

Type I and II Ground Disturbing Categorical Exclusion Action Classification Form

STIP Project No.	B-4433
WBS Element	38362.1.FD2
Federal Project No.	BRZ-1932(5)

A. Project Description:

This project replaces Beaufort County Bridge No. 40 on SR 1932 (Mary's Chapel Church Road) over Horse Pen Swamp. The bridge will be replaced on the existing alignment while detouring traffic offsite, see attached vicinity map.

B. Description of Need and Purpose:

The purpose of the project is to address a fifty-one-year-old bridge with a deteriorating timber substructure and low posted weight limited.

C. Categorical Exclusion Action Classification: (Check one)

- TYPE I
 TYPE II

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:

Offsite Detour - Beaufort County Emergency Services along with Beaufort County School Transportation have indicated that the detour is acceptable. NCDOT Division 2 has indicated the condition of all roads, bridges and intersections on the offsite detour are acceptable without improvement and concurs with the use of the detour.

Design – Rural Local Route using Sub-Regional Tier Guidelines
Design Speed – 60 mph
No Design Exceptions Required

F. Project Impact Criteria Checklists:

<u>Type I & 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 type="checkbox"/>	<input checked="" type="checkbox"/>
9	Does the project impact anadromous fish?	<input checked="" type="checkbox"/>	<input 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"/>

Other Considerations (continued)		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

Question #9: Anadromous species are found in this portion of Horse Pen Swamp; therefore, an in-water moratorium will be in place from February 15 to June 30 of any given year. Stream Crossing Guidelines for Anadromous Fish will be implemented in the design and construction of this project.

Question #16: Beaufort 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 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). 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.

H. Project Commitments

Beaufort County
Bridge No. 40 on SR 1932 over Horse Pen Swamp
Federal Project No. BRZ-1932(5)
WBS No. 38362.1.FD2
STIP No. B-4433

Anadromous Fish

A moratorium on in-water construction will be in place from February 15 to June 30 of any given year.

Stream Crossing Guidelines for Anadromous Fish will be implemented in the design and construction of this project.

Buffer Rules

The Tar-Pamlico River Basin Rule applies to this project.

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).

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.

Offsite Detour

Beaufort County School Transportation will be contacted at least one month prior to closure to make the necessary plans to adequately reroute school busses at 252-946-6209.

Beaufort County Emergency Services will be contacted at least one month prior to road closure to make the necessary temporary reassignments to primary response units at 252-946-2046.

Beaufort County Sheriff will be contacted at least one month prior to road closure at 252-946-7111.

School Bus Turn Around

The Manager of School Transportation has requested a temporary bus turn around on SR 1932.

Wetlands

Wetlands will be cleared by hand.

I. Categorical Exclusion Approval

STIP Project No. B-4433
WBS Element 38362.1.FD2
Federal Project No. BRZ-1932(5)

Prepared By:

4-27-2017
Date

Clifton T. Register
Clifton T. Register, PE, Project Manager
TGS Engineers



Prepared For:

Project Development and Environmental Analysis Unit
North Carolina Department of Transportation

Reviewed By:

6/21/2017
Date

Elmo E. Vance
Elmo Vance, Project Development Engineer
North Carolina Department of Transportation



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.

6.21.17
Date

Brian Yamamoto
Brian Yamamoto, PE, Project Development Group Supervisor
North Carolina Department of Transportation

FHWA Approved:

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

Date

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

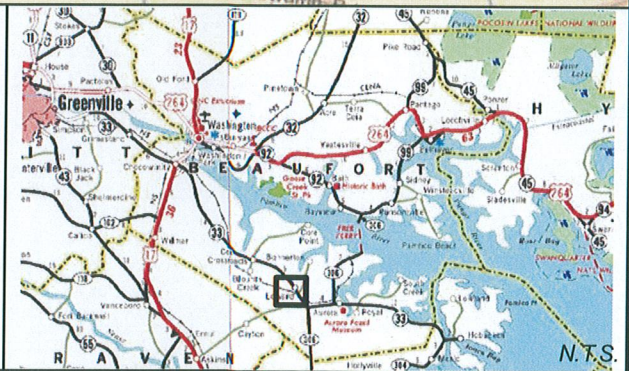
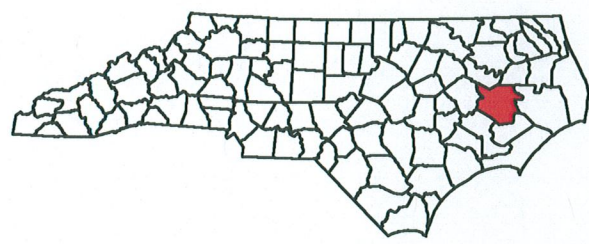
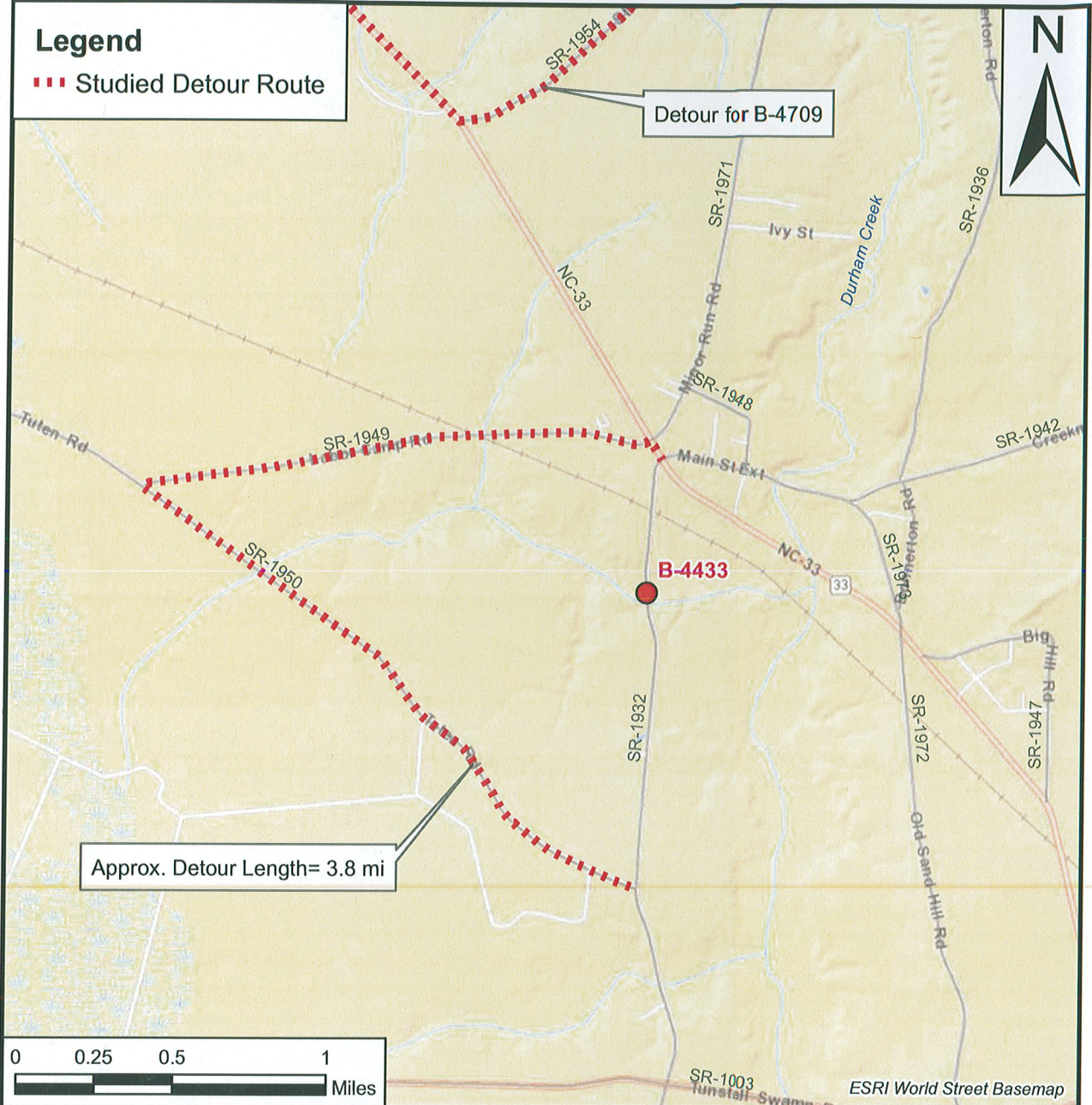
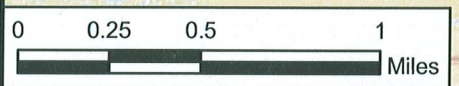
Legend

--- Studied Detour Route



Detour for B-4709

Approx. Detour Length= 3.8 mi



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

VICINITY MAP
 Beaufort County, NC
 Replace Bridge No. 40 on SR 1932
 over Durham Creek Tributary
 B-4433

Date: 1-8-2015

Figure 1

15-02-0002



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:	B-4433	County:	Beaufort
WBS No.:	38362.1.FD2	Document Type:	PCE or CE
Fed. Aid No:	BRZ-1932(5)	Funding:	<input type="checkbox"/> State <input checked="" type="checkbox"/> Federal
Federal Permit(s):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Permit Type(s):	
Project Description: Replacement of Bridge No. 40 on SR 1932 over Durham Creek Tributary.			

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 February 5, 2015. Based on this review, there are no existing NR, SL, LD, DE, or SS properties in the Area of Potential Effects, which is 800' from each end of the bridge and 100' from the centerline each way. There are no structures within the APE based on aerial imagery and google maps street view. Bridge No. 40, built in 1966, is not eligible for National Register listing. 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 Beaufort 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

Kate Husband

2/5/2015

NCDOT Architectural Historian

Date

Historic Architecture and Landscapes NO SURVEY REQUIRED form for Minor Transportation Projects as Qualified in the 2007 Programmatic Agreement.

15-02-0002



**NO NATIONAL REGISTER OF HISTORIC PLACES
ELIGIBLE OR LISTED ARCHAEOLOGICAL SITES
PRESENT OR AFFECTED 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: **B-4433** County: **Beaufort**
 WBS No: **38362.1.FD2** Document: **PCE or CE**
 F.A. No: **BRZ-1932(5)** Funding: State Federal

Federal Permit Required? Yes No Permit Type: **NWP 3 or NWP 14**

Project Description:

The project calls for the replacement of Bridge No. 40 on SR 1932 (Mary Chapel Church Road) over an unnamed tributary to Durham Creek in Beaufort County. The archaeological Area of Potential Effects (APE) for the project is defined as an 850-foot (259.08 m) long corridor running 425 feet (129.54 m) north and 425 feet south along Mary Chapel Church Road from the center of Bridge No. 40. The corridor is approximately 200 feet (60.96 m) wide extending 100 feet (30.48 m) on either side of the road from its present center.

SUMMARY OF ARCHAEOLOGICAL FINDINGS

The North Carolina Department of Transportation (NCDOT) Archaeology Group reviewed the subject project and determined:

- There are no National Register listed ARCHAEOLOGICAL SITES 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 identified 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 GS 121-12(a) has been completed for this project.
- There are no National Register Eligible or Listed ARCHAEOLOGICAL SITES present or affected by this project. (*Attach any notes or documents as needed*)

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

Bridge No. 40 is located south of the community of Edward and west of Aurora in the southern portion of Beaufort County, North Carolina. The project area is plotted at the eastern edge of the Edward USGS 7.5' topographic quadrangle (Figure 1).

A map review and site file search was conducted at the Office of State Archaeology (OSA) on February 9, 2015. No previously recorded archaeological sites have been identified within the APE, but two sites (31BF184 and 31BF185) are reported within a mile of the bridge. According to the North Carolina State Historic Preservation Office online data base (HPOWEB 2014), there are no known historic architectural resources within the APE that may yield intact archaeological deposits. Topographic maps, USDA soil survey maps, aerial photographs (NC One Map), historic maps (North Carolina maps website), and Google Street View application were examined for information on environmental and cultural variables that may have contributed to prehistoric or historic settlement within the project limits and to assess the level of ground disturbance. An archaeological field investigation was carried out on April 7, 2015, to evaluate the project area.

Bridge No. 40 and Mary Chapel Church Road cross unnamed stream north to south. The stream drains to the east into Durham Creek. These waterways are part of the Tar-Pamlico drainage basin. The APE resides along a floodplain with stream terraces at either end (Figure 2). The area consists of forests to the south and clear cut fields with secondary growth to the north (Figures 3–6). Ground disturbance is minimal with buried utilities alongside the road and heavy machinery tracks in the clear cut fields.

The APE is composed of four soil types according to the USDA soil survey map (see Figure 2). The floodplain is made up of Muckalee loam (Me). This series is nearly level, poorly drained, and subject to frequent flooding. The soil is very unlikely to yield any significant cultural resources associated with early settlement activities due to being persistently wet. No subsurface testing was carried out on this series. The stream terraces consists of Altavista fine sandy loam (AaA) and Goldsboro fine sandy loam (GoA) in the south and Craven fine sandy loam (CrB) to the north. These series are nearly level with slope less than 4 percent. They are considered well drained. All three soil series and the terraces are well suited to potential yield intact and significant archaeological sites since they are considered dry with a slope of less than 15 percent. However, the Altavista series is likely misrepresented on the soil map. The field investigation discovered that this series is plotted in the floodplain and consists of poorly drained hydric soils with standing water present.

A review of the site files shows few archaeological investigations conducted within the vicinity of the bridge with nearly all being carried out east of Durham Creek. Placement for a low impact electrical line (CH 08-0716) within the APE was reviewed by OSA in 2008. No comments were given for the project since it was unlikely to disturb a significant resource. The two known archaeological sites (31BF184 and 31BF185) reported within a mile of the bridge are 20th century African-American cemeteries. They were recognized in 1989 by East Carolina University during the Texas-Gulf Survey. The National Register's eligibility for these two sites has yet to be assessed. The lack of known sites within the vicinity of the bridge is due to few subsurface investigations. In general, more work is needed in the area in gain a better understanding of early settlement pattern in this section of Beaufort County.

Lastly prior to fieldwork, a historic map review was conducted. Most early maps from the 18th and 19th centuries provide only general details concerning the region illustrating just major roads, settlements, and drainages such as John Lawson's 1709 map of North Carolina, which identifies Durham Creek but little else within the vicinity (Figure 7). J.H. Colton's 1861 map of *The Eastern Potions of the State of North Carolina* is one of the first to depict a road with a similar alignment as the current Mary Chapel Church Road (Figure 8). Although the road is shown, no crossing over the tributary is illustrated. Other maps from the 19th century show a similar picture. It is not until the early 20th century that more detail maps

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are printed. The 1908 Beaufort County Geological and the 1914 Post Office maps are closely related with the road and two structures south of the approximate bridge location (Figures 9 and 10). These structures are well away from the APE and should not be impacted. It is not until the publication of the 1938 North Carolina State Highway map for Beaufort County that the bridge is first shown (Figure 11). Again, all structures are well away from the project area. Subsequent 20th century maps provide no further or useful information. From this review, the historic maps suggest that no former structures with new or important information were once located within the APE, and no significant deposits should be encountered.

The current archaeological field investigation at Bridge No. 40 consisted of the excavation of eight shovel test placements (STPs) (see Figure 2). STPs were placed at 30-m intervals with three in each southern quadrant and one in each northern quadrant. Soil stratigraphy along the stream terraces are composed of three strata. The southern quadrants have a 20 to 30 cm (ca. 8 to 12 in) thick upper layer of dark grayish brown (10YR 4/2) sand. This is followed by second layer of yellowish brown (10YR 5/4) sand that extends up to 50 cm (ca. 20 in) below the surface. Subsoil is a Light Olive Brown (2.5Y 5/6) sandy clay loam that reaches a depth of at least 75 cm (ca. 30 in) below the surface. The northern quadrants have a surface layer of very dark grayish brown (10YR 3/2) loamy sand that is approximately 15 to 20 cm (ca. 6 to 8 in) thick. The second stratum is a brown (10YR 5/3) sand that extends to 45 cm (ca. 18 in) below the surface. Subsoil on this side of the creek is yellowish brown (10YR 5/6) sandy clay loam that spreads to at least 55 cm (ca. 22 in) below the surface. No cultural material was identified in any of the STPs. Surface visibility was also poor due to vegetation and ground cover, but no earthwork features or structural remains were seen.

The archaeological investigations for the proposed replacement of Bridge No. 40 show that no significant archaeological sites are within the APE. Saturated soils in the floodplain are not suitable for early settlement activities and were not tested. Shovel tests on the stream terraces failed to produce prehistoric or historic artifacts or deposits. As a result of the current investigation, no further archaeological work is required for replacement of Bridge No. 40 in Beaufort County. However, additional work might be required should design plans change to encompass property outside of the currently defined APE.

SUPPORT DOCUMENTATION

See attached: Map(s) Previous Survey Info Photos Correspondence

Other: **images of historic maps consulted**

Signed:



C. Damon Jones
NCDOT ARCHAEOLOGIST

4/7/15

Date