



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

JOSH STEIN  
GOVERNOR

J.R. "JOEY" HOPKINS  
SECRETARY

August 21, 2025

MEMORANDUM TO: Division Environmental and Construction Units

FROM: *mat* Michael A. Turchy, ECAP Group Leader  
Environmental Analysis Unit

SUBJECT: Environmental Permits for the Replacement of Bridge 911473 on the South Turkey Creek Trail in Umstead State Park over Crabtree Creek in Wake County, Division 5, **WBS No. 30001.WIUM.002.**

Please find enclosed the following permits for this project:

Agency	Permit Type	Permit Expiration
US Army Corps of Engineers Section 404 Clean Water Act Permit	Nationwide Permit 3 [non-notifying]	March 14, 2026
NC Division of Water Resources Section 401 Water Quality Certification	Individual Certification No. 7946	March 14, 2026
NC Division of Water Resources Buffer Certification	Neuse River Riparian Buffer Certification	July 1, 2030

Work is authorized by the above referenced permit provided it is accomplished in strict accordance with the permitted plans. The Environmental Coordination and Permitting Group or the Division Environmental Office must be consulted if any deviation from the permit(s) is required.

The General Conditions and Certifications for Nationwide and Regional Permits can be referenced at:  
[https://xfer.services.ncdot.gov/pdea/PermIssued/\\_General\\_Conditions\\_and\\_Certifications/](https://xfer.services.ncdot.gov/pdea/PermIssued/_General_Conditions_and_Certifications/)

The Project Commitments "Greensheet" is located on the Preconstruction SharePoint Dashboard at:  
<https://connect.ncdot.gov/site/preconstruction>

**JOSH STEIN**  
Governor

**D. REID WILSON**  
Secretary

**RICHARD E. ROGERS, JR.**  
Director



July 1, 2025

Mr. Jamie J. Lancaster, PE  
Environmental Analysis Unit  
North Carolina Department of Transportation  
1598 Mail Service Center  
Raleigh, North Carolina, 27699-1598  
jjlancaster@ncdot.gov

Subject: 401 Water Quality Certification Pursuant to Section 401 of the Federal Clean Water Act with  
ADDITIONAL CONDITIONS for Proposed replacement of Bridge No. 91-1473 at Umstead State Park in  
Wake County, State Project No. 30001.WIUM.002  
NCDWR Project No. 20250717

Dear Mr. Lancaster:

Attached hereto is a copy of Certification No. 7946 issued to The North Carolina Department of Transportation (NCDOT) dated July 1, 2025.

This approval is for the purpose and design described in your application. The plans and specifications for this project are incorporated by reference as part of this Water Quality Certification. If you change your project, you must notify the Division and you may be required to submit a new application package with the appropriate fee. If the property is sold, the new owner must be given a copy of this Certification and is responsible for complying with all conditions. [15A NCAC 02H .0507(d)(2)]. This Certification does not relieve the permittee of the responsibility to obtain all other required Federal, State, or Local approvals before proceeding with the project, including those required by, but not limited to, Sediment and Erosion Control, Non-Discharge, Water Supply Watershed, and Trout Buffer regulations.

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

Sincerely,

Signed by:

*Susan Locklear*  
375CAE2BB9F540C...

Richard E. Rogers Jr, Director  
Division of Water Resources

Attachment

cc: Eric Alsmeyer, USACE Raleigh Regulatory Field Office (eric.c.alsmeyer@usace.army.mil)  
Robert Crowther, NCDOT Environmental Analysis Unit (recrowther@ncdot.gov)  
Heather Montague, NCDOT Division 5 Environmental Officer (hwmontague@ncdot.gov)  
File Copy



North Carolina Department of Environmental Quality | Division of Water Resources  
512 North Salisbury Street | 1650 Mail Service Center | Raleigh, North Carolina 27699-1650  
919.707.9000

#### 401 Water Quality Certification Pursuant to Section 401 of the Federal Clean Water Act with ADDITIONAL CONDITIONS

**THIS CERTIFICATION** is issued in conformity with the requirements of Section 401 Public Laws 92-500 and 95-217 of the United States and subject to the North Carolina Division of Water Resources (NCDWR) Regulations in 15 NCAC 2H .0500. This certification authorizes the NCDOT to impact 0.003 acres of jurisdictional wetlands and 86 linear feet of jurisdictional streams in Wake County. The project shall be constructed pursuant to the application dated received May 29, 2025. The authorized impacts are as described below:

##### Stream Impacts in the Neuse River Basin

Site	Riprap Stabilization to Perennial Stream (linear ft)	Temporary Impact to Perennial Stream (linear ft)	Total Stream Impact (linear ft)
<b>Total</b>	<b>56</b>	<b>30</b>	<b>86</b>

**Total Stream Impact for Project: 86 linear feet**

##### Wetland Impacts in the Neuse River Basin

Site	Mechanized Clearing (ac)	Total Wetland Impact (ac)
<b>Total</b>	<b>0.003</b>	<b>0.003</b>

**Total Wetland Impact for Project: 0.003 acres.**

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

This approval is only valid for the purpose and design that you submitted in your application dated received May 29, 2025. Should your project change, you are required to notify the NCDWR and submit a new application. If the property is sold, the new owner must be given a copy of this Certification and approval letter, and is thereby responsible for complying with all the conditions. If any additional wetland impacts, or stream impacts, for this project (now or in the future) exceed 0.1 acre or 300 linear feet, respectively, additional compensatory mitigation may be required as described in 15A NCAC 2H .0506 (h) (6) and (7).

For this approval to remain valid, you are required to comply with all the conditions listed below. In addition, you should obtain all other federal, state or local permits before proceeding with your project including (but not limited to) Sediment and Erosion control, Coastal Stormwater, Non-discharge and Water Supply watershed regulations. This Certification shall expire on the same day as the expiration date of the corresponding Corps of Engineers Permit.

This Water Quality Certification neither grants nor affirms any property right, license, or privilege in any lands or waters, or any right of use in any waters. This Water Quality Certification does not authorize any person to interfere with the riparian rights, littoral rights, or water use rights of any other person and does not create any prescriptive right or any right of priority regarding any usage of water. This Water Quality Certification shall not be interposed as a defense in any action respecting the determination of riparian or littoral rights or other rights to water use. No consumptive user is deemed by virtue of this Water Quality Certification to possess any prescriptive or other right of priority with respect to any other consumptive user regardless of the quantity of the withdrawal or the



date on which the withdrawal was initiated or expanded. Upon the presentation of proper credentials, the Division may inspect the property.

**Conditions of Certification:**

1. The post-construction removal of any temporary bridge structures must return the project site to its preconstruction contours and elevations. The impacted areas shall be revegetated with appropriate native species. [15A NCAC 02H .0506(b)(2)]
2. As a condition of this 401 Water Quality Certification, the bridge demolition and construction must be accomplished in strict compliance with the most recent version of NCDOT's Best Management Practices for Construction and Maintenance Activities. [15A NCAC 02H .0507(d)(2) and 15A NCAC 02H .0506(b)(5)]
3. No drill slurry or water that has been in contact with uncured concrete shall be allowed to enter surface waters. This water shall be captured, treated, and disposed of properly. [15A NCAC 02H .0506(b)(3)]
4. A turbidity curtain will be installed in the stream if driving or drilling activities occur within the stream channel, on the stream bank, or within 5 feet of the top of bank, or during the removal of bents from an old bridge. This condition can be waived with prior approval from the NCDWR. [15A NCAC 02H .0506(b)(3)]
5. Wetland areas impacted by temporary clearing shall be stabilized and reseeded with native wetland seed. [15A NCAC 02H.0506(b)]
6. If concrete is used during construction, a dry work area shall be maintained to prevent direct contact between curing concrete and stream water. Water that inadvertently contacts uncured concrete shall not be discharged to surface waters due to the potential for elevated pH and possible aquatic life and fish kills. [15A NCAC 02B.0200]
7. For any streams being impacted due to site dewatering activities, the site shall be graded to its preconstruction contours and revegetated with appropriate native species. [15A NCAC 02H.0506(b)(2)]
8. During the construction of the project, no staging of equipment of any kind is permitted in waters of the U.S., or protected riparian buffers. [15A NCAC 02H.0506(b)(2)]
9. The dimension, pattern and profile of the stream above and below the crossing shall not be modified. Disturbed floodplains and streams shall be restored to natural geomorphic conditions. [15A NCAC 02H.0506(b)(2)]
10. Any rip-rap placed for stream stabilization shall be placed in stream channels in such a manner that it does not impede aquatic life passage. [15A NCAC 02H.0506(b)(2)]
11. The Permittee shall ensure that the final design drawings adhere to the permit and to the permit drawings submitted for approval. [15A NCAC 02H .0507 (c) and 15A NCAC 02H .0506 (b)(2) and (c)(2)]
12. All work in or adjacent to stream waters shall be conducted in a dry work area. Approved BMP measures from the most current version of NCDOT Construction and Maintenance Activities manual such as sandbags, rock berms, cofferdams and other diversion structures shall be used to prevent excavation in flowing water. [15A NCAC 02H.0506(b)(3) and (c)(3)]
13. Heavy equipment shall be operated from the banks rather than in the stream channel in order to minimize sedimentation and reduce the introduction of other pollutants into the stream. [15A NCAC 02H.0506(b)(3)]
14. All mechanized equipment operated near surface waters must be regularly inspected and maintained to prevent contamination of stream waters from fuels, lubricants, hydraulic fluids, or other toxic materials. [15A NCAC 02H.0506(b)(3)]
15. No rock, sand or other materials shall be dredged from the stream channel except where authorized by this certification. [15A NCAC 02H.0506(b)(3)]



16. Discharging hydroseed mixtures and washing out hydroseeders and other equipment in or adjacent to surface waters is prohibited. [15A NCAC 02H.0506(b)(3)]

17. The permittee and its authorized agents shall conduct its activities in a manner consistent with State water quality standards (including any requirements resulting from compliance with §303(d) of the Clean Water Act) and any other appropriate requirements of State and Federal law. If the NCDWR determines that such standards or laws are not being met (including the failure to sustain a designated or achieved use) or that State or federal law is being violated, or that further conditions are necessary to assure compliance, the NCDWR may reevaluate and modify this certification. [15A NCAC 02B.0200]

18. A copy of this Water Quality Certification shall be maintained on the construction site at all times. In addition, the Water Quality Certification and all subsequent modifications, if any, shall be maintained with the Division Engineer and the on-site project manager. [15A NCAC 02H .0507(c) and 15A NCAC 02H .0506 (b)(2) and (c)(2)]

19. The outside buffer, wetland or water boundary located within the construction corridor approved by this authorization, including all non-commercial borrow and waste sites associated with the project, shall be clearly marked by highly visible fencing prior to any land disturbing activities. Impacts to areas within the fencing are prohibited unless otherwise authorized by this certification. [15A NCAC 02H.0501 and .0502]

20. The issuance of this certification does not exempt the Permittee from complying with any and all statutes, rules, regulations, or ordinances that may be imposed by other government agencies (i.e. local, state, and federal) having jurisdiction, including but not limited to applicable buffer rules, stormwater management rules, soil erosion and sedimentation control requirements, etc.

21. The Permittee shall report any violations of this certification to the Division of Water Resources within 24 hours of discovery. [15A NCAC 02B.0506(b)(2)]

22. Upon completion of the project (including any impacts at associated borrow or waste sites), the NCDOT Division Engineer shall complete and return the "Certification of Completion Form" to notify the NCDWR when all work included in the 401 Certification has been completed. [15A NCAC 02H.0507]

23. There shall be no excavation from, or waste disposal into, jurisdictional wetlands or waters associated with this permit without appropriate modification. Should waste or borrow sites, or access roads to waste or borrow sites, be located in wetlands or streams, compensatory mitigation will be required since that is a direct impact from road construction activities. [15A NCAC 02H.0506(b)(3) and (c)(3)]

24. Erosion control matting that incorporates plastic mesh and/or plastic twine shall not be used along streambanks or within jurisdictional wetlands. [15A NCAC 2H.0506; 15A NCAC 2H.0507]

25. Erosion and sediment control practices must be in full compliance with all specifications governing the proper design, installation and operation and maintenance of such Best Management Practices in order to protect surface waters standards [15A NCAC 02H.0506(b)(3) and (c)(3)]:

- a. The erosion and sediment control measures for the project must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Sediment and Erosion Control Planning and Design Manual*.
- b. The design, installation, operation, and maintenance of the sediment and erosion control measures must be such that they equal, or exceed, the requirements specified in the most recent version of the *North Carolina Sediment and Erosion Control Manual*. The devices shall be maintained on all construction sites, borrow sites, and waste pile (spoil) projects, including contractor-owned or leased borrow pits associated with the project.
- c. For borrow pit sites, the erosion and sediment control measures must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Surface Mining Manual*.
- d. The reclamation measures and implementation must comply with the reclamation in accordance with the requirements of the Sedimentation Pollution Control Act.





26. Sediment and erosion control measures shall not be placed in wetlands or surface waters, or within 5 feet of the top of bank, without prior approval from DWR. [15A NCAC 02H.0506(b)(3) and (c)(3)]

27. When applicable, all construction activities shall be performed and maintained in full compliance with G.S. Chapter 113A Article 4 (Sediment and Pollution Control Act of 1973). Regardless of applicability of the Sediment and Pollution Control Act, all projects shall incorporate appropriate Best Management Practices for the control of sediment and erosion so that no violations of state water quality standards, statutes, or rules occur. [15A NCAC 02H .0506(b)(3) and (c)(3) and 15A NCAC 02B .0200]

28. Design, installation, operation, and maintenance of all sediment and erosion control measures shall be equal to or exceed the requirements specified in the most recent version of the *North Carolina Sediment and Erosion Control Manual*, or for linear transportation projects, the *NCDOT Sediment and Erosion Control Manual*.

All devices shall be maintained on all construction sites, borrow sites, and waste pile (spoil) sites, including contractor-owned or leased borrow pits associated with the project. Sufficient materials required for stabilization and/or repair of erosion control measures and stormwater routing and treatment shall be on site at all times. For borrow pit sites, the erosion and sediment control measures shall be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Surface Mining Manual*. Reclamation measures and implementation shall comply with the reclamation in accordance with the requirements of the Sedimentation Pollution Control Act and the Mining Act of 1971.

If the project occurs in waters or watersheds classified as 303(d) Impaired Waters, then the sedimentation and erosion control designs shall comply with the requirements set forth in 15A NCAC 4B.0124, *Design Standards in Sensitive Watersheds*. [15A NCAC 02H.0506(b)(3) and (c)(3)]

This Certification shall become null and void unless the above conditions are made conditions of the Federal 404 and/or Coastal Area Management Act Permit. This Certification shall expire upon the expiration of the 404 or CAMA permit. Please be aware that impacting waters without first applying for and securing the issuance of a 401 Water Quality Certification violates Title 15A of the North Carolina Administrative Code (NCAC) 2H .0500. Title 15A NCAC 2H .0500 requires certifications pursuant to Section 401 of the Clean Water Act whenever construction or operation of facilities will result in a discharge into navigable waters, including wetlands, as described in 33 Code of Federal Regulations (CFR) Part 323. It also states any person desiring issuance of the State certification or coverage under a general certification required by Section 401 of the Federal Water Pollution Control Act shall file with the Director of the North Carolina Division of Water Quality. Violations of any condition herein set forth may result in revocation of this Certification and may result in criminal and/or civil penalties. Pursuant to G.S. 143-215.6A, these violations and any future violations are subject to a civil penalty assessment of up to a maximum of \$25,000.00 per day for each violation.

This approval and its conditions are final and binding unless contested [G.S. 143-215.5]. Please be aware that impacting waters without first applying for and securing the issuance of a 401 Water Quality Certification violates Title 15A of the North Carolina Administrative Code (NCAC) 2H .0500. Title 15A NCAC 2H .0500 requires certifications pursuant to Section 401 of the Clean Water Act whenever construction or operation of facilities will result in a discharge into navigable waters, including wetlands, as described in 33 Code of Federal Regulations (CFR) Part 323. It also states any person desiring issuance of the State certification or coverage under a general certification required by Section 401 of the Federal Water Pollution Control Act shall file with the Director of the North Carolina Division of Water Quality. Pursuant to G.S. 143-215.6A, these violations and any future violations are subject to a civil penalty assessment of up to a maximum of \$25,000.00 per day for each violation.

This Certification can be contested as provided in Chapter 150B of the North Carolina General Statutes by filing a Petition for a Contested Case Hearing (Petition) with the North Carolina Office of Administrative Hearings (OAH) **within sixty (60) calendar days**. Requirements for filing a Petition are set forth in Chapter 150B of the North Carolina General Statutes and Title 26 of the North Carolina Administrative Code. Additional information regarding



requirements for filing a Petition and Petition forms may be accessed at <http://www.ncoah.com/> or by calling the OAH Clerk's Office at (919) 431-3000.

A party filing a Petition must serve a copy of the Petition on:  
William F. Lane, General Counsel  
Department of Environmental Quality  
1601 Mail Service Center  
Raleigh, NC 27699-1601

If the party filing the Petition is not the permittee, then the party must also serve the recipient of the Certification in accordance with N.C.G.S 150B-23(a).

This the 1st day of July 2025

DIVISION OF WATER RESOURCES

Signed by:  
*Susan Locklear*  
375CAE2BB9F540C...

Richard E. Rogers, Jr, Director

WQC No. 7946



North Carolina Department of Environmental Quality | Division of Water Resources  
512 North Salisbury Street | 1650 Mail Service Center | Raleigh, North Carolina 27699-1650  
919.707.9000

**JOSH STEIN**  
Governor

**D. REID WILSON**  
Secretary

**RICHARD E. ROGERS, JR.**  
Director



July 1, 2025

DWR #20250717  
Wake County

Mr. Jamie J. Lancaster, PE  
Environmental Analysis Unit  
North Carolina Department of Transportation  
1598 Mail Service Center  
Raleigh, North Carolina, 27699-1598  
jjlanaster@ncdot.gov

**Subject: APPROVAL of NEUSE RIPARIAN BUFFER IMPACTS WITH ADDITIONAL CONDITIONS**  
PROJECT: Bridge No. 91-1473 at Umstead State Park, State Project No. 30001.WIUM.002

Dear Mr. Lancaster:

You have our approval for the impacts listed below for the purpose described in your application received by the Division of Water Resources (Division) on May 29, 2025. These impacts are covered by the Neuse Buffer Rules and the conditions listed below. Please note that you should get any other federal, state or local permits before proceeding with your project, including those required by (but not limited to) Sediment and Erosion Control, Non-Discharge, and Water Supply Watershed regulations. The following impacts are hereby approved, provided that all of the Conditions listed below and all of the conditions of the Neuse Buffer Rules are met. No other impacts are approved, including incidental impacts. [15A NCAC 02B.0611(b)(2)]

**Neuse Riparian Buffer Impacts**

Site	Zone 1 Impact (sq ft)	Zone 1 Buffer Mitigation Required (using 3:1 ratio)		Zone 2 Impact (sq ft)	Zone 2 Buffer Mitigation Required (using 1.5:1 ratio)
<b>Totals</b>	<b>1204</b>	<b>N/A</b>		<b>721</b>	<b>N/A</b>

\* n/a = Total for Site is less than 1/3 acre and 150 linear feet of impact, no mitigation required  
**Total Buffer Impact for Project: 1925 square feet.**



North Carolina Department of Environmental Quality | Division of Water Resources  
512 North Salisbury Street | 1650 Mail Service Center | Raleigh, North Carolina 27699-1650  
919.707.9000



This approval is for the purpose and design described in your application. The plans and specifications for this project are incorporated by reference as part of this Authorization Certificate. If you change your project, you must notify the Division and you may be required to submit a new application package. If the property is sold, the new owner must be given a copy of this Authorization Certificate and is responsible for complying with all conditions. [15A NCAC 02B.0611(b)(2)] If you are unable to comply with any of the conditions below, you must notify the DWR Transportation Permitting Branch within 24 hours (or the next business day if a weekend or holiday) from the time the permittee becomes aware of the circumstances.

The permittee shall report to the NC Division of Water Resources any noncompliance with the conditions of this Authorization Certificate and/or any violation of state regulated riparian buffer rules [15A NCAC 2B.0714]. Information shall be provided orally within 24 hours (or the next business day if a weekend or holiday) from the time the applicant became aware of the circumstances.

### Conditions of Approval:

1. All riparian buffers impacted by the placement of temporary fill or clearing activities shall be restored to the preconstruction contours and revegetated. Maintained buffers shall be permanently revegetated with non-woody species by the end of the growing season following completion of construction. For the purpose of this condition, maintained buffer areas are defined as areas within the transportation corridor that will be subject to regular NCDOT maintenance activities including mowing. The area with non-maintained buffers shall be permanently revegetated with native woody species before the next growing season following completion of construction. [15A NCAC 02B.0714]
2. Pursuant to 15A NCAC 2B.0714, sediment and erosion control devices shall not be placed in Zone 1 of any Neuse Buffer without prior approval by the NCDWR. At this time, the NCDWR has approved no sediment and erosion control devices in Zone 1, outside of the approved project impacts, anywhere on this project. Moreover, sediment and erosion control devices shall be allowed in Zone 2 of the buffers provided that Zone 1 is not compromised and that discharge is released as diffuse flow.
3. All stormwater runoff shall be directed as sheetflow through stream buffers at non-erosive velocities, unless otherwise approved by this certification. [15A NCAC 02B.0714]
4. Native riparian vegetation (i.e., trees and shrubs native to your geographic region) must be reestablished in the riparian areas within the construction limits of the project by the end of the growing season following completion of construction. [15A NCAC 02B.0714] & [15A NCAC 02B.0506(b)(2)]

This approval and its conditions are final and binding unless contested. [G.S. 143-215.5]

This Authorization Certificate can be contested as provided in Chapter 150B of the North Carolina General Statutes by filing a Petition for a Contested Case Hearing (Petition) with the North Carolina Office of Administrative Hearings (OAH) **within sixty (60) calendar days**. Requirements for filing a Petition are set forth in Chapter 150B of the North Carolina General Statutes and Title 26 of the North Carolina Administrative Code. Additional information regarding requirements for filing a Petition and Petition forms may be accessed at <http://www.ncoah.com/> or by calling the OAH Clerk's Office at (919) 431-3000.



One (1) copy of the Petition must also be served to the North Carolina Department of Environmental Quality:

William F. Lane, General Counsel  
Department of Environmental Quality  
1601 Mail Service Center  
Raleigh, NC 27699-1601

**This Authorization shall expire five (5) years from the date of this letter.**

This letter completes the review of the Division under the Neuse Riparian Buffer Rules as described in 15A NCAC 02B.0714. Please contact Rob Ridings at [rob.ridings@deq.nc.gov](mailto:rob.ridings@deq.nc.gov) or 919-707-8786 if you have any questions or concerns.

Sincerely,

Signed by:  
*Susan Locklear*  
375CAE2BB9F540C...

Richard E. Rogers, Jr., Director  
Division of Water Resources

cc: Eric Alsmeyer, USACE Raleigh Regulatory Field Office ([eric.c.alsmeyer@usace.army.mil](mailto:eric.c.alsmeyer@usace.army.mil))  
Robert Crowther, NCDOT Environmental Analysis Unit ([recrowther@ncdot.gov](mailto:recrowther@ncdot.gov))  
Heather Montague, NCDOT Division 5 Environmental Officer ([hwmontague@ncdot.gov](mailto:hwmontague@ncdot.gov))  
File Copy





## North Carolina Department of Transportation

Highway Stormwater Program  
STORMWATER MANAGEMENT PLAN

FOR NCDOT PROJECTS



(Version 3.02; Released April 23, 2024)

WBS Element: 30001.WIUM.002		TIP/Proj No: Umstead Bridge		County(ies): Wake		Page 1 of 2	
General Project Information							
WBS Element:		30001.WIUM.002		TIP Number:		Umstead Bridge	
NCDOT Contact:		Craig Lee, PE		Contractor / Designer:			
Address:		1020 Birch Ridge Dr Raleigh, NC, 27610		Address:			
Phone:				Phone:			
Email:		cilee@ncdot.gov		Email:			
City/Town:		Raleigh, NC		County(ies):		Wake	
River Basin(s):		Neuse		CAMA County?		No	
Wetlands within Project Limits?		No					
Project Description							
Project Length (lin. miles or feet):		.023 miles		Surrounding Land Use:		State Park/Residential	
		Proposed Project		Existing Site			
Project Built-Up Area (ac.)		0.1 ac.		0.1 ac.			
Typical Cross Section Description:		15' wide bridge w/ standard timber railing		26' wide bridge w/ standard timber railing			
Annual Avg Daily Traffic (veh/hr/day):		Design/Future: N/A		Year:		Existing: Year:	
General Project Narrative: (Description of Minimization of Water Quality Impacts)		This project involves the removal and replacement of bridge 911473 over Crabtree Creek. This is a greenway bridge located on South Turkey Creek Trail in Umstead State Park. Since this is a greenway bridge, there are only pedestrians and cyclists. This bridge is a replace in kind and will be extended 2' on either end. The roadway grade and interior bents will be retained. The bridge will have 2'6" end bent caps with 1.5:1 rip-rap sloping abutments. Both banks will be stabilized with class-II rip-rap.					



## North Carolina Department of Transportation

Highway Stormwater Program  
STORMWATER MANAGEMENT PLAN  
FOR NCDOT PROJECTS

(Version 3.02; Released April 23, 2024)

WBS Element: 30001.WIUM.002 TIP/Proj No.: Umstead Bridge County(ies): Wake Page 2 of 2

## General Project Information

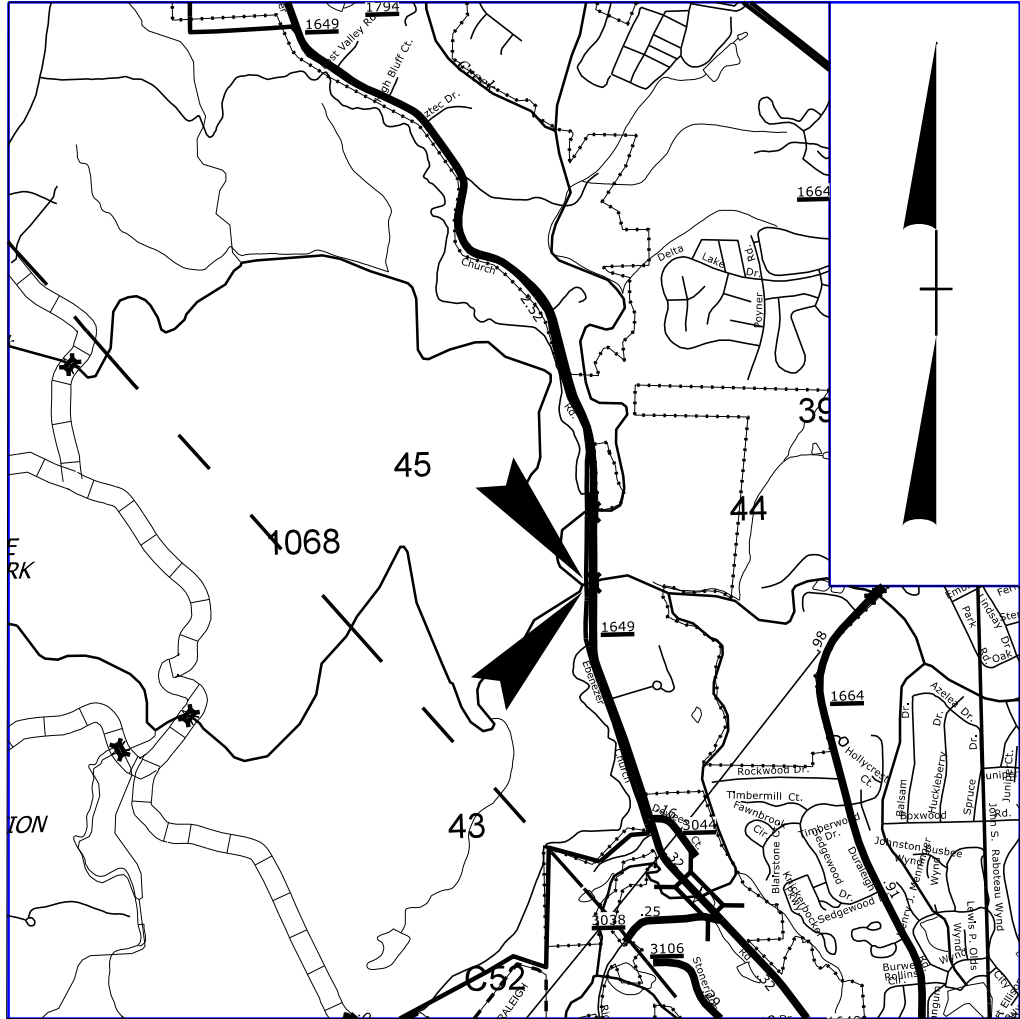
## Waterbody Information

Surface Water Body (1):	Crabtree Creek		NCDWR Stream Index No.:	27-33-(3.5)	
NCDWR Surface Water Classification for Water Body	Primary Classification:		Class B		
	Supplemental Classification:		Nutrient Sensitive Waters (NSW)		
Other Stream Classification:	None				
Impairments:	None				
Aquatic T&E Species?	No	Comments:			
NRTR Stream ID:			Buffer Rules in Effect:	Neuse	
Project Includes Bridge Spanning Water Body?	No	Deck Drains Discharge Over Buffer?	No	Dissipator Pads Provided in Buffer?	No
Deck Drains Discharge Over Water Body?	No	(If yes, provide justification in the General Project Narrative)		(If yes, describe in the General Project Narrative; if no, justify in the General Project Narrative)	
(If yes, provide justification in the General Project Narrative)					
Surface Water Body (2):			NCDWR Stream Index No.:		
NCDWR Surface Water Classification for Water Body	Primary Classification:				
	Supplemental Classification:				
Other Stream Classification:					
Impairments:					
Aquatic T&E Species?		Comments:			
NRTR Stream ID:			Buffer Rules in Effect:		
Project Includes Bridge Spanning Water Body?		Deck Drains Discharge Over Buffer?		Dissipator Pads Provided in Buffer?	
Deck Drains Discharge Over Water Body?		(If yes, provide justification in the General Project Narrative)		(If yes, describe in the General Project Narrative; if no, justify in the General Project Narrative)	
(If yes, provide justification in the General Project Narrative)					
Surface Water Body (3):			NCDWR Stream Index No.:		
NCDWR Surface Water Classification for Water Body	Primary Classification:				
	Supplemental Classification:				
Other Stream Classification:					
Impairments:					
Aquatic T&E Species?		Comments:			
NRTR Stream ID:			Buffer Rules in Effect:		
Project Includes Bridge Spanning Water Body?		Deck Drains Discharge Over Buffer?		Dissipator Pads Provided in Buffer?	
Deck Drains Discharge Over Water Body?		(If yes, provide justification in the General Project Narrative)		(If yes, describe in the General Project Narrative; if no, justify in the General Project Narrative)	
(If yes, provide justification in the General Project Narrative)					

TIP PROJECT:

CONTRACT:

See Sheet 1A For Index of Sheets



VICINITY MAP (NTS)

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

WAKE COUNTY

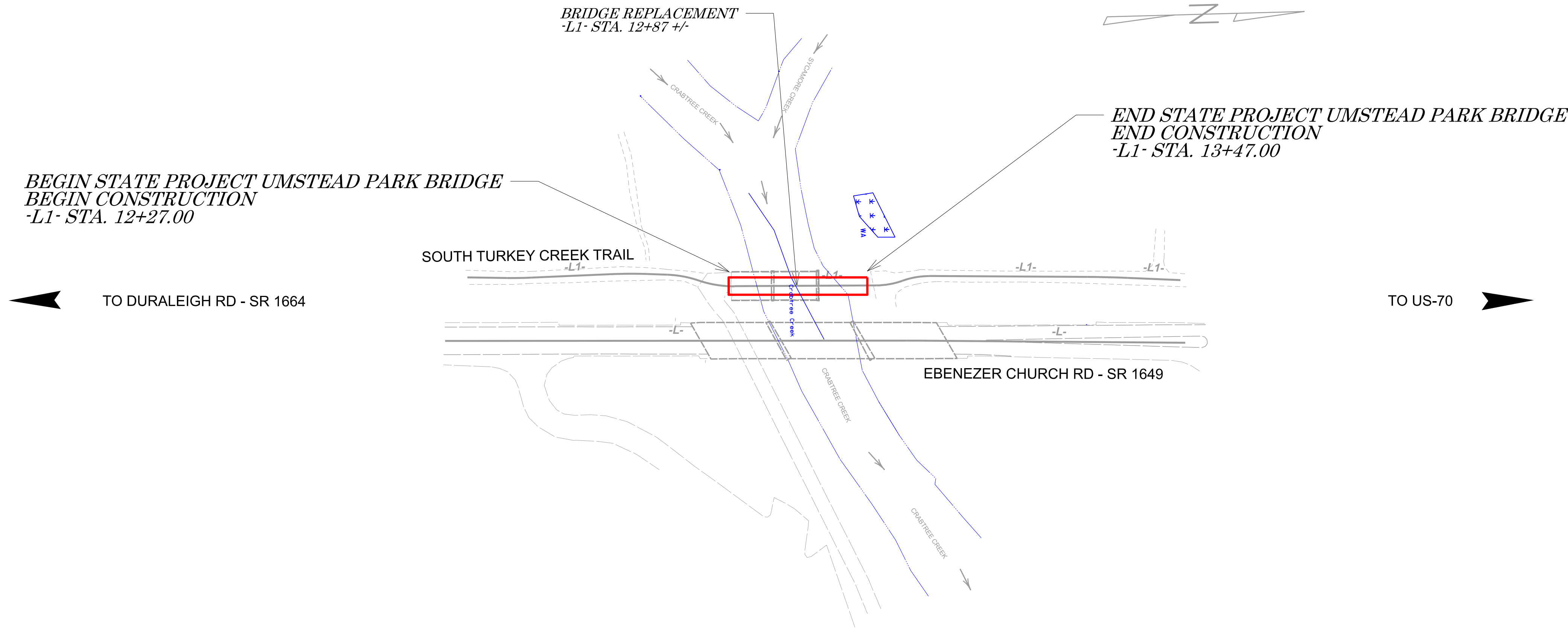
LOCATION: *BRIDGE 91-1473 OVER CRABTREE CREEK*  
*UMSTEAD STATE PARK*  
*SOUTH TURKEY CREEK TRAIL*

TYPE OF WORK: *IN KIND BRIDGE REPLACEMENT*

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	30001.WIUM.002	11	
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	

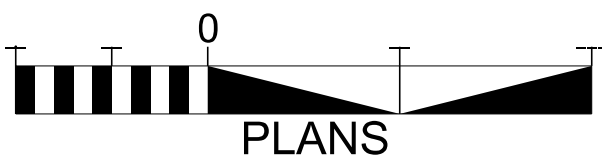
PERMIT DRAWING  
SHEET 1 OF 6

WETLAND AND SURFACE WATER IMPACTS PERMIT



INCOMPLETE PLANS  
DO NOT USE FOR R/W ACQUISITION  
DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED

GRAPHIC SCALES



PROJECT LENGTH

LENGTH OF ROADWAY UMSTEAD PARK BRIDGE = 0.00 MILES  
LENGTH OF STRUCTURE UMSTEAD PARK BRIDGE = 0.023 MILE  
TOTAL LENGTH OF UMSTEAD PARK BRIDGE = 0.023 MILES

Prepared in the Office of:

**DIVISION OF HIGHWAYS**  
1000 Birch Ridge Dr., Raleigh NC, 27610

2024 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:

LETTING DATE:  
NOVEMBER 18, 2025

Sara Sherman, PE  
PROJECT ENGINEER

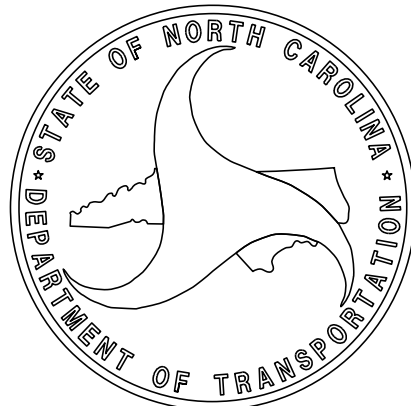
PROJECT DESIGN ENGINEER

Sara Sherman, PE  
NCDOT CONTACT

HYDRAULICS ENGINEER

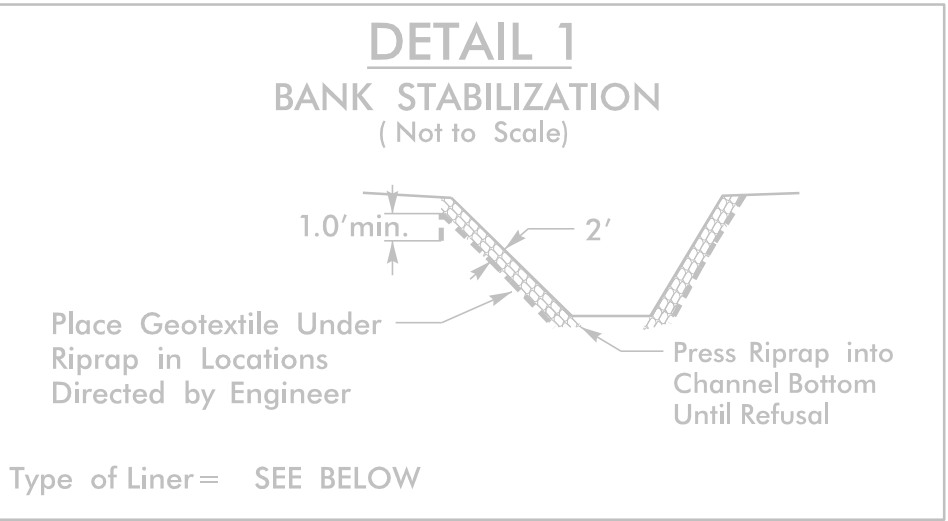
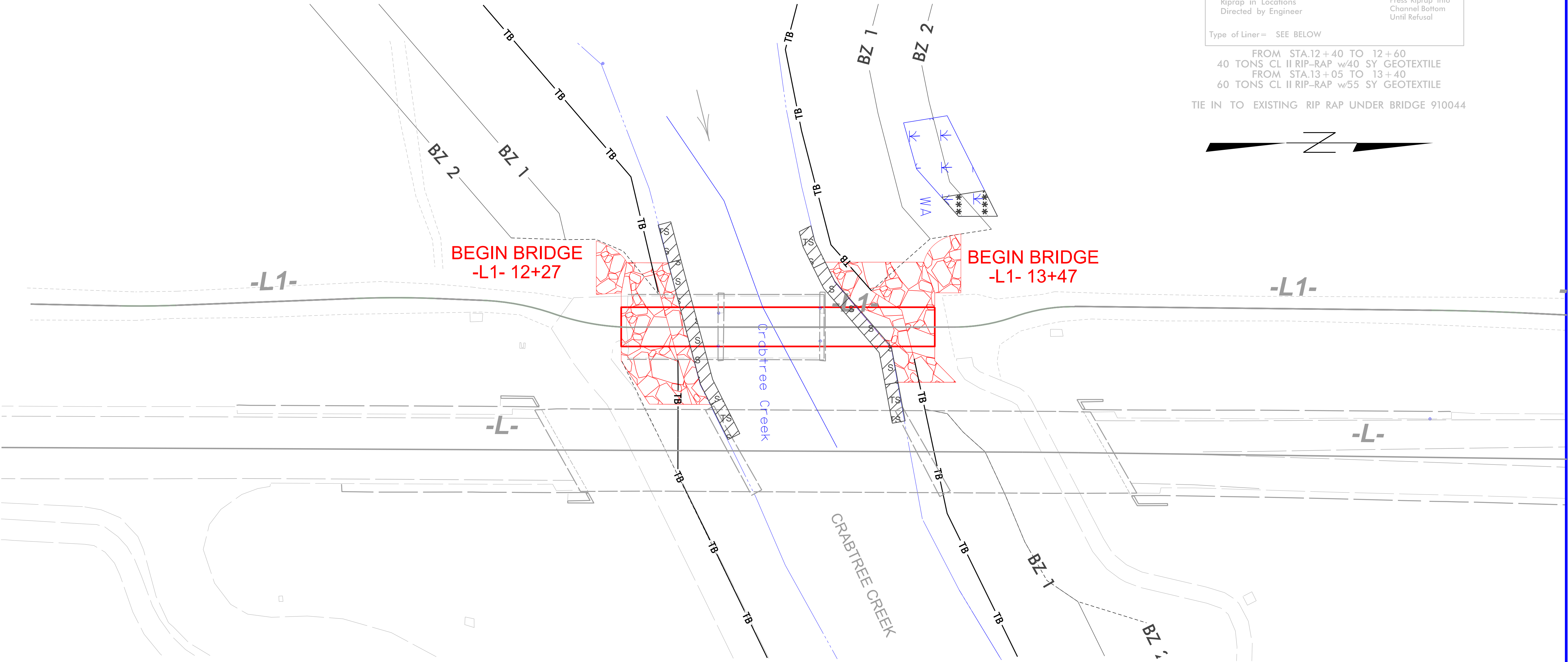
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ROADWAY DESIGN ENGINEER

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

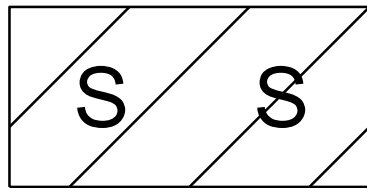
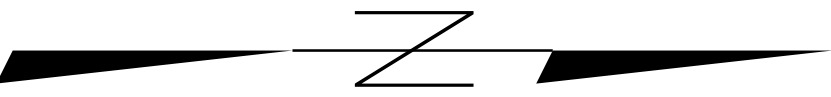




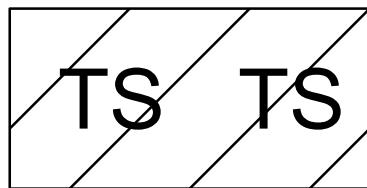
PERMIT DRAWING  
SHEET 2 OF 6



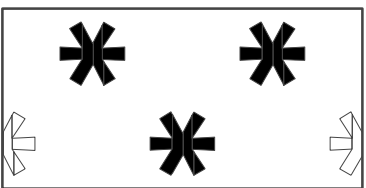
FROM STA.12+40 TO 12+60  
40 TONS CL II RIP-RAP w/40 SY GEOTEXTILE  
FROM STA.13+05 TO 13+40  
60 TONS CL II RIP-RAP w/55 SY GEOTEXTILE  
TIE IN TO EXISTING RIP RAP UNDER BRIDGE 910044



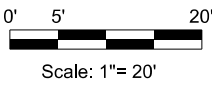
SURFACE WATER IMPACTS



TEMPORARY SURFACE WATER IMPACTS

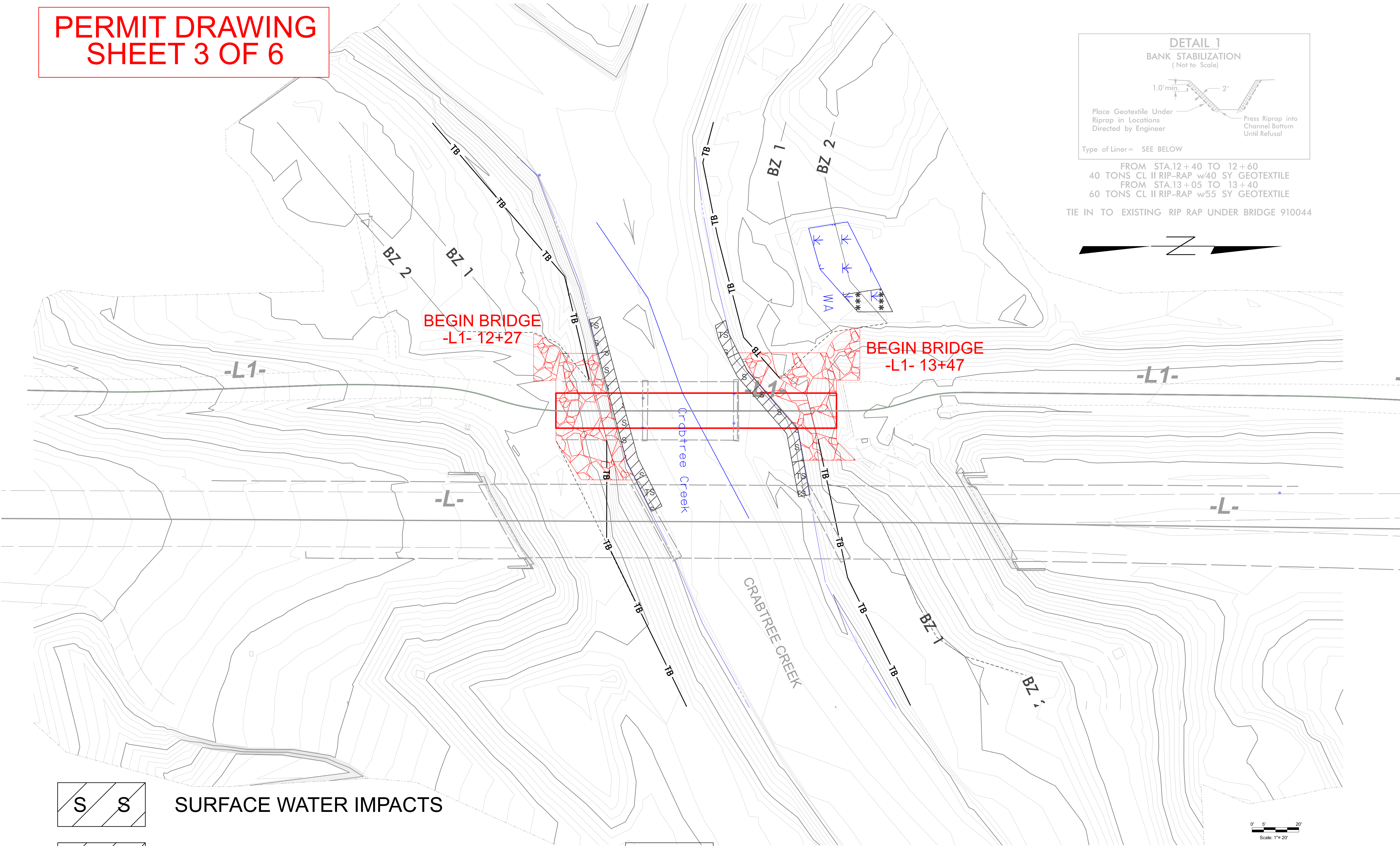


MECHANIZED CLEARING (GRUBBING)





PERMIT DRAWING  
SHEET 3 OF 6



**DETAIL 1**  
BANK STABILIZATION  
(Not to Scale)

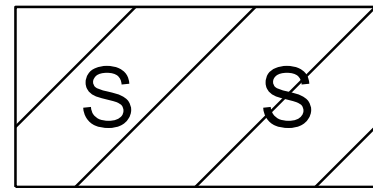
1.0' min. 2'

Place Geotextile Under Riprap in Locations Directed by Engineer

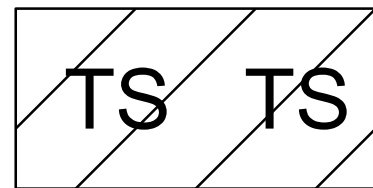
Press Riprap into Channel Bottom Until Refusal

Type of Liner= SEE BELOW

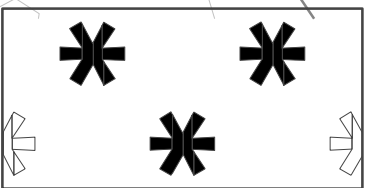
FROM STA.12+40 TO 12+60  
40 TONS CL II RIP-RAP w/40 SY GEOTEXTILE  
FROM STA.13+05 TO 13+40  
60 TONS CL II RIP-RAP w/55 SY GEOTEXTILE  
TIE IN TO EXISTING RIP RAP UNDER BRIDGE 910044



SURFACE WATER IMPACTS



TEMPORARY SURFACE WATER IMPACTS



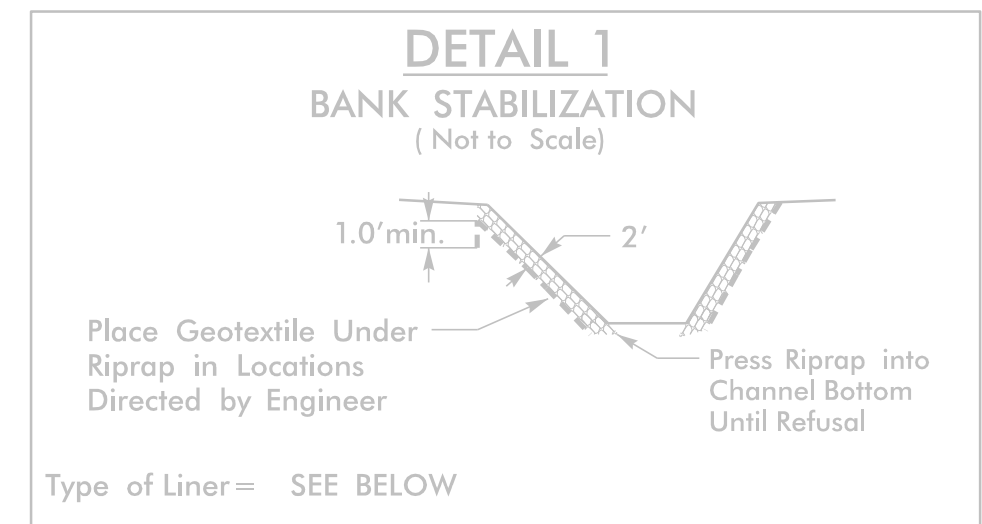
MECHANIZED CLEARING (GRUBBING)



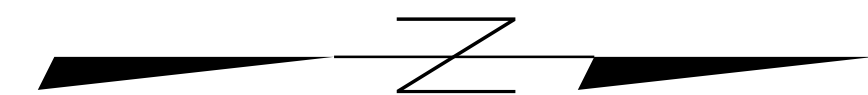
PERMIT DRAWING  
SHEET 4 OF 6

BEGIN BRIDGE  
-L1- 12+27

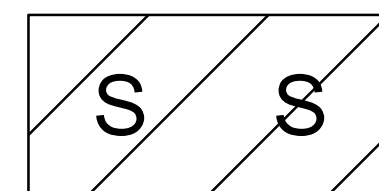
BEGIN BRIDGE  
-L1- 13+47



FROM STA.12+40 TO 12+60  
40 TONS CL II RIP-RAP w/40 SY GEOTEXTILE  
FROM STA.13+05 TO 13+40  
60 TONS CL II RIP-RAP w/55 SY GEOTEXTILE  
TIE IN TO EXISTING RIP RAP UNDER BRIDGE 910044



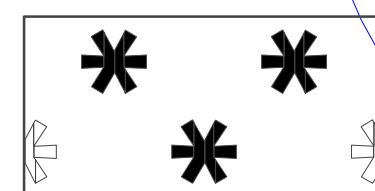
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Scale: 1"= 10'



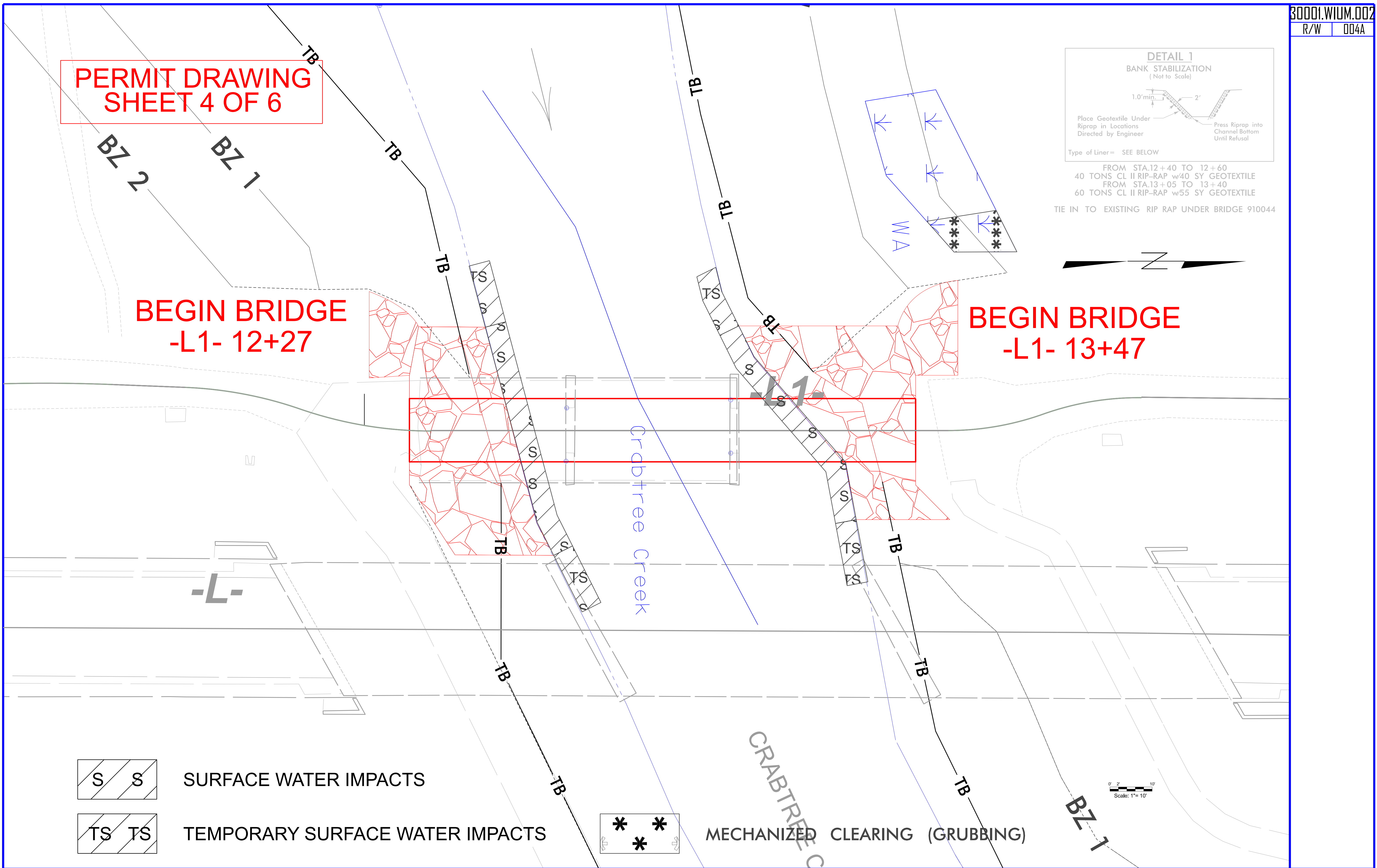
SURFACE WATER IMPACTS



TEMPORARY SURFACE WATER IMPACTS

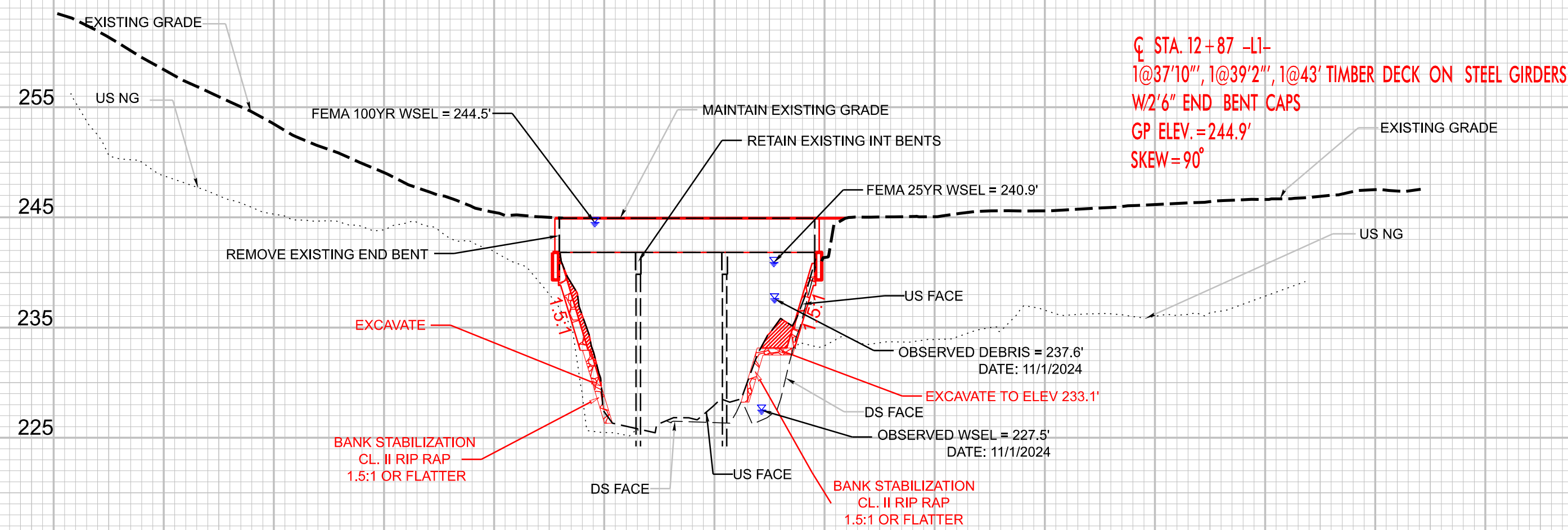


MECHANIZED CLEARING (GRUBBING)



PERMIT DRAWING  
SHEET 5 OF 6

PROJECT REFERENCE NO.	SHEET NO.
30001.WIUM.002	5
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



## WETLAND AND SURFACE WATER IMPACTS SUMMARY

			WETLAND IMPACTS					SURFACE WATER IMPACTS				
Site No.	Station (From/To)	Structure Size / Type	Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
1	12+87	Bank Stabilization						0.01	< 0.01	56	30	
1	13+50, 49' L to 13+78, 40' L	Construction Access				< 0.01						
TOTALS*:						< 0.01		0.01	< 0.01	56	30	0

\*Rounded totals are sum of actual impacts

NOTES:

NC DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
5/14/2025  
Wake  
30001.WIUM.002

30001.WIUM.002

SHEET

6

OF

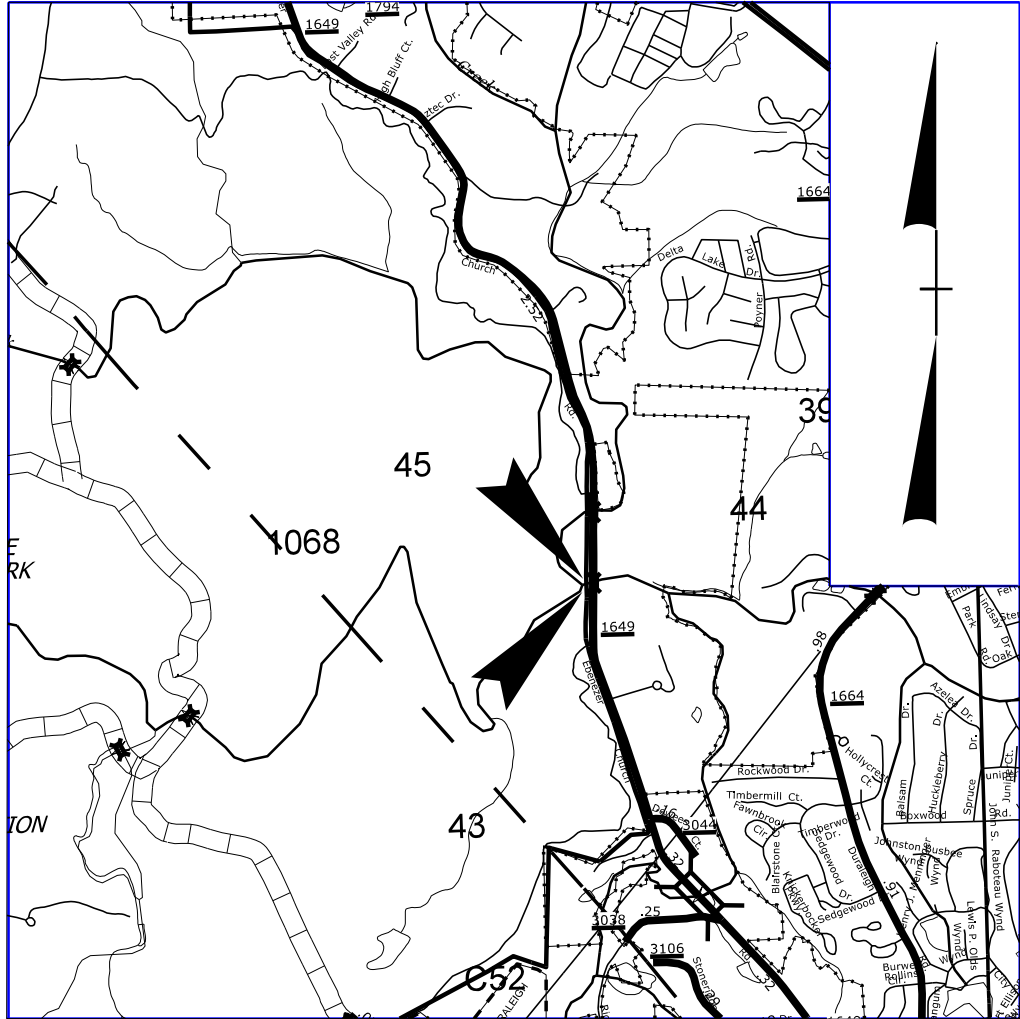
5



TIP PROJECT:

CONTRACT:

See Sheet 1A For Index of Sheets



VICINITY MAP (NTS)

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

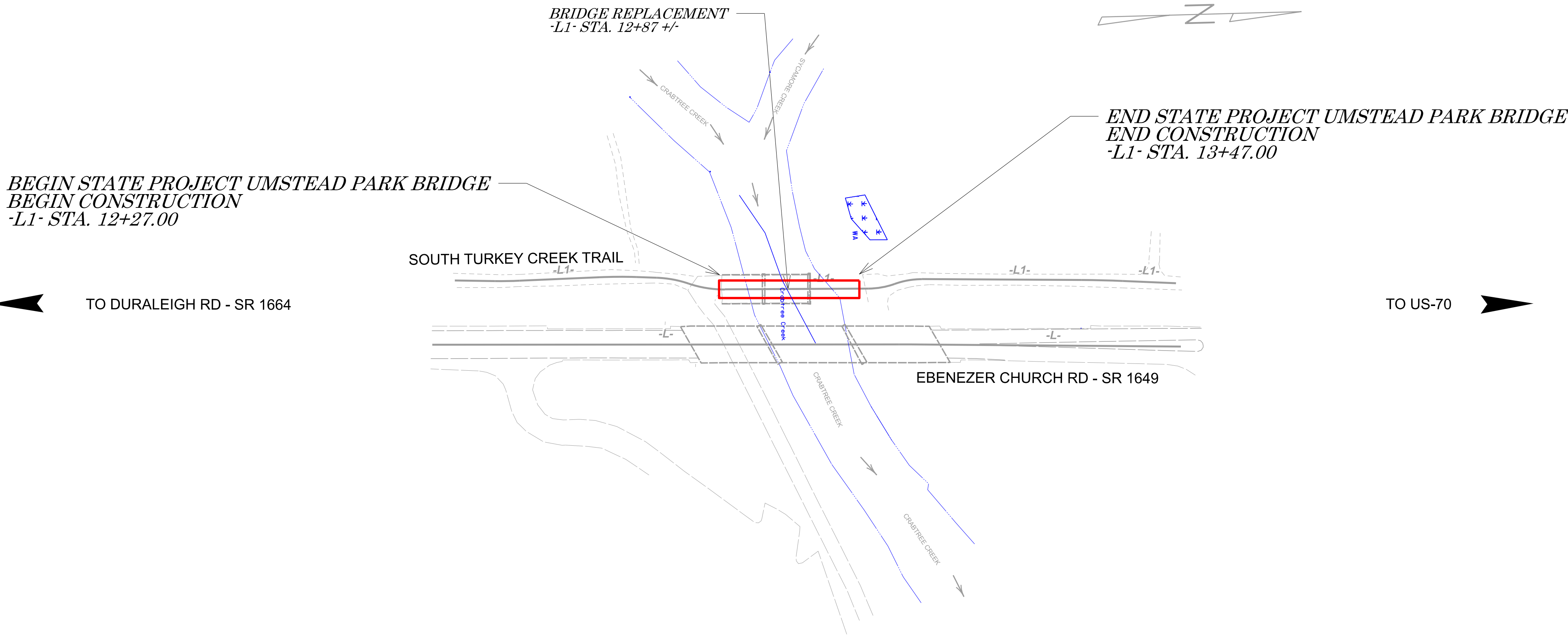
WAKE COUNTY

LOCATION: *BRIDGE 91-1473 OVER CRABTREE CREEK*  
*UMSTEAD STATE PARK*  
*SOUTH TURKEY CREEK TRAIL*

TYPE OF WORK: *IN KIND BRIDGE REPLACEMENT*

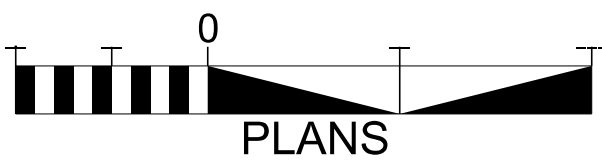
BUFFER IMPACTS PERMIT

PERMIT DRAWING  
SHEET 1 OF 6



INCOMPLETE PLANS  
DO NOT USE FOR R/W ACQUISITION  
DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED

GRAPHIC SCALES



PLANS



PROFILE (HORIZONTAL)



PROFILE (VERTICAL)

PROJECT LENGTH

LENGTH OF ROADWAY UMSTEAD PARK BRIDGE = 0.00 MILES  
LENGTH OF STRUCTURE UMSTEAD PARK BRIDGE = 0.023 MILE  
TOTAL LENGTH OF UMSTEAD PARK BRIDGE = 0.023 MILES

Prepared in the Office of:

DIVISION OF HIGHWAYS

1000 Birch Ridge Dr., Raleigh NC, 27610

2024 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:

LETTING DATE:  
NOVEMBER 18, 2025

Sara Sherman, PE  
PROJECT ENGINEER

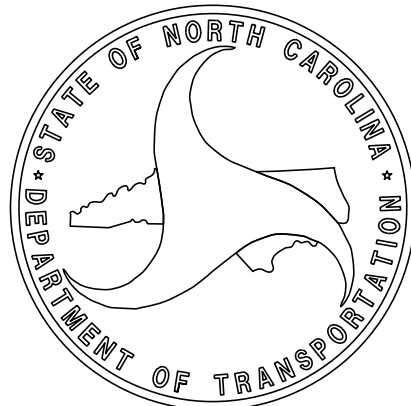
PROJECT DESIGN ENGINEER

Sara Sherman, PE  
NCDOT CONTACT

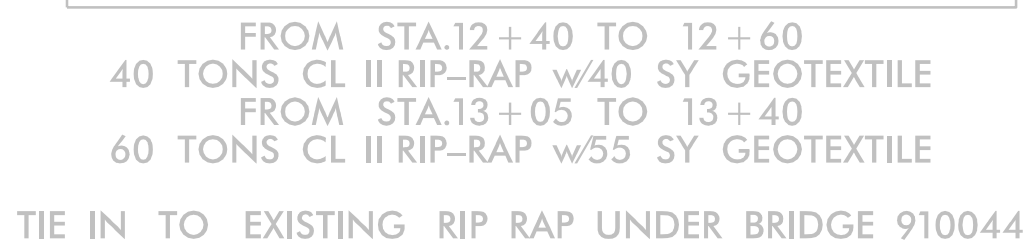
HYDRAULICS ENGINEER

SIGNATURE: \_\_\_\_\_  
ROADWAY DESIGN ENGINEER

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



A diagram illustrating the flow of water from two tributaries into a main channel. On the left, a line labeled "CRABTREE CREEK" with an arrow pointing down and to the right joins the main channel. On the right, a line labeled "SYCAMORE CREEK" with an arrow pointing down and to the left joins the main channel. The main channel is represented by a horizontal line with an arrow pointing to the right.



BEGIN BRIDGE  
-L1- 13+47

**-L1-**

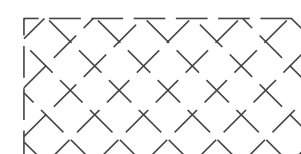
**-L1.**

- 1.


**L**



Crotree Creek



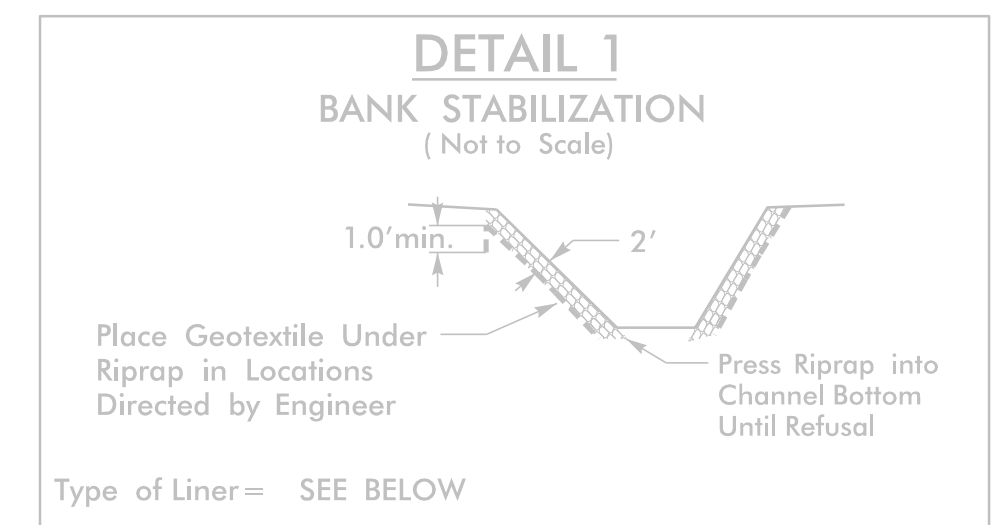
0' 5'



Scale: 1" = 20'



PERMIT DRAWING  
SHEET 3 OF 6



FROM STA.12+40 TO 12+60  
40 TONS CL II RIP-RAP w/40 SY GEOTEXTILE  
FROM STA.13+05 TO 13+40  
60 TONS CL II RIP-RAP w/55 SY GEOTEXTILE

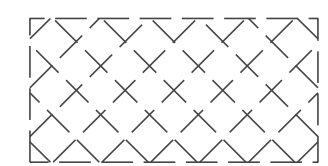
NE IN TO EXISTING RIP RAP UNDER BRIDGE 910044

BEGIN BRIDGE  
-L1- 12+27

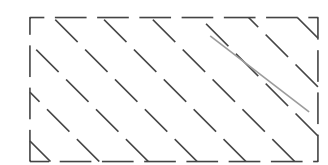
BEGIN BRIDGE  
-L1- 13+47

-L1-

Creditree Creek



ALLOWABLE IMPACTS ZONE 1



ALLOWABLE IMPACTS ZONE 2

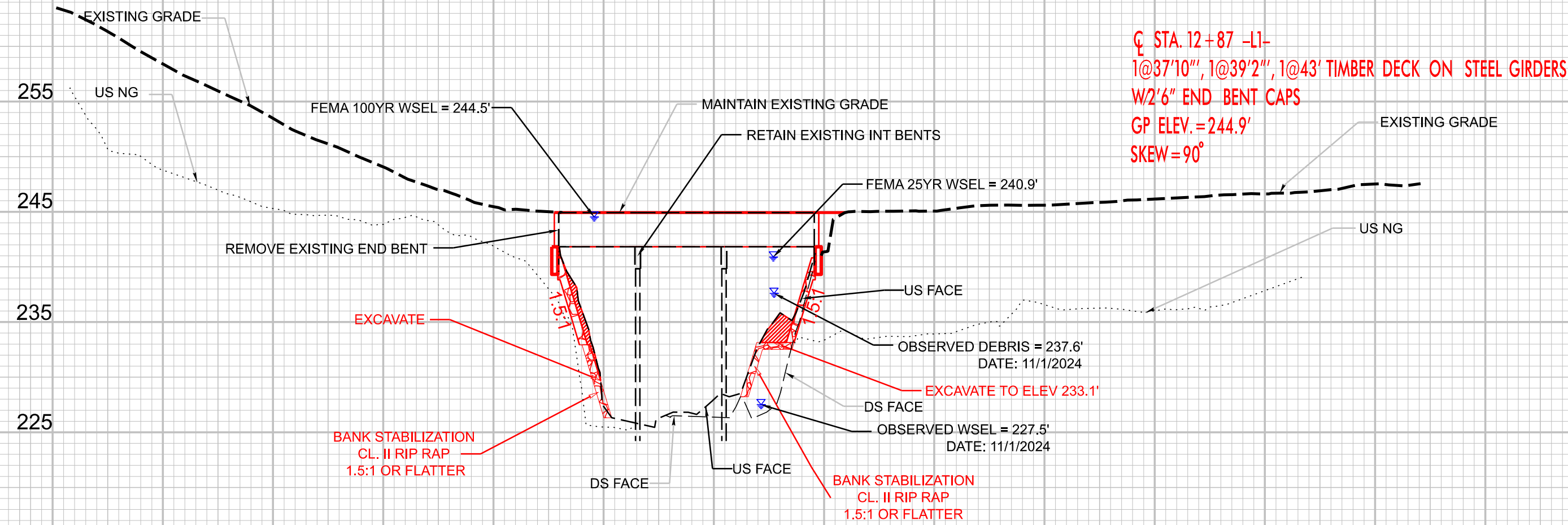
0' 2' 10'  
Scale: 1"= 10'

5/14/99

5/14/99

PERMIT DRAWING  
SHEET 4 OF 6

PROJECT REFERENCE NO.	SHEET NO.
30001.WIUM.002	5
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
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PERMIT DRAWING  
SHEET 5 OF 6

[illegible]

NOTES:

NC DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
5/14/2025  
Wake

30001.WIUM.002

SHEET 5 OF 6

# PERMIT DRAWING SHEET 6 OF 6

## WETLANDS IN BUFFER IMPACTS SUMMARY

SITE NO.	STATION (FROM/TO)		WETLANDS IN BUFFERS	
			ZONE 1 (ft <sup>2</sup> )	ZONE 2 (ft <sup>2</sup> )
1	13+50, 49' LT to 13+78, 40' LT			65
TOTAL:			0	65

NC DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
5/14/2025  
Wake

30001.WIUM.002  
SHEET 6 OF 6