fish and Wildlife Service

Project name: Interstate 85 Rehabilitation - MM 77-84 - Rail Road Bridge Replacement  
(SCDOT PIN 0040692-B01)

## Official Species List

### Provided by:

South Carolina Ecological Services  
176 CROGHAN SPUR ROAD, SUITE 200  
CHARLESTON, SC 29407  
(843) 727-4707  
<http://www.fws.gov/charleston/>

**Consultation Code:** 04ES1000-2015-SLI-0655

**Event Code:** 04ES1000-2015-E-01191

**Project Type:** TRANSPORTATION

**Project Name:** Interstate 85 Rehabilitation - MM 77-84 - Rail Road Bridge Replacement (SCDOT PIN 0040692-B01)

**Project Description:** The South Carolina Department of Transportation (SCDOT) proposes to rehabilitate I-85 from the vicinity of mile marker 77 (south of SC 85 Exit 77) on the southern terminus to approximately mile marker 84 (north of SC 110 Exit 83) on the northern terminus. The project includes rehabilitation of existing travel lanes in each direction and the replacement of the CSX Bridge over I-85 at mile point 80.7. The replacement of the CSX Bridge will require realignment of approximately 3,500 linear feet of

**Please Note:** The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your previous Official Species list if you have any questions or concerns.





United States Department of Interior  
Fish and Wildlife Service

Project name: Interstate 85 Rehabilitation - MM 77-84 - Rail Road Bridge Replacement  
(SCDOT PIN 0040692-B01)

### Project Location Map:



**Project Coordinates:** MULTIPOLYGON (((-81.85991223210162 35.02950792215169, -81.86311669506864 35.02550103960167, -81.86420821420027 35.02481939541559, -81.86431180154159 35.024802252928296, -81.86438079107735 35.02484204935943, -81.86441781306434 35.02494030196565, -81.86437451647825 35.025035955547835, -81.8633002681025 35.02570763300855, -81.86014636451672 35.02965141729312, -81.8565899575346 35.03603692191936, -81.8565076549205 35.03610211763905, -81.85640335784849 35.036090021238, -81.85633816212881 35.036007718623914, -81.85635025852986 35.03590342155189, -81.85991223210162 35.02950792215169)))

**Project Counties:** Spartanburg, SC



United States Department of Interior  
Fish and Wildlife Service

Project name: Interstate 85 Rehabilitation - MM 77-84 - Rail Road Bridge Replacement  
(SCDOT PIN 0040692-B01)

## Endangered Species Act Species List

There are a total of 2 threatened or endangered species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

Flowering Plants	Status	Has Critical Habitat	Condition(s)
Dwarf-Flowered heartleaf ( <i>Hexastylis naniflora</i> )	Threatened		
<b>Mammals</b>			
Northern long-eared Bat ( <i>Myotis septentrionalis</i> )	Threatened		



United States Department of Interior  
Fish and Wildlife Service

Project name: Interstate 85 Rehabilitation - MM 77-84 - Rail Road Bridge Replacement  
(SCDOT PIN 0040692-B01)

## **Critical habitats that lie within your project area**

There are no critical habitats within your project area.



United States Department of Interior  
Fish and Wildlife Service

Project name: Interstate 85 Rehabilitation - MM 77-84 - Rail Road Bridge Replacement  
(SCDOT PIN 0040692-B01)

## **Appendix A: FWS National Wildlife Refuges**

There are no refuges within your project area.



United States Department of Interior  
Fish and Wildlife Service

Project name: Interstate 85 Rehabilitation - MM 77-84 - Rail Road Bridge Replacement  
(SCDOT PIN 0040692-B01)

## Appendix B: FWS Migratory Birds

The protection of birds is regulated by the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA). Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). The MBTA has no otherwise lawful activities. For more information regarding these Acts see: <http://www.fws.gov/migratorybirds/RegulationsandPolicies.html>.

All project proponents are responsible for complying with the appropriate regulations protecting birds when planning and developing a project. To meet these conservation obligations, proponents should identify potential or existing project-related impacts to migratory birds and their habitat and develop and implement conservation measures that avoid, minimize, or compensate for these impacts. The Service's Birds of Conservation Concern (2008) report identifies species, subspecies, and populations of all migratory nongame birds that, without additional conservation actions, are likely to become listed under the Endangered Species Act as amended (16 U.S.C 1531 et seq.).

For information about Birds of Conservation Concern, go to:

<http://www.fws.gov/migratorybirds/CurrentBirdIssues/Management/BCC.html>.

To search and view summaries of year-round bird occurrence data within your project area, go to the Avian Knowledge Network Histogram Tool links in the Bird Conservation Tools section at:

<http://www.fws.gov/migratorybirds/CCMB2.htm>.

For information about conservation measures that help avoid or minimize impacts to birds, please visit:

<http://www.fws.gov/migratorybirds/CCMB2.htm>.

### Migratory birds of concern that may be affected by your project:

There are 14 birds on your Migratory birds of concern list.

Species Name	Bird of Conservation Concern (BCC)	Seasonal Occurrence in Project Area
Bald eagle ( <i>Haliaeetus leucocephalus</i> )	Yes	Year-round
Blue-winged Warbler	Yes	Breeding



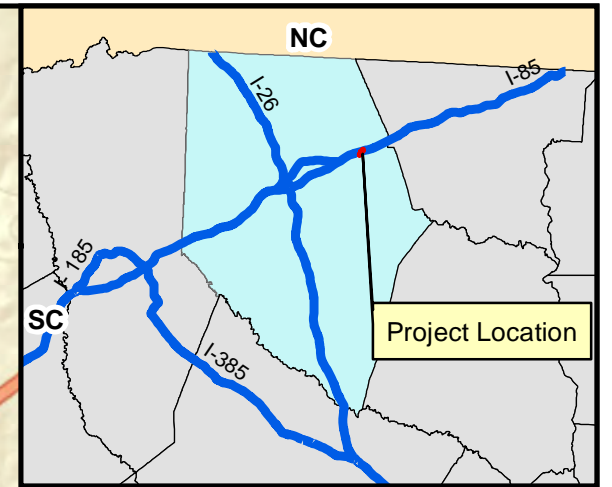
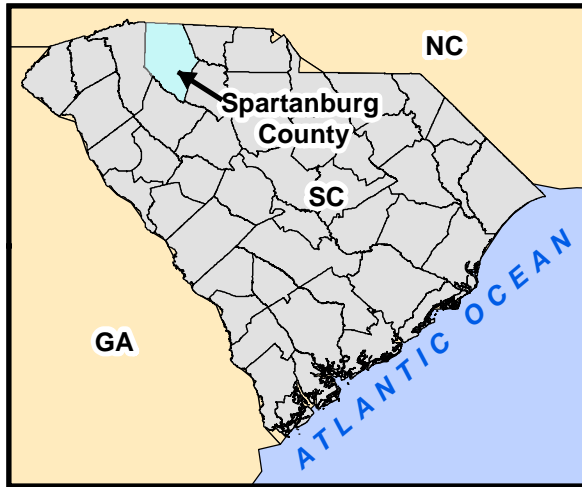
United States Department of Interior  
Fish and Wildlife Service

Project name: Interstate 85 Rehabilitation - MM 77-84 - Rail Road Bridge Replacement  
(SCDOT PIN 0040692-B01)

<i>(Vermivora pinus)</i>		
Brown-headed Nuthatch <i>(Sitta pusilla)</i>	Yes	Year-round
Chuck-will's-widow <i>(Caprimulgus carolinensis)</i>	Yes	Breeding
Fox Sparrow <i>(Passerella liaca)</i>	Yes	Wintering
Kentucky Warbler <i>(Oporornis formosus)</i>	Yes	Breeding
Least Bittern <i>(Ixobrychus exilis)</i>	Yes	Breeding
Loggerhead Shrike <i>(Lanius ludovicianus)</i>	Yes	Year-round
Prairie Warbler <i>(Dendroica discolor)</i>	Yes	Breeding
Prothonotary Warbler <i>(Protonotaria citrea)</i>	Yes	Breeding
Red-headed Woodpecker <i>(Melanerpes erythrocephalus)</i>	Yes	Year-round
Rusty Blackbird <i>(Euphagus carolinus)</i>	Yes	Wintering
Wood Thrush <i>(Hylocichla mustelina)</i>	Yes	Breeding
Worm eating Warbler <i>(Helmitheros vermivorum)</i>	Yes	Breeding

## Appendix B

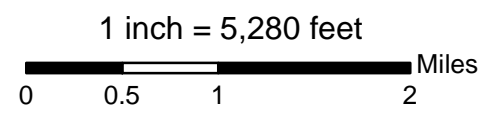
### Figures



**Legend**  
 Project Area Boundary - 16.99 AC

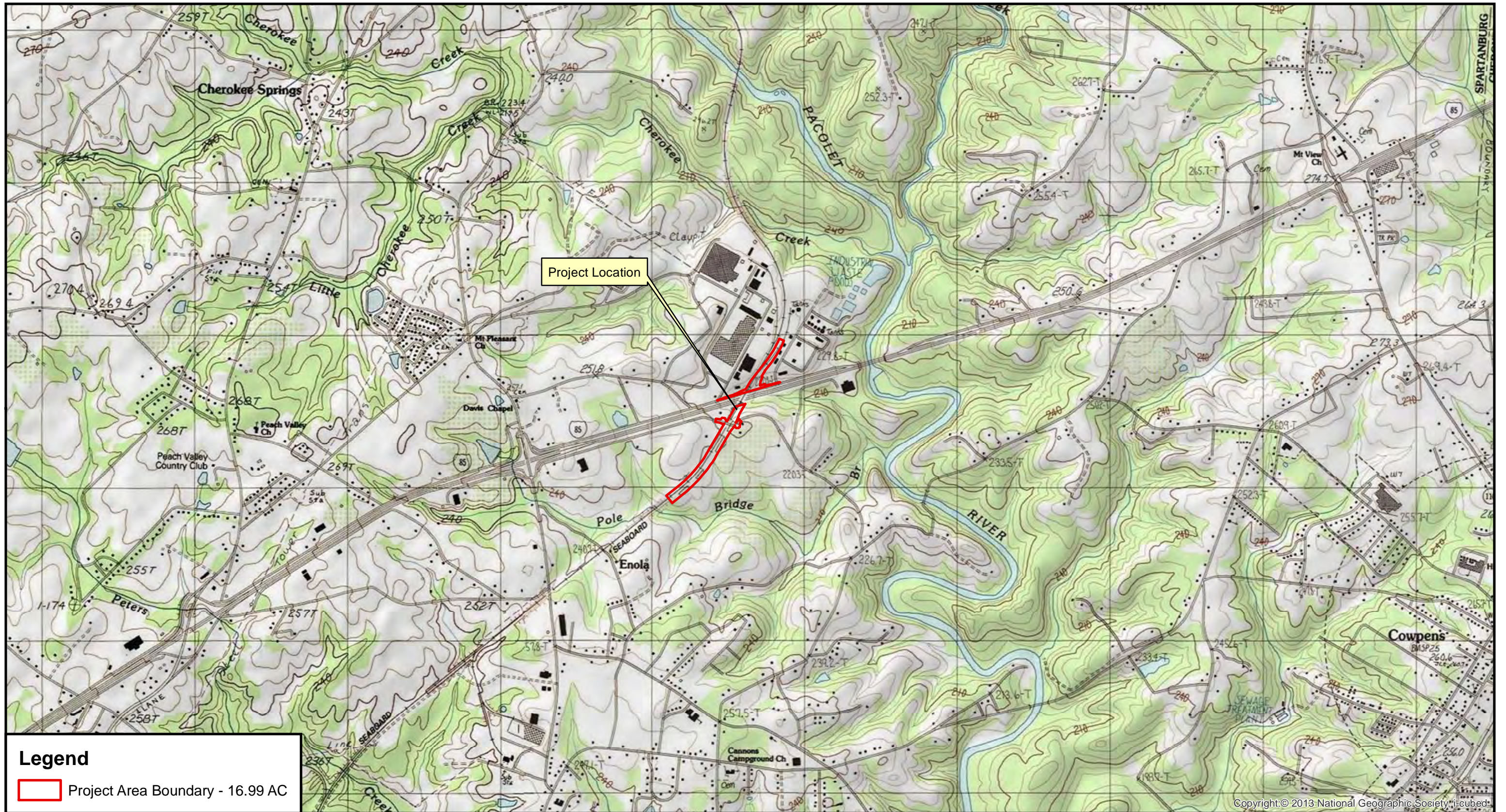
SOURCE: ESRI ArcGIS Online, ESRI Street Map, Spartanburg County, SC

Sources: Esri, DeLorme, NAVTEQ, USGS, NRCAN, METI, iPC, TomTom



<b>Project Title: I-85 Railroad Overpass Improvements</b>	
<b>Project Location: Spartanburg County</b>	
<b>Applicant: SCDOT</b>	
<b>Authorized Agent: Michael Baker International</b>	
<b>Drawing Scale: 1:63,360</b>	<b>Date: 09/11/2015</b>
<b>Application #:</b>	<b>Figure: 1 of 6</b>

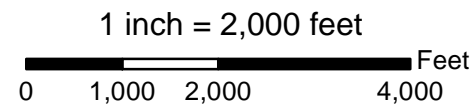




**Legend**

Project Area Boundary - 16.99 AC

SOURCE: ESRI ArcGIS Online, ESRI Street Map, Spartanburg County, SC



<b>Project Title: I-85 Railroad Overpass Improvements</b>	
<b>Project Location: Spartanburg County</b>	
<b>Applicant: SCDOT</b>	
<b>Authorized Agent: Michael Baker International</b>	
<b>Drawing Scale: 1:24,000</b>	<b>Date: 09/11/2015</b>
<b>Application #:</b>	<b>Figure: 2 of 6</b>

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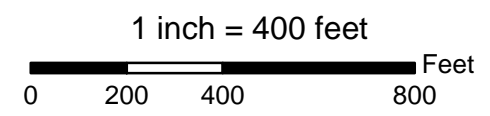
**Legend**

- Delineated WOUS
- Project Area Boundary - 16.99 AC
- Existing ROW

ID	Acres	Longitude	Latitude
1	12.22	-81.86005150	35.02960102
2	4.77	-81.85841842	35.03175803

SOURCE: ESRI ArcGIS Online, World Imagery, Spartanburg County, SC

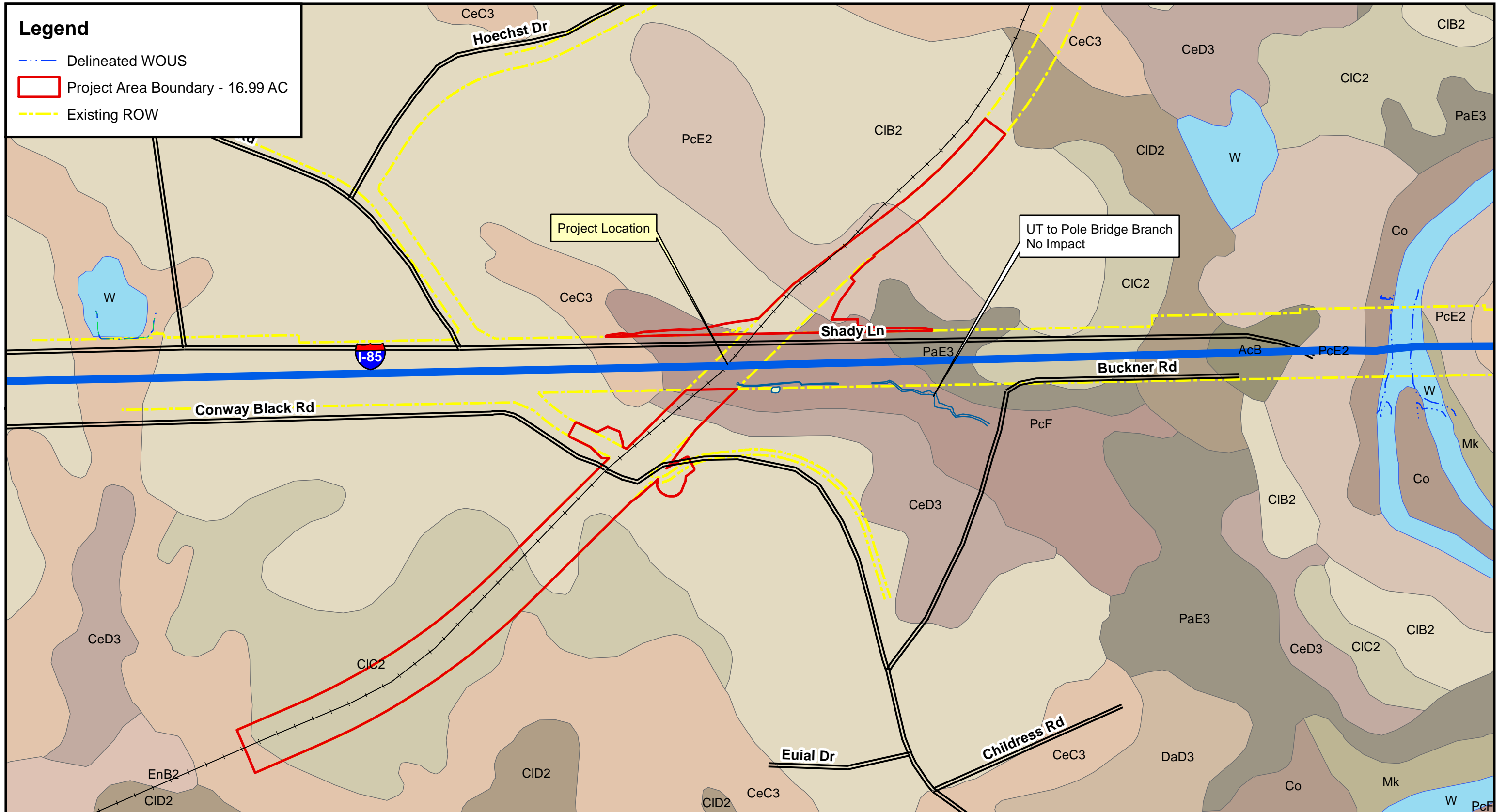
Source: Esri, DigitalGlobe, User Community



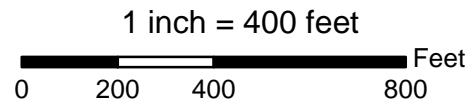
<b>Project Title: I-85 Railroad Overpass Improvements</b>	
<b>Project Location: Spartanburg County</b>	
<b>Applicant: SCDOT</b>	
<b>Authorized Agent: Michael Baker International</b>	
<b>Drawing Scale: 1:4,800</b>	<b>Date: 09/11/2015</b>
<b>Application #:</b>	<b>Figure: 3 of 6</b>

**Legend**

- Delineated WOUS
- ▭ Project Area Boundary - 16.99 AC
- Existing ROW



SOURCE: USDA NRCS, Web Soil Survey Data, Spartanburg County, SC, <http://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>



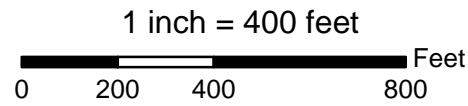
**Michael Baker**  
INTERNATIONAL

<b>Project Title: I-85 Railroad Overpass Improvements</b>	
<b>Project Location: Spartanburg County</b>	
<b>Applicant: SCDOT</b>	
<b>Authorized Agent: Michael Baker International</b>	
<b>Drawing Scale: 1:4,800</b>	<b>Date: 09/11/2015</b>
<b>Application #:</b>	<b>Figure: 4 of 6</b>



SOURCE: ESRI ArcGIS Online, World Imagery, Spartanburg County, SC

**Michael Baker**  
INTERNATIONAL



<b>Project Title: I-85 Railroad Overpass Improvements</b>	
<b>Project Location: Spartanburg County</b>	
<b>Applicant: SCDOT</b>	
<b>Authorized Agent: Michael Baker International</b>	
<b>Drawing Scale: 1:4,800</b>	<b>Date: 09/11/2015</b>
<b>Application #:</b>	<b>Figure: 5 of 6</b>



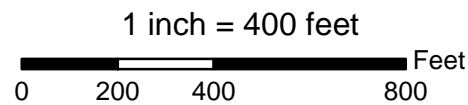
**Legend**

- Project Area Boundary - 16.99 AC
- Existing ROW
- Delineated WOUS
- Agricultural
- Mixed Pine Hardwood Forest
- Scrub/Shrub
- Transportation

Landuse Type	Acres
Agricultural	1.7
Mixed Pine Hardwood Forest	6.2
Scrub/Shrub	2.2
Transportation	6.9

SOURCE: ESRI ArcGIS Online, World Imagery, Spartanburg County, SC

**Michael Baker**  
INTERNATIONAL



<b>Project Title: I-85 Railroad Overpass Improvements</b>	
<b>Project Location: Spartanburg County</b>	
<b>Applicant: SCDOT</b>	
<b>Authorized Agent: Michael Baker International</b>	
<b>Drawing Scale: 1:4,800</b>	<b>Date: 09/11/2015</b>
<b>Application #:</b>	<b>Figure: 6 of 6</b>

Appendix C  
Site Photographs

**I-85 Railroad Overpass Replacement Biological Survey  
Site Photographs – June 11, 2015**



**Photograph 1: Looking south from terminus of study area.**

**I-85 Railroad Overpass Replacement Biological Survey  
Site Photographs – June 11, 2015**



**Photograph 2: Looking north from the terminus of the study area.**



**I-85 Railroad Overpass Replacement Biological Survey  
Site Photographs – June 11, 2015**



**Photograph 3: Looking south along existing railroad slopes.**

**I-85 Railroad Overpass Replacement Biological Survey  
Site Photographs – June 11, 2015**



**Photograph 4: Looking north along existing railroad slopes.**

**I-85 Railroad Overpass Replacement Biological Survey  
Site Photographs – June 11, 2015**



**Photograph 5: Looking north from existing Conway Black Road Bridge at study area.**

**I-85 Railroad Overpass Replacement Biological Survey  
Site Photographs – June 11, 2015**



**Photograph 6: Looking south from existing Conway Black Road Bridge at study area.**

**I-85 Railroad Overpass Replacement Biological Survey  
Site Photographs – June 11, 2015**



**Photograph 7: Looking north from Shady Lane.**

**I-85 Railroad Overpass Replacement Biological Survey  
Site Photographs – June 11, 2015**



**Photograph 8: Looking west from Shady Lane.**

**I-85 Railroad Overpass Replacement Biological Survey  
Site Photographs – June 11, 2015**



**Photograph 9: Looking east at Conway Black Road Bridge.**

**I-85 Railroad Overpass Replacement Biological Survey  
Site Photographs – June 11, 2015**



**Photograph 10: Looking at area inspected for northern long-eared bat under Conway Black Road Bridge.**



**I-85 Railroad Overpass Replacement Biological Survey  
Site Photographs – June 11, 2015**



**Photograph 11: Looking east at Conway Black Road Bridge.**

Appendix D  
Northern Long-eared Bat Forms

## APPENDIX C: Bridge/Structure Inspection Form

### Bridge Inspection Form

This form will be completed and submitted to the District Environmental Manager by the Contractor prior to conducting any work below the deck surface either from the underside, from activities above that bore down to the underside, or that could impact expansion joints, from deck removal on bridges, or from structure demolish. Each bridge/structure to be worked on must have a current bridge inspection. Any bridge/structure suspected of providing habitat for any species of bat will be removed from work schedules until such time that the DOT has obtained clearance from the US Fish and Wildlife Service, if required. Additional studies may be undertaken by the DOT to determine what species may be utilizing structures prior to allowing any work to proceed.

DOT Project # PIN 4692	Water Body None - Rail Road	Date/Time of Inspection 9/3/15 12:30 pm
---------------------------	--------------------------------	--

Route:	County:	Federal Structure ID:	Bat Indicators				Notes: (e.g., number & species of bats, if known)
S-42 1927	Spartanburg		Visual	Sound	Droppings	Staining	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No evidence found
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Areas Inspected (Check all that apply)

Bridges		Culverts/Other Structures		Summary Info (circle all that apply)			
All vertical crevices sealed at the top and 0.5-1.25" wide & ≥4" deep	<input checked="" type="checkbox"/>	Crevices, rough surfaces or imperfections in concrete	<input type="checkbox"/>	Human disturbance or traffic under bridge/in culvert or at the structure	High <input checked="" type="checkbox"/>	Low <input type="checkbox"/>	None <input type="checkbox"/>
All crevices >12" deep & not sealed	<input checked="" type="checkbox"/>	Spaces between walls, ceiling joists	<input checked="" type="checkbox"/>	Possible corridors for netting	None/poor <input type="checkbox"/>	Marginal <input checked="" type="checkbox"/>	excellent <input type="checkbox"/>
All guardrails	<input checked="" type="checkbox"/>	Cracks in timber	<input checked="" type="checkbox"/>	Evidence of bats using bird nests, if present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
All expansion joints	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	

April 17, 2015

Spaces between concrete end walls and the bridge deck	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
Vertical surfaces on concrete I-beams	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	

Inspection Conducted By: <u>Edward J. Smail</u> <hr/>	Signature(s): <i>Edward J. Smail</i>
District Environmental Use Only:	Date Received by District Environmental Manager: _____

**DOT Bat Inspection Form Instructions**

1. Inventories must be completed prior to conducting any work below the deck surface on all bridges that meet the physical characteristics described in the Programmatic Informal Consultation, regardless of whether inventories have been conducted in the past. **Due to the transitory nature of bat use, a negative result in one year does not guarantee that bats will not use that structure in subsequent years.**
2. Contractors must complete this form no more than seven (7) business days prior to initiating work at each bridge/structure location. Legible copies of this document must be provided to the District Environmental Manager within two (2) business days of completing the inspection. Failure to submit this information will result in that structure being removed from the planned work schedule.
3. Any bridge/structure suspected of providing habitat for any species of bat will be removed from work schedules until such time that the DOT has obtained clearance from the USFWS, if required. Additional studies may be undertaken by the DOT to determine what species may be utilizing each structure identified as supporting bats prior to allowing any work to proceed.
4. Estimates of numbers of bats observed should be place in the Notes column.
5. Any questions should be directed to the District Environmental Manager.

## APPENDIX C: Bridge/Structure Inspection Form

### Bridge Inspection Form (Map ID: B2)

This form will be completed and submitted to the District Environmental Manager by the Contractor prior to conducting any work below the deck surface either from the underside, from activities above that bore down to the underside, or that could impact expansion joints, from deck removal on bridges, or from structure demolish. Each bridge/structure to be worked on must have a current bridge inspection. Any bridge/structure suspected of providing habitat for any species of bat will be removed from work schedules until such time that the DOT has obtained clearance from the US Fish and Wildlife Service, if required. Additional studies may be undertaken by the DOT to determine what species may be utilizing structures prior to allowing any work to proceed.

DOT Project # P027114	Water Body N/A	Date/Time of Inspection August 11, 2015 / 12:15 PM
--------------------------	-------------------	---

Route:	County:	Federal Structure ID:	Bat Indicators				Notes: (e.g., number & species of bats, if known)
Check all that apply. Presence of one or more indicators is sufficient evidence that bats may be using the structure.							
			Visual	Sound	Droppings	Staining	
CSX-RR	Spartanburg	4210008500191	None	None	None	None	No bats or any signs of activity were observed

Areas Inspected (Check all that apply)

Bridges		Culverts/Other Structures		Summary Info (circle all that apply)			
All vertical crevices sealed at the top and 0.5-1.25" wide & ≥4" deep	None	Crevices, rough surfaces or imperfections in concrete		Human disturbance or traffic under bridge/in culvert or at the structure	High	Low	None
All crevices >12" deep & not sealed	✓	Spaces between walls, ceiling joists		Possible corridors for netting	None/poor	Marginal	excellent
All guardrails	✓			Evidence of bats using bird nests, if present?	Yes	No	
All expansion joints	✓						

Spaces between concrete end walls and the bridge deck	None						
Vertical surfaces on concrete I-beams	None						

Inspection Conducted By: <u>Steven Busbee, PWS (STV Inc)</u> <hr/>	Signature(s): <i>Steven Busbee</i>
District Environmental Use Only:	Date Received by District Environmental Manager: _____

**DOT Bat Inspection Form Instructions**

1. Inventories must be completed prior to conducting any work below the deck surface on all bridges that meet the physical characteristics described in the Programmatic Informal Consultation, regardless of whether inventories have been conducted in the past. **Due to the transitory nature of bat use, a negative result in one year does not guarantee that bats will not use that structure in subsequent years.**
2. Contractors must complete this form no more than seven (7) business days prior to initiating work at each bridge/structure location. Legible copies of this document must be provided to the District Environmental Manager within two (2) business days of completing the inspection. Failure to submit this information will result in that structure being removed from the planned work schedule.
3. Any bridge/structure suspected of providing habitat for any species of bat will be removed from work schedules until such time that the DOT has obtained clearance from the USFWS, if required. Additional studies may be undertaken by the DOT to determine what species may be utilizing each structure identified as supporting bats prior to allowing any work to proceed.
4. Estimates of numbers of bats observed should be place in the Notes column.
5. Any questions should be directed to the District Environmental Manager.

## APPENDIX C: Bridge/Structure Inspection Form

### Bridge Inspection Form (Map ID: C3)

This form will be completed and submitted to the District Environmental Manager by the Contractor prior to conducting any work below the deck surface either from the underside, from activities above that bore down to the underside, or that could impact expansion joints, from deck removal on bridges, or from structure demolish. Each bridge/structure to be worked on must have a current bridge inspection. Any bridge/structure suspected of providing habitat for any species of bat will be removed from work schedules until such time that the DOT has obtained clearance from the US Fish and Wildlife Service, if required. Additional studies may be undertaken by the DOT to determine what species may be utilizing structures prior to allowing any work to proceed.

<b>DOT Project #</b> P027114	<b>Water Body</b> UT to Pole Bridge Branch	<b>Date/Time of Inspection</b> August 12, 2015 / 4:00 PM
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Route:	County:	Federal Structure ID:	Bat Indicators				Notes: (e.g., number & species of bats, if known)
			Visual	Sound	Droppings	Staining	
			Check all that apply. Presence of one or more indicators is sufficient evidence that bats may be using the structure.				
I-85	Spartanburg	N/A	None	None	None	None	No bats or any signs of activity were observed

Areas Inspected (Check all that apply)

Bridges		Culverts/Other Structures <small>60" RCP</small>		Summary Info (circle all that apply)			
All vertical crevices sealed at the top and 0.5-1.25" wide & ≥4" deep		Crevices, rough surfaces or imperfections in concrete	✓	Human disturbance or traffic under bridge/in culvert or at the structure	High	Low	None
All crevices >12" deep & not sealed		Spaces between walls, ceiling joists	✓	Possible corridors for netting	None/poor	Marginal	excellent
All guardrails				Evidence of bats using bird nests, if present?	Yes	No	
All expansion joints							

Spaces between concrete end walls and the bridge deck							
Vertical surfaces on concrete I-beams							

Inspection Conducted By: <u>Steven Busbee, PWS (STV Inc)</u> _____	Signature(s): <i>Steven Busbee</i>
District Environmental Use Only:	Date Received by District Environmental Manager: _____

**DOT Bat Inspection Form Instructions**

1. Inventories must be completed prior to conducting any work below the deck surface on all bridges that meet the physical characteristics described in the Programmatic Informal Consultation, regardless of whether inventories have been conducted in the past. **Due to the transitory nature of bat use, a negative result in one year does not guarantee that bats will not use that structure in subsequent years.**
2. Contractors must complete this form no more than seven (7) business days prior to initiating work at each bridge/structure location. Legible copies of this document must be provided to the District Environmental Manager within two (2) business days of completing the inspection. Failure to submit this information will result in that structure being removed from the planned work schedule.
3. Any bridge/structure suspected of providing habitat for any species of bat will be removed from work schedules until such time that the DOT has obtained clearance from the USFWS, if required. Additional studies may be undertaken by the DOT to determine what species may be utilizing each structure identified as supporting bats prior to allowing any work to proceed.
4. Estimates of numbers of bats observed should be place in the Notes column.
5. Any questions should be directed to the District Environmental Manager.



# Legend

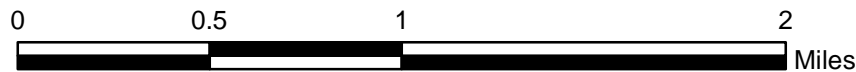
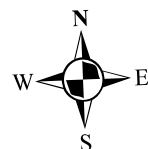
Project Study Area

## Bat Screening Locations

Bridge

Pipe/Culvert

00 I-85 Exit Number



Client:



Project:

**I - 85 Widening  
From MM 80 to 96**

**Cherokee/Spartanburg  
Counties, SC**

**SCDOT Project ID # P027114**

Title:

**Bat Screening  
Location Map**

Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo.

Notes:

Screenings for bats were conducted by STV Incorporated on August 11 and 12, 2015. All bridges within the project study area as well as pipes and culverts at least 60 inches high and 200 feet long were inspected.

Drawn By:

**JLK**

Checked By:

**WSB**

Approved By:

**MAI**

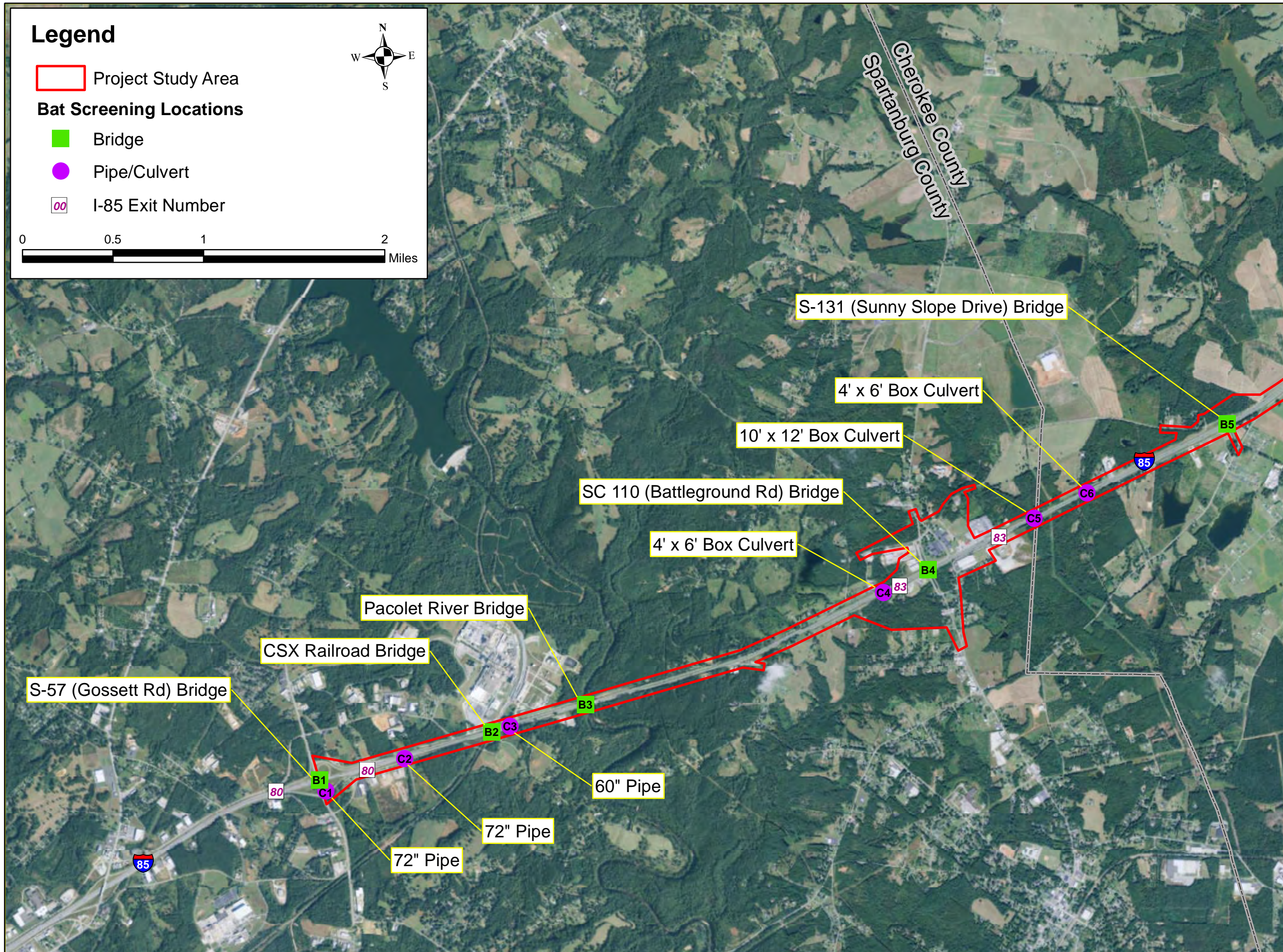
Date:

**8/21/2015**

STV Inc. Project No.

**4017129**

**Bat Screening  
Figure 2**





View of CSX Railroad Bridge over I-85



View of 60" RCP on UT to Pole Bridge Branch at I-85

**Northern Long-Eared Bat 4(d) Rule Streamlined Consultation Form**

**Northern Long-Eared Bat 4(d) Rule Streamlined Consultation Form**

Federal agencies should use this form for the optional streamlined consultation framework for the northern long-eared bat (NLEB). This framework allows federal agencies to rely upon the U.S. Fish and Wildlife Service’s (USFWS) January 5, 2016, intra-Service Programmatic Biological Opinion (BO) on the final 4(d) rule for the NLEB for section 7(a)(2) compliance by: (1) notifying the USFWS that an action agency will use the streamlined framework; (2) describing the project with sufficient detail to support the required determination; and (3) enabling the USFWS to track effects and determine if reinitiation of consultation is required per 50 CFR 402.16.

This form is not necessary if an agency determines that a proposed action will have no effect to the NLEB or if the USFWS has concurred in writing with an agency's determination that a proposed action may affect, but is not likely to adversely affect the NLEB (i.e., the standard informal consultation process). Actions that may cause prohibited incidental take require separate formal consultation. Providing this information does not address section 7(a)(2) compliance for any other listed species.

**Information to Determine 4(d) Rule Compliance:** **YES    NO**

1. Does the project occur wholly outside of the WNS Zone <sup>1</sup> ?		
2. Have you contacted the appropriate agency <sup>2</sup> to determine if your project is near known hibernacula or maternity roost trees?		
3. Could the project disturb hibernating NLEBs in a known hibernaculum?		
4. Could the project alter the entrance or interior environment of a known hibernaculum?		
5. Does the project remove any trees within 0.25 miles of a known hibernaculum at any time of year?		
6. Would the project cut or destroy known occupied maternity roost trees, or any other trees within a 150-foot radius from the maternity roost tree from June 1 through July 31.		

You are eligible to use this form if you have answered yes to question #1 **or** yes to question #2 **and** no to questions 3, 4, 5 and 6. The remainder of the form will be used by the USFWS to track our assumptions in the BO.

**Lead Federal Agency:**

**Applicant<sup>3</sup> (Name, Email, Phone No.):**

**Project PIN/Project Number:**

**Project County:**

**Project Name:**

**Project Location** (include coordinates if known):

**Basic Project Description** (provide narrative below or attach additional information):

<sup>1</sup> <http://www.fws.gov/midwest/endangered/mammals/nleb/pdf/WNSZone.pdf>

<sup>2</sup> See <http://www.fws.gov/midwest/endangered/mammals/nleb/nhisites.html>

<sup>3</sup> If applicable - only needed for federal actions with applicants (e.g., for a permit, etc.) who are party to the consultation.

<b>General Project Information</b>	<b>YES</b>	<b>NO</b>
Does the project occur within 0.25-mile of a known hibernaculum?		
Does the project occur within 150 feet of a known maternity roost tree?		
Does the project include forest conversion <sup>4</sup> ? (if yes, report acreage below)		
Estimated total acres of forest conversion		
If known, estimated acres <sup>5</sup> of forest conversion from April 1 to October 31		
If known, estimated acres of forest conversion from June 1 to July 31 <sup>6</sup>		
Does the project include timber harvest? (if yes, report acreage below)		✓
Estimated total acres of timber harvest	N/A	
If known, estimated acres of timber harvest from April 1 to October 31		
If known, estimated acres of timber harvest from June 1 to July 31		
Does the project include prescribed fire? (if yes, report acreage below)		✓
Estimated total acres of prescribed fire	N/A	
If known, estimated acres of prescribed fire from April 1 to October 31		
If known, estimated acres of prescribed fire from June 1 to July 31		
Does the project install new wind turbines? (if yes, report capacity in MW below)		✓
Estimated wind capacity (MW)	N/A	

Agency Determination:

By signing this form, the action agency determines that this project may affect the NLEB, but that any resulting incidental take of the NLEB is not prohibited by the final 4(d) rule.

If the USFWS does not respond within 30 days from submittal of this form, the action agency may presume that its determination is informed by the best available information and that its project responsibilities under 7(a)(2) with respect to the NLEB are fulfilled through the USFWS January 5, 2016, Programmatic BO. The action agency will update this determination annually for multi-year activities.

The action agency understands that the USFWS presumes that all activities are implemented as described herein. The action agency will promptly report any departures from the described activities to the appropriate USFWS Field Office. The action agency will provide the appropriate USFWS Field Office with the results of any surveys conducted for the NLEB. Involved parties will promptly notify the appropriate USFWS Field Office upon finding a dead, injured, or sick NLEB.

Signature: \_\_\_\_\_

Date Submitted: \_\_\_\_\_

<sup>4</sup> Any activity that temporarily or permanently removes suitable forested habitat, including, but not limited to, tree removal from development, energy production and transmission, mining, agriculture, etc. (see page 48 of the BO).

<sup>5</sup> If the project removes less than 10 trees and the acreage is unknown, report the acreage as less than 0.1 acre.

<sup>6</sup> If the activity includes tree clearing in June and July, also include those acreage in April to October.

**Northern Long-Eared Bat 4(d) Rule Streamlined Consultation Form  
USFWS Concurrence**

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**From:** Altman, Ann-Marie <AltmanAM@scdot.org>  
**Sent:** Wednesday, May 4, 2016 9:31 AM  
**To:** Skip Johnson; LaTonya Derrick  
**Cc:** Kelly, David P.  
**Subject:** FW: NLEB consultation I-85 Spartanburg County

USFWS has concurred that they have no objection to removing the tree clearing restrictions when I re-submitted using the streamlined 4(d) form.

Thanks,  
Ann-Marie

---

**From:** Mark Caldwell [mailto:mark\_caldwell@fws.gov]  
**Sent:** Wednesday, May 04, 2016 7:12 AM  
**To:** Altman, Ann-Marie  
**Subject:** RE: NLEB consultation I-85 Spartanburg County

No objection

Mark A. Caldwell  
Deputy Field Supervisor  
U.S. Fish and Wildlife Service  
South Carolina Ecological Services  
176 Croghan Spur Road, Suite 200  
Charleston, SC 29407  
843-727-4707 ext 215  
843-300-0426 (direct line)  
843-727-4218 – facsimile

**This email correspondence and any attachments to and from this sender is subject to the Freedom of Information Act and may be disclosed to third parties.**

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**From:** Altman, Ann-Marie [mailto:[AltmanAM@scdot.org](mailto:AltmanAM@scdot.org)]  
**Sent:** Tuesday, May 03, 2016 1:22 PM  
**To:** [charleston\\_regulatory@fws.gov](mailto:charleston_regulatory@fws.gov)  
**Cc:** Reynolds, Brad S; '[Skip.Johnson@threeoaksengineering.com](mailto:Skip.Johnson@threeoaksengineering.com)'; Robbins, Heather M.; Kelly, David P.  
**Subject:** NLEB consultation I-85 Spartanburg County

SCDOT has previously consulted with USFWS regarding NLEB and I-85 improvements. We are resubmitting using the 4(d) streamlined consultation form so that the clearing restrictions can be removed. Please see attached associated documents.

Thanks!  
Ann-Marie

**Ann-Marie Altman**  
**SCDOT Environmental Services Office**  
**RPG 2/ PeeDee Regional Production Group**  
**Phone: 803-737-0946**