# STATE OF NORTH CAROLINA

Department of Environmental Quality and

Coastal Resources Commission



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

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

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Issued to N.C. Department of Transportation, 1598 Mail Service Center, Raleigh, NC 27699-1598	
Authorizing development in Dare C	ounty at Atlantic Ocean and Pamlico Sound on NC
Highway 12 near Rodanthe , as requested in the permittee's application dated 2/15/18, including the attached	
AEC Hazard Notice dated 2/12/18, & the attached workplan drawings (88) described in Condition No. 1 below.	
This permit, issued on	
TIP No. B-2500, Phase IIB, Rodanthe Bridge in the Pamlico Sound	
1) All work authorized by this permit shall be carried out in accordance with the following attached workplan drawings, except as modified herein:	
Wetland and Stream Impacts and Jurisdictional Impacts for Utilities (47): 44 dated 1/22/18, 2 dated 2/1/18, and 1 dated 11/21/17.	
Roadway Plans (30): 22 dated 12/21/17, 3 dated 12/22/17, and 5 dated 5/31/18.	
Other Drawings (11): 2 dated December 2017, 1 dated October 2017, 4 dated received 2/16/18, 2 dated 9/29/16, 1 dated 7/5/17, and 1 dated 5/31/18.	
(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.	Signed by the authority of the Secretary of DEQ and the Chairman of the Coastal Resources Commission.
This permit must be accessible on-site to Department personnel when the project is inspected for compliance.	De V Huggett - la
Any maintenance work or project modification not covered hereunder requires further Division approval.	Braxton C. Davis, Director Division of Coastal Management
All work must cease when the permit expires on	
No expiration date, pursuant to GS 136-44.7B	This permit and its conditions are hereby accepted.
In issuing this permit, the State of North Carolina agrees that your project is consistent with the North Carolina Coastal Management Program.	
	Signature of Permittee

## NOTE:

The North Carolina Department of Transportation (NCDOT) project TIP No. B-2500 authorized by this permit extends for approximately 15 miles from the southern end of Bodie Island to the community of Rodanthe. This permit only authorizes construction of Phase IIB of the TIP No. B-2500 project. Prior to initiating any construction on the remaining phases of this project, the permittee must receive additional authorization from the N.C. Division of Coastal Management (DCM).

## NOTE:

The specific development being permitted does not preclude the remainder of the B-2500 project being built in the Pamlico Sound provided that future development will be constructed in a way that avoids and minimizes impacts to AECs.

- Nothing in this permit authorizes any activity that has not received approval from the National Park Service (NPS) and the U.S. Fish and Wildlife Service (USFWS) for work within the Cape Hatteras National Seashore and Pea Island National Wildlife Refuge. The proposed work shall not commence until the permittee has been issued Special Use Permits from the NPS and the USFWS, if required, and a copy of the Special Use Permits are received by DCM.
- Unless specifically altered herein, any mitigative measures or environmental commitments specifically made by the permittee in the CAMA permit application, the NEPA/404 Merger Process, and/or the Project Commitments contained within the Record of Decision dated December 2016, shall be implemented, regardless of whether or not such commitments are addressed by individual conditions of this permit.
- Prior to the initiation of construction within the Ocean Hazard Area of Environmental Concern (AEC), the permittee shall stake, and a representative of DCM shall approve, the first line of stable, natural vegetation and the corresponding setbacks. All development authorized by this Major Modification shall be located landward of the appropriate setback lines. These setback determinations shall replace those done at the time the permit application was processed and approved. Construction shall begin within sixty days of this determination or the measurement is void and shall be re-established. In the case of a major shoreline change within that period, a new setback determination shall be required before construction begins.
- In accordance with T15A:07H.0306(k), the authorized structures shall be relocated or dismantled when they become imminently threatened by changes in shoreline configuration. The structures shall be relocated or dismantled within two years of the time when they become imminently threatened, and in any case upon their collapse or subsidence. However, if natural shoreline recovery or beach renourishment takes place within two years of the time the structures become imminently threatened, so that the structures are no longer imminently threatened, then they need not be relocated or dismantled at that time. This condition shall not affect the permit holder's right to seek authorization of temporary protective measures allowed under Rule T15A:07H.0308(a)(2).
- 6) In accordance with commitments made by the permittee, all sandbags and associated geotextile fabrics shall be removed in their entirety along the existing NC 12 corridor between the proposed parking area just north of the bridge, south to the Pea Island National Wildlife Refuge/Rodanthe boundary.

- 7) The temporary placement and double handling of any excavated or fill material within waters or vegetated wetlands is not authorized, with the exception of the temporary fill generated by the jetting operation, and the temporary advancing rail system.
- 8) 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.
- 9) Material excavated from the project site may be used in fill areas associated with the project once properly dewatered. Otherwise, the material shall be removed from the site and taken to a high ground location.
- 10) All excavated materials shall be confined to high ground areas 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. This condition shall not apply to the authorized jetting spoil.
- Dredging in any manner, including "kicking" with boat propellers is not authorized without permit modification. This condition shall not apply to the authorized jetting activities.
- 12) All fill material shall be clean and free of any pollutants except in trace quantities.
- 13) Construction staging areas shall not be located in wetlands or Waters of the State.
- All materials and debris associated with the removal and/or construction of the new bridge, temporary advancing rail system, pipes, sandbags, asphalt, and other existing structures within the Right-of-Way and associated materials, shall not enter wetlands or Waters of the State, even temporarily. Any such material shall be disposed of at an approved upland site or shall be recycled in an environmentally appropriate manner provided appropriate authorizations from any relevant state, federal, or local authorities are obtained.
- 15) The retaining walls for abutment fill shall be structurally tight so as to prevent seepage of fill materials through the structure, and the retaining walls for abutment fill shall be in place prior to any backfilling activities.
- 16) All backfill material shall be obtained from a high ground source. No unconfined backfill shall be discharged into wetlands or Waters of the State.
- 17) The placement of riprap shall be limited to the areas indicated on the attached workplan drawings. The riprap material shall be free from loose dirt or any pollutant except in trace quantities.

## Installation and Removal of Piles and Jetting Spoil Containment System

The permittee shall arrange a site visit for the DCM Fisheries Resource Specialist and the DCM Transportation Field Representative to observe the ongoing construction over open waters, including jetting for pile placement and the effectiveness of the primary containment areas.

- The installation and removal of the piles for the new bridge and temporary advancing rail system shall be accomplished by jetting, pile driving, and/or the use of a vibratory hammer, as specified in the permit application. Should the permittee and/or its contractor desire to utilize another type of pile installation, such as drilled shaft construction, additional authorization from DCM shall be required.
- 20) In accordance with commitments made by the permittee, screens will be utilized to prevent plant or animal life from flowing into the jetting water wells.
- 21) Jetting intake screens shall be inspected and serviced daily during periods when jetting operations are taking place.
- 22) The permittee shall continue to coordinate with the DCM Fisheries Resources Specialist and other appropriate resource agencies to identify and implement additional practicable methods to minimize impacts to aquatic species from the water intakes during jetting.
- As soon as practicable after they are no longer needed, pilings in open water from the temporary advancing rail system shall be removed in their entirety, except that in the event that a piling breaks during removal and cannot be removed in its entirety, it may be cut off flush with the bed of the water body, and DCM shall be notified of each occurrence within one working day.
- In accordance with commitments made by the permittee, multiple containment systems comprising a primary containment area and a secondary containment area shall be used to capture and contain the jetting effluent.
- According to the permit application, the design of containment systems within wetlands and uplands was not finalized at the time of application, and may vary due to constraints such as shorelines. Prior to installation of pilings in Coastal Wetlands, the permittee shall submit workplan drawings and a narrative to DCM depicting the proposed jetting spoil containment system for review and approval.
- In accordance with commitments made by the permittee, prior to the use of each primary containment system, plastic geogrid matting will be placed on the existing Sound bottom within the primary containment system.
- The permittee shall implement all practicable means and methods to contain the jetting spoils within the permitted impact areas, and to prevent the jetting spoils from escaping the containment systems, including during storm events.
- The permittee shall conduct regular inspections and maintenance of the containment systems to ensure they are working as expected. If measurable sediment is found within the secondary containment areas, or outside of the containment system, or if turbid water is found to have passed the secondary containment system, then operations at that location will be stopped, the permittee shall immediately contact the DCM Transportation Field Representative, and shall implement measures to improve the containment system as required for the system to perform as intended, including removing any material that is outside of permitted areas. The jetting operation shall only resume upon approval of DCM.

- 29) If the permittee determines that modifications to the containment systems are necessary, then the permittee shall submit workplan drawings and a narrative to DCM depicting the proposed modifications, and shall receive approval from DCM prior to implementing the modifications.
- During removal of the jetting spoil from the containment areas, the spoils shall be removed down to the original Sound bottom, as indicated by the geogrid matting, with the least amount of disturbance practicable to the Sound bottom and any surviving SAV plants. After the jetting spoils have been adequately removed, each containment system shall be removed in its entirety as soon as practicable when it is no longer needed.
- During removal of jetting spoil from the containment systems, caution should be exercised with floating skiffs or other similar devices to ensure minimal damage to the Sound bottom, and to ensure that temporary impacts to shallow water habitat are avoided and minimized to the maximum extent practicable.
- Overflow lines that are used to release excess water from the dump trucks or other vehicles during removal of the jetting spoil material shall be placed so that the water only runs back into the primary containment systems.
- Dump trucks or other vehicles that are used to transport jetting spoil material that is removed from the containment systems shall be water tight during transport.
- The permittee shall provide DCM with workplan drawing(s) depicting the location(s) of any temporary stockpiles within the project area prior to their use. Temporary spoil stockpiles within the project area shall not be located within wetlands or waters of the State.

## **Utility Impacts**

- NOTE: The construction of the new bridge will also require the relocation of electric, telecommunications, and water utility lines with associated hand and mechanized clearing. Wetland impacts resulting from the utility relocations have been included in the total wetland and stream impacts for this project.
- Any relocation of utility lines that is not already depicted on the attached work plan drawings shall require approval by DCM, either under the authority of this permit, or by the utility company obtaining separate authorization.
- In accordance with commitments made by the permittee, utilities placed within the bridge superstructure shall be installed above the low chord (17 feet).
- **NOTE:** Engineered plans showing all water system modifications and additions must be submitted to the Public Water Supply Section for review and approval prior to commencing work.

## Impacts to Wetlands and Waters of the State and Mitigation

- NOTE: This project will permanently impact approximately 0.33 acres of 404 wetlands due to fill and approximately 0.09 acres of 404 wetlands due to mechanized clearing. This project will temporarily impact approximately 1.49 acres of 404 wetlands due to fill and approximately 0.35 acres of 404 wetlands due to hand clearing.
- NOTE: This project will permanently impact approximately 436 square feet of Coastal Wetlands due to fill from the bridge bents. This project will temporarily impact approximately 0.11 acres of Coastal Wetlands due to hand clearing, and approximately 0.16 acres of Coastal Wetlands due to temporary fill.
- **NOTE:** In accordance with commitments made by the permittee, compensatory mitigation for permanent impacts to 404 wetlands associated with the authorized project shall be provided by the permittee at the Bodie Island Lighthouse Pond Mitigation Site.
- NOTE: This project will permanently impact approximately 0.11 acres of surface waters due to fill from bridge bents. This project will temporarily impact approximately 10.07 acres of surface waters (5.95 acres of temporary fill for the advancing rail system, and 4.12 acres of temporary fill for the primary containment areas.) Within these same surface water impact areas, it is estimated that there will be approximately 2.57 acres of permanent impacts to SAV beds due to the footprint of the primary containment areas, approximately 0.06 acres of permanent impacts to SAV beds due to the footprint of permanent bridge piles, and approximately 3.07 acres of temporary impacts to SAV areas due to shading.
- 37) Unless specifically altered herein, compensatory mitigation for permanent impacts to SAV beds, and monitoring of SAV impacts, shall be conducted in accordance with the mitigation plan dated January 2018, "North Carolina Department of Transportation NC 12 Rodanthe Breach Long-Term Improvements Bonner Bridge Replacement Project Phase IIB SAV Mitigation and Monitoring Plan". Any changes to the mitigation plan authorized by this CAMA permit shall require additional authorization from DCM.
- Unless specifically altered herein, SAV plants that will be permanently impacted due to the footprint of the permanent bridge piles shall be relocated in accordance with the "Plan for Relocation of Seagrass for Rodanthe Bridge SAV Mitigation" dated as received on June 11, 2018.
- The permittee shall provide the DCM Fisheries Resource Specialist and the DCM Transportation Field Representative with an opportunity to participate during planned SAV monitoring activities.
- 40) Any significant depressions in the Sound bottom created by jetting water intakes or temporary hollow steel piles of the advancing rail system shall be filled with native substrate material to approximate their pre-project contours and elevations as soon as practicable.
- 41) There shall be no clearing or grubbing of wetlands outside of the areas indicated on the attached workplan drawings without prior approval from DCM.

- 42) Wetlands to be temporarily impacted by hand clearing shall not be grubbed.
- 43) Construction mats shall be utilized to support equipment within wetland areas to minimize temporary wetland impacts. These mats shall be removed immediately following project completion.
- The permittee shall minimize the need to cross wetlands in transporting equipment for hand clearing operations to the maximum extent practicable.
- Due to the possibility that compaction, mechanized clearing, hand clearing, and/or other site alterations might prevent the temporary Coastal Wetland impact areas from re-attaining pre-project functions, the permittee shall provide an annual update on the Coastal Wetland areas temporarily impacted by this project. This annual update shall consist of photographs and a brief written report on the progress of these temporarily impacted areas in re-attaining their pre-project functions. Within three years after project completion, the permittee shall hold an agency field meeting with DCM to determine if the Coastal Wetland areas temporarily impacted by this project have re-attained pre-project functions. If at the end of three years DCM determines that the Coastal Wetland areas temporarily impacted by the project have not re-attained pre-project functions, DCM will determine whether compensatory mitigation shall be required.

## **Sedimentation and Erosion Control**

This project shall conform to all requirements of the N.C. Sedimentation Pollution Control Act and NCDOT's Memorandum of Agreement with the Division of Energy, Mineral and Land Resources.

# **Historical and Cultural Resource Protection**

- The permittee shall implement all practicable measures to ensure the Pappy's Lane Shipwreck resource is not damaged, including but not necessarily limited to, the measures listed in the NCDOT e-mail dated May 3, 2018.
- In accordance with Project Commitments made within the Record of Decision dated December 2016, if any archaeological resources are encountered during construction, construction work affecting the resource will cease immediately until the resource can be identified and assessed for National Register of Historic Places Eligibility.

### General

No attempt shall be made by the permittee to prevent the use by the public of all navigable waters at or adjacent to the authorized work following completion of construction and demolition activities.

- During bridge construction, the permittee shall make every attempt to not impede navigation in the project vicinity. 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.
- The permittee shall install and maintain, at its expense, any signal lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, on the authorized facilities. For further information, the permittee should contact the U.S. Coast Guard Marine Safety Office at (910) 772-2191.
- The permittee shall exercise all available precautions in the day-to-day operations of the facility to prevent waste from entering the adjacent waters and wetlands.
- 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 shall 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.
- The permittee and/or his contractor shall contact the DCM Transportation Project Field Representative in Elizabeth City at (252) 264-3901 to request a pre-construction conference prior to project initiation.
- Development authorized by this permit shall only be conducted on lands owned by the NCDOT and/or its Right-of-Ways and/or easements.
- All construction access shall be through the use of the authorized temporary advancing rail system, the partially constructed new bridge, floating skiffs or similar floating devices, or existing high ground areas.
- 57) Uncured concrete shall not be allowed to contact waters of the State or water that will enter waters of the State.
- 58) The N.C. Division of Water Resources (DWR) authorized the proposed project on 6/11/18 (DWR Project No. 20180114) under Individual Water Quality Certification No. 004161. Any violation of the Certification approved by DWR shall be considered a violation of this CAMA permit.
- NOTE: The U.S. Army Corps of Engineers is reviewing this project as an Individual Permit (Action ID No. SAW-2012-01153).
- **NOTE:** This permit does not eliminate the need to obtain any additional state, federal or local permits, approvals or authorizations that may be required.
- **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 the Division of Water Resources.