



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

PAT L. MCCRORY  
GOVERNOR

ANTHONY J. TATA  
SECRETARY

October 21, 2013

Washington Regulatory Field Office  
US Army Corps of Engineers  
2407 West 5<sup>th</sup> St.  
Washington, North Carolina 27889

N.C. Dept. of Environment and Natural  
Resources  
Division of Coastal Management  
1367 US 17 South  
Elizabeth City, NC 27909

ATTN: Ms. Tracey Wheeler  
NCDOT Coordinator

ATTN: Mr. Paul Williams  
NCDOT Coordinator

Dear Madam and Sir:

Subject: **Application for a Section 404 Nationwide Permit 23, Section 401 Water Quality Certification, and CAMA Major Development Permit** for the proposed replacement of Bridge No. 53 over White Oak Swamp on US 13 in Bertie County. TIP No. B-5141; Federal Aid Project No. BRNHS-0013 (25); Debit \$475 from WBS No. 42302.1.1

The North Carolina Department of Transportation (NCDOT) proposes to replace the 78-foot, 2-span Bridge No. 53 with a 110-foot, 2-span bridge on the existing alignment. Bridge No. 53 will be replaced on the existing alignment while traffic will be maintained onsite using a temporary structure. Permanent impacts to riparian wetlands include 0.16 acre of wetland fill.

Please see enclosed copies of the Pre-Construction Notification (PCN), Jurisdictional Determination Form, EEP Request Letter, Division of Coastal Management Major Permit Forms 1 and 5, permit drawings, stormwater management plan, utility drawings, and design plans for the above referenced project. The Programmatic Categorical Exclusion (PCE) was completed in October 2012 and distributed shortly thereafter. Additional copies are available at the NCDOT website: <http://207.4.62.65/PDEA/EnvironmentalDocs/>.

This project calls for a letting date of May 5, 2014 and a review date of April 1, 2014. The project schedule may be advanced if funding becomes available.

**MAILING ADDRESS:**  
NC DEPARTMENT OF TRANSPORTATION  
PROJECT DEVELOPMENT AND ENVIRONMENTAL ANALYSIS  
1548 MAIL SERVICE CENTER  
RALEIGH NC 27699-1548

TELEPHONE: 919-707-6000  
FAX: 919-250-4224

WEBSITE: [WWW.NCDOT.GOV/DOH/PRECONSTRUCT/PE/](http://WWW.NCDOT.GOV/DOH/PRECONSTRUCT/PE/)

**LOCATION:**  
CENTURY CENTER, BUILDING A  
1000 BIRCH RIDGE DRIVE  
RALEIGH NC 27610

## Regulatory Approvals

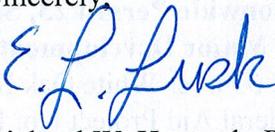
Section 404 Permit: All aspects of this project are being processed by the Federal Highway Administration as a "Categorical Exclusion" in accordance with 23 CFR 771.115(b). The NCDOT requests that the project be authorized by NW 23 for bridge construction.

Section 401 Permit: We anticipate 401 General Certification number 3891 will apply to this project. NCDOT is requesting written concurrence from the North Carolina Department of Environmental and Natural Resources, Division of Water Resources. 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 return receipts will be forwarded as soon as they are available. Authorization to debit the \$475 Permit Application Fee from WBS Element 42302.1.1 is hereby given.

A copy of this permit application and its distribution list will be posted at the NCDOT Website at <https://connect.ncdot.gov/resources/Environmental>. If you have any questions or need additional information, please contact John Merritt at [jsmerritt@ncdot.gov](mailto:jsmerritt@ncdot.gov) or (919) 707-6140.

Sincerely,

*for* 

Richard W. Hancock, P.E., 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:	<input checked="" type="checkbox"/> Section 404 Permit	<input type="checkbox"/> Section 10 Permit
1b. Specify Nationwide Permit (NWP) number: 23 or General Permit (GP) number:		
1c. Has the NWP or GP number been verified by the Corps?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
1d. Type(s) of approval sought from the DWQ (check all that apply):		
<input checked="" type="checkbox"/> 401 Water Quality Certification – Regular <span style="margin-left: 100px;"><input type="checkbox"/> Non-404 Jurisdictional General Permit</span> <input type="checkbox"/> 401 Water Quality Certification – Express <span style="margin-left: 100px;"><input type="checkbox"/> Riparian Buffer Authorization</span>		
1e. Is this notification solely for the record because written approval is not required?	For the record only for DWQ 401 Certification: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	For the record only for Corps Permit: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
1g. Is the project located in any of NC's twenty coastal counties. If yes, answer 1h below.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
1h. Is the project located within a NC DCM Area of Environmental Concern (AEC)?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

#### 2. Project Information

2a. Name of project:	Replacement of Bridge No. 53 over White Oak Swamp on US 13
2b. County:	Bertie
2c. Nearest municipality / town:	Windsor
2d. Subdivision name:	<i>not applicable</i>
2e. NCDOT only, T.I.P. or state project no.:	B-5141

#### 3. Owner Information

3a. Name(s) on Recorded Deed:	North Carolina Department of Transportation
3b. Deed Book and Page No.	<i>not applicable</i>
3c. Responsible Party (for LLC if applicable):	<i>not applicable</i>
3d. Street address:	1598 Mail Service Center
3e. City, state, zip:	Raleigh, NC 27699-1598
3f. Telephone no.:	(919) 707-6140
3g. Fax no.:	(919) 250-4224
3h. Email address:	jsmerritt@ncdot.gov

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

<b>B. Project Information and Prior Project History</b>	
<b>1. Property Identification</b>	
1a. Property identification no. (tax PIN or parcel ID):	<i>not applicable</i>
1b. Site coordinates (in decimal degrees):	Latitude: 36.77754 (DD.DDDDDD) Longitude: - 76.976352 (-DD.DDDDDD)
1c. Property size:	6.80 acres
<b>2. Surface Waters</b>	
2a. Name of nearest body of water (stream, river, etc.) to proposed project:	White Oak Swamp
2b. Water Quality Classification of nearest receiving water:	C;Sw
2c. River basin:	Roanoke
<b>3. Project Description</b>	
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 forested areas. Land use in the project vicinity is predominantly forested with some agriculture, and light residential development.	
3b. List the total estimated acreage of all existing wetlands on the property: 0.95	
3c. List the total estimated linear feet of all existing streams (intermittent and perennial) on the property: 200	
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 the 78-foot, 2-span Bridge No. 53 with a 110-foot, 2-span bridge on the existing alignment. Traffic will follow an onsite detour during construction. Standard road building equipment, such as trucks, dozers, and cranes will be used.	
<b>4. Jurisdictional Determinations</b>	
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:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
4b. If the Corps made the jurisdictional determination, what type of determination was made?	<input type="checkbox"/> Preliminary <input checked="" type="checkbox"/> Final
4c. If yes, who delineated the jurisdictional areas? Name (if known): Chris Underwood	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	
<b>5. Project History</b>	
5a. Have permits or certifications been requested or obtained for this project (including all prior phases) in the past?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
5b. If yes, explain in detail according to "help file" instructions.	
<b>6. Future Project Plans</b>	
6a. Is this a phased project?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
6b. If yes, explain.	

<b>C. Proposed Impacts Inventory</b>						
<b>1. Impacts Summary</b>						
1a. Which sections were completed below for your project (check all that apply):						
<input checked="" type="checkbox"/> Wetlands		<input checked="" type="checkbox"/> Streams - tributaries		<input type="checkbox"/> Buffers		
<input type="checkbox"/> Open Waters		<input type="checkbox"/> Pond Construction				
<b>2. Wetland Impacts</b>						
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 1 <input checked="" type="checkbox"/> P <input type="checkbox"/> T	Fill	Riverine	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	0.16	
Site 1 <input type="checkbox"/> P <input checked="" type="checkbox"/> T	Fill	Riverine	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	0.25	
Site 1 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
Site 4 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
Site 5 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
Site 6 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
<b>2g. Total wetland impacts</b>					0.16 Permanent 0.25 Temporary	
2h. Comments: - There will be 0.16 acre of hand clearing due to construction - 0.02 acre of Temporary Fill in Wetlands in the Hand Clearing areas for erosion control measures						
<b>3. Stream Impacts</b>						
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 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
Site 2 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
Site 3 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
Site 4 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
<b>3h. Total stream and tributary impacts</b>					0 Perm 0 Temp	
3i. Comments: Impact due to interior bent pile is < 0.01 acre						

**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 <input type="checkbox"/> P <input type="checkbox"/> T				
O1 <input type="checkbox"/> P <input type="checkbox"/> T				
O2 <input type="checkbox"/> P <input type="checkbox"/> T				
O3 <input type="checkbox"/> P <input type="checkbox"/> T				
<b>4f. Total open water impacts</b>				X Permanent X Temporary

4g. Comments:

**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								
<b>5f. Total</b>								

5g. Comments:

5h. Is a dam high hazard permit required?	<input type="checkbox"/> Yes <input type="checkbox"/> 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?		<input type="checkbox"/> Neuse <input type="checkbox"/> Tar-Pamlico <input type="checkbox"/> Other: <input type="checkbox"/> Catawba <input type="checkbox"/> Randleman			
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 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No		
B2 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No		
B3 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No		
<b>6h. Total buffer impacts</b>					
6i. Comments:					

<b>D. Impact Justification and Mitigation</b>		
<b>1. Avoidance and Minimization</b>		
1a. Specifically describe measures taken to avoid or minimize the proposed impacts in designing project. The proposed bridge is 33 feet longer than the existing bridge. The removal of existing road fill for longer bridge and increasing bridge openings will improve hydrological conveyance and wildlife passage, and reduce bridge opening velocities. A moratorium on in-water construction will be in place from February 15 to June 15 of any given year for anadromous fish.		
1b. Specifically describe measures taken to avoid or minimize the proposed impacts through construction techniques. Construction will be top-down. Best Management Practices for the Protection of Surface Waters, as well as, Best Management Practices for Construction and Maintenance Activities will be implemented.		
<b>2. Compensatory Mitigation for Impacts to Waters of the U.S. or Waters of the State</b>		
2a. Does the project require Compensatory Mitigation for impacts to Waters of the U.S. or Waters of the State?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If no, explain:	
2b. If yes, mitigation is required by (check all that apply):	<input type="checkbox"/> DWQ <input checked="" type="checkbox"/> Corps	
2c. If yes, which mitigation option will be used for this project?	<input type="checkbox"/> Mitigation bank <input checked="" type="checkbox"/> Payment to in-lieu fee program <input type="checkbox"/> Permittee Responsible Mitigation	
<b>3. Complete if Using a Mitigation Bank</b>		
3a. Name of Mitigation Bank: not applicable		
3b. Credits Purchased (attach receipt and letter)	Type	Quantity
3c. Comments:		
<b>4. Complete if Making a Payment to In-lieu Fee Program</b>		
4a. Approval letter from in-lieu fee program is attached.	<input type="checkbox"/> Yes	
4b. Stream mitigation requested:	linear feet	
4c. If using stream mitigation, stream temperature:	<input type="checkbox"/> warm <input type="checkbox"/> cool <input type="checkbox"/> cold	
4d. Buffer mitigation requested (DWQ only):	square feet	
4e. Riparian wetland mitigation requested:	0.32 acres	
4f. Non-riparian wetland mitigation requested:	acres	
4g. Coastal (tidal) wetland mitigation requested:	acres	
4h. Comments: EEP acceptance letter forthcoming (request letter attached)		
<b>5. Complete if Using a Permittee Responsible Mitigation Plan</b>		
5a. If using a permittee responsible mitigation plan, provide a description of the proposed mitigation plan.		

**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	
<b>6f. Total buffer mitigation required:</b>				

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:

<b>E. Stormwater Management and Diffuse Flow Plan (required by DWQ)</b>	
<b>1. Diffuse Flow Plan</b>	
1a. Does the project include or is it adjacent to protected riparian buffers identified within one of the NC Riparian Buffer Protection Rules?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
1b. If yes, then is a diffuse flow plan included? If not, explain why. Comments:	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>2. Stormwater Management Plan</b>	
2a. What is the overall percent imperviousness of this project?	N/A
2b. Does this project require a Stormwater Management Plan?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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?	<input type="checkbox"/> Certified Local Government <input type="checkbox"/> DWQ Stormwater Program <input checked="" type="checkbox"/> DWQ 401 Unit
<b>3. Certified Local Government Stormwater Review</b>	
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):	<input type="checkbox"/> Phase II <input type="checkbox"/> NSW <input type="checkbox"/> USMP <input type="checkbox"/> Water Supply Watershed <input type="checkbox"/> Other:
3c. Has the approved Stormwater Management Plan with proof of approval been attached?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>4. DWQ Stormwater Program Review</b>	
4a. Which of the following state-implemented stormwater management programs apply (check all that apply):	<input type="checkbox"/> Coastal counties <input type="checkbox"/> HQW <input type="checkbox"/> ORW <input type="checkbox"/> Session Law 2006-246 <input type="checkbox"/> Other:
4b. Has the approved Stormwater Management Plan with proof of approval been attached?	<input type="checkbox"/> Yes <input type="checkbox"/> No N/A
<b>5. DWQ 401 Unit Stormwater Review</b>	
5a. Does the Stormwater Management Plan meet the appropriate requirements?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No N/A
5b. Have all of the 401 Unit submittal requirements been met?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No N/A

<b>F. Supplementary Information</b>	
<b>1. Environmental Documentation (DWQ Requirement)</b>	
1a. Does the project involve an expenditure of public (federal/state/local) funds or the use of public (federal/state) land?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>2. Violations (DWQ Requirement)</b>	
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)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2b. Is this an after-the-fact permit application?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2c. If you answered "yes" to one or both of the above questions, provide an explanation of the violation(s):	
<b>3. Cumulative Impacts (DWQ Requirement)</b>	
3a. Will this project (based on past and reasonably anticipated future impacts) result in additional development, which could impact nearby downstream water quality?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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.	
<b>4. Sewage Disposal (DWQ Requirement)</b>	
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	

<b>5. Endangered Species and Designated Critical Habitat (Corps Requirement)</b>		
5a. Will this project occur in or near an area with federally protected species or habitat?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
5b. Have you checked with the USFWS concerning Endangered Species Act impacts?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
5c. If yes, indicate the USFWS Field Office you have contacted.	<input type="checkbox"/> Raleigh <input type="checkbox"/> Asheville	
5d. What data sources did you use to determine whether your site would impact Endangered Species or Designated Critical Habitat? NCNHP, USFWS website, field surveys		
<b>6. Essential Fish Habitat (Corps Requirement)</b>		
6a. Will this project occur in or near an area designated as essential fish habitat?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
6b. What data sources did you use to determine whether your site would impact Essential Fish Habitat? NMFS County Index		
<b>7. Historic or Prehistoric Cultural Resources (Corps Requirement)</b>		
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)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
7b. What data sources did you use to determine whether your site would impact historic or archeological resources? NEPA Documentation		
<b>8. Flood Zone Designation (Corps Requirement)</b>		
8a. Will this project occur in a FEMA-designated 100-year floodplain?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> 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		
<u>Richard W. Hancock, P.E.</u> Applicant/Agent's Printed Name	 Applicant/Agent's Signature <small>(Agent's signature is valid only if an authorization letter from the applicant is provided.)</small>	<u>10.21.13</u> Date

# APPLICATION for Major Development Permit

(last revised 12/27/06)



North Carolina DIVISION OF COASTAL MANAGEMENT

<b>1. Primary Applicant/ Landowner Information</b>			
Business Name Nc Department Of Transportation		Project Name (if applicable) B-5141	
Applicant 1: First Name Richard	MI W	Last Name Hancock, P.E.	
Applicant 2: First Name	MI	Last Name	
<i>If additional applicants, please attach an additional page(s) with names listed.</i>			
Mailing Address 1548 Mail Service Center		PO Box	City Raleigh
			State NC
ZIP 27699 1548	Country USA	Phone No. 919 - 707 - 6000 ext.	FAX No. 919 - 250 - 4224
Street Address (if different from above) PDEA-Century Center Building B, 1020 Birch Ridge Road		City Raleigh	State NC
			ZIP 27610-
Email jsmerritt@ncdot.gov			

<b>2. Agent/Contractor Information</b>			
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			

&lt;Form continues on back&gt;

<b>3. Project Location</b>				
County (can be multiple) Bertie		Street Address N/A		State Rd. # US 13
Subdivision Name N/A		City Windsor	State NC	Zip 27983 -
Phone No. N/A - - ext.			Lot No.(s) (if many, attach additional page with list) N/A, , ,	
a. In which NC river basin is the project located? Roanoke			b. Name of body of water nearest to proposed project White Oak Swamp	
c. Is the water body identified in (b) above, natural or manmade? <input checked="" type="checkbox"/> Natural <input type="checkbox"/> Manmade <input type="checkbox"/> Unknown			d. Name the closest major water body to the proposed project site. Cashie River	
e. Is proposed work within city limits or planning jurisdiction? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			f. If applicable, list the planning jurisdiction or city limit the proposed work falls within. N/A	

<b>4. Site Description</b>	
a. Total length of shoreline on the tract (ft.) 72'	b. Size of entire tract (sq.ft.) 296,208
c. Size of individual lot(s) N/A, (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) 1.5 <input checked="" type="checkbox"/> NHW or <input type="checkbox"/> NWL
e. Vegetation on tract Vegetation grades from low lying riverine swamp forest with bald cypress, and water tupelo to upland forest consisting of red maple, sweetgum and loblolly pine.	
f. Man-made features and uses now on tract Bridge and associated roadway approaches	
g. Identify and describe the existing land uses <u>adjacent</u> to the proposed project site. Rural, undeveloped	
h. How does local government zone the tract? N/A	i. Is the proposed project consistent with the applicable zoning? (Attach zoning compliance certificate, if applicable) <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
j. Is the proposed activity part of an urban waterfront redevelopment proposal? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
k. Has a professional archaeological assessment been done for the tract? If yes, attach a copy. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA  If yes, by whom?      NCDOT (Reference CE)	
l. Is the proposed project located in a National Registered Historic District or does it involve a National Register listed or eligible property? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA	

**<Form continues on next page>**

m. (i) Are there wetlands on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
(ii) Are there coastal wetlands on the site? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
(iii) If yes to either (i) or (ii) above, has a delineation been conducted? (Attach documentation, if available) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

n. Describe existing wastewater treatment facilities.
None
o. Describe existing drinking water supply source.
None
p. Describe existing storm water management or treatment systems.
None

<b>5. Activities and Impacts</b>	
a. Will the project be for commercial, public, or private use?	<input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Public/Government <input type="checkbox"/> Private/Community
b. Give a brief description of purpose, use, and daily operations of the project when complete.	Replacement of Bridge #53 and roadway approaches to improve the functionally and structurally deficient obsolete bridge which can no longer be addressed by maintenance activities.
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.	Typical highway and bridge construction vehicles and equipment will be used, including, but not limited to, dump trucks, cranes, graders, and bull dozers. Storage and staging areas will be located on uplands.
d. List all development activities you propose.	Replace/Lengthen bridge; Remove portion of existing road fill/causeway to improve bridge hydraulic conveyance and offset surface water being filled in. Addition of fill due to widening facility and raising of the existing road grade. The grade has to be raised to provide access for future bridge maintenance/inspection activities.
e. Are the proposed activities maintenance of an existing project, new work, or both?	Maintenance of an existing project
f. What is the approximate total disturbed land area resulting from the proposed project?	1.7 <input type="checkbox"/> Sq.Ft or <input checked="" type="checkbox"/> Acres
g. Will the proposed project encroach on any public easement, public accessway or other area that the public has established use of?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
h. Describe location and type of existing and proposed discharges to waters of the state.	The existing bridge has deck drains which discharge directly into White Oak Swamp. The proposed bridge will not have deck drains but will drain to a storm drainage systems on the northern and southern approaches which will discharge onto natural ground
i. Will wastewater or stormwater be discharged into a wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
If yes, will this discharged water be of the same salinity as the receiving water?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
j. Is there any mitigation proposed?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
If yes, attach a mitigation proposal.	

<Form continues on back>

<b>6. Additional Information</b>	
<i>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.</i>	
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 See attached letters 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. <i>(Must be signed by property owner)</i>
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 Oct 17, 2013 Print Name Richard W. Hancock, PE  
Signature E. L. Lusk for

Please indicate application attachments pertaining to your proposed project.

- DCM MP-2 Excavation and Fill Information
- DCM MP-3 Upland Development
- DCM MP-4 Structures Information
- DCM MP-5 Bridges and Culverts

# 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:  
White Oak Swamp

c. Type of bridge (construction material):  
Prestressed Concrete Girder

d. Water depth at the proposed crossing at NLW or NWL:  
1.5'

e. (i) Will proposed bridge replace an existing bridge?  Yes  No  
If yes,  
(ii) Length of existing bridge: 78'  
(iii) Width of existing bridge: 33'  
(iv) Navigation clearance underneath existing bridge: 10'  
(v) Will all, or a part of, the existing bridge be removed?  
(Explain) All removed except existing abutments below el 19.5'

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: 110'  
i. Will the proposed bridge affect existing water flow?  Yes  No  
If yes, explain:

h. Width of proposed bridge: 43'-3"  
j. Will the proposed bridge affect navigation by reducing or increasing the existing navigable opening?  Yes  No  
If yes, explain: 10.5' clearance

k. Navigation clearance underneath proposed bridge: 10.5'  
m. Will the proposed bridge cross wetlands containing no navigable waters?  Yes  No  
If yes, explain:

l. Have you contacted the U.S. Coast Guard concerning their approval?  Yes  No  
If yes, explain:  
n. Height of proposed bridge above wetlands: \_\_\_\_\_

## 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: 40'

(iii) Avg. width of area to be excavated: 70'

(iv) Avg. depth of area to be excavated: 2.6'

(v) Amount of material to be excavated in cubic yards: 270cy

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

(i) Location of the spoil disposal area: NCDOT approved site to be determined by contactor \_\_\_\_\_

(ii) Dimensions of the spoil disposal area: \_\_\_\_\_

(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 7405  None

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

Fill will be placed to facilitate road widening  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

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: 200

(iii) Avg. width of area to be filled: 20

(iv) Purpose of fill: Fill will be placed to facilitate road widening  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**4. GENERAL**

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

If yes, explain: See attached utility plans. Telephone and gas utilities will use trenchless method (directional bore) to place their facilities under White Oak Swamp; staging area and access boxes for telephone and gas utilities will be located outside wetland areas  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

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: Detour structure located west (downstream) of existing structure. See plans for details  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

< 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?

Use of Standard NCDOT BMP's and erosion control measures

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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

Standard NCDOT road and bridge construction equipment will be employed, including by not limited to a crane, bulldozer, dump truck, and motor grader, pile driver, etc.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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.

Oct 17, 2013

Date

B-5141

Project Name

Richard W. Hancock, PE, NCDOT

Applicant Name

E. L. Lusk for

Applicant Signature



# MITIGATION REQUEST FORM TRI-PARTY MOA (NCDOT)



Revised 3/24/2008

Fill in requested information, print out the form, sign and date, and either mail to EEP, 1652 Mail Service Center, Raleigh, NC 27699-1652, or fax to 919-715-2219. Attachments are acceptable for clarification purposes.

Electronic submissions are permissible; however, an acceptance letter cannot be sent until the original signed form has been received.

NCDOT CONTACT INFORMATION		REGULATORY CONTACT INFORMATION	
Agency/Division	NCDOT-Highways	USACE Office	Regulatory Field Office
Branch	PDEA-NEU	USACE Contact	Ms. Tracey L Wheeler
Mailing Address	1598 Mail Service Center	Mailing Address	2407 West 5th Street
City, State, Zip	Raleigh, NC 27699-1598	City, State, Zip	Washington, NC 27889
Project Manager	John Merritt	USACE Fax Number	(910) 251-4627
Telephone Number	(919) 707-6000	NCDWQ Contact	
E-Mail Address	jsmerritt@dot.state.nc.us	Mailing Address	
Supervisor	Chris Rivenbark	City, State, Zip	
Telephone Number	(919) 707-6000	NCDWQ Fax Number	

## PROJECT LOCATION INFORMATION AND IMPACTS

TIP Number(s)		B-5141	
TIP Description		WHITE OAK SWAMP. REPLACE BRIDGE NO. 53	
Current Let Date		5/20/14	
NCDOT Highway Division		Division 1	
County(ies)		Bertie	
EEP Ecoregion(s)		Northern Outer Coastal Plain	
River Basin(s)		Roanoke	
Cataloging Unit(s) (8-digit)		03010107	
<b>Total Stream (feet)</b>	Warm		
	Cool		
	Cold		
	TOTAL		
<b>Total Riparian Wetland Impact (acres)</b>		0.16	
<b>Total Non-Riparian Wetland Impact (acres)</b>			
<b>Total Coastal Marsh Impact (acres)</b>			
<b>Total Buffer Impact</b>	Zone 1 (square feet)		
	Zone 2 (square feet)		

## OTHER INFORMATION

USACE Action ID Number (if known)	2009-02269
NCDWQ Project Number (if known)	
NCDCM Project Number (if known)	

**Comments:**

<b>IMPORTANT</b>	
<p style="text-align: center;">Check below if this request is a:</p> <p><input checked="" type="checkbox"/> <b>New Mitigation Request</b></p> <p><input type="checkbox"/> <b>Revision to a current acceptance</b></p>	<p style="text-align: center;"><b>Signature of Applicant or Agent:</b></p> <p style="text-align: center;">_____</p> <p>Date: _____</p>

**U.S. ARMY CORPS OF ENGINEERS**  
**WILMINGTON DISTRICT**

B. 5141

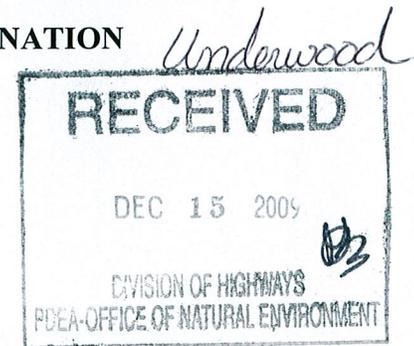
Action Id. SAW-2009--02269

County: Bertie

U.S.G.S. Quad: Windsor North, NC

**NOTIFICATION OF JURISDICTIONAL DETERMINATION**

Property Owner/Agent: Dr. Gregory J. Thorpe, Ph.D.  
Address: Environmental Management Director, PDEA  
N.C. Department of Transportation  
1598 Mail Service Center  
Raleigh, North Carolina 27699-1598



Telephone No.: (252) 431-2000

Property description:

Size (acres) 1 acre  
Nearest Waterway White Oak Swamp  
USGS HUC 03010107

Nearest Town Askewville  
River Basin Roanoke  
Coordinates N 36.07766 W 76.97620

Location description The project area is adjacent to Bridge # 53 on US Highway 13 approximately 0.23 miles south of the intersection of US Highway 13 and NC Highway 305, adjacent to and crossing the White Oak Swamp.

**Indicate Which of the Following Apply:**

**A. Preliminary Determination**

Based on preliminary information, there may be waters of the U.S. including wetlands on the above described project area. We strongly suggest you have this property inspected to determine the extent of Department of the Army (DA) jurisdiction. To be considered final, a jurisdictional determination must be verified by the Corps. This preliminary determination is not an appealable action under the Regulatory Program Administrative Appeal Process ( Reference 33 CFR Part 331).

**B. Approved Determination**

- There are Navigable Waters of the United States within the above described property subject to the permit requirements of Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act. Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.
- There are wetlands on the above described property subject to the permit requirements of Section 404 of the Clean Water Act (CWA)(33 USC § 1344). Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.
  - We strongly suggest you have the wetlands on your property delineated. Due to the size of your property and/or our present workload, the Corps may not be able to accomplish this wetland delineation in a timely manner. For a more timely delineation, you may wish to obtain a consultant. To be considered final, any delineation must be verified by the Corps.
  - The waters of the U.S. including wetland on your project area have been delineated and the delineation has been verified by the Corps. We strongly suggest you have this delineation surveyed. Upon completion, this survey should be reviewed and verified by the Corps. Once verified, this survey will provide an accurate depiction of all areas subject to CWA jurisdiction on your property which, provided there is no change in the law or our published regulations, may be relied upon for a period not to exceed five years.
  - The wetlands have been delineated and surveyed and are accurately depicted on the plat signed by the Corps Regulatory Official identified below on \_\_\_\_\_. Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.
- There are no waters of the U.S., to include wetlands, present on the above described property which are subject to the permit requirements of Section 404 of the Clean Water Act (33 USC 1344). Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.

**X** The property is located in one of the 20 Coastal Counties subject to regulation under the Coastal Area Management Act (CAMA). You should contact the Division of Coastal Management in Elizabeth City, NC, at (252) 264-3901 to determine their requirements.

Action Id. SAW-2009-02269

Placement of dredged or fill material within waters of the US and/or wetlands without a Department of the Army permit may constitute a violation of Section 301 of the Clean Water Act (33 USC § 1311). If you have any questions regarding this determination and/or the Corps regulatory program, please contact **Bill Biddlecome** at **(910) 251-4558**.

### **C. Basis For Determination**

This site exhibits wetland criteria as described in the 1987 Corps Wetland Delineation Manual and is adjacent to the White Oak Swamp which is a tributary to the Cashie River.

### **D. Remarks**

\_\_\_\_\_

### **E. Appeals Information (This information applies only to approved jurisdictional determinations as indicated in B. above)**

This correspondence constitutes an approved jurisdictional determination for the above described site. If you object to this determination, you may request an administrative appeal under Corps regulations at 33 CFR part 331. Enclosed you will find a Notification of Appeal Process (NAP) fact sheet and request for appeal (RFA) form. If you request to appeal this determination you must submit a completed RFA form to the following address:

District Engineer, Wilmington Regulatory Division  
Attn: Bill Biddlecome, Project Manager,  
Washington Regulatory Field Office  
P.O. Box 1000  
Washington, North Carolina 27889

In order for an RFA to be accepted by the Corps, the Corps must determine that it is complete, that it meets the criteria for appeal under 33 CFR part 331.5, and that it has been received by the District Office within 60 days of the date of the NAP. Should you decide to submit an RFA form, it must be received at the above address by N/A.

\*\*It is not necessary to submit an RFA form to the District Office if you do not object to the determination in this correspondence.\*\*

Corps Regulatory Official: \_\_\_\_\_



Date 12/10/2009

Expiration Date 12/10/2014

The Wilmington District is committed to providing the highest level of support to the public. To help us ensure we continue to do so, please complete the Customer Satisfaction Survey located at our website at <http://regulatory.usacesurvey.com/> to complete the survey online.

Copy furnished:



**North Carolina Department of Transportation**  
**Highway Stormwater Program**  
**STORMWATER MANAGEMENT PLAN**  
**FOR LINEAR ROADWAY PROJECTS**



(Version 1.2; Released September 2011)

**General Project Information**

<b>Project No.:</b>	B-5141	<b>Project Type:</b>	Bridge Replacement	<b>Date:</b>	3/21/2013
<b>NCDOT Contact:</b>	Charles Smith, PE	<b>Contractor / Designer:</b>	Sungate Design Group, P.A.		
<b>Address:</b>	1020 Birch Ridge Road Raleigh, NC 27610	<b>Address:</b>	915 Jones Franklin Road Raleigh, NC 27606		
	<b>Phone:</b> 919-707-6716		<b>Phone:</b>	919-859-2243	
	<b>Email:</b> crsmith5@ncdot.gov		<b>Email:</b>	hwells@sungatedesign.com	
<b>City/Town:</b>	Windsor	<b>County(ies):</b>	Bertie		
<b>River Basin(s):</b>	Roanoke	<b>CAMA County?</b>	Yes		
<b>Primary Receiving Water:</b>	White Oak Swamp	<b>NCDWQ Stream Index No.:</b>	24-2-4		
<b>NCDWQ Surface Water Classification for Primary Receiving Water</b>	<b>Primary:</b>	Class C			
	<b>Supplemental:</b>	Swamp Waters (Sw)			
<b>Other Stream Classification:</b>	None				
<b>303(d) Impairments:</b>	None				
<b>Buffer Rules in Effect</b>	N/A				

**Project Description**

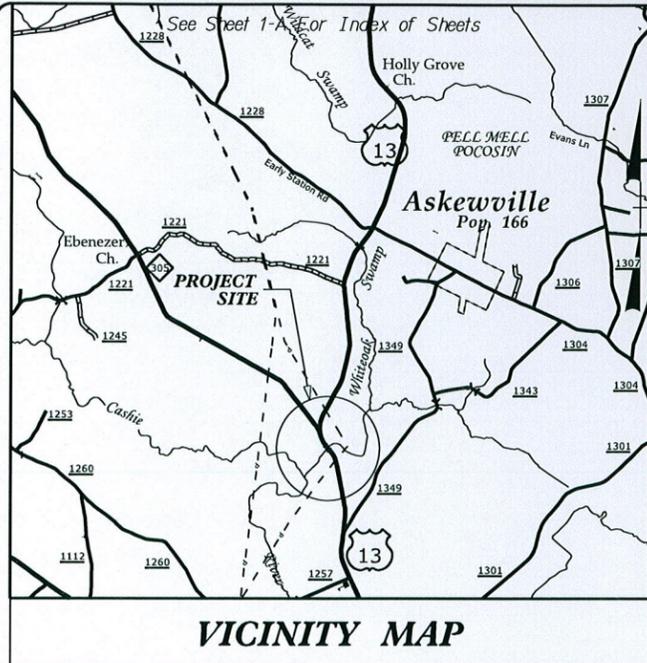
<b>Project Length (lin. Miles or feet):</b>	0.15	<b>Surrounding Land Use:</b>	Rural, Agriculture		
	<b>Proposed Project</b>		<b>Existing Site</b>		
<b>Project Built-Upon Area (ac.)</b>	0.63 ac.		0.44 ac.		
<b>Typical Cross Section Description:</b>	2-Lane Shoulder Section - 12 lanes with 4' paved shoulder		2-Lane Shoulder Section - 11' lanes		
<b>Average Daily Traffic (veh/hr/day):</b>	<b>Design/Future:</b> 9500	<b>Existing:</b>	5500		

**General Project Narrative:** B-5141 involves the removal and replacement of Bertie County bridge number 53 along with improvements to its approaches. The replacement also includes installation of a temporary detour located downstream of the existing bridge. The impervious area within the project limits will increase by 0.2 acres from 0.44 acres to 0.64 acres. There will be no deck drains installed on the bridge so that there is no direct discharge into surface waters. The bridge end drain on the south approach will be outside the wetland boundary. The drain on the north approach will be discharged into the wetland. Rip rap dissipators will be utilized at the outlets of both end drains. Preformed scour holes were not used due to the proximity to wetlands. The swales proposed for the project replace existing swales. The swale at 11+50 - 13+50 -L- It. provides treatment for the added impervious area. The proposed swale at 18+00 - 19+50 -L- It. replaces the existing swale that was covered due to road widening. The ditch is on a 3-4% grade and therefore the V2 is significantly over the 2 fps limit for treatment. Wider base options were analyzed to attempt to bring the V2 into recommended limits.

**References**

09/08/99

TIP PROJECT: B-5141



VICINITY MAP

THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDRIES

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

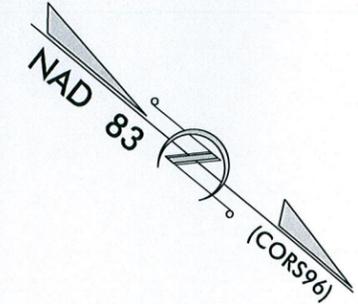
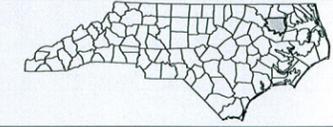
**BERTIE COUNTY**

LOCATION: BRIDGE 53 ON US 13 OVER WHITE OAK SWAMP

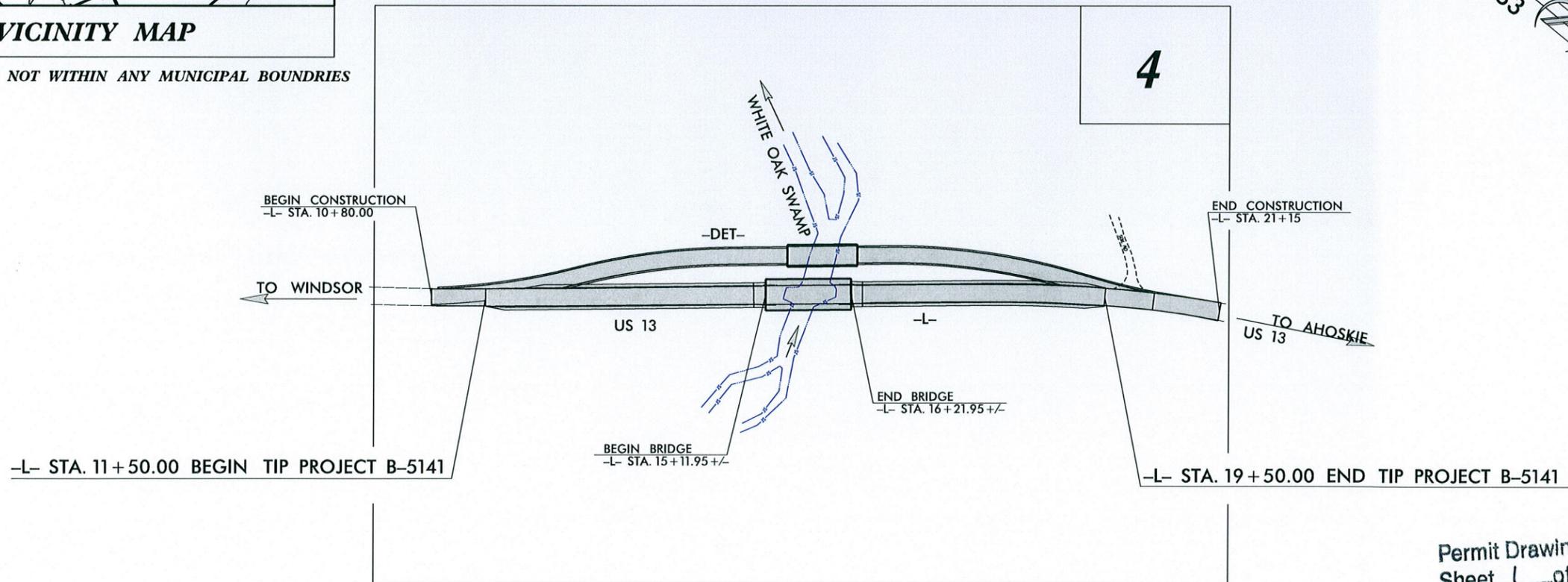
TYPE OF WORK: GRADING, DRAINAGE, PAVING, AND STRUCTURE

PERMIT DRAWING  
SHEET 1 OF 11

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-5141	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
42302.1.1	BRNHS-0013(25)	PE	
42302.2.1	BRNHS-0013(25)	RW & UTIL	



WETLAND AND SURFACE WATER IMPACTS PERMIT

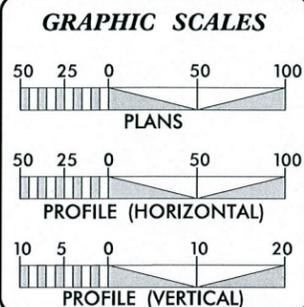


Permit Drawing  
Sheet 1 of 11

CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III

PRELIMINARY PLANS  
DO NOT USE FOR CONSTRUCTION

CONTRACT:



DESIGN DATA

ADT 2012 =	5,500
ADT 2035 =	9,500
DHV =	9 %
D =	55 %
T =	12 % *
V =	60 MPH
* TTST =	5% DUAL 7%
FUNC CLASS =	MINOR ARTERIAL
REGIONAL TIER	

PROJECT LENGTH

LENGTH OF ROADWAY TIP PROJECT B-5141 =	0.131 MILES
LENGTH OF STRUCTURE TIP PROJECT B-5141 =	0.021 MILES
TOTAL LENGTH OF TIP PROJECT B-5141 =	0.152 MILES

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

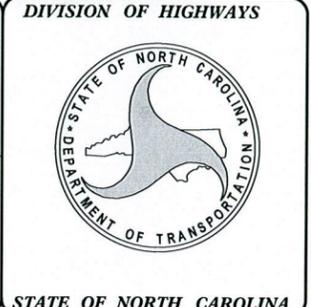
2012 STANDARD SPECIFICATIONS	
RIGHT OF WAY DATE:	FEBRUARY 8, 2013
LETTING DATE:	MAY 20, 2014
G. E. BREW, PE	PROJECT ENGINEER
I. T. YOUNIS	PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: \_\_\_\_\_ P.E.

ROADWAY DESIGN ENGINEER

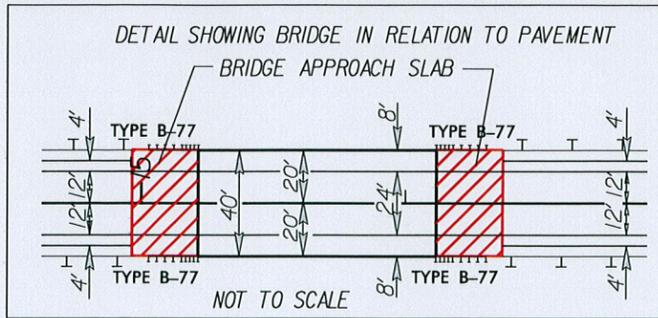
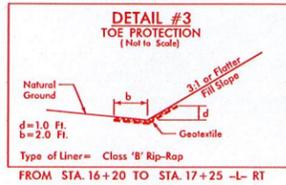
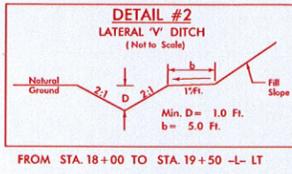
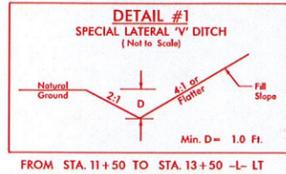
SIGNATURE: \_\_\_\_\_ P.E.



10/18/13

\$\$\$\$\$SYTIME\$\$\$\$\$  
\$\$\$\$\$DGN\$\$\$\$\$  
\$\$\$\$\$USERNAME\$\$\$\$\$

B-17/99



DENOTES FILL IN WETLAND



DENOTES HAND CLEARING

SEE SHEET S-1 THRU S-2 FOR STRUCTURE PLANS

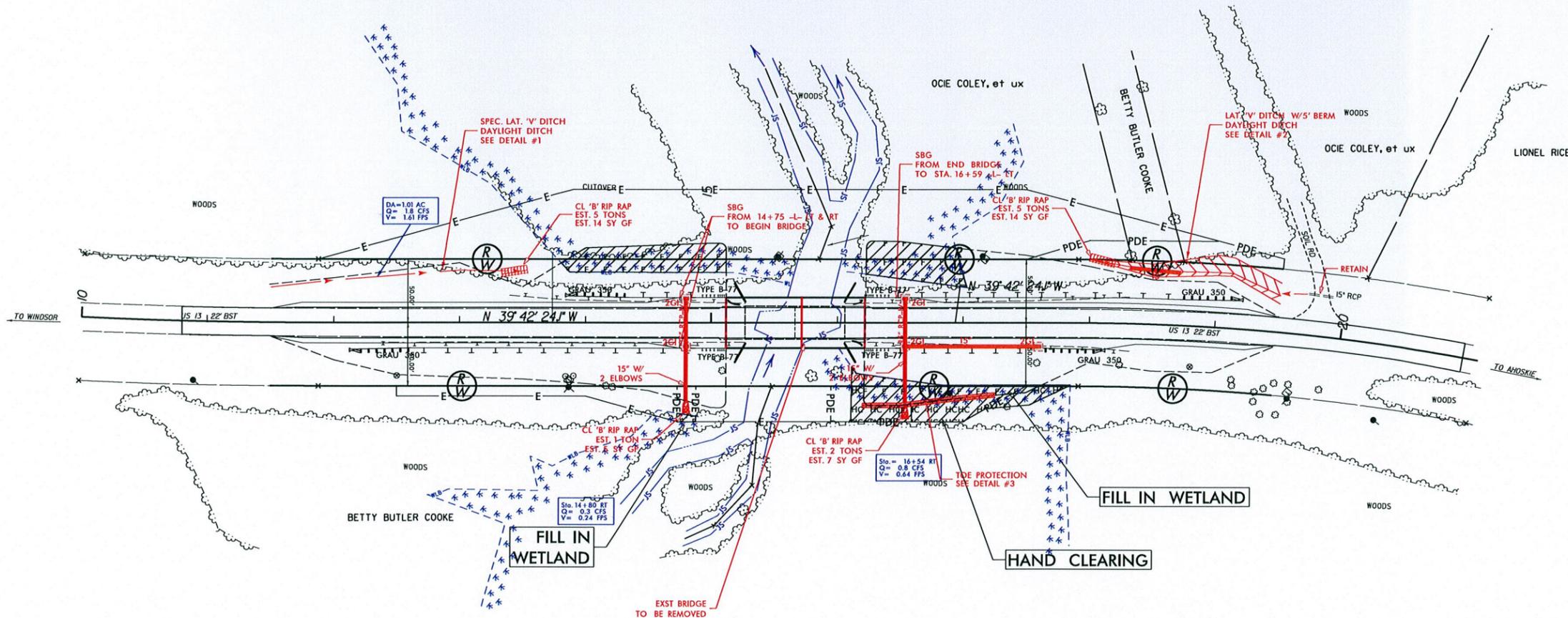
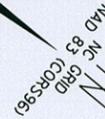
SEE SHEET 5 FOR TEMPORARY ON-SITE DETOUR

PROJECT REFERENCE NO. <b>B-5141</b>	SHEET NO. <b>4</b>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR R/W ACQUISITION	
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	
SEE SHEET 6 OR PROFILE OF -L-	

**PERMIT DRAWING SHEET 2 OF 11**

REVISIONS

COOPER PEEL PROPERTIES, LLC

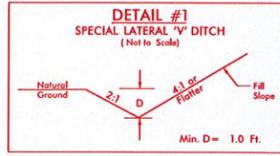


TIMBERLANDS UNLIMITED, INC.

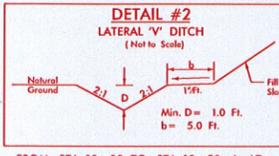
Permit Drawing Sheet 3 of 11

10/18/2013  
B5141\_d\_prm\_wet.psh04

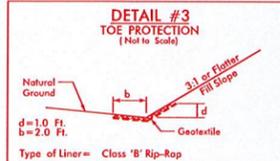
8/17/99



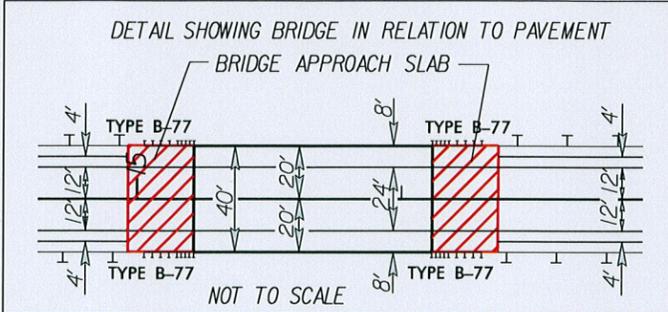
FROM STA. 11+50 TO STA. 13+50 -L- LT



FROM STA. 18+00 TO STA. 19+50 -L- LT



FROM STA. 16+20 TO STA. 17+25 -L- RT



DENOTES FILL IN WETLAND

DENOTES HAND CLEARING

SEE SHEET S-1 THRU S-? FOR STRUCTURE PLANS

SEE SHEET 5 FOR TEMPORARY ON-SITE DETOUR

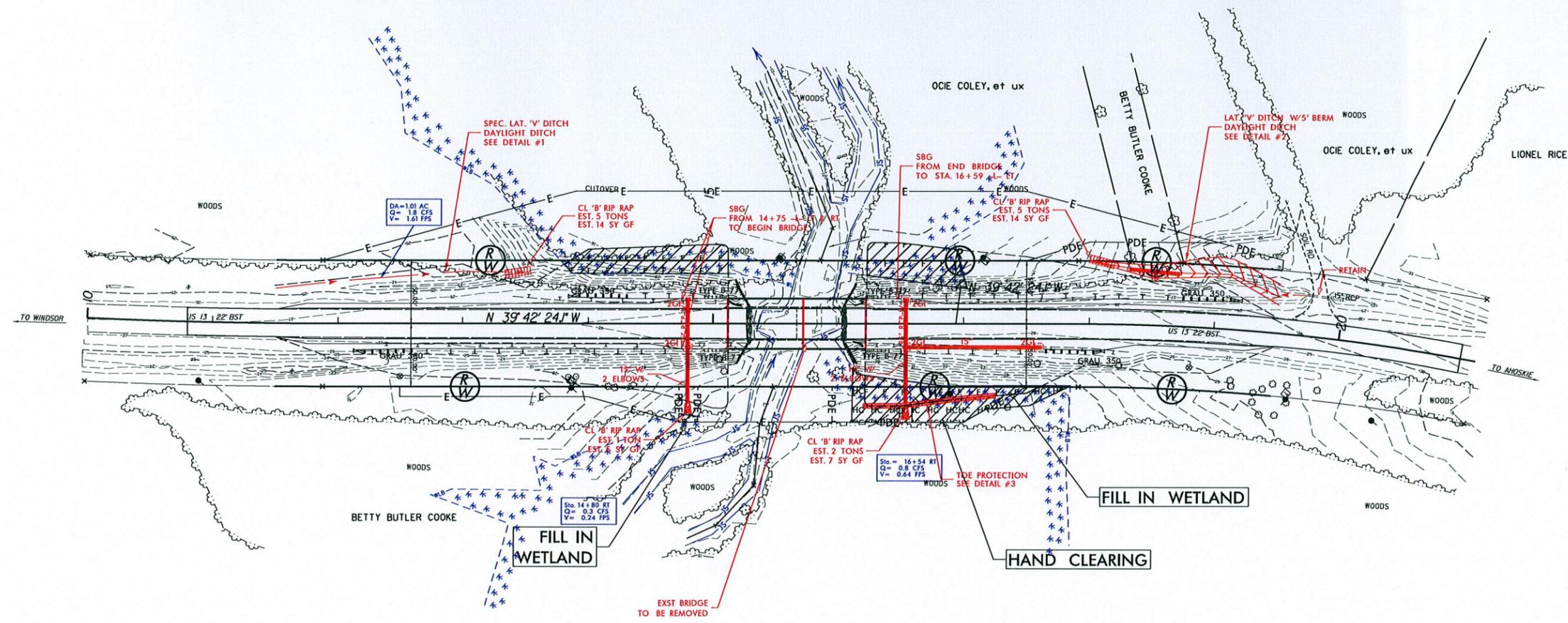
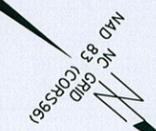
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ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR R/W ACQUISITION	
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	

SEE SHEET 6 OR PROFILE OF -L-

**PERMIT DRAWING SHEET 3 OF 11**

REVISIONS

COOPER PEEL PROPERTIES, LLC

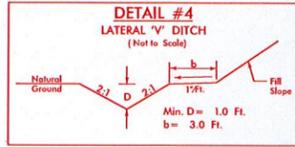


TIMBERLANDS UNLIMITED, INC.

Permit Drawing Sheet 3 of 11

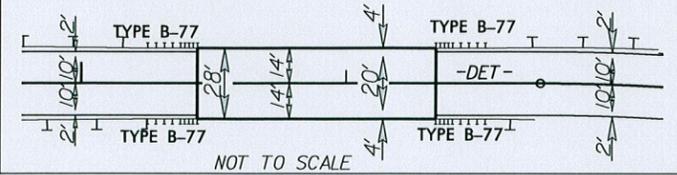
10/18/2003  
B5141\_d-prm-wet\_psh04\_con

8/17/99



FROM STA. 12+00 TO STA. 13+35 -DET- LT  
 FROM STA. 18+50 TO STA. 19+50 -DET- LT

SKETCH SHOWING TEMP. BRIDGE/ROADWAY RELATIONSHIP



NOT TO SCALE

USE THIS SHEET FOR TEMPORARY  
 DETOUR CONSTRUCTION ONLY

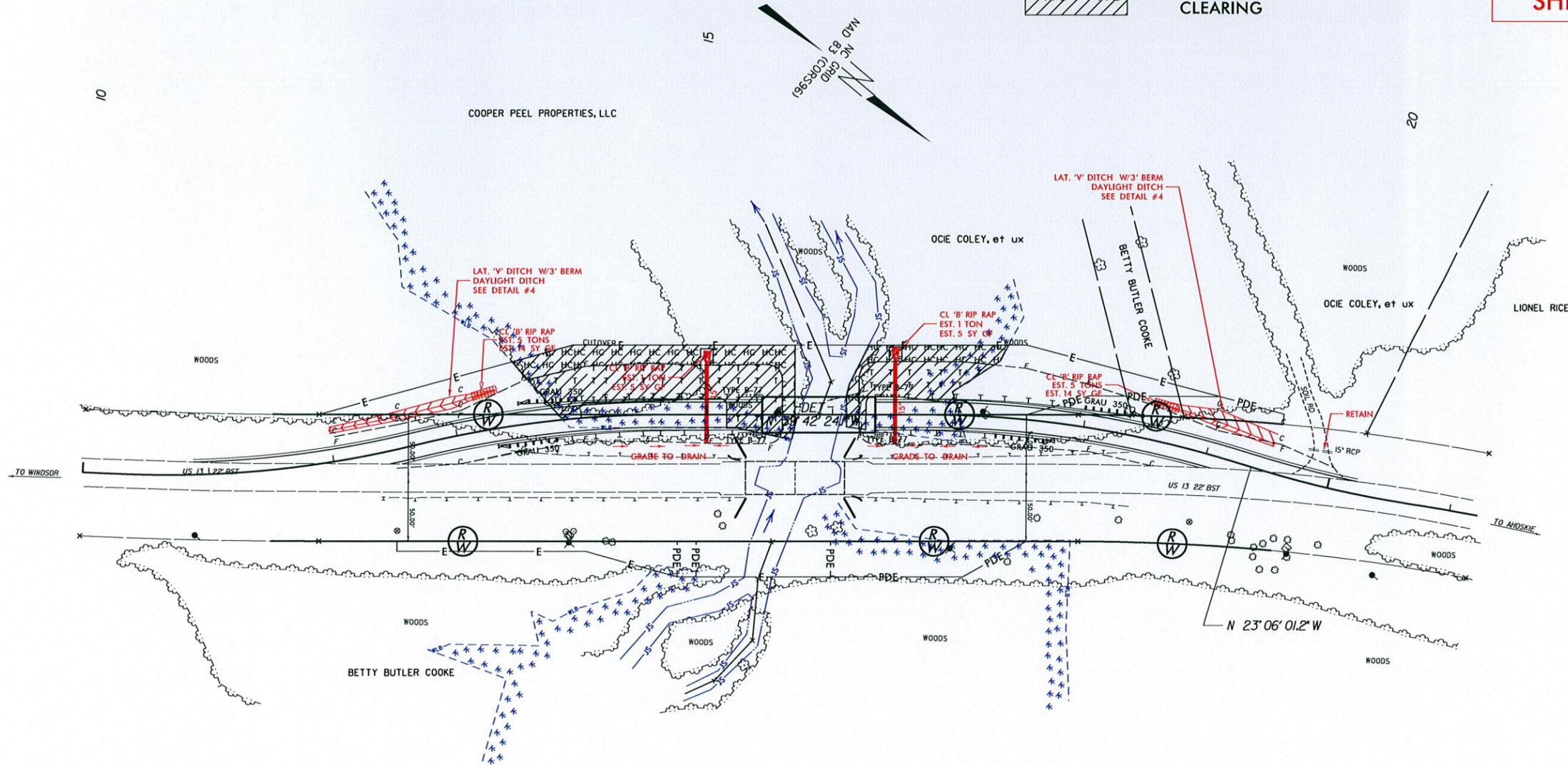
SEE SHEET S-1 THRU S-2  
 FOR STRUCTURE PLANS

PROJECT REFERENCE NO. B-5141	SHEET NO. 5
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR R/W ACQUISITION <b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	
SEE SHEET 6 OR PROFILE OF -DET-	

**PERMIT DRAWING**  
**SHEET 4 OF 11**

DENOTES TEMPORARY  
 FILL IN WETLAND  
 DENOTES HAND  
 CLEARING

REVISIONS



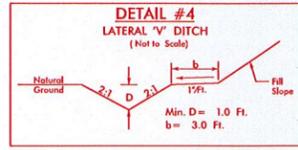
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NOTE: USE THIS SHEET FOR TEMPORARY TRAFFIC MAINTENANCE DURING CONSTRUCTION.

Permit Drawing  
 Sheet 4 of 11

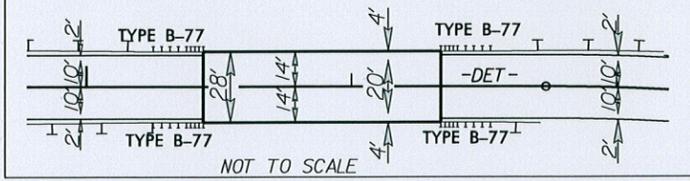
10/18/2013  
 B5141\_hyd.prm\_wet.psh05\_det  
 hmvell

8/17/99



FROM STA. 12+00 TO STA. 13+35 -DET- LT  
 FROM STA. 18+50 TO STA. 19+50 -DET- LT

SKETCH SHOWING TEMP. BRIDGE/ROADWAY RELATIONSHIP



USE THIS SHEET FOR TEMPORARY  
 DETOUR CONSTRUCTION ONLY

SEE SHEET S-1 THRU S-2  
 FOR STRUCTURE PLANS

DENOTES TEMPORARY  
 FILL IN WETLAND

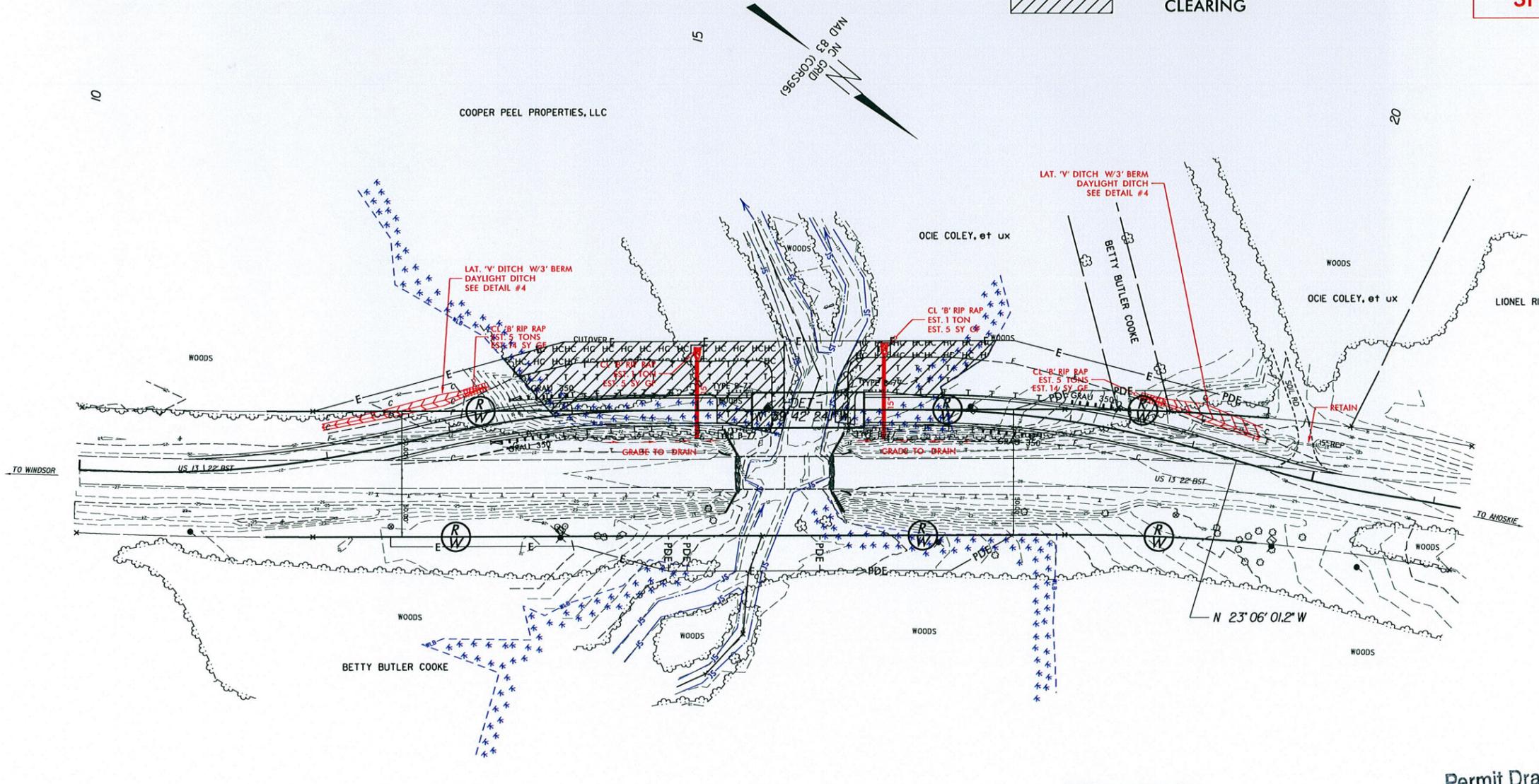
DENOTES HAND  
 CLEARING

PROJECT REFERENCE NO. B-5141	SHEET NO. 5
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR R/W ACQUISITION <b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	
SEE SHEET 6 OR PROFILE OF -DET-	

**PERMIT DRAWING**  
**SHEET 5 OF 11**

REVISIONS

10/18/2013  
 85131\_11141\_d\_prm\_wet\_pah05\_det.con  
 10/18/2013



DETOUR DESIGN SPEED= 45 MPH

NOTE: USE THIS SHEET FOR TEMPORARY TRAFFIC MAINTENANCE DURING CONSTRUCTION.

Permit Drawing  
 Sheet 5 of 11

5/28/99

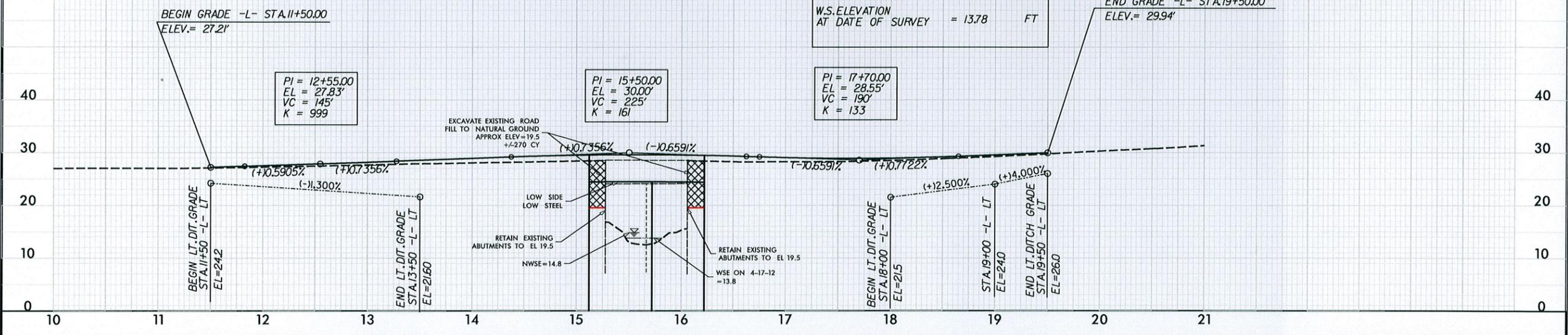
BM-5 RR SPIKE IN BASE OF 8" MAPLE  
-L- STA. 15+51.47 ELEV. 16.67' LEFT  
N 853226 E 2597997

PROJECT REFERENCE NO. B-5141	SHEET NO. 6
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	
FOR PLAN OF -L- SEE SHEET 4	

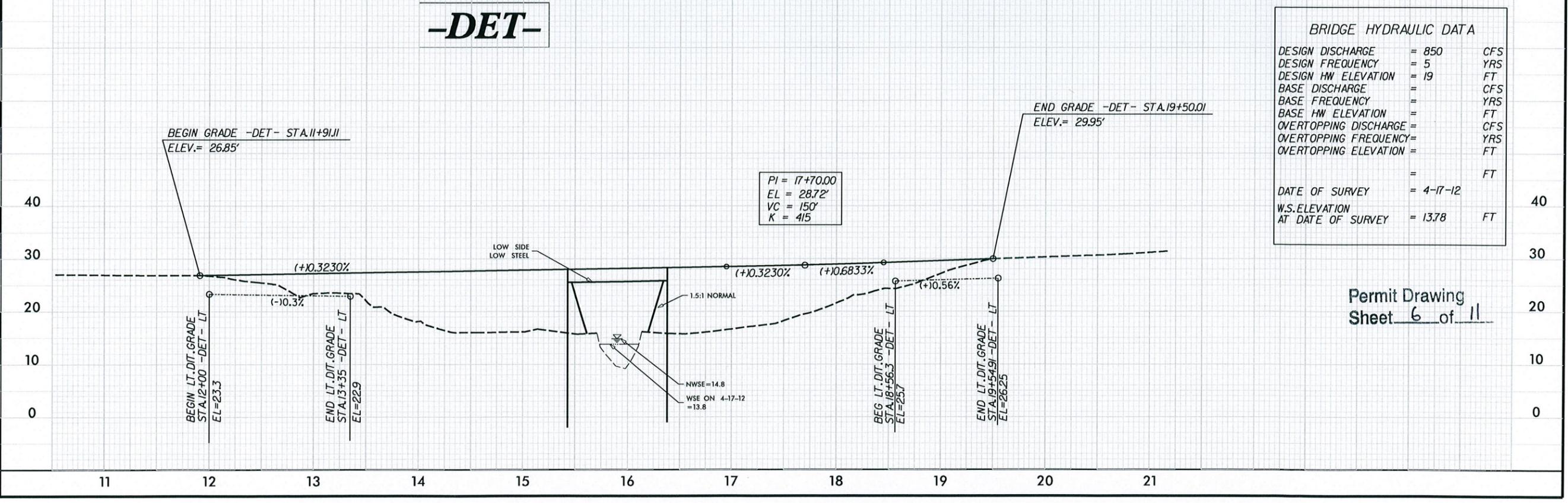
**BRIDGE HYDRAULIC DATA**

DESIGN DISCHARGE	= 1900	CFS
DESIGN FREQUENCY	= 50	YRS
DESIGN HW ELEVATION	= 22.3	FT
BASE DISCHARGE	= 2300	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 23.33	FT
OVERTOPPING DISCHARGE	= >3200	CFS
OVERTOPPING FREQUENCY	= >500	YRS
OVERTOPPING ELEVATION	= 28.9	FT
DATE OF SURVEY	= 4-17-12	FT
W.S. ELEVATION AT DATE OF SURVEY	= 13.78	FT

**PERMIT DRAWING**  
**SHEET 6 OF 11**



FOR PLAN OF -DET- SEE SHEET 5



**BRIDGE HYDRAULIC DATA**

DESIGN DISCHARGE	= 850	CFS
DESIGN FREQUENCY	= 5	YRS
DESIGN HW ELEVATION	= 19	FT
BASE DISCHARGE	=	CFS
BASE FREQUENCY	=	YRS
BASE HW ELEVATION	=	FT
OVERTOPPING DISCHARGE	=	CFS
OVERTOPPING FREQUENCY	=	YRS
OVERTOPPING ELEVATION	=	FT
DATE OF SURVEY	= 4-17-12	FT
W.S. ELEVATION AT DATE OF SURVEY	= 13.78	FT

Permit Drawing  
Sheet 6 of 11

9/18/2013  
B-5141\_Hyd-prm\_wet\_psh06.pfl

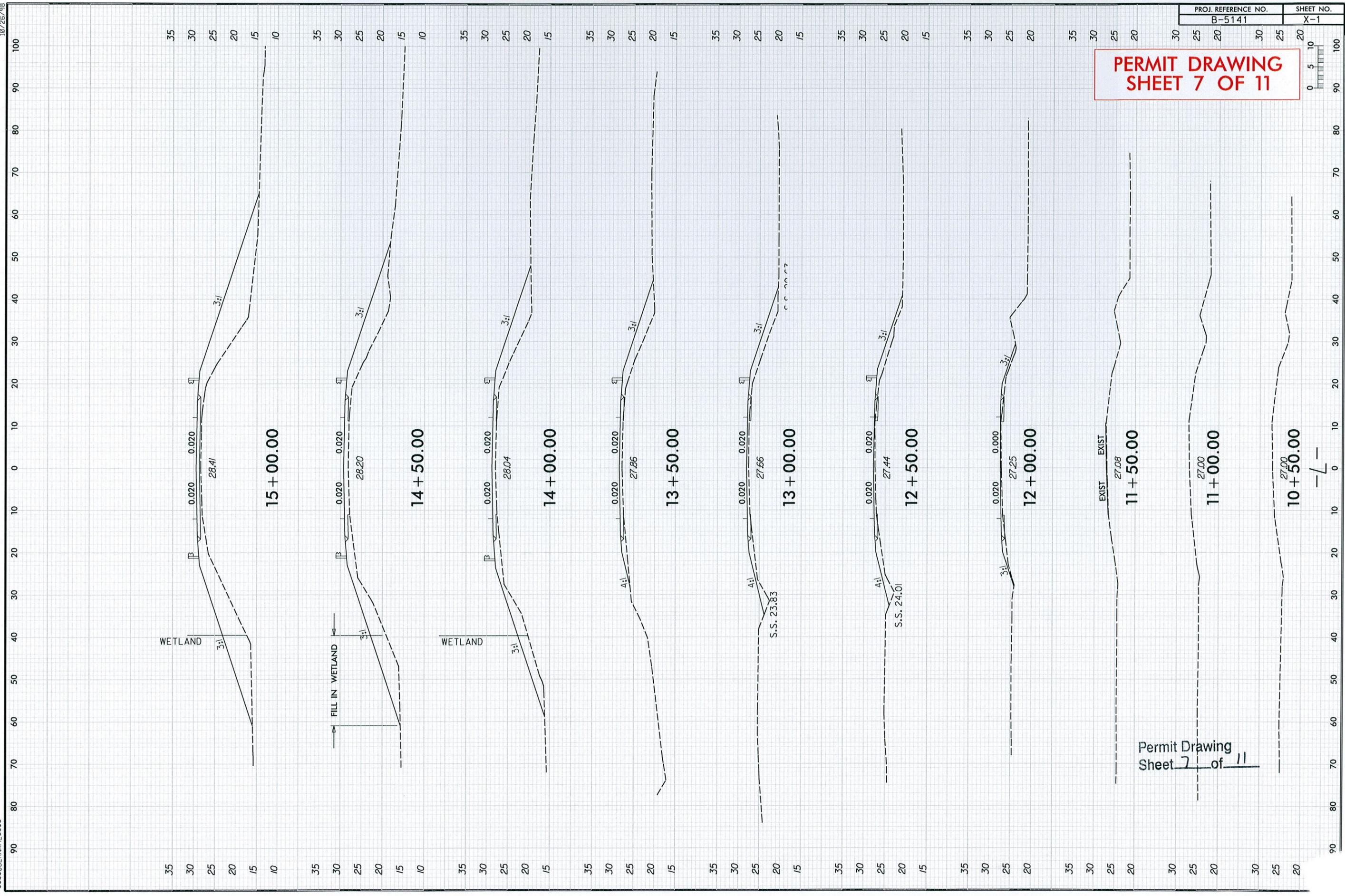
10/26/98



**PERMIT DRAWING  
SHEET 7 OF 11**

10/18/13

=====  
 SEE PLAN FOR  
 CONSTRUCTION  
 USE ONLY  
 =====



Permit Drawing  
Sheet 7 of 11



8/23/99

PERMIT DRAWING  
SHEET 9 OF 11

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

40 40

30 30

20 20

10 10

40 40

30 30

20 20

10 10

40 40

30 30

20 20

10 10

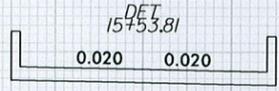
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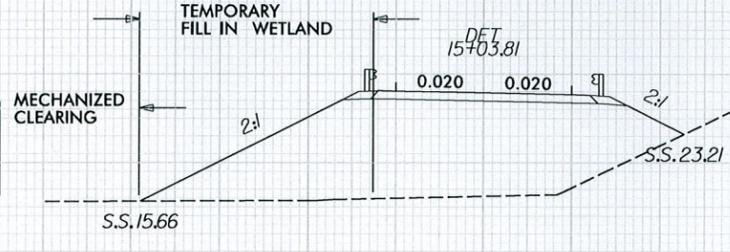
20 20

10 10

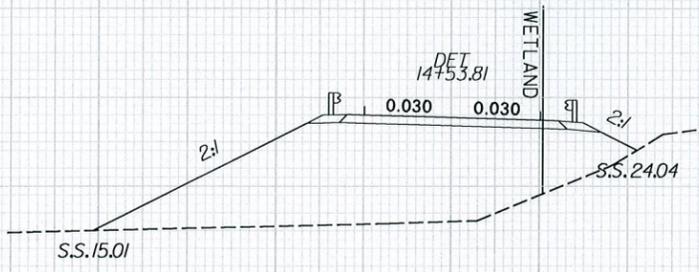
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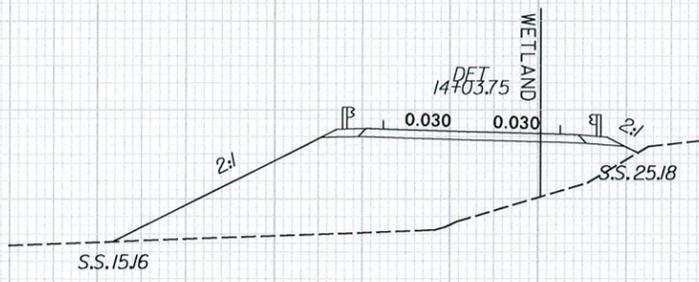
15 + 50.00



15 + 00.00



14 + 50.00



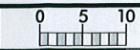
14 + 00.00

Permit Drawn  
Sheet 9 of 11

-L-

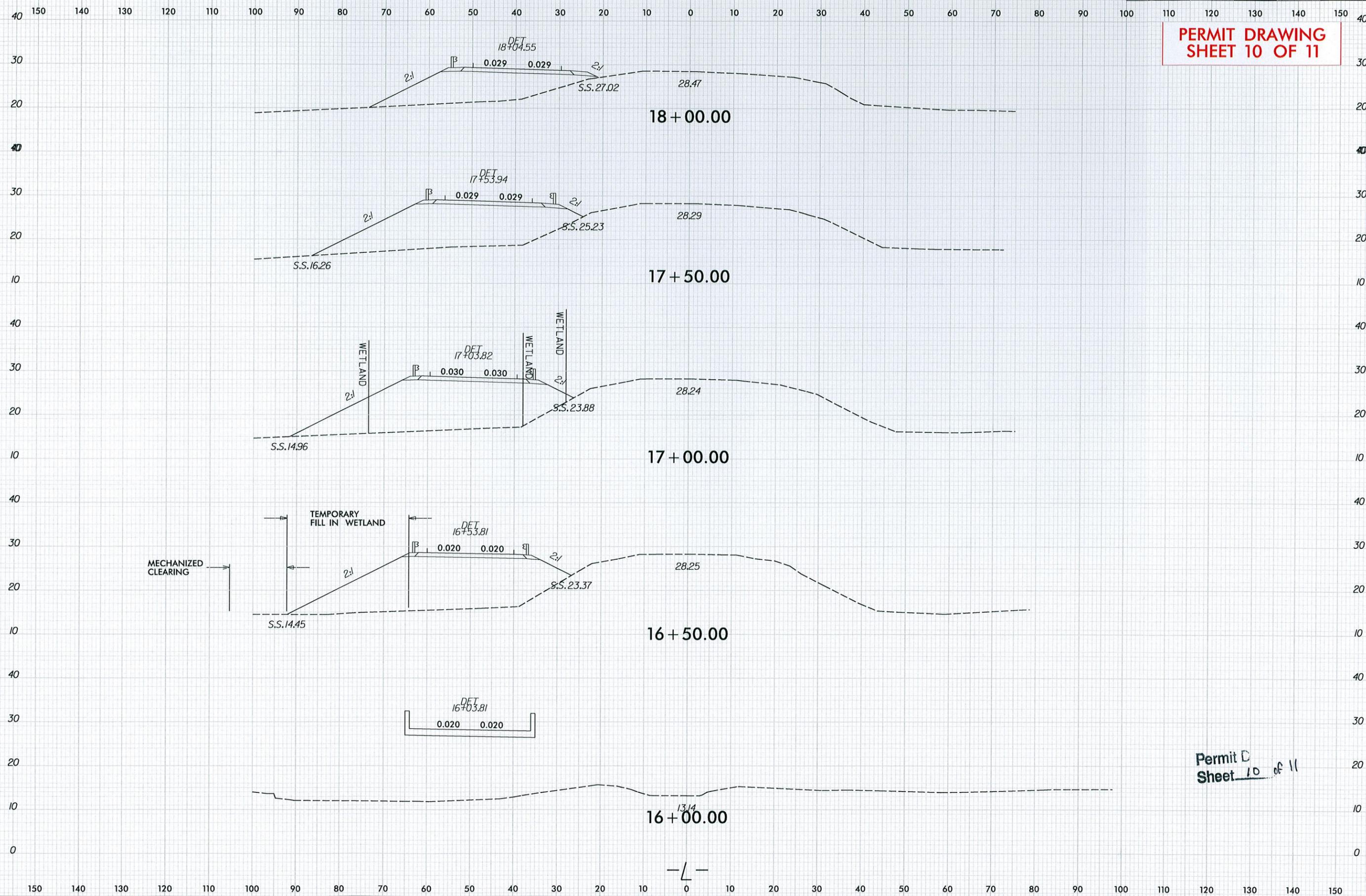
10/18/13  
UNLESS OTHERWISE NOTED  
ALL DIMENSIONS ARE IN FEET  
AND DECIMALS THEREOF  
UNLESS OTHERWISE NOTED  
ALL DIMENSIONS ARE IN FEET  
AND DECIMALS THEREOF

8/23/99



PROJ. REFERENCE NO. B-5141 SHEET NO. X-5

PERMIT DRAWING SHEET 10 OF 11



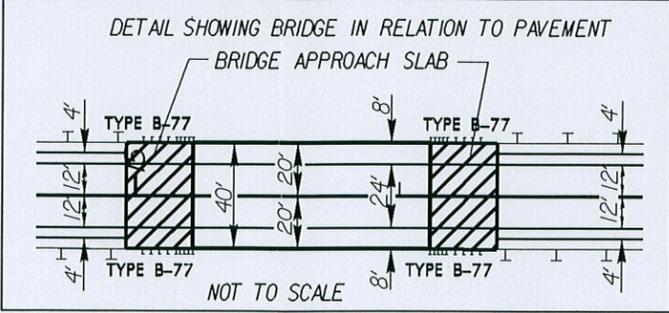
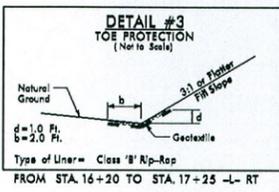
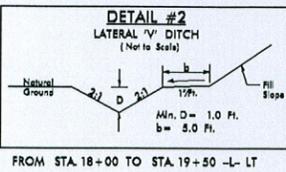
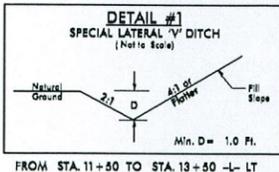
10/18/13  
CONSTRUCTION  
SHEET  
NO. 10  
OF 11

Permit D  
Sheet 10 of 11





8/17/09

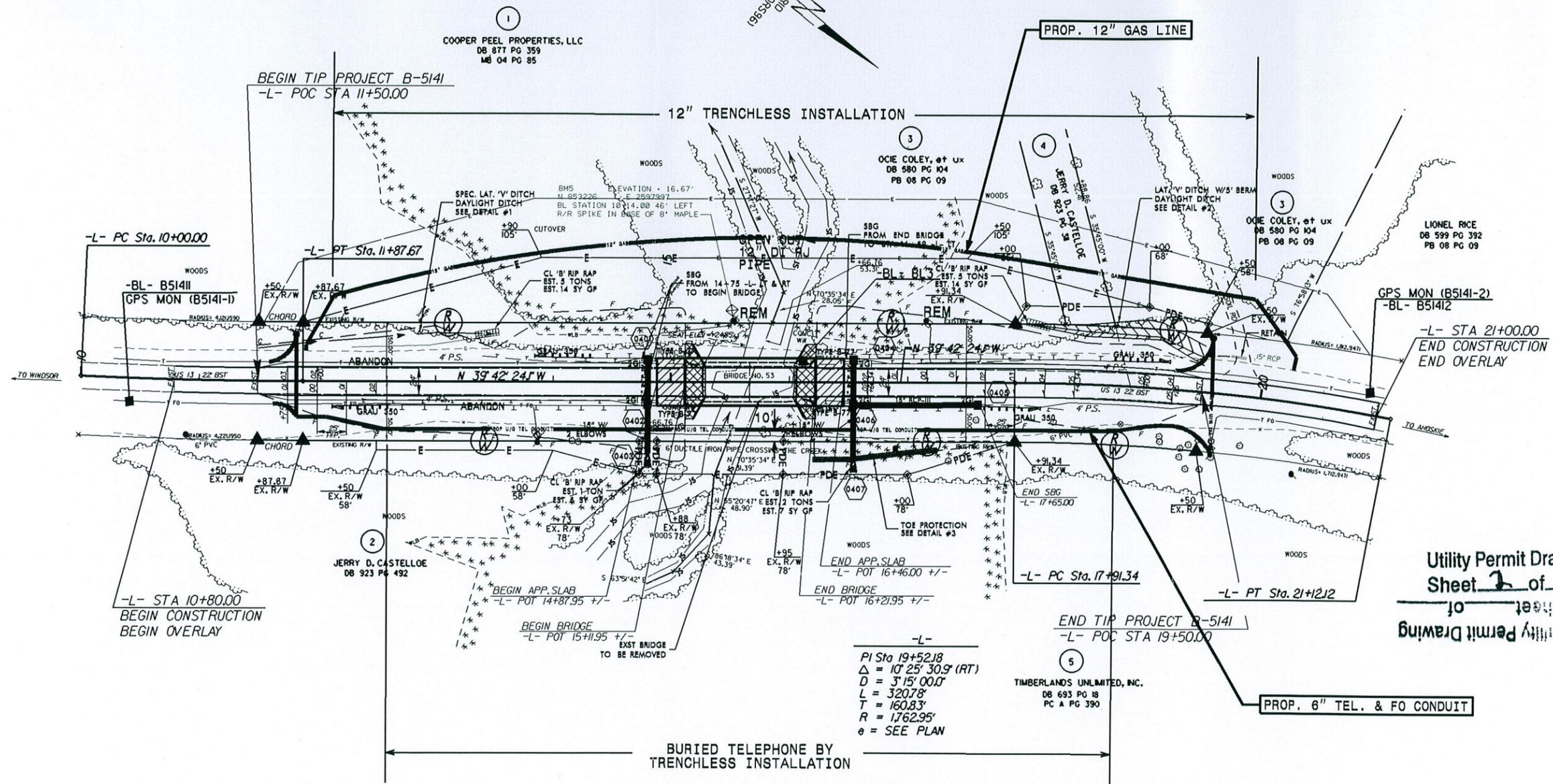


**NEU PERMIT PLANS**  
(April 16, 2013)

PLAN SCALE:  
1" = 50' (FULL-SIZE)  
1" = 100' (HALF-SIZE)

PROJECT REFERENCE NO. B-5141	SHEET NO. 4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	
SEE SHEET 6 OR PROFILE OF -L-	

REVISIONS



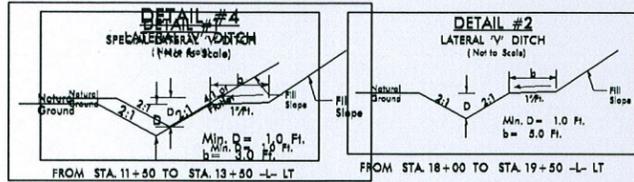
-L-  
 $Pi$  Sta 19+52.18  
 $\Delta = 10' 25' 30.9''$  (RT)  
 $D = 3' 15' 00.0''$   
 $L = 320.78'$   
 $T = 160.83'$   
 $R = 1762.95'$   
 $e = \text{SEE PLAN}$

5  
 TIMBERLANDS UNLIMITED, INC.  
 DB 693 PG 18  
 PC A PG 390

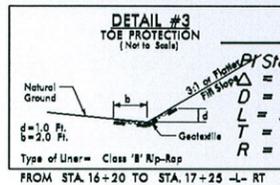
Utility Permit Drawing  
 Sheet 4 of 5  
 of  
 Utility Permit Drawing

15-APR-2013 12:26  
 U:\A\Proj\NEU\B5141\_NEU\_psd04.dgn

8/17/99



FROM STA. 12+00 TO STA. 13+35 -DET- LT  
FROM STA. 18+50 TO STA. 19+50 -DET- LT



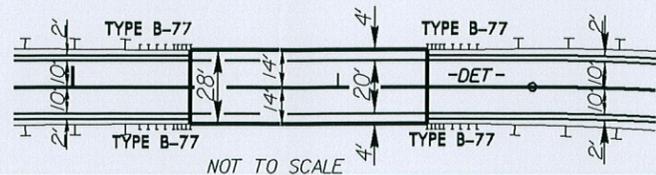
-DET-

PI Sta 10+18.82  
 $\Delta = 0' 31' 01.1''$  (LT)  
 $D = 1' 22' 25.0''$   
 $L = 37.63'$   
 $T = 18.82'$   
 $R = 1771.16'$

PI Sta 11+53.41  
 $\Delta = 15' 49' 29.5''$  (LT)  
 $D = 6' 52' 41.7''$   
 $L = 230.07'$   
 $T = 115.77'$   
 $R = 833.00'$

PI Sta 13+68.24  
 $\Delta = 13' 45' 50.4''$  (RT)  
 $D = 6' 52' 41.7''$   
 $L = 200.11'$   
 $T = 100.54'$   
 $R = 833.00'$

SKETCH SHOWING TEMP. BRIDGE/ROADWAY RELATIONSHIP



# NEU PERMIT PLANS

(April 16, 2013)

PLAN SCALE:  
1"=50' (FULL-SIZE)  
1"=100' (HALF-SIZE)

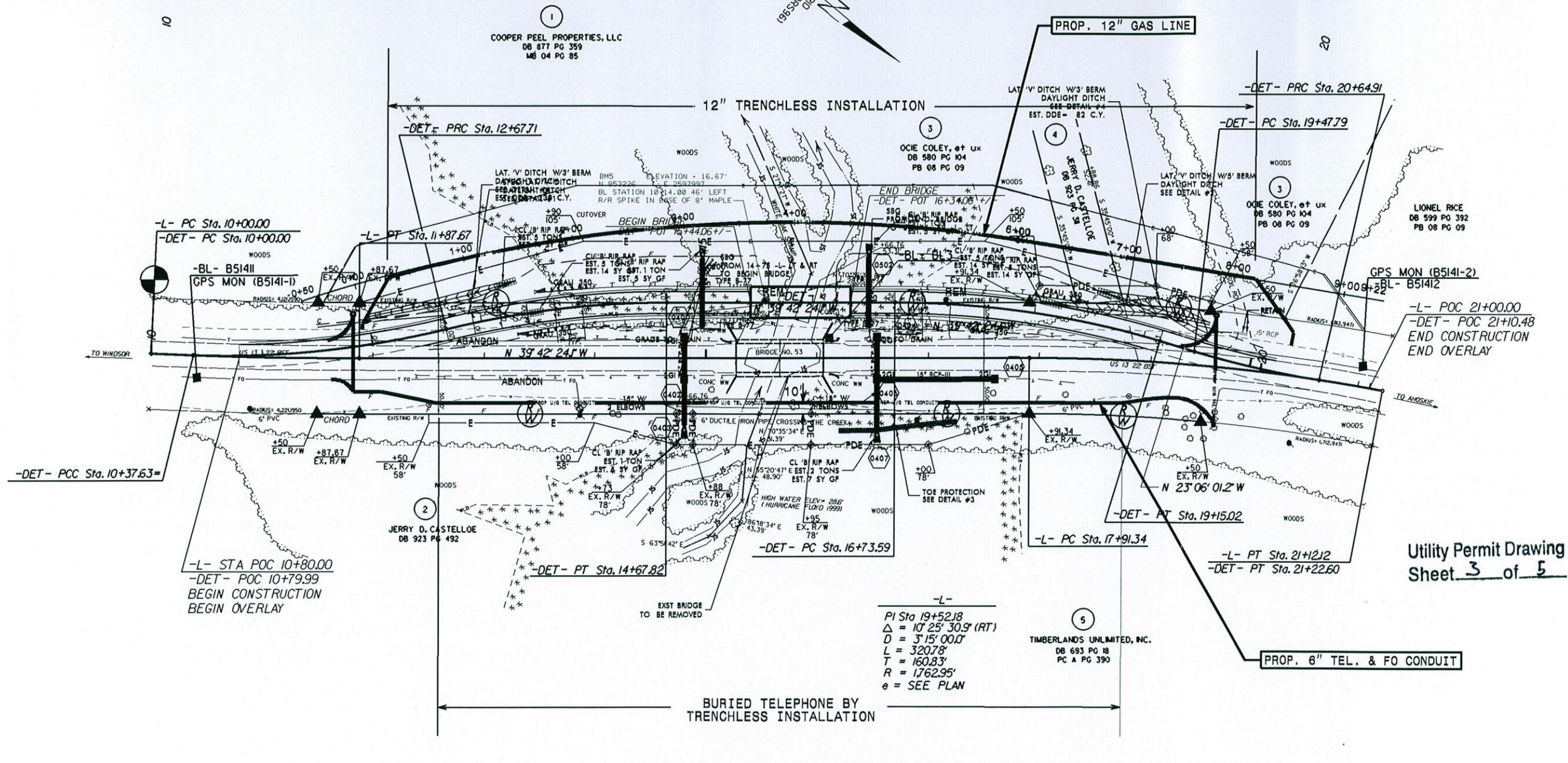
PROJECT REFERENCE NO. B-5141	SHEET NO. 5
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	
SEE SHEET 6 OR PROFILE OF -DET-	

PI Sta 17+95.16  
 $\Delta = 16' 36' 22.9''$  (RT)  
 $D = 6' 52' 41.7''$   
 $L = 241.43'$   
 $T = 121.57'$   
 $R = 833.00'$

PI Sta 20+06.45  
 $\Delta = 8' 03' 20.8''$  (LT)  
 $D = 6' 52' 41.7''$   
 $L = 117.12'$   
 $T = 58.66'$   
 $R = 833.00'$

PI Sta 20+93.76  
 $\Delta = 1' 52' 28.8''$  (RT)  
 $D = 3' 15' 00.0''$   
 $L = 57.68'$   
 $T = 28.84'$   
 $R = 1762.95'$

REVISIONS



-L- PC Sta. 10+00.00

-DET- PC Sta. 10+00.00

-BL- B51411

GPS MON (B5141-1)

-DET- PCC Sta. 10+37.63=

-L- STA POC 10+80.00

-DET- POC 10+79.99

BEGIN CONSTRUCTION

BEGIN OVERLAY

JERRY D. CASTELLOE

DB 923 PG 492

-DET- PT Sta. 14+67.82

-DET- PC Sta. 16+73.59

-L- PC Sta. 17+91.34

-L- PT Sta. 21+12.12

-DET- PT Sta. 21+22.60

Utility Permit Drawing  
Sheet 3 of 5

DETOUR DESIGN SPEED= 45 MPH

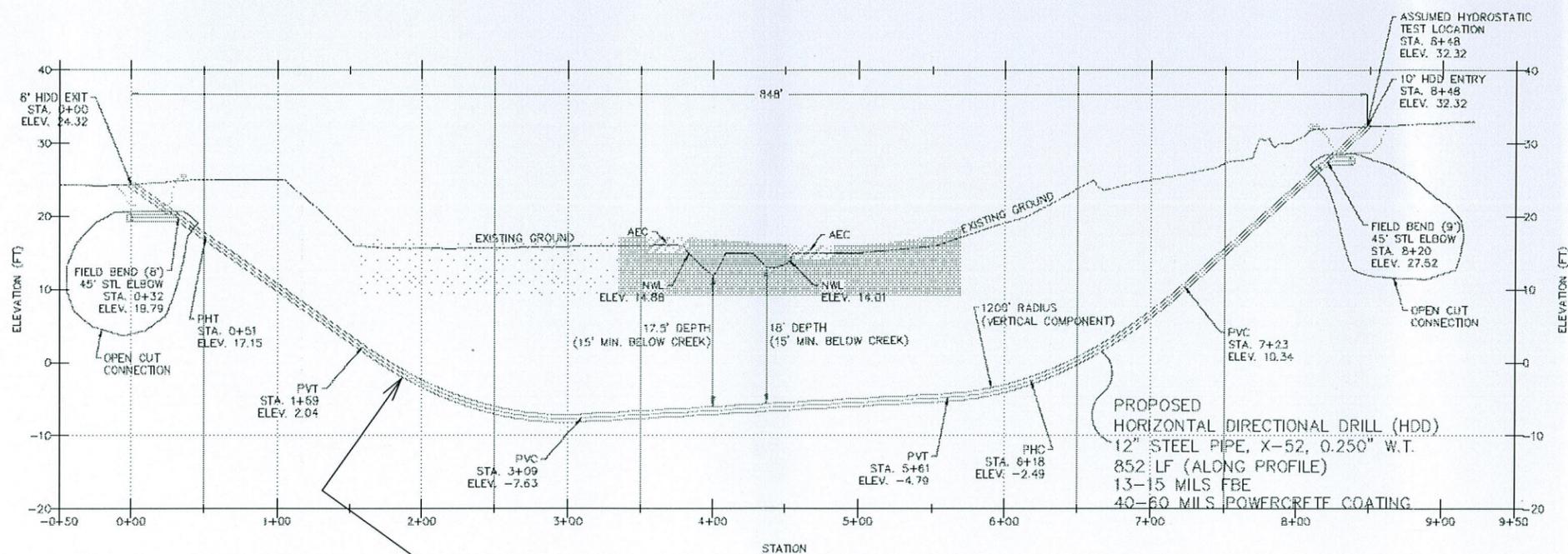
NOTE: USE THIS SHEET FOR TEMPORARY TRAFFIC MAINTENANCE DURING CONSTRUCTION.

15-APR-2013 12:26 U:\X\Proj\NEU\B5141\NEU\_pos05.dwg

UTILITIES BY OTHERS

NOTE:  
ALL PROPOSED UTILITY WORK  
SHOWN ON THIS SHEET WILL  
BE DONE BY OTHERS

# NEU PERMIT PLANS (April 16, 2013)



12" GAS LINE

Utility P  
Sheet 4 of 5

15-APR-2013 11:31  
 s:\Utilities\B5141\Ut...NEU\B5141\_Ut...NEU\_pah44.dgn



## **B-5141 NEU Narrative (No Impacts)**

### **Utility Owners:**

- **Power:** Roanoke EMC – contact: Bill Bunn 252-209-2236
- **Telephone:** Century Link – contact: Cecelia Price 252-321-9401
- **Gas:** Piedmont Natural Gas– contact: Robert Barrett 704-731-4060
- **Water:** Bertie County Public Works– contact: Ricky Spivey 252-724-1691

### **General Utility Relocation:**

All utility lines inside project limits currently within construction limits will be adjusted as necessary or relocated away from construction before project let.

### **Existing Utilities:**

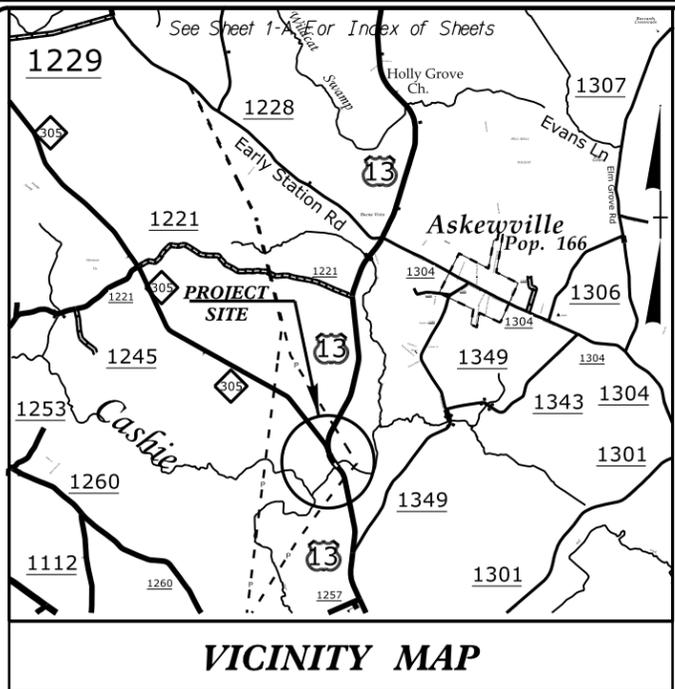
- **Power:** existing power lines run overhead on poles along the right side of the –L– line of the project.
- **Telephone:** existing telephone lines run underground along the left and right side of the –L– line of the project.
- **Gas:** existing 12” steel natural gas transmission line runs along the left side of the –L– line of the project.
- **Water:** existing 12” water line runs along the right side of the –L– line of the project.

### **Proposed Utility Relocation:**

- **Power:** Overhead power lines and power poles will remain in place.
- **Telephone:** proposed telephone line will be relocated to the right side of the –L– line of the project by directional bore and the two telephone poles on the left side of the –L– line will be removed.
- **Gas:** 12” gas line will be relocated to the left side of the –L– line in a (50’) easement paralleling the construction easement on the left side of the –L– line of the project.
- **Water:** the 12” water line is not in conflict with the construction of the bridge therefore, it will remain in place.

09/08/99

**CONTRACT: TIP PROJECT: B-5141**



**VICINITY MAP**

THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDRIES

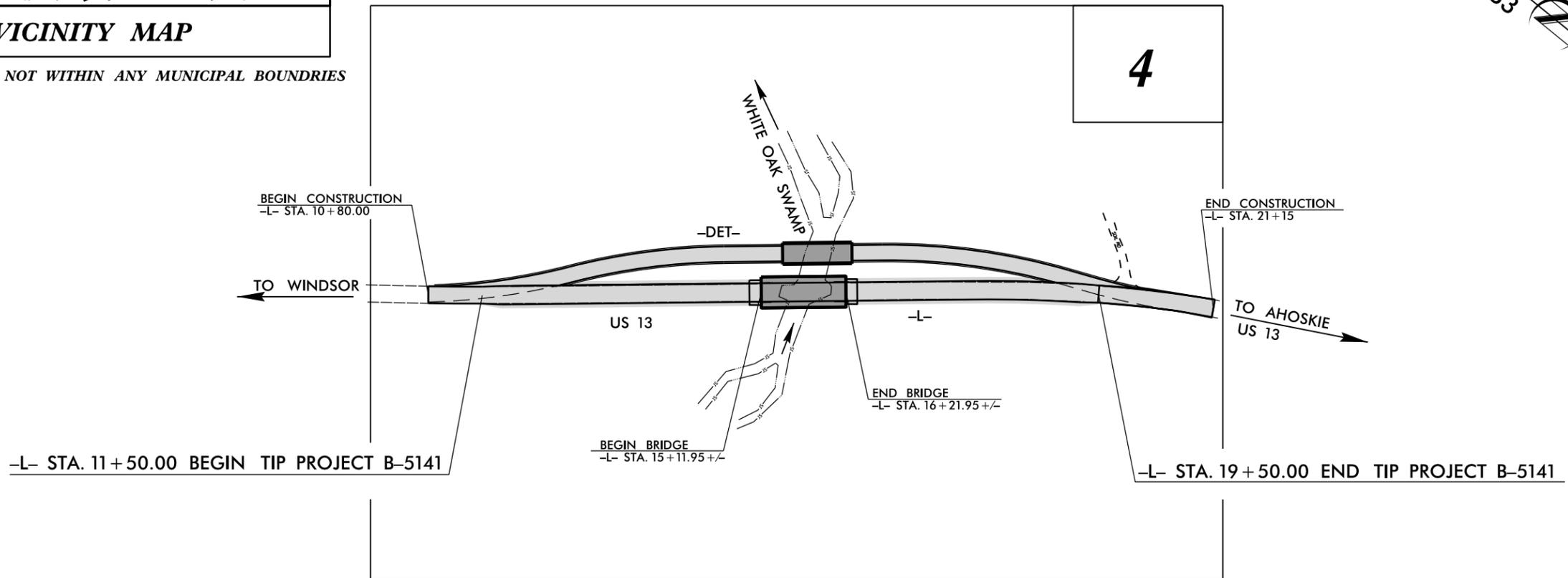
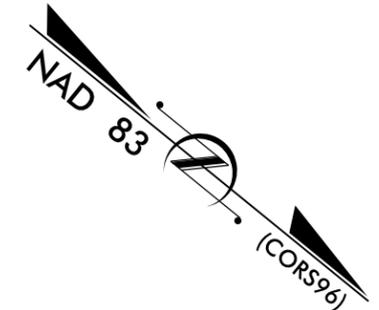
STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**BERTIE COUNTY**

**LOCATION: BRIDGE 53 ON US 13 OVER WHITE OAK SWAMP**

**TYPE OF WORK: GRADING, DRAINAGE, PAVING, AND STRUCTURE**

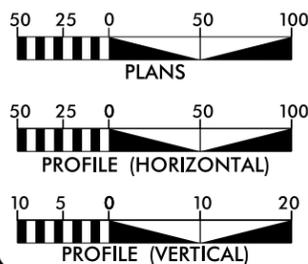
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-5141	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
42302.1.1	BRNHS-0013(25)	PE	
42302.2.1	BRNHS-0013(25)	R/W & UTIL	



CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III

**PRELIMINARY PLANS**  
DO NOT USE FOR CONSTRUCTION

**GRAPHIC SCALES**



**DESIGN DATA**

ADT 2012 = 5,500  
 ADT 2035 = 9,500  
 DHV = 9 %  
 D = 55 %  
 T = 12 % \*  
 V = 60 MPH  
 \* TTST = 5% DUAL 7%  
 FUNC CLASS = MINOR ARTERIAL  
 REGIONAL TIER

**PROJECT LENGTH**

LENGTH OF ROADWAY TIP PROJECT B-5141 = 0.131 MILES  
 LENGTH OF STRUCTURE TIP PROJECT B-5141 = 0.021 MILES  
 TOTAL LENGTH OF TIP PROJECT B-5141 = 0.152 MILES

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

2012 STANDARD SPECIFICATIONS  
 RIGHT OF WAY DATE:  
 FEBRUARY 8, 2013  
 LETTING DATE:  
 MAY 20, 2014

G. E. BREW, PE  
 PROJECT ENGINEER

I. T. YOUNIS  
 PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: \_\_\_\_\_ P.E.  
 ROADWAY DESIGN ENGINEER

SIGNATURE: \_\_\_\_\_ P.E.

DIVISION OF HIGHWAYS



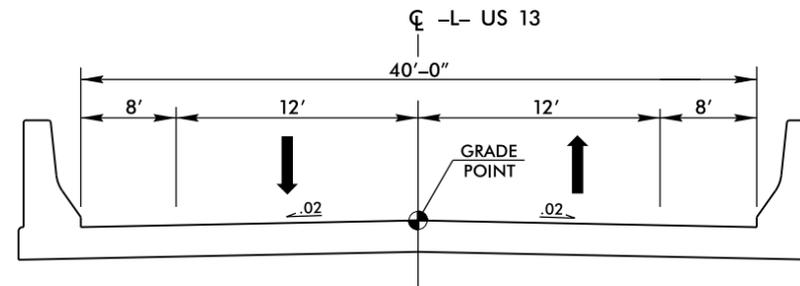
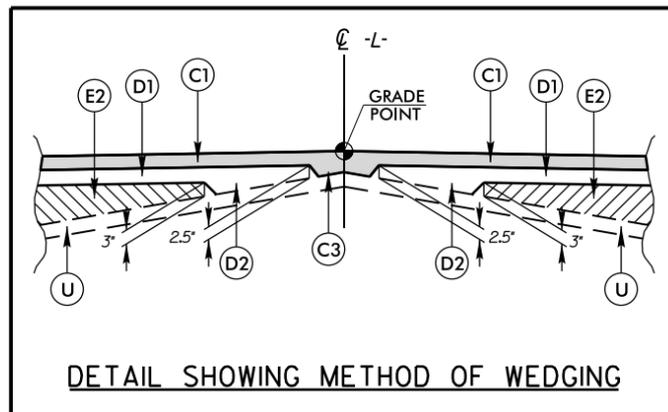
STATE OF NORTH CAROLINA

08-FEB-2013 08:52 R:\Roadway\Proj\B5141\_L\_Rdy\_tsh.dgn \$\$\$USERNAME\$\$\$

PROJECT REFERENCE NO. <b>B-5141</b>	SHEET NO. <b>2</b>
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	

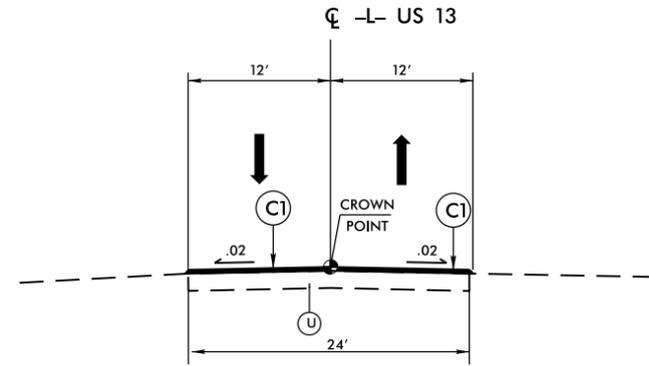
PAVEMENT SCHEDULE (FINAL PAVEMENT DESIGN)	
C1	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C2	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
C3	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT TO EXCEED 1½" IN DEPTH.
D1	PROP. APPROX. 2½" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.
D2	PROP. VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 2¼" IN DEPTH OR GREATER THAN 4" IN DEPTH.
E1	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
E2	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 3" IN DEPTH OR GREATER THAN 5½" IN DEPTH.
J1	PROP. 8" AGGREGATE BASE COURSE.
P	PRIME COAT AT THE RATE OF .35 GAL. PER SQ. YD.
T	EARTH MATERIAL.
U	EXISTING PAVEMENT.
W	VARIABLE DEPTH ASHALT PAVEMENT.

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.



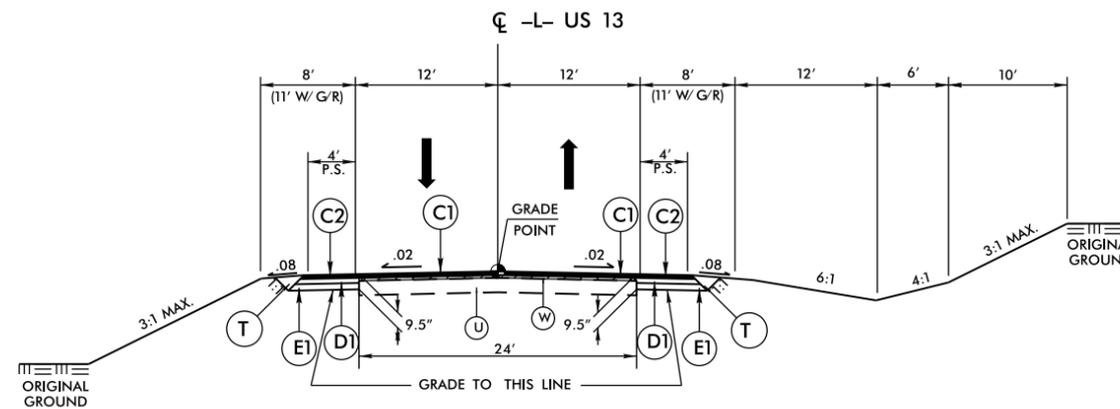
**TYPICAL SECTION ON STRUCTURE**

-L- STA 15+11.95 +/- TO 16+21.95 +/-



**TYPICAL SECTION NO. 1**

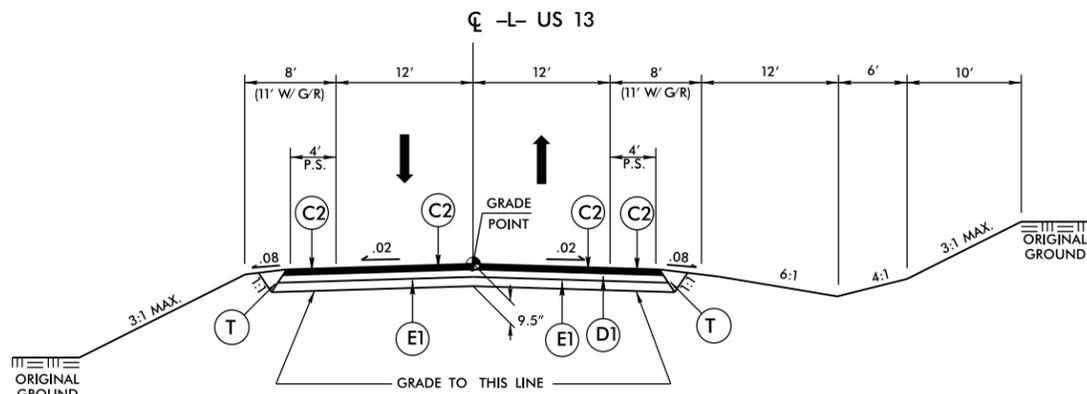
-L- STA 10+80.00 TO 11+50.00  
 -L- STA 19+50.00 TO 21+00.00



**TYPICAL SECTION NO. 2**

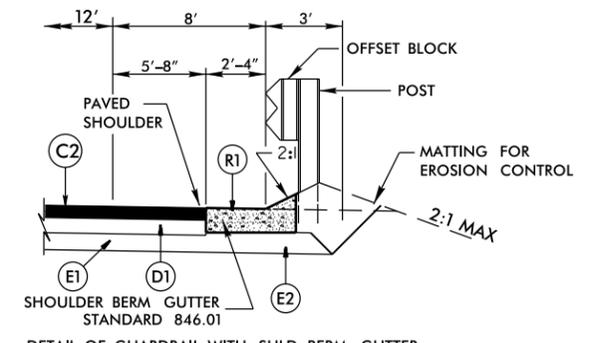
-L- STA 11+50.00 TO 11+75.00, TRANSITION FROM T.S. 1 TO T.S. 2  
 -L- STA 11+75.00 TO 14+50.00  
 -L- STA 16+75.00 TO 19+25.00  
 -L- STA 19+25.00 TO 19+50.00, TRANSITION FROM T.S. 2 TO T.S. 1

PROJECT REFERENCE NO. <b>B-5141</b>	SHEET NO. <b>2-A</b>
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	



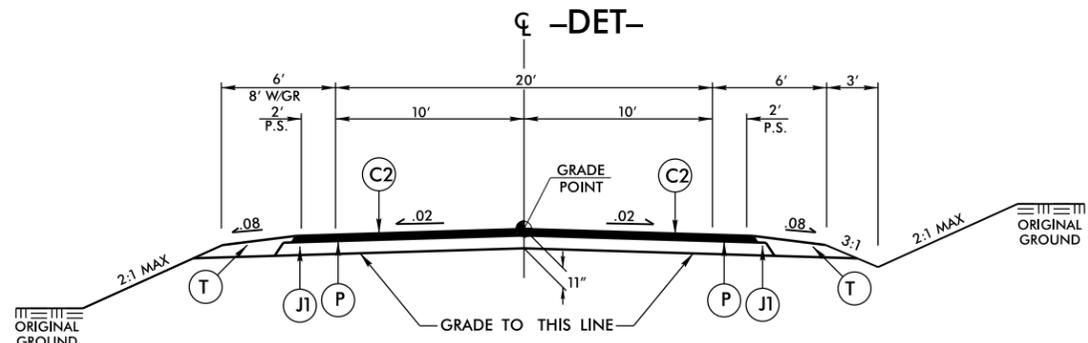
**TYPICAL SECTION NO. 3**

-L- STA 14+50.00 TO +/- 15+11.95 (BEGIN BRIDGE)  
 -L- STA +/- 16+21.95 (END BRIDGE) TO 16+75.00



DETAIL OF GUARDRAIL WITH SHLD. BERM GUTTER  
 USE WITH TYPICAL SECTION 3  
 SEE PLANS FOR LOCATIONS

PAVEMENT SCHEDULE	
C2	3" S9.5B
D1	2.5" I19.0B
E1	4" B25.0B
E2	VAR B25.0B
J1	8" ABC
P	PRIME COAT
R1	SHLD BERM GUTTER
T	EARTH MATERIAL
U	EXIST. PAVEMENT

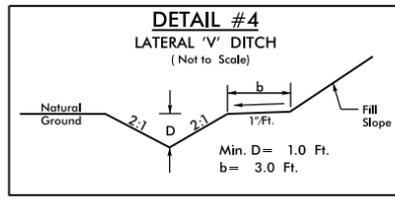


**TYPICAL SECTION NO. 4**

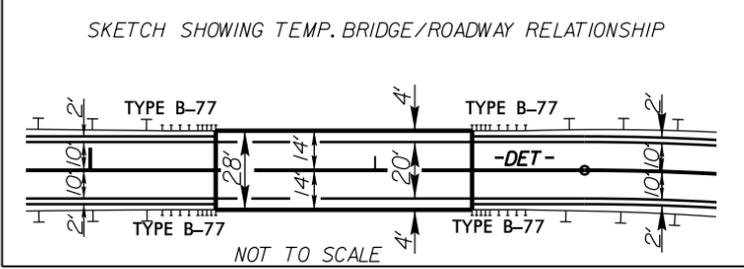
-DET- STA 10+88.15 TO 11+91.11, TRANSITION FROM EXSITING TO T.S. 4  
 -DET- STA 11+91.11 TO +/-15+44.06 (BEGIN BRIDGE)  
 -DET- STA +/-16+34.06 (END BRIDGE) TO 19+50.01  
 -DET- STA 19+50.01 TO 20+22.40, TRANSITION FROM TO T.S. 4 TO EXISTING

8/17/99

PROJECT REFERENCE NO. <b>B-5141</b>	SHEET NO. <b>5</b>
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	
SEE SHEET 6 OR PROFILE OF -DET-	



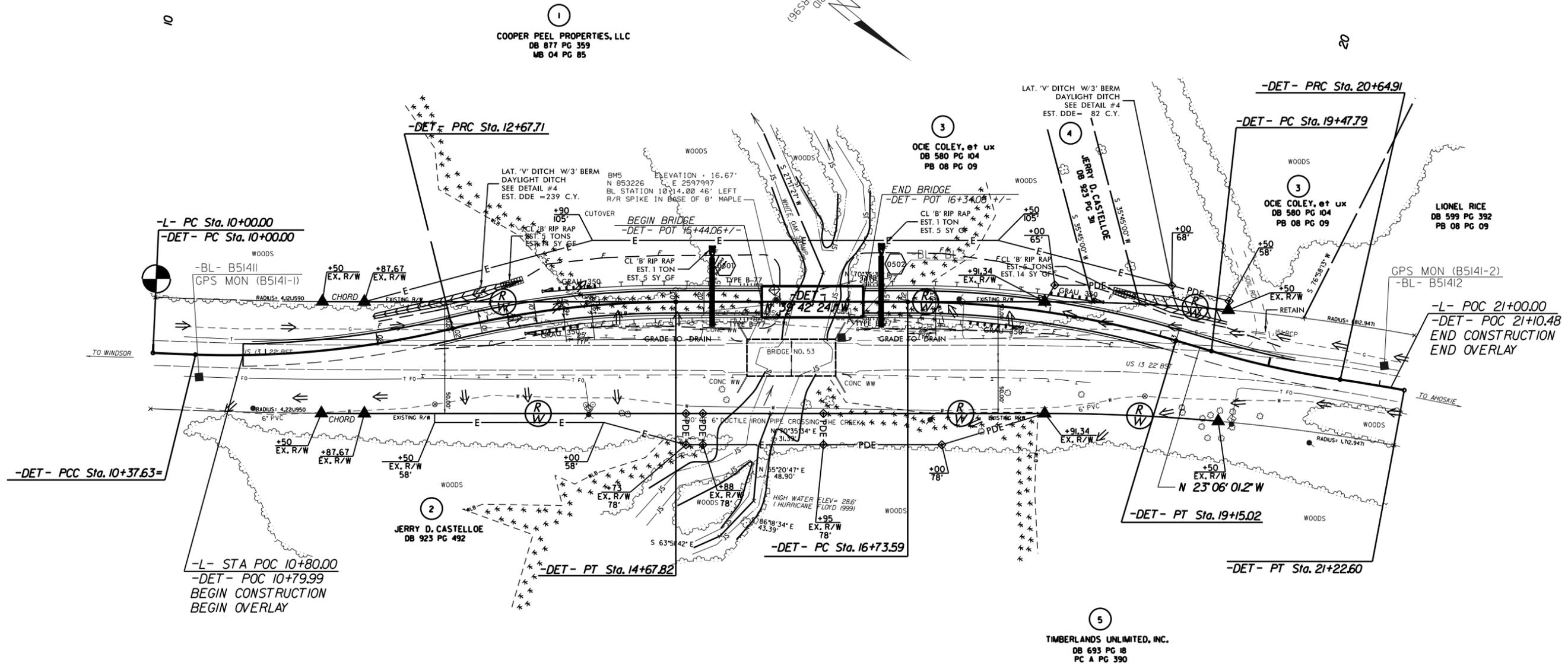
FROM STA. 12+00 TO STA. 13+35 -DET- LT  
FROM STA. 18+50 TO STA. 19+50 -DET- LT



USE THIS SHEET FOR TEMPORARY  
DETOUR CONSTRUCTION ONLY

SEE SHEET S-1 THRU S-?  
FOR STRUCTURE PLANS

-DET-		
PI Sta 10+18.82 Δ = 0° 31' 01" (LT) D = 1' 22' 25.0" L = 37.63' T = 18.82' R = 4171.6'	PI Sta 11+53.41 Δ = 15° 49' 29.5" (LT) D = 6° 52' 41.7" L = 230.07' T = 115.77' R = 833.00'	PI Sta 13+68.24 Δ = 13° 45' 50.4" (RT) D = 6° 52' 41.7" L = 200.11' T = 100.54' R = 833.00'
-DET-		
PI Sta 17+95.16 Δ = 16° 36' 22.9" (RT) D = 6° 52' 41.7" L = 241.43' T = 121.57' R = 833.00'	PI Sta 20+06.45 Δ = 8° 03' 20.8" (LT) D = 6° 52' 41.7" L = 117.12' T = 58.66' R = 833.00'	PI Sta 20+93.76 Δ = 1° 52' 28.8" (RT) D = 3° 15' 00.0" L = 57.68' T = 28.84' R = 1762.95'



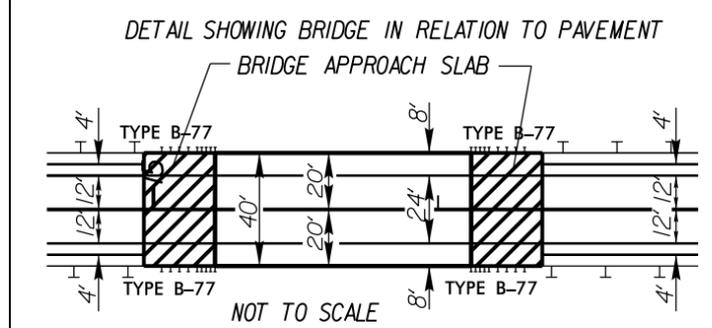
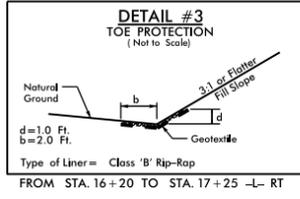
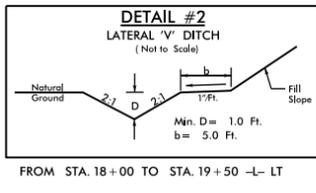
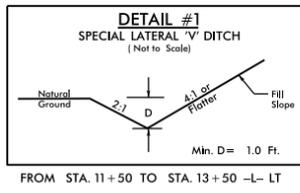
**DETOUR DESIGN SPEED= 45 MPH**

NOTE: USE THIS SHEET FOR TEMPORARY TRAFFIC MAINTENANCE DURING CONSTRUCTION.

REVISIONS

08-FEB-2013 09:45:00 B5141.L\_Rdy\_psh05.dgn  
5:53:50 PM

8/17/99

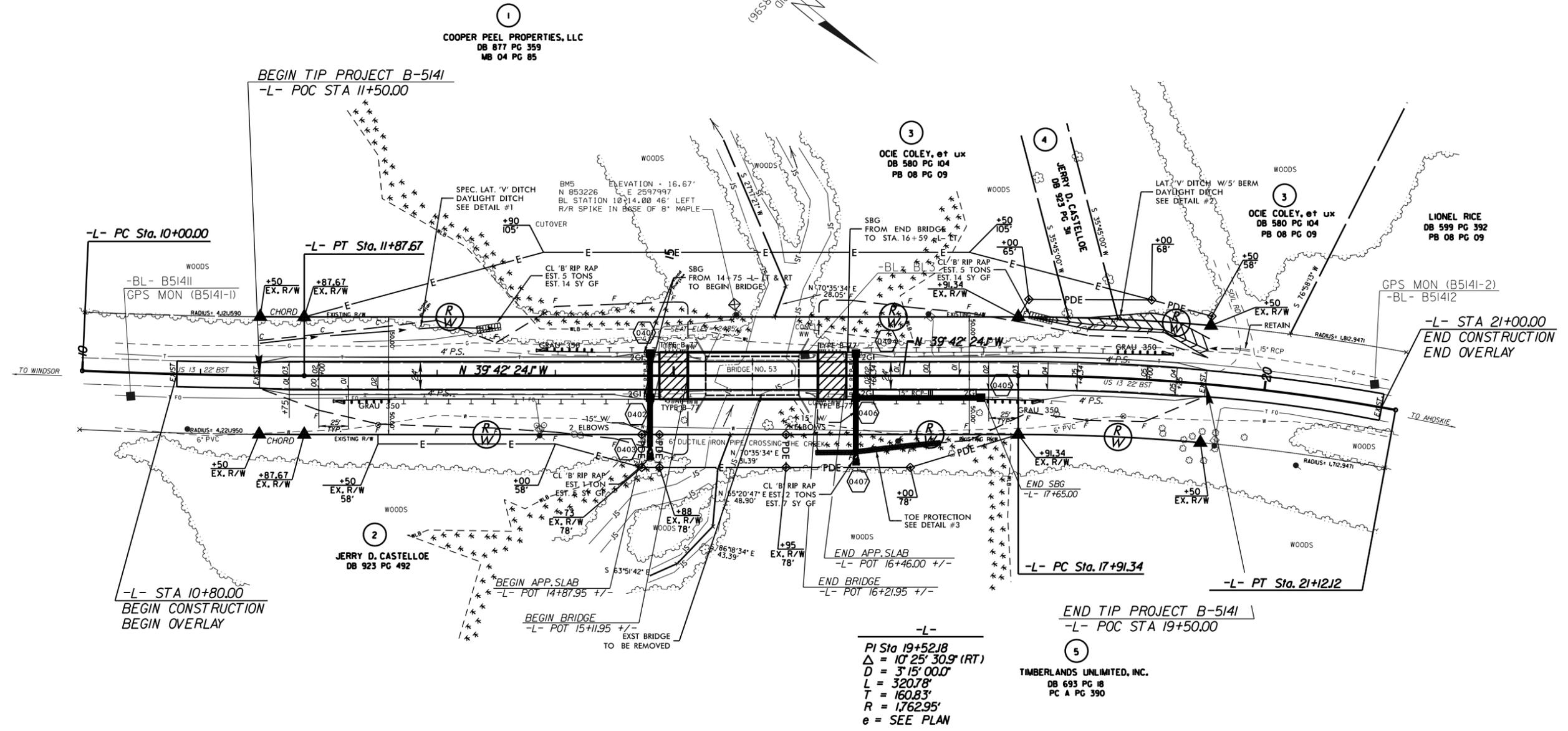


SEE SHEET S-1 THRU S-? FOR STRUCTURE PLANS

SEE SHEET 5 FOR TEMPORARY ON-SITE DETOUR

PROJECT REFERENCE NO. <b>B-5141</b>	SHEET NO. <b>4</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	
SEE SHEET 6 OR PROFILE OF -L-	

REVISIONS



IL-APR-2013 14:47  
S:\PROJECTS\B5141\B5141\_L\_Rdy\_psh04.dgn