STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

DAVID MCCOY
SECRETARY

June 14, 2005

U.S. Army Corp of Engineers
Regulatory Field Office
6508 Falls of the Neuse Road
Suite 120
Raleigh, NC 27615

ATTN: Mr. Eric Alsmeyer
NCDOT Coordinator

Subject: **Nationwide 6 Permit Application** for the Replacement of Bridge No. 15 on SR 1106 over the Little River in Franklin County. State Project No. 8.2360707, Federal Aid Project No. BRZ-1106 (3), WBS Element 33468.1.1, Division 5, TIP No. B-4113.

Dear Sir:

The North Carolina Department of Transportation (NCDOT) plans to replace Bridge No.15 in Franklin County. The NCDOT proposes to conduct a geotechnical investigation prior to construction of new bridge. The bridge crosses Little River just east of Moores Pond Dam and northeast of junction NC 98 and NC 96. Construction of the replacement for Bridge No.15 is scheduled to begin in February of 2006. A pre-construction notification form and permit drawings are attached for your review.

Within the project area, the classification of Little River is "WS-II HQW NSW" according to the North Carolina Division of Water Quality (DWQ). The Little River is located within the Neuse River Basin (sub-basin 03-04-06) within HUC 03020101. Little River is the only water resource in the project area and is a perennial, piedmont stream with very low flow over a silty and muddy substrate with an approximate width of 52 feet.

The proposed structure is to be constructed in approximately the same location as the existing bridge. Geotechnical investigations will necessitate up to 6 borings, two of which will be in Little River. The 2 borings that will be in Little River will be drilled through the deck of the existing bridge (see attached letter dated April 11, 2005). The temporary fill impacts in surface waters that may occur for these two borings are 4 ft^2 each for a total disturbance area of 8 ft^2. The remaining 4 borings will be located within the Neuse Buffer area. The temporary buffer impacts that may occur from these four borings total 16 ft^2. Scientific investigations, such as geotechnical borings, for bridge projects within the Neuse Buffer Basin are considered exempt from the Neuse Buffer Rule. Therefore, no buffer certification is needed and no mitigation is

MAILING ADDRESS:
NC DEPARTMENT OF TRANSPORTATION
PROJECT DEVELOPMENT AND ENVIRONMENTAL ANALYSIS
1598 MAIL SERVICE CENTER
RALEIGH NC 27699-1598

TELEPHONE: 919-715-1500
FAX: 919-715-1501
WEBSITE: WWW.NCDOT.ORG

LOCATION:
2728 CAPITAL BLVD
PLB SUITE 168
RALEIGH, NC 27604

proposed. All borings will fall within the footprint of the proposed structures. No borings will be performed outside of the proposed construction limits or within any wetland boundaries.

The North Carolina Wildlife Resources Commission has requested an in water work moratorium from February 15th to June 15th for protection of anadromous fish. The United States Fish and Wildlife Service has requested a moratorium on clearing and grubbing work between November 15 and April 1 for the Tar spinymussel (*Elliptio steinstansana*) and the Dwarf wedgemussel (*Alasmidonta heterodon*).

The NCDOT anticipates that these activities will be authorized by Nationwide Permit No. 6. NCDOT will follow the conditions set by a Nationwide Permit No. 6 and by DWQ Water Quality Certification #3494. In accordance with 15A NCAC 2H.0501 (a), we are providing two copies of this application to the NCDWQ for their records.

If you have any questions or need additional information, please contact Deanna Riffey at (919) 715-1409. Thank you in advance for your help in this important matter.

Sincerely,

Gregory J. Thorpe, Ph.D.
Environmental Management Director, PDEA

W/attachment
- Mr. John Hennessy, NCDWQ (2 Copies)
- Mr. Travis Wilson, NCWRC
- Mr. Gary Jordan, USFWS
- Dr. David Chang, P.E., Hydraulics
- Mr. Mark Staley, Roadside Environmental
- Mr. Njoroge W. Wainaina, State Engineering Geologist, P.E., Geotechnical Unit
- Mr. Greg Perfetti, P.E., Structure Design
- Mr. Jon Nance, P.E. Division Engineer
- Mr. Chris Murray, DEO

W/o attachment
- Mr. Jay Bennett, P.E., Roadway Design
- Mr. Omar Sultan, Programming and TIP
- Mr. Art McMillan, P.E., Highway Design
- Mr. David Franklin, USACE, Wilmington
- Mr. Bill Goodwin, P.E., PDEA Project Planning Engineer

Office Use Only: Form Version March 05

USACE Action ID No. _____ **DWQ No.** _____

(If any particular item is not applicable to this project, please enter "Not Applicable" or "N/A".)

I. Processing

1. Check all of the approval(s) requested for this project:
   - ☒ Section 404 Permit
   - ☐ Section 10 Permit
   - ☐ 401 Water Quality Certification
   - ☐ Riparian or Watershed Buffer Rules
   - ☐ Isolated Wetland Permit from DWQ
   - ☐ Express 401 Water Quality Certification

2. Nationwide, Regional or General Permit Number(s) Requested: NW 6

3. If this notification is solely a courtesy copy because written approval for the 401 Certification is not required, check here: ☒

4. If payment into the North Carolina Ecosystem Enhancement Program (NCEEP) is proposed for mitigation of impacts, attach the acceptance letter from NCEEP, complete section VIII, and check here: ☐

5. If your project is located in any of North Carolina's twenty coastal counties (listed on page 4), and the project is within a North Carolina Division of Coastal Management Area of Environmental Concern (see the top of page 2 for further details), check here: ☐

II. Applicant Information

1. Owner/Applicant Information
   Name: North Carolina Department of Transportation (NCDOT)
   Mailing Address: Project Development and Environmental Analysis
   1598 Mail Service Center
   Raleigh, NC 27699-1598

   Telephone Number: 919-733-3141 Fax Number: 919-733-9794
   E-mail Address: gthorpe@dot.state.nc.us

2. Agent/Consultant Information (A signed and dated copy of the Agent Authorization letter must be attached if the Agent has signatory authority for the owner/applicant.)
   Name: _____
   Company Affiliation: _____
   Mailing Address: _____

   Telephone Number: _____ Fax Number: _____
   E-mail Address: _____

III. Project Information

Attach a **vicinity map** clearly showing the location of the property with respect to local landmarks such as towns, rivers, and roads. Also provide a detailed **site plan** showing property boundaries and development plans in relation to surrounding properties. Both the vicinity map and site plan must include a scale and north arrow. The specific footprints of all buildings, impervious surfaces, or other facilities must be included. If possible, the maps and plans should include the appropriate USGS Topographic Quad Map and NRCS Soil Survey with the property boundaries outlined. Plan drawings, or other maps may be included at the applicant's discretion, so long as the property is clearly defined. For administrative and distribution purposes, the USACE requires information to be submitted on sheets no larger than 11 by 17-inch format; however, DWQ may accept paperwork of any size. DWQ prefers full-size construction drawings rather than a sequential sheet version of the full-size plans. If full-size plans are reduced to a small scale such that the final version is illegible, the applicant will be informed that the project has been placed on hold until decipherable maps are provided.

1. Name of project: Replacement of Bridge No. 15 on SR 1106 over Little River

2. T.I.P. Project Number or State Project Number (NCDOT Only): B-4113

3. Property Identification Number (Tax PIN): _____

4. Location
   County: Franklin Nearest Town: Barham
   Subdivision name (include phase/lot number): _____
   Directions to site (include road numbers/names, landmarks, etc.): 401 North and East on Moores Pond Road (SR 1106)

5. Site coordinates (For linear projects, such as a road or utility line, attach a sheet that separately lists the coordinates for each crossing of a distinct waterbody.)
   Decimal Degrees (6 digits minimum): 35° 58'57.92" °N 78° 25'15.5" °W

6. Property size (acres): Total disturbance area is 24 sq. ft.

7. Name of nearest receiving body of water: Little River & Moores Pond

8. River Basin: Neuse
   (Note – this must be one of North Carolina's seventeen designated major river basins. The River Basin map is available at http://h2o.enr.state.nc.us/admin/maps/.)

9. Describe the existing conditions on the site and general land use in the vicinity of the project at the time of this application: Project area is forested and rural.

10. Describe the overall project in detail, including the type of equipment to be used:
All borings for geotechnical investigation will be drilled utilizing a drill mounted on an ATV or a drill truck.

11. Explain the purpose of the proposed work: Foundation investigation for replacement of bridge

IV. Prior Project History

If jurisdictional determinations and/or permits have been requested and/or obtained for this project (including all prior phases of the same subdivision) in the past, please explain. Include the USACE Action ID Number, DWQ Project Number, application date, and date permits and certifications were issued or withdrawn. Provide photocopies of previously issued permits, certifications or other useful information. Describe previously approved wetland, stream and buffer impacts, along with associated mitigation (where applicable). If this is a NCDOT project, list and describe permits issued for prior segments of the same T.I.P. project, along with construction schedules. N/A

V. Future Project Plans

Are any future permit requests anticipated for this project? If so, describe the anticipated work, and provide justification for the exclusion of this work from the current application.
Yes, NW 23 for the bridge replacement. The NW 23 is not included because this application is a pre-study for final design.

VI. Proposed Impacts to Waters of the United States/Waters of the State

It is the applicant's (or agent's) responsibility to determine, delineate and map all impacts to wetlands, open water, and stream channels associated with the project. Each impact must be listed separately in the tables below (e.g., culvert installation should be listed separately from riprap dissipater pads). Be sure to indicate if an impact is temporary. All proposed impacts, permanent and temporary, must be listed, and must be labeled and clearly identifiable on an accompanying site plan. All wetlands and waters, and all streams (intermittent and perennial) should be shown on a delineation map, whether or not impacts are proposed to these systems. Wetland and stream evaluation and delineation forms should be included as appropriate. Photographs may be included at the applicant's discretion. If this proposed impact is strictly for wetland or stream mitigation, list and describe the impact in Section VIII below. If additional space is needed for listing or description, please attach a separate sheet.

1. Provide a written description of the proposed impacts: See cover letter

2. Individually list wetland impacts. Types of impacts include, but are not limited to mechanized clearing, grading, fill, excavation, flooding, ditching/drainage, etc. For dams, separately list impacts due to both structure and flooding.

Wetland Impact Site Number (indicate on map)	Type of Impact	Type of Wetland (e.g., forested, marsh, herbaceous, bog, etc.)	Located within 100-year Floodplain (yes/no)	Distance to Nearest Stream (linear feet)	Area of Impact (acres)
	N/A				
Total Wetland Impact (acres)					

3. List the total acreage (estimated) of all existing wetlands on the property: 0.03 acres

4. Individually list all intermittent and perennial stream impacts. Be sure to identify temporary impacts. Stream impacts include, but are not limited to placement of fill or culverts, dam construction, flooding, relocation, stabilization activities (e.g., cement walls, rip-rap, crib walls, gabions, etc.), excavation, ditching/straightening, etc. If stream relocation is proposed, plans and profiles showing the linear footprint for both the original and relocated streams must be included. To calculate acreage, multiply length X width, then divide by 43,560.

Stream Impact Number (indicate on map)	Stream Name	Type of Impact	Perennial or Intermittent?	Average Stream Width Before Impact	Impact Length (linear feet)	Area of Impact (acres)
Site 1	Little River	Temp. Fill	Perennial	52 ft		<0.001
Total Stream Impact (by length and acreage)						<0.001

5. Individually list all open water impacts (including lakes, ponds, estuaries, sounds, Atlantic Ocean and any other water of the U.S.). Open water impacts include, but are not limited to fill, excavation, dredging, flooding, drainage, bulkheads, etc.

Open Water Impact Site Number (indicate on map)	Name of Waterbody (if applicable)	Type of Impact	Type of Waterbody (lake, pond, estuary, sound, bay, ocean, etc.)	Area of Impact (acres)
Total Open Water Impact (acres)				

6. List the cumulative impact to all Waters of the U.S. resulting from the project:

Stream Impact (acres):	<0.001 (temp)
Wetland Impact (acres):	
Open Water Impact (acres):	
Total Impact to Waters of the U.S. (acres)	
Total Stream Impact (linear feet):	

7. Isolated Waters
   Do any isolated waters exist on the property? ☐ Yes ☒ No
   Describe all impacts to isolated waters, and include the type of water (wetland or stream) and the size of the proposed impact (acres or linear feet). Please note that this section only applies to waters that have specifically been determined to be isolated by the USACE.

   _____

   _____

8. Pond Creation
   If construction of a pond is proposed, associated wetland and stream impacts should be included above in the wetland and stream impact sections. Also, the proposed pond should be described here and illustrated on any maps included with this application.
   Pond to be created in (check all that apply): ☐ uplands ☐ stream ☐ wetlands
   Describe the method of construction (e.g., dam/embankment, excavation, installation of draw-down valve or spillway, etc.):_____
   Proposed use or purpose of pond (e.g., livestock watering, irrigation, aesthetic, trout pond, local stormwater requirement, etc.):_____
   Current land use in the vicinity of the pond:_____
   Size of watershed draining to pond:_____ Expected pond surface area:_____

VII. Impact Justification (Avoidance and Minimization)

Specifically describe measures taken to avoid the proposed impacts. It may be useful to provide information related to site constraints such as topography, building ordinances, accessibility, and financial viability of the project. The applicant may attach drawings of alternative, lower-impact site layouts, and explain why these design options were not feasible. Also discuss how impacts were minimized once the desired site plan was developed. If applicable, discuss construction techniques to be followed during construction to reduce impacts. This geotech investigation is checking for foundation issues such that future problems with structure stability are minimized.

_____

_____

_____

VIII. Mitigation

DWQ - In accordance with 15A NCAC 2H .0500, mitigation may be required by the NC Division of Water Quality for projects involving greater than or equal to one acre of impacts to

freshwater wetlands or greater than or equal to 150 linear feet of total impacts to perennial streams.
USACE – In accordance with the Final Notice of Issuance and Modification of Nationwide Permits, published in the Federal Register on January 15, 2002, mitigation will be required when necessary to ensure that adverse effects to the aquatic environment are minimal. Factors including size and type of proposed impact and function and relative value of the impacted aquatic resource will be considered in determining acceptability of appropriate and practicable mitigation as proposed. Examples of mitigation that may be appropriate and practicable include, but are not limited to: reducing the size of the project; establishing and maintaining wetland and/or upland vegetated buffers to protect open waters such as streams; and replacing losses of aquatic resource functions and values by creating, restoring, enhancing, or preserving similar functions and values, preferable in the same watershed.

If mitigation is required for this project, a copy of the mitigation plan must be attached in order for USACE or DWQ to consider the application complete for processing. Any application lacking a required mitigation plan or NCEEP concurrence shall be placed on hold as incomplete. An applicant may also choose to review the current guidelines for stream restoration in DWQ's Draft Technical Guide for Stream Work in North Carolina, available at http://h2o.enr.state.nc.us/ncwetlands/strmgide.html.

1. Provide a brief description of the proposed mitigation plan. The description should provide as much information as possible, including, but not limited to: site location (attach directions and/or map, if offsite), affected stream and river basin, type and amount (acreage/linear feet) of mitigation proposed (restoration, enhancement, creation, or preservation), a plan view, preservation mechanism (e.g., deed restrictions, conservation easement, etc.), and a description of the current site conditions and proposed method of construction. Please attach a separate sheet if more space is needed.
   No mitigation is proposed.

2. Mitigation may also be made by payment into the North Carolina Ecosystem Enhancement Program (NCEEP). Please note it is the applicant's responsibility to contact the NCEEP at (919) 715-0476 to determine availability, and written approval from the NCEEP indicating that they are will to accept payment for the mitigation must be attached to this form. For additional information regarding the application process for the NCEEP, check the NCEEP website at http://h2o.enr.state.nc.us/wrp/index.htm. If use of the NCEEP is proposed, please check the appropriate box on page five and provide the following information:

   Amount of stream mitigation requested (linear feet):_____
   Amount of buffer mitigation requested (square feet):_____
   Amount of Riparian wetland mitigation requested (acres):_____
   Amount of Non-riparian wetland mitigation requested (acres):_____
   Amount of Coastal wetland mitigation requested (acres):_____

IX. Environmental Documentation (required by DWQ)

1. Does the project involve an expenditure of public (federal/state/local) funds or the use of public (federal/state) land? Yes ☒ No ☐

2. If yes, does the project require preparation of an environmental document pursuant to the requirements of the National or North Carolina Environmental Policy Act (NEPA/SEPA)? Note: If you are not sure whether a NEPA/SEPA document is required, call the SEPA coordinator at (919) 733-5083 to review current thresholds for environmental documentation. Yes ☒ No ☐

3. If yes, has the document review been finalized by the State Clearinghouse? If so, please attach a copy of the NEPA or SEPA final approval letter. Yes ☒ No ☐

X. Proposed Impacts on Riparian and Watershed Buffers (required by DWQ)

It is the applicant's (or agent's) responsibility to determine, delineate and map all impacts to required state and local buffers associated with the project. The applicant must also provide justification for these impacts in Section VII above. All proposed impacts must be listed herein, and must be clearly identifiable on the accompanying site plan. All buffers must be shown on a map, whether or not impacts are proposed to the buffers. Correspondence from the DWQ Regional Office may be included as appropriate. Photographs may also be included at the applicant's discretion.

1. Will the project impact protected riparian buffers identified within 15A NCAC 2B .0233 (Neuse), 15A NCAC 2B .0259 (Tar-Pamlico), 15A NCAC 02B .0243 (Catawba) 15A NCAC 2B .0250 (Randleman Rules and Water Supply Buffer Requirements), or other (please identify Neuse)? Yes ☒ No ☐

2. If "yes", identify the square feet and acreage of impact to each zone of the riparian buffers. If buffer mitigation is required calculate the required amount of mitigation by applying the buffer multipliers.

Zone*	Impact (square feet)	Multiplier	Required Mitigation
1		3 (2 for Catawba)	Exempt
2		1.5	
Total			

* Zone 1 extends out 30 feet perpendicular from the top of the near bank of channel; Zone 2 extends an additional 20 feet from the edge of Zone 1.

3. If buffer mitigation is required, please discuss what type of mitigation is proposed (i.e., Donation of Property, Riparian Buffer Restoration / Enhancement, or Payment into the Riparian Buffer Restoration Fund). Please attach all appropriate information as identified within 15A NCAC 2B .0242 or .0244, or .0260. _____

_____

XI. Stormwater (required by DWQ)

Describe impervious acreage (existing and proposed) versus total acreage on the site. Discuss stormwater controls proposed in order to protect surface waters and wetlands downstream from the property. If percent impervious surface exceeds 20%, please provide calculations demonstrating total proposed impervious level.

XII. Sewage Disposal (required by DWQ)

Clearly detail the ultimate treatment methods and disposition (non-discharge or discharge) of wastewater generated from the proposed project, or available capacity of the subject facility.

XIII. Violations (required by DWQ)

Is this site in violation of DWQ Wetland Rules (15A NCAC 2H .0500) or any Buffer Rules?
Yes ☐ No ☒

Is this an after-the-fact permit application? Yes ☐ No ☒

XIV. Cumulative Impacts (required by DWQ)

Will this project (based on past and reasonably anticipated future impacts) result in additional development, which could impact nearby downstream water quality? Yes ☐ No ☒
If yes, please submit a qualitative or quantitative cumulative impact analysis in accordance with the most recent North Carolina Division of Water Quality policy posted on our website at http://h2o.enr.state.nc.us/ncwetlands. If no, please provide a short narrative description:

XV. Other Circumstances (Optional):

It is the applicant's responsibility to submit the application sufficiently in advance of desired construction dates to allow processing time for these permits. However, an applicant may choose to list constraints associated with construction or sequencing that may impose limits on work schedules (e.g., draw-down schedules for lakes, dates associated with Endangered and Threatened Species, accessibility problems, or other issues outside of the applicant's control).

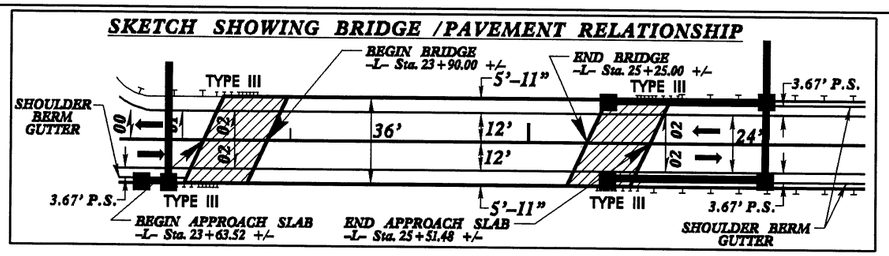
6/15/05

Applicant/Agent's Signature **Date**
(Agent's signature is valid only if an authorization letter from the applicant is provided.)

8/17/99

REVISIONS

SKETCH SHOWING BRIDGE /PAVEMENT RELATIONSHIP



PROJECT REFERENCE NO.	SHEET NO.
B-4113	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

*DESIGN EXCEPTIONS FOR HORIZONTAL ALIGNMENT, VERTICAL ALIGNMENT, AND VERTICAL STOPPING SIGHT DISTANCE ARE REQUIRED.

NAD 83

BEGIN CONSTRUCTION
-DRI- POTSta. 10+00.00

-DRI- PCSta. 10+45.59

-DRI- PTSta. 11+09.58

-DRI- PCSta. 11+47.02

-DRI- PTSta. 12+01.73

-L- PCSta. 18+24.29

-L- PCSta. 28+30.46

-L- Sta. 18+77.35 =
-BL- 4
PINC 8+75.83
OFFSET 14.07' LT

-L- Sta. 25+07.64 =
-BL- 5
PINC 15+06.28
OFFSET 14.19' LT

-L- Sta. 30+77.71 =
-BL- 1
PINC 20+77.97
OFFSET 13.91' LT
GPS MON B4113-1

8:1 P.S. TAPER
END SBG +50.00

150' TAPER LT. & RT.

150' TRANSITION LT. & RT.

2 CAROLYN UNDERWOOD
D.B. 845, P. 175
M.B. 3, P. 121

3 CAROLYN UNDERWOOD
D.B. 845, P. 175
M.B. 3, P. 121

4 MALTONA FISHING CLUB
D.B. 534, P. 121
M.B. 3, P. 121

5 THOMAS E. BARHAM
DORIS P. BARHAM
D.B. 1165, P. 138
M.B. 10, P. 44

6 JOHN W. ELLIOT, SR.
JANET B. ELLIOT
D.B. 1014, P. 76

7 THOMAS E. BARHAM
DORIS P. BARHAM
D.B. 1165, P. 138
M.B. 10, P. 44

BEGIN TIP PROJECT B-4113
-L- POT STA. 16+50.00

END TIP PROJECT B-4113
-L- POC STA. 30+18.46

END CONSTRUCTION
-L- POTSta. 30+75.00

-L- PTSta. 23+01.08

-L- POTSta. 23+11.08
-DRI- POTSta. 12+30.48

BM #100
-L- STA. 23+01.98
OFFSET 64.96' RT.
-BL- STA. 14+94
51' RIGHT
ELEV. 343.51'

-L-	
* PI Sta 20+66.56	PI Sta 30+21.12
Δ = 25° 03' 45.2" (RT)	N 23° 34' 54.1" E (Ahead)
D = 5° 15' 23.4"	PT Sta 32+09.23
L = 476.79'	Δ = 16° 11' 43.7" (RT)
T = 242.27'	D = 4° 16' 32.9"
R = 1,090.00'	L = 378.77'
SE = 0.05	T = 190.66'
RUNOFF = 115' (SEE PLANS)	R = 1,340.00'
V = 45 MPH	SE = 0.05
	RUNOFF = 115' (SEE PLANS)

-DRI-	
PI Sta 10+81.01	PI Sta 11+76.44
Δ = 61° 06' 36.1" (RT)	Δ = 52° 14' 37.5" (LT)
D = 95° 29' 34.7"	D = 95° 29' 34.7"
L = 63.99'	L = 54.71'
T = 35.42'	T = 29.42'
R = 60.00'	R = 60.00'
SE = NC	SE = NC
(A) N 88° 31' 11.5" E	(C) S 82° 36' 49.9" E
(B) S 30° 22' 12.4" E	

NOTES:
1.) FOR -L- AND -DRI- PROFILES SEE SHEET 5
2.) ALL DRIVEWAY RADII ARE 10' UNLESS NOTED OTHERWISE
3.) FOR STRUCTURE PLANS SEE SHEETS S-1 THRU S-?

08-APR-2005 13:38
S:\Contracts\Projects\B-4113\Roadway\Proj\B4113_rdy_psh4_permit.dgn
cwoundaload

WOODS

WOODS

LITTLE RIVER

10' GRAVEL

B

6' POST

6' POST

12'

AT-1

C

25+00

BRIDGE #115

N 7°23' 10.4" E

MALTONIA FISHING CLUB
D.B. 534, P. 121
M.B. 3, P. 121

LITTLE RIVER

N 76°58' 62.62'

BM #100
-L- STA 25+01.98
OFFSET 38.48' RT.
-BL- STA 14+94
51' RIGHT
ELEV. 343.51'

4

PROJECT REFERENCE NO.	SHEET NO.
B-4113	4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

*DESIGN EXCEPTIONS FOR HORIZONTAL ALIGNMENT, VERTICAL ALIGNMENT, AND VERTICAL STOPPING SIGHT DISTANCE ARE REQUIRED.

NAD 83

-L- PCSta. 18+24.29

-L- PCSta. 28+30.46

SR #06 MOORES POND ROAD

LITTLE RIVER

MOORES POND

EB1-A

EB2-A

EB1-B

EB2-B

-L- PTSta. 23+01.08

BEGIN TIP PROJECT B-4113
-L- POT STA. 16+50.00

END TIP PROJECT B-4113
-L- POC STA. 30+18.46

DO NOT DISTURB WELL

BUFFER ZONE IMPACTS

IMPACTS ZONE 1

IMPACTS ZONE 2

SCALE: 1"= 100' HORIZ.

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

LYNDO TIPPETT
SECRETARY

April 11, 2005

Memorandum to: Ms. Elizabeth Lusk
Environmental Supervisor
Office of Natural Environment

Attention: Deanna Riffey
Environmental Specialist

Project Number: 33468.1.1
TIP Number: B-4113
F.A. Number: BRZ-1106 (3)
County: Franklin
Project Description: Bridge No. 15 over the Little River on SR 1106
Subject: Information for permit request

The Geotechnical Engineering Unit is in the process of planning a foundation investigation for the above referenced project. A consultant will be conducting the investigation with a minimum of 6 borings. Two of the borings will be performed within the Little River and will be drilled though the bridge deck of the existing bridge. Four others will be drilled through the existing roadway embankment. All six borings are shown on the attached plan sheets. The latitude and longitude for the project can found in the PCN document attached. The proposed locations of each boring are as follows…

Boring Designation	Station	Offset
EB1-A	24+10	18' Lt.
EB1-B	23+71	18' Rt.
B1-A	24+59	15' Lt.
B1-B	24+21	15' Rt.
EB2-A	25+45	18' Lt.
EB2-B	25+06	18' Rt.

All borings will be drilled utilizing a drill mounted on an ATV (All Terrain Vehicle) or a Drill Truck.

The size of the borings are approximately 0.5ft (6 in.) in diameter. The area that may be disturbed per boring (total of 6 borings) is estimated to be 4 Ft^2, for a total disturbance area of 24 Ft^2 (8ft^2 in the creek). The consultant will use casing to advance the borings and rotary-

wash techniques while recirculating the drilling fluids between the mud tub and the inside of the casing. This will isolate the drilling mud and cuttings and contain them in the boring and the mud tub. The borings will be backfilled with the cuttings and then sealed with bentonite hole plug. The excess drilling mud will be disposed of in the upland areas.

The field activities are expected to take 5 days total.

If you have any questions or need any additional information, please contact Cheryl Youngblood at 250-4088.

Sincerely,

Cheryl A. Youngblood
Project Geologist
Geotechnical Consultant Coordination

cc:
KJ Kim, PhD, PE – Geotechnical Engineering Unit
File