

**STATE OF DELAWARE**



**DEPARTMENT OF TRANSPORTATION**

**DESIGN-BUILD PROJECT**

for

**NEW INDIAN RIVER INLET BRIDGE**

Replacement of Bridge 3-156,  
SR1 over Indian River Inlet  
State Contract # 26-073-03  
Federal Contract # BRN-S050(14)

**SCOPE OF SERVICES PACKAGE**

**PART 7**

**ENVIRONMENTAL REQUIREMENTS**

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STATE OF DELAWARE  
**DEPARTMENT OF TRANSPORTATION**  
800 BAY ROAD  
P.O. Box 778  
DOVER, DELAWARE 19903

CAROLANN WICKS, P.E.  
SECRETARY

## ENVIRONMENTAL REQUIREMENTS

for  
Design-Build Replacement of  
Bridge 156, SR 1 over Indian River Inlet  
State Contract No.: 26-073-03  
Federal Aid. No: BRN-S050(14)

In accordance with the procedural provisions for implementing the National Environmental Policy Act of 1969, as amended, the referenced project has been processed through the Department's Environmental Review Procedures and has been classified as a Level B/Class III Action. As such, an Environmental Assessment has been prepared to evaluate potential adverse impacts to result from construction of the proposed action (per 23 CFR 771.119) and the following special provisions have been developed to mitigate and/or minimize these impacts:

### PERMIT REQUIREMENTS:

The construction work involving replacement of Bridge 156, SR 1 over Indian River Inlet, Sussex County, Delaware requires permit approval from those agencies listed below. It is the responsibility of the contracting agency, the Department of Transportation, Division of Highways to obtain the necessary permits and to ensure that the contractor complies with the requirements and conditions established by the permitting agencies. Copies of permits will be provided to the contractor by the District at the Pre-Construction meeting and must be available on site during all phases of construction activity. When available, advanced copies of the permits will be made available for review from DeIDOT's Contract Administration.

### Permits and Status

U.S. Coast Guard General Bridge Permit - Approved, see Appendix A  
U.S. Army Corps of Engineers 404 Individual Permit - Approved, see Appendix A  
DNREC Subaqueous Lands Permit - Approved, see Appendix A  
DNREC 401 Water Quality Certification Permit - Approved, see Appendix A  
DNREC Coastal Zone Consistency Certification - Approved, see Appendix A  
DNREC Wetlands Permit - Approved, See Appendix A

The contractor will follow and adhere to all permit stipulations and conditions.

## Delaware Department of Transportation

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### ENVIRONMENTAL COMPLIANCE PLAN SHEETS:

1. As indicated in plans and specifications, the contractor shall pay special attention to specific time, notification, and construction restrictions as indicated on the project's Environmental Compliance Sheets.

### SPECIFIC REQUIREMENTS:

The following construction requirements have been developed to minimize impact to the surrounding environs. Compliance with all requirements of the permit is also the responsibility of the contractor subject to penalties, fines, and risk of shut down as mandated by laws governing permitting agencies. Additional provisions are also provided below that the contractor must follow.

1. Construction activities will be restricted to within the defined limits of construction, avoiding adjacent wetland and parkland areas outside the project's limit of construction. Areas temporarily disturbed will be restored to pre-construction grade and conditions.
2. Wetland boundaries for those wetlands in the project area are included in the plans. It is the contractor's responsibility to ensure that there is **no access or storage** permitted in these designated areas.
3. All fill material shall be free of fines, oil and grease, debris, wood general refuse, plaster, and other pollutants, and shall contain no asphalt.
4. No movement of equipment within wetlands and subaqueous lands will be permitted without prior approval.
5. The movement of equipment within wetlands or subaqueous lands shall be limited to that necessary to accomplish the work authorized in the permits or contract.
6. There will be no stockpiling or temporary matting for storage of construction equipment materials in wetlands or subaqueous lands.
7. Any incidental material shall be properly stabilized to prevent its entry or re-entry into drainage areas, wetlands, or waterways.
8. Temporary and permanent seeding will be done in a timely manner to limit potential impacts from erosion and sedimentation.
9. That any fill material shall be placed, stabilized, and maintained in a manner that precludes its entrance or erosion into adjacent wetlands, waterways, or drainage areas.
10. The disposal of trees, brush and other debris in any stream corridor, wetland surface water, or drainage area is prohibited.
11. After completion of construction, all disturbed areas shall be permanently stabilized by seeding and mulching, rip-rap placement, or by the planting of native vegetation - see plans and/or wetland requirements.
12. The contractor shall be advised that no encroachment will be permitted beyond the denial of access line through the limits of construction or temporary easements.

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13. The contractor will be required to notify the District Engineer for locations to preform fueling and equipment maintenance activities. The contractor shall also employ measures during construction to prevent spills of fuels, degreasers, or lubricants. If a spill should occur, immediate efforts shall be taken to prevent its entry into wetlands and aquatic areas. Any spills entering wetlands and aquatic areas shall be removed immediately. DNREC shall be notified of any spill(s) within six hours of occurrence. DNREC will determine the effectiveness of spill and contamination removal and specify remediation as necessary.

14. Construction shall be conducted so as not to violate the State of Delaware Department of Natural Resources and Environmental Control, "Surface Water Quality Standards" as amended August 11, 1999.

15. The Corps of Engineers and DNREC shall be notified of all preconstruction meetings so that agency representatives may have the opportunity to attend. The on-site construction supervisor shall be present at all preconstruction meetings involving the Corps of Engineers.

### CULTURAL RESOURCE REQUIREMENTS

1. The contractor will submit to the District Engineer the location(s) of permanent disposal sites to be used for the disposition of all clean waste materials (see DNREC regulations regarding clean waste materials) resulting from the construction contract. The contractor will submit at the Preconstruction meeting, a location map and a plot plan (sketch or diagram) of where on the property all material is to be placed. The limits of the site(s) will be physically staked or surveyed on the property. The District Engineer will submit the contractor's disposal site location(s) to the State Historic Preservation Office (DE SHPO) for approval.

The DE SHPO will determine if a cultural resource survey is required before the site can be approved. If additional survey work is required, it will be the contractor's responsibility to hire a qualified professional to assess the site(s) for the presence or absence of cultural resources (historic or prehistoric archaeological sites). The contractor's consultant will be responsible for producing documentation of the survey results for submission to the DE SHPO.

If the contractor proposes the use of disposal sites outside the State of Delaware, the contractor must provide written approval from the State Historic Preservation Office of each respective state.

A project's disposal operation will not commence until the DE SHPO has notified the DelDOT District Engineer that the site locations(s) is approved for use.

The use of the disposal site will not result in discharge of materials into US Army Corps of Engineers or DNREC jurisdictional wetlands or waters. It is the responsibility of the contractor to provide any site surveys or wetland delineations needed to preclude wetland encroachment.

The contractor will be responsible for all sediment and erosion control measures and subsequent approvals for the disposal site(s) operations.

It is the contractor's responsibility to obtain all other appropriate Federal, State, or local approvals required by law for the disposal site(s).

Delaware Department of Transportation

PERMIT SUMMARY

Description	Permit #	Date Issued	Expiration Date	Special Conditions	Notification Requirement	Comments
U.S. Coastguard	3/4/2005	12/28/2004	12/28/2009	Yes. See Pages 1-2.	45 days	Department shall file for extension due to change in structure type and proposed completion date. All other coordination for temporary works, etc. shall be done by Design/Builder.
U.S. Army Corps*	CENAP-OP-R-200400194-1	3/4/2005	12/31/2010	Yes. See Pages 4-7	10 days	Department shall file for extension due to change in structure type and proposed completion date. Any permit modifications or mitigation required because of additional impacts to wetlands caused by the new design shall be obtained by the Design Builder
Subaqueous Lands*	SP-020/04	9/8/2004	9/8/2007	Yes. See Pages 2-4, in particular condition 8.	10 days	Department shall file for extension due to change in structure type and proposed completion date. Any permit modifications or mitigation required because of additional impacts to wetlands caused by the new design shall be obtained by the Design Builder
DNREC Wetlands*	WE-020/04	9/8/2004	9/8/2007	Yes. See Pages 2-5, in particular #12	10 days	Department shall file for extension due to change in structure type and proposed completion date. Any permit modifications or mitigation required because of additional impacts to wetlands caused by the new design shall be obtained by the Design Builder
DNREC Water Quality	WQ-021/04	9/8/2004	9/8/2007	Yes. See Pages 2-5, in particular #12	10 days	Department shall file for extension due to change in structure type and proposed completion date. Any permit modifications or mitigation required because of additional impacts to wetlands caused by the new design shall be obtained by the Design Builder
FAA Determination of No Hazard	XX	XX	XX	XX	XX	Design Builder Required to Obtain

\*Special Conditions that are the responsibility of the Department:

1. Creation of wetlands to mitigate permanently impacted jurisdictional (155.303 s.f.) and U.S. waters (21,853 s.f.) as dictated based on the current roadway alignment.
2. Wetland monitoring for areas listed in #1.
3. Creation of diamondback terrapin habitat (already completed)
4. Installation of terrapin protection fencing (already completed). Design Builder shall repair/ replace any fencing he damages as part of his construction.
5. Construction of 3 elliptical culverts for terrapin passage. (Shall be completed as part of the roadway approach contract).

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**SCOPE OF SERVICES PACKAGE**

**PART 7 APPENDIX A**

**PERMITS**

DEPARTMENT OF THE ARMY PERMIT

PERMITTEE AND PERMIT NUMBER:

Delaware Department of Transportation  
DE DEPT OF TRANSPORTATION  
CENAP-OP-R-200400194-1

ISSUING OFFICE:

Department of the Army  
U.S. Army Corps of Engineers, Philadelphia District  
Wanamaker Building - 100 Penn Square East  
Philadelphia, Pennsylvania 19107-3390

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

PROJECT DESCRIPTION: The applicant is replacing the existing Route 1 bridge over Indian River Inlet. The new bridge would be constructed immediately adjacent and to the west of the existing bridge. The United States Coast Guard is responsible for regulating bridge and causeway structures over navigable waters of the United States pursuant to the Department of Transportation Act of October 15, 1966. The U.S. Coast Guard has issued a permit for the proposed bridge structure. The U.S. Army Corps of Engineers has regulatory responsibility for other work in navigable waters or the discharge of dredged or fill material into waters of the United States that would be associated with the proposed bridge structure.

After completion of the new bridge, the existing bridge structure would be removed. The concrete and steel materials from the abandoned bridge structure would be transported to an existing authorized artificial reef site located offshore of Indian River Inlet for disposal as artificial reef materials. The selected artificial reef site has been previously approved by the Corps of Engineers for the development of artificial reefs. The existing bridge piers located in the inlet would be removed down to the existing rock-line (rip-rap) at the base of each pier.

An aerial electric crossing is located immediately west of the existing bridge. This aerial electric crossing would be relocated onto the proposed bridge structure, and the existing utility poles would be removed. Water, sewage, and telecommunication cables are being relocated approximately 1000 feet west of the existing bridge. These utilities are being installed under Indian River Inlet via a directional drilling method. The conduits for the relocated utilities are being placed at a depth of approximately 45 feet below mean low water. This depth is a minimum of 15 feet below the existing channel bottom and is 30 feet below the authorized channel depth. The applicant has already received a letter from this office allowing them to proceed under nationwide permit authorization with the necessary utilities work in advance of the bridge construction (CENAP-OP-R-200400306-NWP12).

The authorized project would require the permanent filling and disturbance of 3.6 acres of federally regulated wetlands and 0.5 acres of shallow water habitat. This total includes 1.3 acres of wetlands characterized as roadside drainage swales and ditches, 1.3 acres of scrub/shrub wetland habitat, and 0.8 acres of tidal *Spartina* marsh. The fill would involve the following specific activities: the relocation of access roads to the existing park and marina facilities on the north side of the inlet and for the relocation of park access roads and County Road 50A on the south side of the inlet. The bridge and roadways would provide for pedestrian and bicycle access within the project area. The project would also include provisions for storm water management. Storm water management basins would be designed for quality control and would be located along the inside shoulder of access roads and auxiliary lanes.

In addition to the permanent disturbance, the project would involve a temporary disturbance of approximately 3.5 acres of federally regulated wetlands and approximately 0.3 acres of open water areas. This disturbance would include such activities as access to the marsh areas to remove abandoned utility poles and the installation of erosion and sedimentation control measures during construction. The applicant would restore all wetlands that would involve a temporary disturbance.

The applicant has developed a comprehensive wetland mitigation plan to compensate for the unavoidable impacts to wetlands and waters of the United States at a ratio of 1 to 1 (1 acre of mitigation to 1 acre of wetland loss). Two wetland compensation sites have been identified, which would yield the necessary acreage for mitigation. The first is identified as "Fresh Pond North" site, which is an upland field located at the southern end of Beach Cove, also known as Quillen Pond. The applicant would create 3.1 acres of tidal marsh and enhance approximately 2.9 acres of existing tidal marsh at this location.

The second wetland compensation site is identified as "Fresh Pond South Area", which is located farther south and adjacent to a tidal tributary of Salt Pond. This site would encompass an existing upland field and two abandoned water-filled borrow pits, which are located immediately adjacent to a tidal tributary of Salt Pond. The work at this site would include measures to partially backfill and regrade the abandoned borrow pits to create a variety of shallow water and wetland habitats. This effort would enhance their aquatic value, generating approximately 6 acres of wetlands and shallow water. This site would also include the excavation of an upland field to create approximately 3.5 acres of tidal marsh. The work at this site would also require the replacement of an existing culvert under a utility access road adjacent to the site. The existing culvert would be replaced with a bridge structure. It is noted that the two mitigation sites combined would generate more wetland and shallow water acreage than would be necessary to achieve the 1 to 1 ratio. As such, any wetland acreage generated at Fresh Pond South, which would be above the 0.5 acres of wetland and 0.5 acres of shallow water necessary to satisfy the wetland compensation ratio for this application, would be developed as a wetland mitigation bank. The applicant would be required to develop a mitigation banking agreement with the Army Corps of Engineers for this added wetland acreage.

In addition to the wetland compensation work, the applicant would create and enhance upland habitat in the vicinity of Haven Road for diamond back terrapin nesting.

All work would be completed in accordance with the plans identified in special condition 1 below. A representation of these approved plans are attached for added information and are labeled as E-1 through E-20.

PROJECT LOCATION: The project is located within Delaware Seashore State Park, which is located between Rehoboth Beach and Bethany Beach, Sussex County, Delaware.

PROJECT PURPOSE: The purpose of the project is to replace the existing Route 1 Bridge over Indian River Inlet. The Indian River Inlet has experienced substantial channel scouring since the existing bridge was constructed. The channel scouring and deepening has affected the existing bridge piers. The proposed bridge structure has been designed to eliminate the bridge piers in the water. As a result of the proposed bridge design, the approach roadway along Route 1 requires modification, which in turn requires the relocation of existing County Road 50A located along the south side of the inlet, relocation of the existing access roads to the State Park and marina facilities on the north and south side of the inlet, and the relocation of utilities on and adjacent to the existing bridge.

PERMIT CONDITIONS:

General Conditions:

1. The time limit for completing the work authorized ends on December 31, 2010. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least three months before the above date is reached.
2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.
3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and State coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.
4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.
5. If a conditioned water quality and/or a coastal zone management certification has been issued for your project, you must comply with conditions specified in the certification as special conditions to this permit.
6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

Special Conditions:

1. All work performed in association with the above noted project shall be conducted in accordance with the project plans identified as follows:

Specification and Construction Plans For: BR 156 On SR 1 Over Indian River Inlet, (Roadway and Approaches) Contract Number 23-073-03 from Milepost 10.2 to Milepost 12.1, dated 12/23/04. This plan set includes the specific plan sheets listed below. The approved plans described in the draft permit document are included within the following overall plan set.

Sheets 1 - 11 of 397, sheets 13 - 31 of 397, sheets 230 - 233F of 397, sheets 351 - 366 of 397, and sheets 368 - 388 of 397.

2. Construction activities shall not result in the loss of more than 3.6 acres of wetlands and 0.5 acres of waters of the United States.

3. Any deviation in construction methodology or project design from that shown on the above noted drawings must be approved by this office, in writing, prior to performance of the work. All modifications to the above noted project plans shall be approved, in writing, by this office. No work shall be performed prior to written approval of this office.

4. Within 60 days of the date of this permit, the permittee shall submit a draft proposal for a deed restriction, property covenant or similar binding legal document, which would clearly prescribe the permanent preservation and protection of all areas within the approved wetland compensation/mitigation sites known as Fresh Pond North and South. Upon approval of the draft proposal by this office, the permittee shall proceed to formally record the document with the County of Sussex or other appropriate organization. No construction activities shall begin until such time that the permittee is notified in writing by this office that the draft proposal has been reviewed and approved by this office. This condition is not applicable to the installation of reinforced silt fence materials required for the protection of nesting turtles. The protective fencing may be installed immediately upon receipt of the permit document.

5. This office shall be notified at least 10 days prior to the commencement of authorized work by completing and signing the attached *Notification/ Certification of Work Commencement Form*. This office shall also be notified within 10 days of the completion of the authorized work by completing and signing the attached *Notification/Certification of Work Completion/Compliance Form*. All notifications required by this condition shall be in writing and shall be transmitted to this office by registered mail. Oral notifications are not acceptable.

6. Upon completion of all excavation and grading activities necessary to create the Fresh Pond North and South wetland compensation/mitigation sites, the permittee shall submit a scaled drawing, which documents the overall acreage of wetland habitats constructed at each of the wetland compensation sites. This plan will include a survey of elevations to verify the quantity and locations of the various habitats described in the wetland mitigation plans described in special condition 1 above.
7. That the permittee shall monitor the wetlands compensation sites for five consecutive growing seasons, and submit to this office an annual monitoring report, which shall be based upon observations of the site during the middle of the growing season (July - August). Each monitoring report shall contain the following information: a comparison of land and water elevations through a minimum of one full lunar cycle, percent survival of planted stock, a description of any volunteer plant growth, a discussion of any unwanted volunteer plant growth, such as *Phragmites australis*, and representative photographs of the site. In the event that any unwanted species, such as *Phragmites*, do invade the wetland compensation sites, the permittee shall prepare a plan for review and approval by this office, which would accomplish the control and removal of any unwanted species.
8. All wetland plantings shall have a minimum of 85% plant survival rate after the first growing season. Failure to achieve this survival rate will require the replacement of all dead plants with new stock until a permanent stand of vegetation is established over the mitigation site. Statistically valid proof of 85% coverage is required.
9. The permittee shall complete all excavation, grading and planting of the wetland compensation sites prior to the expiration date of this permit (31 December 2010).
10. This Department of the Army permit requires the following compensation/mitigation acreage: 3.6 acres of tidal *Spartina* marsh and 0.5 acres of shallow water habitat. The necessary wetland compensation would be generated with the creation of 3.1 acres of *Spartina* marsh at the Fresh Pond North Site and the creation of 0.5 acres of *Spartina* marsh and 0.5 acres of shallow water habitat developed at the Fresh Pond South site. The permittee shall develop a wetland mitigation banking agreement with the U.S. Army Corps of Engineers for any wetland and/or shallow water habitat created at the Fresh Pond South site, which would represent acreage greater than that required for this authorization. There shall be no utilization of this additional wetland and/or shallow water acreage as future mitigation/compensation until such time that a mitigation banking agreement is finalized.

11. That all temporary fills in wetlands or other waters of the United States authorized by this permit shall be removed in their entirety, and the areas returned to their pre-construction condition.

12. The disposal of bridge materials as artificial reef materials at the approved artificial reef site #10, or any other approved artificial reef site, shall be conducted in accordance with the terms and conditions of Department of the Army permit CENAP-OP-R-199902977-1 issued to the Delaware Division of Fish and Wildlife dated January 8, 2001, or any subsequent re-authorization of that permit.

13. That the permittee is responsible for ensuring that the contractor and/or workers executing the activity(s) authorized by this permit have knowledge of the terms and conditions of the authorization and that a copy of the permit document is at the project site throughout the period the work is underway.

14. That prior to construction, the permittee shall obtain a Real Estate instrument from the Baltimore District, U.S. Army Corps of Engineers, ATTN: CENAB-RE-C, P.O. Box 1715, Baltimore, Maryland 21203-1715, (410) 962-4649. All work shall be performed in accordance with the terms and conditions of any required Real Estate instrument.

FURTHER INFORMATION:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:

(X) Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).

(X) Section 404 of the Clean Water Act (33 U.S.C. 1344).

( ) Section 103 of the Marine Protection, Research and Sanctuaries Act.

2. Limits of this authorization.

a. This permit does not obviate the need to obtain other Federal, State, or local authorizations required by law.

b. This permit does not grant any property rights or exclusive privileges.

c. This permit does not authorize any injury to the property or rights of others.

d. This permit does not authorize interference with any existing or proposed Federal projects.

3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:

a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.

b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.

c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.

d. Design or construction deficiencies associated with the permitted work.

e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data. The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

a. You fail to comply with the terms and conditions of this permit.

b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (see 4 above).

c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General Condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

*Nerac M. Tule*  
(PERMITTEE)

Feb. 8. 2005  
(DATE)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

*[Signature]*  
(District Engineer)

3/4/05  
(DATE)

✓ Frank J. Cianfrani, Chief, Regulatory Branch  
for Robert J. Ruch  
Lieutenant Colonel, Corps of Engineers  
District Engineer

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

\_\_\_\_\_  
(TRANSFEREE)

\_\_\_\_\_  
(DATE)

NOTIFICATION/CERTIFICATION OF WORK COMMENCEMENT FORM

Permit Number: CENAP-OP-R-200400194-1  
Name of Permittee: Delaware Department of Transportation  
Project Name: DE DEPT OF TRANSPORTATION  
Waterway: Indian River Inlet  
County, State: Sussex County, Delaware  
Compensation/Mitigation Work Required: Yes XX No     

TO: U.S. Army Corps of Engineers, Philadelphia District  
Wanamaker Building - 100 Penn Square East  
Philadelphia, Pennsylvania 19107-3390  
Attention: CENAP-OP-R

We have received authorization to conduct work and to place fill in wetlands and waters of the United States in conjunction with the replacement of Bridge 156 over Indian River Inlet.

The work will be performed by:

Name of Person or Firm: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

I hereby certify that I have reviewed the approved plans, have read the terms and conditions of the above referenced permit, and shall perform the authorized work in strict accordance with the permit document. The authorized work will begin on or about \_\_\_\_\_ and should be completed on or about \_\_\_\_\_.

Please note that the permitted activity is subject to compliance inspections by the U.S. Army Corps of Engineers. If you fail to return this notification form or fail to comply with the terms or conditions of the permit, you are subject to permit suspension, modification, revocation, and/or penalties.

\_\_\_\_\_  
Permittee (Signature and Date)

\_\_\_\_\_  
Telephone Number

\_\_\_\_\_  
Contractor (Signature and Date)

\_\_\_\_\_  
Telephone Number

NOTE: This form shall be completed/signed and returned to the Philadelphia District Office a minimum of 10 days prior to commencing work.

NOTIFICATION/CERTIFICATION OF WORK COMPLETION/COMPLIANCE FORM

Permit Number: CENAP-OP-R-200400194-1  
Name of Permittee: Delaware Department of Transportation  
Name of Contractor:  
Project Name: DE DEPT OF TRANSPORTATION  
County/State: Sussex County, Delaware  
Waterway: Indian River Inlet

Within 10 days of completion of the activity authorized by this permit, please sign this certification and return it to the following address:

U.S. Army Corps of Engineers, Philadelphia District  
Wanamaker Building - 100 Penn Square East  
Philadelphia, Pennsylvania 19107-3390  
Attention: CENAP-OP-R

Please note that the permitted activity is subject to a compliance inspection by an U.S. Army Corps of Engineers representative. If you fail to return this notification form or fail to perform work in compliance with the permit, you are subject to administrative, civil and/or criminal penalties. Further, the subject permit may be suspended or revoked.

I hereby certify that the work authorized by the above referenced permit has been completed in accordance with the terms and conditions of the above noted permit.

The authorized work was commenced on \_\_\_\_\_.

The authorized work was completed on \_\_\_\_\_.

Dredging authorized: Yes \_\_\_\_\_ No XX. If yes, see *NOTE* below.

The volume of dredged material was N/A cubic yards.

The dredged material was placed at N/A.

\_\_\_\_\_  
Signature of Contractor

\_\_\_\_\_  
Signature of Permittee

Address: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_  
Telephone Number: \_\_\_\_\_

\_\_\_\_\_  
Telephone Number: \_\_\_\_\_

**SPECIAL NOTE FOR MAINTENANCE DREDGING:**

If the above referenced permit authorizes maintenance dredging, the permittee/contractor shall notify this office of the completion of the work by submitting this form for each dredging occurrence. This form may be reproduced for this purpose.

Bottom Hills Drain

327+00.000

Atlantic Ocean

U.S. Coast Guard Station

Indian River Inlet

291+00.000

E-1

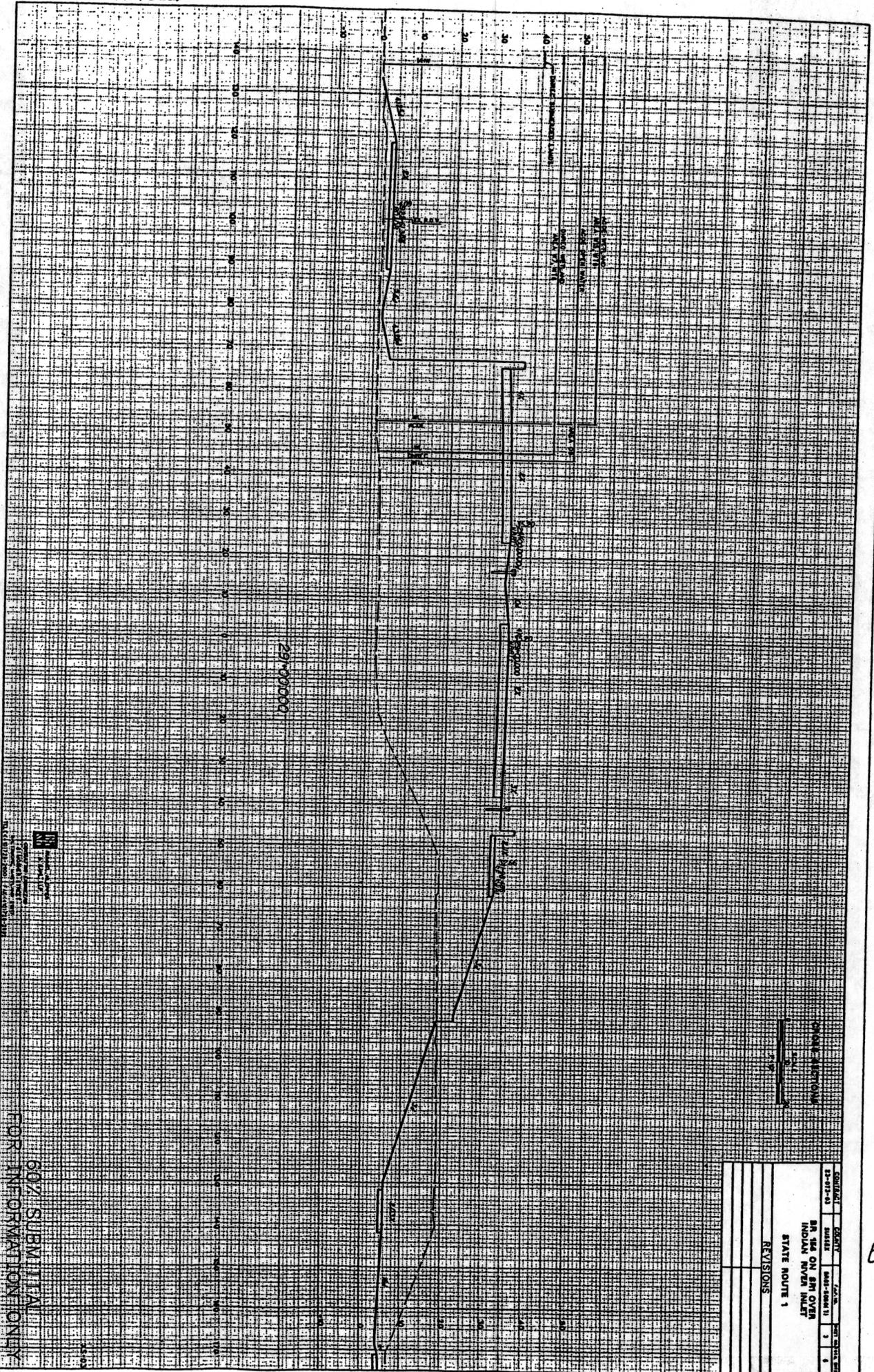


Delaware Department of Transportation

BR 156 On SRI Over Indian River Inlet

Representative Cross Section Locations

March 2004 Scale: 1" = 500' Sheet 1 of 1

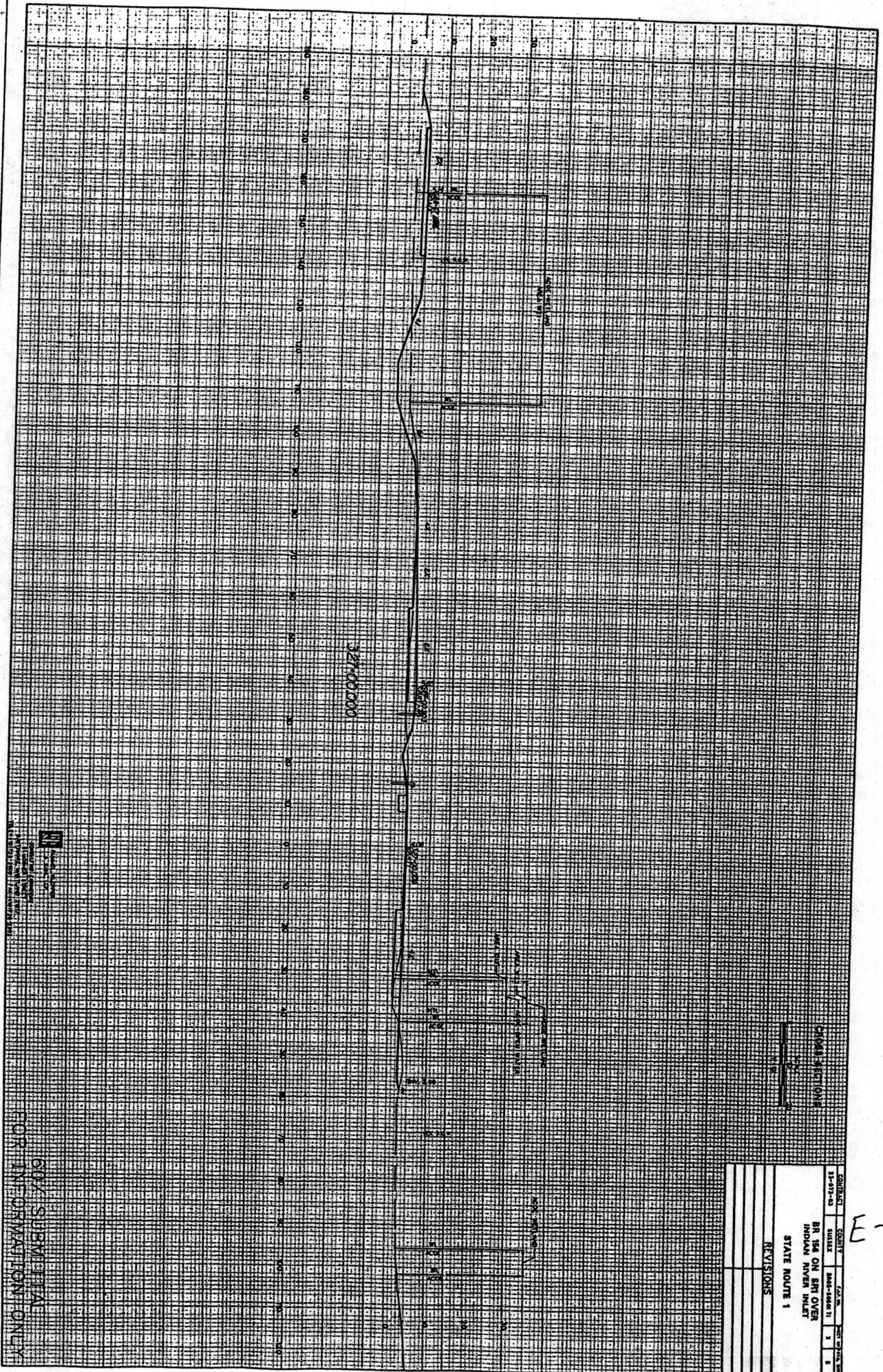


  
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60% SUBMITTAL  
 FOR INFORMATION ONLY

REVISIONS	DATE	BY	DESCRIPTION

E-2



E-3

DATE	23-07-03
PROJECT	BR 184 OVER INDIAN RIVER INLET
SCALE	AS SHOWN
NO. OF SHEETS	3
TOTAL SHEETS	3

NO.	DATE	DESCRIPTION











DATE: 11-27-87  
 DRAWN BY: [illegible]  
 CHECKED BY: [illegible]

MATCH LINE STA. 300+00 SEE SHEET NO. 5

UNIT 80 STAFFS OF AMERICA  
 P.O. BOX 311-106

UNIT 80 STAFFS OF AMERICA  
 P.O. BOX 311-106

NEW EXHIBITION

DESIGN BY: [illegible]  
 A.L.T. 11-27-87

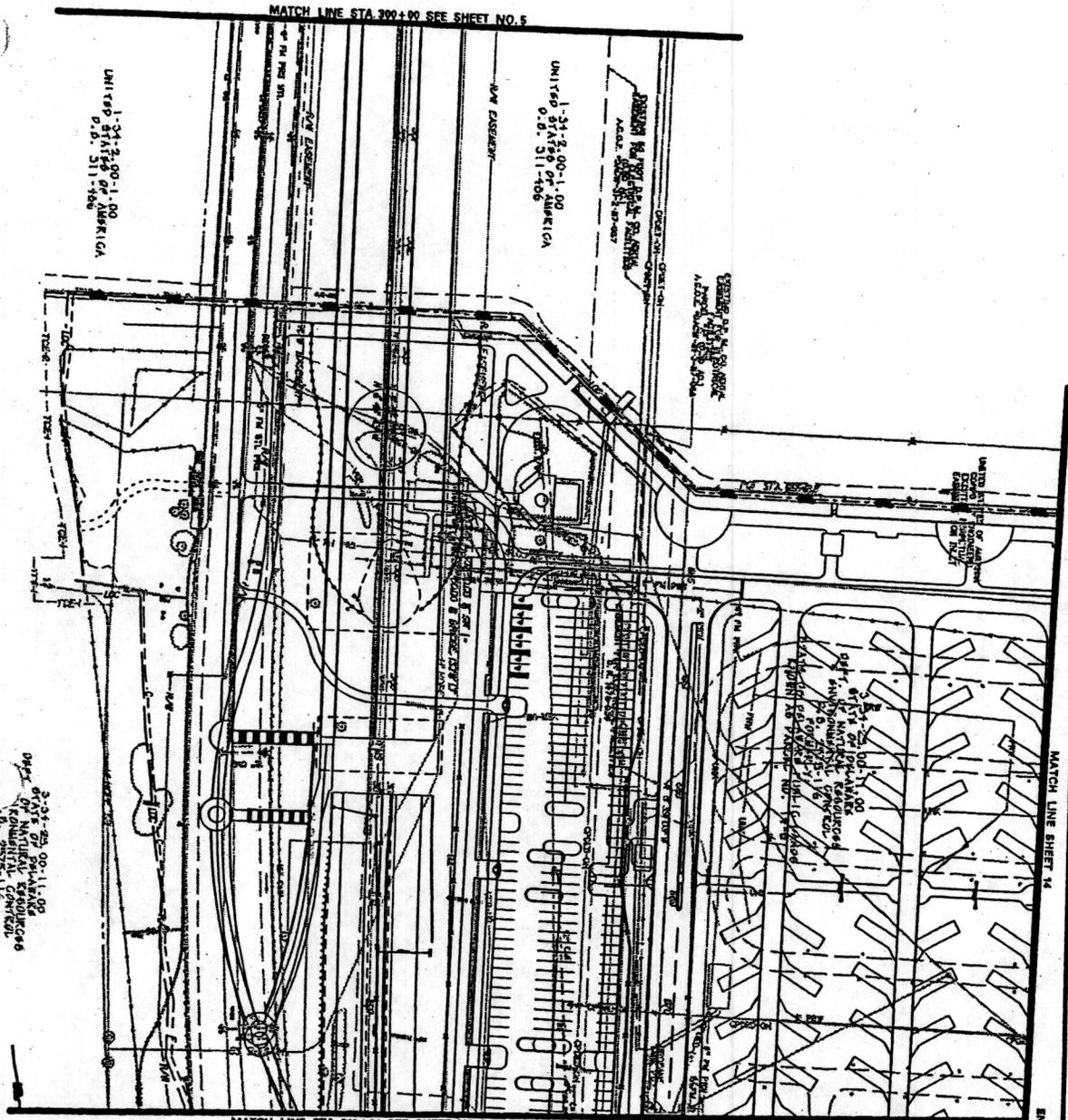
DESIGN BY: [illegible]  
 A.L.T. 11-27-87

UNIT 80 STAFFS OF AMERICA  
 P.O. BOX 311-106

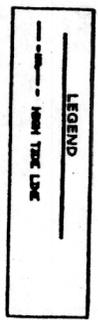
MATCH LINE SHEET 14

MATCH LINE STA. 310+00 SEE SHEET NO. 7

3-23-89 00-11-00  
 OFFICE OF NATURAL RESOURCES  
 DISTRICT CONTROL  
 FORECASTER  
 DIVISION OF PUBLIC LANDS  
 FEDERAL ROAD NO. 15-5



ACOE PERMIT IMPACTS &  
 ENVIRONMENTAL COMPLIANCE PLAN



NOTE: NO IMPACTS THIS SHEET

ENVIRONMENTAL COMPLIANCE NOTES  
 SEE FIRST ENVIRONMENTAL COMPLIANCE SHEET

NO.	DATE	BY	REVISIONS
1			SR 158 ON SR 1 OVER INDIAN RIVER INLET
2			
3			
4			
5			

SHEET PREPARED BY: [illegible]  
 DRAWN BY: [illegible]  
 CHECKED BY: [illegible]  
 DATE: 11-27-87

E-9

**ENVIRONMENTAL COMPLIANCE NOTES**  
 RE FIRST ENVIRONMENTAL COMPLIANCE SHEET

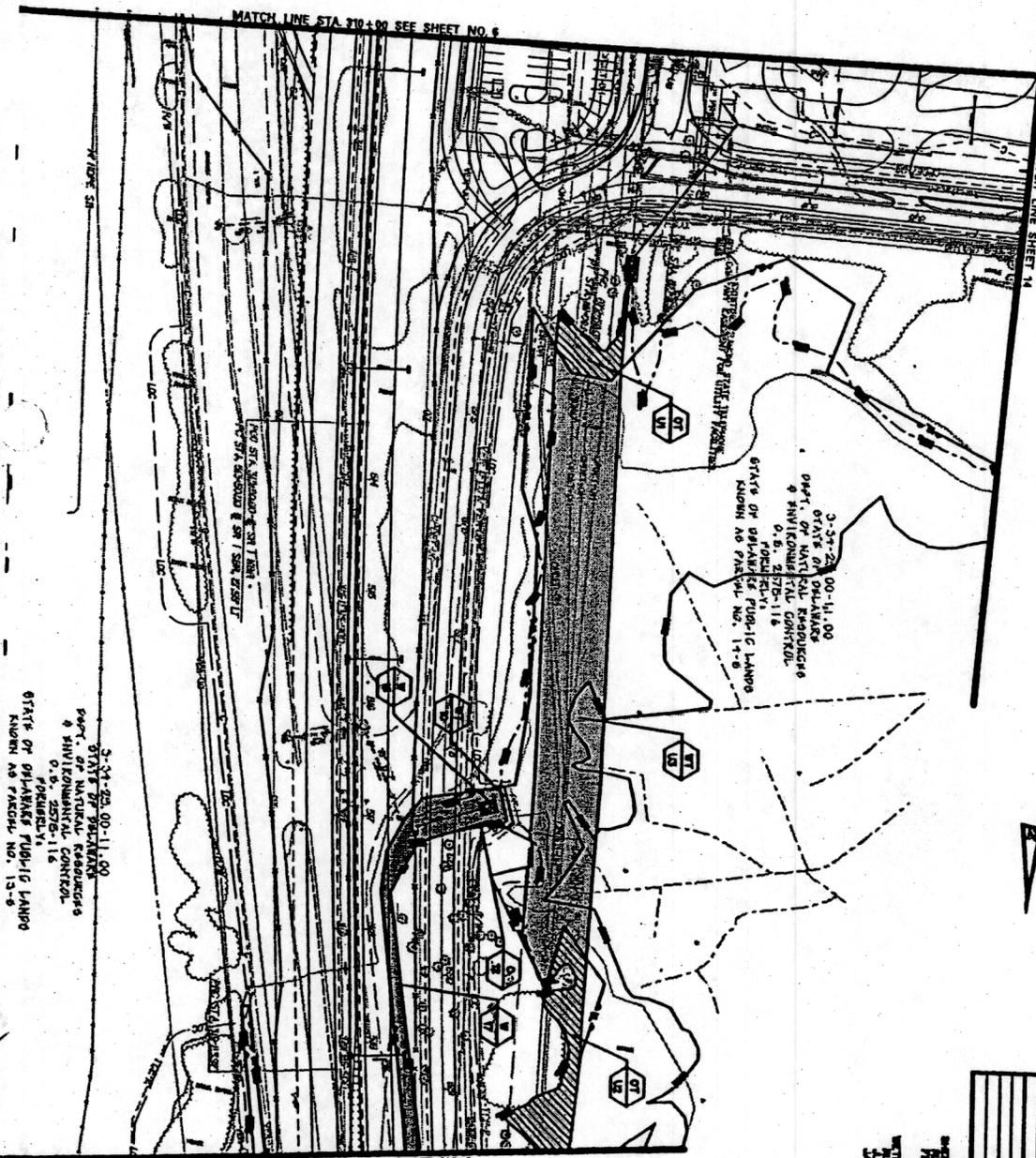
TABLE OF IMPACT AREAS			
LOCATION	AREA (SQUARE FEET)	AREA (ACRES)	VOLUME (CUBIC YARDS)
IMPACT AREA W/16	140	0.0041	N/A
IMPACT AREA W/17	844	0.1932	N/A
IMPACT AREA W/18	4,113	0.0939	13.8
TOTAL	5,097	0.2912	13.8
IMPACT AREA W/10	324	0.0074	N/A
TOTAL	5,421	0.1246	N/A

UTILITY RELOCATION			
LOCATION	AREA (SQUARE FEET)	AREA (ACRES)	VOLUME (CUBIC YARDS)
TOTAL	N/A	N/A	N/A
IMPACT AREA W/10	324	0.0074	N/A
IMPACT AREA W/11	238	0.0054	N/A
IMPACT AREA W/12	438	0.0100	N/A
TOTAL	1,000	0.0228	0

**LEGEND**

- IMPACT AREA W/10
- IMPACT AREA W/11
- IMPACT AREA W/12
- IMPACT AREA W/13
- IMPACT AREA W/14
- IMPACT AREA W/15
- IMPACT AREA W/16
- IMPACT AREA W/17
- IMPACT AREA W/18
- IMPACT AREA W/19
- IMPACT AREA W/20
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- IMPACT AREA W/96
- IMPACT AREA W/97
- IMPACT AREA W/98
- IMPACT AREA W/99
- IMPACT AREA W/100



ACOE PERMIT IMPACTS & ENVIRONMENTAL COMPLIANCE PLAN

NO.	REVISIONS
1	ISSUED FOR PERMITTING
2	REVISED TO REFLECT COMMENTS FROM STATE OF INDIANA
3	REVISED TO REFLECT COMMENTS FROM STATE OF INDIANA
4	REVISED TO REFLECT COMMENTS FROM STATE OF INDIANA
5	REVISED TO REFLECT COMMENTS FROM STATE OF INDIANA
6	REVISED TO REFLECT COMMENTS FROM STATE OF INDIANA
7	REVISED TO REFLECT COMMENTS FROM STATE OF INDIANA
8	REVISED TO REFLECT COMMENTS FROM STATE OF INDIANA
9	REVISED TO REFLECT COMMENTS FROM STATE OF INDIANA
10	REVISED TO REFLECT COMMENTS FROM STATE OF INDIANA

E-10

STATE OF INDIANA  
 DEPARTMENT OF NATURAL RESOURCES  
 DIVISION OF ENVIRONMENTAL CONTROL  
 FORESTLAND  
 STATE OF INDIANA'S PUBLIC LANDS  
 KNOW AS FRACPL NO. 13-6

STATE OF INDIANA  
 DEPARTMENT OF NATURAL RESOURCES  
 DIVISION OF ENVIRONMENTAL CONTROL  
 FORESTLAND  
 STATE OF INDIANA'S PUBLIC LANDS  
 KNOW AS FRACPL NO. 13-6

STATE OF INDIANA  
 DEPARTMENT OF NATURAL RESOURCES  
 DIVISION OF ENVIRONMENTAL CONTROL  
 FORESTLAND  
 STATE OF INDIANA'S PUBLIC LANDS  
 KNOW AS FRACPL NO. 13-6

MATCH LINE STA 320+00 SEE SHEET NO. 8

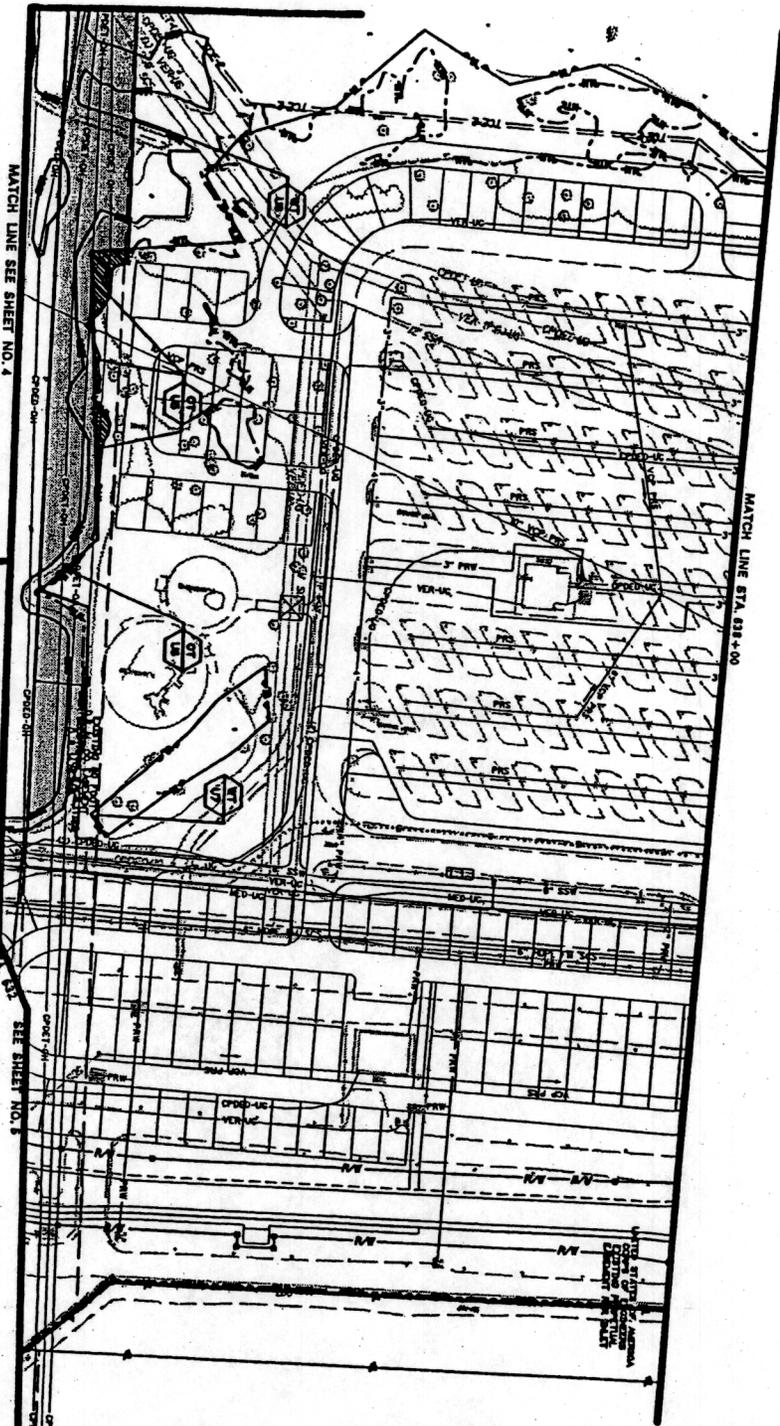
MATCH LINE STA 210+00 SEE SHEET NO. 6











ACOE PERMIT IMPACTS & ENVIRONMENTAL COMPLIANCE PLAN

PROJECT: BR 168 ON SR 1 OVER INDIAN RIVER INLET

DATE: 10/15/2010

SCALE: AS SHOWN

E-15

NO.	DESCRIPTION	AREA (ACRES)	VOLUME (CU YARDS)
1	TEMPORARY IMPACT	0.000	0
2	WETLAND IMPACT	0.000	0
3	OPEN WATER IMPACT	0.000	0
4	UTILITY RELOCATION	0.000	0
TOTAL		0.000	0

**LEGEND**

- TEMPORARY WETLAND
- PERMANENT WETLAND
- TEMPORARY OPEN WATER
- PERMANENT OPEN WATER
- WETLAND BOUNDARY
- WATER BOUNDARY
- TOTAL WETLAND BOUNDARY
- ROAD CENTER LINE
- ROAD RIGHT OF WAY
- ROAD LEFT OF WAY
- UTILITY RELOCATION

1- TEMPORARY IMPACT  
2- WETLAND IMPACT  
3- OPEN WATER IMPACT  
4- UTILITY RELOCATION

**UTILITY RELOCATION**

LOCATION	AREA (SQUARE FEET)	AREA (ACRES)	VOLUME (CUBIC YARDS)
TOTAL	0	0.000	0
1- TEMPORARY IMPACT	0	0.000	0
2- WETLAND IMPACT	0	0.000	0
3- OPEN WATER IMPACT	0	0.000	0
4- UTILITY RELOCATION	0	0.000	0
TOTAL	0	0.000	0

ENVIRONMENTAL CODE & NOTES

SEE FIRST ENVIRONMENTAL COMPLIANCE SHEET







E-18

*Quillen*

*Pond*

Wetland Creation  
Area: 3.1 Acres

Wetland Enhancement  
Area: 2.5 Acres

1

E-19



DELAWARE DEPARTMENT  
OF TRANSPORTATION

FRESH PONDS NORTH  
MITIGATION SITE

INDIAN RIVER INLET  
BRIDGE PROJECT

RK & K  
RUMMEL, KLEPPER  
& KAHL, LLP  
Consulting Engineers



1" = 300 FEET

APRIL  
2004



DELAWARE DEPARTMENT OF TRANSPORTATION

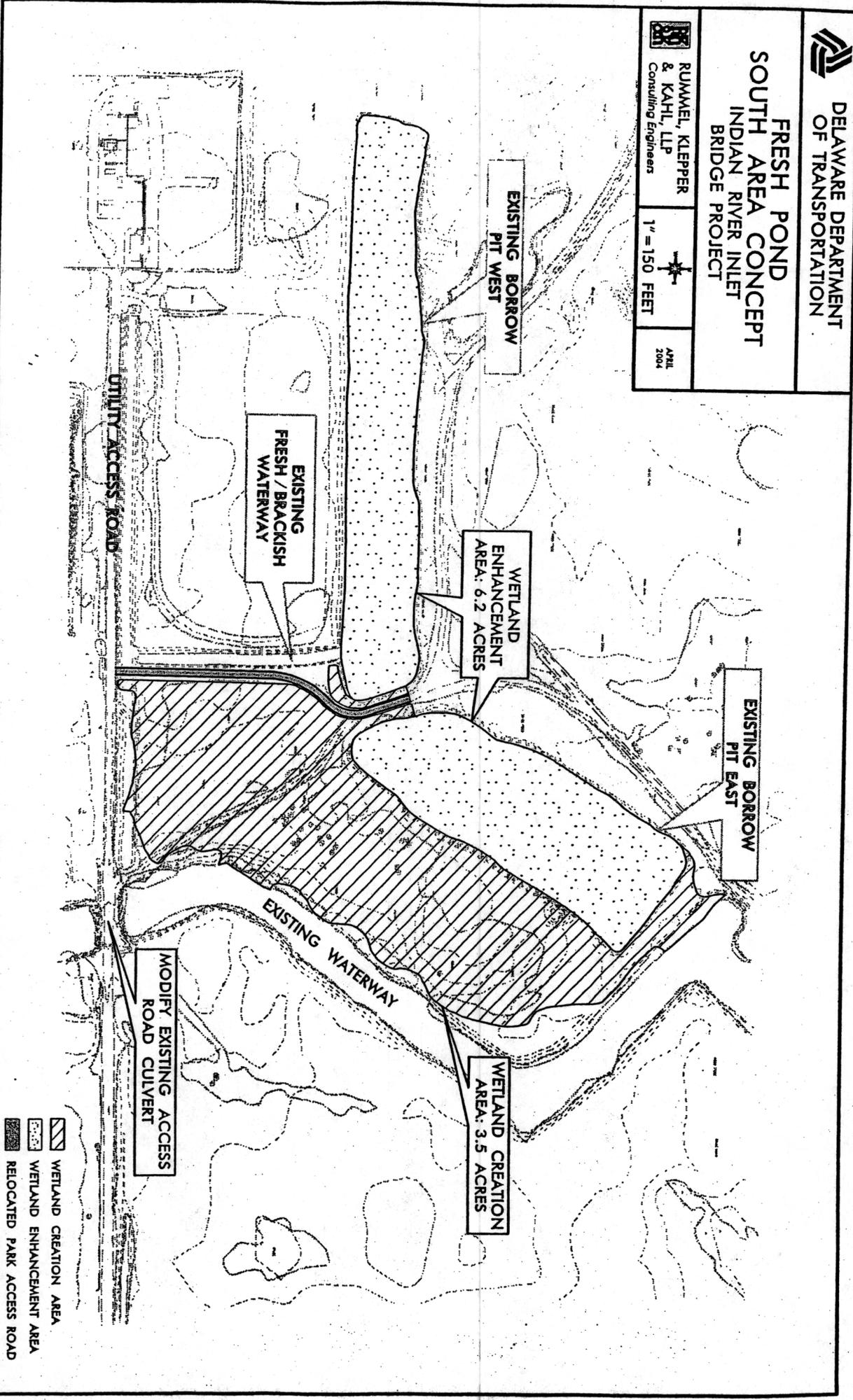
FRESH POND SOUTH AREA CONCEPT INDIAN RIVER INLET BRIDGE PROJECT

RUMMEL, KLEPPER & KAHL, LLP Consulting Engineers

1" = 150 FEET



APRIL 2004



-  WETLAND CREATION AREA
-  WETLAND ENHANCEMENT AREA
-  RELOCATED PARK ACCESS ROAD

E-20

103-013

J. Ford

D. O'Shea

VH/FILE

J.R

NRB

RLS

ELR



STATE OF DELAWARE  
DEPARTMENT OF NATURAL RESOURCES & ENVIRONMENTAL CONTROL  
DIVISION OF SOIL AND WATER CONSERVATION

89 KINGS HIGHWAY  
DOVER, DELAWARE 19901



DELAWARE COASTAL  
MANAGEMENT PROGRAM

TELEPHONE: (302) 739 - 3451

FAX: (302) 739 - 2048

July 12, 2004

Mr. Thomas Heil  
Rummel, Klepper & Kahl, LLP  
1206 Forrest Ave.  
Dover, DE 19904

**Re: Delaware Coastal Zone Management Federal Consistency Certification  
Replacement of the Indian River Inlet Bridge (FC # 04.027)**

Dear Mr. Heil:

The Delaware Coastal Management Program (DCMP) has received and reviewed your consistency determination for the above referenced project. Based upon our review and pursuant to National Oceanic & Atmospheric Administration regulations (15 CFR 930), the DCMP concurs with your consistency determination for the replacement of SR 1 Bridge 56 over the Indian River Inlet in Sussex County Delaware as described in the Final Environmental Assessment dated May 10, 2004.

This concurrence is based upon the following conditions:

1. Final construction plans and a detailed monitoring plan for the Fresh Ponds North and Fresh Ponds South restoration projects must be submitted to this office when available. Monitoring reports must be submitted as they become available.
2. It is our understanding that approximately 6.0 acres of former roadbed north of the bridge will be restored into a dune system, but that site plans are still conceptual in nature. Final plans must be submitted to this office when available. The DCMP encourages you to continue to coordinate project planning with the Division of Soil and Water Conservation Shoreline and Waterway Management Section and the Division of Fish and Wildlife Natural Heritage Program.
3. Final restoration and monitoring plans must be submitted for the selected terrapin nesting habitat enhancement at Haven Road. The DCMP encourages you to continue to coordinate this restoration effort with the Division of Parks and Recreation and with the Division of Fish and Wildlife Natural Heritage Program.

Sarah W. Cooksey  
July 13, 2004  
Page 2 of 2

4. A valid permit for this project must be received from the DNREC Division of Water Resources, Wetlands and Subaqueous Lands Section. The applicant must also adhere to any restrictions and/or conditions placed upon this permit.

If you have any questions regarding this determination please do not hesitate to contact me or Susan Love of my staff at (302) 739-3451.

Sincerely,



Sarah W. Cooksey, Administrator  
Delaware Coastal Management Program

SWC/sel

cc: File 04.027  
Edward Bonner -- USACE  
Joanne Haughey -- W&SL



WETLANDS & SUBAQUEOUS  
LANDS SECTION

STATE OF DELAWARE  
DEPARTMENT OF NATURAL RESOURCES &  
ENVIRONMENTAL CONTROL  
DIVISION OF WATER RESOURCES  
89 KINGS HIGHWAY  
DOVER, DELAWARE 19901

TELEPHONE (302) 739-4691  
FACSIMILE (302) 739-6304

Ms. Therese M. Fulmer  
Delaware Department of Transportation  
800 Bay Road  
P.O. Box 778  
Dover, Delaware

Subaqueous Lands Permit: SP-020/04  
Associated Permits:  
Wetlands Permit: WE-020/04  
Water Quality Certification: WQ-021/04  
Date of Issuance: 9/8/2004  
Construction Expiration Date: 9/8/2007  
Amended Date:  
Tax Parcel Nos.: 1-34-5.00-3.00; 1-34-2.00-1.00;  
3-34-25.00-4.01; 3-34-25.00-11.00; and 1-34-5.00-2.00

**SUBAQUEOUS LANDS PERMIT  
GRANTED TO THE DELAWARE DEPARTMENT OF TRANSPORTATION  
TO PERFORM THE FOLLOWING ACTIVITIES IN SUBAQUEOUS LANDS  
IN AND ADJACENT TO THE INDIAN RIVER INLET AND THE INDIAN RIVER BAY,  
AT THE DELAWARE SEASHORE STATE PARK, ADJACENT TO STATE ROUTE 1,  
SOUTH OF DEWEY BEACH, SUSSEX COUNTY, DELAWARE:**

- The construction of Bridge 156 over the Indian River Inlet with a 1000-foot main span and 150-foot back spans and the demolition and removal of the existing bridge and piers from over and in the inlet;
- The construction of the realigned State Route 1, access roads, stormwater management ponds and culvert extensions. Permanent impacts include placing fill material in 3,527 square feet of subaqueous lands;
- The relocation of overhead electric utilities, the removal of 8 poles and the overhead lines, and the installation of new terminal pole(s). Impacts include the temporary impact of 233 square feet of subaqueous lands;
- The construction of a total of 7 outfall structures, 4 associated with roadway crossings and 3 associated with stormwater management ponds. Permanent impacts include the placing of 360 square feet of stone rip-rap in subaqueous lands;
- The installation of erosion and sediment control measures. Temporary impacts include the disturbance of 211 square feet of subaqueous lands.

**THE DELAWARE DEPARTMENT OF TRANSPORTATION  
IS ALSO AUTHORIZED TO PERFORM THE FOLLOWING ACTIVITIES  
AT THE FRESH PONDS STATE PARK,  
LOCATED TO THE NORTH OF ROAD 360,  
NEAR BETHANY BEACH, SUSSEX COUNTY, DELAWARE:**

- The installation of a 47 linear foot 4-cell box culvert, with a maximum height of 9.33 feet and a width of 28 feet, and wing walls in the tidal ditch to include the excavation of a total of 34,217 cubic feet of existing roadway fill and the placement of 5,995 cubic feet of fill material below mean low water.

*Delaware's good nature depends on you!*

- The creation of brackish marsh by filling and grading in the 2.8 acre Fresh Pond South Borrow Pit West.
- The creation of salt marsh and waters by filling and grading the 2.7 acre at the Fresh Pond South Borrow Pit East and connection of this borrow pit to the tidal ditch.

Pursuant to the provisions of 7 Del. C. 7203, and the Department's Regulations Governing the Use of Subaqueous Lands, permission is hereby granted on this 8th day of September, A.D. 2004 to construct the above referenced project in accordance with the approved plans (31 Sheets) as approved on August 20, 2004; and the application dated January 22, 2004 and received by this Division on January 27, 2004 and revised application received March 15, 2004, with additional information received various dates, and additional plans received July 22, 2004 and August 12, 2004.

WHEREAS, pursuant to the provisions of 7 Del. C. 7203, the Secretary of the Department of Natural Resources and Environmental Control through his duly authorized representatives finds that it is not contrary to the public interest if this project is approved subject to the terms and conditions herein set forth.

This Permit is issued subject to the following conditions:

#### **SPECIAL CONDITIONS**

1. The conditions contained herein shall be included as part of the main body of the construction contract and other ancillary documents associated with earth disturbance and any other activities directly or indirectly associated with construction which may impact wetlands or subaqueous lands associated with this project. The permittee and contractor are responsible to ensure that the workers executing the activities authorized by this Permit have full knowledge of, and abide by, the terms and conditions of this Permit.
2. Construction shall be undertaken so as not to violate the State of Delaware Department of Natural Resources and Environmental Control "Surface Water Quality Standards," as amended August 11, 1999.
3. There shall be no movement of equipment within regulated wetlands or subaqueous lands not specifically authorized by this Permit. The disturbance of wetlands and subaqueous lands authorized by this Permit shall be limited to the areas identified in the approved plans. Any equipment traversing wetlands and subaqueous lands as may be authorized by this Permit shall be supported on mats.
4. In order to compensate for habitat impacts to diamondback terrapin, the permittee shall undertake the following habitat improvements:
  - The creation of habitat on the west side of Route 1 near Haven Road, using clean sand, in sections of the existing beach access roadway and parking lot. The mitigation shall be constructed in accordance with the approved plan, titled "Br 156 on SR 1 over Indian River Inlet, Terrapin Mitigation Plan," dated August 11, 2004 and received by the WSLs

on August 12, 2004. This construction shall not be undertaken during the terrapin nesting season from April 1 through September 15 in any given year.

- The installation of terrapin protection fencing throughout the entire Limit of Construction on the west side of State Route 1 and portions of the east side of State Route 1. The location, installation, type and design of the permanent fencing shall be agreed upon by the permittee and representatives of DNREC's Natural Heritage Program and Parks and Recreation Division. Permanent terrapin fencing will be installed near the completion of the project by the permittee. Permanent fencing shall be supplied by the DNREC. The location, installation, type and design of the fencing shall be agreed upon by the permittee and representatives of DNREC's Natural Heritage Program and Parks and Recreation Division.
  - The construction of three elliptical culverts with sufficient size to allow for possible terrapin passage to dune nesting habitat at three stations beneath the highway. The elliptical culverts shall be constructed in accordance with the approved plans titled "DNREC Diamondback Terrapin Passages, Indian River Inlet Bridge" (1 Sheet), dated and received August 12, 2004, and the revised "Br 156 on SR 1 over Indian River Inlet, Construction Plan Roadway, NB SR1 Sta. 320+00 to Sta. 340+00," (2 Sheets), dated August 10, 2004 received by the WSLs on August 12, 2004.
5. All plantings in the stormwater management ponds, beaches, dunes, and wetland areas shall be native plant species appropriate to site conditions and in accordance with the revised plant species list, received by the WSLs on July 28, 2004.
  6. In order to avoid impact of several State-rare bird species' habitats, plantings shall be restricted in dune overwash areas and dune blowout areas on the northern side of the Indian River Inlet Bridge. Plantings shall not extend more than 10 feet east of the cut line in these locations. Prior to planting in the overwash areas, DelDOT shall stake out the limit of the proposed planting for review by DNREC. Additionally, prior to any work in potential piping plover habitats (overwash areas) DelDOT shall contact the Delaware Natural Heritage Program for the latest survey of piping plovers. Planting plans shall be submitted to the Delaware Natural Heritage Program and WSLs for review and approval.
  7. Dune restoration activities shall include the removal of the invasive species, Japanese black pines (*Pinus thunbergiana*). The removal of Japanese black pines shall not occur during the nesting season of the brown-headed nuthatch (*Sitta pusilla*), a State-rare bird species. The nesting season for the brown-headed nuthatch is April 15 through June 30.
  8. Lighting for the bridge has been designed to minimize bird mortality, as indicated in Appendix C of the "Indian River Inlet Bridge, Final Environmental Assessment and Nationwide Section 4(f) Evaluation," dated May 10, 2004. Minimization features include lighting cable stays with blue lensed lights at night, utilizing navigation beacons with a lower FPM at night, and low level, recessed white lighting for the pedestrian path. If any changes are made to these proposed lighting features, the changes must be submitted to the Delaware Natural Heritage Program and the WSLs for review and approval.

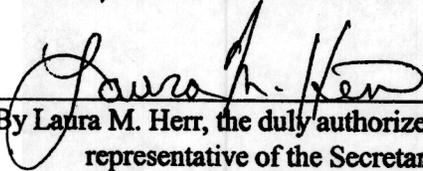
10. During removal of the existing structures, the permittee shall contain all materials, including debris, to prevent its entry into subaqueous lands or wetlands.
11. All removal activities shall avoid impacts to fisheries. If any blasting or explosives are proposed for use in the water or at the water surface, the permittee shall submit plans describing the removal methodology to the Division of Fish and Wildlife and the WSLs for review and approval.
12. The disposal of the materials from the existing roadway and bridge shall be in compliance with all State and federal regulations. These materials shall not be distributed to individuals with intent to use in wetlands or subaqueous lands. Clean, stable, durable material may be used for the expansion of artificial reefs managed by DNREC.
13. All construction debris, excavated material, brush, rocks and refuse incidental to such work shall be placed above the influence of surface waters and appropriately contained at all times to prevent its entry into surface water or wetlands. All such material shall be reused, removed or properly disposed.
14. Disturbance of wetlands and/or aquatic vegetation adjacent to the permitted construction by burning, cutting, herbicide treatments, heavy equipment or other methods is prohibited.
15. All fill material associated with the proposed project and included in the above-referenced plans shall be clean and free from oils, grease, asphalt and other contaminants.
16. There shall be no stockpiling of construction material in regulated wetlands or subaqueous lands.
17. Erosion and sediment control measures shall be implemented in accordance with the specification and criteria in the Delaware Erosion and Sediment Control Handbook, so as to minimize entry and dispersal of sediment and other contaminants in surface waters.
18. The permittee shall employ measures during construction to prevent spills of fuels or lubricants. In the event of a spill, efforts shall be taken to prevent its entry into wetlands and aquatic areas. Any spills entering wetlands and aquatic areas shall be removed immediately. This office shall be notified of any spill(s) within six hours of occurrence. This office will determine the effectiveness of spill and contamination removal and specify remediation as necessary.
19. The construction in subaqueous lands wetlands is for the authorized for the explicit purpose of the construction of Bridge 156, the realigned State Route 1 and the auxiliary roads and structures as described in the permit application.
20. A copy of this Permit must be available on-site during all phases of construction activity.
21. The work authorized by this Permit is subject to the terms and conditions of the Department of the Army Individual Permit.

### **GENERAL CONDITIONS**

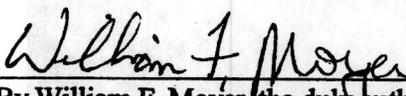
1. The project is to be undertaken in accordance with the plans submitted and attached hereto. Any activities not specifically authorized herein may require a supplemental approval from this office prior to the initiation of construction. A determination on the need for a supplemental approval will be made by this office pursuant to the permittee submitting written notification and revised plans indicating project changes to this office.
2. Representatives of the Department of Natural Resources and Environmental Control may inspect such work during any phase of the construction and may collect any samples or conduct any tests that are deemed necessary.
3. This Permit does not cover the structural stability of the project units.
4. Any actions, operations or installations which are considered by the Department to be contrary to the best interests of the public shall constitute reason for the discontinuance and/or removal of said action, operation or installation.
5. The issuance of this Permit does not imply approval of any other part, phase, or portion of any overall project the permittee may be contemplating.
6. This Permit is subject to the terms and conditions contained in any easement, license or lease that may have been granted by the State or any political subdivision, board, commission or agency of the State in the vicinity of the project.
7. This Permit is granted for the purposes as stated herein. Any other use without prior approval shall constitute reason for this Permit being revoked.
8. This Permit shall expire if the project has not been completed within five (5) years from the date of issuance.
9. If the permittee considers five (5) years insufficient for completion of the project, the permittee may submit a project time schedule for consideration by the Department. If the time schedule is approved it shall be attached hereto and made a part hereof.
10. The permittee shall notify the Department of Natural Resources and Environmental Control within ten (10) days of the date work will be commenced.
11. This Permit is personal and may not be transferred without the prior written consent of the Department. Prior to the transfer of the adjacent upland property, the permittee shall obtain the written consent of the Department to transfer this Permit to the new upland property owner. Failure to obtain such written consent may result in the revocation of this Permit and the removal of all structures authorized by this Permit at the expense of the permittee.

12. The permittee shall at all times comply with all applicable laws and regulations of the Department of Natural Resources and Environmental Control.
13. The issuance of this Permit does not constitute approval for any of the activities as may be required by any other local, State or federal governmental agency.
14. This Permit may be revoked upon violation of any of the above conditions.

IN WITNESS WHEREOF, I, Laura M. Herr, the duly authorized representative of John A. Hughes, Secretary, Department of Natural Resources and Environmental Control, have hereunto set my hand and seal this 8th day of September, 2004

  
By Laura M. Herr, the duly authorized  
representative of the Secretary of the  
Department of Natural Resources and  
Environmental Control

IN WITNESS WHEREOF, I, William F. Moyer, the duly authorized representative of John A. Hughes, Secretary, Department of Natural Resources and Environmental Control, have hereunto set my hand and seal this 8th day of September, 2004.

  
By William F. Moyer, the duly authorized  
representative of the Secretary of the  
Department of Natural Resources and  
Environmental Control



STATE OF DELAWARE  
DEPARTMENT OF NATURAL RESOURCES &  
ENVIRONMENTAL CONTROL  
DIVISION OF WATER RESOURCES  
89 KINGS HIGHWAY  
DOVER, DELAWARE 19901

WETLANDS & SUBAQUEOUS  
LANDS SECTION

TELEPHONE (302) 739-4691  
FACSIMILE (302) 739-6304

Ms. Therese M. Fulmer  
Delaware Department of Transportation  
800 Bay Road  
P.O. Box 778  
Dover, Delaware

Wetlands Permit: WE-020/04  
Associated Permits:  
Subaqueous Lands Permit: SP-020/04  
Water Quality Certification: WQ-021/04  
Date of Issuance: 9/8/2004  
Construction Expiration Date: 9/8/2007  
Amended Date:  
Tax Parcel Nos.: 1-34-5.00-3.00; 1-34-2.00-1.00;  
3-34-25.00-4.01; 3-34-25.00-11.00; and 1-34-5.00-2.00

**WETLANDS PERMIT**

**GRANTED TO THE DELAWARE DEPARTMENT OF TRANSPORTATION  
TO CONSTRUCT BRIDGE 156 OVER THE INDIAN RIVER INLET  
WITH A 1000-FOOT MAIN SPAN AND 150-FOOT BACK SPANS,  
THE REALIGNED ROUTE 1 AND AUXILIARY ROADS AND STRUCTURES  
IN WETLANDS ADJACENT TO THE INDIAN RIVER INLET AND  
THE INDIAN RIVER BAY AT THE DELAWARE SEASHORE STATE PARK,  
ADJACENT TO STATE ROUTE 1, SOUTH OF DEWEY BEACH,  
SUSSEX COUNTY, DELAWARE.**

**THE FOLLOWING ACTIVITIES AND IMPACTS ARE AUTHORIZED  
IN TIDAL WETLANDS:**

- The construction of the realigned State Route 1, access roads, stormwater management ponds and culvert extensions. Permanent impacts include placing fill material on 117,108 square feet of tidal wetlands;
- The construction of a total of 7 outfall structures, 4 associated with road crossings and 3 associated with stormwater management ponds. Permanent impacts include the placing of 900 square feet of stone rip-rap in tidal wetlands;
- The relocation of overhead electric utilities, removal of 8 poles and overhead lines and installation of new terminal pole(s). Impacts include the permanent fill of 1,596 square feet of wetlands associated with the construction of the new terminal pole(s) and the temporary impact of 154,255 square feet of tidal wetlands associated with removal of the existing poles and overhead lines; and
- The installation of erosion and sediment control measures. Impacts include the temporary impact of 9,050 square feet of tidal wetlands.
- The temporary impact to 2.9 acres of existing tidal wetlands in the Fresh Ponds North wetlands mitigation site. Impacts will include minor grading and planting.

Pursuant to the provisions of 7 Del. C. 6604, and the Department's Wetlands Regulations, permission is hereby granted on this 8th day of September A.D. 2004, to construct the above referenced project in accordance with the approved plans (31 Sheets) as approved on August 20,

*Delaware's good nature depends on you!*

2004; and the application dated January 22, 2004 and received by this Division on January 27, 2004 and revised application received March 15, 2004, with additional information received various dates, and additional plans received July 22, 2004 and August 12, 2004.

WHEREAS, pursuant to the provisions of 7 Del. C. 6604, the Secretary of the Department of Natural Resources and Environmental Control finds that it is not contrary to the public interest if this project is approved subject to the terms and conditions herein set forth.

This Permit is issued subject to the following conditions:

**SPECIAL CONDITIONS**

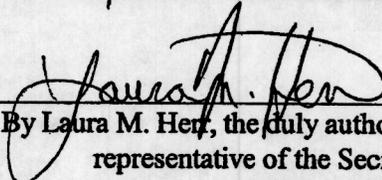
1. The conditions contained herein shall be included as part of the main body of the construction contract and other ancillary documents associated with earth disturbance and any other activities directly or indirectly associated with construction which may impact wetlands or subaqueous lands associated with this project. The permittee and contractor are responsible to ensure that the workers executing the activities authorized by this Permit have full knowledge of, and abide by, the terms and conditions of this Permit.
2. Construction shall be undertaken so as not to violate the State of Delaware Department of Natural Resources and Environmental Control "Surface Water Quality Standards," as amended August 11, 1999.
3. There shall be no movement of equipment within regulated wetlands or subaqueous lands not specifically authorized by this Permit. The disturbance of wetlands and subaqueous lands authorized by this Permit shall be limited to the areas identified in the approved plans. Any equipment traversing wetlands and subaqueous lands as authorized by this Permit shall be supported on mats.
4. Impacts to permanently displaced State jurisdictional tidal wetlands, comprising 119,604 square feet, shall be mitigated by creation of the tidal salt marsh wetlands at Fresh Pond North mitigation site. The mitigation shall be created on a 1:1 ratio. The compensation site shall be constructed in accordance with the approved, undated plans titled "Br 156 on SR 1 over Indian River Inlet," Sheets 875 through 880, received by the Wetlands and Subaqueous Lands Section (WLS) on July 22, 2004. A scaled drawing showing the area and type of wetlands created shall be submitted the WLS after construction of the mitigation site. Monitoring of the wetlands shall be completed in accordance with Special Condition 7.
5. Wetland areas temporarily impacted pursuant to this authorization shall be returned to pre-disturbance elevation and conditions including vegetative cover. Initial vegetative restoration may be undertaken by seeding. Monitoring shall be required as stated in Special Condition 7.
6. Voids left from the removal of the concrete foundations of the utility poles shall be filled using clean materials with soil textures similar to surrounding soils and suitable for restoration of the affected resource. Soils shall be graded to elevations that support native wetland vegetation appropriate to the site. Initial plant restoration efforts may be undertaken by seeding. Monitoring shall be required as stated in Special Condition 7.

7. **All wetland compensation and restoration sites shall be monitored for a period of at least three years. Status reports of the compensation and restoration sites shall be submitted annually to this Department for a period of three years, with the initial report submitted within sixty (60) days following the first growing season. In order for the compensation to be considered successful, an 85% permanent vegetative stand of suitable, native wetland vegetation shall be established. If the expected densities and suitable plant materials are not established within the compensation area, corrective activities may be required including, but not limited to, replanting, regrading or removal of undesirable vegetation and additional monitoring may be mandatory. Additionally, the applicant shall submit a scaled drawing showing the type and extent of wetlands created and enhanced at the Fresh Ponds North mitigation site.**
8. **In order to compensate for habitat impacts to diamondback terrapin, the permittee shall undertake the following habitat improvements:**
  - **The creation of habitat on the west side of Route 1 near Haven Road, using clean sand, in sections of the existing beach access roadway and parking lot. The mitigation shall be constructed in accordance with the approved plan, titled "Br 156 on SR 1 over Indian River Inlet, Terrapin Mitigation Plan," dated August 11, 2004, and received by the WSLs on August 12, 2004. This construction shall not be undertaken during the terrapin nesting season from April 1 through September 15 in any given year.**
  - **The installation of terrapin protection fencing throughout the entire Limit of Construction on the west side of State Route 1 and portions of the east side of State Route 1. The location, installation, type and design of the fencing shall be agreed upon by the permittee and representatives of DNREC's Natural Heritage Program and Parks and Recreation Division. Permanent terrapin fencing shall be installed near the completion of the project by the permittee. Permanent fencing will be supplied by the DNREC. The location, type and design of the fencing shall be agreed upon by the permittee and representatives of DNREC's Natural Heritage Program and Parks and Recreation Division prior to installation.**
  - **The construction of three elliptical culverts with sufficient size to allow for possible terrapin passage to dune nesting habitat at three stations beneath the highway. The elliptical culverts shall be constructed in accordance with the approved plans titled "DNREC Diamondback Terrapin Passages, Indian River Inlet Bridge" (1 Sheet) and the revised "Br 156 on SR 1 over Indian River Inlet, Construction Plan Roadway, NB SR1 Sta. 320+00 to Sta. 340+00," (2 Sheets) received by the WSLs on August 12, 2004.**
9. **All plantings in the stormwater management ponds, beaches, dunes, and wetland areas shall be with native plant species appropriate to site conditions and in accordance with the revised plant species list, received by the WSLs on July 28, 2004.**
10. **In order to avoid impact of several State-rare bird species' habitats, plantings shall be restricted in dune overwash areas and dune blowout areas on the northern side of the Indian River Inlet Bridge. Plantings shall not extend more than 10 feet east of the cut line in these locations. Prior to planting in the overwash areas, DelDOT shall stake out the limit of the proposed planting for review by DNREC. Additionally, prior to any work in potential piping plover habitats (overwash areas) DelDOT shall contact the Delaware Natural Heritage Program for the latest survey for piping**

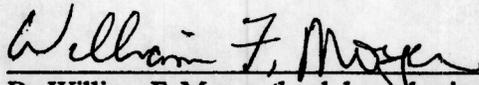
- plovers. Planting plans shall be submitted to the Delaware Natural Heritage Program and WSLS for review and approval.
11. Dune restoration activities shall include the removal of the invasive species, Japanese black pines (*Pinus thunbergiana*). The removal of Japanese black pines shall not occur during the nesting season of the brown-headed nuthatch (*Sitta pusilla*), a State-rare bird species. The nesting season for the brown-headed nuthatch is April 15 through June 30.
  12. Lighting for the bridge has been designed to minimize bird mortality, as indicated in Appendix C of the "Indian River Inlet Bridge, Final Environmental Assessment and Nationwide Section 4(f) Evaluation," dated May 10, 2004. Minimization features include lighting cable stays with blue lensed lights at night, utilizing navigation beacons with a lower FPM at night, and low level, recessed white lighting for the pedestrian path. If any changes are made to these proposed lighting features, the changes must be submitted to the Delaware Natural Heritage Program and the WSLS for review and approval.
  13. During removal of the existing structures, the permittee shall contain all material, including debris, to prevent its entry into subaqueous lands or wetlands.
  14. The disposal of the materials from the existing roadway and bridge shall be in compliance with all State and federal regulations. These materials shall not be distributed to individuals with intent to use in wetlands or subaqueous lands. Clean, stable, durable material may be used for the expansion of artificial reefs managed by DNREC.
  15. Disturbance of wetlands and/or aquatic vegetation adjacent to the permitted construction by burning, cutting, herbicide treatments, heavy equipment or other methods is prohibited.
  16. All construction debris, excavated material, brush, rocks and refuse incidental to such work shall be placed above the influence of surface waters and appropriately contained at all times to prevent its entry into surface water or wetlands. All such material shall be reused, removed or properly disposed.
  17. All fill material associated with the proposed project and included in the above-referenced plans shall be clean and free from oils, grease, asphalt and other contaminants.
  18. There shall be no stockpiling of construction material in regulated wetlands or subaqueous lands.
  19. Erosion and sediment control measures shall be implemented in accordance with the specification and criteria in the Delaware Erosion and Sediment Control Handbook, so as to minimize entry and dispersal of sediment and other contaminants in surface waters.
  20. The permittee shall employ measures during construction to prevent spills of fuels or lubricants. In the event of a spill, efforts shall be taken to prevent its entry into wetlands and aquatic areas. Any spills entering wetlands and aquatic areas shall be removed immediately. This office shall be notified of any spill(s) within six hours of occurrence. This office will determine the effectiveness of spill and contamination removal and specify remediation as necessary.

10. The permittee shall notify the Department of Natural Resources and Environmental Control within ten (10) days of the date work will be commenced.
11. This Permit is personal and may not be transferred without the prior written consent of the Department. Prior to the transfer of the adjacent upland property, the permittee shall obtain the written consent of the Department to transfer this Permit to the new upland property owner. Failure to obtain such written consent may result in the revocation of this Permit and the removal of all structures authorized by this Permit at the expense of the permittee.
12. The permittee shall at all times comply with all applicable laws and regulations of the Department of Natural Resources and Environmental Control.
13. The issuance of this Permit does not constitute approval for any of the activities as may be required by any other local, State or federal governmental agency.
14. This Permit may be revoked upon violation of any of the above conditions.

IN WITNESS WHEREOF, I, Laura M. Herr, the duly authorized representative of John A. Hughes, Secretary, Department of Natural Resources and Environmental Control, have hereunto set my hand and seal this 8th day of September, 2004

  
By Laura M. Herr, the duly authorized  
representative of the Secretary of the  
Department of Natural Resources and  
Environmental Control

IN WITNESS WHEREOF, I, William F. Moyer, the duly authorized representative of John A. Hughes, Secretary, Department of Natural Resources and Environmental Control, have hereunto set my hand and seal this 8th day of September, 2004.

  
By William F. Moyer, the duly authorized  
representative of the Secretary of the  
Department of Natural Resources and  
Environmental Control



STATE OF DELAWARE  
DEPARTMENT OF NATURAL RESOURCES &  
ENVIRONMENTAL CONTROL  
DIVISION OF WATER RESOURCES  
89 KINGS HIGHWAY  
DOVER, DELAWARE 19901

WETLANDS & SUBAQUEOUS  
LANDS SECTION

TELEPHONE (302) 739-4691  
FACSIMILE (302) 739-6304

Ms. Therese M. Fulmer  
Delaware Department of Transportation  
800 Bay Road  
P.O. Box 778  
Dover, Delaware

Water Quality Certification No.: WQ-021/04  
Associated Permits: WE-020/04 and SP-020/04  
Date of Issuance: 9/8/2004  
Construction Expiration Date: 9/8/2007  
Amended Date:  
Tax Parcel Nos.: 1-34-5.00-3.00; 1-34-2.00-1.00;  
3-34-25.00-4.01; 3-34-25.00-11.00; and 1-34-5.00-  
2.00

**WATER QUALITY CERTIFICATION  
GRANTED TO THE DELAWARE DEPARTMENT OF TRANSPORTATION  
TO PERFORM THE FOLLOWING ACTIVITIES DURING THE CONSTRUCTION OF  
BRIDGE 156 OVER THE INDIAN RIVER INLET, THE REALIGNED ROUTE 1 AND  
AUXILIARY ROADS AND STRUCTURES IN WETLANDS AND WATERS OF THE U.S. IN  
AND ADJACENT TO THE INDIAN RIVER INLET AND THE INDIAN RIVER BAY, AT  
THE DELAWARE SEASHORE STATE PARK, ADJACENT TO STATE ROUTE 1, SOUTH  
OF DEWEY BEACH, SUSSEX COUNTY, DELAWARE:**

- The construction of the realigned State Route 1, access roads, stormwater management ponds, drainage and culvert extensions. Permanent impacts include placing fill material and rip-rap in 155,303 square feet of wetlands and 21,853 square feet of waters of the U.S.;
- The relocation of overhead electric utilities, removal of 8 poles and the overhead lines, and the installation of new terminal pole(s). Impacts include the temporary disturbance of 144,022 square feet of wetlands and 11,220 square feet of waters of the U.S.
- The installation of erosion and sediment control measures. Temporary impacts include the disturbance of 7,938 square feet of wetlands and 1,517 square feet of waters of the U.S.

**THE DELAWARE DEPARTMENT OF TRANSPORTATION  
IS ALSO AUTHORIZED TO PERFORM THE FOLLOWING ACTIVITIES  
AT THE FRESH PONDS STATE PARK,  
LOCATED TO THE NORTH OF ROAD 360,  
NEAR BETHANY BEACH, SUSSEX COUNTY, DELAWARE:**

- The installation of a 47 linear foot 4-cell box culvert, 9.33 feet high by 28 feet wide, with wing walls; the excavation of 34,217 cubic feet of fill associated with the existing roadway in the tidal ditch; and the placement of 5,995 cubic feet of feel material below mean low water in the tidal ditch.

- The creation of salt marsh and waters by filling and grading the 2.7 acre Fresh Pond South Borrow Pit East and connection of this borrow pit to the tidal ditch.

Pursuant to the provisions of Section 401 of the Clean Water Act, permission is hereby granted on this 8th day of September A.D. 2004 to construct the above-referenced project in accordance with the approved plans (32 Sheets) as approved on August 20, 2004; and the undated application received by this Division on March 15, 2004, with additional information received various dates, and additional plans received July 22, 2004 and August 12, 2004.

WHEREAS, pursuant to the provisions of Section 401 of the Clean Water Act, the Secretary of the Department of Natural Resources and Environmental Control through his duly authorized representative finds that it is not contrary to the public interest if this project is approved subject to the terms and conditions herein set forth.

WHEREAS, in accordance with Section 401 of the Clean Water Act, the State of Delaware, by and through the Department of Natural Resources and Environmental Control, certifies that the permitted activity will be conducted in a manner which will not violate the applicable water quality standards of the State of Delaware, subject to the terms and conditions of this approval.

This Certification is issued subject to the following conditions:

#### **SPECIAL CONDITIONS**

1. The conditions contained herein shall be included as part of the main body of the construction contract and other ancillary documents associated with earth disturbance and any other activities directly or indirectly associated with construction which may impact wetlands or subaqueous lands associated with this project. The permittee and contractor are responsible to ensure that the workers executing the activities authorized by this Certification have full knowledge of, and abide by, the terms and conditions of this Certification.
2. Construction shall be undertaken so as not to violate the State of Delaware Department of Natural Resources and Environmental Control "Surface Water Quality Standards," as amended August 11, 1999.
3. There shall be no movement of equipment within regulated wetlands or subaqueous lands not specifically authorized by this Certification. The disturbance of wetlands and subaqueous lands authorized by this Certification shall be limited to the areas identified in the approved plans. Any equipment traversing wetlands and subaqueous lands as authorized by this Certification shall be supported on mats.
4. Wetland areas temporarily impacted pursuant to this authorization shall be returned to pre-disturbance elevation and conditions, including vegetative cover. Initial vegetative restoration may be undertaken by seeding. Monitoring will be required as stated in Special Condition 7.

5. Voids left from the removal of the concrete foundations of the utility poles shall be filled using clean materials with soil textures similar to surrounding soils and suitable for restoration of the affected resource. Soils shall be graded to elevations that support native vegetation appropriate to the site. Initial plant restoration efforts may be by seeding. Monitoring shall be required as stated in Special Condition 6.
6. Impacts to permanently displaced jurisdictional wetlands, comprising 155,303 square feet, and waters of the U.S., comprising 21,853 square feet, shall be mitigated by the creation of tidal salt marsh wetland and tidal waters on a 1:1 ratio. The mitigation sites include Fresh Pond North and Fresh Pond South. Additional mitigation created by DeDOT at the Fresh Pond South mitigation site may be used for mitigation of other projects. The mitigation shall be completed in accordance with the plans titled "Br 156 on SR 1 over Indian River Inlet," sheets 875 through 887, dated July 12, 2004 and received by the WSLs on July 22, 2004.
7. All wetland compensation and restoration sites shall be monitored for a period of at least three years. Status reports of the compensation and restoration sites shall be submitted annually to this Department for a period of three years, with the initial report submitted within sixty (60) days following the first growing season. In order for the compensation to be considered successful, an 85% permanent vegetative stand of suitable, native wetland vegetation shall be established. If the expected densities and suitable plant materials are not established within the compensation area, corrective activities may be required including, but not limited to, replanting, regrading or removal of undesirable vegetation and additional monitoring may be mandatory.
8. In order to compensate for habitat impacts to diamondback terrapin, the permittee shall undertake the following habitat improvements:
  - The creation of habitat on the west side of Route 1 near Haven Road, using clean sand, in sections of the existing beach access roadway and parking lot. The mitigation shall be constructed in accordance with the approved plan, titled "Br 156 on SR 1 over Indian River Inlet, Terrapin Mitigation Plan" and dated August 11, 2004 and received by the WSLs on August 12, 2004. This construction shall not be undertaken during the terrapin nesting season from April 1 through September 15 in any given year.
  - The installation of terrapin protection fencing throughout the entire Limit of Construction on the west side of State Route 1 and portions of the east side of State Route 1. The location, installation, type and design of the fencing shall be agreed upon by the permittee and representatives of DNREC's Natural Heritage Program and Parks and Recreation Division. Permanent terrapin fencing will be installed near the completion of the project by the permittee. Permanent fencing shall be supplied by the DNREC. The location, installation, type and design of the fencing shall be agreed upon by the permittee and representatives of DNREC's Natural Heritage Program and Parks and Recreation Division.
  - The construction of three elliptical culverts with sufficient size to allow for possible terrapin passage to dune nesting habitat at three stations beneath the highway. The elliptical culverts shall be constructed in accordance with the approved plans titled "DNREC Diamondback Terrapin Passages, Indian River Inlet Bridge" (1 Sheet) and the revised "Br 156 on SR 1 over Indian River Inlet, Construction Plan Roadway, NB SR1

**Sta. 320+00 to Sta. 340+00," (2 Sheets), dated August 10, 2004 and received by the WSLs on August 12, 2004.**

9. All plantings in the stormwater management ponds, beaches, dunes and wetland areas shall be with native plant species appropriate to site conditions and in accordance with the revised plant species list, received by the WSLs on July 28, 2004.
10. In order to avoid impact of several State-rare bird species' habitats, plantings shall be restricted in dune overwash areas and dune blowout areas on the northern side of the Indian River Inlet Bridge. Plantings shall not extend more than 10 feet east of the cut line in these locations. Prior to planting in the overwash areas, DeIDOT shall stake out the limit of the proposed planting for review by DNREC. Additionally, prior to any work in potential piping plover habitats (overwash areas) DeIDOT shall contact the Delaware Natural Heritage Program for the latest survey of piping plovers. Planting plans shall be submitted to the Delaware Natural Heritage Program and WSLs for review and approval.
11. Dune restoration activities shall include the removal of the invasive species, Japanese black pines (*Pinus thunbergiana*). The removal of Japanese black pines shall not occur during the nesting season of the brown-headed nuthatch (*Sitta pusilla*), a State-rare bird species. The nesting season for the brown-headed nuthatch is April 15 through June 30.
12. Lighting for the bridge has been designed to minimize bird mortality, as indicated in Appendix C of the "Indian River Inlet Bridge, Final Environmental Assessment and Nationwide Section 4(f) Evaluation," dated May 10, 2004. Minimization features include lighting cable stays with blue lensed lights at night, utilizing navigation beacons with a lower FPM at night, and low level, recessed white lighting for the pedestrian path. If any changes are made to these proposed lighting features, the changes must be submitted to the Delaware Natural Heritage Program and the WSLs for review and approval.
13. Construction activities shall not prevent navigation in the waterway.
14. During removal of the existing structures, the permittee shall contain all materials, including debris, to prevent its entry into subaqueous lands or wetlands.
15. All removal activities shall avoid impacts to fisheries. If any blasting or explosives are proposed for use in the water or at the water surface, the permittee shall submit plans describing the removal methodology to the Division of Fish and Wildlife and the WSLs for review and approval.
16. The disposal of the materials from the existing roadway and bridge shall be in compliance with all State and federal regulations. These materials shall not be distributed to individuals with intent to use in wetlands or subaqueous lands. Clean, stable, durable material may be used for the expansion of artificial reefs managed by DNREC.
17. Disturbance of wetlands and/or aquatic vegetation adjacent to the permitted construction by burning, cutting, herbicide treatments, heavy equipment or other methods is prohibited.

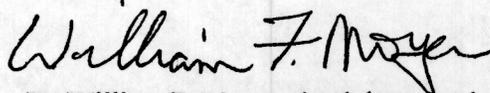
18. All construction debris, excavated material, brush, rocks and refuse incidental to such work shall be placed above the influence of surface waters and appropriately contained at all times to prevent its entry into surface water or wetlands. All such material shall be reused, removed or properly disposed.
19. All fill material associated with the proposed project and included in the above-referenced plans shall be clean and free from oils, grease, asphalt and other contaminants.
20. There shall be no stockpiling of construction material in regulated wetlands or subaqueous lands.
21. Erosion and sediment control measures shall be implemented in accordance with the specification and criteria in the Delaware Erosion and Sediment Control Handbook, so as to minimize entry and dispersal of sediment and other contaminants in surface waters.
22. The permittee shall employ measures during construction to prevent spills of fuels or lubricants. In the event of a spill, efforts shall be taken to prevent its entry into wetlands and aquatic areas. Any spills entering wetlands and aquatic areas shall be removed immediately. This office shall be notified of any spill(s) within six hours of occurrence. This office will determine the effectiveness of spill and contamination removal and specify remediation as necessary.
23. The construction is authorized for the explicit purpose of constructing the Indian River Inlet Bridge 156, the realigned Route 1, and auxiliary roads and structures as described in the certification application.
24. A copy of this Certification must be available on-site during all phases of construction activity.

#### **GENERAL CONDITIONS**

1. The project is to be undertaken in accordance with the plans submitted and attached hereto. Any activities not specifically authorized herein may require a supplemental approval from this office prior to the initiation of construction. A determination on the need for a supplemental approval will be made by this office pursuant to the permittee submitting written notification and revised plans indicating project changes to this office.
2. Representatives of the Department of Natural Resources and Environmental Control may inspect such work during any phase of the construction and may collect any samples or conduct any tests that are deemed necessary.
3. This Certification does not cover the structural stability of the project units.
4. Any actions, operations or installations which are considered by the Department to be contrary to the best interests of the public shall constitute reason for the discontinuance and/or removal of said action, operation or installation.

5. The issuance of this Certification does not imply approval of any other part, phase, or portion of any overall project the permittee may be contemplating.
6. This Certification is subject to the terms and conditions contained in any easement, license or lease that may have been granted by the State or any political subdivision, board, commission or agency of the State in the vicinity of the project.
7. This Certification is granted for the purposes as stated herein. Any other use without prior approval shall constitute reason for this Certification being revoked.
8. This Certification shall expire if the project has not been completed within five (5) years from the date of issuance.
9. If the permittee considers five (5) years insufficient for completion of the project, the permittee may submit a project time schedule for consideration by the Department. If the time schedule is approved it shall be attached hereto and made a part hereof.
10. The permittee shall notify the Department of Natural Resources and Environmental Control within ten (10) days of the date work will be commenced.
11. This Certification is personal and may not be transferred without the prior written consent of the Department. Prior to the transfer of the adjacent upland property, the permittee shall obtain the written consent of the Department to transfer this Certification to the new upland property owner. Failure to obtain such written consent may result in the revocation of this Certification and the removal of all structures authorized by this Certification at the expense of the permittee.
12. The permittee shall at all times comply with all applicable laws and regulations of the Department of Natural Resources and Environmental Control.
13. The issuance of this Certification does not constitute approval for any of the activities as may be required by any other local, state or federal governmental agency.
14. This Certification may be revoked upon violation of any of the above conditions.

IN WITNESS WHEREOF, I, William F. Moyer, the duly authorized representative of John A. Hughes, Secretary, Department of Natural Resources and Environmental Control, have hereunto set my hand this Bth day of September, 2004.



By William F. Moyer, the duly authorized  
representative of the Secretary of the  
Department of Natural Resources and  
Environmental Control

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: (obr)  
Phone: (757) 398-6587  
Fax: (757) 398-6334  
Email: tknowles@lantd5.uscg.mil

16591  
5 JAN 05



Ms. Terry Fulmer  
Manager, Environmental Studies Office  
Delaware Dept. of Transportation  
800 Bay Road  
Dover, DE 19903

Dear Ms. Fulmer:

Enclosed is Coast Guard Bridge Permit 3-04-5 dated December 28, 2004, approving the location and plans of a vehicular/pedestrian bridge (SR-1) to be constructed across the Indian River Inlet between Bethany Beach and Rehoboth Beach, Delaware.

You must notify us 45 days in advance of construction, and of any work or structures placed in the water, which may be obstruction to navigation so we can publish the information in our Local Notice to Mariners. Please advise us of the location and type of construction plant that will be used in this activity. Construction plans showing this information as well as the sequence of operations should be provided to us at the time of the 45-day advance notification.

Enclosure (2) outlines temporary marking and lighting requirements for barges and structures not part of the bridge that will be used during construction.

If you should have any questions regarding this matter, please call Terry Knowles at the above listed telephone number.

Sincerely,

A handwritten signature in black ink that reads "Waverly W. Gregory, Jr." with a stylized flourish at the end.

WAVERLY W. GREGORY, JR.  
Chief, Bridge Administration Branch  
By direction of the Commander  
Fifth Coast Guard District

Encl: (1) Bridge Permit 3-04-5 dated December 28, 2004  
(2) USCG Temporary Marking & Lighting

Copy: John Walters, (oan)  
USCG MSO Philadelphia  
Erron Ramsey, RK&K, LLP



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## BRIDGE PERMIT

(3-04-5)

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DEC 28 2004

**WHEREAS** by Title V of an act of Congress approved August 2, 1946, entitled "General Bridge Act of 1946," as amended (33 U.S.C. 525-533), the consent of Congress was granted for the construction, maintenance and operation of bridges and approaches thereto over the navigable waters of the United States;

**AND WHEREAS** the Secretary of Homeland Security has delegated the authority of Section 502(b) of that act to the Commandant, U. S. Coast Guard by Department of Homeland Security Delegation Number: 0170.1;

**AND WHEREAS** before construction is commenced, the Commandant must approve the location and plans of any such bridge and may impose any specific conditions relating to the construction, maintenance and operation of the structure deemed necessary in the interest of public navigation, such conditions to have the force of law;

**AND WHEREAS** the - STATE OF DELAWARE - has submitted for approval the location and plans of a bridge to be constructed across the Indian River Inlet near Bethany Beach, Delaware;

**NOW THEREFORE**, This is to certify that the location and plans dated November 2004 are hereby approved by the Commandant, subject to the following conditions:

1. No deviation from the approved plans may be made either before or after completion of the structure unless the modification of said plans has previously been submitted to and received the approval of the Commandant.

2. The construction of falsework, cofferdams or other obstructions, if required, shall be in accordance with plans submitted to and approved by the Commander, Fifth Coast Guard District, prior to construction of the bridge. All work shall be so conducted that the free navigation of the waterway is not unreasonably interfered with and the present navigable depths are not impaired. Timely notice of any and all events that may affect navigation shall be given to the District Commander during construction of the bridge. The channel or channels through the structure shall be promptly cleared of all obstructions placed therein or caused by the construction of the bridge to the satisfaction of the District Commander, when in the judgment of the District Commander the construction work has reached a point where such action

Encl: ( 1 )

**BRIDGE ACROSS THE INDIAN RIVER INLET  
NEAR BETHANY BEACH, DELAWARE**

DEC 28 2004  
BRIDGE PERMIT

(3-04-5)

should be taken, but in no case later than 90 days after the bridge has been opened to traffic.

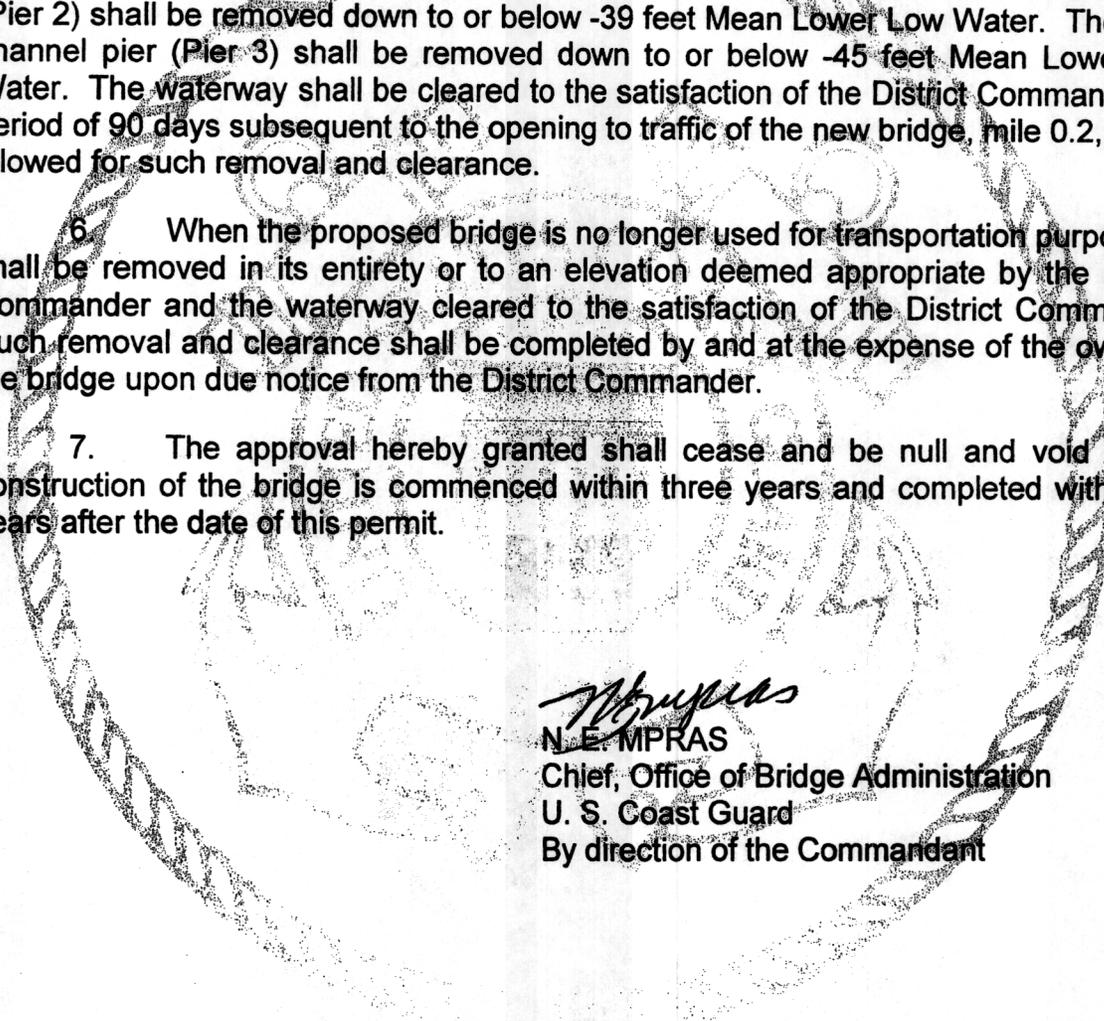
3. Issuance of this permit does not relieve the permittee of the obligation or responsibility for compliance with the provisions of any other law or regulation as may be under the jurisdiction of any federal, state or local authority having cognizance of any aspect of the location, construction or maintenance of said bridge.

4. Clearance gauges shall be installed and maintained in a good and legible condition by and at the expense of the owner of the bridge when so required by the District Commander. The type of gauges and the locations in which they are to be installed will be submitted to the District Commander for approval.

5. All parts of the existing to-be-replaced Delaware State Route 1 Bridge (Bridge 156) across the Indian River Inlet, mile 0.2, except the navigation span piers, shall be removed down to or below the natural ground line. The south channel pier (Pier 2) shall be removed down to or below -39 feet Mean Lower Low Water. The north channel pier (Pier 3) shall be removed down to or below -45 feet Mean Lower Low Water. The waterway shall be cleared to the satisfaction of the District Commander. A period of 90 days subsequent to the opening to traffic of the new bridge, mile 0.2, will be allowed for such removal and clearance.

6. When the proposed bridge is no longer used for transportation purposes, it shall be removed in its entirety or to an elevation deemed appropriate by the District Commander and the waterway cleared to the satisfaction of the District Commander. Such removal and clearance shall be completed by and at the expense of the owner of the bridge upon due notice from the District Commander.

7. The approval hereby granted shall cease and be null and void unless construction of the bridge is commenced within three years and completed within five years after the date of this permit.



*N. E. MPRAS*  
N. E. MPRAS  
Chief, Office of Bridge Administration  
U. S. Coast Guard  
By direction of the Commandant

***LIGHTING REQUIREMENTS FOR BARGES AND STRUCTURES NOT PART OF A BRIDGE OR APPROACH STRUCTURE***

***88.13 Lights on barges at bank or dock.***

- (a) The following barges shall display at night and, if practicable, in periods of restricted visibility the lights described in paragraph (b) of this section -
- (1) Every barge projecting into a buoyed or restricted channel.
  - (2) Every barge so moored that it reduces the available navigable width of any channel to less than 80 meters.
  - (3) Barges moored in groups more than two barges wide or to a maximum width of over 25 meters.
  - (4) Every barge not moored parallel to the bank or dock.
- (b) Barges described in paragraph (a) shall carry two unobstructed white lights of an intensity to be visible for a least one mile on a clear dark night and arranged as follows:
- (1) On a single moored barge, lights shall be placed on the two corners farthest from the bank or dock.
  - (2) On barges moored in group formation, a light shall be placed on each of the upstream and downstream ends of the group, on the corners farthest from the bank or dock.
  - (3) Any barge in a group, projecting from the main body of the group toward the channel, shall be lighted as a single barge.
- (c) Barges moored in any slip or slough, which is used primarily for mooring purposes, are exempt from the lighting requirements of this section.

***33 CODE OF FEDERAL REGULATIONS, SECTION 118.95  
LIGHTS ON STRUCTURES NOT PART OF A BRIDGE OR APPROACH STRUCTURE***

Lights on sheer booms, isolated piers, obstructions, and other structures not part of a bridge or approach structure must meet the requirements for aids to navigation in Subpart 66.01 of Part 66 of this chapter

***33 CODE OF FEDERAL REGULATIONS, SECTION 66.01-10***

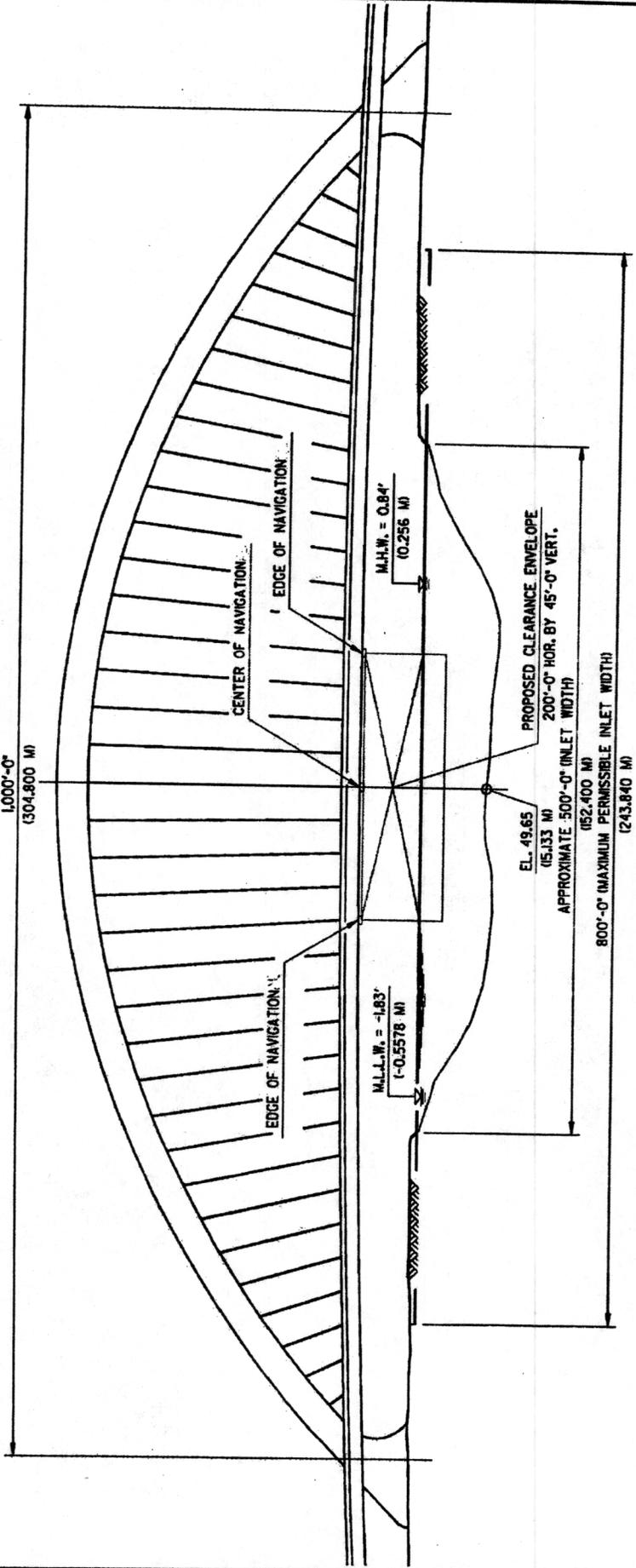
- (a) The characteristics of a private aid to navigation shall conform to the United States Aids to Navigation System described in Subpart B of Part 62 of this subchapter, except that only tungsten-incandescent light sources will be approved for electric lights.

Therefore in accordance with 33 CFR 66.01-10(a), the above lights shall be marked with slow flashing yellow lights visible for two miles on a clear dark night. Lights similar to the Tideland ML-120 Barge Light may be used. Only tungsten-incandescent light sources will be approved for electric lights.

NORTHBOUND

PROPOSED MAIN SPAN AND CHANNEL AXIS

1,000'-0"  
(304.800 M)



**PROPOSED MAIN SPAN - ELEVATION**

NAV088 DATUM ELEVATION = 0.00' (0.000 M)

100 - YEAR FLOOD ELEVATION = 11.00' (3.352 M) FEMA ZONE ZE



SCALE IN METERS



SCALE IN FEET

DELAWARE DEPARTMENT OF TRANSPORTATION

**BR 156 ON S.R.1  
OVER INDIAN RIVER INLET  
INDIAN RIVER BAY / ATLANTIC OCEAN  
SUSSEX CO., DELAWARE**

APPLICATION BY:

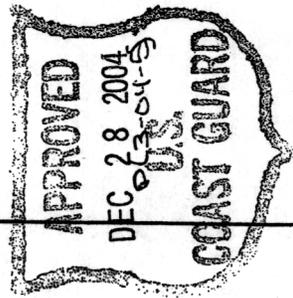
DELAWARE DEPARTMENT OF TRANSPORTATION

DELDOT PROJECT NO. 1204 FEDERAL AID PROJECT NO. BR03-9066(7)

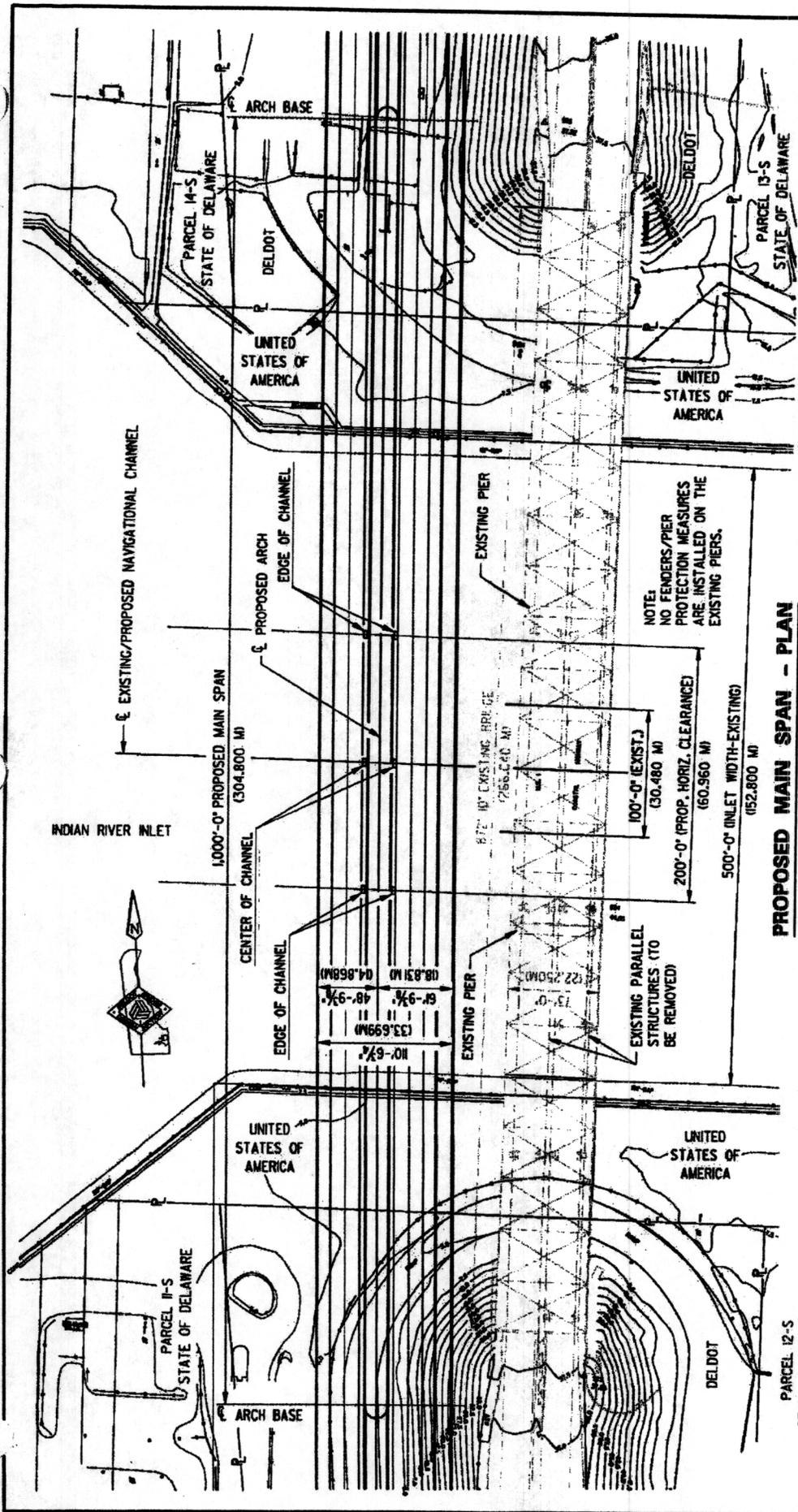
INDIAN RIVER INLET

FIGURE 3

DATE: NOVEMBER, 2004







DELAWARE DEPARTMENT OF TRANSPORTATION

**BR 156 ON S.R.1**  
**OVER INDIAN RIVER INLET**  
**INDIAN RIVER BAY / ATLANTIC OCEAN**  
**SUSSEX CO., DELAWARE**

APPLICATION BY:  
 DELAWARE DEPARTMENT OF TRANSPORTATION  
 DELDOT PROJECT NO. 1204 FEDERAL AID PROJECT NO. BR08-006(7)  
 INDIAN RIVER INLET DELAWARE

DATE: NOVEMBER, 2004

FIGURE 2

NAV088 DATUM ELEVATION = 0.00' (0.000 M)  
 100 - YEAR FLOOD ELEVATION = 11.00' (3.352 M) FEMA ZONE VE



**APPROVED**  
 DEC 28 2004  
 U.S. COAST GUARD

**STATE OF DELAWARE**



**DEPARTMENT OF TRANSPORTATION**

**DESIGN-BUILD PROJECT**

for

**NEW INDIAN RIVER INLET BRIDGE**

Replacement of Bridge 3-156,  
SR1 over Indian River Inlet  
State Contract # 26-073-03  
Federal Contract # BRN-S050(14)

**SCOPE OF SERVICES PACKAGE**

**PART 8**

**DESIGN-BUILDER'S PROPOSAL**

*The parts of the Design-Builder's Proposal identified in Section 1.2.4 of the Instructions to Proposers (ITP) will be incorporated into the Contract Documents as Part 8 when the Design-Build Contract is signed and executed.*