

CATEGORICAL EXCLUSION ACTION CLASSIFICATION FORM

| | |
|---------------------|--------------------|
| TIP Project No. | <u>B-5334</u> |
| W.B.S. No. | <u>46048.1.1</u> |
| Federal Project No. | <u>BRZ-2220(4)</u> |

A. Project Description:

The proposed project will replace Robeson County Bridge No. 78 on SR 2220 (North Broadridge Road) over Tenmile Branch. (See **Figures 1-5.**) Bridge No. 78 is 32 feet long with two 10-foot travel lanes and two-foot shoulders.

The proposed project is included in the 2016-2025 North Carolina *State Transportation Improvement Program* (STIP). The project is scheduled for right of way acquisition and construction in state fiscal years 2017 and 2018, respectively.

The replacement structure will be a bridge approximately 55 feet long providing a 30-foot, 10-inch clear deck width (two 11-foot travel lanes and a 3-foot, 5-inch offset to the bridge rail on one side and 5-foot, 5-inch offset on the other). The roadway grade of the new structure will be approximately one foot higher than the existing structure to maintain the hydraulic requirements. The proposed project will extend from approximately 200 feet west of the existing SR 2219 (Fowler Road) intersection with SR 2220 to approximately 300 feet east of Bridge No. 78, a distance of approximately 650 feet.

The project will also involve realigning approximately 160 feet of SR 2219 to improve the skew of the SR 2219/SR 2220 intersection and move it away from the bridge. Currently, SR 2219, which is unpaved, intersects SR 2220 at a severe skew approximately 125 feet from the western end of existing Bridge No. 78. The new alignment for SR 2219 will be paved. The new alignment will follow a worn path made by vehicles to avoid using the current skewed intersection.

SR 2220 will be widened to two 11-foot lanes with six-foot grassed shoulders (two-foot paved) within the project limits. A small amount of additional right of way will be required at the proposed bridge crossing and at the realigned SR 2219 intersection. The typical sections and preliminary roadway design are included in **Figures 2 and 5.**

Traffic will be maintained by an off-site detour during construction (see **Figure 1**). The offsite detour for this project will include NC 72 (Wilmington Highway), SR 2221 (Tilman Cox Road), and SR 2214 (Collins Drive).

B. Purpose and Need:

The purpose of the proposed project is to replace an obsolete bridge.

NCDOT Bridge Management Unit records indicate Bridge No. 78 has a sufficiency rating of 20.02 (June 2014) out of a possible 100 for a new structure.

The bridge is considered structurally deficient and also meets the criteria for functionally obsolete.

Bridge No. 78 was built in 1955. The superstructure and substructure of Bridge No. 78 have timber elements that are 61 years old. Timber components have a typical life expectancy between 40 to 50 years due to the natural deterioration rate of wood. Rehabilitation of a timber structure is generally practical only when a few elements are damaged or prematurely deteriorated. However, past a certain degree of deterioration, most timber elements become impractical to maintain and upon eligibility are programmed for replacement. In addition, the substandard deck width is becoming increasingly unacceptable and replacement of the bridge will result in safer traffic operations.

Existing SR 2220 in the vicinity of Bridge No. 78 has two 10-foot lanes and six-foot grassed shoulders.

Bridge No. 78 carries 1,000 vehicles per day (2013) with 1,900 vehicles per day projected for the future (2035). The posted weight limit is 26 tons for single vehicles.

C. Proposed Improvements:

Circle one or more of the following Type II improvements which apply to the project:

1. Modernization of a highway by resurfacing, restoration, rehabilitation, reconstruction, adding shoulders, or adding auxiliary lanes (e.g., parking, weaving, turning, climbing).
 - a. Restoring, Resurfacing, Rehabilitating, and Reconstructing pavement (3R and 4R improvements)
 - b. Widening roadway and shoulders without adding through lanes
 - c. Modernizing gore treatments
 - d. Constructing lane improvements (merge, auxiliary, and turn lanes)
 - e. Adding shoulder drains
 - f. Replacing and rehabilitating culverts, inlets, and drainage pipes, including safety treatments
 - g. Providing driveway pipes
 - h. Performing minor bridge widening (less than one through lane)
 - i. Slide Stabilization
 - j. Structural BMP's for water quality improvement
2. Highway safety or traffic operations improvement projects including the installation of ramp metering control devices and lighting.
 - a. Installing ramp metering devices

- b. Installing lights
 - c. Adding or upgrading guardrail
 - d. Installing safety barriers including Jersey type barriers and pier protection
 - e. Installing or replacing impact attenuators
 - f. Upgrading medians including adding or upgrading median barriers
 - g. Improving intersections including relocation and/or realignment
 - h. Making minor roadway realignment
 - i. Channelizing traffic
 - j. Performing clear zone safety improvements including removing hazards and flattening slopes
 - k. Implementing traffic aid systems, signals, and motorist aid
 - l. Installing bridge safety hardware including bridge rail retrofit
3. Bridge rehabilitation, reconstruction, or replacement or the construction of grade separation to replace existing at-grade railroad crossings.
 - a. Rehabilitating, reconstructing, or replacing bridge approach slabs
 - b. Rehabilitating or replacing bridge decks
 - c. Rehabilitating bridges including painting (no red lead paint), scour repair, fender systems, and minor structural improvements
 - d. Replacing a bridge (structure and/or fill)
 4. Transportation corridor fringe parking facilities.
 5. Construction of new truck weigh stations or rest areas.
 6. Approvals for disposal of excess right-of-way or for joint or limited use of right-of-way, where the proposed use does not have significant adverse impacts.
 7. Approvals for changes in access control.
 8. Construction of new bus storage and maintenance facilities in areas used predominantly for industrial or transportation purposes where such construction is not inconsistent with existing zoning and located on or near a street with adequate capacity to handle anticipated bus and support vehicle traffic.
 9. Rehabilitation or reconstruction of existing rail and bus buildings and ancillary facilities where only minor amounts of additional land are required and there is not a substantial increase in the number of users.
 10. Construction of bus transfer facilities (an open area consisting of passenger shelters, boarding areas, kiosks and related street improvements) when located in a commercial area or other high activity center in which there is adequate street capacity for projected bus traffic.
 11. Construction of rail storage and maintenance facilities in areas used predominantly for industrial or transportation purposes where such construction is not inconsistent with existing zoning and where there is no significant noise impact on the surrounding community.

12. Acquisition of land for hardship or protective purposes, advance land acquisition loans under section 3(b) of the UMT Act. Hardship and protective buying will be permitted only for a particular parcel or a limited number of parcels. These types of land acquisition qualify for a CE only where the acquisition will not limit the evaluation of alternatives, including shifts in alignment for planned construction projects, which may be required in the NEPA process. No project development on such land may proceed until the NEPA process has been completed.
13. Acquisition and construction of wetland, stream and endangered species mitigation sites.
14. Remedial activities involving the removal, treatment or monitoring of soil or groundwater contamination pursuant to state or federal remediation guidelines.

D. Special Project Information:

The estimated costs are as follows:

| | |
|---|-----------|
| Construction Cost (includes utility construction) | \$725,000 |
| Right-of-Way Acquisition* | \$12,500 |
| Utility Relocations* | \$9,000 |
| Total Cost | \$746,500 |

*Based on updated 2016 estimates

Estimated Traffic:

| | | |
|--------------------|---|-----------|
| Current (2013) | - | 1,000 vpd |
| Design Year (2035) | - | 1,900 vpd |
| TTST | - | 1% |
| Dual | - | 4% |

Design Exceptions: There are no anticipated design exceptions for this project.

Pedestrian and Bicycle Accommodations: This portion of SR 2220 is not a part of a designated bicycle route nor is it listed in the STIP as a bicycle project. Due to the rural nature of the project area, very little bicycle or pedestrian activity is expected along this portion of SR 2220. Neither permanent nor temporary bicycle and/or pedestrian accommodations are required for this project.

Bridge Demolition: Bridge No. 78 is constructed of timber and steel with the superstructure and bridge rails constructed of reinforced concrete. It should be possible to remove with no resulting debris in the water based on standard demolition practices.

Alternatives Discussion:

No-Build – The no-build alternative would result in eventually closing the road which is unacceptable given the volume of traffic served by SR 2220.

Rehabilitation – The bridge was constructed in 1955, and the timber materials within the bridge are reaching the end of their useful life. Rehabilitation would require replacing the timber components which would constitute effectively replacing the bridge.

Offsite Detour – Bridge No. 78 will be replaced on the existing alignment. Traffic will be detoured offsite (see **Figure 1**) during the construction period. The offsite detour for this project will include NC 72 (Wilmington Highway), SR 2221 (Tilman Cox Road), and SR 2214 (Collins Drive). The majority of traffic on the road is through traffic. The detour for the average road user would result in approximately 4 minutes additional travel time (3.3 miles additional travel). Up to a nine month duration of construction is expected on this project.

Robeson County Public Schools and Robeson County Emergency Services have indicated that the detour is acceptable. The condition of all roads, bridges and intersections on the offsite detour are acceptable without improvement.

New Alignment/Onsite Detour – Constructing the proposed bridge on new alignment would result in substantially higher stream and wetland impacts and higher construction cost. Given that the alignment for Bridge No. 78 on SR 2220 is acceptable, a new alignment was not considered a viable alternative.

Agency Coordination: NCDOT has sought input from the following agencies as a part of the project development process: US Department of Agriculture, US Army Corps of Engineers, US Coast Guard, US Environmental Protection Agency, US Fish and Wildlife Service, NC Department of Environment and Natural Resources (now NC Department of Environmental Quality) and Robeson County. No substantive comments were received from any of these agencies.

Public Involvement: A project initiation and notification letter was sent out to each adjacent property owner in February 2013. Property owners were notified environmental surveys were being conducted on or near their property and were invited to comment and submit general questions about the project. No comments were received. It was determined that a newsletter and workshop were not necessary.

E. Threshold Criteria

The following evaluation of threshold criteria must be completed for Type II actions

| <u>ECOLOGICAL</u> | <u>YES</u> | <u>NO</u> |
|--|-------------------------------------|--------------------------|
| (1) Will the project have a substantial impact on any unique or important natural resource? | <input type="checkbox"/> | <u> X </u> |
| (2) Does the project involve habitat where federally listed endangered or threatened species may occur? | <input checked="" type="checkbox"/> | <u> </u> |
| (3) Will the project affect anadromous fish? | <input type="checkbox"/> | <u> X </u> |
| (4) If the project involves wetlands, is the amount of permanent and/or temporary wetland taking less than one-tenth (1/10) of an acre and have all practicable measures to avoid and minimize wetland takings been evaluated? | <u> X </u> | <input type="checkbox"/> |
| (5) Will the project require the use of U. S. Forest Service lands? | <input type="checkbox"/> | <u> X </u> |
| (6) Will the quality of adjacent water resources be adversely impacted by proposed construction activities? | <input type="checkbox"/> | <u> X </u> |
| (7) Does the project involve waters classified as Outstanding Resources Waters (ORW) and/or High Quality Waters (HQW)? | <input type="checkbox"/> | <u> X </u> |
| (8) Will the project require fill in waters of the United States in any of the designated mountain trout counties? | <input type="checkbox"/> | <u> X </u> |
| (9) Does the project involve any known underground storage tanks (UST's) or hazardous materials sites? | <input type="checkbox"/> | <u> X </u> |
| <u>PERMITS AND COORDINATION</u> | | |
| (10) If the project is located within a CAMA county, will the project significantly affect the coastal zone and/or any "Area of Environmental Concern" (AEC)? | <input type="checkbox"/> | <u> N/A </u> |
| (11) Does the project involve Coastal Barrier Resources Act resources? | <input type="checkbox"/> | <u> X </u> |
| (12) Will a U. S. Coast Guard permit be required? | <input type="checkbox"/> | <u> X </u> |
| (13) Could the project result in the modification of any existing regulatory floodway? | <input type="checkbox"/> | <u> X </u> |

(14) Will the project require any stream relocations or channel changes? X

SOCIAL, ECONOMIC, AND CULTURAL RESOURCES

YES NO

(15) Will the project induce substantial impacts to planned growth or land use for the area? X

(16) Will the project require the relocation of any family or business? X

(17) Will the project have a disproportionately high and adverse human health and environmental effect on any minority or low-income population? X

(18) If the project involves the acquisition of right of way, is the amount of right of way acquisition considered minor? X

(19) Will the project involve any changes in access control? X

(20) Will the project substantially alter the usefulness and/or land use of adjacent property? X

(21) Will the project have an adverse effect on permanent local traffic patterns or community cohesiveness? X

(22) Is the project included in an approved thoroughfare plan and/or Transportation Improvement Program (and is, therefore, in conformance with the Clean Air Act of 1990)? X

(23) Is the project anticipated to cause an increase in traffic volumes? X

(24) Will traffic be maintained during construction using existing roads, staged construction, or on-site detours? X

(25) If the project is a bridge replacement project, will the bridge be replaced at its existing location (along the existing facility) and will all construction proposed in association with the bridge replacement project be contained on the existing facility? X

(26) Is there substantial controversy on social, economic, or environmental grounds concerning the project? X

(27) Is the project consistent with all Federal, State, and local laws relating to the environmental aspects of the project? X

(28) Will the project have an "effect" on structures/properties eligible for or listed on the National Register of Historic Places? X

- | | | | |
|------|---|--------------------------|---------------------|
| (29) | Will the project affect any archaeological remains which are important to history or pre-history? | <input type="checkbox"/> | <u> X </u> |
| (30) | Will the project require the use of Section 4(f) resources (public parks, recreation lands, wildlife and waterfowl refuges, historic sites, or historic bridges, as defined in Section 4(f) of the U. S. Department of Transportation Act of 1966)? | <input type="checkbox"/> | <u> X </u> |
| (31) | Will the project result in any conversion of assisted public recreation sites or facilities to non-recreation uses, as defined by Section 6(f) of the Land and Water Conservation Act of 1965, as amended? | <input type="checkbox"/> | <u> X </u> |
| (32) | Will the project involve construction in, across, or adjacent to a river designated as a component of or proposed for inclusion in the National System of Wild and Scenic Rivers? | <input type="checkbox"/> | <u> X </u> |

F. Additional Documentation Required for Unfavorable Responses in Part E

Response to Question 2: Suitable habitat for the American alligator (listed as threatened due to similarity of appearance) is present in the project area. Species listed as T (S/A) do not require Section 7 consultation with the US Fish and Wildlife Service. Construction activities may temporarily displace individual alligators if any are present in the study area. However, proposed activities are not likely to have any permanent detrimental impacts to this species. A review of NC Natural Heritage Program (NCNHP) records, updated October 2015, indicates no known occurrences of American alligator within one mile northeast of the study area.

Potential habitat is present in the study area for Michaux’s sumac. Surveys were conducted for Michaux’s sumac in October 2015. Surveys revealed evidence of routine mowing and other disturbances to the maintained/disturbed areas. No Michaux’s sumac individuals were identified. A review of NCNHP records, updated October 2015, indicates no known Michaux’s sumac occurrences within one mile of the study area. The proposed project is expected to have no effect on Michaux’s sumac.

Although not specifically listed for Robeson County, the northern long-eared bat (NLEB) has been listed as threatened by the US Fish and Wildlife Service. The Fish and Wildlife Service has developed a programmatic biological opinion (PBO) in conjunction with the Federal Highway Administration, the US Army Corps of Engineers and NCDOT for the NLEB in eastern North Carolina. The PBO covers the entire NCDOT program in Divisions 1-8, including all NCDOT projects and activities. The programmatic determination for NLEB for the NCDOT program is “May Affect, Likely to Adversely Affect.” The PBO provides incidental take coverage for NLEB and will ensure compliance with Section 7 of the Endangered Species Act for five years for all NCDOT projects with a federal nexus in Divisions 1-8, which includes Robeson County.

G. CE Approval

| | |
|---------------------|--------------------|
| TIP Project No. | <u>B-5334</u> |
| W.B.S. No. | <u>46048.1.1</u> |
| Federal Project No. | <u>BRZ-2220(4)</u> |

Project Description:

The proposed project will replace Robeson County Bridge No. 78 on SR 2220 (North Broadridge Road) over Tenmile Branch. (See **Figures 1-5.**) Bridge No. 78 is 32 feet long with two 10-foot travel lanes and two-foot shoulders.

The proposed project is included in the 2016-2025 North Carolina *State Transportation Improvement Program* (STIP). The project is scheduled for right of way acquisition and construction in state fiscal years 2017 and 2018, respectively.

The replacement structure will be a bridge approximately 55 feet long providing a 30-foot, 10-inch clear deck width (two 11-foot travel lanes and a 3-foot, 5-inch offset to the bridge rail on one side and 5-foot, 5-inch offset on the other). The roadway grade of the new structure will be approximately one foot higher than the existing structure to maintain the hydraulic requirements. The proposed project will extend from approximately 200 feet west of the existing SR 2219 (Fowler Road) intersection with SR 2220 to approximately 300 feet east of Bridge No. 78, a distance of approximately 650 feet.

Categorical Exclusion Action Classification:

 TYPE II(A)
 X TYPE II(B)



Prepared By:

8/11/2016

Date

DocuSigned by:
Meredith Van Duyn
071C1A8C220E467...
Meredith H. Van Duyn, PE, Project Manager
RS&H Architects-Engineers-Planners, Inc.
NC PE License No. 034390
(919) 926-4102

Approved:

8/11/2016

Date

DocuSigned by:
Joseph Miller
E55AE420FA04D5...
Joseph Miller, PE, Project Planning Engineer
NCDOT Project Development and Environmental Analysis

8/11/2016

Date

DocuSigned by:
James A. McInnis, Jr.
08D0E38DDE9141B...
James A. McInnis, Jr., PE, Project Engineer
NCDOT Project Development and Environmental Analysis

For Type II(B) Projects:

8/11/2016

Date

DocuSigned by:
Ron Lucas
7707B71B714A4F1...
John F. Sullivan, III, PE, Division Administrator
Federal Highway Administration

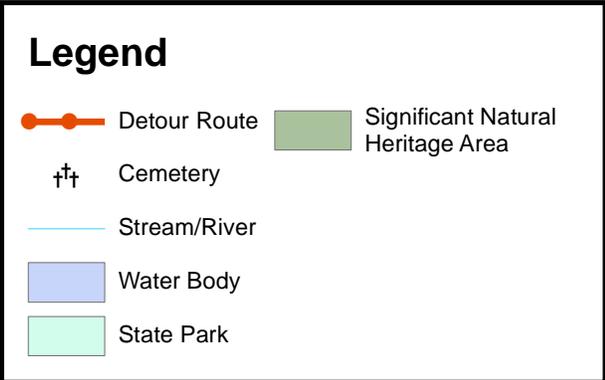
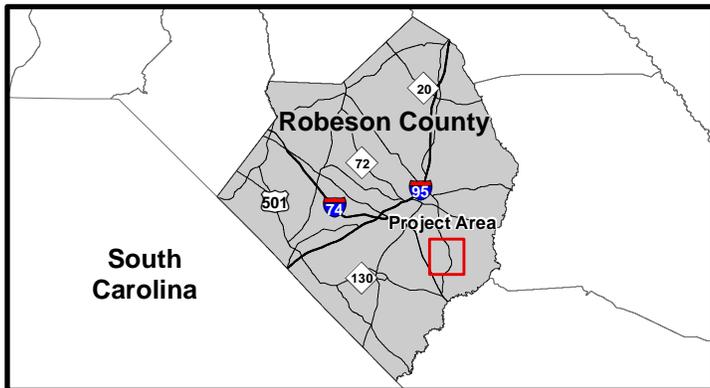
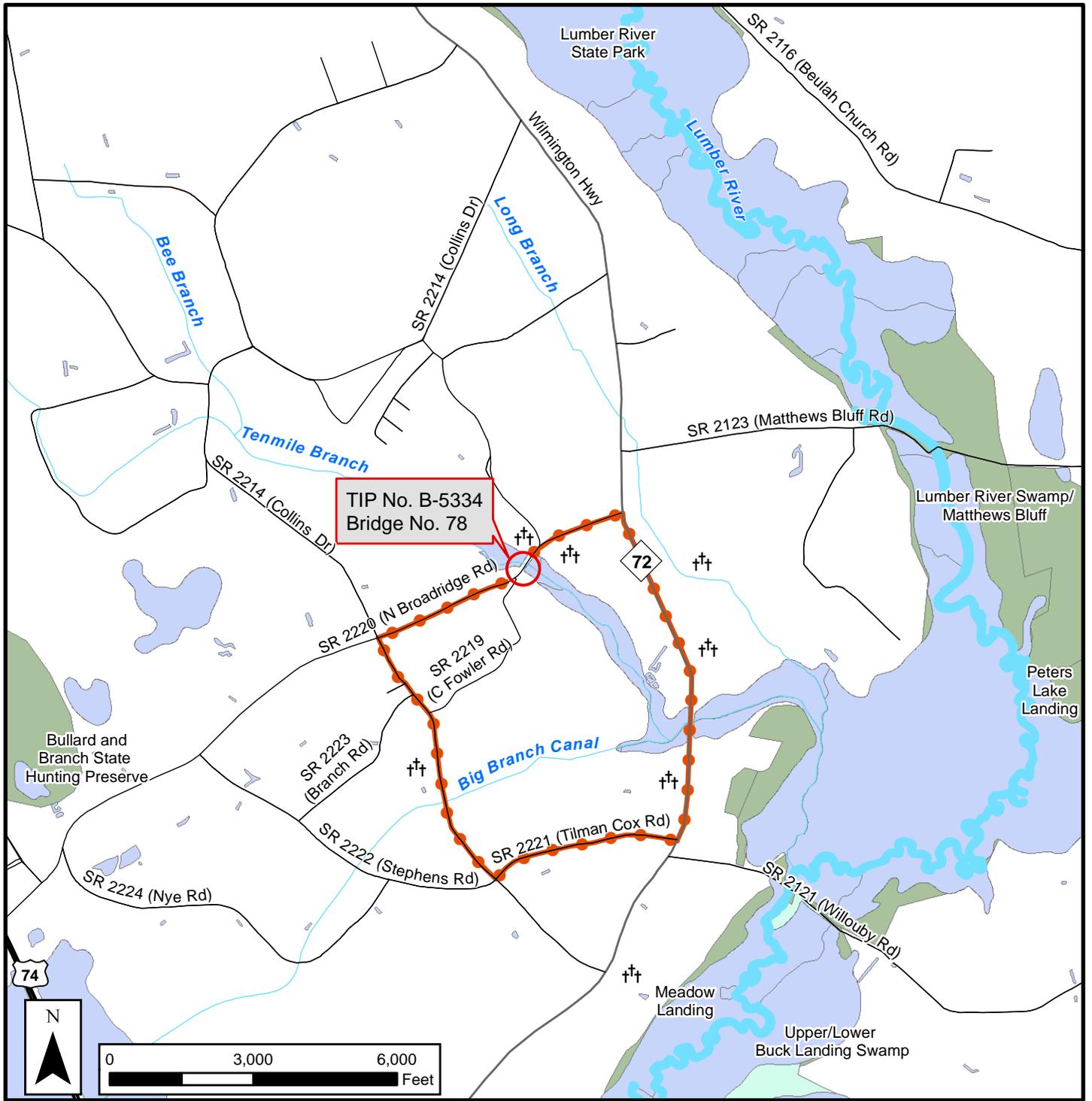
PROJECT COMMITMENTS:

**Robeson County
Bridge No. 78 on SR 2220 (N. Broadridge Road)
Over Tenmile Branch
Federal Aid Project No. BRZ-2220(4)
WBS No. 46048.1.1
TIP Project No. B-5334**

NCDOT Division 6

The Division will coordinate with Robeson County Public Schools and local emergency response officials at least one month prior to road closure to allow time for alternate route planning.

Robeson County Public Schools: (910) 671-6000
Robeson County Emergency Services: (910) 671-3150
Robeson County EMS: (910) 671-3250



Replacement of Bridge No. 78
on SR 2220 (N. Broadridge Road)
over Tenmile Branch

TIP No: B-5334
Division: 6

Figure: 1
Vicinity Map

- Legend**
- Proposed Structure
 - ✦✦ Delineated Wetlands
 - Slope Stakes
 - Existing Right-of-Way
 - Proposed Right-of-Way
 - Streams
 - Utilities
 - Proposed Edge of Pavement
 - Proposed Guardrail



Preliminary Roadway Design



RS&H



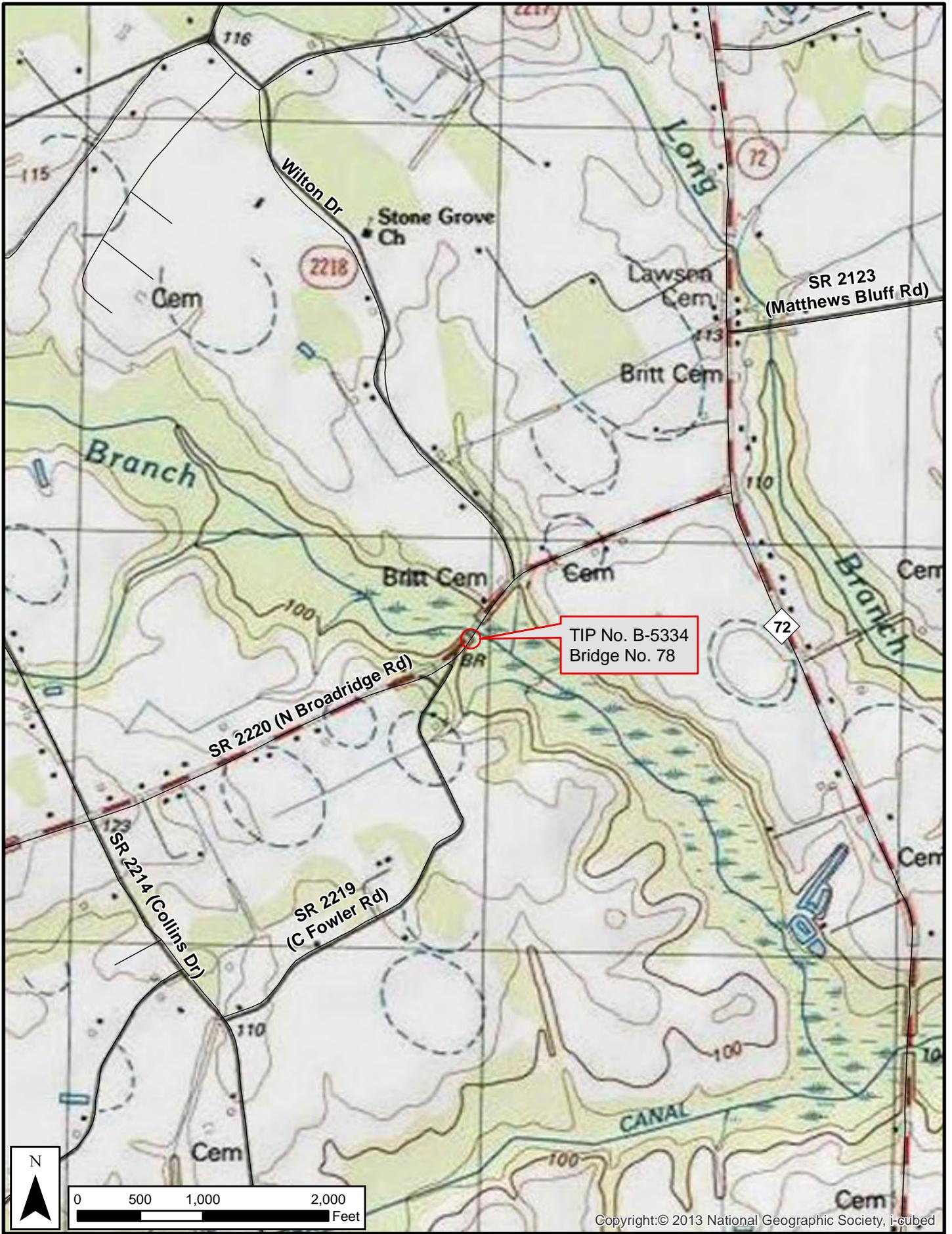
Robeson County

TIP No. B-5334
 Division 6
 Replacement of Bridge No. 78
 on SR 2220 (N. Broadridge Road)
 over Tenmile Branch

Figure 2

June 2016

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA Community



Replacement of Bridge No. 78
on SR 2220 (N. Broadridge Road)
over Tenmile Branch

TIP No: B-5334
Division: 6

Figure: 3
Topo Map



Bridge approach facing SW direction toward Fowler Rd



Bridge approach facing NE direction toward Wilton Dr



West side of Bridge



East side of Bridge



Tenmile Branch facing West



Tenmile Branch facing East

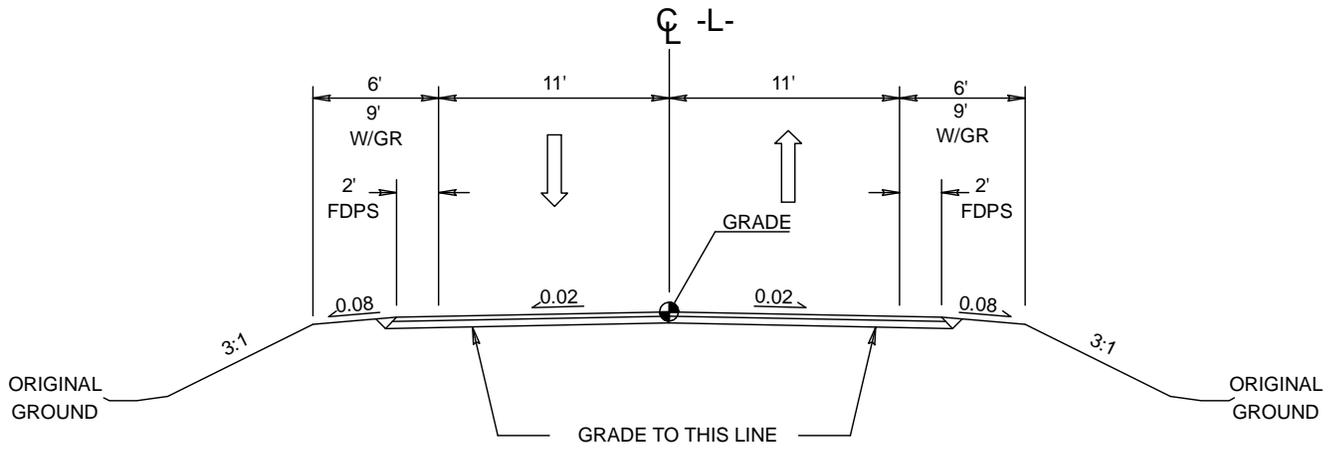


Replacement of Bridge No. 78
on SR 2220 (N. Broadridge Road)
over Tenmile Branch

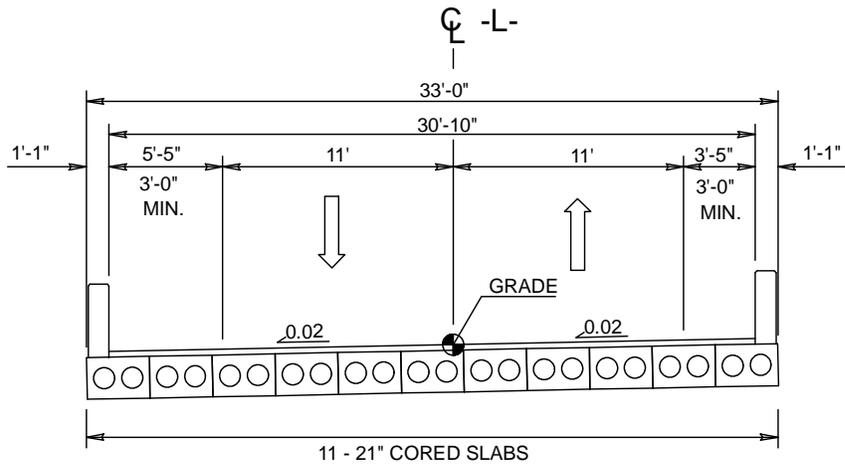
TIP No: B-5334

Division: 6

Figure: 4
Project
Area Photos



TYPICAL SECTION NO. 1



TYPICAL SECTION NO. 2



Replacement of Bridge No. 78
on SR 2220 (N. Broadridge Road)
over Tenmile Branch

TIP No. B-5334

Division: 6

Figure: 5
Typical
Sections