

CATEGORICAL EXCLUSION ACTION CLASSIFICATION FORM

TIP Project No.	<u>B-5313</u>
W.B.S. No.	<u>46027.1.1</u>
Federal Project No.	<u>BRZ-1002(40)</u>

A. Project Description:

The purpose of this project is to replace Wilson County Bridge No. 109 on SR 1002 (Town Creek Road) over Town Creek. Bridge No. 109 is 91 feet long. The replacement structure will be a bridge approximately 137 feet long, providing a minimum 30-foot, 10-inch clear deck width. The bridge will include two 11-foot lanes, a 5-foot, 10-inch offset on the west side of the bridge and a 3-foot offset on the east side. 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 412 feet from the north end of the new bridge and 148 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 will be provided on each side (9-foot shoulders where guardrail is included). The roadway will be designed as a Minor Collector using Sub-regional Tier guidelines with a 60 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. 109 has a sufficiency rating of 59.53 out of a possible 100 for a new structure. When the bridge first qualified to be replaced it had a sufficiency rating of 37.3 out of 100. Repairs were made to the substructure of the bridge which is why the sufficiency rating is high; however the substructure still needs to be replaced.

The bridge was considered functionally obsolete due to the evaluation of 5 out of 9 for the deck and 4 out of 9 for the superstructure. It is now considered not deficient due to improvements made to the bridge, with superstructure condition appraisal of 5 out of 9 and a substructure condition appraisal of 5 out of 9.

The superstructure and substructure of Bridge No. 109 have timber elements that are seventy-five years old. Timber components have a typical life expectancy between 40 to 50 years due to the natural deterioration rate of wood. Rehabilitation of a timber structure is generally practical only when a few elements are damaged or prematurely deteriorated. However, past a certain degree of deterioration, most timber elements become impractical to maintain and

upon eligibility are programmed for replacement. Timber components of Bridge No. 109 are experiencing an increasing degree of deterioration that can no longer be addressed by reasonable maintenance activities; therefore the bridge is approaching the end of its useful life.

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 down to 34 tons for single vehicles and 43 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.

Bridge No. 109 carries 600 vehicles per day with 900 vehicles per day projected for 2035.

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 2015 prices, are as follows:

Structure	\$545,000
Roadway Approaches	\$309,000
Structure Removal	\$56,000
Misc. & Mob.	\$164,000
Eng. & Contingencies	\$176,000
Total Construction Cost	\$1,250,000
Right-of-Way Costs	\$7,500
Right-of-Way Utility Costs	N/A
Total Project Cost	\$1,257,500

Estimated Traffic:

Current Year	-	600 vpd
Year 2035	-	900 vpd
TTST	-	2%
Dual	-	8%

Accidents: Traffic Engineering has evaluated a recent 10 year period and found three accidents 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 1002 is not a part of a designated bicycle route nor is it listed in the Transportation Improvement Program (TIP) as a bicycle project. The NCDOT Division of Bicycle and Pedestrian Transportation indicated that the standard bridge offsets should allow for safe crossings by the occasional cyclist. Neither permanent nor temporary bicycle or pedestrian accommodations are required for this project.

Bridge Demolition: Bridge No. 109 is constructed entirely of timber and steel and should be possible to remove with no resulting debris in the water based on standard demolition practices.

Alternatives Discussion:

No Build – The no build alternative would result in eventually closing the road which is unacceptable given the volume of traffic served by SR 1002.

Rehabilitation – The bridge was constructed in 1940 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. 109 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 1002, SR 1003, and SR 1418. The majority of traffic on the road is through traffic. The detour for the average road user would result in about 12 minutes additional travel time (10.5 miles additional travel). Up to a 9-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. Wilson County Emergency Services along with Wilson County Schools Transportation have also indicated that the detour is acceptable. NCDOT Division 4 has indicated the condition of all roads, bridges and intersections on the offsite detour are acceptable without improvement and concurs with the use of the detour.

Other Agency Comments:

The **N.C. Wildlife Resource Commission** and **U.S. Fish & Wildlife Service** 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 **N.C. Division of Water Quality** and the **Army Corps of Engineers** had no special concerns for this project.

Public Involvement:

A letter was sent by the Location & Surveys Unit to all property owners affected directly by this project. Property owners were invited to comment. No comments have been received to date.

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>
(4) If the project involves wetlands, is the amount of permanent and/or temporary wetland taking less than one-tenth (1/10) of an acre and have all practicable measures to avoid and minimize wetland takings been evaluated?	<u>X</u>	<input type="checkbox"/>
(5) Will the project require the use of U. S. Forest Service lands?	<input type="checkbox"/>	<u>X</u>
(6) Will the quality of adjacent water resources be adversely impacted by proposed construction activities?	<input type="checkbox"/>	<u>X</u>
(7) Does the project involve waters classified as Outstanding Resources Waters (ORW) and/or High Quality Waters (HQW)?	<input type="checkbox"/>	<u>X</u>
(8) Will the project require fill in waters of the United States in any of the designated mountain trout counties?	<input type="checkbox"/>	<u>X</u>
(9) Does the project involve any known underground storage tanks (UST's) or hazardous materials sites?	<input type="checkbox"/>	<u>X</u>

<u>PERMITS AND COORDINATION</u>	<u>YES</u>	<u>NO</u>
(10) If the project is located within a CAMA county, will the project significantly affect the coastal zone and/or any "Area of Environmental Concern" (AEC)?	<input type="checkbox"/>	<u>X</u>
(11) Does the project involve Coastal Barrier Resources Act resources?	<input type="checkbox"/>	<u>X</u>
(12) Will a U. S. Coast Guard permit be required?	<input type="checkbox"/>	<u>X</u>
(13) Could the project result in the modification of any existing regulatory floodway?	<input type="checkbox"/>	<u>X</u>

(14) Will the project require any stream relocations or channel changes? X

SOCIAL, ECONOMIC, AND CULTURAL RESOURCES

YES NO

(15) Will the project induce substantial impacts to planned growth or land use for the area? X

(16) Will the project require the relocation of any family or business? X

(17) Will the project have a disproportionately high and adverse human health and environmental effect on any minority or low-income population? X

(18) If the project involves the acquisition of right of way, is the amount of right of way acquisition considered minor? X

(19) Will the project involve any changes in access control? X

(20) Will the project substantially alter the usefulness and/or land use of adjacent property? X

(21) Will the project have an adverse effect on permanent local traffic patterns or community cohesiveness? X

(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)? X

(23) Is the project anticipated to cause an increase in traffic volumes? X

(24) Will traffic be maintained during construction using existing roads, staged construction, or on-site detours? X

(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? X

(26) Is there substantial controversy on social, economic, or environmental grounds concerning the project? X

(27) Is the project consistent with all Federal, State, and local laws relating to the environmental aspects of the project? X

(28) Will the project have an "effect" on structures/properties eligible for or listed on the National Register of Historic Places? X

- | | | | |
|------|---|--------------------------|--------------|
| (29) | Will the project affect any archaeological remains which are important to history or pre-history? | <input type="checkbox"/> | <u> X </u> |
| (30) | Will the project require the use of Section 4(f) resources (public parks, recreation lands, wildlife and waterfowl refuges, historic sites, or historic bridges, as defined in Section 4(f) of the U. S. Department of Transportation Act of 1966)? | <input type="checkbox"/> | <u> X </u> |
| (31) | Will the project result in any conversion of assisted public recreation sites or facilities to non-recreation uses, as defined by Section 6(f) of the Land and Water Conservation Act of 1965, as amended? | <input type="checkbox"/> | <u> X </u> |
| (32) | Will the project involve construction in, across, or adjacent to a river designated as a component of or proposed for inclusion in the National System of Wild and Scenic Rivers? | <input type="checkbox"/> | <u> X </u> |

F. Additional Documentation Required for Unfavorable Responses in Part E

Response to Question 2:

Due to potential habitat for the dwarf wedgemussel in Town Creek. A mussel survey was conducted on June 12, 2012. No dwarf wedge mussels were found during the survey. The biological conclusion is "No Effect."

G. CE Approval

TIP Project No.	<u>B-5313</u>
W.B.S. No.	<u>46027.1.1</u>
Federal Project No.	<u>BRZ-1002(40)</u>

Project Description:

The purpose of this project is to replace Wilson County Bridge No. 109 on SR 1002 (Town Creek Road) over Town Creek. Bridge No. 109 is 91 feet long. The replacement structure will be a bridge approximately 137 feet long, providing a minimum 30-foot, 10-inch clear deck width. The bridge will include two 11-foot lanes, a 5-foot, 10-inch offset on the west side of the bridge and a 3-foot offset on the east side. 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.

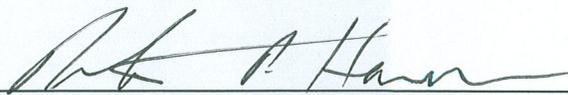
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Traffic will be detoured off-site during construction (see Figure 1).

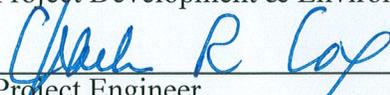
Categorical Exclusion Action Classification:

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

Approved:

<u>6/15/15</u>	
Date	Eastern Project Development Section Head

Project Development & Environmental Analysis Unit

<u>6/15/15</u>	
Date	Project Engineer

Project Development & Environmental Analysis Unit

<u> </u>	Project Planning Engineer
Date	Project Development & Environmental Analysis Unit

For Type II(B) projects only:

<u>6/15/15</u>	
Date	John F. Sullivan, III, PE, Division Administrator

Federal Highway Administration

PROJECT COMMITMENTS:

**Wilson County
Bridge No. 109 on SR 1002
Over Town Creek
Federal Aid Project No. BRZ-1002(40)
W.B.S. No. 46027.1.1
T.I.P. No. B-5313**

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

In order to have time to adequately reroute school busses, Wilson County Schools will be contacted at (252) 399-7700 at least one month prior to road closure.

Wilson County Emergency Services will be contacted at (252) 399-2830 at least one month prior to road closure to make the necessary temporary reassignments to primary response units.



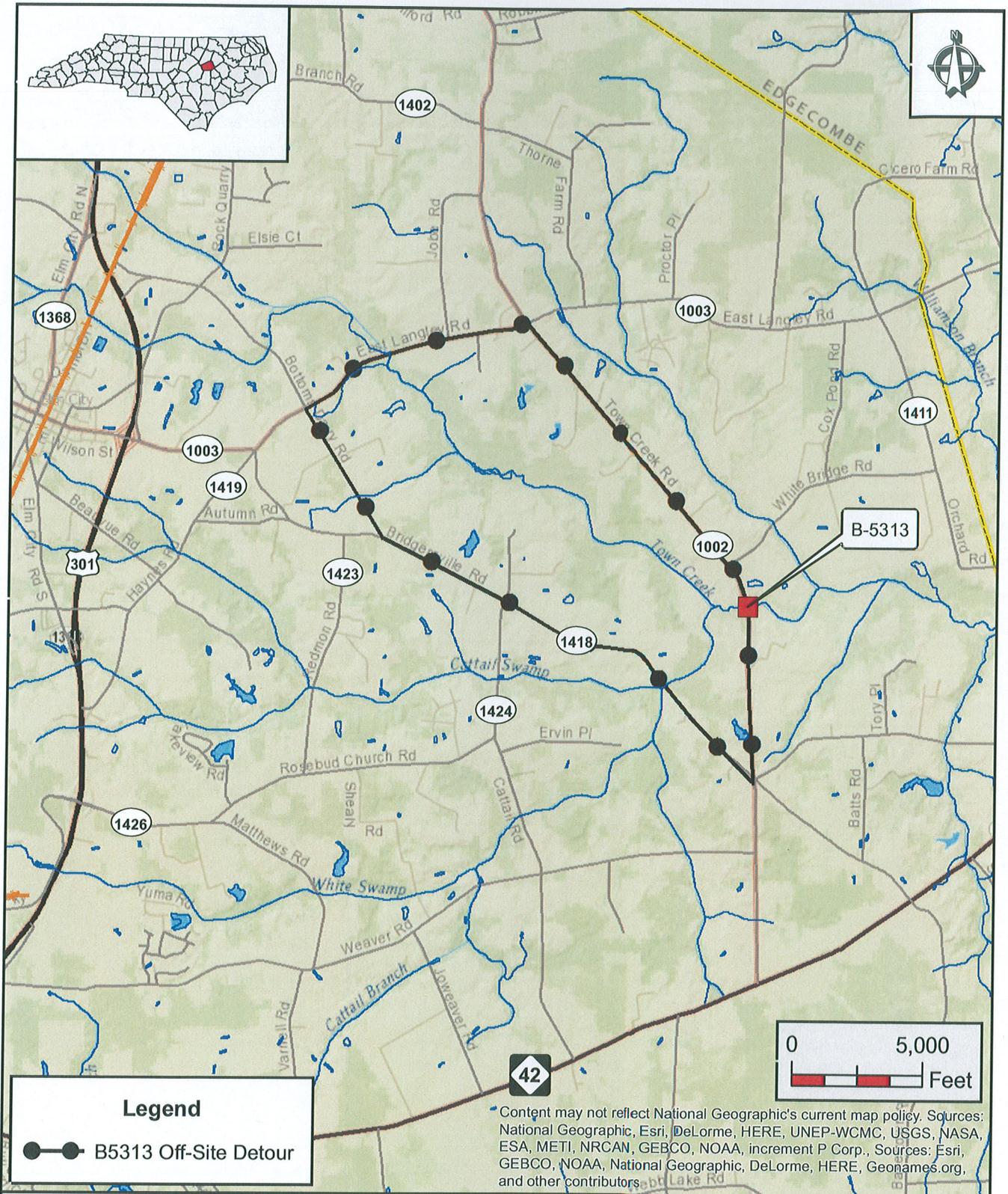
Appendix A

Figures

Contents:

Figure 1: Project Vicinity Map

Figure 2: Project Aerial Map



Legend

●—● B5313 Off-Site Detour

Content may not reflect National Geographic's current map policy. Sources: National Geographic, Esri, DeLorme, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp., Sources: Esri, GEBCO, NOAA, National Geographic, DeLorme, HERE, Geonames.org, and other contributors.



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

**VICINITY MAP
REPLACE BRIDGE NO. 109
ON SR 1002 OVER
TOWN CREEK**

WILSON COUNTY
TIP PROJECT B-5313

County:	WILSON
Div:	4
TIP#:	B-5313
WBS:	46027.1.1
Date:	May 2015

**Figure
1**



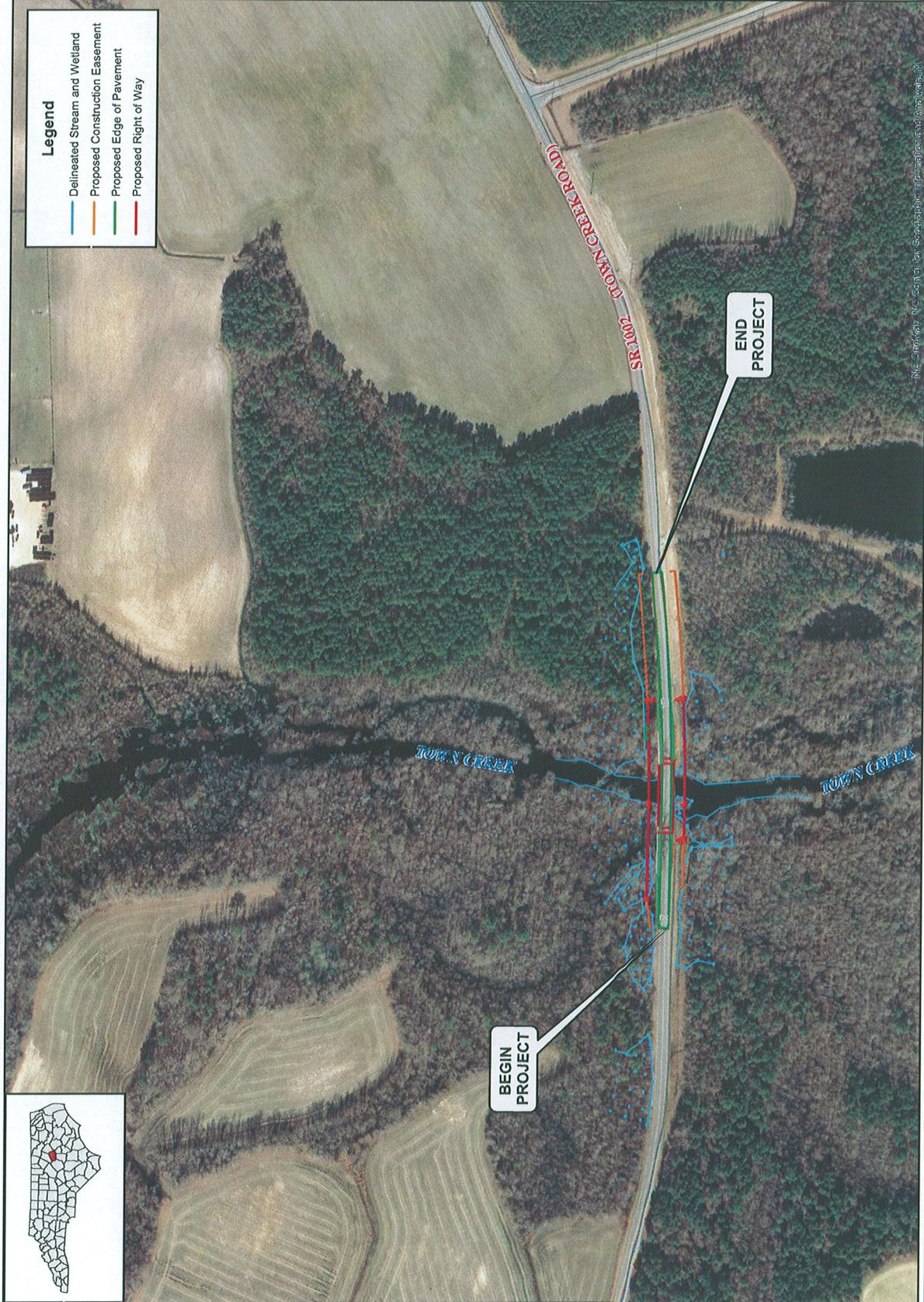
NORTH CAROLINA DEPARTMENT
OF TRANSPORTATION
DIVISION OF HIGHWAYS
PROJECT DEVELOPMENT AND
ENVIRONMENTAL ANALYSIS UNIT

**AERIAL MAP
REPLACE BRIDGE NO. 109
ON SR 1002 OVER
TOWN CREEK
WILSON COUNTY
TIP PROJECT B-5313**



County:	WILSON
Div.:	3
TIP#:	B-5313
WBS:	46027.1.1
Date:	MAY 2015

**Figure
2**



Map created using ArcGIS Desktop 10.2.2. Data provided by the North Carolina Department of Transportation, Division of Highways, and the North Carolina Department of Environment and Natural Resources.

By: J. TORTORELLA

Appendix B

Reports

Contents:

Archeological Report

Historic Architecture

Appendix B

Reports

Contents:

Archeological Report

Historic Architecture

11-12-0012

**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: **B-5313** County: **Wilson**
 WBS No: **46027.1.1** Document: **PCE**
 F.A. No: **BRZ-1002(40)** Funding: State Federal
 Federal Permit Required? Yes No Permit Type: **unknown**

Project Description: A proposal to replace Bridge No.109 on SR 1002 (Town Creek Road) over Town Creek in Wilson County was originally forwarded for archaeological review in November 2011. At the time, little specific design information (including possible alternatives) was available for this federal undertaking, TIP B-5313, therefore the review served as an initial screening for cultural resources. The APE and review at that time allowed for multiple alternatives of varied lengths that might have included replacement to either side of the existing bridge on new location or realignment, or include on-site detours. The area considered was described as not to exceed 1500 feet, about .28 miles. The width considered was 200 feet across, 100 feet to either side of the existing bridge centerline. This bridge replacement project is federally funded and also federal permits from the USACE are anticipated, therefore, Section 106 of the National Historic Preservation Act applies. Because of the expanded APE, both length and width, an archaeological survey was recommended. However, the recommendation stated that should the project be scaled back, for example to a replace in place project on the same alignment and including an offsite detour, that the survey would be unnecessary. Since that original review, new design mapping has become available providing for a more detailed project description, scale and impacts. The undertaking now is less than half the original length (0.132 miles, or about 700 feet) and width (80 feet), and this refined APE consists mainly of the existing transportation facility, i.e., the road, bridge and associated drainage management. Crossing over often flooded and poorly drained soil, limited new ROW may be required for fill close to the bridge location. Otherwise, impacts are limited to previously disturbed soils and the existing ROW. This new review addresses the revision and refinement of the project design.

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

In preparation for the March 2012 archaeological review, a file and map search was conducted at the Office of State Archaeology. No previous surveys or recorded archaeological sites were noted within a mile and a half of the project area. Mapping, both USGS and aerial, was examined. There area surrounding the bridge location is low and swampy which are not prime areas for sustained human activities, thus less likely to contain archaeological sites. At the time, the higher and drier distant ends of the project, especially towards the south where the current design has no impacts, held greater likelihood of having archaeological sites. The original review ultimately called for a survey, assuming a design with a larger footprint might be selected. It also stated that should a replace-in-place scenario was preferred, especially one with a reduced length, that the recommendation for survey would be unnecessary because the existing roadway is already massively disturbed. This design calls for a project of less than half the original consideration for both length and width, overlaying the same structure location and with an offsite detour. Approximately 10 feet to either side of new ROW is included in this design, the majority of is classified as Bibb Loam for soil type which is frequently flooded, poorly drained - though much of it is artificially built up for purposes of launching the bridge. Note, no cemeteries were noted nearby on USGS maps, NCDOT GIS, or orthophotos. The majority of the APE has already been graded and

11-12-0012

disturbed during the construction and maintenance of the existing roadway and structure, or is else low and swampy. All of these factors, combined, result in this new recommendation that an intensive archaeological survey is no longer required.

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

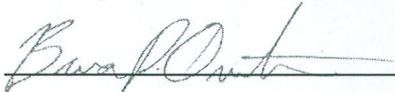
As an improvement to an existing facility, much of the APE soils have already been modified during road construction and ditching using heavy equipment. There are no known archaeological sites present, including any other resources identified as listed in or eligible for the National Register of Historic Places resources. While the APE extends outside of the existing ROW along the lateral edges of the project, much of this area is low ground and listed as frequently flooded or poorly drained on soil mapping. Low, wet areas are generally poor locations for habitation, limiting potential for containing archaeological sites. The APE was revised from 2012 to reflect newly available design mapping, showing the undertaking is less than half the width and length as the original cultural resources screening. No further archaeological work is recommended as this project is currently presented.

SUPPORT DOCUMENTATION

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

FINDING BY NCDOT ARCHAEOLOGIST

NO ARCHAEOLOGY SURVEY REQUIRED



NCDOT ARCHAEOLOGIST II

April 22, 2015

Date

(HA)11-12-0012

NO SURVEY REQUIRED FORM

PROJECT INFORMATION

Project No: **B-5313** County: **Wilson**
 WBS No: **46027.1.1** Document:
 E.A. No: **BRZ-1002(40)** Funding: State Federal

Federal (USACE) Permit Required? **unknown** Permit Type: **unknown**

Project Description: **Replace Bridge No. 109 on SR 1002 (Town Creek Road) over Town Creek (presumed no off-site detour and no improvements planned).**

SUMMARY OF CULTURAL RESOURCES REVIEW

Brief description of review activities, results of review, and conclusions: HPOWeb reviewed on 9 January 2012 and yielded no NR, SL, LD, DE, or SS properties in the Area of Potential Effects (APE). Wilson County current GIS mapping, aerial photography, and tax information indicated a mostly wooded APE with some cultivated fields and one resource dating to the 1990s (viewed 9 January 2012). Constructed in 1940, Bridge No. 109 is a 91-foot-long, six-span, timber, stringer/multi-beam bridge and is not eligible for the National Register according to the NCDOT Historic Bridge Survey as it is not historically, architecturally, or technologically significant. Google Maps "Street View" confirmed absence of critical historic structures and landscapes in APE (viewed 9 January 2012).

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

Brief Explanation of why the available information provides a reliable basis for reasonably predicting that there are no unidentified historic properties in the APE: APE extends 800 feet from each end of the existing bridge (N-S) and 100 feet to either side of the existing SR 1002 (Town Creek Road) center line (W-E) to encompass proposed construction. County GIS/tax materials and other visuals support the absence of significant architectural resources. No National Register-listed or -eligible properties are located within the APE.

Should any design elements, including detour improvements and right-of-way acquisition, of the project change, please notify NCDOT Historic Architecture as additional review may be necessary.

SUPPORT DOCUMENTATION

See attached: **location map**

FINDING BY NCDOT CULTURAL RESOURCES PROFESSIONAL

NO SURVEY REQUIRED – Historic Structures

Vanessa C. Patrick
 NCDOT Cultural Resources Specialist

10 January 2012
 Date

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