



PAT McCRORY
Governor

NICHOLAS J. TENNYSON
Secretary

October 26, 2015

MEMORANDUM TO: Mr. Mike Mills, PE
Division 7 Engineer

FROM: *for* Philip S. Harris, III, P.E.
Natural Environment Section
Project Development and Environmental Analysis Unit

SUBJECT: Greensboro Western Loop from North of SR 2176 (Bryan Boulevard) to SR 2303 (Lawndale Drive), Guilford County; WBS No. 38420.1.2; **TIP U-2524C & D**

Attached are the most recent modification to the U.S. Army Corps of Engineers Section 404 Individual Permit and the N.C. Division of Water Resources (NCDWR) Section 401 Water Quality Certification. All environmental permits have been received for the continued construction of this project.

A copy of this permit package will be posted on the NCDOT website at:
<https://connect.ncdot.gov/resources/Environmental>, under *Quick Links > Issued Permits*

cc: w/o attachment (see website for attachments)

Mr. Randy Garris, P.E. State Contract Officer
Mr. Jerry Parker, Division Environ. Officer
Dr. Majed Al-Ghandour, P. E., Program Dev. and TIP
Mr. Roger Thomas, P.E., Roadway Design
Mr. Matt Lauffer, P.E., Hydraulics
Mr. Tom Koch, P.E., Structure Design
Mr. Mark Staley, Roadside Environmental
Mr. Robert Memory, Utilities Unit
Mr. Ron Hancock, P.E., State Roadway Construction Engineer
Mr. Kevin Bowen, P.E., State Bridge Construction Engineer
Mr. Eric Midkiff, P.E., PDEA
Ms. LeiLani Paugh, Natural Environment Section
Ms. Beth Harmon, NCEEP
Ms. Karen Capps, PE, Transportation Program Management



PROJECT COMMITMENTS

TIP Project Nos. U-2524C and U-2524D
Greensboro Western Loop from North of SR 2176 (Bryan Boulevard)
to SR 2303 (Lawndale Drive)
Guilford County
Federal Aid Project STP-NHF-124(1)
WBS Element 34820.1.2

COMMITMENTS FROM PROJECT DEVELOPMENT AND DESIGN

Project Development and Environmental Analysis Unit/ Human Environment Section

Noise abatement measures which will continue to be considered throughout the design process include berms, alignment shifts and noise barriers. A detailed noise barrier evaluation will be performed during final design to determine the type and location of cost-effective noise abatement measures.

NOTE: The design noise report was completed for U-2524C and U-2524D in August 2007. This report did not include any proposed noise barriers within the U-2524C project limits. This report included proposed noise barriers north and south of the Greensboro Western Loop between Old Battleground Road and Lawndale Drive within the U-2524D project limits. Three new noise barriers were recommended after a review of the 2007 report. A new noise barrier was recommended in the southeast quadrant of the Battleground Avenue / Greensboro Western Urban Loop interchange. A new section of noise barrier was recommended for the area between the two previously-recommended barrier sections located north of the proposed Greensboro Western Urban Loop. A new noise barrier was recommended in the southeast quadrant of the Greensboro Western Urban Loop / Lawndale Drive interchange.

Response to NOTE: A detailed noise evaluation, performed in compliance with applicable provisions in the 2011 NCDOT Traffic Noise Abatement Policy, was recently completed for both U-2524C and U-2524D. One noise barrier was recommended for construction within the U-2524C project limits that was not previously recommended. This barrier is located along the south side of the proposed Greensboro Western Urban Loop alignment, immediately west of Drawbridge Parkway.

A PM2.5 Hot-spot analysis report is currently underway for projects U-2524C and U-2524D. Approval of this report from the Federal Highway Administration is needed and public comments are required. NCDOT will secure the final Project Level conformity determination for PM2.5 and PM10 hot spot requirements no later than prior to letting the project to construction.

Response: A PM2.5 Qualitative Hot-spot Analysis report was completed for projects U-2524C and U-2524D in May 2011. The Federal Highway Administration accepted this report on May

12, 2011, and public comments were solicited in September and October 2011. NCDOT secured the final Project Level conformity determination for PM2.5 and PM10 Hot-spot requirements on October 7, 2011 (public comment due date).

Location & Survey Unit

Geodetic survey control monuments will be located during design and the U.S. Coastal and Geodetic Survey and North Carolina Geodetic Survey will be notified of their location.

NOTE: Standard commitment.

Roadside Environmental Unit, Division Construction, Project Development and Environmental Analysis Unit/Natural Environment Section, Hydraulics Unit

The NCDOT “Best Management Practices for Protection of Surface Waters” will be implemented where practicable to control highway runoff and minimize wetland impacts.

NOTE: Standard commitment.

Roadside Environmental Unit

During design, consideration will be given to planting trees as landscaping within the right-of-way, particularly at interchanges.

NOTE: The landscaping plans will be developed and implemented following construction.

Geotechnical Unit

Any underground storage tanks discovered during construction will be reported to the North Carolina Division of Environmental Management.

NOTE: If further studies indicate right of way needs to be acquired from any properties with UST's, preliminary site assessments for soil and groundwater contamination will need to be performed prior to right of way purchase.

Response to Note: There are no known sites of concern located within the U-2524C project limits.

**Project Development and Environmental Analysis Unit/Natural Environment Section,
Hydraulics Unit**

The final designs will be coordinated with appropriate state and local officials and the Federal Emergency Management Agency (FEMA) to assure compliance with FEMA, state and local floodway regulations. Stream channel modifications will be coordinated with appropriate review agencies. State-of-the-art stream relocation techniques will be used where practicable.

NOTE: Standard commitment.

The project will be developed in conformance with federal and state floodplain regulations.

NOTE: Standard commitment.

Issues related to dam relocation or possible stream restoration for Oka T. Hester Park will be coordinated with the City of Greensboro.

NOTE: The Oka T. Hester Park is not located within the U-2524C or U-2524D project limits.

Project Development and Environmental Analysis Unit/Natural Environment Section

A final wetland mitigation plan will be coordinated with the U.S. Army Corps of Engineers and other concerned review agencies as part of the permit application. The wetland mitigation plan will be implemented and the site will be preserved in perpetuity.

NOTE: Standard permit requirement.

Project Development and Environmental Analysis Unit, Roadway Design Unit

The North Carolina Department of Transportation will continue to work with the Airport Authority during project design to minimize impact on the Piedmont Triad International Airport's access and planned expansion to the east.

NOTE: The Piedmont Triad International Airport is outside of the U-2524C and D project limits.

The maintenance of existing and proposed bicycle routes or greenways by grade separation and route modification will be coordinated with the City of Greensboro Department of Transportation during project design and the Guilford County Parks and Recreation Department.

NOTE: There are no bicycle routes or greenways within the U-2524C project limits. An ADA-compliant grade separation is proposed at the intersection of Old Battleground Road and the Greensboro Urban Loop to accommodate an existing bicycle and pedestrian trail as requested by the City of Greensboro.

The 4-lane structure on Horsepen Creek Road that will accommodate the proposed City of Greensboro's Horsepen Creek Road widening project is currently being designed and will be incorporated into the Loop construction plans. Any impacts associated with this revised design will be noted in the construction consultation or next Federal action for this project.

Response: The most recent design plans show no additional impacts.

Project Development and Environmental Analysis Unit, Roadway Design Unit, Hydraulics Unit

A more detailed study of wetland and floodplain impacts at Horsepen Creek will be prepared during final design. Horsepen Creek floodplain and associated wetlands will be bridged as deemed necessary.

NOTE: Two 4,200-foot long bridges for the Loop plus ramp bridging will be constructed to accommodate the Greensboro Urban Loop at the Battleground Avenue interchange to avoid impacts to Horsepen Creek and its tributaries and wetlands.

Division 7

During right of way acquisition, NCDOT will compensate the City of Greensboro the sum of \$15,000 for additional engineering fees incurred by the city due to the redesign of the proposed Carolyn S. Allen Park. A municipal agreement will be executed for this expenditure. During the final design process, every effort will be made to avoid impacts to the Park. If impacts cannot be avoided during the final design process, a 4(f) evaluation may be necessary.

Response: The most recent design plans show no impacts to the park. Division 7 will request that the City of Greensboro provide an invoice detailing the actual fees incurred by the City due to the redesign of the proposed Carolyn S. Allen Park, and Division 7 will handle the reimbursement.

COMMITMENTS FROM PERMITTING

Division 7, Natural Environment Section, and Hydraulics Unit

This permit only authorizes work on Section C of TIP U-2524. Construction on Section D of TIP U-2524 shall not commence until final design has been completed for this section, the permittee has minimized impacts to waters and wetlands to the maximum extent practicable, any modifications to the plans, and a compensatory mitigation plan, have been approved by the US Army Corps of Engineers (the Corps).

When final design plans are completed for U-2524D, a modification to the 401 Water Quality Certification shall be submitted with two copies and fees to the NC Division of Water Quality.

U-2524C and U-2524D Permit Greensheet

October 2015

Page 4 of 5

Final designs shall reflect all appropriate avoidance, minimization, and mitigation for impacts to wetlands, streams, and other surface waters, and buffers. No construction activities that impact any wetlands, streams, surface waters, or buffers located in U-2524D shall begin until after the permittee applies for, and receives a written modification of the 401 Water Quality Certification from the NC Division of Water Quality.

Division 7, Roadside Environmental Unit, and Hydraulics Unit

Cleared wetland areas shall be re-vegetated with a wetland seed mix or a mix of native woody species. Fescue grass or any invasive species such as Lespedeza, shall not be used within the wetland areas.

Any modifications to this 401 Water Quality Certification that propose additional stream impacts or increased impervious surface requiring additional stormwater management may be subject the Jordan Water Supply Nutrient Strategy [I5A NCAC02B .0267]. NCDOT shall coordinate with NCDWQ prior to submitting a modification request to determine the applicability of the Jordan Water Supply Nutrient Strategy. This condition does not apply to major modifications for additional sections of the project that were covered under the Finding of No Significant Impact or approved in the Avoidance and Minimization stage of the project.

NCDOT shall design, construct, and operate and maintain hazardous spill catch basins (HSCBs) at stream crossings within the WS III; CA watershed. The HSCBs shall be located at Station numbers -L-380+38, -L-387+14, -L-398+53, -L-408+98, and -L-412+09. At Station number -L-419+61, a hazardous spill basin is not required due to the need for blasting in close proximity to the Colonial Gas Pipeline.

NCDOT shall be in compliance with the NCS00250 issued to the NCDOT, including the applicable requirements of the NCG01000. Please note the extra protections for the sensitive watersheds.

A turbidity curtain will be installed in the stream for the crossing of Horsepen Creek if driving or drilling activities occur within the stream channel, on the stream bank, or within 5 feet of the top of bank. This condition can be waived with prior approval from NCDWQ.

For the 438 linear feet of streams being impacted due to site dewatering activities, the site shall be graded to its preconstruction contours and revegetated with appropriate native species.

Permit Modifications (June and October 2015)

No new special conditions were added.

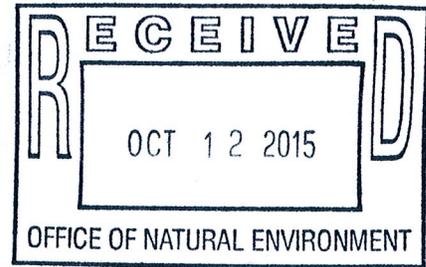


DEPARTMENT OF THE ARMY
WILMINGTON DISTRICT, CORPS OF ENGINEERS
69 DARLINGTON AVENUE
WILMINGTON, NORTH CAROLINA 28403-1343

October 07, 2015

Regulatory Division/1200A

Action ID: SAW-2001-21125



Mr. Richard W. Hancock, P.E.
Manager, Project Development and Environmental Analysis Unit
North Carolina Department of Transportation
1598 Mail Service Center
Raleigh, North Carolina 27699-1598

Dear Mr. Hancock:

Reference the Department of the Army (DA) permit issued on August 1, 2013, to Mr. Gregory J. Thorpe, of the North Carolina Department of Transportation (NCDOT) for impacts associated with the new location project identified as U-2524CD. The project, identified as U-2524CD, is a 4.8 mile, six-lane divided facility on new location extending from north of SR 2176 (Bryan Boulevard) to SR 2303 (Lawndale Drive) in Greensboro, Guilford County, North Carolina. Section C of this project begins immediately north of SR 2176 (Bryan Boulevard) and terminates immediately east of US220 (Battleground Avenue) and Section D begins immediately east of Battleground Avenue and ends at SR 2303 (Lawndale Drive). The site contains a portion of Horsepen Creek, fifteen (15) unnamed tributaries to Horsepen Creek, a portion of Richland Creek, five (5) unnamed tributaries to Richland Creek, and fifteen (15) adjacent wetland areas in the Cape Fear River Basin (8-Digit Cataloging Unit 03030002).

Impacts authorized by the permit, as well as subsequent permit modifications dated March 25, 2014, June 6, 2014, and June 19, 2015 include: 1) the permanent placement of fill material into 7,717 linear feet of jurisdictional stream channel and 6.16 acres of adjacent riparian wetlands and 2) the temporary placement of fill material into 518 linear feet of jurisdictional stream channel and 0.63 acre of adjacent riparian wetlands. Compensatory mitigation was implemented for the unavoidable impacts by payment into the North Carolina Ecosystem Enhancement Program.

Also reference your permit modification request submitted via electronic mail on October 1, 2015, proposing to replace a 37 linear foot section of currently permitted bank stabilization at Permit Site 5 with an equivalent footprint (37 linear feet) of permanent stream impacts associated with excavating three feet below existing stream channel elevation, installing geotextile fabric at the trench bottom, backfilling with a two-foot thick layer of rip rap and excavated material, and capping with a one foot thick layer of original stream bed material up to and matching original

stream bed grade and contour. This work is intended to prevent groundwater currently flowing under the installed Permit Site 5 culvert from removing support soil and causing the structure and wing walls to settle or collapse, respectively.

The U.S. Army Corps of Engineers, Wilmington District has completed the evaluation of your request and determined that it is appropriate and reasonable, and no public notice is required for this modification. Therefore, the permit is modified to include the requested additional stream impacts. This work must be constructed as shown in the modification plans submitted with the above referenced request (Permit Drawings Rev. Sheets 9, 9a, and 39 of 39). In addition, the following special condition regarding additional compensatory mitigation has been incorporated:

x) In order to compensate for impacts associated with this permit, mitigation shall be provided in accordance with the provisions outlined on the most recent version of the attached Compensatory Mitigation Responsibility Transfer Form. The requirements of this form, including any special conditions listed on this form, are hereby incorporated as special conditions of this permit authorization.

All other conditions of the permit, including the permit expiration date of December 31, 2018, remain in effect as written. Should you have questions, contact Mr. David E. Bailey, Raleigh Regulatory Field Office at telephone (919) 554-4884, Extension 30.

Sincerely,


Kevin P. Landers, Sr.

Kevin P. Landers, Sr.
Kevin P. Landers, Sr.
Colonel, U.S. Army
District Commander

Copies Furnished with Attachment:

Mr. Dave Wanucha
Transportation Permitting Unit
Division of Water Resources
North Carolina Department of
Environment and Natural Resources
450 West Hanes Mill Road, Suite 300
Winston-Salem, North Carolina 27105

Mr. Jerry Parker
Division Environmental Supervisor, Division 7
North Carolina Department of Transportation
Post Office Box 14996
Greensboro, North Carolina 27415

Ms. Erin Cheely
North Carolina Department of Transportation
Division of Highways
1598 Mail Service Center
Raleigh, North Carolina 27699-1598

Copies Furnished without Attachment:

U.S. Fish and Wildlife Services
Fish and Wildlife Enhancement
Post Office Box 33726
Raleigh, North Carolina 28516

Ms. Cynthia Van Der Wiele
U.S. Environmental Protection Agency
109 T.W. Alexander Drive
Mail Code: E143-08
Research Triangle Park, NC 27709

U.S. ARMY CORPS OF ENGINEERS

Wilmington District

Compensatory Mitigation Responsibility Transfer Form

Permittee: North Carolina Department of Transportation

Action ID: SAW-2001-21125

Project Name: NCDOT/U-2524CD/Division 7

County: Guilford

Instructions to Permittee: The Permittee must provide a copy of this form to the Mitigation Sponsor, either an approved Mitigation Bank or the North Carolina Ecosystem Enhancement Program (NCEEP), who will then sign the form to verify the transfer of the mitigation responsibility. Once the Sponsor has signed this form, it is the Permittee's responsibility to ensure that to the U.S. Army Corps of Engineers (USACE) Project Manager identified on page two is in receipt of a signed copy of this form before conducting authorized impacts, unless otherwise specified below. If more than one mitigation Sponsor will be used to provide the mitigation associated with the permit, or if the impacts and/or the mitigation will occur in more than one 8-digit Hydrologic Unit Code (HUC), multiple forms will be attached to the permit, and the separate forms for each Sponsor and/or HUC must be provided to the appropriate mitigation Sponsors.

Instructions to Sponsor: The Sponsor must verify that the mitigation requirements (credits) shown below are available at the identified site. By signing below, the Sponsor is accepting full responsibility for the identified mitigation, regardless of whether or not they have received payment from the Permittee. Once the form is signed, the Sponsor must update the bank ledger and provide a copy of the signed form and the updated bank ledger to the Permittee, the USACE Project Manager, and the Wilmington District Mitigation Office (see contact information on page 2). The Sponsor must also comply with all reporting requirements established in their authorizing instrument.

Permitted Impacts and Compensatory Mitigation Requirements:

Permitted Impacts Requiring Mitigation*

8-digit HUC and Basin: 03030002, Cape Fear River Basin

Stream Impacts (linear feet)			Wetland Impacts (acres)			
Warm	Cool	Cold	Riparian Riverine	Riparian Non-Riverine	Non-Riparian	Coastal
7,416			6.15			

*If more than one mitigation sponsor will be used for the permit, only include impacts to be mitigated by this sponsor.

Compensatory Mitigation Requirements:

8-digit HUC and Basin: 03030002, Cape Fear River Basin

Stream Mitigation (credits)			Wetland Mitigation (credits)			
Warm	Cool	Cold	Riparian Riverine	Riparian Non-Riverine	Non-Riparian	Coastal
14,795			10.57			

Mitigation Site Debited: North Carolina Division of Mitigation Services (NCDMS)

(List the name of the bank to be debited. For umbrella banks, also list the specific site. For NCEEP, list NCEEP. If the NCEEP acceptance letter identifies a specific site, also list the specific site to be debited).

Section to be completed by the Mitigation Sponsor

Statement of Mitigation Liability Acceptance: I, the undersigned, verify that I am authorized to approve mitigation transactions for the Mitigation Sponsor shown below, and I certify that the Sponsor agrees to accept full responsibility for providing the mitigation identified in this document (see the table above), associated with the USACE Permittee and Action ID number shown. I also verify that released credits (and/or advance credits for NCEEP), as approved by the USACE, are currently available at the mitigation site identified above. Further, I understand that if the Sponsor fails to provide the required compensatory mitigation, the USACE Wilmington District Engineer may pursue measures against the Sponsor to ensure compliance associated with the mitigation requirements.

Mitigation Sponsor Name: _____

Name of Sponsor's Authorized Representative: _____

Signature of Sponsor's Authorized Representative

Date of Signature

**USACE Wilmington District
Compensatory Mitigation Responsibility Transfer Form, Page 2**

Conditions for Transfer of Compensatory Mitigation Credit:

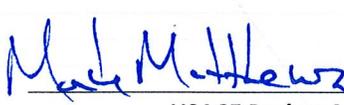
- Once this document has been signed by the Mitigation Sponsor and the USACE is in receipt of the signed form, the Permittee is no longer responsible for providing the mitigation identified in this form, though the Permittee remains responsible for any other mitigation requirements stated in the permit conditions.
- Construction within jurisdictional areas authorized by the permit identified on page one of this form can begin only after the USACE is in receipt of a copy of this document signed by the Sponsor, confirming that the Sponsor has accepted responsibility for providing the mitigation requirements listed herein. For authorized impacts conducted by the North Carolina Department of Transportation (NCDOT), construction within jurisdictional areas may proceed upon permit issuance; however, a copy of this form signed by the Sponsor must be provided to the USACE within 30 days of permit issuance. NCDOT remains fully responsible for the mitigation until the USACE has received this form, confirming that the Sponsor has accepted responsibility for providing the mitigation requirements listed herein.
- Signed copies of this document must be retained by the Permittee, Mitigation Sponsor, and in the USACE administrative records for both the permit and the Bank/ILF Instrument. It is the Permittee's responsibility to ensure that the USACE Project Manager (address below) is provided with a signed copy of this form.
- If changes are proposed to the type, amount, or location of mitigation after this form has been signed and returned to the USACE, the Sponsor must obtain case-by-case approval from the USACE Project Manager and/or North Carolina Interagency Review Team (NCIRT). If approved, higher mitigation ratios may be applied, as per current District guidance and a new version of this form must be completed and included in the USACE administrative records for both the permit and the Bank/ILF Instrument.

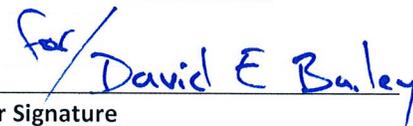
Comments/Additional Conditions:

- **This Form supersedes the Compensatory Mitigation Responsibility Transfer Form dated June 19, 2015 that was included as part of the DA Permit Modification of the same date;**
- **This form reflects an additional 37 stream credits required as part of the U-2524CD Permit Modification dated October 7, 2015;**
- **The Compensatory Mitigation Requirements listed on Page 1 are for the total U-2524CD project and do not reflect any stream or riparian wetland credits already accepted by NCDMS/NCEEP for this project.**

This form is not valid unless signed below by the USACE Project Manager and by the Mitigation Sponsor on Page 1. **Once signed, the Sponsor should provide copies of this form along with an updated bank ledger to: 1) the Permittee, 2) the USACE Project Manager at the address below, and 3) the Wilmington District Mitigation Office, Attn: Todd Tugwell, 11405 Falls of Neuse Road, Wake Forest, NC 27587 (email: todd.tugwell@usace.army.mil).** Questions regarding this form or any of the permit conditions may be directed to the USACE Project Manager below.

USACE Project Manager: David Bailey
USACE Field Office: Raleigh Regulatory Field Office
US Army Corps of Engineers
3331 Heritage Trade Drive, Suite 105
Wake Forest, North Carolina 27587
Email: David.E.Bailey2@usace.army.mil


USACE Project Manager Signature


for David E Bailey

October 7, 2015
Date of Signature

Current Wilmington District mitigation guidance, including information on mitigation ratios, functional assessments, and mitigation bank location and availability, and credit classifications (including stream temperature and wetland groupings) is available at <http://ribits.usace.army.mil>.

North Carolina Department of Environmental Quality

Pat McCrory
Governor

Donald R. van der Vaart
Secretary

October 12, 2015

Mr. Colin Mellor, Group Leader
Project Development and Environmental Analysis
North Carolina Department of Transportation
1598 Mail Service Center
Raleigh, North Carolina, 27699-1598

Subject: Modification to the 401 Water Quality Certification pursuant to Section 401 of the Federal Clean Water Act and Jordan Lake Buffer Rules with ADDITIONAL CONDITIONS for Proposed improvements for the Greensboro Urban Loop from SR 2176 (Bryan Blvd.) to SR 2303 (Lawndale Dr.) in Guilford County, Federal Aid Project No. STP-NHF-124(1), State Project No. 34820.1.2, TIP U2524C and D. NCDWQ Project No. 20130223 v. 4

Dear Mr. Mellor:

Attached hereto is a modification of Certification No. 3965 issued to The North Carolina Department of Transportation (NCDOT) originally dated July 2, 2013. This replaces previous issued certifications dated April 15, 2014 and June 25, 2015.

If we can be of further assistance, do not hesitate to contact us.

Sincerely,


S. Jay Zimmerman, Director
Division of Water Resources

Attachments

Electronic copy only distribution:

Dave Bailey, US Army Corps of Engineers, Raleigh Field Office
Jerry Parker, Division 7 Environmental Officer
Nicole Thompson, Division 7 Environmental Officer Assistant
Erin Cheely, NC Department of Transportation - ekcheely@ncdot.gov
Colin Mellor, NC Department of Transportation
Carla Dagnino, NC Department of Transportation
Dr. Cynthia Van Der Wiele, US Environmental Protection Agency
Gary Jordan, US Fish and Wildlife Service
Travis Wilson, NC Wildlife Resources Commission
Beth Harmon, Division of Mitigation Services
Dave Wanucha, NC Division of Water Resources Winston Salem Regional Office
File Copy

Modification to the 401 Water Quality Certification Pursuant to Section 401 of the Federal Clean Water Act and Jordan Lake Riparian BUFFER RULES with ADDITIONAL CONDITIONS

THIS CERTIFICATION is issued in conformity with the requirements of Section 401 Public Laws 92-500 and 95-217 of the United States and subject to the North Carolina Division of Water Resources (NCDWR) Regulations in 15 NCAC 2H .0500 and 15A NCAC 2B .0267. This certification authorizes the NCDOT to impact an additional 37 linear feet of jurisdictional streams in Guilford County. The project shall be constructed pursuant to the modification dated September 30, 2015. The authorized impacts are as described below:

Stream Impacts in the Cape Fear River Basin

Site	Permanent Fill in Perennial Stream (linear ft)		Temporary Fill in Perennial Stream (linear ft)	Total Stream Impact (linear ft)	Stream Impacts Requiring Mitigation (linear ft)
	Culvert	Bank Stabilization			
Original approved impacts at Site 5	688	37	40	765	725
Revised impacts with this approval at Site 5	725	0	No change	No change	No change*

Total Stream Impact for Modification: 37 feet of Bank Stabilization reverts to Fill.

***Mitigation required by USACE.**

The application provides adequate assurance that the discharge of fill material into the waters of the Cape Fear River Basin in conjunction with the proposed development will not result in a violation of applicable Water Quality Standards and discharge guidelines. Therefore, the State of North Carolina certifies that this activity will not violate the applicable portions of Sections 301, 302, 303, 306, 307 of PL 92-500 and PL 95-217 if conducted in accordance with the application and conditions hereinafter set forth.

This approval is only valid for the purpose and design that you submitted in your modified application dated September 30, 2015. All the authorized activities and conditions of certification associated with the original Water Quality Certification dated July 2, 2013 and subsequent modifications dated April 15, 2014 and June 25, 2015 still apply except where superseded by this certification. Should your project change, you are required to notify the NCDWR and submit a new application. If the property is sold, the new owner must be given a copy of this Certification and approval letter, and is thereby responsible for complying with all the conditions. If any additional wetland impacts, or stream impacts, for this project (now or in the future) exceed one acre or 150 linear feet, respectively, additional compensatory mitigation may be required as described in 15A NCAC 2H .0506 (h) (6) and (7). Additional buffer impacts may require compensatory mitigation as described in 15A NCAC 2B .0267. For this approval to remain valid, you are required to comply with all the conditions listed below. In addition, you should obtain all other federal, state or local permits before proceeding with your project including (but not limited to) Sediment and Erosion control, Coastal Stormwater, Non-discharge and Water Supply watershed regulations. This Certification shall expire on the same day as the expiration date of the corresponding US Army Corps of Engineers Permit.

Condition(s) of Certification:

1. None.

Violations of any condition herein set forth may result in revocation of this Certification and may result in criminal and/or civil penalties. This Certification shall become null and void unless the above conditions are made conditions of the Federal 404 and/or Coastal Area Management Act Permit. This Certification shall expire upon the expiration of the 404 or CAMA permit.

If you wish to contest any statement in the attached Certification you must file a petition for an administrative hearing. You may obtain the petition form from the office of Administrative hearings. You must file the petition with the office of Administrative Hearings within sixty (60) days of receipt of this notice. A petition is considered filed when it is received in the office of Administrative Hearings during normal office hours. The Office of Administrative Hearings accepts filings Monday through Friday between the hours of 8:00am and 5:00pm, except

for official state holidays. The original and one (1) copy of the petition must be filed with the Office of Administrative Hearings.

The petition may be faxed-provided the original and one copy of the document is received by the Office of Administrative Hearings within five (5) business days following the faxed transmission.

The mailing address for the Office of Administrative Hearings is:

Office of Administrative Hearings
6714 Mail Service Center
Raleigh, NC 27699-6714
Telephone: (919) 431-3000, Facsimile: (919) 431-3100

A copy of the petition must also be served on DEQ as follows:

Mr. Sam M. Hayes, General Counsel
Department of Environmental Quality
1601 Mail Service Center

This the 12th day of October 2015

DIVISION OF WATER RESOURCES

A handwritten signature in black ink, appearing to read "S. Jay Zimmerman".

S. Jay Zimmerman, Director

WQC No. 3965

North Carolina Department of Environmental Quality

Pat McCrory
Governor

Donald R. van der Vaart
Secretary

NCDWR Project No.: _____ **County:** _____

Applicant: _____

Project Name: _____

Date of Issuance of 401 Water Quality Certification: _____

Certificate of Completion

Upon completion of all work approved within the 401 Water Quality Certification or applicable Buffer Rules, and any subsequent modifications, the applicant is required to return this certificate to the 401 Transportation Permitting Unit, North Carolina Division of Water Resources, 1617 Mail Service Center, Raleigh, NC, 27699-1617. This form may be returned to NCDWR by the applicant, the applicant's authorized agent, or the project engineer. It is not necessary to send certificates from all of these.

Applicant's Certification

I, _____, hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature: _____ Date: _____

Agent's Certification

I, _____, hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

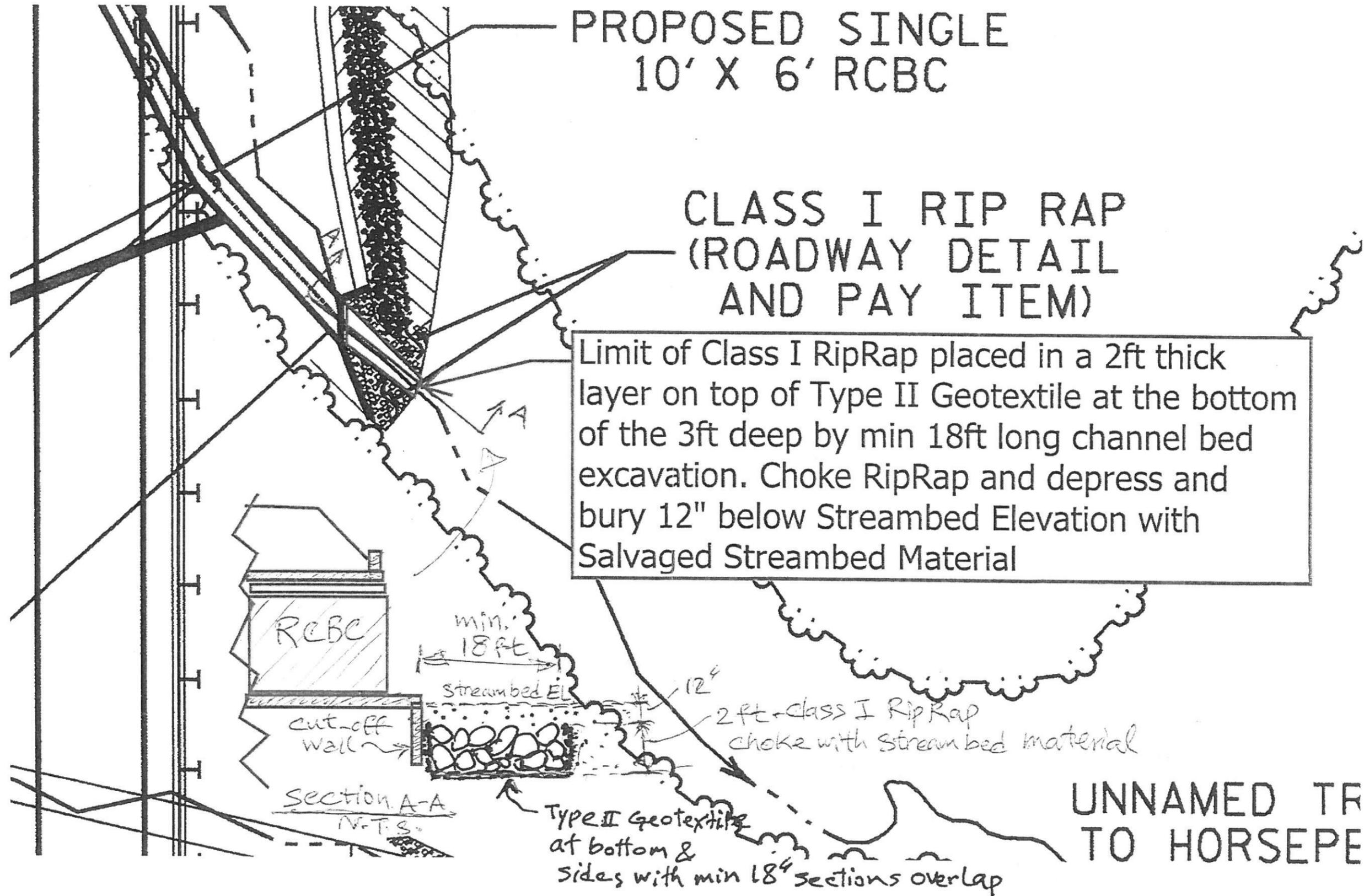
Signature: _____ Date: _____

Engineer's Certification

_____ Partial _____ Final

I, _____, as a duly registered Professional Engineer in the State of North Carolina, having been authorized to observe (periodically, weekly, full time) the construction of the project for the Permittee hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature _____ Registration No. _____ Date _____



WETLAND PERMIT IMPACT SUMMARY												
Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS					SURFACE WATER IMPACTS				
			Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
1	-L- 283+36 TO 286+34	48" RCP	0.10	-	-	0.02	-	0.03	0.01	385	13	-
	-L- 286+11 TO 286+22	Bank Stabilization	-	-	-	-	-	-	-	11	-	-
2	-L- 287+09 TO 287+21	30" RCP	-	-	-	-	-	0.01	0.01	13	14	-
	-L- 287+00 TO 287+30	Bank Stabilization	-	-	-	-	-	-	-	11	-	-
	-L- 287+11 TO 287+17	Bank Stabilization	-	-	-	-	-	-	-	32	-	-
3	-L- 296+40 TO 297+18	36" RCP	-	-	-	-	-	0.03	0.01	338	20	-
	-L- 296+44 TO 296+52	Bank Stabilization	-	-	-	-	-	-	-	10	-	-
3A	-L- 296+82 TO 297+00	Roadway	-	-	-	-	-	0.01	-	30	-	-
4	-L- 312+90 TO 313+91	1 @ 10' x 7' RCBC	-	-	-	-	-	0.06	0.01	331	46	-
	-L- 312+95 TO 313+13	Bank Stabilization	-	-	-	-	-	-	-	30	-	-
5	-L- 314+67 TO 321+11	1 @ 10' x 6' RCBC	-	-	-	-	-	0.10	0.01	688	40	-
	-L- 314+72 TO 315+05	fill	-	-	-	-	-	-	-	37	-	-
5A	-L- 320+86 TO 321+95	Roadway	-	-	-	-	-	0.01	-	90	-	-
	-L- 320+78 TO 321+04	Bank Stabilization	-	-	-	-	-	-	-	25	-	-
6	-L- 323+60 TO 324+44	-	-	-	-	-	-	0.04	0.01	60	15	-
7	-L- 345+01 TO 345+88	30" RCP	0.01	-	-	-	-	0.03	0.01	227	10	-
	-L- 345+74 TO 345+85	Bank Stabilization	-	-	-	-	-	-	-	11	-	-
7A	-L- 345+02 TO 345+49	Roadway	-	-	-	-	-	0.01	-	57	-	-
8	-L- 358+77 TO 360+29	54" RCP	-	-	-	-	-	0.05	0.01	412	20	-
	-L- 359+46 TO 359+57	Bank Stabilization	-	-	-	-	-	-	-	13	-	-
9	-L- 380+47 TO 382+86	Bridge	-	-	-	0.02	0.40	-	-	-	-	-
10	-L- 387+31 TO 387+46	Bank Stabilization	-	-	-	-	-	0.01	-	16	-	-
10A	-Y3DET- 11+23 TO 13+92	Temporary Detour	-	0.01	-	0.01	-	-	-	-	-	-
11	-L- 389+65 TO 398+04	Bridge	-	-	-	0.19	1.44	-	-	-	-	-
12	-L- 399+62 TO 408+51	Bridge & Roadway	2.57	-	-	0.36	0.96	-	-	-	-	-
13	-L- 407+72 TO 415+79	Hazardous Spill Basins, Bridge, Roadway & 66" RCP	1.25	-	0.34	0.65	1.57	0.03	0.01	204	20	-
	-L- 409+67 TO 409+73	Bank Stabilization	-	-	-	-	-	-	-	12	-	-
	-L- 410+77 TO 410+89	Bank Stabilization	-	-	-	-	-	-	-	12	-	-
	-L- 411+08 TO 411+42	Bank Stabilization	-	-	-	-	-	-	-	36	-	-
	-L- 414+83 TO 415+16	Bank Stabilization	-	-	-	-	-	-	-	22	-	-
14	-L- 419+09 TO 420+79	Bridge	0.11	-	-	-	-	-	-	-	-	-
TOTALS:			4.04	0.01	0.34	1.25	4.37	0.42	0.09	3113	198	-

Notes: Permanent Wetland Impacts from bridge construction = 0.11 acres
Temporary Wetland Impacts from work bridge construction = 0.14 acres
See Sheet _____ of _____ for a detailed breakdown of the proposed bridge construction impacts.

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

GUILFORD COUNTY
U-2524C
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SHEET 39 OF 39 9/3/2015