STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PAT MCCRORY
GOVERNOR

ANTHONY J. TATA
SECRETARY

January 24, 2013

U.S. Army Corps of Engineers
2407 West 5th St.
Washington, NC 27889

Attention: Mr. Bill Biddlecome
NCDOT Coordinator

N.C. Division of Coastal Management
1367 US 17 South
Elizabeth City, NC 27909

Attention: Mr. Paul Williams
NCDOT Coordinator

Dear Sirs:

Subject: **Application for Section 404 Nationwide Permits (NWP) 23, 33 & 12, Section 401 Water Quality Certification, and CAMA Major Development Permit** for the replacement of Bridge No. 51 over the Cashie River on US 13 in Bertie County; TIP Project B-5122; Federal Aid Project No. BRNHS-0013(24); Debit $475 from WBS No. 42264.1.1.

Please find enclosed PCN, Division of Coastal Management Major Permit Forms 1, 2, and 5, EEP Acceptance Letter, permit drawings, stormwater management plan, utility drawings and roadway plans for the above referenced project proposed by the North Carolina Department of Transportation (NCDOT). A Categorical Exclusion (CE) was completed for this project on June 7, 2011 and distributed shortly thereafter. Additional copies are available upon request. The NCDOT proposes to replace existing Bridge No. 51 over the Cashie River on US 13 in Bertie County. The project involves replacement of the existing structurally deficient bridge and approach with new structures. Bridge 51 will be replaced with a new 188-foot long bridge, including two 12-foot lanes and 4.5-foot offsets. The approach roadway will be widened to a 24-foot pavement width to provide two 12-foot lanes, with eight-foot shoulders on each side.

Proposed permanent impacts to riparian wetlands from bridge construction are 0.67 acre of fill. Utility relocations will require less than 0.01 acre of fill in wetlands, less than 0.01 acre of excavation in wetlands. Traffic will be detoured off-site during construction.

This project calls for a letting date of June 18, 2013 and a review date of April 30, 2013; however, the let date may advance as additional funding becomes available.

MAILING ADDRESS:
NC DEPARTMENT OF TRANSPORTATION
PROJECT DEVELOPMENT & ENVIRONMENTAL ANALYSIS UNIT
1598 MAIL SERVICE CENTER
RALEIGH NC 27699-1548

TELEPHONE: 919-707-6000
FAX: 919-212-5785

WEBSITE:NCDOT.GOV

LOCATION:
CENTURY CENTER, BUILDING B
1020 BIRCH RIDGE DRIVE
RALEIGH NC 27610

Regulatory Approvals

Section 404 Permit: All aspects of this project are being processed by the Federal Highway Administration as a "Categorical Exclusion" in accordance with 23 CFR 771.115(b). The NCDOT requests that the project be authorized by NW 23 for bridge construction, A NW 33 for the temporary work bridge and NW 12 for utility relocations.

Section 401 Permit: We anticipate 401 General Certification numbers 3891, 3893 and 3884 will apply to this project. NCDOT is requesting written concurrence from the North Carolina Department of Environmental and Natural Resources, Division of Water Quality. We are providing two copies of this application to the NCDWQ for their approval.

CAMA Major Permit: NCDOT requests that the proposed work be authorized under a Coastal Area Management Act Major Permit. The landowner receipts will be forwarded as soon as they are available. Authorization to debit the $475 Permit Application Fee from WBS Element 42264.1.1 is hereby given.

A copy of this permit application and its distribution list will be posted on the NCDOT website at http://www.ncdot.org/doh/preconstruct/pe/neu/permit.html.

If you have any questions or need additional information, please contact Chris Manley at cdmanley@ncdot.gov or (919) 707-6135.

Sincerely,

E L. Lusk

for Gregory J. Thorpe, Ph.D., Manager
Project Development and Environmental Analysis Unit

cc

NCDOT Permit Application Standard Distribution List.

Office Use Only:
Corps action ID no. _____
DWQ project no. _____
Form Version 1.3 Dec 10 2008

Pre-Construction Notification (PCN) Form

A. Applicant Information

1. Processing

1a. Type(s) of approval sought from the Corps:	☒ Section 404 Permit ☐ Section 10 Permit	
1b. Specify Nationwide Permit (NWP) number: 23 12 33 or General Permit (GP) number:		
1c. Has the NWP or GP number been verified by the Corps?	☐ Yes	☒ No
1d. Type(s) of approval sought from the DWQ (check all that apply): ☒ 401 Water Quality Certification – Regular ☐ Non-404 Jurisdictional General Permit ☐ 401 Water Quality Certification – Express ☐ Riparian Buffer Authorization		
1e. Is this notification solely for the record because written approval is not required?	For the record only for DWQ 401 Certification: ☐ Yes ☒ No	For the record only for Corps Permit: ☐ Yes ☒ No
1f. Is payment into a mitigation bank or in-lieu fee program proposed for mitigation of impacts? If so, attach the acceptance letter from mitigation bank or in-lieu fee program.	☒ Yes	☐ No
1g. Is the project located in any of NC's twenty coastal counties. If yes, answer 1h below.	☒ Yes	☐ No
1h. Is the project located within a NC DCM Area of Environmental Concern (AEC)?	☒ Yes	☐ No

2. Project Information

2a. Name of project:	Replacement of Bridge 51 over the Cashie River on US 13
2b. County:	Bertie
2c. Nearest municipality / town:	Windsor
2d. Subdivision name:	*not applicable*
2e. NCDOT only, T.I.P. or state project no:	B-5122

3. Owner Information

3a. Name(s) on Recorded Deed:	North Carolina Department of Transportation
3b. Deed Book and Page No.	*not applicable*
3c. Responsible Party (for LLC if applicable):	*not applicable*
3d. Street address:	1598 Mail Service Center
3e. City, state, zip:	Raleigh, NC 27699-1598
3f. Telephone no.:	(919) 707-6135
3g. Fax no.:	(919) 250-4224
3h. Email address:	cdmanley@ncdot.gov

4. Applicant Information (if different from owner)	
4a. Applicant is:	☐ Agent ☐ Other, specify:
4b. Name:	*not applicable*
4c. Business name (if applicable):	
4d. Street address:	
4e. City, state, zip:	
4f. Telephone no.:	
4g. Fax no.:	
4h. Email address:	
5. Agent/Consultant Information (if applicable)	
5a. Name:	*not applicable*
5b. Business name (if applicable):	
5c. Street address:	
5d. City, state, zip:	
5e. Telephone no.:	
5f. Fax no.:	
5g. Email address:	

B. Project Information and Prior Project History		
1. Property Identification		
1a. Property identification no. (tax PIN or parcel ID):	*not applicable*	
1b. Site coordinates (in decimal degrees):	Latitude: 36.2452 (DD.DDDDDD)	Longitude: - 76.95610 (-DD.DDDDDD)
1c. Property size:	3.8 acres	
2. Surface Waters		
2a. Name of nearest body of water (stream, river, etc.) to proposed project:	Cashie River	
2b. Water Quality Classification of nearest receiving water:	C; Sw	
2c. River basin:	Roanoke	
3. Project Description		
3a. Describe the existing conditions on the site and the general land use in the vicinity of the project at the time of this application: Existing conditions at the site include maintained / disturbed roadside shoulder and agriculture in addition to forested wetlands. Land use in the project vicinity is predominantly medium- to low-residential with some agriculture.		
3b. List the total estimated acreage of all existing wetlands on the property: 2.46		
3c. List the total estimated linear feet of all existing streams (intermittent and perennial) on the property: 215		
3d. Explain the purpose of the proposed project: To replace a structurally deficient and functionally obsolete bridge.		
3e. Describe the overall project in detail, including the type of equipment to be used: The project involves replacing a 154-foot bridge with a 188-foot on the existing alignment with an off-site detour. Standard road building equipment, such as trucks, dozers, and cranes will be used. Overhead phone line and multiuse poles will be relocated; gas line and 6" and 8" force sewer mains will be also be relocated within jurisdictional areas.		
4. Jurisdictional Determinations		
4a. Have jurisdictional wetland or stream determinations by the Corps or State been requested or obtained for this property / project (including all prior phases) in the past? Comments: SAW-2009-02266	☒ Yes ☐ No ☐ Unknown	
4b. If the Corps made the jurisdictional determination, what type of determination was made?	☒ Preliminary ☐ Final	
4c. If yes, who delineated the jurisdictional areas? Name (if known): Lance P. Fontaine	Agency/Consultant Company: NCDOT Other:	
4d. If yes, list the dates of the Corps jurisdictional determinations or State determinations and attach documentation. December 10, 2009		
5. Project History		
5a. Have permits or certifications been requested or obtained for this project (including all prior phases) in the past?	☐ Yes ☒ No ☐ Unknown	
5b. If yes, explain in detail according to "help file" instructions.		
6. Future Project Plans		
6a. Is this a phased project?	☐ Yes ☒ No	
6b. If yes, explain.		

C. Proposed Impacts Inventory

1. Impacts Summary

1a. Which sections were completed below for your project (check all that apply):

☒ Wetlands ☐ Streams - tributaries ☐ Buffers

☒ Open Waters ☐ Pond Construction

2. Wetland Impacts

If there are wetland impacts proposed on the site, then complete this question for each wetland area impacted.

2a. Wetland impact number – Permanent (P) or Temporary (T)	2b. Type of impact	2c. Type of wetland (if known)	2d. Forested	2e. Type of jurisdiction (Corps - 404, 10 DWQ – non-404, other)	2f. Area of impact (acres)
Site 1ut ☒ P ☐ T	Excavation Fill	Riparian	☒ Yes ☐ No	☒ Corps ☐ DWQ	<0.01 <0.01
Site 2ut ☒ P ☐ T	Fill	Riparian	☒ Yes ☐ No	☒ Corps ☐ DWQ	<0.01
Site 3ut ☒ P ☐ T	Fill	Riparian	☒ Yes ☐ No	☒ Corps ☐ DWQ	<0.01
Site 1 ☒ P ☐ T	Fill	Riparian	☒ Yes ☐ No	☒ Corps ☐ DWQ	0.67
Site 2 ☐ P ☐ T			☐ Yes ☐ No	☐ Corps ☐ DWQ	
Site 3 ☐ P ☐ T			☐ Yes ☐ No	☐ Corps ☐ DWQ	
				2g. **Total wetland impacts**	0.67 Permanent 0.00 Temporary

2h. Comments: Site 1ut captures impacts due to sewer line (utility) relocation, Sites 2ut and 3ut capture impacts due to multiuse pole (utility) relocation, Site 1 captures impacts associated with bridge construction. There will be 0.10 ac of hand clearing due to utility work and 0.33 ac of hand clearing due to project construction. Additionally, there will be 0.06 ac of temporary fill in wetlands in the hand clearing areas for erosion control measures.

3. Stream Impacts

If there are perennial or intermittent stream impacts (including temporary impacts) proposed on the site, then complete this question for all stream sites impacted.

3a. Stream impact number - Permanent (P) or Temporary (T)	3b. Type of impact	3c. Stream name	3d. Perennial (PER) or intermittent (INT)?	3e. Type of jurisdiction (Corps - 404, 10 DWQ – non-404, other)	3f. Average stream width (feet)	3g. Impact length (linear feet)
Site 1 ☐ P ☐ T			☐ PER ☐ INT	☐ Corps ☐ DWQ		
Site 2 ☐ P ☐ T			☐ PER ☐ INT	☐ Corps ☐ DWQ		
Site 3 ☐ P ☐ T			☐ PER ☐ INT	☐ Corps ☐ DWQ		
Site 4 ☐ P ☐ T			☐ PER ☐ INT	☐ Corps ☐ DWQ		
Site 5 ☐ P ☐ T			☐ PER ☐ INT	☐ Corps ☐ DWQ		
Site 6 ☐ P ☐ T			☐ PER ☐ INT	☐ Corps ☐ DWQ		
					3h. **Total stream and tributary impacts**	Perm Temp

3i. Comments:

4. Open Water Impacts

If there are proposed impacts to lakes, ponds, estuaries, tributaries, sounds, the Atlantic Ocean, or any other open water of the U.S. then individually list all open water impacts below.

4a. Open water impact number – Permanent (P) or Temporary (T)	4b. Name of waterbody (if applicable)	4c. Type of impact	4d. Waterbody type	4e. Area of impact (acres)
O1 ☐ P ☐ T				
O2 ☐ P ☐ T				
O3 ☐ P ☐ T				
O4 ☐ P ☐ T				
			4f. Total open water impacts	0.0 Permanent 0.0 Temporary

4g. Comments: Impacts due to permanent bents are < 0.01 ac. Temporary bent impacts are dependant on spacing and have not been determined.

5. Pond or Lake Construction

If pond or lake construction proposed, then complete the chart below.

5a. Pond ID number	5b. Proposed use or purpose of pond	5c. Wetland Impacts (acres)			5d. Stream Impacts (feet)			5e. Upland (acres)
		Flooded	Filled	Excavated	Flooded	Filled	Excavated	Flooded
P1								
P2								
	5f. Total							

5g. Comments:

5h. Is a dam high hazard permit required?	☐ Yes ☐ No If yes, permit ID no:
5i. Expected pond surface area (acres):	
5j. Size of pond watershed (acres):	
5k. Method of construction:	

6. Buffer Impacts (for DWQ)

If project will impact a protected riparian buffer, then complete the chart below. If yes, then individually list all buffer impacts below. If any impacts require mitigation, then you **MUST** fill out Section D of this form.

6a. Project is in which protected basin?	☐ Neuse ☐ Catawba	☐ Tar-Pamlico ☐ Randleman	☐ Other:

6b. Buffer impact number – Permanent (P) or Temporary (T)	6c. Reason for impact	6d. Stream name	6e. Buffer mitigation required?	6f. Zone 1 impact (square feet)	6g. Zone 2 impact (square feet)
B1 ☐ P ☐ T			☐ Yes ☐ No		
B2 ☐ P ☐ T			☐ Yes ☐ No		
B3 ☐ P ☐ T			☐ Yes ☐ No		
		6h. **Total buffer impacts**			

6i. Comments:

D. Impact Justification and Mitigation

1. Avoidance and Minimization

1a. Specifically describe measures taken to avoid or minimize the proposed impacts in designing project.

The proposed bridge is 34 feet longer than the existing bridge and will have less bents in the stream; the proposed bridge will be at approximately the same grade as the existing structure; an off site detour will be used, 3:1 fill slopes where practicable. No deck drains. Removal of existing road fill for longer bridge and increasing bridge opening will improve hydrological conveyance and reduce bridge opening velocities. Placement of stormwater control measures outside wetlands where practicable. Best Management Practices for the Protection of Surface Waters will be implemented.

1b. Specifically describe measures taken to avoid or minimize the proposed impacts through construction techniques.

Hand clearing will be used instead of mechanized clearing. Open trench excavation minimized for utility relocation by using trenchless (directional bore) methodolgy where practicable; further permanent utility impacts minimized by placement of impact within area to be filled due to bridge construction. An anadromous fish moratorium will be adhered to from 2/15 to 6/15.Temporary workbridges will be used as opposed to temporary work pads.

2. Compensatory Mitigation for Impacts to Waters of the U.S. or Waters of the State

2a. Does the project require Compensatory Mitigation for impacts to Waters of the U.S. or Waters of the State?	☒ Yes ☐ No If no, explain:
2b. If yes, mitigation is required by (check all that apply):	☐ DWQ ☒ Corps
2c. If yes, which mitigat ion option will be used for this project?	☐ Mitigation bank ☒ Payment to in-lieu fee program ☐ Permittee Responsible Mitigation

3. Complete if Using a Mitigation Bank

3a. Name of Mitigation Bank: not applicable

3b. Credits Purchased (attach receipt and letter)	Type	Quantity

3c. Comments:

4. Complete if Making a Payment to In-lieu Fee Program

4a. Approval letter from in-lieu fee program is attached.	☒ Yes
4b. Stream mitigation requested:	linear feet
4c. If using stream mitigation, stream temperature:	☐ warm ☐ cool ☐ cold
4d. Buffer mitigation requested (DWQ only):	square feet
4e. Riparian wetland mitigation requested:	1.34 acres
4f. Non-riparian wetland mitigation requested:	acres
4g. Coastal (tidal) wetland mitigation requested:	acres

4h. Comments:

5. Complete if Using a Permittee Responsible Mitigation Plan

5a. If using a permittee responsible mitigation plan, provide a description of the proposed mitigation plan.

NC EEP will provide wetland mitigation

6. **Buffer Mitigation (State Regulated Riparian Buffer Rules) – required by DWQ**				
6a. Will the project result in an impact within a protected riparian buffer that requires buffer mitigation?			☐ Yes	☒ No
6b. If yes, then identify the square feet of impact to each zone of the riparian buffer that requires mitigation. Calculate the amount of mitigation required.				
Zone	6c. Reason for impact	6d. Total impact (square feet)	Multiplier	6e. Required mitigation (square feet)
Zone 1			3 (2 for Catawba)	
Zone 2			1.5	
	6f. **Total buffer mitigation required:**			
6g. If buffer mitigation is required, discuss what type of mitigation is proposed (e.g., payment to private mitigation bank, permittee responsible riparian buffer restoration, payment into an approved in-lieu fee fund).				
6h. Comments:				

E. Stormwater Management and Diffuse Flow Plan (required by DWQ)	
1. Diffuse Flow Plan	
1a. Does the project include or is it adjacent to protected riparian buffers identified within one of the NC Riparian Buffer Protection Rules?	☐ Yes ☒ No
1b. If yes, then is a diffuse flow plan included? If not, explain why. Comments:	☐ Yes ☐ No
2. Stormwater Management Plan	
2a. What is the overall percent imperviousness of this project?	N/A
2b. Does this project require a Stormwater Management Plan?	☒ Yes ☐ No
2c. If this project DOES NOT require a Stormwater Management Plan, explain why:	
2d. If this project DOES require a Stormwater Management Plan, then provide a brief, narrative description of the plan: See attached permit drawings and stormwater management plan.	
2e. Who will be responsible for the review of the Stormwater Management Plan?	☐ Certified Local Government ☐ DWQ Stormwater Program ☒ DWQ 401 Unit
3. Certified Local Government Stormwater Review	
3a. In which local government's jurisdiction is this project?	not applicable
3b. Which of the following locally-implemented stormwater management programs apply (check all that apply):	☐ Phase II ☐ NSW ☐ USMP ☐ Water Supply Watershed ☐ Other:
3c. Has the approved Stormwater Management Plan with proof of approval been attached?	☐ Yes ☐ No
4. DWQ Stormwater Program Review	
4a. Which of the following state-implemented stormwater management programs apply (check all that apply):	☒ Coastal counties ☐ HQW ☐ ORW ☐ Session Law 2006-246 ☐ Other:
4b. Has the approved Stormwater Management Plan with proof of approval been attached?	☒ Yes ☐ No
5. DWQ 401 Unit Stormwater Review	
5a. Does the Stormwater Management Plan meet the appropriate requirements?	☐ Yes ☐ No N/A
5b. Have all of the 401 Unit submittal requirements been met?	☐ Yes ☐ No N/A

F. Supplementary Information		
1. Environmental Documentation (DWQ Requirement)		
1a. Does the project involve an expenditure of public (federal/state/local) funds or the use of public (federal/state) land?	☒ Yes	☐ No
1b. If you answered "yes" to the above, does the project require preparation of an environmental document pursuant to the requirements of the National or State (North Carolina) Environmental Policy Act (NEPA/SEPA)?	☒ Yes	☐ No
1c. If you answered "yes" to the above, has the document review been finalized by the State Clearing House? (If so, attach a copy of the NEPA or SEPA final approval letter.) Comments:	☒ Yes	☐ No
2. Violations (DWQ Requirement)		
2a. Is the site in violation of DWQ Wetland Rules (15A NCAC 2H .0500), Isolated Wetland Rules (15A NCAC 2H .1300), DWQ Surface Water or Wetland Standards, or Riparian Buffer Rules (15A NCAC 2B .0200)?	☐ Yes	☒ No
2b. Is this an after-the-fact permit application?	☐ Yes	☒ No
2c. If you answered "yes" to one or both of the above questions, provide an explanation of the violation(s):		
3. Cumulative Impacts (DWQ Requirement)		
3a. Will this project (based on past and reasonably anticipated future impacts) result in additional development, which could impact nearby downstream water quality?	☐ Yes ☒ No	
3b. If you answered "yes" to the above, submit a qualitative or quantitative cumulative impact analysis in accordance with the most recent DWQ policy. If you answered "no," provide a short narrative description. Due to the minimal transportation impact resulting from this bridge replacement, this project will neither influence nearby land uses nor stimulate growth. Therefore, a detailed indirect or cumulative effects study will not be necessary.		
4. Sewage Disposal (DWQ Requirement)		
4a. 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. not applicable		

5. Endangered Species and Designated Critical Habitat (Corps Requirement)		
5a. Will this project occur in or near an area with federally protected species or habitat?	☐ Yes	☒ No
5b. Have you checked with the USFWS concerning Endangered Species Act impacts?	☐ Yes	☒ No
5c. If yes, ind icate the USFWS Field Office you have contacted.	☐ Raleigh ☐ Asheville	
5d. What data sources did you use to determine whether your site would impact Endangered Species or Designated Critical Habitat? NCNHP, USFWS, field surveys		
6. Essential Fish Habitat (Corps Requirement)		
6a. Will this project occur in or near an area designated as essential fish habitat?	☐ Yes	☒ No
6b. What data sources did you use to determine whether your site would impact Essential Fish Habitat? NMFS County Index		
7. Historic or Prehistoric Cultural Resources (Corps Requirement)		
7a. Will this project occur in or near an area that the state, federal or tribal governments have designated as having historic or cultural preservation status (e.g., National Historic Trust designation or properties significant in North Carolina history and archaeology)?	☐ Yes	☒ No
7b. What data sources did you use to determine whether your site would impact historic or archeological resources? NEPA Documentation		
8. Flood Zone Designation (Corps Requirement)		
8a. Will this project occur in a FEMA-designated 100-year floodplain?	☒ Yes	☐ No
8b. If yes, explain how project meets FEMA requirements: NCDOT Hydraulics Unit coordination with FEMA		
8c. What source(s) did you use to make the floodplain determination? FEMA Maps		

Dr. Gregory J. Thorpe, Ph D Applicant/Agent's Printed Name	E. L. Lusk Applicant/Agent's Signature (Agent's signature is valid only if an authorization letter from the applicant is provided.)	1.24.13 Date

DCM MP-1

APPLICATION for Major Development Permit

(last revised 12/27/06)

North Carolina DIVISION OF COASTAL MANAGEMENT

1. Primary Applicant/ Landowner Information

Business Name: N.C. Department Of Transportation			Project Name (if applicable): B-5122 (42264.1.1)	
Applicant 1: First Name: Gregory	MI: J		Last Name: Thorpe	
Applicant 2: First Name:	MI:		Last Name:	
If additional applicants, please attach an additional page(s) with names listed.				
Mailing Address: 1598 Mail Service Center			PO Box:	City: Raleigh	State: NC
ZIP: 27699 1598	Country: USA	Phone No.: 919 - 707 - 6135 ext.		FAX No.: - -
Street Address *(if different from above)*:			City:	State:	ZIP: -
Email: cdmanley@ncdot.gov				

2. Agent/Contractor Information

Business Name:				
Agent/ Contractor 1: First Name:	MI:		Last Name:	
Agent/ Contractor 2: First Name:	MI:		Last Name:	
Mailing Address:			PO Box:	City:	State:
ZIP:		Phone No. 1: - - ext.		Phone No. 2: - - ext.
FAX No.:		Contractor #:		
Street Address *(if different from above)*:			City:	State:	ZIP: -
Email:				

<Form continues on back>

3. Project Location

County (can be multiple)	Street Address		State Rd. #
Bertie	US 13 at Bridge No. 51		US 13
Subdivision Name	City	State	Zip
	Windsor	NC	27983 -

Phone No.	Lot No.(s) *(if many, attach additional page with list)*
- - ext.	, , , ,
a. In which NC river basin is the project located? Roanoke	b. Name of body of water nearest to proposed project Cashie River
c. Is the water body identified in (b) above, natural or manmade? ☒Natural ☐Manmade ☐Unknown	d. Name the closest major water body to the proposed project site. Roanoke River
e. Is proposed work within city limits or planning jurisdiction? ☒Yes ☐No	f. If applicable, list the planning jurisdiction or city limit the proposed work falls within. Town of Windsor

4. Site Description

a. Total length of shoreline on the tract (ft.)	b. Size of entire tract (sq.ft.)
417	210,852
c. Size of individual lot(s) *(If many lot sizes, please attach additional page with a list)*	d. Approximate elevation of tract above NHW *(normal high water)* or NWL *(normal water level)* 16 ☐NHW or ☒NWL

e. Vegetation on tract
Riverine Swamp Forest, Wetlands, Grass (US 13 Shoulders and yards)

f. Man-made features and uses now on tract
Existing US 13 road facility

g. Identify and describe the existing land uses adjacent to the proposed project site.
Existing US 13 road facility; Residence

h. How does local government zone the tract?	i. Is the proposed project consistent with the applicable zoning? (Attach zoning compliance certificate, if applicable)
residental	☐Yes ☐No ☒NA

j. Is the proposed activity part of an urban waterfront redevelopment proposal? ☐Yes ☒No

k. Has a professional archaeological assessment been done for the tract? If yes, attach a copy. ☒Yes ☐No ☐NA

If yes, by whom?

l. Is the proposed project located in a National Registered Historic District or does it involve a National Register listed or eligible property? ☐Yes ☒No ☐NA

<Form continues on next page>

m. (i) Are there wetlands on the site? ☒Yes ☐No

(ii) Are there coastal wetlands on the site? ☐Yes ☒No

(iii) If yes to either (i) or (ii) above, has a delineation been conducted? ☒Yes ☐No
(Attach documentation, if available)

n. Describe existing wastewater treatment facilities.
N/A

o. Describe existing drinking water supply source.
N/A

p. Describe existing storm water management or treatment systems.
None

5. Activities and Impacts

a. Will the project be for commercial, public, or private use? ☐Commercial ☒Public/Government ☐Private/Community

b. Give a brief description of purpose, use, and daily operations of the project when complete.
Replace bridge due to low sufficiency rating. Lengthen bridge and improve road facility and safety with widening and guardrail.

c. Describe the proposed construction methodology, types of construction equipment to be used during construction, the number of each type of equipment and where it is to be stored.
Propose work bridge with temporary causeway(s). Typical construction equipment includes Crane, Bulldozer, Dump Trucks, Motorgrader, etc.

d. List all development activities you propose.
Replace/Lengthen Bridge. Remove portion existing road fill/ causeway to improve bridge hydraulic conveyance. Addition of fill due to widening facility and raising of the existing road grade.

e. Are the proposed activities maintenance of an existing project, new work, or both? Both

f. What is the approximate total disturbed land area resulting from the proposed project? 2.0 ☐Sq.Ft or ☒Acres

g. Will the proposed project encroach on any public easement, public accessway or other area that the public has established use of? ☒Yes ☐No ☐NA

h. Describe location and type of existing and proposed discharges to waters of the state.
No direct discharge. Existing Bridge has deck drains with direct discharge to river. Proposed Bridge will not have deck drains.

i. Will wastewater or stormwater be discharged into a wetland? ☒Yes ☐No ☐NA

If yes, will this discharged water be of the same salinity as the receiving water? ☒Yes ☐No ☐NA

j. Is there any mitigation proposed? ☒Yes ☐No ☐NA
If yes, attach a mitigation proposal.

<Form continues on back>

6. Additional Information

In addition to this completed application form, (MP-1) the following items below, if applicable, must be submitted in order for the application package to be complete. Items (a) – (f) are always applicable to any major development application. Please consult the application instruction booklet on how to properly prepare the required items below.

a. A project narrative.

b. An accurate, dated work plat (including plan view and cross-sectional drawings) drawn to scale. Please give the present status of the proposed project. Is any portion already complete? If previously authorized work, clearly indicate on maps, plats, drawings to distinguish between work completed and proposed.

c. A site or location map that is sufficiently detailed to guide agency personnel unfamiliar with the area to the site.

d. A copy of the deed (with state application only) or other instrument under which the applicant claims title to the affected properties.

e. The appropriate application fee. Check or money order made payable to DENR.

f. A list of the names and complete addresses of the adjacent waterfront (riparian) landowners and signed return receipts as proof that such owners have received a copy of the application and plats by certified mail. Such landowners must be advised that they have 30 days in which to submit comments on the proposed project to the Division of Coastal Management.

Name
Phone No.

Address

Name
Phone No.

Address

Name
Phone No.

Address

g. A list of previous state or federal permits issued for work on the project tract. Include permit numbers, permittee, and issuing dates.

h. Signed consultant or agent authorization form, if applicable.

i. Wetland delineation, if necessary.

j. A signed AEC hazard notice for projects in oceanfront and inlet areas. *(Must be signed by property owner)*

k. A statement of compliance with the N.C. Environmental Policy Act (N.C.G.S. 113A 1-10), if necessary. If the project involves expenditure of public funds or use of public lands, attach a statement documenting compliance with the North Carolina Environmental Policy Act.

7. Certification and Permission to Enter on Land

I understand that any permit issued in response to this application will allow only the development described in the application. The project will be subject to the conditions and restrictions contained in the permit.

I certify that I am authorized to grant, and do in fact grant permission to representatives of state and federal review agencies to enter on the aforementioned lands in connection with evaluating information related to this permit application and follow-up monitoring of the project.

I further certify that the information provided in this application is truthful to the best of my knowledge.

Date 4.3.13 Print Name Gregory J. Thayer PhD

Signature E. L. Lusk for

Please indicate application attachments pertaining to your proposed project.

☒DCM MP-2 Excavation and Fill Information ☒DCM MP-5 Bridges and Culverts

☐DCM MP-3 Upland Development

☐DCM MP-4 Structures Information

North Carolina Department of Cultural Resources

State Historic Preservation Office

Peter B. Sandbeck, Administrator

Michael F. Easley, Governor
Lisbeth C. Evans, Secretary
Jeffrey J. Crow, Deputy Secretary

Office of Archives and History
Division of Historical Resources
David Brook, Director

December 11, 2008

MEMORANDUM

TO: Tracy Walter
Project Development and Environmental Analysis Branch
NCDOT Bridge Unit

FROM: Peter Sandbeck RBH for Peter Sandbeck

SUBJECT: Bridge 51 on US 13 over Cashie Creek, B-5122, Bertie County, ER 08-2887

We have conducted a review of the proposed undertaking and are aware of no historic resources which would be affected by the project. Therefore, we have no comment on the undertaking as proposed.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 codified at 36 CFR Part 800.

Thank you for your cooperation and consideration. If you have questions concerning the above comment, contact Renee Gledhill-Earley, environmental review coordinator, at 919-807-6579. In all future communication concerning this project, please cite the above referenced tracking number.

cc: Mary Pope Furr, NCDOT
Matt Wilkerson, NCDOT

Form DCM MP-2

EXCAVATION and FILL

(Except for bridges and culverts)

Attach this form to Joint Application for CAMA Major Permit, Form DCM MP-1. Be sure to complete all other sections of the Joint Application that relate to this proposed project. Please include all supplemental information.

Describe below the purpose of proposed excavation and/or fill activities. **All values should be given in feet.**

	Access Channel (NLW or NWL)	Canal	Boat Basin	Boat Ramp	Rock Groin	Rock Breakwater	Other (excluding shoreline stabilization)
Length							820
Width							51
Avg. Existing Depth					NA	NA	13
Final Project Depth					NA	NA	15

1. EXCAVATION

☐ *This section not applicable*

a. Amount of material to be excavated from below NHW or NWL in cubic yards.
0

b. Type of material to be excavated.
Dirt

c. (i) Does the area to be excavated include coastal wetlands/marsh (CW), submerged aquatic vegetation (SAV), shell bottom (SB), or other wetlands (WL)? If any boxes are checked, provide the number of square feet affected.
☐CW _____ ☐SAV _____ ☐SB _____
☒WL 405 ☐None

(ii) Describe the purpose of the excavation in these areas:
Utility relocations (see Utility Drawings and Narrative)

d. High-ground excavation in cubic yards.
305

2. DISPOSAL OF EXCAVATED MATERIAL

☐ *This section not applicable*

a. Location of disposal area.
Temporarily adjacent to the trench, then put back in.

b. Dimensions of disposal area.

c. (i) Do you claim title to disposal area?
☐Yes ☐No ☐NA

(ii) If no, attach a letter granting permission from the owner.

d. (i) Will a disposal area be available for future maintenance?
☐Yes ☐No ☐NA

(ii) If yes, where?

e. (i) Does the disposal area include any coastal wetlands/marsh (CW), submerged aquatic vegetation (SAV), shell bottom (SB), or other wetlands (WL)? If any boxes are checked, provide the number of square feet affected.
☐CW _____ ☐SAV _____ ☐SB _____
☐WL _____ ☒None

(ii) Describe the purpose of disposal in these areas:

f. (i) Does the disposal include any area in the water?
☐Yes ☒No ☐NA

(ii) If yes, how much water area is affected?

3. SHORELINE STABILIZATION

☐ *This section not applicable*

(If development is a wood groin, use MP-4 – Structures)

a. Type of shoreline stabilization:
☐Bulkhead ☐Riprap ☐Breakwater/Sill ☐Other: N/A

b. Length: _____
Width: _____

c. Average distance waterward of NHW or NWL:

d. Maximum distance waterward of NHW or NWL:

e. Type of stabilization material:

f. (i) Has there been shoreline erosion during preceding 12 months?
☐Yes ☒No ☐NA
(ii) If yes, state amount of erosion and source of erosion amount information.

g. Number of square feet of fill to be placed below water level.
Bulkhead backfill _____ Riprap _____
Breakwater/Sill _____ Other _____

h. Type of fill material.
N/A

i. Source of fill material.

4. OTHER FILL ACTIVITIES
(Excluding Shoreline Stabilization)

☐*This section not applicable*

a. (i) Will fill material be brought to the site? ☒Yes ☐No ☐NA
If yes,
(ii) Amount of material to be placed in the water 0
(iii) Dimensions of fill area _____
(iv) Purpose of fill

b. (i) Will fill material be placed in coastal wetlands/marsh (CW), submerged aquatic vegetation (SAV), shell bottom (SB), or other wetlands (WL)? If any boxes are checked, provide the number of square feet affected.
☐CW _____ ☐SAV _____ ☐SB _____
☒WL 29,500 ☐None
(ii) Describe the purpose of the fill in these areas:
Facility/ Shoulder widening; Construction access

5. GENERAL

a. How will excavated or fill material be kept on site and erosion controlled?
The amount is too small and temporary to propose erosion control.

b. What type of construction equipment will be used (e.g., dragline, backhoe, or hydraulic dredge)?
Something like a backhoe.

c. (i) Will navigational aids be required as a result of the project?
☐Yes ☒No ☐NA
(ii) If yes, explain what type and how they will be implemented.

d. (i) Will wetlands be crossed in transporting equipment to project site? ☐Yes ☒No ☐NA
(ii) If yes, explain steps that will be taken to avoid or minimize environmental impacts.

4.3.13
Date

B-5122
Project Name

Gregory J. Thorpe, PhD NCDOT
Applicant Name

E. L. Lusk for
Applicant Signature

Form DCM MP-5

BRIDGES and CULVERTS

Attach this form to Joint Application for CAMA Major Permit, Form DCM MP-1. Be sure to complete all other sections of the Joint Application that relate to this proposed project. Please include all supplemental information.

1. BRIDGES

☐ *This section not applicable*

a. Is the proposed bridge:
☐Commercial ☒Public/Government ☐Private/Community

b. Water body to be crossed by bridge:
Cashie River

c. Type of bridge (construction material):
3@ 60'; 36" Prestressed Girders w/ Vertical Abutments

d. Water depth at the proposed crossing at NLW or NWL:
NWL- 3.5'

e. (i) Will proposed bridge replace an existing bridge? ☒Yes ☐No
If yes,
(ii) Length of existing bridge: 149'
(iii) Width of existing bridge: 26'
(iv) Navigation clearance underneath existing bridge: 16.8'
(v) Will all, or a part of, the existing bridge be removed? (Explain) All of the existing bridge will be removed and a portion of the road fill will be removed as well. Remnant pipes will be cut at the mudline if not pulled out.

f. (i) Will proposed bridge replace an existing culvert? ☐Yes ☒No
If yes,
(ii) Length of existing culvert: _____
(iii) Width of existing culvert: _____
(iv) Height of the top of the existing culvert above the NHW or NWL: _____
(v) Will all, or a part of, the existing culvert be removed? (Explain)

g. Length of proposed bridge: 180'

h. Width of proposed bridge: 36'

i. Will the proposed bridge affect existing water flow? ☒Yes ☐No
If yes, explain: Longer Bridge and removed fill will improve bridge conveyance and reduce velocities.

j. Will the proposed bridge affect navigation by reducing or increasing the existing navigable opening? ☒Yes ☐No
If yes, explain: Bridge opening will increase in width by 39 ft. and the vertical clearance will decrease by less than 1 ft.

k. Navigation clearance underneath proposed bridge: 16'

l. Have you contacted the U.S. Coast Guard concerning their approval? ☒Yes ☐No
If yes, explain: NCDOT's letter to FHWA concerning the USCG responsibility was forwarded to the USCG by FHWA.

m. Will the proposed bridge cross wetlands containing no navigable waters? ☐Yes ☒No
If yes, explain:

n. Height of proposed bridge above wetlands: 12'

2. CULVERTS

☒ *This section not applicable*

a. Number of culverts proposed: _____

b. Water body in which the culvert is to be placed:

< Form continues on back>

c. Type of culvert (construction material):

d. (i) Will proposed culvert replace an existing bridge? ☐Yes ☐No

If yes,

(ii) Length of existing bridge: _____

(iii) Width of existing bridge: _____

(iv) Navigation clearance underneath existing bridge: _____

(v) Will all, or a part of, the existing bridge be removed? (Explain)

_____

_____

_____

e. (i) Will proposed culvert replace an existing culvert? ☐Yes ☐No

If yes,

(ii) Length of existing culvert(s): _____

(iii) Width of existing culvert(s): _____

(iv) Height of the top of the existing culvert above the NHW or NWL: _____

(v) Will all, or a part of, the existing culvert be removed? (Explain)

_____

_____

_____

f. Length of proposed culvert: _____

g. Width of proposed culvert: _____

h. Height of the top of the proposed culvert above the NHW or NWL.

_____

i. Depth of culvert to be buried below existing bottom contour.

_____

j. Will the proposed culvert affect navigation by reducing or increasing the existing navigable opening? ☐Yes ☐No

If yes, explain:

_____

_____

_____

k. Will the proposed culvert affect existing water flow? ☐Yes ☐No

If yes, explain:

_____

_____

_____

3. EXCAVATION and FILL

☐*This section not applicable*

a. (i) Will the placement of the proposed bridge or culvert require any excavation below the NHW or NWL? ☐Yes ☒No

If yes,

(ii) Avg. length of area to be excavated: _____

(iii) Avg. width of area to be excavated: _____

(iv) Avg. depth of area to be excavated: _____

(v) Amount of material to be excavated in cubic yards: _____

b. (i) Will the placement of the proposed bridge or culvert require any excavation within coastal wetlands/marsh (CW), submerged aquatic vegetation (SAV), shell bottom (SB), or other wetlands (WL)? If any boxes are checked, provide the number of square feet affected.

☐CW _____ ☐SAV _____ ☐SB _____

☐WL _____ ☒None

(ii) Describe the purpose of the excavation in these areas:

_____

_____

_____

c. (i) Will the placement of the proposed bridge or culvert require any high-ground excavation? ☒Yes ☐No

If yes,

(ii) Avg. length of area to be excavated: 18'

(iii) Avg. width of area to be excavated: 68'

(iv) Avg. depth of area to be excavated: 5'

(v) Amount of material to be excavated in cubic yards: 227

d. If the placement of the bridge or culvert involves any excavation, please complete the following:

(i) Location of the spoil disposal area: Approved DOT Site

(ii) Dimensions of the spoil disposal area: To be determined

(iii) Do you claim title to the disposal area? ☐Yes ☐No *(If no, attach a letter granting permission from the owner.)*

(iv) Will the disposal area be available for future maintenance? ☐Yes ☐No

(v) Does the disposal area include any coastal wetlands/marsh (CW), submerged aquatic vegetation (SAVs), other wetlands (WL), or shell bottom (SB)?

☐CW ☐SAV ☐WL ☐SB ☒None

If any boxes are checked, give dimensions if different from (ii) above.

(vi) Does the disposal area include any area below the NHW or NWL? ? ☐Yes ☒No

If yes, give dimensions if different from (ii) above.

e. (i) Will the placement of the proposed bridge or culvert result in any fill (other than excavated material described in Item **d** above) to be placed below NHW or NWL? ☐Yes ☒No

If yes,

(ii) Avg. length of area to be filled: _____

(iii) Avg. width of area to be filled: _____

(iv) Purpose of fill:

f. (i) Will the placement of the proposed bridge or culvert result in any fill (other than excavated material described in Item **d** above) to be placed within coastal wetlands/marsh (CW), submerged aquatic vegetation (SAV), shell bottom (SB), or other wetlands (WL)? If any boxes are checked, provide the number of square feet affected.

☐CW _____ ☐SAV _____ ☐SB _____

☒WL 29,500 ☐None

(ii) Describe the purpose of the excavation in these areas:

The purpose of the FILL is for the roadway shoulders.

g. (i) Will the placement of the proposed bridge or culvert result in any fill (other than excavated material described in Item **d** above) to be placed on high-ground? ☒Yes ☐No

If yes,

(ii) Avg. length of area to be filled: 760'

(iii) Avg. width of area to be filled: 50'

(iv) Purpose of fill: Road facility improvement/ Lane and shoulder widening

4. GENERAL

a. Will the proposed project require the relocation of any existing utility lines? ☒Yes ☐No

If yes, explain: See Utility Drawings and Narrative.

If this portion of the proposed project has already received approval from local authorities, please attach a copy of the approval or certification.

b. Will the proposed project require the construction of any temporary detour structures? ☐Yes ☒No

If yes, explain:

< Form continues on back>

c. Will the proposed project require any work channels? ☐Yes ☒No

If yes, complete Form DCM-MP-2.

d. How will excavated or fill material be kept on site and erosion controlled?

Using NCDOT Best Management Practices for Sediment and Erosion Control.

e. What type of construction equipment will be used (for example, dragline, backhoe, or hydraulic dredge)?

Crane, Bulldozer, Dump Truck, Motor Grader

f. Will wetlands be crossed in transporting equipment to project site?

☐Yes ☒No

If yes, explain steps that will be taken to avoid or minimize environmental impacts.

g. Will the placement of the proposed bridge or culvert require any shoreline stabilization? ☐Yes ☒No

If yes, complete form MP-2, Section 3 for Shoreline Stabilization only.

4.3.13

Date

B-5122

Project Name

Gregory J. Thorpe, PhD NCDOT

Applicant Name

E. L. Lusk for

Applicant Signature

Ecosystem Enhancement PROGRAM

January 22, 2013

Mr. Gregory J. Thorpe, Ph.D.
Manager, Project Development and Environmental Analysis Unit
North Carolina Department of Transportation
1548 Mail Service Center
Raleigh, North Carolina 27699-1548

Dear Dr. Thorpe:

Subject: EEP Mitigation Acceptance Letter:

B-5122, Replace Bridge Number 51 over the Cashie River on US 13, Bertie County

The purpose of this letter is to notify you that the Ecosystem Enhancement Program (EEP) will provide the compensatory riparian wetland mitigation for the subject project. Based on the information supplied by you on January 18, 2013, the impacts are located in CU 03010107 of the Roanoke River basin in the Northern Outer Coastal Plain (NOCP) Eco-Region, and are as follows:

Roanoke 03010107 NOCP	Stream			Wetlands			Buffer (Sq. Ft.)	
	Cold	Cool	Warm	Riparian	Non-Riparian	Coastal Marsh	Zone 1	Zone 2
Impacts (feet/acres)	0	0	0	0.67	0	0	0	0

This impact and associated mitigation need were under projected by the NCDOT in the 2012 impact data. EEP will commit to implement sufficient compensatory riparian wetland mitigation credits to offset the impacts associated with this project as determined by the regulatory agencies using the delivery timeline listed in Section F.3.c.iii of the N.C. Department of Environment and Natural Resources' Ecosystem Enhancement Program In-Lieu Fee Instrument dated July 28, 2010. If the above referenced impact amounts are revised, then this mitigation acceptance letter will no longer be valid and a new mitigation acceptance letter will be required from EEP.

If you have any questions or need additional information, please contact Ms. Beth Harmon at 919-707-8420.

Sincerely,

James B. Stanfill for

Suzanne Klimek
EEP Acting Director

cc: Mr. Bill Biddlecome, USACE – Washington Regulatory Field Office
Ms. Amy Chapman, Division of Water Quality, Wetlands/401 Unit
File: B-5122

NCDOT Highway Stormwater Program

(Version 1.2; Released September 2011)

North Carolina Department of Transportation

Highway Stormwater Program
STORMWATER MANAGEMENT PLAN
FOR LINEAR ROADWAY PROJECTS

Project/TIP No.: B-5122 (42264.1.1) **County(ies):** Bertie

General Project Information

Project No.:	B-5122 (42264.1.1)		**Project Type:**	Bridge Replacement	**Date:** 11/7/2011
NCDOT Contact:	Randy Henegar, P.E.		**Contractor / Designer:**	N/A	
	Address: 1020 Birch Ridge Dr. Raleigh, N.C. 27610			**Address:**	
	Phone: 919-707-6726			**Phone:**	
	Email: rhenegar@ncdot.gov			**Email:**	
City/Town:	Windsor		**County(ies):**	Bertie	
River Basin(s):	Roanoke		**CAMA County?**	Yes	
Primary Receiving Water:	Cashie River		**NCDWQ Stream Index No.:**	24-2-(1)	
NCDWQ Surface Water Classification for Primary Receiving Water	**Primary:**		Class C		
	Supplemental:		Swamp Waters (Sw)		
Other Stream Classification:	None				
303(d) Impairments:	None				
Buffer Rules in Effect	N/A				

Project Description

Project Length (lin. Miles or feet):	0.296 miles	**Surrounding Land Use:**	Residential; Farmland	
	Proposed Project		**Existing Site**	
Project Built-Upon Area (ac.)	0.60	ac.	0.51	ac.
Typical Cross Section Description:	24-foot pavement width providing two 12-foot lanes. Eight-foot shoulders, four foot which is paved.		22-foot pavement width with 6-foot grass shoulders.	
Average Daily Traffic (veh/hr/day):	Design/Future:	13,115	Existing:	7885
General Project Narrative:				

References

NCDOT Highway Stormwater Program

(Version 1.2; Released September 2011)

North Carolina Department of Transportation

Highway Stormwater Program

STORMWATER MANAGEMENT PLAN

FOR LINEAR ROADWAY PROJECTS

Project/TIP No.: B-5122 (42264.1.1) **County(ies):** Bertie

Project Environmental Summary

Surface Water Impacts

Sheet No.	Station (From / To)	Feature Impacted	Water / Wetland / Buffer Type	Receiving Surface Water Name	NRTR Map ID	NCDWQ Stream Index	NCDWQ Surface Water Classification	303(d) Impairments	Type of Impact	Existing SCM	Proposed SCM
	13+30 23+50	Wetland	Unknown	Cashie River	Cashie River	24-2-(1)	Class C; Sw	None	Fill	N/A	

* List all stream and surface water impact locations regardless of jurisdiction or size.

Equalizer Pipes to be noted as a minimization of impacts.

All proposed SCMs listed must also be listed under Swales, Preformed Sour Holes and other Energy Dissipators, or Other Stormwater Control Measures.

Description of Minimization of Impacts or Mitigation

References

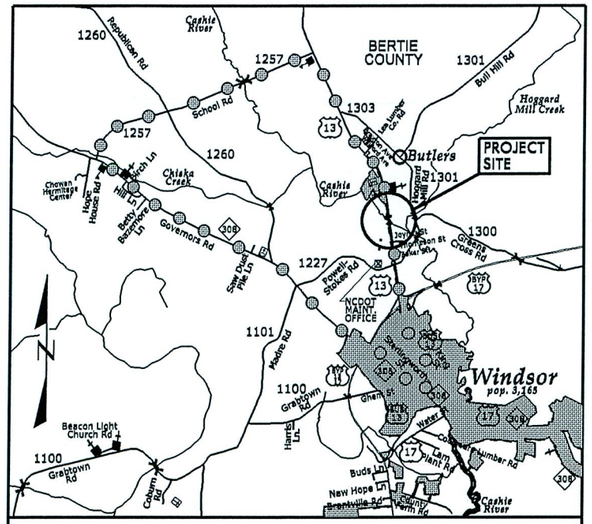
05/08/59

TIP PROJECT: B-5122

CONTRACT: C203025

SYSTIME$$$$$$$$
USERNAME$$$$$$$$
DGN$$$$$$$$

See Sheet 1-A For Index of Sheets
See Sheet 1-B For Symbology



VICINITY MAP (N.T.S.)

OFFSITE DETOUR

ROW PLANS

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-5122	1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
42264.1.1	BRNHS-13(24)	PE
42264.2.1	BRNHS-13(24)	RW & UTIL

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

BERTIE COUNTY

LOCATION: BRIDGE NO. 51, OVER THE CASHIE RIVER, ON US 13

TYPE OF WORK: GRADING, DRAINAGE, PAVING, & STRUCTURE.

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

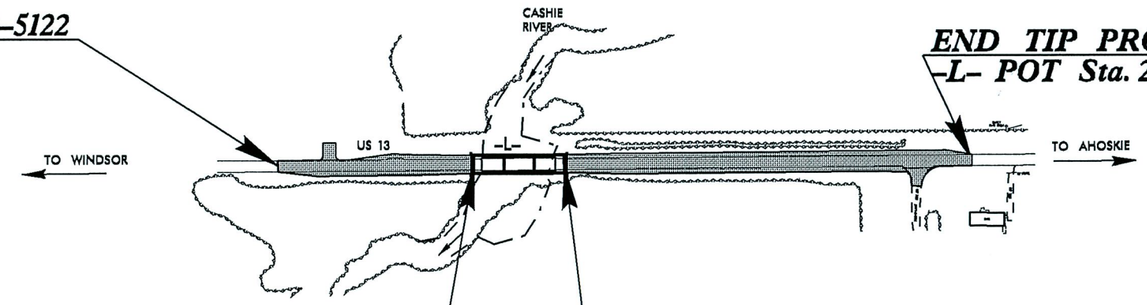
Permit Drawing
Sheet 1 of 13

NC GRID
NAD 83 (CORS 86)

WETLAND AND STREAM IMPACTS

BEGIN TIP PROJECT B-5122
-L- POT Sta. 11+25.00

END TIP PROJECT B-5122
-L- POT Sta. 25+00.00

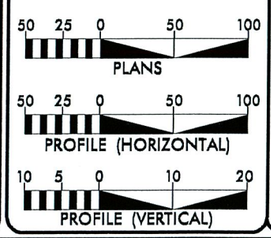


BEGIN BRIDGE
-L- POT STA. 15+11.00

END BRIDGE
-L- POT STA. 16+99.00

CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.
THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF THE TOWN OF WINDSOR.

GRAPHIC SCALES



DESIGN DATA

ADT 2012 =	7,885
ADT 2032 =	13,115
DHV =	11 %
D =	55 %
T =	12 % *
V =	60 MPH
* (TTST 5% +	DUALS 7%)
FUNC. CLASS. =	MINOR ART.
TIER CLASS. =	STATEWIDE

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT B-5122	=	*0.226 mile*
LENGTH STRUCTURE TIP PROJECT B-5122	=	*0.036 mile*
TOTAL LENGTH TIP PROJECT B-5122	=	*0.296 mile*

Prepared in the Office of:
DIVISION OF HIGHWAYS
1000 Birch Ridge Dr., Raleigh NC, 27610

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: NOVEMBER 30, 2011

LETTING DATE: JUNE 18, 2013

BRENDA MOORE, PE
PROJECT ENGINEER

TATIA L. WHITE, PE
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: *P.E.*

ROADWAY DESIGN ENGINEER

SIGNATURE: *P.E.*

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

P.E.
STATE HIGHWAY DESIGN ENGINEER

PROJECT REFERENCE NO.	SHEET NO.
B-5122	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 2 of 13

NC GRID
NAD 83 (CORS 86)

REVISIONS

02/22/12 – R/W REVISION: REVISED EXISTING RIGHT OF WAY WHICH REDUCED THE PROPOSED RIGHT OF WAY ON PARCELS 1,2,3,5 AND 6; ADJUSTED PERMANENT UTILITY EASEMENT FROM -L- STA 11+25 TO -L- STA 13+85 LT. ON PARCEL 1; ADJUSTED PROPOSED RIGHT OF WAY AND PERMANENT UTILITY EASEMENT FROM -L- STA 11+25 TO -L- STA 11+87 ON PARCEL 4; ADJUSTED PERMANENT UTILITY EASEMENT AND DRAINAGE UTILITY EASEMENT FROM -L- STA 11+87 TO -L- STA 13+25 ON PARCEL 5; CHANGED PROPERTY OWNER NAME ON PARCEL 2. – TLW

04/13/12 – R/W REVISION: REMOVED THE RIGHT OF WAY MONUMENTS FROM -L- STATION 21+00.00 LEFT AND RIGHT. – TLW

8/17/99

POT Sta. 10+00.00

10+00

15+00

20+00

MATCH LINE -L- STATION 21+00.00

1 POWELL & STOKES, INC

2 WILLIAM POWELL, et al

3 WILLIAM R. COWPER, III, et ux

4 R. V. THOMPSON, JR. et ux

5 THOMPSON & COMPANY, INC

6 RICKY K. SPIVEY, et ux

CULT

WOODS

PUE

DUE

EXISTING R/W

50'

100'

30'

US 13 22' BST

GRAIL

BRIDGE #51

-L-

LIMIT OF EXCAVATION

OASHE RIVER

HIGHWATER MARK=14.0'
HURRICANE "FLOYD 1999"

F F DENOTES FILL IN WETLAND

HC HC DENOTES HAND CLEARING

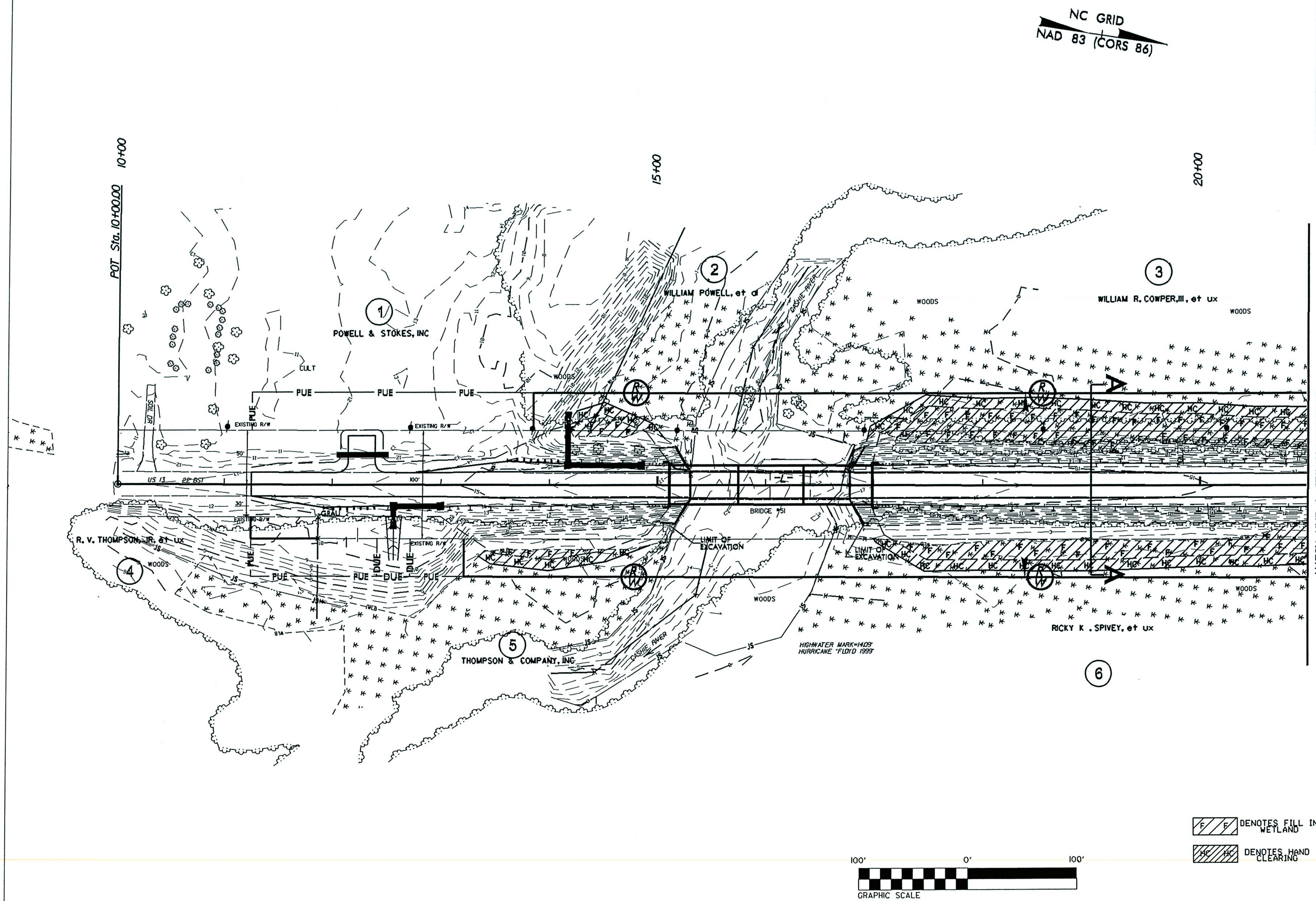
100' 0' 100'
GRAPHIC SCALE

$$$$$$$$SYSTIME$$$$$$$$
$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$$$$FILENAME$$$$$$$$

PROJECT REFERENCE NO.	SHEET NO.
B-5122	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 3 of 13



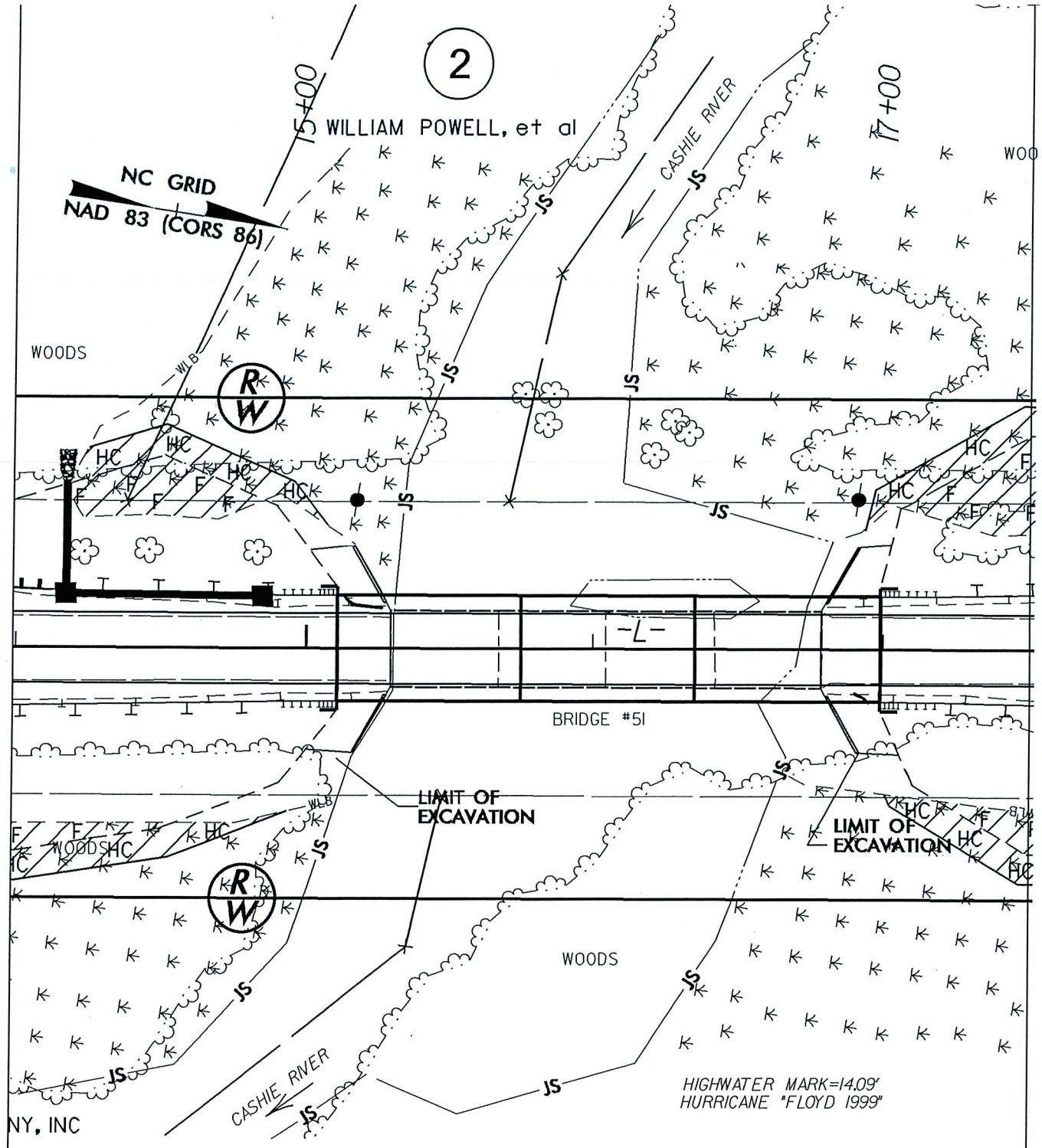
REVISIONS

02/22/12 – R/W REVISION: REVISED EXISTING RIGHT OF WAY WHICH REDUCED THE PROPOSED RIGHT OF WAY ON PARCELS 1,2,3,5 AND 6; ADJUSTED PERMANENT UTILITY EASEMENT FROM -L- STA. 11+25 TO -L- STA. 13+85 LT. ON PARCEL 1; ADJUSTED PROPOSED RIGHT OF WAY AND PERMANENT UTILITY EASEMENT FROM -L- STA 11+25 TO -L- STA. 11+87 ON PARCEL 4; ADJUSTED PERMANENT UTILITY EASEMENT AND DRAINAGE UTILITY EASEMENT FROM -L- STA 11+87 TO -L- STA. 13+25 ON PARCEL 5; CHANGED PROPERTY OWNER NAME ON PARCEL 2. – TLW

04/13/12 – R/W REVISION: REMOVED THE RIGHT OF WAY MONUMENTS FROM -L- STATION 21+00.00 LEFT AND RIGHT. – TLW

8/17/99

$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$$



HC HC DENOTES HAND CLEARING

F F DENOTES FILL IN WETLAND

SITE

Permit Drawing
Sheet 4 of 13

0' 50' 100'

GRAPHIC SCALE

NCDOT

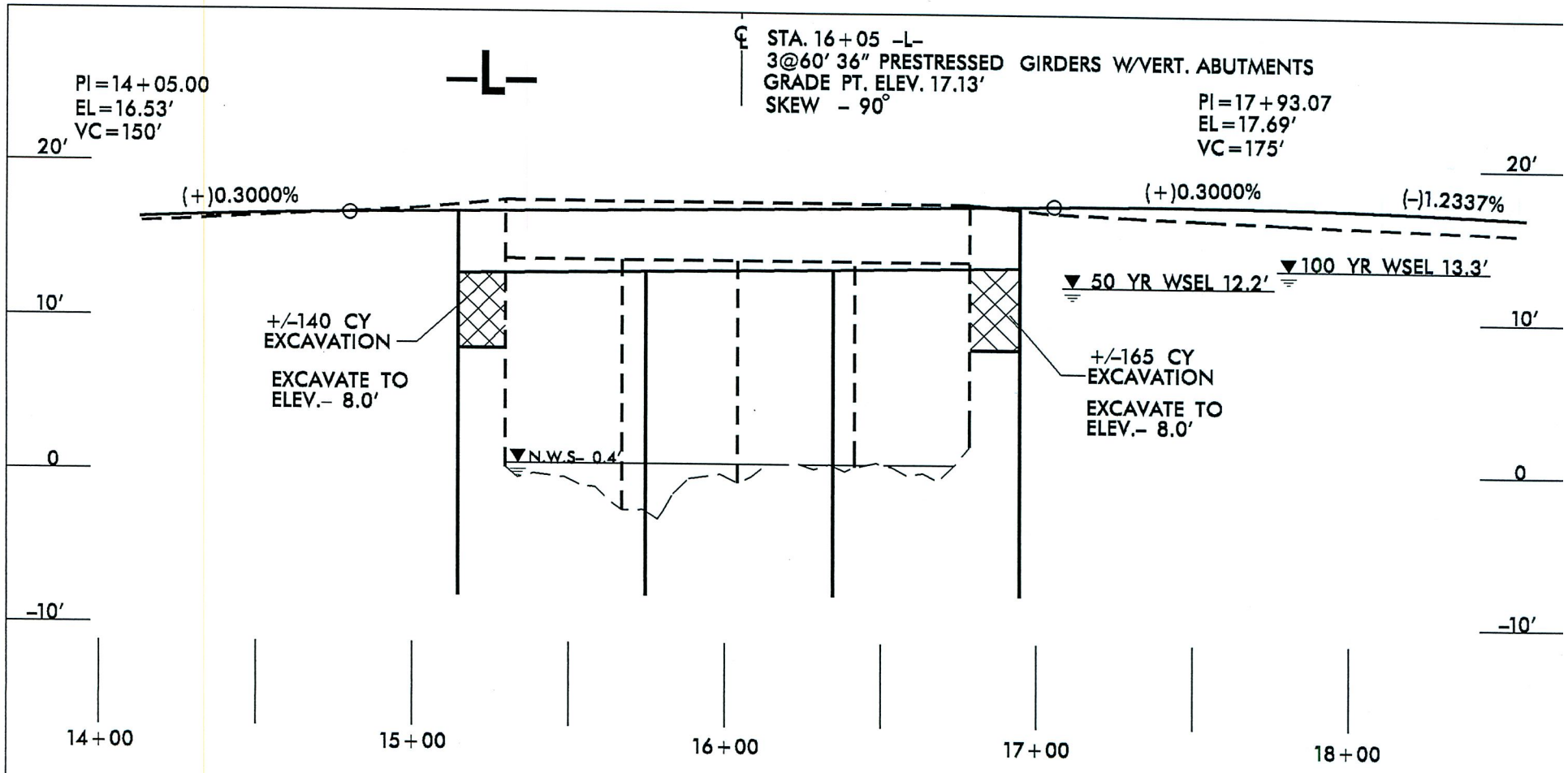
DIVISION OF HIGHWAYS

BERTIE COUNTY

PROJECT: 42264.1.1 (B-5122)

REPLACE BRG# 51 OVER THE CASHIE RIVER ON US 13

SHEET OF



PROFILE

0' 100'

HORIZONTAL SCALE

0' 10' 20'

VERTICAL SCALE

Permit Drawing
Sheet 5 of 13

NCDOT

DIVISION OF HIGHWAYS
BERTIE COUNTY
PROJECT: 42264.1.1 (B-5122)

REPLACE BRIDGE #51 OVER
THE CASHIE RIVER ON US 13

SHEET OF 11/13/12

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	B-5122	X-5

F F DENOTES FILL IN WETLAND

Permit Drawing
Sheet 6 of 13

0.022 0.028
14.69
3:1 3:1
F F F F
20+50.00

0.025 0.025
15.11
3:1 3:1
F F F F
20+00.00

0.025 0.025
15.44
3:1 3:1
F F F F
19+50.00

0.025 0.025
15.64
3:1 3:1
F F F F
SECTION A-A
19+00.00

—L—

$$$$$$$SYSTIME$$$$$$$
$$$$$$$USERNAME$$$$$$$
$$$$$$$DGN$$$$$$$

PROJECT REFERENCE NO.	SHEET NO.
B-5122	5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NC GRID
NAD 83 (CORS 86)

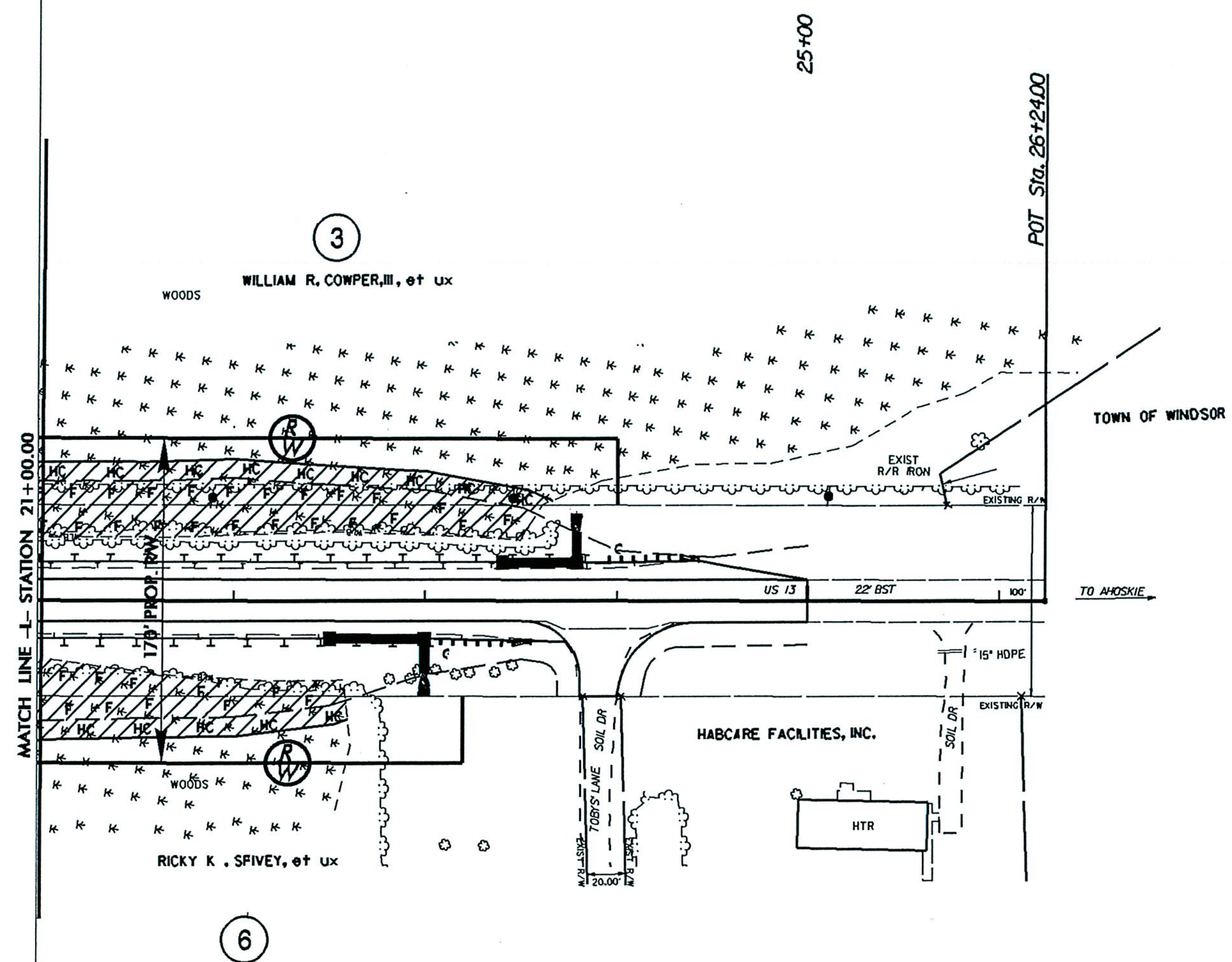
Permit Drawing
Sheet 7 of 13

REVISIONS

02/22/12 – R/W REVISION: REVISED EXISTING RIGHT OF WAY WHICH REDUCED THE PROPOSED RIGHT OF WAY ON PARCELS 1, 2, 3, 5 AND 6; ADJUSTED PERMANENT UTILITY EASEMENT FROM -L- STA. 11+25 TO -L- STA. 13+85 LT. ON PARCEL 1; ADJUSTED PROPOSED RIGHT OF WAY AND PERMANENT UTILITY EASEMENT FROM -L- STA 11+25 TO -L- STA 11+87 ON PARCEL 4; ADJUSTED PERMANENT UTILITY EASEMENT AND DRAINAGE UTILITY EASEMENT FROM -L- STA 11+87 TO -L- STA 13+25 ON PARCEL 5; CHANGED PROPERTY OWNER NAME ON PARCEL 2. – TLW

04/13/12 – R/W REVISION: EXTENDED PROPOSED RIGHT OF WAY TO -L- STATION 23+20.00 RIGHT ON PARCEL 3 AND -L- STATION 24+00 LEFT ON PARCEL 6 FOR THE PROJECT EXTENSION. – TLW

8/17/99



DENOTES FILL IN WETLAND

DENOTES HAND CLEARING

100' 0' 100'
GRAPHIC SCALE

NOTES:

1. SEE SHEET 6 FOR -L- PROFILE
2. SEE SHEETS S-1 THROUGH S-?? FOR STRUCTURE PLANS

$$$$$$SYSTIME$$$$$ $$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$ $$$$$USERNAME$$$$$

PROJECT REFERENCE NO.	SHEET NO.
B-5122___	5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NC GRID
NAD 83 (CORS 86)

Permit Drawing
Sheet 8 of 13

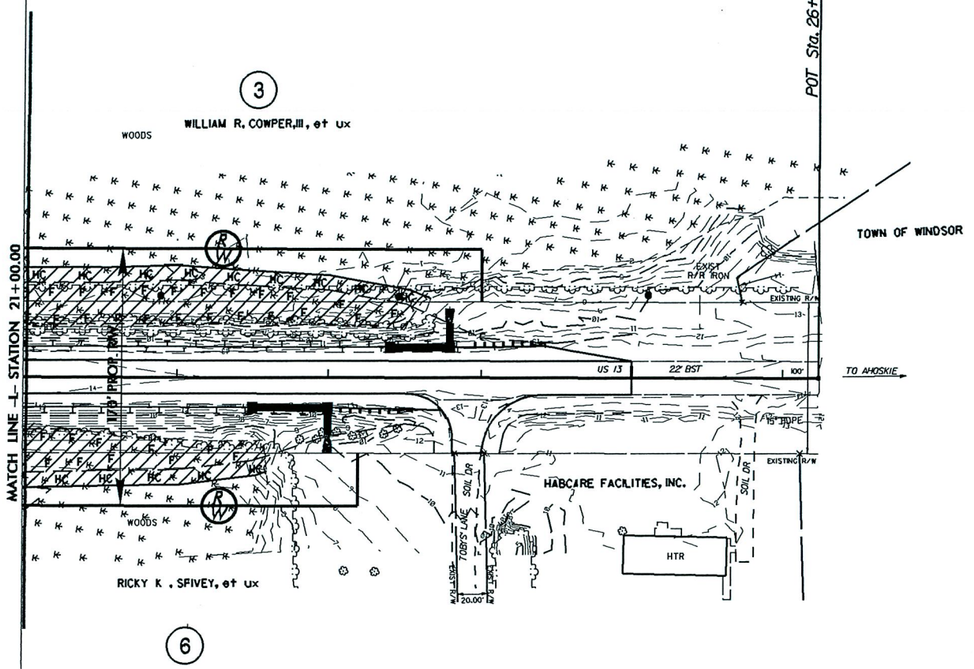
REVISIONS

02/22/12 – R/W REVISION: REVISED EXISTING RIGHT OF WAY WHICH REDUCED THE PROPOSED RIGHT OF WAY ON PARCELS 1, 2, 3, 5 AND 6; ADJUSTED PERMANENT UTILITY EASEMENT FROM –L– STA. 11+25 TO –L– STA. 13+85 LT. ON PARCEL 1; ADJUSTED PROPOSED RIGHT OF WAY AND PERMANENT UTILITY EASEMENT FROM –L– STA. 11+25 TO –L– STA. 11+87 ON PARCEL 4; ADJUSTED PERMANENT UTILITY EASEMENT AND DRAINAGE UTILITY EASEMENT FROM –L– STA. 11+87 TO –L– STA. 13+25 ON PARCEL 5; CHANGED PROPERTY OWNER NAME ON PARCEL 2. –TLW–

04/13/12 – R/W REVISION: EXTENDED PROPOSED RIGHT OF WAY TO –L– STATION 24+00 LEFT ON PARCEL 6 FOR THE PROJECT EXTENSION. –TLW

8/17/99

$$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$
$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$



NOTES:

1. SEE SHEET 6 FOR –L– PROFILE
2. SEE SHEETS S-1 THROUGH S-?? FOR STRUCTURE PLANS

PROJECT REFERENCE NO.	SHEET NO.
B-5122	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 9 of 13

NC GRID
NAD 83 (CORS 86)

POT Sta. 10+00.00

10+00

15+00

20+00

1 POWELL & STOKES, INC

2 WILLIAM POWELL, et al

3 WILLIAM R. COWPER, III, et ux

3 WILLIAM R. COWPER, III, et

4 R. V. THOMPSON, JR. et ux

5 THOMPSON & COMPANY, INC

6 RICKY K. SPIVEY, et ux

6 RICKY K. SPIVEY, et ux

CASHIE RIVER

CULT

WOODS

PUE

DUE

EXISTING R/W

US 13 22' BST

GRAVEL

BRIDGE #51

TEMPORARY WORK BRIDGE

HIGHWATER MARK=14.09'
HURRICANE "FLOYD 1999"

GUTTER

17.79' PROP. -L-

MATCH LINE -L- STATION 21+00.00

(F0) HH (F0) PED

100' 0' 100'
GRAPHIC SCALE

REVISIONS

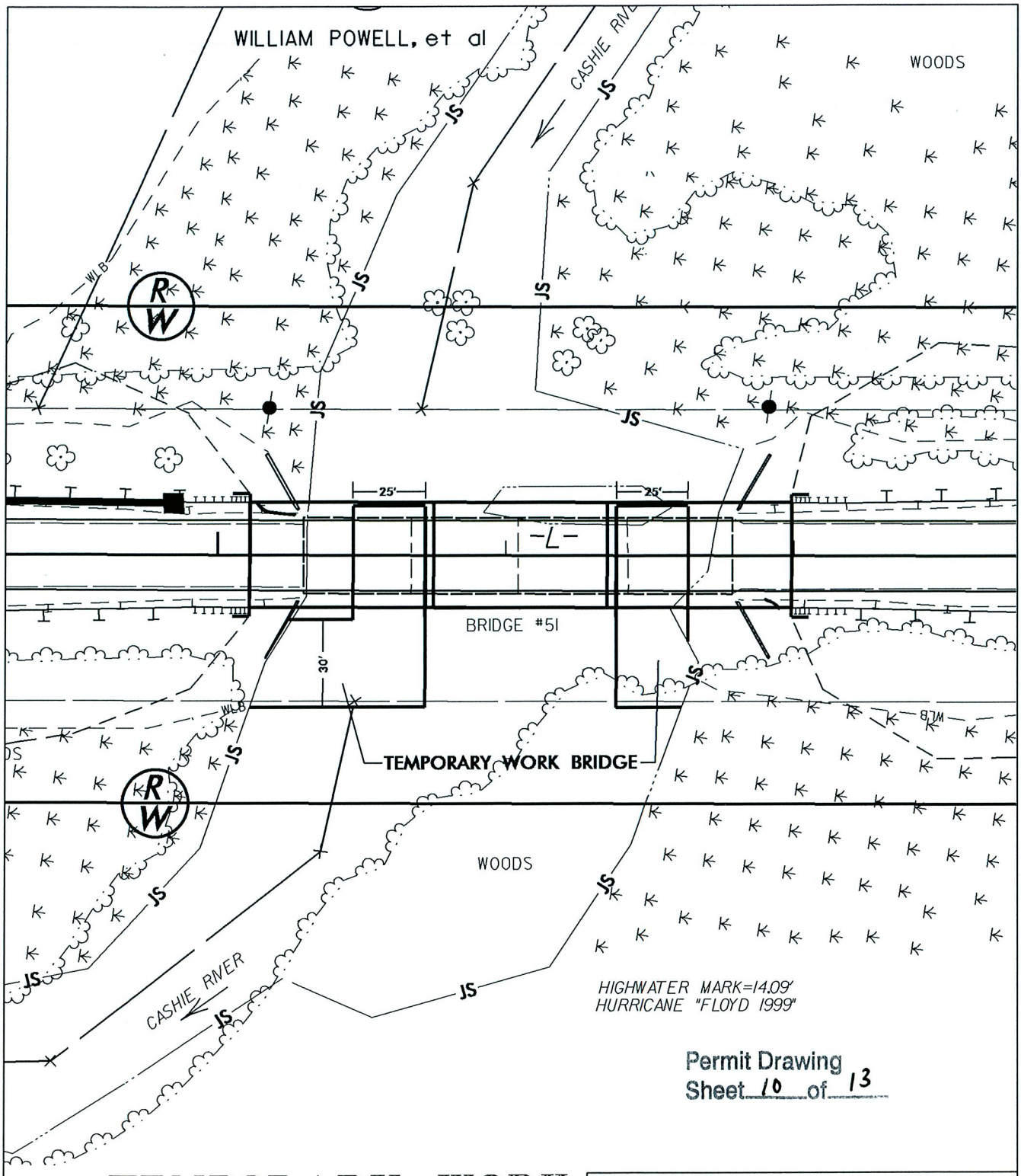
02/22/12 - R/W REVISION: REVISED EXISTING RIGHT OF WAY WHICH REDUCED THE PROPOSED RIGHT OF WAY ON PARCELS 1, 2, 3, 5 AND 6; ADJUSTED PERMANENT UTILITY EASEMENT FROM -L- STA. 11+25 TO -L- STA. 13+85 LT. ON PARCEL 1; ADJUSTED PROPOSED RIGHT OF WAY AND PERMANENT UTILITY EASEMENT FROM -L- STA. 11+87 ON PARCEL 4; ADJUSTED PERMANENT UTILITY EASEMENT AND DRAINAGE UTILITY EASEMENT FROM -L- STA 11+87 TO -L- STA. 13+25 ON PARCEL 5; CHANGED PROPERTY OWNER NAME ON PARCEL 2. - TLW

04/13/12 - R/W REVISION: REMOVED THE RIGHT OF WAY MONUMENTS FROM -L- STATION 21+00.00 LEFT AND RIGHT. - TLW

8/17/99

ROANOKE

$$$$$$SYSTIME$$$$$$
$$$$$$USERNAME$$$$$$



Permit Drawing
Sheet 10 of 13

TEMPORARY WORK BRIDGE

0' 100'

GRAPHIC SCALE

NCDOT

DIVISION OF HIGHWAYS
BERTIE COUNTY
PROJECT: 42264.1.1 (B-5122)

REPLACE BRG #51 OVER THE CASHIE RIVER ON US 13

SHEET OF

F.A. PROJECT NO. : BRNHS-0013(24)

15+00 15+50 16+00 16+50 17+00

GRADE DATA
+1.5407% △ +0.3000%
PI STA. = 14+05.00 -L-
EL. = 16.53'
VC = 150'

GRADE DATA
+0.3000% △ -1.2337%
PI STA. = 17+93.07 -L-
EL. = 17.69'
VC = 175'

SPAN A SPAN B SPAN C

FILL FACE @ INTEGRAL END BENT 1
STA. 15+11.00 -L-
GRADE PT. EL. 16.85

FIX. FIX. FIX. FIX. FIX.

1'-6" (TYP.)

EL. 17.6±

EXISTING SUBSTRUCTURE (TYP.)

HIGH WATER EL. 14.09 (9/99)

N.W.S. EL. 0.4±

EL. 16.7± EL. 8.6 EL. 6.0 EL. 0.2± EL. -0.2± EL. -1.0± EL. -2.5± EL. -3.1± EL. -0.5± EL. -0.7± EL. 0.5± EL. 0.5± EL. 0.2± EL. 0.1± EL. 0.6± EL. -0.1± EL. -0.5± EL. 17.5± EL. 8.9 EL. 6.0 EL. 1.7± EL. 17.0± EL. 16.7±

2'-0" THICK CLASS II RIP RAP (TYP.)

FILL FACE @ INTEGRAL END BENT 2
STA. 16+99.00 -L-
GRADE PT. EL. 17.41

16" SQUARE P/S CONC. PILE (TYP. EA. END BENT)

APPROX. NATURAL GROUND LINE

20" SQUARE P/S CONC. PILE (TYP. EA. BENT)

UNCLASSIFIED STRUCTURE EXCAVATION

20 10 0 -10

INTEGRAL END BENT 1 BENT 1 BENT 2 INTEGRAL END BENT 2

SECTION ALONG -L-

Permit Drawing
Sheet 11 of 13

CASHIE RIVER

JS JS JS JS JS JS JS JS

FILL FACE @ INTEGRAL END BENT 1

W.P. #1
STA. 15+11.00 -L-

TO SR 1301

BEGIN APPROACH SLAB
STA. 14+86.83 -L-

W.P. #2
STA. 15+75.00 -L-

BENT 1 CONTROL LINE

W.P. #3
STA. 16+35.00 -L-

BENT 2 CONTROL LINE

BRIDGE I.D.
STA. 16+05.00 -L-

90°-00'-00" (TYP.)

EXISTING STRUCTURE

22'-7½" (TYP.) 45'-3" (TYP.) 22'-7½" (TYP.)

18'-4" (TYP.) 36'-8" (TYP.) 18'-4" (TYP.)

25'-0" 25'-0"

30'-0"

TEMPORARY ACCESS TEMPORARY ACCESS

2'-0" THICK CLASS II RIP RAP (TYP.)

FILL FACE @ INTEGRAL END BENT 2

W.P. #4
STA. 16+99.00 -L-

-L-

TO SR 1302

END APPROACH SLAB
STA. 17+23.17 -L-

30'-0" 30'-0"

64'-0" SPAN A 60'-0" SPAN B 64'-0" SPAN C

188'-0" TOTAL LENGTH OF BRIDGE (FILL FACE TO FILL FACE)

PLAN

(PILES NOT SHOWN FOR CLARITY)

PROJECT NO. B-5122
BERTIE COUNTY
STATION: 16+05.00 -L-

SHEET 1 OF 2 REPLACES BRIDGE NO. 51

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

PRELIMINARY
GENERAL DRAWING
BRIDGE ON US 13 OVER
CASHIE RIVER BETWEEN
SR 1301 AND SR 1302

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			TOTAL SHEETS
2			4			

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

DRAWN BY : PEGGY ADKINS DATE : 8-29-12
CHECKED BY : O. PUIGCERVER DATE : 9-7-12

$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

PROPERTY OWNERS

NAMES AND ADDRESSES

PARCEL NO.	NAMES	ADDRESSES
1	Powell & Stokes, INC	217 US 13 N Windsor, N.C. 27983
2	William Powell, et. al	
3	William R. Cowper, III	
5	Thompson and Company	611 Greens Cross Roads Windsor, N.C. 27983
6	Ricky and Cynthia Spivey	611 Mt. Olive Road Windsor, N.C. 27983

Permit Drawing
Sheet 12 of 13

NCDOT

DIVISION OF HIGHWAYS

BERTIE COUNTY

REPLACE BRG#51 OVER
THE CASHIE RIVER ON US 13

SHEET OF 07/24/12

WETLAND PERMIT IMPACT SUMMARY

			WETLAND IMPACTS					SURFACE WATER IMPACTS				
Site No.	Station (From/To)	Structure Size / Type	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)
	13+30-L- to 23+50-L-		0.67				0.33					
TOTALS:			0.67				0.33					

TOTAL IMPACTS FROM PIERS ARE LESS THAN .01 AC.
0.06 acres of Temporary Fill in Wetlands in the Hand Clearing areas for Erosion Control measures

Permit Drawing
Sheet 13 of 13

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

BERTIE COUNTY
WBS - 42264.1.1 (B-5122)

SHEET 1/22/2013

ATN Revised 3/31/05

DIVISION OF HIGHWAYS
PDEA-OFFICE OF NATURAL ENVIRONMENT
JAN 22 2013

B-5122 NEU ENVIRONMENTAL PERMIT NARRATIVE

Town of Windsor – 6 inch force sewer main: The 6" force sewer main (Force Sanitary Sewer; 6" FSS) will be directionally bored outside of wetland boundaries on the south end of the project but will require open trenching (excavation of 4 foot trench) and hand clearing within wetland boundaries from approximately L-18+12 to L-19+14. Some of these impacts will occur in an area to be permitted for Fill due to the roadway/bridge facility, therefore they are not listed within the Utility Wetland Impact Summary Sheet. Contact: Mr. William Coburn – Public Works Director (water/sewer/power); Town of Windsor; P. O. Box 508; Windsor, NC 27983; office: 252-794-3121; cell: 252-724-0125.

Town of Askewville – 8 inch force sewer main: The 8" force sewer main (Force Sanitary Sewer; 8" FSS) will be directionally bored outside of wetland boundaries on the south end of the project but will require open trenching (excavation of 4 foot trench) and fill in the wetland within wetland boundaries from approximately L-18+06 to L-18+54. These impacts will occur in an area to be permitted for Fill due to the roadway/bridge facility, therefore they are not listed within the Utility Wetland Impact Summary Sheet. Contact: Town of Askewville; P. O. Box 655; Windsor, NC 27983-0655; Phone: 252-794-2553.

Century Link Telephone: The telephone line and multiuse poles will be relocated to the east side of the road within wetland boundaries. The poles are currently within wetland boundaries on the west side of the road. The two existing poles on the northern end of the project are within areas to be permitted for Fill due to the roadway facility. The existing pole on the southern end of the project will be removed with equipment staged in the area to be filled for the proposed bridge facility. The proposed multiuse poles will produce fill in the wetland and the area will be hand cleared for the overhead lines from L-18+91 to L-19+35 and L-13+48 to L-15+08. Contact: Mrs. Cecelia Price; CenturyLink; 1528 Brimley Drive; Greenville, NC 27834; Phone: 252-321-9401.

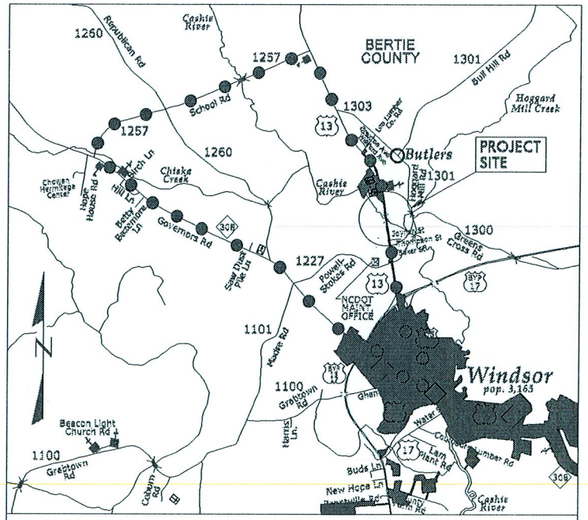
Piedmont Natural Gas – 12 inch gas line: The 12" gas line will be directionally bored outside of wetland boundaries on the south end of the pro54ct but will require open trenching (excavation of 4 foot trench) within wetland boundaries from approximately L-18+37 to L-19+47. Hand clearing will precede the excavation from approximately L-18+37 to L-19+47. These areas will be permitted by NCDOT Hydraulics. The remainder of wetland impacts associated with the gas line will be within areas to be permitted for Fill due to the roadway/bridge facility. Contact: Mr. John Hughes; Piedmont Natural Gas; 410 Dowd Street; Tarboro, NC 27886; Phone: 252-641-8411.

Bertie County – 8 inch water line – The 8" water line will be directionally bored outside the wetland boundaries on the southeast side of the project but will require open trenching (excavation of a 4 foot trench) from approximately L-12+16 to L-12+35 and L-20+43 to L-20+81 on the east side of the project. The open trenching is outside the wetland and will not impact the wetlands. Contact: Mr. Ricky Spivey Public Works Director Bertie County Water P.O. Box 487 Windsor, N.C. 27983 office 252-724-1671.

09/08/99

TIP PROJECT: B-5122

See Sheet 1-A For Index of Sheets
See Sheet 1-B For Symbology



ROW PLANS

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

T.I.P. NO.	SHEET NO.
B-5122	UC-1

NEU
UTILITY RELOCATION PLANS

NEU
UTILITY RELOCATION PLANS
BERTIE COUNTY

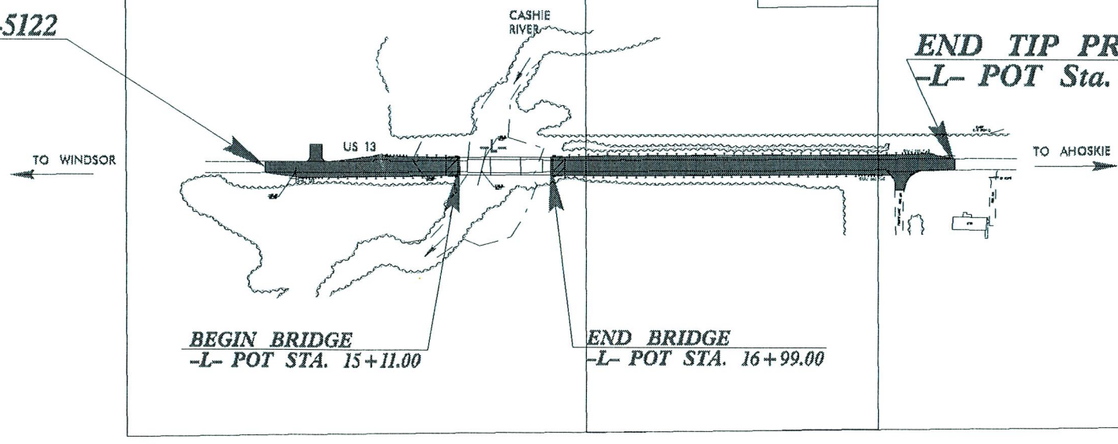
Utility Permit Drawing
Sheet 1 of 19

LOCATION: BRIDGE 51 OVER CASHIE RIVER ON US 13

TYPE OF WORK: RELOCATION OF GAS, WATER, FORCE MAIN AND TELEPHONE LINES

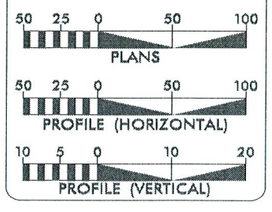
BEGIN TIP PROJECT B-5122
-L- POT Sta. 11+25.00

END TIP PROJECT B-5122
-L- POT Sta. 25+00.00



PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

GRAPHIC SCALES



INDEX OF SHEETS

SHEET NO.	DESCRIPTION
U-1	TITLE SHEET
U-2	UTILITY CONSTRUCTION PLAN SHEETS
U-3 THRU U-11	PROFILE SHEET(S)

WATER AND SEWER OWNERS ON PROJECT

(1) TOWN OF WINDSOR WATER
(2) BERTIE COUNTY WATER
(3) TOWN OF WINDSOR SEWER
(4) TOWN OF ASKEWVILLE SEWER

SEAL

PREPARED IN THE OFFICE OF:
DIVISION OF HIGHWAYS
UTILITIES ENGINEERING SECTION
1591 MAIL SERVICES CENTER
RALEIGH NC 27699-1591
PHONE (919) 707-6690
FAX (919) 250-4151

Roger Worthington, P.E. UTILITIES SECTION ENGINEER
Corey Bousquet, P.E. UTILITIES SQUAD LEADER PROJECT ENGINEER
Kelvin Martin UTILITIES PROJECT DESIGNER

15-NOV-2012 15:06
R:\Utilities\Rdy_Ut\Proj\ENVIRONMENTAL PERMIT\B-5122_Ut_NEUtsh.dgn
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
B-5122	UC-2
DESIGNED BY: KSM	
DRAWN BY: KSM	
CHECKED BY: CDB	
APPROVED BY: CDB	
REVISED:	

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
UTILITIES ENGINEERING SEC.
PHONE: (919) 707-8690
PHONE: (919) 250-4151
FAX: (919) 250-4151

UTILITY CONSTRUCTION PLANS ONLY

Utility Permit Drawing
Sheet 2 of 19
Revised 4-3-2013

UTILITY CONSTRUCTION

PROP. 12" GAS LINE

450' OF 8" TRENCHLESS INSTALLATION (IN SOIL)
50' OF 8"TRENCHLESS INSTALLATION (NOT IN SOIL)

NAD 83

BEGIN TRENCHLESS AT STA. 1+00 — TRENCHLESS INSTALLATION — END TRENCHLESS AT STA. 6+00

USE ROCK PLATING AT -L- STA. 14+60 TO 15+17
AND FROM -L- STA. 16+92 TO 17+40. SEE STANDARD
ROCK PLATING DETAIL, SHEET 2-B

BEGIN TRENCHLESS AT STA. 1+80 — TRENCHLESS INSTALLATION — END TRENCHLESS AT STA. 6+20

414' OF 6" TRENCHLESS INSTALLATION (IN SOIL)
46' OF 6" TRENCHLESS INSTALLATION (NOT IN SOIL)

10+00 | 15+00 | 20+00

-L- POT Sta. 10+00.00

NOTE: AIR RELEASE PIPING ASSOCIATED WITH THE 6' FSS LINE ATTACHED TO THIS POLE.

BEGIN STATE PROJECT B-5122
-L- POT Sta. 11+25.00

PROP. 786' OF 8" FORCE MAIN

6" INSERT VALVE

8" INSERT VALVE

PROP. 822' OF 6" FORCE MAIN

ABANDON 811' OF 6" UTILITY PIPE

ABANDON 776' OF 8" UTILITY PIPE

8" INSERT VALVE

6" INSERT

20'

11 1/4°

22 1/2°

22 1/2°

POWELL & STOKES, INC
DB 652 PG 934

WILLIAM POWELL, et al
DB 906 PG 440

CASHIE RIVER

CENTURY LINE

US 13 22 BST

R. V. THOMPSON, JR. et ux
DB 608 PG 697

THOMPSON & COMPAN
DB 308 PG 276
MB 01 PG 192

RICKY K. SPIVEY, et ux
DB 885 PG 822
PC C PG 282

BERTIE CO.

PIEDMONT

GRASS LINED STANDARD "V" DITCH SEE DETAIL A @ 10cy EXCAVATION

2 TONS CL 'B' RIP RAP

END BENT EXCAVATION
STRUCTURE PAY ITEM
CLASS II RIP RAP
STRUCTURE PAY ITEM

HIGHWATER MARK=14.0' HURRICANE 'FLOYD' 1999

LIMIT OF EXCAVATION

BRIDGE #51

-L-EL-

N 8°23'22.4"W

SITE 1
HAND CLEARING <0.01 ACRES
FILL IN WETLANDS <0.01 ACRES
EXCAVATION IN WETLANDS <0.01 ACRES

NEU
UTILITY RELOCATION
PLANS

SITE 2
HAND CLEARING = 0.04 ACRES
FILL IN WETLANDS < 0.01 ACRES

PROP. AERIAL TELEPHONE LINE

SITE 3
HAND CLEARING = 0.05 ACRES
FILL IN WETLANDS < 0.01 ACRES

OPEN CUT — TRENCHLESS INSTALLATION — OPEN CUT

BEGIN TRENCHLESS AT STA. 0+20

END TRENCHLESS AT STA. 8+40

DENOTES EXCAVATION IN WETLAND

DENOTES HAND CLEARING

DENOTES FILL IN WETLAND

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

5/14/99

03-APR-2013 14:08
J:\US\PROJ\ENVIRONMENTAL PERMIT\B-5122_Ut_NEUpsh01.dgn
USER:TIDENMORE

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
B-5122	UC-3
DESIGNED BY: KSM	
DRAWN BY: KSM	
CHECKED BY: CDB	
APPROVED BY: CDB	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE:(919)707-6690 FAX:(919)250-4151	UTILITY CONSTRUCTION PLANS ONLY

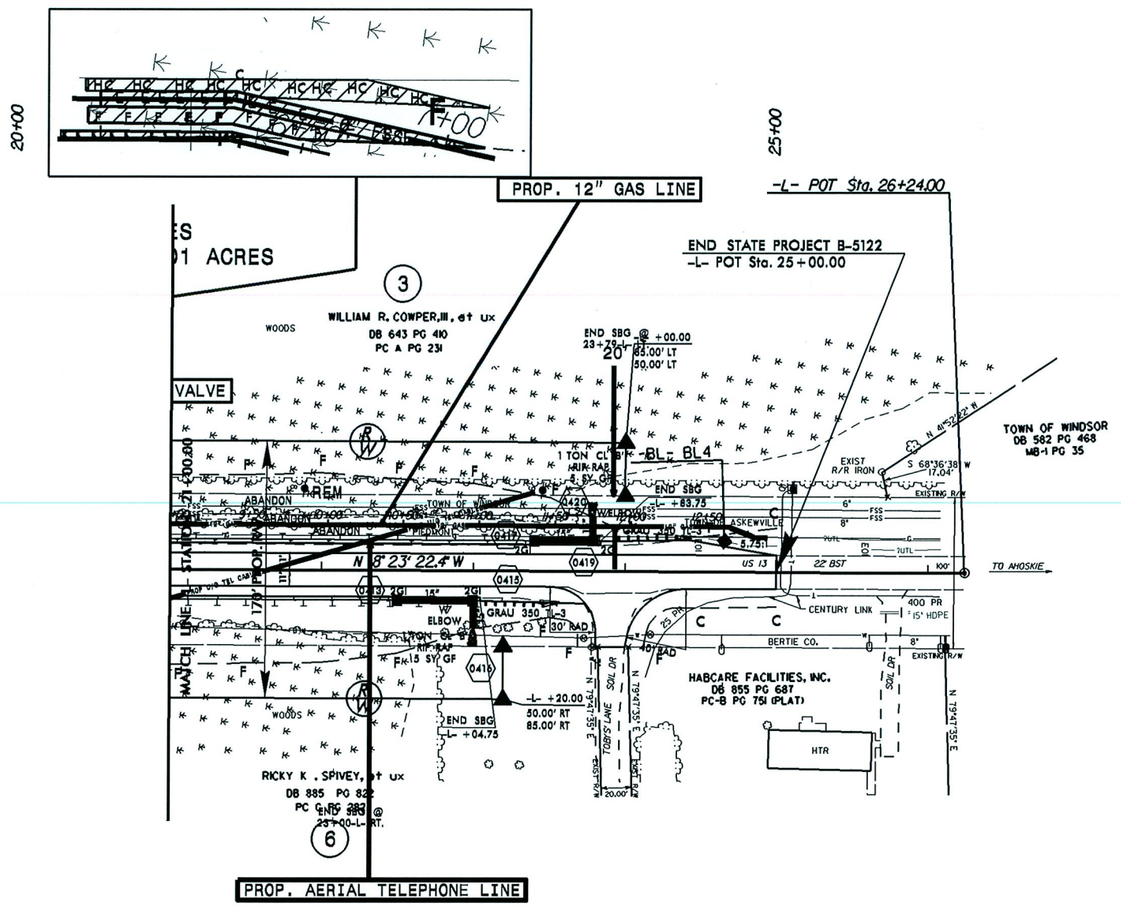
Utility Permit Drawing
Sheet 3 of 19
Revised 4-3-2013

NC GRID
NAD 83 (CORS 96)

PHONE:(919)707-6690
FAX:(919)250-4151

UTILITY CONSTRUCTION

NEU
UTILITY RELOCATION
PLANS



PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

03-APR-2013 14:05
U:\Engineering\ENVIRONMENTAL PERMIT\B-4561_Ut_NEUpsh02.dgn

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
B-5122	UC-4
DESIGNED BY: KSM	
DRAWN BY: KSM	
CHECKED BY: CDB	
APPROVED BY: CDB	
REVISED:	

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

UTILITIES ENGINEERING SEC.
PHONE: (919)707-6690
FAX: (919)250-4151

UTILITY CONSTRUCTION PLANS ONLY

Utility Permit Drawing
Sheet 4 of 12

UTILITY CONSTRUCTION

PROP. 1-6"-22 1/2° DI BEND
STA. 0+00 - HORIZONTAL

PROP. 6" GATE VALVE
STA. 0+10

PROP. 1-6"-22 1/2° DI BEND
STA. 0+96 - HORIZONTAL

EXISTING GRADE

WETLAND BOUNDARY

6" DI FORCE MAIN

OPEN CUT

BEGIN TRENCHLESS INSTALLATION STA. 1+60

STA. 1+60

80 70 60 50 40 30 20 10 0 -10 -20 -30 -40 -50 -60 -70 -80 -90 -100 -110

1+00 2+00

6" SEWER LINE

16-NOV-2012 07:48
R:\Utilities\Proj\AGREEMENT PLANS\6 INCH SEWER LINE43.dgn
$$USER$$

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
B-5122	UC-5
DESIGNED BY: KSM	
DRAWN BY: KSM	
CHECKED BY: CDB	
APPROVED BY: CDB	
REVISED:	

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
UTILITIES ENGINEERING SEC.
PHONE: (919) 707-6690
FAX: (919) 250-4151

UTILITY CONSTRUCTION PLANS ONLY

Utility Permit Drawing
Sheet 5 of 19

UTILITY CONSTRUCTION

CASHIE RIVER

JURISDICTIONAL STREAM

℄

JURISDICTIONAL STREAM

EXISTING GRADE

70 60 50 40 30 20 10 0 –10 –20 –30 –40 –50 –60 –70 –80 –90 –100 –110 –120

6" TRENCHLESS INSTALLATION

6" SEWER LINE

3+00 4+00 5+00

16-NOV-2012 09:00
R:\Utilities\Projects\AGREEMENT PLANS\6 INCH SEWER LINE43.dgn

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
B-5122	UC-6
DESIGNED BY: KSM	
DRAWN BY: KSM	
CHECKED BY: CDB	
APPROVED BY: CDB	
REVISED:	

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

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FAX:(919)250-4151

UTILITY CONSTRUCTION PLANS ONLY

UTILITY CONSTRUCTION

Utility Permit Drawing
Sheet 6 of 19

80 70 60 50 40 30 20 10 0 -10 -20 -30 -40 -50 -60 -70 -80 -90 -100 -110

PROP. 1-6"-11 1/4° DI BEND
STA. 6+46 - HORIZONTAL

EXISTING GRADE

PROP. 6" GATE VALVE
STA. 8+15

PROP. 1-6"-11 1/4° DI BEND
STA. 8+22 - HORIZONTAL

6" DI FORCE MAIN

← END TRENCHLESS INSTALLATION STA. 6+20

OPEN CUT →

STA. 6+20

6" SEWER LINE

6+00 7+00 8+00

16-NOV-2012 08:40
R:\Utilities\Projects\AGREEMENT PLANS\6 INCH SEWER LINE43.dgn
$$$$USERNAME$$$$

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
B-5122	UC-7
DESIGNED BY: ·	
DRAWN BY: ·	
CHECKED BY: ·	
APPROVED BY: ·	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	UTILITY CONSTRUCTION PLANS ONLY

Utility Permit Drawing
Sheet 7 of 12

UTILITY CONSTRUCTION

PROP. 1-8" 22 1/2° DI BEND
STA. 0+00 - HORIZONTAL

PROP. 8" GATE VALVE
STA. 0+10

PROP. 1-8" 22 1/2° DI BEND
STA. 0+85 - HORIZONTAL

EXISTING GRADE

WETLAND BOUNDARY

8" DI FORCE MAIN

← OPEN CUT | BEGIN TRENCHLESS INSTALLATION STA. 1+00 →

STA. 1+00

8" SEWER LINE

80 70 60 50 40 30 20 10 0 -10 -20 -30 -40 -50 -60 -70 -80 -90 -100 -110

0 1+00 2+00

16-NOV-2012 08:41
R:\Utilities\Proj\Projects\AGREEMENT PLANS\8 INCH SEWER LINE37.dgn

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
B-5122	UC-8
DESIGNED BY:	
DRAWN BY:	
CHECKED BY:	
APPROVED BY:	
REVISED:	

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
UTILITIES ENGINEERING SEC.
PHONE:(919)707-6690
FAX:(919)250-4151

UTILITY CONSTRUCTION PLANS ONLY

Utility Permit Drawing
Sheet 8 of 10

UTILITY CONSTRUCTION

CASHIE LINE
℄

JURISDICTIONAL STREAM

JURISDICTIONAL STREAM

EXISTING GRADE

8" TRENCHLESS INSTALLATION

8" SEWER LINE

70 60 50 40 30 20 10 0 -10 -20 -30 -40 -50 -60 -70 -80 -90 -100 -110 -120

3+00 4+00 5+00

16-NOV-2012 08:42
R:\Utilities\Util_Ut\Proj\AGREEMENT PLANS\8 INCH SEWER LINE37.dgn
$$$$USERNAME$$$$

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
B-5122	UC-9
DESIGNED BY:	
DRAWN BY:	
CHECKED BY:	
APPROVED BY:	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919)707-6690 FAX: (919)250-4151	UTILITY CONSTRUCTION PLANS ONLY

Utility Permit Drawing
Sheet 9 of 19

UTILITY CONSTRUCTION

WETLAND BOUNDARY

PROP. 1-8" 11 1/4° DI BEND
STA. 6+32 - HORIZONTAL

EXISTING GRADE

PROP. 8" GATE VALVE
STA. 7+74

PROP. 1-8" 11 1/4° DI
BEND STA. 7+86 HORIZ.

8" DI FORCE MAIN

← END TRENCHLESS INSTALLATION STA. 6+00

OPEN CUT →

STA. 6+00

8" SEWER LINE

90 80 70 60 50 40 30 20 10 0 -10 -20 -30 -40 -50 -60 -70 -80 -90 -100

6+00 7+00

16-NOV-2012 08:42
R:\Utilities\Projects\AGREEMENT PLANS\8 INCH SEWER LINE37.dgn
$$$$USERNAME$$$$

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
B-5122	UC-10
DESIGNED BY: KSM	
DRAWN BY: KSM	
CHECKED BY: CDB	
APPROVED BY: CDB	
REVISED:	

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
UTILITIES ENGINEERING SEC.
PHONE: (919)707-6690
FAX: (919)250-4151

UTILITY CONSTRUCTION PLANS ONLY

Utility Permit Drawing
Sheet 10 of 19

UTILITY CONSTRUCTION

WETLAND BOUNDARY

EXISTNG GRADE

8" DI WATER LINE

PROP. 1-12"-22 1/2° DI BEND
STA. 0+00 - HORIZONTAL
PROP. 1-12" - GATE VALVE
STA. 0+09 - HORIZONTAL

BEGIN TRENCHLESS INSTALLATION STA. 0+20

8" HDPE WATER LINE

OPEN CUT

WL-1

8"WATER LINE

80 70 60 50 40 30 20 10 0 -10 -20 -30 -40 -50 -60 -70 -80 -90 -100 -110

0 1+00 2+00

16-NOV-2012 08:58
R:\Utilities\Proj\AGREEMENT PLANS\8 WATER LINE33.dgn
$$$$USERNAME$$$$

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
B-5122	UC-11

DESIGNED BY: KSM
DRAWN BY: KSM
CHECKED BY: CDB
APPROVED BY: CDB
REVISED:

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

UTILITIES ENGINEERING SEC.
PHONE: (919) 707-6690
FAX: (919) 250-4151

UTILITY CONSTRUCTION PLANS ONLY

UTILITY CONSTRUCTION

Utility Permit Drawing
Sheet 11 of 19
Revised 4-3-2013

JURISDICTIONAL STREAM

CASHIE RIVER

℄

JURISDICTIONAL STREAM

EXISTING GRADE

20' MINIMUM CLEARANCE

28'

TELEPHONE POLE

TELEPHONE POLE

8" TRENCHLESS INSTALLATION

8" WATER LINE

60 50 40 30 20 10 0 -10 -20 -30 -40 -50 -60 -70 -80 -90 -100 -110 -120 -130

3+00 4+00

03-APR-2013 14:18
R:\Utilities\Projects\AGREEMENT PLANS\8 WATER LINE33.dgn
$$$$USERNAME$$$$

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
B-5122	UC-12
DESIGNED BY: KSM	
DRAWN BY: KSM	
CHECKED BY: CDB	
APPROVED BY: CDB	
REVISED:	

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
UTILITIES ENGINEERING SEC.
PHONE: (919)707-6690
FAX: (919)250-4151

UTILITY CONSTRUCTION PLANS ONLY

Utility Permit Drawing
Sheet 12 of 19

UTILITY CONSTRUCTION

EXISTING GRADE

8" HDPE WATER LINE

8"WATER LINE

70 60 50 40 30 20 10 0 -10 -20 -30 -40 -50 -60 -70 -80 -90 -100 -110 -120

5+00 6+00 7+00

15-NOV-2012 17:14
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5/14/99

PROJECT REFERENCE NO.	SHEET NO.
B-5122	UC-13
DESIGNED BY: KSM	
DRAWN BY: KSM	
CHECKED BY: CDB	
APPROVED BY: CDB	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	UTILITY CONSTRUCTION PLANS ONLY

Utility Permit Drawing
Sheet 13 of 19

UTILITY CONSTRUCTION

8" HDPE WATER LINE

EXISTING GRADE

PROP. 1-8" - GATE VALVE
STA. 8+72

PROP. 1-8" - 22 1/2° HORIZONTAL DI BEND
STA. 8+80

BEGIN TRENCHLESS INSTALLATION
STA. 8+40

OPEN CUT

8" WATER LINE

80 70 60 50 40 30 20 10 0 -10 -20 -30 -40 -50 -60 -70 -80 -90 -100 -110

8+00

15-NOV-2012 17:14
R:\Utilities\Proj_Ut\Proj\AGREEMENT PLANS\8 WATER LINE33.dgn
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
B-5122	UC-14
DESIGNED BY: KSM	
DRAWN BY: KSM	
CHECKED BY: CDB	
APPROVED BY: CDB	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919)707-6690 FAX: (919)250-4151	UTILITY CONSTRUCTION PLANS ONLY

Utility Permit Drawing
Sheet 14 of 19

UTILITY CONSTRUCTION

PROP. 1 - 12" - 22 1/2° DI BEND
STA. 0+00 - HORIZONTAL

PROP. 1 - 12" - 22 1/2° DI BEND
STA. 0+96.7 - HORIZONTAL

WETLAND BOUNDARY

TRANSITION FITTING

THRUST COLLAR SEE UC-3

PROPOSED GRADE

EXISTING GRADE

OPEN CUT

BEGIN TRENCHLESS INSTALLATION STA. 1+05

8.64
GL - 1
0+00
5.97
5.50
5.50
6.49
6.50
6.13
4.11
0.71
-3.54
-7.79
-12.04
-16.30

12" GAS LINE

0
1+00
2+00

60 50 40 30 20 10 0 -10 -20 -30 -40 -50 -60 -70 -80 -90 -100 -110

16-NOV-2012 08:20
R:\Utilities\Proj_Us\Proj\AGREEMENT PLANS\12 INCH LINE1.dgn
$$$$USERNAME$$$$

5/14/99

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
B-5122	UC-15
DESIGNED BY: KSM	
DRAWN BY: KSM	
CHECKED BY: CDB	
APPROVED BY: CDB	
REVISED:	

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
UTILITIES ENGINEERING SEC.
PHONE: (919)707-6690
FAX: (919)250-4151

UTILITY CONSTRUCTION PLANS ONLY

Utility Permit Drawing
Sheet 15 of 19

UTILITY CONSTRUCTION

CASHIE RIVER
℄

EXISTING GRADE

PROPOSED GRADE

29'

70 60 50 40 30 20 10 0 -10 -20 -30 -40 -50 -60 -70 -80 -90 -100 -110 -120

-20.55 -24.80 -28.72 -31.70 -34.11 -35.94 -37.00 -37.00 -36.57 -34.30 -30.76 -27.22 -23.69 -20.15

3+00 4+00 5+00

12" GAS LINE

16-NOV-2012 08:45
R:\Utilities\Projects\Ut\Proj\AGREEMENT PLANS\12 INCH LINE1.dgn
$$$$USERNAME$$$$

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
B-5122	UC-16
DESIGNED BY: KSM	
DRAWN BY: KSM	
CHECKED BY: CDB	
APPROVED BY: CDB	
REVISED:	

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

UTILITIES ENGINEERING SEC.
PHONE: (919) 707-6690
FAX: (919) 250-4151

UTILITY CONSTRUCTION PLANS ONLY

Utility Permit Drawing
Sheet 16 of 19

UTILITY CONSTRUCTION

PROP. 1-12" - 11 1/4° DI BEND
STA. 6+40.52 - HORIZONTAL

PROP. 1-12" - 11 1/4° DI BEND
STA. 7+79.95 - HORIZONTAL

WETLAND BOUNDARY

WETLAND BOUNDARY

END TRENCHLESS INSTALLATION STA. 6+30

← → OPEN CUT

-16.61
-13.07
-9.54
-5.84
-3.12
-2.80
-2.58
-2.36
-2.06
-0.54
1.29
3.17
3.63
3.63

12" GAS LINE

80 70 60 50 40 30 20 10 0 -10 -20 -30 -40 -50 -60 -70 -80 -90 -100 -110

6+00 7+00 8+00

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ksmith

60 50 40 30 20 10 0 -10 -20 -30 -40 -50 -60 -70 -80 -90 -100 -110

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
B-5122	UC-17
DESIGNED BY: KSM	
DRAWN BY: KSM	
CHECKED BY: CDB	
APPROVED BY: CDB	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919)707-6690 FAX: (919)250-4151	UTILITY CONSTRUCTION PLANS ONLY

Utility Permit Drawing
Sheet 17 of 19

UTILITY CONSTRUCTION

PROPOSED GRADE

EXISTING GRADE

90 80 70 60 50 40 30 20 10 0 -10 -20 -30 -40 -50 -60 -70 -80 -90 -100

3.63 3.63 3.63 3.63 3.63 3.63 3.63 3.63 3.63 3.69 3.31 2.93 2.74

12" GAS LINE

9+00 10+00

16-NOV-2012 09:32
R:\Utilities\Proj_Ut\Proj\AGREEMENT PLANS\12 INCH LINE4.dgn
$$$$USERNAME$$$$

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
B-5122	UC-18
DESIGNED BY: KSM	
DRAWN BY: KSM	
CHECKED BY: CDB	
APPROVED BY: CDB	
REVISED:	

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

UTILITIES ENGINEERING SEC.
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FAX:(919)250-4151

UTILITY CONSTRUCTION PLANS ONLY

UTILITY CONSTRUCTION

Utility Permit Drawing
Sheet 18 of 19

EXISTING GRADE

PROP. 1-12" - 11 1/4° DI BEND
STA. 12+50.23 - HORIZONTAL

PROP. 1-12" - 22 1/2° DI BEND
STA. 12+64.20 - HORIZONTAL

PROP. 1-12" - 22 1/2° DI BEND
STA. 12+82.32 - HORIZONTAL

90 80 70 60 50 40 30 20 10 0 -10 -20 -30 -40 -50 -60 -70 -80 -90 -100

2.75 2.75 2.75 2.78 3.50 4.04 5.71 6.94 7.22 7.65 8.95

12" GAS LINE

11+00 12+00

16-NOV-2012 09:33
R:\Utilities\Rdu-Ut\Proj\AGREEMENT PLANS\12 INCH LINE4.dgn
$$$$$LICENSENAME$$$$$

			WETLAND IMPACTS					SURFACE WATER IMPACTS				
Site No.	Station (From/To)	Structure Size / Type	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	18+12 to 19+14	Sewer Lines	<0.01		<0.01		<0.01					
2	13+48 to 15+08	Multiuse Phone Pole	<0.01				0.04					
3	16+71 to 19+35	Multiuse Phone Pole	<0.01				0.05					
TOTALS:			<0.02		<0.01		0.10					

Note:

Utility Permit Drawing
Sheet 19 of 19

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

BERTIE COUNTY
WBS - 42264.1.1 (B-5122)

SHEET 1 OF 1 11/15/2012

ATN Revised 3/31/05

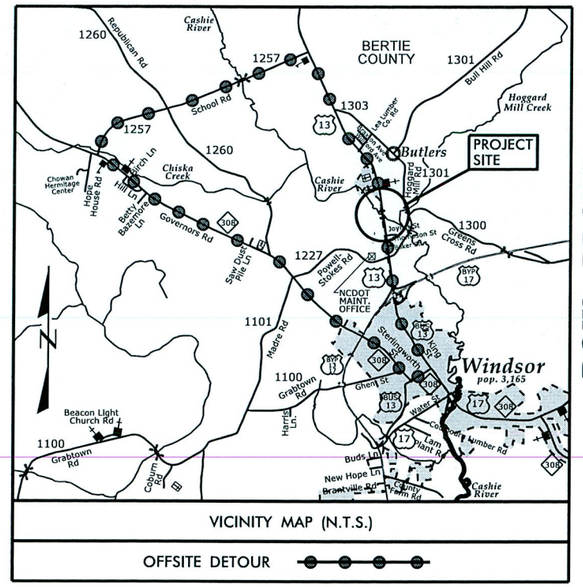
09/30/09

TIP PROJECT: B-5122

CONTRACT: C203025

ROW PLANS

See Sheet 1-A For Index of Sheets
See Sheet 1-B For Symbology



STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-5122	1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
42264.1.1	BRNHS-13(24)	PE
42264.2.1	BRNHS-13(24)	RW & UTIL

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

BERTIE COUNTY

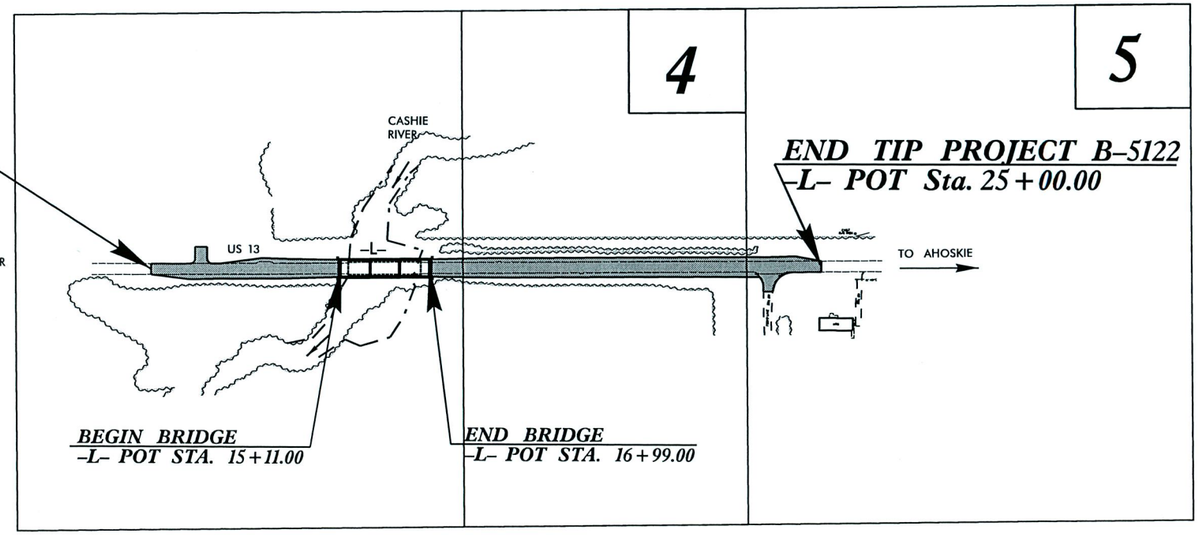
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

LOCATION: ***BRIDGE NO. 51, OVER THE CASHIE RIVER, ON US 13***

TYPE OF WORK: ***GRADING, DRAINAGE, PAVING, & STRUCTURE.***

NC GRID
NAD 83 (CORS 86)

BEGIN TIP PROJECT B-5122
-L- POT Sta. 11+25.00



END TIP PROJECT B-5122
-L- POT Sta. 25+00.00

CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.
THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF THE TOWN OF WINDSOR.

GRAPHIC SCALES

50 25 0 50 100
PLANS

50 25 0 50 100
PROFILE (HORIZONTAL)

10 5 0 10 20
PROFILE (VERTICAL)

DESIGN DATA

ADT 2012	=	7,885
ADT 2032	=	13,115
DHV	=	11 %
D	=	55 %
T	=	12 % *
V	=	60 MPH

* (TTST 5% + DUALS 7%)
FUNC. CLASS. = MINOR ART.
TIER CLASS. = STATEWIDE

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT B-5122	=	*0.226 mile*
LENGTH STRUCTURE TIP PROJECT B-5122	=	*0.036 mile*
TOTAL LENGTH TIP PROJECT B-5122	=	*0.296 mile*

Prepared In the Office of:
DIVISION OF HIGHWAYS
1000 Birch Ridge Dr., Raleigh NC, 27610

2012 STANDARD SPECIFICATIONS
RIGHT OF WAY DATE:
NOVEMBER 30, 2011
LETTING DATE:
JUNE 18, 2013

BRENDA MOORE, PE
PROJECT ENGINEER

TATIA L. WHITE, PE
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER
SIGNATURE: *P.E.*

ROADWAY DESIGN ENGINEER
SIGNATURE: *P.E.*

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
P.E.
STATE HIGHWAY DESIGN ENGINEER

30-OCT-2012 14:23
R:\Roadway\Proj\b5122_rdy_tsh.dgn
$$$$USERNAME$$$$

04/16/11

PROJECT REFERENCE NO.	SHEET NO.
B-5122	1-B

Note: Not to Scale

****S.U.E. = Subsurface Utility Engineering***

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

BOUNDARIES AND PROPERTY:

- State Line
- County Line
- Township Line
- City Line
- Reservation Line
- Property Line
- Existing Iron Pin (EIP)
- Property Corner
- Property Monument (ECM)
- Parcel/Sequence Number (123)
- Existing Fence Line
- Proposed Woven Wire Fence
- Proposed Chain Link Fence
- Proposed Barbed Wire Fence
- Existing Wetland Boundary (WLB)
- Proposed Wetland Boundary (WLB)
- Existing Endangered Animal Boundary (EAB)
- Existing Endangered Plant Boundary (EPB)
- Known Soil Contamination: Area or Site
- Potential Soil Contamination: Area or Site

BUILDINGS AND OTHER CULTURE:

- Gas Pump Vent or U/G Tank Cap
- Sign (S)
- Well (W)
- Small Mine
- Foundation
- Area Outline
- Cemetery
- Building
- School
- Church
- Dam

HYDROLOGY:

- Stream or Body of Water
- Hydro, Pool or Reservoir
- Jurisdictional Stream (JS)
- Buffer Zone 1 (BZ 1)
- Buffer Zone 2 (BZ 2)
- Flow Arrow
- Disappearing Stream
- Spring
- Wetland
- Proposed Lateral, Tail, Head Ditch (Flow)
- False Sump

RAILROADS:

- Standard Gauge (CSX TRANSPORTATION)
- RR Signal Milepost (MILEPOST 35)
- Switch (SWITCH)
- RR Abandoned
- RR Dismantled

RIGHT OF WAY:

- Baseline Control Point
- Existing Right of Way Marker
- Existing Right of Way Line
- Proposed Right of Way Line (RW)
- Proposed Right of Way Line with Iron Pin and Cap Marker (RW)
- Proposed Right of Way Line with Concrete or Granite Marker (RW)
- Existing Control of Access (CA)
- Proposed Control of Access (CA)
- Existing Easement Line (E)
- Proposed Temporary Construction Easement (E)
- Proposed Temporary Drainage Easement (TDE)
- Proposed Permanent Drainage Easement (PDE)
- Proposed Permanent Drainage / Utility Easement (DUE)
- Proposed Permanent Utility Easement (PUE)
- Proposed Temporary Utility Easement (TUE)
- Proposed Aerial Utility Easement (AUE)
- Proposed Permanent Easement with Iron Pin and Cap Marker

ROADS AND RELATED FEATURES:

- Existing Edge of Pavement
- Existing Curb
- Proposed Slope Stakes Cut (C)
- Proposed Slope Stakes Fill (F)
- Proposed Curb Ramp (CR)
- Existing Metal Guardrail
- Proposed Guardrail
- Existing Cable Guiderail
- Proposed Cable Guiderail
- Equality Symbol
- Pavement Removal

VEGETATION:

- Single Tree
- Single Shrub
- Hedge
- Woods Line
- Orchard
- Vineyard (Vineyard)

EXISTING STRUCTURES:

MAJOR:

- Bridge, Tunnel or Box Culvert (CONC)
- Bridge Wing Wall, Head Wall and End Wall (CONC WW)

MINOR:

- Head and End Wall (CONC HW)
- Pipe Culvert
- Footbridge
- Drainage Box: Catch Basin, DI or JB (CB)
- Paved Ditch Gutter
- Storm Sewer Manhole (S)
- Storm Sewer (S)

UTILITIES:

POWER:

- Existing Power Pole
- Proposed Power Pole
- Existing Joint Use Pole
- Proposed Joint Use Pole
- Power Manhole (P)
- Power Line Tower
- Power Transformer
- U/G Power Cable Hand Hole
- H-Frame Pole
- Recorded U/G Power Line (P)
- Designated U/G Power Line (S.U.E.*) (P)

TELEPHONE:

- Existing Telephone Pole
- Proposed Telephone Pole
- Telephone Manhole (T)
- Telephone Booth
- Telephone Pedestal (T)
- Telephone Cell Tower
- U/G Telephone Cable Hand Hole (HH)
- Recorded U/G Telephone Cable (T)
- Designated U/G Telephone Cable (S.U.E.*) (T)
- Recorded U/G Telephone Conduit (TC)
- Designated U/G Telephone Conduit (S.U.E.*) (TC)
- Recorded U/G Fiber Optics Cable (T FO)
- Designated U/G Fiber Optics Cable (S.U.E.*) (T FO)

WATER:

- Water Manhole (W)
- Water Meter
- Water Valve
- Water Hydrant
- Recorded U/G Water Line (W)
- Designated U/G Water Line (S.U.E.*) (W)
- Above Ground Water Line (A/G Water)

TV:

- TV Satellite Dish
- TV Pedestal (C)
- TV Tower
- U/G TV Cable Hand Hole (HH)
- Recorded U/G TV Cable (TV)
- Designated U/G TV Cable (S.U.E.*) (TV)
- Recorded U/G Fiber Optic Cable (TV FO)
- Designated U/G Fiber Optic Cable (S.U.E.*) (TV FO)

GAS:

- Gas Valve
- Gas Meter
- Recorded U/G Gas Line (G)
- Designated U/G Gas Line (S.U.E.*) (G)
- Above Ground Gas Line (A/G Gas)

SANITARY SEWER:

- Sanitary Sewer Manhole
- Sanitary Sewer Cleanout
- U/G Sanitary Sewer Line (SS)
- Above Ground Sanitary Sewer (A/G Sanitary Sewer)
- Recorded SS Forced Main Line (FSS)
- Designated SS Forced Main Line (S.U.E.*) (FSS)

MISCELLANEOUS:

- Utility Pole
- Utility Pole with Base
- Utility Located Object
- Utility Traffic Signal Box (S)
- Utility Unknown U/G Line (?UTL)
- U/G Tank; Water, Gas, Oil
- Underground Storage Tank, Approx. Loc. (UST)
- A/G Tank; Water, Gas, Oil
- Geoenvironmental Boring
- U/G Test Hole (S.U.E.*)
- Abandoned According to Utility Records (AATUR)
- End of Information (E.O.I.)

6/2/99

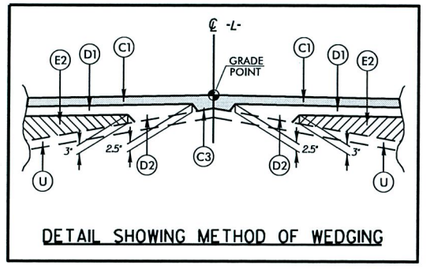
PROJECT REFERENCE NO.	SHEET NO.
B-5122	2
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

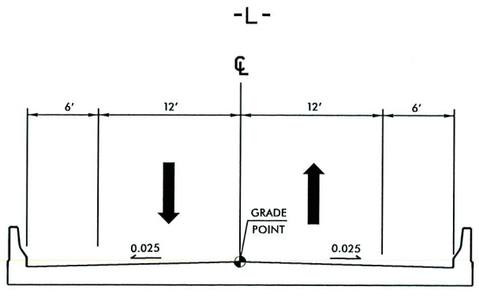
PAVEMENT SCHEDULE

C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 Lbs PER SQUARE YARD.
C2	PROP. APPROX. 3.0" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 Lbs PER SQUARE YARD IN EACH OF TWO LAYERS.
C3	PROP. VARIABLE DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 112 Lbs PER SQUARE YARD PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 1.5" OR GREATER THAN 2.0" IN DEPTH.
D1	PROP. APPROX. 2.5" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 285 Lbs. PER SQUARE YARD.
D2	PROP. VARIABLE DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 114 Lbs PER SQUARE YARD PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 2.5" OR GREATER THAN 4.0" IN DEPTH.
E1	PROP. APPROX. 4.5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0SB, AT AN AVERAGE RATE OF 513 Lbs PER SQUARE YARD.
E2	PROP. VARIABLE DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 114 Lbs PER SQUARE YARD PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 3.0" OR GREATER THAN 5.5" IN DEPTH.
T	EARTH MATERIAL
U	EXISTING PAVEMENT
W	VARIABLE DEPTH ASPHALT PAVEMENT (SEE WEDGING DETAIL THIS SHEET)

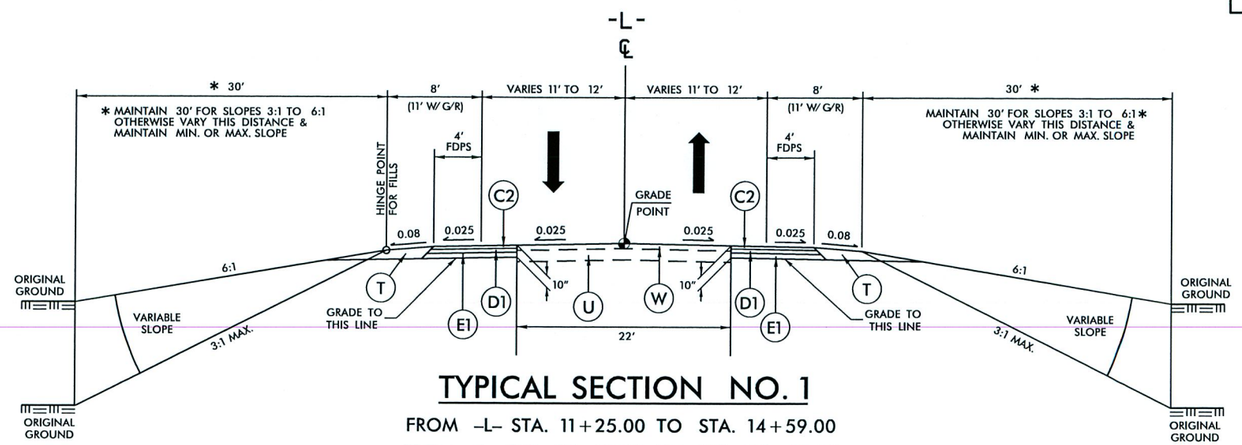
PAVEMENT EDGE SLOPES AND TRENCH SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.



DETAIL SHOWING METHOD OF WEDGING

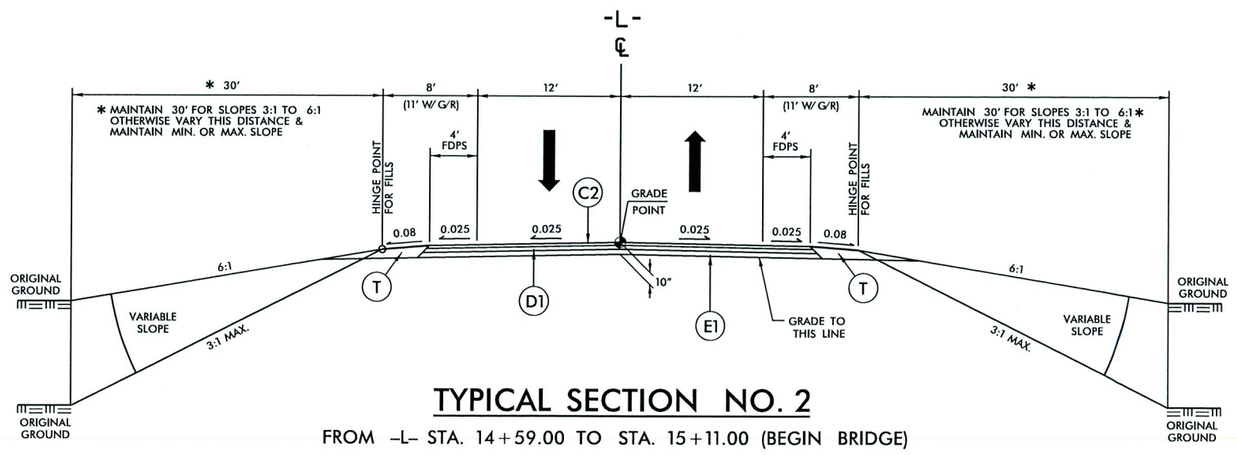


TYPICAL SECTION ON BRIDGE



TYPICAL SECTION NO. 1

FROM -L- STA. 11+25.00 TO STA. 14+59.00
FROM -L- STA. 17+22.00 TO STA. 25+00.00



TYPICAL SECTION NO. 2

FROM -L- STA. 14+59.00 TO STA. 15+11.00 (BEGIN BRIDGE)
FROM -L- STA. 16+99.00 (END BRIDGE) TO STA. 17+22.00

PROJECT REFERENCE NO.	SHEET NO.
B-5122	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NC GRID
NAD 83 (CORS 86)

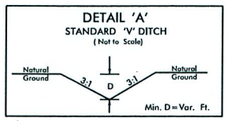
REVISIONS

02/22/12 - R/W REVISION: REVISED EXISTING RIGHT OF WAY WHICH REDUCED THE PROPOSED RIGHT OF WAY ON PARCELS 1, 2, 3, 5 AND 6; ADJUSTED PERMANENT UTILITY EASEMENT FROM -L- STA. 11+25 TO -L- STA. 13+85 LT. ON PARCEL 1; ADJUSTED PROPOSED RIGHT OF WAY AND PERMANENT UTILITY EASEMENT FROM -L- STA 11+25 TO -L- STA. 11+87 ON PARCEL 4; ADJUSTED PERMANENT UTILITY EASEMENT AND DRAINAGE UTILITY EASEMENT FROM -L- STA 11+87 TO -L- STA. 13+25 ON PARCEL 5; CHANGED PROPERTY OWNER NAME ON PARCEL 2. - TLW

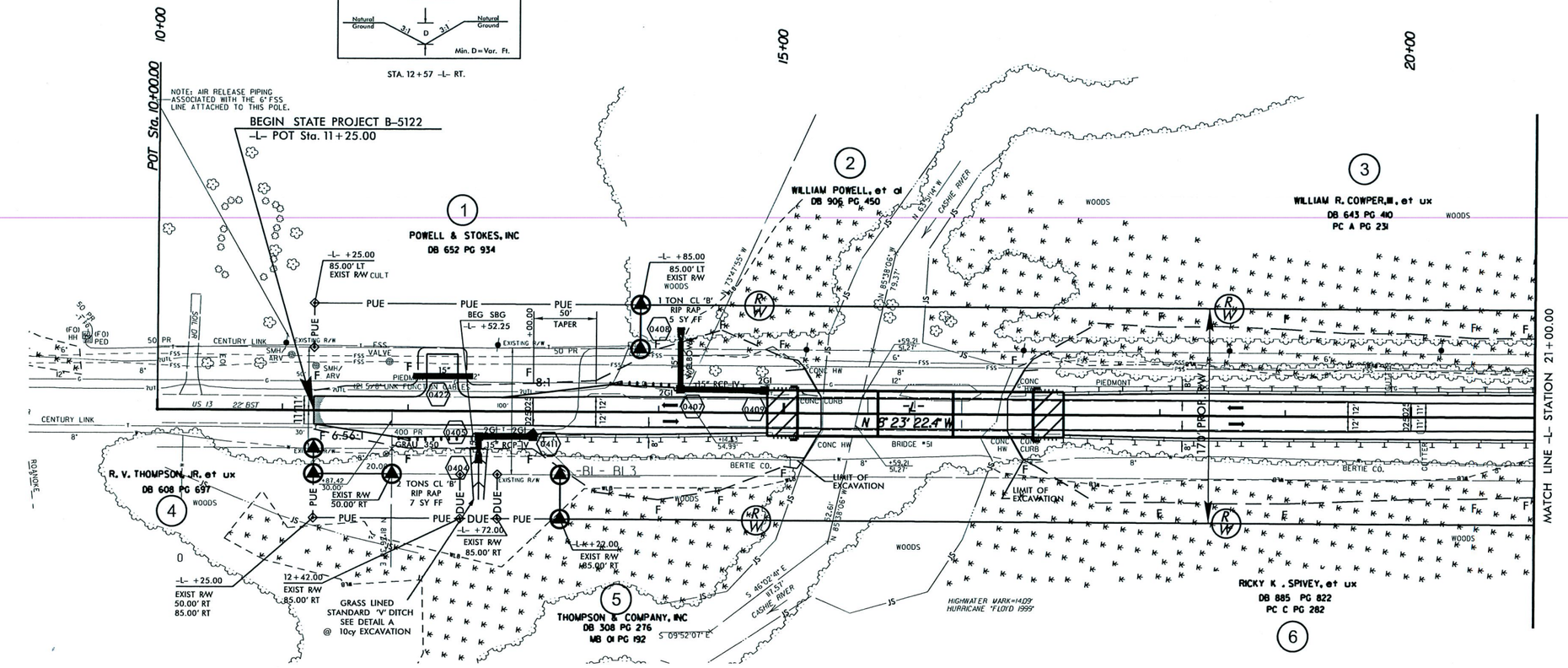
04/13/12 - R/W REVISION: REMOVED THE RIGHT OF WAY MONUMENTS FROM -L- STATION 21+00.00 LEFT AND RIGHT. - TLW

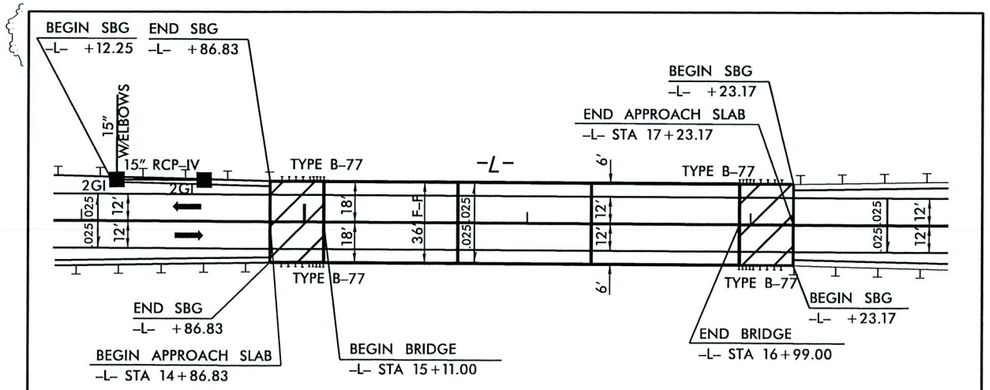
8/17/99

DETAIL 'A'
STANDARD 'V' DITCH
(Not to Scale)



STA. 12+57 -L- RT.





SKETCH SHOWING BRIDGE /PAVEMENT RELATIONSHIP
NOT TO SCALE

NOTES:

1. SEE SHEET 6 FOR -L- PROFILE
2. SEE SHEETS S-1 THROUGH S-?? FOR STRUCTURE PLANS

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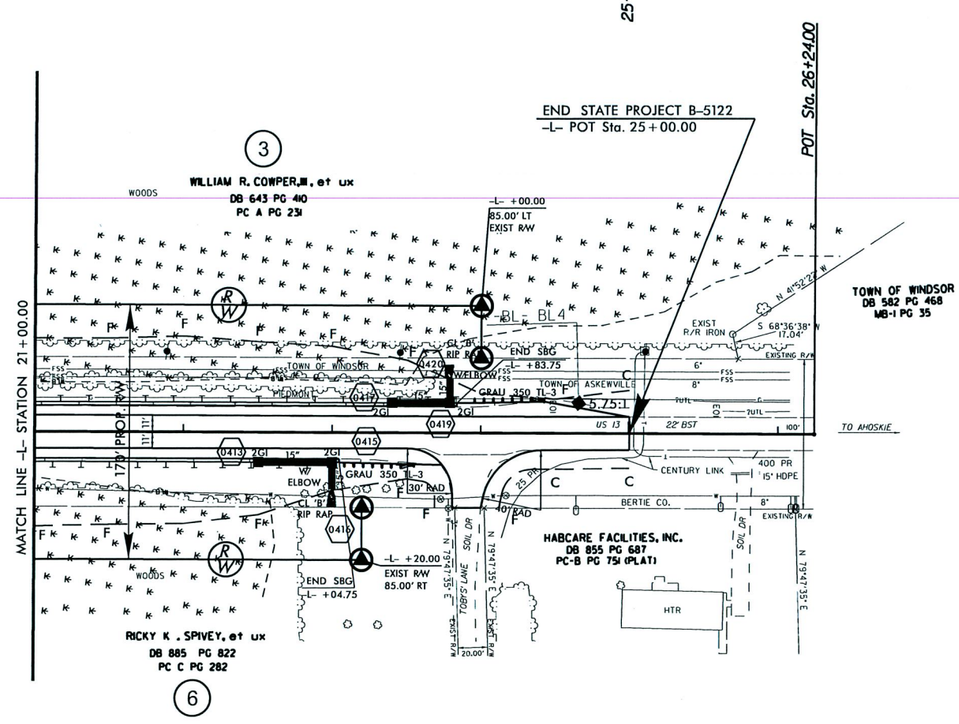
PROJECT REFERENCE NO.	SHEET NO.
B-5122	5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NC GRID
NAD 83 (CORS 86)



NOTES:

1. SEE SHEET 6 FOR -L- PROFILE
2. SEE SHEETS S-1 THROUGH S-?? FOR STRUCTURE PLANS

REVISIONS

02/22/12 - R/W REVISION: REVISED EXISTING RIGHT OF WAY WHICH REDUCED THE PROPOSED RIGHT OF WAY ON PARCELS 1, 2, 3, 5 AND 6; ADJUSTED PERMANENT UTILITY EASEMENT FROM -L- STA. 11+25 TO -L- STA. 13+85 LT. ON PARCEL 1; ADJUSTED PROPOSED RIGHT OF WAY AND PERMANENT UTILITY EASEMENT FROM -L- STA 11+25 TO -L- STA 11+87 ON PARCEL 4; ADJUSTED PERMANENT UTILITY EASEMENT AND DRAINAGE UTILITY EASEMENT FROM -L- STA 13+25 ON PARCEL 5; CHANGED PROPERTY OWNER NAME ON PARCEL 2. - TLW

04/13/12 - R/W REVISION: EXTENDED PROPOSED RIGHT OF WAY TO -L- STATION 23+20.00 RIGHT ON PARCEL 3 AND -L- STATION 24+00 LEFT ON PARCEL 6 FOR THE PROJECT EXTENSION. - TLW

8/17/99

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