

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

SECRETARY

July 18, 2024

MEMORANDUM TO: Division Environmental and Construction Units

FROM: Jason L. Dilday ECAP Eastern Region Group Leader

Environmental Analysis Unit

SUBJECT: Environmental Permits for the Replacement of Bridge 8 on NC 12 over

Slash Creek in Dare County, Division 1, TIP: B-5610.

Please find enclosed the following permits for this project:

Agency	Permit Type	Permit Expiration
US Army Corps of Engineers	Regional General Permit 50	May 25, 2025
Section 404 Clean Water Act Permit	Regional General Fermit 50	Way 23, 2023
NC Division of Water Resources	General Certification No. 4135 [RGP50]	May 25, 2025
Section 401 Water Quality Certification	General Certification No. 4155 [KGF50]	May 25, 2025
NC Division of Coastal Management	General Permits 07H .2300/.1600	N/A
General Permit	General Permits 0/H .2300/.1600	1 N /A

Work is authorized by the above referenced permit provided it is accomplished in strict accordance with the permitted plans.

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

Telephone: (919) 707-6000

Customer Service: 1-877-368-4968

Website: www.ncdot.gov

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

PROJECT COMMITMENTS

T.I.P. Project No B-5610
Replacement of Bridge No. 8 over Slash Creek
On NC 12
Dare County
W.B.S. No. 45565.1.1

COMMITMENTS FROM PROJECT DEVELOPMENT AND DESIGN

NCDOT Hydraulics Unit:

<u>FEMA</u> The project may encroach but will not adversely affect the FEMA-regulated stream. The Hydraulics Unit will coordinate with FEMA to determine if a CLOMR and a subsequent final LOMR are required for the project.

It was determined via coordination with NCDOT Hydraulics Unit that a CLOMR is not required for this project. No further action will be required.

NCDOT Environmental Analysis Unit:

<u>Federally Threatened Species</u> NCDOT will initiate informal consultation with the NMFS to confirm biological conclusions for the Loggerhead sea turtle, Hawksbill sea turtle, Green sea turtle, Leatherback sea turtle, and Kemp's Ridley sea turtle.

Conversations with the NMFS concluded that replacement of Bridge 8 will have "No Effect" on the listed sea turtle species.

NCDOT Division 1 Construction:

<u>Construction and Roadway Closure</u> NCDOT will develop methods to address pedestrian and bicycle accommodations during construction, in coordination with Work Zone Safety.

The project will be constructed utilizing an off-site detour route for vehicular traffic. There are not sufficient pedestrian accommodations in the vicinity to warrant a separate pedestrian plan during construction. No further action is required.

NCDOT will contact the Dare County Emergency Medical Services' Planning Director at 252-475-5713 at least one month prior to construction to allow first responders to prepare for the anticipated action.

NCDOT will contact the Hatteras Island Rescue Squad at 252-995-5490 at least one month prior to construction to allow marine first responders to prepare for the anticipated action.

NCDOT will contact the Hatteras Village Volunteer Fire Department at 252-986-2356 at least one month prior to construction to allow emergency personnel to prepare for the anticipated action.

NCDOT will contact the Dare County Schools' Supervisor of Transportation at 252-473-3717 Ext. 3402 at least one month prior to construction to allow schools to prepare for the anticipated action.

<u>FEMA</u> If a CLOMR and subsequent final LOMR are required for the project, NCDOT will submit sealed as-built construction plans to the Hydraulics Unit upon project completion certifying the project was built as shown on construction plans. It was determined via coordination with NCDOT Hydraulics Unit that a CLOMR is not required for this project. No further action will be required.

<u>HQW</u> NCDOT will adhere to NCDWR's Design Standards for Sensitive Watersheds to avoid and minimize impacts to the designated HQW (The Slash).

During the hydraulic design of the project, this requirement was fulfilled via coordination and review from NCDOT Hydraulics Unit.

West Indian Manatee NCDOT will provide conditions to contractors to adhere to guidelines outlined in GUIDELINES FOR AVOIDING IMPACTS TO THE WEST INDIAN MANATEE Precautionary Measures for Construction Activities in North Carolina Waters (2003 USFWS).

COMMITMENTS FROM PERMITTING

No special conditions developed during permitting.

U.S. ARMY CORPS OF ENGINEERS

WILMINGTON DISTRICT

Action Id. **SAW-2022-00579** County: **Dare County** U.S.G.S. Quad: **Hatteras**

GENERAL PERMIT (REGIONAL AND NATIONWIDE) VERIFICATION

Permittee: <u>Jason Dilday</u>

NCDOT

Address: <u>1598 Mail Service Center</u>

Raleigh NC, 27699-1598

Telephone Number: (919) 212-5785

Size (acres) 1 Nearest Town Hatteras

Nearest Waterway Pamlico Sound River Basin Pamlico

USGS HUC <u>03010205</u> Coordinates Latitude: <u>35.218255</u>; Longitude: <u>-75.688773</u>

Location description: The project area is located on Bridge #8 over Slash Creek on NC 12 approximately 0.04 miles northwest of the intersection of Islington Court in Hatteras Village in Dare County, North Carolina

Description of projects area and activity: <u>NCDOT proposes to replace an 86' 5 span bridge</u> with a 95' 1 span core slab bridge over Slash Creek in Hatteras Village, Dare County.

Applicable Law: Section 404 (Clean Water Act, 33 USC 1344);

Section 10 (Rivers and Harbors Act, 33 USC 403)

Authorization: Regional General Permit Number and/or Nationwide Permit Number: RGP 50 SEE ATTACHED RGP or NWP GENERAL, REGIONAL AND/OR SPECIAL CONDITIONS

Your work is authorized by the above referenced permit provided it is accomplished in strict accordance with the attached conditions and your submitted application and attached information dated <u>March 2, 2023</u> Any violation of the attached conditions or deviation from your submitted plans may subject the permittee to a stop work order, a restoration order, a Class I administrative penalty, and/or appropriate legal action.

This verification will remain valid until the expiration date identified below unless the nationwide and/or regional general permit authorization is modified, suspended or revoked. If, prior to the expiration date identified below, the nationwide and/or regional general permit authorization is reissued and/or modified, this verification will remain valid until the expiration date identified below, provided it complies with all requirements of the modified nationwide permit. If the nationwide and/or regional general permit authorization expires or is suspended, revoked, or is modified, such that the activity would no longer comply with the terms and conditions of the nationwide permit, activities which have commenced (i.e., are under construction) or are under contract to commence in reliance upon the nationwide and/or regional general permit, will remain authorized provided the activity is completed within twelve months of the date of the nationwide and/or regional general permit's expiration, modification or revocation, unless discretionary authority has been exercised on a case-by-case basis to modify, suspend or revoke the authorization.

Activities subject to Section 404 (as indicated above) may also require an individual Section 401 Water Quality Certification. You should contact the NC Division of Water Resources (telephone 919-807-6300) to determine Section 401 requirements.

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 Elizabeth City, NC, at (252) 264-3901.

This Department of the Army verification does not relieve the permittee of the responsibility to obtain any other required Federal, State or local approvals/permits.

If there are any questions regarding this verification, any of the conditions of the Permit, or the Corps of Engineers regulatory program, please contact **Kyle Barnes at (910) 251-4584 or Kyle.W.Barnes@usace.army.mil**.

Corps Regulatory Official: 2023.04.12 09:21:07

Matthews -04'00' Date: April 11, 2023

Expiration Date of Verification: May 25, 2025

The Wilmington District is committed to providing the highest level of support to the public. To help us ensure we continue to do so, please complete our Customer Satisfaction Survey, located online at https://regulatory.ops.usace.army.mil/customer-service-survey/

SPECIAL CONDITIONS

- 1. 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.
- 2. 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 conservations 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/.

Action ID Number:	SAW-2022-00579	County: <u>Da</u>	re County	
Permittee:	Jason Dilday NCDOT			
Project Name:	NCDOT / B-5610 / Bridge	8 over Slash	Creek on NC 12 / Dare County / Div.	<u>1</u>
Date Verification Is	ssued: <u>April 11, 2023</u>			
Project Manager: <u>I</u>	<u>Kyle Barnes</u>			
	of the activity authorized bertification and return it to		t and any mitigation required by the g address:	
		RPS OF ENG TON DISTR Kyle Barnes	ICT	
Corps of Engineer authorization may	s representative. Failure t result in the Corps susper	o comply winding, modif	ompliance inspection by a U.S. Army th any terms or conditions of this fying or revoking the authorization ing other appropriate legal action.	′
in accordance with		of the said p	ferenced permit has been completed ermit, and required mitigation was	
Signature of Perm	nittee	_	Date	

ROY COOPER
Governor
ELIZABETH S. BISER
Secretary
RICHARD E. ROGERS, JR.

Director



April 10, 2023 Dare County NCDWR Project No. 20220400 v.2 TIP B-5610 Bridge No. 8

APPROVAL of 401 WATER QUALITY CERTIFICATION with ADDITIONAL CONDITIONS

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

Dear Mr. Turchy:

You have our approval, in accordance with the conditions listed below, for the following impacts for the purpose of replacing Bridge No. 8 over the Slash on NC 12 in Dare County:

Open Water Impacts in the Pasquotank River Basin

Site	Open Water Permanent (ac)	Open Water Temporary (ac)				
Bridge 8	0.03	0.08				
Total	0.11					

The project shall be constructed in accordance with your revised application dated received March 3, 2023. After reviewing your application, we have decided that these impacts are covered by General Water Quality Certification Number 4135. This certification corresponds to the Regional General Permit 201902350 issued by the Corps of Engineers. In addition, you should acquire any other federal, state or local permits before you proceed with your project including (but not limited to) Sediment and Erosion Control, Non-Discharge and Water Supply Watershed regulations. This approval will expire with the accompanying 404 permit.

This approval is valid solely for the purpose and design described in your application (unless modified below). Should your project change, you must 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 total wetland fills for this project (now or in the future) exceed one acre, or of total impacts to streams (now or in the future) exceed 300 linear feet, compensatory mitigation may be required as described in 15A NCAC 2H .0506 (h) (6) and (7). For this approval to remain valid, you must adhere to the conditions listed in the attached certification(s) and any additional conditions listed below.

Condition(s) of Certification:

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



- 2. 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)]
- 3. 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.
- 4. If activities must occur during periods of high biological activity (e.g. sea turtle nesting, fish spawning, or bird nesting), then biological monitoring may be required at the request of other state or federal agencies and coordinated with these activities. All moratoriums on construction activities established by the NC Wildlife Resources Commission (WRC), US Fish and Wildlife Service (USFWS), NC Division of Marine Fisheries (DMF), or National Marine Fisheries Service (NMFS) shall be implemented. Exceptions to this condition require written approval by the resource agency responsible for the given moratorium.
- 5. 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]
- 6. 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)]
- 7. 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)]
- 8. 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)]
- 9. 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]
 - a. 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*.
 - b. All devices shall be maintained on all construction sites, borrow sites, and waste pile (spoil) sites, including contractor-owned or leased borrow pits associated with the project. Sufficient materials required for stabilization and/or repair of erosion control measures and stormwater routing and treatment shall be on site at all times.
 - c. 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.
 - d. If the project occurs in waters or watersheds classified as Primary Nursery Areas (PNAs), SA, WS-1, WS-11, High Quality Waters (HQW), or Outstanding Resource Waters (ORW), then the sedimentation and erosion control designs shall comply with the requirements set forth in 15A NCAC 04B .0124, Design Standards in Sensitive Watershed. [15A NCAC 02H.0506(b)(3) and (c)(3); GC 4135]
- 10. Sediment and erosion control measures shall not be placed in wetlands or surface waters or within 5 feet of the top of bank without prior approval from DWR. [15A NCAC 02H.0506(b)(3) and (c)(3)]
- 11. 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]



- 12. 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 disequilibrium 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)]
- 13. 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)]
- 14. 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)]
- 15. 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)]
- 16. 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)]
- 17. 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)]
- 18. No drill slurry or water that has been in contact with uncured concrete shall be allowed to enter surface waters. This water shall be captured, treated, and disposed of properly. [15A NCAC 02H .0506(b)(3)]
- 19. 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)]
- 20. 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)]
- 21. Discharging hydroseed mixtures and washing out hydroseeders and other equipment in or adjacent to surface waters is prohibited. [15A NCAC 02H.0506(b)(3)]
- 22. NCDOT shall be in compliance with the NCS00250 issued to the NCDOT, including the applicable requirements of the NCG01000.
- 23. 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]
- 24. 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)]



- 25. The 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 permitted site. NCDWR staff shall be invited to the pre-construction meeting. [15A NCAC 02H.0506(b)(2) and (b)(3)]
- 26. 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)]
- 27. A copy of this Water Quality Certification shall be maintained on the construction site at all times. In addition, the Water Quality Certification and all subsequent modifications, if any, shall be maintained with the Division Engineer and the on-site project manager. [15A NCAC 02H .0507(c) and 15A NCAC 02H .0506 (b)(2) and (c)(2)]

If you wish to contest any statement in the attached Certification you must file a petition for an administrative hearing. You may obtain the petition form from the office of Administrative hearings. You must file the petition with the office of Administrative Hearings within sixty (60) days of receipt of this notice. A petition is considered filed when it is received in the office of Administrative Hearings during normal office hours. The Office of Administrative Hearings accepts filings Monday through Friday between the hours of 8:00am and 5:00pm, except for official state holidays. The original and one (1) copy of the petition must be filed with the Office of Administrative Hearings.

The petition may be faxed-provided the original and one copy of the document is received by the Office of Administrative Hearings within five (5) business days following the faxed transmission. The mailing address for the Office of Administrative Hearings is:

Office of Administrative Hearings 6714 Mail Service Center Raleigh, NC 27699-6714

Telephone: (919) 431-3000, Facsimile: (919) 431-3100

A copy of the petition must also be served on DEQ as follows:

Mr. Bill F. Lane, General Counsel Department of Environmental Quality 1601 Mail Service Center

This letter completes the review of the Division of Water Resources under Section 401 of the Clean Water Act. If you have any questions, please contact Garcy Ward at (252)948-3917 or garcy.ward@ncdenr.gov.

Sincerely,
Bocusigned by:
Omy Chapman

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

Electronic copy only distribution:

Kyle Barnes, US Army Corps of Engineers, Washington Field Office Jason Dilday, NCDOT Greg Daisey, NC Division of Coastal Management Cathy Brittingham, NC Division of Coastal Mangement Garcy Ward, NC Division of Water Resources, Washington Regional Office File Copy



CAMA DREDGE & FILL	Previous permit
GENERAL PERMIT	Date previous permit issued
New Modification Complete Reissue	Partial Reissue
As authorized by the State of North Carolina, Department of Environmental Quality an	d the Coastal Resources Commission in an area of environmental concern pursuant to:
15A NCAC 07H . 2300 / 1600 Rules attached.	General Permit Rules available at the following link: www.deq.nc.gov/CAMArules
Applicant Name NCDOT	Authorized Agent MICHAEL TURCHY
Address 1000 BIRCH RIDGE DR.	Project Location (County): DARE
City RALEIGH State NC ZIP 27610	Street Address/State Road/Lot #(s) BRIDGE NO. 8
Phone # (919) 707 · 6157	NC HWY 12 OVER SLASH CREEK
Email maturchy@ncdot.gov	Subdivision
, ,	City HATTER'S ZIP 27943
Affected CW FEW PTA FES PTS	Adj. Wtr. Body SLASH CREEK (Fagman/unk)
	014440 60045
	Closest Maj. Wtr. Body PAMLICO SOUND
ORW: yes/10 PNA: yes/10	
Type of Project/ Activity REPLACE EXISTING BRIDGE (86'L, 55	SPAN) WITH NEW STRUTURE (95'L 25PAN) ON EXISTING
ALL & MENT WITH RIP RAP STARY 2 STOOM TEMPORARY COFFEE D	MM WILL BE UTILIZED AS CONSTRUCTION METHOGRAMS CAILE: N/A) LOCATED AND WATER LINE WILL BE BORED.
Sharolina Langth < 500' AFRIAL UTILITIES WILL BE RE	LUCATED AND WATER LINE WILL RE BORED!
Pier (dock) length	UD INCORPORATED INTO PERMIT:
Fixed Platform(s) *BRIDGE - SIX	(6) DATED 07/03/2023
	1E (5) DATED 01/20/2023
Finger pier(s) ** COFFER DAM ST	PUCTURES UTILIZED AS BRIDGE CONSTRUCTION
- METHODOLOGY	CONSIDERED TEMPORARY AND SHALL BE BE THEORY WHEN NO LONGER MEDED OR UPON
Total Platform area REMONED FATT	likely when no ronger hierded or upon
Groin length/# WRITTEN NOTICE	FRUM DCM
Bulkhead/Ripra length	
Avg distance offshore 5'-10'	(3) revised plan sheets dated
Breakwater/Sill \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	CITIEVISED PLENSKEED WATED
	211 - 11
Cubic yards received 6-20	3-24 to allow Installation of
Boat ramp	
Boathouse/Boatlift 495/	t of telecommunication line via a
beach buildozing	of the composition of the second
Other 95 L, 25PAW BRIDGE ATERLINE - 330' BORE LT' 1. L	1 1 1 1 1 1 1 1
TEMPORARI CAFFE DAM directional	bore under The Slash attached
SAV observed: yes (no)	
Moratorium: n/a yes (no) Site Photos: Ves no	Into permit. St 7-5-24
Riparian Waiver Attached: yes no and incorporated	
A building permit/zoning permit may be required by:	TAR/PAM/NEUSE/BUFFER (circle one)
Permit Conditions () DEVELOPMENT AUTHORIZED BY THIS PERMITS	SHALL ONLY BE CONDUCTED
117HIN NODOT RIGHT OF WHYS AND OR EASEMENTS (3) THIS PE	RMIT DOE'S NOT FLIMINATE See note on back regarding River Basin rules
LE NEED TO OBTAIN ANY OTHER NECESSARY STATE, LOCAL	OR FEDERAL AVIII of PRATIONS See additional notes/conditions on back
ILINGS FROM THE EXISTING, AS WELL AS REMNANT PILINGS, SH	ALL BE REMOVED IN THE RESURETY
I AM AWARE OF STATUTES, CRC RULES AND CONDITIONS THAT APPLY TO THIS PROJE	CT AND REVIEWED COMPLIANCE STATEMENT. (Please Initial)
Michael Turchy — DocuSigned by:	GREG DAISEY
Agent or Applicant PRINTED Name Michael Turky	Permit Officer's PRINTED Name
3CFF2BCF59604C1	Cy Day
ignature **Please read compliance statement on back of permit**	Signature
\$800.00 WBS# 45565.1.2	08/30/2023 NO EXPRATION, PORSUANT TO
Application Fee(s) Check #/Money Order	Issuing Date 7-5-24 Expiration Date 65 136.44

Statement of Compliance and Consistency

This permit is subject to compliance with this application and permit conditions. Any violation of these terms may subject the permittee to a fine or criminal or civil action; and may cause the permit to become null and void. This permit must be on the project site and accessible to the permit officer when the project is inspected for compliance. The applicant certifies by signing this permit that: 1) prior to undertaking any activities authorized by this permit, the applicant will confer with appropriate local authorities to confirm that this project is consistent with the local land use plan and all local ordinances, and 2) a written statement from the adjacent riparian property owner(s) has been obtained, or proof of delivery of certified mail notification of the adjacent riparian property owner(s).

The State of North Carolina and the Division of Coastal Management, in issuing this permit under the best available information and belief, certify that this project is consistent with the North Carolina Coastal Management Program.

River Basin Rules Applicable To Your Project:	1. 1	
Tar - Pamlico River Basin Buffer Rules Neuse River Bas	in Buffer Rules	0-
If indicated on front of permit, your project is subject to the Environmental Manage for the River Basin checked above due to its location within that River Basin. These NC Division of Water Resources. If you have any questions, please contact the Divis Washington Regional Office (252-946-6481) or the Wilmington Regional Office (910)	buffer rules are enfo ion of Water Resour	rced by the
Notes/Additional Permit Conditions: (4) MEASURES SUFFICIENT TO RESTRAIN AND EROSION SHALL BE IMPLEM		
LINES MUST BE PLACED AT A DEPTH OF TWO FEET BELOW THE BE TO PROTECT WATER QUALITY RUNOFF FROM CONSTRUCTION SHALL NOT U		at a
of Suspended Sediments in Adjacent waters	1913-4 INCINA	145 11110001
or soldier a seement 12 ha hoselessal continues	136	4911
	197 - 1	¥
	-	
		,
USACE ACTION ID: SAW-2012-00579 (APEN 11, 2013)	1000	
DWR GENERAL WATER QUALITY CARTIFICATION 4135 (NCDWR PROJECT NO.	20220400 1.2	APRIL 10 200

Please ensure all debris associated with the removal or construction of the permitted development is contained within the authorized project area and disposed of in an appropriate upland location.

Division of Coastal Management Offices

Morehead City Headquarters

400 Commerce Ave Morehead City, NC 28557 252-808-2808/ 1-888-4RCOAST Fax: 252-247-3330 (Serves: Carteret, Craven – south of the Neuse River, Onslow Counties)

Elizabeth City District

401 S. Griffin St. Ste. 300 Elizabeth City, NC 27909 252-264-3901

(Serves: Bertie, Camden, Chowan, Currituck, Dare, Gates, Hertford, Pasquotank and Perquimans Counties)

Washington District

943 Washington Square Mall Washington, NC 27889 252-946-6481

Fax: 252-948-0478

(Serves: Beaufort, Craven – north of the Neuse River, Hyde, Pamlico

Tyrrell and Washington Counties)

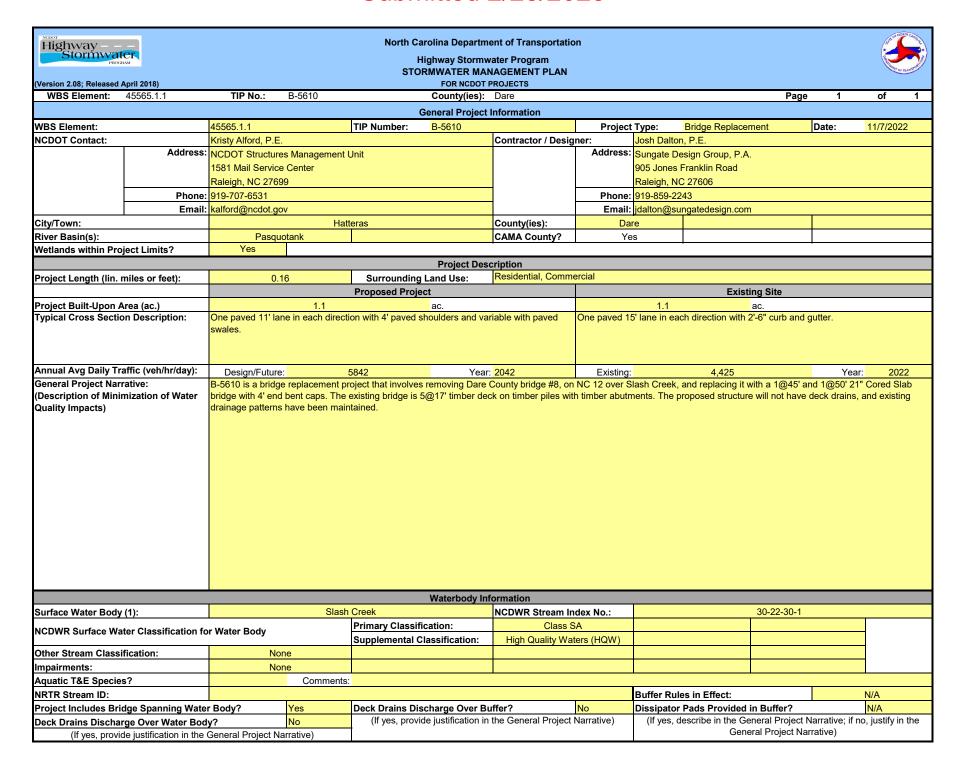
Wilmington District

127 Cardinal Drive Ext. Wilmington, NC 28405-3845

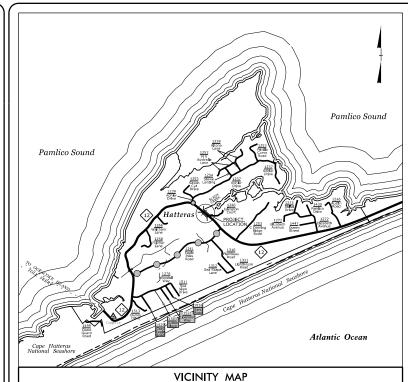
910-796-7215 Fax: 910-395-3964

(Serves: Brunswick, New Hanover and Pender Counties)

Submitted 2/28/2023



IP PROJECT: B-5610



STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

Submitted 228 OUNTY

LOCATION: BRIDGE No. 8 OVER THE SLASH ON NC 12

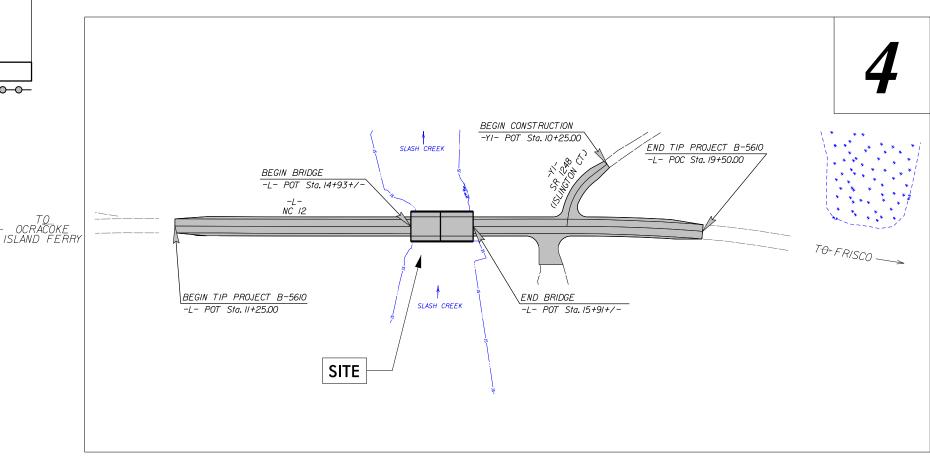
STATE	STATE	STATE PROJECT REFERENCE NO.			
N.C.	E	3–5610	1		
STAT	E PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION		
45:	565.1.2	NHP-0012(016)	PE		
45:	565.2.1	0012068	RIGHT-OF-WA		
45:	565.2.1	0012068	UTILITIES		

PERMIT DRAWING SHEET 1 OF 6

DATE: 1-20-23

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

WETLAND AND SURFACE WATER IMPACTS PERMIT



CLEARING ON THIS PROJECT SHALL BE TO LIMITS ESTABLISHED USING METHOD II. THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDRIES OF HATTERAS.

Off-Site Detour -O-O-O-

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



PROFILE (VERTICAL)

See Sheet 1A For Index of Sheets See Sheet 1B For Conventional Symbols

DESIGN DATA2023 ADT = 4,496 VPD

2043 ADT = 5,912 VPD K = 8% D = 55% T = 8% *

V = 40 MPH

* (TTST 1% + DUAL 7%)

FUNC. CLASS. =

MAJOR COLLECTOR

REGIONAL TIER

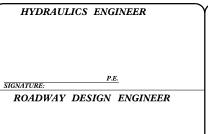
PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT B-5610 = 0.137 mi.

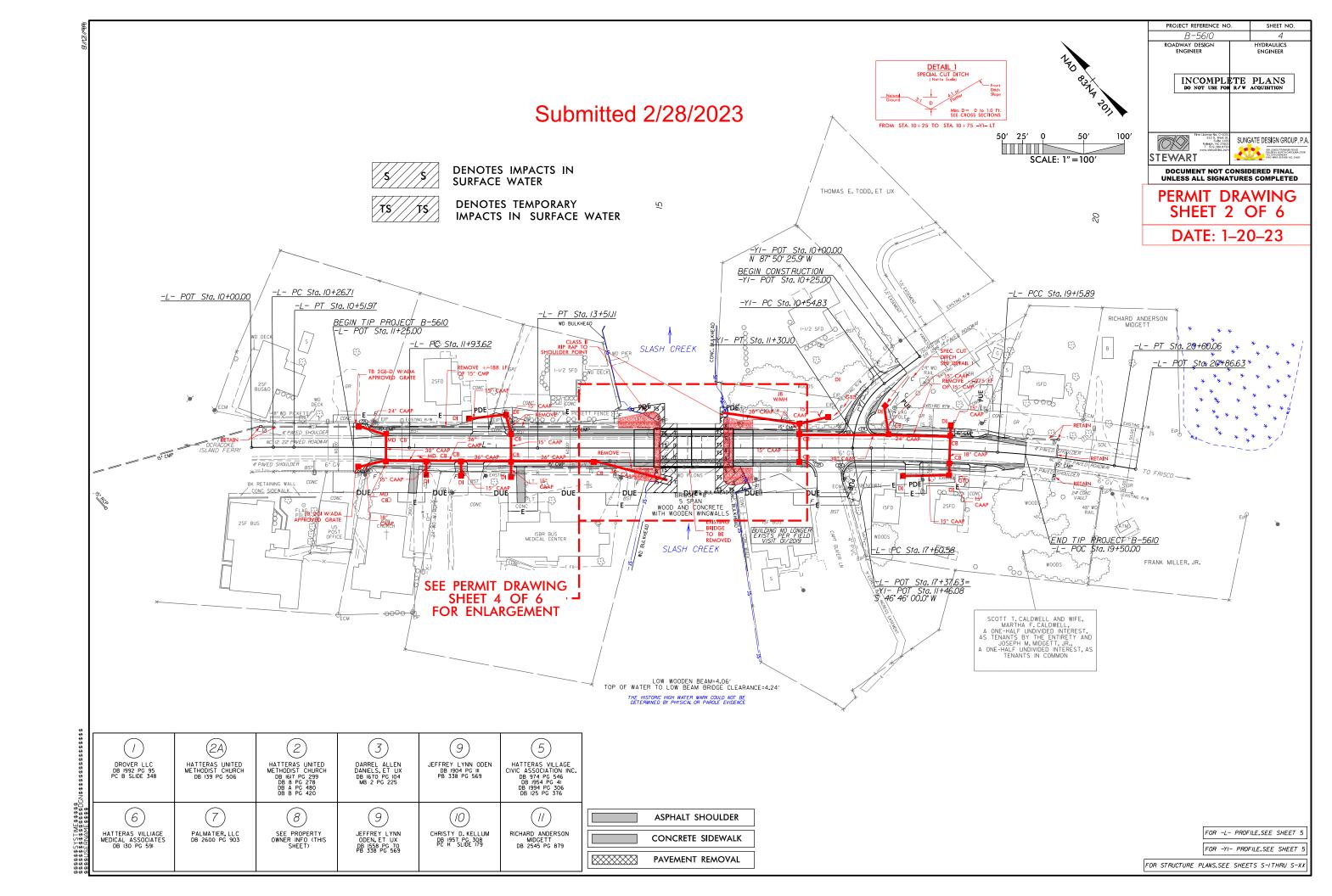
LENGTH STRUCTURES TIP PROJECT B-5610 = 0.019 mi.

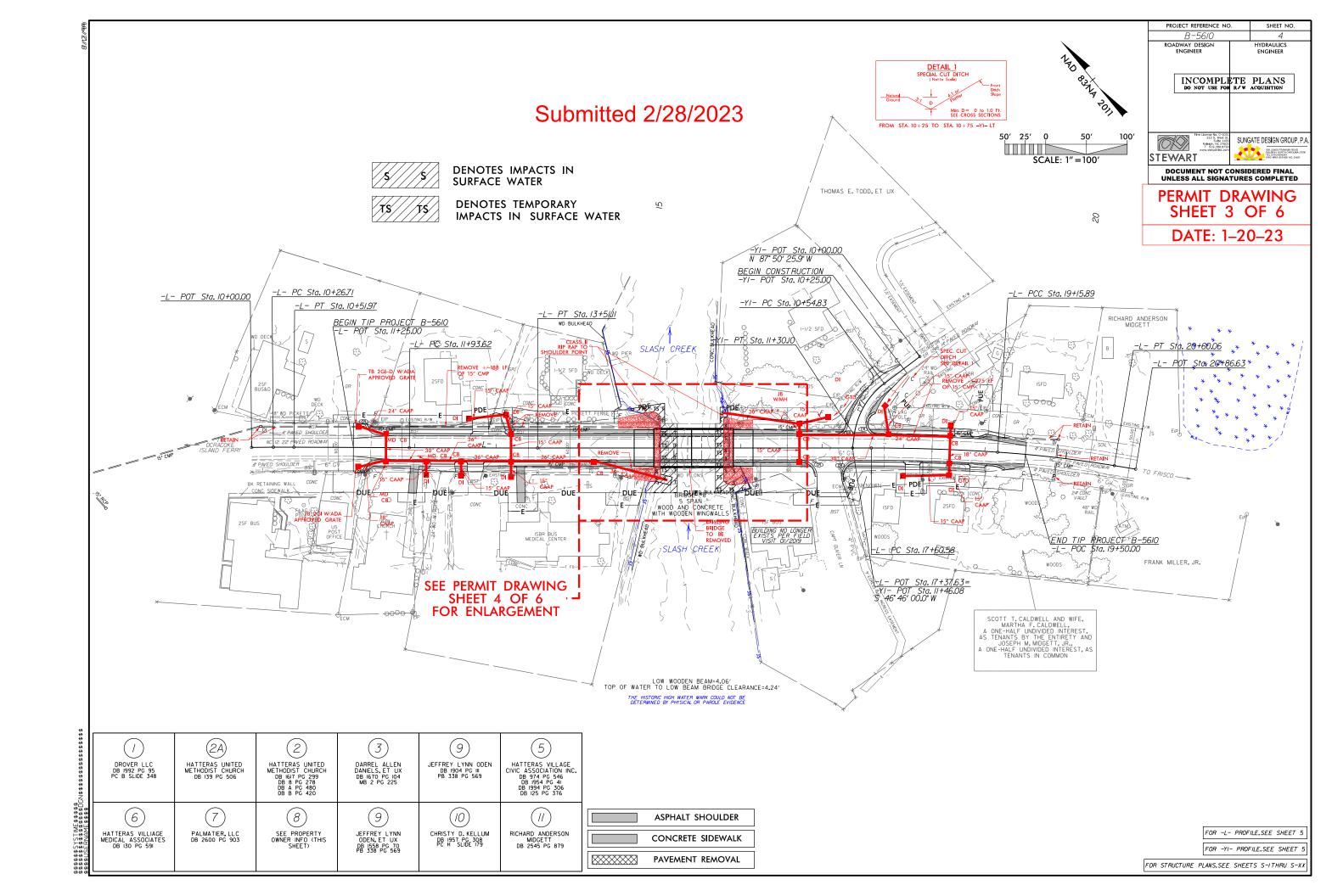
TOTAL LENGTH TIP PROJECT B-5610 = 0.156 mi.

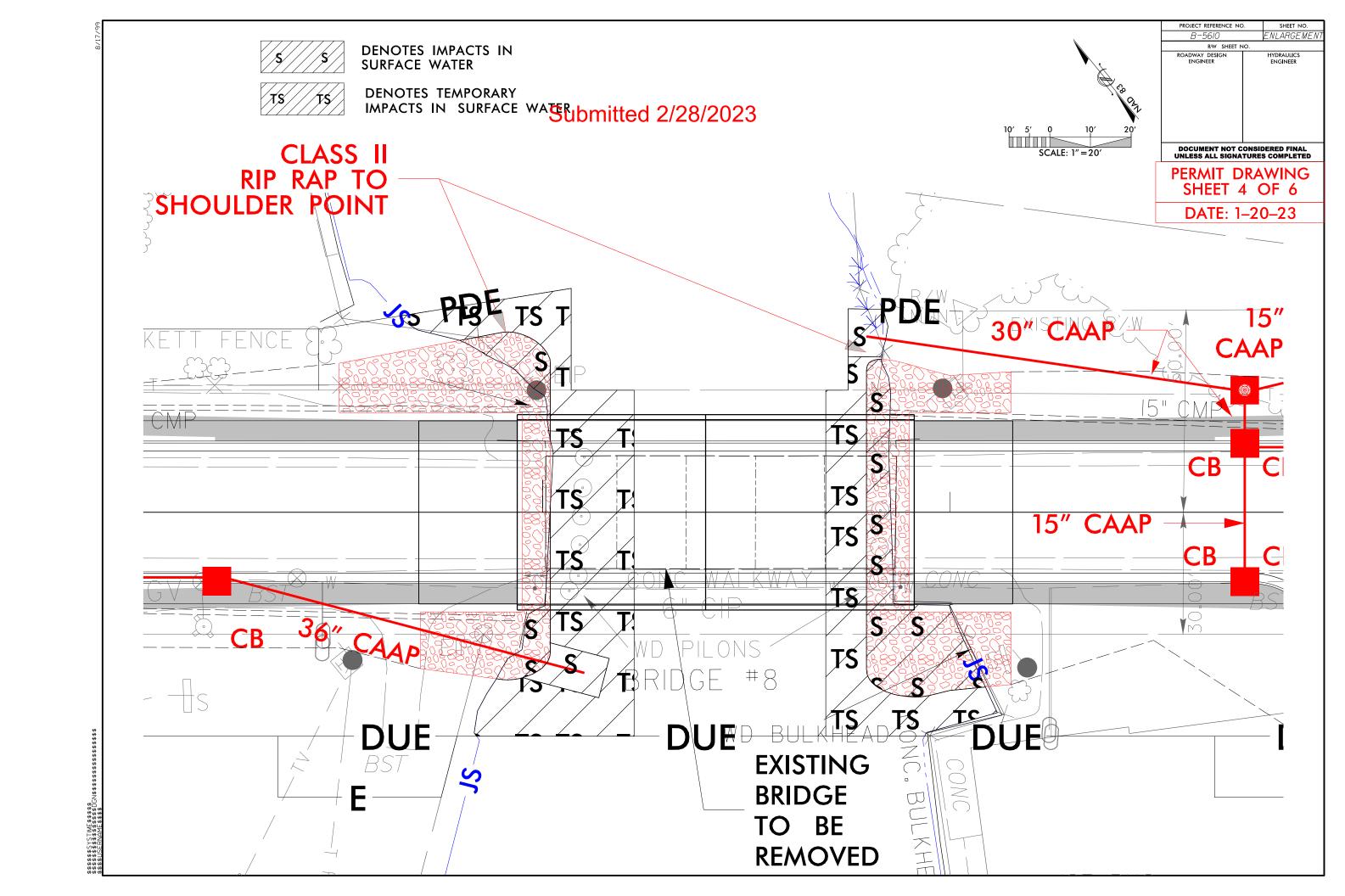
STEWART SUNGATE DESIGN GROUP, P.A. SUNGATE DESIGN GROUP SUNG

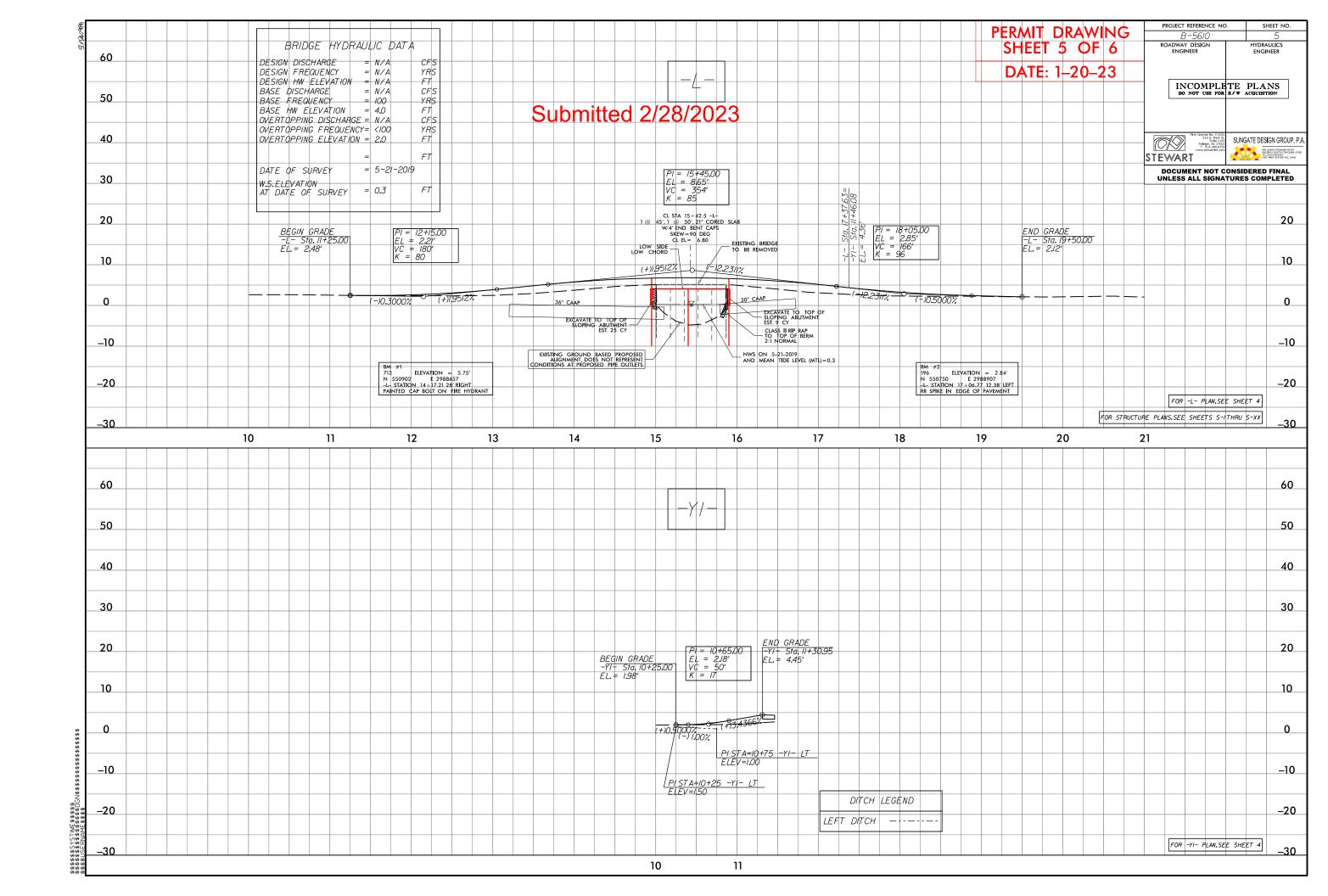












	WETLANDAND SURAGE WATER IMPACTS SUMMARY											
Submitted and Mpace Water IMPACTS SUMMARY SURFACE WATER IMPACTS SURFACE WATER IMPACTS										//PACTS		
Site No.	Station (From/To)	Structure Size / Type	Permanent Fill In Wetlands (ac)		Excavation in	Mechanized Clearing in Wetlands (ac)	Hand	Permanent SW		Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
1	14+59 to 15+22-L-	ROADWAY FILL				, ,	,	0.007	0.052	95	15	
	15+70 to 16+12-L-							0.020	0.027			
	14+98 to 15+23-L-RT	36" PIPE						0.004				
	15+75 to 15+85-L-LT	30" PIPE						0.002				
	<u> </u>											
											. –	
TOTALS'	·:							0.03	0.08	95	15	

*Rounded totals are sum of actual impacts NOTES:

Interior bent= 32sqft.

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
01-19-2023
DARE COUNTY
B-5610
45565.1.1
SHEET 6 OF 6

Revised 2018 Feb

Pamlico Sound

19

V

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IE

PR

STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

UTILITIES ENVIRONMENTAL PERMIT PLANS DARE COUNTY

LOCATION: BRIDGE NO. 8 OVER THE SLASH CREEK ON NC 12

TYPE OF WORK: TELECOMMUNICATIONS AND POWER RELOCATION

T.I.P. NO. SHEET NO. B-5610 UE₋₁

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

PERMIT DRAWING SHEET 1 OF 6

DATE: 01-06-22



UE–2 BEGIN CONSTRUCTION *UE-3* -YI- POT Sta. 10+10.00 BEGIN BRIDGE -L- POT Sta. 14+93.75 BEGIN TIP PROJECT B-5610 -L- POT Sta. II+00.00 TO FRISCO _ SLASH CREE \END BRIDGE -L- POT Sta. 15+91,25 BEGIN TIP PROJECT B-5610 -L- POT Sta. II+00.00 THE HISTORIC HIGH WATER WARK COULD NOT BE DETERMINED BY PHYSICAL OR PAROLE EVIDENCE

WETLAND AND SURFACE WATER IMPACTS PERMIT

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

INDEX OF SHEETS SHEET NO.

UE-4 - UE-5

VICINITY MAP

UE-1 UE-2 - UE-3

DESCRIPTION TITLE SHEET

UTILITY PLAN SHEETS

UTILITY PROFILE SHEETS

TO - OCRACOKE ISLAND FERRY

Atlantic Ocean

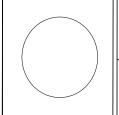
(A) LUMEN - TELECOMMUNICATIONS

(B) CHARTER - TELECOMMUNICATIONS (C) CAPE HATTERAS ELECTRIC - POWER

UTILITY OWNERS ON PROJECT



MICHAEL BURNS, PE



SEAL



DIVISION OF HIGHWAYS UTILITIES UNIT 1555 MAIL SERVICES CENTER RALEIGH NC 27699-1555 PHONE (919) 707-6690 FAX (919) 250-4151

BO HEMPHILL, PE KELVIN MARTIN

UTILITIES REGIONAL ENGINEER UTILITIES ENGINEER

UTILITIES AREA COORDINATOR TYRON W. STALLINGS UTILITIES COORDINATOR

PROFILE (HORIZONTAL) PROFILE (VERTICAL)

GRAPHIC SCALES

PROJECT ENGINEER JOSHUA ROEMER PROJECT DESIGN ENGINEER

Submitted 3/11/2022 PROJECT REFERENCE NO. SHEET NO. UTILITIES BY OTHERS DETAIL 1 SPECIAL CUT DITCH (Not to Scale) EXISTING CAPE HATTERAS POWER LINE ALIGNMENT WILL BE MAINTAINED ON THE SOUTH SIDE OF NC 12. PRIOR TO CONSTRUCTION, CAPE HATTERAS ELECTRIC SHALL INSTALL NEW POLES AS INDICATED ON THE PLANS. EXISTING POWER LINES WILL BE MOVED FROM EXISTING POWER POLES TO PROPOSED POWER POLES. ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL Min. D= 0 to 1.0 Ft. SEE CROSS SECTIONS BE DONE BY OTHERS FROM STA. 10+10 TO STA. 10+75 -Y1- LT DURING CONSTRUCTION, CAPE HATTERAS ELECTRIC SHALL DE-ENERGIZE POWER LINES FOR CONSTRUCTION OF THE BRIDGE. Firm License No. C-1051
223 S West St.
Suite 1100
Rajelgh, Nc 27603
T 919,380,8750
www.stewartinc.com STEWART 0 LUMEN SHALL RELOCATE THEIR LINES TO THE NEW POLES INSTALLED BY CAPE HATTERAS ELECTRIC PRIOR TO CONSTRUCTION. PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION CAPE HATTERAS ELECTRIC OVERHEAD THOMAS E. TODD, ET UX DB 2073 PG 703 PC H SLIDE 179 ABANDONED_\ PERMIT DRAWING 15 POWER LINE & CHARTER LINES 2 SHEET 2 OF 6 DATE: 01-06-22 <u>-YI- POT Sta. 10+00.00</u> N 87° 50′ 25.9″ W OVERHEAD FELEPHONE LINE (10)BEGIN CONSTRUCTION
-YI- POT Sta. 10+10.00 ABANDONED -L- PC Sta. 10+26.71 -L- PCC Sta. 19+15.89 <u>-L- POT Sta. 10+00.</u>00 -YI- PC Sta. 10+54.83 <u>-L- PT Sta. 10+51.97</u> <u>-L- PT Sta. 13 f 51.11</u> RICHARD ANDERSON <u>BEGIN TIP PROJECT B-5610</u> _-L- POT Sta. II+00.00 (9) MIDGETT

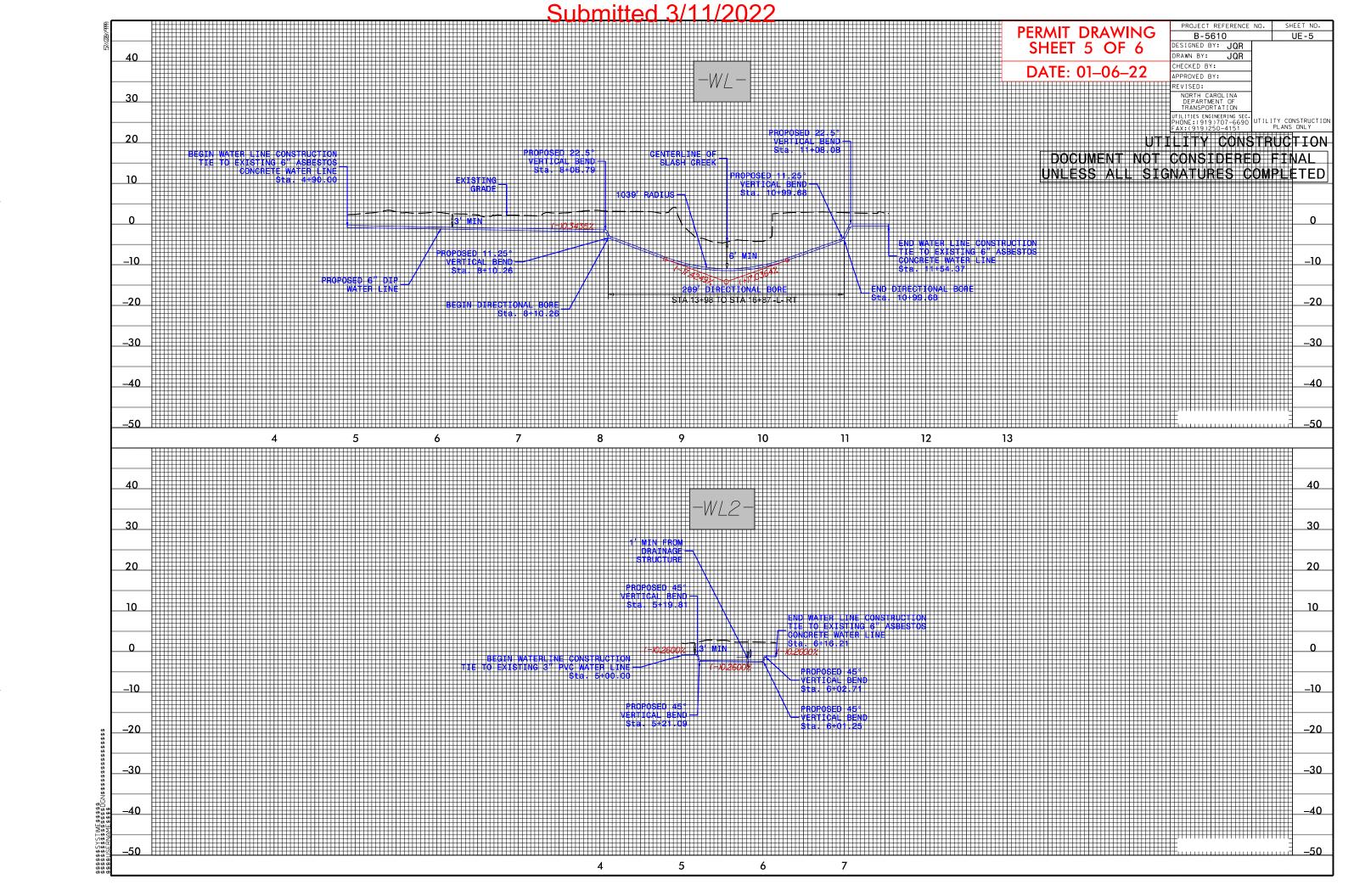
DB 1034 PG 532

MB 4 PG 63 WD BULKHEAD (4) PT \Sta. 11+30.10 CLASS II/ RIP RAP TO SHOULDER POINT STR. PAY ITEMS L- P🗞 Sta. II+93.62 <u>-L- PT Sta. 20+60.06</u> SPEC. CUT SITE 1 (H)-L- POT Stax 20486.63 * TB 2GLD W/ADA REMOVE + 188 LF OF 15" CMP ELECTRIC OVERHEAD POWER LINE CAAP CANP GPS-I BK RETAINING WALL

CONC SIDEWALK ^{L⊥} 15‴;CAAP 2SFD 15" CAAP FYISTING BRIDGE TO BE REMOVED BUILDING NO LONGER EXISTS PER FIELD VISIT 01/2019 ISBR BUS MEDICAL CENTER END TIP PROJECT B-5610 -L- POC \$ta. 19+50.00 (8)SLASH CREEK -L- PC Sta. 17+60.58 DB 2062 PG 723 FRANK MILLER, JR. (6) (2)WOODS ABANDONED UNDERGROUND COMMUNICATION LINE LOW WOODEN BEAM=4.06'
TOP OF WATER TO LOW BEAM BRIDGE CLEARANCE=4.24' THE HISTORIC HIGH WATER MARK COULD NOT BE DETERMINED BY PHYSICAL OR PAROLE EVIDENCE (3)(5) (2)(2)(4) HATTERAS UNITED METHODIST CHURCH DB 1617 PG 299 DB 8 PG 278 DB A PG 480 DB B PG 420 HATTERAS VILLAGE CIVIC ASSOCIATION INC. DB 974 PG 546 DB 1954 PG 41 DB 1994 PG 306 DB 125 PG 376 HATTERAS UNITED METHODIST CHURCH DB 139 PG 506 DARREL ALLEN DANIELS, ET UX DB 1670 PG 104 MB 2 PG 225 JEFFREY LYNN ODEN DB 1904 PG III PB 338 PG 569 7 (8) (9) (10) (6)(H)HATTERAS VILLIAGE MEDICAL ASSOCIATES DB 130 PG 591 EWN INVESTMENT INC. DB 1734 PG 495 MB 8 PG 55 T. STOCKTON & ELIZABETH MIDGETT, ET UX DB 1884 PG 222 MB 4 PG 63 JOSEPHINE A. ODEN, TRUSTEE DB 1744 PG 4 JEFFREY LYNN ODEN, ET UX DB 1558 PG 70 PB 338 PG 569 CHRISTY D. KELLUM DB 1957 PG 308 PC H SLIDE 179

Submitted 3/11/2022 PERMIT DRAWING B-5610 11F-3 NOTE: DESIGNED BY: JQR SHEET 3 OF 6 NOTE: PRIOR TO COMMENCING ANY WORK ON ANY DRAWN BY: JQR THE ESTIMATED QUANTITY OF DUCTILE IRON TRENCHLESS INSTALLATION ON THIS CHECKED BY: WATER PIPE FITTINGS ON THIS PLAN SHEET PROJECT, PROVIDE A DESIGN FOR THE DATE: 01-06-22 ABANDON 112 LF OF APPROVED BY: IS 1420 POUNDS. THE ACTUAL QUANTITY AND 3" UTILITY PIPE TRENCHLESS INSTALLATION CERTIFIED BY AN REVISED: TYPE OF FITTINGS WILL VARY BASED ON NORTH CAROLINA DEPARTMENT OF TRANSPORTATION ENGINEER LICENSED BY THE STATE OF NORTH ABANDON 125 LF OF 6" UTILITY PIPE FIELD CONDITIONS. CAROLINA, AS REQUIRED BY SUBARTICLE PROP 6"x3" TEE UTILITIES ENGINEERING SEC. PHONE:(919)707-6690 FAX:(919)250-4151 UTILITY CONSTRUCTION PLANS ONLY 1550-3(B) OF THE STANDARD SPECIFICATIONS. TIE TO EXISTING
-WL2- Sta. 5+00.00 PROPOSED 86 LF 34" WATER SERVICE LINE UTILITY CONSTRUCTION 6 DOCUMENT NOT CONSIDERED FINAL RECONNECT 9 LF UNLESS ALL SIGNATURES COMPLETED PROPOSED 86 LF WATER SERVICE LINE THOMAS E. TODD, ET DB 2073 PG 703 PC H SLIDE 179 PROP 116 LF 3" WATER LINE 0 PROPOSED 8 LF 1" WATER SERVICE LINE STEWART PROP 6" ABANDON 408 LF OF 6" UTILITY PIPE VALVE PROP 45°BEND -WL2- Sta. 5+71.89 RECONNECT WATER METER (10) TIE TO EXISTING ABANDON 90 LF OF -WL2- Sta. 6+16.21 6" UTILITY PIPE RICHARD ANDERSON MIDGETT DB 1034 PG 532 MB 4 PG 63 BEGIN TIP PROJECT B-5610 -L- POT Sta. II+00.00 (9) (4) CLASS II RIP RAP TO SHOULDER POINT STR. PAY ITEM SPEC. CUT OHTCH SEE DETAIL 1 SITE 1 8 TB 2GLD W/ADA (3)麼 FEND TYP PROJECT B-EMOVE +/-188 LF _ OF 15" CMP TREM WIF 30" CAAP 195' TO NEXT VALVE REM FHCB REM WWW 447' TO RIDUE NEXT VALVE 6"x3" TEE PROP 6"x6"TEE EXISTING
BRIDGE
TO BE
REMOVED - 15" CAAP TIE TO EXISTING BUILDING NO LONGE EXISTS PER FIELD VISIT 01/2019 -WL- Sta. 4+90.00 PROP 13 LF OF SLASH CREEK FIRE HYDRANT LEG DB 2062 PG 723 FRANK MILLER, JR. (6) (2)WOODS PROP 45°BEND PROP 90°BEND -WL- Sta. 5+00.00 TIE TO EXISTING -WL- Sta. 11+54.37 PROP 45°BEND PROP 664 LF 6" PROP 17 LF OF FIRE HYDRANT LEG -WL- Sta. 5+42.41 WATER LINE PROP 90°BEND RECONNECT WATER METER PROP 6"x6" TEE -WL- Sta. 11+25.15 8'x26' BORE PIT-PROPOSED 86 LF 34" WATER SERVICE LINE 289' DIRECTIONAL BORE PROP 14 LF 1" WATER SERVICE LINE LOW WOODEN BEAM=4.06'
TOP OF WATER TO LOW BEAM BRIDGE CLEARANCE=4.24' THE HISTORIC HIGH WATER MARK COULD NOT BE DETERMINED BY PHYSICAL OR PAROLE EVIDENCE (3)(2)(2)(4)(5) HATTERAS UNITED METHODIST CHURCH DB 1617 PG 299 DB 8 PG 278 DB A PG 480 DB B PG 420 HATTERAS VILLAGE CIVIC ASSOCIATION INC. DB 974 PC 546 DB 1954 PC 41 DB 1994 PC 306 DB 125 PC 376 HATTERAS UNITED METHODIST CHURCH DB 139 PG 506 DARREL ALLEN DANIELS, ET UX DB 1670 PG 104 MB 2 PG 225 JEFFREY LYNN ODEN DB 1904 PG III PB 338 PG 569 (7)(8) (6)(9) (10) (H)HATTERAS VILLIAGE MEDICAL ASSOCIATES DB 130 PG 591 EWN INVESTMENT INC. DB 1734 PG 495 MB 8 PG 55 T. STOCKTON & ELIZABETH MIDGETT, ET UX DB 1884 PG 222 MB 4 PG 63 JOSEPHINE A. ODEN, TRUSTEE DB 1744 PG 4 JEFFREY LYNN ODEN, ET UX DB 1558 PG 70 PB 338 PG 569 CHRISTY D. KELLUM DB 1957 PG 308 PC H SLIDE 179

Submitted 3/11/2022 PROJECT REFERENCE NO. SHEET NO. B-5610 UTILITIES BY OTHERS NOTE: ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS STEWART PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION PERMIT DRAWING SHEET 4 OF 6 DATE: 01-06-22 8 \bigcirc 6 (5) 4 (3) 2 6 25.5' NESC CODE CLEARANCE 174.69 147.19 164.69 114.72' 159.26 152.48 205.76 4' BASE FLOOD ELEVATION NWS ON 5-21-2019 AND MEAN TIDE LEVEL (MTL)=0.3



Submitted 3/11/2022

				WETLAND IMPACTS			SURFACE WATER IMPACTS					
			Permanent	Temp.	Excavation	Mechanized	Hand Clearing	Permanent	Temp.	Existing Channel	Existing Channel	Natura
Site	Station	Structure	Fill In	Fill In	in	Clearing	in	SW	SW	Impacts	Impacts	Strear
No.	(From/To)	Size / Type	Wetlands	Wetlands	Wetlands	_	Wetlands	impacts	impacts	Permanent	-	Desig
	, ,		(ac)	(ac)	(ac)	(ac)	(ac)	(ac)	(ac)	(ft)	(ft)	(ft)
1	14+56 to 16+31-L-RT	LUMEN AND CHARTER										
		OVERHEAD TELEPHONE										
	14+98-L-LT	EXTG POLE/PED REMOVAL										
	13+98 to 16+87-L-RT	WATER LINE										
		DIRECTIONAL BORE										
DTAL:												

*Rounded	totals a	re sum	of actual	impacts

NOTES:

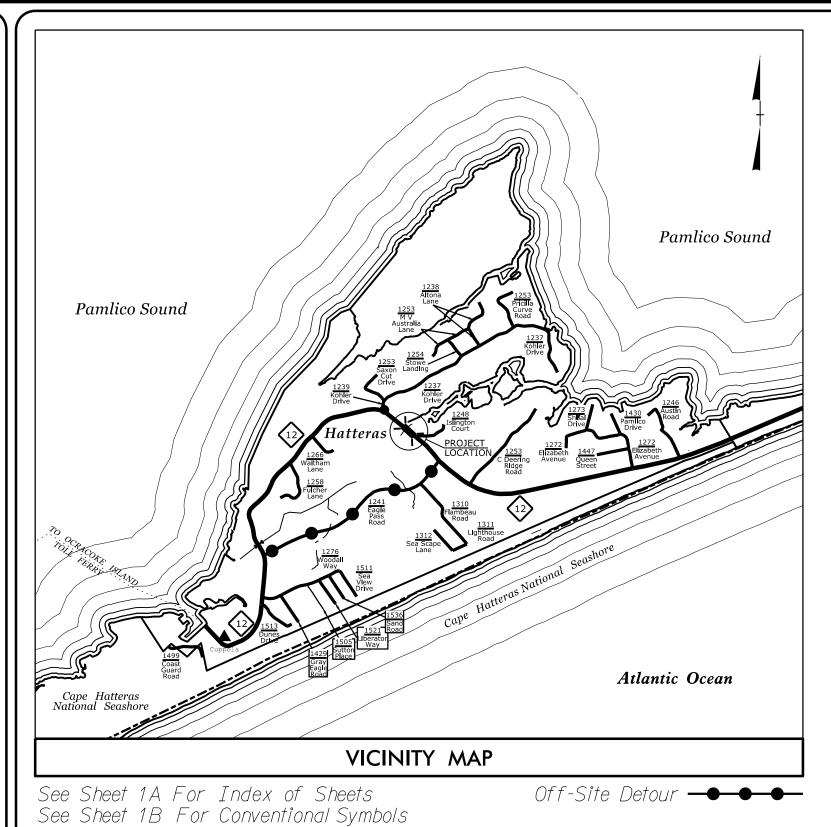
NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
1-6-22
DARE COUNTY

B-5610 45565.1.1

SHEET 6 OF 6

Revised 2018 Feb

19 M



STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

DARE COUNTY

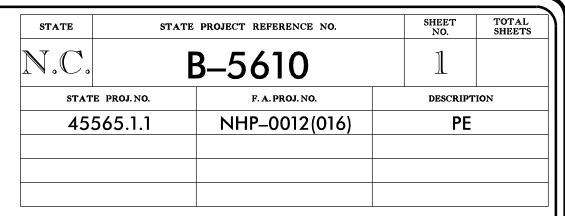
LOCATION: BRIDGE No. 8 OVER THE SLASH CREEK

ON NC 12

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

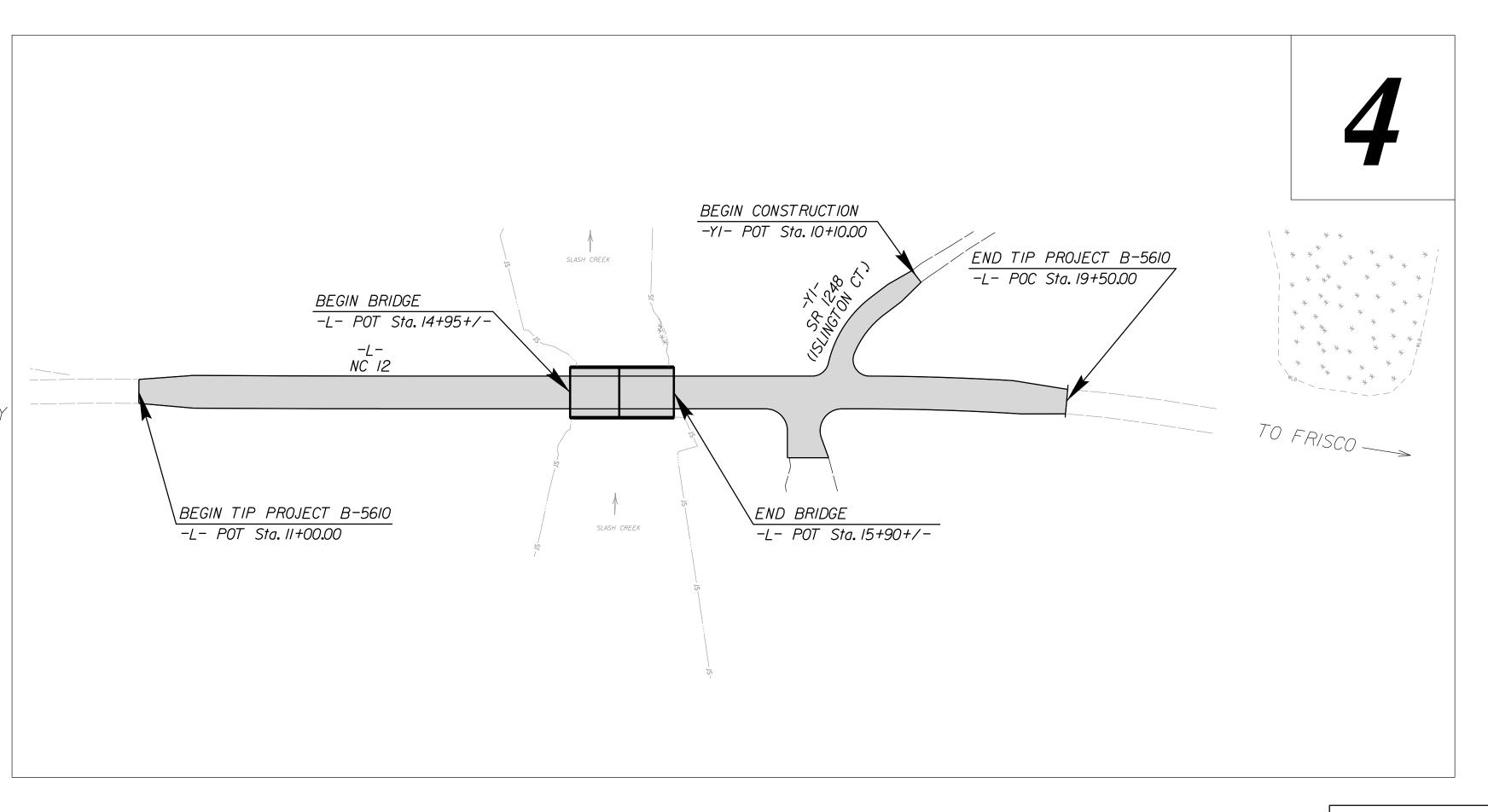
REVISION 2 CENTURYLINK RELOCATION PLAN

SEE SHEET 4



25% REVIEW PLANS FOR REVIEW ONLY





CLEARING ON THIS PROJECT SHALL BE TO LIMITS ESTABLISHED USING METHOD ____. THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDRIES OF HATTERAS.

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



GRAPHIC SCALES **PLANS** PROFILE (HORIZONTAL) PROFILE (VERTICAL)

DESIGN DATA 2020 ADT = 4,284 VPD2040 ADT = 5,700 VPD

K = 8%D = 55%T = 8% * V = 40 MPH

* (TTST 1% + DUAL 7%) FUNC. CLASS. = MAJOR COLLECTOR REGIONAL TIER

PROJECT LENGTH

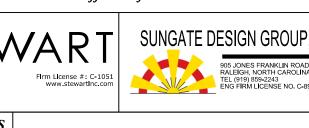
LENGTH ROADWAY TIP PROJECT B-5610 = 0.143 mi.= 0.018 miLENGTH STRUCTURES TIP PROJECT B-5610

TOTAL LENGTH TIP PROJECT B-5610 = 0.161 mi. Prepared in the Offices of:

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: **DECEMBER 20, 2019**

LETTING DATE: OCTOBER 20, 2020



KRISTY ALFORD, PE

NCDOT CONTACT

ANDY YOUNG, PE PROJECT ENGINEER MICHAEL BURNS, PE PROJECT DESIGN ENGINEER

SIGNATURE: ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE:

