

**CATEGORICAL EXCLUSION ACTION CLASSIFICATION FORM**

TIP Project No.                   **B-5331**  
W.B.S. No.                       **46045.1.1**  
Federal Project No.               **BRZ-1849(1)**

A.    Project Description:

The purpose of this project is to replace Columbus County Bridge No. 269, which is on SR 1849 (Delco Prosper Road) and over Big Branch. The replacement structure will be a bridge that is approximately 90ft in length; this length is based on preliminary design information and is set by hydraulic requirement, and providing a minimum 30ft 10ins clear deck width. The bridge will include two 11-foot lanes and two 4-foot 5 inches offsets. The roadway grade of the new structure will be approximately the same as the existing grade.

The approach roadway will extend approximately 225 feet from the south end of the new bridge and 155 feet from the north end. The approaches will be widened to include a 22-foot pavement width providing two 11-foot lanes. Six-foot shoulders (two-feet paved, four-foot turf) will be provided on each side. Shoulders will be nine-foot shoulders where guardrail is included. The roadway will be designed as a Rural Local Route using Subregional Tier guidelines with a 60 mile per hour design speed.

Traffic will be detoured off-site during construction (see Figure1).

B.    Purpose and Need:

NCDOT Bridge Management Unit records indicate Bridge No. 269 has a sufficiency rating of 40 out of a possible 100 for a new structure.

According to Federal Highway Administration (FHWA) standards, the superstructure condition appraisal is 5 out of 9 and deck substructure appraisal is 5 out of 9. The bridge is functionally obsolete due to structural appraisal of 4 out of 9 and a deck geometry appraisal of 4 out of 9 and therefore eligible for FHWA's Highway Bridge Program

Bridge No. 269 carries 1,400 vehicles per day with 2,100 vehicles per day projected for the future. The substandard superstructure, substructure and deck geometry are unacceptable and that cannot be addressed by maintenance activities. Replacement of the bridge will result in safer traffic operations.

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, based on 2013 prices, are as follows:

Structure (bridge)	\$ 248,000
Roadway Approaches	\$ 106,000
Structure Removal	\$ 22,000
Misc. & Mob.	\$ 88,000
Eng. & Contingencies	\$ 86,000
<b>Total Construction Cost</b>	<b>\$ 550,000</b>
Right-of-way Costs	\$ 27,000
Utility Costs	\$ 75,000
<b>Total Project Cost</b>	<b>\$ 652,000</b>

**Estimated Traffic:**

Current	-	1,400 vpd
Year 2035	-	2,100 vpd
TTST	-	2%
Dual	-	3%

**Accidents:** Traffic Engineering has evaluated a recent five-year period and found four accidents occurring near the project. Those were not due to the geometry of the bridge.

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

**Pedestrian and Bicycle Accommodations:** The bridge is not on a bicycle route nor is there any indication of high numbers of bicyclist or pedestrian.

**Bridge Demolition:** Bridge No. 269 was constructed of reinforced concrete on steel I-beams and timber piles. Based on standard demolition practices, it should be possible to remove with no resulting debris in the water.

**Alternatives Discussion:**

**No Build** – The no build alternative would result in eventually closing the road, which is unacceptable given the volume of traffic served.

**Rehabilitation** – The bridge was constructed in 1951 and is reaching the end of its useful life. Rehabilitation would not solve the problem of deck geometry or structural deficiency.

**Offsite Detour** – Bridge No. 269 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 offsite detour for this project would include, SR 1828, SR 1824, SR 1823, and SR 1851. The majority of traffic on the road is through traffic. The detour for the average road user would result in 8 minutes additional travel time (6.5 miles additional travel). Up to six-month duration of construction is expected on this project.

Based on the Guidelines, the criteria above indicate that based on delay alone, the detour is acceptable. NCDOT Division 6 has indicated the condition of all roads, bridges and intersections on the offsite detour are acceptable without improvement and concur with the use of the detour.

**Onsite Detour** – An onsite detour was not evaluated due to the presence of an acceptable offsite detour.

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

**New Alignment** – Given that the alignment for SR 1849 is acceptable, a new alignment was not considered as an alternative.

**Other Agency Comments:**

**N.C. Wildlife Resource Commission and U.S. Fish & Wildlife Service**

WRC in standardized letter provided a request that they prefer any replacement structure to be a spanning structure.

**Response:** DOT will be replacing the existing structure with a bridge.

**US Environmental Protection Agency**

EPA did not identify any environmental issues of concern

**US Forest Service**

The Forest Service indicated that they have no property in the area

**N.C. Division of Water Quality**

DWQ provided standard comments and requests that are normal to bridge replacement projects.

**Response:** DOT will take all-appropriate measures to ensure that water quality standards are met and designated uses are not degraded or lost.

**Corps of Engineers**

The Corps indicated that the project is likely to impact streams and/or wetlands and advised that a permit authorization is needed.

**Response:** DOT will take all-appropriate measures to minimize any adverse impacts and would follow the normal procedures to obtain permits.

**Public Involvement:**

The Location & Surveys Unit sent a letter to all property owners affected directly by this project. Property owners were invited to comment. No comments have been received to date. Accordingly, a Citizen's Information Workshop was determined unnecessary.

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><b>X</b></u>
(2) Does the project involve habitat where federally listed endangered or threatened species may occur?	<input type="checkbox"/>	<u><b>X</b></u>
(3) Will the project affect anadromous fish?	<input type="checkbox"/>	<u><b>X</b></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><b>X</b></u>	<input type="checkbox"/>
(5) Will the project require the use of U. S. Forest Service lands?	<input type="checkbox"/>	<u><b>X</b></u>
(6) Will the quality of adjacent water resources be adversely impacted by proposed construction activities?	<input type="checkbox"/>	<u><b>X</b></u>
(7) Does the project involve waters classified as Outstanding Resources Waters (ORW) and/or High Quality Waters (HQW)?	<input type="checkbox"/>	<u><b>X</b></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><b>X</b></u>
(9) Does the project involve any known underground storage tanks (UST's) or hazardous materials sites?	<input type="checkbox"/>	<u><b>X</b></u>

PERMITS AND COORDINATION

YES

NO

- |      |  |                                     |                 |
|------|--|-------------------------------------|-----------------|
| (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"/>            | <b>N/A</b>      |
| (11) | Does the project involve Coastal Barrier Resources Act resources?  | <input type="checkbox"/>            | <u><b>X</b></u> |
| (12) | Will a U. S. Coast Guard permit be required?   | <input type="checkbox"/>            | <u><b>X</b></u> |
| (13) | Could the project result in the modification of any existing regulatory floodway?  | <input checked="" type="checkbox"/> | <u>      </u>   |
| (14) | Will the project require any stream relocations or channel changes?  | <input type="checkbox"/>            | <u><b>X</b></u> |

SOCIAL, ECONOMIC, AND CULTURAL RESOURCES

YES

NO

- |      |  |                          |                          |
|------|--|--------------------------|--------------------------|
| (15) | Will the project induce substantial impacts to planned growth or land use for the area?  | <input type="checkbox"/> | <u><b>X</b></u>          |
| (16) | Will the project require the relocation of any family or business?   | <input type="checkbox"/> | <u><b>X</b></u>          |
| (17) | Will the project have a disproportionately high and adverse human health and environmental effect on any minority or low-income population?                              | <input type="checkbox"/> | <u><b>X</b></u>          |
| (18) | If the project involves the acquisition of right of way, is the amount of right of way acquisition considered minor?   | <u><b>X</b></u>          | <input type="checkbox"/> |
| (19) | Will the project involve any changes in access control?  | <input type="checkbox"/> | <u><b>X</b></u>          |
| (20) | Will the project substantially alter the usefulness and / or land use of adjacent property?  | <input type="checkbox"/> | <u><b>X</b></u>          |
| (21) | Will the project have an adverse effect on permanent local traffic patterns or community cohesiveness?   | <input type="checkbox"/> | <u><b>X</b></u>          |
| (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)? | <u><b>X</b></u>          | <input type="checkbox"/> |

- |      |   |                          |                          |
|------|---|--------------------------|--------------------------|
| (23) | Is the project anticipated to cause an increase in traffic volumes?   | <input type="checkbox"/> | <u>  X  </u>             |
| (24) | Will traffic be maintained during construction using <b>existing roads</b> , staged construction, or on-site detours?   | <u>  X  </u>             | <input type="checkbox"/> |
| (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? | <u>  X  </u>             | <input type="checkbox"/> |
| (26) | Is there substantial controversy on social, economic, or environmental grounds concerning the project?  | <input type="checkbox"/> | <u>  X  </u>             |
| (27) | Is the project consistent with all Federal, State, and local laws relating to the environmental aspects of the project?   | <u>  X  </u>             | <input type="checkbox"/> |
| (28) | Will the project have an "effect" on structures / properties eligible for or listed on the National Register of Historic Places?  | <input type="checkbox"/> | <u>  X  </u>             |
| (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 13:**

Columbus County is a participant in the National Flood Insurance Regular Program, administered by the Federal Emergency Management Agency (FEMA). The Hydraulic Unit will coordinate with the Federal Emergency Management Agency (FEMA) to determine if a Conditional Letter of Map Revision (CLOMR) and a subsequent final Letter of Map Revision (LOMR) are required for the project. If required, the Division will submit sealed as-built construction plans to the Hydraulics Unit upon project completion certifying the project was built as shown on construction plans.



G. CE Approval

TIP Project No.	<u>B-5331</u>
W.B.S. No.	<u>46045.1.1</u>
Federal Project No.	<u>BRZ-1849(1)</u>

Project Description:

The purpose of this project is to replace Columbus County Bridge No. 269, which is on SR 1849 (Delco Prosper Road) and over Big Branch. The replacement structure will be a bridge that is approximately 90ft in length; this length is based on preliminary design information and is set by hydraulic requirement, and providing a minimum 30 ft 10ins clear deck width. The bridge will include two 11-foot lanes and two 4-foot 5 inches offsets. The roadway grade of the new structure will be approximately the same as the existing grade.

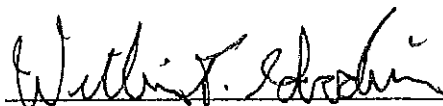
The approach roadway will extend approximately 225 feet from the south end of the new bridge and 155 feet from the north end. The approaches will be widened to include a 22-foot pavement width providing two 11-foot lanes. Six-foot shoulders (two-feet paved, four-feet turf) will be provided on each side. Shoulders will be nine-foot shoulders where guardrail is included. The roadway will be designed as a Rural Local Route using Subregional Tier guidelines with a 60 mile per hour design speed. Traffic will be detoured off-site during construction (see Figure1).

Categorical Exclusion Action Classification:

TYPE II(A)  
X TYPE II(B)

Approved:

3/13/14  
Date



Bridge Project Development Engineer  
Project Development & Environmental Analysis Unit

3-13-14  
Date



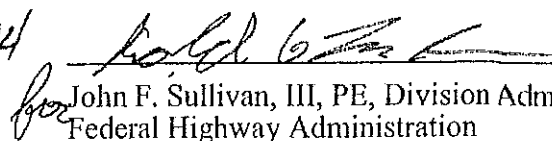
Project Engineer  
Project Development & Environmental Analysis Unit

3-13-2014  
Date



Project Planning Engineer  
Project Development & Environmental Analysis Unit

3-13-2014  
Date

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

## PROJECT COMMITMENTS

**Columbus County**  
**Bridge No. 269 on SR 1849**  
**Over Big Branch**  
**Federal Aid Project No. BRZ-1849(1)**  
**W.B.S. No. 46045.1.1**  
**T.I.P. No. B-5331**

### **Division Six, Resident Engineer's Office – Offsite Detour**

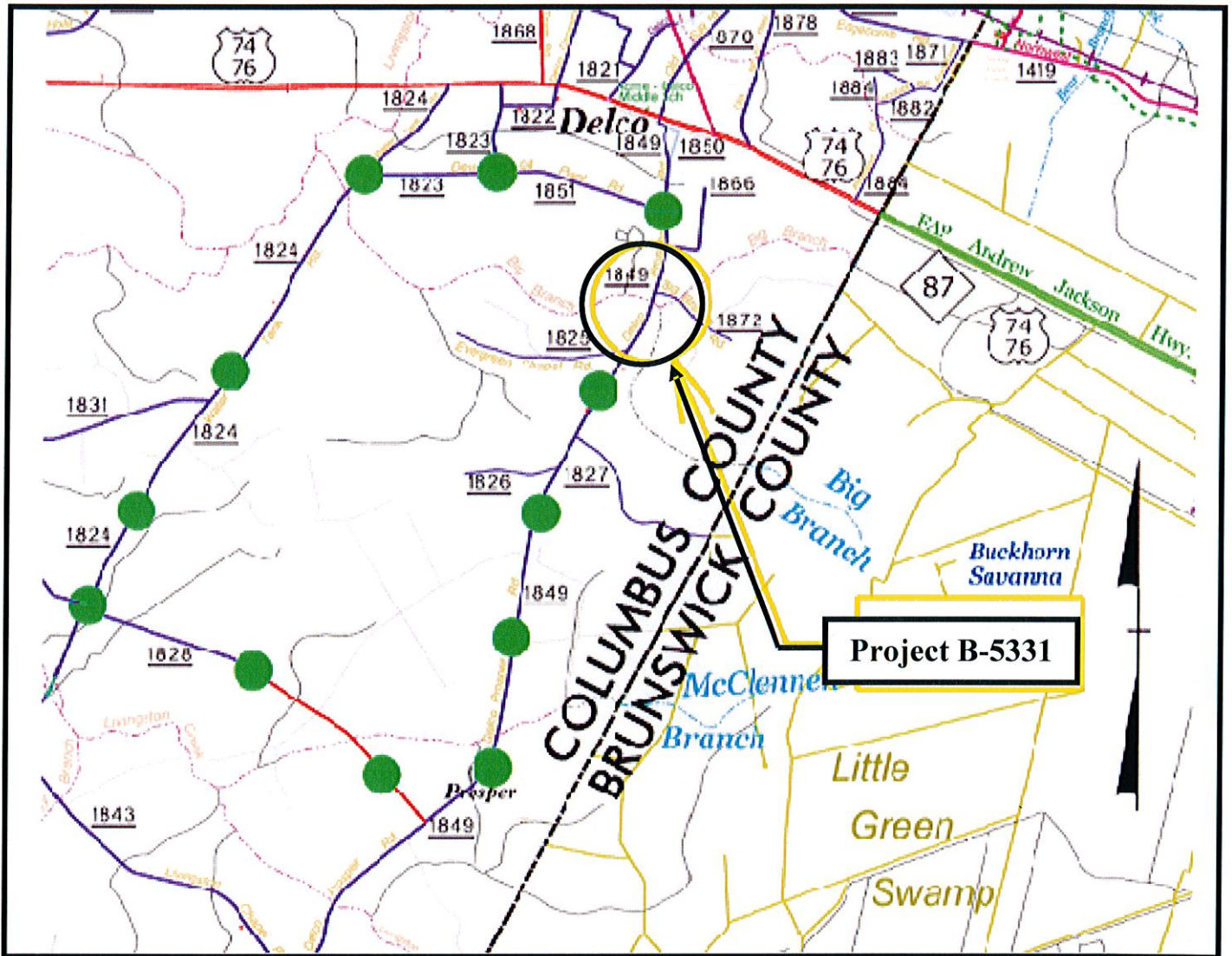
Contacted at least one month prior to road closure, the Schools and Emergency Services for them to make any necessary temporary changes in their routes.

### **Division Six – As Built Construction Plans**

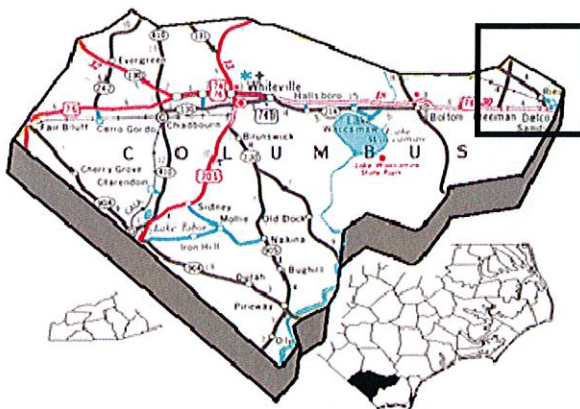
This project involves construction activities on or adjacent to FEMA-regulated stream(s). Therefore, the Division shall submit sealed as built construction plans to the Hydraulics Unit upon completion of project construction, certifying that the drainage structures and roadway embankment that are located within the 100-year floodplain were built as shown in the construction plans, both horizontally and vertically.


### **Hydraulics Unit – FEMA Coordination**

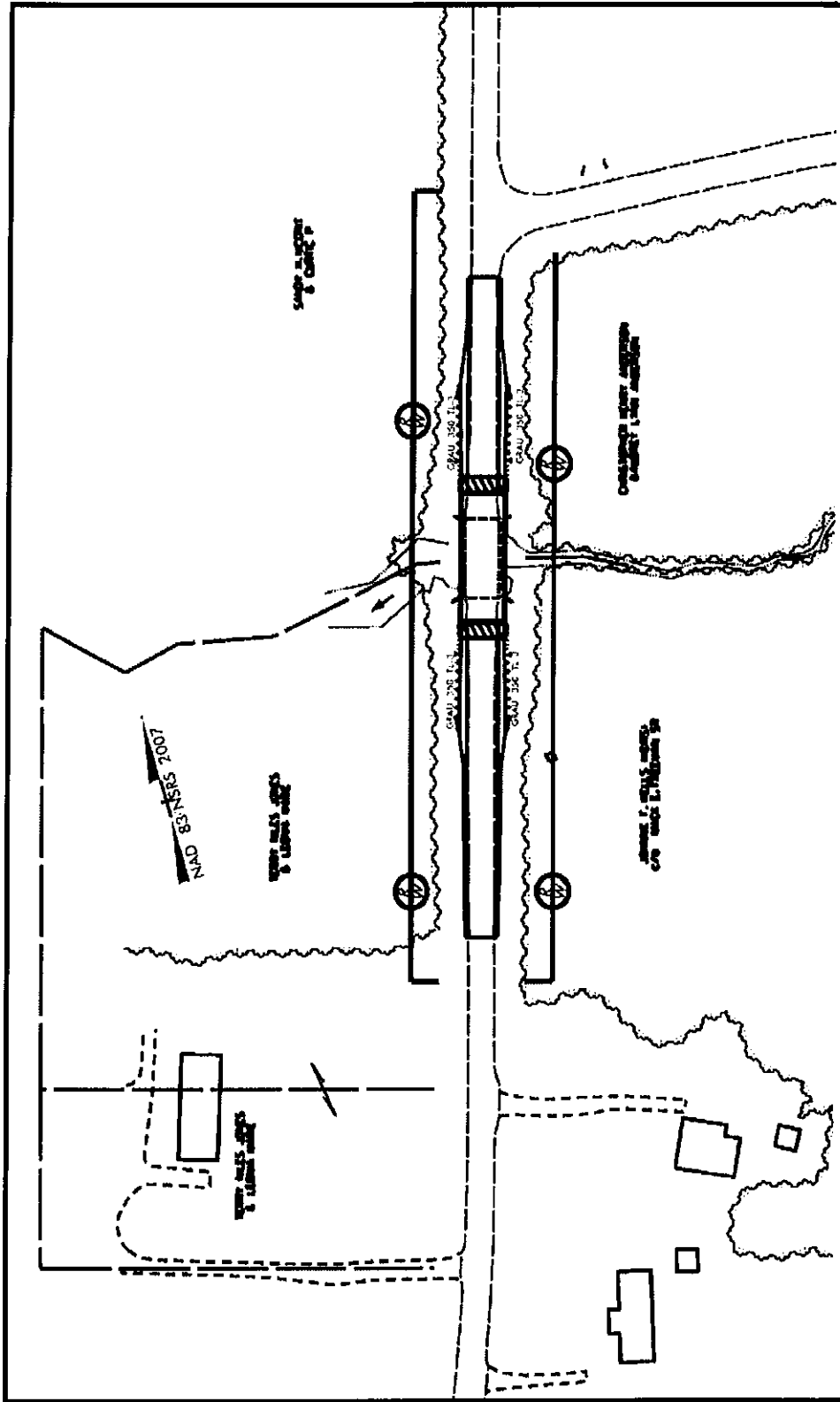
The Hydraulics Unit will coordinate with the NC Floodplain Mapping Program (FMP), to determine status of project with regard to applicability of NCDOT's Memorandum of Agreement, or approval of a Conditional Letter of Map Revision (CLOMR) and subsequent final Letter of Map Revision (LOMR)



Offsite Detour



	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS PROJECT DEVELOPMENT & ENVIRONMENTAL ANALYSIS BRANCH
	COLUMBUS COUNTY REPLACE BRIDGE NO. 269 ON SR 1849 OVER BIG BRANCH B-5331
Figure 1	



North Carolina  
 Department of Transportation  
 Division of Highways  
 PROJECT DEVELOPMENT &  
 ENVIRONMENTAL ANALYSIS

COLUMBUS COUNTY  
 Replace Bridge No. 269 on SR 1849  
 over Big Branch  
 B-5331

Figure 2

10-12-0008

**NO SURVEY REQUIRED FORM****PROJECT INFORMATION**

Project No: B-5331 County: Columbus  
 WBS No: 46045.1.1 Document: PCE or CE  
 F.A. No: BRZ-1849(1) Funding:  State  Federal

Federal (USACE) Permit Required?  Yes  No Permit Type:

Project Description: Replacement of Bridge No. 269 on SR 1849 (Delco Prosper Road) over Big Branch in Columbus County.

**SUMMARY OF CULTURAL RESOURCES REVIEW***Brief description of review activities, results of review, and conclusions:*

Review of HPO quad maps, historic designations roster, and indexes was undertaken on 28 January 2011. Based on this review, there are no existing NR, SL, LD, DE, or SS properties in the Area of Potential Effects (APE). Google Maps "Street View" and current Columbus County GIS Mapping and tax information indicate that there are several structures present within the APE; all but one are over fifty years of age. The house located at 1077 Delco-Prosper Road was constructed in 1960 based on Columbus County Tax Information, but its image on Google Maps "Street View" confirms that it is a modern ranch house and does not meet criteria for listing on the National Register. The other properties are modern mobile homes within the APE based on "Street View." In addition, Bridge No. 269 is not eligible based on the NCDOT Historic Bridge Inventory. No survey is required.

*Brief Explanation of why the available information provides a reliable basis for reasonably predicting that there are no unidentified historic properties in the APE:*

HPO quad maps recording NR, SL, LD, DE, and SS properties for the Columbus County survey (1998), Columbus County GIS information, Columbus County Tax Information, and Google Maps "Street View" are considered valid for the purposes of determining the likelihood of historic resources being present.

**SUPPORT DOCUMENTATION**

See attached: Maps, Tax Information

**FINDING BY NCDOT CULTURAL RESOURCES PROFESSIONAL NO SURVEY REQUIRED**

ARCHAEOLOGY

HISTORIC ARCHITECTURE

(CIRCLE ONE)

*Katherine L. Hubbard*  
 NCDOT Cultural Resources Specialist

28 January 2011  
 Date

10-12-0008

**NO PREHISTORIC OR HISTORIC PROPERTIES  
PRESENT/AFFECTED FORM**

**PROJECT INFORMATION**

Dist. No. B-5W; County: Columbus  
 BR No. 664571; District: PCF or PC  
 F.A. No. BR-18401; Feasibility:  State  Federal

Federal/State/Local/Other Report?  Yes  No Permit type: unknown

**Project Description**

NC DOT intends to replace Bridge No. 206 on SR 1849 (Water Tank Road) over Big Branch in Columbus County. No preliminary plans were available at the time of review, but a proposed study corridor covering an area of 1341 acres (204 x 500 feet) was provided.

**SUMMARY OF FINDINGS**

The North Carolina Department of Transportation (NCDOT) prepared the following findings:

**Historic Architecture/Landmarks**

- There are no National Register listed or Study Listed properties within the project's area of potential effects.
- There are no properties less than fifty years old which are considered to merit Criteria Consideration within the project's area of potential effects.
- There are no properties within the project's area of potential effects.
- There are properties over fifty years old within the area of potential effects, but they do not meet the criteria for listing on the National Register.
- All properties greater than 50 years of age located in the APE have been considered as all compliance for historic architecture with Section 106 of the National Historic Preservation Act and US 12-129) has been completed for this project.
- There are no historic properties present or affected by this project. (This data was reviewed and verified.)

**Archaeology**

- There are no National Register listed or Study Listed properties within the project's area of potential effects.
- No subsurface archaeological investigations are required for this project.
- Subsurface investigations did not reveal the presence of any archaeological resources.
- Subsurface investigations did not reveal the presence of any archaeological resources considered eligible for the National Register.
- All potential archaeological sites located within the APE have been considered and all compliance for archaeological resources with Section 106 of the National Historic Preservation Act and US 12-129) has been completed for this project.
- There are no historic properties present or affected by this project. (This data was reviewed and verified.)

Archaeology Department, 1000 West 17th Street, Raleigh, NC 27617-1000  
 919-733-8300, Fax 919-733-8301

**SUMMARY OF CULTURAL RESOURCES REVIEW**

Review of historic architecture, landmarks, and locations.

A review of the site maps and files at the North Carolina Office of State Archaeology was conducted on January 22, 2011. While no previously recorded archaeological sites were documented in the project area, it appears that very few surveys have been undertaken in the vicinity. Based on information for Columbus County it was deemed prudent to conduct further archaeological investigations.

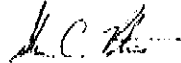
On May 18, 2011, NCDOT staff archaeologists Shaun Peterson and Brian O'Brien conducted a reconnaissance survey of the proposed project corridor. While areas immediately adjacent to Bridge No. 206 were observed to be wooded areas with scattered stumps, portions of the study corridor further away from the Branch were observed to exhibit better drained soils. In general, areas that had been cleared by trees appeared to be somewhat disturbed by potential development. A large area to the southeast of Bridge No. 205 was in use as an agricultural area and, more recently, a smaller area to the south southwest of Bridge No. 209 was tilled. Systematic surface survey was conducted for both of these plowed areas. While some modern bottle glass fragments were present to greater and lesser degrees in these plowed fields and the smaller tilled area also possessed modern debris and metal cans, neither were observed to exhibit archaeological deposits. A gravel driveway between SR 1842 and the upper field did exhibit some higher quality bottle normals. This gravel appeared to have been imported from another area and no examples of prehistoric lithic technology were observed.

A finding of no historic properties is considered appropriate for the project as currently proposed. The project is considered compliant with Section 106 and NCS 121-129) within the established study corridor. Should the project limits change, further review will be required.

**SUPPORT DOCUMENTATION**

See attached. County map, aerial photograph of the project area, project corridor photographs.

Signed:



Cultural Resources Specialist, NCDOT

05-25-11

Date

Archaeology Department, 1000 West 17th Street, Raleigh, NC 27617-1000  
 919-733-8300, Fax 919-733-8301