

## Type I and II Ground Disturbing Categorical Exclusion Action Classification Form

STIP Project No.	B-5981
WBS Element	44593.1.1
Federal Project No.	BRZ-0117(048)

- A. Project Description: Replacement of Bridge #16 on US 117 NBL over CSX Railroad in Duplin County. The bridge will be replaced on the existing location with crossover median detours on either end of the existing bridge.

As part of the project let, the following preservation activities will take place on the parallel Bridge # 17 (US 117 SBL):

1. Concrete repairs (shotcrete, crack epoxy injection, etc.) will occur to address caps and columns have some cracking and spalling.
2. Remove the 2 ½" Asphalt Wearing Surface, replace the joint seals and put back a concrete deck overlay. The type of overlay will be determined during design.
3. Since that will be removed, the approach pavement will need to be removed and new pavement wedged to provide a good transition onto the bridge.
4. The bearings will be cleaned and painted with HRCSA to help make sure they are freed up and allowed to move.

B. Description of Need and Purpose:

Bridge No. 16 is 83 years old and rated as structurally deficient. The bridge also lacks proper vertical clearance underneath for trains and proper deck width for this type of facility.

While Bridge No.17 is structurally sound, it does have preservation needs to extend the life of the bridge as described above to address cracking and spalling, joint seals, and bearings.

C. Categorical Exclusion Action Classification: (Check one)

TYPE I A

D. Proposed Improvements

Type I Action

9. The following actions for transportation facilities damaged by an incident resulting in an emergency declared by the Governor of the State and concurred in by the Secretary, or a disaster or emergency declared by the President pursuant to the Robert T. Stafford Act (42 U.S.C. 5121):
  - a) Emergency repairs under 23 U.S.C. 125; and
  - b) The repair, reconstruction, restoration, retrofitting, or **replacement** of any road, highway, **bridge**, tunnel, or transit facility (such as a ferry dock or bus transfer station), including ancillary transportation facilities (such as pedestrian/bicycle paths and bike lanes), that is in operation or under construction when damaged and the action:
    - i) Occurs within the existing right-of-way and in a manner that substantially conforms to the preexisting design, function, and location as the original (which may include upgrades to meet existing codes and standards as well as upgrades warranted to address conditions that have changed since the original construction); and

- ii) Is commenced within a 2-year period beginning on the date of the declaration.

E. Special Project Information:

**Traffic Forecast** for North Bound Bridge No. 16

Year	NB Lanes US 117	AADT	D	K	Duals	TTSTs
2018	2	2000	100%	9%	3%	3%
2040	2	2300	100%	9%	3%	3%

**Public Involvement:** NCDOT sent a Land Owner Notification letter to all property holders within the study area and received no comment. Given the lack of interest from the letter and the anticipated limited project impacts, NCDOT at the Field Scoping Meeting held September 4, 2018, expressed no desire for further public involvement.

F. Project Impact Criteria Checklists:

The Division Resources Map is referenced multiple times as documentation in the answers below. The Map was developed as part of the NCDOT-FHWA CE Agreement and can be found at the following link: [Division Resources Map](#)

<u>Type I &amp; II - Ground Disturbing Actions</u>				
<u>FHWA APPROVAL ACTIVITIES THRESHOLD CRITERIA</u>				
If any of questions 1-7 are marked "yes" then the CE will require FHWA approval.			Yes	No
1	Does the project require formal consultation with U.S. Fish and Wildlife Service (USFWS) or National Marine Fisheries Service (NMFS)? <a href="#">Source: NRTR</a>	<input type="checkbox"/>	<input checked="" type="checkbox"/> *	
2	Does the project result in impacts subject to the conditions of the Bald and Golden Eagle Protection Act (BGPA)? <a href="#">Source: NRTR</a>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3	Does the project generate substantial controversy or public opposition, for any reason, following appropriate public involvement? <a href="#">Source: No interest expressed to landowner notification or from local officials</a>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
4	Does the project cause disproportionately high and adverse impacts relative to low-income and/or minority populations? <a href="#">Source: Direct and Indirect Screening Tool</a>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
5	Does the project involve a residential or commercial displacement, or a substantial amount of right of way acquisition? <a href="#">No relocations are anticipated with this project</a>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
6	Does the project require an Individual Section 4(f) approval? <a href="#">According to GIS County Parcel data, no publicly owned resources are present</a>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
7	Does the project include adverse effects that cannot be resolved with a Memorandum of Agreement (MOA) under Section 106 of the National Historic Preservation Act (NHPA) or have an adverse effect on a National Historic Landmark (NHL)? <a href="#">Source: Archaeology and Historic Architecture Forms (forms attached)</a>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

If any of questions 8 through 31 are marked “yes” then additional information will be required for those questions in Section G.			
<u>Other Considerations</u>		Yes	No
8	Does the project result in a finding of “may affect not likely to adversely affect” for listed species, or designated critical habitat under Section 7 of the Endangered Species Act (ESA)? <a href="#">Source: NRTR</a>	<input type="checkbox"/>	<input checked="" type="checkbox"/> *
9	Is the project located in anadromous fish spawning waters? <a href="#">Source: NRTR – No water resources present in project study area</a>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10	Does the project impact waters classified as Outstanding Resource Water (ORW), High Quality Water (HQW), Water Supply Watershed Critical Areas, 303(d) listed impaired water bodies, buffer rules, or Submerged Aquatic Vegetation (SAV)? <a href="#">Source: NRTR – No water resources present in the project study area</a>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
11	Does the project impact waters of the United States in any of the designated mountain trout streams? <a href="#">Source: Division Resources Map</a>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
12	Does the project require a U.S. Army Corps of Engineers (USACE) Individual Section 404 Permit? <a href="#">Source: NRTR – No water resources present in the project study area</a>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
13	Will the project require an easement from a Federal Energy Regulatory Commission (FERC) licensed facility? <a href="#">Source: Division Resource Map and GIS County Parcel data</a>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
14	Does the project include a Section 106 of the NHPA effects determination other than a no effect, including archaeological remains? <a href="#">Source: Archaeology Form (attached)</a>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<u>Other Considerations (continued)</u>		Yes	No
15	Does the project involve hazardous materials and/or landfills? <a href="#">See explanation in part G.</a>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
16	Does the project require work encroaching and adversely affecting a regulatory floodway or work affecting the base floodplain (100-year flood) elevations of a water course or lake, pursuant to Executive Order 11988 and 23 CFR 650 subpart A? <a href="#">No water resources present in the project study area.</a>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
17	Is the project in a Coastal Area Management Act (CAMA) county and substantially affects the coastal zone and/or any Area of Environmental Concern (AEC)? <a href="#">Source: Division Resources Map</a>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
18	Does the project require a U.S. Coast Guard (USCG) permit? <a href="#">No water resources are present in the project study area.</a>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
19	Does the project involve construction activities in, across, or adjacent to a designated Wild and Scenic River present within the project area? <a href="#">Source: Division Resources Map</a>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
20	Does the project involve Coastal Barrier Resources Act (CBRA) resources? <a href="#">Source: Division Resources Map</a>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
21	Does the project impact federal lands (e.g. U.S. Forest Service (USFS), USFWS, etc.) or Tribal Lands? <a href="#">According to GIS County Parcel data, no publicly owned lands or tribal lands are present.</a>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
22	Does the project involve any changes in access control?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

23	Does the project have a permanent adverse effect on local traffic patterns or community cohesiveness? <a href="#">Source: Direct and Indirect Screening Tool</a>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
24	Will maintenance of traffic cause substantial disruption? <a href="#">Traffic will be slowed down into a two-lane two-way pattern but with the lower volumes of traffic present, this should not cause substantial delays.</a>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
25	Is the project inconsistent with the STIP or the Metropolitan Planning Organization's (MPO's) Transportation Improvement Program (TIP) (where applicable)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
26	Does the project require the acquisition of lands under the protection of Section 6(f) of the Land and Water Conservation Act, the Federal Aid in Fish Restoration Act, the Federal Aid in Wildlife Restoration Act, Tennessee Valley Authority (TVA), or other unique areas or special lands that were acquired in fee or easement with public-use money and have deed restrictions or covenants on the property? <a href="#">According to GIS County Parcel data, no publicly owned lands or tribal lands are present.</a>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
27	Does the project involve Federal Emergency Management Agency (FEMA) buyout properties under the Hazard Mitigation Grant Program (HMGP)? <a href="#">According to GIS County Parcel data, no publicly owned lands or tribal lands are present.</a>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
28	Does the project include a <i>de minimis</i> or programmatic Section 4(f)? <a href="#">According to GIS County Parcel data, no publicly owned lands or tribal lands are present.</a>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
29	Is the project considered a Type I under the NCDOT's Noise Policy? <a href="#">This project will <u>not</u> affect traffic volumes, add lanes, change elevations, or move traffic closer to noise receptors.</a>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
30	Is there prime or important farmland soil impacted by this project as defined by the Farmland Protection Policy Act (FPPA)? <a href="#">See response in Section G.</a>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
31	Are there other issues that arose during the project development process that affected the project decision?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### G. Additional Documentation as Required from Section F

#### \*Response to Question 8:

The USFWS has developed a programmatic biological opinion (PBO) in conjunction with the Federal Highway Administration (FHWA), the USACE, and NCDOT for the northern long-eared bat (NLEB) in eastern North Carolina. The PBO covers the entire NCDOT program in Divisions 1-8, including all NCDOT projects and activities. The programmatic determination for NLEB for the NCDOT program is "May Affect, Likely to Adversely Affect". The PBO provides incidental take coverage for NLEB 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 Duplin County, where STIP B-5981 is located. This level of incidental take is authorized from the effective date of a final listing determination through April 30, 2020.

#### Response to Question 15:

There is an auto mechanics/salvage yard business in the NE quadrant of the existing bridge. When the footprint of the project is available, assuming it encroaches on the property of interest, the design plans should be shared with the GeoEnvironmental Unit who will likely conduct a Phase II Assessment.

#### Response to Question 30:

There is prime farmland present and some small quantity will likely be acquired as RW for the bridge replacement. Once the design is complete, it should be shared with the Community Studies Group who will complete an NCRS form to document the impacts to prime farmlands. This will not affect the project in any way.

There are also properties listed as Voluntary Agricultural Districts within the Project Study Area (see attached Figure 2 showing Notable Features in the Study Area. Once design is complete, If one of these properties listed as VAD is affected and if condemnation is required, then a public meeting may be required prior to the condemnation. Condemnation however would be a rare circumstance on a project of this nature.

H. Project Commitments

**Duplin County**  
**Replace Bridge No. 16 on US 117 NBL over CSX Railroad**  
**Preservation on Bridge No. 17 on US 117 SBL over CSX Railroad**  
**Federal Project No. BRZ-0017(048)**  
**WBS No. 44591.1.1**  
**TIP No. B-5981**

**Bicycle Accommodations** - the project will include a minimum of 5-foot paved shoulder accommodation on the outside of the northbound bridge. The preferred structure, a 5-foot offset would be included in the design. AASHTO no longer requires the 54" 2-bar metal rail. The new requirement is 42" which is the height of the F-Type and Vertical Face Concrete Barrier rails. The 54" 2-bar would only be needed for bicycles at locations subjected to height winds, such as the coast, high rise structures, or structures with steep grades.

**Geo-Environmental Phase II Assessment** - There is an auto mechanics/salvage yard business in the NE quadrant of the existing bridge. When the footprint of the project is available, assuming it encroaches on the property of interest, the design plans should be shared with the GeoEnvironmental Unit who will likely conduct a Phase II Assessment.

I. Categorical Exclusion Approval

STIP Project No.	<u>B-5981</u>
WBS Element	<u>44593.1.1</u>
Federal Project No.	<u>BRZ-0117(048)</u>

**Prepared By:**

8/7/2019

Date

DocuSigned by:

*John Williams*

John Williams, P.E., Project Manager  
RK&K

**Prepared For:**

North Carolina Department of Transportation

**Reviewed By:**

8/7/2019

Date

DocuSigned by:

*Phil Harris*

Phillip S. Harris, III, P.E., Unit Head  
NCDOT Environmental Analysis Unit



**Approved**

If all of the threshold questions (1 through 7) of Section F are answered "no," NCDOT approves this Categorical Exclusion.



**Certified**

If any of the threshold questions (1 through 7) of Section F are answered "yes," NCDOT certifies this Categorical Exclusion.

8/8/2019

Date

DocuSigned by:

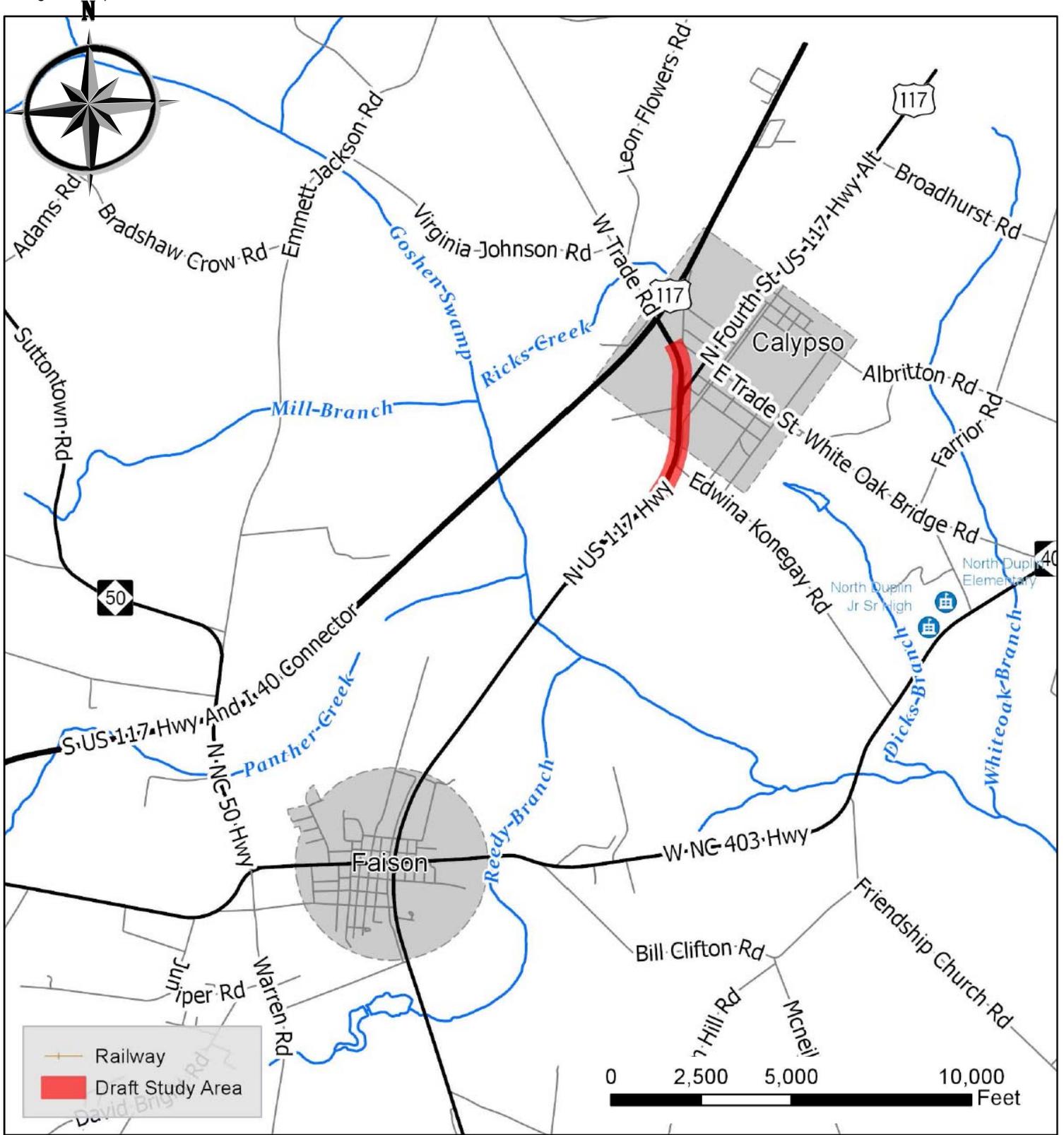
*Kevin Fischer*

Kevin Fischer, PE, Assistant State Structures Engineer  
PEF Coordination, Program Manager and Field Operations,  
Structure Management Unit  
North Carolina Department of Transportation

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

Date

NOT REQUIRED  
John F. Sullivan, III, PE, Division Administrator  
Federal Highway Administration



	STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION 3
	<p style="text-align: center;"><b>B-5981</b></p> <p style="text-align: center;">Replace Bridge No. 16 and Preservation                  On Bridge No. 17 on US 117 over CSX RR                  Duplin County</p>
Project Location Map	Figure 1



**117**  
CONNECTOR

**117**

CALYPSO

#17

#16

SE CENTER DR

Auto Salvage  
Yard

EDWINA KORNEGAY RD

CAMERON ST

CHURCH ST

TRADE ST

CSX RAILROAD

**LEGEND**

Voluntary Agriculture District



Right of Way



Study Area



0 200 400 800 feet



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
DIVISION 3

**B-5981**

Replace Bridge No. 16 and Preservation  
On Bridge No. 17 on US 117 over CSX RR  
Duplin County

17-12-0059



## 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

<b>Project No:</b>	B-5981	<b>County:</b>	Duplin
<b>WBS No.:</b>	47747.1.1	<b>Document Type:</b>	
<b>Fed. Aid No.:</b>		<b>Funding:</b>	State <input checked="" type="checkbox"/> Federal
<b>Federal Permit(s):</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>Permit Type(s):</b>	
<b>Project Description:</b> Replace Bridge No. 16 on US 117 over CSX Railroad in Calypso (no off-site detour specified in review request).			

### SUMMARY OF HISTORIC ARCHITECTURE AND LANDSCAPES REVIEW

**DESCRIPTION OF REVIEW ACTIVITIES, RESULTS, AND CONCLUSIONS:** HPOWeb reviewed on 18 January 2018 and yielded no NR, SL, DE, LD, or SS properties in the Area of Potential Effects (APE). Duplin County current GIS mapping, aerial photography, and tax information indicated an APE of cultivated fields with a small concentration of residential resources dating from the 1920s to the 1980s at its north end and several other residential resources dating from the late 1950s to the 1990s (viewed 18 January 2018). Built in 1936, Bridge No. 16 is not eligible for the National Register of Historic Places 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 18 January 2018).

**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 equates with the study area provided with the review request (see attached). The comprehensive architectural survey of the county (1992-3) and related publication, as well as later studies recorded no resources in the APE (Jennifer F. Martin, *Along the Banks of the Old Northeast: the Historical and Architectural Development of Duplin County, North Carolina* (Rose Hill, NC: Duplin County Historical Foundation, Inc., 1999)). County GIS and other visuals illustrate the absence of significant architectural and landscape resources in the APE. No National Register-listed properties are located within the APE.

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

### SUPPORT DOCUMENTATION

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

### FINDING BY NCDOT ARCHITECTURAL HISTORIAN

Historic Architecture and Landscapes -- **NO SURVEY REQUIRED**

*Vanessa C. Patrick*  
\_\_\_\_\_  
NCDOT Architectural Historian

*22 January 2018*  
\_\_\_\_\_  
Date

17-12-0059



## NO ARCHAEOLOGICAL SURVEY REQUIRED 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:* **Br. No 0016** *County:* **Duplin**  
*WBS No:* **44593.1.1** *Document:* **C E**  
*F.A. No:* **TBD** *Funding:*  State  Federal  
*Federal Permit Required?*  Yes  No *Permit Type:* **tbd**

**Project Description:** NCDOT proposes to replace Bridge No. 0016 on US 117 over the CSX railroad in Duplin County near Calypso. This review applies to the northbound lane of US 117 that is carried over Bridge No. 0016, an older structure than the southbound Br. 0017 which is immediately adjacent. This is a federally funded project that will likely require federal permitting, therefore, Section 106 of the National Historic Preservation Act applies. Conservation easements may be present in the project vicinity.

No design mapping or conceptual alternatives were available at the time of the review. Replace in place construction at a similar alignment may be expected with a resulting wider bridge. An offsite detour, 8.1 miles in length, has been identified for possible use during construction.

For purposes of this screening review, an initial Area of Potential Effects has been established for the undertaking. This allows for multiple designs. The APE includes a length of about 4500 feet (~0.85 miles) and having a width of about 350 feet. The intent is to cover all construction areas, including cut and fill lines, easements, and/or new ROW, and relocated access driveways in the APE. While it includes the ROW on the west of southbound US 117 including Bridge No. 0017, this APE has an emphasis on the northbound US 117 lanes and Bridge No. 0016. Generally, the APE includes about 200 feet beyond the existing roadway to the east, an additional 100-150 outside the ROW. For this archaeological screening, a revised APE may be more suitable as alternatives are developed.

### SUMMARY OF ARCHAEOLOGICAL RESOURCES REVIEW:

#### **NO SURVEY REQUIRED**

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

USGS mapping and aerial photography was examined (see Figures 1 and 2). Virtual drive-by using Bing and/or Google Maps was examined. Much of the APE along that corridor has been disturbed by major highway construction-related earth moving on US 117. The southbound US 117 dominates the western APE and is unlikely to undergo construction activities. The existing northbound US 117, including Bridge No. 0016 will undergo construction and may expand towards the east to accommodate a larger, wider structure. This area of the APE is characterized by plowed agricultural fields, though some portion of Calypso's development is included in the APE.

Soil type mapping and historic maps were studied. About fifty percent of the APE is Rains fine sandy loam (RaA, 0-2 percent slope and poorly drained) which has been artificially drained for agricultural use but is otherwise less desirable than drier landforms. Most of the surrounding lands have been disturbed by plowing and though archaeological sites may still be present and could possibly have intact feature remains, like the

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bottoms of pits, below the plow zone. Importantly, the distance to the nearest creek or stream is 3500-4500 feet away. Archaeological sites generally have a strong relationship with close proximity to water, which isn't the case for this location.

The 1905 Duplin County Soil Survey map (Cm912.31 1905) shows Calypso named and the rail line present but little else aside from a crossroad and two roads parallel to the tracks. The 1938 Duplin County highway mapping (MC.035.1938n) shows an incorporated town of 536 people with US 117 parallel and crossing over the tracks. As the bridge to be replaced is thought to have been constructed in 1936, that map crossing is probably the existing facility. A few structures are now shown showing the early 20<sup>th</sup> century development.

USGS and recent aerial photography demonstrate that the northern portion of the APE, near the curve at Trade Street, has been modified, connecting US 117 along this curve towards the northwest. This appears to have occurred between 1993 and 1999. The old roadbed can be seen in modern aerials and virtual drive by. A sizable portion of the APE, this location is considered to have an extremely low probability for intact archaeological sites.

Historic aerial mapping from the 1960s and 1970s (notably 1963 and 1979, and others) shows existing structures at that time parallel to the tracks or US 117 on the west side of the highway where no construction is expected. Those building have been removed within the past three decades. Few structures are present on the east side, where soil disturbances are more likely, the exception being the more developed part of Calypso.

A visit to the Office of State Archaeology for background research showed a several archaeological reviews in the nearby area. Several solar farms were reviewed with earlier ones resulting in no surveys (ER 14-0485, ER 14-1728, ER 15-0631) and more recent (2017+) reviews resulting in recommendations for archaeological survey (CH 17-1528). A survey for a natural gas pipeline recorded several archaeological sites in the general vicinity, though not by the subject bridge location. Several other sites are present nearby, most being considered not eligible.

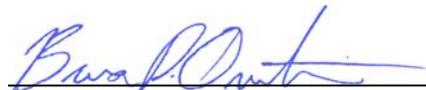
No obvious cemeteries were observed on USGS mapping, historic maps, aerial photography or virtual drive by viewing. The GIS-based cemetery data managed by NCDOT archaeologist, Paul Mohler, likewise shows no known cemeteries at the APE.

The APE includes the area of bridge construction along a highway which has undergone expansion over the past century. The APE offers several design options, though replace in place construction with a larger structure is a strong possibility. Due to the scale of new impacts, distance to water, soils types, review of historic mapping and existing impacts, no archaeological survey is recommended.

#### **SUPPORT DOCUMENTATION**

See attached:  Map(s)     Previous Survey Info     Photos     Correspondence  
 Photocopy of County Survey Notes    Other:

#### **FINDING BY NCDOT ARCHAEOLOGIST – NO SURVEY REQUIRED**

  
 \_\_\_\_\_  
**NCDOT ARCHAEOLOGIST**

3/21/2018

Date