



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

JOSH STEIN
GOVERNOR

DANIEL H. JOHNSON
SECRETARY

October 2, 2026

MEMORANDUM TO: Division Environmental and Construction Units

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

SUBJECT: Environmental Permits for the Replacement of:
Bridges 91 and 92 on US 70 over Southwest Prong Slocum Creek in Craven
County, Division 2, **TIP: BR-0074.**

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-2022-01430 Dated: August 27, 2026	May 25, 2030
NC Division of Water Resources Section 401 Water Quality Certification	Individual Certification Project No. 20230481v2 Dated: February 19, 2026	expires with above Permit
NC Division of Coastal Management Coastal Area Management Act	CAMA Major Development Permit Permit No. 110-23 Dated: October 6, 2023	No Expiration
US Coast Guard	Advance Approval determination	December 13, 2028 (start of construction)

The above-referenced permits replace all previously issued permits for this project.

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/

PROJECT COMMITMENTS

STIP Project No. BR-0074
Replacement of Bridge Nos. 91 and 92 over
South Prong Slocum Creek on US 70
Craven County
WBS Element 67074.1.1

COMMITMENTS FROM PROJECT DEVELOPMENT AND DESIGN

Project Management Unit

The NCDOT Project Manager will coordinate with NCDOT Work Zone Traffic Control and Integrated Mobility Division to evaluate the necessary level of bicycle/pedestrian access accommodation during construction.

Division 2 Construction

A construction moratorium will be in effect from February 15 to September 30 to protect the Anadromous Fish Spawning Area waters and Primary Nurse Areas upstream of the project.

Construction activities will adhere to the guidelines outlined in Guidelines for Avoiding Impacts to the West Indian Manatee Precautionary Measures for Construction Activities in North Carolina Waters (2003 USFWS).

Prior to bridge construction, the bridge owner should submit a bridge maintenance project plan to the USCG East District at least 30 days (preferably 90 days) prior to work commencing on or over the navigable waterway. Please the USCG Advanced Approval.

The USCG must be notified at least 30 days (preferably 90 days) in advance of the start of construction and any other work which may be an obstruction to navigation, so we may issue and update the information in our Local Notice to Mariners and monitor the project. The notice should include details of the project as described in the Bridge Maintenance Project Plan, which can be found in the USCG Advanced Approval.

At no time during the project will the waterway be closed to navigation without the prior notification and approval of the Coast Guard. The bridge owner or contractor is required to maintain close and regular contact with Coast Guard Sector North Carolina at (910) 772-2230 or D05-SMB-SecNC-MarineEvents@uscg.mil to keep them informed of activities on the waterway.

Hydraulics Unit

The NCDOT Hydraulics Unit will coordinate with the North Carolina Floodplain Mapping Program (FMP), the delegated state agency for administering FEMA's National Flood Insurance Program, to determine the status of the project with regard to the applicability of NCDOT's Memorandum of Agreement with the FMP or approval of a conditional Letter of Map revision (CLOMR) and subsequent final Letter of Map Revision (LOMR).

GeoEnvironmental Unit

A Phase 1 GeoEnvironmental Report will be complete prior to right-of-way acquisition.

COMMITMENTS FROM PERMITTING

NCDOT Division 2 Construction

CAMA condition #3: In accordance with commitments made by the permittee, four (4) temporary work bridges shall be utilized. To ensure the Southwest Prong of Slocum Creek has adequate passage, the temporary work bridges shall be constructed in phases. Only one (1) temporary work bridge shall be in place at a time, and no more than 50% of the stream channel shall be blocked at a given time, with the exception of the western work bridge in Phase I for Bridge 92, which will block approximately 58% of the stream channel while it is in use.

CAMA condition #4: During construction and demolition, the permittee shall make every attempt to allow the same navigation that is currently possible in the Southwest Prong of Slocum Creek. If this is not possible, then adequate notice shall be provided to the public that navigation will be limited during construction. The notice shall include an estimate of the amount of time that the limited navigation will occur.

NOTE: The permittee is strongly encouraged to coordinate with the N.C. Wildlife Resources Commission (WRC) to post an e-notice on the WRC website, and a sign at the WRC boat ramp, about the potential for temporary navigation closures.

CAMA condition #6: The entrance/exit for vehicles and pedestrians to the Slocum Creek Boating Access Area shall be maintained, and it shall not be used for staging or storage of project materials.

CAMA condition #23: The demolition plan for removal of the existing bridge structure shall be submitted to DCM for review and approval prior to commencement of the demolition activities.



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

August 27, 2026

Regulatory Program/Division
SAW-2022-01430

Sent Via Email: driffey@ncdot.gov

Deanna Riffey
North Carolina Department of Transportation
1598 Mail Service Center
Raleigh, NC 27699-1598

Dear Ms. Riffey:

This letter is in response to the application you submitted to the Wilmington District, WRDA/Transportation Branch on January 8, 2026, for a Department of the Army general permit verification. This project has been assigned the file number SAW-2022-01430 and is known as NCDOT/ BR-0074 / Bridges 91 and 92 on US 70 over S. Prong / Slocum Creek / Craven County. 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 structurally deficient and functionally obsolete bridges on existing location utilizing an on-site detour on US-70. This verification authorizes 0.039 acres of permanent wetland impacts, 0.003 acres of temporary wetland impacts, 0.20 acres of temporary open water impacts, and 0.04 acres of permanent open water impacts. The project area is located on US 70 over the southwest prong of Slocum Creek, at Latitude 34.891240 and Longitude -76.922500; in Havelock, Craven County, North Carolina. The project is illustrated on the enclosed site plans/maps

We have determined that the proposed work is authorized by 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 enclosed 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 application must be submitted to this office for written approval before work is initiated. Any deviation from the terms and conditions of the permit, or your submitted plans, may subject the permittee to enforcement action.

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

Project Specific Special Conditions:

1. The Wilmington District, Federal Highway Administration, U.S. Fish and Wildlife Service (USFWS), and the North Carolina Department of Transportation (NCDOT) have conducted programmatic Section 7(a)(2) consultation for the Northern long-eared bat (NLEB) for NCDOT projects located in Divisions 1-8. The result of this programmatic consultation is a Programmatic Biological Opinion (PBO) issued by the USFWS titled, "Programmatic Biological Opinion – Revised, NCDOT Program Effects on the Northern Long-eared Bat in Divisions 1-8", dated December 15, 2022. This PBO contains agreed upon conservation measures which would minimize take of NLEB. As noted in the PBO, applicability of these conservation measures varies depending on the location of the project. The USFWS has documented that no reasonable and prudent measures, nor terms and conditions, are necessary or appropriate to minimize the amount or extent of incidental take of NLEB caused by the Action; therefore, the incidental take statement does not provide reasonable and prudent measures for this species. Department of the Army (DA) authorization under general permit or standard permit (Individual Permit) is conditional upon the permittee's compliance with applicable, agreed upon conservation measures of the PBO, which is incorporated by reference in this verification letter. Failure to comply with the applicable conservation measures, where a take of the NLEB occurs, would constitute an unauthorized take by the permittee, and would also constitute permittee non-compliance with this verification letter. The USFWS is the appropriate authority to determine compliance with the terms and conditions of its PBO and the ESA. All PBOs can be found on our website at: <https://www.saw.usace.army.mil/Missions/Regulatory-Permit-Program/Agency-Coordination/ESA/>.
2. The U.S. Fish and Wildlife Service's (USFWS's) Programmatic Conference Opinion (PCO) titled "NCDOT Program Effects on the Tricolored Bat in Divisions 1-8", dated November 20, 2023, contains mandatory terms and conditions to implement the reasonable and prudent measures that are associated with "incidental take" that are specified in the PCO. Your authorization under this Corps permit is conditional upon your compliance with all the mandatory terms and conditions associated with incidental take of the PCO, which terms and conditions are incorporated by reference in this permit. Failure to comply with the terms and conditions associated with incidental take of the PCO, where a take of the listed species occurs, would constitute an unauthorized take, and it would also constitute non-compliance with your Corps permit. The USFWS is the appropriate

authority to determine compliance with the terms and conditions of its PCO, and with the ESA.

3. The NCDOT shall implement the “Guidelines for Avoiding Impacts to the West Indian Manatee: Precautionary Measures for Construction Activities in North Carolina Waters” as identified by the USFW Service.

For activities occurring within the twenty coastal counties subject to regulation under the Coastal Area Management Act (CAMA), prior to beginning work you must contact the N.C. Division of Coastal Management in Washington, NC, at (252) 946-6481.

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 Kyle Barnes, Project Manager of the WRDA/Transportation Branch at 910-251-4584, by mail at the above address, or by email at kyle.w.barnes@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 style with a large, stylized "M" and "J".

M. Scott Jones, PWS
WRDA/Transportation Branch Chief

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 <u>kyle.w.barnes</u>@usace.army.mil or by mail at the below address: U.S. Army Corps of Engineers Wilmington District Office Street Address: 69 Darlington Avenue City: Wilmington State: North Carolina Zip Code: 28403		
COMPLETED BY THE CORPS		
Corps Action Number:	SAW-2022-01430	
Permit Type: <u>General Permit</u>		
General Permit Number and Name (if applicable):		
Name of Permittee:	<u>Deanna Riffey</u>	
Project Name: County	<u>NCDOT/ BR-0074 / Bridges 91 and 92 on US 70 over S. Prong / Slocum Creek / Craven</u>	
Project Location (physical address):	<u>Havelock, North Carolina</u>	
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

JOSH STEIN
Governor

D. REID WILSON
Secretary

RICHARD E. ROGERS, JR.
Director



February 19, 2026

Mr. Michael Turchy
Environmental Coordination and Permitting
North Carolina Department of Transportation
1598 Mail Service Center
Raleigh, NC 27699-1598
maturchy@ncdot.gov

Subject: Re-Issuance- 401 Water Quality Certification Pursuant to Section 401 of the Federal Clean Water Act with ADDITIONAL CONDITIONS for Proposed Bridge Replacement Project BR-0074 - Southwest Prong Slocum Creek in Craven County, TIP No. BR-0074. NCDWR Project No 20230481 v2

Dear Mr. Turchy:

Attached hereto is a copy of **Water Quality Certification No. WQC008644 (Individual Certification)** issued to the North Carolina Department of Transportation (NCDOT), dated February 19, 2026. This Certification is issued pursuant to the re-issuance request submitted on January 7, 2026, and replaces the Certification previously issued on July 27, 2023.

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.



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

Sincerely,
Signed by:

Faith Hardin

3185423002EA45E...

Faith Hardin, Supervisor

401 & Buffer Transportation Permitting Branch

Electronic cc: Jason Dilday, jldilday1@ncdot.gov
Tom Steffens, US Army Corps of Engineers, Washington Field Office
Chris Rivenbark, RK&K, crivenbark@rkk.com
Paul Nyarko, NC Division of Water Resources Regional Office



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

Re-Issuance for 401 Water Quality Certification Pursuant to Section 401 of the Federal Clean Water Act with ADDITIONAL CONDITIONS.

THIS CERTIFICATION is issued in conformity with the requirements of Section 401 Public Laws 92-500 and 95-217 of the United States and subject to the North Carolina Division of Water Resources (NCDWR) Regulations in 15 NCAC 2H .0500. This certification authorizes the NCDOT to impact 0.104 acres of jurisdictional wetlands and 217 linear feet of jurisdictional streams in Craven County. The project shall be constructed pursuant to the application dated received January 8, 2026. The authorized impacts are as described below:

Stream and Open Water Impacts in the Neuse River Basin

Site	Stream Permanent (LF)	Stream Temporary (LF)	Open Water Permanent (ac)	Open Water Temporary (ac)
1	88	129	0.04	0.20
Total	217		0.24	

Total Stream Impact for Project: **217 linear feet**

Wetland Impacts on the Neuse River Basin

Site	Wetland Fill Permanent (ac)	Wetland Excavation (ac)	Wetland Hand Clearing (ac)	Total (ac)
1	--	--	0.002	0.002
2	-	0.007	0.006	0.013
3	0.007	--	0.020	0.027
4	0.014	0.002	0.030	0.046
5	0.006	--	0.010	0.016
Total	0.027	0.009	0.068	0.104

Total Wetland Impact for Project: **0.104 acres.**

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

This approval is only valid for the purpose and design that you submitted in your application dated January 7, 2026. Should your project change, you are required to notify the NCDWR and submit a new application. If the property is sold, the new owner must be given a copy of this Certification and approval letter and is thereby responsible for complying with all the conditions. If any additional wetland impacts, or stream impacts, for this project (now or in the future) exceed 0.1 acre or 300 linear feet, respectively, additional compensatory mitigation may be required as described in 15A NCAC 2H .0506 (h) (6) and (7).

For this approval to remain valid, you are required to comply with all the conditions listed below. In addition, you should obtain all other federal, state or local permits before proceeding with your project



including (but not limited to) Sediment and Erosion control, Coastal Stormwater, Non-discharge and Water Supply watershed regulations. This Certification shall expire on the same day as the expiration date of the corresponding Corps of Engineers Permit.

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

Conditions of Certification:

1. NCDOT will conduct a pre-construction meeting with all appropriate staff to ensure that the project supervisor and essential staff understand the permit conditions and any potential issues at the site permitted. NCDWR staff shall be invited to the pre-construction meeting. [15A NCAC 02H.0506(b)(2) and (b)(3)]
2. The issuance of this certification does not exempt the Permittee from complying with 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.
3. DWR approves the stormwater drainage design as shown in the 401 applications, 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 impact. 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.
4. Impacts to Neuse Riparian Buffers due to the bridge construction are 'deemed allowable' under 15A NCAC 2B .0714(11)(c), therefore a separate Buffer Authorization is not required.
5. The permittee will need to adhere to all appropriate in-water work moratoria (including the use of pile driving or vibration techniques) prescribed by the NC Wildlife Resources Commission, the National Marine Fisheries Service and the NC Division of Marine Fisheries. No in-water work is permitted between February 15 and September 30 of any year. In addition, the permittee shall conform to the NCDOT policy always entitled "Stream Crossing Guidelines for Anadromous Fish Passage" (May 12, 1997). Exceptions to this condition require written approval by the resource agency responsible for the given moratorium.



6. Adherence to *The Guidelines for Avoiding Impacts to the West Indian Manatee: Precautionary Measures for Construction Activities in North Carolina Waters* will be required throughout construction.
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. 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]
9. 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)]
10. 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]
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. 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)]
13. 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)]
14. All fill slopes located in jurisdictional wetlands shall be placed at slopes no flatter than 3:1, unless otherwise authorized by this certification. [15A NCAC 02H.0506(b)(2)]
15. 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]
16. Design, installation, operation, and maintenance of all sediment and erosion control measures shall be equal to or exceed the requirements specified in the most recent version of the *North Carolina Sediment and Erosion Control Manual*, or for linear transportation projects, the *NCDOT Sediment and Erosion Control Manual*.
All devices shall be maintained on all construction sites, borrow sites, and waste pile (spoil) sites, including contractor-owned or leased borrow pits associated with the project.
Sufficient materials required for stabilization and/or repair of erosion control measures and



stormwater routing and treatment shall always be on site. 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.

17. Sediment and erosion control measures shall not be placed in wetlands or surface waters or within 5 feet of the top of the bank without prior approval from DWR. [15A NCAC 02H.0506(b)(3) and (c)(3)]
18. Erosion control matting in riparian areas shall not contain a plastic or nylon mesh grid which can impinge and entrap small animals. Matting should be secured in place by staples, stakes, or wherever possible live stakes of native trees. Riparian areas are defined as a distance 25 feet from top of stream bank. [15A NCAC 02B.0201]
19. If placement of sediment and erosion control devices in wetlands and waters is unavoidable, then design and placement of temporary erosion control measures shall not be conducted in a manner that may result in dis-equilibrium of wetlands, stream beds, or banks, adjacent to or upstream and downstream of the above structures. All sediment and erosion control devices shall be removed from wetlands and waters and the natural grade restored within two (2) months of the date that the Division of Energy, Mining and Land Resources (DEMLR) or locally delegated program has released the specific area within the project. [15A NCAC 02H.0506(b)(3) and (c)(3)]
20. As a condition of this 401 Water Quality Certification, the bridge demolition and construction must be accomplished in strict compliance with the most recent version of NCDOT's Best Management Practices for Construction and Maintenance Activities. [15A NCAC 02H .0507(d)(2) and 15A NCAC 02H .0506(b)(5)]
21. Bridge deck drains shall not discharge directly into the stream. Stormwater shall be directed across the bridge and pre-treated through site-appropriate means (grassed swales, pre-formed scour holes, vegetated buffers, etc.) where possible before entering the stream. To meet the requirements of NCDOT's NPDES permit NCS0000250, please refer to the most recent version of the North Carolina Department of Transportation Stormwater Best Management Practices Toolbox manual for approved measures. [15A NCAC 02H .0507(d)(2) and 15A NCAC 02H .0506(b)(5)]
22. All bridge construction shall be performed from the existing bridge, temporary work bridges, temporary causeways, or floating or sunken barges. If work conditions require barges, they shall be floated into position and then sunk. The barges shall not be sunk and then dragged into position. Under no circumstances should barges be dragged along the bottom of the surface water. [15A NCAC 02H .0506(b)(3)]
23. Bridge piles and bents shall be constructed using driven piles (hammer or vibratory) or drilled shaft construction methods. More specifically, jetting or other methods of pile driving are prohibited without prior written approval from the NCDWR first. [15A NCAC 02H.0506(b)(2)]
24. A turbidity curtain will be installed in the stream if driving or drilling activities occur within the stream channel, on the stream bank, or within 5 feet of the top of bank, or during the removal



of bents from an old bridge. This condition can be waived with prior approval from the NCDWR. [15A NCAC 02H .0506(b)(3)]

25. The use of rip-rap above the Normal High-Water Mark shall be minimized. Any rip-rap placed for stream stabilization shall be placed in stream channels in such a manner that it does not impede aquatic life passage. [15A NCAC 02H.0506(b)(2)]
26. Any rip-rap required for proper culvert placement, stream stabilization, or restoration of temporarily disturbed areas shall be restricted to the area directly impacted by the approved construction activity. All rip-rap shall be placed such that the original streambed elevation and streambank contours are restored and maintained and shall consist of clean rock or masonry material free of debris or toxic pollutants. Placement of rip-rap or other approved 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. [15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)]
27. Any rip-rap 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 shall not be installed in the streambed except in specific areas required for velocity control and to ensure structural integrity of bank stabilization measures. [15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c); 15A NCAC 02B .0201]
28. Native riparian vegetation 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 02H.0506(b)(2)]
29. Discharging hydroseed mixtures and washing out hydro seeders and other equipment in or adjacent to surface waters is prohibited. [15A NCAC 02H.0506(b)(3)]
30. NCDOT shall be in compliance with the NCS00250 issued to the NCDOT, including the applicable requirements of the NCG01000.
31. 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]
32. 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)]
33. Upon completion of the project (including any impacts at associated borrow or waste sites), the NCDOT Division Engineer shall complete the "Certification of Completion Form" to notify the NCDWR when all work included in the 401 Certification has been completed. [15A NCAC 02H.0502(f)]
34. A copy of this Water Quality Certification shall be always maintained on the construction site. 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)]

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 set forth may result in the 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 as a copy of the Petition on:

Dan Hirschman, General Counsel
Department of Environmental Quality
1601 Mail Service Center
Raleigh, NC 27699-1601



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

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 19th day of February 2026

DIVISION OF WATER RESOURCES

Signed by:

Faith Hardin

3185423002EA45E...

Faith Hardin, Supervisor
401 & Buffer Transportation Permitting Branch

WQC No.8644



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

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 _____



Permit Class
NEW

Permit Number
110-23

STATE OF NORTH CAROLINA
Department of Environmental Quality
and
Coastal Resources Commission

Permit

for

X Major Development in an Area of Environmental Concern
pursuant to NCGS 113A-118

X Excavation and/or filling pursuant to NCGS 113-229

Issued to **N.C. Department of Transportation, 1598 Mail Service Center, Raleigh, NC 27699-1598**

Authorizing development in Craven County at Southwest Prong Slocum Creek, Bridge Nos. 91 and 92 on US 70 as requested in the permittee's application dated 7/24/23, including the attached workplan drawings (34) as referenced in Condition No. 1 of this permit.

This permit, issued on **October 6, 2023**, is subject to compliance with the application (where consistent with the permit), all applicable regulations, special conditions and notes set forth below. Any violation of these terms may be subject to fines, imprisonment or civil action; or may cause the permit to be null and void.

TIP No. BR-0074, Replacement of Bridge Nos. 91 and 92

- 1) Unless specifically altered herein, all work authorized by this permit shall be carried out in accordance with the following attached workplan drawings:
Wetland and Surface Water Impacts (15 sheets): dated 7/17/23.
Buffer Impacts (2 sheets): 1 dated 7/17/23; and 1 dated 8/14/23
Roadway design drawings (17 sheets): 12 dated 8/11/22; 4 dated 8/12/22; and 1 dated 8/14/23.
- 2) In order to protect fisheries resources within the Southwest Prong of Slocum Creek, no in-water work shall be conducted from February 15 through September 30 of any year without prior approval of the N.C. Division of Coastal Management (DCM), in consultation with the appropriate resource agencies.

(See attached sheets for Additional Conditions)

This permit action may be appealed by the permittee or other qualified persons within twenty (20) days of the issuing date.

This permit must be accessible on-site to Department personnel when the project is inspected for compliance.

Any maintenance work or project modification not covered hereunder requires further Division approval.

All work must cease when the permit expires on

No expiration date, pursuant to GS 136-44.7B

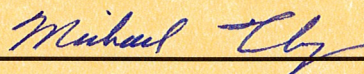
In issuing this permit, the State of North Carolina agrees that your project is consistent with the North Carolina Coastal Management Program.

Signed by the authority of the Secretary of DEQ and the Chair of the Coastal Resources Commission.



Braxton C. Davis, Director
Division of Coastal Management

This permit and its conditions are hereby accepted.



Signature of Permittee

ADDITIONAL CONDITIONS

- 3) In accordance with commitments made by the permittee, four (4) temporary work bridges shall be utilized. To ensure the Southwest Prong of Slocum Creek has adequate passage, the temporary work bridges shall be constructed in phases. Only one (1) temporary work bridge shall be in place at a time, and no more than 50% of the stream channel shall be blocked at a given time, with the exception of the western work bridge in Phase I for Bridge 92, which will block approximately 58% of the stream channel while it is in use.
- 4) During construction and demolition, the permittee shall make every attempt to allow the same navigation that is currently possible in the Southwest Prong of Slocum Creek. If this is not possible, then adequate notice shall be provided to the public that navigation will be limited during construction. The notice shall include an estimate of the amount of time that the limited navigation will occur.

NOTE: The permittee is strongly encouraged to coordinate with the N.C. Wildlife Resources Commission (WRC) to post an e-notice on the WRC website, and a sign at the WRC boat ramp, about the potential for temporary navigation closures.

- 5) The low chord of the authorized temporary work bridges shall match or exceed the low chord of the existing bridge structures and shall not prevent navigation within the Southwest Prong of Slocum Creek.
- 6) The entrance/exit for vehicles and pedestrians to the Slocum Creek Boating Access Area shall be maintained, and it shall not be used for staging or storage of project materials.
- 7) Construction staging areas shall be located only in upland areas, and not in wetlands or waters of the State.
- 8) No attempt shall be made by the permittee to prevent the full and free use by the public of all navigable waters at or adjacent to the authorized work following completion of construction.
- 9) No fill below normal water level is authorized underneath the temporary work bridges except for the footprint of the temporary work bridge pilings.
- 10) In accordance with commitments made by the permittee, bridge deck drains shall not be located over the open waters of the Southwest Prong of Slocum Creek and shall not cause erosion of adjacent wetlands.
- 11) The installation and removal of piles for the new bridges, existing bridges and temporary work bridges shall be accomplished by pile driving and/or the use of a vibratory hammer. Should the permittee and/or its contractor propose to utilize another type of pile installation or removal, such as jetting, additional authorization from DCM shall be required.
- 12) All construction and demolition access shall be through the use of the existing bridges, temporary work bridges, the partially constructed new bridges, barges, and/or existing high ground areas.

ADDITIONAL CONDITIONS

- 13) The existing bridges, including piles, and the temporary work bridges, as well as any remnant structures from previous bridges, shall be removed in their entirety within 90 days after they are no longer needed. However, if this timeframe occurs while the moratorium referenced in Condition No. 2 of this permit is in effect, then the structures referenced in this condition shall be removed in their entirety within 90 days of the moratorium end date.
- 14) In the event that a piling or other component breaks during removal and cannot be removed in its entirety, the piling or other component may be cut off flush with the bed of the water body, and DCM shall be notified of each occurrence within one working day.
- 15) Barges shall be utilized only in areas of sufficient depth such that the barges avoid contact with the bottom and do not rest on the bottom during periods of low tide.
- 16) No excavation or filling shall take place at any time in any vegetated wetlands or surrounding waters outside of the alignment of the areas indicated on the attached workplan drawings, without permit modification.
- 17) All fill material shall be clean and free of any pollutants except in trace quantities.
- 18) All excavated materials shall be confined above normal high water and landward of regularly or irregularly flooded wetlands behind adequate dikes or other retaining structures to prevent spillover of solids into any wetlands or surrounding waters.
- 19) Material excavated at the project site may be used in fill areas associated with the project once properly dewatered or shall be removed from the site and taken to a high ground location.
- 20) The temporary placement and/or double handling of any excavated or fill material within wetlands or waters of the State is not authorized.
- 21) The placement of riprap shall be limited to the areas as depicted on the attached workplan drawings. The riprap material shall consist of clean rock or masonry materials, such as but not limited to, granite, marl, or broken concrete without exposed rebar, and it shall be clean and free from loose dirt or any pollutant except in trace quantities. It shall be of a size sufficient to prevent its movement from the approved alignment by wave action. If the riprap becomes dislodged from the approved alignment at any point in the future, the permittee shall immediately contact DCM to determine the appropriate course of action.
- 22) Uncured concrete or water that has been in contact with uncured concrete shall not be allowed to contact waters of the State or water that will enter waters of the State.
- 23) The demolition plan for removal of the existing bridge structure shall be submitted to DCM for review and approval prior to commencement of the demolition activities.

ADDITIONAL CONDITIONS

- 24) All reasonable efforts shall be made to contain all debris and excess materials associated with the authorized activities, with the intent that materials/debris do not enter wetlands or waters of the State, even temporarily. Any waste materials or debris generated in the authorized activities, shall be disposed of at an approved upland site or shall be recycled in an environmentally appropriate manner provided appropriate authorizations are obtained from any relevant state, federal, or local authorities.

Impacts to Wetlands and Waters of the State

NOTE: This project will permanently impact approximately 0.04 acres of 404 Wetlands (0.03 acres due to permanent fill and <0.01 acres due to excavation). This project will temporarily impact approximately 0.07 acres of 404 Wetlands due to hand clearing. This project will permanently impact approximately 0.04 acres of surface waters, and will temporarily impact approximately 0.20 acres of surface waters.

- 25) Wetland areas to be temporarily impacted by hand clearing shall not be grubbed. There shall be no clearing of wetlands outside of the areas indicated for impacts on the attached workplan drawings without prior written approval from DCM.
- 26) Construction mats shall be utilized to support equipment within wetland areas to minimize temporary wetland impacts. The mats shall be removed immediately when they are no longer necessary.
- 27) The permittee shall minimize the need to cross wetlands in transporting equipment to the maximum extent practicable.
- 28) Any voids in wetlands or shallow bottom habitat caused by the removal of the temporary work bridges shall be restored to the elevation of pre-existing conditions with suitable material. The permittee shall notify DCM's Transportation Field Representative in Morehead City to provide DCM with an opportunity to inspect the material for suitability prior to backfilling.

Utility Impacts

NOTE: DCM issued CAMA General Permit No. 78307 on January 10, 2023, authorizing relocation of utility lines for power, telecommunications, water and sewer.

- 29) Any utility work associated with this project that has not been previously authorized by CAMA General Permit No. 78307, shall require approval from DCM, either under the authority of this permit, or by the utility company obtaining separate authorization.

ADDITIONAL CONDITIONS

Sedimentation and Erosion Control

- 30) This project shall conform to all requirements of the N.C. Sedimentation Pollution Control Act and the N.C. Department of Transportation's (NCDOT's) Memorandum of Agreement with the N.C. Division of Energy, Mineral and Land Resources.
- 31) Turbidity curtains shall be used to isolate all in-water work areas from the adjacent waters of the Southwest Prong of Slocum Creek, including but not limited to pile installation, pile removal, and removal of remnant structures from previous bridges. The turbidity curtains shall encircle the immediate work area, however they shall not impede navigation, and shall be of sufficient length and effectiveness to prevent a visible increase in the amount of suspended sediments in adjacent waters. The turbidity curtains shall be properly maintained and retained in the water until construction is complete and shall only be removed when turbidity within the curtains reaches ambient levels.
- 32) In order to protect water quality, runoff from construction shall not visibly increase the amount of suspended sediments in adjacent waters.

General

- 33) In order to protect the endangered West Indian Manatee, *Trichechus manatus*, the permittee shall implement the U.S. Fish & Wildlife Service's Guidelines, and strictly adhere to all requirements therein. The guidelines can be found at <https://www.fws.gov/raleigh/pdfs/ManateeGuidelines2017.pdf>.
- 34) The permittee shall exercise all available precautions during construction, operation, and maintenance of the bridges and adjacent roadway to prevent waste from entering the adjacent waters and wetlands.
- 35) Development authorized by this permit shall only be conducted on lands owned by NCDOT and/or its right-of-ways and/or easements. Utility work associated with this project shall only be conducted on lands owned by the utility and/or its right-of-ways and/or easements.
- 36) If it is determined that additional permanent and/or temporary impacts are necessary that are not shown on the attached workplan drawings or described in the authorized permit application, a permit modification and/or additional authorization from DCM may be required. In addition, any changes in the approved plan may also require a permit modification and/or additional authorization from DCM. The permittee shall contact a representative of DCM prior to commencement of any such activity for this determination and any permit modification.
- 37) The permittee and/or their contractor shall contact the DCM Transportation Project Field Representative in Morehead City at (252) 515-5408 to request a preconstruction conference prior to project initiation.
- 38) The permittee shall install and maintain at their expense any signal lights or signals prescribed by the U.S. Coast Guard, through regulation or otherwise, on the authorized facilities. At a minimum, permanent reflectors should be attached to the structures in order to make them more visible during hours of darkness or inclement weather.

ADDITIONAL CONDITIONS

- 39) The N.C. Division of Water Resources (DWR) authorized the proposed project on 7/27/23 (DWR Project No. 20230481) under General Water Quality Certification No. 4135. Any violation of the Certification issued by DWR shall be considered a violation of this CAMA permit.

NOTE: This project is located within an area that is subject to the Neuse River Riparian Buffer rules administered by the N.C. Division of Water Resources.

NOTE: This project shall be constructed in accordance with the permittee's Stormwater Management Plan dated 12/9/21, and the provisions of the NCDOT's National Pollutant Discharge Elimination (NPDES) Stormwater Permit NCS000250, including the application requirements of the NCG01000.

NOTE: This permit does not eliminate the need to obtain any additional permits, approvals or authorizations that may be required.

NOTE: The U.S. Army Corps of Engineers has assigned the proposed project COE Action ID No. SAW-2022-01430.

NOTE: An application processing fee of \$475 was received by DCM for this project. This fee also satisfied the Section 401 application processing fee requirements of DWR.

U.S. Department of
Homeland Security

United States
Coast Guard



Commander
United States Coast Guard
Fifth Coast Guard District

431 Crawford Street
Portsmouth, VA 23704-5004
Staff Symbol: dpb
Phone: (757) 398-6629
Fax: (757) 398-6334
Email: Jack.H.Williams2@uscg.mil
or CGDFiveBridges@uscg.mil

16591
13 DEC 2023

Mr. Jason Dilday
North Carolina Department of Transportation
1598 Mail Service Center
Raleigh, NC 27699

Dear Mr. Dilday:

Coast Guard review of your proposed project as provided in an email dated December 7, 2023, is complete.

Based on the documentation provided and our research, it is determined that a Coast Guard Bridge Permit will not be required for the proposed highway fixed – US 70 Bridge across Slocum Creek, at position 34.891137, -76.922626, at Craven County, NC.

The project will be placed in our Advance Approval category as per Title 33 Code of Federal Regulations Part 115.70. This Advance Approval determination is for the location and structure described above and **is valid for five years from the date of this letter**. The following conditions apply to this determination:

- a. If the construction project on the above bridge does not commence within this time, you must contact this office for reaffirmation of this determination.
- b. Future bridge projects along the above waterway will have to be independently evaluated before they may be considered for placement in the Advance Approval category. This includes modification, replacement, and removal of the above bridge, following its initial construction.
- c. Prior to bridge construction, the bridge owner should submit a bridge maintenance project plan to this office at least 30 days (preferably 90 days) prior to work commencing on or over the navigable waterway. Please see enclosure (1).
- d. Please submit photographs and as-built drawings of both plan and elevation views of the bridge upon completion of the project. Plans should be in the standard 8 ½ x 11 inch format. The drawings, along with the enclosed Completion Report Form, must indicate the vertical clearance from ordinary high water to the lowest portion of the bridge and horizontal clearance, pier face to pier face, or bank to bank, in the main navigation span. Please see enclosures (2) and (3).

The fact that a Coast Guard bridge permit is not required does not relieve you of the responsibility for compliance with the requirements of any other Federal, State, or local agency who may have jurisdiction over any aspect of the project. Although the project will not require a bridge permit, other areas of Coast Guard jurisdiction apply. The following conditions apply concerning construction of the above bridge:

- a. You or your contractor must notify this office at least 30 days (preferably 90 days) in advance of the start of construction and any other work which may be an obstruction to navigation, so we may issue and update the information in our Local Notice to Mariners and monitor the project. The notice should include details of the project as described in enclosure (1).
- b. At no time during the project will the waterway be closed to navigation without the prior notification and approval of the Coast Guard. The bridge owner or contractor is required to maintain close and regular contact with Coast Guard Sector North Carolina at (910) 772-2230 or D05-SMB-SecNC-MarineEvents@uscg.mil to keep them informed of activities on the waterway.
- c. The lowest portion of the superstructure of the bridge across the waterway should clear the 100-year flood height elevation, if feasible.
- d. In addition, the requirement to display navigational lighting at the aforementioned bridge is hereby waived, as per Title 33 Code of Federal Regulations, Part 118.40(b). This waiver may be rescinded at any time in the future should nighttime navigation through the proposed bridge be increased to a level determined by the District Commander to warrant lighting.

If you have any further questions, please contact Mr. Jack H. Williams at the above listed address or telephone number.

Sincerely,

PITTS.HAL.R. Digitally signed by
PITTS.HAL.R.1121267272
1121267272 Date: 2023.12.14
13:18:44 -05'00'
HAL R. PITTS
Bridge Program Manager
By direction

Encl: (1) Bridge Maintenance Project Plan
(2) Bridge Completion Report (CG-4599)
(3) Plan Sheet Job Aid

Copy: CG Sector North Carolina, Waterways Management
U. S. Army Corps of Engineers, Wilmington District
Federal Highways Administration, Raleigh, NC

BRIDGE MAINTENANCE PROJECT PLAN

1. The bridge owner, or entity acting on behalf of the bridge owner, should submit a bridge maintenance project plan at least 30 days (preferably 90 days) prior to commencement of work on or over the navigable waterway. Correspondence may be submitted via .pdf email attachment to CGDFiveBridges@uscg.mil or mailed.
2. Once received, the request will be assigned to a project officer for review and processing. The project officer will publish a local notice to mariners. If appropriate, the project officer will publish a temporary deviation from drawbridge operating regulations.
 - a. Bridge Information: Provide bridge name, bridge type (highway, railroad, pedestrian, pipeline, etc.), roadway (s) carried, waterway name, mile (statute) on waterway from confluence, municipal location (town/city, county (if applicable/if known), and state).
 - b. Project Description: Provide the general description, nature and scope of the project. Drawings may be submitted, particularly if there are any planned temporary reductions in navigation clearances.
 - c. Project Dates/Work Hours: Provide primary and alternate (if applicable) project dates and work hours. Alternate dates and work hours may be included to account for inclement weather, etc.
 - d. Navigation Clearances: Provide any proposed temporary reductions in navigation clearances (vertical and/or horizontal), including the amount of the reduction (s) in feet and when the reduction (s) will be in place.
 - e. Temporary Deviation (from Operating Regulations): For drawbridges – Provide any proposed temporary deviation from operating regulations including: purpose (why it is necessary); dates/times of closure; if the bridge will be closed when bridge work is not being performed, provide justification for closure during non-work hours; whether the bridge will be able to open for an emergency and within how much time of notice; whether vessels may pass through the bridge in the closed position at any time or with prior notice.
 - f. Project Resources: Provide list of vessels, barges, equipment and location of personnel involved in the project. Indicate whether the project resources will relocate from the navigation channel during work hours, and if so, provide the timeframe for notice and method of notice. Indicate whether the resources will relocate from the navigation channel during non-work hours, and if not, provide justification for them to remain in the navigation channel during non-work hours.
 - g. Communications: Provide communications plan for project resources. This should include VHF-FM channel 13 for vessels and drawbridge tenders and may include mobile phone devices for vessels and project personnel. Vessel operators need to be able to communicate with project resources for safe navigation.
 - h. Bridge Owner Information: If the request is submitted by an entity on behalf of the bridge owner, provide the bridge owner representative's contact information (name, telephone and email) and the bridge owner's mailing address for the appropriate office.

09/08/99

\$FILE\$

\$DATE\$

TIP PROJECT: BR-0074

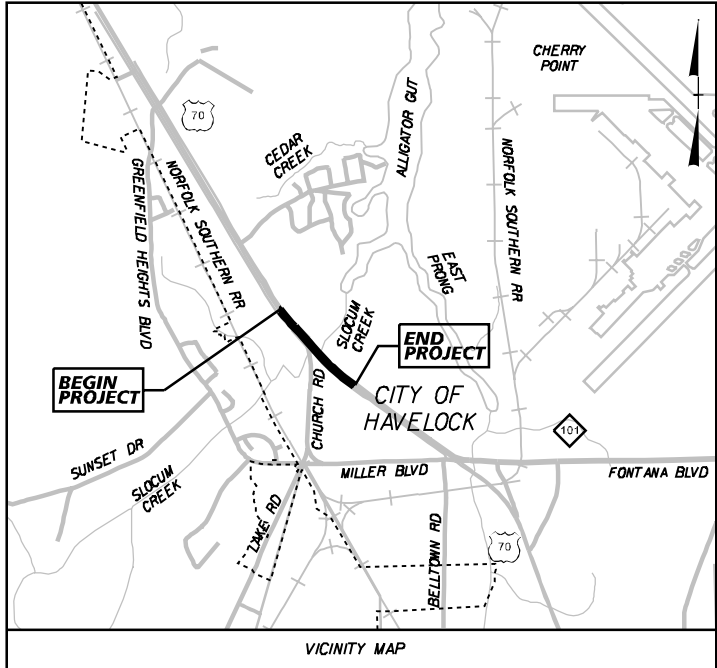
CONTRACT:

Revised 7/17/2023

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
CRAVEN COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	BR-0074	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
67074.1.1		P.E.	
67074.2.1		RIGHT-OF-WAY	
67074.2.1		UTILITIES	

PERMIT DRAWING
SHEET 1 OF 17



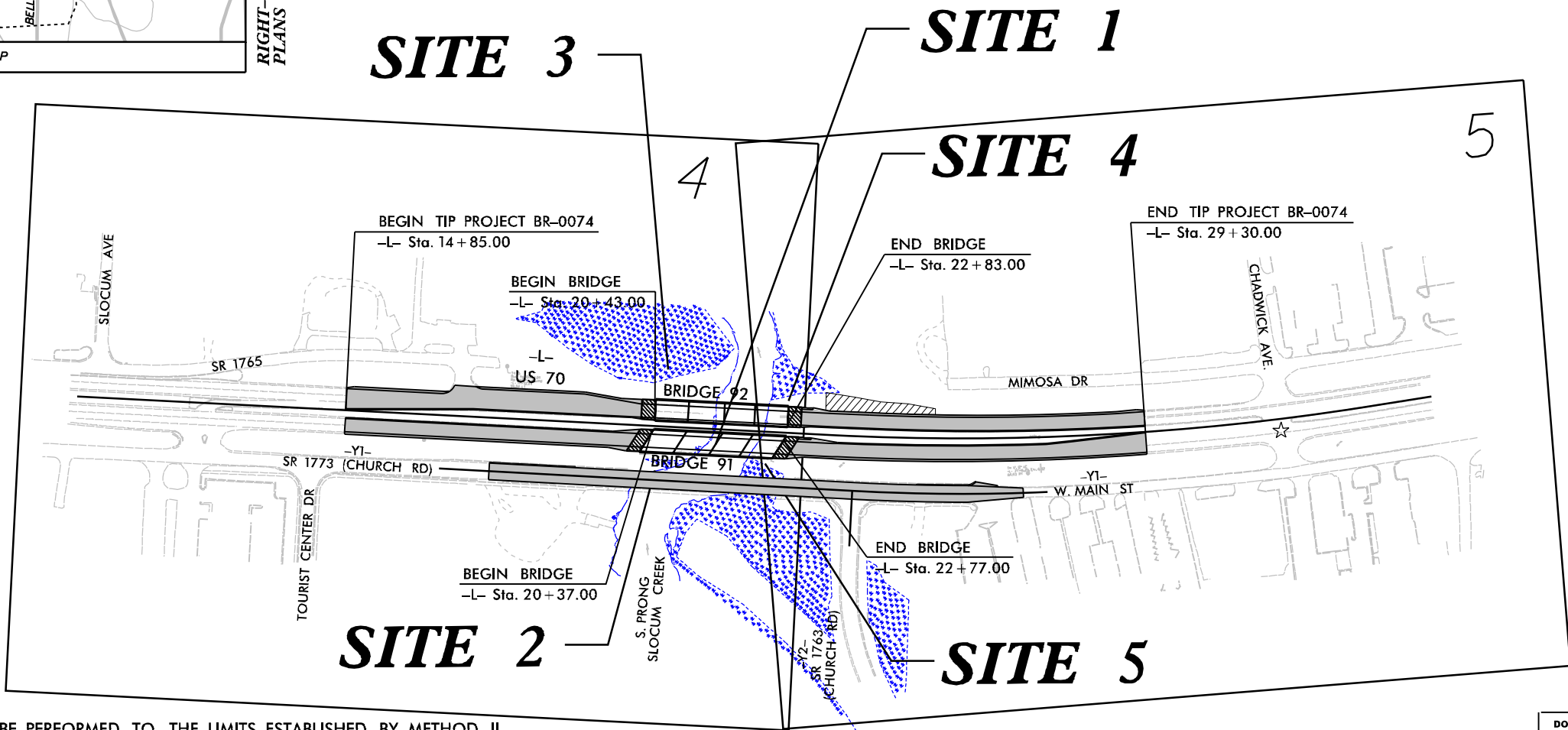
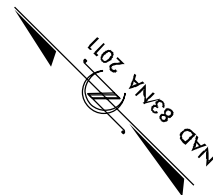
----- HAVELOCK CITY LIMIT

RIGHT-OF-WAY
PLANS COMPLETE

LOCATION: BRIDGES 240091 AND 240092 ON US 70 OVER S. PRONG SLOCUM CREEK
TYPE OF WORK: GRADING, DRAINAGE, PAVING, AND STRUCTURES

WETLAND AND SURFACE WATER IMPACTS PERMIT

JULY 2023

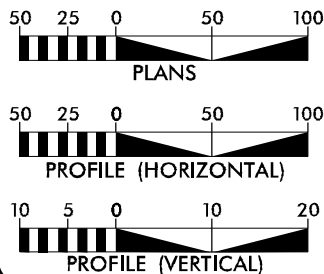


☆ EXIST TRAFFIC SIGNAL

CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II
THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF THE CITY OF HAVELOCK

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

GRAPHIC SCALES



DESIGN DATA

AADT 2024 = 31,100
AADT 2044 = 33,700
D = 55%
K = 9%
T = 4%*
V = 45/55 MPH
* (TTST 2% + DUAL 2%)
FUNCTIONAL PRINCIPAL
CLASSIFICATION: ARTERIAL
STATEWIDE TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT BR-0074 = 0.229 MILES
LENGTH STRUCTURES TIP PROJECT BR-0074 = 0.045 MILES
TOTAL LENGTH TIP PROJECT BR-0074 = 0.274 MILES

PLANS PREPARED FOR
THE NCDOT BY:

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:

FEBRUARY 7, 2023

LETTING DATE:

JANUARY 16, 2024

Kimley»Horn

PROJECT ENGINEER

JEFFREY W. MOORE, P.E.
PROJECT ENGINEER

TYLER G. SPRING, P.E.
PROJECT DESIGN ENGINEER

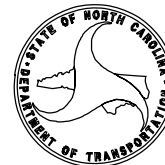
KIM L. GILLESPIE, P.E.
PROJECT MANAGER

NCDOT PROJECT MANAGEMENT UNIT

HYDRAULICS ENGINEER

SIGNATURE: P.E.
ROADWAY DESIGN ENGINEER

SIGNATURE: P.E.



Revised 7/17/2023

PROJECT REFERENCE NO.
BR-0074

SHEET NO.
2D-1

ROADWAY DESIGN
ENGINEER

HYDRAULICS
ENGINEER

Kimley»Horn

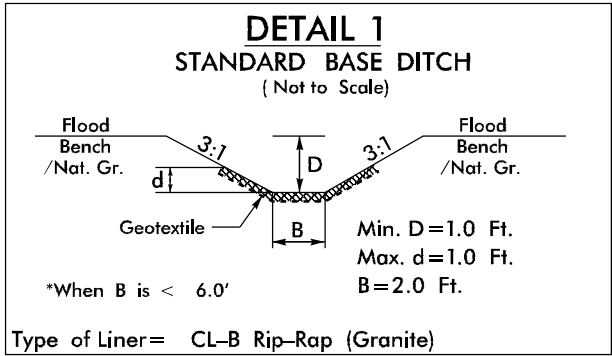
421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NC 27601

RIGHT-OF-WAY REV.

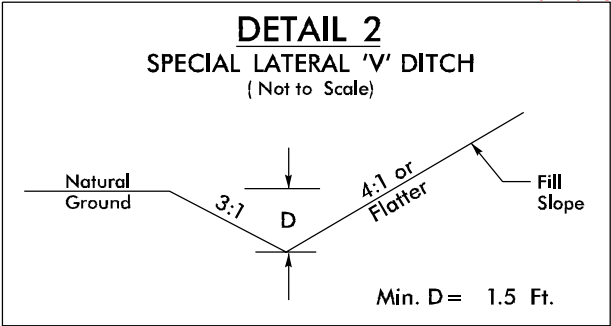
CONST. REV.

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

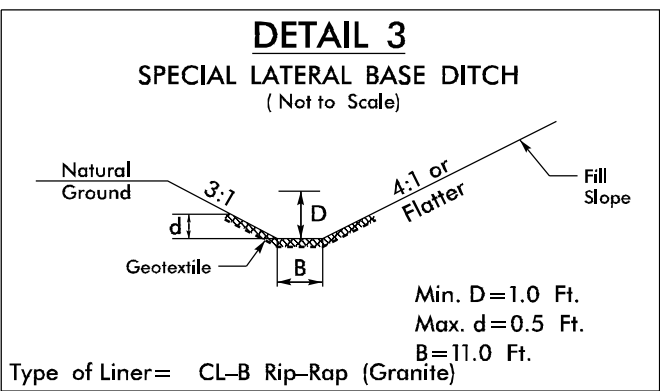
PERMIT DRAWING
SHEET 2 OF 17



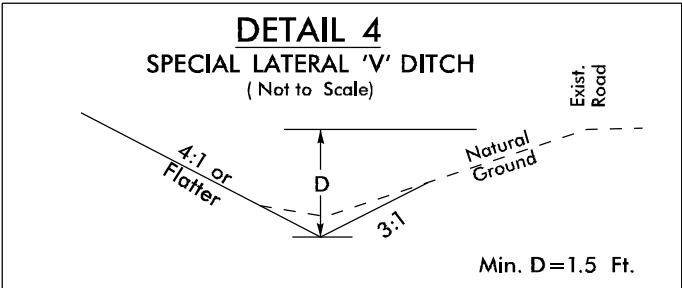
FROM STA. 20+64 TO STA. 21+48 -L- MEDIAN
FROM STA. 16+32 TO STA. 16+73 -DETWB- RT.



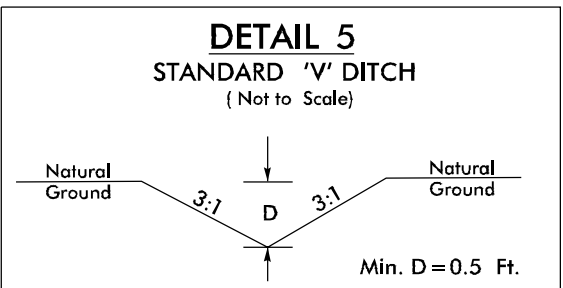
FROM STA. 17+25 TO STA. 18+50 -L- LT.



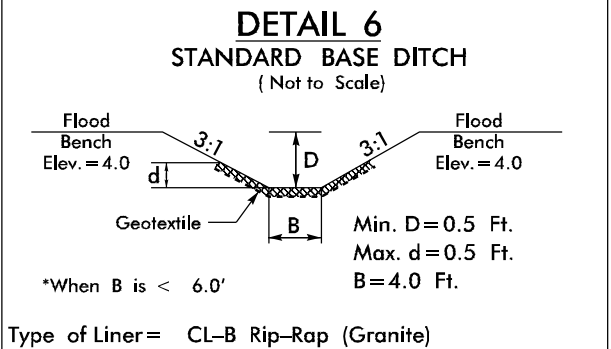
FROM STA. 18+50 TO STA. 19+12 -L- LT.



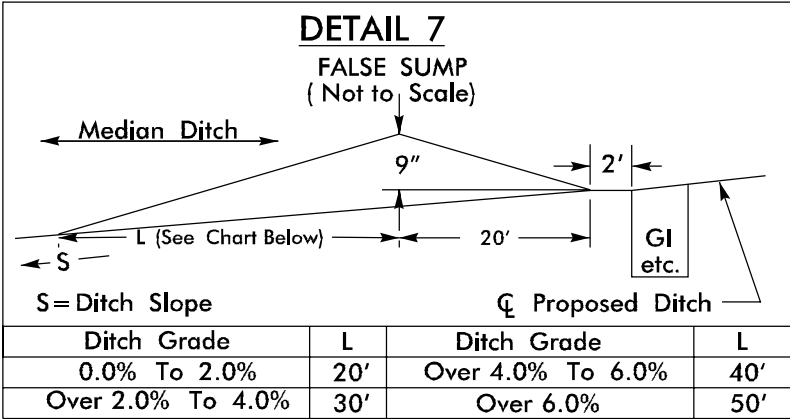
FROM STA. 18+50 TO STA. 19+00 -L- RT.
FROM STA. 27+50 TO STA. 28+00 -L- RT.



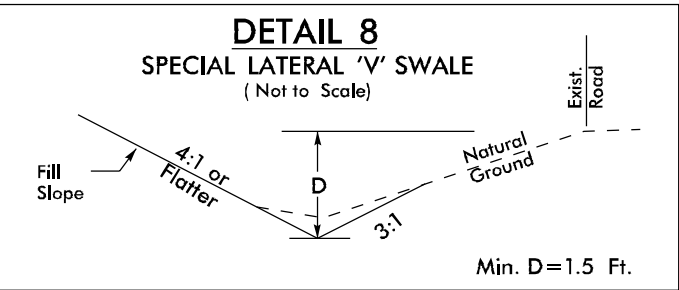
AT STA. 23+22 -L- LT



FROM STA. 22+45 TO STA. 22+70 -L-



FROM STA. 18+83 TO STA. 19+23 -DETWB- LT. (S=1.0%)
FROM STA. 20+13 TO STA. 20+53 -DETWB- LT. (S=1.0%)
FROM STA. 15+07 TO STA. 15+47 -DETEB- LT. (S=2.0%)
FROM STA. 16+30 TO STA. 16+70 -L- MEDIAN (S=1.5%)
FROM STA. 16+30 TO STA. 16+70 -L- RT. (S=1.8%)
FROM STA. 27+05 TO STA. 27+45 -L- MEDIAN (S=0.5%)



FROM STA. 19+00 TO STA. 19+50 -L- RT.
FROM STA. 27+00 TO STA. 27+50 -L- RT.

5/14/99

Revised 7/17/2023

SEE SHEET 4A-4D FOR SITE 1

LEGEND

FILL IN WETLAND

HAND CLEARING (NON-GRUBBING)

WETLAND EXCAVATION

KimleyHorn

421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NC 27601

RIGHT-OF-WAY REV.

CONST. REV.

PROJECT REFERENCE NO.

BR-0074

SHEET NO.

4

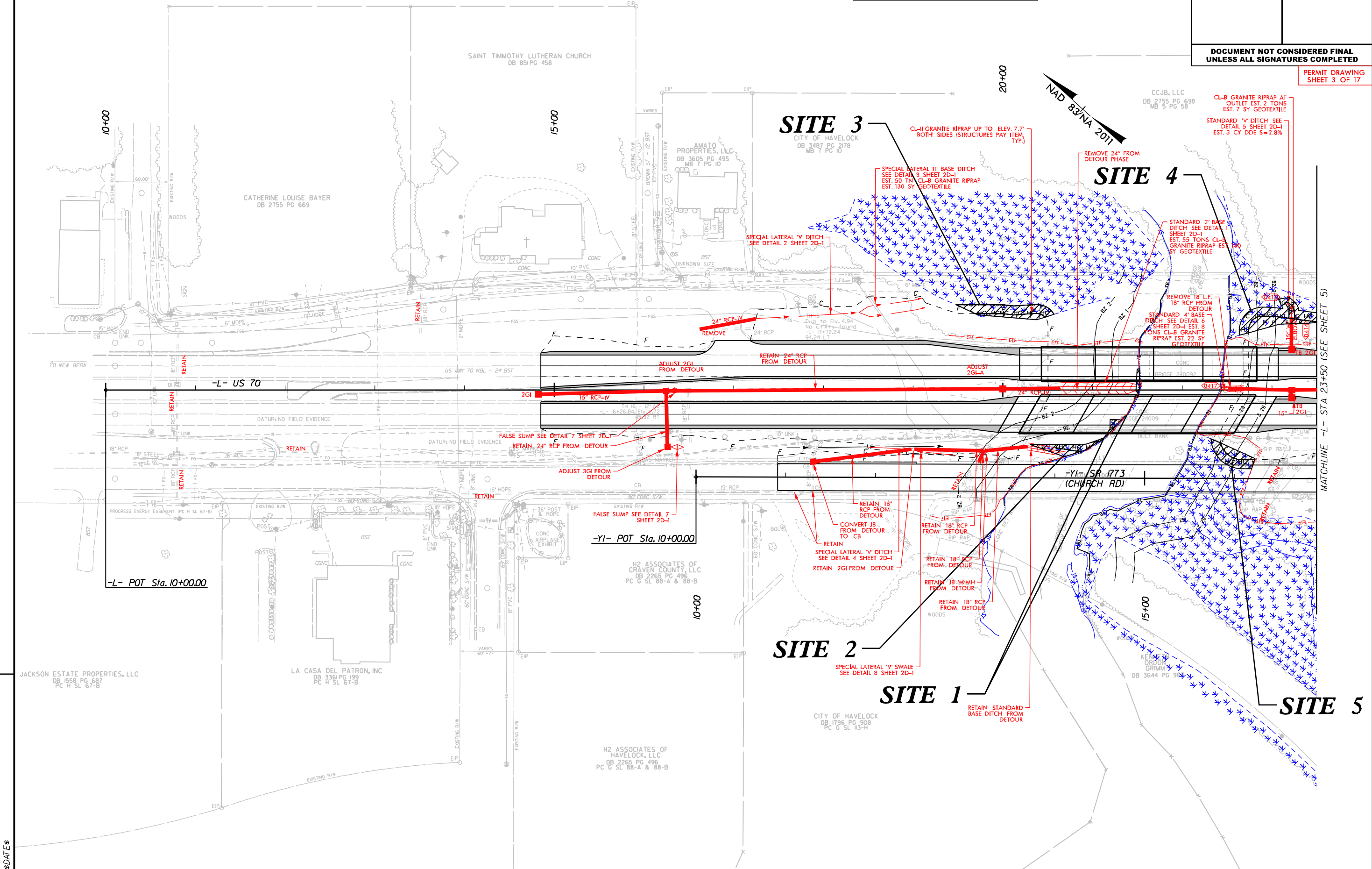
ROADWAY DESIGN
ENGINEER

HYDRAULICS
ENGINEER

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING
SHEET 3 OF 17

REVISIONS



\$DATE\$

5/14/99

Revised 7/17/2023

SEE SHEET 4A-4D FOR SITE 1

LEGEND

FILL IN WETLAND

HAND CLEARING (NON-GRUBBING)

WETLAND EXCAVATION

PROJECT REFERENCE NO.

BR-0074

ROADWAY DESIGN ENGINEER

SHEET NO.

4

HYDRAULICS ENGINEER

KimleyHorn

421 FAYETTEVILLE STREET, SUITE 600

RALEIGH, NC 27601

RIGHT-OF-WAY REV.

CONST. REV.

DOCUMENT NOT CONSIDERED FINAL

UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING

SHEET 4 OF 17

REVISIONS

The main site plan illustrates a proposed roadway alignment with stationing from 10+00 to 20+00. Key features include:

- Site 1:** Located near the bottom center, showing a 'RETAIN STANDARD BASE DITCH FROM DETOUR'.
- Site 2:** Located near the bottom right, showing a 'SPECIAL LATERAL V SWALE SEE DETAIL 8 SHEET 2D-1'.
- Site 3:** Located in the upper middle, showing 'CL-II GRANITE RIPRAP UP TO ELEV. 7.7' BOTH SIDES (STRUCTURES PAY ITEM, TYP.)' and 'SPECIAL LATERAL 11" BASE DITCH SEE DETAIL 3 SHEET 2D-1'.
- Site 4:** Located in the upper right, showing 'STANDARD 2" BASE DITCH SEE DETAIL 1 SHEET 2D-1' and 'CL-B GRANITE RIPRAP AT OUTLET EST. 2 TONS EST. 7 SY GEOTEXTILE'.
- Site 5:** Located on the far right, showing 'STANDARD 1" V DITCH SEE DETAIL 5 SHEET 2D-1'.

Other annotations include 'ADJUST 2GI FROM DETOUR', 'ADJUST 2GI-A', 'ADJUST 3GI FROM DETOUR', 'FALSE SUMP SEE DETAIL 7 SHEET 2D-1', and 'RETAIN 24" RCP FROM DETOUR'. The plan also shows existing infrastructure like 'US HWY 70 MBL - 24' BST' and 'YI- SR 1773 (CHURCH RD)'. Property owners listed include SAINT TIMOTHY LUTHERAN CHURCH, CATHERINE LOUISE BAYER, AMATO PROPERTIES, LLC, CCJB, LLC, JACKSON ESTATE PROPERTIES, LLC, LA CASA DEL PATRON, INC, and H2 ASSOCIATES OF CRAVEN COUNTY, LLC.

\$DATE\$

5/14/99

Revised 7/17/2023

PHASE 1:
CONSTRUCT TEMPORARY WORK BRIDGE IN LOCATION SHOWN, DECONSTRUCT WESTERN EXISTING BRIDGE #240092 PIERS, CONSTRUCT PROPOSED BRIDGE PIERS AND DECONSTRUCT TEMPORARY WORK BRIDGE.

TEMPORARY WORK BRIDGE

LEGEND

- SURFACE WATER IMPACTS
- TEMPORARY SURFACE WATER IMPACTS

Kimley»Horn

421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NC 27601

HIGHWAY REV.
CONST. REV.

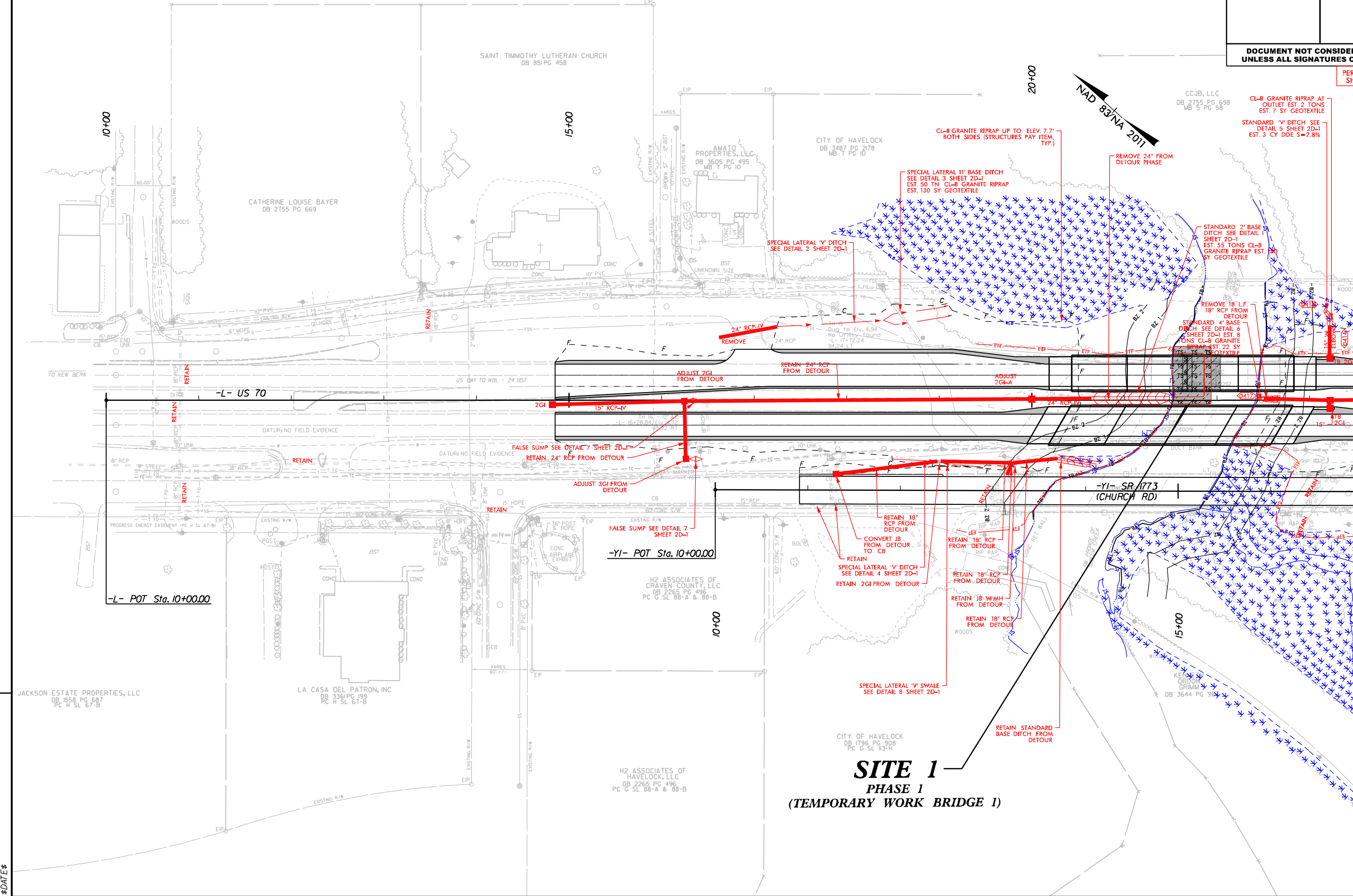
PROJECT REFERENCE NO.		SHEET NO.
BR-0074		4A
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING
SHEET 5 OF 17

REVISIONS

MATCHLINE -L- STA 23+50 (SEE SHEET 5)



SITE 1
PHASE 1
(TEMPORARY WORK BRIDGE 1)

\$DATE\$

5/28/99

LEGEND	
SPECIAL DITCH	----
MEDIAN DITCH	----

Revised 7/17/2023

PHASE 1:
CONSTRUCT TEMPORARY WORK BRIDGE IN LOCATION SHOWN. DECONSTRUCT WESTERN EXISTING BRIDGE #240092 PIERS. CONSTRUCT PROPOSED BRIDGE PIERS AND DECONSTRUCT TEMPORARY WORK BRIDGE.

PERMIT DRAWING
SHEET 6 OF 17

Kimley»Horn

421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NC 27601

RIGHT-OF-WAY REV.
CONSTR. REV.

PROJECT REFERENCE NO.		SHEET NO.
BR-0074		6A
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

EXCAVATION

40
30
20
10
0
-10
-20

BRIDGE HYDRAULIC DATA

DESIGN DISCHARGE	= 1800 CFS
DESIGN FREQUENCY	= 50 YR
DESIGN HW ELEVATION	= 6.7 FT
BASE DISCHARGE	= 2200 CFS
BASE FREQUENCY	= 100 YR
BASE HW ELEVATION	= 8.0 FT
OVERTOPPING DISCHARGE	= 5800 CFS
OVERTOPPING FREQUENCY	= 500+ YR
OVERTOPPING ELEVATION	= 14.9 FT
DATE OF SURVEY	= 03/05/2019
W.S.ELEVATION AT DATE OF SURVEY	= 0.5 FT

BM1 ELEVATION = 3.45
N 422147 E 2622838
-L- STATION 19+21.07 175.58' LEFT
BENCHTIE SET IN 18" CYPRESS

BEGIN GRADE
-LLT- STA 14+85.00
ELEV = 19.82'
MILL NOTCH TO KEY-IN
TIE TO EXISTING PAVEMENT

PI = 15+45.00
EL = 19.02'
VC = 120'
K = 1218

PI = 17+65.00
EL = 15.87'
VC = 170'
K = 150

-11.4318% -11.4318% -10.3005% -12.14% -14.12%

BEGIN SPECIAL
DITCH GRADE LT
-L- STA 17+25
ELEV = 10.00'

PROPOSED GRADE
BEGIN BRIDGE
-L- STA 20+43 LT
ELEV = 15.03'

EXISTING
BRIDGE
TO BE
REMOVED

-L- STA 21+63.00 LT
1 @ 60', 1 @ 65', 1 @ 55', 1 @ 60'
TYPE III 45' PRESTRESSED
CONCRETE GIRDER
CL ELEV = 14.67'
SKEW = 90'

END BRIDGE
-L- STA 22+83 LT
ELEV = 14.31'

END SPECIAL
DITCH GRADE LT
-L- STA 19+12
ELEV = 4.75'

BEGIN SPECIAL
DITCH GRADE MEDIAN
-L- STA 20+64
ELEV = 2.50'

END SPECIAL
DITCH GRADE MEDIAN
-L- STA 21+48
ELEV = 1.50'

NORMAL W.S.E. = 0.5'
(03/05/2019)

BEGIN SPECIAL
DITCH GRADE MEDIAN
-L- STA 22+45
ELEV = 2.00'

CLASS II
RIPRAP (TYP
(STR PAY ITEM)

END SPECIAL
DITCH GRADE MED
-L- STA 22+70
ELEV = 3.50'

-LLT- US 70

SEE SHEET NO.4 FOR -L- PLAN

12 13 14 15 16 17 18 19 20 21 22 23

40
30
20
10
0
-10
-20

BEGIN GRADE
-LRT- STA 14+85.00
ELEV = 19.65'
MILL NOTCH TO KEY-IN
TIE TO EXISTING PAVEMENT

PI = 17+37.00
EL = 16.08'
VC = 170'
K = 152

-11.4167% -10.3011% -11.96% -11.20%

BEGIN SPECIAL
DITCH GRADE RT
-L- STA 18+50
ELEV = 10.76'

END SPECIAL
DITCH GRADE RT
-L- STA 19+50
ELEV = 10.38'

-L- STA 19+00 RT
ELEV = 9.78'

BEGIN BRIDGE
-L- STA 20+37 RT
ELEV = 15.17'

-L- STA 21+57.00 RT
1 @ 60', 1 @ 65', 1 @ 55', 1 @ 60'
TYPE III 45' PRESTRESSED
CONCRETE GIRDER
CL ELEV = 14.82'
SKEW = 60'

PROPOSED
GRADE

END BRIDGE
-L- STA 22+77 RT
ELEV = 14.45'

EXISTING
BRIDGE
TO BE
REMOVED

NORMAL W.S.E. = 0.5'
(03/05/2019)

CLASS II
RIPRAP (TYP
(STR PAY ITEM)

-LRT- US 70

SEE SHEET NO.4 FOR -L- PLAN

12 13 14 15 16 17 18 19 20 21 22 23

BM1 ELEVATION = 3.45
N 422147 E 2622838
-L- STATION 19+21.07 175.58' LEFT
BENCHTIE SET IN 18" CYPRESS

14 15 16 17 18 19 20 21 22 23

\$FILE\$

\$DATE\$

5/14/99

Revised 7/17/2023

PHASE 2:
CONSTRUCT TEMPORARY WORK BRIDGE IN LOCATION SHOWN. DECONSTRUCT EASTERN EXISTING BRIDGE #240092 PIERS. CONSTRUCT PROPOSED BRIDGE PIERS AND DECONSTRUCT TEMPORARY WORK BRIDGE.

TEMPORARY WORK BRIDGE

LEGEND

-  SURFACE WATER IMPACTS
-  TEMPORARY SURFACE WATER IMPACTS

Kimley»Horn

421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NC 27601

HIGHWAY REV.
CONST. REV.

PROJECT REFERENCE NO.

BR-0074

SHEET NO.

4B

ROADWAY DESIGN
ENGINEER

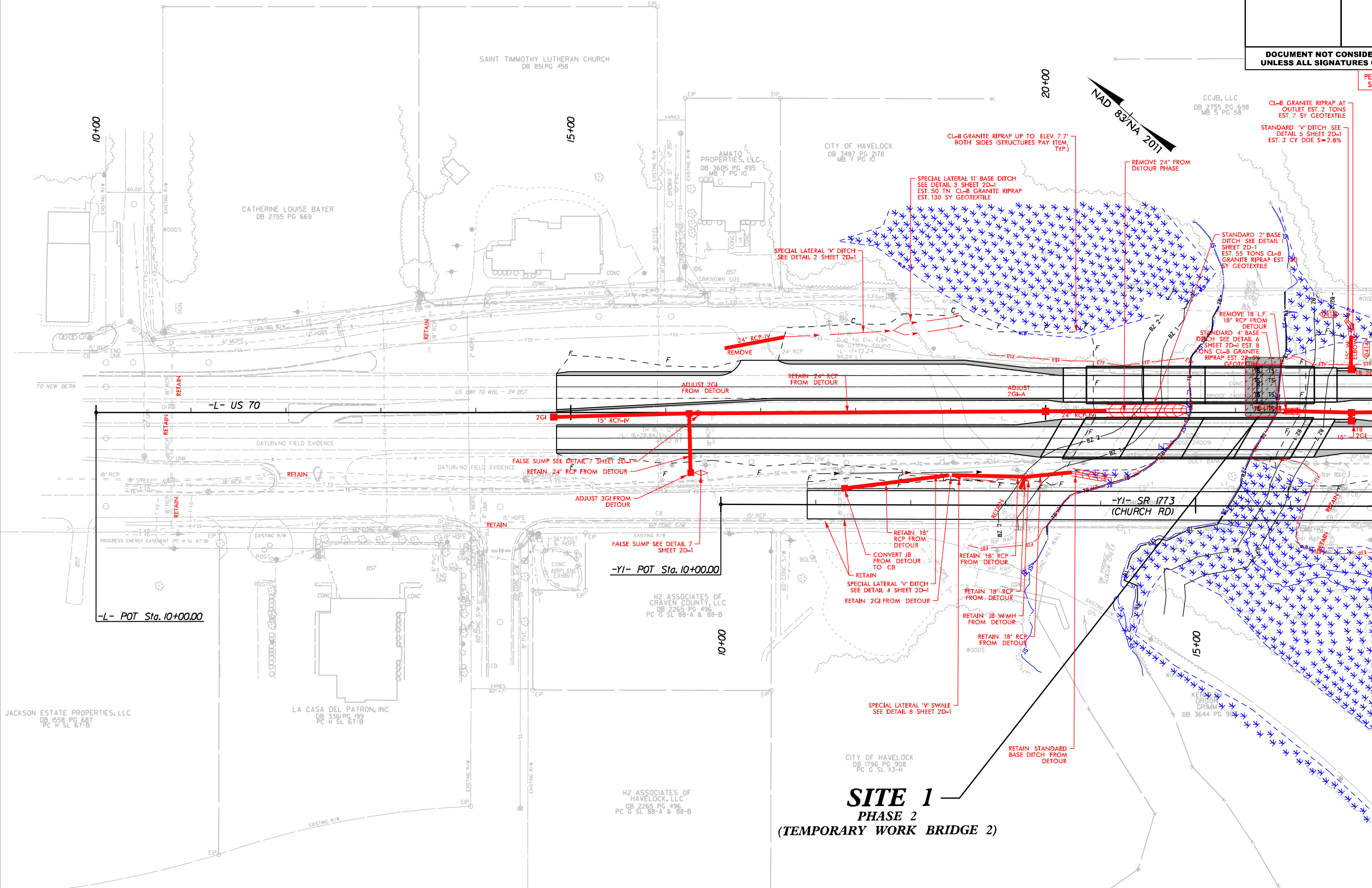
HYDRAULICS
ENGINEER

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING
SHEET 7 OF 17

REVISIONS

MATCHLINE -L- STA 23+50 (SEE SHEET 5)



SITE 1
PHASE 2
(TEMPORARY WORK BRIDGE 2)

\$DATE\$

5/28/99

LEGEND	
SPECIAL DITCH	----
MEDIAN DITCH	----

Revised 7/17/2023

PHASE 2:
CONSTRUCT TEMPORARY WORK BRIDGE IN LOCATION SHOWN. DECONSTRUCT EASTERN EXISTING BRIDGE #240092 PIERS. CONSTRUCT PROPOSED BRIDGE PIERS AND DECONSTRUCT TEMPORARY WORK BRIDGE.

PERMIT DRAWING
SHEET 8 OF 17

Kimley»Horn

421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NC 27601

RIGHT-OF-WAY REV.
CONSTR. REV.

PROJECT REFERENCE NO.		SHEET NO.
BR-0074		6B
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		

40
30
20
10
0
-10
-20

BRIDGE HYDRAULIC DATA	
DESIGN DISCHARGE	= 1800 CFS
DESIGN FREQUENCY	= 50 YR
DESIGN HW ELEVATION	= 6.7 FT
BASE DISCHARGE	= 2200 CFS
BASE FREQUENCY	= 100 YR
BASE HW ELEVATION	= 8.0 FT
OVERTOPPING DISCHARGE	= 5800 CFS
OVERTOPPING FREQUENCY	= 500+ YR
OVERTOPPING ELEVATION	= 14.9 FT
DATE OF SURVEY	= 03/05/2019
W.S.ELEVATION AT DATE OF SURVEY	= 0.5 FT

BM1 ELEVATION = 3.45
N 422147 E 2622838
-L- STATION 19+21.07 175.58' LEFT
BENCHTIE SET IN 18" CYPRESS

BEGIN GRADE
-LLT- STA 14+85.00
ELEV = 19.82'
MILL NOTCH TO KEY-IN
TIE TO EXISTING PAVEMENT

PI = 15+45.00
EL = 19.02'
VC = 120'
K = 1218

PI = 17+65.00
EL = 15.87'
VC = 170'
K = 150

-11.4318%
-11.4318%
-10.3005%
-12.14%
-14.12%

BEGIN SPECIAL
DITCH GRADE LT
-L- STA 17+25
ELEV = 10.00'

-L- STA 18+50 LT
ELEV = 7.32'

END SPECIAL
DITCH GRADE LT
-L- STA 19+12
ELEV = 4.75'

BEGIN SPECIAL
DITCH GRADE MEDIAN
-L- STA 20+64
ELEV = 2.50'

END SPECIAL
DITCH GRADE MEDIAN
-L- STA 21+48
ELEV = 1.50'

NORMAL W.S.E. = 0.5'
(03/05/2019)

BEGIN SPECIAL
DITCH GRADE MEDIAN
-L- STA 22+45
ELEV = 2.00'

-L- STA 21+63.00 LT
1 @ 60', 1 @ 65', 1 @ 55', 1 @ 60'
TYPE III 45' PRESTRESSED
CONCRETE GIRDER
CL ELEV = 14.67'
SKEW = 90'

END BRIDGE
-L- STA 22+83 LT
ELEV = 14.31'

CLASS II
RIPRAP (TYP)
(STR PAY ITEM)

END SPECIAL
DITCH GRADE MED
-L- STA 22+70
ELEV = 3.50'

TEMPORARY WORK BRIDGE TO
MATCH EXISTING LOW CHORD

SEE SHEET NO.4 FOR -L- PLAN

EXCAVATION

20
10
0
-10
-20

12 13 14 15 16 17 18 19 20 21 22 23

-LLT- US 70

\$FILE\$

40
30
20
10
0
-10
-20

BEGIN GRADE
-LRT- STA 14+85.00
ELEV = 19.65'
MILL NOTCH TO KEY-IN
TIE TO EXISTING PAVEMENT

PI = 17+37.00
EL = 16.08'
VC = 170'
K = 152

-11.4167%
-11.4167%
-10.3011%
-11.96%
+11.20%

BEGIN SPECIAL
DITCH GRADE RT
-L- STA 18+50
ELEV = 10.76'

END SPECIAL
DITCH GRADE RT
-L- STA 19+50
ELEV = 10.38'

-L- STA 19+00 RT
ELEV = 9.78'

BEGIN BRIDGE
-L- STA 20+37 RT
ELEV = 15.17'

-L- STA 21+57.00 RT
1 @ 60', 1 @ 65', 1 @ 55', 1 @ 60'
TYPE III 45' PRESTRESSED
CONCRETE GIRDER
CL ELEV = 14.82'
SKEW = 60'

END BRIDGE
-L- STA 22+77 RT
ELEV = 14.45'

CLASS II
RIPRAP (TYP)
(STR PAY ITEM)

NORMAL W.S.E. = 0.5'
(03/05/2019)

BRIDGE HYDRAULIC DATA	
DESIGN DISCHARGE	= 1800 CFS
DESIGN FREQUENCY	= 50 YR
DESIGN HW ELEVATION	= 6.7 FT
BASE DISCHARGE	= 2200 CFS
BASE FREQUENCY	= 100 YR
BASE HW ELEVATION	= 8.0 FT
OVERTOPPING DISCHARGE	= 5800 CFS
OVERTOPPING FREQUENCY	= 500+ YR
OVERTOPPING ELEVATION	= 14.9 FT
DATE OF SURVEY	= 03/05/2019
W.S.ELEVATION AT DATE OF SURVEY	= 0.5 FT

BM1 ELEVATION = 3.45
N 422147 E 2622838
-L- STATION 19+21.07 175.58' LEFT
BENCHTIE SET IN 18" CYPRESS

-LRT- US 70

SEE SHEET NO.4 FOR -L- PLAN

\$DATE\$

14 15 16 17 18 19 20 21 22 23

5/14/99

Revised 7/17/2023

PHASE 3:
CONSTRUCT TEMPORARY WORK BRIDGE IN LOCATION SHOWN. DECONSTRUCT WESTERN EXISTING BRIDGE #240091 PIERS. CONSTRUCT PROPOSED BRIDGE PIERS AND DECONSTRUCT TEMPORARY WORK BRIDGE.

TEMPORARY WORK BRIDGE

LEGEND

- SURFACE WATER IMPACTS
- TEMPORARY SURFACE WATER IMPACTS

Kimley»Horn

421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NC 27601

RIGHT-OF-WAY REV.
CONST. REV.

PROJECT REFERENCE NO.

BR-0074

SHEET NO.

4C

ROADWAY DESIGN
ENGINEER

HYDRAULICS
ENGINEER

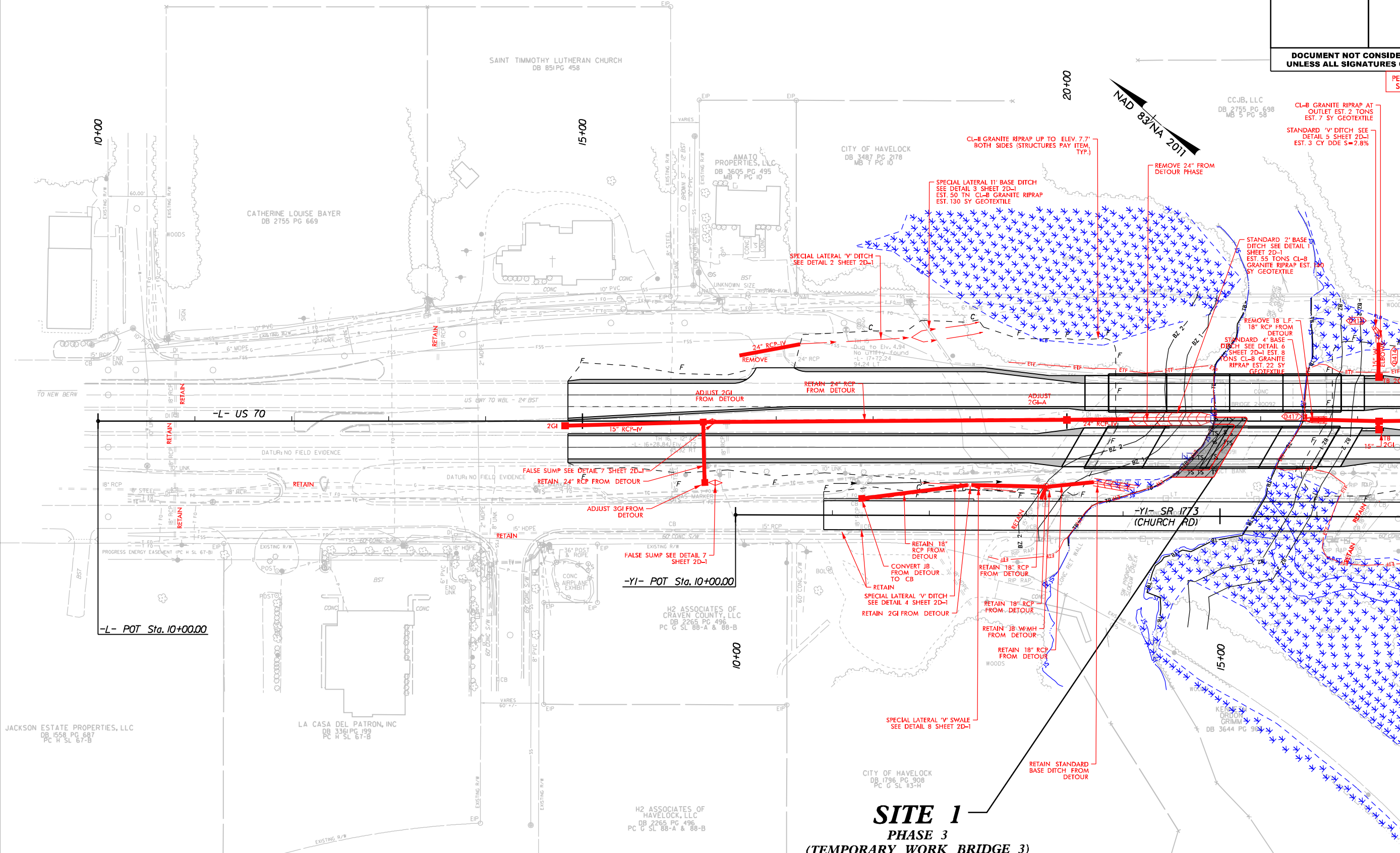
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING
SHEET 9 OF 17

REVISIONS

MATCHLINE -L- STA 23+50 (SEE SHEET 5)

\$DATE\$



SITE 1
PHASE 3
(TEMPORARY WORK BRIDGE 3)

5/28/99

LEGEND	
SPECIAL DITCH	----
MEDIAN DITCH	----

Revised 7/17/2023

PERMIT DRAWING
SHEET 10 OF 17

Kimley»Horn

421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NC 27601

RIGHT-OF-WAY REV.
CONST. REV.

PROJECT REFERENCE NO.		SHEET NO.
BR-0074		6C
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	

40
30
20
10
0
-10
-20

BRIDGE HYDRAULIC DATA

DESIGN DISCHARGE	= 1800 CFS
DESIGN FREQUENCY	= 50 YR
DESIGN HW ELEVATION	= 6.7 FT
BASE DISCHARGE	= 2200 CFS
BASE FREQUENCY	= 100 YR
BASE HW ELEVATION	= 8.0 FT
OVERTOPPING DISCHARGE	= 5800 CFS
OVERTOPPING FREQUENCY	= 500+ YR
OVERTOPPING ELEVATION	= 14.9 FT
DATE OF SURVEY	= 03/05/2019
W.S.ELEVATION AT DATE OF SURVEY	= 0.5 FT

BM1 ELEVATION = 3.45
N 422147 E 2622838
-L- STATION 19+21.07 175.58' LEFT
BENCHMARK SET IN 18" CYPRESS

BEGIN GRADE
-LLT- STA 14+85.00
ELEV = 19.82'
MILL NOTCH TO KEY-IN
TIE TO EXISTING PAVEMENT

PI = 15+45.00
EL = 19.02'
VC = 120'
K = 1218

PI = 17+65.00
EL = 15.87'
VC = 170'
K = 150

-11.4318% (-11.4318%)

**BEGIN SPECIAL
DITCH GRADE LT**
-L- STA 17+25
ELEV = 10.00'

**END SPECIAL
DITCH GRADE LT**
-L- STA 19+12
ELEV = 4.75'

**BEGIN SPECIAL
DITCH GRADE MEDIAN**
-L- STA 20+64
ELEV = 2.50'

**END SPECIAL
DITCH GRADE MEDIAN**
-L- STA 21+48
ELEV = 1.50'

**BEGIN SPECIAL
DITCH GRADE MEDIAN**
-L- STA 22+45
ELEV = 2.00'

**END SPECIAL
DITCH GRADE MED**
-L- STA 22+70
ELEV = 3.50'

NORMAL W.S.E. = 0.5'
(03/05/2019)

EXCAVATION

20
10
0
-10
-20

-LLT- US 70

SEE SHEET NO.4 FOR -L- PLAN

12 13 14 15 16 17 18 19 20 21 22 23

SITE 1

**PHASE 3
(TEMPORARY WORK BRIDGE 3)**

PHASE 3:
CONSTRUCT TEMPORARY WORK BRIDGE IN LOCATION
SHOWN. DECONSTRUCT WESTERN EXISTING BRIDGE
#240091 PIERS. CONSTRUCT PROPOSED BRIDGE PIERS
AND DECONSTRUCT TEMPORARY WORK BRIDGE.

40
30
20
10
0
-10
-20

BEGIN GRADE
-LRT- STA 14+85.00
ELEV = 19.65'
MILL NOTCH TO KEY-IN
TIE TO EXISTING PAVEMENT

PI = 17+37.00
EL = 16.08'
VC = 170'
K = 152

-11.4167% (-11.4167%)

**BEGIN SPECIAL
DITCH GRADE RT**
-L- STA 18+50
ELEV = 10.76'

**END SPECIAL
DITCH GRADE RT**
-L- STA 19+50
ELEV = 10.38'

-L- STA 19+00 RT
ELEV = 9.78'

BEGIN BRIDGE
-L- STA 20+37 RT
ELEV = 15.17'

-L- STA 21+57.00 RT
1 @ 60', 1 @ 65', 1 @ 55', 1 @ 60'
TYPE III 45' PRESTRESSED
CONCRETE GIRDER
CL ELEV = 14.82'
SKEW = 60'

END BRIDGE
-L- STA 22+77 RT
ELEV = 14.45'

PROPOSED
GRADE

EXISTING
BRIDGE
TO BE
REMOVED

NORMAL W.S.E. = 0.5'
(03/05/2019)

CLASS II
RIPRAP (TYP)
(STR PAY ITEM)

TEMPORARY WORK BRIDGE TO
MATCH EXISTING LOW CHORD

-LRT- US 70

SEE SHEET NO.4 FOR -L- PLAN

12 13 14 15 16 17 18 19 20 21 22 23

BM1 ELEVATION = 3.45
N 422147 E 2622838
-L- STATION 19+21.07 175.58' LEFT
BENCHMARK SET IN 18" CYPRESS

BRIDGE HYDRAULIC DATA

DESIGN DISCHARGE	= 1800 CFS
DESIGN FREQUENCY	= 50 YR
DESIGN HW ELEVATION	= 6.7 FT
BASE DISCHARGE	= 2200 CFS
BASE FREQUENCY	= 100 YR
BASE HW ELEVATION	= 8.0 FT
OVERTOPPING DISCHARGE	= 5800 CFS
OVERTOPPING FREQUENCY	= 500+ YR
OVERTOPPING ELEVATION	= 14.9 FT
DATE OF SURVEY	= 03/05/2019
W.S.ELEVATION AT DATE OF SURVEY	= 0.5 FT

\$FILE\$

\$DATE\$

\$DATE\$

PHASE 4:
CONSTRUCT TEMPORARY WORK BRIDGE IN LOCATION SHOWN, DECONSTRUCT EASTERN EXISTING BRIDGE #240091 PIERS, CONSTRUCT PROPOSED BRIDGE PIERS AND DECONSTRUCT TEMPORARY WORK BRIDGE.

LEGEND

	SURFACE WATER IMPACTS
	TEMPORARY SURFACE WATER IMPACTS

Kimley»Horn

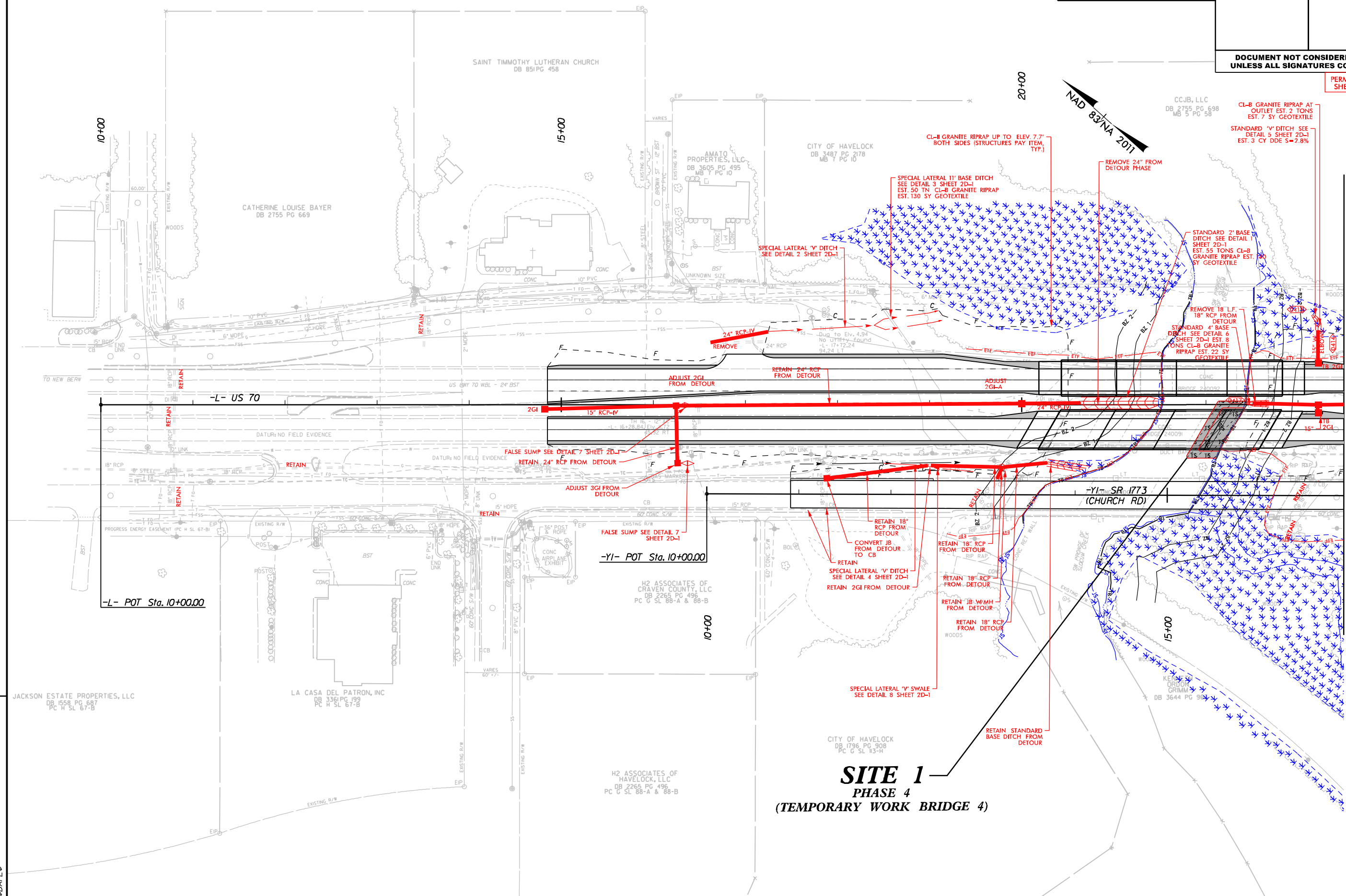
RIGHT-OF-WAY REV.
CONST. REV.

BR-0074

SHEET NO.

4D

**HYDRAULICS
ENGINEER**

PERMIT DRAWING
SHEET 11 OF 17

5/28/99

LEGEND	
SPECIAL DITCH	----
MEDIAN DITCH	----

Revised 7/17/2023

PERMIT DRAWING
SHEET 12 OF 17

Kimley»Horn

421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NC 27601

RIGHT-OF-WAY REV.
CONST. REV.

PROJECT REFERENCE NO.		SHEET NO.
BR-0074		6D
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	

40

30

20

10

0

-10

-20

BRIDGE HYDRAULIC DATA

DESIGN DISCHARGE	= 1800 CFS
DESIGN FREQUENCY	= 50 YR
DESIGN HW ELEVATION	= 6.7 FT
BASE DISCHARGE	= 2200 CFS
BASE FREQUENCY	= 100 YR
BASE HW ELEVATION	= 8.0 FT
OVERTOPPING DISCHARGE	= 5800 CFS
OVERTOPPING FREQUENCY	= 500+ YR
OVERTOPPING ELEVATION	= 14.9 FT
DATE OF SURVEY	= 03/05/2019
W.S.ELEVATION AT DATE OF SURVEY	= 0.5 FT

BM1 ELEVATION = 3.45
N 422147 E 2622838
-L- STATION 19+21.07 175.58' LEFT
BENCHMARK SET IN 18" CYPRESS

BEGIN GRADE
-LLT- STA 14+85.00
ELEV = 19.82'
MILL NOTCH TO KEY-IN
TIE TO EXISTING PAVEMENT

PI = 15+45.00
EL = 19.02'
VC = 120'
K = 1218

PI = 17+65.00
EL = 15.87'
VC = 170'
K = 150

-11.4318%

-10.3005%

BEGIN SPECIAL
DITCH GRADE LT
-L- STA 17+25
ELEV = 10.00'

-L- STA 18+50 LT
ELEV = 7.32'

END SPECIAL
DITCH GRADE LT
-L- STA 19+12
ELEV = 4.75'

BEGIN SPECIAL
DITCH GRADE MEDIAN
-L- STA 20+64
ELEV = 2.50'

END SPECIAL
DITCH GRADE MEDIAN
-L- STA 21+48
ELEV = 1.50'

NORMAL W.S.E. = 0.5'
(03/05/2019)

BEGIN SPECIAL
DITCH GRADE MEDIAN
-L- STA 22+45
ELEV = 2.00'

-L- STA 21+63.00 LT
1 @ 60', 1 @ 65', 1 @ 55', 1 @ 60'
TYPE III 45' PRESTRESSED
CONCRETE GIRDER
CL ELEV = 14.67'
SKEW = 90'

END BRIDGE
-L- STA 22+83 LT
ELEV = 14.31'

EXCAVATION

20

10

0

-10

-20

-LLT- US 70

SEE SHEET NO.4 FOR -L- PLAN

12

13

14

15

16

17

18

19

20

21

22

23

SITE 1
PHASE 4

(TEMPORARY WORK BRIDGE 4)

PHASE 4:
CONSTRUCT TEMPORARY WORK BRIDGE IN LOCATION
SHOWN. DECONSTRUCT EASTERN EXISTING BRIDGE
#240091 PIERS. CONSTRUCT PROPOSED BRIDGE PIERS
AND DECONSTRUCT TEMPORARY WORK BRIDGE.

40

30

20

10

0

-10

-20

BEGIN GRADE
-LRT- STA 14+85.00
ELEV = 19.65'
MILL NOTCH TO KEY-IN
TIE TO EXISTING PAVEMENT

PI = 17+37.00
EL = 16.08'
VC = 170'
K = 152

-11.4167%

-10.3011%

BEGIN SPECIAL
DITCH GRADE RT
-L- STA 18+50
ELEV = 10.76'

END SPECIAL
DITCH GRADE RT
-L- STA 19+50
ELEV = 10.38'

-L- STA 19+00 RT
ELEV = 9.78'

BEGIN BRIDGE
-L- STA 20+37 RT
ELEV = 15.17'

-L- STA 21+57.00 RT
1 @ 60', 1 @ 65', 1 @ 55', 1 @ 60'
TYPE III 45' PRESTRESSED
CONCRETE GIRDER
CL ELEV = 14.82'
SKEW = 60'

END BRIDGE
-L- STA 22+77 RT
ELEV = 14.45'

TEMPORARY WORK
BRIDGE TO MATCH
EXISTING LOW CHORD

EXISTING
BRIDGE
TO BE
REMOVED

PROPOSED
GRADE

NORMAL W.S.E. = 0.5'
(03/05/2019)

CLASS II
RIPRAP (TYP)
(STR PAY ITEM)

BRIDGE HYDRAULIC DATA

DESIGN DISCHARGE	= 1800 CFS
DESIGN FREQUENCY	= 50 YR
DESIGN HW ELEVATION	= 6.7 FT
BASE DISCHARGE	= 2200 CFS
BASE FREQUENCY	= 100 YR
BASE HW ELEVATION	= 8.0 FT
OVERTOPPING DISCHARGE	= 5800 CFS
OVERTOPPING FREQUENCY	= 500+ YR
OVERTOPPING ELEVATION	= 14.9 FT
DATE OF SURVEY	= 03/05/2019
W.S.ELEVATION AT DATE OF SURVEY	= 0.5 FT

BM1 ELEVATION = 3.45
N 422147 E 2622838
-L- STATION 19+21.07 175.58' LEFT
BENCHMARK SET IN 18" CYPRESS

-LRT- US 70

SEE SHEET NO.4 FOR -L- PLAN

14

15

16

17

18

19

20

21

22

23

\$FILE\$

\$DATE\$

 HAND CLEARING (NON-GRUBBING)

421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NC 27601

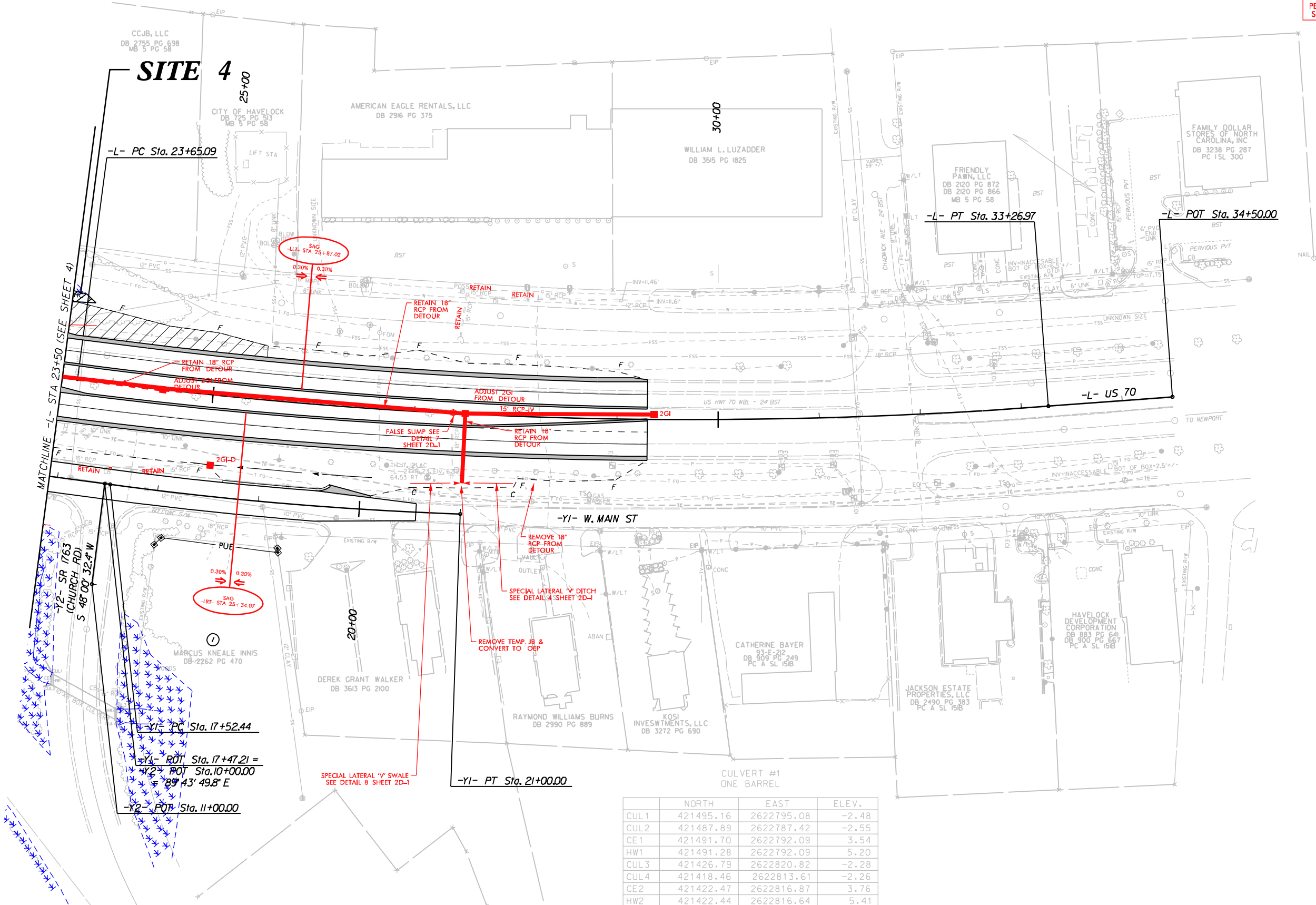
RIGHT-OF-WAY REV.
CONST. REV.

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING
SHEET 13 OF 17

REVISIONS

\$DATE\$



	NORTH	EAST	ELEV.
CUL1	421495.16	2622795.08	-2.48
CUL2	421487.89	2622787.42	-2.55
CE1	421491.70	2622792.09	3.54
HW1	421491.28	2622792.09	5.20
CUL3	421426.79	2622820.82	-2.28
CUL4	421418.46	2622813.61	-2.26
CE2	421422.47	2622816.87	3.76
HW2	421422.44	2622816.64	5.41

HC HC HAND CLEARING (NON-GRUBBING)

Kimley»Horn

421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NC 27601

RIGHT-OF-WAY REV.
CONST. REV.

PROJECT REFERENCE NO.
BR-0074

SHEET NO.
5

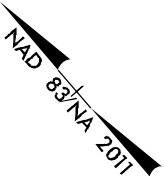
ROADWAY DESIGN
ENGINEER

HYDRAULICS
ENGINEER

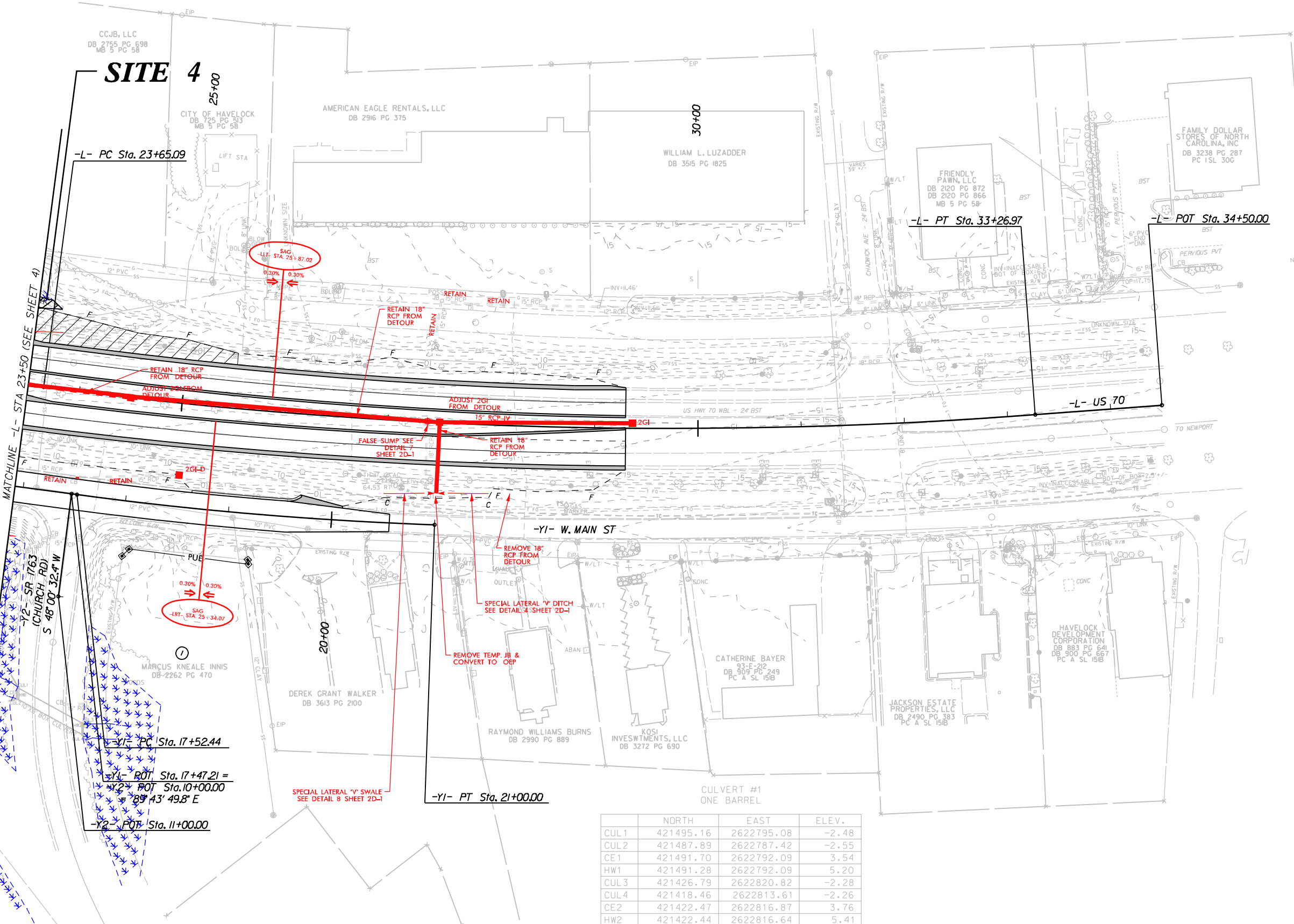
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING
SHEET 14 OF 17

REVISIONS



SITE 4



	NORTH	EAST	ELEV.
CUL1	421495.16	2622795.08	-2.48
CUL2	421487.89	2622787.42	-2.55
CE1	421491.70	2622792.09	3.54
HW1	421491.28	2622792.09	5.20
CUL3	421426.79	2622820.82	-2.28
CUL4	421418.46	2622813.61	-2.26
CE2	421422.47	2622816.87	3.76
HW2	421422.44	2622816.64	5.41

8/23/99

Revised 7/17/2023

0510

PROJ. REFERENCE NO.

BR-0074

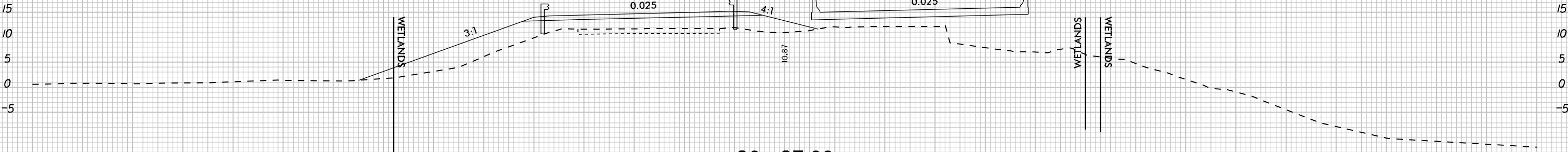
SHEET NO.

X-4

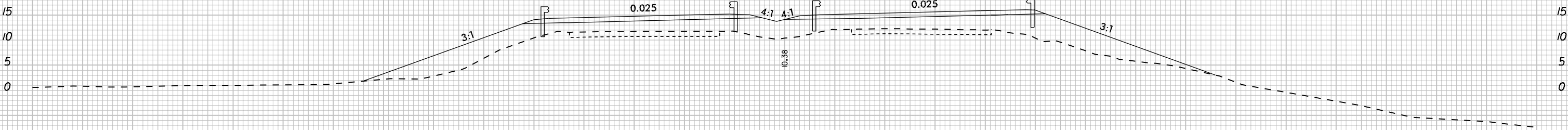
PERMIT DRAWING
SHEET 15 OF 17

SITE 3

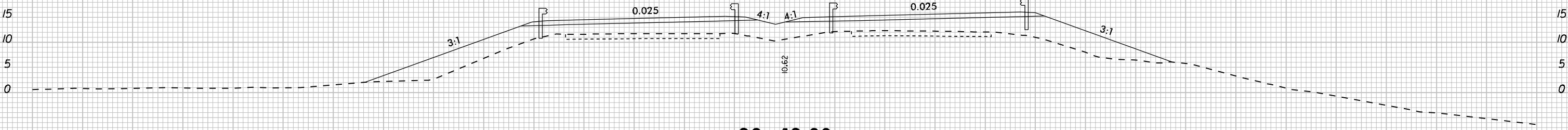
SITE 2



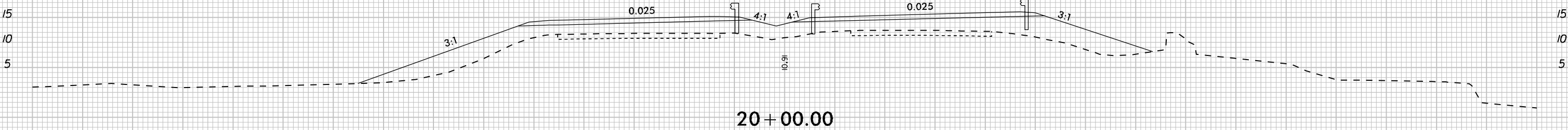
20+37.00



20+18.00



20+12.00



20+00.00

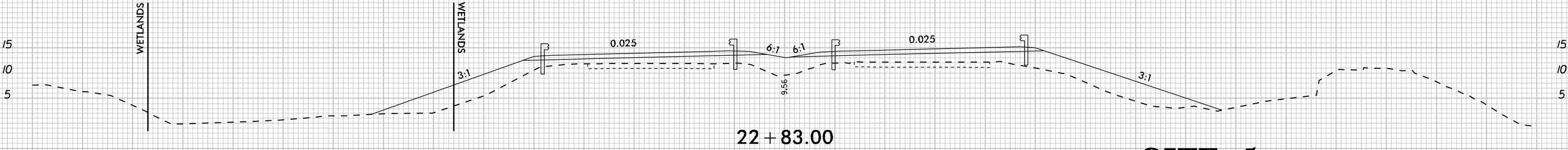
-L- US 70

\$DATE\$
\$FILE\$

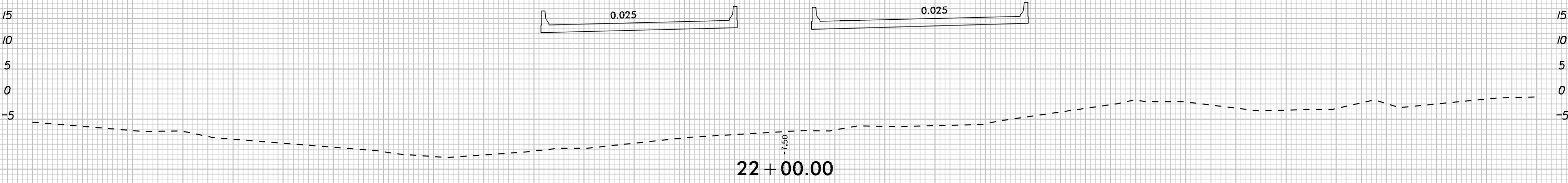
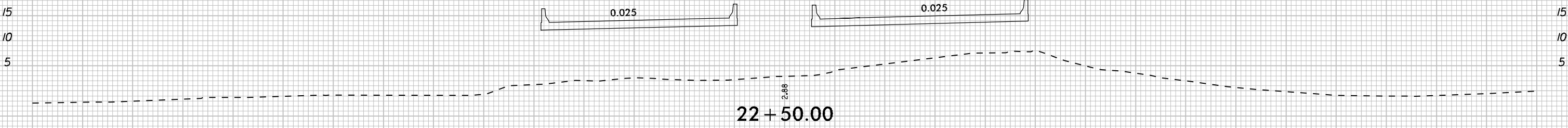
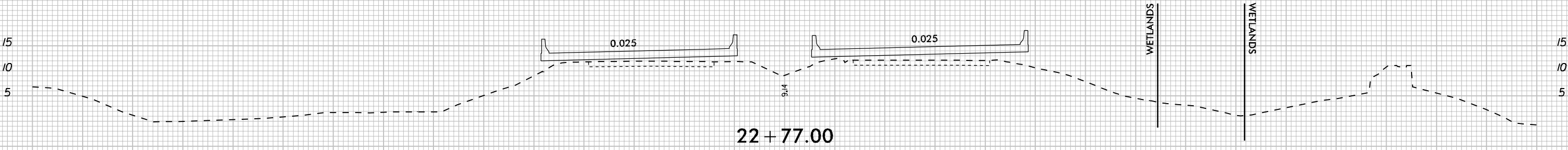
8/23/99

Revised 7/17/2023

SITE 4



SITE 5



-L- US 70

\$DATE\$ \$FILE\$

WETLAND AND SURFACE WATER IMPACTS SUMMARY

Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS					SURFACE WATER IMPACTS				
			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	-L-21+06 / -L- 22+45	TWO 240' BRIDGES										
		PROPOSED BRIDGES (END BENTS)						0.04		88		
		TEMPORARY WORK BRIDGES					< 0.01		0.20		129	
2	-L- 20+26 / -L- 21+45 (RT)	PROPOSED 18" RCP			< 0.01		< 0.01					
3	-L- 19+70 / -L-20+50 (LT)	ROADWAY FILL	< 0.01				0.02					
4	-L- 22+66 / -L- 23+04 (LT)	ROADWAY FILL	0.01		< 0.01		0.03					
5	-L- 22+34 / -L- 22+76 (RT)	ROADWAY FILL	< 0.01				0.01					
TOTALS*:			0.03		< 0.01		0.07	0.04	0.20	88	129	0

*Rounded totals are sum of actual impacts

NOTES:

Site 1: Phase 1 Temporary Work Bridge - Temporary SW Impacts (0.068 AC), Existing Channel Impacts Temporary (62 FT)
 Site 1: Phase 2 Temporary Work Bridge - Temporary SW Impacts (0.051 AC), Existing Channel Impacts Temporary (63 FT)
 Site 1: Phase 3 Temporary Work Bridge - Temporary SW Impacts (0.049 AC), Existing Channel Impacts Temporary (78 FT)
 Site 1: Phase 4 Temporary Work Bridge - Temporary SW Impacts (0.046 AC), Existing Channel Impacts Temporary (69 FT)

NC DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 7/17/2023
 CRAVEN COUNTY
 BR-0074

		North Carolina Department of Transportation Highway Stormwater Program STORMWATER MANAGEMENT PLAN FOR NCDOT PROJECTS					
(Version 3.00; Released August 2021)							
WBS Element: 67074.1.1		TIP/Proj No: BR-0074		County(ies): Craven		Page 1 of 3	
General Project Information							
WBS Element:		67074.1.1		TIP Number:		BR-0074	
NCDOT Contact:		Deanna Riffey		Contractor / Designer:		David Hursey	
Address:		Division of Highways 1 South Wilmington Street Raleigh NC 27601		Address:		Kimley-Horn 421 Fayetteville Street #600 Raleigh NC 27601	
Phone:		(919) 707-6151		Phone:		(919) 653-2933	
Email:		driffey@ncdot.gov		Email:		david.hursey@kimley-horn.com	
City/Town:		Havelock		County(ies):		Craven	
River Basin(s):		Neuse		CAMA County?		Yes	
Wetlands within Project Limits?		Yes					
Project Description							
Project Length (lin. miles or feet):		0.27		Surrounding Land Use:		Commercial/Residential	
Proposed Project				Existing Site			
Project Built-Up Area (ac.):		2.9 ac.		2.7 ac.			
Typical Cross Section Description:		Bridge 240092: 2 - 12' Lanes, w/ 8' outside shoulder and 4' median shoulder Bridge 240091: 2 - 12' Lanes, w/ 8' outside and median shoulders Bridge 240091 and 240092 Approaches: 2 - 12' Lanes for each approach, w/ 8' outside shoulders (4' paved) and 6' median shoulders (2' paved) Span Arrangement: 60', 65', 55', & 60'; OAL = 240' for both bridges Type III 45" Prestressed Girder w/ 4' caps		Bridge 240091: 6 spans Span Arrangement: 1@37.75', 4@37.5', 1@37.75' Bridge Length: 226' Bridge 240092: 4 spans Span Arrangement: 4@35' Bridge Length: 140'			
Annual Avg Daily Traffic (veh/hr/day):		Design/Future: 33,800		Year: 2045		Existing: 31,100	
Year:		2024					
General Project Narrative: (Description of Minimization of Water Quality Impacts)		The dual bridge replacements of Structures #240092 and #240091 on US 70 crosses over SW. Prong Slocum Creek. The channel flows from West to East and ultimately drains into the Neuse River. There are two existing bridges, #240092 (OAL = 140') and 240091 (OAL = 226') with a width of 30' that will be replaced with two bridges each having an OAL = 240', with widths = 1@36' & 1@40'. Both proposed bridges are longer than the existing bridges to accommodate the spatial difference between the previous bridge locations to the new locations. Both proposed bridges and roadway improvements minimized the existing overtopping condition and maintain a minimal transition between existing and new roadway. Runoff from both bridges are captured on the low side of the bridge along their respective shoulder. The SAG in the roadway is located at Sta 25+34.07 -LRT- and Sta 25+87.05 -LLT-. These SAGs are not located on either of the bridges or the approach slabs. Runoff on the project is collected in the ditches at the bottom of the fill slopes and in the median between the two bridges. The drainage network through the project outfalls underneath and between the bridges in tail ditches that will be armored with Class B rip rap. A few proposed ditches have been designed based on swale design guidelines and have been provided on PG 3 of the SMP. SW Prong Slocum Creek is not a FEMA studied stream but the backwater and the 500-yr storm are shown on Flood Insurance Rate Map (FIRM) panel 3720642200K, dated 07/19/2020. A hydraulic analysis on SW Prong Slocum Creek was performed to assess the potential flood level increases associated with this project. Based on this analysis, the proposed bridge replacement project was shown to have a negligible effect on the base flood elevation. Temporary Work Bridge Narrative: Bridge #240092 and #240091 will be demolished and constructed by means of four temporary work bridges. To ensure SW Prong Slocum Creek has adequate passage, the temporary work bridges will be constructed in phases. Every attempt should be made to pull out existing piers. If piers cannot be pulled out, they should be cut off at the midline. The temporary work bridge phases are outlined below. Detour: Move east bound traffic onto existing Church Rd. Move west bound traffic onto existing bridge #240091. Phase 1: Demolish existing bridge #240092 using top-down methods from existing roadway footprint. Construct temporary work bridge on western SW Prong Slocum Creek bank in location of existing/proposed bridge #240092. Deconstruct western existing bridge #240092 piers. Construct proposed bridge piers and deconstruct temporary work bridge. Phase 2: Demolish existing bridge #240092 top-down methods from existing roadway footprint. Construct temporary work bridge on eastern SW Prong Slocum Creek bank in location of existing/proposed bridge #240092. Deconstruct eastern existing bridge #240092 piers. Construct proposed bridge piers and deconstruct temporary previous work bridge. Following construction of proposed bridge #240092, west bound traffic will be moved onto bridge #240092. Phase 3: Demolish existing bridge #240091 top-down methods from existing roadway footprint. Construct temporary work bridge on western SW Prong Slocum Creek bank in location of existing/proposed bridge #240091. Deconstruct western existing bridge #240091 piers. Construct proposed bridge piers and deconstruct temporary work bridge. Phase 4: Demolish existing bridge #240091 top-down methods from existing roadway footprint. Construct temporary work bridge on eastern SW Prong Slocum Creek bank in location of existing/proposed bridge #240091. Deconstruct eastern existing bridge #240091 piers. Construct proposed bridge piers and deconstruct temporary work bridge. Complete construction of proposed bridge #240091.					

		North Carolina Department of Transportation Highway Stormwater Program STORMWATER MANAGEMENT PLAN FOR NCDOT PROJECTS							
(Version 3.00; Released August 2021)									
WBS Element: 67074.1.1		TIP/Proj No.: BR-0074		County(ies): Craven		Page 2 of 3			
General Project Information									
Waterbody Information									
Surface Water Body (1):		Southwest Prong Slocum Creek		NCDWR Stream Index No.:		27-112-1			
NCDWR Surface Water Classification for Water Body		Primary Classification:		Class C					
		Supplemental Classification:		Swamp Waters (Sw) (NSW)					
Other Stream Classification:									
Impairments:									
Aquatic T&E Species?				Comments:					
NRTR Stream ID:		Southwest Prong Slocum Creek		Buffer Rules in Effect:		Neuse			
Project Includes Bridge Spanning Water Body?		Yes		Deck Drains Discharge Over 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)							

Revised 7/17/23



(Version 3.00; Released August 2021)

North Carolina Department of Transportation

Highway Stormwater Program

STORMWATER MANAGEMENT PLAN

FOR NCDOT PROJECTS

WBS Element: 67074.1.1

TIP/Proj No.: BR-0074

County(ies): Craven

Page 3 of 3

Swale

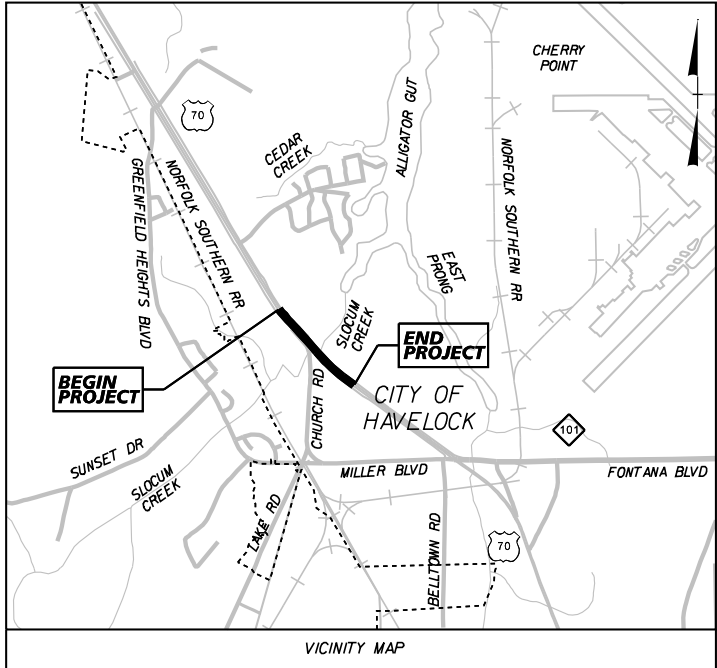
[illegible]

Additional Comments

09/08/99

TIP PROJECT: BR-0074

CONTRACT:



----- HAVELOCK CITY LIMIT

RIGHT-OF-WAY
PLANS COMPLETE

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
CRAVEN COUNTY

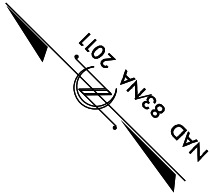
LOCATION: BRIDGES 240091 AND 240092 ON US 70 OVER S.PRONG SLOCUM CREEK
TYPE OF WORK: GRADING, DRAINAGE, PAVING, AND STRUCTURES

BUFFER IMPACTS PERMIT

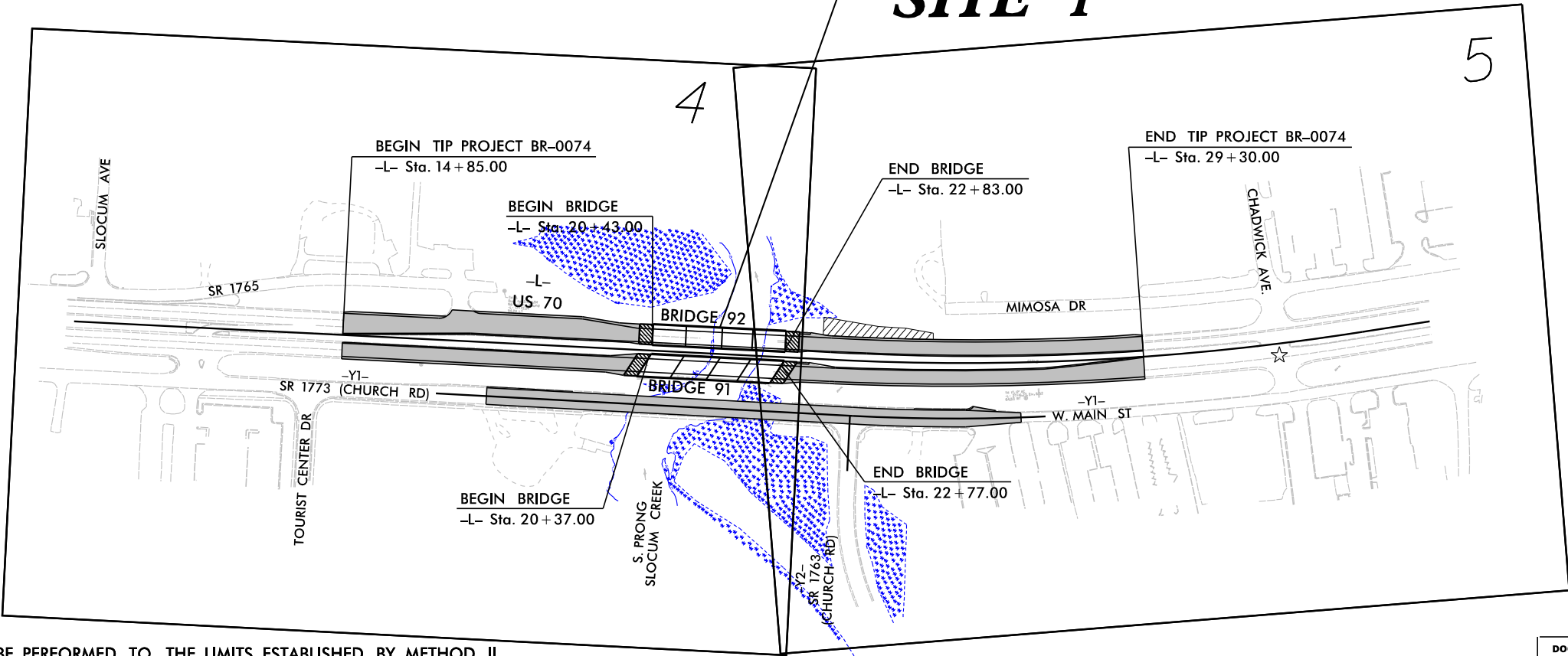
AUGUST 2023

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	BR-0074	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
67074.1.1		P.E.	
67074.2.1		RIGHT-OF-WAY	
67074.2.1		UTILITIES	

BUFFER DRAWING
SHEET 1 OF 5



SITE 1

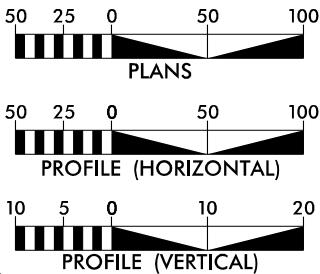


☆ EXIST TRAFFIC SIGNAL

CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II
THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF THE CITY OF HAVELOCK

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

GRAPHIC SCALES



DESIGN DATA

AADT 2024 = 31,100
AADT 2044 = 33,800
D = 55%
K = 9%
T = 4%*
V = 45/55 MPH
* (TTST 2% + DUAL 2%)
FUNCTIONAL PRINCIPAL
CLASSIFICATION: ARTERIAL
STATEWIDE TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT BR-0074 = 0.229 MILES
LENGTH STRUCTURES TIP PROJECT BR-0074 = 0.045 MILES
TOTAL LENGTH TIP PROJECT BR-0074 = 0.274 MILES

PLANS PREPARED FOR
THE NCDOT BY:

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:

JANUARY 26, 2023

LETTING DATE:

JANUARY 16, 2024

Kimley»Horn

JEFFREY W. MOORE, P.E.
PROJECT ENGINEER

TYLER G. SPRING, P.E.
PROJECT DESIGN ENGINEER

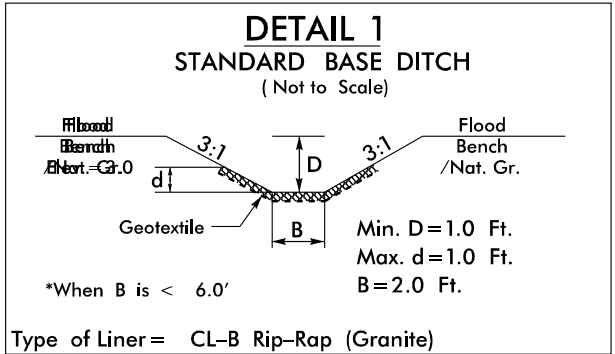
KIM UDIGIWE, P.E.
PROJECT MANAGER
NCDOT PROJECT MANAGEMENT UNIT

HYDRAULICS ENGINEER

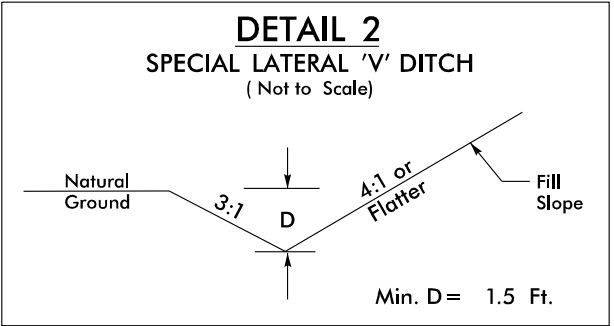
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ROADWAY DESIGN ENGINEER

SIGNATURE: _____
P.E.

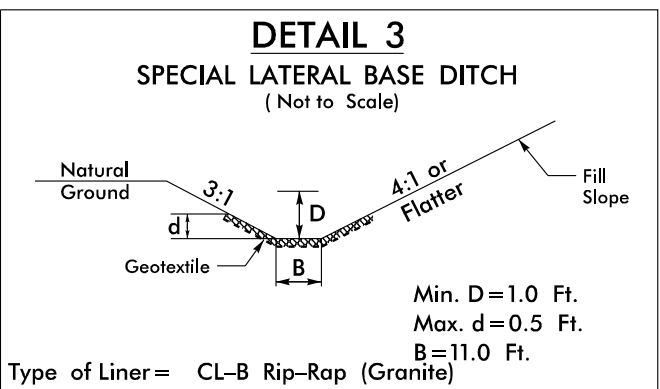




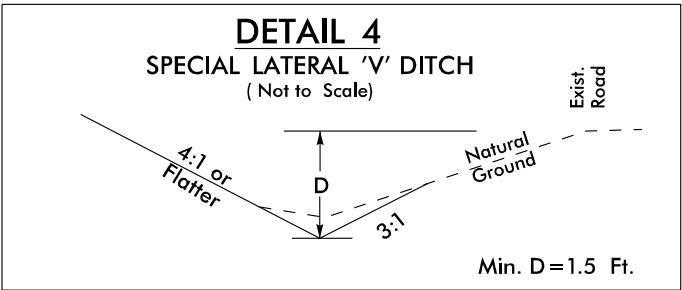
FROM STA. 20+64 TO STA. 21+48 -L- MEDIAN
FROM STA. 16+32 TO STA. 16+73 -DETWB- RT.



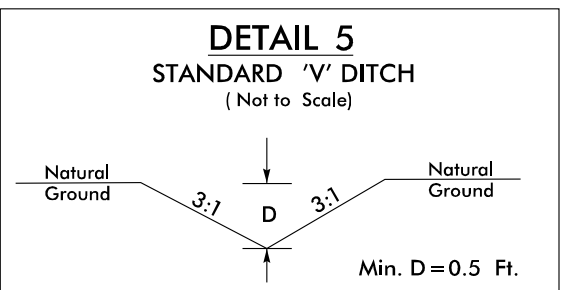
FROM STA. 17+25 TO STA. 18+50 -L- LT.



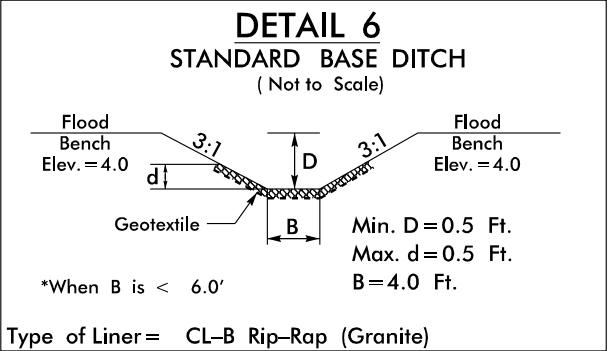
FROM STA. 18+50 TO STA. 19+12 -L- LT.



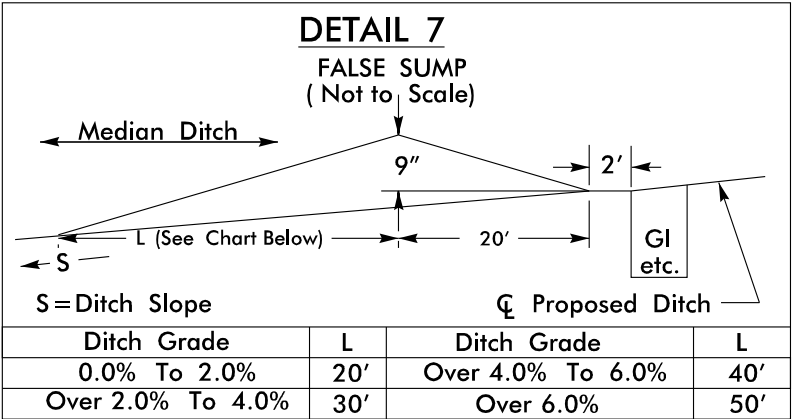
FROM STA. 18+50 TO STA. 19+00 -L- RT.
FROM STA. 27+50 TO STA. 28+00 -L- RT.



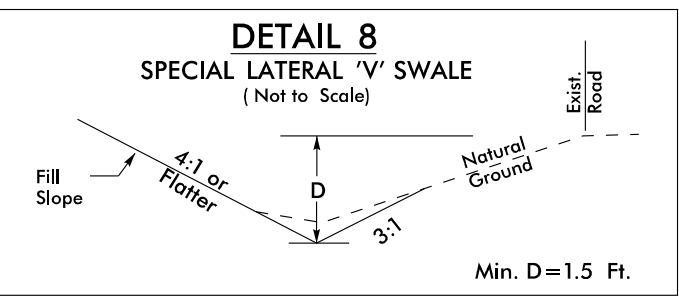
AT STA. 23+22 -L- LT



FROM STA. 22+45 TO STA. 22+70 -L-



FROM STA. 18+83 TO STA. 19+23 -DETWB- LT. (S=1.0%)
FROM STA. 20+13 TO STA. 20+53 -DETWB- LT. (S=1.0%)
FROM STA. 15+07 TO STA. 15+47 -DETEB- LT. (S=2.0%)
FROM STA. 16+30 TO STA. 16+70 -L- MEDIAN (S=1.5%)
FROM STA. 16+30 TO STA. 16+70 -L- RT. (S=1.8%)
FROM STA. 27+05 TO STA. 27+45 -L- MEDIAN (S=0.5%)



FROM STA. 19+00 TO STA. 19+50 -L- RT.
FROM STA. 27+00 TO STA. 27+50 -L- RT.

5/14/99

Revised 8/14/23

TEMPORARY WORK BRIDGE

LEGEND

- ALLOWABLE IMPACTS ZONE 1
- ALLOWABLE IMPACTS ZONE 2

Kimley»Horn

421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NC 27601

RIGHT-OF-WAY REV.
CONST. REV.

BUFFER DRAWING
SHEET 3 OF 5

PROJECT REFERENCE NO.

BR-0074

SHEET NO.

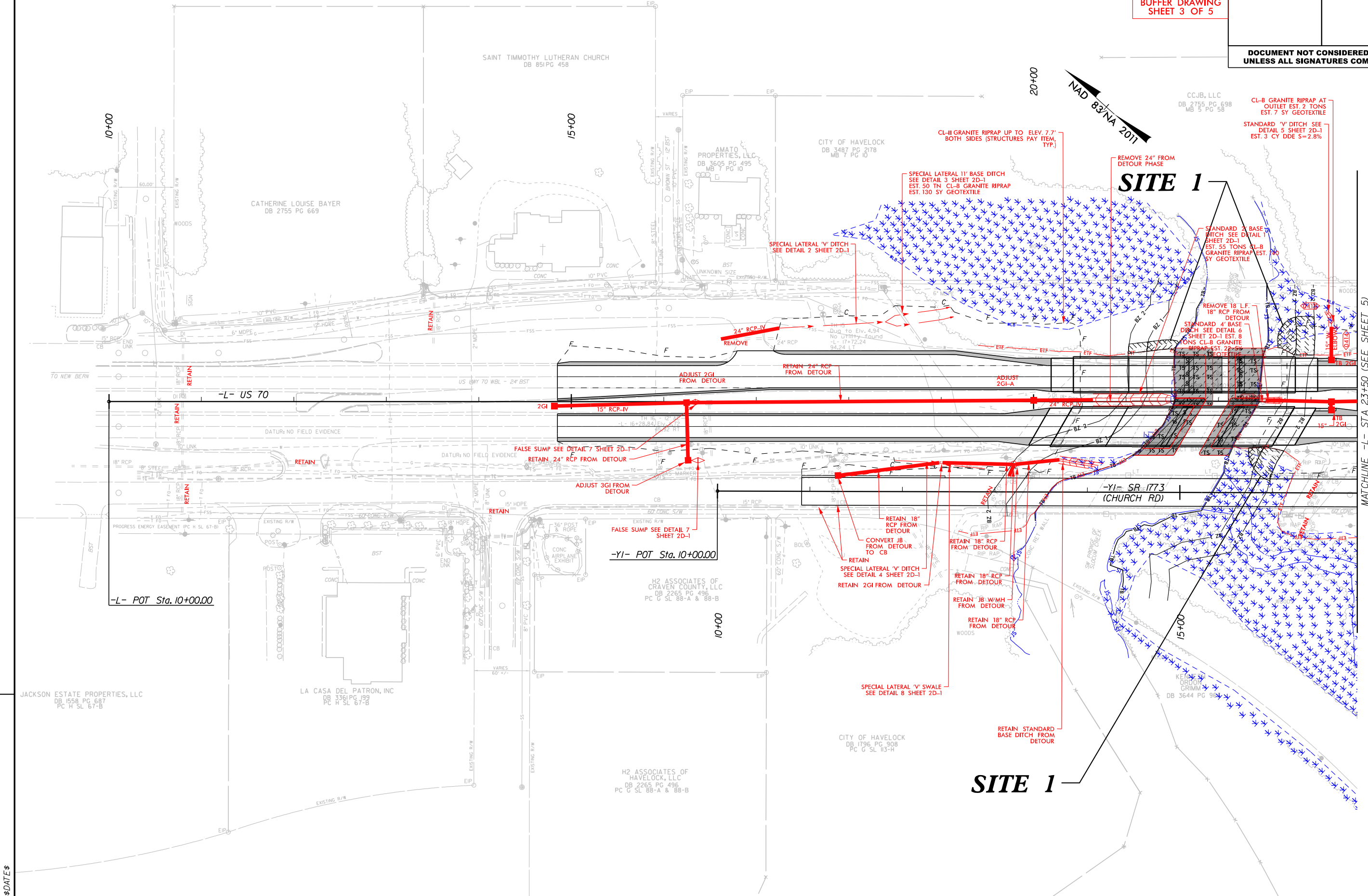
4

ROADWAY DESIGN
ENGINEER

HYDRAULICS
ENGINEER

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

REVISIONS



MATCHLINE -L- STA 23+50 (SEE SHEET 5)

\$DATE\$

[illegible]

WETLANDS IN BUFFER IMPACTS SUMMARY

			WETLANDS IN BUFFERS	
SITE NO.	STATION (FROM/TO)		ZONE 1 (ft ²)	ZONE 2 (ft ²)
1	-L- 20+43 / -L- 22+83	TWO 240' BRIDGES	537	812
TOTAL:			537	812

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
8/14/2023
CRAVEN COUNTY
BR-0074

SHEET 5 OF 5