

CATEGORICAL EXCLUSION ACTION CLASSIFICATION FORM

TIP Project No.	<u>B-4961</u>
WBS Element	<u>40152.1.1</u>
Federal Project No.	<u>BRZ-3051(1)</u>

A. Project Description:

The purpose of the project is to replace Bridge No. 208 on SR 3051 (Knox Road) over an Unnamed Tributary to Little Alamance Creek. Bridge No. 208 is 66 feet, 6 inches long. The replacement structure will be a bridge 102 feet, 3 inches in length providing a minimum 30-foot, 6-inch clear deck width. The bridge will include two 11-foot lanes and 4-foot, 3-inch offsets. The bridge length is based on preliminary design information and is set by hydraulic requirement. The roadway grade at the centerline of bridge had to be raised approximately 3 feet, 6 inches in order to use a single span 39-inch deep box beam structure that works hydraulically. The low chord of the proposed superstructure has been raised approximately 2 feet from the existing low chord.

The approach roadway will extend approximately 210 feet from the south end of the new bridge and 140 feet from the north end. The approaches will be widened to include a 22-foot pavement width providing two 11-foot travel lanes. Six foot wide shoulders, four feet paved and two feet turf, will be provided on both sides of the road. An additional three feet of shoulder will be required where guardrail is included. The roadway will be designed using sub-regional tier guidelines with a 55-mile per hour design speed.

SR 3052 (Forbes Tate Road) will require a minor alignment shift to the north to facilitate construction of the new bridge and installation of approach guardrail. Roadway work on SR 3052 will extend approximately 160 feet from its intersection with SR 3051.

Traffic will be detoured off-site during construction (refer to Figure 1).

B. Purpose and Need:

NCDOT Bridge Management Unit records indicate Bridge No. 208 has a sufficiency rating of 47.1 out of a possible 100 for a new structure.

The bridge is considered functionally obsolete due to a deck geometry appraisal of 3 out of 9 according to Federal Highway Administration (FHWA) standards.

The superstructure and substructure of Bridge No. 208 have timber elements that are 65 years old. Timber components have 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 elements are damaged or prematurely deteriorated. However, past a certain degree of deterioration, most timber elements become impractical to maintain and upon eligibility are programmed for replacement. Timber components of Bridge No. 208 are experiencing an increasing degree of deterioration that can no longer be addressed

by reasonable maintenance activities, therefore the bridge is approaching the end of its useful life.

Bridge No. 208 carries 2,080 vehicles per day (vpd) with 3,600 vpd projected for future year 2035. The posted weight limit on the bridge is 14 tons for single vehicles and 19 tons for truck-tractor semi-trailers. The substandard superstructure, substructure, and deck geometry are unacceptable and cannot be addressed by maintenance activities. The bridge is approaching the end of its useful life. Replacement of the bridge will result in safer traffic operations.

C. Proposed Improvements

Circle one or more of the following Type II activities:

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 2014 prices, are as follows:

Item	Cost
Structure (Bridge)	\$ 350,000
Roadway Approaches	\$ 288,000
Structure Removal	\$ 31,000
Misc. & Mobilization	\$ 140,000
Engr. & Contingencies	\$ 141,000
Total Construction Cost	\$ 950,000
Right-of-way Costs	\$ 33,000
Utility Relocation	\$ 56,000
Total Project Cost	\$ 1,039,000

Estimated Traffic:

ADT 2016: 2,080 vpd
ADT 2035: 3,600 vpd
Dual: 4%
TTST: 1%

Accidents: The Traffic Safety Unit has evaluated a recent five year period and found five accident records occurring near the bridge. None were associated with the geometry of the bridge or its approach roadways.

Design Exceptions: Design exceptions are anticipated for sag vertical curves and nighttime stopping sight distance.

Pedestrian and Bicycle Accommodations: The bridge is located between the municipalities of Greensboro and Sedalia. Bridge No. 208 on SR 3051 crosses over a floodplain area and is identified as a bicycle route on the Greensboro MPO's Bicycle, Pedestrian, and Greenways Master Plan. Additionally, the plan identifies a proposed trail known as Sedalia's Greenway that would pass beneath the bridge as part of a trail system connecting Greensboro and Sedalia.

The design will include 4-foot wide paved shoulders on the roadway approaches and 4-foot (minimum) offsets on the bridge. The roadway grade at the centerline of bridge had to be raised approximately 3 feet, 6 inches in order to use a single span 39-inch deep box beam structure based on hydraulic requirements. The low chord of the proposed superstructure has been raised approximately 2 feet from the existing low chord. This action will also allow for the future greenway with approximately 8 feet, 6 inch vertical clearance. The future Type 3 greenway (unpaved 10-12 foot wide) can be accommodated on an existing shelf along the top of bank on the north side of the Unnamed Tributary to Little Alamance Creek with minimal grading.

Bridge Demolition: Bridge No. 208 is constructed of mostly timber and steel. As such, it should be possible to remove the existing bridge with no resulting debris in the water based on standard demolition practices.

Alternatives Discussion:

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

Rehabilitation – The bridge was constructed in 1950 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. 208 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 additional time traveled by the average road user resulting from the offsite detour. The offsite detour for this project would include US Hwy 70 and SR 3175 (Birch Creek Road). The majority of traffic on the road is through traffic. The detour for the average road user would result in two minutes of additional travel time and 1.1 miles of additional travel. Up to a 4-month duration of construction is expected on this project.

Based on the Guidelines, the criteria above indicate that on the basis of delay alone, the detour is acceptable. Guilford County Emergency Services along with Guilford County Schools Transportation have also indicated that the detour is acceptable. NCDOT Division 7 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.

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 3051 is acceptable, a new alignment was not considered as an alternative.

Other Agency Comments:

The **N.C. Wildlife Resource Commission** in a standardized letter provided a request that they prefer any replacement structure to be a spanning structure.

Response: NCDOT will be replacing the existing bridge with a new bridge.

The **Environmental Protection Agency** (EPA) states that Little Alamance Creek is listed on the North Carolina Division of Water Quality's (NCDWQ) draft 2008 list of impaired waters due to aquatic life impairments demonstrated by failure to meet the State biological criteria. NCDOT should commit to enhanced construction stormwater controls to avoid contributing sediment and other sources of turbidity to Third Creek. Such enhanced controls may include sedimentation basins, Polyacrylamide (PAM), coconut fiber, absorbent wattles, or other NCDOT-researched and recommended soil erosion and sediment control measures which have been shown to dramatically improve the quality of runoff from road construction sites.

Response: NCDOT will comply with all storm water requirements through the Post- Construction Storm water Program under the Department's NPDES Storm Water Permit (NCS000250).

The **N.C. Division of Water Quality** (NCDWQ) states that Little Alamance Creek carries a best use classification of Class WS-IV; NSW waters of the State. NCDWQ is very concerned with sediment and erosion impacts that could result from this project. NCDWQ requests that road design plans provide treatment of the storm water runoff best management practices.

Response: NCDOT will comply with all storm water requirements through the Post- Construction Storm water Program under the Department's NPDES Storm Water Permit (NCS000250).

The **Army Corps of Engineers** and **U.S. Fish & Wildlife Service** had no special concerns for this project.

E. Threshold Criteria

The following evaluation of threshold criteria must be completed. See *Local Programs Management Handbook* for more guidance on how to answer these questions.

<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> X </u>
(2) Does the project involve habitat where federally listed endangered or threatened species may occur?	<input checked="" type="checkbox"/>	<u> </u>
(3) Will the project affect anadromous fish?	<input type="checkbox"/>	<u> X </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> X </u>	<input type="checkbox"/>

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|-----|---|--------------------------|--------------|
| (5) | Will the project require the use of U. S. Forest Service lands? | <input type="checkbox"/> | <u> X </u> |
| (6) | Will the quality of adjacent water resources be adversely impacted by proposed construction activities? | <input type="checkbox"/> | <u> X </u> |
| (7) | Does the project involve waters classified as Outstanding Water Resources (OWR) and/or High Quality Waters (HQW)? | <input type="checkbox"/> | <u> X </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> X </u> |
| (9) | Does the project involve any known underground storage tanks (UST's) or hazardous materials sites? | <input type="checkbox"/> | <u> X </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"/> | <u> X </u> |
| (11) | Does the project involve Coastal Barrier Resources Act resources? | <input type="checkbox"/> | <u> X </u> |
| (12) | Will a U. S. Coast Guard permit be required? | <input type="checkbox"/> | <u> X </u> |
| (13) | Could the project result in the modification of any existing regulatory floodway? | <u> X </u> | <input type="checkbox"/> |
| (14) | Will the project require any stream relocations or channel changes? | <input type="checkbox"/> | <u> X </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> X </u> |
| (16) | Will the project require the relocation of any family or business? | <input type="checkbox"/> | <u> X </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> X </u> |
| (18) | If the project involves the acquisition of right of way, is the amount of right of way acquisition considered minor? | <u> X </u> | <input type="checkbox"/> |
| (19) | Will the project involve any changes in access control? | <input type="checkbox"/> | <u> X </u> |
| (20) | Will the project substantially alter the usefulness and/or land use of adjacent property? | <input type="checkbox"/> | <u> X </u> |

- | | | | |
|------|---|--------------------------|--------------------------|
| (21) | Will the project have an adverse effect on permanent local traffic patterns or community cohesiveness? | <input type="checkbox"/> | <u> X </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> X </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 existing roads, 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 2:

U.S. Fish and Wildlife Service (USFWS) lists one federally protected species, small whorled pogonia, for Guilford County. NCDOT biologists last surveyed the project site in May 2014. Although potential habitat did

exist within the study area, no small whorled pogonia individuals were observed within the project study area and, per the Natural Heritage Program database, no occurrences are present within one mile of the project area. Therefore, a biological conclusion of No Effect was determined.

A USFWS proposal for listing the northern long-eared bat (*Myotis septentrionalis*) as an Endangered species was published in the Federal Register in October 2013. The listing will become effective on or before April, 2015. NCDOT is working closely with the USFWS to understand how this proposed listing may impact NCDOT projects. NCDOT will continue to coordinate appropriately with USFWS to determine if this project will incur potential effects to the northern long-eared bat, and how to address these potential effects, if necessary.

Response to Question 13:

Guilford County is a participant in the National Flood Insurance Program (NFIP), administered by the Federal Emergency Management Agency (FEMA). Based on the most current information available from the NC Floodplain Mapping Program (FMP), this stream crossing is in a designated flood hazard zone which is within a detailed flood study reach, having a regulated 100-year floodway. The proposed bridge replacement will provide equivalent or greater conveyance than that of the existing bridge.

The Hydraulics Unit will coordinate with the NC Floodplain Mapping Program (FMP), the delegated state agency for administering FEMA's National Flood Insurance Program, to determine status of project with regard to applicability of NCDOT's Memorandum of Agreement with FMP (dated 6/5/08), 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.

G. CE Approval

TIP Project No.	<u>B-4961</u>
WBS Element	<u>40152.1.1</u>
Federal-Aid Project No.	<u>BRZ-3051(1)</u>

Project Description:

The purpose of the project is to replace Bridge No. 208 on SR 3051 (Knox Road) over an Unnamed Tributary to Little Alamance Creek. Bridge No. 208 is 66 feet, 6 inches long. The replacement structure will be a bridge 102 feet, 3 inches in length providing a minimum 30-foot, 6-inch clear deck width. The bridge will include two 11-foot lanes and 4-foot, 3-inch offsets. The bridge length is based on preliminary design information and is set by hydraulic requirement. The roadway grade at the centerline of bridge had to be raised approximately 3 feet, 6 inches in order to use a single span 39-inch deep box beam structure that works hydraulically. The low chord of the proposed superstructure has been raised approximately 2 feet from the existing low chord.

The approach roadway will extend approximately 210 feet from the south end of the new bridge and 140 feet from the north end. The approaches will be widened to include a 22-foot pavement width providing two 11-foot travel lanes. Six foot wide shoulders, four feet paved and two feet turf, will be provided on both sides of the road. An additional three feet of shoulder will be required where guardrail is included. The roadway will be designed using sub-regional tier guidelines with a 55-mile per hour design speed.

SR 3052 (Forbes Tate Road) will require a minor alignment shift to the north to facilitate construction of the new bridge and installation of approach guardrail. Roadway work on SR 3052 will extend approximately 160 feet from its intersection with SR 3051.

Traffic will be detoured off-site during construction (refer to Figure 1).

Categorical Exclusion Action Classification:

TYPE II(A)
X TYPE II(B)

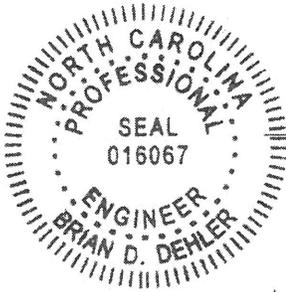
Approved:

3/31/15 [Signature]
Date Project Development Engineer
Project Development & Environmental Analysis Unit

3-27-15 [Signature]
Date Project Engineer
Project Development & Environmental Analysis Unit

3-31-15 [Signature]
Date Project Planning Engineer
Project Development & Environmental Analysis Unit

3/19/2015 [Signature]
Date Brian D. Dehler, PE – Sr. Project Manager
HW Lochner, Inc. 919.571.7111



Approved: For Type II(B) projects only:

3/31/15 [Signature]
Date John F. Sullivan, PE - Division Administrator
Federal Highway Administration

PROJECT COMMITMENTS:

**Guilford County
Bridge No. 208 on SR 3051
Over an Unnamed Tributary to Little Alamance Creek
Federal Aid Project No. BRZ-3051(1)
W.B.S. No. 40152.1.1
T.I.P. No. B-4961**

Division 7 Construction, Resident Engineer's Office – Offsite Detour

In order to have time to adequately reroute school busses, Guilford County Schools will be contacted at (336) 370-8920 at least one month prior to road closure.

In order to allow Emergency Management Services (EMS) time to prepare for road closure, the NCDOT Resident Engineer will notify the Director of the Guilford County EMS at (336) 641-2278 at least one month prior to road closure.

Hydraulic 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).

Division 7 Construction-FEMA

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.

Hydraulic Unit, Natural Environment Section – Buffer Rules

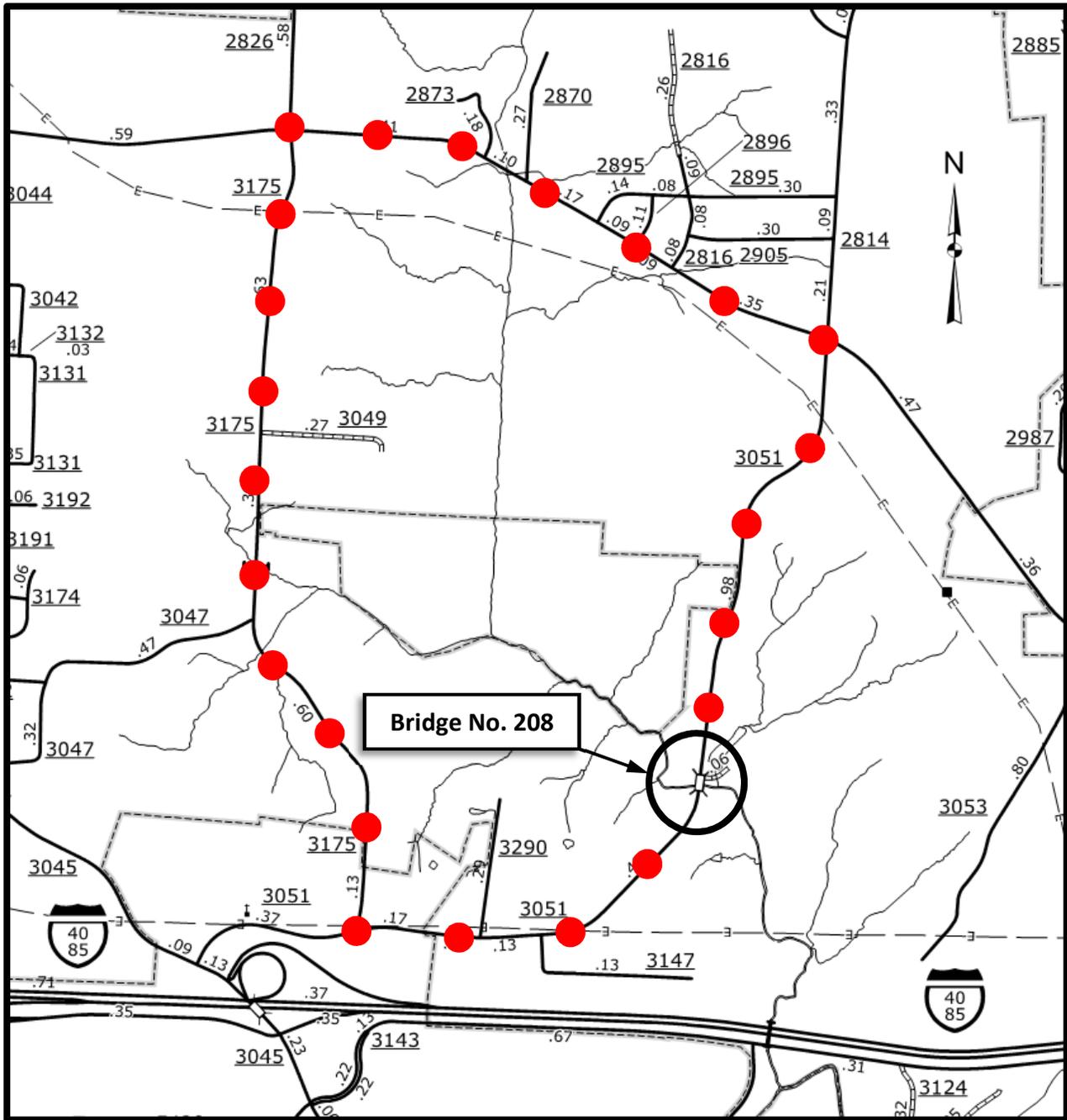
The Jordan Lake Watershed Buffer Rules apply to this project.

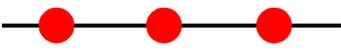
Roadway Design – Future Greenway

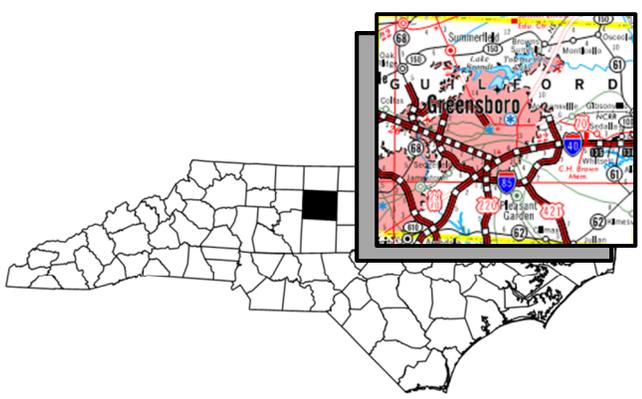
Allowance will be made for a future Type 3 (unpaved 10-12-foot) multi-use path under the new bridge on the north side of the Unnamed Tributary to Little Alamance Creek.

Natural Environment Section – Endangered Species

NCDOT will continue to coordinate appropriately with USFWS to determine if this project will incur potential effects to the proposed listing of the northern long-eared bat, and how to address these potential effects, if necessary.

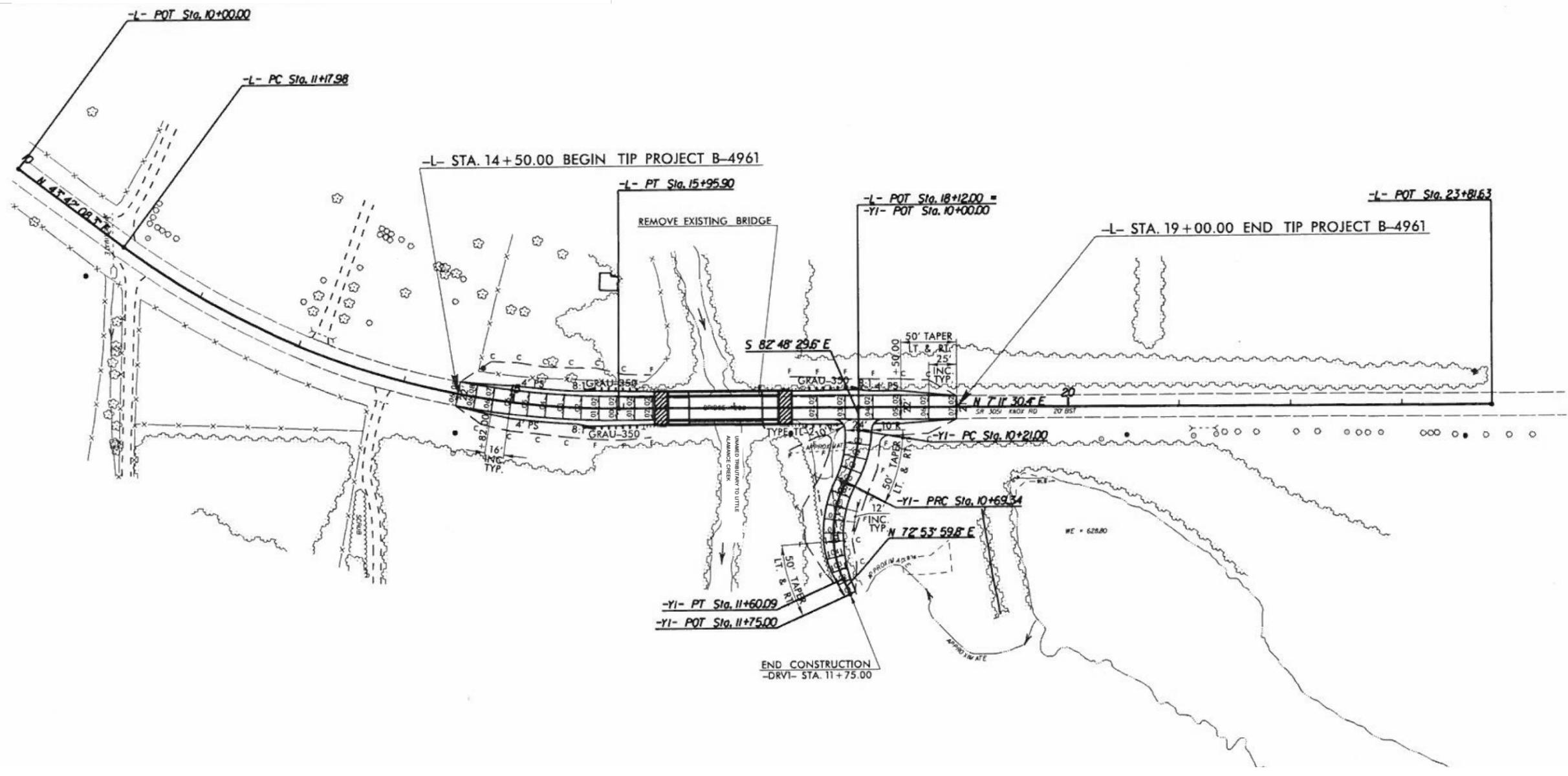



Studied Detour Route



	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS PROJECT DEVELOPMENT AND ENVIRONMENTAL ANALYSIS UNIT
	GUILFORD COUNTY REPLACE BRIDGE NO. 208 ON SR 3051 OVER UNNAMED TRIBUTARY TO LITTLE ALAMANCE CREEK B-4961
FIGURE 1	

-L-	-DRVI-	
PI Sta 13+65.37	PI Sta 10+45.65	PI Sta 11+81.1
$\Delta = 36^{\circ} 30' 37.9" (LT)$	$\Delta = 27^{\circ} 41' 56.5" (RT)$	$\Delta = 51^{\circ} 59' 27.2" (LT)$
$D = 7^{\circ} 38' 22.0"$	$D = 57^{\circ} 17' 44.8"$	$D = 57^{\circ} 17' 44.8"$
$L = 477.92'$	$L = 48.34'$	$L = 90.74'$
$T = 247.39'$	$T = 24.65'$	$T = 48.76'$
$R = 750.00'$	$R = 100.00'$	$R = 100.00'$
SE = SEE PLANS	SE = SEE PLANS	SE = SEE PLANS



	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS PROJECT DEVELOPMENT AND ENVIRONMENTAL ANALYSIS UNIT
	GUILFORD COUNTY REPLACE BRIDGE NO. 208 ON SR 3051 OVER UNNAMED TRIBUTARY TO LITTLE ALAMANCE CREEK B-4961
FIGURE 2	

NO HISTORIC PROPERTIES PRESENT/AFFECTED FORM

PROJECT INFORMATION

Project No: B-4961 County: Guilford
 WBS No: 40152 Document: CE
 F.A. No: BRZ-3051(1) Funding: State Federal

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

Project Description:

Replace Bridge No. 208 over Little Alamance Creek on SR 3051.

SUMMARY OF FINDINGS

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

- There are no properties over fifty years old within the project's area of potential effects.
- There are no properties less than fifty years old which are considered to meet Criteria Consideration G within the project's area of potential effects.
- There are no National Register-listed or Study Listed properties within the project's area of potential effects.
- All properties greater than 50 years of age located in the APE have been considered and all compliance for historic architecture with Section 106 of the National Historic Preservation Act and GS 121-12(a) has been completed for this project.
- There are no historic properties present or affected by this project. (*Attach any notes or documents as needed*)

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 March 10, 2010. Based on this review, there were no existing NR, SL, LD, DE, or SS properties in the Area of Potential Effects. The house located at 5710 Forbes Tate Road (PIN 0117389) was circled on the HPO Survey map indicating the existence of a historic property but it was not give a Survey Site number. Given the distance from the project site (more than 750 feet outside the APE) there will be no historic properties affected.

SUPPORT DOCUMENTATION

See attached: APE Map; HPO Quad Map; Guilford County Tax Record.

Signed:


Cultural Resources Specialist, NCDOT

3/12/2010
Date

10-01-0031

SURVEY REQUIRED FORM**PROJECT INFORMATION**

Project No: B-4961 County: Guilford
 WBS No: 40152.1.1 Document: CE/PCE
 F.A. No: BRZ-3051(1) Funding: State Federal

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

Project Description:

NCDOT intends to replace Bridge No. 208 over Little Alamance Creek on SR 3051 (Knox Road). At the time of the review no alternatives, including detours, were proposed. A general study area of 4.176 acres, which included a corridor along Knox Road, roughly 950-feet long and 140-feet wide was presented for this review.

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

An examination of the site maps and files at the Office of State Archaeology was conducted on February 11, 2010. While no previously recorded archaeological sites were identified within the study area for the proposed bridge replacement, archaeological sites have been recorded in similar settings in Guilford and Alamance Counties. A reconnaissance investigation of the project area was undertaken on July 28, 2010, along with Paul Mohler. While some portions of the study corridor were observed to be eroded and significantly disturbed, other areas (particularly to the north and west of Bridge No. 208) appear to hold more potential for archaeological resources. Depending upon the generation of alternatives for the replacement of this bridge, intensive subsurface investigations may be warranted. Once decisions have been made regarding the schedule and proposed alternatives, more specific recommendations for further investigation can be made.

SUPPORT DOCUMENTATION

See attached: Project photos; location map; aerial photograph with study corridor delineated; detail of the McLeansville, NC (1952) 7.5-minute series topographic map.

FINDING BY NCDOT CULTURAL RESOURCES PROFESSIONAL -- SURVEY REQUIRED

Archaeology

Historic Architecture

(circle one)



NCDOT Cultural Resources Specialist

11-05-10

Date

TBD (based on development of schedule and alternatives)

Proposed fieldwork completion date

10-01-0031



**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-4961** County: **Guiford**
 WBS No: **40152.1.1** Document: **CE/PCE**
 F.A. No: **BRZ-3051(1)** Funding: State Federal
 Federal Permit Required? Yes No Permit Type: **unknown**

Project Description: NCDOT intends to replace Bridge No. 208 over Little Alamance Creek on SR 3051 (Knox Road). Preliminary plans for the project were obtained by the Archaeology Group; these plans date to March 2014 and indicate a general project area and Area of Potential Effects (APE) of approximately 0.64 acres, inclusive of all existing and proposed right-of-way as well as proposed cut-and-fill. Of this overall area, approximately 0.07 acres are located beyond existing right-of-way and required survey.

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:

As noted on the Survey Required Form and based on updated research conducted in July 2014 at the Office of State Archaeology, no previously identified archaeological sites are recorded within the APE, and no archaeological investigations have been carried out in the project vicinity. However, the project area includes water sources and habitable landforms areas without obvious disturbance. Although only very limited portions of the APE extend outside the existing right-of-way, a prior 2010 reconnaissance by NCDOT archaeologists (see Survey Required Form) had noted that at least one of these areas lacked significant soil erosion and could retain archaeological potential. Archaeological survey was recommended leading to the survey reported in this document.

On August 12th, 2014, Coastal Carolina Research (CCR) archaeologists J. Eric Deetz, M.A., RPA (principal investigator), and Amanda Stamper visited the project area to conduct archaeological survey. The entire APE was considered, but only the project areas outside of the existing right-of-way were intensively surveyed. The survey consisted of pedestrian inspection and shovel testings at 15-m intervals (n=3). Areas that were wet, disturbed, or steeply sloped were visually inspected but not shovel tested. No archaeological resources were recorded within APE.

USDA soil survey mapping for Guilford County suggests that the soils along Little Alamance Creek, in the area of Bridge No. 208, should be composed largely Wilkes-Poindexter-Wynott complex soils with 15 to 45 percent slopes (WkE), Enon fine sandy loam with 6 to 10 percent slopes (EnC), and Mecklenburg sandy clay loam with 6 to 10 percent slopes (MhC2). The soil profiles encountered during shovel testing were significantly disturbed by recent sewer construction. A typical profile for shovel tests used to verify the disturbance had mottled silty clay soils. Portions of a recent above-ground pipeline were also present in the APE. In any case, no cultural materials were encountered through the subsurface testing program.

No further archaeological investigations are recommended for the replacement of Bridge No. 208 as proposed. Should the project change further investigation may be necessary. The project as described should be considered to be compliant with Section 106 and NCGS121-12a.

References Used in Attachments:

ArcGIS Image Service

2014 ESRI World Imagery. Electronic document, http://services.arcgisonline.com/ArcGIS/rest/services/world_imagery/Mapserver, accessed August 11, 2014.

SUPPORT DOCUMENTATION

See attached: Map(s) Previous Survey Info Photos Correspondence
 Other: Table of shovel test results.

Signed:

Shane C Petersen

August 25, 2014

NCDOT ARCHAEOLOGIST II

Date