

## Type I and II Ground Disturbing Categorical Exclusion Action Classification Form

STIP Project No.	B-4571
WBS Element	38414.1.2
Federal Project No.	N/A

### A. Project Description:

This project replaces Lincoln County Bridge No. 7 along NC 182 over Indian Creek. Bridge No. 7 is 189 feet long. The replacement structure will be a bridge approximately 200 feet long providing a minimum 34-foot clear deck width. The bridge will include two 11-foot lanes with 6-foot offsets. The approach roadway will extend approximately 340 feet from the west end and 535 feet from the east end of the new bridge. The approaches will be constructed to include a 32-foot pavement width providing two 11-foot lanes with 5-foot wide full-depth paved shoulders. A total shoulder width of 7-feet will be provided on each side of the roadway (5-foot shoulders where guardrail is included). The roadway will be designed as a rural major collector using Subregional Tier guidelines with a 60 mile per hour design speed. Traffic will be detoured off-site during construction (see attached vicinity map).

### B. Description of Need and Purpose:

NCDOT Bridge Management Unit records indicate Bridge No. 7 has a sufficiency rating of 20.42 out of a possible 100 for a new structure.

The bridge is considered functionally obsolete due to a structural evaluation rating of 3 out of 9 according to Federal Highway Administration (FHWA) standards. Bridge No. 7 has a sixty-six year old timber substructure which has 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 members are damaged or prematurely deteriorated. However, past a certain degree of deterioration, timber structures become impractical to maintain and upon eligibility are programmed for replacement. Bridge No. 7 is approaching the end of its useful life.

Bridge No. 7 carried 1,100 vehicles per day in 2015. The bridge is projected to carry 1,400 vehicles per day in 2040. The 25.5-foot wide deck is substandard and replacement of the bridge will result in safer traffic operations

### C. Categorical Exclusion Action Classification: **Type 1A**

### D. Proposed Improvements

28. Bridge rehabilitation, reconstruction, or replacement or the construction of grade separation to replace existing at-grade railroad crossings, if the actions meet the constraints in 23 CFR 771.117(e)(1-6).

E. Special Project Information:

**Estimated Cost based on 2017 prices:**

Structure	\$722,000
Roadway Approaches	\$273,000
Structure Removal	\$72,000
Misc. & Mob.	\$242,000
Eng. & Contingencies	\$190,000
Total Construction Cost	\$1,500,000
Right-of-way Costs	\$52,000
Right-of-way Utility Costs	\$47,000
Total Project Cost	<b>\$1,599,000</b>

**Estimated Traffic:**

Current	-	1,100 vpd
Year 2040	-	2,400 vpd
TTST	-	2%
Dual	-	4%

**Accidents:** The NCDOT Transportation Mobility and Safety Division has evaluated a ten-year period from February 1, 2005 to January 31, 2015 and found that one accident occurred in the vicinity of the bridge. There were no fatalities associated with the crash.

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

**Pedestrian and Bicycle Accommodations:** This portion of NC 182 is part of the Southern Highlands State Bicycle Route (NC Bike Route 8), which runs westward from Lincoln County to Transylvania County. As such, bicycle accommodations incorporated in to the project include: 5-foot wide full-depth paved shoulders on the northern and southern bridge approaches and 5-foot offsets on the bridge.

**Bridge Demolition:** The superstructure of Bridge No. 7 consists of a concrete deck with an asphalt wearing surface. The substructure consists of timber end and interior bents with concrete caps. It should be possible to remove the structure with no resulting debris in the water based on standard demolition practices.

**Alternatives Discussion:**

**No Build –** The no-build alternative was not selected because it would have resulted in the closure of Bridge No. 7, which is unacceptable given that this section of NC 182 carries over 1,100 vehicles per day (vpd) and is projected to serve over 1,400 vpd by the design year (2040).

**Rehabilitation –** The bridge was constructed in 1951 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. 7 will be replaced on the existing alignment. Traffic will be detoured offsite (see Figure 1) during the construction period. NCDOT Guidelines for Evaluation of Offsite Detours for Bridge Replacement Projects considers multiple project variables beginning with the additional time traveled by the average road user resulting from the offsite detour. The off-site detour is approximately 3.8 miles long and utilizes NC 274, SR 1140 (Flay Road), and SR 1002 (Shoal Road). The detour will result in approximately 4.2 minutes of additional travel time.

The project is expected to take approximately 18 months to construct. Based on the Guidelines, the criteria above indicate that on the basis of delay alone, the detour is acceptable. NCDOT Division 12 has indicated the condition of all roads, bridges, and intersections on the offsite detour are acceptable without improvements and concur with the use of the detour.

In order to have time to adequately reroute school buses, Lincoln County Schools Transportation Offices will be contacted at (704) 732-2261 at least one month prior to road closure.

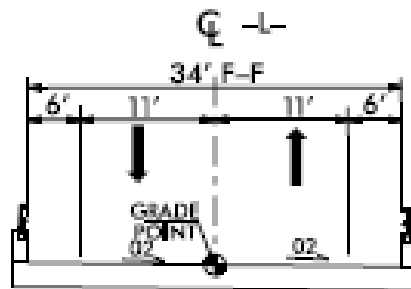
Lincoln County Emergency Management will be contacted at (704) 736-8660, at least one month prior to road closure to make the necessary temporary reassignments to primary response units.

**Onsite Detour** – An onsite detour was not considered because of the availability of an acceptable offsite detour.

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

**New Alignment** – Construction on a new alignment was not considered because of the availability of an acceptable offsite detour. In addition, a new alignment would have resulted in relocations of homes located in the northeast and/or southwest quadrants the project study area.

**Typical Section for Bridge:**



TYPICAL SECTION NO. 2

**Public Involvement:** A newsletter was distributed to property owners in the Bridge Study Area on March 21, 2017, notifying them of the ongoing project and proposed offsite detour. No comments have been received to date.

F. Project Impact Criteria Checklists:

<u>Type I &amp; II - Ground Disturbing Actions</u>			
<u>FHWA APPROVAL ACTIVITIES THRESHOLD CRITERIA</u>			
If any of questions 1-7 are marked "yes" then the CE will require FHWA approval.		Yes	No
1	Does the project require formal consultation with U.S. Fish and Wildlife Service (USFWS) or National Marine Fisheries Service (NMFS)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	Does the project result in impacts subject to the conditions of the Bald and Golden Eagle Protection Act (BGPA)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3	Does the project generate substantial controversy or public opposition, for any reason, following appropriate public involvement?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4	Does the project cause disproportionately high and adverse impacts relative to low-income and/or minority populations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5	Does the project involve a residential or commercial displacement, or a substantial amount of right of way acquisition?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6	Does the project require an Individual Section 4(f) approval?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7	Does the project include adverse effects that cannot be resolved with a Memorandum of Agreement (MOA) under Section 106 of the National Historic Preservation Act (NHPA) or have an adverse effect on a National Historic Landmark (NHL)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If any of questions 8 through 31 are marked "yes" then additional information will be required for those questions in Section G.			
<u>Other Considerations</u>		Yes	No
8	Does the project result in a finding of "may affect not likely to adversely affect" for listed species, or designated critical habitat under Section 7 of the Endangered Species Act (ESA)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9	Does the project impact anadromous fish?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10	Does the project impact waters classified as Outstanding Resource Water (ORW), High Quality Water (HQW), Water Supply Watershed Critical Areas, 303(d) listed impaired water bodies, buffer rules, or Submerged Aquatic Vegetation (SAV)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
11	Does the project impact waters of the United States in any of the designated mountain trout streams?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
12	Does the project require a U.S. Army Corps of Engineers (USACE) Individual Section 404 Permit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
13	Will the project require an easement from a Federal Energy Regulatory Commission (FERC) licensed facility?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
14	Does the project include a Section 106 of the NHPA effects determination other than a no effect, including archaeological remains?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

<u>Other Considerations (continued)</u>		Yes	No
15	Does the project involve hazardous materials and landfills?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
16	Does the project require work encroaching and adversely affecting a regulatory floodway or work affecting the base floodplain (100-year flood) elevations of a water course or lake, pursuant to Executive Order 11988 and 23 CFR 650 subpart A?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
17	Is the project in a Coastal Area Management Act (CAMA) county and substantially affects the coastal zone and/or any Area of Environmental Concern (AEC)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
18	Does the project require a U.S. Coast Guard (USCG) permit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
19	Does the project involve construction activities in, across, or adjacent to a designated Wild and Scenic River present within the project area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
20	Does the project involve Coastal Barrier Resources Act (CBRA) resources?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
21	Does the project impact federal lands (e.g. U.S. Forest Service (USFS), USFWS, etc.) or Tribal Lands?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
22	Does the project involve any changes in access control?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
23	Does the project have a permanent adverse effect on local traffic patterns or community cohesiveness?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
24	Will maintenance of traffic cause substantial disruption?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
25	Is the project inconsistent with the STIP or the Metropolitan Planning Organization's (MPO's) Transportation Improvement Program (TIP) (where applicable)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
26	Does the project require the acquisition of lands under the protection of Section 6(f) of the Land and Water Conservation Act, the Federal Aid in Fish Restoration Act, the Federal Aid in Wildlife Restoration Act, Tennessee Valley Authority (TVA), or other unique areas or special lands that were acquired in fee or easement with public-use money and have deed restrictions or covenants on the property?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
27	Does the project involve Federal Emergency Management Agency (FEMA) buyout properties under the Hazard Mitigation Grant Program (HMGP)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
28	Does the project include a <i>de minimis</i> or programmatic Section 4(f)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
29	Is the project considered a Type I under the NCDOT's Noise Policy?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
30	Is there prime or important farmland soil impacted by this project as defined by the Farmland Protection Policy Act (FPPA)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
31	Are there other issues that arose during the project development process that affected the project decision?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

G. Additional Documentation as Required from Section F

**Response to Question 8:** The USFWS lists the following protected species for Lincoln County:

Scientific Name	Common Name	Federal Status	Habitat Present	Biological Conclusion
<i>Hexastylis naniflora</i>	Dwarf-flowered heartleaf	T	Yes	No Effect
<i>Rhus michauxii</i>	Michaux's sumac	E	Yes	No Effect
<i>Myotis spetentrionalis</i>	Northern long-eared bat	T	Yes	Unresolved

Endangered species surveys were conducted in April 2015. Potential habitat for the Dwarf-flowered heartleaf is present in the study area. However, no populations of Dwarf-flowered heartleaf were found within the study area. Potential habitat for the Michaux's sumac is present in the study area. However, no populations of Michaux's sumac were found within the study area.

The northern long-eared bat is listed as a protected species for Lincoln County. Suitable habitat for the Northern long-eared bat (NLEB) exists within one mile of the project study area.

Construction authorization will not be requested until Endangered Species Act compliance is satisfied for the NLEB.

**Response to Question 16:** Lincoln County is a participant in the Federal Flood Insurance Program, administered by the Federal Emergency Management Agency (FEMA). The project is within a Flood Hazard Zone, designated as Zone AE, for which the 100-year base flood elevations and corresponding regulatory floodway have been established.

The Hydraulics Unit will coordinate with FEMA to determine if a Conditional Letter of Map Revision (CLOMR) and a subsequent final Letter of Map Revision (LOMR) are required for this project. The Division will submit sealed as-built construction plans to the Hydraulics Unit upon project completion certifying the project was built as shown on the construction plans.

H. Project Commitments

See attached Project Commitments Greensheet

**Lincoln County**  
**Replacement of Bridge No. 7 over Indian Creek along NC 182**  
**Federal Project No.**  
**WBS No. 38414.1.2**  
**TIP No. B-4571**

**Hydraulics Unit – FEMA Coordination**

NCDOT will coordinate with the NC Floodplain Mapping Program (FMP), 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 Letter of Map Revision (LOMR).

**Division 12 Construction-FEMA Coordination**

This project involves construction activities on or adjacent to FEMA-regulated stream(s). Therefore, the Division shall 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.

**Division 12 Construction, Resident Engineer's Office – Offsite Detour**

In order to have time to adequately reroute school buses, Lincoln County Schools Transportation Offices will be contacted at (704) 732-2261 at least one month prior to road closure.

Lincoln County Emergency Management will be contacted at (704) 736-8660, at least one month prior to road closure to make the necessary temporary reassignments to primary response units.

**Natural Environment Section – Northern long-eared bat**

Construction authorization will not be requested until Endangered Species Act compliance is satisfied for the Northern long-eared bat.



I. Categorical Exclusion Approval

STIP Project No.  
WBS Element  
Federal Project No.

**B-4571**  
**38414.1.2**



**Prepared By:**

5/31/2017  
Date

  
Ryan L. White, P.E., Senior Transportation  
Stantec Consulting

**Prepared For:**

North Carolina Department of Transportation

**Reviewed By:**

5-31-2017  
Date

  
John G. Conforti, REM  
Project Planning Engineer  
Project Development & Environmental Analysis, NCDOT



**Approved**

If all of the threshold questions (1 through 7) of Section F are answered "no," NCDOT approves this Categorical Exclusion.



**Certified**

If any of the threshold questions (1 through 7) of Section F are answered "yes," NCDOT certifies this Categorical Exclusion.

6.2.17  
Date

  
Brian Yamamoto, PE  
Project Engineer  
Project Development & Environmental Analysis, NCDOT

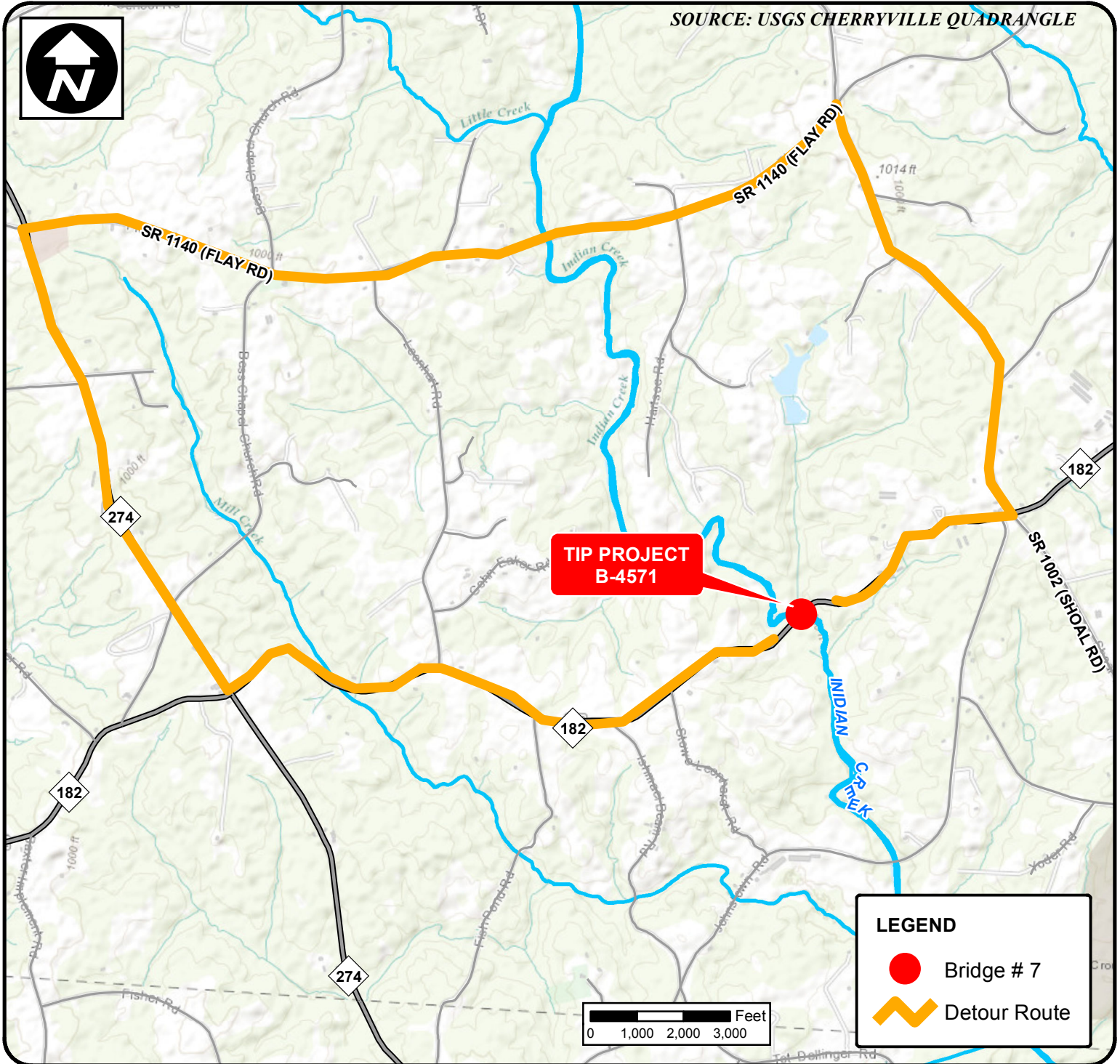
FHWA Approved: For Projects Certified by NCDOT (above), FHWA signature required.

Date



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

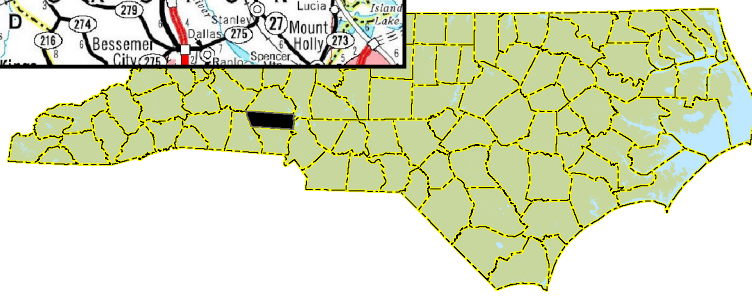
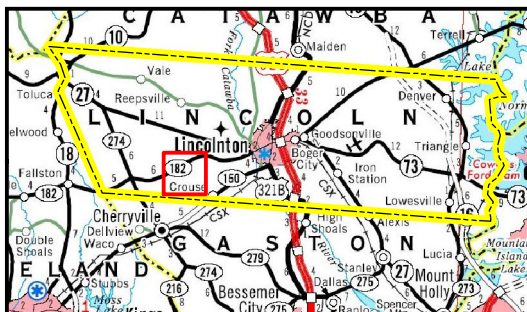
# FIGURES


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**LEGEND**

-  Bridge # 7
-  Detour Route



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

**REPLACEMENT OF BRIDGE # 7 ALONG NC 182 OVER INDIAN CREEK**  
LINCOLN COUNTY  
TIP PROJECT B-4571

**FIGURE 1: VICINITY MAP**

# APPENDIX A

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15-01-0009



## 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

<b>Project No:</b>	B-4571	<b>County:</b>	Lincoln
<b>WBS No.:</b>	38414.1.2	<b>Document Type:</b>	PCE or CE
<b>Fed. Aid No:</b>	N/A	<b>Funding:</b>	<input checked="" type="checkbox"/> State <input type="checkbox"/> Federal
<b>Federal Permit(s):</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>Permit Type(s):</b>	NW
<b><u>Project Description:</u></b> Replace Bridge No. 7 on NC 182 over Indian Creek.			

### SUMMARY OF HISTORIC ARCHITECTURE AND LANDSCAPES REVIEW

**Description of review activities, results, and conclusions:**

Review of HPO quad maps, HPO GIS information, historic designations roster, and indexes was undertaken on January 9, 2015. Based on this review, there are no existing NR, SL, LD, DE, or SS properties in the Area of Potential Effects, which is 700' from each end of the bridge and 100' from the centerline each way. There are no structures over fifty years of age within the APE based on aerial imagery and Lincoln County GIS/Tax Information. Modular houses northwest of the bridge were built in 2013. Bridge No. 7 is not eligible for National Register listing based on the NCDOT Historic Bridge Inventory. There are no National Register listed or eligible properties and no survey is required. If design plans change, additional review will be required.

**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:**

HPO quad maps and GIS information recording NR, SL, LD, DE, and SS properties for the Lincoln County survey and Google Maps are considered valid for the purposes of determining the likelihood of historic resources being present. There are no National Register listed or eligible properties within the APE and no survey is required.

### SUPPORT DOCUMENTATION

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

### FINDING BY NCDOT ARCHITECTURAL HISTORIAN

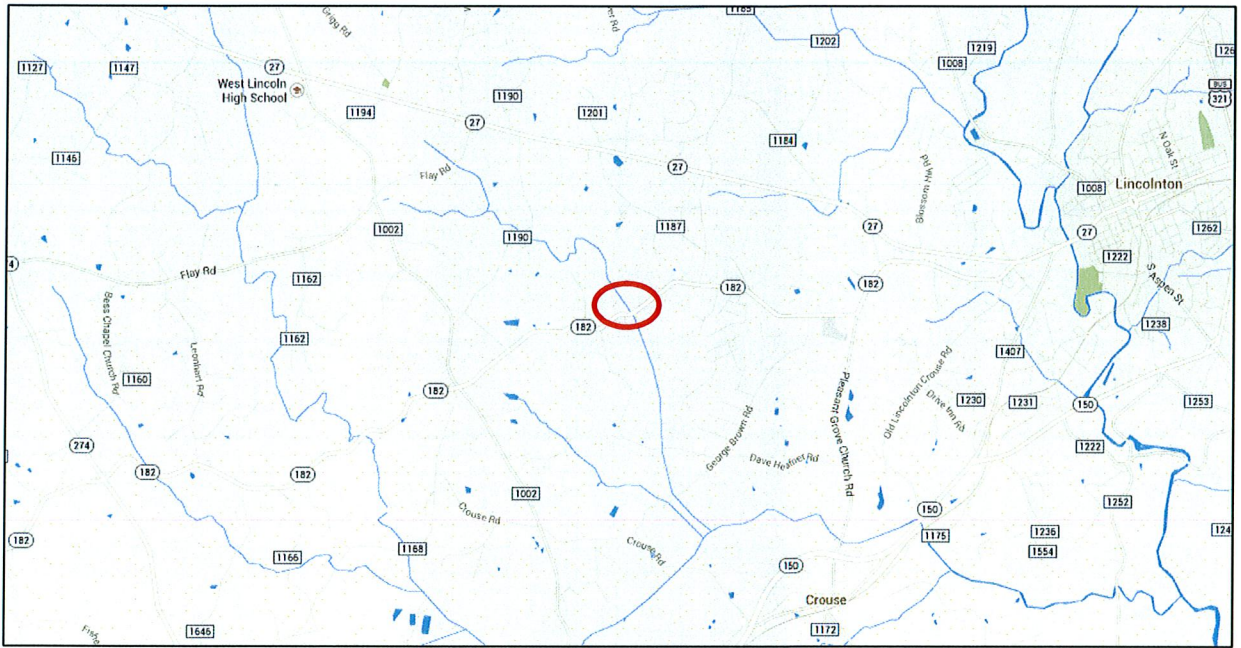
Historic Architecture and Landscapes -- NO SURVEY REQUIRED

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NCDOT Architectural Historian

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Date



**Project Location.**



**HPO GIS.**