

CATEGORICAL EXCLUSION ACTION CLASSIFICATION FORM

TIP Project No.	<u>B-5236</u>
W.B.S. No.	<u>42840.1.1</u>
Federal Project No.	<u>BRZ-1100(29)</u>

A. Project Description:

The purpose of this project is to replace New Hanover County Bridge No. 19 on SR 1100 (River Road) over Lord's Creek. Bridge No. 19 is 91 feet long. The replacement structure will be a bridge approximately 110 feet long providing a minimum 30.5 foot clear deck width. The bridge will include two 11-foot lanes and 4'-3" offsets to accommodate bicycles. Bicycle safe rails will also be provided. The bridge length is based on preliminary design information and is set by hydraulic requirements. The roadway grade of the new structure will be approximately the same as the existing structure.

The approach roadway will extend approximately 284 feet from the north end of the new bridge and 355 feet from the south end of the new bridge. The approaches will be widened to include a 22-foot pavement width providing two 11-foot lanes. Six foot grass shoulders, four-foot paved shoulders will be provided on each side (9-foot shoulders where guardrail is included). The roadway will be designed as an Urban Minor Arterial using Sub-Regional Tier guidelines with a 50 mile per hour design speed.

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

B. Purpose and Need:

NCDOT Bridge Management Unit records indicate Bridge No. 19 has a sufficiency rating of 5 out of a possible 100 for a new structure.

The bridge is considered structurally deficient due to structural evaluation of 3 out of 9 according to Federal Highway Administration (FHWA) bridge standards. The bridge also considered a functionally obsolete structure due to deck geometry of 2 out of 9.

Bridge No. 19 carries 5,220 vehicles per day with 8,700 vehicles per day projected for the year 2035. The substandard deck width is becoming increasingly unacceptable and replacement of the bridge will result in safer traffic operations.

Components of both the concrete superstructure and substructure have experienced an increasing degree of deterioration that can no longer be addressed by maintenance activities. The posted weight limit on the bridge is to 30 tons for single vehicles and 30 tons for truck-tractor semi-trailers. 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 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 2014 prices, are as follows:

Structure	\$ 345,000
Roadway Approaches	338,000
Structure Removal	42,000
Misc. & Mob.	139,000
Eng. & Contingencies	136,000
Total Construction Cost	\$ 1,000,000
Right-of-way Costs	21,000
Right-of-way Utility Costs	130,000
Total Project Cost	\$ 1,151,000

Estimated Traffic:

Current	-	5,220 vpd
Year 2035	-	8,700 vpd
TTST	-	1%
Dual	-	2%

Accidents: Traffic Engineering has evaluated a recent three year period and found one accident occurring in the vicinity of the project. None were associated with the geometry of the bridge or its approach roadways.

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

Pedestrian and Bicycle Accommodations: This portion of SR 1100 is designated as New Hanover County State Bicycle Route No. 3 (Ports of Call) and State Bicycle Route No. 5 (Cape Fear Run). The NCDOT Bicycle and Pedestrian Division recommend that the bridge and the approach roadway be designed to accommodate 4ft. paved shoulders. Bicycle safe railing height is also recommended. The Wilmington MPO requested 5-foot bike lanes on both sides of the bridge and a multi-use path on the west side of the bridge, as well as a barrier separation between traffic and the multi-use path. New Hanover County declined to participate in cost sharing for the multi-use path; therefore the design will only include 4ft paved shoulders and bicycle safe rails.

Bridge Demolition: Bridge No. 19 includes a superstructure composed of concrete and can be removed by standard techniques with no resulting fill. The substructure is composed of timber piles (in-water) which will likely result in cumulative temporary fill of 14 cubic yards. NCDOT will adhere to the Design Standards in Sensitive Watersheds.

Alternatives Discussion:

No Build – The no build alternative would result in eventually closing the road which is unacceptable given the volume of traffic served by SR 1100.

Rehabilitation – The bridge was constructed in 1974 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. 19 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 1187 (Sanders Rd.), US 421, and SR 1100 (River Rd). US 421 parallels River Road and the neighborhoods between the two roads have connections on either side. Local traffic accounts for approximately half of what is on River Road and during construction would choose to exit their neighborhoods to the east on US 421. Through traffic is in the range of 2000 + vehicles per day and would be routed down US 421. Because of adding to existing heavy traffic along US 421, the delay experienced by both local traffic and through traffic will be in the range of 10 to 20 minutes per trip (12 miles additional travel). Up to a 12-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. New Hanover County Emergency Services along with New Hanover County Schools Transportation have also indicated that the detour is acceptable. NCDOT Division 3 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 1100 is acceptable, a new alignment was not considered as an alternative.

Other Agency Comments:

The **N.C. Wildlife Resource Commission** in standardized letters 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 **U.S. Fish and Wildlife Service** states that although not known from Lords Creek, the federally endangered West Indian Manatee has, on rare occasions, been observed near the project vicinity. If the water depth at the bridge is at least 1.5 meters, the Service recommends implementation of the Guidelines for Avoiding Impacts to the West Indian Manatee.

Response: Construction activities will adhere to the guidelines outlined in Precautions for Constructions in Areas Which May Be Used By the West Indian Manatee in North Carolina.

The **Division of Coastal Management** states that there are two Coastal Area Management Act Areas of Environmental Concern that were identified in the study area. Lords Creek is a designated Estuarine Water and Public Trust Water, and a CAMA coastal marsh is present at wetland site. Therefore a Coastal Area Management Act permit will be required prior to commencement of construction.

Response: NCDOT will coordinate with DCM during the project development process to determine the appropriate permitting requirements for the project.

The **N.C. Division of Water Quality, the Army Corps of Engineers,** and the **N.C. Marine Fisheries** had no special concerns for this project.

Public Involvement:

A newsletter has been sent to all those living along SR 1100, SR 1187, and US 421. No comments have been received to date.

Based on lack of responses to the newsletter, a Public Meeting 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> 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>

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|-----|--|--------------------------|-------------------------------------|
| (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? | _____ | <input checked="" type="checkbox"/> |
| (5) | Will the project require the use of U. S. Forest Service lands? | <input type="checkbox"/> | _____ x _____ |
| (6) | Will the quality of adjacent water resources be adversely impacted by proposed construction activities? | <input type="checkbox"/> | _____ x _____ |
| (7) | Does the project involve waters classified as Outstanding Resources Waters (ORW) and/or High Quality Waters (HQW)? | <input type="checkbox"/> | _____ x _____ |
| (8) | Will the project require fill in waters of the United States in any of the designated mountain trout counties? | <input type="checkbox"/> | _____ x _____ |
| (9) | Does the project involve any known underground storage tanks (UST's) or hazardous materials sites? | <input type="checkbox"/> | _____ x _____ |

PERMITS AND COORDINATION

YES NO

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

SOCIAL, ECONOMIC, AND CULTURAL RESOURCES

YES NO

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|------|---|--------------------------|----------------------|
| (15) | Will the project induce substantial impacts to planned growth or land use for the area? | <input type="checkbox"/> | _____ x _____ |
| (16) | Will the project require the relocation of any family or business? | <input type="checkbox"/> | _____ x _____ |
| (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"/> | _____ x _____ |

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|------|---|--------------------------|--------------------------|
| (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 | <input type="checkbox"/> | <u> </u> |

inclusion in the National System of Wild and Scenic Rivers? x

F. Additional Documentation Required for Unfavorable Responses in Part E

Response to Question 2: Habitat for the Red-cockaded woodpecker does exist in the area. Each tree of suitable age within the study area was surveyed; however, no evidence of the Red-cockaded woodpecker use, past or present, was identified. A review of NCNHP records indicates there are no known occurrences within 1.0 mile of the study area. Therefore a biological conclusion of No Effect was determined.

Habitat for the West Indian Manatee does exist in the study area. A review of the NCNHP records indicates there are no known West Indian Manatee occurrences within 1.0 mile of the study area. Construction activities will adhere to the guidelines outlined in Precautions for Constructions in Areas Which May Be Used by the West Indian Manatee in North Carolina.

Therefore a biological conclusion of May Affect Not Likely to Adversely Affect has been determined. No further surveys are necessary.

Habitat for the Loggerhead Turtle does not exist in the study area and a review of NCNHP records indicates there are no known Loggerhead Turtle occurrences within 1.0 mile of the study area. Therefore a biological conclusion of No Effect was determined.

Response to Question 4: Approximately .15 acres of wetlands will be impacted during the bridge replacement project. Roadway design utilized 3:1 slopes in fills and minimized shoulder and lane widths as a method to minimize wetland takings.

Response to Question 10: The Division of Coastal Management states that there are two Coastal Area Management Act Areas of Environmental Concern that were identified in the study area. Lords Creek is a designated Estuarine Water and Public Trust Water, and a CAMA coastal marsh is present at wetland site. Therefore a Coastal Area Management Act permit will be required prior to commencement of construction. NCDOT will coordinate with DCM during the project development process to determine the appropriate permitting requirements for the project.

Response to Question 12: NCDOT has received USCG Advanced Approval which is valid for 5 years from the letter date October 22, 2013. NES will re-coordinate with USCG should it appear that we will not be underway within the 5 year period.

G. CE Approval

TIP Project No.	<u>B-5236</u>
W.B.S. No.	<u>42840.1.1</u>
Federal Project No.	<u>BRZ-1100(29)</u>

Project Description:

The purpose of this project is to replace New Hanover County Bridge No. 19 on SR 1100 (River Road) over Lord's Creek. Bridge No. 19 is 91 feet long. The replacement structure will be a bridge approximately 110 feet long providing a minimum 30.5 foot clear deck width. The bridge will include two 11-foot lanes and 4'-3" offset to accommodate bicycles. Bicycle safe rails will also be provided. The bridge length is based on preliminary design information and is set by hydraulic requirements. The roadway grade of the new structure will be approximately the same as the existing structure.

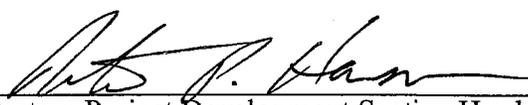
The approach roadway will extend approximately 284 feet from the north end of the new bridge and 355 feet from the south end of the new bridge. The approaches will be widened to include a 22-foot pavement width providing two 11-foot lanes. Six foot grass shoulders, four-foot paved shoulders will be provided on each side (9-foot shoulders where guardrail is included). The roadway will be designed as a Urban Minor Arterial using Sub-Regional Tier guidelines with a 50 mile per hour design speed.

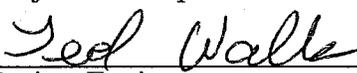
Traffic will be detoured off-site during construction (see Figure 1).

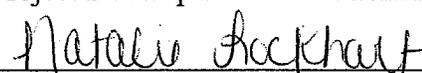
Categorical Exclusion Action Classification:

<u> </u>	TYPE II(A)
<u> x </u>	TYPE II(B)

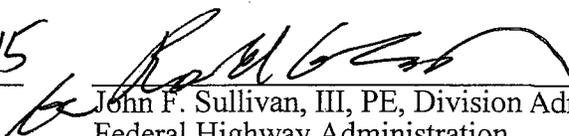
Approved:

<u>1/12/15</u>	
Date	Eastern Project Development Section Head Project Development & Environmental Analysis Unit

<u>1-12-15</u>	
Date	Project Engineer Project Development & Environmental Analysis Unit

<u>1-12-15</u>	
Date	Project Planning Engineer Project Development & Environmental Analysis Unit

For Type II(B) projects only:

<u>1-12-15</u>	
Date	John F. Sullivan, III, PE, Division Administrator Federal Highway Administration

PROJECT COMMITMENTS:

**New Hanover County
Bridge No. 19 on SR 1100
Over Lord's Creek
Federal Aid Project No. BRZ-1100(29)
W.B.S. No. 42840.1.1
T.I.P. No. B-5236**

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

In order to have time to adequately reroute school busses, New Hanover County Schools will be contacted at (910) 254-4080 at least one month prior to road closure.

New Hanover County Emergency Services will be contacted at (910) 798-6900 at least one month prior to road closure to make the necessary temporary reassignments to primary response units.

Division Three Construction, Natural Environment Unit- West Indian Manatee

Suitable habitat for the West Indian Manatee exists within the project area; therefore, the United States Fish and Wildlife Service (USFWS) Guidelines for avoiding impacts to the West Indian Manatee shall be adhered to during construction.

Roadway Design, Division Three Construction- Bike and Pedestrian Accommodations

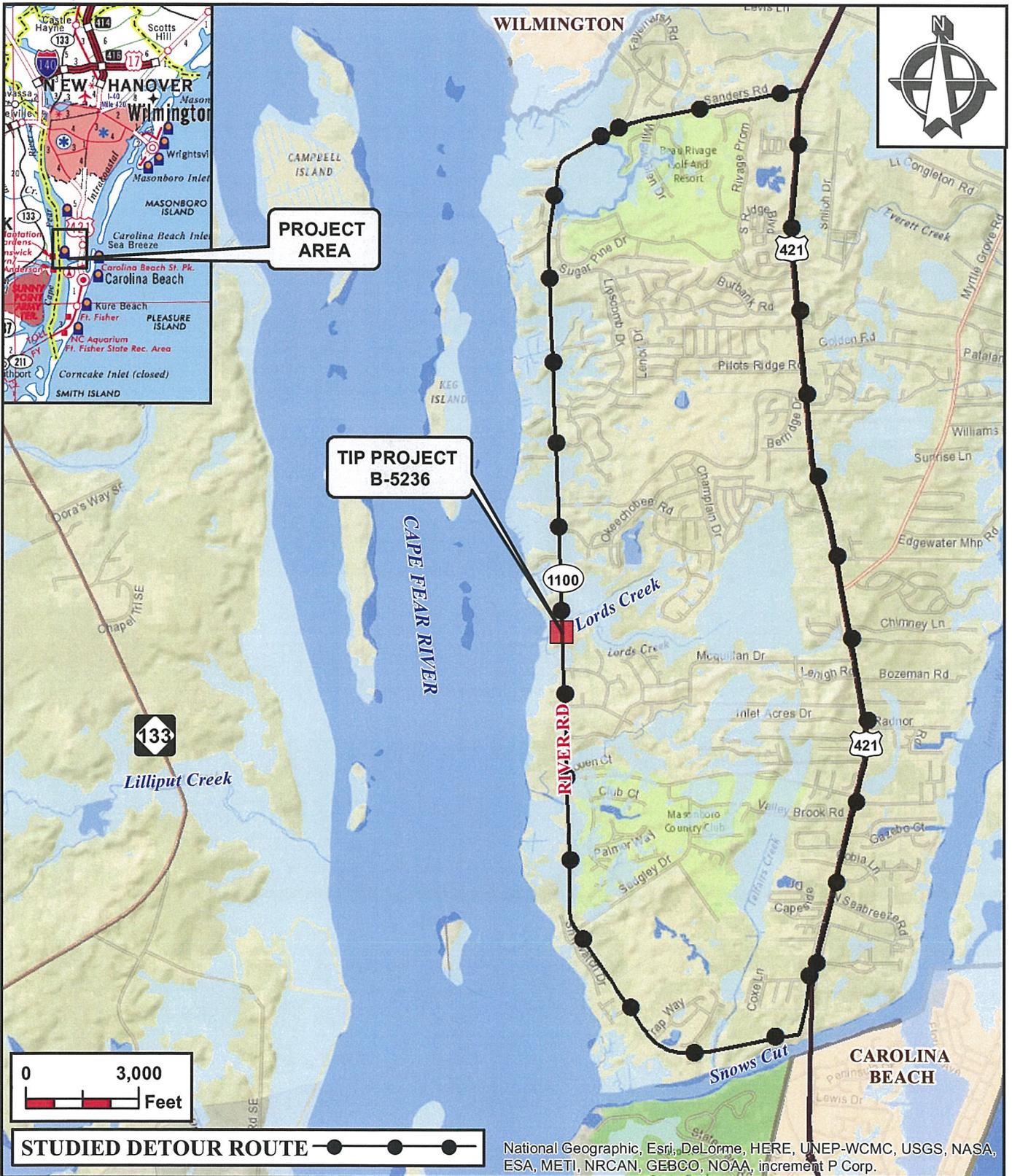
This portion of SR 1100 is designated as New Hanover County State Bicycle Route No. 3 (Ports of Call) and State Bicycle Route No. 5 (Cape Fear Run). The project design will include 4ft paved shoulders and bicycle safe rails.

NES/ Structure Unit-U.S. Coast Guard

NCDOT has received USCG Advanced Approval which is valid for 5 years from the letter dated October 22, 2013.

Roadside Environmental Unit- Sensitive Watersheds

NCDOT will adhere to the Design Standards in Sensitive Watersheds due to Lord's Creek proximity (within 1.0 mile) of the Cape Fear River [AU 18-(71)a], which is listed as impaired for turbidity.



National Geographic, Esri, DeLorme, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.

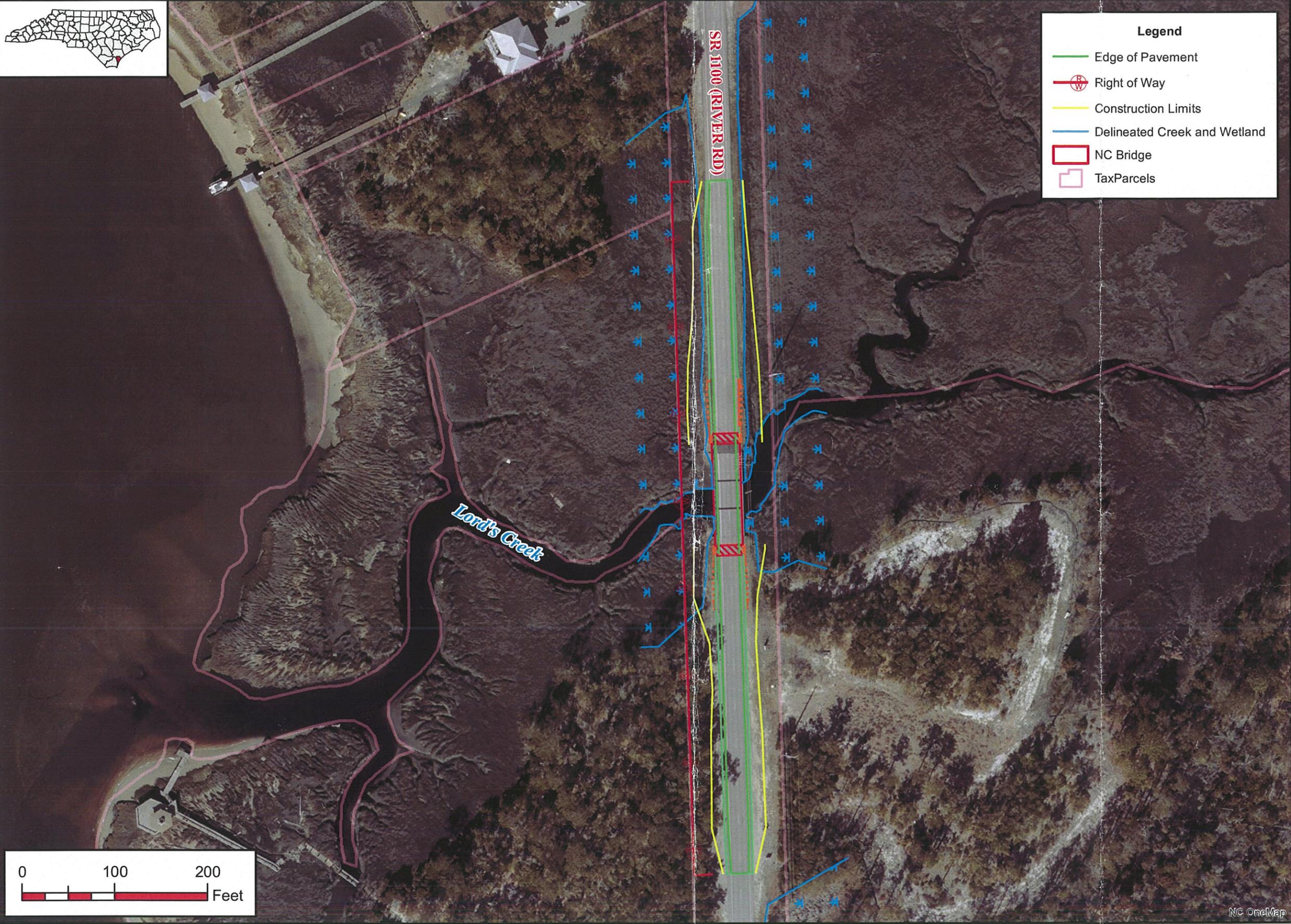


NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
PROJECT DEVELOPMENT AND ENVIRONMENTAL ANALYSIS UNIT

VICINITY MAP
REPLACE BRIDGE No. 19 ON
SR 1100 (RIVER ROAD)
OVER LORD'S CREEK
NEW HANOVER COUNTY
TIP PROJECT B - 5236

County: NEW HANOVER	
Div: 3	TIP# B-5236
WBS: 42840.1.1	
Date: AUGUST 2014	

Figure 1



Legend

- Edge of Pavement
- Right of Way
- Construction Limits
- Delineated Creek and Wetland
- NC Bridge
- TaxParcels



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

ALTERNATE 1 : (PREFERRED)
REPLACE IN PLACE
REPLACE BRIDGE No. 19 ON
SR 1100 OVER LORD'S CREEK
NEW HANOVER COUNTY
TIP PROJECT B-5236



County:
NEW HANOVER

Div: 3	TIP# B-5236
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WBS:
42840.1.1

Date:
August 2014

Figure
2

NC OneMap

By: J.TORTORELLA

11-02-0023

NO SURVEY REQUIRED FORM**PROJECT INFORMATION**

Project No: B-5236

County: New Hanover

WBS No: 42840.1.1

Document: CE/PCE

F.A. No: BRZ-1100(29)

Funding: State FederalFederal (USACE) Permit Required? Yes No Permit Type:

Project Description:

Replace Bridge No 19 over Lords Creek on SR 1100

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

Review of HPO quad maps, relevant background reports, historic designations roster, and indexes was undertaken on March 10, 2011. Based on this review, there were no existing NR, SL, LD, DE, or SS properties in the Area of Potential Effects (APE).

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

No historic structures were identified near the APE of this project. The new Hanover County Tax Parcel Data is considered valid for the purposes of determining the likelihood of historic resources being present.

SUPPORT DOCUMENTATION

See attached: Maps

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


NCDOT Cultural Resources Specialist

3/10/2011
Date

- 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 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:

A site file search and map review was conducted at the Office of State Archaeology (OSA) on March 8, 2011. This work disclosed the location of several previously recorded archaeological sites (31NH33, 31NH135, 31NH509**) situated within or abutting the project APE. In addition, numerous other archaeological sites have been recorded nearby to the north and south along SR1100 in similar topographic, pedological, and hydrological environmental contexts. A cultural resources survey of the project study area was therefore recommended.

During the site visit on March 21, 2011 a transect was established on each side of SR1100 approximately 75ft. from the road center-line. Transect #1 subsumed the eastern portion of the project APE while transect #2 encompassed the western area. Shovel test pits (stp) were excavated at 50ft. intervals along these transects and numbered sequentially south to north with the project area (see attached stp map). Shovel testing was conducted in areas not observed to be saturated or inundated and areas not radically disturbed by erosion or past/on-going human earth-moving activities. Essentially, all areas characterized by well drained soils and slight elevation rises were subjected to subsurface inquiry. Radial stps were excavated at 50ft. intervals perpendicular to the transect in order to establish the site's boundary as it relates to the project APE. In total, 12 shovel test pits were excavated along transect #1 (2 positive + 2 radials) and 10 shovel test pits along transect #2 (3 positive + 3 radials). One new archaeological site (31NH807) was recorded near the southern project limits and a previously known resource (31NH509**) situated immediately south of Bridge No. 19 was revisited and delineated in respect to the project construction footprint. Both of the resources constitute surface/subsurface artifact scatters that have been truncated by the SR1100 road construction, as well as have suffered other impacts including erosion, grading, and development. While these sites may lend some very general perspective on the settlement patterns, landform/environmental preferences, and prehistoric ceramic series distributions of the local Woodland period inhabitants, they lack attributes essential for establishing integrity, preservation, uniqueness, and relevance and are therefore recommended NOT ELIGIBLE for listing on the National Register of Historic Places (NRHP). In addition, site 31NH33 could not be relocated within the northwestern APE quadrant. The site is likely situated further to the north/northwest beyond the project limits and will not be affected by the project as proposed. Also, this survey determined that 31NH135 had been misplotted on the Carolina Beach topo map maintained at the OSA and is not located within the project APE. Instead, this survey found that 31NH509** extends westerly across SR1100 and into the area previously mislabeled as NH135.

31NH509** - is a surface/subsurface, prehistoric/historic artifact scatter located on a raised dune-like upland feature immediately south of the Bridge No. 19 structure. A total of thirteen shovel test pits were excavated along the two transects and including radials upon this landform-type feature. Three of these returned artifacts of prehistoric affiliation. Tiny residual ceramic sherds were recovered from the upper 20cms of the two positive test pit locations on transect #1 and one sand-tempered punctated body sherd with interior incising was found at 60cms-80cms at T=2 STP=8. Erosion, grading, and other heavy earth-moving machinery utilization has severely disturbed the eastern surface and subsurface portions of 31NH509**. Artifacts collected from the surface of the eastern portion of the site include multiple examples of an Early Woodland fine sand tempered punctated ware, presumably from a single vessel or "pot bust", Middle Woodland sand and coarse sand tempered ceramic fragment specimens (particularly along the northeastern site periphery), and two historic ceramic examples that likely date to the mid-nineteenth century. In addition, brick fragments were noted on the surface in the northeastern core site area. The original site form reported a colonial foundation in this area of the site, and the brick fragments may constitute the remains of this foundation following the grading and pseudo-development of this area for home site construction. Despite the number of artifacts collected from disturbed surface contexts, 31NH509** is unlikely to contain significant, intact subsurface cultural features or meaningful artifact concentrations capable of addressing important regional research agendas. The site is recommended not eligible for listing on the NRHP and no further work is advocated. Additional information can be attained from the NC Archaeological Site Form.

31NH807 - is a subsurface prehistoric-ceramic artifact scatter situated at the southern project limits on both eastern and western sides of SR1100. A total of nine shovel test pits including radials were excavated to delineate the boundaries of the site as it relates to the project APE. Four of these test pits returned primarily Middle Woodland period ceramic vessel fragments and a single quartzite flake. The construction and maintenance of SR1100 and it's associated right-of-way, home development in the eastern site area, erosion, and perched water tables/sea level rise are all factors contributing to the site's past and on-going disturbance. Due to low artifact densities and multiple disturbances the site is recommended not eligible for listing on the NRHP under criterion D. No further work is recommended. Additional information about the resource can be attained from the North Carolina Archaeological Site Form.

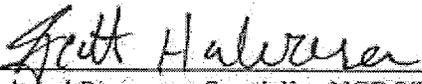
A finding of "no historic properties affected" is considered appropriate for the project as proposed.

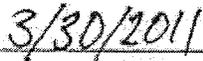
*"No Historic Properties Present" form for Minor Transportation Projects as Qualified in the 2007 Programmatic Agreement
NCDOT Archaeology & Historic Architecture Groups*

SUPPORT DOCUMENTATION

See attached: Map(s), Previous Survey Info, Photos, Correspondence, Photocopy of notes from survey.

Signed:


Cultural Resources Specialist, NCDOT


Date