



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

JOSH STEIN
GOVERNOR

DANIEL H. JOHNSON
SECRETARY

January 29, 2026

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:
Replacement of Bridge 198 over Clear Creek on SR 1614/ Waters Road in
Henderson County, Division 14, WBS DF18314.2045318

Please find enclosed the following permits for this project:

Agency	Permit Type	Expiration
US Army Corps of Engineers Section 404 Clean Water Act Permit	Nationwide Permit 3 <i>Written authorization not required.</i>	March 14, 2026*
NC Division of Water Resources Section 401 Water Quality Certification	Individual Water Quality Certification Project ID: 20250056 Dated January 26, 2026	expires with above Permit

Work is authorized by the above-referenced documents and must be accomplished in strict accordance with the permitted plans.

The Environmental Coordination and Permitting Group (ECAP) or the Division Environmental Office must be consulted if any deviation from the permit(s) or accompanying drawings is required.

*All 404 Nationwide Permits expire on March 14, 2026. Since new Nationwide Permits are not issued until the previous set expires, a one-year period exists between March 14, 2026, and March 14, 2027 to complete construction, or renew the permit under the new Nationwide Permit.

ECAP will coordinate with Division Environmental Staff to determine project completion timelines and initiate the renewal process, if necessary.

Mailing Address:
NC DEPARTMENT OF TRANSPORTATION
ENVIRONMENTAL ANALYSIS UNIT
1598 MAIL SERVICE CENTER
RALEIGH NC 27699-1598

Telephone: (919) 707-6000
Customer Service: 1-877-368-4968
Website: www.ncdot.gov

Location:
1000 BIRCH RIDGE DRIVE
RALEIGH NC 27610

404 Permit (USACE)

*Written
Authorization
Not Required*

401

Certification
(NCDWR)



NORTH CAROLINA
Environmental Quality

JOSH STEIN
Governor

D. REID WILSON
Secretary

RICHARD E. ROGERS, JR.
Director

January 26, 2026

DWR # 20260056
Henderson County

North Carolina Department of Transportation
Attn: Michael Turchy
1598 Mail Service Center
Raleigh, North Carolina, 27699

Delivered via email to: maturchy@ncdot.gov

Subject: Approval of Individual 401 Water Quality Certification

Replace Bridge 198 over Clear Creek on SR 1614 (Waters Road), WBS
DF18314.2045318

Location: 35.424627, -82.344455

Dear Mr. Michael Turchy:

Attached hereto is a copy of Certification No. WQC008670 issued to Michael Turchy and the North Carolina Department of Transportation, dated January 26, 2026. This approval is for the purpose and design described in your application.

This Water Quality 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.

Upon the presentation of proper credentials, the Division of Water Resources (Division) may inspect the property.

This Water Quality Certification shall expire on the same day as the expiration date of the corresponding Section 404 Permit that is current at the time this Certification is issued. The conditions shall remain in effect for the life of the project, regardless of the expiration date of this Water Quality Certification.

Non-compliance with or violation of the conditions herein set forth may result in revocation of this Water Quality Certification for the project and may also result in criminal and/or civil penalties.

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



North Carolina Department of Environmental Quality | Division of Water Resources
512 North Salisbury Street | 1617 Mail Service Center | Raleigh, North Carolina 27699-1617
919.707.9000

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 <https://www.oah.nc.gov> 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:

Dan Hirschman, 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 letter completes the Division's review under Section 401 of the Clean Water Act and 15A NCAC 02H .0500. Please contact Amy Annino at 828-296-4668 or amy.annino@deq.nc.gov if you have any questions or concerns.

Sincerely,

Signed by:



3185423002EA45E...
Faith Hardin, Supervisor
401 & Buffer Transportation Permitting Branch

Electronic cc: Crystal Amschler, USACE Asheville Regulatory Field Office
Kevin Mitchell, Division 14
Holland Youngman, USFWS
Dave McHenry, NCWRC
DWR 401 & Buffer Permitting Branch Electronic file

Filename: 20260056_Replace Bridge 198 over Clear Creek_Appvl_20260125.docx



North Carolina Department of Environmental Quality | Division of Water Resources
512 North Salisbury Street | 1617 Mail Service Center | Raleigh, North Carolina 27699-1617
919.707.9000

NORTH CAROLINA 401 WATER QUALITY CERTIFICATION

CERTIFICATION #WQC008670 is issued in conformity with the requirements of Section 401, Public Laws 92-500 and 95-217 of the United States and subject to North Carolina's Regulations in 15 NCAC 02H .0500 and 15A NCAC 02B .0200, to Mr. Michael Turchy and the North Carolina Department of Transportation, who have authorization for the impacts listed below, as described within your application received by the N.C. Division of Water Resources (Division) on January 20, 2026, and by Public Notice issued by the Division on January 20, 2026, and within the *Reasonable Period of Time* pursuant to 40 CFR Part 121.6.

The State of North Carolina certifies that this activity will comply with water quality requirements and the applicable portions of Sections 301, 302, 303, 306, 307 of the Public Laws 92-500 and PL 95-217 if conducted in accordance with the application, the supporting documentation, and conditions hereinafter set forth.

The following impacts are hereby approved. No other impacts are approved, including incidental impacts. [15A NCAC 02H .0506(b)]

Stream Impacts in the Broad River Basin

Site	Permanent Fill in Perennial Stream (linear feet)	Temporary Fill in Perennial Stream (linear feet)	Total Stream Impact (linear feet)	Stream Impacts Requiring Mitigation (linear feet)
Site 1A: Dewatering	-	101	101	0
Site 1B: Bank Stabilization	33	-	33	0
<i>Totals:</i>	<i>33 linear feet</i>	<i>101 linear feet</i>	<i>134 linear feet</i>	<i>0</i>

Total Stream Impact for Project: 33 linear feet Permanent and 101 linear feet temporary

This approval requires you to follow the conditions listed in the Certification below.

CONDITIONS OF CERTIFICATION [15A NCAC 02H .0507(c)]:

Project Specific Conditions

1. The NCDOT Division Environmental Officer or Environmental Assistant will conduct a pre-construction meeting with all appropriate staff to ensure that the project supervisor and essential staff understand the potential issues with the stream at the permitted site. NCDWR staff shall be invited to the pre-construction meeting. [15A NCAC 02H.0506(b)(2) and (b)(3)]
2. The permittee shall use Design Standards in Sensitive Watersheds in areas draining to Trout waters. [15A NCAC 4B.0124(a)-(e)]



3. NCDOT shall be in compliance with the NCS00250 issued to the NCDOT, including the applicable requirements of the NCG01000. Please note the extra protections for the sensitive watersheds.
4. 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)]
5. 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)]
6. Bridge deck drains shall not discharge directly into the stream. Stormwater shall be directed across the bridge and pre-treated through site-appropriate means (grassed swales, pre-formed scour holes, vegetated buffers, etc.) before entering the stream. To meet the requirements of NCDOT's NPDES permit NCS0000250, please refer to the most recent version of the North Carolina Department of Transportation Stormwater Best Management Practices Toolbox manual for approved measures. [15A NCAC 02H .0507(d)(2) and 15A NCAC 02H .0506(b)(5)]
7. Bridge piles and bents shall be constructed using driven piles (hammer or vibratory) or drilled shaft construction methods. More specifically, jetting or other methods of pile driving are prohibited without prior written approval from the NCDWR first. [15A NCAC 02H .0506(b)(2)]
8. 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)]
9. All bridge construction shall be performed from the existing bridge, temporary work bridges, temporary causeways, or floating or sunken barges. If work conditions require barges, they shall be floated into position and then sunk. The barges shall not be sunk and then dragged into position. Under no circumstances should barges be dragged along the bottom of the surface water. [15A NCAC 02H .0506(b)(3)]

General Conditions

1. Unless otherwise approved in this certification, placement of culverts and other structures in open waters and streams shall be placed below the elevation of the streambed by one foot for all culverts with a diameter greater than 48 inches, and 20 percent of the culvert diameter for culverts having a diameter less than 48 inches, to allow low flow passage of water and aquatic life. Design and placement of culverts and other structures including temporary erosion control measures shall not be conducted in a manner that may result in dis-equilibrium of wetlands or streambeds or banks, adjacent to or upstream and downstream of the above structures. The



applicant is required to provide evidence that the equilibrium is being maintained if requested in writing by NCDWR. If this condition is unable to be met due to bedrock or other limiting features encountered during construction, please contact NCDWR for guidance on how to proceed and to determine whether or not a permit modification will be required. [15A NCAC 02H.0506(b)(2)]

2. 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]
3. For all 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)]
4. During the construction of the project, no staging of equipment of any kind is permitted in waters of the state or protected riparian buffers. [15A NCAC 02H.0506(b)(2)]
5. 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)]
6. The use of rip-rap above the Normal High Water Mark shall be minimized. 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)]
7. 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)]
8. 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)]
9. 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)]
10. 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)]

11. 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)]
12. Discharging hydroseed mixtures and washing out hydroseeders and other equipment in or adjacent to surface waters is prohibited. [15A NCAC 02H.0506(b)(3)]
13. 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]
14. All fill slopes located in jurisdictional wetlands shall be placed at slopes no flatter than 3:1, unless otherwise authorized by this certification. [15A NCAC 02H.0506(b)(2)]
15. 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)]
16. 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]
17. 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)]
18. Upon completion of the project (including any impacts at associated borrow or waste sites), the NCDOT Division Engineer (or whomever is the authorized agent if a non-NCDOT project) 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]
19. Native riparian vegetation (i.e., herbaceous, 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.0506(b)(2)]



20. 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)]
21. 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]
22. 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)]:
 - 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.
23. Sediment and erosion control measures shall not be placed in wetlands or surface waters without prior approval from DWR. [15A NCAC 02H.0506(b)(3)]
24. DWR approves the stormwater drainage design as shown in the 401 application, under the assumption that it meets the requirements of the NCDOT NPDES permit #NCS000250. These plans are enforceable by DWR. Changes to the approved plans are prohibited without prior approval from DWR. If sediment or other pollutants are found to be discharged from the stormwater outfalls, DWR may take enforcement action. NCDOT and DWR shall assess the damage to water quality standards and implement an appropriate action plan to address the impacts. The action plan shall provide an appropriate timeline for implementation as agreed upon by both DWR and NCDOT. This may require NCDOT to obtain a modification to its current 401 and 404 permits.



This Water Quality Certification shall expire on the same day as the expiration date of the corresponding Section 404 Permit that is current at the time this Certification is issued. The conditions shall remain in effect for the life of the project, regardless of the expiration date of this Water Quality Certification.

This, the 26th day of January 2026

Signed by:



3185423002EA45E...
Faith Hardin, Supervisor
401 & Buffer Transportation Permitting Branch



North Carolina Department of Environmental Quality | Division of Water Resources
512 North Salisbury Street | 1617 Mail Service Center | Raleigh, North Carolina 27699-1617
919.707.9000

Permitted Drawings



North Carolina Department of Transportation

Highway Stormwater Program
STORMWATER MANAGEMENT PLAN
FOR NCDOT PROJECTS

(Version 3.02; Released April 23, 2024)

WBS Element: DF18314.2045318 TIP/Proj No: DF18314.2045318 County(ies): Henderson Page 1 of 2

General Project Information

WBS Element:	DF18314.2045318	TIP Number:	DF18314.2045318	Project Type:	Bridge Replacement	Date:	1/8/2026	
NCDOT Contact:	Patrick Breedlove		Contractor / Designer:	Jerry Lindsey				
	Address:	253 Webster Road Sylva, NC 28779		Address:	Wetherill Engineering 1223 Jones Franklin Road Raleigh NC, 27606			
	Phone:	828-488-0902		Phone:	919-851-8077			
	Email:	pibreedlove@ncdot.gov		Email:	jlindsey@wetherilleng.com			
City/Town:	Fruitland		County(ies):	Henderson				
River Basin(s):	French Broad		CAMA County?	No				
Wetlands within Project Limits?	No							
Project Description								
Project Length (lin. miles or feet):	0.071 miles	Surrounding Land Use:	Rural, Agricultural, Wooded					
Project Built-Upon Area (ac.)	Proposed Project			Existing Site				
Typical Cross Section Description:	0.8	ac.		0.4	ac.			
Annual Avg Daily Traffic (veh/hr/day):	Design/Future:	220	Year:	2045	Existing:	180	Year:	2025

General Project Narrative:
(Description of Minimization of Water Quality Impacts)

The North Carolina Department of Transportation (NCDOT) has proposed to replace Henderson County Bridge #440198 on SR 1614 (WATERS ROAD). The existing structure is a 1@42'-2" Timber Deck/I-Beams with vertical concrete. Existing bridge was washed out by Hurricane Helene in September 2024. Currently, the road is closed to traffic. This bridge will be replaced with 1@70'-24" Cored Slab with Vertical Abutments. All existing drainage patterns were maintained to the best extent possible.



(Version 3.02; Released April 23, 2024)

North Carolina Department of Transportation

Highway Stormwater Program
STORMWATER MANAGEMENT PLAN
FOR NCDOT PROJECTS



WBS Element: DF18314.2045318 TIP/Proj No.: DF18314.2045318

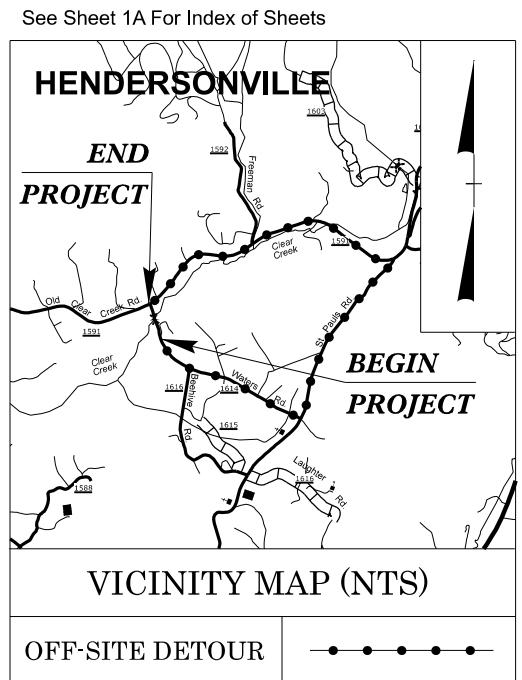
County(ies): Henderson

Page 2 of 2

General Project Information

Waterbody Information

Surface Water Body (1):	Clear Creek		NCDWR Stream Index No.:	6-55-11-(1)		
NCDWR Surface Water Classification for Water Body		Primary Classification:	Class B			
		Supplemental Classification:	Trout Waters (Tr)			
Other Stream Classification:						
Impairments:	None					
Aquatic T&E Species?	No	Comments:				
NRTR Stream ID:	Clear Creek		Buffer Rules in Effect:	N/A		
Project Includes Bridge Spanning Water Body?	Yes	Deck Drains Discharge Over Buffer?	No	Dissipator Pads Provided in Buffer?		
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)					



**PERMIT DRAWING
SHEET 1 OF 5**

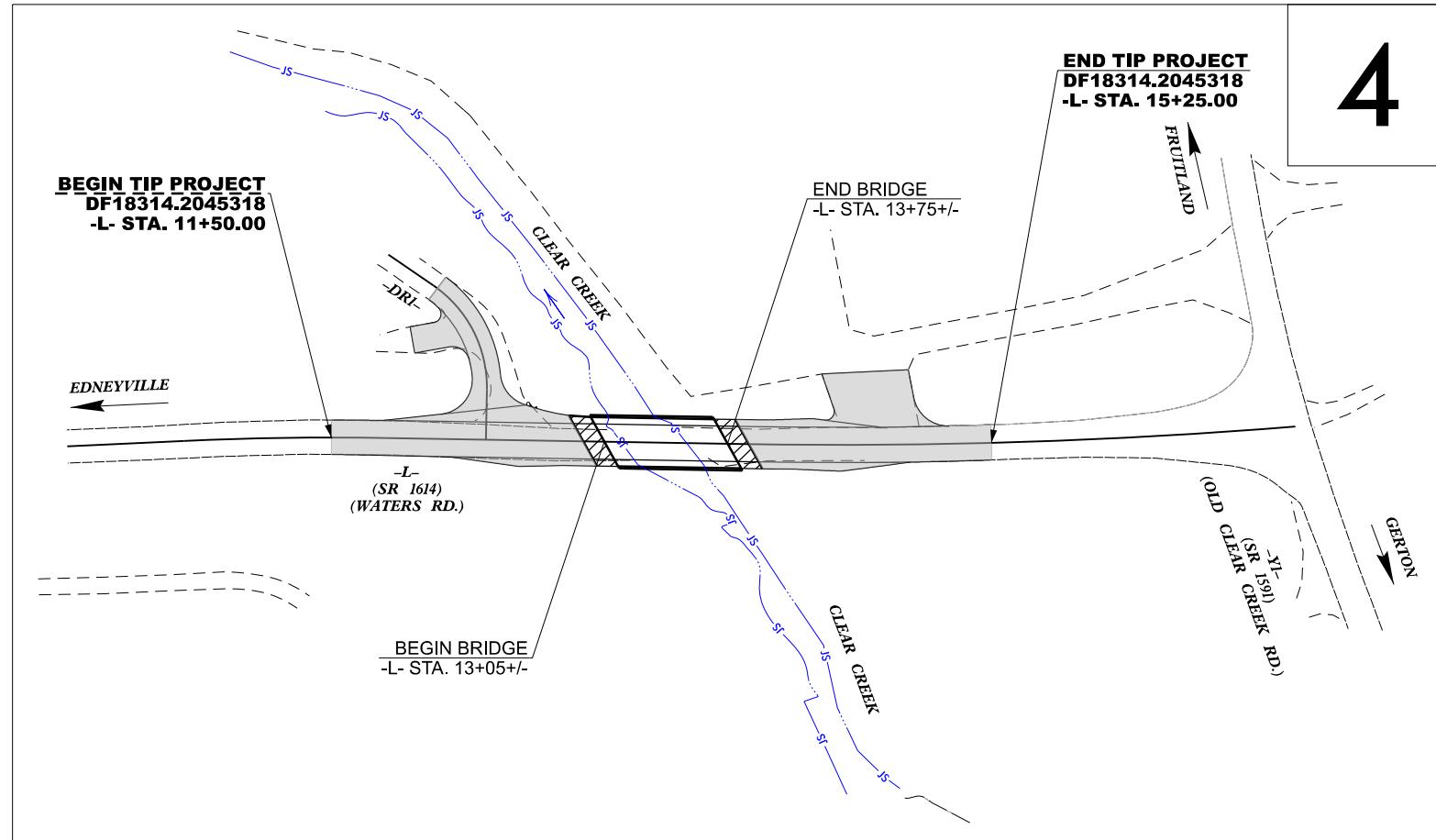
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

HENDERSON COUNTY

LOCATION: BRIDGE NO. 440198 OVER CLEAR CREEK
ON SR 1614 (WATERS RD.)

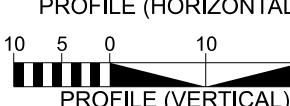
TYPE OF WORK: GRADING, DRAINAGE, PAVING & STRUCTURE

WETLAND AND SURFACE WATER IMPACTS PERMIT



THERE IS NO CONTROL OF ACCESS ON THIS PROJECT.
THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES.
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II.

GRAPHIC SCALES



DESIGN DATA

ADT 2025 = 180
ADT 2045 = 220

K = N/A

D = N/A

T = N/A

V = 40 MPH

FUNC CLASS =
LOCAL RURAL
SUBREGIONAL TIER

PROJECT LENGTH

LENGTH OF ROADWAY TIP PROJECT DF18314.2045318 = 0.058 MILES

LENGTH OF STRUCTURE TIP PROJECT DF18314.2045318 = 0.013 MILES

TOTAL LENGTH OF TIP PROJECT DF18314.2045318 = 0.071 MILES

Prepared in the Office of:
**ETHERILL
ENGINEERING**

1223 Jones Franklin Rd, Raleigh, N.C. 27606
License No. F-0377
Bus: 919.851.8077 Fax: 919.851.8107

2024 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:

DECEMBER 8, 2025

RFC DATE:

AUGUST 29, 2025

Prepared for:
**DIVISION OF HIGHWAYS
DIVISION 14**

253 Webster Road
Sylva NC, 28779

CHRIS ANDERSON, PE

PROJECT ENGINEER

FARRELL NICHOLSON, PE

PROJECT DESIGN ENGINEER

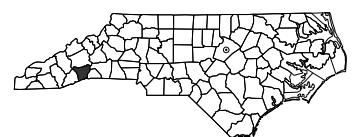
ANDREW BUCHANAN

NC DOT CONTACT

P.E.
SIGNATURE: *ROADWAY DESIGN ENGINEER*

P.E.
SIGNATURE: *HYDRAULICS ENGINEER*

STATE	STATE PROJECT REFERENCE NO.	sheet no.	total sheets
N.C.	DF18314.2045318	1	
STATE PROJ. NO.	F. A. PROJ. NO.		
PE			
ROW			
UTILITY			
CONST.			



RIGHT OF WAY PLANS

JANUARY 6, 2026

RELEASE FOR
CONSTRUCTION
DATE: _____

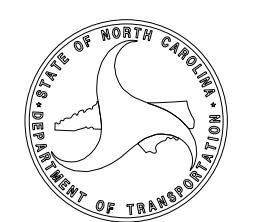


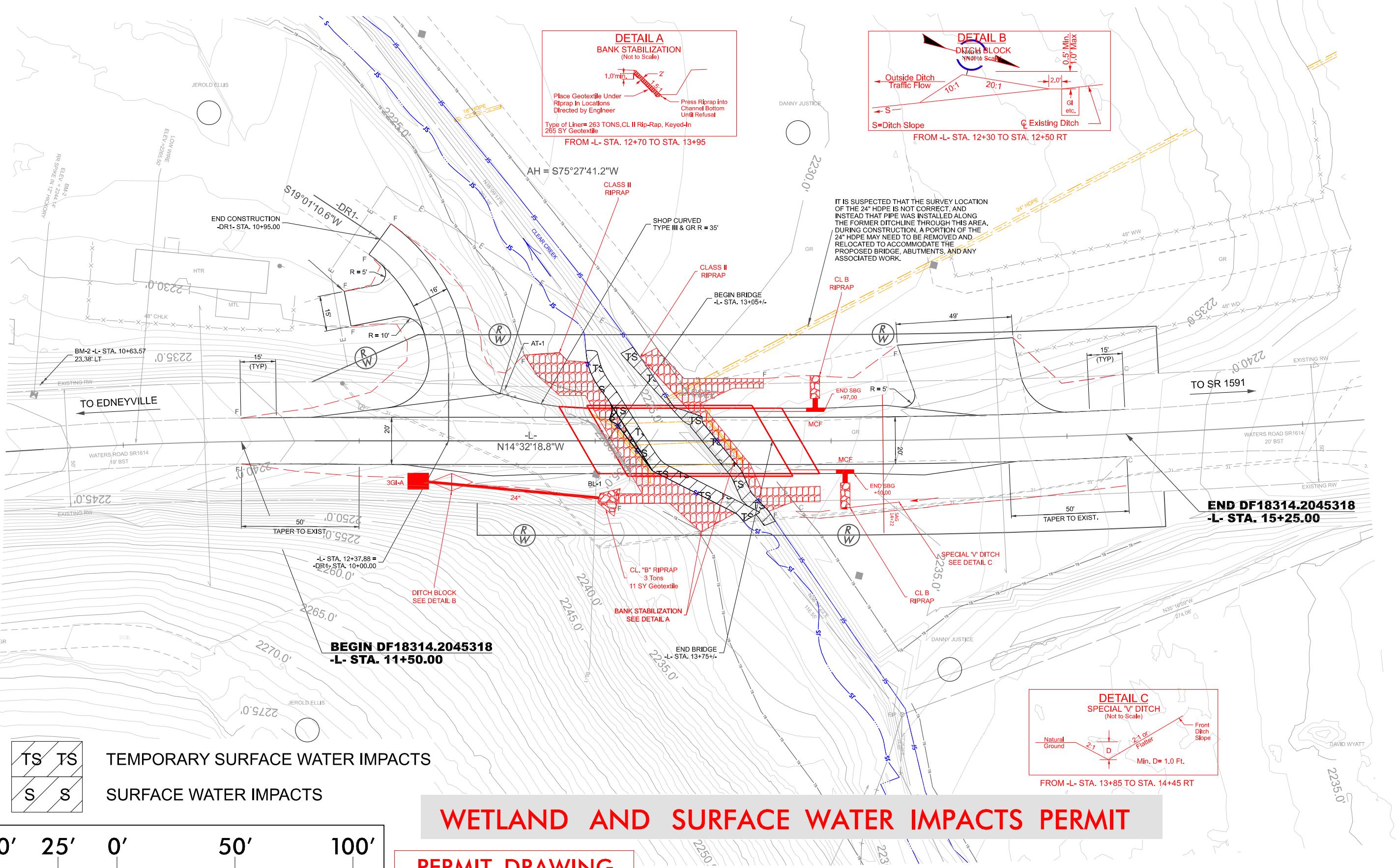
BUCKEYE BRIDGE, LLC

P.O. BOX 1367
CANTON, NC 28716
(828)648-4511

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

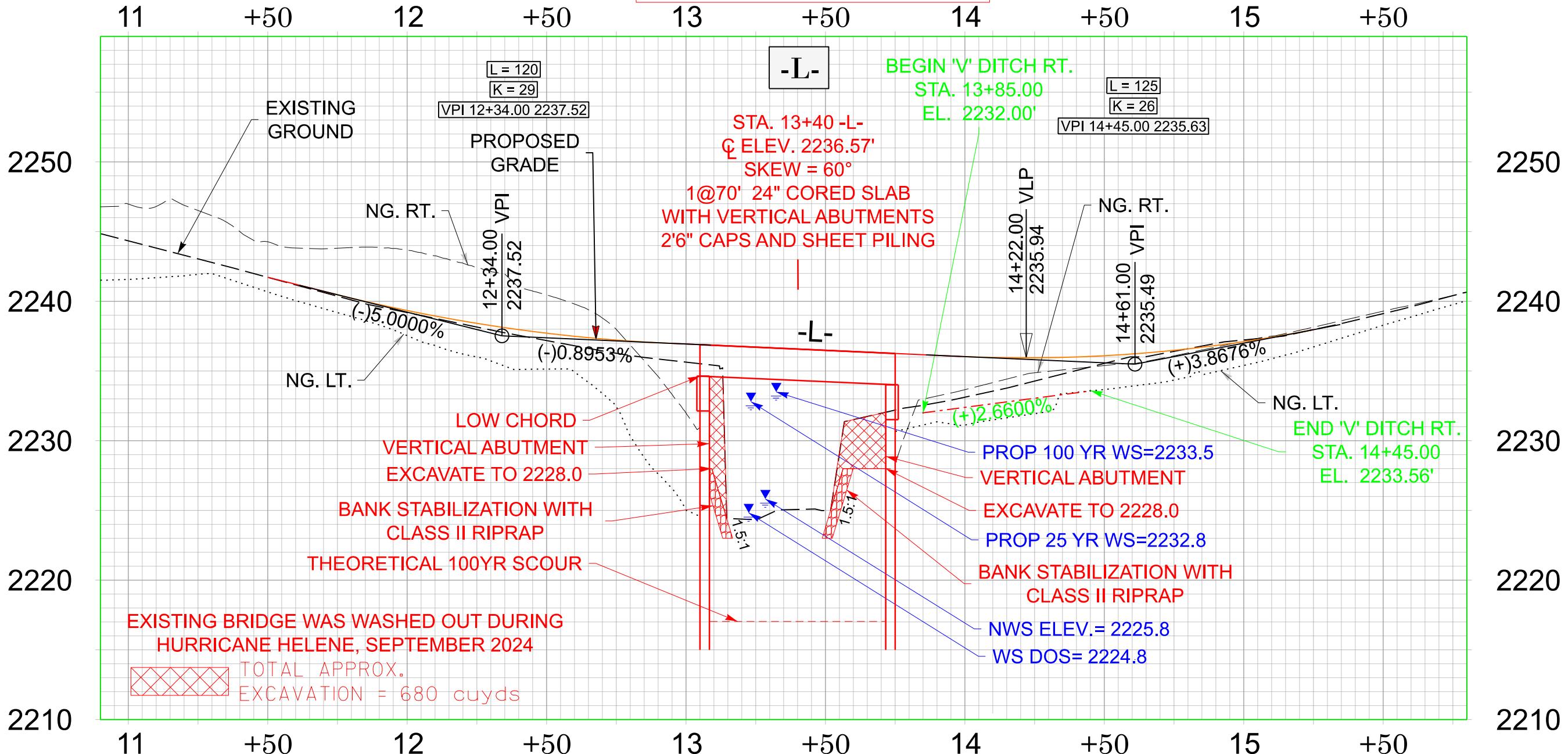




PERMIT DRAWING SHEET 4 OF 5

DFI8314.2045318

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
HENDERSON COUNTY
ROADWAY DESIGN UNIT
ROADWAY DESIGN
ENGINEER



BRIDGE HYDRAULIC DATA		
DESIGN DISCHARGE	= 1100	CFS
DESIGN FREQUENCY	= 25	YRS
DESIGN HW ELEVATION	= 2232.8	FT
BASE DISCHARGE	= 1600	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 2233.5	FT
OVERTOPPING DISCHARGE	= 2900	CFS
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING ELEVATION	= 2235.9	FT
DATE OF SURVEY	= 7/24/2025	
W.S. ELEVATION AT DATE OF SURVEY	= 2224.8	FT

REVISIONS

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

HYDRAULICS
ENGINEER

PREPARED BY
**W.ATHERILL
ENGINEERING**
1223 JONES FRANKLIN ROAD
RALEIGH, NC 27606
(919)651-8077
NC LICENSE F40377

BUCKEYE BRIDGE, LLC
P.O. BOX 1367
CANTON, NC 28721
(828)648-4511

RELEASE FOR
CONSTRUCTION
DATE: _____

WETLAND AND SURFACE WATER IMPACTS SUMMARY

*Rounded totals are sum of actual impacts

NOTES:

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
01/07/2026
HENDERSON COUNTY
DF18314.2045318