

North Carolina Department of Transportation

NEPA/SEPA Consultation Form

STIP Project No.	BR-0014
WBS Element	67014.1.1
Federal Aid Project No.	N/A

A. Project Description, Location, and Purpose:

The purpose of this project is to replace Cumberland County Bridge No. 250025 on NC 242 over Beaver Dam Creek. Bridge No. 250025 is 76 feet long. The replacement structure will be a bridge approximately 110 feet long providing a minimum 33 feet clear deck width. The bridge will include two 12-foot lanes and 4-foot 6 inch offsets. The bridge length is based on preliminary design information and is set by hydraulic requirements. The roadway grade of the new structure will be raised approximately 2-foot to match the existing low chord elevation.

The approach roadway will extend approximately 640 feet from the south end of the new bridge and 690 feet from the north end of the new bridge. The approaches will be widened to include a 24-foot pavement width providing two 12-foot lanes. Eight-foot shoulders will be provided on each side (11-foot shoulders where guardrail is included) with 2' paved shoulders. The roadway will be designed as a Major Collector Route with a 60 mile per hour design speed.

Traffic will be detoured off-site during construction.

B. Consultation Phase: (Check one)

- Right-of-Way
- Construction
- Other: Identify the trigger – (e.g., design change, change in impacts)

C. NEPA/SEPA Class of Action Initially Approved as: (Check one)

- SEPA MCDC 3/27/19

Additional Notes: **N/A**

D. Changes in Proposed Action & Environmental Consequences:**Design Changes**

No major design changes have occurred since the signing of the MCDC and no additional impacts to any resources have occurred due to these design changes.

impacts to any resources have occurred due to these design changes.

Water Resources

The water resource classifications for the streams identified in the MCDC remain accurate.

Protected Species

The list of protected species has not changed since the completion of the MCDC. All listed species received biological conclusions of “No Effect”. Habitat for Michaux’s sumac and pondberry was present in the study area. Surveys for the species in areas of habitat resulted in no specimens observed.

Northern long-eared bat (*Myotis septentrionalis*)

The US Fish and Wildlife Service has revised the previous programmatic biological opinion (PBO) in conjunction with the Federal Highway Administration (FHWA), the US Army Corps of Engineers (USACE), and NCDOT for the northern long-eared bat (NLEB) (*Myotis septentrionalis*) in eastern North Carolina. The PBO covers the entire NCDOT program in Divisions 1-8, including all NCDOT projects and activities. Although this programmatic covers Divisions 1-8, NLEBs are currently only known in 19 counties, but may potentially occur in 11 additional counties within Divisions 1-8. NCDOT, FHWA, and USACE have agreed to two conservation measures which will avoid/minimize mortality of NLEBs. These conservation measures only apply to the 30 currently known/potential counties shown on Figure 2 of the PBO at this time. 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 ten years for all NCDOT projects with a federal nexus in Divisions 1-8, which includes Cumberland County where BR-0014 is located. This level of incidental take is authorized from the effective date of a final listing determination through December 31, 2030.

Measures to Avoid/Minimize Mortality

At individual project sites where a total of 1.0 acre or more of tree clearing will occur, no tree clearing will occur during the portion of the day that the air temperature is <40 degrees Fahrenheit in order to protect NLEBs that may be in torpor. This restriction is only subject to the known/potential range (30 coastal counties) that is shown in Figure 2 of the 2020 PBO, which includes Cumberland County. Proposals and Specifications Management will add a special provision to the contract if clearing will exceed 1.0 acre.

Archaeology & Historic Architecture

NCDOT has reviewed the Section 106 effects findings for historic properties within the project’s area of potential effects (APE), that were made as part of the NEPA analysis. NCDOT has confirmed there is no new information that would alter the original Section 106 findings and, therefore, they remain valid.

Project Commitments (Greensheet)

The MCDC included a Greensheet with project commitments. Permits have been received for this project, and a revised Greensheet is attached.

E. Conclusion:

The above NEPA/SEPA documentation has been reevaluated (as required by either 23 CFR 771 or by NC General Statute Chapter 113A Article 1). It has been determined that

the current proposed action is essentially the same as the original proposed action. Proposed changes, if any, are noted in Section D. It has been determined that anticipated social, economic, and environmental impacts were accurately described in the above referenced document(s) unless noted otherwise herein. Therefore, the original Administration Action remains valid.

F. Coordination

NCDOT personnel have discussed the current project parameters with qualified NCDOT representatives and FHWA (where applicable). The NCDOT Project Manager, Jacquelyn Bowles, PE, hereby verifies the involvement of the following staff and the incorporation of their technical input:

Design Engineer:	Greg Purvis	2/8/21
Environmental Specialist:	Jason Dilday	2/11/21
FHWA (if applicable):	N/A	
Other:	N/A	

G. Consultation Approval for NCDOT Project BR-0014

Prepared By:

2/17/2021

Date

DocuSigned by:
Greg S. Purvis
D1F0720250E3408...

Greg S. Purvis, PE Project Manager
Wetherill Engineering, Inc.

Prepared For:

DocuSigned by:
Jacquelyn Bowles
DD26E87EDFB642E...

Jacquelyn Bowles, PE
NCDOT, Structures Management Unit

Reviewed By:

2/17/2021

Date

DocuSigned by:
John Jamison
CA084E4A6412432...

John Jamison, PWS, Eastern Regional Team Lead
NCDOT – Environmental Policy Unit

- Approved** In adherence with 23 CFR 771 (NEPA) or NC General Statute Chapter 113A Article 1 (SEPA), NCDOT approves this Consultation.
- or
- Certified** NCDOT staff certifies if FHWA signature was previously required or where changes have resulted in FHWA signature being required.

2/17/2021

Date

DocuSigned by:
David Stults
77F81920A1B304E2...

David Stults, PE – Project Engineer – PEF/Program Management
NCDOT – Structures Management Unit

FHWA Approved: FHWA signature required for Type I(B) CE, Type II(B) CE, Type III CE, FONSI or ROD.

Date

John F. Sullivan, III, PE, Division Administrator
Federal Highway Administration

PROJECT COMMITMENTS

T.I.P. Project No BR-0014
Replacement of Bridge No. 25 over Beaver Dam Creek
On NC 242
Cumberland County
W.B.S. No. 67014.1.1

COMMITMENTS FROM PROJECT DEVELOPMENT AND DESIGN

Division Six Construction, Resident Engineer's Office – Offsite Detour

In order to have time to adequately reroute school busses, Cumberland County Schools will be contacted at (910) 678-2505 at least one month prior to road closure.

Cumberland County Emergency Services will be contacted at (910) 321-6736 at least one month prior to road closure to make the necessary temporary reassignments to primary response units.

Hydraulics Unit – FEMA Coordination

The Hydraulics Unit will coordinate with FEMA to determine status of 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).

Division Six Construction, Resident Engineer's Office - FEMA

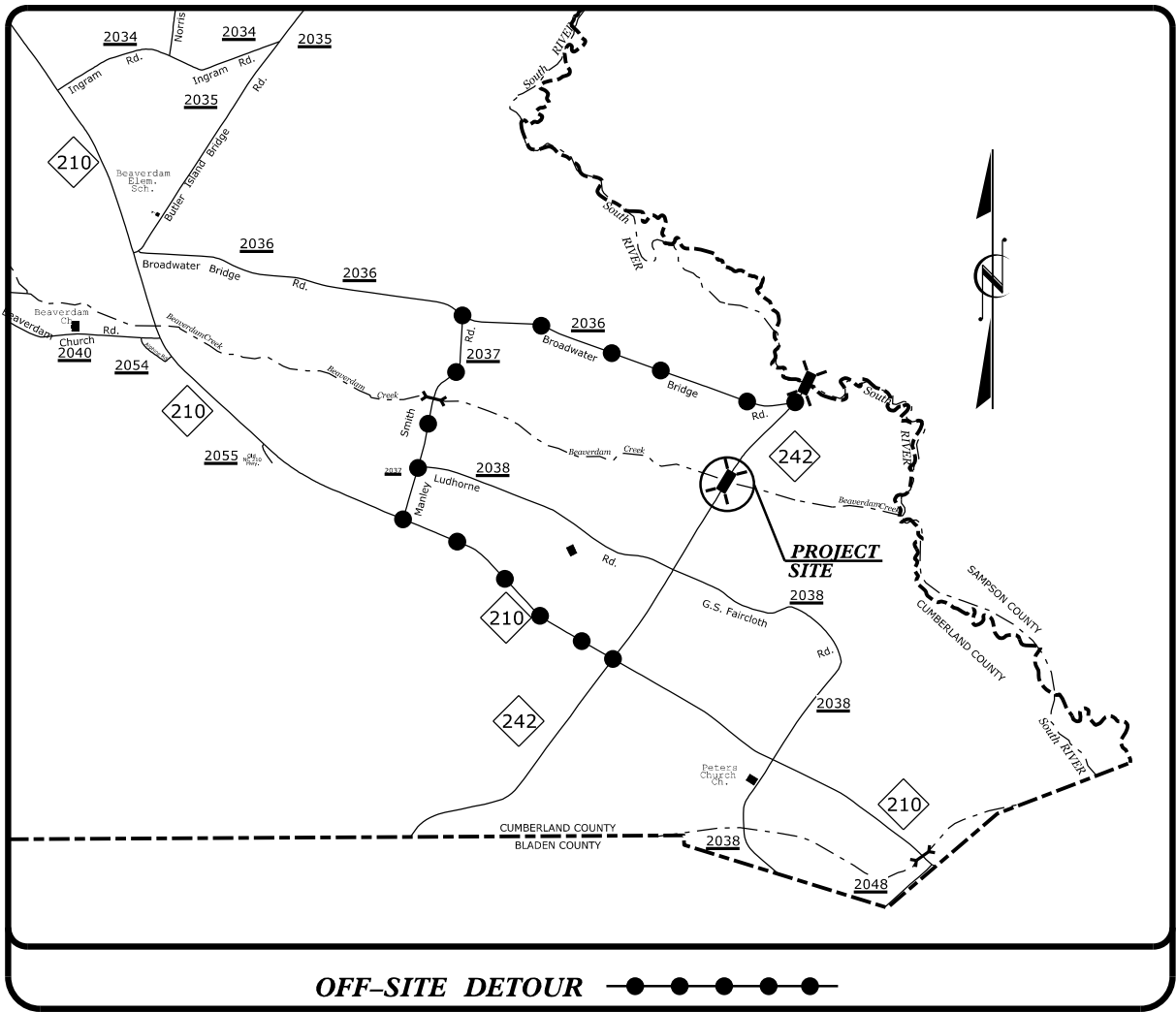
This project involves construction activities on or adjacent to a FEMA-regulated stream. Therefore, if determined to be required, the Division shall submit sealed as-built construction plans to the Hydraulics Unit upon completion of project construction certifying that the bridge structure and roadway embankment that are located within the 100-year floodplain were built as shown in the construction plans, both horizontally and vertically.

Roadside Environmental Unit; Division Six Construction, Resident Engineer's Office – ORW Issues

Since Beaver Dam Creek flows into the South River less than 1.0 mile downstream of the project, and this portion of the South River is classified as C;Sw, ORW+, the sedimentation and erosion control plans shall adhere to the Design Standards in Sensitive Watersheds.

COMMITMENTS FROM PERMITTING

No special commitments developed during permitting.



BR-0014
REPLACE BRIDGE NO. 250025
OVER BEAVER DAM CREEK
ON NC 242

CUMBERLAND COUNTY

WBS NO. 67014.1.1

NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION 6

VICINITY MAP - FIGURE 1

17-12-0067



HISTORIC ARCHITECTURE AND LANDSCAPES NO SURVEY REQUIRED FORM

This form only pertains to Historic Architecture and Landscapes for this project. It is not valid for Archaeological Resources. You must consult separately with the Archaeology Group.

PROJECT INFORMATION

Project No:	BR-0014	County:	Cumberland
WBS No.:	67014.1.1	Document Type:	MCC
Fed. Aid No:		Funding:	<input checked="" type="checkbox"/> State <input type="checkbox"/> Federal
Federal Permit(s):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Permit Type(s):	USACE
Project Description: Replace Bridge No 25 on US 242 over Beaver Dam Creek			

SUMMARY OF HISTORIC ARCHITECTURE AND LANDSCAPES REVIEW

<u>Description of review activities, results, and conclusions:</u> Review of HPO quad maps, relevant background reports, historic designations roster, and indexes was undertaken on January 18, 2018. Based on this review there are no NR, DE, LL, SL, or SS in the Area of Potential Effects (APE). There is one property which is older than 50 years in the APE, a c.1942 house. However it does not have the level of architectural significance or integrity which would rise to National Register eligibility. No survey required.
<u>Why the available information provides a reliable basis for reasonably predicting that there are no unidentified significant historic architectural or landscape resources in the project area:</u> Using HPO GIS website and county tax data provides reliable information regarding the structures in the APE. These combined utilities are considered valid for the purposes of determining the likelihood of historic resources being present.

SUPPORT DOCUMENTATION

Map(s) Previous Survey Info. Photos Correspondence Design Plans

FINDING BY NCDOT ARCHITECTURAL HISTORIAN

Historic Architecture and Landscapes -- NO SURVEY REQUIRED

Shelby Reap

NCDOT Architectural Historian

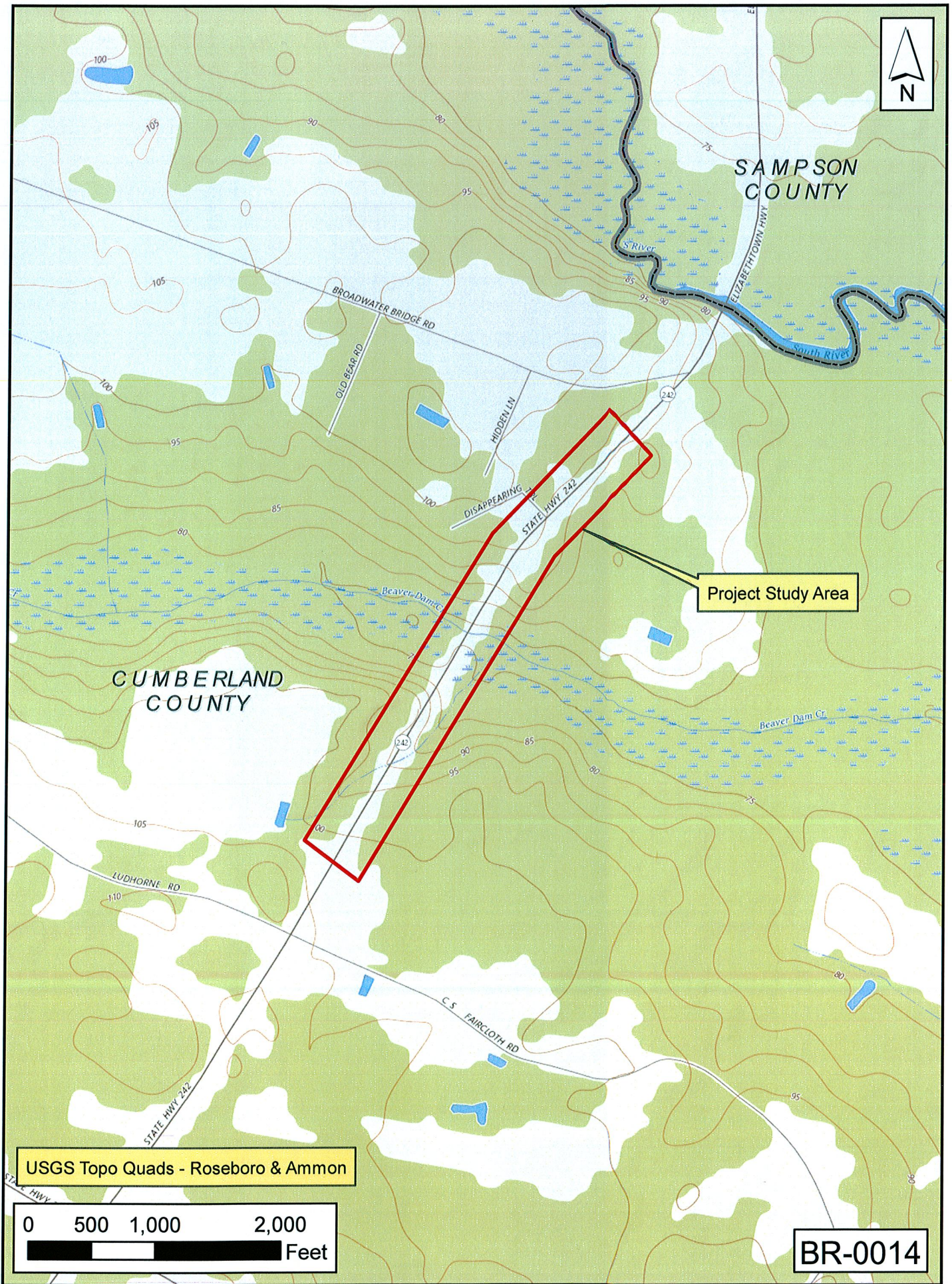
Jan 18, 2018

Date





c. 1942 house



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NO ARCHAEOLOGICAL SURVEY REQUIRED FORM

This form only pertains to ARCHAEOLOGICAL RESOURCES for this project. It is not valid for Historic Architecture and Landscapes. You must consult separately with the Historic Architecture and Landscapes Group.



PROJECT INFORMATION

Project No: **Br. No 0025** *County:* **Cumberland**
WBS No: **67014.3.1** *Document:* **M C C**
F.A. No: **N-A** *Funding:* State Federal
Federal Permit Required? Yes No *Permit Type:* **tbd**

Project Description: NCDOT proposes to replace Bridge No. 0025 over Beaver Dam Creek in southeastern Cumberland County. This is a state funded project though it will require federal permitting, therefore, Section 106 of the National Historic Preservation Act applies.

No design mapping or conceptual alternatives were available at the time of the review. Some project notes suggest that an offsite detour under five miles may be available though may require some minor improvements at intersections for larger trucks. Wetland soils and standing water are abundant near the crossing, and efforts and impact minimization to that resource is likely. Replace in place construction at a similar alignment with an offsite detour would have the smallest new project footprint.

For purposes of this screening review, an initial Area of Potential Effects has been established that is probably much larger than anticipated earthmoving activities. This allows for multiple designs. The APE includes a length of about 3750 feet (~0.71 miles) and having a width of about 500 feet. The intent is to cover all construction areas, including cut and fill lines, easements and or new ROW, in the APE. While the entire APE is covered for this review, there is an emphasis on the immediate surroundings at the bridge and approaches. For this archaeological screening, a revised APE may be more suitable as alternatives are developed.

SUMMARY OF ARCHAEOLOGICAL RESOURCES REVIEW:

NO SURVEY REQUIRED

Brief description of review activities, results of review, and conclusions:

USGS mapping and aerial photography was examined (see Figures 1 and 2). Virtual drive-by using Bing and/or Google Maps was examined. Much of the APE along that corridor has been disturbed by highway construction-related earth moving on NC 242. Some areas within the APE contain standing water, while other locations have been cleared, or are wooded. Generally, there are no plowed agricultural fields. Some clearing and earthmoving has occurred adjacent to NC 242 and there are occasional driveways. A small number of nearby residences or other structures exist in the surrounding project area.

Soil type mapping and historic maps were studied. About two thirds of the project contain poorly drained and flooded soils, including those closest to the bridge (Johnston loam [JT] and Torhunta and Lynn Haven soils [TR]). Another third is better drained (Autryville loamy sand [AuA] and Candor sand [CaB] but the limited soils appear in aerials and street view to have undergone modifications, like grading, that reduce the likelihood of intact, significant archaeological sites. The immediate surroundings of the bridge contains

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swampy soils and standing water. The low, wet soils are unlikely to contain archaeological sites, and the better drained soils are limited and modified.

The 1922 Cumberland County Soil Survey map (MC.029.1922u) shows NC 242 was not present in the same configuration as it is now. An earlier road did cross Beaver Dam Creek/Swamp, though was more winding, bridging the water towards the east. Historic sites, therefore are less likely away from the older road.

A visit to the Office of State Archaeology for background research showed a small number of archaeological reviews in the area, focusing along NC 242. This includes a bridge replacement over the South River, B-3152 (ER 97-8360), wedge or grading (ER 02-7956), fill work or highway work south of the bridge that received "no comment" from OSA (ER 99-8023). The similarity between the very nearby bridge replacement over the South River reviewed by the Office of State Archaeology around 1999 and the current project is strong. OSA recommended no archaeological survey, saying that bridge construction was unlikely to disturb intact, significant cultural resources, and by comparison, would probably make the same comments for the current bridge replacement project.

Few archaeological sites are documented nearby, though 31Cd24 falls within the larger study area that is currently used as an APE. The unassessed site, recorded by UNC-CH, is Native American, though no artifacts or further description was available. It appears to be overlapping the location of a structure on USGS mapping which is likely removed or otherwise graded and filled, now, probably destroyed.

No obvious cemeteries were observed on USGS mapping, historic maps, aerial photography or virtual drive by viewing. The GIS-based cemetery data managed by NCDOT archaeologist, Paul Mohler, likewise shows no known cemeteries at the APE.

The APE includes the area of bridge construction at a creek or swamp crossing with water along the roadway for some distance away from the bridge. A large APE offers several design options, though a simple replace in place alternative may be likely. An offsite detour is likely. No archaeological survey is recommended.

SUPPORT DOCUMENTATION

See attached: Map(s) Previous Survey Info Photos Correspondence
 Photocopy of County Survey Notes Other:

FINDING BY NCDOT ARCHAEOLOGIST – *NO SURVEY REQUIRED*



NCDOT ARCHAEOLOGIST

2/28/2018

Date

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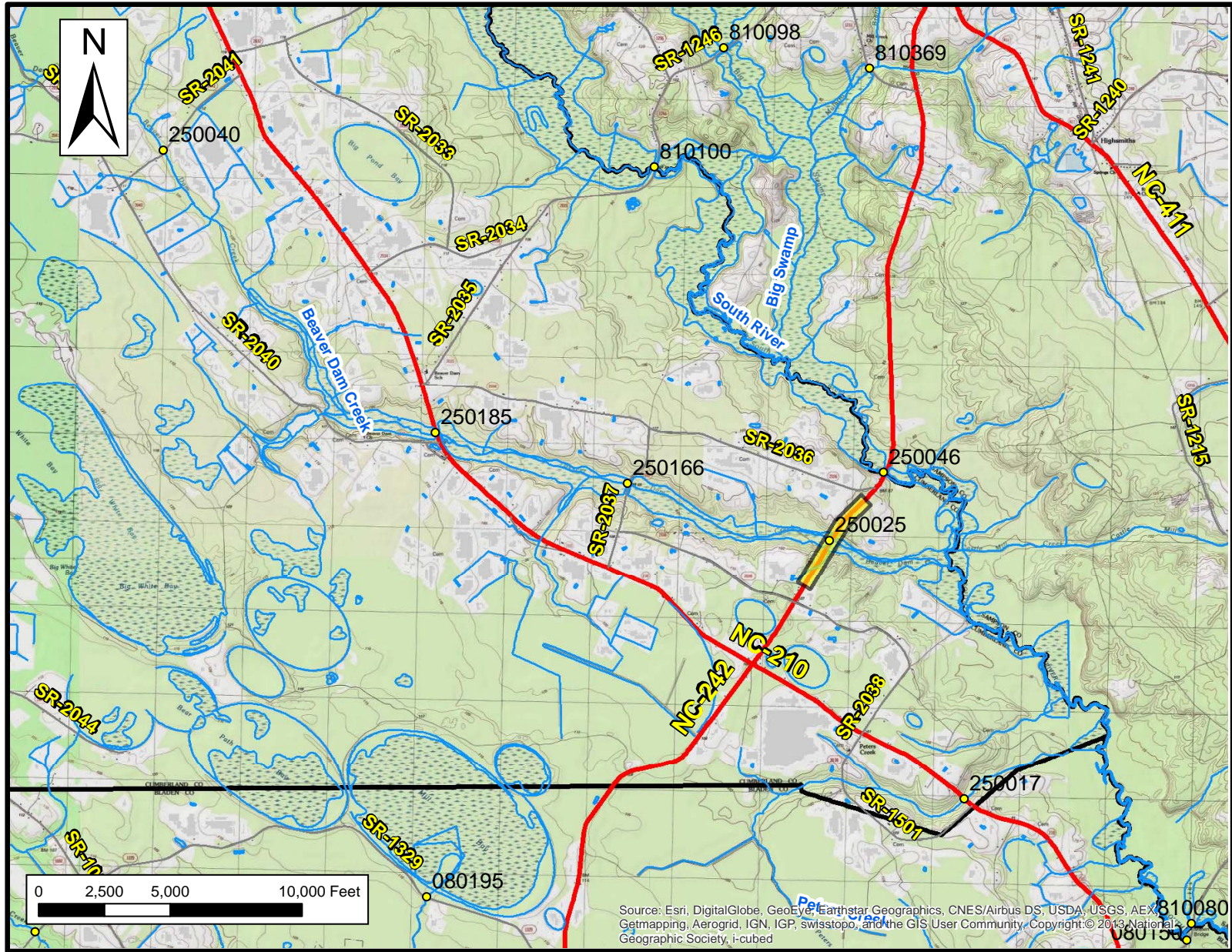


Figure 1. USGS mapping (Roseboro) showing the general project location in southeastern Cumberland County. The APE is highlighted in yellow. A built-up NC 242 crosses swampy terrain near Bridge No. 25.

"NO ARCHAEOLOGICAL SURVEY REQUIRED" form for the Amended Minor Transportation Projects as Qualified in the 2015 Programmatic Agreement.

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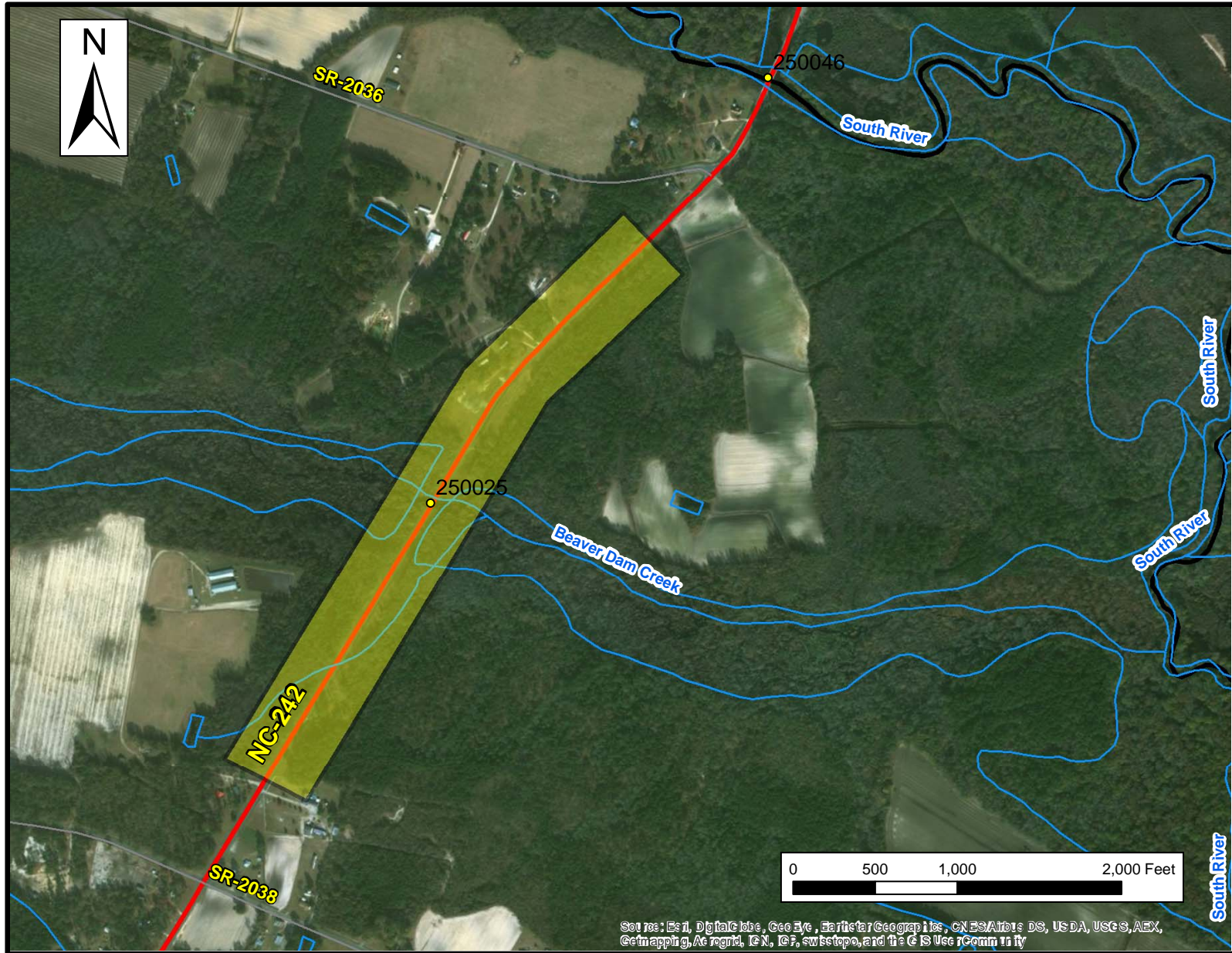


Figure 2. Aerial photograph of NC 242, Bridge No. 25, over Beaver Dam Creek and Swamp. The Area of Potential Effects and study area for the bridge replacement is approximated in yellow though actual impacts may be smaller in scale.