Type I and II Ground Disturbing Categorical Exclusion Action Classification Form

STIP Project No.	**B-5326**
WBS Element	**46040.1.1**
Federal Project No.	**BRZ-2555(1)**

A. Project Description:

The proposed project involves replacing Bridge No. 247 on SR 2555 (Raynor Road) over White Oak Creek in the Town of Garner in Wake County (see Figure 1). The replacement structure will be a bridge approximately 90 feet long (see Figure 2). The bridge will be 51 feet wide (out to out), with three 12-foot lanes. A five-foot six-inch sidewalk is proposed on the east side of the bridge, with a three-foot nine-inch offset to the travel lane. A three-foot five-inch offset is proposed between the travel lane and the bridge rail on the west side of the bridge. The bridge length is based on preliminary design information and is set by hydraulic requirements. The roadway grade of the new structure will be raised 4.5 feet to accommodate a greenway as well as a longer bridge. Raising the grade will also help eliminate a vertical curve located north of the existing bridge.

Project construction will extend approximately 643 feet northwest and 668 feet southeast from the bridge. SR 2555 will be widened to three 12-foot lanes with curb and gutter and a ten-foot berm on each side from the end of the existing curb and gutter northwest of the bridge to the proposed bridge. A five-foot sidewalk is proposed on the east side of SR 2555 from the end of the existing sidewalk for approximately 413 feet. Southeast of the new bridge, SR 2555 will be widened to three 12-foot lanes from the proposed bridge to southeast of April Court. Southeast of April Court, SR 2555 will transition to two lanes. Curb and gutter and a ten-foot berm is proposed on the east side of the road from the proposed bridge to April Court. Shoulders are proposed on the west side of the road southeast of the proposed bridge. The bridge will be replaced in place with traffic maintained on a temporary onsite detour. The temporary bridge will be 90 feet long with two ten-foot lanes and two-foot paved shoulders with a clear roadway width of 28 feet. The roadway will be designed as a local route using Sub-Regional Tier Guidelines with a 50 mile per hour design speed (see Figure 2).

The proposed project is included in the 2016-20125 State Transportation Improvement Program (STIP). Right of Way acquisition and construction are scheduled for federal fiscal years 2018 and 2019, respectively.

B. Description of Need and Purpose:

The purpose of this project is to replace a structurally deficient bridge. Bridge No. 247 was built in 1952. The bridge is 36 feet long with 24 feet clear roadway width. The superstructure of the bridge is reinforced concrete on timber joists. The substructure of the bridge consists of timber caps and piles.

NCDOT Bridge Management Unit records indicate Bridge No. 247 has a sufficiency rating of 6 out of 100 for a new structure. The bridge is considered structurally deficient due to a substructure condition of 3 out of 4. The bridge also meets the criteria for functionally obsolete due to a deck geometry appraisal of 2 out of 4 and a structural evaluation rating of 3 out of 4 by Federal Highway Administration (FHWA) standards.

Components of the concrete and timber superstructure and timber substructure have experienced an increasing degree of deterioration that can no longer be addressed by maintenance activities. Bridge No. 247 has an Average Annual Daily Traffic (AADT) volume of 4,300 vehicles per day (vpd) for the year 2013 and future traffic of 6,400 AADT for the year 2040. The posted weight limit for single vehicles is 18 tons and 26 tons for truck-tractor semi-trailers. Replacement of the bridge will result in safer traffic operations.

C. Categorical Exclusion Action Classification:

☒ 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:

Alternatives Eliminated from Further Discussion:

No Build Alternative - The No Build alternative would result in eventually closing the road which is unacceptable given the volume of traffic served by SR 2555.

Rehabilitation Alternative- The bridge was constructed in 1952 and the concrete and timber components of the bridge substructure are reaching the end of their useful life. Rehabilitation would require replacing the concrete and timber components which would constitute effectively replacing the bridge.

Alternatives Considered:

Offsite Detour- With this alternate Bridge No. 247 will be replaced on the existing alignment. Traffic will be detoured offsite 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 2700 (White Oak Road) to US 70. The speed limit on all routes along the detour is 45 miles per hour. Traffic on the road consists of local traffic and through traffic. The detour for the average local road user living on SR 2700 in the project vicinity would result in up to six minutes additional travel time (up to five miles additional travel). The detour for the average through-traffic road user would result in up to 3.5 minutes additional travel time (up to three miles additional travel). Garner Fire and Garner EMS have indicated that the project would increase response times if the bridge were closed and the delay is unacceptable. NCDOT concurs with this concern and believes that an offsite detour is not feasible.

Staged Construction with New Alignment – With this alternate Bridge No. 247 will be replaced by staged construction on a new alignment west of the existing bridge. The proposed bridge would be 90 feet long. Traffic would be maintained on the existing bridge during construction. Staged construction would require adding curves to a tangent section of SR 2555 and would have permanent impacts to the driveway for the pump station located northwest of the existing bridge. There would also be substantial utility impacts with a new alignment alternate. This alternate was not recommended for these reasons.

Preferred Alternate:

Replace in Place with Temporary Onsite Detour– Bridge No. 247 will be replaced in place utilizing a temporary onsite detour (see Figure 2). Maintaining traffic onsite during construction is the more feasible alternate to avoid unacceptable delays to emergency response times. The temporary onsite detour will encroach on the driveways for a pump station located northwest of the existing bridge. The City of Raleigh requested that access be maintained to the driveways for the pump station during construction. A temporary fence will be needed around the pump station during construction. There is a 14-inch force main pipe located near the driveway located west of the bridge that the City of Raleigh does not want to relocate. Potential impacts to the 14-inch force main pipe will be avoided. The duration of construction is expected to be two years. NCDOT Division 5 concurs that this is the preferred alternative.

Cost:
The estimated costs for the project are as follows:

Construction Cost	$1,900,000
Onsite Detour	$650,000
Total Project Cost	$2,550,000

Greenway and Sidewalk: The Town of Garner requested greenway access under the new bridge. A cost share agreement was prepared between NCDOT and the Town of Garner. NCDOT will grade the greenway as part of the bridge replacement project. The greenway will be paved and maintained by the Town of Garner. The Town of Garner will pay for a portion of the cost for the increase in bridge length due to accommodating the greenway. A sidewalk will

be included in the design along the east side of the bridge north of the bridge and will extend south of the bridge to April Court. The Town of Garner will participate in the cost of and accept maintenance and liability responsibilities for the new sidewalk. A municipal agreement will be prepared prior to project construction regarding the Town of Garner's participation in the cost of sidewalks.

Agency Comments:
As part of project scoping, comments were requested from state, federal, and local agencies.

The **North Carolina Wildlife Resource Commission** in a letter dated April 10, 2013 recommended replacing the bridge with a bridge.

Garner Emergency Services stated that road closure for Bridge No. 247 would cause a significant increase in response times. The road closure would impact Garner Station #4 by 10 minutes. The road closure would impact the response time for the **Garner Fire Departmen**t and **Wake County EMS**.

Response: The proposed project will replace the bridge in place maintaining traffic on a temporary onsite detour. The onsite detour will eliminate the need to close the road and avoid unacceptable delays to response times.

Cultural Resources: No architectural survey is required for this project (see letter dated April 19 2017). No archeological sites are present within the project area (see letter dated May 1, 2017).

Public Involvement:
Landowner notification letters were sent out February 18, 2013 to all property owners affected by this project. Property owners were invited to comment. No comments were received to date. In addition, newsletters were sent in May 2017 to residents and property owners. No comments were received in response to the newsletters.

F. Project Impact Criteria Checklists:

Type I & II - Ground Disturbing Actions			
FHWA APPROVAL ACTIVITIES THRESHOLD CRITERIA			
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)?	☐	☒
2	Does the project result in impacts subject to the conditions of the Bald and Golden Eagle Protection Act (BGPA)?	☐	☒
3	Does the project generate substantial controversy or public opposition, for any reason, following appropriate public involvement?	☐	☒
4	Does the project cause disproportionately high and adverse impacts relative to low-income and/or minority populations?	☐	☒
5	Does the project involve a residential or commercial displacement, or a substantial amount of right of way acquisition?	☐	☒
6	Does the project require an Individual Section 4(f) approval?	☐	☒
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)?	☐	☒
If any of questions 8 through 31 are marked "yes" then additional information will be required for those questions in Section G.			
Other Considerations		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)?	☐	☒
9	Does the project impact anadromous fish?	☐	☒
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)?	☒	☐
11	Does the project impact waters of the United States in any of the designated mountain trout streams?	☐	☒
12	Does the project require a U.S. Army Corps of Engineers (USACE) Individual Section 404 Permit?	☐	☒
13	Will the project require an easement from a Federal Energy Regulatory Commission (FERC) licensed facility?	☐	☒
14	Does the project include a Section 106 of the NHPA effects determination other than a no effect, including archaeological remains?	☐	☒

Other Considerations (continued)		Yes	No
15	Does the project involve hazardous materials and/or landfills?	☐	☒
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?	☒	☐
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)?	☐	☒
18	Does the project require a U.S. Coast Guard (USCG) permit?	☐	☒
19	Does the project involve construction activities in, across, or adjacent to a designated Wild and Scenic River present within the project area?	☐	☒
20	Does the project involve Coastal Barrier Resources Act (CBRA) resources?	☐	☒
21	Does the project impact federal lands (e.g. U.S. Forest Service (USFS), USFWS, etc.) or Tribal Lands?	☐	☒
22	Does the project involve any changes in access control?	☐	☒
23	Does the project have a permanent adverse effect on local traffic patterns or community cohesiveness?	☐	☒
24	Will maintenance of traffic cause substantial disruption?	☐	☒
25	Is the project inconsistent with the STIP or the Metropolitan Planning Organization's (MPO's) Transportation Improvement Program (TIP) (where applicable)?	☐	☒
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?	☐	☒
27	Does the project involve Federal Emergency Management Agency (FEMA) buyout properties under the Hazard Mitigation Grant Program (HMGP)?	☐	☒
28	Does the project include a *de minimis* or programmatic Section 4(f)?	☐	☒
29	Is the project considered a Type I under the NCDOT's Noise Policy?	☐	☒
30	Is there prime or important farmland soil impacted by this project as defined by the Farmland Protection Policy Act (FPPA)?	☐	☒
31	Are there other issues that arose during the project development process that affected the project decision?	☐	☒

G. Additional Documentation as Required from Section F;

Response to Question 8: The US Fish and Wildlife Service has developed a programmatic biological opinion (PBO) in conjunction with the Federal Highway Administration, the US Army Corps of Engineers and NCDOT, for the northern long-eared bat in eastern North Carolina. The programmatic biological opinion covers the entire NCDOT program in Divisions 1-8, including all NCDOT projects and activities. The programmatic determination for northern long-eared bat for the NCDOT program in Divisions 1-8 is "May Affect, Likely to Adversely Affect." The PBO will provide incidental take coverage for northern long-eared bat and will ensure compliance with Section 7 of the Endangered Species Act for five years for all NCDOT projects with a federal nexus in Divisions 1-8, which includes Wake County.

Response to Question 10: White Oak Creek and its tributaries are protected under provisions of the Neuse River Buffer Rules. Therefore, Design Standards in Sensitive Watersheds will be implemented during project construction.

Response to Question 16:
Wake County is a participant in the National Flood Insurance Program, administered by the Federal Emergency Management Agency (FEMA). The effective FEMA floodplain mapping indicates that this crossing of White Oak Creek is located within a flood hazard zone designated as Zone AE, for which 100-year base flood elevations have been established in a Flood Study.

The Hydraulics Unit will coordinate with the NC Floodplain Mapping Program to determine the status of the 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 a FEMA-regulated stream. Therefore, the Division shall submit sealed as-built construction plans to the Hydraulics Unit upon project completion certifying the drainage structure(s) and roadway embankment located within the 100-year floodplain were built as shown on the construction plans, both horizontally and vertically.

H. Project Commitments

Wake County
Bridge No. 247 on SR 2555 (Raynor Road)
Over White Oak Creek
Federal Aid Project No. BRZ-2555 (1)
W.B.S. No. 46040.1.1
T.I.P. No. B-5326

N**ES, Hydraulics Unit, Roadside Environmental, Division – Design Standards in Sensitive Watersheds**
White Oak Creek and its tributaries are protected under provisions of the Neuse River Buffer Rules. Therefore, Design Standards in Sensitive Watersheds will be implemented during project construction.

Roadway Design/Program Development- Greenway and Sidewalks
The Town of Garner requests greenway access under the bridge. A cost share agreement has been prepared between NCDOT and the Town of Garner. NCDOT will grade the greenway as part of the bridge replacement project. The greenway will be paved and maintained by the Town of Garner. The Town of Garner will pay for a portion of cost for the increase in bridge length due to accommodating the greenway. A sidewalk will be included in the design along the east side of the bridge north of the bridge and will extend south of the bridge to April Court. The Town of Garner will participate in the cost of and accept maintenance and liability responsibilities for the new sidewalk. A municipal agreement will be prepared prior to project construction regarding the Town of Garner's participation in the cost of sidewalks.

Hydraulics Unit, Division Five Construction- FEMA
The Hydraulics Unit will coordinate with the NC Floodplain Mapping Program to determine the status of the 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 a FEMA-regulated stream. Therefore, the Division shall submit sealed as-built construction plans to the Hydraulics Unit upon project completion certifying the drainage structure(s) and roadway embankment located within the 100-year floodplain were built as shown on the construction plans, both horizontally and vertically.

I. Categorical Exclusion Approval

STIP Project No.	**B-5326**
WBS Element	**46040.1.1**
Federal Project No.	**BRZ-2555(1)**

Prepared By:

10/27/2017
Date

DocuSigned by:
Natalie Lockhart
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Natalie Lockhart, ENV-SP, Supervising Planner
WSP, USA

Prepared For: North Carolina Department of Transportation

Reviewed By:

10/27/2017
Date

DocuSigned by:
April Annis
F616D1B972B34C0...

April Annis, Project Planning Engineer
North Carolina Department of Transportation

☒ **Approved** — If all 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.

10/27/2017
Date

DocuSigned by:
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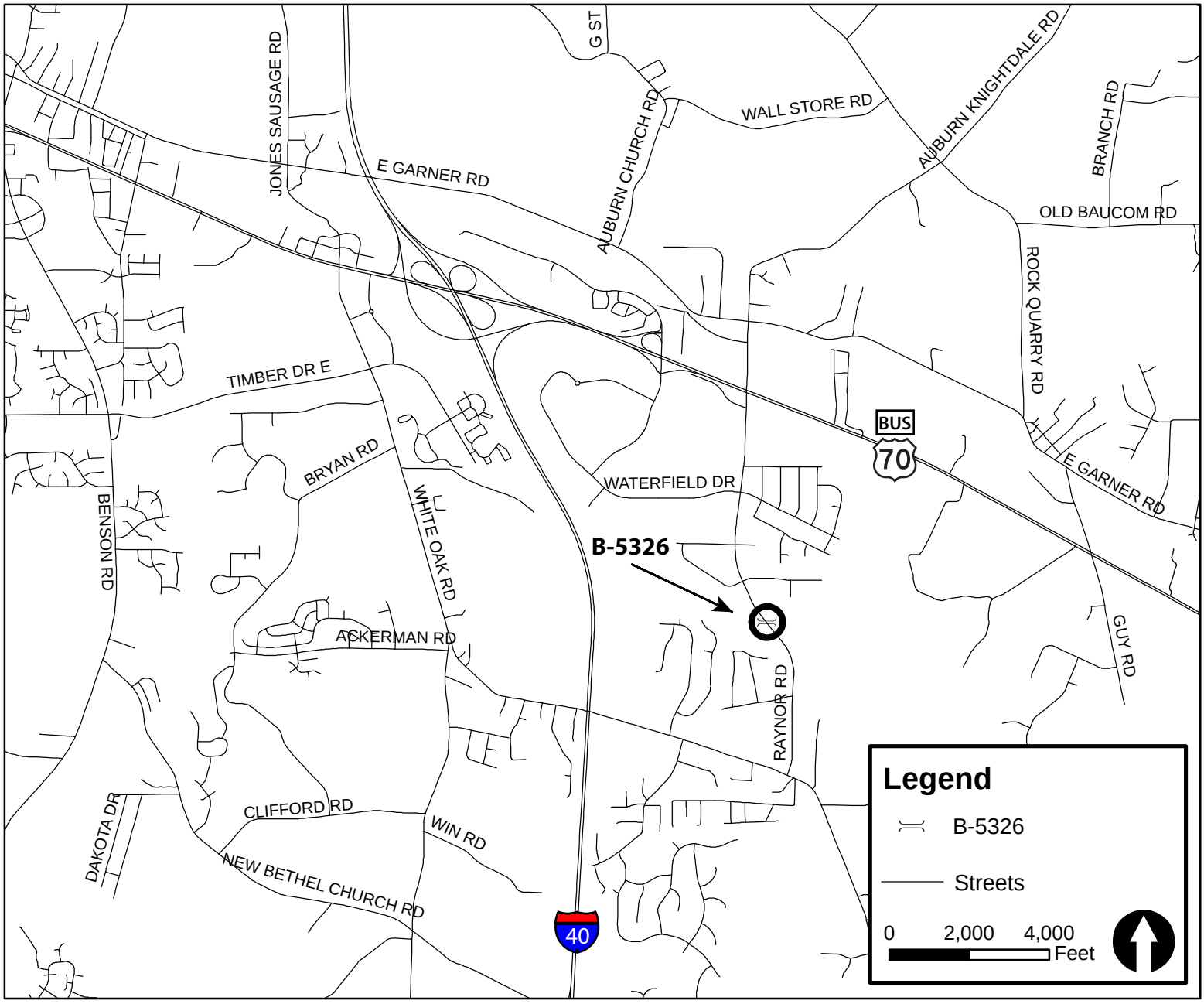
James McInnis, Jr., PE Project Manager
North Carolina Department of Transportation

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

N/A
Date

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



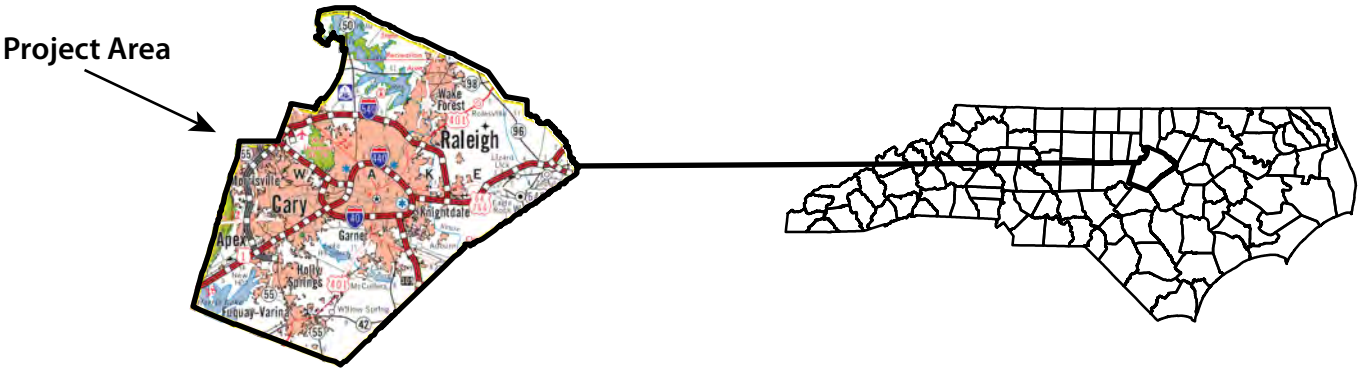


Figure 1

Vicinity Map

Replace Bridge No. 247 on S.R. 2555 (Raynor Road)
over White Oak Creek
TIP Project B-5326
Wake County

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

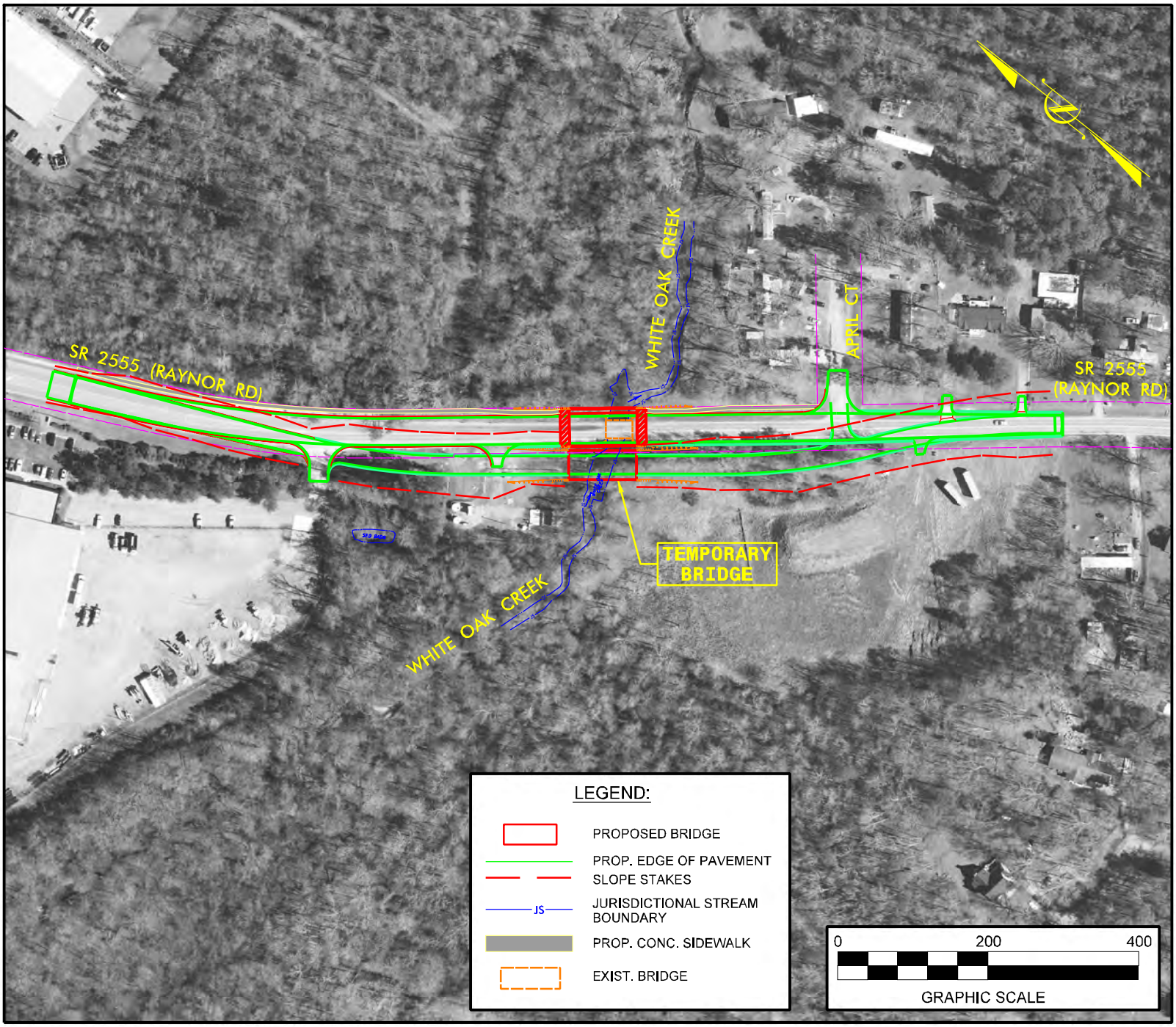
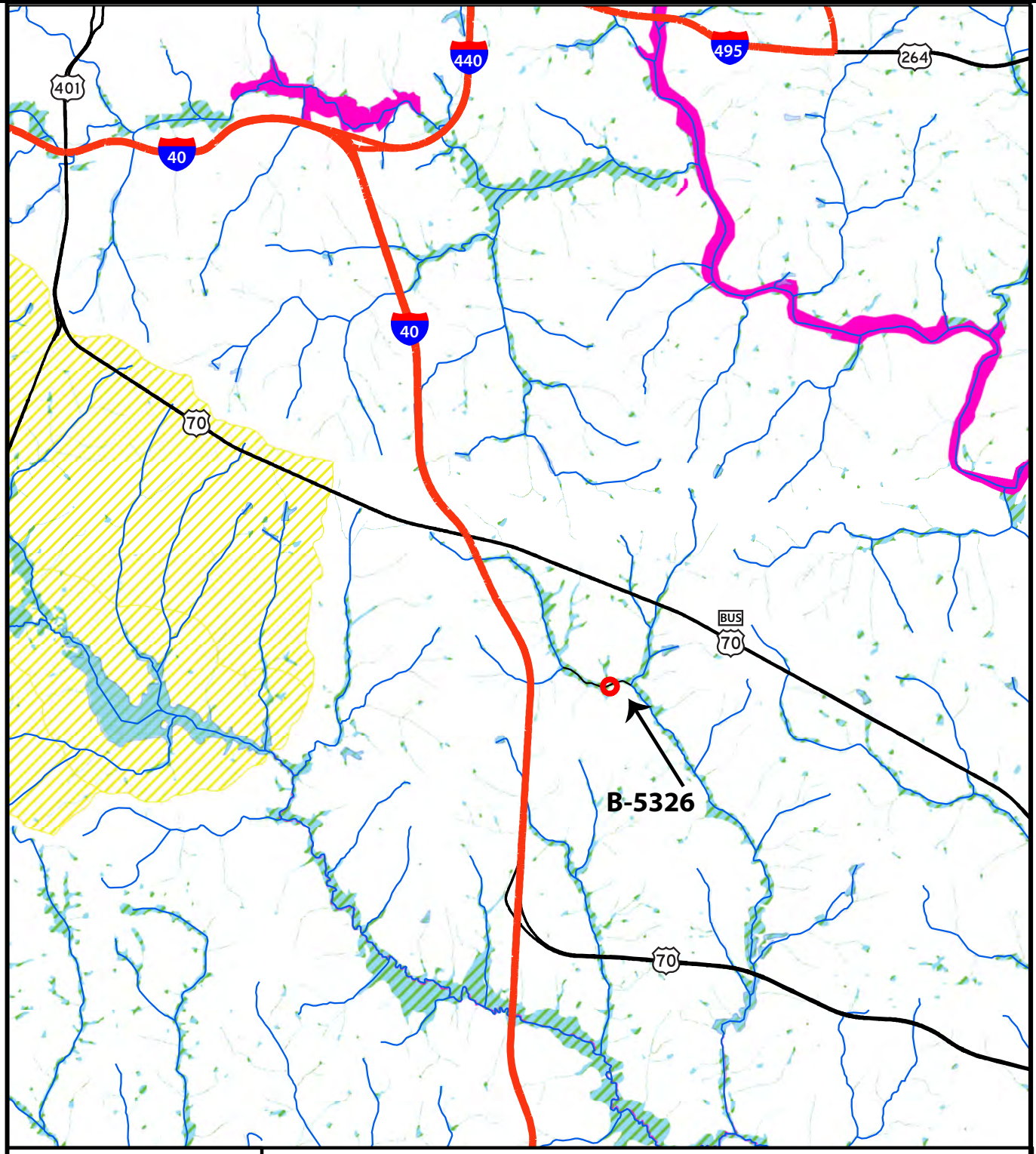


Figure 2

Replace in Place with Temporary On-Site Detour

Replace Bridge No. 247 on S.R. 2555 (Raynor Road)
over White Oak Creek
TIP Project B-5326
Wake County

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION



ENVIRONMENTAL CONSTRAINTS MAP

STIP B-5326
Wake County

B - 5326
Interstate
US Route
Creeks & Streams
Water Bodies
Natural Heritage Natural Area
Wetlands
Water Supply Watershed

0 2.5 5 Miles

NORTH

Figure 3

Environmental Constraints Map

Replace Bridge No. 247 on S.R. 2555 (Raynor Road)
over White Oak Creek
TIP Project B-5326
Wake County

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

Bridge No. 247 Looking North

East Face of Bridge No. 247

Figure 4

Photos

Replace Bridge No. 247 on S.R. 2555 (Raynor Road)
over White Oak Creek
TIP Project B-5326
Wake County

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

Project Tracking No. (Internal Use)

17-03-0025

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-5326	***County***:	Wake
WBS No.:	46040.1.1	***Document Type***:	
Fed. Aid No:	BRZ-2555(1)	***Funding***:	State X Federal
Federal Permit(s):	X Yes No	***Permit Type(s)***:	NWP 404
Project Description: Replace Bridge No. 247 on SR 2555 (Raynor Road) over White Oak Creek (off-site detour, assume no improvements).			

SUMMARY OF HISTORIC ARCHITECTURE AND LANDSCAPES REVIEW

DESCRIPTION OF REVIEW ACTIVITIES, RESULTS, AND CONCLUSIONS: HPOWeb reviewed on 19 April 2017 and yielded no NR, SL, SS, LD, or DE properties in the Area of Potential Effects (APE). Wake County current GIS mapping, aerial photography, and tax information indicated a mostly wooded APE with residential and commercial resources dating from the 1970s to the 1990s (viewed 19 April 2017). The APE intersects a large property on which stand early-twentieth-century resources, approximately 1400 feet and more SE of the existing bridge with intervening woodland and well beyond likely project impact. Constructed in 1952, Bridge No. 247 is not eligible for the National Register according to the NCDOT Historic Bridge Survey as it is neither technologically nor aesthetically significant. Google Maps "Street View" confirmed the absence of critical architectural and landscape resources in the APE (viewed 19 April 2017).

No architectural survey is required for the project as currently defined.

***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*:** APE extends 900 feet to either end of the existing bridge (NW-SE) and 200 feet to either side of the SR 2555 (Raynor Road) centerline (NE-SW) to encompass proposed construction activities and possible project impacts. The county architectural surveys (1988-91 and 2005-6) and related publication, as well as later studies, recorded no properties in the APE (Kelly Lally, *The Historic Architecture of Wake County, North Carolina* (Raleigh: Wake County Government, 1994)). County GIS/tax materials and other visuals support the absence of significant architectural and landscape resources. No National Register-listed properties are located within the APE.

Should the design of the project change, please notify NCDOT Historic Architecture as additional review may be necessary.

SUPPORT DOCUMENTATION

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

FINDING BY NCDOT ARCHITECTURAL HISTORIAN

Historic Architecture and Landscapes -- NO SURVEY REQUIRED

Vanessa C. Patrick — 19 April 2017

NCDOT Architectural Historian — Date

Project Tracking No.:

17-03-0025

NO NATIONAL REGISTER OF HISTORIC PLACES ELIGIBLE OR LISTED ARCHAEOLOGICAL SITES PRESENT 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-5326**	*County:*	**Wake**
WBS No:	**46040.1.1**	*Document:*	**Federal PCE**
F.A. No:	**BRZ-2555(1)**	*Funding:*	☐ State ☒ Federal

Federal Permit Required? ☒ Yes ☐ No *Permit Type:* **NWP3**

Project Description: The replacement of Bridge No. 247 over White Oak Creek on SR 2555 (Raynor Road) in Wake County, North Carolina. The archaeological Area of Potential Effects (APE) is centered on the bridge structure and measures 600ft. in length (300ft. from each bridge end-point) and 150ft. in width (75ft. from each side of the SR 2555 center-line).

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 or eligible ARCHAEOLOGICAL SITES present within the project's area of potential effects. (Attach any notes or documents as needed)
☐ No subsurface archaeological investigations were 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.

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

To determine the cultural resource potential of the APE, numerous sources of information were considered. First, preliminary construction design, funding, and other data was examined for defining the potential impacts to the APE ground surfaces and for determining the level of effort necessary for compliance. In this case, the project is federally-funded with federal permit interaction and subject to Section 106 of the National Historic Preservation Act. For the most part, the APE dimensions were formulated to capture any federal permit areas or sections within the construction footprint.

Next, a map review and site file search was conducted at the Office of State Archaeology (OSA) on Friday, April 7, 2017. One previously documented archaeological site (31WA4) has been recorded within the limits of or directly adjacent to the project's APE. However, the site is a so-called Native American mound whose location is not concrete, but rather an estimation of where the site is thought to be.

Examination of National Register of Historic Places (NRHP), State Study Listed (SL), Locally Designated (LD), Determined Eligible (DE), and Surveyed Site (SS) properties employing resources available on the North Carolina State Historic Preservation Office (NCSHPO) website demonstrated that no resources with potential archaeological deposits were located in the vicinity of the APE. Also, historic maps of Wake County were appraised for former structure locations, land use patterns, or other confirmation of historic occupation in the project vicinity and archaeological/historical reference materials were reviewed as well.

In addition, topographic, geologic, flood boundary, lidar, and NRCS soil survey maps were referenced for the evaluation of geomorphological, pedeological, hydrological, and other environmental-type elements that may have resulted in past occupation at this location. Finally, review of aerial and on-ground images (NCDOT Spatial Data Viewer, Google, ARC-GIS) afforded first-hand perspectives of the overall study area which were useful for assessing localized disturbances, both natural and human induced, which compromise the integrity of archaeological sites/deposits. Based on environmental determinants and the location of a previously recorded site, the APE is considered to have a moderate potential for the recovery of archaeological artifacts, deposits, or features. An archaeological survey will therefore be recommended for the project.

An in-field reconnaissance and subsurface survey was conducted by NCDOT archaeologists Scott Halvorsen and Caleb Smith on Wednesday, April 19, 2017. First, a visual inspection of the entire APE was completed. No above-ground historic features or other archaeological resources were encountered within the APE. For the most part, the two northern quadrants are typified by poor soils and wetland conditions and the site of a small, disturbed power station. Therefore, shovel testing was confined to the southern project area within the APE.

In both the southeastern and southwestern quadrants, three shovel tests were excavated at 100ft intervals. The first shovel test on each quadrant transect was excavated approximately 100ft from the bridge location. Each shovel test pit measured 40cm in diameter and was dug to sterile subsoil. Testing began in the southwestern quadrant. A typical shovel test pit consisted of a first soil stratum of 0-20cmbs of 7.5YR4/2 sandy loam atop a second soil stratum of 10YR6/4 sand to 35-40cmbs. The third soil stratum was a 7.5YR5/6 strong brown sandy clay subsoil which extended to a depth of 50+cmbs. No cultural artifacts were recovered from the three excavated shovel test pits in the southwestern quadrant nor was any evidence of 31WA4 encountered. All three soil profiles from these shovel test pits displayed strong evidence of erosion at this location.

In the southeastern quadrant, erosion was visible at the surface level throughout the area. None the less, three subsurface shovel test pits were excavated in order to gauge the level of erosion. A typical shovel test pit contained a first soil stratum of compacted 10YR6/2 loamy sand and rocks to 20cmbs atop a second soil stratum of 10YR5/6 sand to 25-40cmbs. The third stratum was 7.5YR5/6 clay subsoil. Previously documented site 31WA4 could not be relocated. No other archaeological resources were recorded. Following investigation of the B-5326 project area, no further archaeological consultation will be necessary. A finding of "No historic properties present" is deemed appropriate.

Project Tracking No.:

17-03-0025

SUPPORT DOCUMENTATION

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

Brett Eric Halvorsen 5-1-2017

NCDOT ARCHAEOLOGIST **Date**