



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

JOSH STEIN
GOVERNOR

DANIEL H. JOHNSON
SECRETARY

September 26, 2026

MEMORANDUM TO: Division Environmental and Construction Units

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

SUBJECT: Environmental Permits for the Repairs/ Replacements of Bridge No. 990138
Bent Creek, Bridge Nos. 990124 and 990093 over the Cane River off US 19W
North from Bent Creek Road to Murphytown Road, north of Burnsville, Yancey
County, Division 13, WBS 18313.1100999.

Please find enclosed the following permits for this project:

Agency	Permit Type	Expiration
US Army Corps of Engineers Section 404 Clean Water Act Permit	Regional General Permit 50 Action ID: SAW-2025-01528 Dated September 24, 2026	May 30, 2030
NC Division of Water Resources Section 401 Water Quality Certification	Individual Water Quality Certification ID: 20251608v2 Dated September 3, 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.

The General Conditions and Certifications for Nationwide and Regional Permits can be referenced at:
https://xfer.services.ncdot.gov/pdea/EnvironmentalPermits/_General_Conditions_and_Certifications/

404 Permit (USACE)



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, WILMINGTON DISTRICT
151 Patton Avenue, Room 208
Asheville, NC 28801-5006

September 24, 2026

Regulatory Division
SAW-2025-01528

North Carolina Department of Transportation
Attn: Mr. Michael A. Turchy
Environmental Coordination and Permitting Group Leader
1598 Mail Service Center
Raleigh, North Carolina 27699-1598
Sent Via Email: maturchy@ncdot.gov

Dear Mr. Turchy,

This letter is in response to the application you submitted to the U.S. Army Corps of Engineers (USACE), Wilmington District, WRDA/Transportation Branch on March 27, 2026, for a Department of the Army general permit verification to replace three bridges that were destroyed by **Hurricane Helene**. This project will replace Bridge Numbers 93, 124, and 138 in Yancey County, North Carolina and has been assigned file number SAW-2025-01528. In order to perform this work, NCDOT will impact waters of the U.S. to replace the pre-storm structures and reestablish (relocate) stream and river segments to their approximate pre-storm locations around the bridge replacements.

Bridge No. 93 on Murphytown Road (SR 1343) over the Cane River
(36.0251, -82.3270)

Impacts to the Cane River:

- 724 lf (1.68 acres) – river relocation to approximate pre-storm location.
- 157 lf (0.28 acre) – bank stabilization.
- 0.419 acre - temporary fill to tie the river into the relocated segment.
- 35 lf (0.074 acre) –dewatering and access to remove the temporary bridge.

Bridge No. 124 on Bent Creek Road (SR 1413) over the Cane River
(36.0129, -82.3812)

Impacts to the Cane River:

- 730 lf (1.21 acres) – river relocation to approximate pre-storm location.
- 0.191 acre - temporary fill to tie the river into the relocated segment.
- 48 lf (0.03 acre) – temporary causeway/workpad for bridge construction.

Bridge No. 138 on Bent Creek over Bent Creek
(36.0129, -82.3822)

Impacts to Bent Creek:

- 633 lf (0.1 acre) – stream relocation to approximate pre-storm location.
- 41 lf (0.006 acre) – temporary detour crossing to maintain traffic.
- 0.001 acre - temporary fill to tie the stream into the relocated segment.

We have reviewed the proposed activities in waters of the U.S. and have determined that the activities are authorized by Regional General Permit (RGP) 50 pursuant to authorities under Section 404 of the Clean Water Act (33 U.S.C § 1344). The proposed work must be accomplished in strict accordance with the following:

- enclosed permit general and special conditions
- special conditions of the verification letter for this project (see below)
- project plans
- information in the PCN and attachments

If the extent of the project area and/or nature of the authorized impacts to waters are modified, a request detailing the proposed changes must be submitted to this office for written approval before work is initiated. Any deviation from the terms and conditions of the permit, the special conditions of this letter, the information contained in the PCN, or your submitted plans, may subject the permittee to enforcement action.

This verification is valid until **May 25, 2030**, unless the subject RGP is suspended, revoked, or is modified prior to that date such that the activity no longer complies with the terms and conditions of the RGP.

Project Specific Special Conditions:

1. This verification letter does not authorize you to take a federally listed species. In order to legally take a federally listed species, you must have separate authorization under the Endangered Species Act (ESA) (e.g., an ESA Section 10 permit, or a Biological Opinion (BO) under ESA Section 7, with “incidental take” provisions with which you must comply). The USFWS issued a document titled, “Biological Opinions and Informal Consultations – Batch Format, Replace Bridge 093, Bridge 124, and Bridge 138 Destroyed by Tropical Storm Helene in Yancey County, North Carolina, Service Log #25-195 through 25-197” on August 1, 2025. This document contains mandatory terms and conditions to implement the reasonable and prudent measures that are associated with incidental take. Your authorization under this verification letter and RGP 50 is conditional upon your compliance with the mandatory terms and conditions associated with incidental take listed in the BO for this project. Failure to comply with the terms and conditions associated with incidental take detailed in the BO,

where a take of a federally listed species occurs, would constitute an unauthorized take, and it would also constitute non-compliance with your verification letter and RGP 50. The USFWS is the appropriate authority to determine compliance with the terms and conditions of its Opinion and with the ESA.

2. Bridge 124 - the permittee shall ensure that no more than 50% of river flow is constricted at any one time.

3. Bridge 124 - the permittee shall ensure that any equipment that is placed on the causeway/workpad is removed when either of the following situations are forecasted or anticipated: (1) the water level will rise to a point where the equipment could be flooded (even during work days), and (2) the water level is expected to rise overnight, or over a non-work period of time, to a point where the equipment could be flooded.

4. Bridge 124 - upon completion of work that requires the causeway/workpad to be in the river, the permittee shall remove all readily detectible causeway/work pad material, to the extent practicable, while removing as little of the original riverbed as possible.

5. The permittee shall implement all reasonable and practicable measures to ensure that equipment, structures, work, and operations associated with this project do not adversely affect upstream and/or downstream reaches. Adverse effects include, but are not limited to, channel instability, flooding, and/or riverbank erosion. The permittee shall routinely monitor for these effects, cease all work when detected, take initial corrective measures to correct actively eroding areas, and notify this office immediately.

Permanent corrective measures may require additional authorization the U.S. Army Corps of Engineers.

6. The permittee shall comply with conditions #1, 2, and 4-8 of the letter from the North Carolina Wildlife Resources Commission dated March 30, 2026.

7. The permittee shall monitor the three relocated/restored channel reaches for three years. To accomplish this, NCDOT shall establish three points along Site 1 (Bent Creek), and four points along both Site 2 (Cane River) and Site 3 (Cane River) – i.e., the relocated/restored reaches. Two points at each site shall be placed within 50' of each end of the relocated/restored reaches. NCDOT shall take photographs at these eleven points: (1) immediately after relocation and stabilization activities have been completed, and (2) every year after that for three years. NCDOT will submit these photographs and a text description of observed channel stability within 60 days of completion of the project, then once a year for the next 3 years. If the relocated/restored reaches are unstable for any reason during this three-year monitoring period (e.g., bank erosion, downcutting, etc.), or cause upstream or downstream bank erosion, NCDOT shall immediately contact the USACE to suggest corrective actions. The required monitoring period may be extended if corrective actions are necessary.

8. The permittee shall require its contractors and/or agents to comply with the terms and conditions of this authorization letter in the construction and maintenance of this project and shall provide each of its contractors and/or agents associated with the construction or maintenance of this project with a copy of this authorization letter, all conditions, and any authorized modifications. A copy of this authorization letter, all conditions, and any authorized modifications, shall be available at the project site during construction and maintenance of this project.

This general permit verification and any associated authorizations do not preclude the necessity to obtain any other Federal, State, or local permits, licenses, and/or certifications, which may be required.

If you have any questions related to this verification or have issues accessing documents referenced in this letter, please contact Lori Beckwith, Regulatory Project Manager of the WRDA/Transportation Branch at 828-230-0483, by mail at the above address, or by email at loretta.a.beckwith@usace.army.mil. Please take a moment to complete our customer satisfaction survey located at <https://regulatory.ops.usace.army.mil/customer-service-survey/>.

Sincerely,

A handwritten signature in black ink that reads "M. Scott Jones". The signature is written in a cursive, flowing style.

M. Scott Jones, PWS
WRDA / Transportation Branch Chief
USACE, Wilmington District

Enclosures

U.S. Army Corps of Engineers (USACE) CERTIFICATION OF COMPLIANCE WITH DEPARTMENT OF THE ARMY PERMIT For use of this form, see Section 404 of the Clean Water Act, Section 10 of the Rivers and Harbors Act of 1899, and Section 103 of the Marine Protection, Research, and Sanctuaries Act; the proponent agency is CECW-COR.		Form Approved - OMB No. 0710-0003 Expires 2027-10-31
The Agency Disclosure Notice (ADN)		
The Public reporting burden for this collection of information, 0710-0003, is estimated to average 10 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or burden reduction suggestions to the Department of Defense, Washington Headquarters Services, at whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.		
PURPOSE: This form is used by recipients of U.S. Army Corps of Engineer Regulatory permits to certify compliance with the permit terms and conditions. Your permitted activity is subject to a compliance inspection by a U.S. Army Corps of Engineers representative. If you fail to comply with this permit, you are subject to permit suspension, modification, or revocation.		
Upon completion of the activity authorized by this permit and any mitigation required by the permit, sign this certification and return it to the U.S. Army Corps of Engineers, Wilmington District, Regulatory Office. The certification can be submitted by email at loretta.a.beckwith@usace.army.mil or by mail at the below address: U.S. Army Corps of Engineers, Wilmington District Asheville Field Office Street Address: 151 Patton Avenue, Room 208 Asheville, North Carolina 28801-5006		
Corps Action Number: SAW-2025-01528 Permit Type: General Permit General Permit Number and Name (if applicable): RGP 50 Name of Permittee: NCDOT, Division of Highways Project Name: NCDOT / Hurricane Helene / 18313.1100999 / US 19W North Section Restoration / Br 93 SR 1343 / Br 124 SR 1413 / BR 138 SR 1413 / Yancey / Div 13 Project Location (physical address): Br 93 SR 1343, Br 124 SR 1413, Br 138 SR 1413, Yancey Co., NC		
PERMITTEE'S CERTIFICATION		
Date Work Started: Date Work Completed: Enclose photographs showing the completed project (if available). I _____ hereby certify that the work authorized by the above-referenced permit has been completed in accordance with all of the permit terms and conditions, and that any required compensatory mitigation has been completed in accordance with the permit conditions.		
Name	Date	Signature

earred bat is estimated to be present within the action areas of each crossing structure.

Therefore, the incidental take permitted by the Opinion would be exceeded if tree clearing amount exceeds 0.10 acre at a single structure location for the crossing structures listed at the beginning of section 7.2.

Exceedance of take as defined above will represent new information that was not considered in this Opinion and shall result in reinitiation of this consultation. The incidental take of northern long-eared bat is expected to be in the form of harm, wounding, or death.

7.3 Reasonable and Prudent Measures

The Service believes the following reasonable and prudent measure(s) are necessary and appropriate to minimize take of Appalachian elktoe and northern long-eared bat. These non-discretionary measures reduce the level of take associated with project activities and include only actions that occur within the action area.

1. NCDOT shall ensure that the contractor(s) understands and follows the measures listed in the “Conservation Measures”, “Reasonable and Prudent Measures,” and “Terms and Conditions” sections of this Opinion.
2. NCDOT shall minimize the area of disturbance within the action areas to only the area necessary for the safe and successful implementation of the proposed actions.
3. NCDOT shall monitor and document any take numbers and the surrogate measures of take and report those to the Service in a batched format.

7.4 Terms and Conditions

In order to be exempt from the prohibitions of section 9 of the ESA, the Applicant must comply with the following terms and conditions, which implement the reasonable and prudent measures described above and outline required reporting and/or monitoring requirements. When incidental take is anticipated, the terms and conditions must include provisions for monitoring project activities to determine the actual project effects on listed fish or wildlife species (50 CFR §402.14(i)(3)). These terms and conditions are nondiscretionary.

1. NCDOT shall adhere to all measures as listed in the Avoidance and Minimization and Conservation Measures section as summarized in this Opinion.
2. The NCDOT will immediately inform the Service if the amount or extent of incidental take in the incidental take statement is exceeded.
3. When incidental take is anticipated, the Terms and Conditions must include provisions for monitoring project activities to determine the actual project effects on listed fish or wildlife species (50 CFR §402.14(i)(3)). In order to monitor the impact of incidental take, the NDOT must report the action impacts on the species to the Service according to the following:
 - a. The NCDOT will submit a report each year not later than September 30 identifying, per individual project (via Service Log # and NCDOT identifiers), the following for the preceding calendar year ending December 31:
 - i. Acreage of in-water impacts, if LAA for Appalachian elktoe.
 - ii. Acreage and dates of tree removal (if any), if LAA for bats.
 - iii. List of implemented AMMs and BMPs [as listed in Section 2.3].

8. Conservation Recommendations

Section 7(a)(1) of the Endangered Species Act directs Federal agencies to use their authorities to further the purposes of the Endangered Species Act by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information.

- **Eastern Hellbender:** Proximity to eastern hellbender occurrence records was noted for the structures addressed in this document. Ahead of work at these locations, coordinate with the NCWRC and the Service to survey for/relocate any hellbenders that may be within the action area and vulnerable to impacts from project work.
- **State Species of Concern:** Close proximity to several aquatic species with North Carolina designations was noted for these crossing structures. While these species are not currently afforded legal protection under the ESA, we recommend the most protective sediment and erosion control measures possible be used in waters occupied by these species, and we encourage you to coordinate any relocation efforts of such species with the NCWRC.
- **Refueling and Materials Storage:** Refuel construction equipment outside the 100-year floodplain or at least 200 feet from all water bodies (whichever distance is greater) and protected with secondary containment. Store hazardous materials, fuel, lubricating oils, or other chemicals outside the 100-year floodplain or at least 200 feet from all water bodies (whichever distance is greater).
- **Provide Terrestrial Wildlife Passage:** Where riparian corridors suitable for wildlife movement occur adjacent to a project, a spanning structure that also spans a portion of the floodplain and provides or maintains a riprap-free level path underneath for wildlife passage would provide a safer roadway and facilitate wildlife passage. A 10-foot strip may be ideal, though smaller widths can also be beneficial. Alternatively, a “wildlife path” can be constructed with a top-dressing of finer stone (such as smaller aggregate or on-site alluvial material) to fill riprap voids if full bank plating is required. If a multi-barrel culvert is used, the low flow barrel(s) should accommodate the entire stream width and the other barrel should have sills to the floodplain level and be back-filled to provide dry, riprap-free wildlife passage and well as periodic floodwater passage.

For the Service to be kept informed of actions minimizing or avoiding adverse effects or benefitting listed species or their habitats, we request notification of the implementation of any conservation recommendations.

9. Reinitiation Notice

This concludes formal consultation on the action(s) outlined in the consultation request dated December 12, 2024. As provided in 50 CFR §402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending reinitiation.



North Carolina Wildlife Resources Commission

M. Kyle Briggs, Executive Director

March 30, 2026

Lori Beckwith
U.S. Army Corps of Engineers, Asheville Regulatory Field Office
151 Patton Avenue, Room 208
Asheville, NC 28801

Amy Annino
401 and Buffer Transportation Permitting Branch
North Carolina Department of Environmental Quality
2090 U.S. 70 Highway
Swannanoa, NC 28778-8211

SUBJECT: Comments on **Revised** Application for Replacement of Bridges 990138, 990124, and 990093 over Bent Creek and Cane River, Yancey County. **DF18313.1110999, DWR 200251608v2**

The North Carolina Department of Transportation (NCDOT) re-applied for a 404 Permit and 401 Certification for the subject bridge replacements. The North Carolina Wildlife Resources Commission's (NCWRC) comments are offered to help conserve the wildlife resources affected by the project and to promote wildlife-based recreation in accordance with applicable provisions of the Clean Water Act of 1977 (33 U.S.C. 466 et seq.) and the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661-667d).

The existing bridges were destroyed by Hurricane Helene flooding. Bridges 990138 and 990124 will be reconstructed on the original bridge alignments while 990093 will be relocated downstream to avoid a low radius bend in the river where the original bridge stood. The work will also require additional channel relocation work in Bent Creek, as well as channel reconstruction in the vicinity of the bridges to address storm and temporary repair impacts.

The Cane River (C Tr) in the project area is a cool-water habitat that was severely degraded by floodwater from Hurricane Helene. Overall, the thermal habitat in this part of the river is not suitable for trout populations year-round. Historic surveys for trout in Bent Creek (C Tr) were negative. Appreciable spawning by trout is not expected near the bridges based on the current habitat conditions. The trout moratorium should not apply to the repair work included in this application.

The NC Natural Heritage Program rates the Cane River in the project areas as a very high conservation priority. The river may still support rare and sensitive species such as Eastern Hellbender (*Cryptobranchus alleganiensis*, NC Special Concern), Wavyrayed Lampmussel (*Lampsilis fasciola*, NC Special Concern), and Appalachian Elktoe (*Alasmodonta raveneliana*, US Endangered), though abundance of these species should be markedly lower than before the storm. The river is designated as a critical habitat for Appalachian Elktoe. While it is unlikely that many of these species will be impacted by the proposed projects, the NCWRC would nonetheless appreciate being apprised of the construction schedule, once available, so that biologists can possibly the impacts areas and relocate animals that may be found.

The Cane River supports a Smallmouth Bass (*Micropterus dolomieu*) fishery that was severely impacted by the flooding. NCWRC sampling in 2025 found fish were still present, though abundance was reduced by about 80%. The Cane River historically was one of the best Smallmouth Bass fisheries in the state and should recover over time.

As reflected in scoping comments, The NCWRC requested that the bridge repair designs include, where possible, areas of wide, unobstructed (no guardrail) road shoulders to provide potential opportunities for anglers to park and access the river. It is likely that some shoulder parking could be reasonably accommodated in the final bridge grading designs or possible minor field adjustments during construction. An example of a small shoulder parking opportunity is shown in the attached photo, which is the northwest corner of 990093 before the storm.

The NCWRC requests that the following conditions be considered for inclusion in authorizations to help conserve the habitats affected by the project:

1. Applicable measures from the current *NCDOT Erosion and Sediment Control Design and Construction Manual* should be adhered to. *Design Standards in Sensitive Waters* should be incorporated into the project's erosion control (see part (d) of 15A NCAC 04B .0124).
2. In accordance with standard GC conditions, matting used in riparian areas should not contain nylon mesh because it entangles and kills wildlife. Coir matting should be used on disturbed stream banks that are steep or susceptible to high water. Matting should be anchored with wooden stakes according to NCDOT specifications.
3. Rip rap used for channel changes and elsewhere on streambanks (in areas beyond abutment protection) should only extend vertically to or near the ordinary high level and coir matting and planting should be used above that elevation.
4. Rip rap should be avoided on benches under the bridges or topped with available alluvial material to make a traversable surface for wildlife (See attached photo example - Stokes 8).

5. Heavy equipment needs to be well-maintained and concrete pouring needs to be closely monitored to avoid and quickly mitigate fuel, fluid, or wet concrete losses in or near streams.
6. Excavation in flowing water should be minimized and sandbags, cofferdams, or other diversions used to isolate construction around bridge substructures.
7. Some large rocks should be retained or replaced in channel reconstruction areas for aquatic habitat.
8. River banks should be replanted with a riparian seed mix and live stakes of native trees wherever possible along channel repairs.

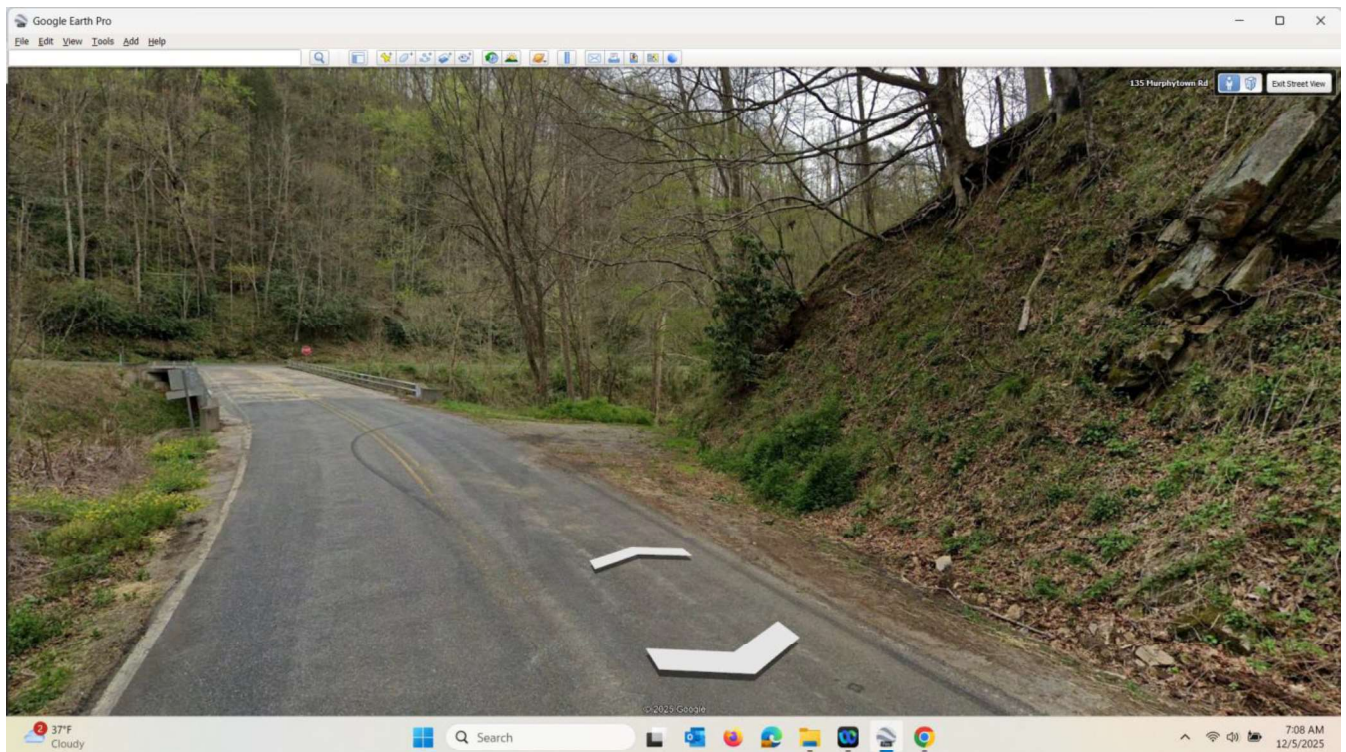
Thank you for the opportunity to review and provide recommendations on this project. Please contact me at david.mchenry@ncwildlife.gov or (828) 476-1966 if you have any questions about these comments.

Sincerely,



Dave McHenry, NCWRC Western DOT Coordinator

cc: Michael Turchy, NCDOT ECAP, Environmental Analysis Unit
Karina Clough, NCDOT Division 13 PDEA Engineer
Yates Allen, NCDOT Division 13 Environmental Specialist II
Mike Sanderson, NCDOT Division 13 Environmental Officer



Shoulder parking available at 990093 before Hurricane Helene.



Rip rap free benches under Stokes 8 on NC 742 over Dan River.

401

Certification (NCDWR)

JOSH STEIN
Governor

D. REID WILSON
Secretary

RICHARD E. ROGERS, JR.
Director



September 3, 2026

DWR #20251608 v2
Yancey County

North Carolina Department of Transportation
Michael Turchy
1598 Mail Service Center
Raleigh, NC 27606

Delivered via email to: maturchy@ncdot.gov

Subject: Approval of Individual 401 Water Quality Certification
Replacement of Bridge 138 Bent Creek, Bridge 124 and 93 over Cane
River off of US 19W North from Bent Creek Road to Murphytown Rd;
WBS 18313.1100999

Location: 36.02511, -82.32709, 36.01292, -82.38124, 36.01292, -82.38225

Dear Mr. Michael Turchy:

Attached hereto is a copy of Certification No. WQC008540 issued to Mr. Michael Turchy and the North Carolina Department of Transportation (NCDOT), dated September 3, 2026. This approval is for the purpose and design described in your application.

This Water Quality Certification does not relieve the recipient of the certificate (or 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 or DWR) 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.



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

Notice regarding the right to contest this 401 Water Quality Certification decision is attached to this letter.

This letter completes the DWR'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
Division of Water Resources, NCDEQ

Enclosures: Notice Regarding The Right To Contest A DWR 401 Water Quality Certification Decision
And/Or Buffer Authorization

Electronic cc: Lori Beckwith, USACE Asheville Regulatory Field Office
Mike Sanderson, NCDOT Division 13 Environmental Officer
Holland Youngman, USFWS Asheville Field Office
Dave McHenry, NCWRC
DWR 401 & Buffer Permitting Branch Electronic file



**NOTICE REGARDING THE RIGHT TO CONTEST A DWR 401 WATER QUALITY
CERTIFICATION AND/OR BUFFER AUTHORIZATION**

**Right of Persons Aggrieved to File a Contested Case for the Decision on a 401 Water Quality
Certification and/or Buffer Authorization:**

The Division's decision is subject to review under NCGS 150B-23.

Rights of Persons Aggrieved to File a Contested Case: Pursuant to NCGS 150B, Article 3, a party or person aggrieved may commence a contested case by filing a petition under NCGS 150B-23 in the Office of Administrative Hearings within 60 days after the Division provides notice of its decision on an application, as provided in NCGS 150B-23(f). If no contested case is commenced within the required time, the Division's decision is final and is not subject to review.

General Filing Instructions: A petition for contested case hearing must be in the form of a written petition, conforming to NCGS 150B-23, and filed with the Office of Administrative Hearings, 1711 New Hope Church Road, Raleigh NC, 27609, along with a fee in an amount provided in NCGS 150B-23.2. A petition for contested case hearing form may be obtained upon request from the Office of Administrative Hearings or on its website at <https://www.oah.nc.gov/hearings-division/filing/hearing-forms>. Additional specific instructions for filing a petition are set forth at 26 NCAC Chapter 03.

Service Instructions: A party filing a contested case is required to serve a copy of the petition, by any means authorized under 26 NCAC 03 .0102, on the process agent for the Department of Environmental Quality:

Daniel Hirschman, General Counsel
North Carolina Department of Environmental Quality
1601 Mail Service Center
Raleigh, North Carolina 27699-1601

If the party filing the petition is a person aggrieved other than the recipient of the certificate (the "Permittee"), the party must also serve the Permittee in accordance with NCGS 150B-23(a).

Be aware that other rules or laws may apply to the filing of a petition for a contested case. Additional information is available at <https://www.oah.nc.gov/hearings-division/hearing-process/filing-contested-case>. Please contact the Office of Administrative Hearings at (984) 236-1850 with all questions regarding the filing fee and/or the details of the filing process.



NORTH CAROLINA 401 WATER QUALITY CERTIFICATION

CERTIFICATION #WQC008540 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 NCDOT, who have authorization for the impacts listed below, as described within your application received by the N.C. Division of Water Resources (DWR) on March 27, 2026, with fee received on March 27, 2026, and subsequent information on May 12, 2026, June 11, 2026, July 17, 2026, August 31, 2026, and September 3, 2026, and by Public Notice issued by the DWR on December 2, 2025, 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 the conditions hereinafter set forth.

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

Type of Impact	Amount Approved Permanent	Amount Approved Temporary	Mitigation Amount Required
Perennial Streams			
<i>Bridge 138 (Bent Creek)</i>			
Site 1a / Bent Creek / stream reestablishment to pre-Helene location	633 linear feet	0 linear feet	0 credits
Site 1b / Bent Creek / Temporary detour crossing	0 linear feet	131 linear feet	0 credits
Site 1c / Bent Creek / stream tie in to re-established reach (fill)	0 linear feet	26 linear feet	0 credits
<i>Bridge 124 (Cane River)</i>			
Site 2a / Cane River / stream reestablishment to pre-Helene location	730 linear feet	0 linear feet	0 credits
Site 2b / Cane River / stream tie in to re-established reach (fill)	0 linear feet	1,363 linear feet	0 credits
Site 2c / Cane River / causeway	0 linear feet	48 linear feet	0 credits
<i>Bridge 93 (Cane River)</i>			
Site 3a / Cane River / stream reestablishment to pre-Helene location	724 linear feet	0 linear feet	0 credits
Site 3b / Cane River / stabilization	157 linear feet	0 linear feet	0 credits
Site 3c / Cane River / stream tie in to re-established reach (fill)	0 linear feet	652 linear feet	0 credits
Site 3d / Cane River / causeway	0 linear feet	35 linear feet	0 credits
<i>Totals:</i>	<i>2,244 linear feet</i>	<i>2,255 linear feet</i>	<i>0 credits</i>



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

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

1. The plans and specifications for this project are incorporated by reference as part of this Water Quality Certification. Any final construction plans for a project must include or reference the application and plans submitted to the DWR. The Permittee must evaluate all other acquired permits to ensure that they are consistent with the plans submitted to the DWR, and all relative impacts are accounted for and shown on the final construction plans. Any modifications or additional impacts to streams and/or wetlands and/or waters within the project require the permittee to notify the DWR and may require submission of a new application package with the appropriate fee.

Citation: 15A NCAC 02H .0506(b)(2) and (3); 15A NCAC 02H .0507(c)

2. If the property is sold, the Permittee shall provide the new owner with a copy of this Certification and all plans and specifications incorporated by reference. The Permittee may transfer a Certification to the new owner by submitting a letter to the Division with the following statement: *"At the time the property is transferred, the terms and conditions of this 401 Individual Water Quality Certification, including the responsibility to ensure compliance, are binding on the new owner(s) of the property."* The letter shall be signed and dated by both the transferee and the new owner.

Citation: 15A NCAC 02H .0507(d)(2)

3. 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 stream and pipe alignment at the permitted site. NCDWR staff shall be invited to the pre-construction meeting.

Citation: 15A NCAC 02H.0506(b)(2) and (b)(3)

4. The Permittee shall allow the Director, or an authorized representative (including an authorized contractor acting as a representative of the Director), upon the presentation of credentials and other documents as may be required by law, to: *Citation: 15A NCAC 02H .0502(e); 15A NCAC 02H .0507(c)*
 - a. Enter, at reasonable times, upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this certificate;
 - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this certificate;
 - c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this certificate; and



- d. Sample or monitor at reasonable times, for the purposes of assuring certificate compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location
5. The permittee shall provide on-site supervision of channel reestablishment work including, but not limited to bank re-sloping, low bench establishment, thalweg and low-flow channel re-establishment, in-stream structure placement, and riparian zone re-establishment, by an appropriately trained individual.

Citation: 15A NCAC 02H .0506(b)(1) and (2)

6. The stream relocation area shall be constructed to ensure that the stream channel will be substantially similar in width and water depth as the existing channel. The channel shall be constructed such that the tie-in with the natural channel at each end shall ensure that upstream and downstream stream beds and stream banks are protected from erosion. The permittee shall provide on-site supervision of the relocation work by an appropriately trained individual. Visual monitoring of the relocated channel tie-in locations shall be conducted at a minimum of quarterly for the first year or two bankfull events (whichever is longer), to confirm the site remains stable.

Citation: 15A NCAC 02H .0506(b)(1) and (2)

7. In-stream structures installed to mimic natural channel geomorphology such as cross-vanes, sills, step-pool structures, etc. shall be designed and installed in such a manner that allow for continued aquatic life movement.

Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)

8. All work in or adjacent to streams, ponds, lakes, and reservoirs shall be conducted so that the work area is isolated from surface waters. Approved best management practices from the most current version of the DEMLR NC Erosion and Sediment Control Planning and Design Manual, or the NC Department of Transportation Best Management Practices For Construction and Maintenance Activities Manual, such as sandbags, rock berms, cofferdams, pump-arounds, and other diversion structures shall be used to minimize excavation in flowing water. Water that comes in contact with the work area shall be treated through an appropriate sediment/erosion control measure (sediment basin, filter bag, etc.) prior to discharging to a surface water. All temporarily disturbed areas for the purpose of isolation/dewatering shall be restored to original grade, including each stream's original cross-sectional dimensions, planform pattern, and longitudinal bed profile. All temporarily impacted sites shall be restored and stabilized with native vegetation as practicable.

This authorization exempts the Permittee from meeting this condition for the work to reestablish the Cane River at Sites 2 and 3. The Permittee shall take all reasonable measures to reestablish the Cane River at Sites 2 and 3 while keeping heavy equipment out of the stream channel. Only equipment that is being used to reestablish the thalweg, define the low-flow channel, or install structures may enter the stream channel. This exemption does not authorize the use of equipment within the stream channel for any other purpose such as a haul road,



access, streambank reshaping etc. Equipment shall access the stream at the closest point possible to reduce impacts to the stream bed.

All reasonable steps must be taken to limit the amount of disturbance in the channel and to therefore reduce downstream turbidity during construction. Construction shall be performed using appropriate erosion and sediment control best management practices, phased sequencing, and flow isolation measures to minimize temporary disturbances. Any short-term increases in turbidity will be localized and controlled, and disturbed areas will be stabilized promptly. This exemption does not relieve the Permittee of meeting stream standards as indicated in 15A NCAC 02B.

Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H0506(f); 15A NCAC 02H .0507(c); 15A NCAC 02B .0200

9. The channel reestablishment of Bent Creek at Site 1 will be constructed in a dry work area and stabilized before stream flows are diverted. Channel reestablishment at Site 1 will be completed and stabilized, and must be approved by NCDWR staff, prior to diverting water into the new channel. Vegetation used for bank stabilization shall be limited to native riparian species, and should include establishment of a vegetated buffer on both sides of the relocated channel to the maximum extent practical. All stream banks shall be matted with coir fiber matting. Also, rip-rap may be allowed if it is necessary to maintain the physical integrity of the stream, but the applicant must provide written justification and any calculations used to determine the extent of rip-rap coverage requested. Once the stream has been turned into the new channel, it may be necessary to relocate stranded fish to the new channel to prevent fish kills.

Citation: 15A NCAC 02H .0506(b)(3)

10. NCDOT will monitor the three restored channel reaches for three years.

To accomplish this, NCDOT shall establish three points along Site 1 (Bent Creek), and four points along both Site 2 (Cane River) and Site 3 (Cane River) – i.e., the restored reaches. Two points at each site shall be placed within 50' of each end of the restored reach. NCDOT shall take photographs at these eleven points:

- (1) immediately after restoration and stabilization activities have been completed, and
- (2) every year after that for three years.

NCDOT will submit these photographs and a text description of observed channel stability within 60 days of completion of the project, then once a year for the next 3 years.

If the restored channel reaches are unstable for any reason during this three-year monitoring period (e.g., bank erosion, downcutting, etc.), or cause upstream or downstream bank erosion, NCDOT shall immediately contact the Division for an onsite meeting and to discuss corrective action strategies. The required monitoring period may be extended if corrective actions are necessary.

Citation: 15A NCAC 02H .0506(b)(1) and (2)



11. The permittee shall use Design Standards in Sensitive Watersheds (15A NCAC 4B.0124[a]-[e]) in areas draining to Trout waters.
12. 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.
13. All wetlands, streams, and surface waters located within the limits of disturbance and within 50 feet of the limits of disturbance/construction area on the project site shall be clearly marked (example- orange fabric fencing) prior to any land disturbing activities. The marking/fencing shall be maintained until the project or project phase is completed. Impacts to areas within the marked area/fencing are prohibited unless otherwise authorized by this certification.

Citation: 15A NCAC 02H .0506(b)(2); 15A NCAC 02H .0507(c)

14. 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.

Citation: 15A NCAC 02H .0507(d)(2) and 15A NCAC 02H .0506(b)(5)

15. 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 under this Certification.

Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c); 15A NCAC 02B .0200

16. All bridge construction shall be performed from the existing bridge, temporary work bridges, or temporary causeways.

Citation: 15A NCAC 02H .0506(b)(3)

17. Unless already approved by an NPDES permit, bridge deck drains shall not discharge directly into the stream. Stormwater shall be directed across the bridge and pre-treated through site-appropriate means to the maximum extent practicable (e.g. grassed swales, pre-formed scour holes, vegetated buffers, etc.) before entering the stream. This condition may be waived with prior written approval from the NCDWR.

Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)

18. Demolition of existing structures, such as culvert or bridge removal, shall be conducted to ensure water quality standards are maintained. NCDOT activities shall adhere to NCDOT's Best Management Practices for Construction and Maintenance Activities.

Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c); 15A NCAC 02B .0200

19. 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.



Citation: 15A NCAC 02H .0506(b)(2)

20. When requested by DWR, the Permittee and/or authorized agent shall schedule a pre-construction meeting with DWR, shall contact the appropriate DWR Regional Office upon project commencement of construction, shall submit a Certificate of Completion and/or shall provide as-built documentation.

Citation: 15A NCAC 02H .0502(e); 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)

21. The permittee shall report to the appropriate DWR Regional Office any noncompliance with, and/or any violation of, stream or wetland standards [15A NCAC 02B .0200], including but not limited to sediment impacts to streams or wetlands. Information shall be provided orally within 24 hours (or the next business day if a weekend or holiday) from the time the permittee became aware of the non-compliance circumstances.

Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)

22. No additional temporary or permanent impacts from waste, spoil, solids, fill, excavation, or staging of equipment, shall occur in wetlands or waters beyond the footprint of the impacts (including temporary impacts) identified in this Certification.

Citation: 15A NCAC 02H .0506; 15A NCAC 02H .0507(c)

23. All activities shall be in compliance with any applicable State Regulated Riparian Buffer Rules in Chapter 2B of Title 15A in the North Carolina Administrative Code.

Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)

24. When applicable, all construction activities shall be performed and maintained in full compliance with G.S. Chapter 113A Article 4 (Sedimentation Pollution Control Act of 1973). Regardless of applicability of the Sedimentation 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.

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 Erosion and Sediment Control Planning and Design Manual*, or the *North Carolina Department of Transportation Erosion and Sediment Control Design and Construction Manual*.

Appropriate measures should be installed prior to any land clearing activities to protect wetlands, streams, and/or buffers from turbidity and/or sedimentation. These measures should be routinely inspected and properly maintained, and excavated materials should be contained outside wetland, stream, and/or buffer boundaries.

For installation of bridges that involve driving or drilling activities within stream channels, open waters, or along streambanks turbidity curtains shall be installed within the surface water.



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.

Citation: 15A NCAC 02H .0506(b)(2); 15A NCAC 02H .0507(c); 15A NCAC 02B .0200; 15A NCAC 02B .0231

25. Sediment and Erosion Control Measures (S&EC) in wetlands or waters should be avoided to the maximum extent possible and any S&EC occurring in wetlands or waters shall be restored to pre-existing conditions upon completion of the project. The Permittee shall utilize sediment and erosion control measures that avoid and minimize the need for the placement of silt fence along streams at the normal water level. Where measures are placed within authorized impact areas then placement of such measures shall not be conducted in a manner that results in a loss of function of any wetlands, streambeds, or streambanks. Any erosion control measures, including silt fence, installed within wetlands shall be removed from wetlands and the natural grade restored and revegetated within two (2) months of the date the appropriate sediment and erosion control program has released the specific area within the project to ensure wetland standards are maintained upon completion of the project.

Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c); 15A NCAC 02B .0200; 15A NCAC 02B .0231

26. Erosion control matting shall not be placed within a stream bed. Erosion control matting that incorporates plastic mesh and/or plastic twine shall not be used along streambanks or within wetlands.

Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)

27. If the project is covered by NPDES Construction Stormwater Permit Number NCG010000 or NPDES Construction Stormwater Permit Number NCG250000, full compliance with permit conditions including the erosion and sedimentation control plan, inspections and maintenance, self-monitoring, record keeping and reporting requirements is required.

Citation: 15A NCAC 02H .0506(b) and (c); 15A NCAC 02H .0507(c)

28. The North Carolina Department of Transportation (NCDOT) shall maintain full compliance with the conditions related to construction activities and post construction stormwater design, construction and maintenance, within the most recent version of their Individual NPDES Stormwater Permit Number NCS000250.



Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c); 15A NCAC 02B .0200; 15A NCAC 02B .0231

29. Work within a designated trout watershed as identified by the Wilmington District of the US Army Corps of Engineers or work within identified state or federal endangered or threatened species habitat shall be coordinated with NCWRC and/or DMF prior to initiating of project activities.

The Permittee shall adhere to NCWRC and/or DMF recommended moratoria. Exceptions to this condition require written approval by the resource agency responsible for the given moratorium. If activities must occur during periods of high biological activity of aquatic species (e.g. sea turtle nesting, fish spawning, or bird nesting) all biological surveys, relocations, and/or monitoring requested by the state agency must be conducted.

Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c); 15A NCAC 04B .0125

30. Culverts shall be designed and installed in such a manner that the original stream profiles are not altered and allows for aquatic life movement during low flows. The dimension, pattern, and profile of the stream above and below a pipe or culvert shall not be modified by widening the stream channel or by reducing the depth of the stream in connection with the construction activity. The width, height, and gradient of a proposed culvert shall be such as to pass the average historical low flow and spring flow without adversely altering flow velocity. If the width of the culvert is wider than the stream channel, the culvert shall include multiple boxes/pipes, baffles, benches and/or sills to maintain the natural width of the stream channel. If multiple culverts/pipes/barrels are used, low flows shall be accommodated in one culvert/pipe and additional culverts/pipes shall be installed such that they receive only flows above bankfull.

Placement of culverts and other structures in streams shall also meet one of the following requirements:

- a. For structures less than 72" in diameter/width and in area where topographic constraints dictate culvert slopes will be greater than 2.5%, culverts shall be installed "at grade" such that low flow conditions in the stream are maintained provided that all alternative options for flattening the slope have been investigated and aquatic life movement/connectivity has been provided when possible (e.g. rock ladders, cross-vanes, sills, baffles etc.); or
- b. When bedrock is present in culvert locations, culvert burial is not required, provided that there is documentation of the presence of bedrock.
- c. For all other culverts:
 - i. Culverts with a diameter greater than 48 inches shall be below the elevation of the streambed by one foot
 - ii. Culverts with diameter less than or equal to 48 inches shall be below the streambed by 20% of the culvert diameter

If a culvert outlet is submerged within a pool or scour hole and designed to provide for aquatic passage, then culvert burial into the streambed is not required.



Documentation such as a location map of the culvert, culvert profile drawings, slope calculations, geotechnical reports, photographs, etc. shall be provided to DWR upon written request.

For culvert replacements within the same location/footprint, and of similar length, culverts shall be designed and installed to meet the above requirements of this Condition unless prohibited by existing conditions on site, such as existing infrastructure or topographic constraints.

Installation of culverts in wetlands shall ensure continuity of water movement and be designed to adequately accommodate high water or flood conditions. When roadways, causeways, or other fill projects are constructed across FEMA-designated floodways or wetlands, openings such as culverts or bridges shall be provided to maintain the natural hydrology of the system as well as prevent constriction of the floodway that may result in destabilization of streams or wetlands.

The establishment of native woody vegetation and other soft stream bank stabilization techniques shall be used where practicable instead of rip-rap or other bank hardening methods.

Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)

31. Application of fertilizer to establish planted/seeded vegetation within disturbed riparian areas and/or wetlands shall be conducted at agronomic rates and shall comply with all other Federal, State and Local regulations. Fertilizer application shall be accomplished in a manner that minimizes the risk of contact between the fertilizer and surface waters.

Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c); 15A NCAC 02B .0231

32. Discharging hydroseed mixtures and washing out hydroseeders and other equipment in, or adjacent to, surface waters is prohibited.

Citation: 15A NCAC 02H.0506(b)

33. If concrete is used during construction (including bulkhead components, such as deadman anchors, tie-back systems and concrete caps), then all necessary measures shall be taken to isolate the concrete from waters of the state by maintaining a dry work area to prevent direct contact between curing concrete and surface waters. Drill slurry and water that inadvertently contacts uncured concrete shall not be discharged to waters of the state. 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. Any water that contacts uncured concrete shall be captured, treated, and disposed of properly.

Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c); 15A NCAC 02B .0200; 15A NCAC 02B .0231



34. All temporary pipes, culverts, rip-rap pads etc. in streams shall be installed so as not to restrict stream flow or installed in such a manner that restricts aquatic life movement during low flow conditions. All temporary pipes and/or culverts shall be installed as outlined in the most recent edition of the *North Carolina Erosion and Sediment Control Planning and Design Manual* or the *North Carolina Surface Mining Manual* or the *North Carolina Department of Transportation Best Management Practices for Construction and Maintenance Activities*.

Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)

35. All temporary fill and temporary culverts shall be removed, and the impacted area shall be returned to natural conditions, within 60 calendar days after the temporary impact is no longer necessary. The impacted areas shall be restored to original grade, including each stream's original cross-sectional dimensions, planform pattern, and longitudinal bed profile. All temporarily impacted sites shall be restored and stabilized with native vegetation when practicable. For all areas where wetlands are impacted by temporary roads constructed by temporary fill material, the Permittee shall remove the fill material and conduct activities necessary to restore preconstruction hydrology by addressing soil compaction. When temporary fill has been added to wetlands, or heavy equipment has been placed within a wetland, the Permittee shall ensure restoration of preconstruction soil conditions when restoring wetland areas. Upon restoration of the wetland, the Permittee shall inspect the area quarterly for a minimum of two years to document successful restoration. The Permittee shall provide documentation of inspections to DWR when requested. The monitoring requirement can be relieved with review and written approval by DWR. If the area is not restored to preconstruction conditions the impacts shall be considered permanent, and the Permittee shall request a modified Certification from DWR. With prior written approval from DWR, removal of temporary fill and temporary culverts and restoration of the impacted area may be postponed to accommodate moratorium periods.

Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)

36. Any rip-rap or other armoring materials required for proper culvert placement, stream stabilization, or restoration of temporarily disturbed areas shall be restricted to the area directly impacted by the construction activity covered by this Certification. All rip-rap or other non-natural armoring material placed in streams shall be placed such that the original streambed elevation and streambank contours are restored, and that the finished elevation of the rip rap shall not exceed that of the original stream bed. All rip-rap or other armoring materials shall consist of clean rock or masonry material free of debris or toxic pollutants. Placement of rip-rap or other armoring materials shall not result in de-stabilization of the stream bed or banks upstream or downstream of the area or be installed in a manner that precludes aquatic life passage.

Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)



37. Any rip-rap or other non-natural armoring material (i.e. gabion baskets, revetments, bulkheads, seawalls, retaining walls) used for stream or shoreline stabilization shall be of a size and density to prevent movement by wave, current action, or stream flows, and shall consist of clean rock or masonry material free of debris or toxic pollutants. Rip-rap or other armoring materials shall not be installed in the streambed except in specific areas required for velocity control and to ensure structural integrity of bank stabilization measures. Any rip-rap or other armoring materials placed in the streambed shall be such that the finished elevation of the rip rap or other armoring materials shall not exceed that of the original stream bed.

Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c); 15A NCAC 02B .0201

38. All mechanized equipment operated near surface waters shall be inspected and maintained regularly to prevent contamination of surface waters from fuels, lubricants, hydraulic fluids, or other toxic materials. Construction shall be staged in order to minimize the exposure of equipment to surface waters to the maximum extent practicable. Fueling, lubrication, and general equipment maintenance shall be performed in a manner to prevent, to the maximum extent practicable, contamination of surface waters by fuels and oils.

Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c); 15A NCAC 02B .0200; 15A NCAC 02B .0231

39. Heavy equipment working in wetlands shall be placed on mats or non-impact equipment shall be used to ensure no disturbance and/or compaction of soil from equipment except within the footprint of the impacts covered by this Certification. Heavy equipment necessary for in stream activities shall be operated from the banks to the maximum extent practical and in no cases shall cause unstable stream banks or a violation of water quality standards.

Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c); 15A NCAC 02B .0231

40. In accordance with G.S. 143-215.85(b), the Permittee shall report any petroleum spill of 25 gallons or more; any spill regardless of amount that causes a sheen on surface waters; any petroleum spill regardless of amount occurring within 100 feet of surface waters; and any petroleum spill less than 25 gallons that cannot be cleaned up within 24 hours.

Citation: 15A NCAC 02H .0507(c); N.C.G.S 143-215.85(b)

41. The Permittee and their authorized agents shall conduct all 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.

Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)



42. A copy of this Certification shall be retained on site during the construction and maintenance of this project, or with the project manager, and be available for inspection at all times. The Permittee shall require its contractors and/or agents to comply with the terms and conditions of this Certification in the construction and maintenance of this project and shall provide each of its contractors and/or agents associated with the construction or maintenance of this project with a copy of this Certification. If the Permittee becomes aware of any inability to comply with any of the conditions of this Certification, they must notify the appropriate Regional Office within 24 hours (or the next business day if a weekend or holiday) from the time the Permittee becomes aware of the circumstances.

Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)

43. 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.

Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)

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.

Upon completion of the proposed project, the applicant shall submit a Certificate of Completion and/or shall provide as-built documentation. Certificates of Completion and/or as-built documentation can be submitted via the DWR website: <https://edocs.deq.nc.gov/Forms/Certificate-of-Completion>.

This, the 3rd day of September 2026

Signed by:

Faith Hardin

3185423002EA45E...

Faith Hardin, Supervisor

401 & Buffer Permitting Transportation Branch
Division of Water Resources, NCDEQ



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: DF1813.1100999.1.1		TIP/Proj No: M-0572G		County(ies): Yancey		Page 1 of 2	
General Project Information							
WBS Element:		DF1813.1100999.1.2		TIP Number: M-0572G		Project Type: Bridge Replacement	
NCDOT Contact:		Michael Turchy		Contractor / Designer:		JMT - Jeremy Koser	
Address:		NCDOT ECAP 1598 Mail Service Center, Raleigh, NC 27699-1598		Address:		40 Wight Ave Cockeysville, MD 21030	
Phone:		919-707-6157		Phone:		410-316-2360	
Email:		mturchy@ncdot.gov		Email:		jkoser@jmt.com	
City/Town:		Green Mountain		County(ies):		Yancey	
River Basin(s):		French Broad		CAMA County?		No	
Wetlands within Project Limits?		No					
Project Description							
Project Length (lin. miles or feet):		0.114 Lin. Miles		Surrounding Land Use: Rural mountainous (woods and some residential)			
		Proposed Project		Existing Site			
Project Built-Up Area (ac.)		0.7 ac.		0.8 ac.			
Typical Cross Section Description:		MURPHYTOWN ROAD: 2 LANES @ 9' BENT CREEK RD: 2 LANES @ 9'		MURPHYTOWN ROAD: 2 LANES @ 9' BENT CREEK RD: 2 LANES @ 9'			
Annual Avg Daily Traffic (veh/hr/day):		Design/Future:		Year:		Existing:	
General Project Narrative: (Description of Minimization of Water Quality Impacts)		The North Carolina Department of Transportation (NCDOT) has proposed the replacement of Bridge 990093 between Hunt Dale Road and Murphytown Road (SR 1343) in Yancey County, NC. Cane River is impacted by the project. Bridge 990093 is to be relocated and reconstructed. NCDOT "Best Management Practices for the Protection of Surface Waters" will be utilized throughout the life of the project. Erosion and sediment will be controlled through the specification, installation, and maintenance of most stringent erosion and sedimentation control methods. Existing drainage patterns will be maintained to the extent practicable. There is not a water supply watershed critical area located within 1.0 mile downstream of this project, therefore Hazardous Spill Basins are not required for this project. The North Carolina Department of Transportation (NCDOT) has proposed the replacement of Bridges 990138 and 990124 between US-19W and Bent Creek Rd in Yancey County, NC. Cane River and Bent Creek are impacted by the project. Bridges 990124 and 990138 are to be reconstructed in the same location as the pre-Helene structures. NCDOT "Best Management Practices for the Protection of Surface Waters" will be utilized throughout the life of the project. Erosion and sediment will be controlled through the specification, installation, and maintenance of most stringent erosion and sedimentation control methods. Existing drainage patterns will be maintained to the extent practicable. There is not a water supply watershed critical area located within 1.0 mile downstream of this project, therefore Hazardous Spill Basins are not required for this project. In September 2024, Hurricane Helene damaged a large portion of the US-19W, Hunt Dale Road, Murphytown Road, and Bent Creek Rd. The storm altered the Cane River and Bent Creek through stream migration, embankment scour, and sediment deposition. During the rebuilding of the corridor, parts of the stream are being realigned to protect the proposed road and replacement bridges. The stream is being designed to provide adequate bank full flow and prevent future scour issues along the corridor.					



North Carolina Department of Transportation

Highway Stormwater Program
STORMWATER MANAGEMENT PLAN
FOR NCDOT PROJECTS

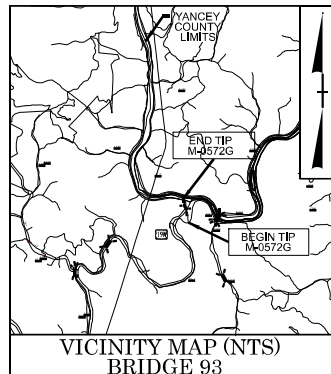
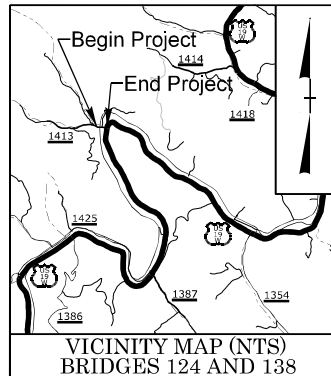
(Version 3.02; Released April 23, 2024)

WBS Element: DF1813.1100999.1.; TIP/Proj No.: M-0572G County(ies): Yancey Page 2 of 2

General Project Information

Waterbody Information

Surface Water Body (1):	Cane River		NCDWR Stream Index No.:	7-3-(13.7)	
NCDWR Surface Water Classification for Water Body	Primary Classification:		Class C		
	Supplemental Classification:		Trout Waters (Tr)		
Other Stream Classification:					
Impairments:	None				
Aquatic T&E Species?	Yes	Comments: Appalachian Elktoe			
NRTR Stream ID:				Buffer Rules in Effect:	N/A
Project Includes Bridge Spanning Water Body?	No	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):	Bent Creek		NCDWR Stream Index No.:	7-3-37	
NCDWR Surface Water Classification for Water Body	Primary Classification:		Class C		
	Supplemental Classification:		Trout Waters (Tr)		
Other Stream Classification:					
Impairments:	None				
Aquatic T&E Species?	Yes	Comments: Appalachian Elktoe			
NRTR Stream ID:				Buffer Rules in Effect:	
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)					



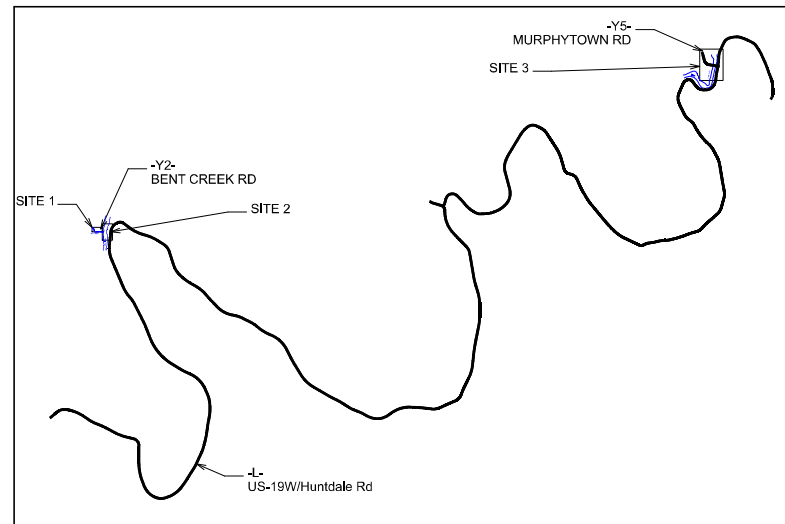
STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

YANCEY COUNTY

LOCATION: *REPLACE BRIDGE NO. 990138 OVER BENT CREEK,
990124 AND 990093 OVER CANE RIVER*

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

WETLAND AND SURFACE WATER IMPACTS PERMIT



NC GRID
NAD 83 NA 2011

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.		1	
STATE PROJ. NO.		F. A. PROJ. NO.	DESCRIPTION
DF1813.1100999.1.2		ER24384	PE
			R/W, UTILITIES
			CONSTRUCTION

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
YANCEY COUNTY



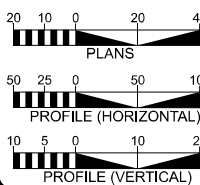
**PERMIT DRAWING
SHEET 1 OF 16**

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



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

GRAPHIC SCALES



DESIGN DATA

ADT 2027 =
ADT 2047 = <400
T = % *
V = 25 MPH
* TTST = % DUAL %
FUNC CLASS =
RURAL LOCAL
REGIONAL TIER

PROJECT LENGTH

LENGTH OF ROADWAY TIP PROJECT M-0572G = 4.205 MILES
LENGTH OF STRUCTURE TIP PROJECT M-0572G = 0.038 MILE
TOTAL LENGTH OF TIP PROJECT M-0572G = 4.243 MILES



Johnson, Mirmiran, & Thompson Inc.
2550 West Tyvola Road, Suite 120
Charlotte, NC 28217
License No: C-3097

RIGHT OF WAY DATE:

LETTING DATE:

CHARLES YOUNG, PE, PMP

PROJECT ENGINEER

DAVID DAVES

PRINCIPAL DESIGN ENGINEER

NC DOT CONTACT

HYDRAULICS ENGINEER

SIGNATURE P.E.

ROADWAY DESIGN ENGINEER

SIGNATURE P.E.



- PRE-HELENE
EDGE OF WATER
 POST-HELENE
EDGE OF WATER
 PROPOSED
EDGE OF WATER
 PROPOSED BENCH



TEMPORARY
CONSTRUCTION
CAUSEWAY

IMPACT AREA
(AC)

IMPACT LENGTH
(LF)



SURFACE WATER
IMPACTS



TEMPORARY SURFACE
WATER IMPACTS

0.05

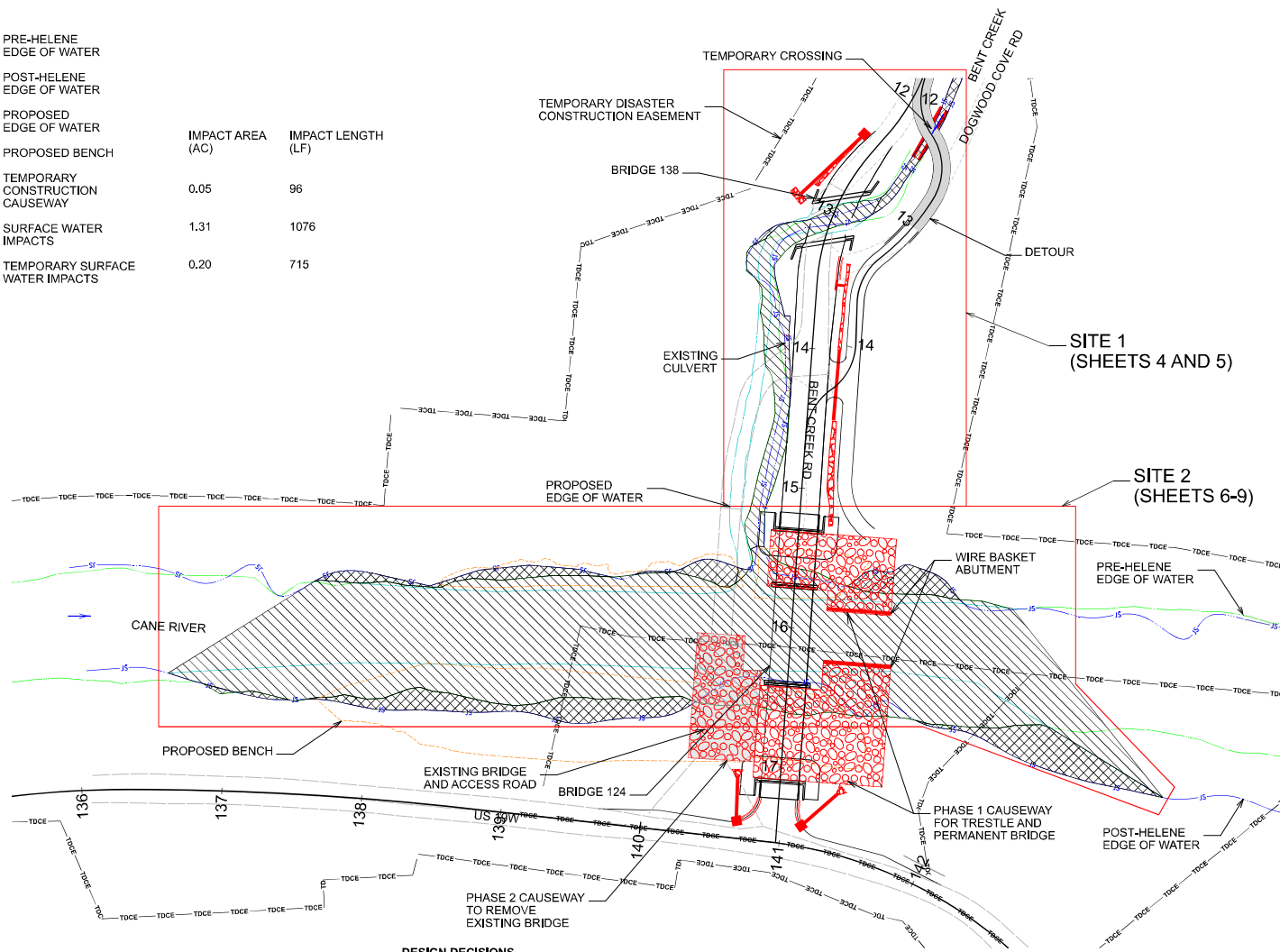
96

1.31

1076

0.20

715



DESIGN DECISIONS

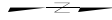
Bent Creek

Several design alternatives were evaluated to address storm impacts to the stream channel and facilitate reconstruction of Bent Creek Road, Dogwood Cove Road and Bridge 124 and 138. No action was considered, however dismissed as temporary / emergency roadway work impacted the pre-storm channel, including piping through a temporary culvert, all of which required removal to reconstruct the infrastructure. The initial alternative included relocating Bent Creek between Bent Creek Road and Dogwood Cove Road to simplify traffic control and construction sequencing considering the location of the existing temporary roadway and bridge over the Cane River and the desire to have the tributary connect to the Cane River downstream of the reconstructed bridge location to minimize future scour risk. Due to work area constraints, the presence of shallow bedrock along this alignment and the steep tie-in slope with the Cane River, an alternative was considered to relocate the stream back to its approximate pre-storm location. This alternative, as presented in the current plans, largely reestablishes the pre-storm step pool morphology and channel alignment to provide long-term stability of the channel and adjacent infrastructure including future resiliency as provided by a stream corridor with greater flow capacity.

Cane River

Several alternatives were considered to reconstruct the Cane River due to storm impacts to Bridge 124 and US19W. This included evaluating the Bridge 124 span arrangements, low chord elevation and roadway geometry to reconnect US19W with Bent Creek Road. No action was considered, however dismissed, as the river thalweg shifted closer to Bent Creek Road and much of the pre-storm floodplain bench / embankment areas along US19W had been eroded away due to the storm. An initial alternative included reestablishment of the pre-storm channel geometry through thalweg and bench reconstruction. However, in order to provide a more resilient river condition and minimize stream channel impacts, it was decided to focus on reestablishment of the low-flow channel conditions and only minor bench reconstruction. This will provide the conditions necessary for geomorphic and hydraulic stability through Bridge 124, continued post storm sediment transport adjustments and facilitate reconstruction of the US19W roadway embankment.

OVERALL
PERMITTING IMPACTS



PERMIT DRAWING
SHEET 2 OF 16
Rev. 7/17/26

M-05726

WPI 1



ROADWAY DESIGN UNIT
ENGINEER

HYDRAULICS
ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR NEW ACQUISITION

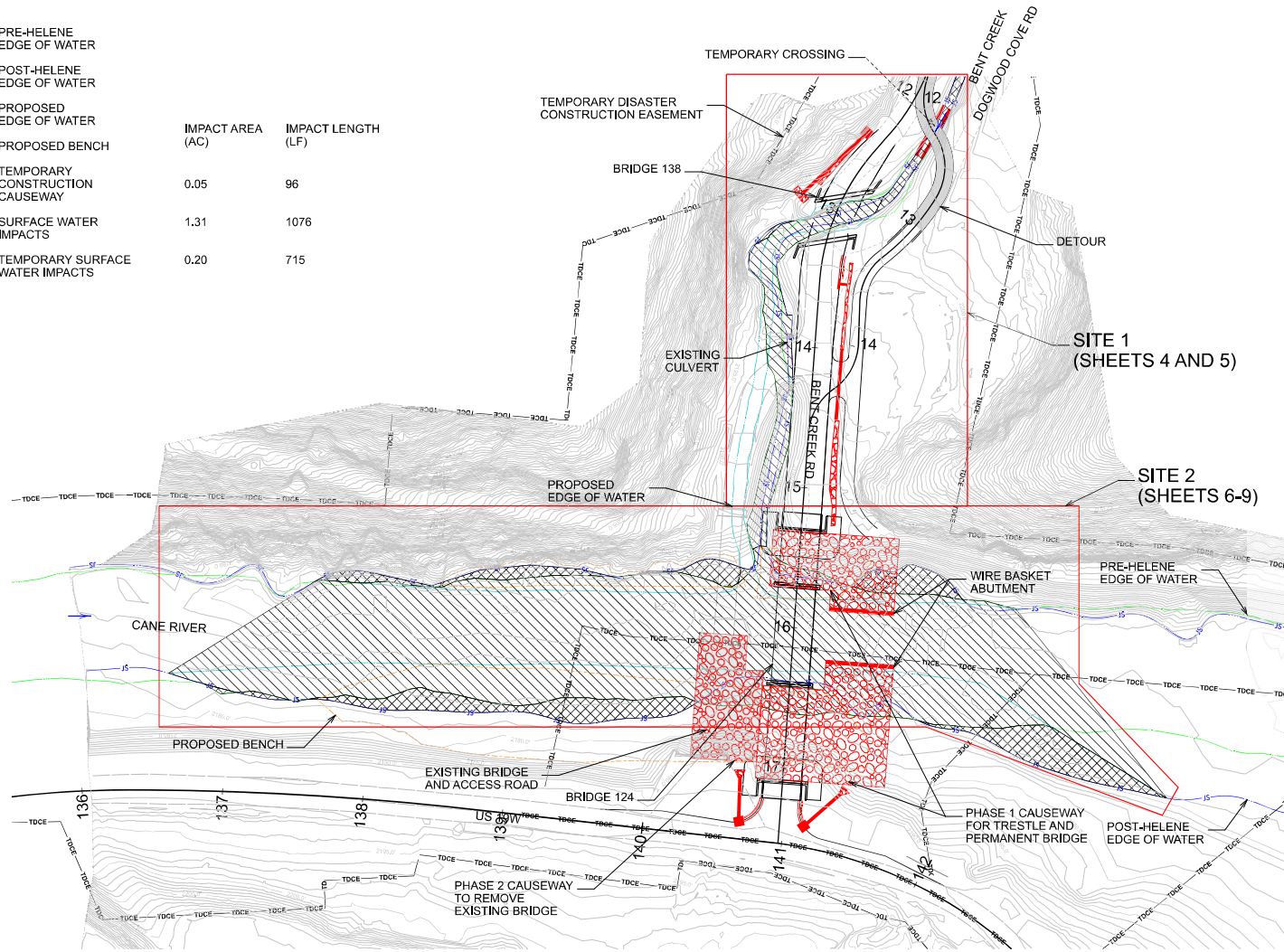
JMT
Johnston, Moore & Thompson, Inc.
2150 West Trade Road, Suite 120
Charlotte, NC 28217
License No. 5-2007

SUMMERS+TAYLOR
SEMA JMT

SECTION

PLAN
Scale: 1" = 40'

	PRE-HELENE EDGE OF WATER		
	POST-HELENE EDGE OF WATER		
	PROPOSED EDGE OF WATER		
	PROPOSED BENCH		
	TEMPORARY CONSTRUCTION CAUSEWAY	0.05	96
	SURFACE WATER IMPACTS	1.31	1076
	TEMPORARY SURFACE WATER IMPACTS	0.20	715



PERMIT DRAWING
SHEET 3 OF 16
Rev. 7/17/26

PLAN
Scale: 1" = 40'

OVERALL
PERMITTING IMPACTS

M-05726

WPI 1



ROADWAY DESIGN UNIT
ENGINEER

HYDRAULICS
ENGINEER

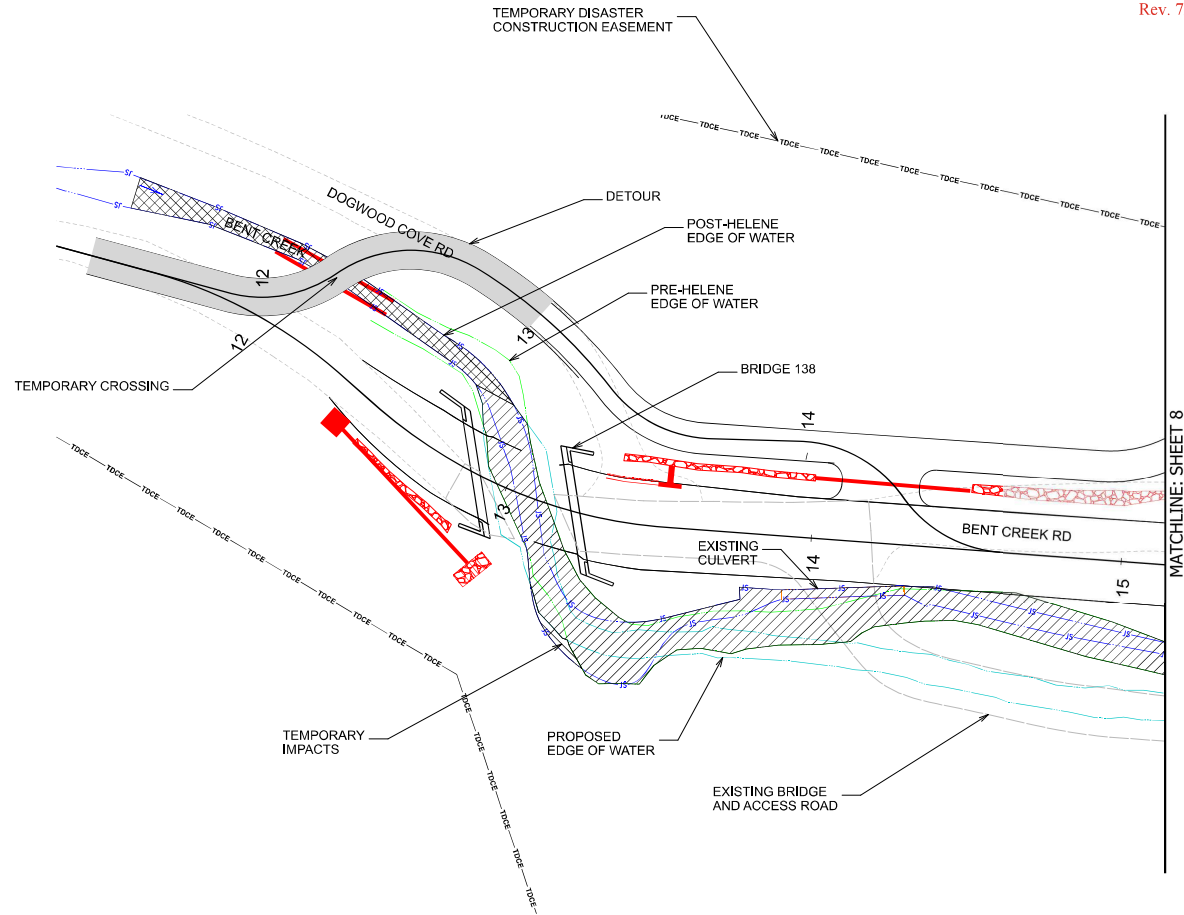
INCOMPLETE PLANS
DO NOT USE FOR ANY ACTION
UNLESS NOTED OTHERWISE

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SUMMERS TAYLOR
SEMA JMT

SHEET 3

	PRE-HELENE EDGE OF WATER		
	POST-HELENE EDGE OF WATER		
	PROPOSED EDGE OF WATER		
	PROPOSED BENCH		
	TEMPORARY CONSTRUCTION CAUSEWAY		
	SURFACE WATER IMPACTS	0.10	315
	TEMPORARY SURFACE WATER IMPACTS	0.02	157



**SITE 1: BENT CREEK
PERMITTING IMPACTS**

**PERMIT DRAWING
SHEET 4 OF 16**
Rev. 7/17/26

M-05726

WPI 1



ROADWAY DESIGN UNIT
ENGINEER

HYDRAULICS

INCOMPLETE PLANS

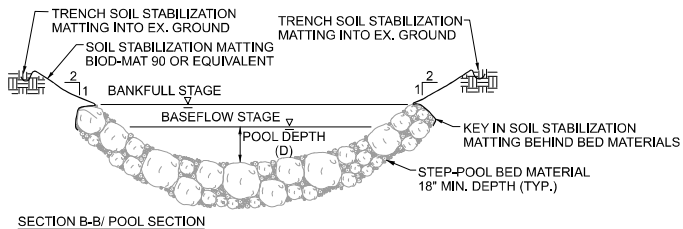
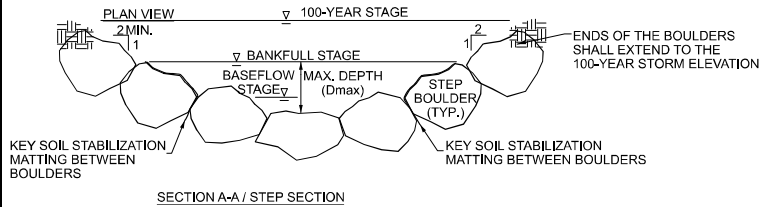
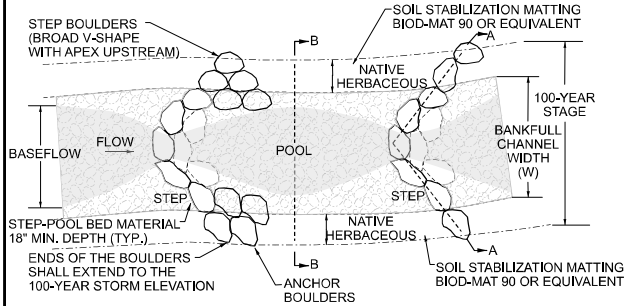
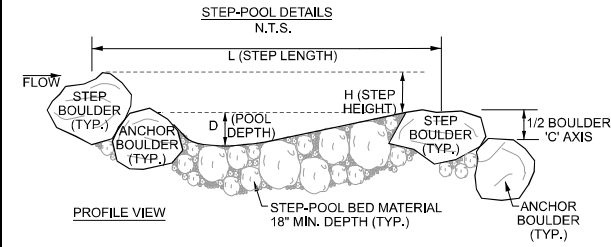
DO NOT USE FOR NEW ADJUSTMENTS

UNDESIGNED AND UNCONSTRUCTED

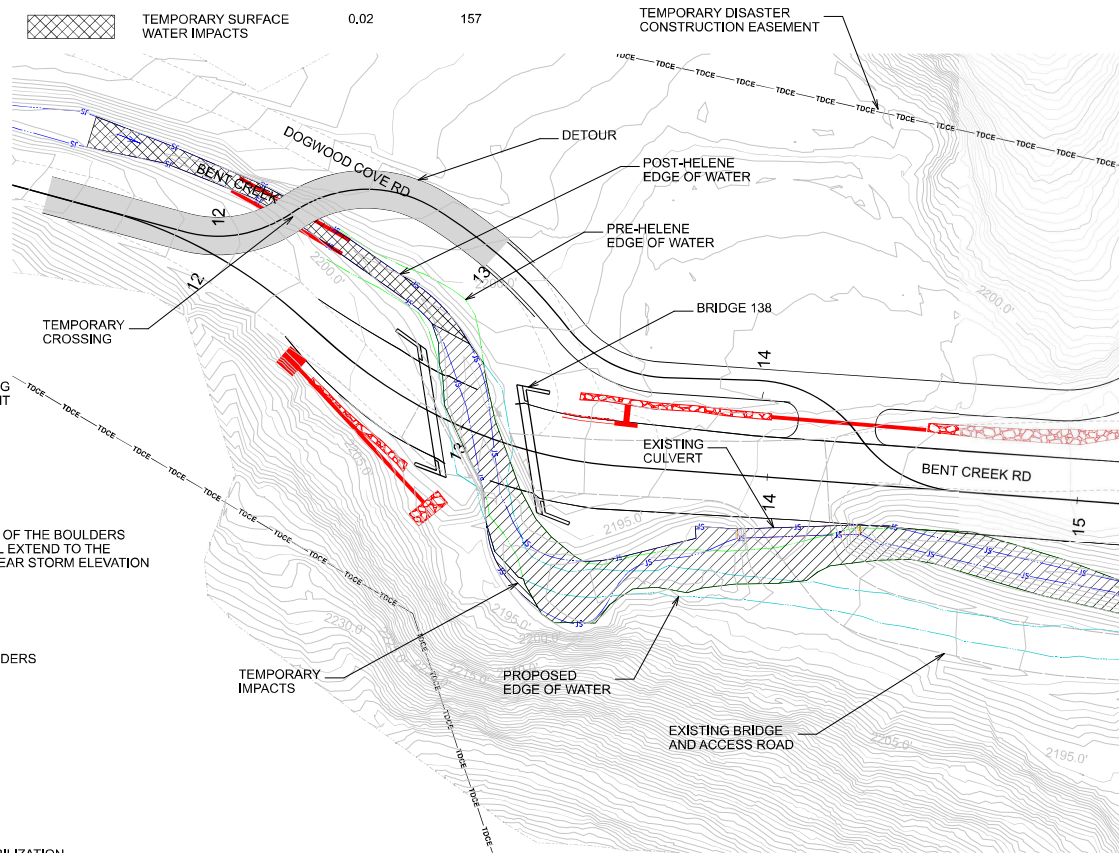
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2155 West Trade Road, Suite 120
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SECTIONS



	PRE-HELENE EDGE OF WATER		
	POST-HELENE EDGE OF WATER		
	PROPOSED EDGE OF WATER		
	PROPOSED BENCH		
	TEMPORARY CONSTRUCTION CAUSEWAY		
	SURFACE WATER IMPACTS	0.10	315
	TEMPORARY SURFACE WATER IMPACTS	0.02	157



PERMIT DRAWING
SHEET 5 OF 16
Rev. 7/17/26

MATCHLINE: SHEET 9

PLAN
Scale: 1" = 40'

SITE 1: BENT CREEK
PERMITTING IMPACTS

M-05726

WPI 1



ROADWAY DESIGN UNIT
ENGINEER

HYDRAULICS ENGINEER

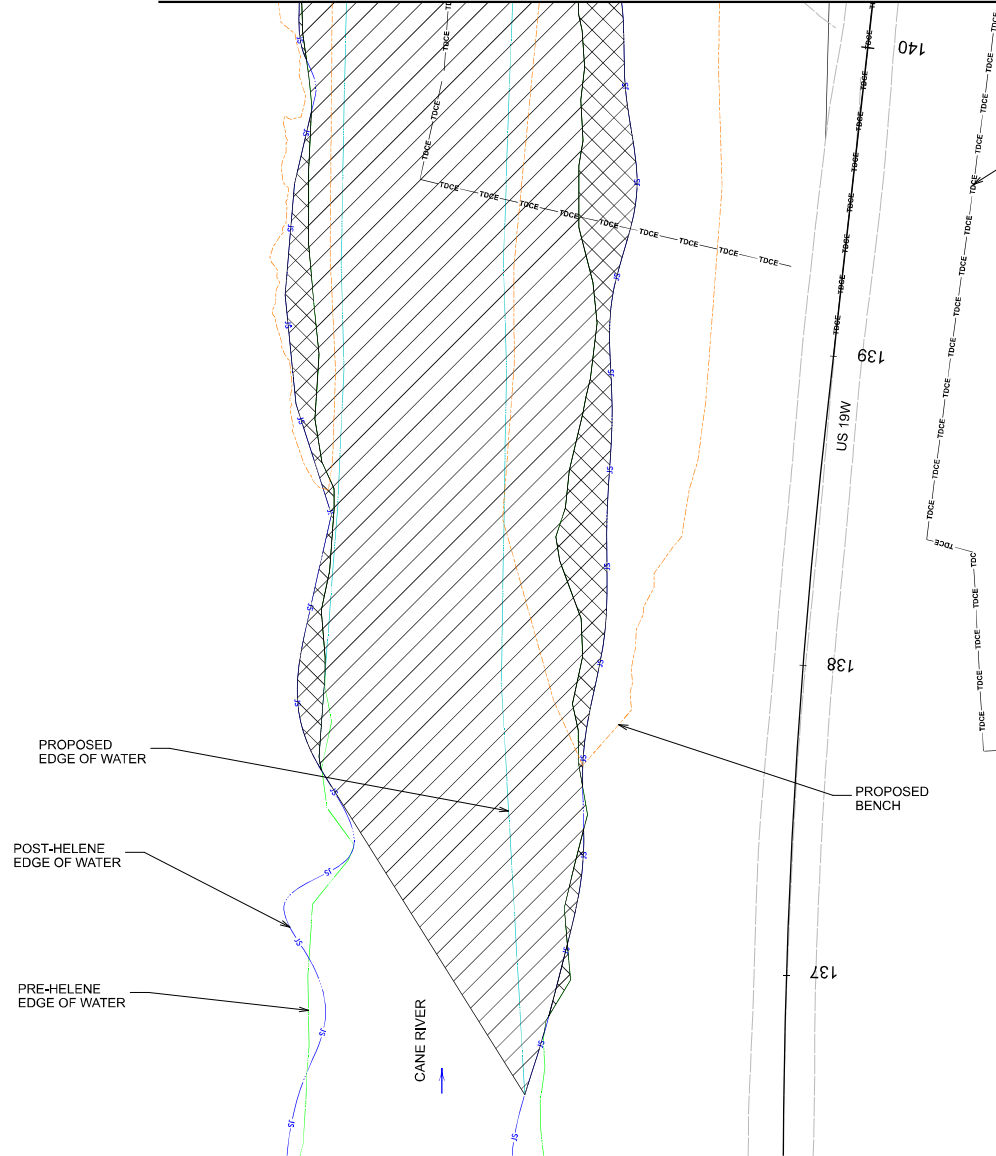
INCOMPLETE PLANS
DO NOT USE FOR NEW ACQUISITION

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Charlotte, NC 28217
License No. 5-2007



SHEET 5

MATCHLINE: SHEET 8



TEMPORARY DISASTER
CONSTRUCTION EASEMENT

- PRE-HELENE
EDGE OF WATER
- POST-HELENE
EDGE OF WATER
- PROPOSED
EDGE OF WATER
- PROPOSED BENCH
- TEMPORARY
CONSTRUCTION
CAUSEWAY
- SURFACE WATER
IMPACTS
- TEMPORARY SURFACE
WATER IMPACTS

IMPACT AREA (AC)	IMPACT LENGTH (LF)
1.21	760
0.19	648

PERMIT DRAWING
SHEET 6 OF 16

PLAN
Scale: 1" = 40'

SITE 2: CANE RIVER
PERMITTING IMPACTS

M-05726

WPI 1



ROADWAY DESIGN UNIT
ENGINEER

HYDRAULICS
ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR NEW AGE SECTION

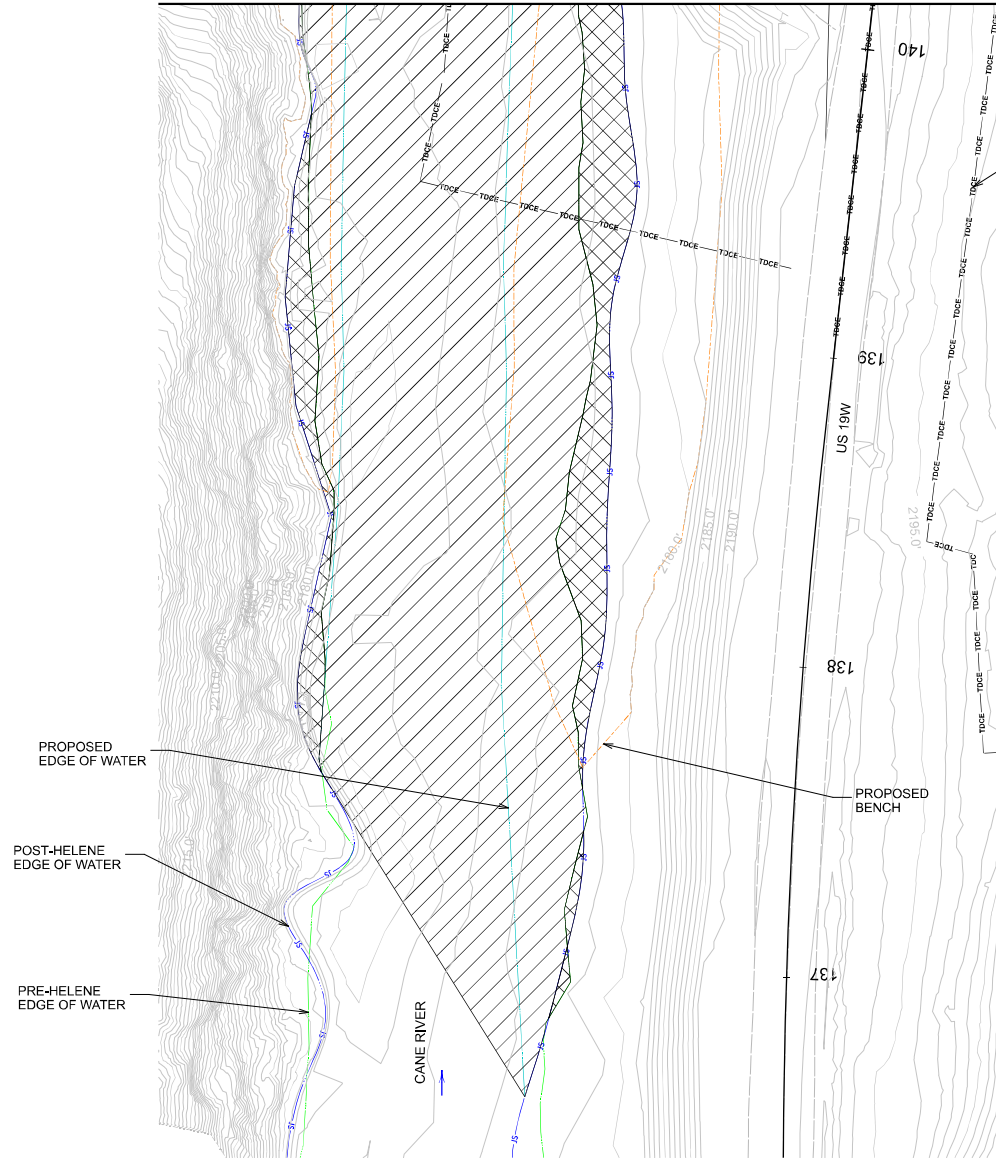
UNDESIGNED FOR CONSTRUCTION

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**SUMMERS TAYLOR
SEMA JMT**

5/23/24

MATCHLINE: SHEET 9



TEMPORARY DISASTER
CONSTRUCTION EASEMENT

- PRE-HELENE
EDGE OF WATER
- POST-HELENE
EDGE OF WATER
- PROPOSED
EDGE OF WATER
- PROPOSED BENCH
- [Hatched Box] TEMPORARY
CONSTRUCTION
CAUSEWAY
- [Cross-hatched Box] SURFACE WATER
IMPACTS
- [Cross-hatched Box] TEMPORARY SURFACE
WATER IMPACTS

	IMPACT AREA (AC)	IMPACT LENGTH (LF)
SURFACE WATER IMPACTS	1.21	760
TEMPORARY SURFACE WATER IMPACTS	0.19	648

PERMIT DRAWING
SHEET 7 OF 16

PLAN
0 10 20
Scale: 1" = 40'

SITE 2: CANE RIVER
PERMITTING IMPACTS

M-05726

WPI 1



ROADWAY DESIGN UNIT
ENGINEER

HYDRAULICS
ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR NEW AGE SECTION
UNDESIGNED AND UNCONSTRUCTED

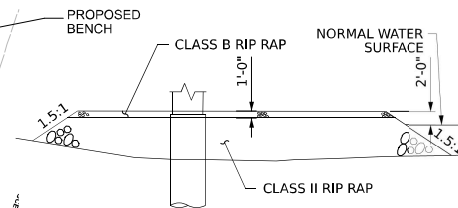
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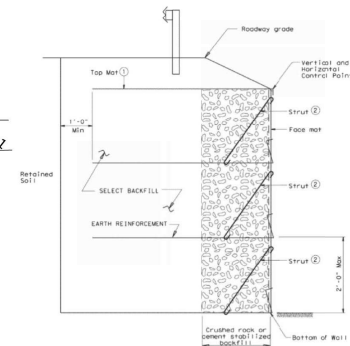
SHEET 7 OF 16

- PERMIT DRAWING
SHEET 8 OF 16

	IMPACT AREA (AC)	IMPACT LENGTH (LF)
 PRE-HELENE EDGE OF WATER		
 POST-HELENE EDGE OF WATER		
 PROPOSED EDGE OF WATER		
 PROPOSED BENCH		
 TEMPORARY CONSTRUCTION CAUSEWAY	0.05	96
 SURFACE WATER IMPACTS	1.21	760
 TEMPORARY SURFACE WATER IMPACTS	0.19	648



TEMPORARY CAUSEWAY
DETAIL



WIRE BASKET ABUTMENT DETAIL

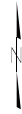
SITE 2: CANE RIVER PERMITTING IMPACTS



- PRE-HELENE
EDGE OF WATER
- POST-HELENE
EDGE OF WATER
- PROPOSED
EDGE OF WATER
- - - PROPOSED BENCH
- TEMPORARY
CONSTRUCTION
CAUSEWAY
- SURFACE WATER
IMPACTS
- TEMPORARY SURFACE
WATER IMPACTS

IMPACT AREA (AC)	IMPACT LENGTH (LF)
0.05	96
1.31	1076
0.20	715

PERMIT DRAWING
SHEET 9 OF 16



PLAN
Scale: 1" = 40'

M-05726

WPI 1



ROADWAY DESIGN UNIT
ENGINEER

HYDRAULICS
ENGINEER

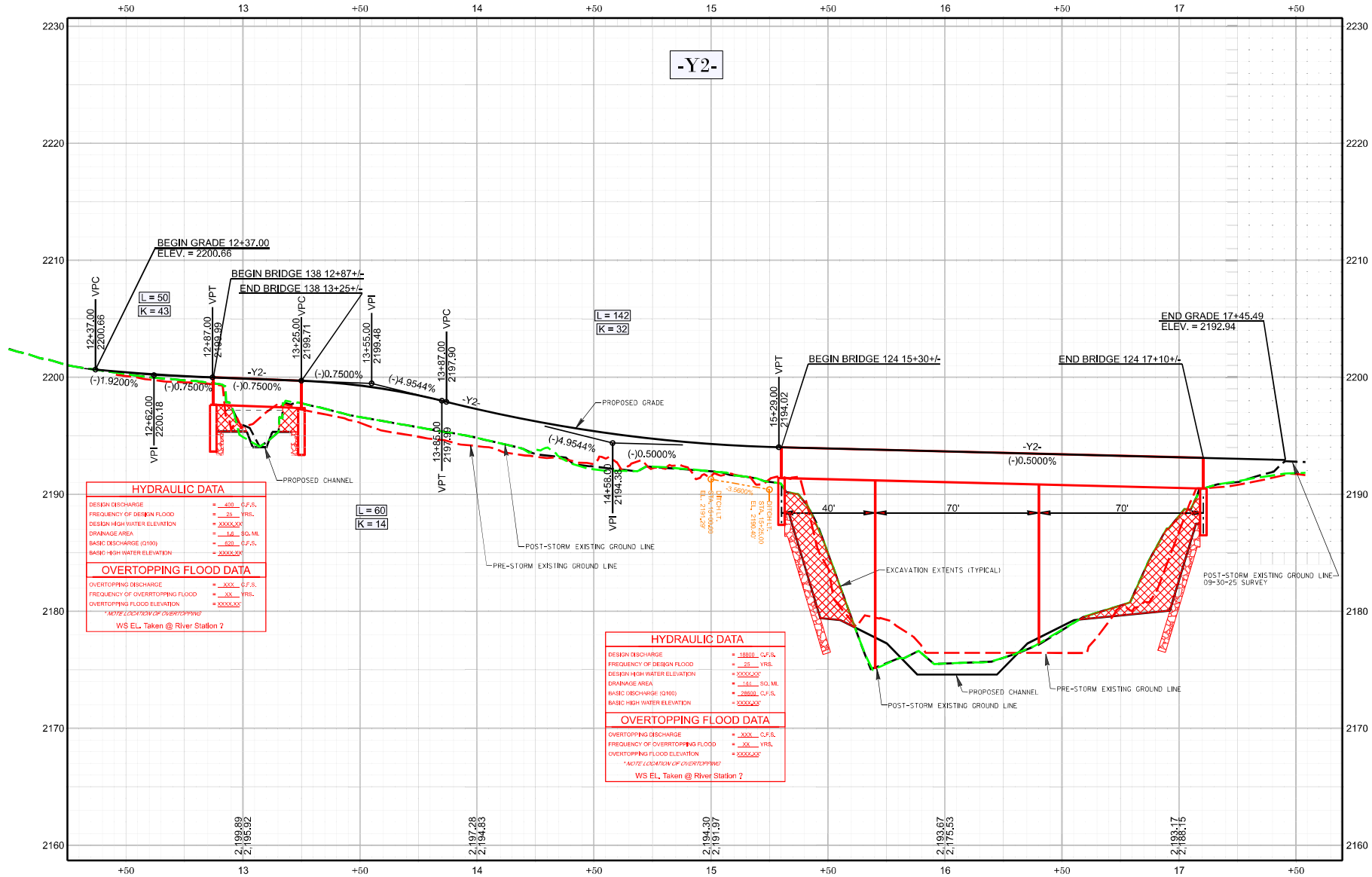
INCOMPLETE PLANS
DO NOT USE FOR NEW ACQUISITION
UNLESS NOTED OTHERWISE

JMT
Johnson, Moore & Thompson, Inc.
2155 West Trade Road, Suite 120
Charlotte, NC 28217
License No. 5-2007

SUMMERS TAYLOR
SEMA JMT

SECTION

SITE 2: CANE RIVER
PERMITTING IMPACTS



M-05726

WPI 5

RW SHEET NO.

NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

YANCEY COUNTY

ROADWAY DESIGN UNIT

ENGINEER

HYDRAULICS

ENGINEER

DOCUMENT NOT CONSIDERED FINAL

UNLESS ALL SIGNATURES AND STAMPS ARE PRESENT

JMT

Johnson, Moore & Thompson, Inc.

2005 West Tryon Road, Suite 120

Charlotte, NC 28217

License No. C-2007

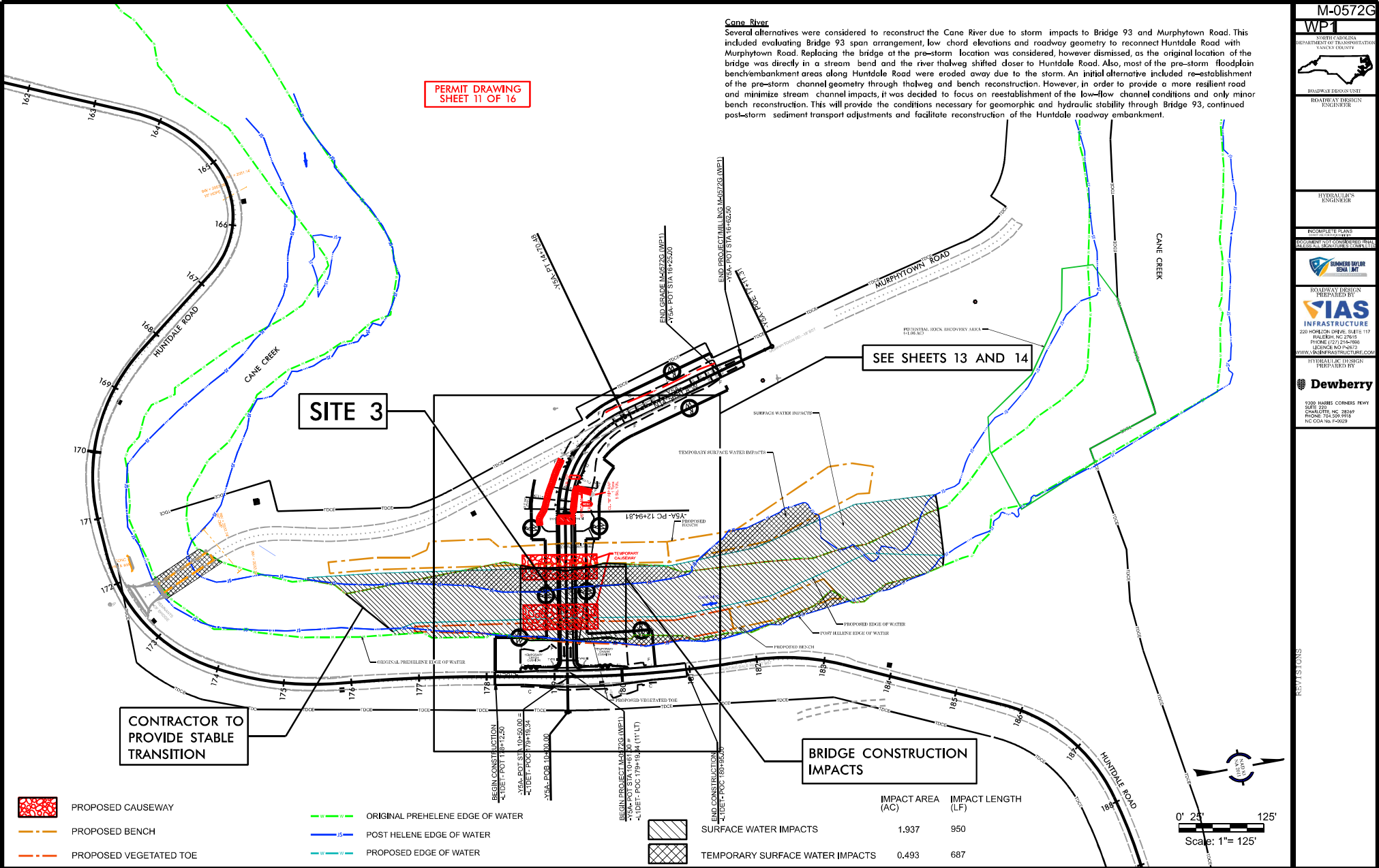
SUMMERS-TAYLOR

SEMA, JMT

PERMIT DRAWING
SHEET 11 OF 16

Cane River

Several alternatives were considered to reconstruct the Cane River due to storm impacts to Bridge 93 and Murphytown Road. This included evaluating Bridge 93 span arrangement, low chord elevations and roadway geometry to reconnect Hunt Dale Road with Murphytown Road. Replacing the bridge at the pre-storm location was considered, however dismissed, as the original location of the bridge was directly in a stream bend and the river thalweg shifted closer to Hunt Dale Road. Also, most of the pre-storm floodplain bench/embankment areas along Hunt Dale Road were eroded away due to the storm. An initial alternative included re-establishment of the pre-storm channel geometry through thalweg and bench reconstruction. However, in order to provide a more resilient road and minimize stream channel impacts, it was decided to focus on reestablishment of the low-flow channel conditions and only minor bench reconstruction. This will provide the conditions necessary for geomorphic and hydraulic stability through Bridge 93, continued post-storm sediment transport adjustments and facilitate reconstruction of the Hunt Dale roadway embankment.



M-0572G

WP1

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
VANCO COUNTY

ROADWAY DESIGN UNIT

ROADWAY DESIGN
ENGINEERHYDRAULIC
ENGINEER

RECOMPLETE PLANS

REQUIREMENT NOT COMPLETED

SCHEDULE DURING
CONSTRUCTIONROADWAY DESIGN
PREPARED BYIAS
INFRASTRUCTURE220 HORIZON DRIVE, SUITE 117
WALTON, NC 27157
PHONE (771) 214-1888
LICENSE NO. 14123HYDRAULIC DESIGN
PREPARED BY

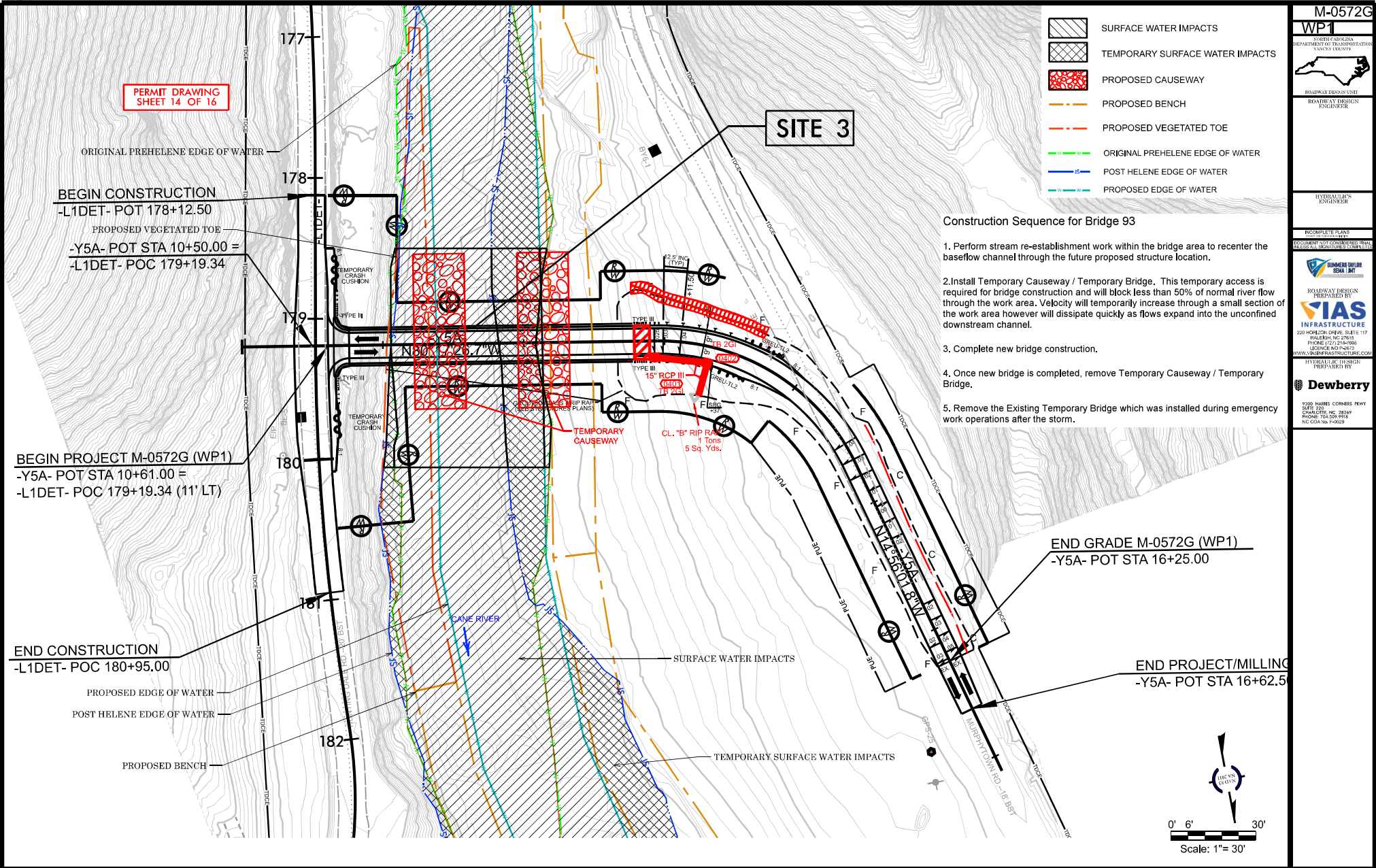
Dewberry

220 HARRIS CORNER HWY
SUITE 220
CHARLOTTE, NC 28247
PHONE 704.509.9918
NC CON. NO. 70459

REVISIONS



PERMIT DRAWING
SHEET 14 OF 16



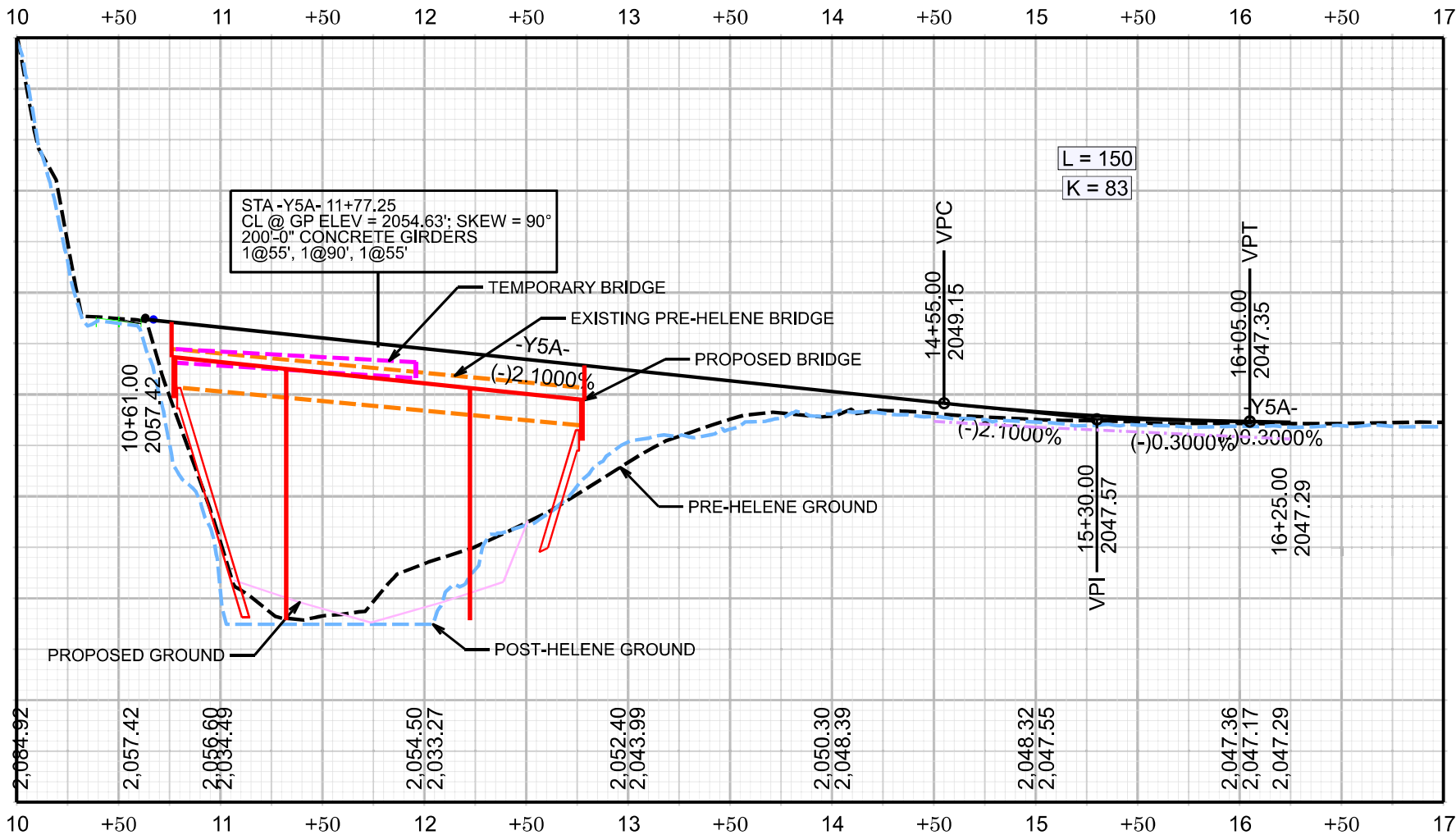
M-0572G

WP1

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
VANCOUVER COUNTY

ROADWAY DESIGN UNIT

ROADWAY DESIGN
ENGINEERHYDRAULIC
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ENGINEER



M-0572G

WP1
NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
YANCEY COUNTY



ROADWAY DESIGN UNIT
ROADWAY DESIGN
ENGINEER

HYDRAULICS
ENGINEER



ROADWAY DESIGN
PREPARED BY
VIAS
INFRASTRUCTURE
220 HORIZON DRIVE, SUITE 117
HALLSBURG, NC 27645
PHONE: (773) 274-7666
LICENCE NO. P-2613
WWW.VIASINFRASTRUCTURE.COM

HYDRAULIC DESIGN
PREPARED BY
Dewberry

6300 HARRIS CORNERS PKWY
SUITE 220
CHARLOTTE, NC 28219
PHONE: 704.306.9918
NC COR. NO. P-8029

*Rounded totals are sum of actual impacts

SHEET	16	OF	16
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