

Traffic will be detoured on-site using the existing bridge and roadway alignment during construction (see Figure 1).

The total cost for the project included in the 2016-2025 STIP is \$6,408,000. Of this total, \$108,000 is for utility relocation and \$6,300,000 is for construction. Current cost estimates for the project are as follows:

Construction -	\$7,200,000
Utilities -	\$ 161,077
Total -	\$7,361,077

Purpose and Need:

The purpose of the proposed project is to replace a deficient bridge. NCDOT Bridge Management Unit records indicate Bridge No. 10 currently has a sufficiency rating of 66.77 out of a possible 100 for a new structure. However, this acceptable sufficiency rating is due to the fact that temporary repairs have been made to this bridge subsequent to when the bridge was originally programmed in the STIP in 2008. In the Bridge Survey Report dated July 28, 2008, the bridge was considered structurally deficient based on Federal Highway Administration (FHWA) standards, with a sufficiency rating of 44 out of a possible 100 for a new structure. Temporary repairs made to this bridge will not suffice in maintaining an acceptable sufficiency rating.

Anticipated Permit or Consultation Requirements:

A Nationwide Permit (NWP) 3 (maintenance) and NC Water Quality Certification No. 3883 will likely be required for impacts to “Waters of the United States” resulting from this project. Other permits that may apply include a NWP No. 6 (survey activities) and NWP No. 33 and NC Certification 3893 (temporary construction activities). Pre-construction notification will be provided to the US Army Corps of Engineers and NC Division of Water Resources. The US Army Corps of Engineers (USACE) holds the final discretion as to what permit will be required to authorize project construction.

Special Project Information:

Environmental Commitments:

The list of project commitments (green sheets) are located at the end of the checklist.

Pedestrian and Bicycle Accommodations:

Bridge No. 10 is not located on a currently designated bicycle or pedestrian route; however, multiple adopted planning documents recommend improving this roadway to accommodate safe travel of bicyclists and pedestrians. The City of Sanford Comprehensive Bicycle Plan (June 2013) recommends this segment of US 15-501/NC 87 include wide paved shoulders to accommodate bicyclists, and further recommends that on-road bicycle accommodations be included on both sides of Bridge No. 10 when the bridge is replaced.

Crossing under the bridge, the Deep River Greenway is recommended by multiple regional and local agencies as a shared-use path on both sides of the river. The Lee County Open Space and Recreation Initiative Map, produced in January 2014, shows a proposed local loop greenway along the Deep River on the Lee County side, merging with the Deep River Greenway. The proposed minimum twenty-foot offset between the top of bank and the bridge end slope or pier on both sides of the river will accommodate passage of the future Deep River Greenway below the bridge.

In a letter dated March 3, 2015, the Triangle Area Rural Planning Organization (TARPO) requested the proposed bridge be designed to accommodate a bicycle/pedestrian “sidepath” on the bridge. This side path would accommodate a future greenway connection across the river shown on the draft TARPO Bicycle and Pedestrian Plan. In accordance with NCDOT policy, provision of this pedestrian accommodation would require local participation in the additional cost of the wider bridge. At a meeting held on March 15, 2016, representatives of TARPO agreed to the provision of a wider offset to the rail on the west side of the proposed bridge since the greenway is not currently funded.

For the safety of those crossing the bridge, 54-inch bicycle-safe railings are proposed for the west side (future outside travel lane) on the new bridge. A pedestrian-safe railing of 42 inches in height is proposed on the east side (future inside travel lane) to provide safe accommodation to pedestrians crossing the bridge.

The NC Department of Natural and Cultural Resources – Division of Parks & Recreation requested a small parking area and canoe launch be included as part of the bridge replacement project. NCDOT PDEA and Roadway Design will continue to coordinate with Parks & Recreation and the NC Wildlife Resources Commission (NCWRC) on a future canoe access. The requested parking area and canoe launch would be funded by either NCWRC or the Division of Parks and Recreation.

Bridge Demolition:

Bridge No. 10 is constructed of reinforced concrete, and it should be possible to remove with no resulting debris in the water based on standard demolition practices.

Alternatives Considered:

No Build – The no build alternative would result in eventually closing the road, which is unacceptable given the volume of traffic served by US 15-501/NC 87.

Rehabilitation – The bridge was constructed in 1949 and is reaching the end of its useful life. Rehabilitation would only provide a temporary solution to the structural deficiency of the bridge.

Offsite Detour – An offsite detour was not evaluated for this project. Bridge No. 10 carries US 15-501/NC 87 over the Deep River. Detouring this US route with high volumes of traffic for an extended period of time would have substantial impact to users of this facility. Also, there is sufficient existing right of way to shift the alignment and construct a new parallel bridge without having to purchase additional right of way or impact adjacent properties. In addition, by constructing the bridge on new alignment, this allows for the future widening of US 15-501/NC 87 to use the new bridge as the temporary onsite detour while a future second bridge is constructed in the current location of the existing bridge.

New Alignment with Onsite Detour (Recommended) – Due to the reasons discussed in the “Offsite Detour” section above, an onsite detour alternative was developed and selected as the preferred alternative. The new bridge will be located just west of the existing bridge. Traffic will be maintained along the existing bridge during construction, and the existing bridge will be removed upon completion of the new bridge.

Staged Construction – Staged construction was not considered because of the availability of an acceptable onsite detour.

Public Involvement:

A landowner notification letter was sent to all property owners affected directly by this project. Property owners were invited to comment. No comments have been received to date.

PART A: MINIMUM CRITERIA

- | | YES | NO |
|--|-------------------------------------|-------------------------------------|
| 1. Will the proposed project involve land disturbing activity of more than ten acres that will result in substantial, permanent changes in the natural cover or topography of those lands? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 2. Will the proposed project require the expenditure of more than ten million dollars in public funds? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 3. Is the proposed project listed as a type and class of activity which would qualify as a Non-Major Action under the Minimum Criteria rules? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| If “yes”, under which category?
(Note: If either Category #8 or #15 is used, complete Part D of this checklist.) | Category #9 | |

If “yes” is selected for either Question 1 or 2 and “no” is selected for Question 3, then the project does not qualify as a Non-Major Action. A state environmental impact statement (SEIS) or state environmental assessment (SEA) will be required.

PART B: MINIMUM CRITERIA EXCEPTIONS

- | | YES | NO |
|--|--------------------------|-------------------------------------|
| 4. Does the proposed activity have a significant adverse effect on wetlands; surface waters such as rivers, streams, and estuaries; parklands; prime or unique agricultural lands; or areas of recognized scenic, recreational, archaeological, or historical value? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 5. Will the proposed activity endanger the existence of a species on the Department of Interior’s threatened and endangered species list? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 6. Would the proposed activity cause significant changes in land use concentrations that would be expected to create adverse air quality impacts? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 7. Would the proposed activity cause significant changes in land use concentrations that would be expected to create adverse water quality or groundwater impacts? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 8. Is the proposed activity expected to have a significant adverse effect on long-term recreational benefits? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 9. Is the proposed activity expected to have a significant adverse effect on shellfish, finfish, wildlife, or their natural habitats? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 10. Will the proposed activity have secondary impacts or cumulative impacts that may result in a significant adverse impact to human health or the environment? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 11. Is the proposed activity of such an unusual nature or does the proposed activity have such widespread implications, that an uncommon concern for its environmental effects has been expressed to the NCDOT? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Note: If any of Questions 4 through 11 in part B are answered “YES”, the proposed project does not qualify as a Non-Major Action. A SEIS or SEA will be required.

PART C: COMPLIANCE WITH STATE AND FEDERAL REGULATIONS

	YES	NO
<u>Ecological Impacts</u>		
12. Is a federally protected threatened or endangered species, or its habitat, likely to be impacted by the proposed action? (see attached Project Commitments “Greensheets” at the end of this document)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
13. Does the action require the placement of fill in waters of the United States?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
14. Does the project require the placement of a significant amount of fill in high quality or relatively rare wetland ecosystems, such as mountain bogs or pine savannahs?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
15. Does the project require stream relocation or channel changes?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
16. Is the proposed action located in an Area of Environmental Concern, as defined in the Coastal Area Management Act?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<u>Cultural Resources</u>		
17. Will the project have an “effect” on a property or site listed on the National Register of Historic Places?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
18. Will the proposed action require acquisition of additional right of way from publicly owned parkland or recreational areas?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Questions in PART C are designed to assist the Engineer in determining whether a permit or consultation with a state or federal resource agency may be required. If any question in PART C is answered “YES”, refer to the Environmental Guidance section of this document and contact the appropriate individual for assistance.

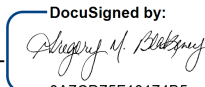
Question 12: The United States Fish and Wildlife Service (USFWS) has developed a programmatic biological opinion (PBO) in conjunction with the Federal Highway Administration (FHWA), US Army Corps of Engineers (USACE), and NCDOT for the federally-protected northern long-eared bat (NLEB) in eastern North 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 Lee and Chatham Counties.

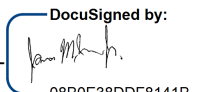
A survey of the Deep River in the vicinity of the study area was conducted on May 21, 2015, and federally-protected Cape Fear Shiner were found. Based on these survey results, project related impacts may occur. As such, a biological conclusion regarding likely project related impacts cannot be determined at this time. NCDOT will continue to coordinate with the USFWS, as part of the required Section 7 consultation process, during the final design and permitting stage of the project.

PART D: (To be completed when either category #8 or #15 of the rules is used.)

- 19. Project length:
 - 20. Right of Way width:
 - 21. Total Acres of Disturbed Ground Surface:
 - 22. Total Acres of Wetland Impacts:
 - 23. Total Linear Feet of Stream Impacts:
 - 24. Project Purpose:
-

Reviewed by:

8/3/2016 | 2:34 PM EDT 
Date 0A7CD75E10174B5...
Project Planning Engineer
Project Development & Environmental Analysis Unit

8/3/2016 | 3:43 PM EDT 
Date 08B0E38DDF8141B...
Project Engineer
Project Development & Environmental Analysis Unit

8/3/2016 | 9:38 AM EDT 
Date DD3A49A9CC86481
Consultant Project Manager

PROJECT COMMITMENTS:

**Lee and Chatham Counties
Bridge No. 10 on US 15-501/NC 87
over Deep River
W.B.S. No. 40162.1.1
T.I.P. No. B-4968**

NCDOT Division 8

- Prior to construction activities beginning, Division 8 staff will coordinate with the Lee County EMS and Chatham County EMS regarding the old US 15-501/NC 87 roadbed location currently used as a staging location for standby emergency services.
- This project involves construction activities on or adjacent to a FEMA-regulated stream(s). Therefore, the Division will submit sealed as-built construction plans to the Hydraulics Unit upon completion of project construction, certifying that the drainage structure(s) and roadway embankment that are located within the 100-year floodplain were built as shown in the construction plans, both horizontally and vertically.
- NCDOT Division 8 staff will continue to coordinate with the Triangle Area Rural Planning Organization (TARPO) during the final design phase to determine the specifications and feasibility for providing connections to any recently constructed “sidepaths” or greenways.

NCDOT Hydraulic Design Unit

- The Hydraulics Unit will coordinate with the NC Floodplain Mapping Program (FMP) to determine the status of the project with regard to applicability of NCDOT’S Memorandum of Agreement, or approval of a Conditional Letter of Map Revision (CLOMR) and subsequent final Letter of Map Revision (LOMR).

NCDOT Project Development & Environmental Analysis Unit – Natural Environment Section (PDEA-NES)

NCDOT PDEA-NES will continue to coordinate with the USFWS regarding potential project effects on the federally-protected Cape Fear Shiner, as part of the required Section 7 Consultation process, during the final design and permitting stage of the project.

NCDOT Project Development & Environmental Analysis Unit (PDEA)/Roadway Design Unit

- NC Department of Natural and Cultural Resources – Division of Parks & Recreation requested a small parking area and canoe launch be included as part of the bridge replacement project. NCDOT PDEA and Roadway Design will continue to coordinate with Parks & Recreation and the NC Wildlife Resources Commission (NCWRC) on a future canoe access. The requested parking area and canoe launch would be funded by either NCWRC or the Division of Parks and Recreation.

NCDOT Roadway Design Unit

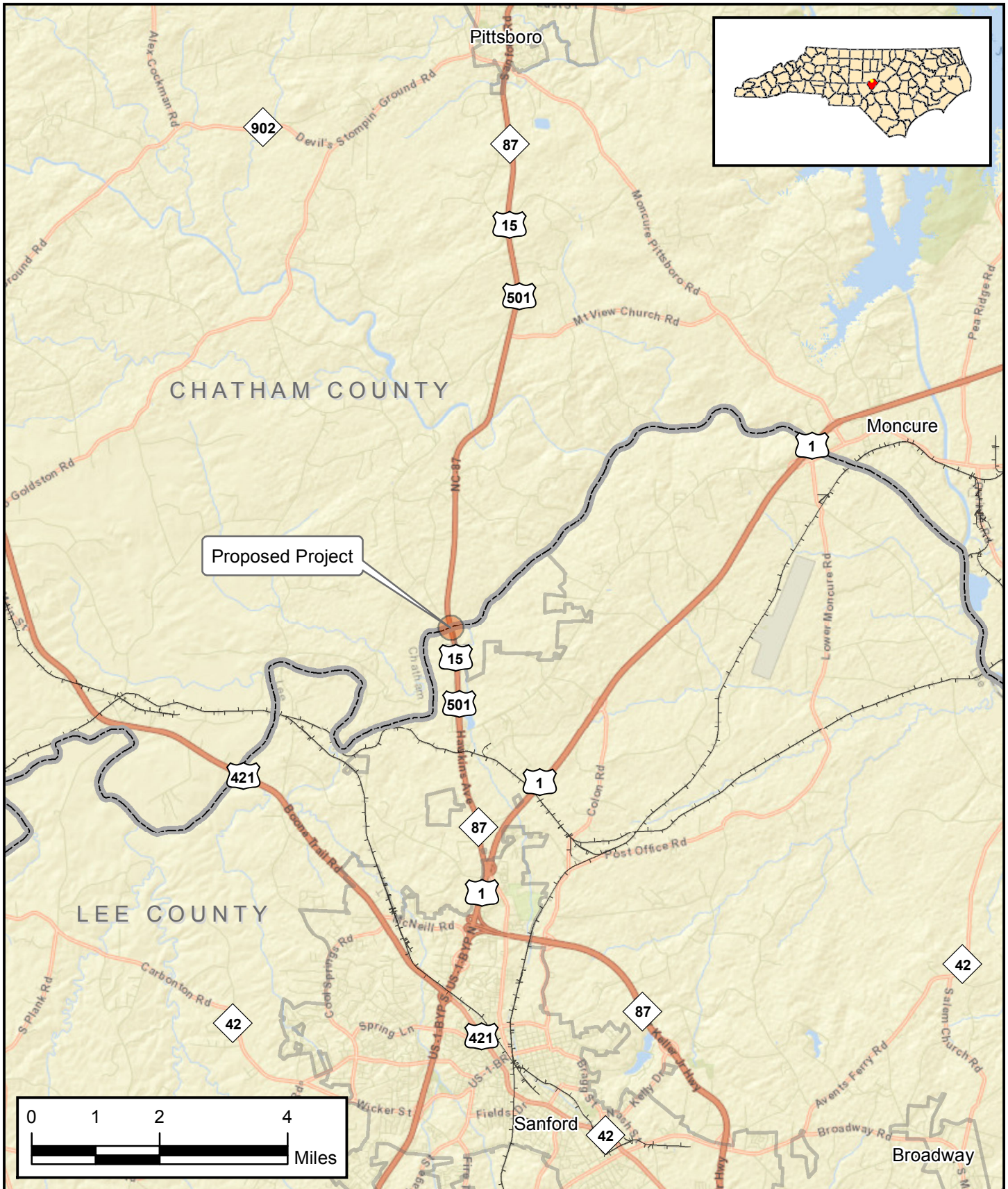
- The need for adjustments to the tie-in to existing US 15-501 north of the Deep River will be evaluated during final design. Adjusting the tie-in may reduce stream impacts if US 15-501 is widened to four lanes in the future.

NCDOT Roadside Environmental Unit

- Because of the presence of the Cape Fear shiner in the vicinity of the bridge replacement project, NCDOT will follow the Design Standards for Sensitive Watersheds during the design and construction of this project.

NCDOT Structure Design Unit

- To allow for future greenways to be constructed on both sides of the Deep River, at least 20 feet of horizontal clearance will be provided between the top of the river bank and the bridge end slope on the north end of the bridge. On the south end of the bridge, there is ample space between the interior pier and the end bent to provide for the required 20 feet of horizontal clearance. The 20 feet of horizontal clearance on both sides of the river can be provided without lengthening the bridge beyond hydraulic requirements, so no cost participation is required by local governments.



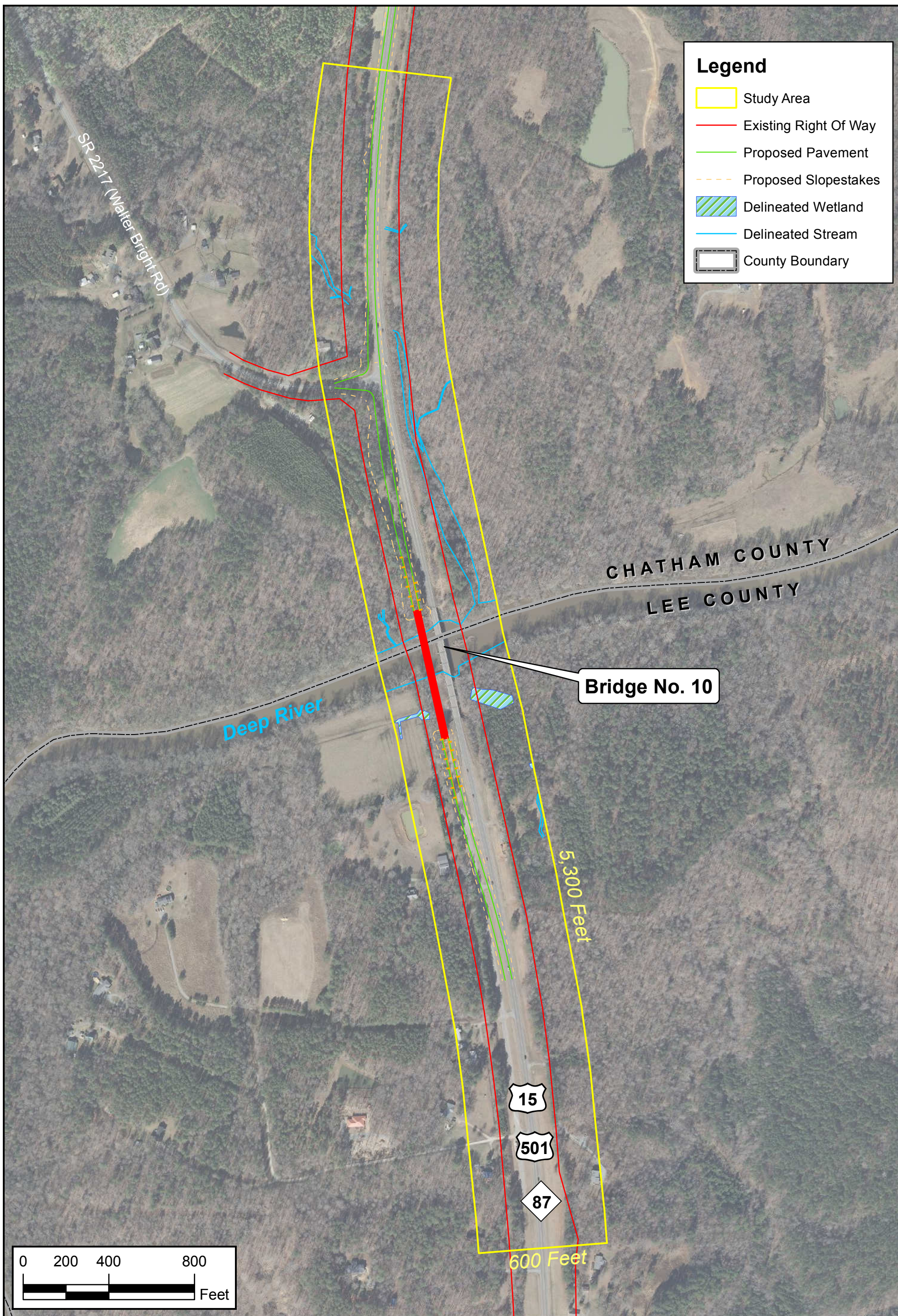
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 PROJECT DEVELOPMENT AND ENVIRONMENTAL ANALYSIS UNIT

VICINITY MAP
BRIDGE NO. 10
ON US 15-501 / NC 87
OVER DEEP RIVER
 LEE AND CHATHAM COUNTIES
 TIP PROJECT B-4968



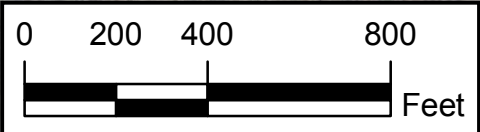
County: LEE / CHATHAM	
Div: 8	TIP# B-4968
WBS: 40162.1.1	
Date: MAY 2016	

Figure
1



Legend

- Study Area
- Existing Right Of Way
- Proposed Pavement
- Proposed Slopestakes
- Delineated Wetland
- Delineated Stream
- County Boundary



NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 PROJECT DEVELOPMENT AND ENVIRONMENTAL ANALYSIS UNIT

**PROJECT MAP
 BRIDGE NO. 10
 ON US 15-501 / NC 87
 OVER DEEP RIVER**
 LEE AND CHATHAM COUNTIES
 TIP PROJECT B-4968



County: LEE / CHATHAM	
Div: 8	TIP# B-4968
WBS: 40162.1.1	
Date: JUNE 2016	

**Figure
 2**