CATEGORICAL EXCLUSION ACTION CLASSIFICATION FORM

TIP Project No.	**B-5165**
W.B.S. No.	**42341.1.1**
Federal Project No.	**BRSTP-1485(2)**

A. Project Description:

The purpose of this project is to replace Davidson County Bridge No. 42 on SR 1485 (Hampton Road) over Muddy Creek. Bridge No. 42 is 121 feet long. The replacement structure will be located just to the north of the existing structure, and will be approximately 150 feet long, providing a minimum 34-foot clear deck width. The bridge will include two 12-foot travel lanes and 4-foot paved shoulders to accommodate bicycles (6-foot shoulders on the south side of the bridge to accommodate additional bridge offset width required for hydraulic design). 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 990 feet from the west end of the new bridge and 660 feet from the east end of the new bridge. The approaches will be widened to include a 24-foot pavement width providing two 12-foot travel lanes. A 6-foot shoulder (4-foot paved shoulders to accommodate bicycles) will be provided on each side (9-foot shoulders where guardrail is included). The roadway will be designed as a Rural Major Collector using Subregional Tier design guidelines with a 60 mile per hour design speed.

Traffic will be detoured onsite, using the existing roadway approaches and bridge, during construction (see Figure 1).

B. Purpose and Need:

NCDOT Bridge Management Unit records indicate Bridge No. 42 has a sufficiency rating of 49.24 out of a possible 100 for a new structure.

The bridge is considered functionally obsolete due to its deck geometry appraisal of 2 out of 9, according to Federal Highway Administration (FHWA) standards.

Bridge No. 42 is sixty-four years old. 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 18 tons for single vehicles and 24 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 2015 prices, are as follows:

Structure	$ 598,000
Roadway Approaches	538,000
Structure Removal	44,000
Misc. & Mob.	252,000
Eng. & Contingencies	218,000
Total Construction Cost	$ 1,650,000
Right-of-way Costs	60,000
Right-of-way Utility Costs	60,000
Total Project Cost	$ 1,770,000

Estimated Traffic:

Current Year	-	2,400 vpd
Year 2037	-	3,700 vpd
Tractor Trailer/Semi Truck (TTST)	-	3%
Dual Axle Truck (Dual)	-	6%

Accidents: NCDOT Traffic Engineering has evaluated a recent five year period (9/2004 to 7/2009) and found seven accidents occurring in the vicinity of the project. Lane departure type crashes accounted for 71% of these crashes, which resulted in bridge, guardrail, and embankment hits. The alignment of the roadway near the structure is a potential contributing factor to these crashes.

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

Pedestrian and Bicycle Accommodations: The Muddy Creek Greenway is a proposed greenway trail that is part of Davidson County's Yadkin River Trail, and is designated to be a primary route on the County's adopted Master Greenway Plan. This planned greenway is considered to be a potential link to the Mountains to Sea Trail, and is planned to run beneath Bridge No. 42. Coordination between NCDOT and Davidson County has taken place regarding accommodating the greenway trail under the bridge. In following the 2015 "Guidelines for Inclusion of Greenway Accommodations Underneath a Bridge as part of a NCDOT Project", an alternative that accommodates the proposed greenway, hence expanding the floodplain, was developed, and construction cost estimates were prepared. The greenway alternative cost estimate totaled $7,000,000, whereas the preferred alternative cost estimate totaled $1,650,000. In accordance with the Guidelines, Part B, Section 1, the cost difference of $5,350,000 is considered a major cost difference, therefore making this alternative unacceptable. In conclusion, due to the costs involved with raising the grade of the bridge to provide the clearance required for the greenway, and the size of the bridge needed to expand the floodplain, this option was considered not feasible. NCDOT has coordinated with Davidson County and notified them that an at-grade crossing could be accommodated in the future.

SR 1485 (Hampton Road) is a designated bike route on the Davidson County Bike Map and is considered a moderately traveled road by cyclists. The NCDOT Bicycle and Pedestrian Division recommended that accommodations be made for cyclists with 4-foot shoulders along the bridge approaches and the bridge. The design will include 4-foot shoulders along the bridge and bicycle safe rails.

Bridge Demolition: Bridge No. 42 includes a superstructure composed of a reinforced concrete deck on steel I-beams, and a substructure with end bents composed of reinforced concrete caps on timber piles, and interior bents composed of reinforced concrete post and beam. NCDOT anticipates that the bridge can be removed 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 1485.

Rehabilitation – The bridge was constructed in 1951 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 – An offsite detour was evaluated as part of the original alternatives, however, this alternative was eliminated from further consideration because of concerns regarding the offsite detour length and additional travel time. NCDOT Guidelines for Evaluation of Offsite Detours for Bridge Replacement Projects (April 2004) 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 have included Muddy Creek Road, Gus Hill Road, Frye Bridge Road, and Centenary Church Road. The majority of traffic on SR 1485 is through traffic. The offsite detour for the average road user would result in 17 minutes of additional travel time (10 miles of additional travel). Up to an 18-month duration of construction is expected for this project alternative.

Based on the Offsite Detour Guidelines, the criteria above indicate that on the basis of delay, the detour is unacceptable. In addition, Davidson County Emergency Services (EMS) has indicated that the offsite detour would substantially affect timely EMS response to the citizens beyond the bridge, and that it would create a moderate impact for their services. NCDOT concurs with this concern and believes that an offsite detour is not justifiable due to the fact that an acceptable onsite detour is available.

New Alignment with Onsite Detour – As a result of concerns raised by the Davidson County EMS and NCDOT Division 9 staff regarding the detour length and travel time associated with an offsite detour, and because the delay associated with the offsite detour is considered unacceptable based on the NCDOT Offsite Detour Guidelines, an onsite detour alternative was developed and selected as the preferred alternative. The new bridge is located just to the north of the existing bridge. Traffic will be maintained along the existing bridge during construction, and the existing bridge will be removed upon completion of the new bridge.

Staged Construction – Staged construction was not considered because of the availability of an acceptable onsite detour.

Other Agency Comments:

The **N.C. Department of Environment and Natural Resources (NCDENR)** and the **Environmental Protection Agency (EPA)** 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 **Davidson County**, **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 NCDOT 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

ECOLOGICAL		YES	NO
(1)	Will the project have a substantial impact on any unique or important natural resource?		X
(2)	Does the project involve habitat where federally listed endangered or threatened species may occur?	X	
(3)	Will the project affect anadramous fish?		X
(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?	X	
(5)	Will the project require the use of U. S. Forest Service lands?		X
(6)	Will the quality of adjacent water resources be adversely impacted by proposed construction activities?		X
(7)	Does the project involve waters classified as Outstanding Resources Waters (ORW) and/or High Quality Waters (HQW)?		X
(8)	Will the project require fill in waters of the United States in any of the designated mountain trout counties?		X
(9)	Does the project involve any known underground storage tanks (UST's) or hazardous materials sites?		X

PERMITS AND COORDINATION		YES	NO
(10)	If the project is located within a CAMA county, will the project significantly affect the coastal zone and/or any "Area of Environmental Concern" (AEC)?		X

(11)	Does the project involve Coastal Barrier Resources Act resources?		X
(12)	Will a U. S. Coast Guard permit be required?		X
(13)	Could the project result in the modification of any existing regulatory floodway?	X	
(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?		X
(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)?		X
(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?		X
(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?		X

F. Additional Documentation Required for Unfavorable Responses in Part E

Response to Question 2: Habitat for Schweinitz's sunflower is present within the project study area. A plant-by-plant survey was performed by NCDOT biologists within the study area along roadside right-of-ways on September 13, 2009 and no sunflower individuals were observed. Because the project study area was expanded to accommodate the project designs, an addendum to the original Natural Resources Technical Report (NRTR) (April 2010) was required, and a survey was performed in the additional project study area. Habitat for Schweinitz's sunflower exists in the additional project study area along the maintained disturbed roadsides of the western project extension, but an October 15, 2015 survey by NCDOT personnel found no plants. A review of North Carolina Natural Heritage Program (NCNHP) records on October 28, 2015 indicated no known occurrence of the Schweinitz's sunflower within 1.0 mile of the study area. Since no individuals were identified and no known occurrences are present within 1.0 mile of the project, a biological conclusion of "No Effect" has been rendered for the Schweinitz's sunflower.

The United States Fish and Wildlife Service (USFWS) added the Northern long-eared bat (NLEB) to the Davidson County federally protected species list in May of 2015. A biological conclusion of "Unknown" was reached. A habitat assessment

and, if needed, surveys for the NLEB are recommended and will be the responsibility of the NCDOT – Biosurveys Group. The habitat assessment and surveys will be completed such that an effect determination and written concurrence will be obtained from the USFWS prior to any construction activities. The USFWS Recommended Survey Window is between June 1 and August 15.

The original NRTR had no habitat for eagles in the project study area; however, suitable foraging habitat for bald eagles does exist within one mile of the project study area along the Yadkin River. A survey for nest trees will be conducted in the winter of 2015/2016 prior to any construction activities. A review of NCNHP records on October 28, 2015 showed an eagle nest on High Rock Lake approximately 16 miles from the project.

Response to Question 13: Davidson Co. is a participant in the National Flood Insurance Program, administered by the Federal Emergency Management Agency (FEMA). Based on the most current information available from the NC Floodplain Mapping Program (FMP), this stream crossing is in a designated flood hazard zone which is within a limited detailed flood study reach, having a regulated 100-year non-encroachment width regulated as a floodway. The proposed bridge replacement will provide equivalent or greater conveyance than that of the existing bridge. The NCDOT Hydraulics Unit will coordinate with the FMP, the delegated state agency for administering FEMA's National Flood Insurance Program, to determine the status of the project with regard to applicability of NCDOT'S Memorandum of Agreement with FMP, 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, NCDOT Division 9 staff shall submit sealed as-built construction plans to the NCDOT Hydraulics Unit upon completion of project construction, certifying that the drainage structures and roadway embankment that are located within the 100-year floodplain were built as shown in the construction plans, both horizontally and vertically.

Response to Question 25: As a result of concerns raised by the Davidson County EMS and NCDOT Division 9 staff regarding the detour length and travel time associated with an offsite detour, an onsite detour alternative was developed and selected as the preferred alternative. The replacement bridge is located just to the north of the existing bridge. Traffic will be maintained along the existing bridge during construction, and the existing bridge will be removed upon completion of the new bridge.

G. CE Approval

TIP Project No.	**B-5165**
W.B.S. No.	**42341.1.1**
Federal Project No.	**BRSTP-1485(2)**

Project Description:

The purpose of this project is to replace Davidson County Bridge No. 42 on SR 1485 (Hampton Road) over Muddy Creek. Bridge No. 42 is 121 feet long. The replacement structure will be located just to the north of the existing structure, and will be approximately 150 feet long, providing a minimum 34-foot clear deck width. The bridge will include two 12-foot travel lanes and 4-foot paved shoulders to accommodate bicycles (6-foot shoulders on south side of bridge to accommodate additional bridge offset width required for hydraulic design). 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 990 feet from the west end of the new bridge and 660 feet from the east end of the new bridge. The approaches will be widened to include a 24-foot pavement width providing two 12-foot travel lanes. A 6-foot shoulder (4-foot paved shoulders to accommodate bicycles) will be provided on each side (9-foot shoulders where guardrail is included). The roadway will be designed as a Rural Major Collector using Subregional Tier design guidelines with a 60 mile per hour design speed.

Traffic will be detoured onsite, using the existing roadway approaches and bridge, during construction (see Figure 1).

Categorical Exclusion Action Classification:

____ TYPE II(A)
_X_ TYPE II(B)

Approved:

1-26-16
Date

Michael Wray, PE
Project Development Engineer
Project Development & Environmental Analysis Unit

1/26/16
Date

Derrick Weaver, PE
Project Development Group Supervisor
Project Development & Environmental Analysis Unit

1/26/16
Date

Eric Midkiff, PE
Western Region – Project Development Section Head
Project Development & Environmental Analysis Unit

01/25/16
Date

Jackie Obediente, PE
Three Oaks Engineering

NORTH CAROLINA PROFESSIONAL SEAL 037944 ENGINEER JACQUELINE Y. OBEDIENTE

For Type II(B) projects only:

1-27-16
Date

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

PROJECT COMMITMENTS:

Davidson County
Bridge No. 42 on SR 1485 (Hampton Road)
Over Muddy Creek
Federal Aid Project No. BRSTP-1485(2)
W.B.S. No. 42341.1.1
T.I.P. No. B-5165

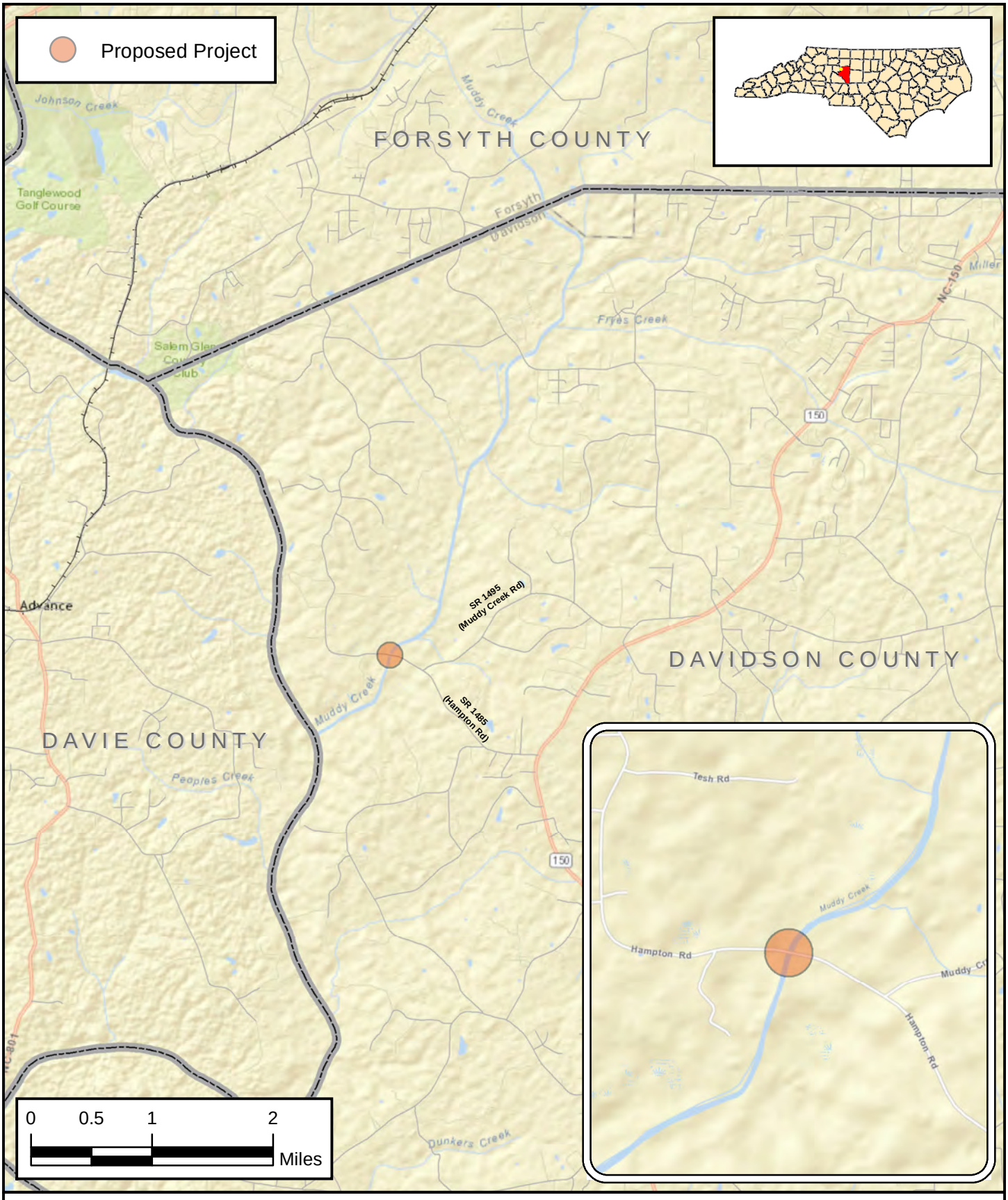
Hydraulic Unit – FEMA Coordination
The Hydraulics Unit will coordinate with the NC Floodplain Mapping Program (FMP) to determine the status of the project with regard to applicability of NCDOT'S Memorandum of Agreement with FMP, or approval of a Conditional Letter of Map Revision (CLOMR) and subsequent final Letter of Map Revision (LOMR).

Division 9 Construction-FEMA
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 completion of project construction, certifying that the drainage structures and roadway embankment that are located within the 100-year floodplain were built as shown in the construction plans, both horizontally and vertically.

PDEA, NES – Northern Long-eared Bat
The USFWS added the Northern long-eared bat (NLEB) to the Davidson County federally protected species list in May of 2015. A biological conclusion of "Unknown" was reached. A habitat assessment and, if needed, surveys for the NLEB are recommended and will be the responsibility of the NCDOT – Biosurveys Group. The habitat assessment and surveys will be completed such that an effect determination and written concurrence will be obtained from the USFWS prior to any construction activities. The USFWS Recommended Survey Window is between June 1 and August 15.

PDEA, NES – Bald Eagle
Suitable foraging habitat for bald eagles does exist within one mile of the project study area along the Yadkin River. A review of NCNHP records on October 28, 2015 showed an eagle nest on High Rock Lake approximately 16 miles from the project. A survey for nest trees will be conducted in the winter of 2015/2016 prior to any construction activities.

FIGURES



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

VICINITY MAP
BRIDGE REPLACEMENT
BRIDGE NO 42 OVER
MUDDY CREEK
DAVIDSON COUNTY
TIP PROJECT B-5165

County:	DAVIDSON
Div: 5	TIP# B-5165
WBS:	42341.1.1
Date:	OCTOBER 2015

Figure 1

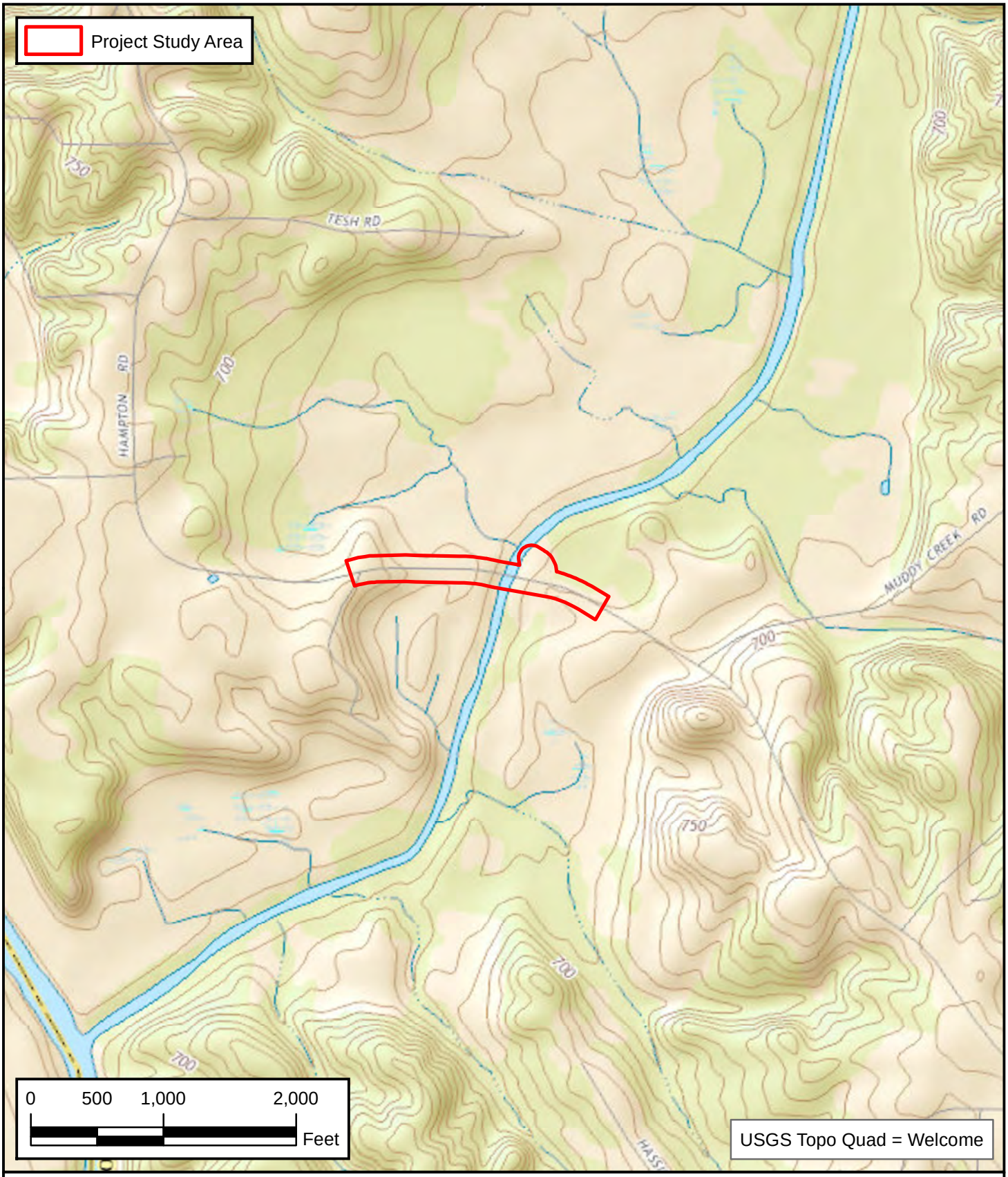
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
PROJECT DEVELOPMENT AND ENVIRONMENTAL ANALYSIS UNIT

PROJECT STUDY AREA MAP
BRIDGE REPLACEMENT
BRIDGE NO 42 OVER
MUDDY CREEK
DAVIDSON COUNTY
TIP PROJECT B-5165

N

County:	DAVIDSON
Div: 5	TIP# B-5165
WBS:	42341.1.1
Date:	OCTOBER 2015

Figure 2



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

USGS TOPO MAP
BRIDGE REPLACEMENT
BRIDGE NO 42 OVER
MUDDY CREEK
DAVIDSON COUNTY
TIP PROJECT B-5165

N

County:	DAVIDSON
Div: 5	TIP# B-5165
WBS:	42341.1.1
Date:	OCTOBER 2015

Figure 3

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

PREFERRED ALTERNATIVE
BRIDGE REPLACEMENT
BRIDGE NO 42 OVER
MUDDY CREEK

DAVIDSON COUNTY
TIP PROJECT B-5165

N

County:	DAVIDSON
Div: 5	TIP# B-5165
WBS:	42341.1.1
Date:	OCTOBER 2015

Figure 4

APPENDIX A

Blakeney, Gregory M

From: Matthews.Kathy@epamail.epa.gov
Sent: Friday, September 04, 2009 11:00 AM
To: Blakeney, Gregory M
Cc: John.T.Thomas@usace.army.mil; Monte.K.Matthews@usace.army.mil; Euliss, Amy; Lespinasse, Polly
Subject: Comments on 14 Bridge projects

Greg,

I have reviewed the scoping letters, vicinity maps, and aerial photographs for the following bridge projects:

B-5173
B-4686
B-4977
B-5160
B-5165
B-3159
B-4746
B-5148
B-5152
B-5172
B-5138
B-4704
B-4837
B-5177

I have the following comments for your consideration:

B-5173, B-4977, B-5152, B-5138, B-4837:
1. In general, for all bridge replacements, EPA prefers structures that span the waterbody. Efforts should be made if possible to also span or avoid any wetlands or other aquatic resources in the project area.
2. EPA also generally prefers the replacement of a bridge in the same location, either with road closure and off-site detour, or staged construction. If a temporary on-site detour is required, it should be designed to avoid impacts to wetlands or other aquatic resources.
3. Bridge supports should not be placed in the stream, if possible.
4. Bridge deck drains should not discharge directly into the stream, and stormwater should be pre-treated prior to discharge to a stream or wetland.

B-3159, B-4746, B-5148: It appears that there are no jurisdictional resources in the project area, so I have no comments.

B-4686:
1. South Deep Creek is listed on the North Carolina Division of Water Quality's (NCDWQ) draft 2008 list of impaired waters, due to aquatic life impairments from turbidity violations. NCDOT should commit to enhanced construction stormwater controls to avoid contributing sediment and other sources of turbidity to South Deep Creek. Such enhanced controls may include larger or additional sedimentation basins, Polyacrylamide (PAM), coconut fiber, absorbent wattles, or other NCDOT-researched and recommended soil erosion and sediment control measures which have been shown to dramatically improve the quality of runoff from road construction

sites.
2. In general, for all bridge replacements, EPA prefers structures that span the waterbody. Efforts should be made if possible to also span or avoid any wetlands or other aquatic resources in the project area.
3. EPA also generally prefers the replacement of a bridge in the same location, either with road closure and off-site detour, or staged construction. If a temporary on-site detour is required, it should be designed to avoid impacts to wetlands or other aquatic resources.
4. Bridge supports should not be placed in the stream, if possible.
5. Bridge deck drains should not discharge directly into the stream, and stormwater should be pre-treated prior to discharge to a stream or wetland.

B-5160:
1. Nails Branch drains to Third Creek, which is listed on the North Carolina Division of Water Quality's (NCDWQ) draft 2008 list of impaired waters, due to aquatic life impairments from turbidity violations. NCDOT should commit to enhanced construction stormwater controls to avoid contributing sediment and other sources of turbidity to Third Creek. Such enhanced controls may include larger or additional sedimentation basins, Polyacrylamide (PAM), coconut fiber, absorbent wattles, or other NCDOT-researched and recommended soil erosion and sediment control measures which have been shown to dramatically improve the quality of runoff from road construction sites.
2. In general, for all bridge replacements, EPA prefers structures that span the waterbody. Efforts should be made if possible to also span or avoid any wetlands or other aquatic resources in the project area.
3. EPA also generally prefers the replacement of a bridge in the same location, either with road closure and off-site detour, or staged construction. If a temporary on-site detour is required, it should be designed to avoid impacts to wetlands or other aquatic resources.
4. Bridge supports should not be placed in the stream, if possible.
5. Bridge deck drains should not discharge directly into the stream, and stormwater should be pre-treated prior to discharge to a stream or wetland.

B-5165:
1. Muddy Creek is listed on the North Carolina Division of Water Quality's (NCDWQ) draft 2008 list of impaired waters, due to aquatic life impairments demonstrated by failure to meet the State biological criteria. NCDOT should commit to enhanced construction stormwater controls to avoid contributing sediment and other sources of contaminants to Muddy Creek. Such enhanced controls may include sedimentation basins, Polyacrylamide (PAM), coconut fiber, absorbent wattles, or other NCDOT-researched and recommended soil erosion and sediment control measures which have been shown to dramatically improve the quality of runoff from road construction sites.
2. In general, for all bridge replacements, EPA prefers structures that span the waterbody. Efforts should be made if possible to also span or avoid any wetlands or other aquatic resources in the project area.
3. EPA also generally prefers the replacement of a bridge in the same location, either with road closure and off-site detour, or staged construction. If a temporary on-site detour is required, it should be designed to avoid impacts to wetlands or other aquatic resources.
4. Bridge supports should not be placed in the stream, if possible.
5. Bridge deck drains should not discharge directly into the stream, and stormwater should be pre-treated prior to discharge to a stream or wetland.

B-5172:
1. The vicinity map and aerial photograph state that they are for Bridge No. 11 over East Prong Creek on SR 1166 (rather than for Bridge no. 195 over Snow Creek on SR 1697). Please clarify or provide the appropriate information for this project.
2. In general, for all bridge replacements, EPA prefers structures that span the waterbody. Efforts should be made if possible to also span or avoid any wetlands or other aquatic resources in the project area.
3. EPA also generally prefers the replacement of a bridge in the same location, either with road closure and off-site detour, or staged construction. If a temporary on-site detour is required, it should be designed to avoid impacts to wetlands or other aquatic resources.
4. Bridge supports should not be placed in the stream, if possible.
5. Bridge deck drains should not discharge directly into the stream, and stormwater should be pre-treated prior to discharge to a stream or wetland.

B-4704:

1. The vicinity map label states that the County is Anson, when it should be Ashe.
2. In general, for all bridge replacements, EPA prefers structures that span the waterbody. Efforts should be made if possible to also span or avoid any wetlands or other aquatic resources in the project area.
3. EPA also generally prefers the replacement of a bridge in the same location, either with road closure and off-site detour, or staged construction. If a temporary on-site detour is required, it should be designed to avoid impacts to wetlands or other aquatic resources.
4. Bridge supports should not be placed in the stream, if possible.
5. Bridge deck drains should not discharge directly into the stream, and stormwater should be pre-treated prior to discharge to a stream or wetland.

B-5177:

1. The vicinity map and aerial map state that this is bridge No. 278, while the scoping letter states that it is bridge 270. Please clarify or correct the documents, as appropriate.
2. In general, for all bridge replacements, EPA prefers structures that span the waterbody. Efforts should be made if possible to also span or avoid any wetlands or other aquatic resources in the project area.
3. EPA also generally prefers the replacement of a bridge in the same location, either with road closure and off-site detour, or staged construction. If a temporary on-site detour is required, it should be designed to avoid impacts to wetlands or other aquatic resources.
4. Bridge supports should not be placed in the stream, if possible.
5. Bridge deck drains should not discharge directly into the stream, and stormwater should be pre-treated prior to discharge to a stream or wetland.

Thank you for the opportunity to comment on these projects. Please contact me with any further information, or questions.

Kathy Matthews
USEPA - Region 4 Wetlands & Marine Reg. Section
109 T.W. Alexander Dr.
Durham, NC 27711
MAIL CODE: E143-04

phone 919-541-3062
cell 919-619-7319

NCDENR
North Carolina Department of Environment and Natural Resources
Division of Water Quality
Coleen H. Sullins
Director

Beverly Eaves Perdue
Governor

Dee Freeman
Secretary

October 2, 2009

MEMORANDUM

TO: Gregory Blakeney, NCDOT PDEA, Bridge Project Development Unit

FROM: Amy Euliss, NCDWQ, Winston Salem Regional Office

SUBJECT: Scoping Review of NCDOT's Proposed Bridge Replacement Projects: B-5173, B-4686, B-4977, B-5160, B-3159, B-5165, B-4746, B-5148, B-5152, B-5172, B-4704, B-4837, B-5177

In reply to your correspondences dated August 28, 2009 in which you requested comments for the above referenced projects, the NCDWQ offers the following comments:

Project-Specific Comments

B-5177, Bridge No. 278 over Middle Fork Creek on SR 1540, Watauga County

1. The letter requests comments on bridge no. 270; however the map says bridge no. 278. These comments address bridge no. 278.
2. Middle Fork Creek aré class WS IV; Tr; + waters of the State. NCDWQ recommends that the most protective sediment and erosion control BMPs be implemented to reduce the risk of turbidity violations in trout waters. In addition, all disturbances within trout buffers shall be conducted in accordance with NC Division of Land Resources and NC Wildlife Resources Commission requirements.

B-4837, Bridge No. 231 over Norris Creek on SR 1337, Watauga County

1. The letter states that the bridge crosses Meat Camp Creek. However our records indicate that the stream is Norris Creek. These comments address Norris Creek.
2. Norris Creek are Class C Tr; + waters of the State. NCDWQ recommends that the most protective sediment and erosion control BMPs be implemented to reduce the risk of turbidity violations in trout waters. In addition, all disturbances within trout buffers shall be conducted in accordance with NC Division of Land Resources and NC Wildlife Resources Commission requirements.

B-4704, Bridge No. 49 over Buffalo Creek on NC 88, Ashe County

1. Buffalo Creek are class C; Tr; + waters of the State. NCDWQ recommends that the most protective sediment and erosion control BMPs be implemented to reduce the risk of turbidity violations in trout waters. In addition, all disturbances within trout buffers shall be conducted in accordance with NC Division of Land Resources and NC Wildlife Resources Commission requirements.

B-5172, Bridge No. 11 over East Prong Little Yadkin on SR 1166, Stokes County

1. The letter requests comments on bridge no. 195 over Snow Creek on SR 1697; however the map says bridge no. 11 on SR 1166. These comments address bridge no. 195 over East Prong Little Yadkin on SR 1166. East Prong Little Yadkin are Class B waters of the state.

Transportation Permitting Unit
1650 Mail Service Center, Raleigh, North Carolina 27699-1650
Location: 2321 Crabtree Blvd., Raleigh, North Carolina 27604
Phone: 919-733-1786 \ FAX: 919-733-6893
Internet: http://h2o.enr.state.nc.us/ncwetlands/

2. We have no project specific conditions. Please see general comments below.

B-5152, Bridge No. 95 over Blanket Creek on SR 1100, Forsyth County

1. The project site is within one mile and draining to the Yadkin. On the draft 2008 303d list, this section of the Yadkin are class WSIV; 303(d) waters of the State. The Yadkin River is on the 303(d) list for impaired use for aquatic life due to turbidity. NCDWQ is very concerned with sediment and erosion impacts that could result from this project. NCDWQ recommends that the most protective sediment and erosion control BMPs be implemented in accordance with *Design Standards in Sensitive Watersheds* to reduce the risk of nutrient runoff to Yadkin River. NCDWQ requests that road design plans provide treatment of the storm water runoff through best management practices as detailed in the most recent version of NCDWQ's *Stormwater Best Management Practices*.

B-5148, Bridge No. 276 over NC 67 on SR 1001, Forsyth County

*There are no visible streams in the area. The area should still be assessed on the ground. Please see general comments below.

B-4746, Bridge No. 229 over Norfolk and Western Railroad on SR 2264, Forsyth County

*There are no visible streams in the area. The area should still be assessed on the ground. Please see general comments below.

B-5165, Bridge No. 42 over Muddy Creek on SR 1485, Davidson County

*No project specific conditions please see general comments below.

B-3159, Bridge No. 27 over US 29-64-70/I-85 Business Loop on NC 8, Davidson County

*There are no visible streams in the area. The area should still be assessed on the ground. Please see general comments below.

B-5160, Bridge No. 50 over Nails Branch on SR 1986, Rowan County

*No project specific conditions please see general comments below.

B-4977, Bridge No. 75 over Fish Dam Creek on SR 1317, Wilkes County

*No project specific conditions please see general comments below.

B-4686, Bridge No. 10 over South Deep Creek on SR 1710, Yadkin County

1. On the draft 2008 303d list, this section of the South Deep Creek are class WSIV; 303(d) waters of the State. South Deep Creek is on the 303(d) list for impaired use for aquatic life due to turbidity. NCDWQ is very concerned with sediment and erosion impacts that could result from this project. NCDWQ recommends that the most protective sediment and erosion control BMPs be implemented in accordance with *Design Standards in Sensitive Watersheds* to reduce the risk of nutrient runoff to South Deep Creek. NCDWQ requests that road design plans provide treatment of the storm water runoff through best management practices as detailed in the most recent version of NCDWQ's *Stormwater Best Management Practices*.

B-5173, Bridge No. 39 over Mitchell River on SR 1328, Surry County

1. Mitchell River are class B; Tr; ORW waters of the State. NCDWQ recommends that the most protective sediment and erosion control BMPs be implemented to reduce the risk of turbidity violations in trout waters. In addition, all disturbances within trout buffers shall be conducted in accordance with NC Division of Land Resources and NC Wildlife Resources Commission requirements.
2. Review of the project reveals the presence of surface waters classified as class B; Tr; Outstanding Resource Waters of the State in the project study area. The water quality classification of class B; Tr; ORW is one of the highest classifications in the State. NCDWQ is extremely concerned with any impacts that may occur to streams with this classification. It is preferred that these resources be avoided if at all possible. If it is not possible to avoid these resources, the impacts shall be

minimized to the greatest extent possible. Given the potential for impacts to these resources during the project implementation, NCDWQ requests that NCDOT strictly adhere to North Carolina regulations entitled "Design Standards in Sensitive Watersheds" (15A NCAC 04B .0124) throughout design and construction of the project. Pursuant to 15A NCAC 2H .1006 and 15A NCAC 2B .0224, NCDOT will be required to obtain a State Stormwater Permit prior to construction except in North Carolina's twenty coastal counties.

General Comments Regarding All of the Above Bridge Replacement Projects

1. The environmental document shall provide a detailed and itemized presentation of the proposed impacts to wetlands and streams with corresponding mapping. If mitigation is necessary as required by 15A NCAC 2H.0506(h), it is preferable to present a conceptual (if not finalized) mitigation plan with the environmental documentation. Appropriate mitigation plans will be required prior to issuance of a 401 Water Quality Certification.

2. Environmental assessment alternatives shall consider design criteria that reduce the impacts to streams and wetlands from storm water runoff. These alternatives shall include road designs that allow for treatment of the storm water runoff through best management practices as detailed in the most recent version of NCDWQ *Stormwater Best Management Practices*, such as grassed swales, buffer areas, preformed scour holes, retention basins, etc.

3. After the selection of the preferred alternative and prior to an issuance of the 401 Water Quality Certification, NCDOT is respectfully reminded that they will need to demonstrate the avoidance and minimization of impacts to wetlands (and streams) to the maximum extent practical. In accordance with the Environmental Management Commission's Rules {15A NCAC 2H.0506(h)}, mitigation will be required for impacts of greater than 1 acre to wetlands. In the event that mitigation is required, the mitigation plan shall be designed to replace appropriate lost functions and values. The NC Ecosystem Enhancement Program may be available for use as wetland mitigation.

4. In accordance with the Environmental Management Commission's Rules {15A NCAC 2H.0506(h)}, mitigation will be required for impacts of greater than 150 linear feet to any single perennial stream. In the event that mitigation is required, the mitigation plan shall be designed to replace appropriate lost functions and values. The NC Ecosystem Enhancement Program may be available for use as stream mitigation.

5. NCDWQ is very concerned with sediment and erosion impacts that could result from this project. NCDOT shall address these concerns by describing the potential impacts that may occur to the aquatic environments and any mitigating factors that would reduce the impacts.

6. If a bridge is being replaced with a hydraulic conveyance other than another bridge, NCDWQ believes the use of a Nationwide Permit may be required. Please contact the US Army Corp of Engineers to determine the required permit(s).

7. If the old bridge is removed, no discharge of bridge material into surface waters is allowed unless otherwise authorized by the US ACOE. Strict adherence to the Corps of Engineers guidelines for bridge demolition will be a condition of the 401 Water Quality Certification.

8. Whenever possible, NCDWQ prefers spanning structures. Spanning structures usually do not require work within the stream or grubbing of the streambanks and do not require stream channel realignment. The horizontal and vertical clearances provided by bridges shall allow for human and wildlife passage beneath the structure. Fish passage and navigation by canoeists and boaters shall not be blocked. Bridge supports (bents) shall not be placed in the stream when possible.

9. Bridge deck drains shall not discharge directly into the stream. Stormwater shall be directed across the bridge and pre-treated through site-appropriate means (grassed swales, pre-formed scour holes, vegetated buffers, etc.) before entering the stream. Please refer to the most current version of NCDWQ's *Stormwater Best Management Practices.*

10. If concrete is used during construction, a dry work area shall be maintained to prevent direct contact between curing concrete and stream water. Water that inadvertently contacts uncured concrete shall not be discharged to surface waters due to the potential for elevated pH and possible aquatic life and fish kills.

11. If temporary access roads or detours are constructed, the site shall be graded to its preconstruction contours and elevations. Disturbed areas shall be seeded or mulched to stabilize the soil and appropriate native woody species should be planted. When using temporary structures the area shall be cleared but not grubbed. Clearing the area with chain saws, mowers, bush-hogs, or other mechanized equipment and leaving the stumps and root mat intact allows the area to re-vegetate naturally and minimizes soil disturbance.

12. Placement of culverts and other structures in waters, streams, and wetlands shall be below the elevation of the streambed by one foot for all culverts with a diameter greater than 48 inches, and 20 percent of the culvert diameter for culverts having a diameter less than 48 inches, to allow low flow passage of water and aquatic life. Design and placement of culverts and other structures including temporary erosion control measures shall not be conducted in a manner that may result in dis-equilibrium of wetlands or streambeds or banks, adjacent to or upstream and down stream of the above structures. The applicant is required to provide evidence that the equilibrium is being maintained if requested in writing by NCDWQ. If this condition is unable to be met due to bedrock or other limiting features encountered during construction, please contact NCDWQ for guidance on how to proceed and to determine whether or not a permit modification will be required.

13. If multiple pipes or barrels are required, they shall be designed to mimic natural stream cross section as closely as possible including pipes or barrels at flood plain elevation, floodplain benches, and/or sills may be required where appropriate. Widening the stream channel shall be avoided. Stream channel widening at the inlet or outlet end of structures typically decreases water velocity causing sediment deposition that requires increased maintenance and disrupts aquatic life passage.

14. If foundation test borings are necessary; it should be noted in the document. Geotechnical work is approved under General 401 Certification Number 3624/Nationwide Permit No. 6 for Survey Activities.

15. Sediment and erosion control measures sufficient to protect water resources must be implemented and maintained in accordance with the most recent version of North Carolina Sediment and Erosion Control Planning and Design Manual and the most recent version of NCS000250.

16. All work in or adjacent to stream waters shall be conducted in a dry work area unless otherwise approved by NCDWQ. Approved BMP measures from the most current version of NCDOT Construction and Maintenance Activities manual such as sandbags, rock berms, cofferdams and other diversion structures should be used to prevent excavation in flowing water.

17. Sediment and erosion control measures shall not be placed in wetlands and streams.

18. Borrow/waste areas shall avoid wetlands to the maximum extent practical. Impacts to wetlands in borrow/waste areas could precipitate compensatory mitigation.

19. While the use of National Wetland Inventory (NWI) maps, NC Coastal Region Evaluation of Wetland Significance (NC-CREWS) maps and soil survey maps are useful tools, their inherent inaccuracies require that qualified personnel perform onsite wetland delineations prior to permit approval.

20. Heavy equipment shall be operated from the bank rather than in stream channels in order to minimize sedimentation and reduce the likelihood of introducing other pollutants into streams. This equipment shall be inspected daily and maintained to prevent contamination of surface waters from leaking fuels, lubricants, hydraulic fluids, or other toxic materials.

21. In most cases, NCDWQ prefers the replacement of the existing structure at the same location with road closure. If road closure is not feasible, a temporary detour should be designed and located to avoid wetland impacts, minimize the need for clearing and to avoid destabilizing stream banks. If the structure will be on a new alignment, the old structure shall be removed and the approach fills removed from the 100-year floodplain. Approach fills should be removed and restored to the natural ground elevation. The area shall be stabilized with grass and planted with native tree species. Tall fescue shall not be used in riparian areas.

22. Riprap shall not be placed in the active thalweg channel or placed in the streambed in a manner that precludes aquatic life passage. Bioengineering boulders or structures should be properly designed, sized and installed.

Thank you for requesting our input at this time. NCDOT is reminded that issuance of a 401 Water Quality Certification requires that appropriate measures be instituted to ensure that water quality standards are met and designated uses are not degraded or lost. If you have any questions or require additional information, please contact Amy Euliss at (336) 771-4959.

cc: John Thomas, US Army Corps of Engineers, Raleigh Field Office
Monte Matthews, US Army Corps of Engineers, Raleigh Field Office
Federal Highway Administration
Kent Boyer, Division 7 Environmental Officer
Heath Slaughter, Division 8 Environmental Officer
Kathy Matthews, Environmental Protection Agency (electronic copy only)
Marla Chambers, NC Wildlife Resources Commission (electronic copy only)
Wetlands/401 Transportation Permitting Unit
File Copy

Project Tracking No. (Internal Use)

10-03-0177

NO SURVEY REQUIRED FORM

PROJECT INFORMATION

Project No:	B-5165	*County:*	Davidson		
WBS No:	42341.1.1	*Document:*	CE/PCE		
F.A. No:	BRSTP-1485(2)	*Funding:*	☐ State	☒ Federal	

Federal (USACE) Permit Required? ☒ Yes ☐ No *Permit Type:*

Project Description: Replace Bridge No. 42 over Muddy Creek on SR 1485 (Hampton Road)

SUMMARY OF CULTURAL RESOURCES REVIEW

Brief description of review activities, results of review, and conclusions:
Review of HPO quad maps, historic designations roster, and indexes was undertaken on 15 April 2010. Based on this review, there are no existing NR, SL, LD, DE, or SS properties in the Area of Potential Effects. The CRS also reviewed Davidson County GIS aerial photographs and tax parcel information and both showed no properties in the APE and those properties located just west of the APE were built after 1980.

Bridge No. 42 is a steel stringer bridge that was constructed in 1951. This bridge was determined not eligible for National Register listing in the NCDOT Historic Bridge Survey.

Brief Explanation of why the available information provides a reliable basis for reasonably predicting that there are no unidentified historic properties in the APE:
Aerial photographs show that there are no properties in the APE. Davidson County GIS information confirms this.

FINDING BY NCDOT CULTURAL RESOURCES PROFESSIONAL

NO SURVEY REQUIRED – Historic Architecture

NCDOT Cultural Resources Specialist

20 APRIL 2010
Date

10-03-0177

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-5165**	*County:*	**Davidson**
WBS No:	**42341.1.1**	*Document:*	**PCE**
F.A. No:	**BRSTP-1485(2)**	*Funding:*	☐ State ☒ Federal

Federal Permit Required? ☒ Yes ☐ No *Permit Type:* **NWP Nos. 23 & 33**

Project Description: NCDOT intends to replace Bridge No. 42 on SR 1485, Hampton Road, over Muddy Creek. Prior to the development of preliminary designs, a 200-x-1400-foot study corridor was established for the purposes of the archaeological review and investigation. However with the development of preliminary planning, additional easements and the addition of two driveways have expanded the project Area of Potential Effects (APE) from a 6.73-acre area to one encompassing 7.55 acres (nearly 3.06 hectares).

SUMMARY OF CULTURAL RESOURCES REVIEW

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

The initial review of the site maps and files archived at the North Carolina Office of State Archaeology was conducted on July 31, 2014. No previously identified archaeological resources are located within the APE, but archaeological sites, 31Dv361/361** and 31Dv395 were recorded in the vicinity of the proposed project. Circumstances surrounding the recording of these sites made pinpointing the exact locations of these sites in relation to the proposed study area difficult. The potential for these resources to extending into the proposed APE, in addition to, the predicted habitable landforms in that area based on topographic mapping, led to the conclusion that archaeological survey of the APE was warranted on June 24, 2014.

On August 7, 2014, an intensive archaeological survey was conducted by Coastal Carolina Research (CCR) on behalf of NCDOT. This survey included a full visual inspection of the entire 200-x-1400-foot study corridor and 33 subsurface tests were excavated along transects in areas that had not been determined to be wet, disturbed, or steeply sloped during the visual inspection. No cultural remains were identified during these investigations.

On September 8, 2015 a new request for Archaeological input was submitted due to the expansion of the proposed project beyond the initial 200-x-1400-foot study corridor. This expansion largely consists of an extension of the proposed APE by 350 feet (about 106 meters) on the western end of the project area and the addition of a drive that extends roughly 125 feet (roughly 38 meters) north of the previously surveyed corridor towards Muddy Creek. Despite the addition of these areas to the previously surveyed APE, noi further archaeological investigation is recommended for the project as currently proposed. However, should the project expand further, additional consultation will be 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 noted above, CCR conducted an archaeological investigation of the 200-x-1400-foot study corridor that comprised the proposed APE on August 7, 2014. These archaeological investigations established a reasonable contextual picture of that study area, including portions of the landscape that were observed to possess hydric (low, wet) soils, or significant landscape disturbances (clearing, grading, erosion, etc.). Based on the results of the survey, in conjunction with documented soil and topographic information for the expansions of the project APE, a reasonable expectation of archaeological potential can be hypothesized.

The western extension of the APE (primarily to the north of SR 1485) stretches from the transect of shovel test pits that CCR used to characterize that portion of the APE as disturbed. This extension moves up from this area onto a portion of the APE that is fairly sloped. The driveway east of Muddy Creek, along the north side of SR 1485 extends from an area that CCR determined to be too low and wet for subsurface testing. Soil mapping for Davidson County along with 2-foot topographic mapping strongly suggests that the same conditions can be extended to the newly added area. While CCR recommended that additional survey would be necessary if the project were to expand, those recommendations are better suited to the portions of the APE to the southwest of the bridge or at the eastern end of the proposed APE.

SUPPORT DOCUMENTATION

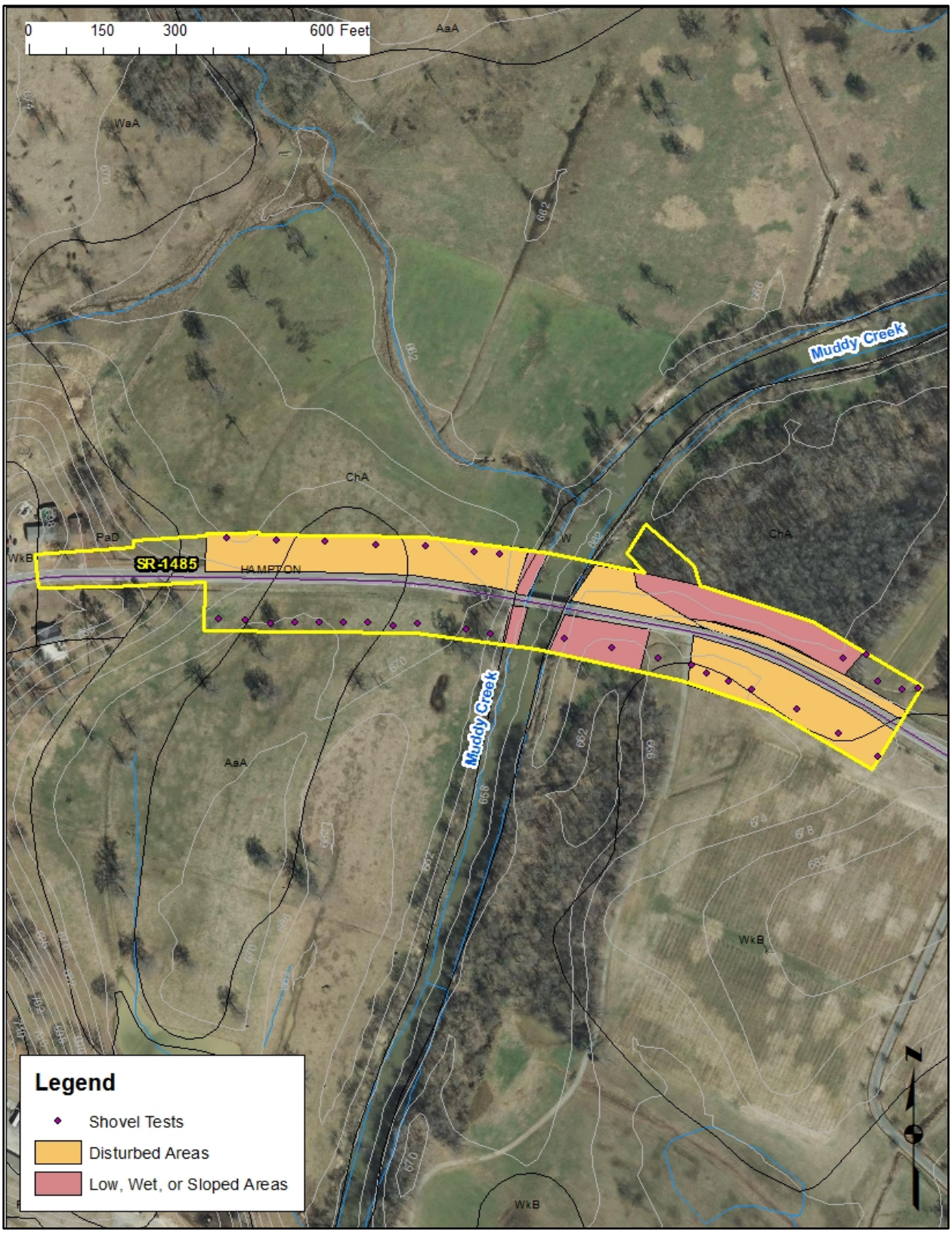
See attached: ☒ Map(s) ☒ Previous Survey Info ☐ Photos ☐ Correspondence
☒ Other: preliminary plans

FINDING BY NCDOT ARCHAEOLOGIST

NO ARCHAEOLOGY SURVEY REQUIRED

October 23, 2015

NCDOT ARCHAEOLOGIST II Date



Aerial photograph with 2-foot contours and soil-type distribution for the replacement of Bridge 42; shaded areas illustrate disturbed or wetland areas encountered during the 2014 survey (shovel tests also illustrated).

10-03-0177

NO NATIONAL REGISTER OF HISTORIC PLACES ELIGIBLE OR LISTED ARCHAEOLOGICAL SITES PRESENT OR AFFECTED FORM

This form only pertains to ARCHAEOLOGICAL RESOURCES for this project. It is not valid for Historic Architecture and Landscapes. You must consult separately with the Historic Architecture and Landscapes Group.

PROJECT INFORMATION

Project No:	**B-5165**	*County:*	**Davidson**
WBS No:	**42341.1.1**	*Document:*	**CE/PCE**
F.A. No:	**BRSTP-1485(2)**	*Funding:*	☐ State ☒ Federal

Federal Permit Required? ☒ Yes ☐ No *Permit Type:* **NWP 23, NWP 33**

Project Description: NCDOT intends to replace Bridge No. 42 on SR 1485, Hampton Road, over Muddy Creek. While there are no preliminary plans currently available, the Archaeology Group obtained general Study Area mapping with a delineated area of approximately 200 feet by 1,400 feet. This Study Area is the basis for the 6.73-acre Area of Potential Effects (APE) for archaeological resources reported here.

SUMMARY OF ARCHAEOLOGICAL FINDINGS

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

☒ **There are no National Register listed ARCHAEOLOGICAL SITES within the project's area of potential effects.**

☐ No subsurface archaeological investigations are required for this project.

☒ **Subsurface investigations did not reveal the presence of any archaeological resources.**

☐ Subsurface investigations did not reveal the presence of any archaeological resources considered eligible for the National Register.

☐ All identified archaeological sites located within the APE have been considered and all compliance for archaeological resources with Section 106 of the National Historic Preservation Act and GS 121-12(a) has been completed for this project.

☒ **There are no National Register Eligible or Listed ARCHAEOLOGICAL SITES present or affected by this project.** (*Attach any notes or documents as needed*)

Brief description of review activities, results of review, and conclusions:
A review of the site maps and files at the North Carolina Office of State Archaeology was conducted on July 31, 2014. Two archaeological sites, 31DV361/361** and 31DV395, were previously recorded in the vicinity of Bridge No. 42. Site 31DV361/361**, a mixed component artifact scatter containing unattributed lithics and historic material from the late nineteenth and twentieth centuries, was recorded by Wake Forest University (WFU) during a survey for a sewer line (Abbott and Woodall 1984). The sewer line survey crossed SR 1485 (and the current APE) to the west of Muddy Creek where a sewer outfall station is currently visible. The exact location of 31DV361/361** is unclear from the report mapping, and though it is generally mapped south of SR 1485 and west of Muddy Creek, its relationship to the southern boundary of the current APE cannot be accurately depicted. WFU conducted testing at this site in an area around a stone or slab thought to be a possible grave marker. The report does state that this stone was found 70 feet south of the road, which would place it within the current APE. All of the WFU testing around the stone was negative, and no evidence of a grave was encountered. Site 31DV395 is depicted north of the current APE on the east side of Muddy Creek and is documented by a partially completed OSA site form. The site was reported by informants who indicated it was a Late Archaic site with debitage, hafted bifaces, and some Native American ceramic material. Based on the presence of habitable landforms and the results of previous research in the APE vicinity, additional survey of the APE appeared warranted.

On August 7th, 2014, a survey of the Study Area or APE was completed by Coastal Carolina Research (CCR) archaeologists Lindsay Flood, M.A., RPA, and Amanda Stamper. J. Eric Deetz, RPA, was the project principal investigator. The survey consisted of pedestrian inspection and shovel testing at 15-m intervals (n=33). Full consideration was given to the entire APE; however, areas that were wet, disturbed, or steeply sloped were visually inspected but not intensively surveyed. Based on the shovel test results, no evidence of the either of the two previously recorded sites was encountered. All of the shovel tests were negative, and no archaeological resources were recorded within the APE.

The USDA soil mapping for Davidson County suggests that the floodplain along Muddy Creek in the area of Bridge No. 42 should be composed largely of occasionally flooded Altavista fine sandy loam with 0-2 percent slopes (AsA) and the frequently flooded Chewacla loam with 0 to 2 percent slopes (ChA). Soils encountered during the shovel testing were consistent with the soil mapping, and a typical profile had a brown to dark yellowish brown silty clay loam upper zone (top soil or plow zone) and one or more subsoil zones consisting of yellowish brown, strong brown, or mottled soils. Decaying rock or hydric soils were reached in several shovel tests, including tests on each side of Muddy Creek. As no cultural materials were encountered through the subsurface testing program, and sampling was sufficient to suggest that there is no potential for buried cultural horizons, no further work is recommended. If the APE expands beyond this survey area, further subsurface testing will be required.

No further archaeological investigations are recommended for the replacement of Bridge No. 42 as proposed. Should the project change further investigation may be necessary. The project as described should be considered to be compliant with Section 106 and NCGS 121-12(a).

References :

Abbott, Lawrence E. and J. Ned Woodall
1984 *An Archaeological Survey of Lower Muddy Creek, Davidson and Forsyth Counties, North Carolina. Archaeology Laboratories, Museum of Man, Wake Forest University*. Submitted to Winston-Salem/Forsyth County Utilities Commission. Copies available from the North Carolina Office of State Archaeology, Raleigh.

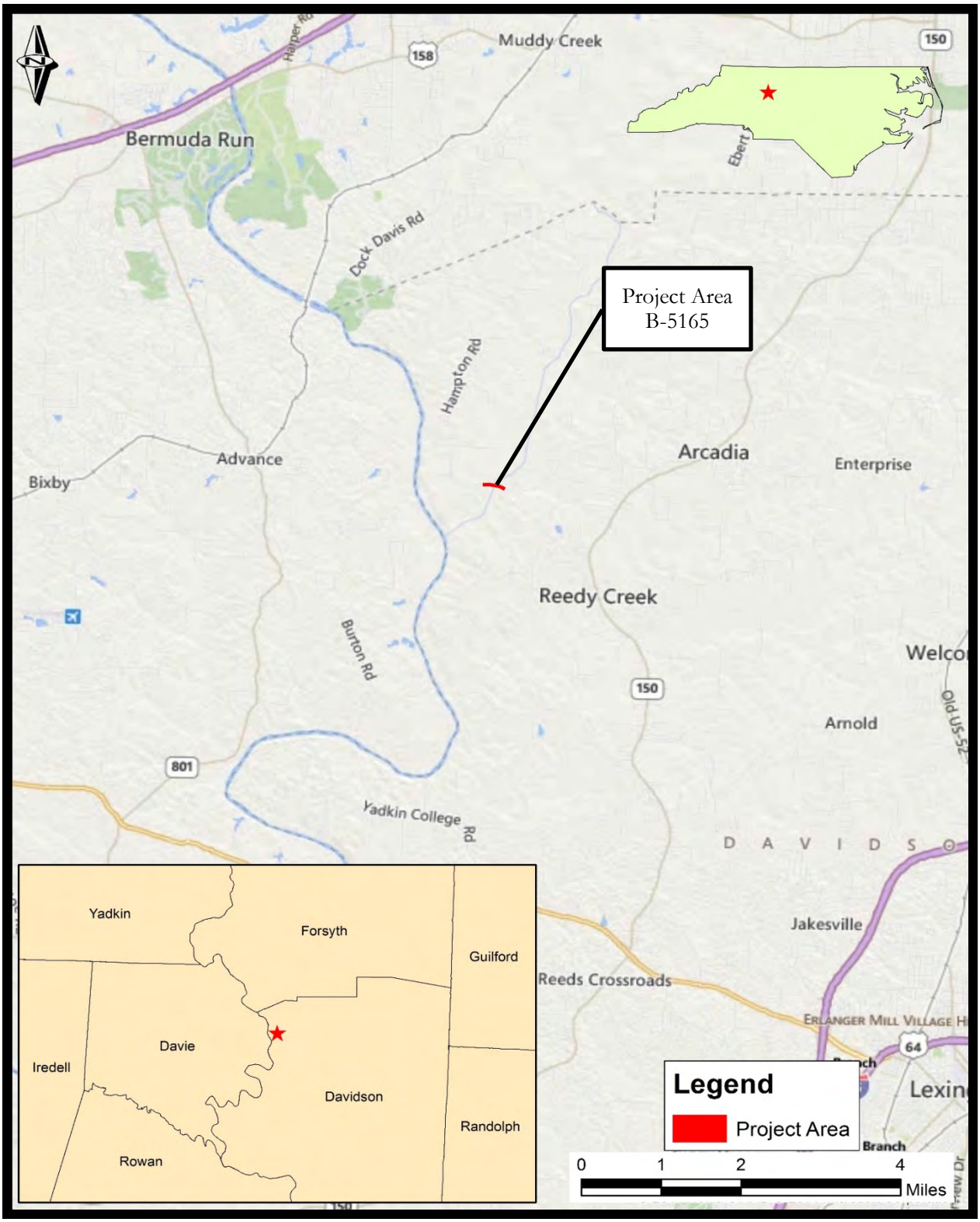
ArcGIS Image Service
2014 ESRI World Imagery. Electronic document, http://services.arcgisonline. com/ArcGIS/ rest/services/world_imagery/Mapserver, accessed August 11, 2014.

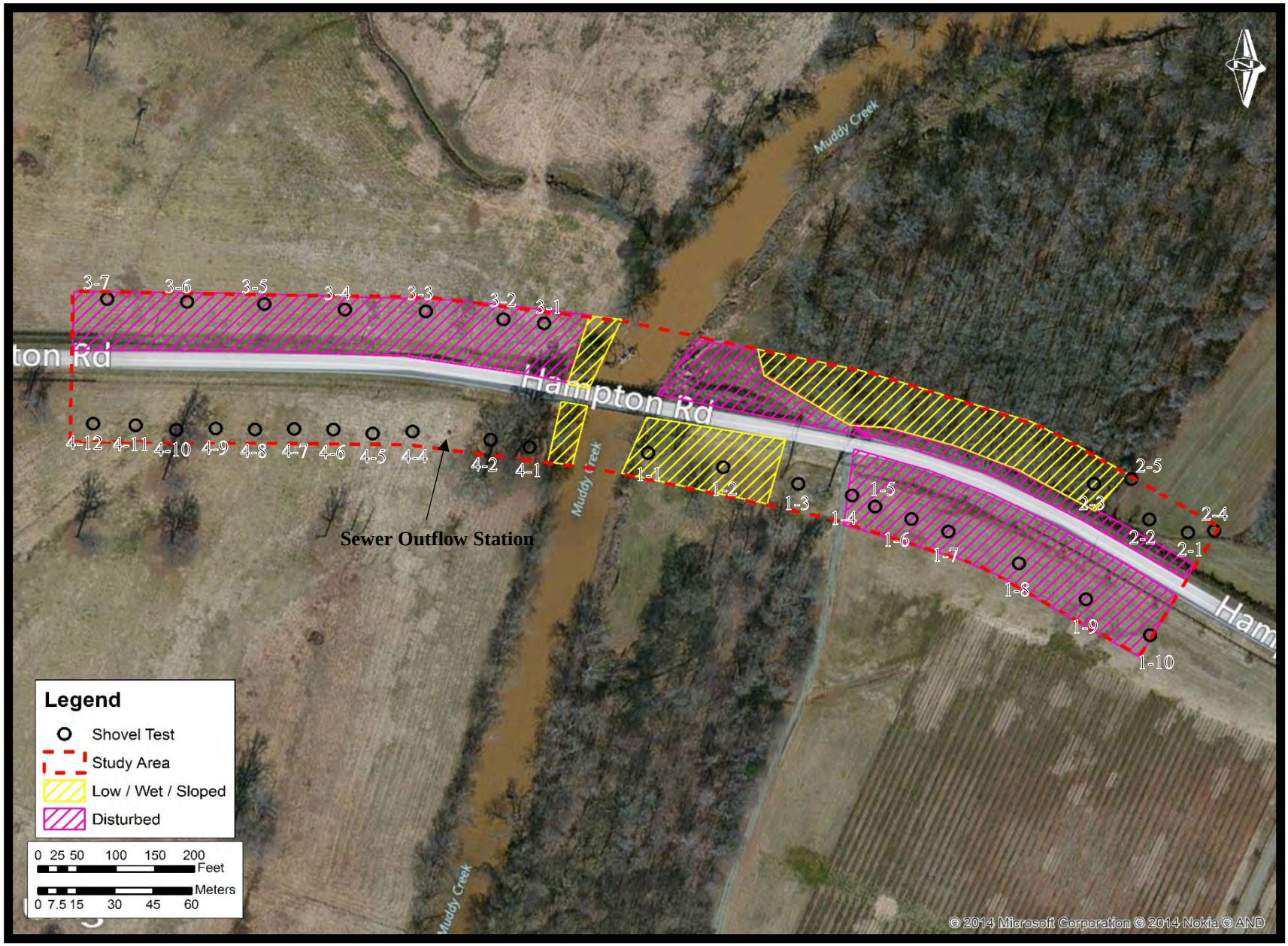
SUPPORT DOCUMENTATION

See attached: ☒ Map(s) ☐ Previous Survey Info ☒ Photos ☐ Correspondence
☐ Other: Shovel test results.

Signed:

Shane C. Petersen	**August 27, 2014**
NCDOT ARCHAEOLOGIST II	**Date**


Muddy Creek
158
150
Bermuda Run
Ebert
Dock Davis Rd
Project Area
B-5165
Hampton Rd
Advance
Bixby
Arcadia
Enterprise
Reedy Creek
Burton Rd
Welco
150
Arnold
801
Yadkin College Rd
D A V I D S O
Yadkin
Forsyth
Guilford
Jakesville
Reeds Crossroads
Davie
Iredell
Davidson
Randolph
Rowan
Legend
Project Area
0 1 2 4
Miles


Hampton Rd
Muddy Creek
Muddy Creek
Muddy Creek
3-7
3-6
3-5
3-4
3-3
3-2
3-1
4-12
4-11
4-10
4-9
4-8
4-7
4-6
4-5
4-4
4-2
4-1
1-1
1-2
1-3
1-4
1-5
1-6
1-7
1-8
1-9
1-10
2-5
2-4
2-3
2-2
2-1
Sewer Outflow Station
Legend
Shovel Test
Study Area
Low / Wet / Sloped
Disturbed
0 25 50 100 150 200
Feet
0 7.5 15 30 45 60
Meters
© 2014 Microsoft Corporation © 2014 Nokia © AND

Selected shovel test results showing typical soil profiles for the various areas in the APE.

Shovel Test Pit	Zone	Depth (top)	Depth (base)	Munsell	Color	Soil Texture	Artifacts	Notes
1-2	1	0	15	10YR 4/4	dark yellowish brown	silty clay loam	no	
	2	15	39	10YR 4/6	dark yellowish brown	coarse silty clay loam	no	
	3	39	54	7.5YR 4/6 mottled w/ 10YR 7/4	strong brown mottled w/ very pale brown	silty clay and sand	no	
	4	54	64	7.5YR 4/6	strong brown	silty clay	no	
1-3	1	0	36	10YR 4/3	brown	silty clay loam	no	
	2	36	46	10YR 5/8	yellowish brown	silty clay	no	
1-4	1	0	9	10YR 4/3 mottled w/ 7.5YR 4/6	brown mottled w/ strong brown	silty clay loam and silty clay	no	
	2	9	18	10YR 5/6 mottled w/ 2.5Y 5/2	yellowish brown mottled w/ grayish brown	coarse sandy clay and silty clay loam	no	
	3	18	28	10YR 4/6	dark yellowish brown	silty clay	no	
1-5	1	0	5	10YR 4/3	brown	silty clay loam	no	
	2	5	19	10YR 4/6 mottled w/ 10YR 5/8 and 5YR 4/6	dark yellowish brown mottled w/ yellowish brown and yellowish red	silty clay loam, silty clay, and clay	no	
	3	19	32	2.5Y 4/2 mottled w/ 7.5YR 4/6	dark grayish brown mottled w/ strong brown	silty clay loam and silty clay	no	
	4	32	44	7.5YR 4/6 mottled w/ 2.5Y 6/4	strong brown mottled w/ light yellowish brown	silty clay and sandy clay	no	
	5	44	54	2.5Y 6/3 mottled w/ 10YR 6/8	light yellowish brown mottled w/ brownish yellow	coarse sand and silty clay w/ decaying rock	no	

Shovel Test Pit	Zone	Depth (top)	Depth (base)	Munsell	Color	Soil Texture	Artifacts	Notes
1-6	1	0	10	10YR 4/6 mottled w/ 7.5YR 5/8	dark yellowish brown mottled w/ strong brown	silty clay loam and silty clay	no	
	2	10	24	5YR 5/8 mottled w/ 10YR 5/6	yellowish red mottled w/ yellowish brown	silty clay	no	
	3	24	30	2.5Y 6/8 mottled w/ 10YR 5/4	olive yellow mottled w/ yellowish brown	silty clay	no	
	4	30	40	10YR 6/3 mottled w/ 5YR 4/6 and 2.5Y 6/8	pale brown mottled w/ yellowish red and olive yellow	sandy clay and silty clay	no	
1-7	1	0	18	7.5YR 4/6 mottled w/ 7.5YR 4/4	strong brown mottled w/ brown	sandy clay loam and sandy loam	no	
	2	18	42	5YR 4/6 mottled w/ 10YR 6/6	yellowish red mottled w/ brownish yellow	silty clay and sandy clay loam w/ decaying rock	no	
1-9	1	0	8	10YR 4/6	dark yellowish brown	silty clay loam	no	
	2	8	18	5YR 4/6	yellowish red	silty clay	no	
1-10	1	0	15	5YR 4/6	yellowish red	silty clay	no	
2-1	1	0	20	10YR 4/4	dark yellowish brown	silty clay loam	no	
	2	20	32	10YR 6/4 mottled with 2.5Y 6/3 and 2.5Y 7/1	light yellowish brown mottled w/ light yellowish brown and light gray	silty clay loam and silty clay (hydric)	no	
2-3	1	0	13	10YR 4/4	dark yellowish brown	silty clay loam	no	
	2	13	23	10YR 5/8	yellowish brown	silty loam	no	
	3	23	33	10YR 5/1 mottled w/ 7.5YR 5/8	gray mottled w/ strong brown	silty clay and sandy loam (hydric)	no	

Shovel Test Pit	Zone	Depth (top)	Depth (base)	Munsell	Color	Soil Texture	Artifacts	Notes
3-1	1	0	6	10YR 5/4 mottled w/ 7.5YR 5/8	yellowish brown mottled w/ strong brown	sandy loam and sandy clay loam	no	
	2	6	26	10YR 4/6 mottled w/ 10YR 4/3	dark yellowish brown mottled w/ brown	silty clay loam	no	
	3	26	38	2.5Y 6/8 mottled w/ 7.5YR 5/8 and 2.5Y 7/4	olive yellow mottled w/ strong brown and pale yellow	sandy clay loam and sandy loam w/ decaying rock	no	
3-2	1	0	15	10R 4/3	brown	silty clay loam	no	
	2	15	25	10YR 4/6 mottled w/ 10YR 6/6	dark yellowish brown mottled w/ brownish yellow	silty clay loam and coarse silty clay loam	no	
	3	25	35	10YR 4/6 mottled w/ 7.5YR 4/6	dark yellowish brown mottled w/ strong brown	silty clay loam	no	
3-4	1	0	18	10YR 3/3 mottled w/ 10YR 4/4	dark brown mottled w/ dark yellowish brown	silty clay loam	no	
	2	18	30	10YR 5/6 mottled w/ 7.5YR 5/8	yellowish brown mottled w/ strong brown	silty clay loam and silty clay	no	
3-5	1	0	11	10YR 4/3	brown	silty clay loam	no	
	2	11	26	10YR 5/6 mottled w/ 10YR 4/3 and 7.5YR 5/8	yellowish brown mottled w/ brown and strong brown	silty clay loam	no	
	3	26	36	7.5YR 5/8 mottled w/ 7.5YR 4/6 and 10YR 5/6	strong brown mottled w/ strong brown and yellowish brown	silty clay	no	

Shovel Test Pit	Zone	Depth (top)	Depth (base)	Munsell	Color	Soil Texture	Artifacts	Notes
3-7	1	0	15	10YR 5/3 mottled w/ 10YR 5/8	brown mottled w/ yellowish brown	silty clay loam	no	
	2	15	30	10YR 5/8 mottled w/ 10YR 5/4	yellowish brown mottled w/ yellowish brown	silty clay loam	no	
	3	30	40	2.5Y 5/4 mottled w/ 10YR 6/8	light olive brown mottled w/ brownish yellow	coarse silty clay loam and silty clay	no	
4-4	1	0	13	10YR 4/4	dark yellowish brown	sandy loam	no	
	2	13	33	10YR 5/8	yellowish brown	silty clay loam	no	
	3	33	43	7.5YR 5/8	strong brown	silty clay	no	
4-5	1	0	19	10YR 4/4	dark yellowish brown	silty clay loam	no	
	2	19	29	7.5YR 5/6	strong brown	clayey silt	no	
4-8	1	0	20	10YR 4/6	dark yellowish brown	silty clay loam	no	
	2	20	32	2.5Y 6/8	olive yellow	silty clay	no	
4-9	1	0	10	10Y 6/1 mottled w/ 2.5Y 5/3 and 10YR 4/6	greenish gray mottled w/ light olive brown and dark yellowish brown	sandy clay, silty clay loam, and silty clay (hydric)	no	
4-11	1	0	4	10YR 4/3	brown	silty clay loam	no	
	2	4	20	10YR 5/3 mottled w/ 7.5YR 4/6	brown mottled w/ strong brown	silty clay loam and silty clay	no	
	3	20	30	2.5Y 6/3 mottled w/ 10YR 5/8	light yellowish brown mottled w/ yellowish brown	sandy clay loam and silty clay (hydric)	no	
4-12	1	0	12	10YR 3/3	dark brown	sandy loam	no	
	2	12	26	10YR 5/4	yellowish brown	sandy clay loam	no	
	3	26	36	10YR 5/8	yellowish brown	sandy clay	no	

View of Low/Wet and Frequently Flooded Area along the East Side of Muddy Creek and South Side of Hampton Road, Looking East-Southeast.

View of Disturbed/Altered Area (Highly Disturbed Soils) along South Side of Hampton Road and East Side of Muddy Creek, Looking Southeast from Shovel Test 1-4.

View of Soybean Field Near East of Study Area, Looking North-Northeast from Shovel Test 2-2.

View of Low/Wet and Frequently Flooded Area on North Side of Hampton Road and East Side of Muddy Creek, Looking Northeast.

View of Disturbed Area with Sand Dredging Operation Area, Along the East Side of Muddy Creek and North of Hampton Road, Looking North-Northwest.

View of Bridge Over Muddy Creek, Looking West.

View of Disturbed/Altered Area Along the West Side of Muddy Creek and North Side of Hampton Road, Looking West from Shovel Test 3-2.

View of Cow Pasture (with Sewer Outflow Station) on West Side of Muddy Creek and South Side of Hampton Road, Looking East from Shovel Test 5-5.

USDA
United States Department of Agriculture
Natural Resources Conservation Service
4407 Bland Road, Suite 117
Raleigh, North Carolina 27609

Milton Cortés, Assistant State Soil Scientist
Telephone No.: (919) 873-2171
Fax No.: (919) 873-2157
E-mail: milton.cortes@nc.usda.gov

November 18, 2015

Ms. Diana Young-Paiva
Senior Transportation Planner
Three Oaks Engineering
324 Blackwell Street, Suite 1140
Durham, NC 27701

Ms. Young-Paiva;

The following information is in response to your review request in the review for the NCDOT B-5165 bridge replacement project, Davidson Co., NC

Projects are subject to Farmland Protection Policy Act (FPPA) requirements if they may irreversibly convert farmland (directly or indirectly) to nonagricultural use and are completed by a Federal agency or with assistance from a Federal agency.

For the purpose of FPPA, farmland includes prime farmland, unique farmland, and land of statewide or local importance. Farmland subject to FPPA requirements does not have to be currently used for cropland. It can be forest land, pastureland, cropland, or other land, but not water or urban built-up land.

Farmland means prime or unique farmlands as defined in section 1540(c)(1) of the Act or farmland that is determined by the appropriate state or unit of local government agency or agencies with concurrence of the Secretary to be farmland of statewide of local importance.

“Farmland" does not include land already in or committed to urban development or water storage. Farmland ``already in" urban development or water storage includes all such land with a density of 30 structures per 40-acre area. Farmland already in urban development also includes lands identified as ``urbanized area" (UA) on the Census Bureau Map, or as urban area mapped with a ``tint overprint" on the USGS topographical maps, or as ``urban-built-up" on the USDA Important Farmland Maps. See over for more information.

The area in question meets one or more of the above criteria for Farmland. Farmland area will be affected or converted. Enclosed is the Farmland Conversion Impact Rating form AD1006 with PARTS II, IV and V completed by NRCS. The FHWA will need to complete the evaluation Part VI & VII, according to the Code of Federal Regulation 7CFR 658, Farmland Protection Policy Act. I left the form “open” (*fillable)* in order to have the final calculations.

If you have any questions, please contact me at number above.

Sincerely,

Milton Cortes

Milton Cortés
Assistant State Soil Scientist

Projects and Activities Subject to FPPA

Projects are subject to FPPA requirements if they may irreversibly convert farmland (directly or indirectly) to nonagricultural use and are completed by a Federal agency or with assistance from a Federal agency.

Assistance from a Federal agency includes:

- Acquiring or disposing of land.
- Providing financing or loans.
- Managing property.
- Providing technical assistance

Activities that may be subject to FPPA include:

- State highway construction projects, (through the Federal Highway Administration)
- Airport expansions
- Electric cooperative construction projects
- Railroad construction projects
- Telephone company construction projects
- Reservoir and hydroelectric projects
- Federal agency projects that convert farmland
- Other projects completed with Federal assistance.

Activities not subject to FPPA include:

- Federal permitting and licensing
- Projects planned and completed without the assistance of a Federal agency
- Projects on land already in urban development or used for water storage
- Construction within an existing right-of-way purchased on or before August 4, 1984
- Construction for national defense purposes
- Construction of on-farm structures needed for farm operations
- Surface mining, where restoration to agricultural use is planned
- Construction of new minor secondary structures such as a garage or storage shed.

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*		Date Of Land Evaluation Request	September 30, 2015
Name of Project	NCDOT STIP Project B5165	Federal Agency Involved	FHWA
Proposed Land Use	Replace Existing Bridge	County and State	Davidson County, North Carolina
PART II *(To be completed by NRCS)*		Date Request Received By NRCS	Person Completing Form: Milton Cortes NRCS Raleigh, NC

Does the site contain Prime, Unique, Statewide or Local Important Farmland? *(If no, the FPPA does not apply - do not complete additional parts of this form)*	YES ☑ NO ☐	Acres Irrigated: None	Average Farm Size: 85 acres
Major Crop(s): Corn	Farmable Land In Govt. Jurisdiction — Acres: 257,618 acres 71 %	Amount of Farmland As Defined in FPPA — Acres: 231,855 acres 63.9 %	
Name of Land Evaluation System Used: Davidson Co., NC LESA	Name of State or Local Site Assessment System: None	Date Land Evaluation Returned by NRCS: November 18, 2015 by email	

PART III *(To be completed by Federal Agency)*	Alternative Site Rating			
	Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	1.2			
B. Total Acres To Be Converted Indirectly	0.602			
C. Total Acres In Site	1.802			
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland	1.60			
B. Total Acres Statewide Important or Local Important Farmland	0.20			
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted	.0008			
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value	19			
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)	86			

PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)*	**Maximum Points**	Site A	Site B	Site C	Site D
1. Area In Non-urban Use	(15)	15			
2. Perimeter In Non-urban Use	(10)	10			
3. Percent Of Site Being Farmed	(20)	10			
4. Protection Provided By State and Local Government	(20)	0			
5. Distance From Urban Built-up Area	(15)	10			
6. Distance To Urban Support Services	(15)	5			
7. Size Of Present Farm Unit Compared To Average	(10)	10			
8. Creation Of Non-farmable Farmland	(10)	0			
9. Availability Of Farm Support Services	(5)	3			
10. On-Farm Investments	(20)	3			
11. Effects Of Conversion On Farm Support Services	(10)	0			
12. Compatibility With Existing Agricultural Use	(10)	0			
TOTAL SITE ASSESSMENT POINTS	160	66	0	0	0
PART VII ***(To be completed by Federal Agency)***					
Relative Value Of Farmland *(From Part V)*	100	86	0	0	0
Total Site Assessment *(From Part VI above or local site assessment)*	160	66	0	0	0
TOTAL POINTS ***(Total of above 2 lines)***	260	152	0	0	0

Site Selected: Site A	Date Of Selection 11/18/2015	Was A Local Site Assessment Used? YES ☐ NO ☑

Reason For Selection:

This project included a single alternative. This bridge replacement project will construct a new bridge adjacent to the existing bridge, use an on-site detour during construction, and remove the old bridge after the new bridge is in place.

Name of Federal agency representative completing this form: Diana Young-Paiva, Three Oaks Engineeri | Date: 11/18/2015

(See Instructions on reverse side)

Form AD-1006 (03-02)

STEPS IN THE PROCESSING THE FARMLAND AND CONVERSION IMPACT RATING FORM

Step 1 - Federal agencies (or Federally funded projects) involved in proposed projects that may convert farmland, as defined in the Farmland Protection Policy Act (FPPA) to nonagricultural uses, will initially complete Parts I and III of the form. For Corridor type projects, the Federal agency shall use form NRCS-CPA-106 in place of form AD-1006. The Land Evaluation and Site Assessment (LESA) process may also be accessed by visiting the FPPA website, http://fppa.nrcs.usda.gov/lesa/.

Step 2 - Originator (Federal Agency) will send one original copy of the form together with appropriate scaled maps indicating location(s)of project site(s), to the Natural Resources Conservation Service (NRCS) local Field Office or USDA Service Center and retain a copy for their files. (NRCS has offices in most counties in the U.S. The USDA Office Information Locator may be found at http://offices.usda.gov/scripts/ndISAPI.dll/oip_public/USA_map**,** or the offices can usually be found in the Phone Book under U.S. Government, Department of Agriculture. A list of field offices is available from the NRCS State Conservationist and State Office in each State.)

Step 3 - NRCS will, within 10 working days after receipt of the completed form, make a determination as to whether the site(s) of the proposed project contains prime, unique, statewide or local important farmland. (When a site visit or land evaluation system design is needed, NRCS will respond within 30 working days.

Step 4 - For sites where farmland covered by the FPPA will be converted by the proposed project, NRCS will complete Parts II, IV and V of the form.

Step 5 - NRCS will return the original copy of the form to the Federal agency involved in the project, and retain a file copy for NRCS records.

Step 6 - The Federal agency involved in the proposed project will complete Parts VI and VII of the form and return the form with the final selected site to the servicing NRCS office.

Step 7 - The Federal agency providing financial or technical assistance to the proposed project will make a determination as to whether the proposed conversion is consistent with the FPPA.

INSTRUCTIONS FOR COMPLETING THE FARMLAND CONVERSION IMPACT RATING FORM

(For Federal Agency)

Part I: When completing the "County and State" questions, list all the local governments that are responsible for local land use controls where site(s) are to be evaluated.

Part III: When completing item B (Total Acres To Be Converted Indirectly), include the following:

1. Acres not being directly converted but that would no longer be capable of being farmed after the conversion, because the conversion would restrict access to them or other major change in the ability to use the land for agriculture.
2. Acres planned to receive services from an infrastructure project as indicated in the project justification (e.g. highways, utilities planned build out capacity) that will cause a direct conversion.

Part VI: Do not complete Part VI using the standard format if a State or Local site assessment is used. With local and NRCS assistance, use the local Land Evaluation and Site Assessment (LESA).

1. Assign the maximum points for each site assessment criterion as shown in § 658.5(b) of CFR. In cases of corridor-type project such as transportation, power line and flood control, criteria #5 and #6 will not apply and will, be weighted zero, however, criterion #8 will be weighed a maximum of 25 points and criterion #11 a maximum of 25 points.

2. Federal agencies may assign relative weights among the 12 site assessment criteria other than those shown on the FPPA rule after submitting individual agency FPPA policy for review and comment to NRCS. In all cases where other weights are assigned, relative adjustments must be made to maintain the maximum total points at 160. For project sites where the total points equal or exceed 160, consider alternative actions, as appropriate, that could reduce adverse impacts (e.g. Alternative Sites, Modifications or Mitigation).

Part VII: In computing the "Total Site Assessment Points" where a State or local site assessment is used and the total maximum number of points is other than 160, convert the site assessment points to a base of 160.
Example: if the Site Assessment maximum is 200 points, and the alternative Site "A" is rated 180 points:

$$\frac{\text{Total points assigned Site A}}{\text{Maximum points possible}} = \frac{180}{200} \text{ X } 160 = 144 \text{ points for Site A}$$

For assistance in completing this form or FPPA process, contact the local NRCS Field Office or USDA Service Center.

NRCS employees, consult the FPPA Manual and/or policy for additional instructions to complete the AD-1006 form.