



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

JOSH STEIN
GOVERNOR

J.R. "JOEY" HOPKINS
SECRETARY

February 21, 2025

MEMORANDUM TO: Division Environmental and Construction Units

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

SUBJECT: Environmental Permits for the Replacement of Bridges 67 & 68 on US 29/US 70 over SR 1192 in Davidson County, Division 9, **TIP: BR-0015.**

Please find enclosed the following permits for this project:

Agency	Permit Type	Permit Expiration
US Army Corps of Engineers Section 404 Clean Water Act Permit	Nationwide Permit 14	March 14, 2026
NC Division of Water Resources Section 401 Water Quality Certification	Individual Certification No. 007437	March 14, 2026

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

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

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



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, WILMINGTON DISTRICT
WILMINGTON REGULATORY OFFICE
69 DARLINGTON AVENUE
WILMINGTON NORTH CAROLINA 28403

February 20, 2025

Regulatory Division
SAW-2016-01267

Sent Via email: ekcheely@ncdot.gov

Erin Cheely, Western Team Lead
Environmental Coordination & Permitting
NCDOT Environmental Analysis Unit
1598 Mail Service Center
Raleigh, NC 27699

Dear Ms. Cheely:

This letter is in response to the Pre-Construction Notification (PCN) you submitted to the Wilmington District, WRDA / Transportation Branch on December 16, 2024, for a Department of the Army Nationwide permit (NWP) verification. This project has been assigned the file number SAW-2016-01267 and is known as NCDOT BR-0015, Bridge # 67 & # 68 Replacements on US 29/US 70 over SR 1192 . This file number should be referenced in all correspondence concerning this project.

A review of the information provided indicates that the proposed work would include the replacement of the existing US 29/US 70 Bridges (#67 & # 68) and to construct a single bridge carrying both northbound and south bound lanes on US 29/US 70 across SR 1192 (West 5th Avenue). This project will include permanent placement of 15 linear feet (lf) of fill, placement of a total of 123 lf of permanent bank stabilization and temporary placement of dewatering structures in 33 lf of a tributary of Michaels Branch. In addition, this project will include the placement of 47 lf of permanent bank stabilization and 35 lf of temporary dewatering structures in Michaels Branch. The project area for this determination includes approximately 29 acres area which is illustrated on the enclosed site plans/maps. The project/review area is located in Michaels Branch and a tributary to Michaels Branch; at a location adjacent to the intersection/interchange of US 29/US 70 and SR 1192 (West 5th Avenue), at Latitude 35.825760 and Longitude -80.275690; in Lexington, Davidson County, North Carolina.

We have determined that the proposed work is authorized by Nationwide Permit 14 (NWP-14) 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 general permit conditions, any regional conditions, the special conditions listed in this letter, the application materials, and the enclosed plans. If the extent of the project area and/or nature of the authorized impacts to waters are modified, a revised PCN must be

submitted to this office for written approval before work is initiated. Any violation of permit conditions or deviation from your submitted plans may subject the permittee to enforcement action.

This verification is valid until March 14, 2026, unless prior to this date the subject NWP(s) is suspended, revoked, or is modified such that the activity no longer complies with the terms and conditions of this NWP. If you commence or are under contract to commence this activity before the date that the relevant NWP is modified or revoked, you will have 12 months from the date of the modification or revocation of the NWP to complete the activity under the present terms and conditions of this NWP.

Project Specific Special Conditions:

1. All work must be performed in strict compliance with (a) the description of work in the PCN and (b) the Wetlands and Surface Water Impact Permit Drawing(s) (Permit Plans) in the application dated December 16, 2024. Any modification to the description of work and/or the permit plans must be approved by the USACE prior to implementation.
2. 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.
3. Since suitable habitat for tricolored bat (*Perimyotis subflavus*) may be present in the BR-0015 project area, the permittee agrees to implement the follow conservation measures for the NCDOT BR-0015, Bridge # 67 & # 68 Replacements on US 29/US 70 over SR 1192 :
 - a. Tree clearing will occur outside of the tricolored bat summer activity season (April 1 - July 15) for the year-round active Zone 1.
 - b. Permanent lighting will be replaced in the action area and will reduce backlight and glare from previous conditions.
 - c. Any lighting needed for night work will be directed toward the active work area and will be turned off when not in use.
4. In order to compensate for impacts associated with this permit, mitigation shall be provided in accordance with the provisions outlined on the most recent version of the attached Compensatory Mitigation Responsibility Transfer Forms. The requirements of these forms, including any special conditions listed on these forms, are hereby incorporated as special conditions of this permit authorization

This NWP verification does 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 Stephen Brumagin, WRDA Project Manager of the Charlotte Field Office at (704) 798-6471, by mail at the above address, or by email at stephen.a.brumagin@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 fluid and cursive, with the first name "M." and last name "Jones" clearly legible.

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

Enclosures

Project Plans
401 WQC
NWP-14

cc (w/enclosures)

William Barrett, NCDOT Raleigh (via wabarrett@ncdot.gov)
Amy Euliss, NC DOT Div 9 (via aeuliss@ncdot.gov)

Compliance Certification Form

File Number: SAW-2016-01267

County: Davidson

Permittee: NCDOT Environmental Analysis Unit, Erin Cheely

Project Name: NCDOT BR-0015, Bridge # 67 & # 68 Replacements on US 29/US 70 over SR 1192

Date Verification Issued: 2/20/2025

Project Manager: Stephen Brumagin

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

**US ARMY CORPS OF ENGINEERS
Wilmington District
Attn: Stephen Brumagin
Charlotte Field Office
8430 University Executive Park Drive Suite 615
Charlotte, NC 28262
or
stephen.a.brumagin@usace.army.mil**

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

I hereby certify that the work, and mitigation (if applicable), authorized by the above referenced permit has been completed in accordance with the terms and conditions of the said permit including any general or specific conditions.

Date Authorized Work Started: _____ Completed: _____

Describe any deviations from permit (attach drawing(s) depicting the deviations):

***Note: The description of any deviations on this form does not constitute approval by the Corps.**

Signature of Permittee

Date

US Army Corps of Engineers - Wilmington District
Compensatory Mitigation Responsibility Transfer Form

Permittee: Erin Cheely

Action ID: SAW-2016-01267

Project Name: NCDOT BR-0015, Bridge# 67 & # 68 Replacements on US 29/US 70 over SR 1192 County: Davidson

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

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

Permitted Impacts and Compensatory Mitigation Requirements

Permitted Impacts Requiring Mitigation*:

8-digit HUC and Basin: 03040103, Yadkin River Basin

Stream Impacts (linear feet)			Wetland Impacts (acres)			
Warm	Cool	Cold	Riparian Riverine	Riparian Non-Riverine	Non-Riparian	Coastal
15						

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

Compensatory Mitigation Requirements:

8-digit HUC and Basin: 03040103, Yadkin River Basin

Stream Mitigation (credits)			Wetland Mitigation (credits)			
Warm	Cool	Cold	Riparian Riverine	Riparian Non-Riverine	Non-Riparian	Coastal
30						

Mitigation Site Debited: NCDMS in-lieu fee program.

Section to be completed by the Mitigation Sponsor

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

Mitigation Sponsor Name: NCDMS

Name of Sponsor's Authorized Representative: Beth Harmon

Beth Harmon

Signature of Sponsor's Authorized Representative

02/21/2025

Date of Signature

USACE Wilmington District - MRTF Page 2

Conditions for Transfer of Compensatory Mitigation Credit:

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

Comments/Additional Conditions: NCDMS provided a letter dated December 12, 2024, indicating approval to provide in-lieu stream mitigation for a proposed 15 lf from NCDOT Project BR-0015 in Davidson Co.

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

USACE Project Manager: Stephen Brumagin
USACE Field Office: Charlotte Field Office
US Army Corps of Engineers
8430 University Executive Park Drive
Charlotte
Email: stephen.a.brumagin@usace.army.mil


Digitally signed by
BRUMAGIN.STEPHEN.A.12
83520737
Date: 2025.02.20 08:35:05
-05'00'

Wilmington District Project Manager Signature

February 20, 2025
Date of Signature

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

From: [Youngman, Holland J](#)
To: [Barrett, William A](#)
Cc: [Euliss, Amy](#); [Boules, George M](#); [Stanton, Tyler P](#); [NCDOT Service Account ECAP](#)
Subject: Re: [EXTERNAL] RE: BR-0015 Concurrence Request
Date: Thursday, February 13, 2025 5:12:15 PM
Attachments: [image001.png](#)

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Hi Bill,

Apologies for the delay. A response is provided below. Note that I've included standard notification language regarding the federal proposal status of monarch butterfly. At this time, we do not recommend voluntary conference on the species as we have not yet received internal conferencing guidance. If the project timeline is prolonged and NCDOT becomes concerned about a potential monarch listing overlapping with project work, we will work with NCDOT if/when that time comes on conferencing procedures for the species. Please let me know if anything additional is needed for this project.

Informal Conference for Tricolored Bat (*Perimyotis subflavus*) Relating to the Subject Project - **FWS Log # 18-429**

We have reviewed the information you submitted, along with a prior scoping letter issued from this office on February 9, 2023, and the following is provided in accordance with the provisions of the National Environmental Policy Act (42 U.S.C. § 4321 et seq.); the Fish and Wildlife Coordination Act, as amended (16 U.S.C. 661 - 667e); and section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 - 1543) (ESA).

NCDOT proposes to replace Bridge No. 67 (NB) and Bridge No. 68 (SB) on US 29/US 70/I-85 Business over SR 1192 (W. Fifth Avenue), Davidson County. Work will involve percussive actions such as jack hammering and pile-driving, tree clearing, and some night work. The bridge and adjacent culvert structures were inspected for bats and signs of bats on July 29, 2024 and results were negative. NCDOT has committed to implementing the following conservation measures:

1. Tree clearing will occur outside of the tricolored bat summer activity season (April 1 - July 15) for the year-round active Zone 1.
2. Permanent lighting will be replaced in the action area and will reduce backlight and glare from previous conditions.
3. Any lighting needed for night work will be directed toward the active work area and will be turned off when not in use.

The information provided indicates that a "No Effect" (NE) determination has been made for Schweinitz's sunflower (*Helianthus schweinitzii*). In instances of suitable habitat being absent from the action area, we would agree that NE determinations are appropriate. In instances where suitable habitat is present and botanical surveys conducted during the optimal survey window and within the past 1 or 2 years (depending on the species) have negative results, we would concur with a biological

determination of “may affect, not likely to adversely affect” (NLAA). This information is provided for the sake of the administrative record.

On September 14, 2022, the U.S. Fish and Wildlife Service published a proposal in the Federal Register to list the tricolored bat as endangered under the ESA. As a result, NCDOT has requested a conference for the tricolored bat as the project may be on-going after the effective date of any final listing rule, if one is published. Based on the information provided, the analysis above, and the commitments to minimize project impacts, we have determined that the proposed project will not jeopardize the continued existence of the tricolored bat. Additionally, we would concur with the NCDOT’s determination that the project is NLAA the tricolored bat should it become listed.

On December 12, 2024, monarch butterfly (*Danaus plexippus*) was proposed for listing as threatened under the ESA. Species proposed for listing are not afforded protection under the ESA; however, as soon as a listing becomes effective, the prohibitions against jeopardizing its continued existence and “take” will apply. Therefore, if the project may affect monarch butterflies after the potential new listing goes into effect, we recommend analyzing possible effects of the project on the species and their habitat to determine whether consultation under section 7 of the ESA is necessary on behalf of monarch butterfly.

Conservation Recommendations: 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.

-Seasonal Tree Clearing: Avoid clearing trees during the winter torpor period of December 15 – February 15. These dates are for the year-round active zone 1, as explained in Appendix L of the Service’s Range-wide Indiana Bat and Northern Long-eared Bat Survey Guidelines: <https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines>. This guidance includes tricolored bat.

-Noise Considerations for Bats: If suitable roost trees are present near high-decibel activity (81 – 162 dBA) and would experience noise above background levels (41 – 70 dBA), avoid conducting those high-decibel activities during the bat summer occupancy season (April 1 – September 30). Alternatively, activity could avoid the pup season (May 15 - July 31). To minimize noise levels, incorporate sound-dampening devices such as noise shrouds for pile driving.

-Pre-construction Surveys for Bats: While the July 29, 2024 structure surveys did not reveal presence or signs of roosting bats, conducting pre-construction surveys within 30 days or, ideally, 14 days of work would increase the assurance that no bats are present.

-Riparian Replanting: Because the removal of forested riparian habitat can affect the quality and suitability of foraging and commuting habitat for bats, we recommend replanting the riparian zone with native, fast-growing trees and shrubs that would serve to block light pollution and improve the quality of the terrestrial and aquatic habitat.

We believe the requirements under section 7 of the ESA are fulfilled for the federally listed species discussed above. However, obligations under section 7 must be reconsidered if: (1) new information

reveals impacts of this proposed action may affect listed species or critical habitat in a manner not previously considered, (2) this proposed action is subsequently modified in a manner that was not considered in this review, or (3) a new species is listed, or critical habitat is determined that may be affected by the proposed action.

We appreciate the opportunity to provide these comments. In any future correspondence on this project, please reference **FWS Log # 18-429**.

Sincerely,

Holland Youngman
(she/her)
Wildlife Biologist
U.S. Fish and Wildlife Service
Asheville Ecological Services Field Office
160 Zillicoa Street, Asheville, North Carolina, 28801
Cell: 828-575-3920

From: Barrett, William A <wabarrett@ncdot.gov>
Sent: Thursday, February 13, 2025 8:36 AM
To: Youngman, Holland J <holland_youngman@fws.gov>
Cc: Euliss, Amy <aeuliss@ncdot.gov>; Boules, George M <gmboules@ncdot.gov>; Stanton, Tyler P <tpstanton@ncdot.gov>; NCDOT_Service_Account_ECAP <ECAP@ncdot.gov>
Subject: [EXTERNAL] RE: BR-0015 Concurrence Request

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Good morning Holland,

We are coming up on the Let Review date of February 25th for BR-0015, so I want to check the status of the Concurrence Request (see email below, dated Nov. 25, 2024). The 404 is ready to be issued but USACE is awaiting receipt of the Concurrence Letter before issuance.

Thanks,
Bill

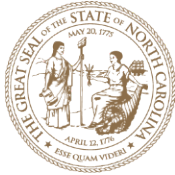
William A. Barrett
ECAP Environmental Coordinator
Environmental Analysis Unit
North Carolina Department of Transportation

919 707 6103 office

919 302 1908 mobile
wabarrett@ncdot.gov

1598 Mail Service Center (Mail)
Raleigh, NC 27699-1598

1000 Birch Ridge Drive (Delivery)
Raleigh, NC 27610



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From: Barrett, William A
Sent: Monday, November 25, 2024 3:57 PM
To: holland_youngman@fws.gov
Cc: Euliss, Amy <aeuliss@ncdot.gov>; Boules, George M <gmboules@ncdot.gov>; Stanton, Tyler P <tpstanton@ncdot.gov>; NCDOT_Service_Account_ECAP <ECAP@ncdot.gov>
Subject: BR-0015 Concurrence Request

Hi Holland,

Attached please find the Informal Concurrence Request for BR-0015. Please let me know if there is anything else needed.

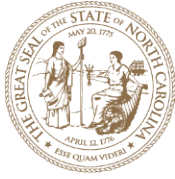
Thanks,
Bill

William A. Barrett
ECAP Environmental Coordinator
Environmental Analysis Unit
North Carolina Department of Transportation

919 707 6103 office
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wabarrett@ncdot.gov

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JOSH STEIN
Governor

D. REID WILSON
Secretary

RICHARD E. ROGERS, JR.
Director



January 22, 2025

Mr. William A. Barrett
ECAP Environmental Coordinator
Environmental Analysis Unit
North Carolina Department of Transportation
1598 Mail Service Center
Raleigh, North Carolina 27699

Subject: 401 Water Quality Certification Pursuant to Section 401 of the Federal Clean Water Act with
ADDITIONAL CONDITIONS for the Proposed Replacement of Bridge No. 67 (NB) and Bridge No. 68
(SB) on US 29/US 70/I-85 Business over SR 1192 (W. Fifth Ave.) in Davidson County; TIP BR-0015;
NCDWR Project No. 20241681.

Dear Mr. Barrett:

Attached hereto is a copy of Certification No. 007437 (this is the Individual Certification No.) issued to The North Carolina Department of Transportation (NCDOT) dated January 22, 2025.

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

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

Sincerely,

Signed by:

Susan Locklear

375CAE2BB9F540C...
Richard E. Rogers, Jr., Director
Division of Water Resources

Attachments

ec: Steve Brumagin, USACE Charlotte Regulatory Field Office
Holland Youngman, US Fish and Wildlife Service
Dave McHenry, NC Wildlife Resources Commission
Erin Cheely, North Carolina Department of Transportation
File Copy



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

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

THIS CERTIFICATION is issued in conformity with the requirements of Section 401 Public Laws 92-500 and 95-217 of the United States and subject to the North Carolina Division of Water Resources (NCDWR) Regulations in 15 NCAC 2H .0500 and 15A NCAC 2B. This certification authorizes the NCDOT to impact 253 linear feet of jurisdictional streams in Davidson County. The project shall be constructed pursuant to the application dated and received December 16, 2024. The authorized impacts are as described below:

Stream Impacts in the Yadkin-Pee Dee River Basin

Site	Permanent Fill in Perennial Stream (linear ft)	Temporary Fill in Perennial Stream (linear ft)	Total Stream Impact (linear ft)	Stream Impacts Requiring Mitigation (linear ft)
S1	-	33	33	-
S2	6	-	6	-
S3	15	-	15	-
S4	117	-	117	-
S5	47	-	47	-
S6	-	35	35	-
Totals	185	68	253	-

Total Stream Impact for Project: 253 linear feet

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

This approval is only valid for the purpose and design that you submitted in your application dated and received December 16, 2024. Should your project change, you are required to notify the NCDWR and submit a new application. If the property is sold, the new owner must be given a copy of this Certification and approval letter and is thereby responsible for complying with all the conditions. If any additional wetland impacts, or stream impacts, for this project (now or in the future) exceed 0.10 acre or 300 linear feet, respectively, additional compensatory mitigation may be required as described in 15A NCAC 2H .0506 (h) (6) and (7).

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

This Water Quality Certification neither grants nor affirms any property right, license, or privilege in any lands or waters, or any right of use in any waters. This Water Quality Certification does not authorize any person to interfere with the riparian rights, littoral rights, or water use rights of any other person and does not create any prescriptive right or any right of priority regarding any usage of water. This Water Quality Certification shall not be interposed as a defense in any action respecting the determination of riparian or littoral rights or other rights to water.



use. No consumptive user is deemed by virtue of this Water Quality Certification to possess any prescriptive or other right of priority with respect to any other consumptive user regardless of the quantity of the withdrawal or the date on which the withdrawal was initiated or expanded. Upon the presentation of proper credentials, the Division may inspect the property.

Condition(s) of Certification:

1. NCDWQ will not require the burial of the culverts in the streambed at Impact S3. However, design and placement of the culvert and other structures shall be installed in such a manner that the original stream profiles are not altered (i.e., the depth of the channel must not be reduced by a widening of the streambed). Existing stream dimensions (including pattern and profile) are to be maintained above and below locations of each culvert. The structure shall be designed and installed to allow for fish and other wildlife movement as well as prevent headcutting of the stream. The applicant may be required to provide evidence that the equilibrium has been maintained if requested in writing by the NCDWR. [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 U.S. 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 riprap above the Normal High Water Mark shall be minimized. Any riprap 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. 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)]
15. 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]
16. The issuance of this certification does not exempt the Permittee from complying with any and all statutes, rules, regulations, or ordinances that may be imposed by other government agencies (i.e. local, state, and federal) having jurisdiction, including but not limited to applicable buffer rules, stormwater management rules, soil erosion and sedimentation control requirements, etc.
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 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) and (c)(3)]:
 - a. The erosion and sediment control measures for the project must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Sediment and Erosion Control Planning and Design Manual*.
 - b. The design, installation, operation, and maintenance of the sediment and erosion control measures must be such that they equal, or exceed, the requirements specified in the most recent version of the *North Carolina Sediment and Erosion Control Manual*. The devices shall be maintained on all construction sites, borrow sites, and waste pile (spoil) projects, including contractor-owned or leased borrow pits associated with the project.
 - c. For borrow pit sites, the erosion and sediment control measures must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Surface Mining Manual*.



- d. The reclamation measures and implementation must comply with the reclamation in accordance with the requirements of the Sedimentation Pollution Control Act.
23. Sediment and erosion control measures shall not be installed in wetlands or waters except within the footprint of temporary or permanent impacts authorized by this Certification. If placed within authorized impact areas, then placement of such measures shall not be conducted in a manner that results in disequilibrium of any wetlands, streambeds, or streambanks. Any silt fence installed within wetlands shall be removed from wetlands and the natural grade restored and revegetated within two months of project completion. [15A NCAC 2H.0506(b); 15 A NCAC 2H.0507(c)]
24. When applicable, all construction activities shall be performed and maintained in full compliance with G.S. Chapter 113A Article 4 (Sediment and Pollution Control Act of 1973). Regardless of applicability of the Sediment and Pollution Control Act, all projects shall incorporate appropriate Best Management Practices for the control of sediment and erosion so that no violations of state water quality standards, statutes, or rules occur. [15A NCAC 02H .0506{b}(3) and (c)(3) and 15A NCAC 02B .0200]
25. Design, installation, operation, and maintenance of all sediment and erosion control measures shall be equal to or exceed the requirements specified in the most recent version of the North Carolina Sediment and Erosion Control Manual, or for linear transportation projects, the NCDOT Sediment and Erosion Control Manual.
26. 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.
27. 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.
28. 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 Certification shall become null and void unless the above conditions are made conditions of the Federal 404 and/or Coastal Area Management Act Permit. This Certification shall expire upon the expiration of the 404 or CAMA permit. Please be aware that impacting waters without first applying for and securing the issuance of a 401 Water Quality Certification violates Title 15A of the North Carolina Administrative Code (NCAC) 2H .0500. Title 15A NCAC 2H .0500 requires certifications pursuant to Section 401 of the Clean Water Act whenever construction or operation of facilities will result in a discharge into navigable waters, including wetlands, as described in 33 Code of Federal Regulations (CFR) Part 323. It also states any person desiring issuance of the State certification or coverage under a general certification required by Section 401 of the Federal Water Pollution Control Act shall file with the Director of the North Carolina Division of Water Quality. Violations of any condition herein set forth may result in revocation of this Certification and may result in criminal and/or civil penalties. Pursuant to G.S. 143-215.6A, these violations and any future violations are subject to a civil penalty assessment of up to a maximum of \$25,000.00 per day for each violation.

This approval and its conditions are final and binding unless contested [G.S. 143-215.5]. Please be aware that impacting waters without first applying for and securing the issuance of a 401 Water Quality Certification violates Title 15A of the North Carolina Administrative Code (NCAC) 2H .0500. Title 15A NCAC 2H .0500 requires certifications pursuant to Section 401 of the Clean Water Act whenever construction or operation of facilities will



result in a discharge into navigable waters, including wetlands, as described in 33 Code of Federal Regulations (CFR) Part 323. It also states any person desiring issuance of the State certification or coverage under a general certification required by Section 401 of the Federal Water Pollution Control Act shall file with the Director of the North Carolina Division of Water Quality. Pursuant to G.S. 143-215.6A, these violations and any future violations are subject to a civil penalty assessment of up to a maximum of \$25,000.00 per day for each violation.

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

A party filing a Petition must serve a copy of the Petition on:

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

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

This the 22nd day of January 2025

DIVISION OF WATER RESOURCES

Signed by:


375CAE2BB9F540C...

Richard E. Rogers, Jr., Director

WQC No. 007437



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

JOSH STEIN
Governor

D. REID WILSON
Secretary

RICHARD E. ROGERS, JR.
Director



NCDWR Project No.: _____ **County:** _____

Applicant: _____

Project Name: _____

Date of Issuance of 401 Water Quality Certification: _____

Certificate of Completion

Upon completion of all work approved within the 401 Water Quality Certification or applicable Buffer Rules, and any subsequent modifications, the applicant is required to return this certificate to the 401 Transportation Permitting Unit, North Carolina Division of Water Resources, 1617 Mail Service Center, Raleigh, NC, 27699-1617. This form may be returned to NCDWR by the applicant, the applicant's authorized agent, **or** the project engineer. It is not necessary to send certificates from all of these.

Applicant's Certification

I, _____, hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature: _____ Date: _____

Agent's Certification

I, _____, hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature: _____ Date: _____

Engineer's Certification

_____ Partial _____ Final



I, _____, as a duly registered Professional Engineer in the State of North Carolina, having been authorized to observe (periodically, weekly, full time) the construction of the project for the Permittee hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.



Signature _____ Registration No. _____

Date _____

Completed hard copies can be emailed to kristilynn.carpenter@ncdenr.gov or mailed to:
NCDEQ Transportation Permitting
1617 Mail Service Center
Raleigh NC 27699-1617



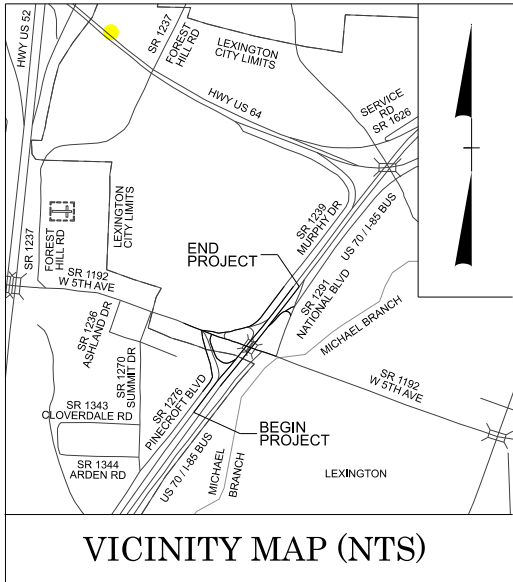
		<div>North Carolina Department of Transportation</div> <div>Highway Stormwater Program</div> <div>STORMWATER MANAGEMENT PLAN</div> <div>FOR NCDOT PROJECTS</div>															
(Version 3.00; Released August 2021)																	
WBS Element: BR-0015		TIP/Proj No: BR-0015		County(ies): Davidson			Page 1 of 11										
General Project Information																	
WBS Element:		BR-0015		TIP Number:		BR-0015		Project Type: Roadway Widening		Date: 5/21/2024							
NCDOT Contact:		Jennifer Hernandez, PE				Contractor / Designer:		Nelson King, PE									
		Address: 1582 Mail Service Center Raleigh, 27699-1582						Address: 301 Fayetteville St., Suite 1500 Raleigh, NC 27601									
		Phone: (919) 707-6048						Phone: (919) 882-7839									
		Email: jdhernandez@ncdot.gov						Email: nking@kcaeng.com									
City/Town:		Lexington				County(ies):		Davidson									
River Basin(s):		Yadkin-Pee Dee				CAMA County?		No									
Wetlands within Project Limits?		No															
Project Description																	
Project Length (lin. miles or feet):		0.71 miles		Surrounding Land Use:		Low-Density Residential											
						Existing Site											
Project Built-Upon Area (ac.)		29.2		ac.		24.8		ac.									
Typical Cross Section Description:		The proposed typical section for -L- will be divided (4) 12' lanes with normal crown and a median that transitions to super elevated at .02 with a concrete barrier. See typical section for cross sections for ramps and Y lines. For any additional information on typical cross sections, please see Roadway plans. The proposed bridge typical is normal crown, consisting of six 12' lanes with 6' paved shoulder and 22' median with barrier wall and barrier rails for a total out-to-out width of 109'-3". All side slopes will vary between 6:1 and 2:1.				Existing roadways consists of four 12' lanes divided with 2' paved shoulders. Existing side slopes range from 2:1 to 4:1.											
Annual Avg Daily Traffic (veh/hr/day):		Design/Future:		17800		Year:		2044		Existing:		14500		Year:		2022	
General Project Narrative: (Description of Minimization of Water Quality Impacts)		State project BR-0015 will consist of replacing the structurally deficient NCDOT bridges #280067 and #280068 on US 29/ US 70/ I-85 Bus. NB/SB over SR 1192 (W. 5th Ave). The purpose of this project is to improve the interchange and to revise the ramps and Y-lines within the project limits. Roadway fill slopes will vary between 6:1 and 2:1, with the exceptions of behind guardrail, and will be grassy to encourage a diffuse flow pattern and passive stormwater treatment. Existing drainage outlets are being maintained to the maximum extent practicable with proposed stormwater systems conveying water to existing outlets where they will be discharged to overland flow or tie into existing drainage system. The existing 54" pipe will be with lined with a CIPP liner to repair interior damage to the pipe, with a proposed downstream extension approximately 10 feet, and have a headwall and endwall constructed.The existing pipe carries the unnamed tributary under the project corridor that ultimately ends with the confluence of Michael Branch. Existing erosion identified during a field review justifies the construction of downstream bank stabilization. The limits of this bank stabilization will be proposed on both the left and right banks of the unnamed tributary (approximately 114 feet) until it meets up with Micheal Branch. Skimmer basins will be utilized at 16+85 -L-RT, 21+58 -L-RT, and 10+71 -LPB-RT to allow for stormwater treatment before water makes its way into the jurisdictional streams. Utilities Note: Within the project limits, the Lexington Gas relocations do not impact the jurisdictional sites (Michael's Branch and the UT to Michael's Branch) and the only impacts currently shown on the permit drawings are due to the project itself. Capital improvements will be constructed by Lexington Gas outside the project limits to locate a new regulator station and upgrade to 4" MDPE along National Drive to Center Street.															

		<div>North Carolina Department of Transportation</div> <div>Highway Stormwater Program</div> <div>STORMWATER MANAGEMENT PLAN</div> <div>FOR NCDOT PROJECTS</div>								
(Version 3.00; Released August 2021)										
WBS Element: BR-0015		TIP/Proj No.: BR-0015		County(ies): Davidson				Page 2 of 11		
General Project Information										
Waterbody Information								5/21/2024		
Surface Water Body (1):		Michael Branch			NCDWR Stream Index No.:		12-113-3			
NCDWR Surface Water Classification for Water Body		Primary Classification:		Class C						
		Supplemental Classification:		None						
Other Stream Classification:		None								
Impairments:		None								
Aquatic T&E Species?		No		Comments:						
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?		No
Deck Drains Discharge Over Water Body?		No		(If yes, provide justification in the General Project Narrative)		(If yes, describe in the General Project Narrative; if no, justify in the General Project Narrative)				
(If yes, provide justification in the General Project Narrative)										
Surface Water Body (2):					NCDWR Stream Index No.:					
NCDWR Surface Water Classification for Water Body		Primary Classification:		None						
		Supplemental Classification:		None						
Other Stream Classification:		None								
Impairments:		of replacing the structurally								
Aquatic T&E Species?				Comments:						
NRTR Stream ID:						Buffer Rules in Effect:		N/A		
Project Includes Bridge Spanning Water Body?				Deck Drains Discharge Over Buffer?		No		Dissipator Pads Provided in Buffer?		No
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)										

PROJECT: BR-0015

CONTRACT: TBD

See Sheet 1A For Index of Sheets



VICINITY MAP (NTS)

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

DAVIDSON COUNTY

LOCATION: *BRIDGE 280067 AND 280068 REPLACEMENTS ON US 29/US 70.
NB & SB OVER SR 1192 (W. 5TH AVE.)*

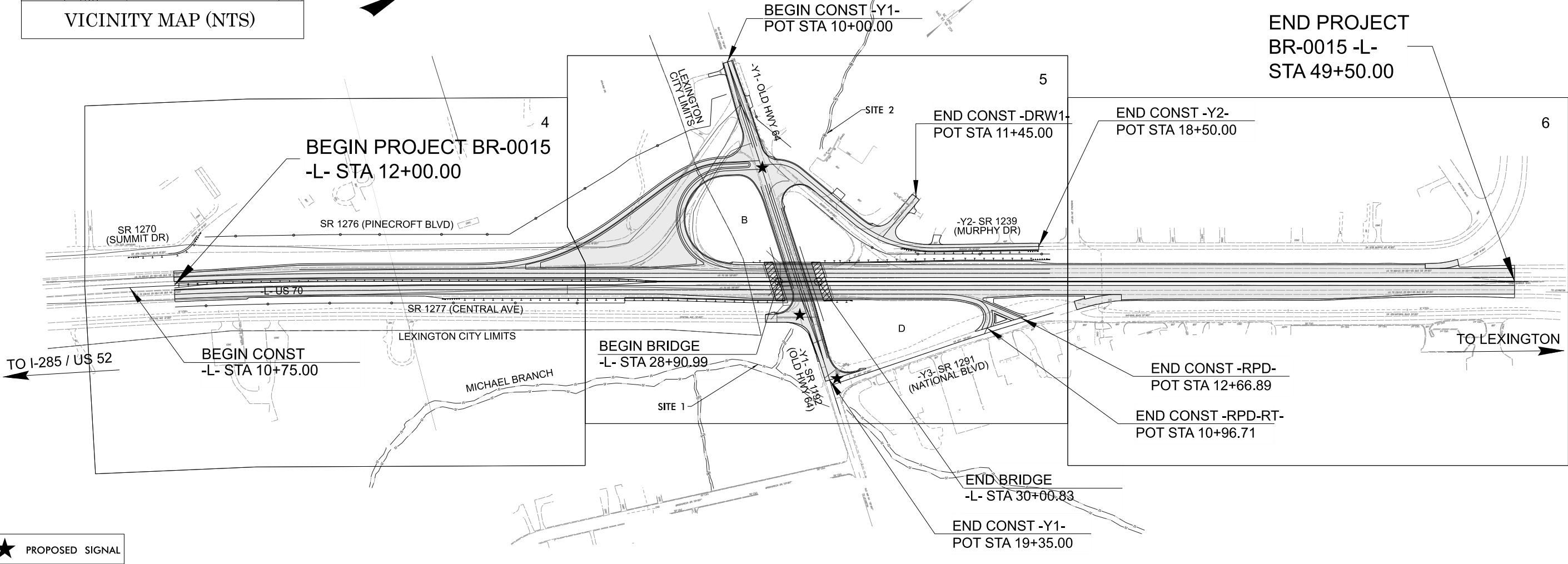
TYPE OF WORK: *GRADING, DRAINAGE, PAVING, WIDENING,
SIGNALS, AND STRUCTURES*

PERMIT DRAWING
SHEET 3 OF 11

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	BR-0015	11	
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	
67015.1.1		PE	
67015.2.1		R/W, UTIL	
67015.3.1		CONST.	

WETLAND &
STREAM IMPACTS

Plans Developed with
OpenRoads

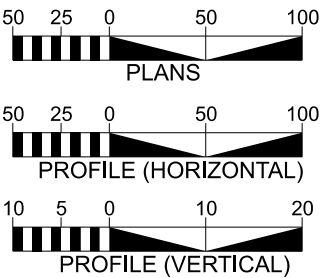


★ PROPOSED SIGNAL

THIS IS A CONTROL OF ACCESS PROJECT WITH ACCESS BEING LIMITED TO INTERCHANGES.

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

GRAPHIC SCALES



DESIGN DATA

ADT 2025 = 15150
ADT 2045 = 18700
K = 8 %
D = 55 %
T = 9 % *
V = 60 MPH
* TTST =5% DUAL 4%
FUNC CLASS =
PRINCIPAL ARTERIAL
STATEWIDE TIER

PROJECT LENGTH

PROJECT LENGTHS FOR PROJECT BR-0015:

LENGTH ROADWAY PROJECT BR-0015 = 0.689 MILES
LENGTH STRUCTURES PROJECT BR-0015 = 0.021 MILES
TOTAL LENGTH PROJECT BR-0015 = 0.710 MILES

NCDOT Contact:

JENNIFER HERNANDEZ, P.E.

Prepared in the Office of:

KCA
KISINGER CAMPO
& ASSOCIATES
NC FIRM LICENSE No.: C-1506
301 Fayetteville St.,
Suite 1500
Raleigh, NC 27601
(919)862-7839

2024 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
04/17/2024

LETTING DATE:
06/17/2025

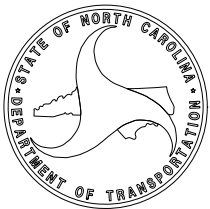
ANDREA B. GORDON, P.E.
PROJECT ENGINEER

GERALD P. SYKES, E.I.
PROJECT DESIGN ENGINEER



HYDRAULICS ENGINEER

SIGNATURE: _____
ROADWAY DESIGN ENGINEER

SIGNATURE: _____
P.E.





 SURFACE WATER IMPACTS
 TEMPORARY SURFACE WATER IMPACTS

PERMIT DRAWING
SHEET 5 OF 11

MATCH LINE -L-
STA. 23+50.00, SEE SHEET 4

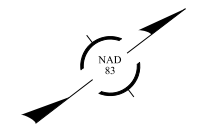
SEE PERMIT DRAWING
SHEET 7 OF 11 FOR
ENLARGEMENT

MATCH LINE -L- STA. 37+00.00, SEE SHEET 6

CUR DATA -Y1-	CUR DATA -Y1-	CUR DATA -Y2-	CUR DATA -Y2-
Plc 18+64.46	Plc 19+91.81	Plc 10+76.89	Plc 14+44.56
$\Delta c = 00^{\circ}48'08.3"$ (RT)	$\Delta c = 00^{\circ}37'49.2"$ (LT)	$\Delta c = 42^{\circ}40'55.4"$ (RT)	$\Delta c = 40^{\circ}37'05.0"$ (LT)
D = 00°42'58.3"	D = 00°42'58.3"	D = 57°17'44.8"	D = 16°51'06.1"
Lc = 112.02	Lc = 88.01	Lc = 74.49	Lc = 241.03
Tc = 56.01	Tc = 44.01	Tc = 39.07	Tc = 125.83
R = 8,000	DS = 50 MPH	R = 100	R = 340
e = NC	e = NC	RO = 100	RO = 100
		DS = 20 MPH	DS = 30 MPH
		e = 0.04	e = 0.04

-LPB-	-RPD-
SPI DATA -LPB-	SPI DATA -RPD-
Pls 11+00.29	Pls 10+53.38
$\theta s = 31^{\circ}38'27.4"$	$\theta s = 07^{\circ}38'22.0"$
Ls = 148	Ls = 80
LT = 100.29	LT = 53.38
ST = 50.81	ST = 26.71
CUR DATA -LPB-	CUR DATA -RPD-
Plc 15+79.63	Plc 11+21.11
$\Delta c = 145^{\circ}30'22.0"$ (RT)	$\Delta c = 15^{\circ}36'14.4"$ (RT)
D = 42°45'29.0"	D = 19°05'54.9"
Lc = 340.30	Lc = 81.70
Tc = 431.63	Tc = 41.11
R = 134	R = 300
DS = 25 MPH	DS = 30 MPH
e = 0.08	e = 0.06

-Y3-	-RPD-RT-
CUR DATA -Y3-	CUR DATA -RPD-RT-
Plc 14+39.32	Plc 10+57.01
$\Delta c = 01^{\circ}49'37.5"$ (RT)	$\Delta c = 95^{\circ}15'59.0"$ (RT)
D = 01°08'45.3"	D = 110°11'03.1"
Lc = 159.44	Lc = 86.46
Tc = 79.73	Tc = 57.01
R = 5,000	R = 52



BR-0015
PERMIT CONST. 5

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DAVIDSON COUNTY

ROADWAY DESIGN
ENGINEER

HYDRAULICS
ENGINEER

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


PREPARED BY
KCA
KISINGER CAMPO
& ASSOCIATES
NC FIRM LICENSE No: C-1506
301 Fayetteville Street,
Suite 1500
Raleigh, NC 27601
(919) 882-7839

REVISIONS

BR-0015

PERMIT CONST. 5

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DAVIDSON COUNTY


HIGHWAY DIVISION 9
ROADWAY DESIGN
ENGINEER

HYDRAULICS
ENGINEER

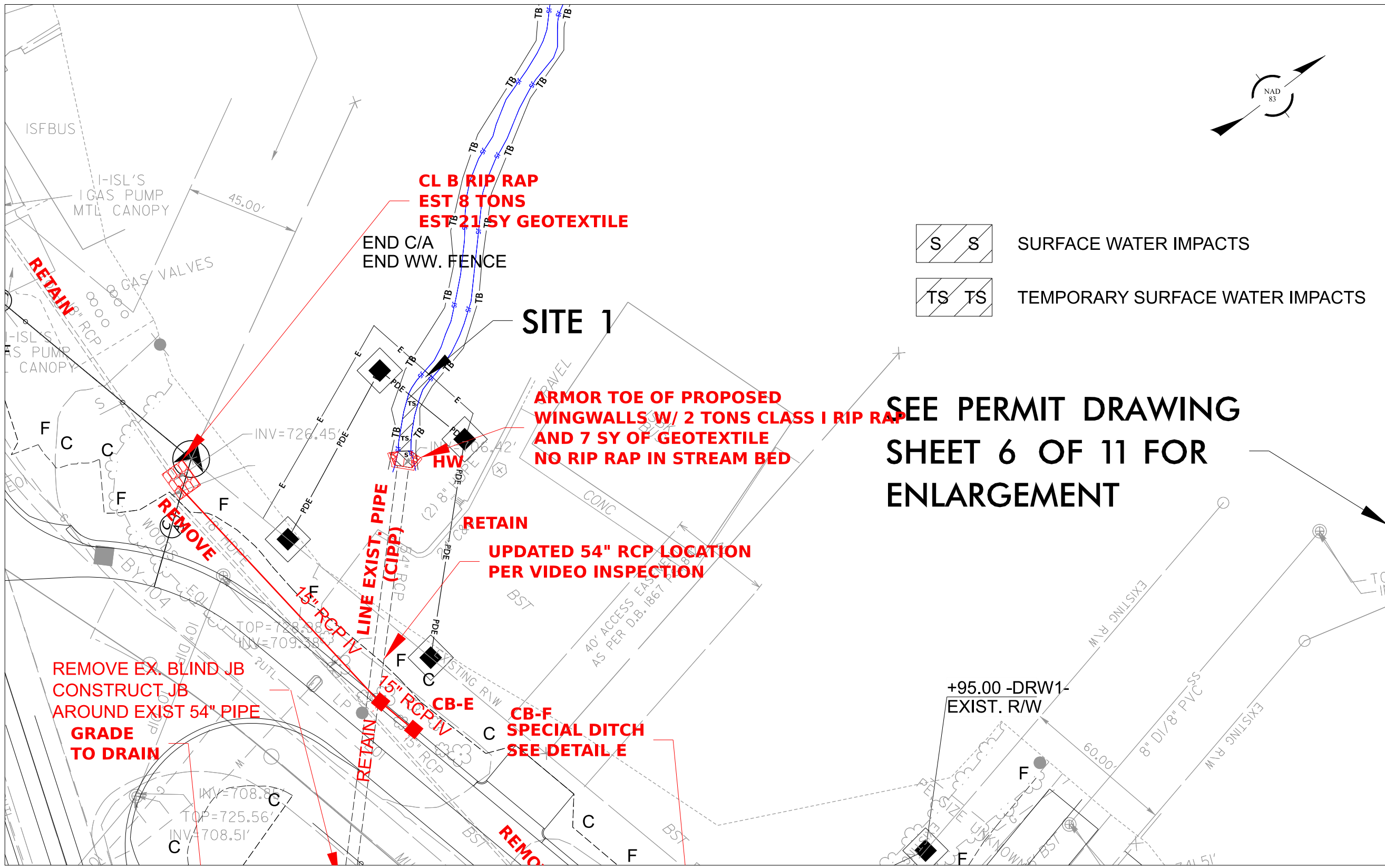
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

PREPARED BY

KCA

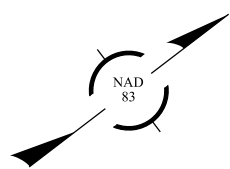
KISINGER CAMPO
& ASSOCIATES
NC FIRM LICENSE No: C-1508
301 Fayetteville Street,
Suite 1500
Raleigh, NC 27601
(919) 882-7839

REVISIONS



PERMIT DRAWING
SHEET 6 OF 11

SCALE 1" = 20'



BR-0015

PERMIT CONST. 5

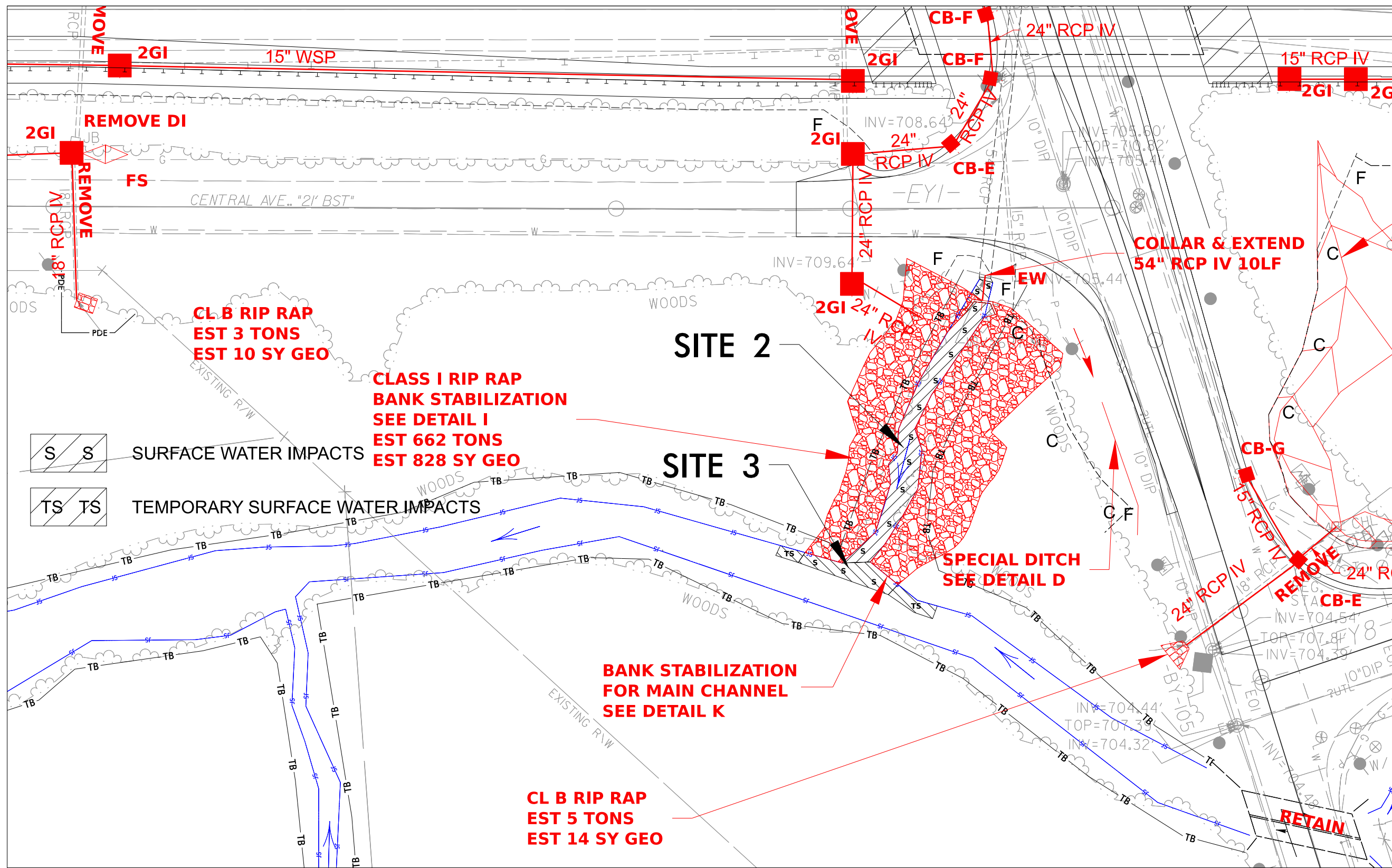
NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DAVIDSON COUNTY

HIGHWAY DIVISION 9
ROADWAY DESIGN
ENGINEER

HYDRAULICS
ENGINEER

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



PREPARED BY
KCA
KISINGER CAMPO
& ASSOCIATES
NC FIRM LICENSE No: C-1506
301 Fayetteville Street,
Suite 1500
Raleigh, NC 27601
(919) 882-7839



PERMIT DRAWING
SHEET 7 OF 11

SCALE 1" = 20'

REVISIONS

 SURFACE WATER IMPACTS
 TEMPORARY SURFACE WATER IMPACTS

PERMIT DRAWING
SHEET 8 OF 11

MATCH LINE -L-
STA. 23+50.00, SEE SHEET 4

SEE PERMIT DRAWING
SHEET 10 OF 11 FOR
ENLARGEMENT


MATCH LINE -L- STA. 37+00.00, SEE SHEET 6

CUR DATA -Y1- Plc 18+64.46 $\Delta c = 00^\circ 48' 08.3''$ (RT) $D = 00^\circ 42' 58.3''$ $Lc = 112.02$ $Tc = 56.01$ $R = 8,000$ $DS = 50$ MPH $e = NC$	CUR DATA -Y1- Plc 19+91.81 $\Delta c = 00^\circ 37' 49.2''$ (LT) $D = 00^\circ 42' 58.3''$ $Lc = 88.01$ $Tc = 44.01$ $R = 8,000$ $DS = 50$ MPH $e = NC$	CUR DATA -Y2- Plc 10+76.89 $\Delta c = 42^\circ 40' 55.4''$ (RT) $D = 57^\circ 17' 44.8''$ $Lc = 74.49$ $Tc = 39.07$ $R = 100$ $RO = 100$ $DS = 20$ MPH $e = 0.04$	CUR DATA -Y2- Plc 14+44.56 $\Delta c = 40^\circ 37' 05.0''$ (LT) $D = 16^\circ 51' 06.1''$ $Lc = 241.03$ $Tc = 125.83$ $R = 340$ $RO = 100$ $DS = 30$ MPH $e = 0.04$
SPI DATA -LPB- Pls 11+00.29 $\theta s = 31^\circ 38' 27.4''$ $Ls = 148$ $LT = 100.29$ $ST = 50.81$	CUR DATA -LPB- Plc 15+79.63 $\Delta c = 145^\circ 30' 22.0''$ (RT) $D = 42^\circ 45' 29.0''$ $Lc = 340.30$ $Tc = 431.63$ $R = 134$ $DS = 25$ MPH $e = 0.08$	SPI DATA -RPD- Pls 10+53.38 $\theta s = 07^\circ 38' 22.0''$ $Ls = 80$ $LT = 53.38$ $ST = 26.71$	CUR DATA -RPD- Plc 11+21.11 $\Delta c = 15^\circ 36' 14.4''$ (RT) $D = 19^\circ 05' 54.9''$ $Lc = 81.70$ $Tc = 41.11$ $R = 300$ $DS = 30$ MPH $e = 0.06$
CUR DATA -Y3- Plc 14+39.32 $\Delta c = 01^\circ 49' 37.5''$ (RT) $D = 01^\circ 08' 45.3''$ $Lc = 159.44$ $Tc = 79.73$ $R = 5,000$	CUR DATA -RPD-RT- Plc 10+57.01 $\Delta c = 95^\circ 15' 59.0''$ (RT) $D = 110^\circ 11' 03.1''$ $Lc = 86.46$ $Tc = 57.01$ $R = 52$		

BR-0015

PERMIT CONST. 5

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DAVIDSON COUNTY


HIGHWAY DIVISION 9
ROADWAY DESIGN
ENGINEER

HYDRAULICS
ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR B.Y. ACQUISITION

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

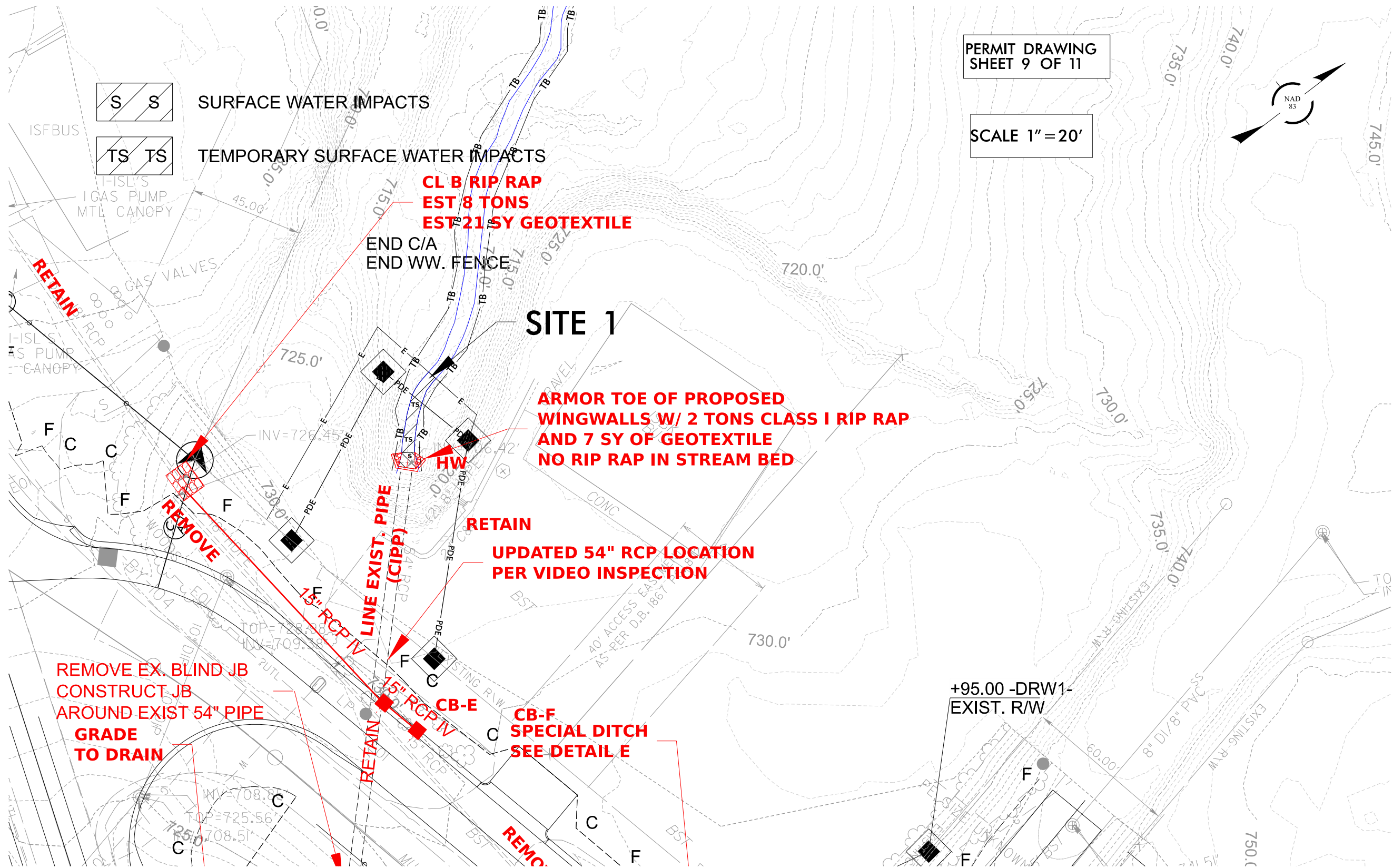
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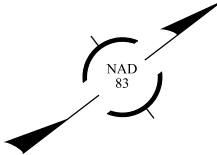
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REVISIONS





BR-0015

PERMIT CONST. 5

NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

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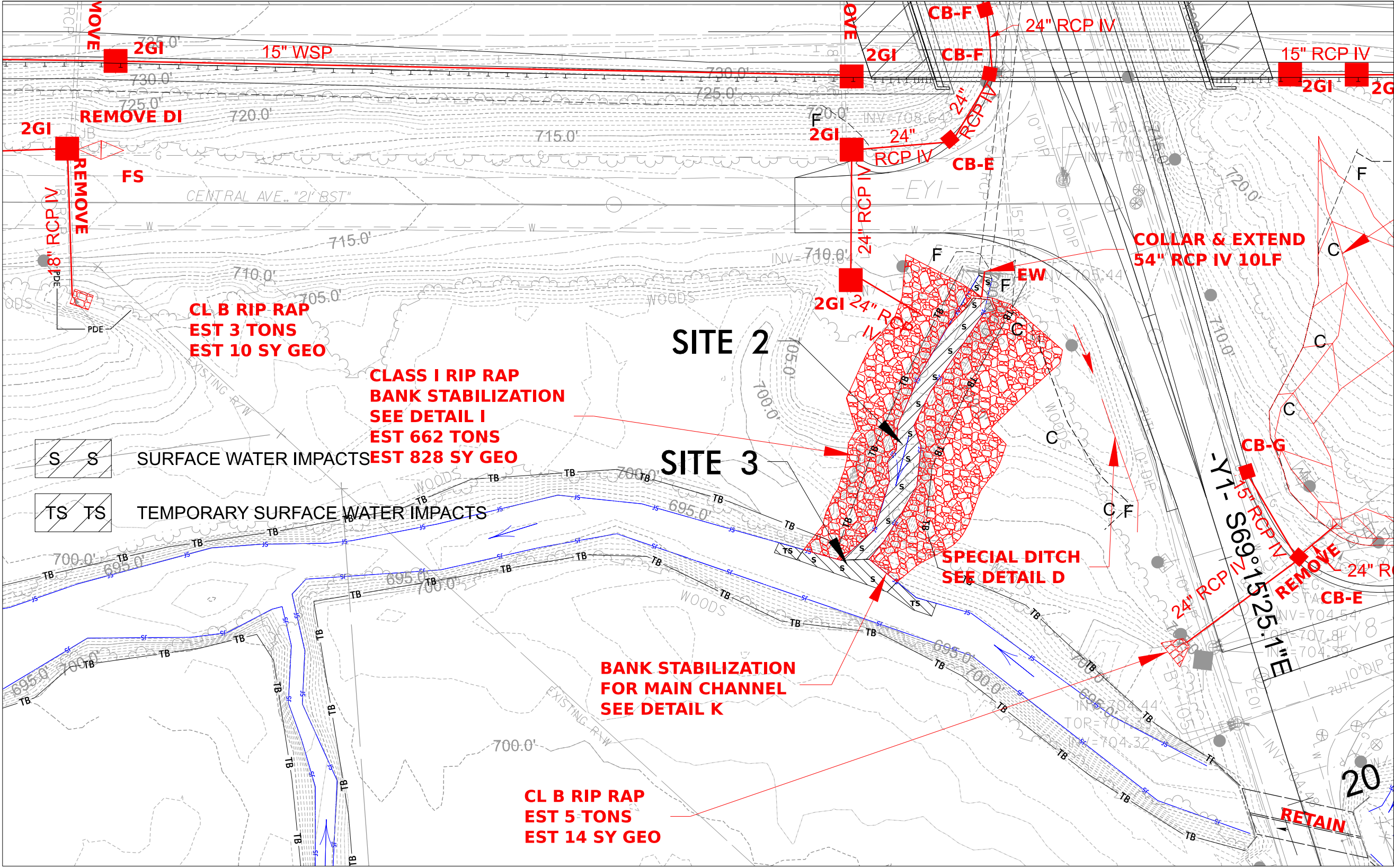
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PERMIT DRAWING
SHEET 10 OF 11

SCALE 1" = 20'

REVISIONS

WETLAND AND SURACE WATER IMPACTS SUMMARY												
			WETLAND IMPACTS					SURFACE WATER IMPACTS				
Site No.	Station (From/To)	Structure Size / Type	Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
1	-Y2-11+14 / 11+21 LT	CIPP Liner Installation (Dewatering)							< 0.01		33	
1	-Y2-11+14 / 11+21 LT	Bank Stabilization						< 0.01		6		
2	-Y1- 17+64 / 17+80 RT	Ex. Pipe Extension / Endwall Construction						< 0.01		15	0	
2	-Y1- 17+72 / 18+58 RT	Bank Stabilization						0.02		117		
3	-Y1- 18+58 / 18+71 RT	Bank Stabilization						< 0.01	< 0.01	47	35	
TOTALS*:								0.03	< 0.01	185	68	0

*Rounded totals are sum of actual impacts

NOTES:

Site 1 Permanent Surface Water Impacts:39.2 sq. ft.
Site 1 Temporary Surface Water Impacts148.1 sq. ft.
Site 2 Permanent Surface Water Impacts:1036.7 sq. ft.
Site 3 Permanent Surface Water Impacts:252.6 sq. ft.
Site 3 Temporary Surface Water Impacts139.4 sq. ft.

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
12/12/2024
DAVIDSON
BR-0015

SHEET11OF11