



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

PAT L. MCCRORY  
GOVERNOR

ANTHONY J. TATA  
SECRETARY

February 5, 2015

U.S. Army Corps of Engineers  
Wilmington District Office  
69 Darlington Avenue  
Wilmington, NC 28403

ATTN: Ms. Liz Hair  
NCDOT Division 8 Project Coordinator

SUBJECT: **Application for Section 404 Nationwide Permit No. 12** for the replacement of Bridge No. 22 over Richland Creek on SR 1111 (Lilly's Bridge Road), Montgomery County, North Carolina. Federal Aid Project No. BRZ-1111(8), TIP No. B-4780.

REFERENCES: N.C. Division of Water Resources (NCDWR), Approval of 401 Water Quality Certification with Additional Conditions, NCDWR Project No. 20140806v.1, issued August 25, 2014.

U.S. Army Corps of Engineers (USACE), Nationwide Permit Nos. 13, 23, and 33, Action ID SAW-2009-01696, issued September 10, 2014.

This permit is requested in addition to the previously received Nationwide Permit Nos. 13, 23, and 33 issued by USACE on September 10, 2014 and the corresponding General Water Quality Certification Nos. 3885, 3891, and 3893 issued by NCDWR on August 25, 2014. A Programmatic Categorical Exclusion (PCE) was completed for this project in October 2013. Please find enclosed the Pre-Construction Notification (PCN) and utility permit drawings associated with this permit application.

The proposed let date for this project is July 21, 2015, with a let review date of June 2, 2015.

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

**TELEPHONE:** 919-707-6100

**FAX:** 919-212-5785

**WEBSITE:** [WWW.NCDOT.ORG](http://WWW.NCDOT.ORG)

**PHYSICAL ADDRESS:**  
Century Center - Building B  
1020 Birch Ridge Dr  
Raleigh, NC 27610-4328

A copy of this permit application will be posted on the NCDOT Website at <https://connect.ncdot.gov/resources/Environmental/Pages/default.aspx>, under *Quick Links > Permit Applications*. A copy of the PCE is also available at the above website address under *Quick Links > Environmental Documents*. Thank you for your assistance with this project. If you have any questions or need additional information, please contact Jim Mason at either [jmason@ncdot.gov](mailto:jmason@ncdot.gov) or (919) 707-6136.

Sincerely,



for

Richard W. Hancock, P.E., Manager  
Project Development and Environmental Analysis Unit

cc: NCDOT Permit Application Standard Distribution List

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

<b>B. Project Information and Prior Project History</b>	
<b>1. Property Identification</b>	
1a. Property identification no. (tax PIN or parcel ID):	<i>not applicable</i>
1b. Site coordinates (in decimal degrees):	Latitude: 35.2540 (DD.DDDDDD) Longitude: - 80.0717 (-DD.DDDDDD)
1c. Property size:	1.5 acres
<b>2. Surface Waters</b>	
2a. Name of nearest body of water (stream, river, etc.) to proposed project:	Richland Creek
2b. Water Quality Classification of nearest receiving water:	WS-IV&B CA
2c. River basin:	Yadkin-Pee Dee
<b>3. Project Description</b>	
3a. Describe the existing conditions on the site and the general land use in the vicinity of the project at the time of this application: SR 1111 (Lilly's Bridge Rd) is classified as a Rural Local Route in the Statewide Functional Classification System and is not a National Highway System Route. Land use within the vicinity includes Forested Land, Low- to Mid-Density Residential, Silviculture, and Recreation.	
3b. List the total estimated acreage of all existing wetlands on the property: 0 acres	
3c. List the total estimated linear feet of all existing streams (intermittent and perennial) on the property: 210 linear feet	
3d. Explain the purpose of the proposed project: To replace a structurally deficient and functionally obsolete bridge.	
3e. Describe the overall project in detail, including the type of equipment to be used: This portion of the project consists of relocating and installing a 12-inch water line downstream of the proposed 12-foot by 9-foot Reinforced Concrete Box Culvert (RCBC) and relocating and installing an 8-inch force main sewer line upstream of the proposed RCBC. Both lines will be installed across Richland Creek using open-cut trenching techniques. When the lines are installed and the temporarily sidecast earthen material is replaced, both lines will be approximately 4 feet below the streambed. Standard equipment for installing underground utility lines and performing open-cut trenching will be employed.	
<b>4. Jurisdictional Determinations</b>	
4a. Have jurisdictional wetland or stream determinations by the Corps or State been requested or obtained for this property / project (including all prior phases) in the past? Comments: Action ID No. SAW-2009-01696	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
4b. If the Corps made the jurisdictional determination, what type of determination was made?	<input checked="" type="checkbox"/> Preliminary <input type="checkbox"/> Final
4c. If yes, who delineated the jurisdictional areas? Name (if known): Principal Investigator: Lindsey Riddick	Agency/Consultant Company: NCDOT Other:
4d. If yes, list the dates of the Corps jurisdictional determinations or State determinations and attach documentation. September 15, 2009; JD provided with 7/28/14 application for NWPs 13, 23, and 33.	
<b>5. Project History</b>	
5a. Have permits or certifications been requested or obtained for this project (including all prior phases) in the past?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
5b. If yes, explain in detail according to "help file" instructions. NWPs 13, 23, 33, issued by USACE 09/10/14 (Action ID SAW-2009-01696);WQCs 3885, 3891, 3893, issued by NCDWR 08/25/14 (NCDWR Project No. 20140806v.1).	

<b>6. Future Project Plans</b>	
6a. Is this a phased project?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
6b. If yes, explain.	

<b>C. Proposed Impacts Inventory</b>					
<b>1. Impacts Summary</b>					
1a. Which sections were completed below for your project (check all that apply):					
<input type="checkbox"/> Wetlands		<input checked="" type="checkbox"/> Streams - tributaries		<input type="checkbox"/> Buffers	
<input type="checkbox"/> Open Waters		<input type="checkbox"/> Pond Construction			
<b>2. Wetland Impacts</b>					
If there are wetland impacts proposed on the site, then complete this question for each wetland area impacted.					
2a. Wetland impact number – Permanent (P) or Temporary (T)	2b. Type of impact	2c. Type of wetland (if known)	2d. Forested	2e. Type of jurisdiction (Corps - 404, 10 DWQ – non-404, other)	2f. Area of impact (acres)
Site <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ	
Site <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ	
Site <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ	
<b>2g. Total wetland impacts</b>					0 ac Perm. 0 ac Temp.
2h. Comments:					

<b>3. Stream Impacts</b>						
If there are perennial or intermittent stream impacts (including temporary impacts) proposed on the site, then complete this question for all stream sites impacted.						
3a. Stream impact number - Permanent (P) or Temporary (T)	3b. Type of impact	3c. Stream name	3d. Perennial (PER) or intermittent (INT)?	3e. Type of jurisdiction (Corps - 404, 10 DWQ – non-404, other)	3f. Average stream width (feet)	3g. Impact length (linear feet)
Site 1 <input type="checkbox"/> P <input checked="" type="checkbox"/> T	Temp. Trenching	Richland Creek	<input checked="" type="checkbox"/> PER <input type="checkbox"/> INT	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	15-20	<0.01 ac.
Site 1 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
Site 1 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
Site <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
<b>3h. Total stream and tributary impacts</b>						0 Perm. <0.01 ac. Temp.
3i. Comments: Per test hole data, heavy groundwater was encountered in areas where bore pits would be located if a trenchless method was employed to relocate and install the 12-inch water line downstream of the bridge and the 8-inch force main sewer line upstream of the bridge. This groundwater would make the pits unsafe due to the potential for sloughing off and major dewatering procedures would need to be utilized. Additionally, per the test hole data, there was evidence of large rocks/boulders in these areas, which would make trenchless methods difficult, especially depending on what type of rock.						

Therefore, it was determined that open-cut trenching across Richland Creek in these two locations would be most practical to install the pipes. Impacts resulting from this trenching would be temporary stream impacts to Richland Creek. The combined linear footage impact along Richland Creek would be approximately 8-10 ft and the total area impact is 0.0024 acres. These impacts occur in areas already designated for permanent bank stabilization impacts in the original permit(s), but the trenching extends across the entire creek into areas where the bank stabilization would not. That is why we are requesting the NWP 12.

**4. Open Water Impacts**

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

4a. Open water impact number – Permanent (P) or Temporary (T)	4b. Name of waterbody (if applicable)	4c. Type of impact	4d. Waterbody type	4e. Area of impact (acres)
O1 <input type="checkbox"/> P <input type="checkbox"/> T				
O2 <input type="checkbox"/> P <input type="checkbox"/> T				
<b>4f. Total open water impacts</b>				0 Permanent 0 Temporary

4g. Comments:

**5. Pond or Lake Construction**

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

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

5g. Comments:

5h. Is a dam high hazard permit required?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	If yes, permit ID no:
5i. Expected pond surface area (acres):			
5j. Size of pond watershed (acres):			
5k. Method of construction:			

**6. Buffer Impacts (for DWQ)**

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

6a. Project is in which protected basin?			<input type="checkbox"/> Neuse <input type="checkbox"/> Catawba	<input type="checkbox"/> Tar-Pamlico <input type="checkbox"/> Randleman	<input type="checkbox"/> Other:
6b. Buffer impact number – Permanent (P) or Temporary (T)	6c. Reason for impact	6d. Stream name	6e. Buffer mitigation required? <input type="checkbox"/> Yes <input type="checkbox"/> No	6f. Zone 1 impact (square feet)	6g. Zone 2 impact (square feet)
B1 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No		
B2 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No		
B3 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No		
<b>6h. Total buffer impacts</b>				0	0
6i. Comments:					

<b>D. Impact Justification and Mitigation</b>		
<b>1. Avoidance and Minimization</b>		
1a. Specifically describe measures taken to avoid or minimize the proposed impacts in designing project. Rip rap bank stabilization has already been permitted (as part of the previously received NWP 13) at the proposed utility line crossings of Richland Creek. This stabilization will be employed as part of the restoration and bank stabilization that will be required due to the open-cut trenching operation.		
1b. Specifically describe measures taken to avoid or minimize the proposed impacts through construction techniques. NCDOT Best Management Practices for Construction and Maintenance Activities and Best Management Practices for the Protection of Surface Waters will be employed. Also, the proposed utility construction shall meet the applicable requirements of NCDOT's Standard Specifications for Roads and Structures, dated January 2012.		
<b>2. Compensatory Mitigation for Impacts to Waters of the U.S. or Waters of the State</b>		
2a. Does the project require Compensatory Mitigation for impacts to Waters of the U.S. or Waters of the State?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If no, explain: The impacts associated with this NWP 12 are temporary. Mitigation is required for the project, but it is for impacts associated with our original NWP 13, 23, 33 permit impacts. The EEP letter for those impacts was provided with the July 28, 2014 permit application.	
2b. If yes, mitigation is required by (check all that apply):	<input type="checkbox"/> DWQ <input type="checkbox"/> Corps	
2c. If yes, which mitigation option will be used for this project?	<input type="checkbox"/> Mitigation bank <input type="checkbox"/> Payment to in-lieu fee program <input type="checkbox"/> Permittee Responsible Mitigation	
<b>3. Complete if Using a Mitigation Bank</b>		
3a. Name of Mitigation Bank: not applicable		
3b. Credits Purchased (attach receipt and letter)	Type	Quantity
3c. Comments:		
<b>4. Complete if Making a Payment to In-lieu Fee Program</b>		
4a. Approval letter from in-lieu fee program is attached.	<input type="checkbox"/> Yes	
4b. Stream mitigation requested:	0 linear feet	
4c. If using stream mitigation, stream temperature:	<input type="checkbox"/> warm <input type="checkbox"/> cool <input type="checkbox"/> cold	
4d. Buffer mitigation requested (DWQ only):	0 square feet	
4e. Riparian wetland mitigation requested:	0 acres	
4f. Non-riparian wetland mitigation requested:	0 acres	
4g. Coastal (tidal) wetland mitigation requested:	0 acres	
4h. Comments:		
<b>5. Complete if Using a Permittee Responsible Mitigation Plan</b>		
5a. If using a permittee responsible mitigation plan, provide a description of the proposed mitigation plan.		

**6. Buffer Mitigation (State Regulated Riparian Buffer Rules) – required by DWQ**

6a. Will the project result in an impact within a protected riparian buffer that requires buffer mitigation?

Yes       No

6b. If yes, then identify the square feet of impact to each zone of the riparian buffer that requires mitigation. Calculate the amount of mitigation required.

Zone	6c. Reason for impact	6d. Total impact (square feet)	Multiplier	6e. Required mitigation (square feet)
Zone 1			3 (2 for Catawba)	
Zone 2			1.5	
<b>6f. Total buffer mitigation required:</b>				0

6g. If buffer mitigation is required, discuss what type of mitigation is proposed (e.g., payment to private mitigation bank, permittee responsible riparian buffer restoration, payment into an approved in-lieu fee fund).

6h. Comments:

<b>E. Stormwater Management and Diffuse Flow Plan (required by DWQ)</b>	
<b>1. Diffuse Flow Plan</b>	
1a. Does the project include or is it adjacent to protected riparian buffers identified within one of the NC Riparian Buffer Protection Rules?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
1b. If yes, then is a diffuse flow plan included? If not, explain why. Comments:	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>2. Stormwater Management Plan</b>	
2a. What is the overall percent imperviousness of this project?	N/A
2b. Does this project require a Stormwater Management Plan?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2c. If this project DOES NOT require a Stormwater Management Plan, explain why:	
2d. If this project DOES require a Stormwater Management Plan, then provide a brief, narrative description of the plan: The Stormwater Management Plan for this project was provided with the July 28, 2014 permit application for NWP's 13, 23, and 33 .	
2e. Who will be responsible for the review of the Stormwater Management Plan?	<input type="checkbox"/> Certified Local Government <input type="checkbox"/> DWQ Stormwater Program <input checked="" type="checkbox"/> DWQ 401 Unit
<b>3. Certified Local Government Stormwater Review</b>	
3a. In which local government's jurisdiction is this project?	not applicable
3b. Which of the following locally-implemented stormwater management programs apply (check all that apply):	<input type="checkbox"/> Phase II <input type="checkbox"/> NSW <input type="checkbox"/> USMP <input type="checkbox"/> Water Supply Watershed <input type="checkbox"/> Other:
3c. Has the approved Stormwater Management Plan with proof of approval been attached?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>4. DWQ Stormwater Program Review</b>	
4a. Which of the following state-implemented stormwater management programs apply (check all that apply):	<input type="checkbox"/> Coastal counties <input type="checkbox"/> HQW <input type="checkbox"/> ORW <input type="checkbox"/> Session Law 2006-246 <input checked="" type="checkbox"/> Other: CA; The project is within the Critical Area for a hazardous spill basin. Due to the location of this project being parallel to NC 73, truck traffic would be low; therefore, no basins are anticipated.
4b. Has the approved Stormwater Management Plan with proof of approval been attached?	<input type="checkbox"/> Yes <input type="checkbox"/> No N/A
<b>5. DWQ 401 Unit Stormwater Review</b>	
5a. Does the Stormwater Management Plan meet the appropriate requirements?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

5b. Have all of the 401 Unit submittal requirements been met?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
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**F. Supplementary Information**

**1. Environmental Documentation (DWQ Requirement)**

1a. Does the project involve an expenditure of public (federal/state/local) funds or the use of public (federal/state) land?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
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1b. If you answered “yes” to the above, does the project require preparation of an environmental document pursuant to the requirements of the National or State (North Carolina) Environmental Policy Act (NEPA/SEPA)?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
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1c. If you answered “yes” to the above, has the document review been finalized by the State Clearing House? (If so, attach a copy of the NEPA or SEPA final approval letter.) Comments:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
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**2. Violations (DWQ Requirement)**

2a. Is the site in violation of DWQ Wetland Rules (15A NCAC 2H .0500), Isolated Wetland Rules (15A NCAC 2H .1300), DWQ Surface Water or Wetland Standards, or Riparian Buffer Rules (15A NCAC 2B .0200)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
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2b. Is this an after-the-fact permit application?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
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2c. If you answered “yes” to one or both of the above questions, provide an explanation of the violation(s):

**3. Cumulative Impacts (DWQ Requirement)**

3a. Will this project (based on past and reasonably anticipated future impacts) result in additional development, which could impact nearby downstream water quality?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
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3b. If you answered “yes” to the above, submit a qualitative or quantitative cumulative impact analysis in accordance with the most recent DWQ policy. If you answered “no,” provide a short narrative description.  
Due to the minimal transportation impact resulting from this bridge replacement, this project will neither influence nearby land uses nor stimulate growth. Therefore, a detailed indirect or cumulative effects study will not be necessary.

**4. Sewage Disposal (DWQ Requirement)**

4a. Clearly detail the ultimate treatment methods and disposition (non-discharge or discharge) of wastewater generated from the proposed project, or available capacity of the subject facility.  
not applicable

<b>5. Endangered Species and Designated Critical Habitat (Corps Requirement)</b>		
5a. Will this project occur in or near an area with federally protected species or habitat?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
5b. Have you checked with the USFWS concerning Endangered Species Act impacts?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
5c. If yes, indicate the USFWS Field Office you have contacted.	<input checked="" type="checkbox"/> Raleigh	<input type="checkbox"/> Asheville
5d. What data sources did you use to determine whether your site would impact Endangered Species or Designated Critical Habitat? NC Natural Heritage Program data, USFWS website, NCDOT field surveys		
<b>6. Essential Fish Habitat (Corps Requirement)</b>		
6a. Will this project occur in or near an area designated as essential fish habitat?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
6b. What data sources did you use to determine whether your site would impact Essential Fish Habitat? NMFS County Index		
<b>7. Historic or Prehistoric Cultural Resources (Corps Requirement)</b>		
7a. Will this project occur in or near an area that the state, federal or tribal governments have designated as having historic or cultural preservation status (e.g., National Historic Trust designation or properties significant in North Carolina history and archaeology)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
7b. What data sources did you use to determine whether your site would impact historic or archeological resources? NEPA Documentation		
<b>8. Flood Zone Designation (Corps Requirement)</b>		
8a. Will this project occur in a FEMA-designated 100-year floodplain?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
8b. If yes, explain how project meets FEMA requirements: NCDOT Hydraulics Unit coordination with FEMA		
8c. What source(s) did you use to make the floodplain determination? FEMA Maps		
<i>RW</i> Richard W. Hancock, P.E. Applicant/Agent's Printed Name	 Applicant/Agent's Signature (Agent's signature is valid only if an authorization letter from the applicant is provided.)	2-5-2015 Date



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

## Pre-Construction Notification (PCN) Form

### A. Applicant Information

#### 1. Processing

1a. Type(s) of approval sought from the Corps:	<input checked="" type="checkbox"/> Section 404 Permit	<input type="checkbox"/> Section 10 Permit
1b. Specify Nationwide Permit (NWP) number: 12 or General Permit (GP) number:		
1c. Has the NWP or GP number been verified by the Corps?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
1d. Type(s) of approval sought from the DWQ (check all that apply):		
<input checked="" type="checkbox"/> 401 Water Quality Certification – Regular <span style="margin-left: 100px;"><input type="checkbox"/> Non-404 Jurisdictional General Permit</span> <input type="checkbox"/> 401 Water Quality Certification – Express <span style="margin-left: 100px;"><input type="checkbox"/> Riparian Buffer Authorization</span>		
1e. Is this notification solely for the record because written approval is not required?	For the record only for DWQ 401 Certification: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	For the record only for Corps Permit: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
1f. Is payment into a mitigation bank or in-lieu fee program proposed for mitigation of impacts? If so, attach the acceptance letter from mitigation bank or in-lieu fee program.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
1g. Is the project located in any of NC's twenty coastal counties. If yes, answer 1h below.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
1h. Is the project located within a NC DCM Area of Environmental Concern (AEC)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

#### 2. Project Information

2a. Name of project:	Replacement of Bridge No. 22 over Richland Creek on SR 1111 (Lilly's Bridge Road)
2b. County:	Montgomery
2c. Nearest municipality / town:	Mount Gilead
2d. Subdivision name:	<i>not applicable</i>
2e. NCDOT only, T.I.P. or state project no.:	B-4780

#### 3. Owner Information

3a. Name(s) on Recorded Deed:	North Carolina Department of Transportation
3b. Deed Book and Page No.	<i>not applicable</i>
3c. Responsible Party (for LLC if applicable):	<i>not applicable</i>
3d. Street address:	1598 Mail Service Center
3e. City, state, zip:	Raleigh, NC 27699-1598
3f. Telephone no.:	(919) 707-6136
3g. Fax no.:	(919) 212-5785
3h. Email address:	jsmason@ncdot.gov

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

<b>B. Project Information and Prior Project History</b>	
<b>1. Property Identification</b>	
1a. Property identification no. (tax PIN or parcel ID):	<i>not applicable</i>
1b. Site coordinates (in decimal degrees):	Latitude: 35.2540 (DD.DDDDDD) Longitude: - 80.0717 (-DD.DDDDDD)
1c. Property size:	1.5 acres
<b>2. Surface Waters</b>	
2a. Name of nearest body of water (stream, river, etc.) to proposed project:	Richland Creek
2b. Water Quality Classification of nearest receiving water:	WS-IV&B CA
2c. River basin:	Yadkin-Pee Dee
<b>3. Project Description</b>	
3a. Describe the existing conditions on the site and the general land use in the vicinity of the project at the time of this application: SR 1111 (Lilly's Bridge Rd) is classified as a Rural Local Route in the Statewide Functional Classification System and is not a National Highway System Route. Land use within the vicinity includes Forested Land, Low- to Mid-Density Residential, Silviculture, and Recreation.	
3b. List the total estimated acreage of all existing wetlands on the property: 0 acres	
3c. List the total estimated linear feet of all existing streams (intermittent and perennial) on the property: 210 linear feet	
3d. Explain the purpose of the proposed project: To replace a structurally deficient and functionally obsolete bridge.	
3e. Describe the overall project in detail, including the type of equipment to be used: This portion of the project consists of relocating and installing a 12-inch water line downstream of the proposed 12-foot by 9-foot Reinforced Concrete Box Culvert (RCBC) and relocating and installing an 8-inch force main sewer line upstream of the proposed RCBC. Both lines will be installed across Richland Creek using open-cut trenching techniques. When the lines are installed and the temporarily sidecast earthen material is replaced, both lines will be approximately 4 feet below the streambed. Standard equipment for installing underground utility lines and performing open-cut trenching will be employed.	
<b>4. Jurisdictional Determinations</b>	
4a. Have jurisdictional wetland or stream determinations by the Corps or State been requested or obtained for this property / project (including all prior phases) in the past? Comments: Action ID No. SAW-2009-01696	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
4b. If the Corps made the jurisdictional determination, what type of determination was made?	<input checked="" type="checkbox"/> Preliminary <input type="checkbox"/> Final
4c. If yes, who delineated the jurisdictional areas? Name (if known): Principal Investigator: Lindsey Riddick	Agency/Consultant Company: NCDOT Other:
4d. If yes, list the dates of the Corps jurisdictional determinations or State determinations and attach documentation. September 15, 2009; JD provided with 7/28/14 application for NWPs 13, 23, and 33.	
<b>5. Project History</b>	
5a. Have permits or certifications been requested or obtained for this project (including all prior phases) in the past?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
5b. If yes, explain in detail according to "help file" instructions. NWPs 13, 23, 33, issued by USACE 09/10/14 (Action ID SAW-2009-01696);WQCs 3885, 3891, 3893, issued by NCDWR 08/25/14 (NCDWR Project No. 20140806v.1).	

<b>6. Future Project Plans</b>	
6a. Is this a phased project?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
6b. If yes, explain.	

<b>C. Proposed Impacts Inventory</b>					
<b>1. Impacts Summary</b>					
1a. Which sections were completed below for your project (check all that apply):					
<input type="checkbox"/> Wetlands		<input checked="" type="checkbox"/> Streams - tributaries		<input type="checkbox"/> Buffers	
<input type="checkbox"/> Open Waters		<input type="checkbox"/> Pond Construction			
<b>2. Wetland Impacts</b>					
If there are wetland impacts proposed on the site, then complete this question for each wetland area impacted.					
2a. Wetland impact number – Permanent (P) or Temporary (T)	2b. Type of impact	2c. Type of wetland (if known)	2d. Forested	2e. Type of jurisdiction (Corps - 404, 10 DWQ – non-404, other)	2f. Area of impact (acres)
Site <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ	
Site <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ	
Site <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ	
<b>2g. Total wetland impacts</b>					0 ac Perm. 0 ac Temp.
2h. Comments:					

<b>3. Stream Impacts</b>						
If there are perennial or intermittent stream impacts (including temporary impacts) proposed on the site, then complete this question for all stream sites impacted.						
3a. Stream impact number - Permanent (P) or Temporary (T)	3b. Type of impact	3c. Stream name	3d. Perennial (PER) or intermittent (INT)?	3e. Type of jurisdiction (Corps - 404, 10 DWQ – non-404, other)	3f. Average stream width (feet)	3g. Impact length (linear feet)
Site 1 <input type="checkbox"/> P <input checked="" type="checkbox"/> T	Temp. Trenching	Richland Creek	<input checked="" type="checkbox"/> PER <input type="checkbox"/> INT	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	15-20	<0.01 ac.
Site 1 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
Site 1 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
Site <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
<b>3h. Total stream and tributary impacts</b>						0 Perm. <0.01 ac. Temp.
3i. Comments: Per test hole data, heavy groundwater was encountered in areas where bore pits would be located if a trenchless method was employed to relocate and install the 12-inch water line downstream of the bridge and the 8-inch force main sewer line upstream of the bridge. This groundwater would make the pits unsafe due to the potential for sloughing off and major dewatering procedures would need to be utilized. Additionally, per the test hole data, there was evidence of large rocks/boulders in these areas, which would make trenchless methods difficult, especially depending on what type of rock.						

Therefore, it was determined that open-cut trenching across Richland Creek in these two locations would be most practical to install the pipes. Impacts resulting from this trenching would be temporary stream impacts to Richland Creek. The combined linear footage impact along Richland Creek would be approximately 8-10 ft and the total area impact is 0.0024 acres. These impacts occur in areas already designated for permanent bank stabilization impacts in the original permit(s), but the trenching extends across the entire creek into areas where the bank stabilization would not. That is why we are requesting the NWP 12.

**4. Open Water Impacts**

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

4a. Open water impact number – Permanent (P) or Temporary (T)	4b. Name of waterbody (if applicable)	4c. Type of impact	4d. Waterbody type	4e. Area of impact (acres)
O1 <input type="checkbox"/> P <input type="checkbox"/> T				
O2 <input type="checkbox"/> P <input type="checkbox"/> T				
<b>4f. Total open water impacts</b>				0 Permanent 0 Temporary

4g. Comments:

**5. Pond or Lake Construction**

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

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

5g. Comments:

5h. Is a dam high hazard permit required?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	If yes, permit ID no:
5i. Expected pond surface area (acres):			
5j. Size of pond watershed (acres):			
5k. Method of construction:			

**6. Buffer Impacts (for DWQ)**

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

6a. Project is in which protected basin?			<input type="checkbox"/> Neuse <input type="checkbox"/> Catawba	<input type="checkbox"/> Tar-Pamlico <input type="checkbox"/> Randleman	<input type="checkbox"/> Other:
6b. Buffer impact number – Permanent (P) or Temporary (T)	6c. Reason for impact	6d. Stream name	6e. Buffer mitigation required? <input type="checkbox"/> Yes <input type="checkbox"/> No	6f. Zone 1 impact (square feet)	6g. Zone 2 impact (square feet)
B1 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No		
B2 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No		
B3 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No		
<b>6h. Total buffer impacts</b>				0	0
6i. Comments:					

<b>D. Impact Justification and Mitigation</b>		
<b>1. Avoidance and Minimization</b>		
1a. Specifically describe measures taken to avoid or minimize the proposed impacts in designing project. Rip rap bank stabilization has already been permitted (as part of the previously received NWP 13) at the proposed utility line crossings of Richland Creek. This stabilization will be employed as part of the restoration and bank stabilization that will be required due to the open-cut trenching operation.		
1b. Specifically describe measures taken to avoid or minimize the proposed impacts through construction techniques. NCDOT Best Management Practices for Construction and Maintenance Activities and Best Management Practices for the Protection of Surface Waters will be employed. Also, the proposed utility construction shall meet the applicable requirements of NCDOT's Standard Specifications for Roads and Structures, dated January 2012.		
<b>2. Compensatory Mitigation for Impacts to Waters of the U.S. or Waters of the State</b>		
2a. Does the project require Compensatory Mitigation for impacts to Waters of the U.S. or Waters of the State?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If no, explain: The impacts associated with this NWP 12 are temporary. Mitigation is required for the project, but it is for impacts associated with our original NWP 13, 23, 33 permit impacts. The EEP letter for those impacts was provided with the July 28, 2014 permit application.	
2b. If yes, mitigation is required by (check all that apply):	<input type="checkbox"/> DWQ <input type="checkbox"/> Corps	
2c. If yes, which mitigation option will be used for this project?	<input type="checkbox"/> Mitigation bank <input type="checkbox"/> Payment to in-lieu fee program <input type="checkbox"/> Permittee Responsible Mitigation	
<b>3. Complete if Using a Mitigation Bank</b>		
3a. Name of Mitigation Bank: not applicable		
3b. Credits Purchased (attach receipt and letter)	Type	Quantity
3c. Comments:		
<b>4. Complete if Making a Payment to In-lieu Fee Program</b>		
4a. Approval letter from in-lieu fee program is attached.	<input type="checkbox"/> Yes	
4b. Stream mitigation requested:	0 linear feet	
4c. If using stream mitigation, stream temperature:	<input type="checkbox"/> warm <input type="checkbox"/> cool <input type="checkbox"/> cold	
4d. Buffer mitigation requested (DWQ only):	0 square feet	
4e. Riparian wetland mitigation requested:	0 acres	
4f. Non-riparian wetland mitigation requested:	0 acres	
4g. Coastal (tidal) wetland mitigation requested:	0 acres	
4h. Comments:		
<b>5. Complete if Using a Permittee Responsible Mitigation Plan</b>		
5a. If using a permittee responsible mitigation plan, provide a description of the proposed mitigation plan.		

**6. Buffer Mitigation (State Regulated Riparian Buffer Rules) – required by DWQ**

6a. Will the project result in an impact within a protected riparian buffer that requires buffer mitigation?  Yes  No

6b. If yes, then identify the square feet of impact to each zone of the riparian buffer that requires mitigation. Calculate the amount of mitigation required.

Zone	6c. Reason for impact	6d. Total impact (square feet)	Multiplier	6e. Required mitigation (square feet)
Zone 1			3 (2 for Catawba)	
Zone 2			1.5	
<b>6f. Total buffer mitigation required:</b>				0

6g. If buffer mitigation is required, discuss what type of mitigation is proposed (e.g., payment to private mitigation bank, permittee responsible riparian buffer restoration, payment into an approved in-lieu fee fund).

6h. Comments:

<b>E. Stormwater Management and Diffuse Flow Plan (required by DWQ)</b>	
<b>1. Diffuse Flow Plan</b>	
1a. Does the project include or is it adjacent to protected riparian buffers identified within one of the NC Riparian Buffer Protection Rules?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
1b. If yes, then is a diffuse flow plan included? If not, explain why. Comments:	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>2. Stormwater Management Plan</b>	
2a. What is the overall percent imperviousness of this project?	N/A
2b. Does this project require a Stormwater Management Plan?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2c. If this project DOES NOT require a Stormwater Management Plan, explain why:	
2d. If this project DOES require a Stormwater Management Plan, then provide a brief, narrative description of the plan: The Stormwater Management Plan for this project was provided with the July 28, 2014 permit application for NWP's 13, 23, and 33 .	
2e. Who will be responsible for the review of the Stormwater Management Plan?	<input type="checkbox"/> Certified Local Government <input type="checkbox"/> DWQ Stormwater Program <input checked="" type="checkbox"/> DWQ 401 Unit
<b>3. Certified Local Government Stormwater Review</b>	
3a. In which local government's jurisdiction is this project?	not applicable
3b. Which of the following locally-implemented stormwater management programs apply (check all that apply):	<input type="checkbox"/> Phase II <input type="checkbox"/> NSW <input type="checkbox"/> USMP <input type="checkbox"/> Water Supply Watershed <input type="checkbox"/> Other:
3c. Has the approved Stormwater Management Plan with proof of approval been attached?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>4. DWQ Stormwater Program Review</b>	
4a. Which of the following state-implemented stormwater management programs apply (check all that apply):	<input type="checkbox"/> Coastal counties <input type="checkbox"/> HQW <input type="checkbox"/> ORW <input type="checkbox"/> Session Law 2006-246 <input checked="" type="checkbox"/> Other: CA; The project is within the Critical Area for a hazardous spill basin. Due to the location of this project being parallel to NC 73, truck traffic would be low; therefore, no basins are anticipated.
4b. Has the approved Stormwater Management Plan with proof of approval been attached?	<input type="checkbox"/> Yes <input type="checkbox"/> No N/A
<b>5. DWQ 401 Unit Stormwater Review</b>	
5a. Does the Stormwater Management Plan meet the appropriate requirements?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

5b. Have all of the 401 Unit submittal requirements been met?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
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**F. Supplementary Information**

**1. Environmental Documentation (DWQ Requirement)**

1a. Does the project involve an expenditure of public (federal/state/local) funds or the use of public (federal/state) land?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
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1b. If you answered “yes” to the above, does the project require preparation of an environmental document pursuant to the requirements of the National or State (North Carolina) Environmental Policy Act (NEPA/SEPA)?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
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1c. If you answered “yes” to the above, has the document review been finalized by the State Clearing House? (If so, attach a copy of the NEPA or SEPA final approval letter.) Comments:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
--	---	-----------------------------

**2. Violations (DWQ Requirement)**

2a. Is the site in violation of DWQ Wetland Rules (15A NCAC 2H .0500), Isolated Wetland Rules (15A NCAC 2H .1300), DWQ Surface Water or Wetland Standards, or Riparian Buffer Rules (15A NCAC 2B .0200)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
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2b. Is this an after-the-fact permit application?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
---	------------------------------	--

2c. If you answered “yes” to one or both of the above questions, provide an explanation of the violation(s):

**3. Cumulative Impacts (DWQ Requirement)**

3a. Will this project (based on past and reasonably anticipated future impacts) result in additional development, which could impact nearby downstream water quality?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
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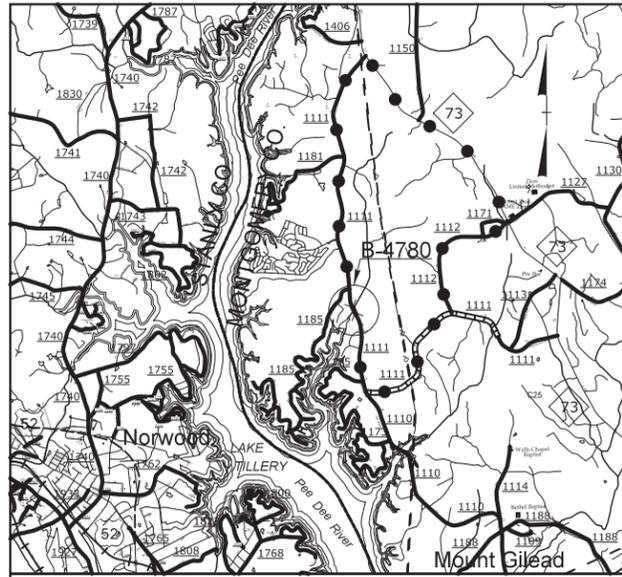
3b. If you answered “yes” to the above, submit a qualitative or quantitative cumulative impact analysis in accordance with the most recent DWQ policy. If you answered “no,” provide a short narrative description.  
Due to the minimal transportation impact resulting from this bridge replacement, this project will neither influence nearby land uses nor stimulate growth. Therefore, a detailed indirect or cumulative effects study will not be necessary.

**4. Sewage Disposal (DWQ Requirement)**

4a. Clearly detail the ultimate treatment methods and disposition (non-discharge or discharge) of wastewater generated from the proposed project, or available capacity of the subject facility.  
not applicable

<b>5. Endangered Species and Designated Critical Habitat (Corps Requirement)</b>		
5a. Will this project occur in or near an area with federally protected species or habitat?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
5b. Have you checked with the USFWS concerning Endangered Species Act impacts?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
5c. If yes, indicate the USFWS Field Office you have contacted.	<input checked="" type="checkbox"/> Raleigh	<input type="checkbox"/> Asheville
5d. What data sources did you use to determine whether your site would impact Endangered Species or Designated Critical Habitat? NC Natural Heritage Program data, USFWS website, NCDOT field surveys		
<b>6. Essential Fish Habitat (Corps Requirement)</b>		
6a. Will this project occur in or near an area designated as essential fish habitat?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
6b. What data sources did you use to determine whether your site would impact Essential Fish Habitat? NMFS County Index		
<b>7. Historic or Prehistoric Cultural Resources (Corps Requirement)</b>		
7a. Will this project occur in or near an area that the state, federal or tribal governments have designated as having historic or cultural preservation status (e.g., National Historic Trust designation or properties significant in North Carolina history and archaeology)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
7b. What data sources did you use to determine whether your site would impact historic or archeological resources? NEPA Documentation		
<b>8. Flood Zone Designation (Corps Requirement)</b>		
8a. Will this project occur in a FEMA-designated 100-year floodplain?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
8b. If yes, explain how project meets FEMA requirements: NCDOT Hydraulics Unit coordination with FEMA		
8c. What source(s) did you use to make the floodplain determination? FEMA Maps		
 <u>Richard W. Hancock, P.E.</u> Applicant/Agent's Printed Name	 Applicant/Agent's Signature (Agent's signature is valid only if an authorization letter from the applicant is provided.)	<u>2-5-2015</u> Date

TIP PROJECT: B-4780



VICINITY MAP

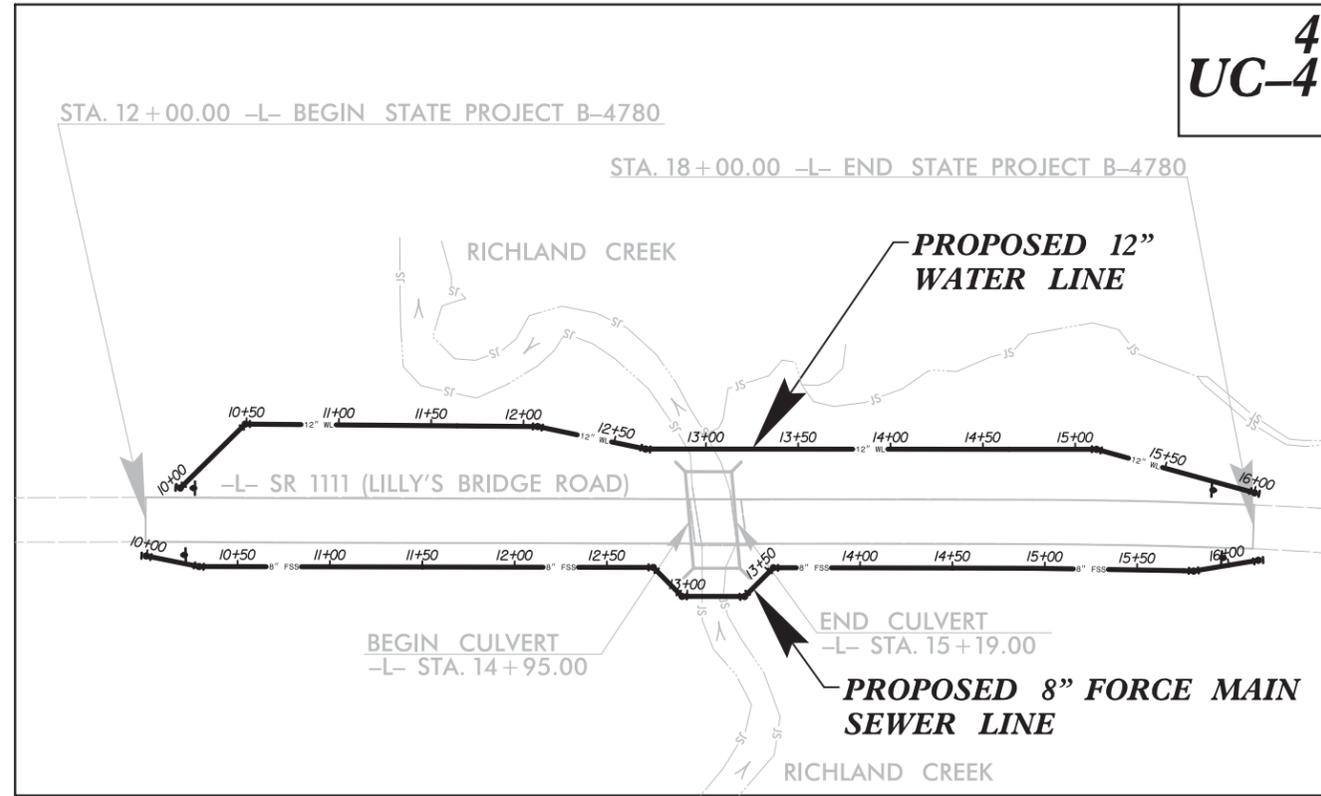
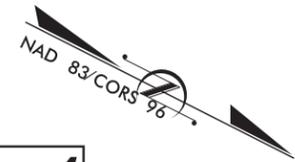
●●● OFFSITE DETOUR

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**UTILITY CONSTRUCTION PLANS  
MONTGOMERY COUNTY**

LOCATION: BRIDGE NO. 22 ON SR 1111 (LILLY'S BRIDGE ROAD)  
OVER RICHLAND CREEK  
TYPE OF WORK: UTILITY CONSTRUCTION

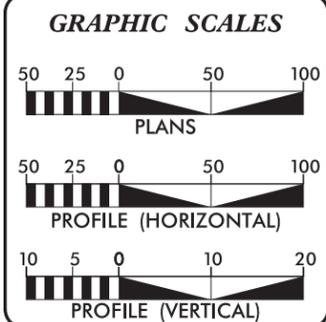
T.I.P. NO.	SHEET NO.
B-4780	UC-1



**4  
UC-4**

Utility Permit Drawing  
Sheet 1 of 4

THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES.  
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.



**INDEX OF SHEETS**

SHEET NO.	DESCRIPTION
UC-1	TITLE SHEET
UC-2	SYMBOLGY SHEET
UC-3	GENERAL NOTES SHEET
UC-4	UTILITY PLAN SHEET
UC-5	PROFILE SHEET

**WATER AND SEWER OWNERS ON PROJECT**

(1) WATER - MONTGOMERY COUNTY PUBLIC UTILITIES DEPARTMENT  
(2) SEWER - TOWN OF MT. GILEAD PUBLIC WORKS DEPARTMENT

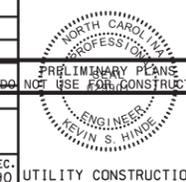
SEAL:

**HINDE ENGINEERING**  
License No. C-2639  
7520 E. Independence Blvd., Suite 230 Charlotte, NC 28227

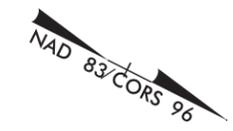
**DIVISION OF HIGHWAYS  
PROJECT SERVICES  
UTILITY SECTION**

1591 MAIL SERVICES CENTER  
RALEIGH, NC 27699-1591  
PHONE (919) 256-4128  
FAX (919) 256-4119

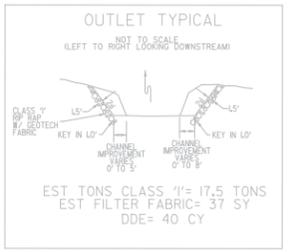
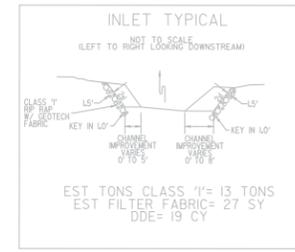
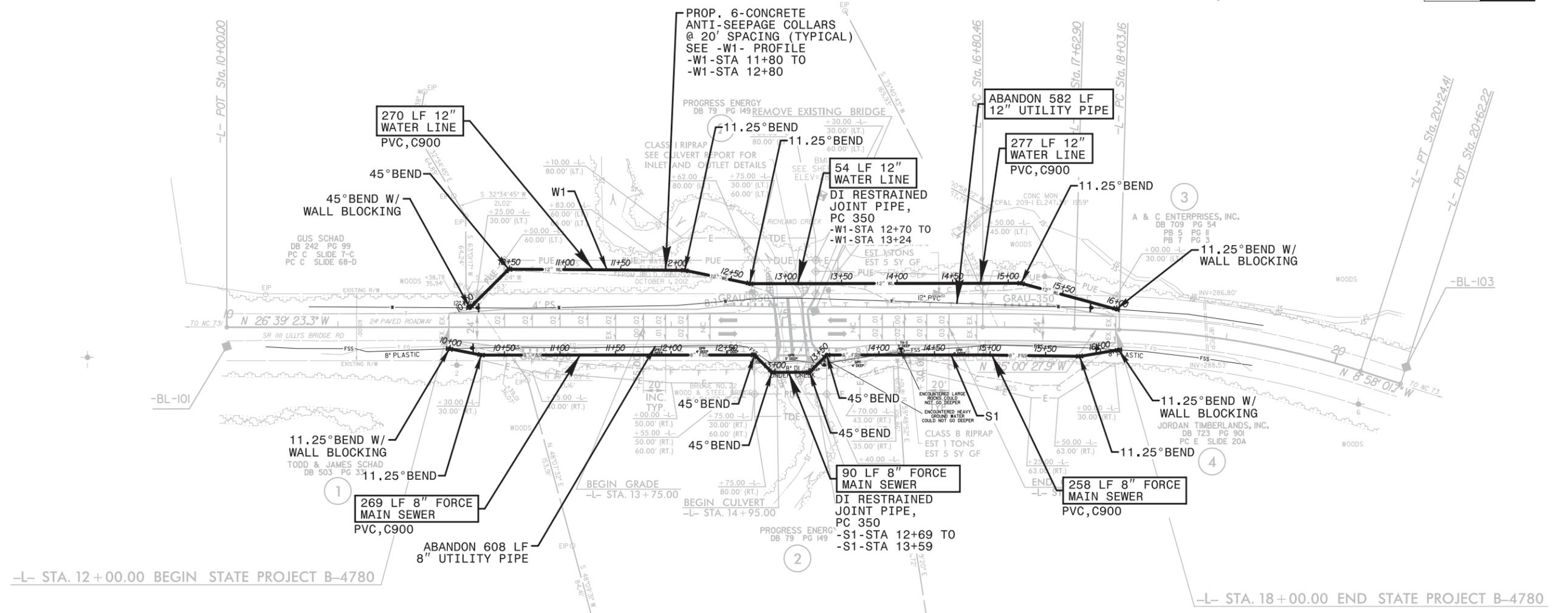
Roger Worthington, P.E. UTILITIES SECTION ENGINEER  
Steve Mckee, P.E. UTILITIES SQUAD LEADER PROJECT ENGINEER  
Don Proper UTILITIES PROJECT DESIGNER  
Kevin S. Hinde, P.E. HINDE ENGINEERING PROJECT ENGINEER

PROJECT REFERENCE NO. B-4780	SHEET NO. UC-4
DESIGNED BY: JNA	
DRAWN BY: JNA	
CHECKED BY: KSH	
APPROVED BY: [Signature]	
REVISED:	PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
UTILITY CONSTRUCTION PLANS ONLY	

**UTILITY CONSTRUCTION**

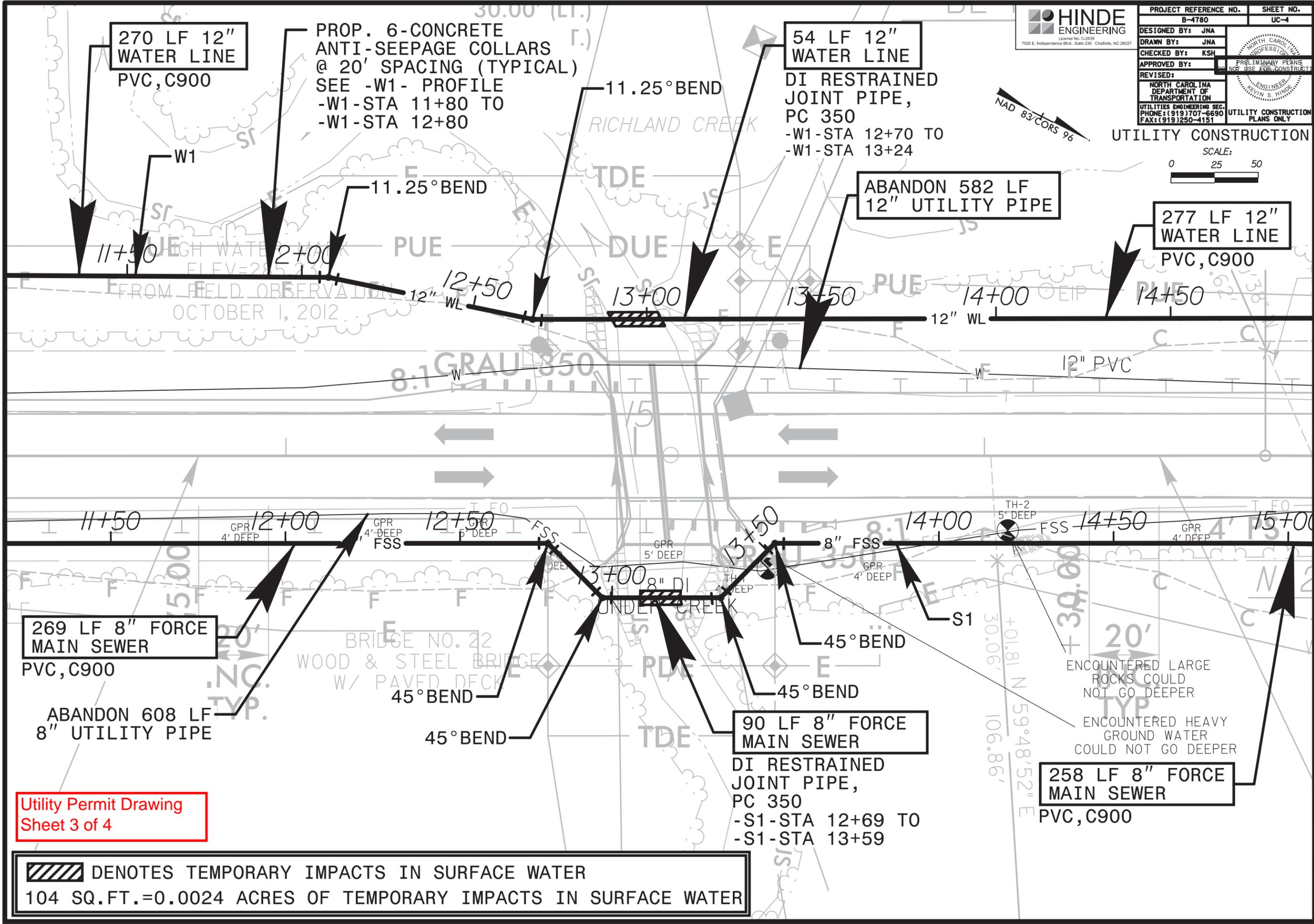


-L-	
PI Sta 17+21.68	PI Sta 19+14.51
$\Delta = 1^{\circ} 38' 55.4''$ (RT)	$\Delta = 16^{\circ} 02' 26.3''$ (RT)
$D = 2^{\circ} 00' 00.0''$	$D = 7^{\circ} 15' 00.0''$
$L = 82.44'$	$L = 221.25'$
$T = 41.22'$	$T = 111.35'$
$R = 2,864.79'$	$R = 790.29'$



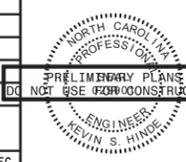
**HINDE ENGINEERING**  
 License No. C-2639  
 7520 E. Independence Blvd., Suite 230 Charlotte, NC 28227

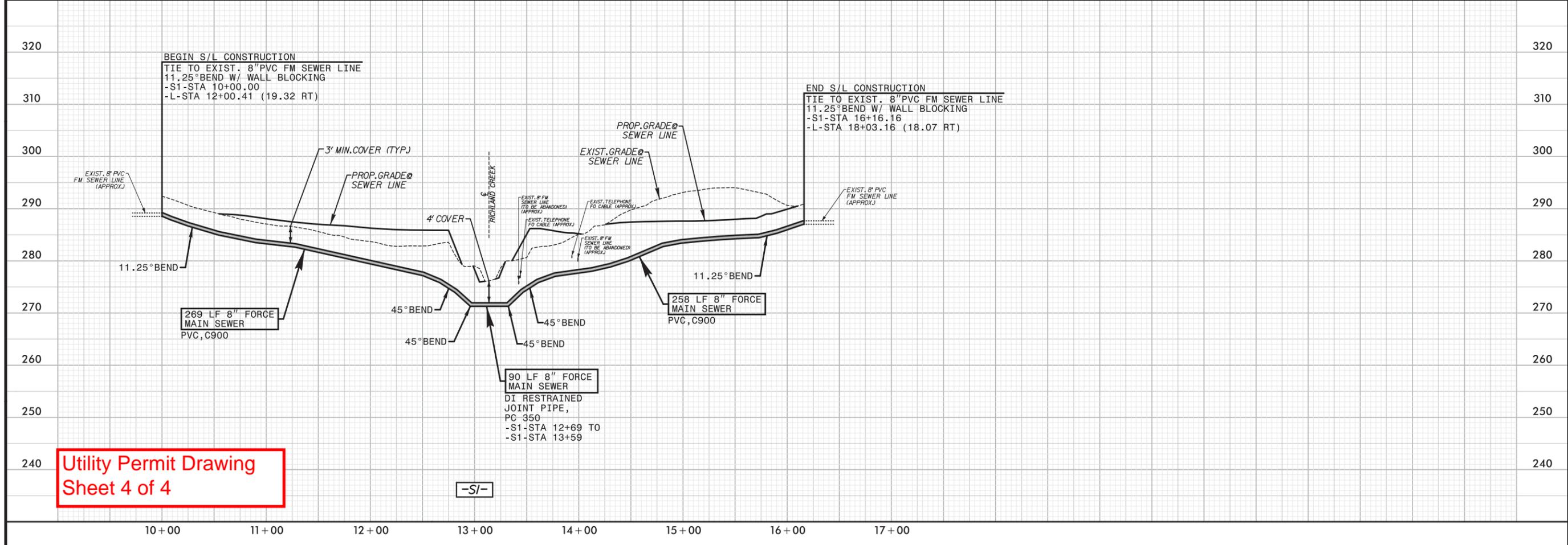
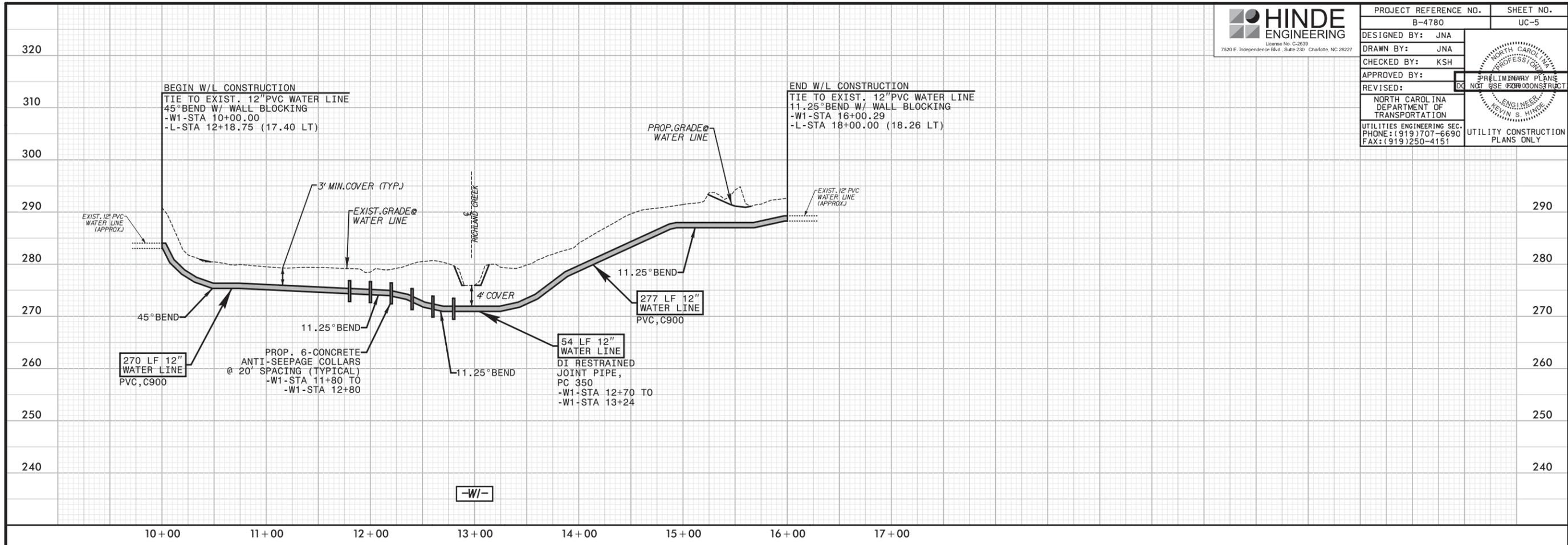
PROJECT REFERENCE NO. B-4780	SHEET NO. UC-4
DESIGNED BY: JNA	
DRAWN BY: JNA	
CHECKED BY: KSH	
APPROVED BY:	
REVISIONS:	UTILITY CONSTRUCTION PLANS ONLY
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SECTION PHONE: (919) 707-6690 FAX: (919) 250-4151	



Utility Permit Drawing  
 Sheet 3 of 4

DENOTES TEMPORARY IMPACTS IN SURFACE WATER  
 104 SQ.FT.=0.0024 ACRES OF TEMPORARY IMPACTS IN SURFACE WATER

PROJECT REFERENCE NO. B-4780	SHEET NO. UC-5
DESIGNED BY: JNA	
DRAWN BY: JNA	
CHECKED BY: KSH	
APPROVED BY:	
REVISED:	PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	UTILITY CONSTRUCTION PLANS ONLY



Utility Permit Drawing  
Sheet 4 of 4