

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

Action Id. SAW-2019-01830 County: Stokes U.S.G.S. Quad: NC-Pinnacle

**GENERAL PERMIT (REGIONAL AND NATIONWIDE) VERIFICATION**

Permittee: North Carolina Department of Transportation, Division 9  
Amy Euliss  
Address: 375 Silas Creek Parkway  
Winston-Salem, NC 27127  
Telephone Number: (336) 747-7800  
E-mail: aeuliss@ncdot.gov

Size (acres) N/A Nearest Town Pinnacle  
Nearest Waterway Little Yadkin River River Basin Upper Pee Dee  
USGS HUC 03040101 Coordinates Latitude: 36.313133  
Longitude: -80.400544

Location description: The project is located at Bridge No. 286 on North Old US 52 (SR 1236) across Little Yadkin River approximately 250 feet southeast from the intersection of North Old US 52 (SR 1236) and West Dalton Road in Stokes County, North Carolina. Impacted waters are in a wetland, unnamed tributaries to Little Yadkin River and Little Yadkin River.

Description of projects area and activity: This verification authorizes the NCDOT 17BP.9.R.83 Bridge # 286 replacement project the impact to a total of 929 linear feet (lf) of open water (142 lf of permanent bank stabilization; 603 lf of permanent relocation; 11 lf temporary relocation and 173 lf of temporary bank stabilization), 0.04 acre of temporary causeway fill in open water and permanent fill in 0.03 acre of wetlands. This project will also include provision of 1152 lf stream and 0.06 acre wetland NCDMS mitigation.

Applicable Law(s):  Section 404 (Clean Water Act, 33 USC 1344)  
 Section 10 (Rivers and Harbors Act, 33 USC 403)

Authorization: **RGP-50, NCDOT-Bridge, Road Widening and Interchanges**

**SEE ATTACHED NWP GENERAL, REGIONAL, AND/OR SPECIAL CONDITIONS**

**Your work is authorized by the above referenced permit provided it is accomplished in strict accordance with the attached Conditions, your application signed and dated 12/20/2022, and the enclosed plans Permit Drawing Sheets 1-11 of 11, titled "17BP.9.R.83-Sokes 286" dated 12/14/2022. Any violation of the attached conditions or deviation from your submitted plans may subject the permittee to a stop work order, a restoration order, a Class I administrative penalty, and/or appropriate legal action.**

This verification will remain valid until the expiration date identified below unless the nationwide and/or regional general permit authorization is modified, suspended or revoked. If, prior to the expiration date identified below, the nationwide and/or regional general permit authorization is reissued and/or modified, this verification will remain valid until the expiration date identified below, provided it complies with all requirements of the modified nationwide permit. If the nationwide and/or regional general permit authorization expires or is suspended, revoked, or is modified, such that the activity would no longer comply with the terms and conditions of the nationwide permit, activities which have commenced (i.e., are under construction) or are under contract to

commence in reliance upon the nationwide and/or regional general permit, will remain authorized provided the activity is completed within twelve months of the date of the nationwide and/or regional general permit's expiration, modification or revocation, unless discretionary authority has been exercised on a case-by-case basis to modify, suspend or revoke the authorization.

Activities subject to Section 404 (as indicated above) may also require an individual Section 401 Water Quality Certification. You should contact the NC Division of Water Resources (telephone 919-807-6300) to determine Section 401 requirements.

For activities occurring within the twenty coastal counties subject to regulation under the Coastal Area Management Act (CAMA), prior to beginning work you must contact the N.C. Division of Coastal Management **Morehead City, NC, at (252) 808-2808.**

This Department of the Army verification does not relieve the permittee of the responsibility to obtain any other required Federal, State or local approvals/permits. If there are any questions regarding this verification, any of the conditions of the Permit, or the Corps of Engineers regulatory program, please contact **Stephen A. Brumagin at (704) 510-0162 or [stephen.a.brumagin@usace.army.mil](mailto:stephen.a.brumagin@usace.army.mil)**.

Corps Regulatory Official: Mark Matthews 2023.02.02 15:09:08 -05'00' Date: 2/2/2023  
Expiration Date of Verification: 5/25/2025

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 [http://corpsmapu.usace.army.mil/cm\\_apex/f?p=136:4:0](http://corpsmapu.usace.army.mil/cm_apex/f?p=136:4:0)

Copy furnished:

B. Harmon, NCDMS  
[beth.harmon@ncdenr.gov](mailto:beth.harmon@ncdenr.gov)

Daniel Dagenhart, NCDOT  
[drdagenhart@ncdot.gov](mailto:drdagenhart@ncdot.gov)

**SPECIAL CONDITIONS**

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

1. All work must be performed in strict compliance with (a) the description of work in the PCN and (b) the Wetlands and Surface Water Impact Permit Drawing(s) (Permit Plans) in the application dated December 14, 2022. Any modification to the description of work and/or the permit plans must be approved by the USACE prior to implementation.
2. In order to compensate for impacts associated with this permit, mitigation shall be provided in accordance with the provisions outlined on the most recent version of the attached Compensatory Mitigation Responsibility Transfer Forms. The requirements of these forms, including any special conditions listed on these forms, are hereby incorporated as special conditions of this permit authorization.
3. The permittee shall require its contractors and/or agents to comply with the terms and conditions of this authorization letter in the construction and maintenance of this project and shall provide each of its contractors and/or agents associated with the construction or maintenance of this project with a copy of this authorization letter, all conditions, and any authorized modifications. A copy of this authorization letter, all conditions, and any authorized modifications, shall be available at the project site during construction and maintenance of this project.

**U.S. ARMY CORPS OF ENGINEERS**  
**Wilmington District**  
**Compensatory Mitigation Responsibility Transfer Form**

**Permittee:** North Carolina Department of Transportation, Division 9, Amy Euliss  
**Project Name:** NCDOT 17BP.9.R.83Bridge # 286 Stokes

**Action ID:** SAW-2019-01830

**County:** Stokes

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

**Instructions to Sponsor:** The Sponsor verifies that the mitigation requirements (credits) shown below have been released and are available at the identified site. By signing below, the Sponsor is accepting full responsibility for the identified mitigation, regardless of whether they have received payment from the Permittee. Once the form is signed, the Sponsor must update the bank ledger and provide a copy of the signed form and the updated ledger to the Permittee, the Project Manager who issued the permit, the Bank Project Manager, and the District Mitigation Office (see contact information on page 2). The Sponsor must also comply with all reporting requirements established in their authorizing instrument.

**Permitted Impacts and Compensatory Mitigation Requirements:**

**Permitted Impacts Requiring Mitigation\***                      **8-digit HUC and Basin:** 03040101, Yadkin River Basin

Stream Impacts (linear feet)			Wetland Impacts (acres)			
Warm	Cool	Cold	Riparian Riverine	Riparian Non-Riverine	Non-Riparian	Coastal
603				0.03		

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

**Compensatory Mitigation Requirements:**                      **8-digit HUC and Basin:** 03040101, Yadkin River Basin

Stream Mitigation (credits)			Wetland Mitigation (credits)			
Warm	Cool	Cold	Riparian Riverine	Riparian Non-Riverine	Non-Riparian	Coastal
1152				0.06		

**Mitigation Site Debited:** NCDMS

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

***Section to be completed by the Mitigation Sponsor***

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

**Mitigation Sponsor Name:** \_\_\_\_\_

**Name of Sponsor's Authorized Representative:** \_\_\_\_\_

\_\_\_\_\_  
**Signature of Sponsor's Authorized Representative**

\_\_\_\_\_  
**Date of Signature**

**Conditions for Transfer of Compensatory Mitigation Credit:**

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

**Comments/Additional Conditions:**

This form is not valid unless signed below by the District Project Manager and by the Mitigation Sponsor on Page 1. **Once signed, the Sponsor should provide copies of this form along with an updated bank ledger to: 1) the Permittee, 2) the District Project Manager at the address below, 3) the Bank Manager listed in RIBITS, and 4) the Wilmington District Mitigation Office, 3331 Heritage Trade Drive, Suite 105, Wake Forest, NC 27587 (or by email to [SAWMIT@usace.army.mil](mailto:SAWMIT@usace.army.mil)).**

Questions regarding this form or any of the permit conditions may be directed to the District Mitigation Office.

**USACE Project Manager:** Stephen A. Brumagin  
**USACE Field Office:** Charlotte Regulatory Office  
US Army Corps of Engineers  
8430 University Executive Park Drive, Suite 615  
Charlotte, North Carolina 28262  
**Email:** [stephen.a.brumagin@usace.army.mil](mailto:stephen.a.brumagin@usace.army.mil)



Digitally signed by  
BRUMAGIN.STEPHEN.A.1283520  
737  
Date: 2023.02.02 10:14:28 -05'00'

2/2/2023

**USACE Project Manager Signature**

**Date of Signature**

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

Action ID Number: SAW-2019-01830

County: Stokes

Permittee: North Carolina Department of Transportation, Division 9, Amy Euliss

Project Name: NCDOT 17BP.9.R.83Bridge # 286 Stokes

Date Verification Issued: 2/2/2023

Project Manager: Stephen A. Brumagin

Upon completion of the activity authorized by this permit and any mitigation required by the permit, sign this certification and return it to the following address:

US ARMY CORPS OF ENGINEERS  
WILMINGTON DISTRICT  
Attn: Stephen A. Brumagin  
Charlotte Regulatory Office  
U.S Army Corps of Engineers  
8430 University Executive Park Drive, Suite 615  
Charlotte, North Carolina 28262  
or  
stephen.a.brumagin@usace.army.mil

Please note that your permitted activity is subject to a compliance inspection by a U. S. Army Corps of Engineers representative. Failure to comply with any terms or conditions of this authorization may result in the Corps suspending, modifying or revoking the authorization and/or issuing a Class I administrative penalty, or initiating other appropriate legal action.

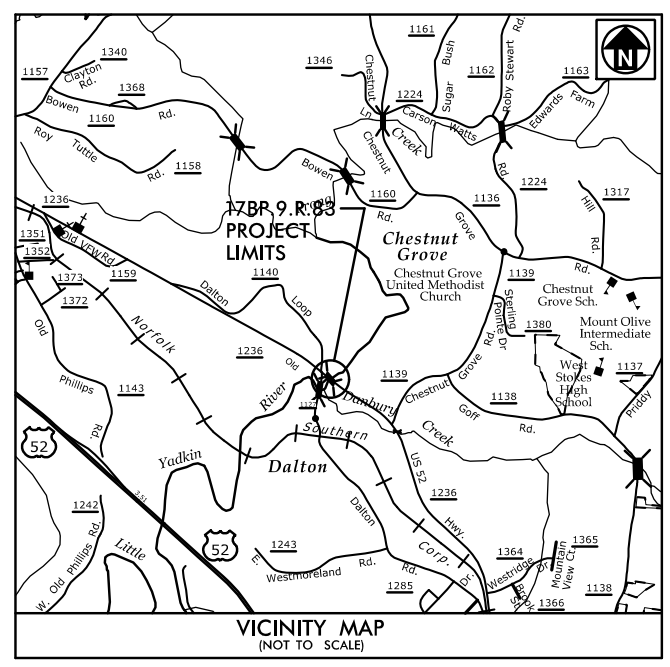
I hereby certify that the work authorized by the above referenced permit has been completed in accordance with the terms and condition of the said permit, and required mitigation was completed in accordance with the permit conditions.

\_\_\_\_\_  
Signature of Permittee

\_\_\_\_\_  
Date

09.08/99

**PROJECT: 17BP.9.R.83**



STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**STOKES COUNTY**

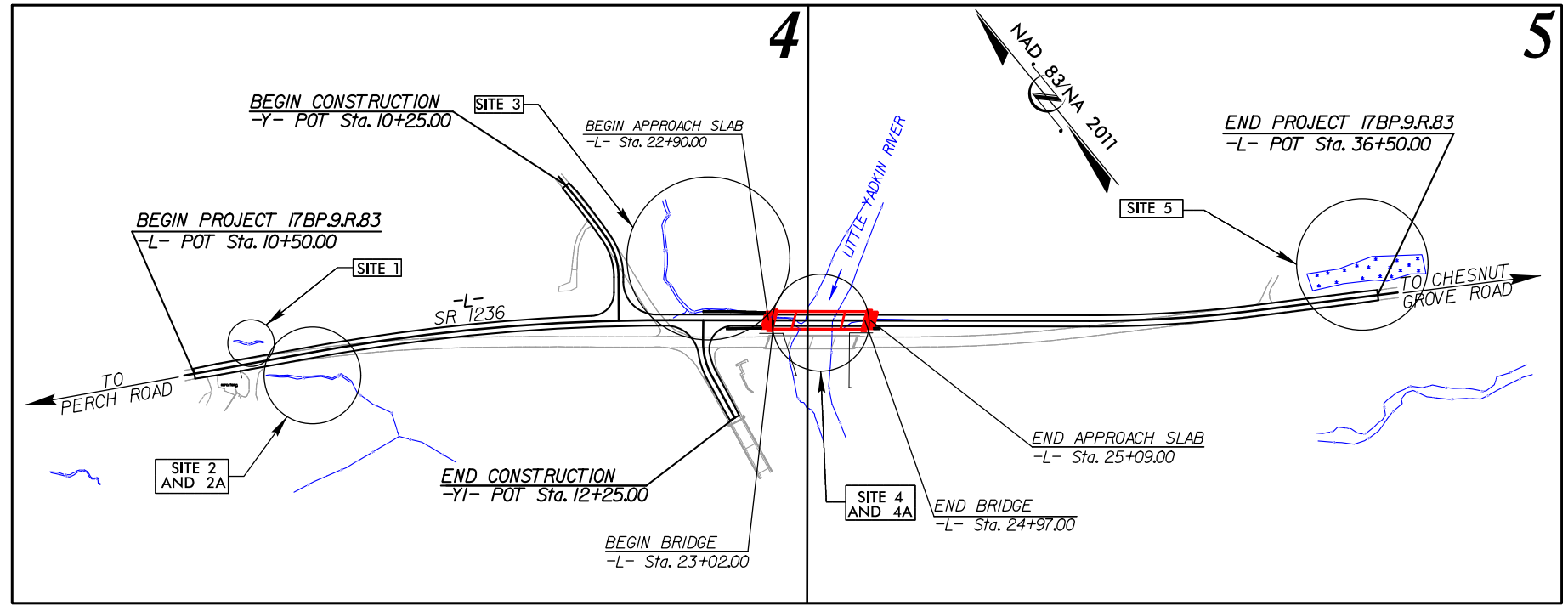
**LOCATION: BRIDGE NO. 286 OVER LITTLE YADKIN RIVER  
ON SR 1236 (NORTH OLD 52)**

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

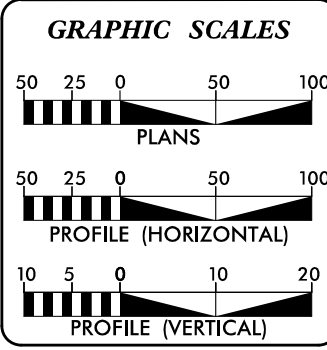
**WETLAND AND SURFACE WATER IMPACTS PERMIT**

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	17BP.9.R.83	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
17BP.9.R.83		PE	
17BP.9.R.83		RW, UTL	
17BP.9.R.83		CONST	

**PERMIT DRAWING  
SHEET 1 OF 11**



**CONTRACT:**



**DESIGN DATA**

ADT (2015) = 5,000  
ADT (2025) = 9,000

V = 55 MPH

FUNC CLASS = MAJOR COLLECTOR

**PROJECT LENGTH**

LENGTH ROADWAY TIP PROJECT	=	0.447 MILES
LENGTH STRUCTURE TIP PROJECT	=	0.036 MILES
TOTAL LENGTH TIP PROJECT	=	0.483 MILES

Prepared in the Office of WGI for  
**DIVISION 9**  
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

2018 STANDARD SPECIFICATIONS

**RIGHT OF WAY DATE:**  
APRIL 1, 2022

**LETTING DATE:**  
MAY 13, 2023

**NCDOT CONTACT:** DANIEL DAGENHART  
DIVISION BRIDGE PROGRAM MANAGER

DAVID SIMPSON, PE  
PROJECT ENGINEER

BRANDON BARHAM, PE  
HYDRAULIC ENGINEER

**ROADWAY DESIGN ENGINEER**

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

**HYDRAULICS ENGINEER**

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

**PLANS PREPARED BY:**

5640 Dillard Drive  
Suite 200  
Cary, NC 27518  
(919) 852-0468  
(919) 852-0598 (Fax)  
www.wginc.com.com

LICENSE NO. C-4434

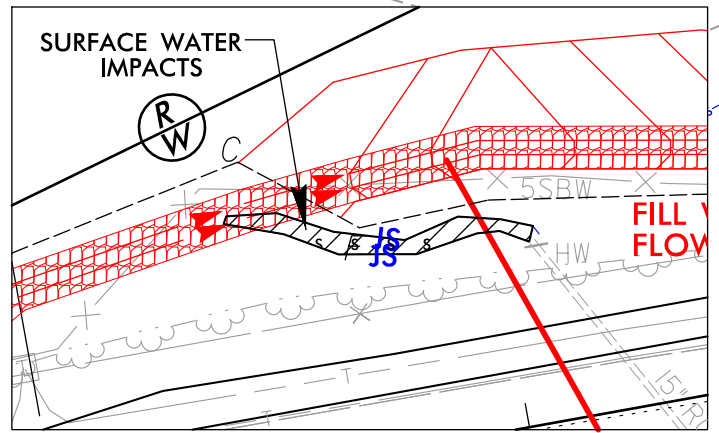
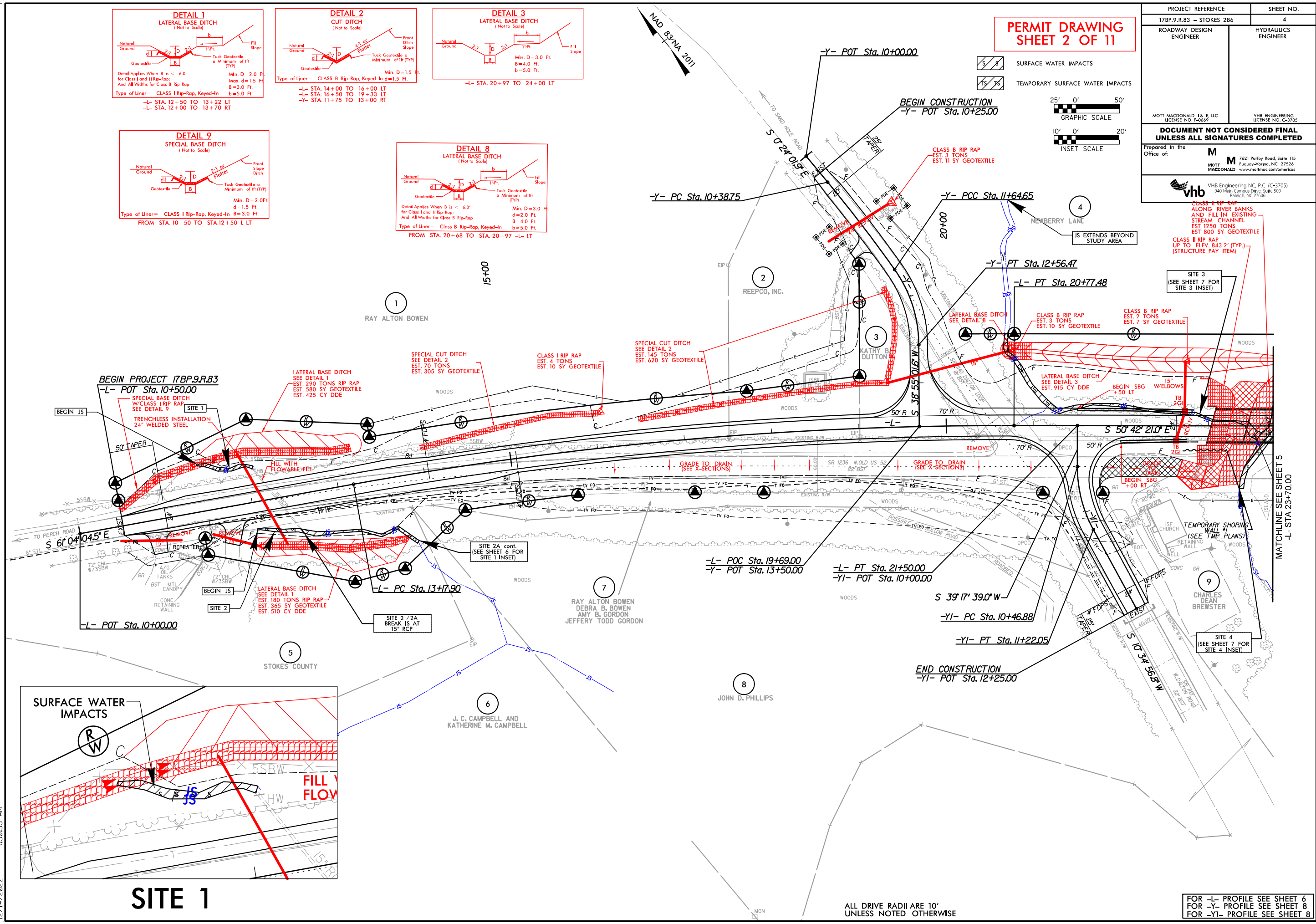
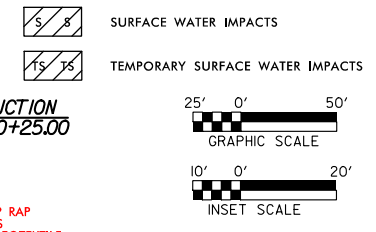
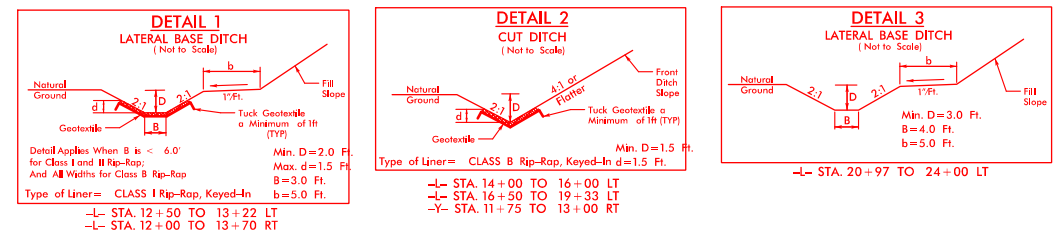
**vhb**  
VHB Engineering NC, P.C. (C-3705)  
940 Main Campus Drive, Suite 500  
Raleigh, NC 27606

DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED

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PROJECT REFERENCE 17BP.9.R.83 - STOKES 286	SHEET NO. 4
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
MOTT MACDONALD 1 & E, LLC LICENSE NO. 7-0669	VHB ENGINEERING LICENSE NO. C-3705
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	
Prepared in the Office of:	
<b>M</b> MOTT MACDONALD	<b>M</b> VHB ENGINEERING NC, P.C. (C-3705) 7621 Purfoy Road, Suite 115 Fuquay-Varina, NC 27326

**PERMIT DRAWING  
SHEET 2 OF 11**





tculpeper  
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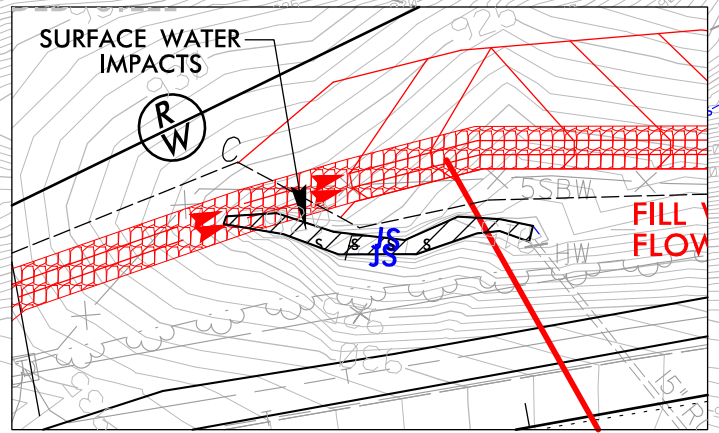
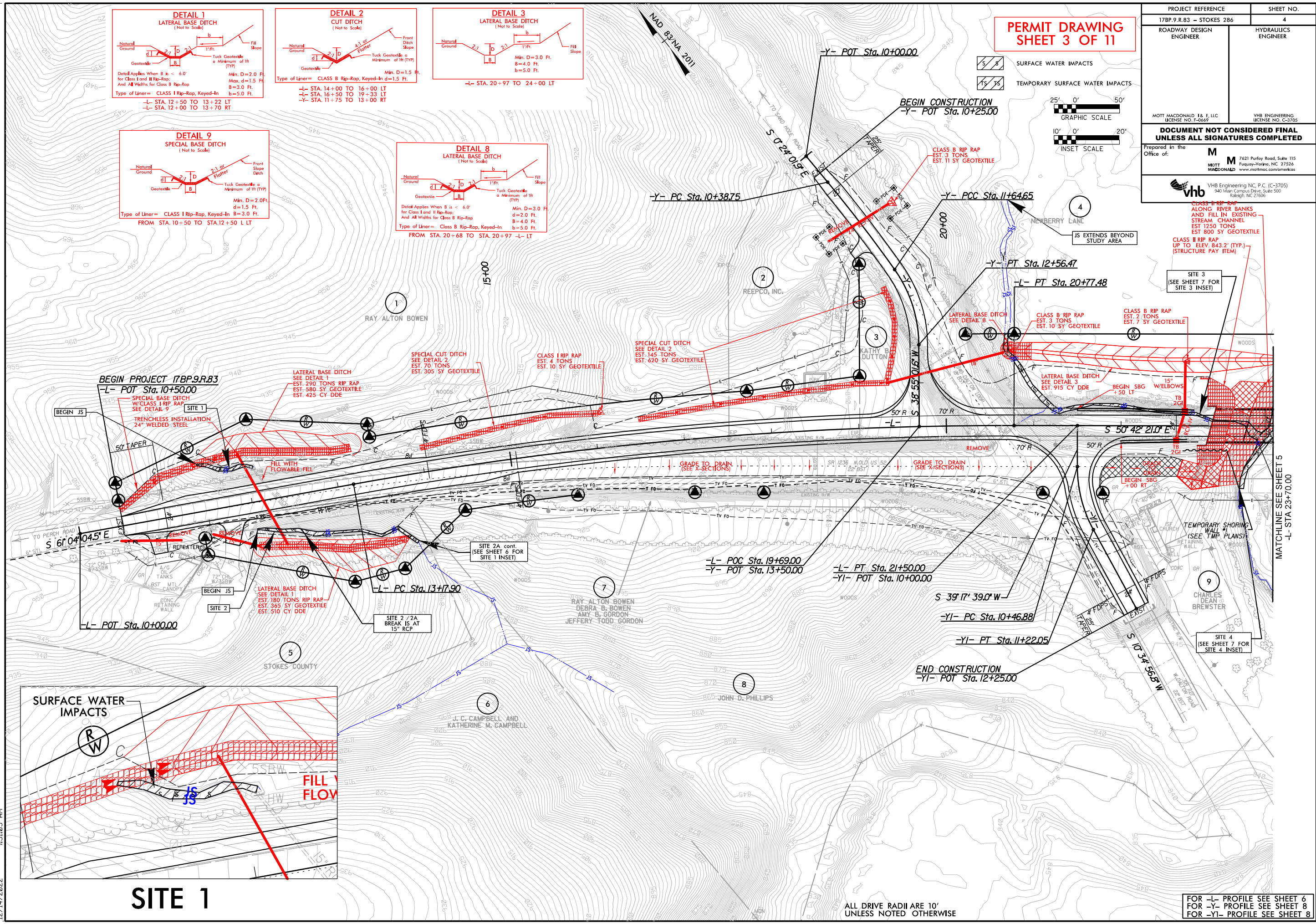
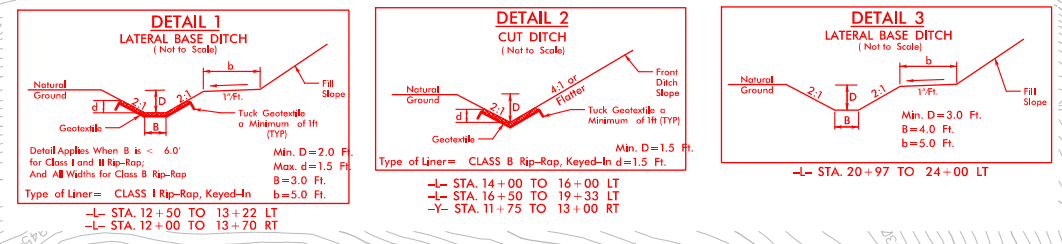
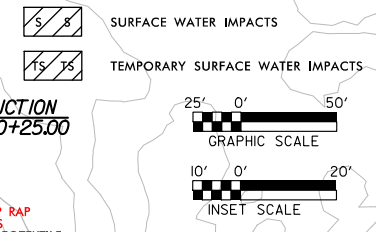
FOR -L- PROFILE SEE SHEET 6  
 FOR -Y- PROFILE SEE SHEET 8  
 FOR -YI- PROFILE SEE SHEET 8

ALL DRIVE RADII ARE 10' UNLESS NOTED OTHERWISE



PROJECT REFERENCE 17BP.9.R.83 - STOKES 286	SHEET NO. 4
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
MOTT MACDONALD 18 E, LLC LICENSE NO. 7-06697	VHB ENGINEERING LICENSE NO. C-3705
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	
Prepared in the Office of:	
 	
MOTT MACDONALD 18 E, LLC 940 Main Campus Drive, Suite 500 Raleigh, NC 27605	
VHB ENGINEERING N.C. P.C. (C-3705) Fuquay-Varina, NC 27326 7621 Purfoy Road, Suite 115 Raleigh, NC 27605	


**PERMIT DRAWING  
SHEET 3 OF 11**

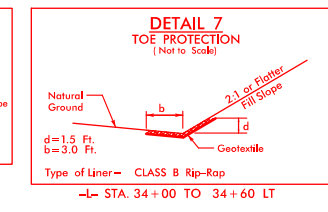
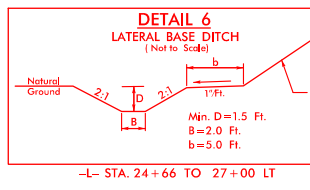
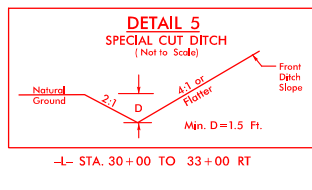
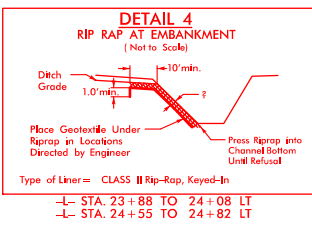
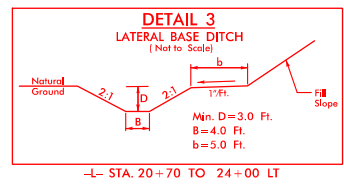






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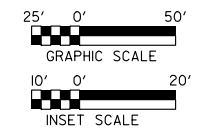
ALL DRIVE RADII ARE 10' UNLESS NOTED OTHERWISE

FOR -L- PROFILE SEE SHEET 6  
FOR -Y- PROFILE SEE SHEET 8  
FOR -YI- PROFILE SEE SHEET 8

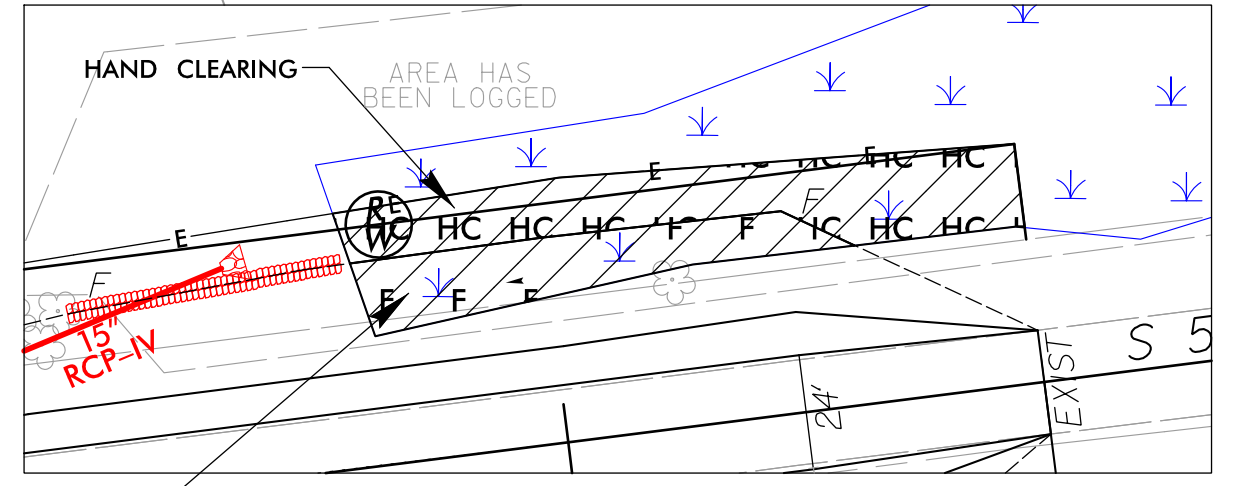
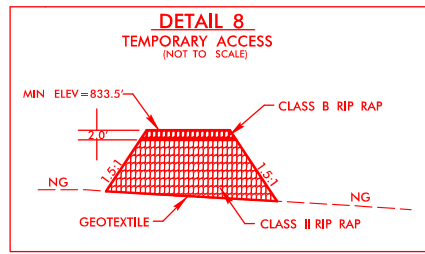
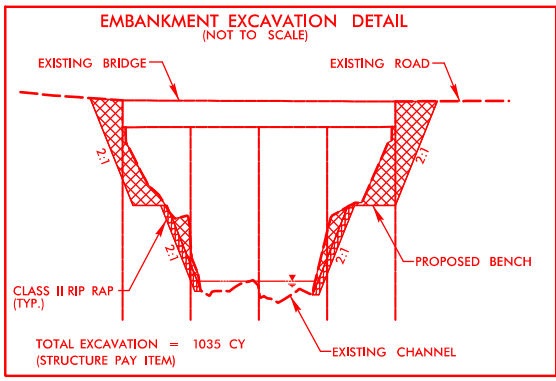
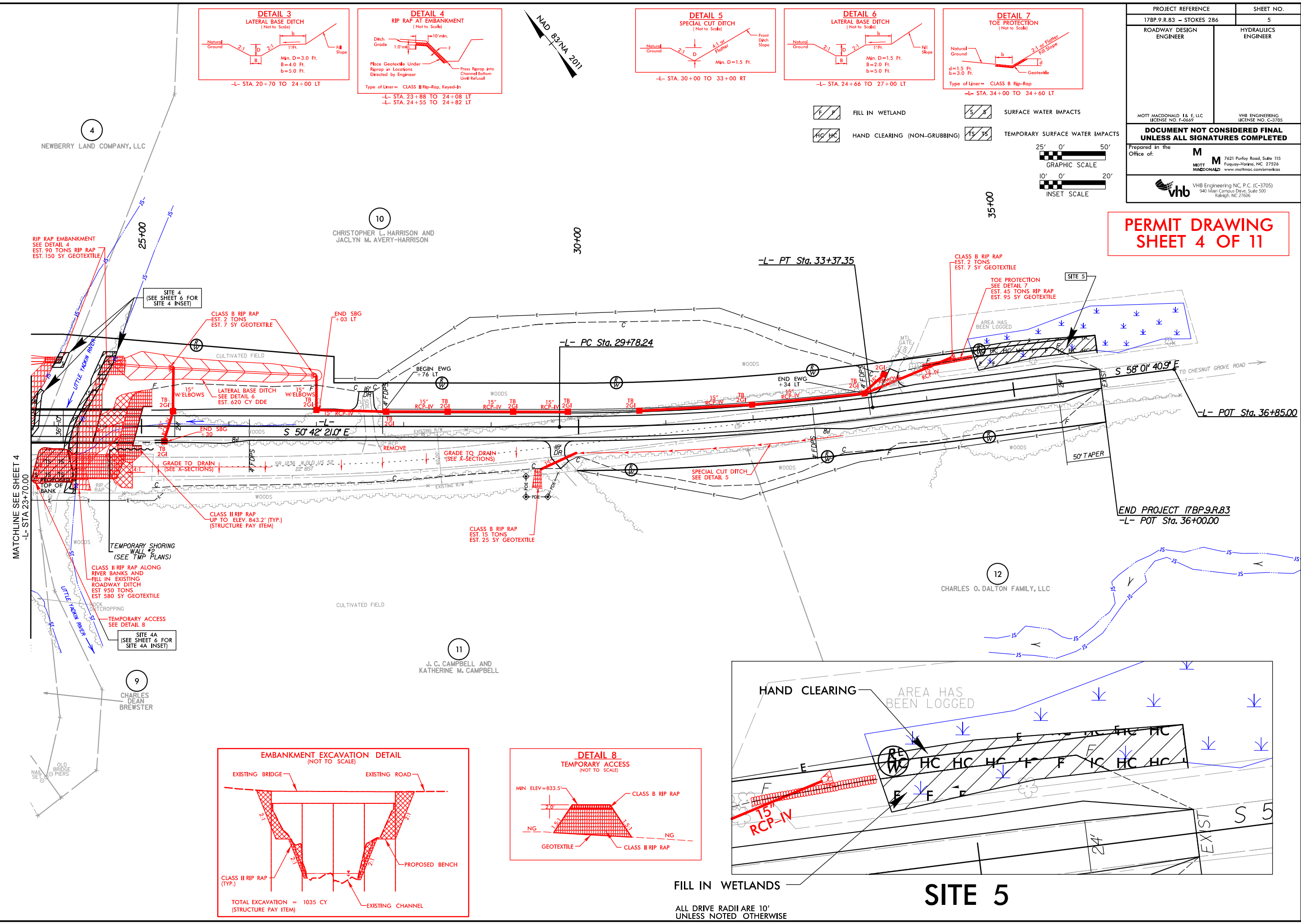
PROJECT REFERENCE 17BP.9.R.83 - STOKES 286	SHEET NO. 5
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
MOTT MACDONALD 18 E, LLC LICENSE NO. 7-06697	VHB ENGINEERING LICENSE NO. C-3705
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	
Prepared in the Office of: <b>M</b> MOTT MACDONALD www.mottmac.com/america	
 <b>VHB Engineering NC, P.C. (C-3705)</b> 940 Main Campus Drive, Suite 500 Raleigh, NC 27605	



-  FILL IN WETLAND
-  HAND CLEARING (NON-GRUBBING)
-  SURFACE WATER IMPACTS
-  TEMPORARY SURFACE WATER IMPACTS



**PERMIT DRAWING  
SHEET 4 OF 11**



FILL IN WETLANDS  
ALL DRIVE RADII ARE 10'  
UNLESS NOTED OTHERWISE

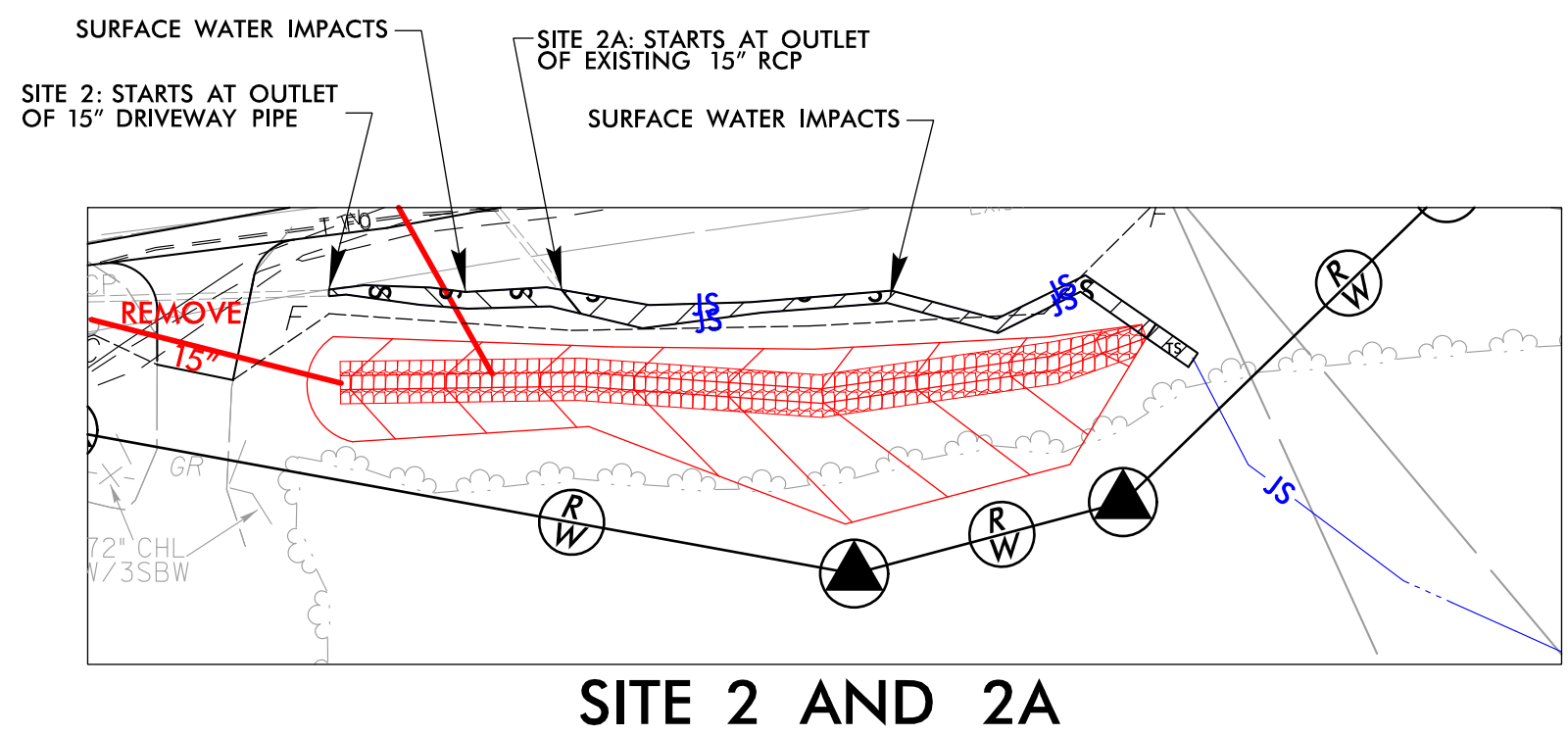
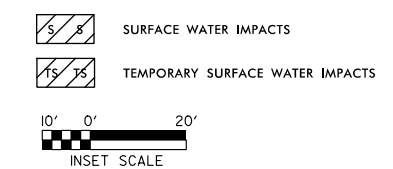
**SITE 5**

tculpeper  
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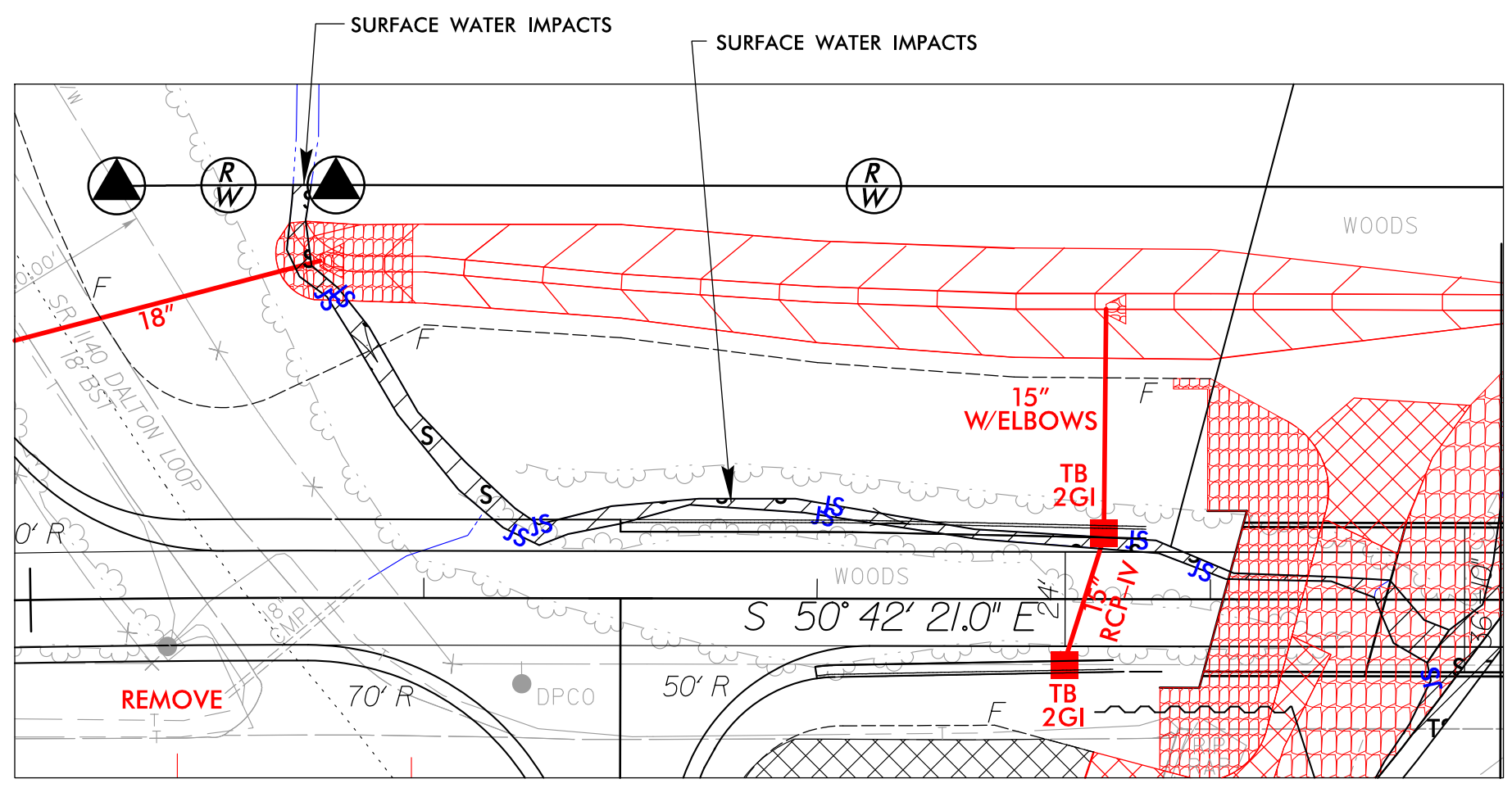


PROJECT REFERENCE 17BP.9.R.83 - STOKES 286	SHEET NO.
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
MOTT MACDONALD 18 E, LLC LICENSE NO. F-06697	VHB ENGINEERING LICENSE NO. C-3705
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	
Prepared in the Office of:	<b>M</b> MOTT MACDONALD 7621 Purfoy Road, Suite 115 Fuquay-Varina, NC 27326 www.mottmac.com/america
<b>vhb</b> VHB Engineering NC, P.C. (C-3705) 940 Main Campus Drive, Suite 500 Raleigh, NC 27605	

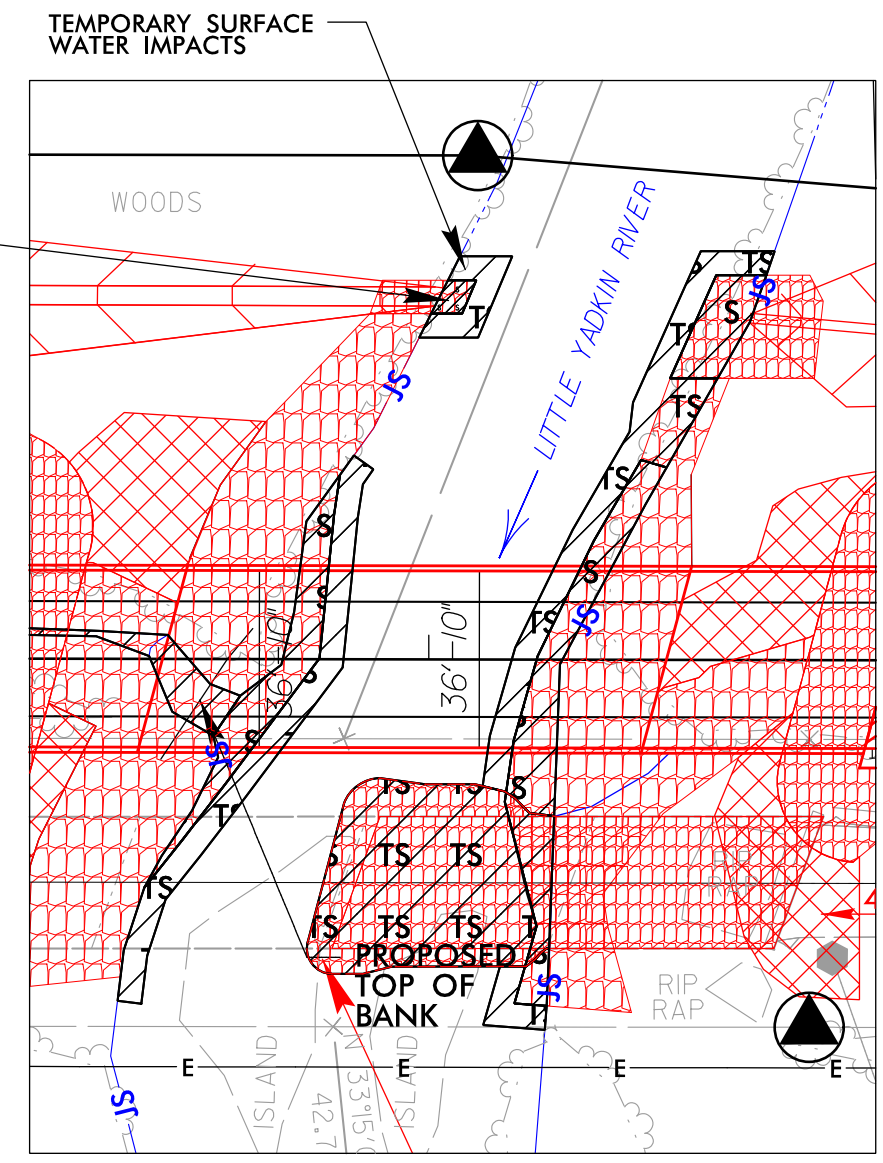
**PERMIT DRAWING  
SHEET 6 OF 11**



**SITE 2 AND 2A**



**SITE 3**

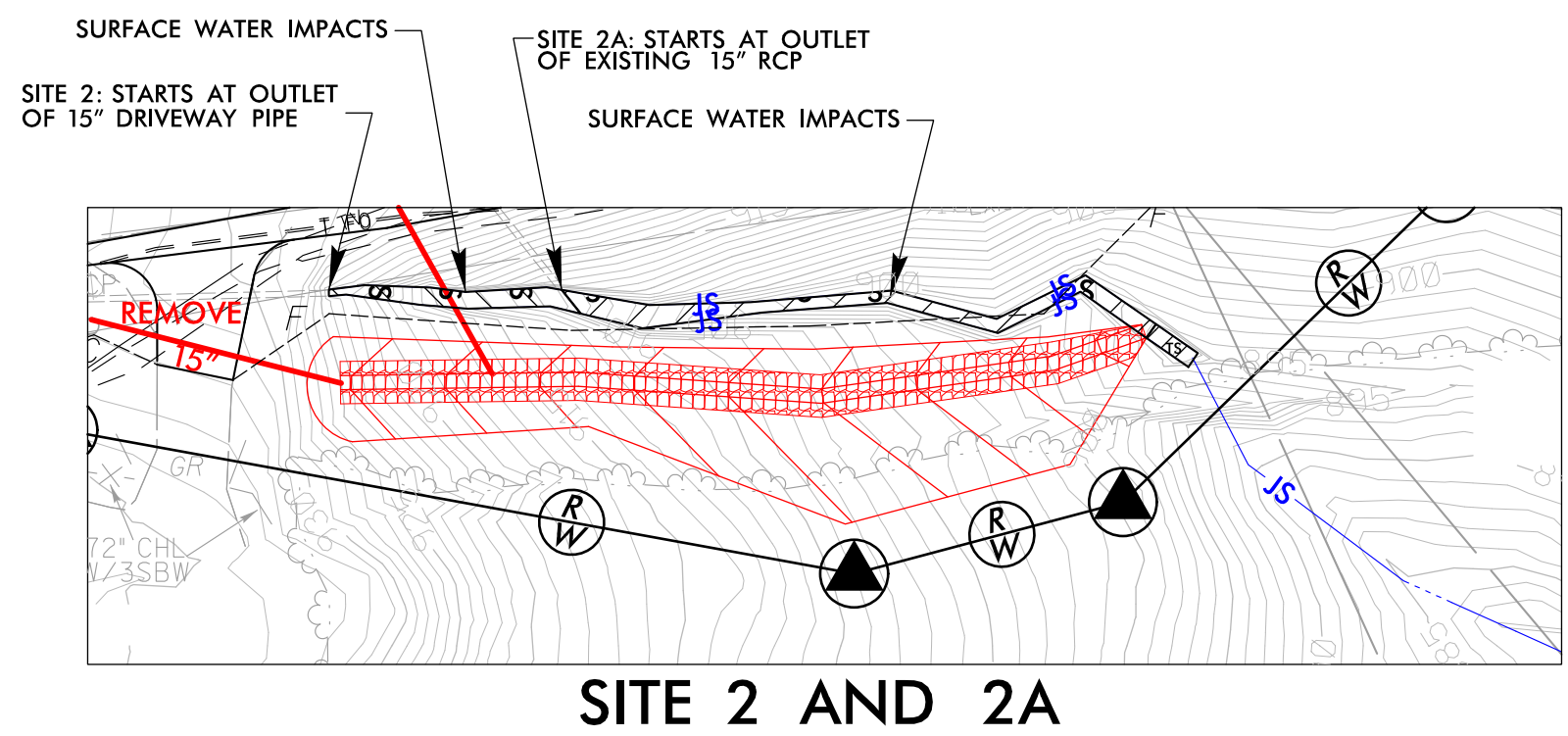
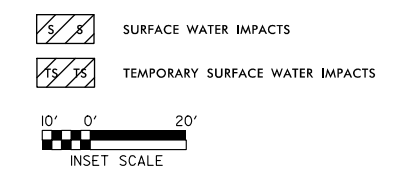


**SITE 4 AND 4A**

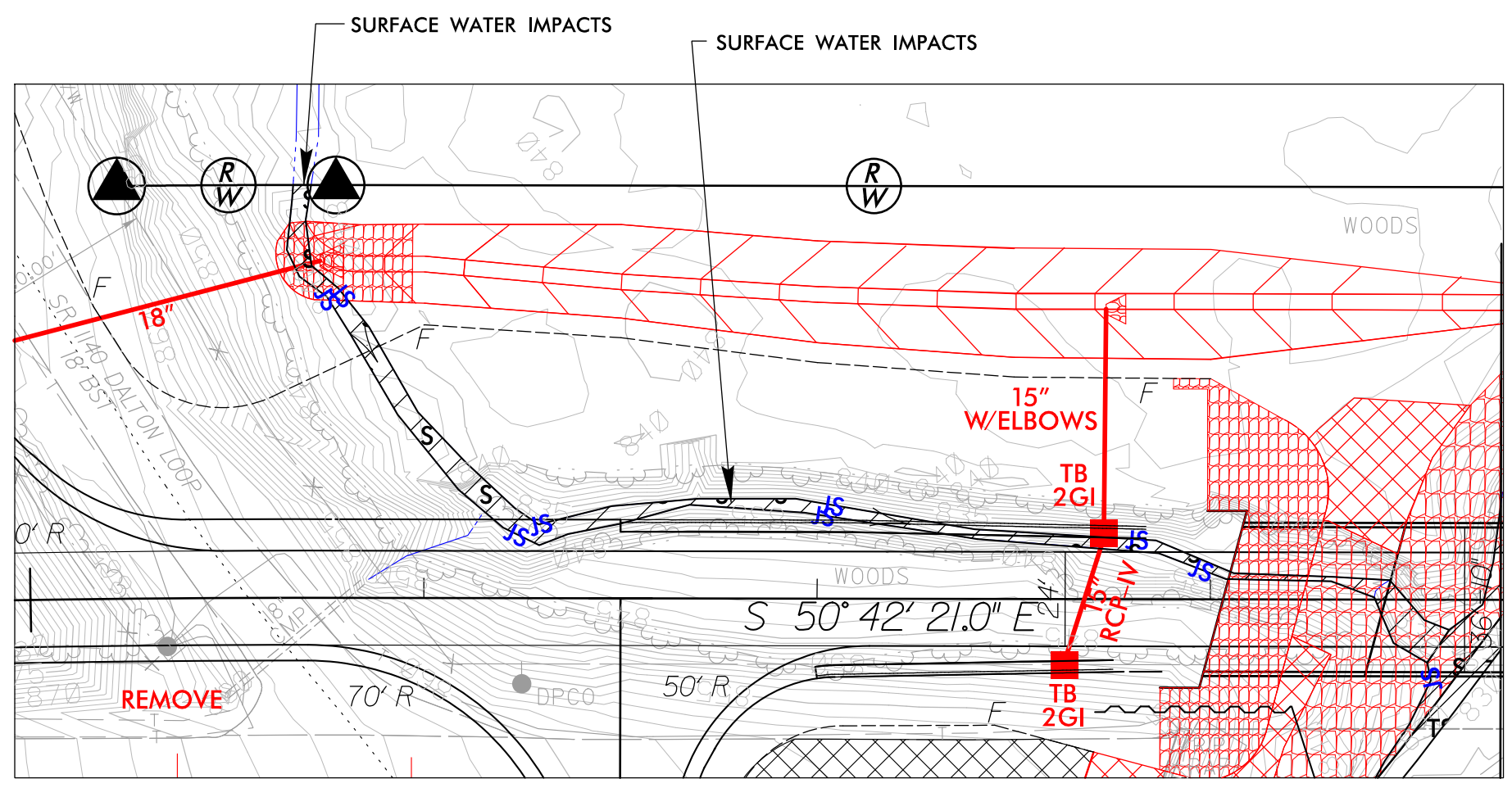
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PROJECT REFERENCE 17BP.9.R.83 - STOKES 286	SHEET NO.
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
MOTT MACDONALD 1 & E, LLC LICENSE NO. F-06697	VHB ENGINEERING LICENSE NO. C-3705
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	
Prepared in the Office of:	<b>M</b> MOTT MACDONALD 7621 Purfoy Road, Suite 115 Fuquay-Varina, NC 27326 www.mottmac.com/america
<b>vhb</b> VHB Engineering NC, P.C. (C-3705) 940 Main Campus Drive, Suite 500 Raleigh, NC 27605	

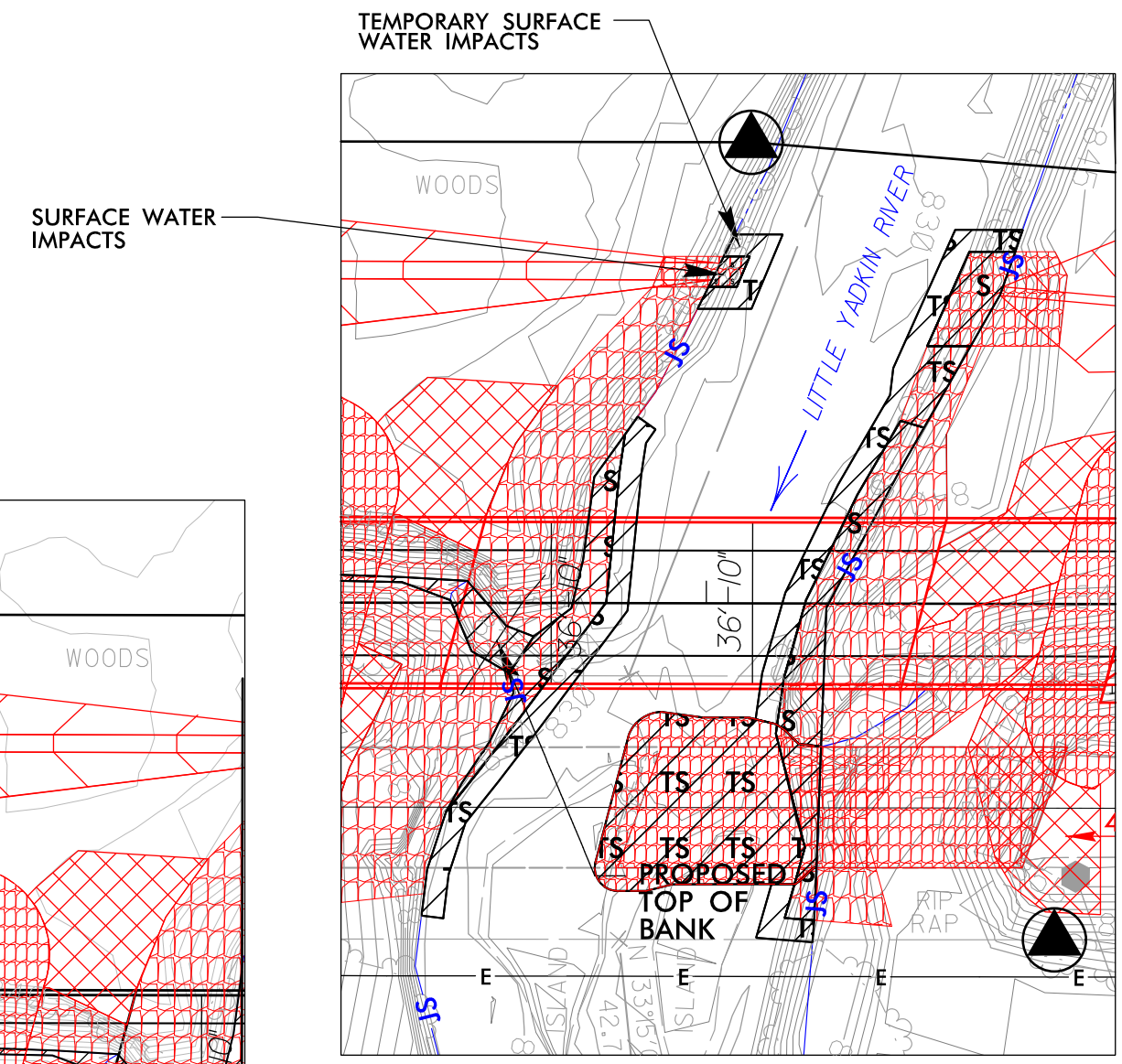
**PERMIT DRAWING  
SHEET 7 OF 11**



**SITE 2 AND 2A**



**SITE 3**



**SITE 4 AND 4A**

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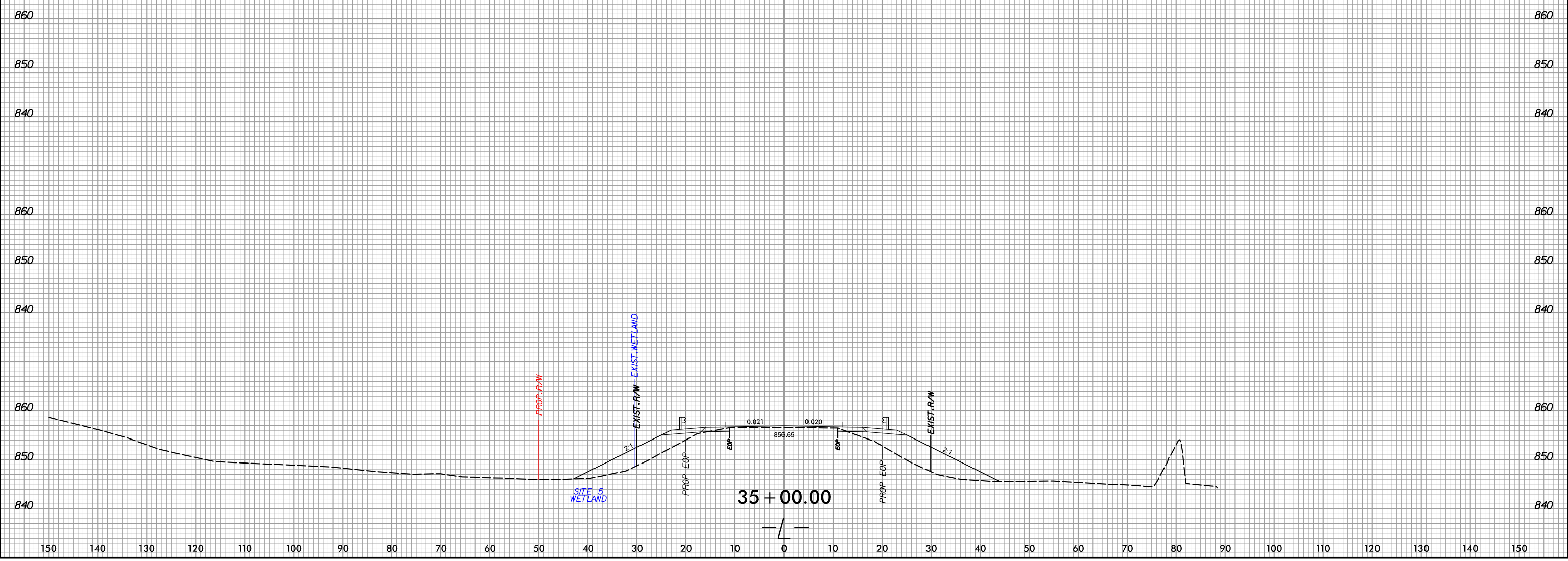


PROJECT REFERENCE	SHEET NO.
17BP.9.R.83 - STOKES 286	X-18


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

**PRELIMINARY PLANS**  
DO NOT USE FOR CONSTRUCTION

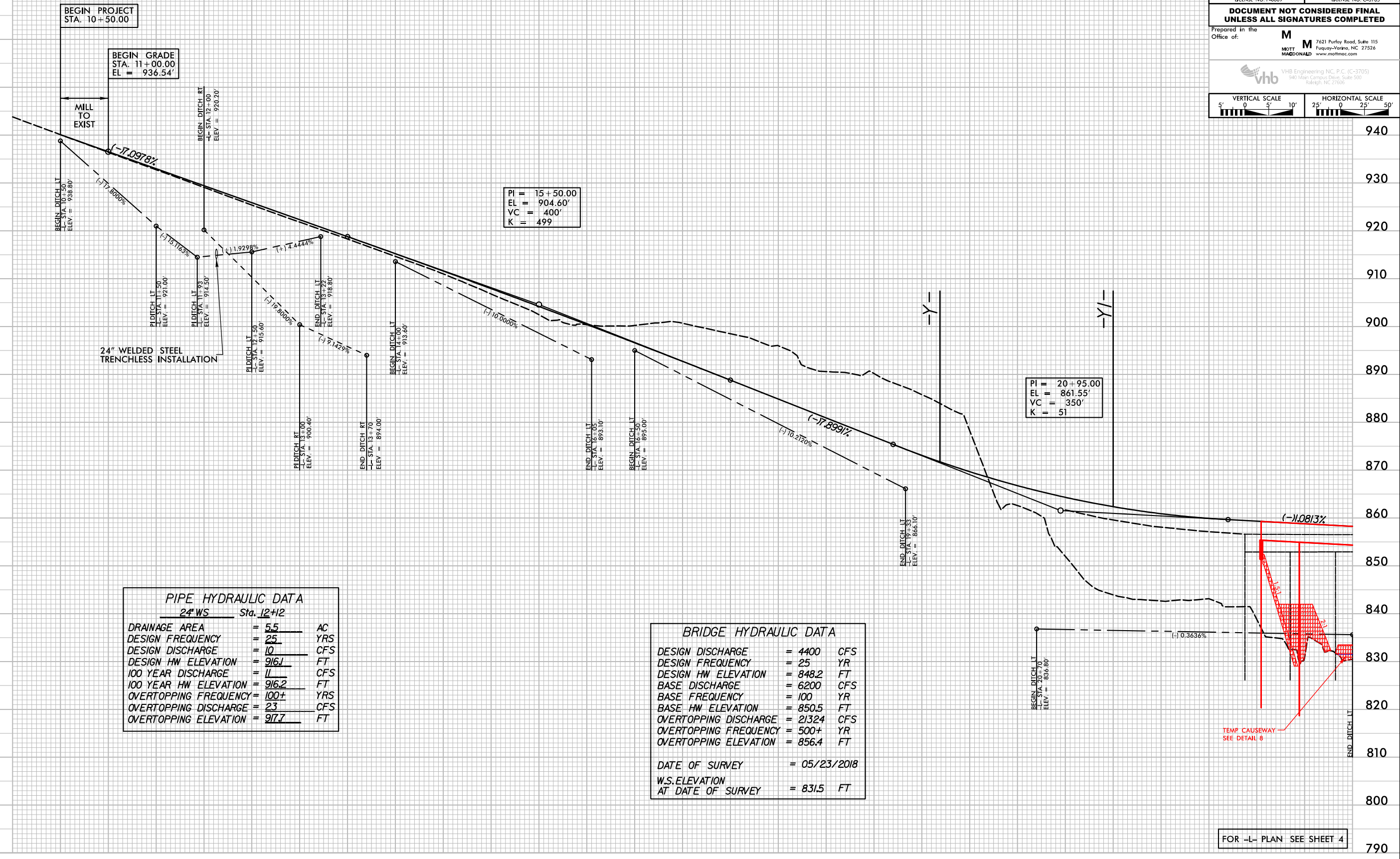
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**SHEET 8 OF 11**



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PROJECT REFERENCE 17BP.9.R.83 - STOKES 286	SHEET NO. 6
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
MOTT MACDONALD I & E, LLC LICENSE NO. F-0669	VHB ENGINEERING LICENSE NO. C-3705
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Prepared in the Office of: <b>M</b>	
<b>M</b> 7621 Purfoy Road, Suite 115 Fuquay-Varina, NC 27526 MOTT MACDONALD www.mottmac.com	
 VHB Engineering NC, P.C. (C-3705) 940 Main Campus Drive, Suite 500 Raleigh, NC 27605	
VERTICAL SCALE 5' 0 5 10'	HORIZONTAL SCALE 25' 0 25' 50'

-L-



PI = 15+50.00  
EL = 904.60'  
VC = 400'  
K = 499

PI = 20+95.00  
EL = 861.55'  
VC = 350'  
K = 51


PIPE HYDRAULIC DATA		
24" WS Sta. 12+12		
DRAINAGE AREA	= 5.5	AC
DESIGN FREQUENCY	= 25	YRS
DESIGN DISCHARGE	= 10	CFS
DESIGN HW ELEVATION	= 916.1	FT
100 YEAR DISCHARGE	= 11	CFS
100 YEAR HW ELEVATION	= 916.2	FT
OVERTOPPING FREQUENCY	= 100+	YRS
OVERTOPPING DISCHARGE	= 23	CFS
OVERTOPPING ELEVATION	= 917.7	FT

BRIDGE HYDRAULIC DATA		
DESIGN DISCHARGE	= 4400	CFS
DESIGN FREQUENCY	= 25	YR
DESIGN HW ELEVATION	= 848.2	FT
BASE DISCHARGE	= 6200	CFS
BASE FREQUENCY	= 100	YR
BASE HW ELEVATION	= 850.5	FT
OVERTOPPING DISCHARGE	= 21324	CFS
OVERTOPPING FREQUENCY	= 500+	YR
OVERTOPPING ELEVATION	= 856.4	FT
DATE OF SURVEY	= 05/23/2018	
W.S. ELEVATION AT DATE OF SURVEY	= 831.5	FT

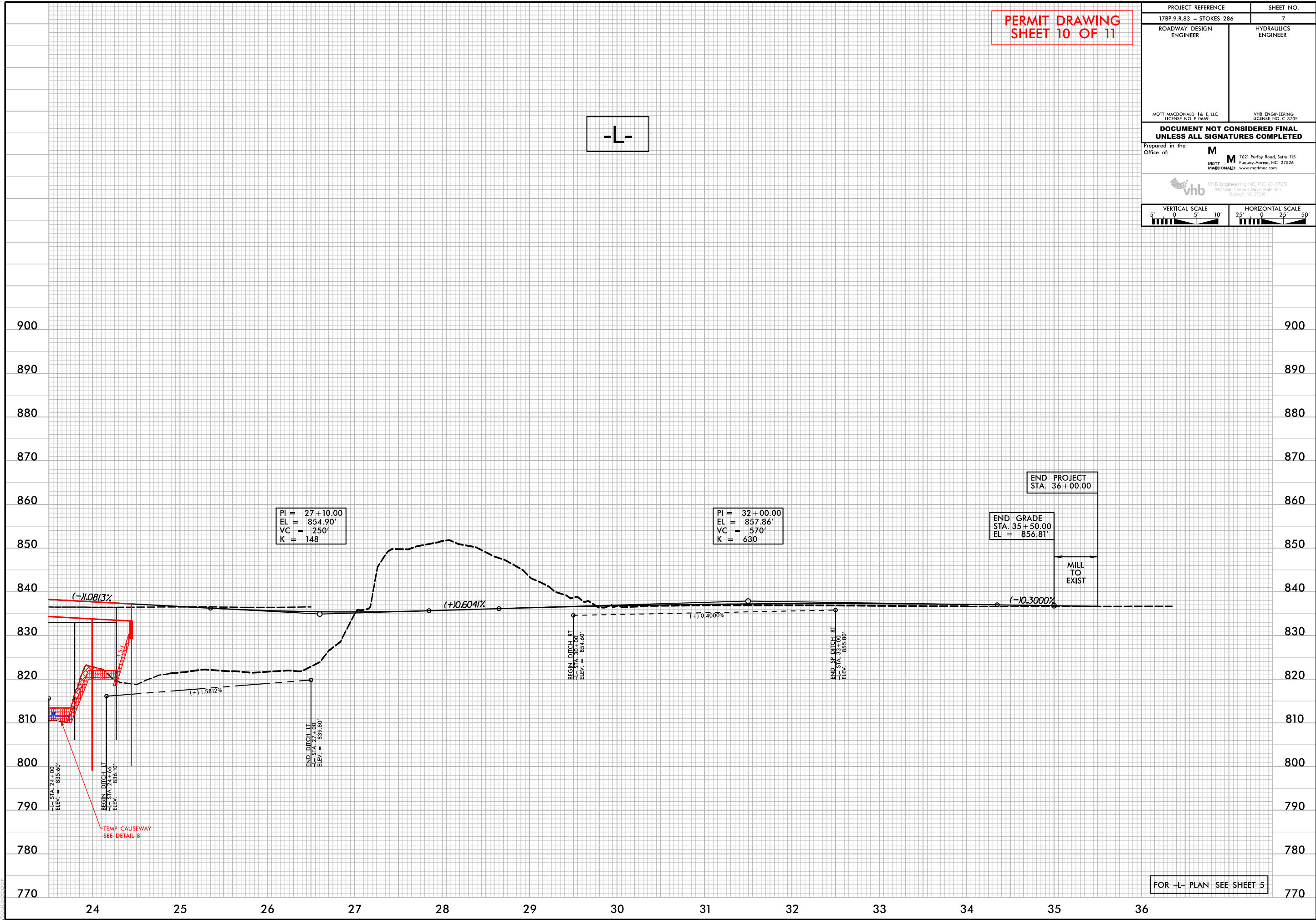
FOR -L- PLAN SEE SHEET 4

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**PERMIT DRAWING  
SHEET 10 OF 11**

PROJECT REFERENCE 17BP.9.R.83 - STOKES 286	SHEET NO. 7
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
MOTT MACDONALD I & E, LLC LICENSE NO. F-06697	VHB ENGINEERING LICENSE NO. C-3705
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	
Prepared in the Office of:	<b>M</b> MOTT MACDONALD 7621 Purfoy Road, Suite 115 Fuquay-Varina, NC 27526 www.mottmac.com
 VHB Engineering NC, P.C. (C-3705) 940 Main Campus Drive, Suite 500 Raleigh, NC 27605	
VERTICAL SCALE 5' 0 5' 10'	HORIZONTAL SCALE 25' 0 25' 50'

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FOR -L- PLAN SEE SHEET 5



### WETLAND AND SURFACE WATER IMPACTS SUMMARY

Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS					SURFACE WATER IMPACTS					
			Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)	
1	-L- 11+45/12+08 LT	Roadway						< 0.01		66			
2	-L- 12+01/12+53 RT	Roadway						< 0.01		54			
2A	-L- 12+53/13+81 RT	Roadway						< 0.01	< 0.01	127	11		
3	-L- 20+65/23+61 LT	Roadway						0.03		356			
4	-L- 23+35/24+72	Bank Stabilization						0.03	0.04	142	173		
4A	-L- 23+35/24+72	Causeway							0.04				
5	-L- 34+58/36+00 LT	Roadway	0.03										
TOTALS*:			0.03					0.04	0.08	0.08	745	184	0

\*Rounded totals are sum of actual impacts

NOTES:  
 The linear footage of Temporary Stream impacted associated with the causeway is 39 lf.  
 This 39 lf is already accounted for in the permanent bank stabilization impacts shown on Site 4.

NC DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 12.07.2022  
 STOKES  
 SF-840286  
 17BP.9.R.83  
 SHEET 11 OF 11



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

ROY COOPER  
GOVERNOR

J. ERIC BOYETTE  
SECRETARY

October 7, 2022

Ms. Lauren Wilson  
U.S. Fish and Wildlife Service  
Asheville Field Office  
160 Zillicoa Street  
Asheville, NC 28801

Subject: **Section 7 Concurrence Request for the Northern Long-eared bat** for the proposed replacement of Bridge 286 on Old US 52 in Stokes County. WBS No. 17BP.9.R.83.

Dear Ms. Wilson:

Please accept this Section 7 Concurrence Request for the Northern Long-eared, Tricolored and Gray Bats for the proposed replacement of Bridge 286 on Old US 52 in Stokes County.

The North Carolina Department of Transportation (NCDOT) proposes to replace Bridge No. 469 over the Little Yadkin River on Old US 52 in Stokes County. Since an offsite detour is not feasible, the new bridge will be constructed to the north and existing Old US 52 will be realigned. See attached preliminary plans.

IPAC identifies two listed species for the USACE action area: Schweinitz's sunflower (*Helianthus schweinitzii*) and the Gray Bat (MYGR-*Myotis grisescens*) are listed as endangered. It identifies the Northern long-eared bat (NLEB-*Myotis septentrionalis*) as threatened in the USACE project action area and proposes the Tricolored Bat (PESU-*Perimyotis subflavus*) as endangered. NCDOT wishes to consult on the NLEB and PESU since the species status listing is anticipated to be revised prior to construction of the project.

The project is state funded, and a 404 permit will be required. The USACE is the lead federal agency on the project.

The project Let for construction in September 2023. A General Permit 50 will be utilized from the USACE. A project location map is attached.

*Mailing Address:*  
NC DEPARTMENT OF TRANSPORTATION  
DIVISION 9  
375 SILAS CREEK PARKWAY  
WINSTON SALEM, NC 27127

*Telephone:* (336) 747-7800  
*Fax:* (336) 703-6693  
*Customer Service:* 1-877-368-4968

*Location:*  
375 SILAS CREEK PARKWAY  
WINSTON-SALEM, NC 27127

*Website:* [ncdot.gov](http://ncdot.gov)

## **Effects to Northern long-eared bat and Tricolored bat**

There are no element occurrence data for Northern long-eared bats in the USACE project action area, Stokes County, or within 37 miles of the action area. The project is also more than 77 miles from known maternity sites or known hibernacula and is located outside of an occupied 12-digit HUCs.

There are no element occurrence data for Tricolored bats in the USACE action area, or within 9 miles of the action area. There is a known hibernaculum for PESU within 10 miles of the action area.

### Foraging, Commuting, and Roosting behavior/Tree Clearing

The USFWS Range-Wide Indiana Bat Survey guidance defines suitable summer Northern long-eared bat (NLEB) habitat as a “wide variety of forested/wooded habitats where they roost, forage, and travel and may include some adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, old fields and pastures”. They have also been found utilizing manmade structures such as bridges and abandoned buildings. Further description of suitable habitat can be found in the referenced guidance. Unsuitable habitat includes individual trees greater than 1,000’ from forested areas, trees in highly developed urban areas, and a pure stand of trees less than 3’ inch DBH.

The Tricolored bat (PESU) utilizes a variety of structures, including culverts, bridges and abandoned structures for roosting in the summer. Maternity roosts are found in a variety of terrestrial habitats, included live and dead trees and in live and dead foliage and lichens in the tree canopies (NaturServe 2022).

NLEB and PESU primarily utilize abandoned caves and underground mines for their hibernacula in the winter. They can be found emerging from the hibernacula in the spring and fall.

For NLEB and PESU, habitat types that were assessed for impacts associated with the replacement of Bridge Number 286 include roosting locations in caves, mines, and foraging/commuting locations in a variety of woody habitats. The action area for the Bridge Number 286 project includes woody habitats that qualify as suitable habitat for NLEB and PESU. There are 4 perennial streams, 1 stream that is both intermittent and perennial in the project study area and 2 small wetlands in the action area. Therefore, NLEB and PESU foraging, commuting, and roosting behaviors may be impacted by project construction.

There is one bridge in the action area and no pipes equal to or greater than 60’ long and 36” tall in the action area. These minimum pipe lengths are in accordance with NCDOT’s Standard Operating Procedures (SOP) 2022 Preliminary Bat Habitat Assessment. While the PESU have been shown to utilize pipes as small as 3.3’ tall and 60’ long in North Carolina, the project will not impact any existing pipes of these dimensions. In addition, there are no known records of NLEB roosting in culverts in North Carolina.

Based on the most circuitous alternative and widest slope stakes, the total limits of tree clearing are estimated to be 4 acres and is 0.483 miles long. There will be clearing along the road corridor and will involve clearing along the streams and wetlands. The clearing will be minimized to the maximum extent practicable to safely construct the new location roadway. Because the suitable habitat for NLEB and PESU are so broadly defined, the potential effect that clearing of woody vegetation anywhere within the action area may have on NLEB or PESU *commuting, foraging and roosting* behavior cannot be completely ruled out. However, effects from a reduction in commuting and foraging area are expected to be discountable and insignificant due to the **availability of alternative forested area in the surrounding landscape**. In addition, because tree roosting bats are on the landscape and active between April 1-October 15, a tree clearing moratorium will be in place during this time so that potential roosting behavior is not impacted. Given this time of year tree clearing conservation measure and availability of alternative commuting and foraging habitat, NLEB and PESU bats are not expected to be adversely affected.

#### **Roosting, Foraging & Commuting behavior/Lighting:**

The potential exists that the addition of lighting could indirectly affect *commuting* bats that may be present in the area by avoiding lit areas, causing them to use other areas, possibly impacting individual bat fitness due to longer flight distances or threats from predation or vehicle traffic in new routes. However, these potential effects from NLEB or PESU choosing alternate commuting areas due to additional lighting are expected to be insignificant due to the abundance of alternative forested area that is available in the surrounding landscape.

The potential exists that the addition of lighting could indirectly affect *commuting* bats that may be present in the area by avoiding lit areas, causing them to use other areas, possibly impacting individual bat fitness due to longer flight distances or threats from predation or vehicle traffic in new routes. However, these potential effects from NLEB or PESU choosing alternate commuting areas due to additional lighting are expected to be insignificant due to the abundance of alternative forested area that is available in the surrounding landscape.

There is an existing permanent light on a power pole on W. Dalton Road, approximately 85 feet from the intersection of W. Dalton Road and Old US 52. The light will be replaced in the same location with a taller pole as required by Duke Energy. While the pole will be taller, the light should be no more than 6' higher than the existing light. The existing downcast light will be reattached to the taller pole. The replacement light may cast slightly further since it will be taller. There are no trees between the existing or new pole and the existing roadway or the Little Yadkin River that will be removed from the project. We cannot plant trees between the light and the edge of pavement because the trees would impede the view for motorists at the intersection with W. Dalton Road and Old US 52. Additionally, there is a church between the light and the Little Yadkin River. There will be no nightwork, so temporary lights will not be needed.

#### **Noise**

Blasting may be needed to allow site development for the project, and pile driving will be needed for bridge installation. Blasting mats or overburden material will be used in areas

to remove smaller amounts of rock or trench rock which could help to contain the blast and suppress noise and dust. Blast monitoring will follow NCDOT standard specifications for all blasting activities. There will be no blasting or pile driving at night. While these activities are anticipated for the project, this activity is not anticipated within 1.0 mile of a known NLEB or PESU maternity roost. Furthermore, there are not any known NLEB hibernacula in Stokes County, and the closest PESU is 9 miles away. There are no underground mines located within the action area or within 3 miles of the action area. No impacts to NLEB or PESU roosting habitat are anticipated from noise.

### **Biological Conclusion for NLEB and PESU**

Lighting, noise, vibration, and removal of woody vegetation are anticipated as part of construction activities associated with the project. The project effects are expected to be insignificant, as explained above. The replacement of Bridge Number 286 and associated roadwork are not expected to result in adverse effects to NLEB or PESU commuting, foraging, and breeding or roosting habitat. The following Avoidance and Minimizations Measures will be utilized to reduce impacts to the NLEB and PESU:

1. No blasting or pile driving will occur at night.
2. Blast monitoring will follow NCDOT standard specifications for all blasting activities.
3. Blast mats or overburden material (e.g., soil) will be used over all blast sites.
4. A tree clearing moratorium will be implemented for the action area from April 1 to October 15, effective with the revised listing of NLEB or PESU, whichever is first.
5. Temporary and permanent lighting will be downward facing, full cut-off lens light (with the same intensity or less for replacement lighting).
6. Tree clearing limits will be clearly denoted on the project plans and ensure that the contractors understand the limits.
7. Tree clearing will be minimized to what is required to implement the project safely.

NCDOT requests concurrence on a “**May Affect, Not Likely to Adversely Affect**” for the NLEB and PESU.

### **Effects on the Gray Bat**

#### **Foraging, Commuting, and Roosting behavior/Tree Clearing**

A study published in 2020, tracked radio tagged bats to three tree locations along the banks of French Broad River (FBR), although they could not confirm the roost location within the tree (Samoray, 2020). This paper reported two MYGR roosting on live trees and one in a snag. While this report does further our knowledge on the habits of MYGR, the authors do not categorize MYGR as a tree roosting species (especially outside of riparian corridors). More likely, these are opportunistic roosts for bats that forage and commute along the river. Samoray writes:

*“Given that our tree roosts were used during these transition periods and that each tree was used for only 1 day, we believe that the use of tree roosts by Gray Bats may be a season-specific behavior, possibly related to migration. These tree roosts could be opportunistic resting sites during migration. The bats we observed*

*may have been young and possibly lost, using tree roosts temporarily until they could become better oriented or follow experienced individuals to traditional roost sites. Nonetheless, these observations suggest Gray Bats use tree roosts more than previously thought, especially during migration and indicates that continued protection of **riparian** corridors, both for foraging habitat and potential roosting habitat, is prudent for the conservation of this species.”*

Again, this study found bats in trees located along the FBR in North Carolina. Further analysis of the roost location data indicates these roosts were located within approximately 50 feet of the FBR.

The replacement of Bridge no. 286 is not impacting areas along riparian corridors associated with large streams. Impacts are analyzed and conservation measures are developed for disturbances that may occur within habitat types which are suitable for the species. MYGR live in very large numbers in few caves across their range and generally forage over water and nearby riparian vegetation (LaVal et al. 1977). Rivers serve as the main foraging and commuting areas, but gray bats also use lakes, streams, and ponds (Moore et al. 2017). MYGR predominantly roost in caves year-round (Weber, 2020). They have also been found roosting in storm drains, culverts, a barn, a limestone quarry, and under bridges (Weber, 2020).

For MYGR, habitat types that were assessed for impacts associated with Bridge no. 286 include roosting locations in caves, mines, and bridges and foraging/commuting locations along riparian corridors of large streams. The habitat type associated with this project includes a single bridge. There is a single bridge, but no pipes greater than 60' long and 36" tall in the action area. These minimum pipe lengths are in accordance with NCDOT's Standard Operating Procedures (SOP) 2021 Preliminary Bat Habitat Assessment. The bridge was surveyed for bats June 25, 2018 and June 29, 2022. No bats or evidence of bats were found in either survey. While there is a riparian corridor along the Little Yadkin, the crossing is in the upper watershed, and no more than 80' wide in the project action area. Therefore, MYGR roosting behavior is not expected to be impacted by project construction.

Based on the most circuitous alternative and widest slope stakes, the total limits of tree clearing are estimated to be 4 acres. This includes clearing the Little Yadkin River and two unnamed tributaries up to the top of bank for the bridge installation and roadway relocation. MYGR do not typically utilize trees for roosting, this behavior is highly unusual for the species and, as explained above, is only known to occur within riparian areas associated with large streams. Therefore, because clearing of woody vegetation as part of this project is not occurring in riparian areas along large rivers, it is not likely to have an adverse effect on MYGR ability to *roost*. Suitable habitat does not exist for them to breed or shelter/roost in the action area. Therefore, these MYGR behaviors are not expected to be adversely affected.

According to a Weber 2020 study, while acoustic and telemetry surveys revealed the presence of MYGR in association with smaller waterways, the likelihood and magnitude of effects on the population generally decline the further the action occurs from a large

stream like the French Broad River. This coincides with information that is commonly reported in scientific literature regarding the species' preference to concentrate activity near large waterways. Their typical foraging locations are lakes, rivers, and other large, open water bodies (Tuttle 1976b, 1979, LaVal et al. 1977), and in riparian areas associated with these resources (Brack and LaVal 2006). While MYGR appeared to forage mainly over water, some individuals were also detected in areas that were not associated with water, but this behavior was rarely observed (Weber, 2020). A smaller number of individuals also were detected in locations that were more unusual for the species, such as heavily wooded areas along the Blue Ridge Parkway, and partially wooded areas like the Riverside Cemetery, with no associated water sources.

Although there have been some outliers, the commuting range of MYGR generally follows large waterways as evidenced by telemetry data collected by Weber 2020. Other NCDOT projects only included a tree clearing moratorium for roosting and commuting behavior impacts for MYGR due to proximity to a primary MYGR roost along a large waterway (Project HE-0001, USFWS Log Number 21-330, pg 4).

The potential effect that clearing of woody vegetation anywhere within the action area may have on MYGR *foraging* and *commuting* behavior cannot be completely ruled out. However, these behaviors are unlikely to occur in the project area as there is no primary roost nearby and this is not a large waterway typical of MYGR foraging and commuting behavior. Therefore, effects from a reduction in *foraging* and *commuting* area are expected to be discountable and insignificant. And these MYGR behaviors are not expected to be adversely affected.

#### **Foraging & Commuting behavior/Lighting:**

The potential exists that the addition of lighting could indirectly affect *foraging* and *commuting* bats that may be present in the area by avoiding lit areas, causing them to use other areas, possibly impacting individual bat fitness due to longer flight distances or threats from predation or vehicle traffic in new routes. However, these potential effects from MYGR choosing alternate *foraging* and commuting areas due to additional lighting are expected to be insignificant as these behaviors are unlikely to occur in the project area as there is no primary roost nearby and this project is not located near a large waterway typical of MYGR foraging and commuting behavior.

#### **Noise**

Blasting may be needed to allow site development for the project, and pile driving will be needed for bridge installation. Blasting mats or overburden material will be used in areas to remove smaller amounts of rock or trench rock which could help to contain the blast and suppress noise and dust. Blast monitoring will follow NCDOT standard specifications for all blasting activities. There will be no blasting or pile driving at night. While blasting and pile driving are anticipated for the project, these activities is not anticipated within 1.0 mile of a known MYGR roost. The closest known population in North Carolina is approximately 17 miles from the USACE action area, and there are no underground mines located within the action area or within 3 miles of the action area. No impacts to MYGR roosting habitat are anticipated.

#### **Biological Conclusion for MYGR**

Lighting, noise, vibration and removal of woody vegetation are anticipated as part of construction activities associated with the project. Effects to MYGR are anticipated to be insignificant, as explained above. Replacement of Bridge no. 286 and associated roadwork is not expected to result in adverse effects to MYGR commuting, foraging, and breeding or roosting habitat. The following Avoidance and Minimizations Measures will be utilized to reduce impacts to the MYGR:

1. No blasting or pile driving will occur at night.
2. Blast monitoring will follow NCDOT standard specifications for all blasting activities.
3. Blast mats or overburden material (e.g., soil) will be used over all blast sites.

NCDOT requests concurrence on a **“May Affect, Not Likely to Adversely Affect”** for MYGR.

### **Other Threatened and Endangered Species**

NCDOT is not requesting concurrence on the remaining species that IPAC lists for the project area. We do however offer the following biological conclusions for these species, including presence or absence of habitat and survey dates (if applicable).

Schweinitz’s sunflower: No Effect. Habitat is present within the project action area. The project was surveyed June 9, 2017 and October 18, 2021, and none were found. There are no populations within one mile of the project study area, which is NCDOT’s current protocol for rendering a ‘may affect’ biological conclusion for plants.

NCDOT believes that the requirements of Section 7 (a)(2) of the ESA have been satisfied and hereby request your concurrence on a May Affect Not Likely to Adversely Affect determination for the Northern Long-eared bat, Tricolored bat or Gray bat. Thank you for your assistance with this project. If you have any questions or need additional information, please contact Amy Euliss at (336) 747-7802 or at [aeuliss@ncdot.gov](mailto:aeuliss@ncdot.gov).

Sincerely,



Amy Euliss  
Division 9 PDEA Engineer, NCDOT

Cc:

Daniel Dagenhart, NCDOT Division 9 Bridge Program Manager  
Cheryl Knepp, NCDOT Biological Surveys Group  
Eric Alsmeyer, USACE



DIVISION DESIGN RALEIGH LET (DRRL)

**RIGHT OF WAY FIELD CERTIFICATION**

TIP No. 17BP.9.R.83  
 WBS Element: 17BP.9.ROW.83  
 County: Stokes  
 Description: Bridge #286 on SR 1236 North Old 52 over Little Yadkin River

In connection with the above-referenced project, I certify that there were:

- 1) No persons displaced for this project or that all individuals and families have been relocated to DSS housing, Comparable replacement housing has been made available to relocates in accordance with applicable Federal and State laws and regulations.
- 2) The steps relative to relocation advisory assistance and payments as required by current FHWA directive(s) covering the administration of the Highway Relocation Assistance Program have been taken, as required.
- 3) Any necessary utility easements have been acquired for utility relocations
- 4) Any land needed by NCDOT from any active or non-active Railroad Company has been acquired in accordance with all state and federal laws.

I further certify that one of the following has application:

1. All necessary right of way has been acquired or the State has legal right of physical possession of that right of way,
- or
2. The acquisition or right of occupancy and use of a few remaining parcels is not complete, but all occupants of the residences on such parcels have had replacement housing made available to them in accordance with 49 CFR 24.204. I assure that, if the physical construction of the project proceeds, displaced persons who have not yet moved from the right of way will be protected against unnecessary inconvenience and disproportionate injury or any action coercive in nature. I believe that it will be in the best public interest to proceed with this project. The following information is provided regarding excepted parcels and will be provided in the contract documents. These parcels will require delays of entry noted as follows:

TIP/PARCEL	PROPERTY OWNER	REASON FOR DELAY REQUEST	RELO (Y/N)	DELAY OF ENTRY UNTIL

This certification assures compliance with all applicable Federal and State laws, rules and policies.

Date: 12-19-2024

Janet R. Harris *Janet R. Harris*  
 DIVISION RIGHT OF WAY AGENT

Date: 12/19/2024

Brad Bass *Brad Bass*  
 05E0000000034EA  
 MANAGER, RIGHT OF WAY UNIT  
 (required for Raleigh Let projects only)

## NCFMP and NCDOT SFC Project Review

### PROJECT INFORMATION

<b>Project TIP:</b>	SF-840286	<b>Stream Name:</b>	LITTLE YADKIN RIVER
<b>Sch Let Date:</b>	1/14/2023	<b>Route Number:</b>	SR 1236
<b>CLOMR Case Number:</b>	N/A	<b>Road Name on Panel:</b>	OLD US 52
<b>Municipality:</b>	N/A	<b>Effective FIS Date:</b>	05/16/2007
<b>County:</b>	Stokes	<b>Panel Number:</b>	5983, 5984
<b>CID Number:</b>	370362	<b>Panel Effective Date:</b>	5/16/2007
<b>Project Engineer:</b>	Brandon Barham, PE	<b>Bounding Stations:</b>	Station 71276/60752
<b>Project Reviewer:</b>	Matthew Dudley, PE		

### MODEL STATUS

<b>Type of Study (detailed, limited, redelineated):</b>	Limited
<b>Effective Model on File?</b>	YES
<b>Effective Model Format (HEC-RAS, HEC2, Other):</b>	HEC-RAS 3.1.2
<b>Proposed Model Format (HEC-RAS, HEC2, Other):</b>	HEC-RAS 4.1.0

### PROJECT SPECIFIC NOTES (pre-model review)

This project has a maximum increase in water surface elevation of 0.42 ft at RS 61501 and will be submitted as a SFC type A.

### REVIEW COMMENTS:

1. In the duplicate effective plan, RS 60444 serves as section 4 for the structure at RS 60334 and RS 60752 serves as section 2 for the structure at RS 60802. In the corrected effective and revised plans, cross sections between these two sections were given elevated contraction/expansion ratios of 0.3/0.5. Please confirm RS 60444 and RS 60602 are within contraction/expansion zones between these two structures for both the corrected effective and revised plans.

VHB Response: The Narrative has been updated with additional language and a table comparing the river stations and contraction/expansion zones between the duplicate effective, corrected effective and revised plans. It was determined that RS 60689, RS 60602, and RS 60444 are within contraction/expansion zones as the flood flows do not become fully expanded/contracted between BR 60802 (BR 60852 in Revised) and BR 60334. The differences in the CE/REV and DE contraction and expansion coefficient assignments are due to a combination of better topography in the CE Model, the added cross-sections in the CE Model, and engineering judgement based on the interaction between the base flow WSEL and ineffective boundaries.

Verified, no further action required.

## MINOR COMMENTS

1. For all plans, the submitted model provides a warning that the geometry is newer than the output. Please ensure the model is run with the most recent geometry prior to resubmitting.

Warning Geometry is newer than output.

VHB Response: VHB will run the model and save prior to re-submitting.

Verified, no further action required.

2. Please correct the stationing of the bounding sections on the coordination form to either have the stream station in feet (71276 for example), or XS number (713 for example).

VHB Response: The stationing for the bounding sections on the coordination form has been revised.

Verified, no further action required.

3. Based on the upstream bounding section, the project area extends onto another panel, 5984. Please confirm and add the additional panel to the coordination form.

VHB Response: The coordination form has been updated to reflect the additional panel.

Verified, no further action required.

4. The provided narrative indicates the project increases water surface elevations upstream to RS 68632. However, the coordination form lists 71276 as the upstream limit. Recommend revising the narrative to be consistent with the coordination form to avoid any confusion.

VHB Response: The narrative has been revised to be consistent with the coordination form.

Verified, no further action required.

5. Please rename the geometry files to match the plan files as follow: "Duplicate Effective," "Corrected Effective," and "Revised. When resubmitting the model, please remove any unnecessary files that may have referenced additional plan and geometry files that are not needed for SFC submission.

Open Geometry File	
Selected File Title	Filename
Revised	P:\Projects\HQ41.400_NCDOT_MOA_Ph3\ClientData\20221201_8_cases\SF-840286 SFC Pkg Transmittal_20221123\SFC Model\LittleYadkin.g06
LDS_Little_Yadkin_Rvr	P:\Projects\HQ41.400_NCDOT_MOA_Ph3\ClientData\20221201_8_cases\SF-840286 SFC Pkg Transmittal_20221123\SFC Model\LittleYadkin.g01
Corrected Effective	P:\Projects\HQ41.400_NCDOT_MOA_Ph3\ClientData\20221201_8_cases\SF-840286 SFC Pkg Transmittal_20221123\SFC Model\LittleYadkin.g02
Revised OT	P:\Projects\HQ41.400_NCDOT_MOA_Ph3\ClientData\20221201_8_cases\SF-840286 SFC Pkg Transmittal_20221123\SFC Model\LittleYadkin.g08
Natural	P:\Projects\HQ41.400_NCDOT_MOA_Ph3\ClientData\20221201_8_cases\SF-840286 SFC Pkg Transmittal_20221123\SFC Model\LittleYadkin.g09
Revised	P:\Projects\HQ41.400_NCDOT_MOA_Ph3\ClientData\20221201_8_cases\SF-840286 SFC Pkg Transmittal_20221123\SFC Model\LittleYadkin.g06

OK Cancel Help

VHB Response: Geometry files have been renamed and unnecessary files have been removed.


Verified, no further action required.

## NOTES FOR NCFMP

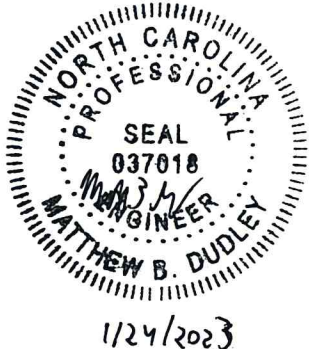
1. The left encroachment is outside of the floodplain at RS 56782 and RS 78023. These are outside of the project area and no action is required of DOT.

**FINAL DETERMINATION:**

This project is recommended for approval as a type A project.

  
\_\_\_\_\_  
Matthew B. Dudley, PE, CFM  
ESP – Project Manager

1/24/2023  
Date





STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

ROY COOPER  
GOVERNOR

J. ERIC BOYETTE  
SECRETARY

September 25, 2023

WBS ELEMENT: 17BP.9. R.83  
COUNTY: Stokes  
DESCRIPTION: Replace Bridge NO. 286 Over Little Yadkin River on SR 1236 (North Old 52)  
SUBJECT: Use and Occupancy Agreement-City of King

Mr. Scott Barrow  
City Engineer  
City of King  
PO Box 1132  
King, NC 27021

Dear:

The proposed improvement of the above-described project is scheduled to be let to contract on February 2025, with construction beginning around the March of 2025. The construction of this project will require the relocation and adjustment of certain water and/or sewer lines owned by City of King. As discussed with you previously, the design for the relocation work will be handled by our engineers and the construction will be included in the Roadway Contract. This work will be done at the expense of the Department of Transportation in accordance with General Statute 136-27.1.

I am sending for your approval, Special Provisions, and Plans showing proposed water and sewer line relocations. In accordance with State and Federal Regulations, it will be necessary for the City of King and the Department of Transportation to agree in writing as to the terms of use and occupancy for the water and sewer lines to remain within the highway right of way. Accordingly, the following conditions will apply with regards to the water and/or sewer lines:

(1) The water and/or sewer lines will be located and accommodated in a manner that will not impair the planned highway or the construction or maintenance or

*Mailing Address:*  
NC DEPARTMENT OF TRANSPORTATION  
1555 MAIL SERVICE CENTER  
RALEIGH, NC 27699-1555

*Utilities Unit Fax:* (919) 250-4151  
*Customer Service:* 1-877-368-4968

*Website:* [www.ncdot.gov](http://www.ncdot.gov)

*Location:*  
1000 BIRCH RIDGE DRIVE  
RALEIGH, NC 27610

interfere with the safe operation in accordance with the attached plans which are made apart hereof.

(2) The City of King will be responsible for maintenance and service of the water and/ or sewer lines to be retained within the Department of Transportation's right of way limits in accordance with the mandate of the statutes and such other laws, rules, and regulations that have been or may be validly enacted or adopted now or hereafter.

(3) That upon satisfactory completion of the water and/or sewer line work, the City of King agrees that it shall release the Department of Transportation from any and all claims for damage in connection with relocation made to the water and/or sewer lines, and further, that it shall release the Department of Transportation of any further responsibility for the cost of maintenance to the water and/or sewer lines. This release shall be deemed to be given by the NCDOT upon completion of construction of the project and its acceptance by the Department of Transportation from the Roadway Contractor unless the City of King notifies the Department of Transportation in writing to the contrary prior to the Department's acceptance of the project.

(4) The Department's Special Provisions binds the contractor to guarantee materials and workmanship against latent and patent defects arising from faulty materials, faulty workmanship or negligence for a period of twelve months following the date of final acceptance of the work for maintenance and shall replace such defective materials and workmanship without cost to the Department. The highway contractor will not be responsible for damage due to faulty design, normal wear and tear, for negligence on the part of the Department, and/or for use in excess of the design. Where items of material carry a manufacturer's guarantee for any period in excess of twelve months, then the manufacturer's guarantee shall apply for that particular piece of material. Appropriate provisions of the payment and/or performance bonds shall cover this guarantee for the project. Should any failure result from the conditions found in line item (4) the Department would then enter into a Contract with the City of King for reimbursement to be made to the City of King for necessary repairs performed by the City of King and/or its contractor. The Utility Relocation Agreement would be issued by the NCDOT Utilities Unit and the repairs would be coordinated between the City of King and the Department's assigned Resident Engineer.

Please indicate your concurrence in these conditions and attached plans by signing in the appropriate space provided below and return for our file no later than January 8th, 2024. If our office has not received this agreement by the due date, the highway project will be delayed by the Department of Transportation.

Sincerely,

Glenda Gibson  
Deputy Director of Technical Services

DocuSigned by:  
By: Randall D. Trantham  
8C37E5B578DB4A1...  
Contract Utility Engineer

BS: \_\_\_\_\_  
Attachment

Approved and Accepted For:  
T. Scott Barrow  
BY: T. Scott Barrow, PE, PLS  
CITY MANAGER TITLE

N.C.G.S. § 133-32 and Executive Order 24 prohibit the offer to, or acceptance by, any State Employee of any gift from anyone with a contract with the State, or from any person seeking to do business with the State. By execution of any response in this procurement, you attest, for your entire organization and its employees or agents, that you are not aware that any such gift has been offered, accepted, or promised by any employees of your organization.

TIP NO.  
17BP.9.R.83

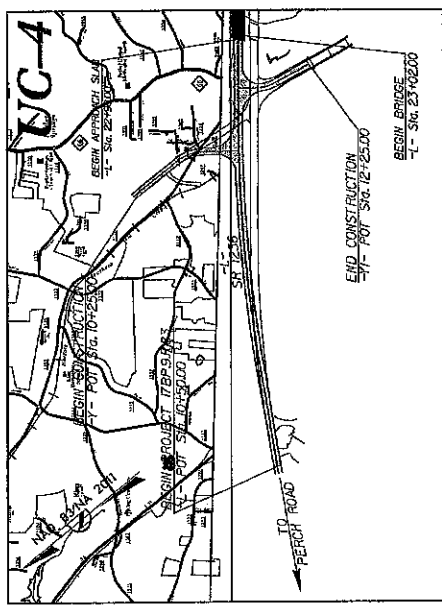
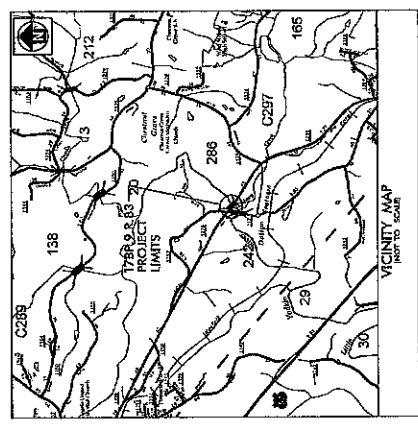
SHEET NO.  
UC-1

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**UTILITY CONSTRUCTION PLANS  
STOKES COUNTY**

LOCATION: BRIDGE NO. 286 OVER LITTLE YADKIN RIVER  
ON SR 1236 (NORTH OLD 52)

TYPE OF WORK: WATER LINE RELOCATION



REVISIONS AND CORRECTIONS SHALL  
BE MADE AS NECESSARY AND ALL  
REVISIONS SHALL BE INITIALED

**Wooten**  
CONSULTANT CONTRACT #1  
CONSULTANT CONTRACT #2  
CONSULTANT CONTRACT #3

SEAL  
Professional Engineer  
John C. Cox, P.E.  
Utility Construction  
Plans Only

DIVISION OF HIGHWAYS  
UTILITIES UNIT  
100 EAST MAIN STREET  
RALEIGH, N.C. 27601  
PHONE (919) 737-3800  
FAX (919) 737-4100

UTILITY OWNERS ON PROJECT  
(A) WATER (CITY OF KING)

INDEX OF SHEETS  
DESCRIPTION:  
TITLE SHEET  
UTILITY SYMBOLOLOGY  
NOTES  
DETAILS  
UTILITY CONSTRUCTION SHEETS  
PROFILE SHEETS

GRAPHIC SCALES  
PLANS: 1" = 50'  
PROFILE (HORIZONTAL): 1" = 50'  
PROFILE (VERTICAL): 1" = 20'



PREPARED BY THE OFFICE OF <b>Wooten</b> CONSULTING ENGINEERS, INC. 1000 W. HARRIS STREET WASHINGTON, NC 27583		PROJECT: WATER MAINS, ETC. DRAWING NO.: W-100-100 DATE: FEB 2, 2018 DESIGNED BY: JRM CHECKED BY: JRM APPROVED BY: JRM	SHEET NO.: UCS
VERTICAL SCALE: 1" = 10'		NORTH CAROLINA PROFESSIONAL ENGINEERING TRANSPORTATION LICENSE NO. 17433 JAMES R. MCGEE, P.E. LICENSED PROFESSIONAL ENGINEER IN THE STATE OF NORTH CAROLINA	
WATER LINE CONSTRUCTION SHOWN ON THIS SHEET			

## UTILITY CONSTRUCTION

### GENERAL NOTES:

1. THE PROPOSED UTILITY CONSTRUCTION SHALL MEET THE APPLICABLE REQUIREMENTS OF THE NC DEPARTMENT OF TRANSPORTATION'S "STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES" DATED JANUARY 2018.
2. THE EXISTING WATER UTILITIES BELONG TO CITY OF KING.
3. ALL WATER LINES TO BE INSTALLED WITHIN COMPLIANCE OF THE RULES AND REGULATIONS OF THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY, DIVISION OF WATER RESOURCES AND PUBLIC WATER SUPPLY SECTION.
4. THE UTILITY OWNER OWNS THE EXISTING UTILITY FACILITIES AND WILL OWN THE NEW UTILITY FACILITIES AFTER ACCEPTANCE BY THE DEPARTMENT. THE DEPARTMENT OWNS THE CONSTRUCTION CONTRACT AND HAS ADMINISTRATIVE AUTHORITY. COMMUNICATIONS AND DECISIONS BETWEEN THE CONTRACTOR AND UTILITY OWNER ARE NOT BINDING UPON THE DEPARTMENT OR THIS CONTRACT UNLESS AUTHORIZED BY THE DEPARTMENT. AGREEMENTS BETWEEN THE UTILITY OWNER AND CONTRACTOR FOR THE WORK THAT IS NOT PART OF THIS CONTRACT OR IS SECONDARY TO THIS CONTRACT ARE ALLOWED, BUT ARE NOT BINDING UPON THE DEPARTMENT.
5. PROVIDE ACCESS FOR THE DEPARTMENT PERSONNEL AND THE OWNER'S REPRESENTATIVES TO ALL PHASES OF CONSTRUCTION. NOTIFY DEPARTMENT PERSONNEL AND THE UTILITY OWNER TWO WEEKS PRIOR TO COMMENCEMENT OF ANY WORK AND ONE WEEK PRIOR TO SERVICE INTERRUPTION. KEEP UTILITY OWNERS' REPRESENTATIVES INFORMED OF WORK PROGRESS AND PROVIDE OPPORTUNITY FOR INSPECTION OF CONSTRUCTION AND TESTING.

### PROJECT SPECIFIC NOTES:

6. THE PLANS DEPICT THE BEST AVAILABLE INFORMATION FOR THE LOCATION, SIZE, AND TYPE OF MATERIAL FOR ALL EXISTING UTILITIES. MAKE INVESTIGATIONS FOR DETERMINING THE EXACT LOCATION, SIZE, AND TYPE MATERIAL OF THE EXISTING FACILITIES AS NECESSARY FOR THE CONSTRUCTION OF THE PROPOSED UTILITIES AND FOR AVOIDING DAMAGE TO EXISTING FACILITIES. REPAIR ANY DAMAGE INCURRED TO EXISTING FACILITIES TO THE ORIGINAL OR BETTER CONDITION AT NO ADDITIONAL COST TO THE DEPARTMENT.
7. MAKE FINAL CONNECTIONS OF THE NEW WORK TO THE EXISTING SYSTEM WHERE INDICATED ON THE PLANS, AS REQUIRED TO FIT THE ACTUAL CONDITIONS, OR AS DIRECTED.
8. MAKE CONNECTIONS BETWEEN EXISTING AND PROPOSED UTILITIES WITHOUT ENDANGERING THE UTILITY SERVICE AND IN ACCORDANCE WITH UTILITY OWNER'S REQUIREMENTS. ALL EXISTING WATER MAINS MUST REMAIN ACTIVE AT ALL TIMES DURING CONSTRUCTION. EXISTING WATER MAINS SHALL NOT BE TAKEN OUT OF SERVICE UNTIL NEW MAINS HAVE BEEN TESTED, DISINFECTED AND CERTIFIED. THIS IS PROVIDED AS A GUIDE ONLY AND IS NOT INTENDED TO BE BINDING. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ADEQUATE SEQUENCING AND BYPASS PUMPING.
9. ALL UTILITY MATERIALS SHALL BE APPROVED PRIOR TO DELIVERY TO THE PROJECT. SEE 1500-7, "SUBMITTALS AND RECORDS" IN SECTION 1500 OF THE STANDARD SPECIFICATIONS.

1. NEW WATER MAIN AND APPURTENANCES MUST BE CONSTRUCTED, TESTED, APPROVED FOR SERVICE PRIOR TO EXISTING WATER MAIN BEING TAKEN OUT OF SERVICE.
2. NEW WATER MAIN MAY BE CONSTRUCTED IN PHASES TO FACILITATE ROADWAY CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARATION OF A PHASING PLAN CLEARLY IDENTIFYING EACH PHASE AND SUBMIT FOR APPROVAL PRIOR TO BEGINNING CONSTRUCTION. EACH COMPLETED PHASE MUST RECEIVE NCDHEQ FINAL APPROVAL PRIOR TO BEING PLACED INTO SERVICE.
3. REMOVAL OF ALL ASBESTOS CEMENT (AC) PIPE SHALL BE IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS. CONTACT JEFF DELINGER (919-724-8960) WITH NCDHEQS FOR FURTHER INFORMATION.
4. WATER LINE PIPE MATERIAL SHALL EITHER BE DUCTILE IRON OR C-900 PVC (DR-14).

# PROJECT TYPICAL DETAILS

REVISIONS IN THE WORK ON

PROJECT NUMBER NO. **1183 B 83** SHEET NO. **UC-3A**

DESIGNED BY **W. W. WILSON**

CHECKED BY **W. W. WILSON**

APPROVED BY **W. W. WILSON**

DATE **11/27/83**

**UTILITY CONSTRUCTION**

**WATER LINE CONSTRUCTION SHOWN ON THIS SHEET**

**VERTICAL SCALE** 1" = 1'-0"

**HORIZONTAL SCALE** 1" = 10'-0"

**NOTED:** NORTH CAROLINA TRANSPORTATION UTILITIES ENGINEERS, INC. 1000 W. WILSON DRIVE, RALEIGH, NC 27601

## UTILITY CONSTRUCTION

**STANDARD 3/4" & 1" WATER SERVICE INSTALLATION**

**NOTED:**

1. WATER SERVICE SHALL BE INSTALLED AS SHOWN, 60% OF THE WATER SERVICE SHALL BE INSTALLED IN THE CONCRETE VALVE BOX.
2. WATER SERVICE SHALL BE INSTALLED IN THE CONCRETE VALVE BOX AS SHOWN.
3. WATER SERVICE SHALL BE INSTALLED IN THE CONCRETE VALVE BOX AS SHOWN.
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9. WATER SERVICE SHALL BE INSTALLED IN THE CONCRETE VALVE BOX AS SHOWN.
10. WATER SERVICE SHALL BE INSTALLED IN THE CONCRETE VALVE BOX AS SHOWN.

**STANDARD VALVE RODDING**

ROD SIZE	ROD LENGTH	ROD WEIGHT
1/2"	10'	1.5
3/4"	10'	2.5
1"	10'	4.0
1 1/4"	10'	7.0
1 1/2"	10'	10.0
1 3/4"	10'	14.0
2"	10'	20.0

**NOTES:**

1. ROD SHALL BE INSTALLED IN THE VALVE BODY AND SHALL BE CENTERED.
2. ROD SHALL BE INSTALLED IN THE VALVE BODY AS SHOWN.
3. ROD SHALL BE INSTALLED IN THE VALVE BODY AS SHOWN.
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**STANDARD HORIZONTAL THRUST BLOCKING**

THRUST COLLAR SIZE	THRUST COLLAR WEIGHT	THRUST COLLAR LENGTH	THRUST COLLAR WIDTH	THRUST COLLAR HEIGHT	THRUST COLLAR AREA
18"	100	14"	2"	ONE	ONE
20"	150	14"	2"	ONE	ONE
22"	200	14"	2"	ONE	ONE

**NOTES:**

1. THRUST COLLAR SHALL BE INSTALLED AS SHOWN.
2. THRUST COLLAR SHALL BE INSTALLED AS SHOWN.
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10. THRUST COLLAR SHALL BE INSTALLED AS SHOWN.

**VALVE BOX INSTALLATION AND EXTENSION DETAIL**

**NOTED:**

1. VALVE BOX SHALL BE INSTALLED AS SHOWN.
2. VALVE BOX SHALL BE INSTALLED AS SHOWN.
3. VALVE BOX SHALL BE INSTALLED AS SHOWN.
4. VALVE BOX SHALL BE INSTALLED AS SHOWN.
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**STANDARD VALVE RODDING**

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1/2"	10'	1.5
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**NOTES:**

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**STANDARD HORIZONTAL THRUST BLOCKING**

THRUST COLLAR SIZE	THRUST COLLAR WEIGHT	THRUST COLLAR LENGTH	THRUST COLLAR WIDTH	THRUST COLLAR HEIGHT	THRUST COLLAR AREA
18"	100	14"	2"	ONE	ONE
20"	150	14"	2"	ONE	ONE
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**NOTES:**

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**STANDARD VALVE RODDING**

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**STANDARD HORIZONTAL THRUST BLOCKING**

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**STANDARD VALVE RODDING**

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STANDARD VALVE BOX INSTALLATION DETAIL

STANDARD HORIZONTAL THRUST BLOCKING

STANDARD VALVE RODDING

STANDARD HORIZONTAL THRUST BLOCKING



5/6/2019

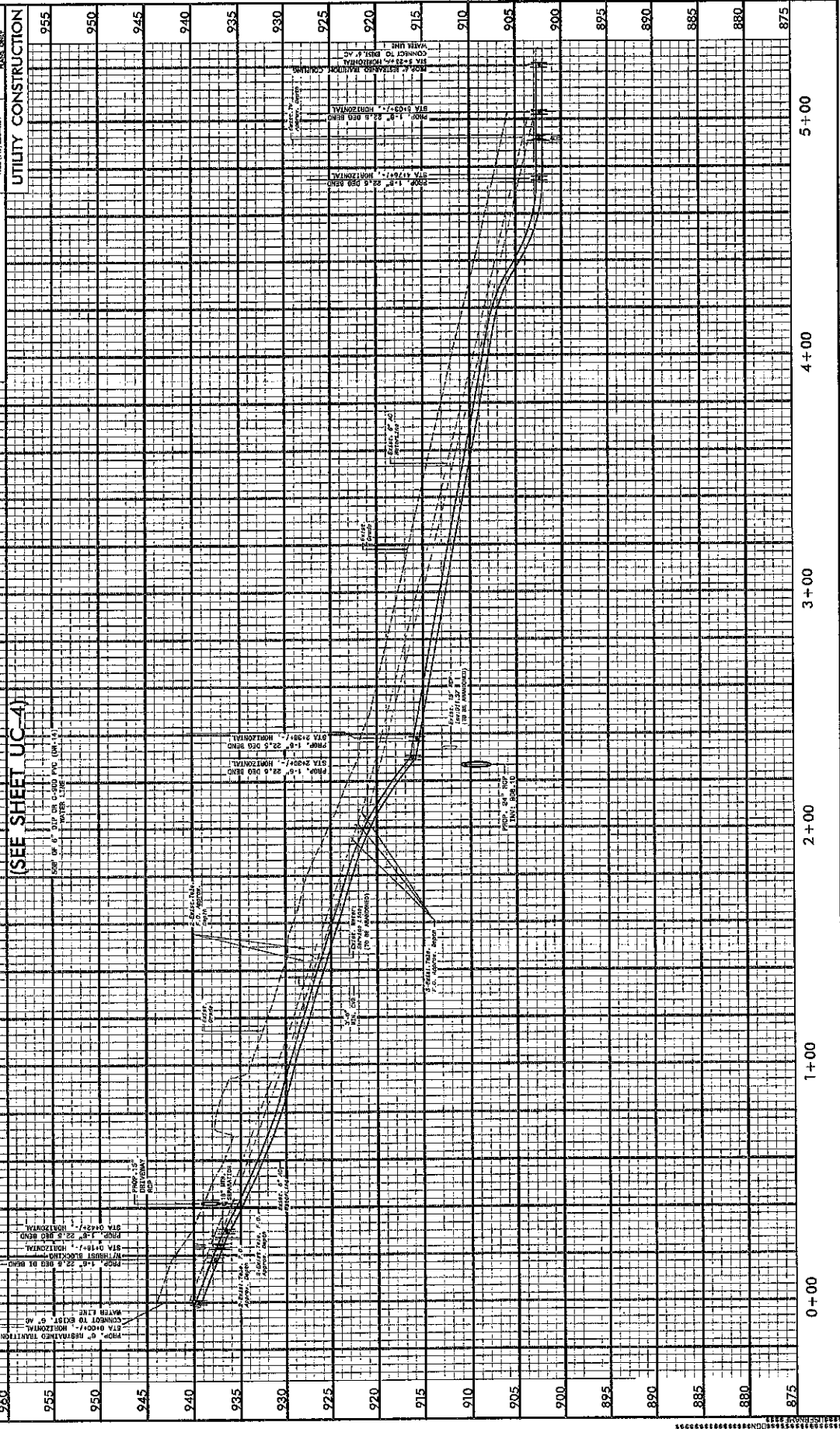
PROJECT REFERENCE NO. 17819.R.83  
 SHEET NO. UC-5  
 DESIGNED BY: JCS  
 DRAWN BY: JCS  
 CHECKED BY: JCS  
 APPROVED BY: JCS  
 NORTH CAROLINA  
 TRANSPORTATION  
 UTILITIES ENGINEERING, INC.  
 1000 W. HARRIS STREET  
 WARRINGTON, NC 27888  
 PHONE: (919) 200-0000  
 FAX: (919) 200-0001  
 WWW: www.nc-engineering.com

PREPARED BY THE OFFICE OF  
**Wooten**  
 ENGINEERS, ARCHITECTS & PLANNERS  
 1000 W. HARRIS STREET  
 WARRINGTON, NC 27888  
 PHONE: (919) 200-0000  
 FAX: (919) 200-0001  
 WWW: www.wooten.com

VERTICAL SCALE  
 1" = 5'  
 HORIZONTAL SCALE  
 1" = 20'

WATER LINE CONSTRUCTION  
 SHOWN ON THIS SHEET

**6" Water Line**  
 PROFILE SHOWN IS BASED ON STATIONING ALONG  
 PROPOSED WATER LINE ALIGNMENT ALONG  
 ROADWAY ALIGNMENT - L  
 (SEE SHEET UC-4)




970  
965  
960  
955  
950  
945  
940  
935  
930  
925  
920  
915  
910  
905  
900  
895  
890  
885  
880  
875

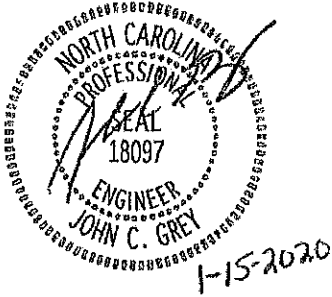
0+00 1+00 2+00 3+00 4+00 5+00

# EXHIBIT B

## PROJECT SPECIAL PROVISIONS Utility Construction



**THE WOOTEN COMPANY**  
300 S. Main Street, Lower Level Winston-Salem, NC 27101-5217  
336.722.5326 fax 336.722.5329  
License No. F-0115



**Document Not Considered  
Final Unless All Signatures  
Completed.**

(Seal)

### UTILITY OWNER

City of King  
Scott Barrow  
City Engineer

#### Physical Address:

Engineering Department  
229 S. Main Street  
P.O. Box 1132  
King, NC 27021  
Phone (336) 983-8265  
Email: sbarrow@ci.king.nc.us  
Website: ci.king.nc.us

## EXHIBIT B

### PROJECT SPECIAL PROVISIONS Utility Construction

#### Revise the 2018 NCDOT Standard Specifications as follows:

**Page 15-1, Sub-Article 1500-2 Cooperation with the Utility Owner, paragraph 2:**  
Add the following sentences:

The utility owner is the City of King. Contact information is listed above on page UC-1:

**Page 15-1, Sub-Article 1500-2 Cooperation with the Utility Owner, paragraph 4:**  
Delete "24 hours" and replace with "48 hours".

**Page 15-4, Sub-Article 1505-3 (E), Thrust Restraint**  
Revise the first Sentence as follows: Provide thrust restraint for pipelines and appurtenances.

Note: Thrust restraints shall be installed as shown on the drawings.

**Page 15-6, Sub-Article 1510-3 (B), Testing and Sterilization**  
Change the allowable leakage formula to this allowable leakage per 1,000 linear feet of pipe per two hours shall be as indicated in the following tables:

**EXHIBIT B**

PROJECT SPECIAL PROVISIONS  
Utility Construction

Allowable Leakage for **PVC Pipe** – Per 1000 ft. in Gallons/Hour

Nominal Pipe Size (inches)	Test Pressure in Line - PSI				
	50	100	150	<b>200</b>	250
4	0.19	0.27	0.33	<b>0.38</b>	0.43
6	0.29	0.41	0.50	<b>0.57</b>	0.64
8	0.38	0.54	0.66	<b>0.76</b>	0.85
10	0.48	0.68	0.83	<b>0.96</b>	1.07
12	0.57	0.81	0.99	<b>1.15</b>	1.28

Allowable Leakage for **Ductile Iron Pipe** Per 1000 ft. of Pipeline in Gallons/Hour

Test Pressure PSI	Nominal Pipe Diameter – in												
	2	4	6	8	10	12	14	16	18	20	24	30	36
<b>250</b>	.24	.47	.71	.95	1.19	1.42	1.66	1.91	2.14	2.37	2.85	3.56	4.27
<b>225</b>	.23	.45	.68	.90	1.13	1.35	1.58	1.80	2.03	2.25	2.70	3.38	4.05
<b>200</b>	.21	.43	.64	.85	1.06	1.28	1.48	1.70	1.91	2.12	2.55	3.19	3.82
<b>175</b>	.20	.40	.59	.80	.99	1.19	1.39	1.59	1.79	1.98	2.38	2.98	3.58
<b>150</b>	.18	.37	.55	.74	.92	1.10	1.29	1.47	1.66	1.84	2.21	2.76	3.31

Project: 17BP.9.C.12

**UC-4**

County: Stokes

## EXHIBIT B

### PROJECT SPECIAL PROVISIONS

Utility Construction

#### **Page 15-15, Sub-Article 1525-4, Measurement and Payment**

Add the following to the second paragraph:

Watertight manholes and manhole vents will be incidental to the work being performed.





September 21, 2022

NC Department of Transportation  
Attn.: Lynn Basinger  
1555 Mail Service Center  
Raleigh, NC 27699

RE: DOT WBS#: 17BP.9.R.83  
Company Project #: CFP789262  
County: Stokes  
Location / State: Pinnacle, NC  
Proj Requirements: Utility Relocation Agreement; Actual Cost Billing; Non-Betterment Work  
Proj Description: Relocate DE company facilities out of NCDOT's way for bridge work over Little Yakin River.


Attached are copies of our detailed estimate in the amount of \$40,109.35 and our relocation design drawing covering our proposed relocation of Duke Energy's facilities in conflict with this project. This estimate is valid for 90 days and is based on the design as shown on the attached drawings. Estimates may be revised due to change in scope or if right of way is not obtained. The estimate will be updated if the authorization to proceed is received after the 90 day deadline.

If you find this estimate in order, please authorize us to proceed with this work and upon completion thereof, to bill the government customer per the project requirements located at the top of this letter. If you have any questions related to this agreement, plans, estimate, or final invoice please contact one of the following:

Bryan Rickle, Designer at [Bryan.Rickle@duke-energy.com](mailto:Bryan.Rickle@duke-energy.com) or 919-278-2553  
Patrick Sizemore, Lead Engineering Tech at [Patrick.Sizemore@duke-energy.com](mailto:Patrick.Sizemore@duke-energy.com) or 336-917-2522  
Chad Brenco, Program Manager at [Chad.Brenco@duke-energy.com](mailto:Chad.Brenco@duke-energy.com) or 919-546-2236

Please return the signed agreement to [highway.relocation@duke-energy.com](mailto:highway.relocation@duke-energy.com).

Sincerely,

  
\_\_\_\_\_  
Chad Brenco  
Highway Relocation Program Manager  
Duke Energy

CB: dmb

Cc. Bryan Rickle, [Bryan.Rickle@duke-energy.com](mailto:Bryan.Rickle@duke-energy.com)  
Patrick Sizemore, [Patrick.Sizemore@duke-energy.com](mailto:Patrick.Sizemore@duke-energy.com)

\*\*\*\*\*

**UTILITY RELOCATION AGREEMENT**

**NCDOT HIGHWAY WBS ELEMENT NO.** \_\_\_\_\_

**TRANSPORTATION IMPROVEMENT PROGRAM NO.** \_\_\_\_\_

**COUNTY** \_\_\_\_\_

\*\*\*\*\*

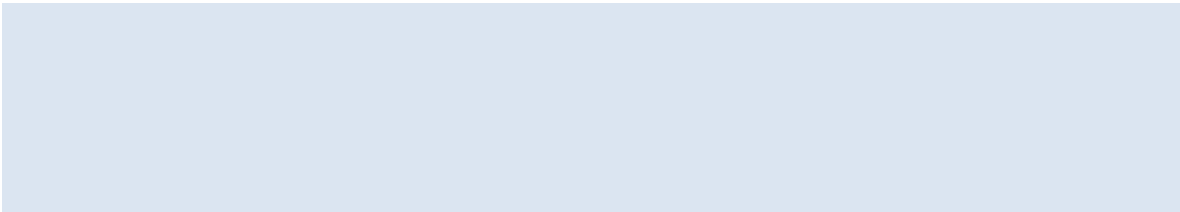
This agreement made this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_, by and between the Department of Transportation, an agency of the State of North Carolina, hereinafter referred to as the DEPARTMENT, and

\_\_\_\_\_, hereinafter referred to as the

COMPANY:

**WITNESSETH:**

**THAT WHEREAS, the DEPARTMENT will submit a project for construction as follows:**



known as route \_\_\_\_\_ in \_\_\_\_\_ County, North Carolina to be designated as N.C. State Highway Project and/or WBS Element \_\_\_\_\_ (the "Project") and, WHEREAS, the construction of said project will require certain adjustments to be made to the existing facilities of the COMPANY;

**NOW, THEREFORE, in order to facilitate the orderly and expeditious relocation of the said facilities of COMPANY, the DEPARTMENT and the COMPANY have agreed as follows:**

**1. That the scope, description, and location of work to be undertaken by the COMPANY are as follows**

Relocate Company facilities as shown in the attached drawings.

PeopleSoft Contract

Funding Project

**2. That any work performed under this agreement shall comply with DEPARTMENT's "NCDOT Utilities Accommodations Manual", and such amendments thereto as may be in effect at the date of this agreement. The work to be performed by the COMPANY shall conform with Federal Highway Administration's Federal-Aid Policy Guide, Subchapter G, Part 645, Subpart A hereinafter referred to as FAPG dated December 9, 1991, and such amendments thereto as may be in effect at the date of this agreement. The provisions of said FAPG and amendments thereto are incorporated in this agreement by reference as fully as if herein set out. Any work performed under this agreement not in compliance with FAPG shall constitute unauthorized work and the DEPARTMENT shall be relieved of participating in the costs of such unauthorized work unless such work is done pursuant to a supplemental agreement attached to and made a part hereof.**

**3. That the COMPANY will prepare an estimate, broken down as to estimated cost of labor, construction overhead, materials and supplies, handling charges, transportation and equipment, rights of way, preliminary engineering and construction engineering, including an itemization of appropriate credits for salvage and betterments, and accrued depreciation attached hereto as "Estimate of Relocation Costs" and incorporated herein by reference all in sufficient detail to provide the DEPARTMENT a reasonable basis for analysis. Unit costs, such as broad gauge units of property, may be used for estimating purposes where the COMPANY uses such units in its own operations. The COMPANY will also prepare plans, sketches or drawings showing their existing facilities, temporary and permanent changes to be made with reference to the DEPARTMENT's new right of way using appropriate nomenclature, symbols, legend, notes, color coding or the like. The before mentioned estimate and plans are attached hereto and made a part hereof. The DEPARTMENT will not reimburse the COMPANY for any utility relocations or changes not necessitated by the construction of the highway project, nor for changes made solely for the benefit or convenience of the COMPANY, its contractor, or a highway contractor.**

**4. That pursuant to N.C. Gen. Stat. §136, et seq., the Department has the authority to acquire the Company's utility facilities upon which the Project will be constructed pursuant to the laws of eminent domain.**

**5. That the DEPARTMENT's authority, obligation, or liability to pay for relocations as set forth in this agreement is based on the COMPANY having a right of occupancy in its existing location by reason of the fee, an easement or other real property interest, the damaging or taking of which is compensable in eminent domain.**

6. That payment for all work done hereunder shall be made in accordance with the requirements of FAPG unless payment is being made pursuant to a supplemental agreement attached to and made a part of this agreement.

7. That the construction work provided for in this agreement will be performed by the method or methods as specified below:

\_\_\_ **BY COMPANY'S REGULAR FORCE:** The COMPANY proposes to use its regular construction or maintenance crews and personnel at its standard schedule of wages and working hours in accordance with the terms of its agreement with such employees.

\_\_\_ **BY EXISTING WRITTEN CONTINUING CONTRACT:** The COMPANY proposes to use an existing written continuing contract under which certain work as shown by the COMPANY's estimate is regularly performed for the COMPANY and under which the lowest available costs are developed.

\_\_\_ **BY CONTRACT:** The COMPANY does not have adequate staff or equipment to perform the necessary work with its own forces. The COMPANY proposes to award a contract to the lowest qualified bidder who submits a proposal in conformity with the requirements and specifications for the work to be performed as set forth in an appropriate solicitation for bids.

8. a. It is contemplated by the parties hereto that the construction of this State Highway Project will begin on or about the \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

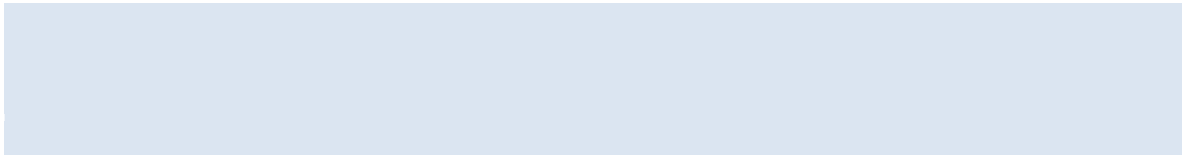
b. Based on the best information available at the present time to the COMPANY, indicate applicable paragraph below:

\_\_\_ Materials are available and it is expected that work will be complete prior to highway construction.

\_\_\_ All work will take place during highway construction and arrangements for said work will be coordinated with highway construction operations at preconstruction conference.

\_\_\_ Work will begin promptly upon notification by DEPARTMENT; however, it is not expected to be complete prior to highway construction. Any remaining work will be coordinated with highway construction operations at preconstruction conference

\_\_\_ Other (Specify)



9. That the method used by the COMPANY in developing the relocation costs shall be as indicated by Paragraph (a), (b), or (c) as follows:

- a.      Actual direct and related indirect costs accumulated in accordance with a work order accounting procedure prescribed by the applicable Federal or State regulatory body.
- b.      Actual direct and related indirect costs accumulated in accordance with an established accounting procedure developed by the COMPANY and approved by the DEPARTMENT.
- c.      On a lump-sum basis where the estimated cost to the DEPARTMENT does not exceed \$100,000.00. Except where unit costs are used and approved, the estimate shall show such details as man-hours by class and rate; equipment charges by type, size, and rate; materials and supplies by items and price; and payroll additives and other overhead factors.

10. Indicate if (a) or (b) is applicable:

- a.      That the replacement facility is not of greater functional capacity or capability than the one it replaces, and includes no COMPANY betterments.
- b.      That the replacement facility involves COMPANY betterments, or is of greater functional capacity or capability than the one it replaces.

11. That the total estimated cost of the work proposed herein, including all cost to the DEPARTMENT and COMPANY less any credit for salvage, is estimated to be ----- \$ \_\_\_\_\_

The estimated non-betterment cost to the DEPARTMENT, including all cost less any credits for salvage, betterments, accrued depreciation and additional work done by the COMPANY will be ----- \$ \_\_\_\_\_

The estimated cost to the COMPANY including betterments, and any additional work done by the COMPANY will be ----- \$ \_\_\_\_\_

*(The above costs shall be supported by attached estimate and plans)*

12. That in the event it is determined there are changes in the scope of work, extra work, or major changes from the statement of work covered by this agreement, reimbursement shall be limited to costs covered by a modification of this agreement or a written change or extra work order approved by the DEPARTMENT.

13. Periodic progress billings of incurred costs may be made by COMPANY to the DEPARTMENT not to exceed monthly intervals; however, total progress billing payments shall not exceed 95% of the approved non-betterment estimate. Progress billing forms may be obtained from the Regional Utilities Coordinator.

14. One final and detailed complete billing of all cost shall be made by COMPANY to the DEPARTMENT at the earliest practicable date after completion of work and in any event within six months after completion of work. The statement of final billing shall follow as closely as possible the order of the items in the estimate portion of this agreement.

15. That upon reasonable, prior notice, the DEPARTMENT shall have the right to inspect all books, records, accounts and other documents of the COMPANY pertaining to the work performed by it under this agreement at any time after work begins and for a period of 3 years from the date final payment has been received by the COMPANY.

16. That the COMPANY obligates itself to erect, service and maintain the facilities to be retained and installed over and along the highway within the DEPARTMENT right of way limits in accordance with the mandate of laws, rules, and regulations as have been or may be validly enacted or adopted, now or hereafter.

17. That if, in the future, it becomes necessary due to highway construction or improvement to adjust or relocate utilities covered in this agreement being relocated at DEPARTMENT expense that are crossing or otherwise occupying highway right of way, the actual cost of same will be that of the DEPARTMENT.

18. That if, at any time, the DEPARTMENT shall require the relocation of or changes in the location of the encroaching facilities covered in this agreement being relocated at COMPANY expense, the COMPANY binds itself, its successors and assigns, to promptly relocate or alter the facilities, in order to conform to the said requirements, without any cost to the DEPARTMENT

19. That the COMPANY agrees to relinquish their rights in that portion of right of way vacated by their existing facilities now absorbed within DEPARTMENT right of way.

20. Proper temporary and permanent measures shall be used to control erosion and sedimentation in accordance with all local, State and Federal regulations.

21. The COMPANY agrees to comply with Buy America. United States Codes (USC) 313 and Code of Federal Regulations 23 CFR 635.410: Requires the use of domestic steel and iron in all federally funded construction projects.

22. The COMPANY agrees to comply with the environmental rules and regulations of the State of North Carolina. Violation to the NC Sedimentation Pollution Control Act, Clean Water Act, NC Coastal Management Act, or other environmental commitment outlined in the project permits may result in work stoppage, penalties and/or construction

**IN WITNESS WHEREOF, the parties hereby have affixed their names by their duly authorized officers the day and year first above written.**

**DEPARTMENT OF TRANSPORTATION**

**BY:** \_\_\_\_\_

**TITLE:** \_\_\_\_\_

**ATTEST OR WITNESS**

\_\_\_\_\_

**(NAME OF COMPANY)**

**BY:**           *Dominique Boone*          

**BY:**           *Chad Brenco*          

**TITLE:** \_\_\_\_\_

**TITLE:** \_\_\_\_\_

**N.C.G.S. § 133-32 and Executive Order 24 prohibit the offer to, or acceptance by, any State Employee of any gift from anyone with a contract with the State, or from any person seeking to do business with the State. By execution of any response in this procurement, you attest, for your entire organization and its employees or agents, that you are not aware that any such gift has been offered, accepted, or promised by any employees of your organization.**

**Form UT 16.8**

**Rev. 02/20/2021**

96/96 r- 11/5/38

State of North Carolina, County of Stokes

KNOW ALL MEN BY THESE PRESENTS, That M.L. Rutledge (widow), J.E. Rutledge (single), C.M. Rutledge and wife Mary M. Rutledge

grantor(s) of said County and State, in consideration of the sum of \$ One to me (us) in hand paid by DUKE POWER COMPANY, the receipt whereof is hereby acknowledged, do hereby grant unto said DUKE POWER COMPANY, its successors and assigns, the right, privilege and easement to go in and upon that certain tract or lot of land situated in said County and State, bounded by lands of E.S. Bowen on the West, M.D. Phillips Estate on the South, and others. Property being on both sides of U.S. Highway No. 58 and Old Highway No. 66. This property being the r. division of the J.W. Rutledge Estate. For a more particular description see Deed Book No. 80, page 187 and Deed Book No. 84, page 632 in the office of the Register of Deeds of Stokes County.

and to construct, maintain and operate in, upon, and through said premises, in a proper manner, with poles, wires and other necessary apparatus and appliances, a line for the purpose of transmitting power by electricity, together with the right at all times to enter upon said premises for the purpose of inspecting said line and making necessary repairs and alterations thereon; together with the right at all times to cut away and keep clear of said line all trees and other obstructions that may, in any way, endanger the proper maintenance and operation of the same.

This right of way is to cover a new extension to Will Rutledge home place and C.M. Rutledge and also to cover relocation of power line between King and Pinnacle to new U.S. Highway No. 58.

IN WITNESS WHEREOF, the said grantor(s) do hereunto set hand(s) and seal(s), this 29 day of

Sept., 1938

C.M. Rutledge (Seal)  
Mary M. Rutledge (Seal)

M.L. Rutledge (Seal)

J.E. Rutledge (Seal)

STATE OF NORTH CAROLINA—County of Stokes

I, C.R. Carroll, Notary Public

in and for the County and State aforesaid, do hereby certify that M.L. Rutledge; J.E. Rutledge, C.M. Rutledge and wife Mary M. Rutledge personally appeared before me this day and acknowledged the due execution of the foregoing instrument, and that the said

Mary M. Rutledge

wife of C.M. Rutledge

being by me privately examined, separate and apart from her said husband, touching her voluntary execution of the same, did state that she signed the same freely and voluntarily, without fear or compulsion of her said husband(s) or any other person, and that she still voluntarily assent(s) thereto.

Witness my hand and official seal, this the 29 day of Sept., A.D. 1938.

My commission expires Sept. 7, 1939

(L.S.)

C.R. Carroll, Notary Public

STATE OF NORTH CAROLINA—County of Stokes

The foregoing certificate of C.R. Carroll, N.P.

of Stokes County, is adjudged to be correct and sufficient. Let the instrument and the certificate be registered.

This 5 day of November, A.D. 1938.

J. Watt Tuttle

Clerk of Superior Court.

Filed for registration 10 o'clock A.M., 5th day of November, 1938, and registered

in the office of the Register of Deeds of Stokes County, N. C. in Book 86 on page 96

*[Handwritten signature]*



## CU Estimate Project Estimation By Compatible Unit

**Workorder:** 31789262  
**Work Order Desc:** 17BP.9.R.83, Bridge No.286 over Little Yadkin River (Stokes Co.)  
**Estimate:** 3742437  
**Designer:** Rickle, Bryan Donald

IR/T	QTY	CU	CU DESCRIPTION	MATERIAL COST	LABOR INSTALL	LABOR REMOVE	LABOR TRANSFER	SERVICE COST	SALVAGE VALUE
I	3	ANCH-PISA-SM-C	Anchor Power Installed Screw Anchor 8in 6000LB with 3/4in diameter x 7ft long rod	\$166.56	\$279.81	\$0.00	\$0.00	\$0.00	\$0.00
I	1	ARM-SDE-10-FBG-NB-C	Crossarm Single Deadend 10ft fiberglass no braces	\$303.12	\$82.14	\$0.00	\$0.00	\$0.00	\$0.00
I	2	ARM-SDE-8-FBG-NB-C	Crossarm Single 8ft fiberglass no braces	\$442.92	\$164.28	\$0.00	\$0.00	\$0.00	\$0.00
I	4	BKT-EM-ARM-1P-STL-SM-C	Bracket Equipment Mount Arm Single Phase Steel for use with all wood and tangent fiberglass crossarms	\$35.48	\$187.76	\$0.00	\$0.00	\$0.00	\$0.00
I	2	BKT-INSL-POST-PTOP-STL-C	Bracket insulator pole top Steel	\$50.90	\$95.68	\$0.00	\$0.00	\$0.00	\$0.00
I	16	CLAMP-DE-SM-C	Clamp dead end 6-4/0	\$262.00	\$6.12	\$0.00	\$0.00	\$0.00	\$0.00
I	2	COND-END-3IN-PVC-C	Conduit End 3in PVC	\$5.42	\$2.87	\$0.00	\$0.00	\$0.00	\$0.00
I	4	CONN-OH-HLC-2/0CU-8CUSOL-C	Connector OH Hot Line Clamp 2/0CU-8CUSOL Line to 2/0CU-8CUSOL Tap	\$48.04	\$6.12	\$0.00	\$0.00	\$0.00	\$0.00
I	4	CONN-OH-STRP-COMP-1/0AL-C	Connector OH Stirrup Compression 1/0AL-2AL Line	\$21.40	\$6.12	\$0.00	\$0.00	\$0.00	\$0.00
I	1	CONN-UG-SPL-600V-2/0AL-TX-C	Connector UG splice 600V 2/0AL triplex	\$5.94	\$41.66	\$0.00	\$0.00	\$0.00	\$0.00
I	4	FUSE-CUTOUT-100-15KV-POLY-LINE-C	Fuse Cutout 100 15KV Polymer	\$391.92	\$447.68	\$0.00	\$0.00	\$0.00	\$0.00
I	4	FUSE-LINK-80-T-C	FUSE LINK 80 T	\$10.08	\$7.24	\$0.00	\$0.00	\$0.00	\$0.00
I	4	GUY-DOWN-3/8IN-GALV-SGL-C	Guy Down Guy 3/8 in diameter Galvanized Single	\$179.16	\$402.56	\$0.00	\$0.00	\$0.00	\$0.00
I	4	GUY-HOOK-C	Guy Hook	\$56.60	\$3.06	\$0.00	\$0.00	\$0.00	\$0.00
I	3	GUY-INSL-7FT-FG-C	Guy Insulator 7ft Fiberglass	\$68.87	\$138.10	\$0.00	\$0.00	\$0.00	\$0.00
I	4	HDWR-EYEBOLT-SM-10IN-GALV-C	Hardware Eye Bolt 5/8in diameter 10in long Galvanized Steel	\$15.20	\$7.24	\$0.00	\$0.00	\$0.00	\$0.00
I	4	HDWR-EYEBOLT-SM-12IN-GALV-C	Hardware Eye Bolt 5/8in diameter 12in long Galvanized Steel	\$20.96	\$7.24	\$0.00	\$0.00	\$0.00	\$0.00
I	4	HDWR-EYENUT-SM-GALV-C	Hardware Eye Nut 5/8in diameter Galvanized Steel	\$10.46	\$7.22	\$0.00	\$0.00	\$0.00	\$0.00
I	4	HDWR-MACH-LG-12IN-GALV-C	Hardware Machine Bolt 3/4in diameter 12in long Galvanized Steel	\$16.82	\$7.22	\$0.00	\$0.00	\$0.00	\$0.00
I	6	HDWR-MACH-LG-14IN-GALV-C	Hardware Machine Bolt 3/4in diameter 14in long Galvanized Steel	\$29.58	\$10.83	\$0.00	\$0.00	\$0.00	\$0.00
I	2	HDWR-MACH-SM-10IN-GALV-C	Hardware Machine Bolt 5/8in diameter 10in long Galvanized Steel	\$2.06	\$3.62	\$0.00	\$0.00	\$0.00	\$0.00
I	2	HDWR-SWASH-SM-GALV-CURVE-C	Hardware Square Washer 5/8in diameter Galvanized Steel curved	\$2.76	\$3.62	\$0.00	\$0.00	\$0.00	\$0.00
I	4	HDWR-SWASH-SM-GALV-FLAT-C	Hardware Square Washer 5/8in diameter Galvanized Steel flat	\$1.60	\$7.24	\$0.00	\$0.00	\$0.00	\$0.00
I	14	INSL-DE/S-35KV-POLY-C	Insulator Dead End/Suspension 35KV Polymer	\$241.82	\$1,225.73	\$0.00	\$0.00	\$0.00	\$0.00
I	4	INSL-POST-25KV-PORC-TT-C	Insulator Post 25kv Porcelain Tie Top	\$111.00	\$132.69	\$0.00	\$0.00	\$0.00	\$0.00
I	2	INSL-STUD-STL-7IN-THD-C	Insulator Stud Steel 5/8in by 7in Long Threaded	\$10.67	\$1.53	\$0.00	\$0.00	\$0.00	\$0.00
I	1	JU-ATTACH-CABLE-C	Joint Use attaching cable	\$0.00	\$1.53	\$0.00	\$0.00	\$0.00	\$0.00
I	4	LEAD-EQ-2-CU-COVER-C	Lead Equipment 2 Copper Covered	\$58.36	\$6.12	\$0.00	\$0.00	\$0.00	\$0.00
I	3352.52	OADD-1DOLLAR-C	DEC Adder Misc - Adder \$1 dollar of cost	\$0.00	\$0.00	\$0.00	\$0.00	\$3,352.52	\$0.00
I	30	OADD-1MH-C	DEC Adder-OH - Labor Adder 1 Man Hour	\$0.00	\$2,707.80	\$0.00	\$0.00	\$0.00	\$0.00
I	1	OADD-WZ-SETUP-C	DEC Adder-OH - OH Adder Work Zone Setup	\$0.00	\$90.26	\$0.00	\$0.00	\$0.00	\$0.00
I	30	OLAB-FLAG-C	OH Labor Traffic Flagging	\$0.00	\$7,040.28	\$0.00	\$0.00	\$0.00	\$0.00
I	4	OLAB-JUMP-SM-C	OH Labor Jumper up to 2/0 (each)	\$0.00	\$195.86	\$0.00	\$0.00	\$0.00	\$0.00
I	1	POLE-WD-50-C3-C	Pole wood 50ft class 3	\$256.58	\$556.90	\$0.00	\$0.00	\$0.00	\$0.00
I	1	POLE-WD-55-C3-C	Pole wood 55ft class 3	\$309.46	\$714.86	\$0.00	\$0.00	\$0.00	\$0.00
I	1	RISER-3IN-COND-3PC-C	Riser 3in Conduit 3-10ft sections	\$100.11	\$77.57	\$0.00	\$0.00	\$0.00	\$0.00
I	4	TIE-HAND-4-AL-C	Tie Hand 4 AL	\$2.47	\$3.06	\$0.00	\$0.00	\$0.00	\$0.00
I	1	ULAB-SPL-PIT-SEC-C	UG Labor Splice pit secondary (per pit)	\$0.00	\$97.68	\$0.00	\$0.00	\$0.00	\$0.00
R	3 [0]	ANCH-PISA-SM-C	Anchor Power Installed Screw Anchor 8in 6000LB with 3/4in diameter x 7ft long rod [\$55.52]	\$0.00	\$0.00	\$174.21	\$0.00	\$0.00	\$0.00
R	3 [0]	ARM-DBL-8-WD-WB-C	Crossarm Double 8ft wood with braces [\$201.13]	\$0.00	\$0.00	\$213.09	\$0.00	\$0.00	\$0.00
R	1 [0]	ARM-SGL-8-WD-WB-C	Crossarm Single 8ft wood with braces [\$100.48]	\$0.00	\$0.00	\$47.84	\$0.00	\$0.00	\$0.00
R	4 [0]	BKT-EM-ARM-1P-STL-SM-C	Bracket Equipment Mount Arm Single Phase Steel for use with all wood and tangent fiberglass crossarms [\$8.88]	\$0.00	\$0.00	\$122.76	\$0.00	\$0.00	\$0.00
R	3 [0]	BKT-INSL-POST-PTOP-STL-C	Bracket insulator pole top Steel [\$25.45]	\$0.00	\$0.00	\$75.81	\$0.00	\$0.00	\$0.00

## CU Estimate Project Estimation By Compatible Unit

R	20	[0]	CLAMP-DE-SM-C	Clamp dead end 6-4/0 [\$16.38]	\$0.00	\$0.00	\$6.12	\$0.00	\$0.00	\$0.00
R	2	[0]	COND-END-3IN-PVC-C	Conduit End 3in PVC [\$2.71]	\$0.00	\$0.00	\$2.87	\$0.00	\$0.00	\$0.00
R	4	[0]	CONN-OH-HLC-2/0CU-8CUSOL-C	Connector OH Hot Line Clamp 2/0CU-8CUSOL Line to 2/0CU-8CUSOL Tap [\$12.01]	\$0.00	\$0.00	\$6.12	\$0.00	\$0.00	\$0.00
R	4	[0]	CONN-OH-STRP-COMP-1/0AL-C	Connector OH Stirrup Compression 1/0AL-2AL Line [\$5.35]	\$0.00	\$0.00	\$6.12	\$0.00	\$0.00	\$0.00
R	4	[0]	FUSE-CUTOOUT-100-15KV-POLY-LINE-C	Fuse Cutout 100 15KV Polymer [\$97.98]	\$0.00	\$0.00	\$321.32	\$0.00	\$0.00	\$0.00
R	4	[0]	FUSE-LINK-80-T-C	FUSE LINK 80 T [\$2.52]	\$0.00	\$0.00	\$7.24	\$0.00	\$0.00	\$0.00
R	4	[0]	GUY-DOWN-3/8IN-GALV-SGL-C	Guy Down Guy 3/8 in diameter Galvanized Single [\$44.79]	\$0.00	\$0.00	\$211.20	\$0.00	\$0.00	\$0.00
R	4	[0]	GUY-HOOK-C	Guy Hook [\$14.15]	\$0.00	\$0.00	\$3.06	\$0.00	\$0.00	\$0.00
R	3	[0]	GUY-INSL-7FT-FG-C	Guy Insulator 7ft Fiberglass [\$22.96]	\$0.00	\$0.00	\$74.91	\$0.00	\$0.00	\$0.00
R	9	[0]	HDWR-DA-LG-22IN-GALV-C	Hardware Double Arming 3/4in diameter 22in long Galvanized Steel [\$8.10]	\$0.00	\$0.00	\$16.26	\$0.00	\$0.00	\$0.00
R	4	[0]	HDWR-EYEBOLT-SM-10IN-GALV-C	Hardware Eye Bolt 5/8in diameter 10in long Galvanized Steel [\$3.80]	\$0.00	\$0.00	\$7.24	\$0.00	\$0.00	\$0.00
R	4	[0]	HDWR-EYEBOLT-SM-12IN-GALV-C	Hardware Eye Bolt 5/8in diameter 12in long Galvanized Steel [\$5.24]	\$0.00	\$0.00	\$7.24	\$0.00	\$0.00	\$0.00
R	4	[0]	HDWR-EYENUT-SM-GALV-C	Hardware Eye Nut 5/8in diameter Galvanized Steel [\$2.61]	\$0.00	\$0.00	\$7.22	\$0.00	\$0.00	\$0.00
R	4	[0]	HDWR-MACH-LG-12IN-GALV-C	Hardware Machine Bolt 3/4in diameter 12in long Galvanized Steel [\$4.21]	\$0.00	\$0.00	\$7.22	\$0.00	\$0.00	\$0.00
R	1	[0]	HDWR-MACH-LG-16IN-GALV-C	Hardware Machine Bolt 3/4in diameter 16in long Galvanized Steel [\$5.91]	\$0.00	\$0.00	\$1.81	\$0.00	\$0.00	\$0.00
R	8	[0]	HDWR-MACH-SM-10IN-GALV-C	Hardware Machine Bolt 5/8in diameter 10in long Galvanized Steel [\$1.03]	\$0.00	\$0.00	\$14.45	\$0.00	\$0.00	\$0.00
R	1	[0]	HDWR-SP-SM-10IN-GALV-C	Hardware Spool Bolt 5/8in diameter 10in long Galvanized Steel [\$3.52]	\$0.00	\$0.00	\$1.81	\$0.00	\$0.00	\$0.00
R	2	[0]	HDWR-SWASH-SM-GALV-CURVE-C	Hardware Square Washer 5/8in diameter Galvanized Steel curved [\$1.38]	\$0.00	\$0.00	\$3.62	\$0.00	\$0.00	\$0.00
R	4	[0]	HDWR-SWASH-SM-GALV-FLAT-C	Hardware Square Washer 5/8in diameter Galvanized Steel flat [\$0.40]	\$0.00	\$0.00	\$7.24	\$0.00	\$0.00	\$0.00
R	14	[0]	INSL-DE/S-35KV-POLY-C	Insulator Dead End/Suspension 35kV Polymer [\$17.27]	\$0.00	\$0.00	\$752.78	\$0.00	\$0.00	\$0.00
R	1	[0]	INSL-EXT-LINK-C	Insulator Extension Link [\$13.58]	\$0.00	\$0.00	\$1.53	\$0.00	\$0.00	\$0.00
R	9	[0]	INSL-POST-25KV-PORC-TT-C	Insulator Post 25kV Porcelain Tie Top [\$27.75]	\$0.00	\$0.00	\$276.21	\$0.00	\$0.00	\$0.00
R	1	[0]	INSL-SP-SEC-PORC-C	Insulator Spool Secondary/Neutral Porcelain [\$1.94]	\$0.00	\$0.00	\$16.25	\$0.00	\$0.00	\$0.00
R	4	[0]	INSL-STUD-STL-7IN-THD-C	Insulator Stud Steel 5/8in by 7in Long Threaded [\$5.34]	\$0.00	\$0.00	\$3.06	\$0.00	\$0.00	\$0.00
R	1	[0]	JU-REM-CABLE-C	Joint Use removing cable [\$0.00]	\$0.00	\$0.00	\$1.53	\$0.00	\$0.00	\$0.00
R	4	[0]	LEAD-EQ-2-CU-COVER-C	Lead Equipment 2 Copper Covered [\$14.59]	\$0.00	\$0.00	\$6.12	\$0.00	\$0.00	\$0.00
R	15	[0]	OADD-1MH-C	DEC Adder-OH - Labor Adder 1 Man Hour [\$0.00]	\$0.00	\$0.00	\$1,353.90	\$0.00	\$0.00	\$0.00
R	1	[0]	OADD-POLE-CUTOFF-WD-C	DEC Adder-OH - OH Adder Pole cut off without cap for wood pole (per pole) [\$0.00]	\$0.00	\$0.00	\$68.60	\$0.00	\$0.00	\$0.00
R	15	[0]	OLAB-FLAG-C	OH Labor Traffic Flagging [\$0.00]	\$0.00	\$0.00	\$1,353.90	\$0.00	\$0.00	\$0.00
R	4	[0]	OLAB-JUMP-SM-C	OH Labor Jumper up to 2/0 (each) [\$0.00]	\$0.00	\$0.00	\$139.90	\$0.00	\$0.00	\$0.00
R	1	[0]	OLAB-POLE-PULL-STUB-C	OH Labor Pole pull stub (per pole) [\$0.00]	\$0.00	\$0.00	\$60.33	\$0.00	\$0.00	\$0.00
R	3	[0]	POLE-WD-45-C4-C	Pole wood 45ft class 4 [\$274.71]	\$0.00	\$0.00	\$926.07	\$0.00	\$0.00	\$0.00
R	1	[0]	RISER-3IN-COND-3PC-C	Riser 3in Conduit 3-10ft sections [\$100.11]	\$0.00	\$0.00	\$40.94	\$0.00	\$0.00	\$0.00
R	4	[0]	TIE-HAND-4-AL-C	Tie Hand 4 AL [\$0.62]	\$0.00	\$0.00	\$3.06	\$0.00	\$0.00	\$0.00
R	1	[0]	TIE-SPOOL-2-AL-C	Tie Spool 2 AL [\$2.46]	\$0.00	\$0.00	\$1.53	\$0.00	\$0.00	\$0.00
R	3	[0]	TIE-TOP-2-AL-FNECK-C	Tie Top 2 AL F Neck [\$2.88]	\$0.00	\$0.00	\$1.53	\$0.00	\$0.00	\$0.00
T	1		BKT-EM-POLE-1P-FG-C	Bracket Equipment Mount Pole Single Phase Fiberglass	\$0.00	\$0.00	\$0.00	\$76.72	\$0.00	\$0.00
T	1		CLAMP-DE-WDG-SM-C	Clamp dead end wedge 6AL-2AL	\$0.00	\$0.00	\$0.00	\$3.61	\$0.00	\$0.00
T	1		CONN-OH-HLC-2/0CU-8CUSOL-C	Connector OH Hot Line Clamp 2/0CU-8CUSOL Line to 2/0CU-8CUSOL Tap	\$0.00	\$0.00	\$0.00	\$1.53	\$0.00	\$0.00
T	1		CONN-OH-STRP-COMP-1/0AL-C	Connector OH Stirrup Compression 1/0AL-2AL Line	\$0.00	\$0.00	\$0.00	\$1.53	\$0.00	\$0.00
T	3		CONN-OH-TF-2POS-SM-C	Connector OH Transformer 2 hole 2-500KCMIL	\$0.00	\$0.00	\$0.00	\$1.53	\$0.00	\$0.00
T	1		FUSE-CUTOOUT-100-15KV-POLY-EQUIP-C	Fuse Cutout 100A 15kV polymer for use with equipment	\$0.00	\$0.00	\$0.00	\$195.86	\$0.00	\$0.00
T	1		FUSE-LINK-5-D-C	Fuse Link 5 D	\$0.00	\$0.00	\$0.00	\$1.81	\$0.00	\$0.00
T	1		HDWR-LAG-SCREW-C	Hardware Lag Screw 4in	\$0.00	\$0.00	\$0.00	\$1.81	\$0.00	\$0.00
T	1		HDWR-MACH-SM-10IN-GALV-C	Hardware Machine Bolt 5/8in diameter 10in long Galvanized Steel	\$0.00	\$0.00	\$0.00	\$1.81	\$0.00	\$0.00
T	2		HDWR-MACH-SM-12IN-GALV-C	Hardware Machine Bolt 5/8in diameter 12in long Galvanized Steel	\$0.00	\$0.00	\$0.00	\$3.61	\$0.00	\$0.00
T	2		HDWR-MACH-SM-14IN-GALV-C	Hardware Machine Bolt 5/8in diameter 14in long Galvanized Steel	\$0.00	\$0.00	\$0.00	\$3.61	\$0.00	\$0.00
T	4		HDWR-SWASH-LG-GALV-FLAT-C	Hardware Square Washer 3/4in diameter Galvanized Steel flat	\$0.00	\$0.00	\$0.00	\$7.22	\$0.00	\$0.00
T	1		LEAD-TF-6-CU-COVER-C	Lead Trans/Reg/Cap 6 Copper Covered	\$0.00	\$0.00	\$0.00	\$1.53	\$0.00	\$0.00
T	1		LEAD-TF-SEC-1/0-AL-TX-C	Lead Wire Transformer Secondary lead 1/0 al triplex	\$0.00	\$0.00	\$0.00	\$1.53	\$0.00	\$0.00
T	1		TF-OH-25-12KV-120/240V-1P-C	Transformer OH 25kVA 12.47GY/7.2 kV 120/240V Single Phase Mild Steel	\$0.00	\$0.00	\$0.00	\$702.22	\$0.00	\$0.00

## CU Estimate Project Estimation By Compatible Unit

<b>Totals:</b>	\$3,238.32	\$14,777.30	\$6,354.02	\$1,005.93	\$3,352.52	\$0.00
					\$1,418.12	
<b>Overhead Costs:</b>	\$599.09	\$6,250.80	\$2,687.75	\$425.51		
<b>Total Materials:</b>						
<b>Total Materials:</b>	\$3,837.41					
<b>Total Labor:</b>		\$21,028.10	\$9,041.77	\$1,431.44		
<b>Total Install Cost:</b>	\$24,865.51					
<b>Total Removal Cost:</b>	\$9,041.77					
<b>Total Transfer Cost:</b>	\$1,431.44					
<b>Total Salvage Value:</b>						\$0.00
				<b>Total Install Man Hours:</b>	164.34	
				<b>Total Remove Man Hours:</b>	70.69	
				<b>Total Transfer Man Hours:</b>	11.15	
 <b>Total Project Cost:</b>	 <b>\$40,109.35</b>					

Show Report Criteria



USP: 6800  
 USP: KING RET BKR 1211 FID: 38350221  
 USP:  
 USP:  
 USP:



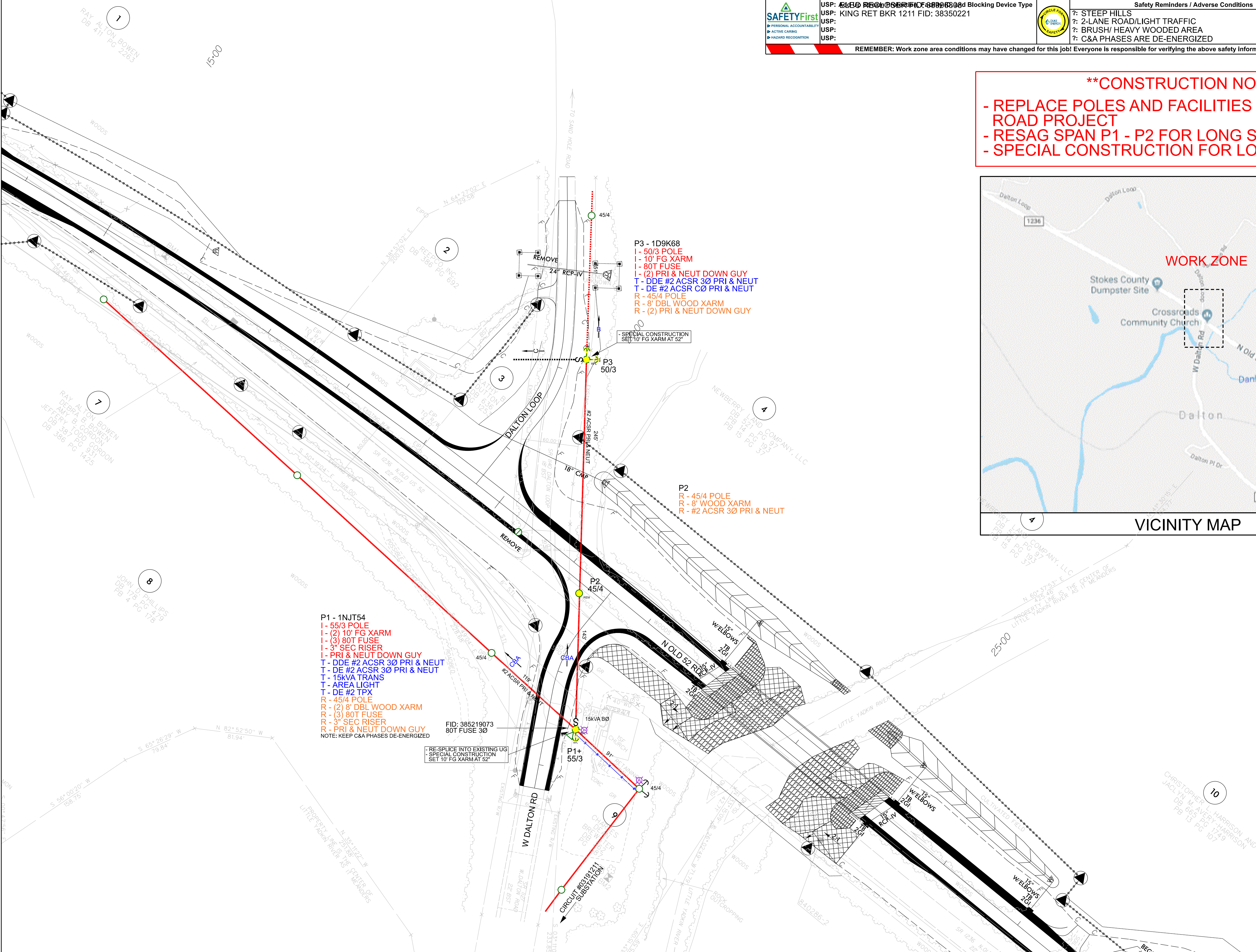
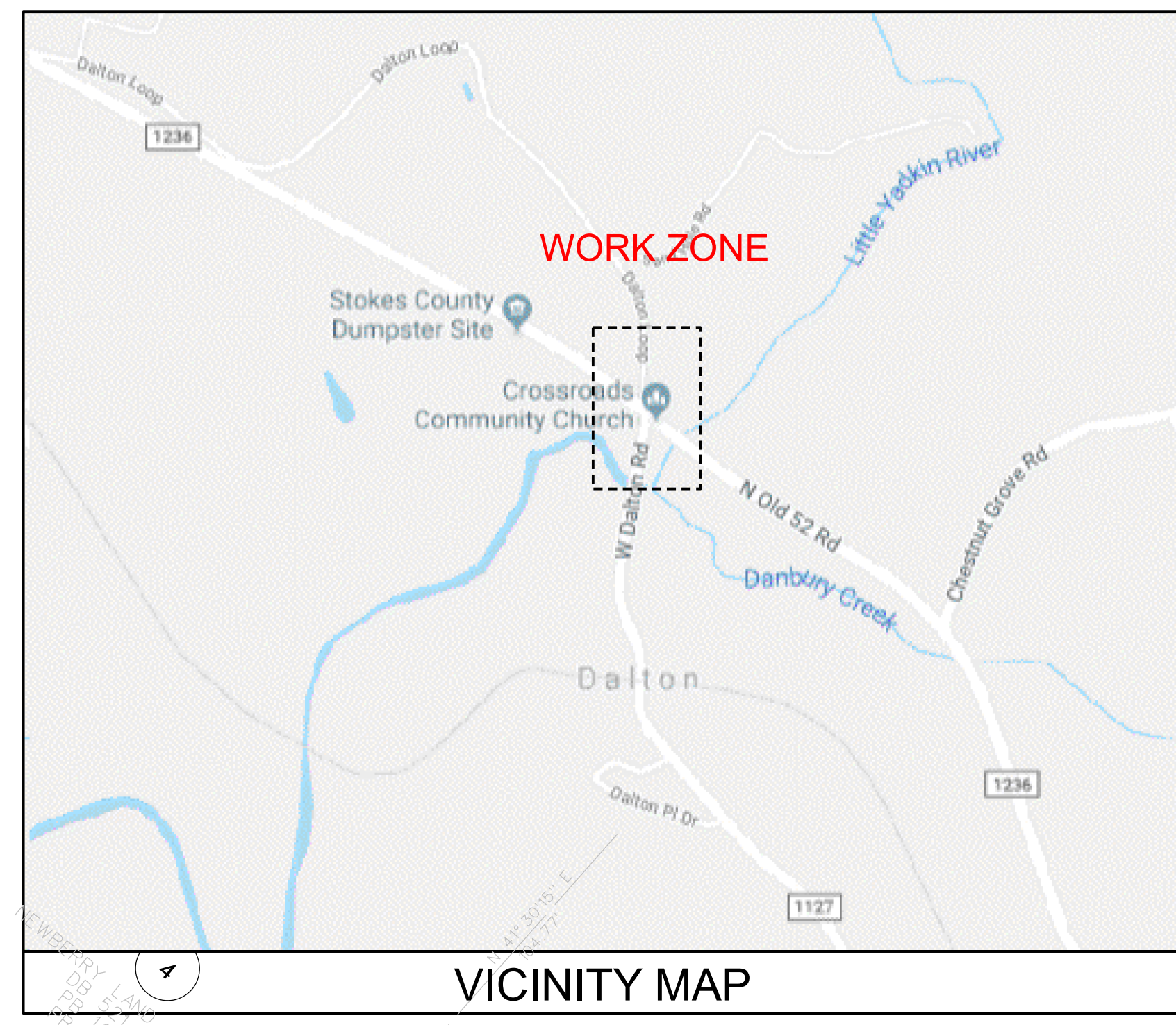
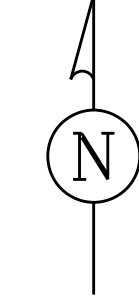
Safety Reminders / Adverse Conditions  
 ? : STEEP HILLS  
 ? : 2-LANE ROAD/LIGHT TRAFFIC  
 ? : BRUSH/ HEAVY WOODED AREA  
 ? : C&A PHASES ARE DE-ENERGIZED



Work Zone General Comments:  
 LANE CLOSURE ON A 2-LANE ROAD  
 FLAGGING REQUIRED FOR THIS PROJECT

REMEMBER: Work zone area conditions may have changed for this job! Everyone is responsible for verifying the above safety information is correct prior to any work being performed each day.

**\*\*CONSTRUCTION NOTE\*\***  
 - REPLACE POLES AND FACILITIES FOR NCDOT ROAD PROJECT  
 - RESAG SPAN P1 - P2 FOR LONG SPAN  
 - SPECIAL CONSTRUCTION FOR LONG SPAN P1 & P2



Substation Name(s)	KING RET
Circuit ID(s)	03191211
Facility ID(s)	385219073
Work Order Number	31789262
Customer/Contact	NCDOT DIVISION 9
Contact Phone	-
Job Site Address	1140 W DALTON RD
City	PINNACLE
County	STOKES
State, Zip	NC,
Designer	BRYAN RICKLE
Designer Phone	919-278-2553

NCDOT PROJECT  
 17BP.9.R.883