

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF ENGINEERING AND CONSTRUCTION
DIVISION OF COASTAL ENGINEERING
1510 HOOPER AVENUE
TOMS RIVER, NEW JERSEY 08753

OFFICIAL CONTRACT



ABSECON INLET JETTY REPAIR PROJECT

CITY OF ATLANTIC CITY, ATLANTIC COUNTY, NEW JERSEY

DIVISION OF COASTAL ENGINEERING
PROJECT NO. 4264-15

CONTRACT

THIS AGREEMENT made the 10th day of June in the year two thousand nineteen, between the Department of Environmental Protection, Division of Coastal Engineering of the State of New Jersey, herein after referred to as the Division and **AGATE CONSTRUCTION CO., INC.** with a principal office location at **PO Box 107, 1030 NJ-83, Oceanview, NJ 08230** herein after referred to as the Contractor.

WITNESSETH, that the said Contractor, for and in consideration of the payments hereinafter specified and agreed to be made by the Department, hereby covenants and agrees to furnish and deliver all the materials, to do and perform all the work and labor required to be furnished and delivered, done and performed in and about the improvement of

**ABSECON INLET JETTY REPAIR PROJECT
ATLANTIC CITY, ATLANTIC COUNTY, NEW JERSEY
NJDEP, DIVISION OF COASTAL ENGINEERING PROJECT NUMBER 4264-15**

in strict and entire conformity with the Project Plans and Specifications on file at the Division of Coastal Engineering and by the Appendices, Addenda, and Clarifications applying to this particular work, which were duly approved by the State Commissioner of the Department of Environmental Protection under the power and authority vested in the Department under Chapter 148, Laws of 1992 which said plans, specifications and documents are hereby made part of this agreement as fully and with the same effect as if the same had been set forth at length in the body of this agreement.

In consideration of the covenants contained herein the Division hereby agrees to pay the Contractor for the said work, when completed in accordance with the said plans and specifications, the sum of two million, eight hundred twenty four thousand, nine hundred fifty dollars (\$2,824,950.00) for the total amount bid.

OVER

ABSECON INLET JETTY REPAIR PROJECT
ATLANTIC CITY, ATLANTIC COUNTY, NEW JERSEY
NJDEP, DIVISION OF COASTAL ENGINEERING PROJECT NUMBER 4264-15

IN WITNESS WHEREOF, the Contractor and the Division have hereunto set their respective names on the day and year first written.

(COMPANY SEAL)

James E. Johnston III

PRESIDENT (Print)

BY

PRESIDENT (Signature)

ATTEST:

Susan D. Sharp

NOTARY
SUSAN D. SHARP
NOTARY PUBLIC OF NEW JERSEY
ID # 229966 (SEAL)
My Commission Expires 4/25/2023

THE STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
ENGINEERING AND CONSTRUCTION

William T. Dixon

WILLIAM DIXON, DIRECTOR
DIVISION OF COASTAL ENGINEERING

APPROVED:

D. Rosenblatt

DAVE ROSENBLATT, ASSISTANT COMMISSIONER
ENGINEERING & CONSTRUCTION

The aforementioned agreement
has been reviewed and
approved as to form.

Gurbir S. Grewal
ATTORNEY GENERAL OF NEW JERSEY

David C. Apy
Name: David C. Apy
Assistant Attorney General

Kimberly A. Kavanagh

NOTARY
Kimberly A. Kavanagh
Notary Public of New Jersey (SEAL)
My Commission Expires 11.16.2022

Sharon Brown

NOTARY

Sharon Brown (SEAL)
Notary Public
New Jersey
My Commission Expires 11-1-2022
No. 2293660

Sharon Brown

NOTARY

Sharon Brown (SEAL)
Notary Public
New Jersey 11-1-2022

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
ENGINEERING AND CONSTRUCTION 1510 HOOPER AVENUE
TOMS RIVER, NEW JERSEY 08753

ABSECON INLET JETTY REPAIR PROJECT

CITY OF ATLANTIC CITY
ATLANTIC COUNTY, NEW JERSEY

DIVISION OF COASTAL ENGINEERING
PROJECT NO. 4264-15

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State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION

Engineering and Construction

Division of Coastal Engineering

1510 Hooper Avenue

Suite 140

Toms River, NJ 08753

PHILIP MURPHY

Governor

CATHERINE R. MCCABE

Commissioner

SHEILA Y. OLIVER

Lt. Governor

January 31, 2019

Rev: February 12, 2019, February 26, 2019

NJDEP PROJECT NO. 4264-15

ABSECON INLET JETTY REPAIR

CITY OF ATLANTIC CITY, ATLANTIC COUNTY, NEW JERSEY

ADVERTISEMENT FOR BID

Sealed bid proposals for the Absecon Inlet Jetty Repair Project, in the city of Atlantic City, Atlantic County, New Jersey will be received by the Manager, at 1510 Hooper Avenue, Toms River, New Jersey 08753, at 10:00 A.M. prevailing time, **Thursday, March 21, 2019.**

Bids shall be delivered to Erick Doyle, Manager, Bureau of Construction, Division of Coastal Engineering, in person at the above address or by mail prior to the time scheduled for bid openings. No bids will be accepted after the aforementioned time. All questions regarding the project are to be submitted by prospective bidders no later than 4:00 PM on March 8, 2019. All questions will be addressed by 4:00 PM on March 13, 2019 by the Division. The Division will only answer questions received from the Authorized Representative of the Pre-Qualified Contractor.

Plans and Specifications may be examined at the above address; however, call (732) 255-0767 before visiting to assure availability. Pre-qualified contractors can obtain bid documents from the Toms River address. Bidders must be pre-qualified with this Office under N.J.S.A. 52:35 et seq. under the "Special Miscellaneous Work" category prior to submitting a bid and are required to comply with the Affirmative Action provision as outlined in N.J.S.A. 10:5-31 et seq. and N.J.A.C. 17:27. Review and approval of new pre-qualification packages typically takes 10-12 calendar days, depending upon applicant's responsiveness. Please use the following link provided to access the pre-qualification package forms: <https://www.nj.gov/dep/shoreprotection/docs/prequalification.pdf>

Contractors and Subcontractors must be registered under the "Public Works Contractor Registration Act", N.J.S.A. 34:11-56.48 et seq. (P.L. 2003, c. 91) at time of bid. Appropriate proof of this registration should be provided to NJDEP prior to award of contract. All prospective bidders must provide the following contact information for their designated authorized representative for all bid document, addenda, and correspondences to be delivered to. Please provide the following information to the Project Manager via email at john.benigno@dep.nj.gov:

- Contact Name & Title;
- Mailing & Email Address;
- Office, Mobile, and Fax Number

No proposals will be considered unless accompanied by Certified Check or Bid Bond in the amount of ten percent (10%) of total amount bid and a certified statement from bonding company stating that it will furnish necessary performance and payment bond in the amount of the contract in accordance with N.J.S.A. 2A:44-143 and 2A:44-147 inclusive, with sureties satisfactory to the State of New Jersey.

Minimum wage rates for this project shall be as specified in the "Prevailing Wage Determination of the New Jersey Department of Labor and Workforce Development" on file with NJDEP. The entire work is to be completed within the CONTRACT TIME STATED WITHIN THE BID DOCUMENTS.

The Department of Environmental Protection reserves the right to waive any informality in a bid or to reject any or all bids pursuant to law.

A handwritten signature in black ink, appearing to read "William Dixon", with a long horizontal flourish extending to the right.

William Dixon, Director
Division of Coastal Engineering

CONTRACT

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**ABSECON INLET JETTY REPAIR PROJECT
ATLANTIC CITY, ATLANTIC COUNTY, NEW JERSEY
NJDEP, DIVISION OF COASTAL ENGINEERING PROJECT NUMBER 4264-15**

in strict and entire conformity with the Project Plans and Specifications on file at the Division of Coastal Engineering and by the Appendices, Addenda, and Clarifications applying to this particular work, which were duly approved by the State Commissioner of the Department of Environmental Protection under the power and authority vested in the Department under Chapter 148, Laws of 1992 which said plans, specifications and documents are hereby made part of this agreement as fully and with the same effect as if the same had been set forth at length in the body of this agreement.

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OVER

ABSECON INLET JETTY REPAIR PROJECT
ATLANTIC CITY, ATLANTIC COUNTY, NEW JERSEY
NJDEP, DIVISION OF COASTAL ENGINEERING PROJECT NUMBER 4264-15

IN WITNESS WHEREOF, the Contractor and the Division have hereunto set their respective names on the day and year first written.

(COMPANY SEAL)

James E. Johnston III

PRESIDENT (Print)

BY


PRESIDENT (Signature)

ATTEST:



NOTARY
SUSAN D. SHARP
NOTARY PUBLIC OF NEW JERSEY
ID # 229966 (SEAL)
My Commission Expires 4/25/2023

THE STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
ENGINEERING AND CONSTRUCTION



WILLIAM DIXON, DIRECTOR
DIVISION OF COASTAL ENGINEERING

APPROVED:



DAVE ROSENBLATT, ASSISTANT COMMISSIONER
ENGINEERING & CONSTRUCTION

The aforementioned agreement
has been reviewed and
approved as to form.

Gurbir S. Grewal
ATTORNEY GENERAL OF NEW JERSEY



Name: David C. Apy
Assistant Attorney General



NOTARY
Kimberly A. Kavanagh
Notary Public of New Jersey (SEAL)
My Commission Expires 11.16.2022



NOTARY

Sharon Brown (SEAL)
Notary Public
New Jersey
My Commission Expires 11-1-2022
No. 2293660



NOTARY

Sharon Brown (SEAL)
Notary Public
New Jersey 11-1-2022



State of New Jersey

PHILIP D. MURPHY
Governor

DEPARTMENT OF ENVIRONMENTAL PROTECTION
Engineering and Construction
Division of Coastal Engineering
1510 Hooper Ave; Suite 140
Toms River, N. J. 08753
Tel. 732-255-0767 Fax 732-255-0774

CATHERINE R. McCABE
Acting Commissioner

SHEILA Y. OLIVER
Lt. Governor

MEMORANDUM

RE: Contract Specifications, Plans, Addenda, and Clarifications

DATE: April 2019

SUBJECT: Project 4264-15
Absecon Inlet Jetty Repair Project
City of Atlantic City, Atlantic County, New Jersey

Attached to the back cover of this Contract is a compact disc (CD) that contains .pdf copies of all final bid documentation, which includes the following:

- Advertisement
- Construction Plans
- Contract Specs (Bid Package)
- Bid Checklist
- Clarification & Addenda Issued

The CD also contains a .pdf copy of the following post-solicitation items:

- Official Bid Results
- Agate Construction Co., Inc. Official Bid Proposal
- Intent to Award Letter
- Official Contract

For any questions regarding the documentation provided on the attached CD please contact the Division of Coastal Engineering at (732) 255-0767.

ACKNOWLEDGMENT OF RECEIPT OF CHANGES TO BID DOCUMENT FORM

NJ DEP

(Name of Local Contracting Unit)

Absecon Inlet Jetty Repair Project
(Name of Construction/Public Works Project)

4264-15
(Project or Bid Number)

Pursuant to Section 3:08 – Addendum, the undersigned bidder hereby acknowledges receipt of the following notices, revisions, or addenda to the bid advertisement, specifications or bid documents. By indicating date of receipt, bidder acknowledges the submitted bid takes into account the provisions of the notice, revision or addendum. Note that the local unit's record of notice to bidders shall take precedence and that failure to include provisions of changes in a bid proposal may be subject for rejection of the bid.

Local Unit Reference Number
Or Title of Addendum/Revision

How Received
(mail, fax,
Pick-up, etc.)

Date Received

1
Clarification #1
Clarification #2

email
email
email

3/1/2019
3/13/2019
3/18/2019

☐ NO ADDENDA WAS RECEIVED

Acknowledgement by Bidder:

Name of Bidder: Agate Construction Company, Inc.

By Authorized Representative: _____

Signature: [Signature]

Printed Name and Title: James E. Johnston, III
President

Date: 3/21/2019

Confirmation Page

You have successfully completed your request for an Official Prevailing Wage Rate Determination. The wage rate determination details are displayed below. These details will also be emailed to the email address you provided.

Save the Confirmation No. for your records. Save and print all documents listed below. Please do not forget to complete the [PWConfirmation.pdf](#) and send it to the NJ Dept. of Labor and Workforce Development, Public Contracts Section.

If any of the links/attachments are not working, please email PWRIssues@dol.nj.gov. Explain which of the links/attachments are not working and provide the Confirmation No. Please note that this email address is for online technical issues only; any law or wage rate questions sent to this email address cannot be answered and will be deleted.

Confirmation No.: 72887

Date of Determination: 04/22/2019 10:48:46

NAME AND ADDRESS OF PUBLIC BODY AWARDING THE CONTRACT

Name	Department of Environmental Protection	FEIN	XXXXX0928
Street	1510 Hooper Avenue	City	Toms River
State	NJ	Zip	08753
Project No.	4264-15		

NAME AND ADDRESS OF REQUESTING OFFICER

First Name	Michael	Last Name	Lewis MI
Title	Environmental Engineer Trainee	Phone No.	732-255-0765 Ext.
Company Name	Department of Environmental Protection	Email	michael.lewis@dep.nj.gov
Street	1510 Hooper Avenue	City	Toms River
State	NJ	Zip	08753

NAME AND ADDRESS OF CONTRACTOR WHO IS BEING AWARDED THE CONTRACT

Company Name	Agate Construction Co. Inc.	FEIN	XXXXX6498
Contact First Name	James	Contact Last Name	Johnston MI
Street	1030 Route 83	City	Clermont
State	NJ	Zip	08210
Contract Amount	\$2,824,950.00		

DESCRIPTION OF WORK

Reconstruction of the jetty adjacent to the Absecon Inlet.

LOCATION WHERE WORK WILL BE PERFORMED

Street

City

Atlantic City

County Rate(s)

ATLANTIC	107100001-atlantic-4-17-19.pdf
STATE WIDE RATES	107100021-statewide-4-17-19.pdf
PWConfirmation.PDF	PWConfirmation.pdf

Print This Page

New Official Wage Rate Request



STATE OF NEW JERSEY
Department of Labor and Workforce Development
Division of Wage and Hour Compliance - Public Contracts Section
PO Box 389
Trenton, NJ 08625-0389

PREVAILING WAGE RATE DETERMINATION

The New Jersey Prevailing Wage Act (N.J.S.A. 34:11-56.25 et seq.) requires that the Department of Labor and Workforce Development establish and enforce a prevailing wage level for workers engaged in public works in order to safeguard their efficiency and general well being and to protect them as well as their employers from the effects of serious and unfair competition.

Prevailing wage rates are wage and fringe benefit rates based on the collective bargaining agreements established for a particular craft or trade in the locality in which the public work is performed. In New Jersey, these rates vary by county and by the type of work performed.

Applicable prevailing wage rates are those wages and fringe benefits in effect on the date the contract is awarded. All pre-determined rate increases listed at the time the contract is awarded must also be paid, beginning on the dates specified. Rates that have expired will remain in effect until new rates are posted.

Prevailing Wage Rate

The prevailing wage rate for each craft will list the effective date of the rate and the following information:

W = Wage Rate per Hour

B = Fringe Benefit Rate per Hour*

T = Total Rate per Hour

- * Fringe benefits are an integral part of the prevailing wage rate. Employers not providing such benefits must pay the fringe benefit amount directly to the employee each payday. Employers providing benefits worth less than the fringe benefit amount must pay the balance directly to the employee each payday.

Unless otherwise stated in the Prevailing Wage Rate Determination, the fringe benefit rate for overtime hours remains at the straight time rate.

When the Overtime Notes in the Prevailing Wage Rate Determination state that the overtime rates are "inclusive of benefits," the benefit rate is increased by the same factor as the wage rate (i.e. multiplied by 1.5 for time and one-half, multiplied by 2 for double time, etc.).

Apprentice Rate Schedule

An "apprentice" is an individual who is registered with the United States Department of Labor - Office of Apprenticeship and enrolled in a certified apprenticeship program during the period in which they are working on the public works project.

The apprentice wage rate is a percentage of the journeyman wage rate, unless otherwise indicated. The apprentice benefit rate is the full journeyman benefit rate, unless otherwise indicated.

If there is no apprentice rate schedule listed, the individual must be paid at least the journeyman rate even if that individual is in a certified apprentice program for that trade.

If there is no ratio of apprentices to journeymen listed for a particular craft, then the ratio shall be one (1) apprentice to every four (4) journeymen.

PREVAILING WAGE SCHEDULES FOR THIS PROJECT ARE NOT REPRINTED
HERE DUE TO SIZE

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF COASTAL ENGINEERING
CODE OF ETHICS FOR VENDORS

Introduction

The New Jersey Department of Environmental Protection Division of Coastal Engineering (NJDEP-DCE) considers the maintenance of public trust and confidence essential to its proper functioning, and accordingly has adopted this vendors' Code of Ethics. Vendors who do business with the NJDEP-DCE must avoid all situations where proprietary or financial interests or the opportunity for financial gain could lead to favored treatment for any organization or individual. Vendors must also avoid circumstances and conduct which may not constitute actual wrongdoing, or a conflict of interest, but might nevertheless appear questionable to the general public thus compromising the integrity of the NJDEP-DCE.

This code, originally adopted on December 16, 1987, is based upon the principles established in Executive Order 189 and laws governing the Executive Commission on Ethical Standards, N.J.S.A 52:13D-12 et seq., which, while not strictly applicable to contractors, provides general guidance in this area. Also, this code has been established pursuant to the authority embodied in N.J.S.A. 27:1A et seq., and for good cause.

This Code of Ethics shall be attached to every contract and agreement to which the NJDEP-DCE is a party. It shall be distributed to all parties who presently do business with the NJDEP-DCE and, to the extent feasible, to all those parties anticipating doing business with the NJDEP-DCE.

NJDEP Code of Ethics for Vendors

1. No vendor* shall employ and NJDEP officer or employee in the business of the vendor or professional activity in which the vendor is involved with the Department officer or employee.
2. No vendor shall offer or provide any interest, financial or otherwise, direct or indirect, in the business of the vendor or professional activity in which the vendor is involved with the Department officer or employee.
3. No vendor shall cause or influence, or attempt to cause or influence any NJDEP officer or employee in his or her official capacity in any manner which might tend to impair the objectivity or independence of judgment of that NJDEP officer or employee.
4. No vendor shall cause or influence, or attempt to cause or influence any NJDEP officer or employee to use or attempt to use his or her official position to secure any unwarranted privileges or advantages for that vendor or for any other person.
5. No vendor shall offer any NJDEP officer or employee any gift, favor, service or other thing of value under circumstances from which it might be reasonably inferred that such gift, service or other thing of value was given or offered for the purpose of influencing the recipient in the discharge of his or

her official duties. In addition, officers or employees of the NJDEP will not be permitted to accept breakfasts, lunches, dinners, alcoholic beverages, tickets to entertainment and/or sporting events or any other item, which could be construed as having more than nominal value.

Note: This section would permit an NJDEP officer or employee to accept food or refreshments of relatively low monetary value provided during the course of a meeting, conference or other occasion where the employee is properly in attendance (for example – coffee, danish, tea or soda served during a conference break).

Acceptance of unsolicited advertising or promotional material of nominal value (such as inexpensive pens, pencils, or calendars) would also be permitted.

Any questions as to what is or is not acceptable or what constitutes proper conduct for a Department officer or employee should be referred to the Department's Ethics Liaison Officer or his or her designee.

This code is intended to augment, not to replace, existing administrative order and the current Department Code of Ethics.

***Vendor** is defined as any general contractor, subcontractor, consultant, person, firm, corporation or organization engaging in or seeking to do business with the NJDEP.

Phil Murphy
Governor

Sheila Y. Oliver
Lt. Governor

Catherine R. McCabe
Commissioner



January 2019

4264-15

1:00 (1) PROJECT DESCRIPTION:

1:01 LOCATION:

The proposed work to be performed under this project is located along the easterly shoreline of the Atlantic Ocean, in the City of Atlantic City, Atlantic County, New Jersey, as seen on Sheet 1 of 16 on the project plans.

1:02 WORK DESCRIPTION:

The work to be performed under these specifications consists of the furnishing of all equipment, labor and personnel, supplies and facilities, and the performance of all work required for the proposed jetty reconstruction; City of Atlantic City, Atlantic County, New Jersey in conformity with these specifications, and as shown on the sixteen (16) sheets of the project plans enumerated 1 through 16. The proposed jetty reconstruction includes but is not limited to: the removal of the top stone layer of the jetty crest, rebuilding the core box with core stone wrapped in a geotextile fabric, and reconstruction of the jetty crest using existing cap stone and supplemented new armor/cap stone when needed.

NOTES

- 1) The contractor shall be fully mobilized and begin work within ten (10) days after receiving the Notice to Proceed Letter from the Division of Coastal Engineering.**
- 2) Bidders MUST visit the site(s) to satisfy themselves of the site(s), proposed work, and existing conditions prior to submitting their bid. Should the contractor decide not to visit the site(s), this will not relieve them of performing the job for the total price bid.**
- 3) To achieve eligibility for award of contract, the NJDEP Division of Coastal Engineering requires that the apparent low bidder register with NJ Start prior to contract execution. All bidders can register with NJ Start at <https://www.njstart.gov/bsol/>. For any questions regarding how to register or the registration process, please contact the Project Manager.**
- 4) All Bidders MUST designate an Authorized Representative upon receipt of the Project Bid Package. All official correspondence must be submitted through that representative during the**

PROJECT DESCRIPTION:

solicitation process. Please refer to the Project Advertisement for more information.

- 5) As amended in Addendum #1, all Contractor questions must be submitted by 4:00 PM on Friday, March 8th, 2019 via email to the Project Engineer at john.benigno@dep.nj.gov. DCE will answer all questions by 4:00 PM on Wednesday, March 13th, 2019. Only questions submitted by the Authorized Representative to DCE via email will be addressed.
- 6) The Contractor is advised that the NJDEP has identified two (2) access points to the project site at this time. One (1) at New Hampshire Avenue and one (1) at Victoria Avenue. The Contractor will be advised during the bid process which access point or if both access points will be available for his use in performing the Project work. In either case, the Contractor shall be responsible to prepare the access point for use in coordination with the NJDEP and City of Atlantic City and restore same to pre-construction conditions prior to closing out the project. All restoration work to be approved by the NJDEP and City of Atlantic City. The boardwalk reconstruction plans have been attached for your reference. The awarded Contractor will receive the As-Built plans for the boardwalk reconstruction for reference.
- 7) The Contractor shall coordinate with DCE Project Manager to ensure that all necessary Federal, State, and Local Permits have been acquired prior to commencement of construction.
- 8) It is the responsibility of the Contractor to ensure that all stockpiles are managed properly. The Contractor should carefully track all materials brought on site as they are incorporated into the Jetty and should ensure that the stockpile does not exceed the quantity necessary to complete the restoration work. The Department will reimburse the Contractor only for materials that are to be utilized in the reconstruction of the Jetty. Further details regarding stockpiles can be found in Section 11:01.
- 9) All stone furnished and used shall be hard, sound, compact, dense and durable quarry stone of good resistance to disintegration under the action of seawater and alternate freezing and thawing cycles.

PROJECT DESCRIPTION:

Stone shall be free from cracks, seams, fissures, places of weakness or other undesirable qualities which might contribute to crumbling or breakage in handling and placing in the work or during later weathering and sea action. The stone shall be free from all foreign materials and shall achieve a minimum density of 175 pounds per cubic foot and a maximum of 190 pounds per cubic foot. The stone shall be furnished for use only after its suitability has been approved by the engineer.

- 10) The Contractor must submit all pertinent quarry information in accordance with SECTION 19:00 – Jetty Stone of the New Jersey Department of Environmental Protection – Division of Coastal Engineering specifications. If the Project Manger determines that stone density from the approved quarry is not consistently within the density range listed above, the Division withholds the right to request quarry density information be re-submitted for review.
- 11) In the event the maximum density is consistently exceeded, the Division also withholds the right to calculate line item (items 3, 5, 6, and 7) payment amounts based on 190 pounds per cubic foot.
- 12) The Contractor shall restore the adjacent beach areas and all other areas outside of the construction limits, which have been disturbed by construction operations, to the original condition. Preconstruction photographs or video, as required under the contract, shall guarantee the validity of such restoration. Restoration may include, but is not limited to the replacement of the roadways, boardwalk, signs, fences, beach screening and regrading of the adjacent beach area (see Page T-4) and repairing adjacent private property.
- 13) A complete Bid Checklist has been provided in Addendum #1. Bidders are to utilize this Checklist to ensure that all deliverables required at the time of bid are submitted. This Checklist shall supersede the Checklist provided in the original solicitation.
- 14) See Section 3:01 of the Project Specifications for a list of Definitions pertaining to this project.

The work under this project is to be bid upon and executed under 13 work items more particularly described as follows:

PROJECT DESCRIPTION:**ITEM NO. 1 – GENERAL WORK:**

The work to be performed under this item is to be bid upon and executed on a lump sum basis and shall cover work not otherwise included under any other Item. The lump sum bid shall include Maintenance and Protection of Marine Inlet Traffic and Adjacent Beach Area ; General Site Maintenance ; Routes to Project Site, Right-of-Way and Equipment/Stockpile Areas, General Site Construction, Materials, Soil Erosion and Sediment Control Procedures, Protection of Vegetation, Beach, Existing Structures, Dunes and Restoration supplies, facilities, work and expenses required to perform the reconstruction of the jetty, all survey and layout, and all materials, supplies, facilities, work and expenses required for the execution and completion of the project work as a whole and not specifically provided for elsewhere.

The Contractor shall accept the site as found upon commencement of work. The Owner assumes no responsibility for the continuation of conditions existing at the time of examination by the Contractor or thereafter.

Topographic maps and other information given for bidding purposes, prior to construction, are for general information only, and are not warranted to show actual conditions, nor intended to substitute for personal investigation.

Prior to any site disturbance, the Contractor shall field verify the existing topography and advise the Engineer in writing of any discrepancies. Should discrepancies arise, the Engineer reserves the right to provide a change of plan within seven (7) working days of said notification. The Contractor shall make no claims if a change of plan is necessary.

The contractor shall be responsible to dispose of all materials not wanted by the owner at sites procured by the contractor and shall obtain all necessary approvals and permits required for disposals.

The work under this item is to be bid upon and executed on a lump sum basis and shall include all work described in these specifications for clearing site including but not limited to the complete removal of all debris, rubble, utility pole, all dead and live vegetation including all shrubs, stumps, roots and other plantings, and all objects or obstacles of any kind within the area of construction, interfering with construction or not shown to remain within the project area or as shown on the plans or directed by the Engineer.

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1:00 (5)

PROJECT DESCRIPTION:

Also included in this item shall be all work required for the removal or resetting of trees, shrubs, fences, and minor yard structures which interfere with construction or need to be reset to meet the new construction. Any items to be reset which are damaged or deteriorated shall be replaced in kind with new materials. All costs pertaining to site clearing shall be included under the General Work item.

In addition, this item includes all costs for the work required for excavation including removal or temporary displacement of existing deleterious material, wood, timber, concrete, jetty stone, etc. to upland areas. This also includes the excavation of all materials encountered to bring the project site to the necessary grade to meet the proposed grades shown on the plan as described in these specifications. This item shall also include hauling, soil density testing, placing and compacting the material, forming and shaping, disposal of all materials not wanted by the owner, all materials, equipment, labor and all else necessary therefore and incidental thereto.

The work under this item shall also consist of the preparation of access, mobilization, demobilization and final restoration and cleanup associated with the Absecon Inlet Jetty Reconstruction. Upon completion the Contractor will also be required to Rake and Screen sections of the beach utilized for stockpiling, access, and equipment staging.

See Subsection 11:01 for further details of General Work.

ITEM NO. 2 - SURVEY:

The work to be performed under this item is to be bid upon and executed on a lump sum basis and shall include all labor, materials, equipment, rigging, tools and accessories required for conducting a pre-construction, conditional, and as-built surveys of the project area prepared by a surveyor licensed in the State of New Jersey.

See Subsection 11:02 for further details of Survey.

ITEM NO. 3 – CORESTONE FOR CORE BOX CONSTRUCTION AND JETTY “CHINKING”:

The work to be performed under this item is to be bid upon and executed on a unit price per ton basis and shall include furnishing all labor, equipment and materials for installation of new core stone for core box construction and “chinking” of jetty to stabilize armor stone voids and to allow placement of a minimum of 24

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1:00 (6)

PROJECT DESCRIPTION:

inches to a maximum of 30 inches concrete void filler as show on the Contract Drawings and indicated in the specifications herein.

See Subsection 11:03 for further details of Corestone for Core Box Construction and Jetty "Chinking."

ITEM NO. 4 – REHANDLED ARMOR STONE:

The work to be performed under this item is to be bid upon and executed on a unit price per ton basis and shall include all labor, equipment and materials for re-handling the existing jetty armor stone. This includes all costs for removal of subsequent stone placement, whether within the limits of the repaired jetty or at such other locations as may be directed within the construction limits and the contractor shall make no extra claims for placement of stone outside the construction limits. No extra payment for armor stone that has fallen off the mat stone to the channel or bay side. Re-handled armor stone is to be utilized before new quarry cap stone is installed whenever possible.

See Subsection 11:04 for further details of Rehandled Armor Stone.

ITEM NO. 5 – NEW ARMOR STONE – Primary (Head):

The work to be performed under this item is to be bid upon and executed on a unit price per ton basis and shall include furnishing all labor, equipment, and materials for reconstruction of the stone jetty and placing of new armor cap stone (Primary - Head) in such quantities as may be required to supplement suitable re-handled stone. New quarry cap stone is to be used only when the existing stone supply is exhausted unless otherwise directed by the Engineer.

See Subsection 11:05 for further detail of New Armor Stone – Primary (Head).

ITEM NO. 6 – NEW ARMOR STONE – Primary (Trunk):

The work to be performed under this item is to be bid upon and executed on a unit price per ton basis and shall include furnishing all labor, equipment, and materials for reconstruction of the stone jetty and placing of new armor cap stone (Primary - Trunk) in such quantities as may be required to supplement suitable re-handled stone. New quarry cap stone is to be used only when the existing stone supply is exhausted unless otherwise directed by the Engineer.

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1:00 (7)

PROJECT DESCRIPTION:

See Subsection 11:05 for further detail of New Armor Stone – Primary (Trunk).

ITEM NO. 7 – NEW ARMOR STONE – Secondary (Head and Trunk):

The work to be performed under this item is to be bid upon and executed on a unit price per ton basis and shall include furnishing all labor, equipment, and materials for reconstruction of the stone jetty and placing of new armor cap stone (Secondary - Trunk) in such quantities as may be required to supplement suitable re-handled stone. New quarry cap stone is to be used only when the existing stone supply is exhausted unless otherwise directed by the Engineer.

See Subsection 11:05 for further detail of New Armor Stone – Secondary (Head and Trunk).

ITEM NO. 8 – REMOVAL OF VOID FILLER:

The work to be performed under this item is to be bid upon and executed on a unit price per ton basis and shall include furnishing all labor, equipment, and materials for the removal of existing void filler.

See Subsection 11:06 for further detail of Removal of Void Filler.

ITEM NO. 9 – CONCRETE VOID FILLER:

The work to be performed under this item is to be bid upon and executed on a unit price per cubic yard basis and shall include the furnishing, placing and finishing of Portland Cement concrete to a minimum of 24 inches to a maximum of 30 inches, as measured from the top of filler stone to the surface of the jetty.

See Subsection 11:06 for further detail of Concrete Void Filler.

ITEM NO. 10 – GEOTEXTILE STRUCTURAL FABRIC WRAPPING FOR CORE BOX CONSTRUCTION; Station 1+30 to 6+00:

The work to be performed under this item is to be bid upon and executed on a unit price per linear foot basis and shall include furnishing all labor, equipment and materials for installation of a continuous geotextile fabric corestone wrapping on top of the mat stone and around the core box, the fabric to enclose the corestone located within the core box as shown on the contract drawings and indicated in the specifications herein.

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1:00 (8)

PROJECT DESCRIPTION:

See Subsection 11:07 for further detail of Geotextile Structural Fabric Wrapping for Core Box Construction.

ITEM NO. 11 – GEOTEXTILE STRUCTURAL FABRIC WRAPPING FOR CORE BOX CONSTRUCTION; Station 6+00 to 11+92:

The work to be performed under this item is to be bid upon and executed on a unit price per linear foot basis and shall include furnishing all labor, equipment and materials for installation of a continuous geotextile fabric corestone wrapping on top of the mat stone and around the core box, the fabric to enclose the corestone located within the core box as shown on the contract drawings and indicated in the specifications herein.

See Subsection 11:07 for further detail of Geotextile Structural Fabric Wrapping for Core Box Construction.

ITEM NO. 12 – EXCAVATION “IF & WHERE DIRECTED”:

The work to be performed under this item is to be bid upon and executed on a unit price per cubic yard basis, and shall include all labor, materials, equipment, rigging, tools, and accessories required to excavate, temporarily stockpile at an upland, onsite location, and permanent placement of the sand upon completion and acceptance of a section of the jetty by the Manager, complete-in-place, to the lines and grades indicated on the project plans and as specified herein.

This item will be “If & Where” directed as determined through consultation between the Contractor and the Project Manager or their representative.

See Subsection 11:08 for further detail of Structure Monitoring.

ITEM NO. 13 – STRUCTURE MONITORING:

The work to be performed under this item is to be bid upon and executed on a lump sum basis and shall include all labor, materials and equipment, and performing all operations required to monitor structures for potential effects of the contract work.

See Subsection 11:09 for further detail of Structure Monitoring.

1:03

INVESTIGATION OF SITE AND CONDITIONS:

The contractor, by the submission of a bid, acknowledges that they have satisfied them self as to the nature and location of the work; the general and local conditions including but not limited to

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1:00 (9)

PROJECT DESCRIPTION:

those bearing on accessibility, transportation, disposal, handling and storage of materials; the availability of labor, water, supplies, materials, power and roads; the uncertainties of weather, tides and similar physical conditions at the sites of the work; the conformation and conditions of the ground, the surface or sub-surface materials, conditions and obstacles; the character of equipment and facilities needed prior to and during prosecution of the work.

Any failure of the contractor to acquaint himself with any and all factors bearing on the project will not relieve them from the responsibility for estimating properly the difficulty and the cost of successfully performing the work, and the responsibility for completing the project under the terms of the contract at the unit or lump sum prices bid in the proposal.

1:04

CONTRACT TIME:

The allowed contract time is one-hundred eighty **(180)** calendar days. In the event of severe weather, which would not allow for work during these days, the contractor will be credited by the inspector against total elapsed work time. See Section 8:00 for further information.

NOTE: THE CONTRACTOR SHALL BE FULLY MOBILIZED AND BEGIN WORK TEN (10) CALENDAR DAYS AFTER RECEIVING THE NOTICE TO PROCEED LETTER FROM THE DIVISION OF COASTAL ENGINEERING.

1:05

DETERMINATION OF CONTRACT AWARD:

Bids will be compared and awarded based on the "price and other factors" determination of the committee, which will consider both the total amount bid (Section 1:05 (A)) AND the bidder's stone setting experience, as demonstrated by the Stone Setter's, Contractor Representative's, and the Contractor's Experience of the bidder (Section 1:05 (B)).

A. Total Amount Bid: Bids will be compared based on the total amount bid (inclusive of "If and Where" items) for all the work as outlined in the proposal form. If the winning bid as determined by the evaluation committee and Director of the Division of Coastal Engineering ("Director") is within the funds available to finance the project, a contract will be awarded for all the work as bid upon.

If the total amount of the winning bid as determined by the evaluation committee and Director exceeds the available project

funds, the Department reserves the right to reduce the quantity of work so that a total dollar amount produced is within the available funds, and to award a contract on such a reduced basis.

The Department of Environmental Protection, Division of Engineering and Construction reserves the right either to award a contract for all work as bid upon, or to reject any and all bids, pursuant to applicable law, as may be deemed in the best interests of the State of New Jersey.

In the event of a discrepancy between a unit price bid and an extended total in the bid proposal, the unit price shall govern.

B. Stone Setting Experience and Qualifications: For a bid to be considered responsive at bid opening, the Contractor shall provide proof of project experience involving stone setting for the Contractor, Contractor Representative, and all Stone Setter(s) involved with the project.

- i. Stone Setter(s):** The Contractor shall provide proof that they will have all stone placement accomplished by one or more experienced stone setters, each having demonstrated experience, to the satisfaction of the Project Manager and their designee, on at least two (2) projects entailing the construction of keyed-in rock coastal structures. Each project shall entail the construction of a stone groin, revetment, jetty, flume, seawall, or other keyed-in stone shore protection structures either offshore or immediately adjacent to a beach (as defined in N.J.A.C. 7:7-9.22), inlet, or tidally flowed body of water (as defined in N.J.A.C. 7:7A-1.4), where the project requirements entailed creation of core boxes or bedding stone layers and placement of cap stones with a weight of 4 tons or more in a keyed layer to provide a contiguous structure. The stone setter must also have experience with stone placement in or adjacent to tidal waters as defined in N.J.A.C. 7:9B-1.4. At the time of bid, the Contractor shall be required to submit the experience of a minimum of one (1) individual to perform the stone setting work. These submissions shall include the following for EACH project listed as experience for the stone setter:

1. Project name and location
2. Approximate construction year or years
3. Project synopsis, inclusive of type of project constructed
4. Stone type(s) (cap, core, mat, etc.)
5. Range of stone weight for each stone type

6. Point of contact for the project Owner, including phone number and email
7. Equipment used to place stone (excavator, crane with clamshell bucket, etc.)
8. Whether the project required stone placement in or adjacent to tidal waters as defined in N.J.A.C. 7:79B-1.4

Failure to include one or more of the required descriptive elements for each project intended to demonstrate the Stone Setter's stone setting experience could result in rejection of that particular project for use in the bid evaluation. The Project Manager, or his representative, reserves the right to request clarifying information such as additional points of contact or project details for the proposed qualifying project(s) within the bid package prior to issuing an official decision on the Stone Setter's experience and ability. Should the Office, through its investigation, find the work conducted to either not meet the criteria depicted above, or not be constructed in a workmanlike manner, the Project Manager, or his representative, reserves the right to reject the bid.

In addition to project experience, the Contractor shall also submit an affidavit certifying that project experience listed in the bid submission for the Stone Setter(s) is true and accurate, that the Stone Setter(s) listed will be the operator(s) physically executing the placement and keying in of stone for the duration of the project for as long as the stone setter(s) is/are employed by the Contractor, and that the Stone Setter(s) will not be temporarily terminated and reassigned to a different project for the duration of this particular project.

- ii. **Contractor's Representative:** The Contractor shall provide proof of project management experience of their proposed Representative on a minimum of one (1) project involving the construction of a stone groin, revetment, jetty, flume, seawall, or other keyed-in stone shore protection structure either offshore or immediately adjacent to a beach (as defined in N.J.A.C. 7:7-9.22), inlet, or tidally flowed body of water (as defined in N.J.A.C. 7:7A-1.4), where the project requirements entailed creation of core boxes or bedding stone layers and placement of cap stones with a weight of 4 tons or more in a keyed layer to provide a contiguous structure. The Contractor's Representative should possess the management

experience to adequately schedule staff, protect the worksite, oversee construction and maintain stone stockpiles. The submitting Contractor may submit additional projects from the Representative's resume they believe meet the criteria for evaluation purposes. The Contractor Representative maybe be designated as the proposed Project Manager, Project Engineer, or Site Superintendent.

The Contractor must provide the following for EACH project listed as experience for the Representative:

1. Project name and location
2. Approximate construction year or years
3. Project synopsis, inclusive of type of project constructed
4. Stone type(s) (cap, core, mat, etc.)
5. Range of stone weight for each stone type
6. Point of contact for the project Owner, including phone number and email
7. Equipment used to place stone (excavator, crane with clamshell bucket, etc.)
8. Description of Contractor Representative's Project Title & Role

Failure to include one or more of the required descriptive elements for each project intended to demonstrate the Contractor's Representative stone setting experience could result in rejection of that particular project for use in the bid evaluation. The Project Manager, or his representative, reserves the right to request clarifying information such as additional points of contact or project details for the proposed qualifying project(s) within the bid package prior to issuing an official decision on the Contractor's Representative experience and ability. Should the Office, through its investigation, find the work conducted to either not meet the criteria depicted above, or not be constructed in a workmanlike manner, the Project Manager, or his representative, reserves the right to reject the bid.

In addition to project experience, the Contractor shall also submit an affidavit certifying that project experience listed in the bid submission for the Contractor Representative is true and accurate, and that the Representative listed will be overseeing construction activities throughout the duration of the project for as long as the Representative is/are employed by the Contractor, and that the

Representative will not be temporarily terminated and reassigned to a different project for the duration of this particular project.

- iii. Contractor:** Contractor shall provide proof of project experience and ability for a minimum of one (1) project involving the construction of a stone groin, revetment, jetty, flume, seawall, or other keyed-in stone shore protection structure either offshore or immediately adjacent to a beach (as defined in N.J.A.C. 7:7-9.22), inlet, or tidally flowed body of water (as defined in N.J.A.C. 7:7A-1.4), where the project requirements entailed creation of core boxes or bedding stone layers and placement of cap stones in a keyed layer to provide a contiguous structure. The Contractor's Experience should demonstrate they have completed work of similar nature wherein the Contractor had the management abilities to adequately staff the project, effectively manage their personnel, and implement a project of this magnitude. A Contractor may submit additional projects they believe meet the criteria for evaluation purposes.

The Contractor must provide the following for EACH project listed as experience for the Contractor:

1. Project name and location
2. Approximate construction year or years
3. Project synopsis, inclusive of type of project constructed
4. Stone type(s) (cap, core, mat, etc.)
5. Range of stone weight for each stone type
6. Point of contact for the project Owner, including phone number and email
7. Equipment used to place stone (excavator, crane with clamshell bucket, etc.)
8. Description of the staff managed, and resources allocated to manage project

In addition to project experience, the Contractor shall also submit an affidavit certifying that project experience listed in the bid submission for the Contractor is true and accurate.

Please note that the Contractor may submit a single project for multiple categories as long as the roles of the Stone Setter, Contractor Representative, and Contractor are clearly defined and discernable by the Project Manager.

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1:00 (14) PROJECT DESCRIPTION:

A Contract will be awarded that is most advantageous to the State, price and other factors considered, as outlined in Section 4:00. The Division reserves the right to award a contract under this project within the funds available for the project on the basis of the provisions in Section 1:00 herein, or to reject all bids, pursuant to applicable law.

1:06 POST-AWARD MANPOWER:

A. Additional Manpower: After the award, if the Contractor opts to use additional Representatives or Stone Setter(s) that were not included in the bid, the Contractor shall still be required to submit qualifications and experience for each additional staff member, as outlined herein.

The Contractor shall forward a written request to add a Representative or Stone Setter to the Project Manager for consideration. If the Project Manager approves the request, the Project Manager will forward the request to the Director for final approval. No additional Representatives or Stone Setters are authorized to begin work until the Contractor has received written approval from the Director.

B. Substitute Manpower: If it becomes necessary for the Contractor to substitute the Representative or Stone Setter(s) after award of Contract, the Contractor shall identify the substitute personnel and the work to be performed. The Contractor must provide detailed justification documenting the necessity for the substitution. Resumes must be submitted, as outlined in Section 1:05 (B) (i, ii), should evidence that the individual(s) proposed as substitute(s) have qualifications and experience equal to or better than the individual(s) originally proposed or currently assigned. The Contractor shall forward a request to substitute staff to the Project Manager for consideration and approval. No substitute personnel are authorized to begin work until the Contractor has received written approval to proceed from the Project Manager.

1:07 PROJECT SIGN:

The contractor shall furnish and erect one project sign, and shall maintain the sign throughout the contract operations. The sign shall be placed at a specific location designated in the field by the manager. The cost of the sign and of its erection, maintenance and removal shall be included in the lump sum price bid for Item No. 1 - General Work. The text of the sign shall be as follows:

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1:00 (15) PROJECT DESCRIPTION:

1. STATE OF NEW JERSEY
2. DEPARTMENT OF ENVIRONMENTAL PROTECTION
3. SHORE PROTECTION PROJECT NUMBER 4264-15
4. THIS CONSTRUCTION PROJECT IS DESIGNED AS A
5. PROTECTIVE MEASURE TO PRESERVE NEW JERSEY'S
6. SHORELINE AND TO FURTHER IMPROVE OUR
7. RECREATIONAL FACILITIES
8. PHILIP MURPHY, Governor
9. SHEILA Y. OLIVER, Lt. Governor
10. CATHERINE R. MCCABE, Commissioner
11. FRANK GILLAM, Mayor

NOTE: Lines 1 to 3 to be 4 inches high
Lines 4 to 7 to be block letters 2 1/2 inches high
Lines 8 to 11 to be 2 inches high

The upper portion of the sign, Lines 1 to 3, shall be gold letters on a blue field. The lower portion, Lines 4 to 11 shall be blue lettering on a gold field. All lettering shall be upper case standard block form.

1:08

NEW JERSEY PREVAILING WAGE ACT:

See Section 6:04 herein for detailed requirements of the New Jersey Prevailing Wage Act. A copy of bulletin MW 210 entitled "Prevailing Rate of Wages on Public Contracts", issued by the State of New Jersey, Department of Labor and Industry, will be on file for inspection in the Trenton and Toms River offices of the Division of Coastal Engineering, together with "Prevailing Wage Determination", issued by the Commissioner of the Department of Labor and Industry, and will be attached to the contract for the project.

The following shall be added to Section 6:04:

General wage determinations issued under Davis-Bacon and related acts, published by US Department of Labor, may be obtained from the Davis-Bacon web site at under the appropriate county where the project is to be performed, select the construction type heading: HEAVY.

Pay the prevailing wage rates determined by the United States Secretary of Labor and the New Jersey Department of Labor. If the prevailing wage rate prescribed for any craft by the United States Secretary of Labor is not the same as the prevailing wage rate prescribed for that craft by the New Jersey Department of Labor, pay the higher rate.

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1:00 (16) PROJECT DESCRIPTION:

State wage rates may be obtained from the New Jersey Department of Labor & Workforce Development (Telephone: 609-292-2259) or by accessing the Department of Labor & Workforce Development's web site at http://lwd.dol.state.nj.us/labor/wagehour/wagehour_index.html. The State wage rates in effect at the time of award are part of this Contract, pursuant to Chapter 150, Laws of 1963 (N.J.S.A. 34:11-56.25, et seq.).

By submission of bid, the Contractor assures and certifies that it will comply with the minimum-wage and maximum-hour provisions of the Federal Fair Labor Standards Act.

If an employee of the Contractor or subcontractor has been paid a rate of wages less than the prevailing wage, the Department may suspend the Work, and declare the Contractor in default.

1:09 TIDAL DATUM:

The vertical datum plane of reference for this project is NAVD 1988. The range of tide (Mean Low Water to Mean High Water) for this project area is anticipated to be 4.02 feet (NAVD 1988).

1:10 BUSINESS REGISTRATION:

All Contractors bidding the work under this contract shall comply with the provisions of P.L. 2001, c. 134, Business Registration. No state agency can enter into a contract with contractors unless first provided with proof of a valid business registration with the Division of Revenue. A hotline, the Client Registration Unit at Revenue, has been set up at (609)-292-1730 for validation of current status or new contractor registration.

1:11 PERMIT CONDITIONS:

The contractor shall adhere to all requirements and conditions set for the in the permits granted to the Division on May 25, 2016 from the NJDEP Division of Land Use & Regulation – Division of Coastal Regulation and on July 25, 2018 from the United States Army Corps of Engineers Regulatory Branch – Philadelphia District. These documents have been included in the Appendix for your use.

Please note that per the Division of Land Use & Regulation, it is required that the Division of Coastal Engineering prepare an "Unanticipated Discoveries Plan" for potential cultural resources discovered during construction operations. This plan has been attached in the appendix for your reference.

1:00 (17) PROJECT DESCRIPTION:

1:12 NOTICE OF EXECUTIVE ORDER 125 REQUIREMENT FOR POSTING OF WINNING PROPOSAL AND CONTRACT DOCUMENTS:

Pursuant to Executive Order No. 125, signed by Governor Christie on February 8, 2013, the Office of the State Comptroller ("OSC") is required to make all approved State contracts for the allocation and expenditure of federal reconstruction resources available to the public by posting such contracts on an appropriate State website. Such contracts are posted on the New Jersey Sandy Transparency website located at:

<http://nj.gov/comptroller/sandytransparency/contracts/sandy/>.

The contract resulting from this invitation to bid is subject to the requirements of Executive Order No. 125. Accordingly, the OSC will post a copy of the contract, including the invitation to bid, the winning bidder's proposal and other related contract documents for the above contract on the Sandy Transparency website.

In submitting its proposal, a bidder may designate specific information as not subject to disclosure. However, such bidder must have a good faith legal and/ or factual basis to assert that such designated portions of its proposal (i) are proprietary and confidential financial or commercial information or trade secrets or (ii) must not be disclosed to protect the personal privacy of an identified individual. The location in the proposal of any such designation should be clearly stated in a cover letter, and a redacted copy of the proposal should be provided.

The State reserves the right to make the determination as to what is proprietary or confidential, and will advise the winning bidder accordingly. The State will not honor any attempt by a winning bidder to designate its entire proposal as proprietary, confidential and/or to claim copyright protection for its entire proposal. In the event of any challenge to the winning bidder's assertion of confidentiality with which the State does not concur, the bidder shall be solely responsible for defending its designation.

1:13 FORMS:

The bidder shall submit the forms listed within Appendix A at the time of bid.

1:14 REVIEW OF CONTRACTS:

Pursuant to N.J.A.C. 17:44-2.2, the Contractor shall maintain all documentation related to products, transactions, or services under this contract for a period of five years from the date of final

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1:00 (18) PROJECT DESCRIPTION:

payment. Such records shall be made available to the New Jersey Office of the State Comptroller upon request.

Furthermore, the Division, the Natural Resources Conservation Service, the Comptroller General of the United States, or any of their duly authorized representatives reserves the right to access any books, documents, papers, and records of the contractor which are directly pertinent to the contract for the purpose of making examination, excerpts, and transcriptions for a period of three years after final payment has been made and all other pending matters are closed.

1:15 FEDERAL FUNDING PROVISIONS:

The Contractor must comply with all the terms and conditions outlined in the Federal Funding Provisions included in Appendix F.

1:16 EXISTING PROJECTS:

The Contractor is advised of the other projects in the general project area that have been recently completed prior to this Project. The Contractor shall coordinate directly with these Parties associated with these other projects throughout the duration of this Contract. The Contractor shall ensure their work does not adversely affect the recently completed work on the adjacent projects. It may be of interest to schedule meetings with these other Parties associated with these other projects to ensure conflicts are limited while notifying the State and their representatives of any concerns. The Contractor is responsible for meeting the overall project completion schedule. The Contractor is not in any way to hinder construction, disturb proposed work zones, or damage recent construction. Please coordinate with the United States Army Corps of Engineers (USACE), City of Atlantic City and the Project Owner to avert issues. There will be no additional cost for the coordination activities mentioned herewith.

A listing of the contact information for these Projects is located below:

USACE Atlantic City North End Project:

Coastal Field Office

Louis Lane

Pomona, NJ

(609) 569-0135

Attn: Christian Bickings, Project Manager

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1:00 (19) PROJECT DESCRIPTION:

Note: The Contractor is advised and shall include in his bid estimate costs to properly and completely transition the Absecon Inlet Jetty Repair Project to the limit of jetty disturbance from the USACE Atlantic City North End Project (Station 1+00 to Station 1+30). The Contractor is to coordinate with the USACE and the Project Owner to accomplish this.

USACE Absecon Island Beach Nourishment Project:

United States Army Corps of Engineers
100 E Penn Square
Philadelphia, PA 19107
(215) 656-6287
Attn: Keith Watson, Project Manager

General Contacts:

Atlantic County Engineer's Office
Post Office Box 719
New Road & Dolphin Avenue
Northfield, New Jersey 08225
Phone: (609) 645-5898

Atlantic City Public Works
1301 Bacharach Blvd, Room 603
Atlantic City, NJ 08401
(609) 347-5700
Attn: Paul Jenkins

Atlantic City Municipal Utilities Authority
401 North Virginia Ave,
Atlantic City, NJ 08401
(609) 345-3315

1:17

SITE SPECIFIC NOTES:

1. Contractor shall keep site secure at all times and install temporary safety fence or barriers each night.
2. The contractor shall conduct work operations as to minimize disturbance of areas outside of the designated construction limits. Damage to property beyond the construction limits, which occurs as a result of the contractor's operations, will be restored at the Contractor's expense to original conditions.
3. The Contractor shall adequately protect all existing structures and utilities. Any damage to existing structures or utilities shall be the sole responsibility of the Contractor and all costs for repairs shall be borne by the Contractor.

4. Available information as to the location of existing substructures and utilities has been collected from various sources. The results of such investigations as may be shown on the Contract Drawings are not guaranteed as to accuracy or completeness. All existing utilities are shown for general information only.
5. Existing contour, profiles and sections are based on a survey performed on behalf of the DEP on December 2015. Contractor shall be advised that the grades are shown for reference only and are subject to change due to the dynamic nature of the coastal zone. Contractor shall inspect the site prior to bid to assess exact conditions at time of bid. All elevations are referenced at NAVD 1988.
6. The Contractor shall provide suitable and safe means for various agencies to inspect the work completed by the Contractor.
7. Parcel map and property lines are not exact. Property lines were acquired from Atlantic City and County GIS System Parcel Tax Maps.
8. Contractor may consider construction from either land, sea or both. Anticipated construction means and methods should be should be reflected in the unit and lump sum bid prices.
9. The project site and staging area must be returned to its pre-existing conditions after completion of construction unless otherwise noted by the project owner. The contractor shall anticipate the costs to remove any waste or debris created as a result of construction activities from the site within the various items in this Contract. Material must be properly disposed of at an approved location or landfill. The Contractor shall contact the Project Owner to schedule final inspection before demobilization.
10. Contractor shall photo document pre-existing site conditions of the work area, adjacent structures, and along haul routes to provide evidence of any potential damage that may occur due to construction activities. If it is determined that damages have occurred due to Contractor operations, the Contractor is to work with the Division to develop a Site Restoration Plan and implement accordingly. Further details regarding Site Restoration can be found in Section 9:04.

STANDARD SPECIFICATION (Last Rev. 2/28/2019)

2:00 PROJECT PLANS AND SPECIFICATIONS:

2:01 PROJECT SPECIFICATIONS:

As issued, include Project Advertisement, Terms and Conditions of bidding and contract Award, Project Specifications both general and technical and the project Proposal Form.

These Specifications will be annexed to and become part of the contract.

2:02 THE PROJECT PLANS:

Are issued to accompany and be a part of the specifications. The plans are identified by date and number of sheets in Section 1:00 of these specifications.

2:03 GENERAL STATEMENT:

All labor, material and appliances to be furnished and all work to be done by the Contractor shall strictly conform to the Specifications and Plans. The Specifications and Plans are intended to be consistent with each other, but should there be any inconsistency either the Specifications or Plans shall take precedence, as decided by the Project Manager.

The work herein involved is to be complete in every way notwithstanding that every detail is not particularly mentioned. Any discrepancy shall be called to the attention of the Director, in writing, who shall give a decision in writing.

Any desired change or modification of the project work herein specified must be evidenced by a written order by the Director. Where a change or modification involves work, materials, products, or structures not specified herein, it must be evidenced by a supplemental work order describing and specifying the additional work and fixing the amount of compensation. Such supplemental work orders shall extend and be part of the original contract and surety bond.

All orders issued by the Director and all supplemental work orders shall be delivered to the Contractor or their representative before the work thereunder is begun.

If in the opinion of the Contractor, the construction operations as shown on the plan or staked on the ground will damage or undermine existing structures or properties adjacent to the site of the work, the Contractor shall request an examination and determination by the Director before proceeding with the work.

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Such examination and determination by the Director shall not relieve the Contractor in any way from their proper responsibility for damages caused to structures or properties adjacent to the site of the work by their operations.

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3:00 BIDDING AND CONTRACT AWARD:

3:01 DEFINITIONS:

1. **Bid** – Refers to the solicitation for the Project or the package assembled by the Contractor that contains the pricing and required documentation to be submitted.
2. **Beach** – As defined in N.J.A.C. 7:7-9.22.
3. **Bidder** – An entity, such as a Contractor, offering a Proposal in response to the Division's Bid Solicitation.
4. **Bid Solicitation** – The Division's Request for Proposal (RFP) which is made public through advertising, mailings, or some other method of communication.
5. **Clarifying Information** – Information requested by the Division for the purpose of resolving minor ambiguities, irregularities, informalities, clerical errors, or to clarify the detail in the descriptive elements within the bid package only. Clarifying information cannot remedy any deficiencies or material omissions in the bid, including lack of project experience or missing forms. Supplemental information such as additional project experience and additional staff will not be accepted as part of any requests for clarifying information. Further procedural information for requesting clarifying information can be found in Section 4:05.
6. **Contract** – Legally binding agreement between the Division and the Contractor for the execution of the project.
7. **Contractor** – The Bidder or first party awarded a Contract resulting from this Bid Solicitation (Further defined under Section 6:01).
8. **Contractor Representative** – An individual employed by the awarded Contractor that is directly involved with the management and oversight of the project. Their tasks may include but not be limited to: scheduling trucking deliveries, managing onsite stockpiles, overseeing construction methodologies, and any other tasks related to executing the Contract.
9. **Department** – The Department of Environmental Protection (Further defined under Section 5:01).
10. **Director** – Director, Division of Coastal Engineering, Engineering and Construction, Department of Environmental Protection, who is the Contract Manager for projects administered by the Division.
11. **Division** – The Division of Coastal Engineering.
12. **Evaluation Committee** – A committee established or Division staff member(s) assigned by the Director to review and evaluate bids submitted in response to this Bid Solicitation and recommend a Contract award to the Director.
13. **Groin** – A rigid structure constructed perpendicular to the shoreline to inhibit longshore transport of sediment and widen a shoreline.
14. **Inlet** – As defined in N.J.A.C. 7:7-9.9(a).
15. **Jetty** – A rigid structure used to maintain the opening to a navigational channel such as an inlet.

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- 16. Keyed-In Stone** – Stone that has been manually selected from a stockpile and tailor-fitted into place to form a tight-knit unified shore protection structure able to withstand the forces of direct wave attack.
- 17. Project Manager** – The individual employed by the Division that is tasked with the management and oversight of the project.
- 18. Proposal** – Bidder's timely response, or bid, to the Bid Solicitation including, but not limited to, Cost Proposal/Quote, Contractor Experience, Stone Setter Experience, and any licenses, forms, certifications, or other documentation required by the Bid Solicitation.
- 19. Revetment** - As defined in N.J.A.C. 7:7-1.5.
- 20. Seawall** – A wall or embankment erected to prevent a tidal waterbody from encroaching on or eroding a shoreline.
- 21. State** – The State of New Jersey.
- 22. Stone Setter** – The employee, or operating engineer, of the Contractor who physically keys stone into a shore protection structure featured in the Contract by means of heavy machinery such as crane, excavator, etc.
- 23. Tidal Waters** - As defined in N.J.A.C. 7:9B-1.4.

3:02

PROPOSAL AND ESTIMATED QUANTITIES:

Bids are solicited and shall be submitted on the Proposal Form attached to these Specifications. A unit price or lump sum as specified shall be bid for each item of work complete in place. Bid discrepancies will be resolved as outlined in Section 4:06.2.

For the purpose of competitive bidding, approximate quantities have been calculated from the plans as shown and are given in the attached Proposal Form for bidding. It must be distinctly understood that these quantities are approximate only, are the best obtainable at the present time, and will be used by all bidders submitting proposals.

3:03

JOINT VENTURE:

Any bidder interested in entering a Joint Venture shall complete and provide a Statement of Joint Venture to be included with their bid proposal. The Statement of Joint Venture template has been attached herein.

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3:04 QUALIFICATIONS OF BIDDERS:

The receipt and opening of bids is subject to the proper qualifications of each bidder in accordance with N.J.S.A. 52:35 et seq., together with all amendments thereto as well as any qualification requirements outlined in Section 1:00 herein.

The Stone Setter, Contractor Representative, and Contractor Experience Affidavits, which are part of the Proposal Form, shall be executed under oath by each bidder.

In determining the qualifications of a bidder the Division will consider their record in the performance of any contracts for similar work into which they may have entered with the State of New Jersey, or with any Federal Department or Agency or with other public bodies; it expressly reserves the right to reject the bids of such bidder if such record discloses that such bidder, in its opinion, has not properly performed such contract or has habitually, and without just cause, neglected the payment of bills, or has otherwise disregarded their obligation to subcontractors, employees, or who has failed to satisfactorily complete a previous contract.

3:05 SUBMITTING BIDS:

Bids received after the time named in the Project Advertisement, or if and when applicable after any revised date or time as stated in any addendum, or in unsealed envelopes will not be considered. Bids and guarantees must be submitted sealed in the bid envelopes furnished with the Proposal Forms. Bids received in other than required bid envelopes may be considered non-responsive by the Division. The bid envelope should be marked in the places designated thereon with the name and address of the bidder, the number of the project for which the bid is made, and the date and hour of the opening bids.

All bids must be listed upon the Proposal Form attached hereto. The Proposal Form shall be submitted with the attached forms and proof of project experience and qualifications as outlined in Section 1:05. Bidders are cautioned not to attach any conditions, limitations, or provisions to the Proposals as such conditions, limitations or provisions may render their bid non-responsive and may cause its rejection. The right is reserved to waive any informality or to reject any or all bids, pursuant to law, as may be deemed in the best interest of the State of New Jersey.

The process for receiving and evaluating bids will commence as follows:

- 1. Contractors must deliver sealed bids to the Division on or prior to the prescribed bid opening date and time.**

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- 2. At the prescribed time and date, sealed bids will be opened and prices announced.**
- 3. Bids will be given to and reviewed by a non-committee member to determine basic responsiveness.**
- 4. Responsive bids will be distributed to the evaluation committee for technical review.**
- 5. Each member of the committee will conduct an independent review and make their individual recommendation to the Director.**
- 6. The Director will review each recommendation and will make the final determination as to which bidder will be awarded the contract. The final determination of the most advantageous bid, price and other factors considered, will be announced within thirty (30) business days from the receipt of bids.**

No Proposal will be considered unless accompanied by Bid Bond or Certified Check made payable to the order of the DEPARTMENT OF ENVIRONMENTAL PROTECTION for at least ten (10%) percent of the amount bid, a certified statement from a Bonding Company acceptable to the State of New Jersey, stating that it will furnish required performance, and payment bonds for the Contractor upon the award of the work and the required Experience/Qualification Affidavit(s) which are issued as part of the Proposal. The Contractor will be required to execute and deliver a separate payment and performance surety bond to the Division as part of the contract, within ten (10) days after the award of contract.

The Payment and Performance Bonds shall be in an amount equal to one hundred (100%) percent of the Contract Amount, with such sureties as shall be approved by the State of New Jersey, to secure the faithful performance of the contract; to indemnify and save harmless the said State of New Jersey from all proceedings, suits or actions of any name or description; to assure the payment of all persons performing labor and/or furnishing material in connection with the project.

Any change in the plans, specification agreements, or quantities without the consent of the bondsmen, shall in no way vitiate said bond. The bond shall be given in compliance with the requirements of the statutes of the State of New Jersey in respect to bonds of Contractors on public works, N.J.S.2A:44-147, as amended and supplemented.

In the event that the representative(s) signing the proposal and required documents is/are acting as an agent(s) for a corporation, it is necessary that a certified corporate resolution, corporate acknowledgement, corporate bylaws, or similar documentation be submitted as evidence of the representative's(s') authority to act on behalf of the corporation. In the event the corporation does not already have documentation

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demonstrating the representative's authority to act on its behalf, an acceptable Corporate Resolution template is attached herein.

3:06

BID MODIFICATIONS:

A bidder may modify its bid proposal by electronic mail or letter at any time prior to the scheduled closing time for receipt of bids, provided such communication is received by the DCE prior to such closing time. A mailed confirmation of any modification signed by the bidder must have been mailed and time-stamped by the US Postal Service prior to the specified closing time. Such confirmation, whether transmitted electronically or by mail, shall be accompanied by a newly executed Bid Proposal Form.

Communications shall not reveal the basic bid price but shall only provide the amount to be added, subtracted or modified so that the final prices or terms will not be revealed until the sealed proposal is opened. If written confirmation of the telegraphic modification is not received within two (2) working days after the scheduled closing time, no consideration will be given to the telegraphic modification.

Bids may be withdrawn upon receipt of a bidder's written request prior to the time fixed for the bid opening. A bidder's right to withdraw a bid is lost after a bid has been opened. If an error has been made in the bid amount, request for relief from the bid may be made in writing to the Director. The written request shall be signed by an authorized corporate officer. A determination of whether the bidder will be released shall be at the sole discretion of the Director, who shall issue a finding within five (5) working days of receipt of all pertinent information relating to such request for relief.

3:07

CONTRACT AWARD:

A Contract will be awarded that is most advantageous to the State, price and other factors considered, as outlined in Section 4:00. The Division reserves the right to award a contract under this project within the funds available for the project on the basis of the provisions in section 1:00 herein, or to reject any or all bids as it may deem best in the interests of the State of New Jersey. The selected bidder must furnish Performance & Payment Bonds in order to receive award. The terms and conditions of bidding and contract award as set forth in these specifications and in Section 1:00 of these specifications shall become therein.

Bids received prior to the scheduled bid closing time will be evaluated by an evaluation committee based on prequalification documentation, bid package documentation, cost proposal, stone setter experience,

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contractor's representative experience, contractor experience, and overall presentation of the information as outlined in Section 4:00.

The NJDEP reserves the right to take as long as 90 calendar days after bids have been received, evaluated, and the Intent to Award has been issued to fully execute a contract. Failure to submit all necessary paperwork to the Division in a timely fashion will delay the execution of the contract and issuance of Notice to Proceed. The window to execute a contract shall be officially stopped should there be any formal bid protest until such time as the protest is officially dismissed. The clock shall continue from the elapsed time prior to the formal protest moving forward.

3:08

ADDENDUM:

The Division reserves the right at any time prior to the announced time for receipt of bids to amend the Specifications, Plans and Proposal Form in the interest of the State of New Jersey. Addendums that may result in material changes to Bid Prices shall be given five (5) additional calendar days for the bid of the Project. Clarifications of such items will result in the issuance of a 'Clarification Statement' with no additional time being allotted.

If and when an addendum is issued, bid packages must include a signed copy of the "Acknowledgement of Receipt of Changes to Bid Document Form" that will accompany an addendum package if and when an addendum is issued. Failure to include the signed form in a bid package may cause said package to be deemed incomplete.

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4:00 BID EVALUATION:

4:01 RIGHT TO WAIVE:

The Director reserves the right to waive minor irregularities or omissions in a bid. The Director also reserves the right to waive a requirement provided that the requirement does not materially affect the procurement or the State's interests associated with the procurement.

4:02 DIRECTOR'S RIGHT OF FINAL BID ACCEPTANCE:

The Director reserves the right to reject any or all bids, or to award in whole or in part if deemed to be in the best interest of the State to do so. The Director shall have authority to award Contracts in accordance with N.J.S.A. 52:34-12. Tie bids will be awarded by the Director in accordance with N.J.A.C.17:12-2.10.

4:03 STATE'S RIGHT TO REQUEST CLARIFYING INFORMATION:

Each member of the Evaluation Committee reserves the right to request clarifying information which may assist him or her in making an award recommendation, including factors necessary to evaluate the Stone Setter experience to perform the Contract. Requests for clarifying information shall be made by a designated, non-Committee member representative from the Division on behalf of the Committee members. For Contractor, Contractor's Representative and Stone Setter experience, clarifying information shall only be requested for the proposed qualifying project(s) within the bid package. The Director also reserves the right to request clarifying information which may assist him or her in making a Contract award.

4:04 BID EVALUATION COMMITTEE:

Bids will be evaluated by an Evaluation Committee composed of representatives from the Department.

4:05 CLARIFICATION OF BID:

After the submission of bids, unless requested by the State as noted below, bidder contact with the State is not permitted.

During the Committee's review, one, some, or all of the bidders may be asked, by the designated representative, to clarify certain aspects of its bid via email. Bidders shall reply to emails in a timely fashion and provide ample detail in their responses to assist the committee in their evaluation.

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Upon request from the Committee, the designated representative may also contact the Project Owner(s) listed in the Stone Setter, Contractor Representative, and Contractor experience to verify project details. Please note that a delay in response from these parties regarding the Committee's questions may result in a delay of award recommendation.

A request for clarification shall conform to "Clarifying Information," as defined in Section 3:01. Requests for clarification in this regard should not be construed to imply acceptance or rejection of a bid. The Division will be the sole point of contact regarding any request for clarification.

4:06

EVALUATION CRITERIA:

All bids will be received and initially reviewed by a designated representative from the Division that is not a member of the Committee to determine whether the bid is responsive. In order for the bid to be deemed responsive, the bid must include all required completed forms, bonds, and other documents, a completed Cost Proposal, and Stone Setter, Contractor's Representative Experience, and Contractor Experience documentation. In regard to the Stone Setter, Contractor's Representative, and Contractor Experience documentation, the designated representative will only be responsible for ensuring that the minimum requirements outlined in Section 1:00 of the Specifications have been included.

Once it is determined by the representative that the bid is responsive, the bid will be forwarded to the Committee to conduct an in-depth evaluation. Bidders that are deemed non-responsive prior to evaluation will be notified.

The following evaluation criteria categories, not necessarily listed in order of significance, will be used to evaluate bids received in response to this Bid Solicitation. The evaluation criteria categories may be used to develop more detailed evaluation criteria to be used in the evaluation process.

Criteria a. and b. will be used as verification that all required documents and forms have been received and completed in their entirety, and scored on an Approved/Rejected basis.

Criteria c. through f. will be scored out of a predetermined weighted maximum point total and tallied to develop the overall Evaluation Score.

The overall structure of the grading system including weighted maximum point totals will be date-stamped and entered into the record before solicitation.

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- a. Prequalification Documentation: The documentation required as part of the "Contractor's Financial and Equipment Statement," submitted to the Division by the Contractor prior to receiving Project Plans and Specifications.
- b. Bid Package Documentation: All necessary forms, bonds, and other documents required in the Specifications for the bid to be deemed responsive.
- c. Cost Proposal: See Section 4:06.1 below.
- d. Stone Setter Experience: The documented experience of the Contractor's designated Stone Setter(s) in successful performance on completed and/or ongoing contracts of similar size and scope in relation to the work required by this Bid Solicitation. If the Contractor submits documented experience for more than one stone setter, each stone setter will be evaluated and scored separately. The average of these scores will be used in the Contractor's overall score for this category.
- e. Contractor's Representative: The documented experience of the Contractor's Representative in successful performance on completed and/or ongoing contracts of similar size and scope in relation to the work required by this Bid Solicitation. If the Contractor submits documented experience for more than one, only the Contractor Representative with the most experience will be evaluated and scored separately.
- f. Contractor: The documented experience of the Contractor in successful performance on completed and/or ongoing contracts of similar size and scope in relation to the work required by this Bid Solicitation.
- g. Overall Presentation: The overall presentation and detail of the Contractor and Stone Setter Experience within the bid package.

4:06.1

BIDDER'S COST PROPOSAL:

The Bidder submitted cost proposal will be considered by the Division in the evaluation process. The pricing evaluation methodology will be date-stamped and entered into the record along with the rest of the grading system and weighted maximum point totals before solicitation. If any changes or revisions are to be made to the evaluation process, it will occur during the solicitation phase and will be recorded in an Addendum. No changes are to be made upon receipt of bids on the bid opening date.

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4:06.2 BID DISCREPANCIES:

In evaluating bids, discrepancies between words and figures will be resolved in favor of words. Discrepancies between unit prices and totals of unit prices will be resolved in favor of unit prices. Discrepancies in the multiplication of units of work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated total of multiplied unit prices and units of work and the actual total will be resolved in favor of the actual total. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum of the column of figures. In the event of an omitted unit price or extended total for any one line item, the inferred price (either unit price or extended total) shall govern.

4:06.3 EVALUATION OF THE BIDS:

Each member of the Evaluation Committee will complete their evaluation individually and recommend to the Director for award the responsible bidder whose bid, conforming to this Bid Solicitation, is most advantageous to the State, price and other factors considered. Each member of the Evaluation Committee considers and assesses price, technical criteria, and other factors in their individual evaluation during the evaluation process and makes a recommendation to the Director.

The Director reviews each recommendation and makes the final determination as to which bidder will be awarded the contract. A final determination will be made within thirty (30) business days from the receipt of bids.

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5:00 THE DEPARTMENT OF ENVIRONMENTAL PROTECTION:

5:01 DEFINITION:

The term "Department" in the Specifications and Contract refer to the Department of Environmental Protection. The term "Commissioner" refers to the Commissioner of Environmental Protection. The term "Engineering and Construction" refers to the Engineering and Construction program within the Department. The term "Director" refers to the Director of the Division of Coastal Engineering of the aforesaid program. The terms mentioned above may appear in the Specifications, Contract or correspondence relating to this Project.

5:02 SUPERVISION AND INSPECTION:

The work will be conducted under the general direction of the Director. They will be represented on the work site by as many assistants as may be necessary. The Contractor shall give twenty-four (24) hours' notice when they need the services of the Director. The Director will appoint a designated Project Manager, along with Project Engineers and/or Inspectors whose duty it shall be to exercise supervision of operations and to enforce compliance with the evident intent and meaning of the Contract and these Specifications.

The presence of the Inspectors shall not relieve the Contractor of their responsibility for proper execution of the work. If the Contractor considers any work required to be outside the requirements of the Contract or considers any record or ruling of the Inspector unfair, they shall ask for written instructions or decision immediately and then file a written protest with the Director against the same within five (5) calendar days of the request, or be considered as having accepted the record or ruling.

The Contractor, if dissatisfied with a ruling of the Director may request a hearing before the Assistant Commissioner of Engineering and Construction and at the hearing may present evidence to justify a different ruling. The decision of the Assistant Commissioner shall be final. Request for such a hearing shall be made in writing to the Assistant Commissioner not more than two (2) calendar days after the date of the ruling by the Director. No extensions of time will be allowed to the Contractor during the processing of such a request.

The order in which the work will be prosecuted will be indicated from time to time by the Project Manager and/or Director. The locations and limits of the work shall be plainly indicated in advance by stakes and ranges established by the Contractor's surveyor.

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5:03 PROJECT OFFICE:

The Contractor shall furnish and maintain a suitable office at the site of the work for the use of the Project Manager and Inspectors on the project. The office must be complete in all respects, fully furnished as specified herein, and ready for occupancy by the Project Manager and Inspector at least one day prior to the beginning of project operations. The office shall be located as directed by the Project Manager, and insofar as possible, shall be placed so as to allow all truck deliveries of materials to the project to pass in front of the office for official inspection and signatures. The Project Manager may direct that the office be relocated during the course of the project work if conditions require.

The office construction, location and facilities must be satisfactory to the Project Manager, with the facilities to include a toilet, in addition to all other furnishings hereinafter specified. The office shall have a floor area of not less than one hundred twenty (120) square feet, shall be waterproof, and shall be equipped with close fitting door and windows which can be locked.

The office shall be equipped with one (1) desk, not less than two (2) feet by three (3) feet, containing not less than two (2) drawers with locks, three (3) office chairs; one (1) new computer, one (1) scientific calculator, and a plan table not less than three (3) feet by five (5) feet.

The Contractor shall provide light, air conditioning and heat for the office to maintain a 68-72 degrees Fahrenheit temperature range when weather conditions require it.

The office and all its facilities shall be maintained in good condition throughout the entire time the Project is in operation. The cost of furnishing and maintaining such office and facilities shall be included in the unit price of Lump Sum bid for the project work and payment therefore shall be considered as included in the partial and final payment for contract work.

5:04 OTHER FACILITIES TO BE FURNISHED:

The Contractor will be required to furnish on request, such boats, boatmen, men and material as necessary for supervision, surveying or control work. The Contractor will be required to furnish lumber and other material for the stakes, ranges, bench marks and tide gauges.

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6:00 THE CONTRACTOR:

6:01 DEFINITION:

Wherever the term "Contractor" is used it is understood to refer to the first party of the Contract. Subcontractors as such will not be recognized.

However, the Contractor shall not award to, or allow any work to be done, by a Subcontractor, under this project, without the written approval of the Director.

The Contractor shall formally request of the Director, in writing, approval of the Subcontractor and approval of their use on the project. The judgment of their suitability for approval shall be made from a written statement to accompany the request. The statement shall contain the following: The Contractor's reason for employing a subcontractor; the subcontractor's history in detail, a performance of similar work, equipment, supervisory personnel, financial status and other information showing their ability to perform the proposed work in compliance with the Plans and Specifications to the satisfaction of the Director.

The Contractor must at all times either be personally present upon the work or be represented thereon by a responsible agent (i.e. superintendent) who shall be clothed with full authority to act for the Contractor to all cases and to carry out any instructions relative to the work which may be given by the Director either personally or through authorized representative.

The Contractor shall employ competent individuals to do the work. Whenever the Director shall notify the Contractor or their representatives in charge, in writing, that any individual on the work is unfit for the place or is working contrary to the provisions of the Specifications or that instruction of the Director, they shall thereupon be removed from the project.

The Contractor must acquaint them self fully of the conditions relating to the construction of the Project, the employment of labor thereon, all Federal and State Laws and Municipal Ordinances and Regulations pertaining thereon.

The Contractor, by the submission of the Proposal and Bid for this Project, agrees, that they have personal knowledge of the site of the Project, of the physical conditions, of the surface and sub-surface conditions, of the tides, and datum and all hazards, known or anticipated and that the lack of any such knowledge affecting the performance fulfilling the provisions of the contract.

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6:02 OFFICIAL ADDRESS:

The Contractor shall establish and maintain an official address in the State of New Jersey for service of all notices and papers in connection with the contract.

6:03 SAFETY:

The Contractor shall keep proper lights each night between the hours of sunset and sunrise, upon all sites connected with the work. Upon all ranges or other markers in connection with it when deemed necessary by the Project Manager, and upon all buoys which may be dangerous or obstruct navigation, and shall be responsible for all damages resulting from any neglect or failure in this respect. All excavations or other obstructions, which may endanger lives or property, shall be properly lighted and marked with railings or other guards.

Any loss or damage arising through the nature of the work to be done from the action of the elements or from any unforeseen or unusual obstruction or difficulty which may be encountered in the prosecution of said work during the contract period shall be borne by the Contractor.

The Contractor shall be responsible for the safety of their employees, plant, and materials and for any damage or injury done by or to them from any source or cause and shall comply with all laws of New Jersey relating to insuring of employees employed on the project.

6:04 (A) FEDERAL, STATE AND LOCAL LAWS:

The Contractor shall be responsible for the strict observance of their employees of the Laws of the United States affecting operations under the Contract.

The Contractor shall comply with the provisions of N.J.S.A. 34:11-1 et. seq., which act provides for a minimum wage and with the provisions of N.J.S.A. 34:11-1 et. seq., which act provides that no laborer or mechanic shall work more than eight (8) hours in any one calendar day. Also Revised Statutes 10:2-1 to and inclusive of Section 10:2-4, which prohibits any discrimination in employment or labor or purchase of material on account of race, color or creed on public work. The Contractor agrees that:

- a. In the hiring of persons for the performance of work under this contract or any subcontract hereunder, or for the procurement, manufacture, assembling or furnishing of any such materials, equipment, supplies or services to be acquired under this contract, no contractor, nor any person acting on behalf of such contractor or subcontractor, shall, by reason of race, creed, color, national

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origin, ancestry, marital status, gender identity or expression, affectional or sexual orientation or sex, discriminate against any person who is qualified and available to perform the work to which the employment relates

b. No contractor, subcontractor, nor any person on their behalf shall, in any manner, discriminate against or intimidate any employee engaged in the performance of work under this contract or any subcontract hereunder, or engaged in the procurement, manufacture, assembling or furnishing of any such materials, equipment, supplies or services to be acquired under such contract, on account of race, creed, color, national origin, ancestry, marital status, gender identity or expression, affectional or sexual orientation or sex;

c. There may be deducted from the amount payable to the contractor by the contracting public agency, under this contract, a penalty of \$ 50.00 for each person for each calendar day during which such person is discriminated against or intimidated in violation of the provisions of the contract; and

d. This contract may be canceled or terminated by the contracting public agency, and all money due or to become due hereunder may be forfeited, for any violation of this section of the contract occurring after notice to the contractor from the contracting public agency of any prior violation of this section of the contract.

The work under this project shall be subject to the provisions of Chapter 150, P.L. 1963 of the State of New Jersey, designated as the "New Jersey Prevailing Wage Act". The Contractor will be required to comply with the provisions of said law. A copy of Bulletin MW 210 entitled "Prevailing Rate of Wages on Public Contracts", issued by the New Jersey Department of Labor in six (6) pages, is attached to and made a part of these specifications.

Pursuant to Chapter 150, P.L. 1963, of the State of New Jersey, the current Prevailing Wage Rate Determination established by the Commissioner of Labor and Industry is available for reference at the Department of Environmental Protection, Office of Engineering and Construction, Bureau of Coastal Engineering, 1510 Hooper Avenue, Toms River, New Jersey 08753. The Contractor, and any subcontractors will be required to pay all workman engaged in the performance of services directly upon the Project the prevailing rate of wages specified in said determination. This determination is conclusive for a period of two (2) years from date of issuance unless superseded within said two (2) years by a later determination.

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Employers not paying the itemized employee benefits to a payee designated in a collective bargaining agreement shall pay them directly to the employee on each payday.

The Contractor and any subcontractor, will be required to keep an accurate record showing the name, craft or trade and actual hourly rate of wages paid to each workman employed by them in connection with the project. Such record shall be preserved for two (2) years from date of payment.

The Contractor, and any subcontractor, will be required to post the prevailing wage rate for each craft and classification involved, as determined by the Commissioner of Labor, including the effective date of any changes thereof, in prominent and easily accessible places at the site of the work, and at such place or places as are used by them to pay workman their wages.

Pursuant to N.J.S.A. 34:11-56.27, in the event it is found that any worker, employed by the contractor or any subcontractor covered by said contract, has been paid a rate of wages less than the prevailing wage required to be paid by such contract, the New Jersey Department of Environmental Protection may terminate the contractor's or subcontractor's right to proceed with the work, or such part of the work as to which there has been a failure to pay required wages and to prosecute the work to completion or otherwise.

Reference is made to Chapter 30, P.L. 1966 as amended. The materials, supplies or services required for execution and completion of the work under this project are not subject to the provisions of the New Jersey Sales and Use Tax Act, Chapter 30, P.L. 1966 as amended.

Copies of Form ST-4, EXEMPT USE CERTIFICATION may be obtained from the State Division of Taxation, Sales Tax Bureau, 363 West State Street, Trenton, New Jersey 08625, or from the Office of Engineering and Construction, P.O. Box 419, Trenton, New Jersey, 08625. The Sales and Use Tax sections, which apply, are Nos. 8 (w) and 9 (a) (1). The project number, name of the Department and brief description of the project should be shown on the certificate for proper identification and reference.

The Contractor shall comply with the Laws of the United States and the State of New Jersey as to the inspection of hulls or boilers, etc. and the licensing of Masters and Engineers or other members of the crews of their vessels or plant. They shall conform to such sanitary requirements as may be prescribed by the State or Municipal Laws. The Contractor shall comply with any State Code or United States Code, which applies to any of the work to be done under the contract.

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All applicable State Laws, Municipal Ordinances and the rules and regulations of all authorities having jurisdiction of the site and construction of the project shall apply to this project throughout and they shall be deemed to be included in the Contract the same as though herein written out in full.

6:04

(B) AFFIRMATIVE ACTION PLAN:

After notification of award, but prior to signing a construction contract, the contractor shall submit to the public agency compliance officer and the Division an initial project workforce report (Form AA201) electronically provided to the public agency by the Division, through its website, for distribution to and completion by the contractor, in accordance with N.J.A.C. 17:27-7.

During the performance of this contract, the contractor agrees as follows:

The contractor or Subcontractor, where applicable, will not discriminate against any employee or applicant for employment because of age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex. Except with respect to affectional or sexual orientation and gender identity or expression, the contractor will ensure that equal employment opportunity is afforded to such applicants in recruitment and employment, and that all employees are treated during employment, without regard to their age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex. Such equal employment opportunity shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the public agency compliance officer setting forth provisions of this nondiscrimination clause.

The Contractor or Subcontractor, where applicable will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex.

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The Contractor or Subcontractor will send to each labor union, with which it has a collective bargaining agreement, a notice, to be provided by the agency contracting officer, advising the labor union or workers' representative of the contractor's commitments under this act and shall post copies of the notice in conspicuous places available to employees and applicants for employment;

The Contractor or Subcontractor, where applicable, agrees to comply with any regulations promulgated by the Treasurer, pursuant to *N.J.S.A. 10:5-31 et seq.*, as amended and supplemented from time to time and the Americans with Disabilities Act (42 U.S.C. 12101 et. seq.).

When hiring or scheduling workers in each construction trade, the Contractor or Subcontractor agrees to make good faith efforts to employ minority and women workers in each construction trade consistent with the targeted employment goal prescribed by *N.J.A.C. 17:27-7.2*; provided, however, that the Dept. of LWD, Construction EEO Monitoring Program may, in its discretion, exempt a contractor or Subcontractor from compliance with the good faith procedures prescribed by the following provisions, A, B, and C, as long as the Dept. of LWP, Construction EEO Monitoring Program is satisfied that the Contractor or Subcontractor is employing workers provided by a union which provides evidence, in accordance with standards prescribed by the Dept. of LWD, Construction EEO Monitoring Program that its percentage of active "card carrying" members who are minority and women workers is equal to or greater than the targeted employment goal established in accordance with *N.J.A.C. 17:27-7.2*. The Contractor or Subcontractor agrees that a good faith effort shall include compliance with the following procedures:

- A.** If the Contractor or Subcontractor has a referral agreement or arrangement with a union for a construction trade, the Contractor or Subcontractor shall, within three business days of the contract award, seek assurances from the union that it will cooperate with the Contractor or Subcontractor as it fulfills its affirmative action obligations under this contract and in accordance with the rules promulgated by the Treasurer, pursuant to *N.J.S.A. 10:5-31 et seq.*, as supplemented and amended from time to time and the Americans with Disabilities Act (42 U.S.C. 12101 et. seq.). If the Contractor or Subcontractor is unable to obtain said assurances from the construction trade union at least five business days prior to the commencement of construction work, the Contractor or Subcontractor agrees to afford equal employment opportunities to minority and women workers directly, consistent with this chapter. If the Contractor's or Subcontractor's prior experience with a construction trade union, regardless of whether the union has provided said assurances, indicates a significant possibility that the

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trade union will not refer sufficient minority and women workers consistent with affording equal employment opportunities as specified in this chapter, the Contractor or Subcontractor agrees to be prepared to provide such opportunities to minority and women workers directly, consistent with this chapter, by complying with the hiring or scheduling procedures prescribed under section B below; and the Contractor or Subcontractor further agrees to take said action immediately if it determines that the union is not referring minority and women workers consistent with the equal employment opportunity goals set forth in this chapter.

B. If good faith efforts to meet targeted employment goals have not or cannot be met for each construction trade by adhering to the procedures of section A above, or if the Contractor does not have a referral agreement or arrangement with a union for a construction trade, the Contractor or Subcontractor agrees to take the following actions:

1. To notify the public agency compliance officer, the Dept. Of LWD, Construction EEO Monitoring Program, and minority and women referral organizations listed by the Division pursuant to *N.J.A.C. 17:27-5.3*, of its workforce needs, and request referral of minority and women workers;
2. To notify any minority and women workers who have been listed with it as awaiting available vacancies;
3. Prior to commencement of work, to request that the local construction trade union refer minority and women workers to fill job openings, provided the Contractor or Subcontractor has a referral agreement or arrangement with a union for the construction trade;
4. To leave standing requests for additional referral to minority and women workers with the local construction trade union, provided the Contractor or Subcontractor has a referral agreement or arrangement with a union for the construction trade, the State Training and Employment Service and other approved referral sources in the area;
5. If it is necessary to lay off some of the workers in a given trade on the construction site, layoffs shall be conducted in compliance with the equal employment opportunity and non-discrimination standards set forth in this regulation, as well as with applicable Federal and State court decisions;
6. To adhere to the following procedure when minority and women workers apply or are referred to the Contractor or Subcontractor:

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- i. The Contractor or Subcontractor shall interview the referred minority or women worker.
 - ii. If said individuals have never previously received any document or certification signifying a level of qualification lower than that required in order to perform the work of the construction trade, the Contractor or Subcontractor shall in good faith determine the qualifications of such individuals. The Contractor or Subcontractor shall hire or schedule those individuals who satisfy appropriate qualification standards in conformity with the equal employment opportunity and non-discrimination principles set forth in this chapter. However, a Contractor or Subcontractor shall determine that the individual at least possesses the requisite skills, and experience as recognized by a union, apprentice program or a referral agency, provided the referral agency is acceptable to the Dept. Of LWD, Construction EEO Monitoring Program. If necessary, the Contractor or Subcontractor shall hire or schedule minority and women workers who qualify as trainees pursuant to these rules. All of these requirements, however, are limited by the provisions of (C) below.
 - iii. The name of any interested women or minority individuals shall be maintained on a waiting list, and shall be considered for employment as described in (i) above, whenever vacancies occur. At the request of the Dept. Of LWD, Construction EEO Monitoring Program, the Contractor or Subcontractor shall provide evidence of its good faith efforts to employ women and minorities from the list to fill vacancies.
 - iv. If, for any reason, said Contractor or Subcontractor determines that a minority individual or a woman is not qualified or if the individual qualifies as an advanced trainee or apprentice, the Contractor or Subcontractor shall inform the individual in writing of the reasons for the determination, maintain a copy of the determination in its files, and send a copy to the public agency compliance officer and to the Dept. of LWD, Construction EEO Monitoring Program.
7. To keep a complete and accurate record of all requests made for the referral of workers in any trade covered by the contract, on forms made available by the Dept. of LWD, Construction EEO Monitoring Program and submitted promptly to the Dept. of LWD, Construction EEO Monitoring Program upon request.

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- C.** The Contractor or Subcontractor agrees that nothing contained in paragraph B above shall preclude the Contractor or Subcontractor from complying with the union hiring hall or apprenticeship policies in any applicable collective bargaining agreement or union hiring hall arrangement, and, where required by custom or agreement, it shall send journeymen and trainees to the union for referral, or to the apprenticeship program for admission, pursuant to such agreement or arrangement. However, where the practices of a union or apprenticeship program will result in the exclusion of minorities and women or the failure to refer minorities and women consistent with the county employment goal, the Contractor or Subcontractor shall consider for employment persons referred pursuant to paragraph B above without regard to such agreement or arrangement; provided further, however, that the Contractor or Subcontractor shall not be required to employ women and minority advanced trainees and trainees in numbers which result in the employment of advanced trainees and trainees as a percentage of the total workforce for the construction trade, which percentage significantly exceeds the apprentice to journey worker ratio specified in the applicable collective bargaining agreement, or in the absence of a collective bargaining agreement, exceeds the ratio established by practice in the area for said construction trade. Also, the Contractor or Subcontractor agrees that, in implementing the procedures of B above, it shall, where applicable, employ minority and women workers residing within the geographical jurisdiction of the union.

After notification of award, but prior to signing a construction contract, the Contractor shall submit to the public agency compliance officer and the Dept. of LWD, Construction EEO Monitoring Program an initial project workforce report (Form AA201) electronically provided to the public agency by the Dept. of LWD, Construction EEO Monitoring Program, through its website, for distribution to and completion by the Contractor, in accordance with *N.J.A.C. 17:27-7*. The Contractor also agrees to submit a copy of the Monthly Project Workforce Report once a month thereafter for the duration of this contract to the Division and to the public agency compliance officer.

The Contractor agrees to cooperate with the public agency in the payment of budgeted funds, as is necessary, for on-the-job and/or off-the-job programs for outreach and training of minorities and women.

- D.** The Contractor and its subcontractors shall furnish such reports or other documents to the Dept. of LWD, Construction EEO Monitoring Program as may be requested by the Dept. of LWD, Construction EEO Monitoring Program from time to time in order to carry out the purposes of these regulations, and public agencies shall furnish such information as may be re-requested by the Dept. of LWD, Construction

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EEO Monitoring Program for conducting a compliance investigation pursuant to N.J.A.C. 17:27-1.1 et seq.

6:05 STAKES AND BENCH MARKS:

The Contractor will be required to preserve all stakes and benchmarks, established on the work until duly authorized by the Project Manager to remove the same. All stakes and benchmarks disturbed or removed without the permission of the Project Manager shall be replaced at the expense of the Contractor.

6:06 PROPERTY PROTECTION:

The Contractor will be required to protect all, but not limited to, concrete pavement, curb, sidewalk, and bulkhead from any damage during the construction of the work. If any such property is damaged by the Contractor or their agents, or employees, they will be required to replace the damaged property to the entire satisfaction of the Project Manager and Director.

6:07 PATENTS:

The Contractor shall hold and save harmless the State of New Jersey from liability of any nature or kind including expenses and costs for, or on account of, any patented process material or method, used in this project, or royalties arising from their use of any patented process material or method in any way involved in this project.

6:08 (A) INDEMNIFICATION:

The Contractor acknowledges that at all times under this Contract they shall be acting in the capacity of an independent Contractor, and as such shall be solely liable for all claims of any kinds and description including any and all damages awarded in any suit or proceeding including costs thereof, to which the Contractor may be subjected, by reason of injury to the person or property of others, including employees, resulting from the performance of the project, or through negligence of the Contractor, or through any improper or defective machinery, implements or appliances used by the Contractor in the performance of the project or through any act or omission on the part of the Contractor, their subcontractor, employees, agents, or servants; the Contractor agrees that there shall be no liability upon the State of New Jersey, through or by any and all of its Departments, Divisions or sub-divisions thereof including but not limited to its officers, agents, servants, or employees thereof, arising out of the performance by the Contractor of their obligations as set forth herein, and the Contractor further agrees to indemnify and save harmless the State of New Jersey, through or by any and all of its Department, Division, or Sub-Division thereof including but not limited to

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its officers, agents, servants, or employees thereof, from any liability and from all costs and expenses of any kind to which the State of New Jersey through or by any and all of its Departments, Divisions, or Sub-Divisions thereof, including but not limited to its officers, agents, servants, or employees thereof, may be put by reason of injury or claim of injury to persons or property resulting or arising from the performance by the Contractor, their servants, employees, subcontractors, licensees, agents, or invitees of their obligations herein.

Contractor waives any right of recovery for contribution from the State of New Jersey, through or by any and all of its Departments, Divisions, or Sub-Divisions thereof, including but not limited to its officers, agents, servants, or employees thereof, for any liability sustained by the Contractor under this contract including but not limited to claims for injury to person or property resulting from any portion of the work performed under this contract which may be deemed to be inherently dangerous.

6:08

(B) OWNER'S AND CONTRACTOR'S PROTECTIVE LIABILITY INSURANCE:

A. Policy Requirements. Procure and maintain insurance until Acceptance. The Department will not consider the Work or any portion as put to its intended use until Acceptance. The Contractor may only obtain insurance from companies that are licensed to provide insurance in the State. Ensure that policies are underwritten by companies with a current A.M. Best rating of A- with a Financial Size Category of VII or better. Before performing construction operations, provide the Project Manager with certificates of insurance and policy declaration pages. The Department's Insurance Certificate (Form DC-175) is the only acceptable form as evidence of insurance. Ensure that insurance policies are endorsed to provide written notice by certified mail to the Department 30 days before changes to and/or cancellation of the policy. Upon request, provide the Project Manager with a certified copy of each policy.

Submit documentation to identify all exclusions and deductible clauses. The limits of liability set forth below do not relieve the Contractor from liability in excess of such coverage. Deductibles for each policy are limited to \$250,000 per occurrence. The Contractor is responsible for the deductible limit of the policy and all exclusions consistent with the risks it assumes under this Contract and as imposed by law.

B. Types. At a minimum, provide the following insurances:

- 1. Comprehensive General Liability Insurance.** Procure Comprehensive General Liability insurance with a minimum

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limit of liability in the amount of \$1,000,000 per occurrence as a combined single limit for bodily injury and property damage.

Ensure the coverage for the policy is at least as broad as that provided by the standard basic, unamended, and unendorsed comprehensive general liability coverage forms currently in use in the State. Ensure the policy is endorsed to include:

1. Personal injury.
2. Contractual liability.
3. Premises and operations.
4. Products and completed operations.
5. Independent contractors.
6. Waiver of Subrogation for all claims and suits, including recovery of any applicable deductibles.
7. Severability of Interest/Separation of Insureds.
8. Per project aggregate.

Ensure the policy is endorsed to delete any exclusions applying to property damage liability arising from:

1. Explosions.
2. Damage to underground utilities.
3. Collapse of foundations

Ensure the policy names the Municipality(s), the State, their officers, employees, and agents as additional insured. On the Insurance Certificate, indicate the cost for providing the policy.

2. **Comprehensive Automobile Liability Insurance.** Procure Comprehensive Automobile Liability Insurance to cover owned, non-owned, and hired vehicles with a minimum limit of liability in the amount of \$1,000,000 per occurrence as a combined single limit for bodily injury and property damage. Ensure the policy is endorsed to include a Waiver of Subrogation for all claims and suits, including recovery of any applicable deductibles. Ensure the policy is endorsed to include Severability of Interest/Separation of Insureds clause.
3. **Owner's and Contractor's Protective Liability Insurance.** Procure a separate Owner's and Contractor's Protective Liability Insurance Policy with a minimum limit of liability in the amount of \$4,000,000 per occurrence as a combined single limit for bodily injury and property damage. Ensure the policy is endorsed to include Severability of Interest/Separation of Insureds clause. Ensure the policy names the Municipality(s), the State, their officers, employees, and agents as additional

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insured. Provide documentation from the insurance company that indicates the cost of the Owner's and Contractor's Protective Liability Insurance Policy. Ensure the policy is endorsed to include per project aggregate.

4. **Workers Compensation and Employer's Liability Insurance.** Procure Workers Compensation Insurance according to the requirements of the laws of this State and include an all-states endorsement to extend coverage to any state that may be interpreted to have legal jurisdiction. Provide

Employer's Liability Insurance with the following minimum limits of liability:

1. \$1,000,000 each accident.
2. \$1,000,000 Disease each employee.
3. \$1,000,000 Disease aggregate limit.

If construction operations require marine operations, including working from a barge or ship, or unloading material from a barge or ship on a navigable waterway in the United States, ensure the policy is endorsed to include US Longshore and Harbor Workers coverage and Jones Act coverage.

5. **Excess Liability Insurance.** Procure Excess Liability or Umbrella Liability insurance with limits in excess of the underlying policies for Comprehensive General Liability and Comprehensive Automobile Liability with minimum limits of liability of \$10,000,000. Ensure the Excess Liability Insurance policy takes effect (drops down) if the primary coverage is impaired or exhausted. Ensure the excess or umbrella policy has the same terms and conditions as the primary underlying coverage.

6. **Marine Liability Insurance.** If construction operations require the Contractor to use a boat, procure Marine Liability Insurance with a minimum limit of liability in the amount of \$2,000,000 per occurrence. Ensure the policy is endorsed to include:

1. Personal injury.
2. Contractual liability.
3. Waiver of Subrogation for all claims and suits, including recovery of any applicable deductibles.
4. Per project aggregate.
5. Ensure the policy names the Municipality(s), the State, their officers, employees, and agents as additional insured.

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C. Maintenance. Submit an updated DC-175, Insurance Certificate, to demonstrate continued renewal of insurance. During any period when the required insurance is not in effect, the Project Manager may suspend the Work. The Department may refuse to make payments due under this Contract or any other contracts with the Department until the required insurance coverage is in effect. The Department may use monies withheld to renew the insurance for the periods and amounts referred to above. Alternatively, the Department may default the Contractor and direct the Surety to complete the Project.

6:08

(C) POLLUTION LIABILITY INSURANCE:

Procure Contractor's Pollution Liability insurance for bodily injury and property damage with minimum limits of liability in the amounts of \$5,000,000 per occurrence and \$10,000,000 aggregate. Ensure that the pollution liability insurance meets the policy requirements specified in Section 6:08(B)(A) of these specifications.

If the policy is written on an occurrence form, ensure it will remain in effect until Acceptance, and ensure that completed operations coverage is provided for a period of no less than 2 years after Acceptance. If the policy is written on a claims-made basis, ensure an Extended Reporting Provision coverage is maintained for a period of no less than 2 years after Acceptance.

Ensure the policy provides coverage for:

1. Bodily injury and property damage to third parties.
2. Natural resource damages.
3. Environmental cleanup including restoration or replacement costs.
4. Legal defense.
5. Transportation of waste material by or on behalf of the Contractor away from the Project Limits.
6. Disposal liability for pollution conditions on, at, under, or emanating from any disposal site, location or facility used by or on behalf of the Contractor for disposal of waste.
7. Waiver of Subrogation for all claims and suits, including recovery of any applicable deductibles.
8. Severability of Interest/Separation of Insureds.
9. Per project aggregate.

Ensure the policy does not contain any exclusions or limitations for:

1. Liabilities Assumed under an insured contract.
2. Lead, silica, or asbestos.
3. Underground storage tanks.

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4. Insured versus insured exclusion that restricts coverage to the State.

Ensure the policy names the Municipality(s), the State, their officers, employees, and agents as additional insured. Provide documentation from the insurance company indicating the coverage, limitation of coverage, term of coverage, and cost of the pollution liability insurance policy.

6:08

(D) MEASUREMENT AND PAYMENT:

All costs associated with OWNER'S AND CONTRACTOR'S PROTECTIVE LIABILITY INSURANCE and POLLUTION LIABILITY INSURANCE shall be included in the pay item "GENERAL WORK".

The Contractor shall provide all other insurance costs at the Contractor's expense.

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7:00 GENERAL CONSTRUCTION:

7:01 INVESTIGATION OF SITE AND CONDITIONS:

The Contractor, by the submission of a bid acknowledges as follows: that they have satisfied them self with the nature and locations of the work; the general and local conditions, including but not limited to those bearing on accessibility, transportation, disposal, handling, and storage of materials; the availability of labor, water, supplies, materials, power, and roads; the uncertainties of weather, tides and similar physical conditions at the site of the work; the conformation and conditions of the ground; the surface and subsurface materials, conditions and obstacles; and the character of equipment and facilities needed prior to and during prosecution of the work. Any failure of the Contractor to acquaint them self with any and all factors bearing on the project will not in any way relieve them from their responsibility for estimating properly the difficulty and the cost of successfully performing the work, or the responsibility for completing the project under the terms of the contract and at the prices bid in the proposal.

7:02 OBSTRUCTION OF DRAINAGE:

If it is necessary during the progress of the work to interrupt or obstruct the natural drainage or flow from artificial drains, waterways, or mosquito ditches, the Contractor shall make proper provisions for taking care of such drainage so that no damage of any kind or character shall result, and if the Contractor shall neglect so to do they shall be liable therefore and shall indemnify and save harmless the State of New Jersey from all liability on damage which may result from such negligence.

7:03 MISPLACED MATERIAL:

Should the Contractor, during the progress of the work lose, throw overboard, sink, or misplace any material, plant, machinery, or appliance, which in the opinion of the Manager may be dangerous to or obstruct navigation, or constitute a menace to property they shall recover and remove the same with the utmost dispatch.

The Contractor shall be given immediate notice with description and location of such obstructions from the Project Manager, and when required shall mark or buoy such obstructions until the same is removed. Should they refuse, neglect, or delay compliance with the above requirements, such obstructions may be ordered removed by the Manager and the costs of such removal may be deducted from any money due or to become due the Contractor.

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7:04 WATER:

The Contractor shall furnish all water required to do the work and include the cost thereof in their bid.

7:05 RIGHTS-OF-WAY:

In the event the Contractor shall deem it necessary to obtain rights-of-way, storage areas, or other facilities, other than those provided by the Division, they shall be procured, used, and returned at their expense.

7:06 ACCESS TO ROADWAY AND TRESTLE:

The Contractor shall include in their bid for the work the cost of providing and removing all access roadways and trestles required by their operations. Ramps and trestles shall be constructed in such a manner as to make them safe to carry all construction loads. The Contractor shall be responsible for the design, construction, and complete removal of such structures.

7:07 DAMAGE TO STRUCTURES:

When necessary, and with the approval of the Project Manager and/or Director, permission is given for the removal of any part of an existing permanent structure during the progress of the work; the Contractor shall replace the materials removed or damaged with new materials of the same kind and quality as that removed or damaged, and reestablish to a completed finished condition and appearance. No allowance will be made the Contractor for such work, which shall be assumed as included in the bid for the new work.

7:08 CONSTRUCTION MATERIALS:

All construction materials furnished for the work shall be new and unused and shall strictly conform to the grade and quality hereinafter specified unless otherwise stated.

7:09 PROJECT SIGN:

The Contractor shall furnish and erect one or more project signs, complete with necessary supports, at locations to be designated in the field by the Project Manager. The signs shall be placed at least one (1) day prior to the beginning of the project operations, and shall be maintained by the Contractor throughout the project operations. The number and text of the signs shall be as indicated in section 1:00, and the construction and materials shall be as hereinafter described.

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Upon completion of the project, the signs shall be removed by the Contractor and shall become their property. Final payment under the project will not be made until the signs have been removed. The cost of the signs and appurtenant work shall be included in the bid as described in section 1:00.

The signs shall be 3/4" plywood, Marine-Ext. DFPA, four (4) feet high by eight (8) feet long. The edges shall have two (2) coats of primer, plus one (1) intermediate and one (1) finish coat; the front and back, one (1) coat of primer and one (1) coat of intermediate.

The upper portion of the sign shall bear gold letters over a dark blue field. The lower portion shall bear blue letters over a gold field. All lettering shall be standard upper case block letters. The work and lettering shall be of professional quality. Should the sign flake or fade during the contract time, it shall be repainted as necessary.

The Project Manager may order changes in the names and category if required to convey existing conditions. The height and size of lettering may be varied to give proportion to the sign. See Section 1:00 for legend, sizes and wording.

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8:00 CONTRACT CONDITIONS

8:01 CONTRACT TIME:

The Contractor will be required to begin work under the contract within ten (10) calendar days after the date of written notice from the Director, to begin work and must prosecute the work with due dispatch and with sufficient machinery and appliances, in good order to insure the completion of the work within the number of calendar days after the date of the commencement of the work as stated in Section 1:00 of these specifications. If at any time after the date fixed for beginning work, it shall be found that project operations in the opinion of the Director, are not being carried on at such a rate to complete the work within the time herein specified, the Director shall have the power after due notice in writing to the Contractor, to employ such additional plant or labor as may be necessary to insure proper prosecution of the work and any excess cost thereto over what the work should have cost at the contract rate, shall become due the Contractor. This provision however, shall not affect the right of the Department of Environmental Protection to annul the contracts.

8:02 SUNDAYS AND LEGAL HOLIDAYS:

No work shall be done on Sundays and Legal Holidays except in case of emergency, and then only with the consent of the Director. Work may be prosecuted at night if it can be done to the satisfaction of the Director and as agreed upon by resolution by the municipality.

8:03 LIQUIDATED DAMAGES:

For each calendar day after the date of completion stipulated in the contract that the work remains incomplete, the Department of Environmental Protection, may withhold from the Contractor's total compensation for the work the sum of one-thousand (\$1,000.00) dollars, and the amount thus withheld shall not be considered as a penalty but as liquidated damages fixed and agreed to in advance by contracting parties because of the difficulty of fixing exact damages, as a proper compensation to the State of New Jersey for the loss, inconvenience, and expense caused it by such delay.

8:04 STOPPING WORK:

The Director may stop any portion of the work if in their judgment the same cannot or is not being properly done for any reason. No allowance of any kind will be made for such stopping except in extension of the time for the completion of the work. No claims shall be made for any stoppage of work arising from environmental concerns as permitted in

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the specification (beach nesting birds, seabeach amaranth, etc.), except for extension of the time for the completion of the work.

8:05 CLAIM FOR DELAY:

At any time during the contract period, the Contractor may submit to the Director through the Director's representative, a claim for allowance of additional contract time, expressed in calendar days, to compensate for delay in prosecution of the work due to causes beyond the Contractor's control. Such claims shall be submitted within ten (10) calendar days of the commencement of such delay. Each claim shall describe the delay and its effect on the work; the causes from which the delay arose; the efforts and lack of ability on the Contractor's part to overcome the delay; the actual or projected length of such delay; and the number of calendar days of compensatory time required for such delay. In the case of extended delay, the Contractor shall file a supplementary statement, upon resumption of work, setting forth the total period of delay and requested compensatory number of calendar days. In acceptance the filing of claims, the Division reserves the right to deny any such claims or to approve and fix the compensatory time in each case, such time to be additive to the contract time stated in Section 1:00.

8:06 ABANDONMENT OF CONTRACT:

If at any time the Director should judge that the work herein described, or any part thereof, has been abandoned, that it is unnecessarily delayed, or that the Contractor is violating any faith, then, in that case, the Director shall notify the Contractor in writing to discontinue all work under this contract. The Division may employ other parties to complete the work in accordance with these specifications and use such equipment and materials as may be found upon the site of aforesaid work, and if necessary, procure other materials, equipment and labor for its completion.

The Department shall recover the cost of the work thus done by deducting the amount thereof out of any moneys which may be due the Contractor, or by an action at Law against the Contractor or their surety, or by either or both of these methods.

8:07 BREACH OF CONTRACT:

If the Division finds the Contractor in violation of any of the State and/or Federal Provisions provided within the Project Plans and Specifications, the Contractor will be subject to a penalty which may be monetary or punitive. Each offense and the circumstances regarding the offense will be reviewed by the Department and evaluated by the Director. The penalty enforced will be determined upon the completion of the Director's evaluation. The Director may choose to utilize a more severe

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penalty depending on the nature of the breach committed. Please see Section 8.06 - Abandonment of Contract.

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9:00 PAYMENT AND ACCEPTANCE:

9:01 PAYMENTS:

Estimates and partial monthly payment for the work performed during the previous monthly period, in accordance with the terms of the contract, and not previously paid for, will be made on the twentieth (20th) day of each month by the Director and payment there upon will be made by the Division within thirty (30) days thereafter upon acceptance of the payment estimate.

Prior to the issuance of a progress payment by the Division to the Contractor, the Contractor shall certify to the State Agency that a Subcontractor or supplier has been paid any amount due from any previous progress payment and shall be paid any amount due from the current progress payment or that there exists a valid basis under the terms of the Subcontractor's or supplier's contract to withhold payment from the subcontractor or supplier and therefore payment is withheld.

If the prime Contractor withholds payment from a subcontractor or supplier, the prime Contractor shall provide to the subcontractor or supplier written notice of a withholding of payment. The notice shall detail the reason for withholding payment and state the amount of payment withheld. A copy of the notice shall be provided to the bonding company providing the performance bond for the general Contractor and to the Division.

The reserved percentage of five (5%) percent of the total amount due monthly, and so reserved from such payment for the work performed under the contract until the work has been completed, will be paid on final completion of the entire work, to the satisfaction of the Director of the division in charge of the work, and upon presentation by the Contractor of a final certificate signed by the Contractor. Such final certificate shall be the Contractor's signed statement certifying to the Division that all lawful bills, charges and claims for payment whether due or which could become due, for all labor, materials and supplies of every kind in the completed project or employed or used in its construction, including payment for all suppliers and subcontractors, have been fully paid and discharged, and that the prevailing wage was paid for all labor employed in connection with the work, and that there remain no just liens, claims or demands whether presently asserted or which could become asserted against the work.

The Contractor agrees that as a further condition precedent to the granting of such final certificate, they will furnish said Director with satisfactory evidence that they have completed the work or furnished materials under this contract for which payment is sought and/or that whoever has sustained damage or injury by reason of any act, omission

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or carelessness upon its part, or its agents, in the prosecution of the work, has been paid in full or so secured that no liability of any kind or character can attach to the State of New Jersey on account of any claim.

It is specifically understood that in case either greater or lesser quantities under the various work items given herein are required finally to complete the work, the Contractor shall accept final payment for the actual quantity of work performed under each work item at their price or lump sum bid, for such item and shall make no claim for the variation of any anticipated profit, costs, or charges.

9:02 CONDITIONS OF ACCEPTANCE:

It is the intent to accept the completion of work for each individual section as described in the plans and specifications. At any time of final acceptance the whole work must have been finished in a neat and workmanlike manner, and must be in that condition at that time. Defects arising from any cause at any time before acceptance must be made good and the whole work put in a condition as herein specified before acceptance.

After completion of the work, and before final payment is made, the Contractor shall promptly remove their plant, and all appurtenances placed by the Contractor under the contract both in the waterways and on the upland and shall leave the site in a clean, uninjured good condition. Any and all piles driven by the Contractor either to support a construction trestle or for any other purpose in connection with the execution of the work shall be removed by the Contractor, prior to final acceptance of the contract work for each section of work.

All construction materials will receive appropriate inspections and tests as provided elsewhere in these specifications. Final acceptance of materials shall be made only after the incorporation of materials into the finally accepted completed structure.

Upon final acceptance of each section of work, the Contractor shall be relieved of their liabilities for the structure itself, and may release that portion of work from their bonds. However, this shall not relieve them from any potential claims that may arise from the prosecution of work or insurance requirements, and as such, the Contractor shall be held accountable for the investigation and defense of all claims from adjacent property owners for structural or property damages as stated in Section 6:08 (A) & (B).

9:03 CONTRACT QUANTITIES:

The Contractor obtaining the award will be paid upon the exact amount of work performed under each work item at the unit price or lump sum

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at which the Contractor bid such work item. It has been the endeavor to estimate the approximate quantity under each item to cover the outside requirements. In case either greater or lesser quantity under the various work items than those given herein for bidding are required to finally complete the work, the Contractor shall accept final payment for the actual quantity of work performed under each work item at their unit price or lump sum bid under that work item, and shall make no claim for the variation or any anticipated profits, costs or charges.

9:04

SITE RESTORATION:

The Contractor shall photo document pre-existing site conditions of the work area, adjacent structures, and along haul routes to provide evidence of any potential damage that may occur due to construction activities. If it is determined that damages have occurred due to Contractor operations, the Contractor is to work with the Division to develop a Site Restoration Plan and implement accordingly.

The Site Restoration Plan should be developed upon Substantial Completion of the Project. Upon substantial completion, the Contractor shall perform a Walkthrough with the Project Manager and discern damages (if any) that are the responsibility of the Contractor. These damages shall be recorded by the Project Manager. The Contractor is then to prepare a restoration plan using programs such as ArcGIS, AutoCAD, or any other means to develop a plan that properly demarcates the damaged areas to be restored, the materials needed, and quantity of materials. The plan should be approved by the Project Manager prior to performance of the restoration work.

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10:00 STATE PROVISIONS:

10:01 NEW JERSEY PREVAILING WAGE ACT:

A copy of Bulletin MW 210 entitled "Prevailing Rate of Wages on Public Contracts", issued by the State of New Jersey, Department of Labor and Industry, will be on file for inspection in the Trenton and Toms River offices of the Division of Coastal Engineering, together with "Prevailing Wage Determination", issued by the Commissioner of the Department of Labor and Industry and will be attached to the contract for the project.

10:02 DIVISION OF MOTOR VEHICLES REGULATIONS:

All vehicles used on this project must meet current State regulations for travel on highways. The Contractor must conform to N.J.A.C. 7:27-14 "Diesel Idling Regulations".

10:03 AMERICANS WITH DISABILITIES ACT (A.D.A.):

Bidders are required to comply with the provisions of the Americans with Disabilities Act, (A.D.A.), as amended. Contractor should also adhere to any local ordinances regarding accessibility. This shall also pertain to any and all subcontractors. Please reference the link provided here for the provisions of the A.D.A. https://www.ada.gov/2010_regs.htm

10:04 AFFIRMATIVE ACTION:

See Subsection 6:04 (B) herein for requirements. Bidders are required to comply with the requirements of N.J.S.A. 10:5-31 et seq. and N.J.A.C. 17:27.

The parties to this contract agree to incorporate into this contract the mandatory language of Sub-section 3.4(a) of the Regulations promulgated by the Treasurer pursuant to N.J.S.A. 10:5-31 et seq. and N.J.A.C. 17:27, as amended and supplemented from time to time and the Contractor and/or subcontractor agree to comply fully with the terms, provisions and obligations of said Sub-section 3.4 (a), provided that said sub-section shall be applied subject to the terms of sub-section 3.4(d) of said regulations.

10:05 BUSINESS REGISTRATION:

All Contractors bidding the work under this contract shall comply with the provisions of N.J.S.A 52:32-44 (P.L. 2001, c. 134) - Business Registration. No state agency can enter into a contract with Contractors unless first provided with proof of a valid business registration with the Division of Revenue. A hotline, the Client Registration Unit at Revenue,

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has been set up at (609)-292-1730 for validation of current status or new Contractor registration.

10:06 SUBCONTRACTORS:

In addition to the requirements of Section 6:01 of the Standard Specifications, all subcontractors must be pre-qualified with the Division of Coastal Engineering for the type of work and estimated value to be performed. Pre-Qualification must be achieved prior to commencement of the proposed activity the Subcontractor is to undertake.

The Division will require the following documents in order to pre-qualify a Subcontractor:

- Public Works Registration
- Business Registration
- Subcontractor Resume
- Proof of Licensure (If Needed)
 - i.e. Proof of Professional Licensed Surveyor for Surveying Subcontractor.

Upon acceptance of the Subcontractor by the Division. A copy of the Sub-Contract must be submitted to DCE for record.

In addition to the superintendence required by Section 6:01 of the Standard Specifications, the Contractor shall be required to furnish one superintendent at the site and on the Contractor's payroll to be responsible for coordinating, directing, inspecting and expediting the subcontract work at all times.

10:07 BUY AMERICA:

This project must comply with N.J.S.A. 52:32-1 and N.J.S.A. 52:33-1, et seq., which prohibits the use by the Contractor or Subcontractors of materials produced or manufactured outside of the United States on public work. For steel and iron products incorporated into the Project, the contractor must provide a certification from the manufacturer stating the country where the steel or iron product was melted and manufactured including the application of coatings which protect or enhance the value of the material.

The contractor is to ensure that three (3) copies of the manufacturer's certification are provided with each delivery of steel and iron products. The contractor may retain one (1) copy and submit two (2) copies to the NJDEP-OCE. Certification must include: material Description, quantity of material represented, country of manufacture, and a notarized signature of a person having legal authority to bind the supplier.

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10:08 DIANE B. ALLEN EQUAL PAY ACT:

As of July 1st, 2018, pursuant to N.J.S.A. 34:11-56.14(b), any employer, regardless of the location of the employer, who enters into a contract with a public body to perform any public work for the public body shall provide to the Commissioner of the New Jersey Department of Labor and Workforce Development, through certified payroll records required pursuant to P.L.1963, c.150 (C.34:11-56.25 et seq.), information regarding the gender, race, job title, occupational category, and rate of total compensation of every employee of the employer employed in the State in connection with the contract. The employer shall provide the commissioner, throughout the duration of the contract or contracts, with an update to the information whenever payroll records are required to be submitted pursuant to P.L.1963, c.150 (C.34:11-56.25 et seq.).

Information regarding the Diane B. Allen Equal Pay Act and its requirements may be obtained from the New Jersey Department of Labor and Workforce Development (LWD) web site at:
<https://nj.gov/labor/equalpay/equalpay.html>

LWD forms may be obtained from the online web site at:
https://nj.gov/labor/forms_pdfs/equalpayact/MW-562withoutfein.pdf

10:09 NOTICE OF CHILD SUPPORT:

The Contractor shall adhere to the rules and all terms and conditions set forth in the following NJ State Statute: N.J.S.A. 54:49-19, b.

10:10 CONFLICT OF INTEREST LAW/EO 189:

The Contractor shall adhere to the rules and all terms and conditions set forth in the following NJ State Statute: N.J.S.A. 52:32-44, g.

10:11 STATE USE TAX:

The Contractor and its subcontractor, if any, and each of their affiliates shall, for any and all Term(s) of the Agreement, collect and remit to the Director of the Division of Taxation in the Department of the Treasury the use tax due pursuant to the "Sales and Use Tax Act," P.L.1966, c. 30 (N.J.S.A. 54:32B-1 et. seq.) on all their sales of tangible personal property delivered into this State. See sub-section 6:04 (a) herein for Sales Tax Exemption Statement. Any questions in this regard can be directed to the Division of Revenue at the website link that can be found below:
<https://www.state.nj.us/treasury/revenue/revgencode.shtml>.

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10:12 PUBLIC WORKS CONTRACTOR REGISTRATION ACT:

Contractors and Subcontractors must be registered with the "Public Works Contractor Registration Act", N.J.S.A. 34:11-56.48 et seq. (P.L. 2003, c. 91) at time of bid.

--End of Standard Specification--

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11:00 (1) TECHNICAL SPECIFICATION:

11:01 GENERAL WORK:

SCOPE:

The work performed under this contract shall include the reconstruction of the Absecon Inlet Jetty within the City of Atlantic City, as shown on the plans and in accordance with the contract specifications.

GENERAL:

The work to be performed shall include, but not be limited to the following:

1. All general and overhead work, materials, supplies, facilities and expenses not specifically provided for under any other item or sub-items and required to complete the project work as a whole.
2. There will be **NO** fuel or asphalt price adjustments for this contract.
3. **It is the Contractor's responsibility to locate and protect all underground utilities within project work area and fully comply with New Jersey's Underground Facility Protection Act.** The Contractor is required to call 811 three days prior to the start of construction to find locations of all utilities and will supply the Division representative with the confirmation number of the "One-Call" system prior to the start of construction. Utilities indicated on the project plans are for general reference only. The exact type, number and locations of existing utilities has not been shown on the plans, and it is therefore the full responsibility of the Contractor to verify the exact location of all existing utilities and provide for their protection, or repair if damaged.

If a conflict between any proposed project work and existing utilities is found by the Contractor, the Contractor shall notify the Project Manager immediately and protect said utilities until direction is given regarding the disposition of the said utilities.

4. The construction and removal to pre-construction condition of all roads, runways and trestles; storage and facilities for protection of the work and construction material, and any other temporary structures or appliances necessary for proper execution of the work.

5. The restoration and repair of all private and public property and improvements disturbed, damaged, moved or changed in any way to their condition prior to the Contractor's operations.
6. The removal of all debris, equipment and material created by the Contractor's operation, or used by the Contractor, from the site of the work.
7. The furnishing of a project sign, as specified in subsection 1:07 & 7:08.
8. The furnishing and maintaining of warning signs, traffic cones and barrels, barricades and watchmen, as necessary for the safety and protection of the public, particularly during construction.

Also, the work area shall be sufficiently secured during the nighttime hours to prevent against trespassing and possible vandalism.

9. The Contractor shall also be responsible for establishing and maintaining lines and levels and assuring that all proposed fills are at their correct elevations. The Contractor will be responsible for the maintenance of stakes at all times throughout the construction process. Stakes shall remain in the ground until the Contractor is told by a Division representative they can be removed. Site grades shall be laid out by a competent engineer or land surveyor employed by the Contractor, who shall certify in writing to the Project Manager the correctness of the layout of the stakes.
10. All labor, materials, equipment, and all other costs and accessories required to satisfy the requirements of soil erosion and sediment control and water quality control in conformance with Section 158 of the "NJDOT Standard Specifications for Road and Bridge Construction", 2007 Edition as revised herein and Section 11:10 herein. Supplying and erection of all soil erosion and sediment control devices and structures as directed by the Cape Atlantic Soil Conservation District and/or as directed by the Project Manager if required.
11. The Contractor shall be responsible for sweeping the street if tracked by vehicles, maintaining a clean construction entrance, and shall clean all houses affected by dust if necessary.

TECHNICAL SPECIFICATION:

12. The Contractor shall restore the adjacent beach areas and all other areas outside of the construction limits, which have been disturbed by construction operations, to the original condition. Preconstruction photographs or video, as required under the contract, shall guarantee the validity of such restoration. Restoration may include, but is not limited to the replacement of the roadways, boardwalk, signs, fences, beach screening and regrading of the adjacent beach area (see Page T-4) and repairing adjacent private property.
13. Limitations to the placement of installed material have been provided in the sections of this Contract specific to that material. Contractor shall be advised that the existing footprint of the structure must not be exceeded.

SUBMITTALS:

1. Construction Schedule - The Contractor shall submit for approval, a construction schedule adhering to Section 11:17 indicating starting and completion dates of the various phases of work under this contract.
2. Shop Drawings - Shop Drawings, material and equipment to be installed and all other required submittals shall be submitted to the Project Manager for approval prior to installation.

MAINTENANCE AND PROTECTION OF MARINE INLET TRAFFIC AND ADJACENT BEACH AREA:

1. The Contractor shall at all times so conduct work as to assure the least possible obstruction to boat and pedestrian traffic within or adjacent to Absecon Inlet and to the general public utilizing the adjacent beach areas. The safety and convenience of the general public and the residents along the roads adjacent to the construction area and the protection of affected persons and property shall be provided for by the Contractor.
2. The Contractor shall provide and maintain adequate barricades, night lights (flashers, etc.), rails for protection of the public on land, and buoys, lights, and markers required at sea and in the inlet. All excavations or other obstructions which may endanger lives or property shall be properly lighted and marked with railings or other guards.

3. Prior to commencement of work, the Contractor shall submit, in writing to the Project Manager for the approval of the Safety Officer of the City of Atlantic City Police Department, a plan of methods, facilities and devices proposed as safety measures and methods proposed for maintenance of marine traffic and adjacent beach areas.

The Contractor shall also be responsible for contacting the United States Coast Guard and the New Jersey State Marine Police prior to the commencement of work to notify both agencies of the planned construction period and the proposed restrictions to navigation imposed during the mobilization, demobilization, and construction activities.

4. The access road and working area mentioned herein and as delineated in the contract drawings shall be protected to ensure that debris or loose material displaced from passing vehicles will not leave the work site. It is the responsibility of the Contractor to provide adequate security personnel and security measures to restrict unauthorized entry into the work area during all times of operation.

GENERAL SITE MAINTENANCE:

The Contractor shall include provisions for daily removal of unusable or excess material from the construction site. Excess material shall be disposed of by the Contractor and transported to approved locations at no additional cost.

BEACH SCREENING AND REGRADING:

The Contractor shall include provisions for screening and regrading of the beach upon completion of the project. The beach should be screened in areas where the Contractor prepared access, created stockpiles, and staged equipment. The Contractor should coordinate with the Project Manager or representative to ensure that the proper area is identified.

The Contractor should follow the following specifications for beach screening and regrading:

The Contractor shall utilize a beach rake that contains a screen that can achieve a $\frac{3}{4}$ " x $\frac{3}{4}$ " mesh to ensure all material exceeding $\frac{3}{4}$ inch will be captured. The screening should occur between the completed beach surface to a minimum of 4 feet below the completed beach surface. The Contractor should coordinate with the Project Manager or representative prior to mobilization of the

screening device. The screen and regrading shall be deemed complete at the satisfaction of the Project Manager.

SINKHOLES:

Due to the nature of the work, there is a possibility that sediment may settle into new void spaces created by the jetty repairs, which could result in the formation of sinkholes. Upon completion of the project and prior to beach screening and regrading, the Contractor shall ensure that no sinkholes have formed on the beach of the leeward side of the jetty. The Contractor shall be fully responsible for any sinkholes that form as a result of their construction methodology. If a sinkhole has been observed, the Contractor must coordinate with DCE Project Manager to determine corrective action. All sinkholes are to be addressed prior to completion of beach screening and regrading. A walkthrough should be coordinated with DCE Project Manager to confirm all sinkholes have been addressed and/or no sinkholes have formed prior to commencing beach screening and regrading.

ROUTES TO PROJECT SITE, RIGHTS-OF-WAY, AND EQUIPMENT/STOCKPILE AREAS:

The Project Manager shall consult and make all arrangements with the Engineer prior to entering upon or using any area for any phase of the operations. Any additional areas than those specified which may be required shall be arranged for by the Contractor at Contractor's expense. All such arrangements shall be subject to the approval of the Engineer and all costs relative to these areas shall be included in the Contractor's bid for General Work.

The Contractor shall make arrangements with the Director of Public Works, City Engineer and Engineer prior to the start of the work for authorized truck access routes. All haul route roads utilized by the Contractor for ingress and egress within the boundaries of the municipality, for the performance of the work under the Project, shall be regularly maintained by the Contractor for the duration of the project in a condition deemed safe and satisfactory by the Engineer. Any unauthorized usage of haul routes shall result in a fine for the driver and/or Contractor. Road maintenance shall be performed promptly and as directed by the Engineer, and shall include, but not be limited to, the filling of pot holes or depressions with cold mixed bituminous concrete material; and the control of excessive road dust by watering, by applying calcium chloride, or by other means satisfactory to the Engineer.

The Contractor shall also be responsible for the restoration and repair of all construction site access routes roadway, sidewalk, any utilities below or above the roadway, or at the project site, private and public property and improvements disturbed, damaged, moved or changed in any way to their condition prior to the Contractor's operations.

Upon completion of the work, any access roadways constructed shall be removed and all original items restored to their original (or better) condition. Items including, but not limited to, new concrete curbing, sidewalk, topsoil, fertilizer, sod, asphalt paving, and all else necessary and required shall be constructed to replace damaged items.

The Contractor can make arrangements for stockpiling of materials and equipment, other than what is provided per herein but is subject to the approval of the Manager through the Project Manager. All stone stockpiles must be limited to 2 capstones in height or 8 feet above existing grade (whichever governs). Please consult onsite representative prior to stockpiling. Also, no stockpiling shall occur seaward of the Mean High Water Line.

The removal of all debris, equipment and material created by the Contractor's operations, or used by the Contractor, from the site of work shall be conducted upon completion of the work.

GENERAL SITE CONSTRUCTION:

Contractor will be permitted to use any area within the construction limits adjacent to the sections to be repaired as an operating area, but must repair any damage thereto to the full satisfaction of the Engineer. The Contractor is cautioned regarding the numerous instances of hidden voids in the jetty. In using the jetty as an operating platform, Contractor assumes full responsibility for any damage, not only to the jetty, but also to Contractor's own equipment and personnel.

The Contractor shall limit excavation and removal of stone so as to minimize exposure of the beach, north of Absecon Inlet to wave attack, and shall at no time leave an opening in the jetty structure during non-working hours when any danger of adverse weather or tidal conditions are anticipated. Open sections of the jetty shall be fully closed with large cap stone until the next work day begins and the adverse conditions have subsided. The Contractor shall be fully responsible for any damage of any kind caused either by excavation excessively in advance of completed jetty construction or by inadequate protective measures employed by Contractor during non-working hours.

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TECHNICAL SPECIFICATION:

In addition, exposure of mat stone should not precede repair work anymore than is absolutely necessary for efficient operation, since the open area is particularly vulnerable to storm action.

The crest elevation shall be as shown on the contract plans, and shall be built to meet the existing elevations of the adjacent section of the jetty. The crest width and final crest elevation shall meet the design dimensions as a minimum and tie in neatly to the existing structure. An irregular alignment or surface will not be permitted. The reconstructed sections of the jetty shall be keyed into the existing jetty in such manner as to accomplish a continuous, integrated structure. Placement of stone according to size shall be referenced on plan sheets. Horizontal or vertical tolerance shall be 0 to plus 6 inches, however, no abrupt changes in the top surface will be allowed.

This, and all other phases of the work under this project shall at all times be under the supervision of the Engineer. No payment will be made for stone placed without the presence of the Engineer or appointed representative unless written permission is received.

The removal of all debris, equipment and material created by the Contractor's operations, or used by the Contractor, from the site of the work shall be conducted upon completion of the work.

MATERIALS:

All stone furnished and used shall be hard, sound, compact, dense and durable quarry stone of good resistance to disintegration under the action of seawater and alternate freezing and thawing cycles. Stone shall be free from cracks, seams, fissures, places of weakness or other undesirable qualities which might contribute to crumbling or breakage in handling and placing in the work or during later weathering and sea action. The stone shall be free from all foreign materials and shall achieve a minimum density of 175 pounds per cubic foot and a maximum of 190 pounds per cubic foot. The stone shall be furnished for use only after its suitability has been approved by the Engineer.

The Contractor must submit all pertinent quarry information in accordance with SECTION 19:00 – Jetty Stone of the New Jersey Department of Environmental Protection – Division of Coastal Engineering specifications. If the Project Manager determines that stone density from the approved quarry is consistently exceeding the maximum density listed above, the Division withholds the right to request quarry density information be re-submitted for review.

In the event the maximum density is consistently exceeded, the Division also withholds the right to calculate line item (items 3, 5, 6, and 7) payment amounts based on 190 pounds per cubic foot.

SOIL EROSION AND SEDIMENT CONTROL PROCEDURES:

Before commencing any other construction activities, the Contractor shall first provide all soil erosion measures so as to completely prohibit any excavated or fill soils, silts and other materials resulting from construction operations from being carried off and away from the construction area, particularly into adjacent private beach front property. No excavation work shall be permitted, and no fill shall be brought onto the site until the Engineer has given conditional approval of the Contractor's proposed works for controlling soil erosion and sediment control.

All temporary disposal sites and stockpile areas shall be so located so as to prohibit runoff of silt and soil to any watercourses.

The Contractor shall maintain all soil erosion and sediment control structures and devices throughout the life of the contract except that with the progress of construction, the Contractor may be required to relocate or remove some of the hay bales or to realign them to accommodate the various construction work, while at the same time preserving their soil erosion and sediment control capability.

Please see subsection 11:10 for further details.

PROTECTION OF VEGETATION:

The Contractor shall make every effort to avoid destruction of and damage to vegetation not designated to be removed so as not to unduly disturb the ecological or environmental quality of the area.

No vegetation shall be removed without the written consent of the Engineer. Only those areas defined for construction activities shall be permitted for use by the Contractor's forces.

Any vegetation not designated to be removed which is damaged, shall be replaced or replanted at the direction of the Engineer without additional cost to the contract.

PROTECTION OF BEACH:

The Contractor shall make every effort to avoid destruction of and damage to the adjacent beach area located outside of the

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construction limits, so as not to unduly disturb the ecological or environmental quality of the area.

PROTECTION OF EXISTING STRUCTURES, DUNES AND RESTORATION:

The Contractor shall carefully protect all existing structures, signs, pipelines, drains, conduits, poles, services, or other improvements on the site, and shall restore same to a condition equivalent to conditions existing prior to the operations, or stated otherwise by the Engineer herein, or in the drawings. Ample precautions shall be taken to prevent settlement of existing improvements.

The Contractor shall insofar as possible, determine in advance of excavation, the location of all utilities and other subsurface structures, and shall accurately mark same, so that they may be avoided by the machine. The information as to the location of existing substructures and utilities as shown on the Contract Drawings has been derived from various sources. Consequently, the information provided on the Contract Drawings cannot be guaranteed as to accuracy or completeness. All dimensions shown on the Contract Drawings are approximate. All existing utilities are shown for information only. The Contractor is responsible for obtaining, prior to excavation, all utility markouts including individual building service locations of underground lines so that they may be avoided during excavation.

Prior to the start of any work in the vicinity of existing utilities or other subsurface facilities, the Contractor shall notify the utility company at least three days in advance of the start of work.

RESTORATION OF SURFACE:

All dunes, beaches shrubbery, fences, sod, trees, and other surfaces disturbed or destroyed by work under this contract outside of the limits of construction, as delineated on the Contract Drawings, together with paved surfaces, gutters, curbs, and sidewalks damaged or destroyed by the Contractor's construction operation or any other activity associated with the Contractor's activity outside and within the limits of construction established under this specification, shall be restored to a condition equal to that before work began. No additional payment shall be made for this work described.

The restoration and repair of all private and public properties and improvements disturbed, damaged, moved or changed in any way due to the Contractor's operations shall be the responsibility

of the Contractor. Of particular concern within the scope of this contract are the portion of the existing jetty to remain, existing sand dunes, local roads, adjacent structures, and any private properties adjacent to the jetty.

In addition, the Contractor shall refer to and abide by the requirements of the NJDEP and the USACE as delineated on the Permits granted to the Division on May 25, 2016 from the NJDEP Division of Land Use & Regulation – Division of Coastal Regulation (DLUR Fil No. 0102-02-0027.16 CDT160001) and on July 25, 2018 from the United States Army Corps of Engineers Regulatory Branch – Philadelphia District (CENAP-OP-R-2016-00535 (NWP)), obtained by the Owner for this project. The Contractor shall pay particular attention to the environmental concerns surrounding Federal and State Endangered, Protected and Threatened Species. See Section 11:19 and the Appendix for further details.

METHODS:

Methods of excavation, grading and/or compaction shall be as required by job conditions. In general, excavation, grading and/or compaction may be done by suitable power equipment, but in cases where working room is limited or where necessary to prevent damage to existing trees, buildings, utilities, or structures, hand methods shall be used without further payment than is included in the prices bid.

ENVIRONMENTAL REQUIREMENTS:

The Contractor shall minimize environmental impact due to the construction operations during all phases of work. In addition to specific actions as described in the detailed Plans and Specifications, the Contractor shall protect all trees and vegetation beyond the limits of construction, they shall comply with all State and local regulations; shall refrain from dumping soil material into any stream, corridor, or wetlands; shall mulch or otherwise protect disturbed areas as required or necessary to prevent erosion, as well as consequent siltation of waterways; shall comply with all applicable Federal, State and local regulations governing the control of water pollution and solid wastes, and shall obtain, at no additional cost to the Owner, all permits as may be required with the exception of NJDEP and USACE Permits.

The Contractor shall prevent environmental impact to endangered, threatened and protected wildlife habitat. Construction operations shall be coordinated with nesting activities associated with such species. Should the presence of

11:00 (11) TECHNICAL SPECIFICATION:

this any endangered, threatened or protected species be discovered, their habitats will be protected during all phases of construction, in accordance with all applicable Federal and State protection policies.

The Engineer will notify the Contractor of any observed noncompliance with Federal, State, or local laws, regulations or permits. The Contractor shall, after receipt of such notice, immediately take corrective action. Such notice, when delivered to the Contractor or their authorized representative at the site of the work, shall be deemed sufficient for the purpose. If the Contractor fails or refuses to comply promptly, the Engineer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to any such stop orders shall be made the subject of a claim for extension of time or for excess costs or damages by the Contractor unless it was later determined that the Contractor was in compliance.

COAST GUARD LIGHT POLE CONCRETE FOUNDATION:

Located at the head of the jetty exists the remnants of a partially removed Coast Guard light fixture and its foundation. Contractor is to be made aware of this structure and provide all means not to disturb same during the construction activities.

The Contractor will also be required to provide and include all labor, materials, equipment, and accessories necessary to perform construction improvements around this structure as well as the improvements to same as detailed on the Contract Drawings; cutting existing bolts flush with concrete surface and fill void areas with core stone.

SURVEY CONTROL OF INSTALLATION ACTIVITIES:

The work under this item shall include all labor, materials, equipment, rigging, tools, and accessories required for conducting survey means to monitor and control installation activities.

PREPARATION OF ACCESS, MOBILIZATION, DEMOBILIZATION AND FINAL RESTORATION AND CLEANUP:

The Contractor shall submit to the Engineer, for approval, the method(s) of access to the beach and the necessary construction equipment requiring access. Direct access shall be allowed from Victoria Avenue and/or New Hampshire Avenue or by barge but as approved by the Engineer. A 50 foot wide access road will be

provided parallel to the dune system on the beach side to provide access to the work area from the entry points of Victoria Avenue and New Hampshire Avenue. The access road will be a minimum of 20 feet off the ocean side toe of the dune where the Contractor will be required to provide dune fence along the dune side of the access road. Stockpiling of material will not be permitted within the access road area. For information regarding stockpiles, please see Section 11:13. The Contractor shall maintain and regulate pedestrian access across this road from the boardwalk to the beach at all times.

The Contractor shall furnish the Engineer with a detailed sketch of the proposed access route for approval. Access structure shall be in accordance with contract detail.

Access to the work sites shall be arranged through the City of Atlantic City, City Director of Public Works and/or the Engineer and City Engineer. Access through private property is prohibited unless specific arrangements are made between the Contractor and Property Owner. All water based access shall be approved by the USCG, the City of Atlantic City and the Engineer.

The Contractor shall restore the adjacent beach areas and all other areas outside of the construction limits, which have been disturbed by construction operations, to the original condition. Preconstruction photographs or video, as required under the contract, shall guarantee the validity of such restoration. Restoration may include, but is not limited to the replacement of the boardwalk, signs, fences and regrading of the adjacent beach area and repairing adjacent private property.

The preparation and final restoration of the area shall conform to the technical specifications stated herein.

All excess materials and equipment shall be removed from the site immediately following final construction activity.

The Contractor shall remove all existing fence which interferes with the Contractor's operations from the construction area inclusive of dune fence and post and rail fence. Fence removal shall include that which is exposed and that which is buried in the existing dunes. All dune fence, posts, rails, and all else incidental to fencing that is removed by the Contractor shall be reinstalled accordingly.

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11:00 (13) TECHNICAL SPECIFICATION:

SITE CLEARING

The work under this item is to be bid upon and executed on a lump sum basis and shall include all labor, materials, equipment, rigging, tools and accessories required to site clear in conformance with Section 201 of the "NJDOT Standard Specifications for Road and Bridge Construction", 2007 Edition.

The following shall be added to Section 201.01 of the "NJDOT Standard Specifications for Road and Bridge Construction", 2007 Edition:

Clearing Site shall also include the removal and/or resetting of trees, shrubs, fences, walks, and minor yard structures which interfere with construction or need to be reset to meet the new construction as designated for removal by the Engineer during construction, and for which payment is not otherwise provided in the contract. The Contractor shall transport these removals to an offsite location at their own expense. Any items to be reset which are damaged or deteriorated shall be replaced in kind with new materials. All costs shall be included under the General Work item.

Clearing Site shall include all labor, materials, equipment, rigging, tools, and accessories required for all required excavation in conformance with Section 202 of the "NJDOT Standard Specifications for Road and Bridge Construction", 2007 Edition. This bid item shall also include the removal and disposal of the existing concrete caps, concrete ramps, timber bulkhead, cutting of piles, and handling of jetty stone to the limits shown on the contract plans.

Excavation shall be completed in accordance with the U.S. Department of Labor, Occupational Safety and Health Administration, 1990 (revised) (O.S.H.A. 226 and 29 CFR Parts 1926.650 through 1926.652).

METHODS OF MEASUREMENT AND BASIS OF PAYMENT:

ITEM	PAY UNIT
General Work	Lump Sum

The quantity of General Work for which payment will be made will be based on a lump sum determination at the price bid for this item as listed in the Proposal. The prices bid under this item shall include the cost of all access materials, mobilization, demobilization, site clearing, materials, equipment, tools, placement & removal of fences, barricades, construction lights,

4264-15**11:00 (14) TECHNICAL SPECIFICATION:**

and warning signs, the removal of loose rubbish or other undesirable materials which are found to be as a result of construction operations, and all else necessary therefor and incidental thereto to complete construction of the project.

Payment in the amount of 40% of the Total Contract bid price for this Item will be provided after full mobilization with the remaining 60% prorated over the duration of the Contract. Proration to be 10% per billing cycle unless determined otherwise by Project Manager.

11:02 SURVEY:

The work under this item shall be bid upon and executed on a lump sum basis and shall include all labor, materials, equipment, rigging, tools, and accessories required for conducting a pre-construction and an as-built survey of the jetty installation and surrounding landscape, prepared by a surveyor licensed in the State of New Jersey as specified in Section 12:00 – SURVEYS of the New Jersey Department of Environmental Protection – Division of Coastal Engineering specifications, and as described herein. The as-built survey shall include, but not be limited to: jetty alignment, top of jetty elevation, jetty side slopes, site grades and limits of disturbance, and adjacent structures, roads, bridges, bulkheads, storm drains as necessary to properly depict the newly constructed jetty and adjacent areas.

NOTE: Section 12:00 – Surveys is a general specification utilized to describe all types of survey work required by the Division.

SURVEY METHODS:

1. Pre-Construction Survey: This survey shall consist of elevation data referenced on a plan view of the existing jetty in addition to approximated cross sections using survey data. The elevation shots should be taken at the existing jetty crest on the jetty centerline, the inlet jetty crest edge, the beach jetty crest edge, the inlet jetty toe (or lowest point attainable along slope at low tide), and the beach jetty toe (or lowest point attainable along slope at low tide). During the pre-construction survey the surveyor should set controls in the field for the Contractor to be able to easily identify limits of work.

The cross-sections submitted should be taken between from Station 0+50 to Station 12+50 at a maximum of 25' intervals. Intervals may require refinement to capture change in profile due to existing structures or intersections to the jetty. Please

11:00 (15) TECHNICAL SPECIFICATION:

consult with Project Manager for any questions. The submitted plans should also identify the existing materials within the specific cross-section.

Pre-Construction survey is to be submitted to and approved by the Department prior to commencement of construction.

2. As-Built Survey: This survey shall consist of elevation data referenced on a plan view of the completed jetty in addition to completed cross-sections using survey data. The elevation shots should be taken at the completed jetty crest on the jetty centerline, the inlet jetty crest edge, the beach jetty crest edge, the inlet jetty toe (or lowest point attainable along slope at low tide), the beach jetty toe (or lowest point attainable along slope at low tide), top of completed core box (as directed), and top of secondary armor.

The cross-sections submitted should be taken between Station 0+50 and Station 12+50 at a maximum of 25' intervals. Intervals may require refinement to capture change in profile due to existing structures or intersections to the jetty (should match intervals determined during pre-construction survey). Please consult with Project Manager for any questions. The completed cross-sections should be overlaid on the existing cross-sections. Be advised surveys must be conducted around low tide to fully capture the limits described herein.

3. Both Surveys shall be submitted as follows: in .dwg format, .pdf format, and on 24" x 36" plan sheets (signed and sealed by a professional surveyor with licensure in the State of New Jersey). Please coordinate with Project Manager regarding survey requirements and submittals.
4. Conditional Survey: During construction the Contractor must ensure that recently completed sections of the jetty have met the design elevations and grades by following the requirements set forth by the As-Built survey listed above. The conditional survey must be completed and approved prior to progression of work into new sections. Please consult with the Project Manager regarding the submission of the Conditional Surveys.

METHODS OF MEASUREMENT AND BASIS OF PAYMENT:

ITEM	PAY UNIT
Survey	Lump Sum

The quantity of Survey for which payment will be made will be based on a lump sum determination at the price bid for this item

4264-15**11:00 (16) TECHNICAL SPECIFICATION:**

as listed in the Proposal. Payment in the amount of 30% of the Total Contract bid price for this Item will be provided upon receipt and approval of the Pre-Construction Survey. 40% will be prorated over the duration of the Contract in accordance with the submission and approval of conditional surveys. The remaining 30% is to be paid upon the submission and approval of the As-Built Surveys.

11:03**CORESTONE FOR CORE BOX CONSTRUCTION AND JETTY CHINK STONE:****DESCRIPTION:**

Work under this item involves furnishing all labor, equipment and materials for installation of new core stone for core box construction and "chinking" of jetty to stabilize armor stone voids and to allow placement of a minimum of 24 inches to a maximum of 30 inches of concrete void filler as shown on the Contract Drawings and indicated in the specifications herein.

MATERIAL:

Materials shall conform to the requirements as outlined in Section 19:00 – Jetty Stone of the New Jersey Department of Environmental Protection – Division of Coastal Engineering specifications and to the lines and grades as indicated on the contract plans.

Stone Class	Jetty Section	Stone Type	Minimum Weight	Median Weight (W ₅₀)	Maximum Weight	Minimum Density (pcf)
4	All	Core Stone	3.0 lbs	8.0 lbs	14.0 lbs	175
5	All	Chinking Stone	AASHTO R-5 Riprap (22 - 176 lbs)			

Corestone (Class 4):

Stone to be utilized under this item shall consist of small pieces of stone ranging in size between 3 lbs. and 14 lbs. each; Class 4 Stone. A maximum of 10% by weight of clean spalls will be allowed in the corestone. Spalls are defined specifically as small pieces of broken stone weighing less than 3 lbs. each, but definitely excluding dirt, quarry dust, and fine quarry stone. All stone shall be machine broken and screened at the quarry before loading for shipment to assure complete removal of dirt, mud, dust and fine quarry stone. Prior to the placement of any order for quarry stone, the Contractor shall submit a list which includes the names and locations of prospective suppliers.

Jetty Chink Stone (Class 5):

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11:00 (17) TECHNICAL SPECIFICATION:

Stone to be utilized under this item shall consist of small pieces of AASHTO Riprap R-5 stone ranging in size between 9 and 18 inches each; Class 5 Stone. A maximum of 10% by weight of clean spalls will be allowed in the chinkstone. Spalls are defined specifically as small pieces of broken stone weighing less than 3 lbs. each, but definitely excluding dirt, quarry dust, and fine quarry stone. All stone shall be machine broken and screened at the quarry before loading for shipment to assure complete removal of dirt, mud, dust and fine quarry stone. Prior to the placement of any order for quarry stone, the Contractor shall submit a list which includes the names and locations of prospective suppliers.

The Contractor will be held fully responsible for the furnishing of quarry stone which meets all requirements specified herein. All stone must be inspected and approved by the Engineer before placement into the structure.

CONSTRUCTION:

Construction shall conform to the requirements as outlined in Section 19:00 – Jetty Stone of the New Jersey Department of Environmental Protection – Division of Coastal Engineering specifications and to the lines and grades as indicated on contract plans.

CORE BOX CONSTRUCTION

Jetty shall be dismantled to the approximate lines and grades shown on the Contract Drawings and/or as directed by the Engineer in the field.

The dismantled armor stone shall be stored for measurement and subsequent placement. Upon meeting the proposed sub-grade of the core box and establishing a structurally sound chinkstone with no irregularities, to the satisfaction of the supervising Engineer, the geotextile fabric will then be placed on the chinkstone or proposed subgrade for acceptance of the corestone and construction of the core box as shown on the Contract Drawings and indicated in the specifications herein. Corestone shall be mechanically compacted in place and then wrapped with fabric, as shown on the Drawings. Rehandled armor stone may need to be placed at the sides of the corebox to allow for the proper shape of the corebox during construction.

JETTY "CHINKING":

Once the secondary armor and primary armor stones have been placed to the proper elevation, the "chinking" (filler stone) shall

11:00 (18) TECHNICAL SPECIFICATION:

be placed so as to construct as dense a mass as possible, with the least interior voids. Therefore, the selection of stone sizes shall be made accordingly and approved by the Engineer. The filler stone shall be placed in voids to a depth sufficient to bring the top of stone to 24 inches below the surface of the jetty crest elevation. Smaller sizes of filler stone shall be used to fill any voids below 24 inches of the surface between the large filler stone and existing jetty stones for acceptance of the concrete void filler. "Chinking" stone or filler stone placement shall be varied with plug stone to avoid areas where chinking stone will wash out of the structure.

For information regarding stockpiles, please see Section 11:13.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT:

ITEM	PAY UNIT
Corestone for Core Box Construction (Class 4) And Jetty Chink Stone (AASHTO Riprap R-5)	Ton

The stone placed under this item will be measured per ton, in accordance with certified quarry weight tickets. The quantities of stone required in this category are estimated only. In the event greater or lesser quantities than stated herein are encountered, the Contractor shall accept payment for the actual total quantity of core stone incorporated into the work. No stone will be incorporated into the structure and accepted for payment unless accompanied by a weight slip certified by the quarry and approved by the Engineer. A daily total of core stone delivered to the job site and subsequently placed within the structure will be maintained by the Engineer. Measurement for payment shall be paid per ton.

Payment for this item shall include all labor, equipment and all else necessary and indicated thereto to provide corestone placement to construct the core box and chink stone to fill voids.

The quantities of stone required in this item are estimates only. In the event greater or lesser quantities other than those listed herein are encountered, the Contractor shall accept payment for the actual total quantity of stone incorporated into the work.

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11:00 (19) TECHNICAL SPECIFICATION:

11:04 REHANDLED ARMOR STONE:

DESCRIPTION:

The work under this item involves all labor, equipment and materials for rehandling the existing jetty armor stone. This includes all costs for removal and subsequent stone placement, whether within the limits of the repaired jetty or at such other locations as may be directed within the construction limits and the Contractor shall make no extra claims for "external" placement. No extra payment for armor stone that has fallen off the mat stone to the channel or water side. Rehandled armor stone is to be utilized before new quarry cap stone is installed whenever possible.

MATERIAL:

Materials shall conform to the size and placement requirements as outlined in Section 19:00 – Jetty Stone of the New Jersey Department of Environmental Protection – Division of Coastal Engineering specifications and to the lines and grades as indicated on the contract plans with a tolerance described as per Section 11:05. Where rehandled stones are of sufficient size to meet the criteria for new cap stone as specified herein and as indicated on the contract plans, they may be used for that purpose. If not of sufficient size, they may be used as secondary stone, core stone or chink stone to the extent that the stone meets that criteria.

This core stone can in turn be used for replenishment of the existing mat stone, filler stone, or as "plugs" to properly interlock the structure, "chinking". All rehandled armor stone must be incorporated into the structure or placed at an alternate location within the construction limits (C.L.) as directed by the Engineer.

CONSTRUCTION:

Construction shall conform to the requirements as outlined in Section 19:00 – Jetty Stone of the New Jersey Department of Environmental Protection – Division of Coastal Engineering specifications and to the lines and grades as indicated on the contract plans.

The recovered stone will be stockpiled, by class, in an easily accessible area for measurement, as well as to permit proper selection of stone size to assure construction of a dense, compact stone structure. Stockpile locations should be labeled with a sign identifying the class of stone and weight limits. The Contractor shall be required to rebuild the jetty in full conformity with the

11:00 (20) TECHNICAL SPECIFICATION:

contract plans and as further described in these specifications. The Contractor shall be permitted to haul and temporarily stockpile within the defined construction limits (see subsection 11:01) no more than the amount of stone required to reconstruct 50 Linear Feet of jetty at any given time through the project duration unless otherwise directed by the Project Manager or representative.

The existing jetty is to be restored to original condition per plan and specification, utilizing rehandled armor stones and new armor stone as needed. This effort shall consist, in general of the removal of the existing armor stone and reconstruction of the southern and northern slopes and top berm. The placement of this existing armor stone from the jetty shall be within the area indicated on the contract plans and to the specified limits shown in the typical jetty sections.

The re-handled armor stone shall be selected and placed so as to construct as dense a mass as possible, with the least interior voids. Armor stones shall be placed as compactly as the shapes of the stone will permit, and so arranged as to prevent dislodgment, sliding or undue settlement. All stones must have a minimum of 3 contact points with the neighboring armor stone and shall not rock or pivot and ensure structural integrity. Please note point to point contact is not acceptable, all points of contact should be flat or angular surface.

Large pieces of stone known as "plugs" will be permitted where necessary to minimize voids. Care shall be used in selecting and fitting armor stones along the shoulders of the berm, so as to provide a continuous interlocked placement, uniform slope and continuity. The jetty is to be constructed so that the top berm and the slopes shall be faced with armor stones of the largest sizes (the primary armor layer) to provide a cover of maximum thickness. The primary armor layer shall be fabricated with the long axis of the stone placed perpendicular to the structure's face as shown on the contract drawings. Contractor shall be advised that the existing footprint of the structure must not be exceeded.

In addition, all cap stone removed in the excavation, including armor stone beyond the limits of the new jetty construction, which pose a threat to navigation, as determined by the Engineer, shall be stored for measurement and subsequent placement of this stone within the planned limits of the structure, or if needed, at alternate locations as directed by the Engineer, as described herein. The Contractor at all times shall protect the existing mat stone from cave-in or damage due to wave action. In the event that this occurs during the progress of the work, Contractor shall

11:00 (21) TECHNICAL SPECIFICATION:

be required to re-excavate or replace stone at Contractor's expense.

The Contractor shall limit the work area to no more than 50 LF of disturbed Jetty. In order for the Contractor to begin work in a new section of Jetty, existing sections must be completed and all survey requirements met unless otherwise approved by the Project Manager.

For information regarding stockpiles, please see Section 11:13.

EQUIPMENT:

Since this project requires the rehandling of existing armor stone, each piece of machinery used to handle stone will be equipped with a load moment device capable of providing a digital readout and printout of the net weight of each stone lifted. The cost of outfitting the piece of machinery used to handle stone with such devices shall be included as a line item under this category. The Contractor may utilize portable scales, however, the Contractor shall only be paid once for each stone placed, regardless of the number of times rehandled to maneuver or weigh the stone.

A piece of machinery used to handle stone with an acceptable digital load moment device, as manufactured by Kruger Systems, Rockford, IL, or approved equal. Other equivalent load moment indicators will be considered if proposed.

METHODS OF MEASUREMENT AND BASIS OF PAYMENT:

ITEM	PAY UNIT
Rehandled Armor Stone	Ton

Payment for this item will be based upon the requirement that any piece of machinery used to handle stone used for this project will provide a digital readout of the weight of the stone being lifted as well as an automatic written record of the net weight lifted at any time.

The quantities of stone required in this item are estimates only. In the event greater or lesser quantities other than those listed herein are encountered, the Contractor shall accept payment for the actual total quantity of rehandled stone incorporated into the work. No stone will be incorporated into the structure and accepted for payment until it has first been weighed by the crane's load moment indicator, and recorded by the Engineer. A daily total of rehandled stone removed and reset will be maintained by the Engineer. Scale verification shall be completed

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11:00 (23) TECHNICAL SPECIFICATION:

11:05 NEW ARMOR STONE – Primary (Head)

DESCRIPTION:

Work under this item involves furnishing all labor, equipment, and materials for reconstruction of the stone jetty and placing of new (armor cap) stone in such quantities as may be required to supplement suitable rehandled stone. New quarry cap stone is to be used only when the existing stone supply is exhausted unless otherwise directed by the Engineer.

MATERIALS:

Materials shall conform to the requirements as outlined in Section 19:00 – Jetty Stone of the New Jersey Department of Environmental Protection – Division of Coastal Engineering specifications to the lines and grades as indicated on the contract plans.

New quarry cap stone shall consist of pieces of stone based on the following table. Stone larger than the maximum specified will be accepted only if they can be used to the satisfaction of the Engineer.

Stone Class	Jetty Section	Stone Type	Minimum Weight	Median Weight (W50)	Maximum Weight	Minimum Density (pcf)
1	Head	Primary Armor	12.0 tons	16.0 tons	20.0 tons	175
2	Trunk	Primary Armor	11.0 tons	15.0 tons	19.0 tons	175
3	All	Secondary Armor	0.75 tons	1.0 tons	1.40 tons	175

New quarry cap stone furnished under this contract shall conform to the specifications for stone as described herein. The Contractor shall maintain a sufficient stockpile of armor stone to permit selection of stone of the proper sizes and shapes as required for the reconstruction of a dense, compact stone jetty. The Engineer shall be privileged to order variation in the sizes of stone, as required to reconstruct the jetty in full conformity with the contract plans and these specifications.

Stockpile locations should be labeled with a sign identifying the class of stone and weight limits.

CONSTRUCTION:

Construction shall conform to the requirements as outlined in Section 19:00 – Jetty Stone of the New Jersey Department of Environmental Protection – Division of Coastal Engineering

11:00 (24) TECHNICAL SPECIFICATION:

specifications and to the lines and grades as indicated on the contract plans.

The placement of the new cap stone within the area indicated on the contract plans to the minimum specified limits shown in the typical jetty section, with a tolerance of plus six inches (+6"). Top elevation for stone placement shall be maintained at 8.3 ft NAVD 88 with a tolerance of plus six inches (+6"). Contractor shall be advised that the existing footprint of the structure must not be exceeded. The Contractor shall be permitted to haul and temporarily stockpile within the defined construction limits (see subsection 11:01) no more than the amount of stone required to reconstruct 50 Linear Feet of jetty at any given time through the project duration unless otherwise directed by the Project Manager or representative.

The new quarry cap stone shall be selected and placed so as to construct as dense a mass as possible, with the least interior voids. The primary armor layer shall be fabricated with new quarry cap stone or re-handled stone that meets the criteria on the contract plans. This stone shall then be placed with the long axis of the stone placed perpendicular to the structure's face as shown on the contract plans. Stones shall also be placed as compactly as the shapes of the stone will permit, and so arranged as to prevent dislodgment, sliding or undue settlement. Large pieces of stone, known as "plugs" will be permitted where necessary, to assure tight, secure construction. Care shall be used in selecting and fitting cap stones along the shoulders of the berm, so as to provide a continuous interlocked placement and continuity. There should be no severe berm surface irregularities. The jetty is to be constructed so that the top berm and the slopes shall be faced with cap stones of the larger sizes, to provide a cover of maximum thickness.

For information regarding stockpiles, please see Section 11:13.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT:

ITEM	PAY UNIT
New Armor Stone – Primary (Head)	Ton
New Armor Stone – Primary (Trunk)	Ton
New Armor Stone – Secondary (Head and Trunk)	Ton

The quantities of stone required in this category are estimates only. In the event greater or lesser quantities other than those listed herein are encountered, the Contractor shall accept payment for the actual total quantity of new cap stone incorporated into the work. No stone will be incorporated into the

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11:00 (25) TECHNICAL SPECIFICATION:

structure and accepted for payment unless accompanied by weight slip certified by the quarry and approved by the Project Manager. A daily total or new stone delivered and placed will be maintained by the Engineer.

Measurement for payment shall be paid per ton of new armor stone. Payment for this item shall include all labor, equipment and all else necessary and incidental thereto to provide an acceptable placement within the jetty and the finished product of an acceptable jetty.

11:06 CONCRETE VOID FILLER

DESCRIPTION:

The work under this item shall consist of the removal of existing concrete void filler and the furnishing, placing and finishing of Portland Cement concrete to a depth between 24 and 30 inches, as measured from the top of filler stone to the surface of the jetty.

MATERIAL:

Concrete shall be of Type III or IIIA Portland Cement, sand and gravel conforming to ASTM C-94 (latest revision) using a minimum of 7 1/4 bags per cubic yard with the following requirements:

Strength 4,500 psi at 28 days
Coarse Aggregate . . . 3/4" - 1"
Slump Maximum - three (3) inches
Air Entrainment 6% plus or minus 1%
No admixtures except air entraining agent
Provide Water Content

Contractor to prepare and submit for approval of the concrete mixture design they plan to use on this project with substantiating test data prepared by an independent testing laboratory. Mix design must be approved prior to placement.

CONSTRUCTION:

Void Filler Removal:

Existing filler shall be removed to allow proper installation and repairs to the jetty system. All material shall be removed and disposed of accordingly at no additional expense to the Owner. All material should be removed so that only the materials necessary for the construction of the jetty remain. Removed

11:00 (26) TECHNICAL SPECIFICATION:

concrete void filler should be collected and disposed of at an approved offsite disposal facility.

Concrete Void Filler:

After placement of the armor stone and chinking as described in a separate section of these specifications, the Contractor shall leave the voids between the jetty crest surface and armor stone in the specified areas of the jetty open to a depth of 24 inches. All voids below the 24 inch depth shall be compactly filled with small filler stone, to prevent escape of concrete. The Contractor is to fill the voids within the reconstructed sections of the jetty with concrete grout per the approved mixture and achieve a depth of 24 inches below the jetty crest elevation and is not to exceed a maximum of 30 inches unless otherwise directed by the Project Manager. The concrete placed shall be worked and vibrated to fill the void spaces.

The concrete shall be finished off with a raked surface even with the top edges of the surface stone. Thin layers of concrete are to be prohibited. No construction equipment traffic will be permitted over any completed concrete area during the first 48 hours after concrete placement. Surface shall be of coarse raked anti-slip (not smooth) to increase friction/traction.

METHODS OF MEASUREMENT AND BASIS OF PAYMENT:

ITEM	PAY UNIT
Removal of Void Filler	Ton
Concrete Void Filler	Cubic Yard

Payment for this item will be based upon the requirement that any piece of machinery used to handle stone for this project will provide a digital readout of the weight of the void filler being lifted as well as an automatic written record of the net weight lifted at any time or other approved methodology.

Measurement for payment shall be paid per ton of filler removed. Payment for this item shall include all labor, equipment and all else necessary and indicated thereto to provide successful removal.

The quantity of concrete void filler for which payment will be made will be the volume of concrete poured in accordance with the plans or as directed by the Engineer. Quantities shall be based upon approved concrete delivery tickets from the concrete supplier. Concrete shall be approved for full truck loads except for placement of the last delivery of the day, which shall be based on the actual amount installed from the last truck load.

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11:00 (27) TECHNICAL SPECIFICATION:

Payment for Concrete Void Filler will be made for the quantity as above determined, measured in cubic yards, at the price bid per cubic yard for the item Concrete Void Filler in the Proposal. This bid price shall include the cost of all material, transportation, labor, tools, equipment, mix design, removal and disposal of loose rubbish or other undesirable materials which are found between the surface of the jetty to a minimum depth of 24 inches to a maximum depth of 30 inches, and all else necessary therefore and incidental thereto.

The quantities of filler removed/installed in these items are estimates only. In the event greater or lesser quantities other than those listed herein are encountered, the Contractor shall accept payment for the actual total quantity of filler removed/installed. No filler removed/installed will be accepted for payment until it has first been weighed by the crane's load moment indicator and recorded by the Engineer (removal) or supported by concrete delivery tickets from the concrete supplier (installed). A daily total of filler removed/installed will be maintained by the Engineer.

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11:00 (28) TECHNICAL SPECIFICATION:

11:07 GEOTEXTILE STRUCTURAL FABRIC WRAPPING FOR CORE BOX CONSTRUCTION:

DESCRIPTION:

Work under this item involves furnishing all labor, equipment and materials for installation of a continuous geotextile fabric corestone wrapping on top of the mat stone and around the core box, the fabric to enclose the corestone located within the core box as shown on the contract drawings and indicated in the specifications herein.

MATERIALS:

Materials shall conform to the requirements as outlined in Section 28:00 - GEOTEXTILE of the New Jersey Department of Environmental Protection - Division of Coastal Engineering specifications and to the lines and grades as indicated on the contract plans.

The geotextile fabric corestone wrapping shall consist of a durable, high strength woven polypropylene, specifically designed for use in a soil stabilization and drainage application. The material shall be supplied in the largest widths available which will give the least number of seams or overlaps in the completed installation. If overlaps are used, the minimum field installed overlap is 5'. Factory sewing seams are to be used as needed. Factory seam strength shall be equal to at least 60% of the original tensile strength.

The fabric shall have the following minimum average roll value (MARV) properties adhering to the identified ASTM test methods:

Type 75609 (Fabric)

Puncture strength	1,600 lbs.	ASTM D6241
Wide Width Tensile Strength	400 x 400 lbs.	ASTM D4595
Apparent Opening Size	30 US Sieve	ASTM D4751
Trapezoidal Tear Strength	220 x 220 lbs.	ASTM D4533
Water Flow Rate	15 gal/min/ft ²	ASTM D4431

Geotextile will be paid under Item No. 10 & No. 11 "Geotextile Filter Fabric for Core Box Construction."

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11:00 (29) TECHNICAL SPECIFICATION:

CONSTRUCTION:

Construction shall conform to the requirements as outlined in Section 28:00 – GEOTEXTILE of the New Jersey Department of Environmental Protection – Division of Coastal Engineering specifications and to the lines and grades as indicated on the contract plans.

Upon completion of the dismantling of the jetty, and establishment of the proper subgrade, the geotextile fabric corestone wrapping shall be placed on the existing mat stone or underlying armor stone, which is free of surface irregularities and structurally sound, to the satisfaction of the supervising Engineer.

Fabric shall be delivered to the site at the maximum width practical to complete the installation. Field seams in the longitudinal direction along the length of the jetty along the bottom or sides of the core box are not permitted. However, where the fabric envelope must be closed along the top of the core box to complete the encapsulation of the core box, or extend the core box wrap along the length of the jetty during construction, the fabric shall be overlapped by at least 60", no fasteners are to be utilized.

All installation procedures shall be according to the manufacturer's recommendations unless otherwise directed. Prior to the installation of the fabric the Contractor shall have a manufacturer's representative on the job site to direct and supervise the workers until they are sufficiently skilled in the proper installation methods for this material.

METHODS OF MEASUREMENT AND BASIS OF PAYMENT:

ITEM	PAY UNIT
Geotextile Structural Fabric Wrapping for Core Box Construction; Station 1+30 to 6+00	Linear Foot
Geotextile Structural Fabric Wrapping for Core Box Construction; Station 6+00 to 11+92	Linear Foot

Measurement for payment shall be in linear foot of geotextile wrapped core box within the jetty.

Payment under this item shall include solely geotextile fabric as specified under Items 10 and 11 "Geotextile Structural Fabric Wrapping for Core Box Construction."

Payment shall be made at the unit price per linear foot installed, as measured in accordance with the specified means. The price

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11:00 (30) TECHNICAL SPECIFICATION:

shall include the cost of supplying and laying fabric, supervision by manufacturer's representatives, all labor, equipment and all materials required to complete fabric installation.

The quantities of geotextile fabric required in this item are estimates only. In the event greater or lesser quantities other than those listed herein are encountered, the Contractor shall accept payment for the actual total quantity of geotextile fabric incorporated into the work.

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11:00 (31) TECHNICAL SPECIFICATION:

11:08 EXCAVATION "IF AND WHERE" DIRECTED:

DESCRIPTION:

The work covered under this item consists of furnishing all labor, materials, plant and equipment, and performing all operations required to excavate beach sand as needed to complete the repair work on the landward side of the Jetty. All work regarding excavation shall be directed in the field.

CONSTRUCTION, MATERIALS, AND SUBMITTALS:

Construction Methods, Materials, and Submittals shall conform to the requirements as outlined in Section 32:00 – EXCAVATION of the New Jersey Department of Environmental Protection – Division of Coastal Engineering specifications and to the lines and grades as indicated on the contract plans.

It is the responsibility of the Contractor to coordinate with the Project Manager to determine excavation locations to properly repair the leeward side of the Absecon Inlet Jetty. This item shall cover all efforts of mechanical transfer within the unit price which includes: the costs to excavate, temporarily stockpile, and return to existing grade upon completion. All temporary sand stockpiles should be placed landward of the High Tide Line. The Contractor should ensure that Sand Stockpiles are properly managed, and material is not lost due to normal tidal behavior. If a storm is expected, please consult with the Project Manager regarding stockpile management. Existing grade is expected to change during construction due to nearshore dynamics, however if material is lost due to poor management, it shall be the sole responsibility of the Contractor to import any additional sand necessary to restore existing grade without additional compensation. Any imported sand should match the existing soil characteristics.

The Contractor is to utilize the End Area method, or other approved method, to calculate volume of excavation completed and submit to the Project Manager and/or representative for review. The maximum excavation depth permitted shall be elevation -10.00 NAVD88. The Division of Coastal Engineering reserves the right to modify the depth permitted as in the best interest of the State of New Jersey.

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11:00 (32) TECHNICAL SPECIFICATION:

METHODS OF MEASUREMENT AND BASIS OF PAYMENT:

ITEM	PAY UNIT
Excavation "If and Where Directed"	Cubic Yard

Measurement for payment shall be per cubic yard of sand excavated to properly repair the leeward side of the Absecon Inlet Jetty.

Payment under this item shall include excavation and the cost to transfer the fill back to the existing grade from which it was originally displaced.

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11:00 (33) TECHNICAL SPECIFICATION:

11:09 STRUCTURE MONITORING:

DESCRIPTION:

The work covered under this section consists of furnishing all labor, materials, plant and equipment, and performing all operations required to monitor structures for potential effects of contract work.

The objective of this Item is to predict and prevent any damage to existing structures resulting from the operations of this contract. Any damage to structures resulting from the Contractors operations shall be the responsibility of the Contractor.

QUALIFICATIONS:

The person responsible for developing and implementing the structures monitoring program shall be a Professional Engineer licensed in the State of New Jersey with a minimum of 5-years of experience in seismic monitoring of the same type and scope to this monitoring work. All submittals required under this Item shall be prepared by, signed by, and bear the seal of the aforementioned Engineer.

Submittals (Pre-Construction):

All pre-construction submittals shall be submitted to the Division for approval at least 10 days prior to mobilization to the contract work site.

1. Qualifications: The qualifications of the Professional Engineer licensed in the State of New Jersey, including a copy of their license, proposed to develop and conduct the structures monitoring shall be submitted.
2. Letter to Owner: The proposed letter to the owners of the monitored structures shall be submitted for approval by the Project Manager. See Section 'Coordination' for this Item for further details.
3. Plan for Pre and Post Construction Surveys: The Contractor shall submit, for approval, the proposed plan for conducting pre and post construction surveys. Included in the plan shall be the locations and owners of the structures to be surveyed and the methods used for surveying in order to ensure compliance with the pre and post construction survey requirements below.

11:00 (34) TECHNICAL SPECIFICATION:

4. Structures Monitoring Plan: The Contractor shall submit, for approval, a Structures Monitoring Plan describing all personnel, materials, equipment and methods to be employed to monitor the effects of contract operations on existing structures. The plan shall include the qualifications of the personnel developing the monitoring plan and conducting the monitoring, the frequency of monitoring during each phase of construction, the maximum allowable vibration level, and a contingency plan if that vibration level is approached, including a list of recommended actions to be implemented by the Contractor to reduce vibrations to within acceptable limits.
5. Pre-Construction Survey: Once the Pre-construction Survey Plan has been approved by the Project Manager, the Contractor shall conduct a thorough pre-construction survey of the interior and exterior of all the structures within the monitoring limits, including the foundations of same. The surveys shall include, but not be limited to, taking digital photographs and video of all exterior faces of the structures, recording the type of structures and their construction, recording overall interior and exterior conditions, recording specific interior and exterior distress areas (with close-up photos), including, but not limited to, measuring and recording the location, width and length of existing interior and exterior cracks, details of any other pre-existing damage, and any and all additional information as required.

Submittals (During Construction):

The Contractor shall submit, for approval, monitoring reports and conditional surveys. Reports of the monitoring shall be submitted electronically within five (5) business days following the actual monitoring, and include details of where and when the monitoring was performed, the frequency and peak particle velocities of vibrations, the limiting criteria, and any other pertinent information.

Submittals (Post-Construction):

Post-Construction Survey: Within 30 days of demobilization by the Contractor, the Contractor shall conduct a thorough post-construction survey of the interior and exterior of all the structures within the monitoring limits, including the foundations of same. The surveys shall include, but not be limited to, taking digital photographs and video of all exterior faces of the structures, recording the type of structures and their

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11:00 (35) TECHNICAL SPECIFICATION:

construction, recording overall interior and exterior conditions, recording specific interior and exterior distress areas (with close-up photos), including, but not limited to, measuring and recording the location, width and length of existing interior and exterior cracks, documenting details of any changes to pre-existing damage or new damage, if any, and any and all additional information as required.

COORDINATION:

After approval of the monitoring plan by the Division, and before work begins at the site, the Contractor shall draft a letter to the owners of the all structures within the monitoring limits to inform them of the methods of construction to be used for this contract, the hours of operation, and the content of the monitoring plan. In addition, the Contractor shall explain to the owners that people may "experience" vibrations at levels much lower than vibration levels that would damage structures.

Upon approval of this letter by the Project Manager, the Contractor shall disseminate the letter.

The Contractor may also be required to attend a public meeting, which will be coordinated, planned, and conducted by the Division.

DESCRIPTION OF STRUCTURES:

The structures to be monitored shall be all structures located within Block 81, the lifeguard headquarters at the end of New Hampshire Avenue and the boardwalk from Oriental Avenue to Victoria Avenue. The types of structures to be monitored include residential homes, businesses and attached decks. In addition, any in-ground pools, within the monitoring limits, shall also be monitored. Sheds and detached garages shall not be included in the structures monitoring.

MAXIMUM ACCEPTABLE VIBRATION LEVELS:

The maximum acceptable vibration level shall be determined by the Structures Monitoring Engineer and shall be based upon the Report of Investigation RI - 8507 entitled "Structure Response and Damage Produced by Ground Vibrations from Surface Mine Blasting," published by the United States Division of Mines, latest edition.

MONITORING:

Monitoring shall include the daily use of a seismograph at representative structures located within the limits outlined in Section 'Description of Structures' throughout the Contractor's entire construction operation, including mobilization and demobilization.

The seismographs shall be placed at locations on or at the base of the beachfront structures to obtain the highest peak particle velocities. Representative structures shall be defined as one of each foundation type (pile foundation, masonry, concrete, slab on grade). Not less than three structures within the monitoring limits outlined in Section 'Description of Structures' shall be monitored.

If the maximum acceptable vibration level threshold is approached, the Contractor shall immediately notify the Project Manager and/or their representative and shall immediately begin implementation of contingency measures to reduce vibrations to within acceptable means.

EXCEEDING ACCEPTABLE VIBRATION LEVELS:

If the maximum acceptable vibration level threshold is exceeded, the following actions shall be undertaken:

1. The Contractor shall immediately cease any activity that results in peak particle velocities greater than the maximum acceptable vibration level.
2. The Structures Monitoring Representative shall immediately report to the project site to oversee continuous monitoring. The Structures Monitoring Representative shall review the contingency plan included in the Structures Monitoring Plan and make any necessary revisions, adjustments and/or recommendations based upon current construction activities and site conditions. Based upon the revised latest contingency plan, the Structures Monitoring Representative shall prepare a prioritized list (based on ease of implementation and impact on construction activities) of successive actions to be implemented by the Contractor to reduce vibrations to within acceptable limits. The Structures Monitoring Representative shall remain onsite, on a continual basis, during the Contractor's normal work hours until he/she determines that vibration levels have been reduced to within acceptable limits.
3. The Contractor shall immediately begin implementation of the measures recommended by the Structures Monitoring

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Representative as outlined above. Successive contingency measures shall be undertaken by the Contractor until the Structures Monitoring Representative determines that vibration levels have been reduced to within acceptable limits. Any and all such measures required to reduce vibration levels must be undertaken by the Contractor at no cost to the State of New Jersey.

4. Should any construction activity impact a structure, as reported by a property owner or as determined by the Structures Monitoring Representative, the aforementioned Engineer will re-inspect the structure(s) and report the findings, including digital images, to the Project Manager via compact disk no later than one day following the re-inspection.

METHODS OF MEASUREMENT AND BASIS OF PAYMENT:

ITEM	PAY UNIT
Structure Monitoring	Lump Sum

The quantity of Structure Monitoring for which payment will be made will be based on a lump sum determination at the price bid for this item as listed in the Proposal. Payment in the amount of 30% of the Total Contract bid price for this Item will be provided upon receipt of pre-construction reports with the balance prorated over the duration of the Contract.

11:00 (38) TECHNICAL SPECIFICATION:

11:10 SOIL EROSION AND SEDIMENT CONTROL:

All work under this item be included under the item "General Work", and shall include all materials, required for the execution and completion of the project work as a whole, and not specifically provided for under any other work item.

1. Standards for Soil Erosion and Sediment Control in New Jersey, N.J.A.C. 2:90-1.3, including the following Sections:
 - (a) 3.11 Temporary Vegetative Cover for Soil Stabilization.
 - (b) 3.31 Stabilization with Mulch Only.
 - (c) 4.10.1 Dust Control.
 - (d) 4.13.1 Sediment Barrier.
2. Materials must be as specified under "Standards for Soil Erosion and Sediment Control in New Jersey", N.J.A.C. 2:90-1.3.(2)
3. Temporary vegetative cover shall consist of annual ryegrass applied uniformly at a rate of 0.9 lbs. per 1,000 sq. ft. (40 lbs/ac). Limestone (pulverized dolomitic equivalent to 50 percent calcium plus magnesium oxides) shall be applied at the rate of 135 lbs/1,000 sq. ft. (3 tons/ac) and fertilizer (10-20-10 or equivalent) at the rate of 14 lbs/1,000 sq. ft. (600 lbs/ac).
4. When required for sites difficult to vegetate (sands, slopes, hydro-seeding and off-season operations), mulching shall be accomplished as follows:
 - A. Mulch Materials should be unrotted salt hay, hay, or small grain straw at a rate of 1-1/2 to 2 tons per acre, or 70 to 90 pounds per 1,000 sq. ft. Mulch blowers should not grind or chop material.
 - B. Spread Uniformly by hand or mechanically so that approximately 75% to 95% of the soil surface will be covered. For uniform distribution of hand spread mulch, divide area into approximately 1,000 sq. ft. sections and distribute 70 to 90 lbs. within each section.
 - C. Mulch Anchoring shall be accomplished using either peg and twine, mulch netting, mulch-anchoring tool or liquid mulch-binder, per the accompanying "Stabilization with Mulch Only" specifications.

* Seeding dates: 2/15 - 5/1 and 8/15 - 10/15

11:00 (39) TECHNICAL SPECIFICATION:

5. Mulch materials should be unrotted salt hay, hay or small grain straw at the rate of 1-1/2 to 2 tons per acre, or 70 to 90 lbs. per 1,000 sq. ft. Mulch blowers should not grind or chop the material.
6. Spread uniformly by hand or mechanically so that approximately 70 percent to 95 percent of the soil surface will be covered. For uniform distribution of hand spread mulch, divide area into approximately 1,000 sq. ft. sections and distribute 70 to 90 lbs. within each section.
7. Mulch anchoring shall be accomplished immediately after placement to minimize loss by wind or water. This may be done by one of the following methods, depending upon the size of the area, steepness of slopes and costs:
 1. Peg and Twine - Drive 8 to 10 inch wooden pegs to within 2 to 3 inches of the soil surface every 4 ft. in all drive directions. Stakes may be driven before or after applying mulch. Secure mulch to soil surface by stretching twine between pegs in a crisscross and a square pattern. Secure twine around each peg with two or more round turns.
 2. Mulch Netting - Staple paper, jute, cotton or plastic nettings to the soil surface. Use a degradable netting in areas to be mowed.
 3. Mulch Anchoring Tool - A tractor-drawn implement especially designed to punch and anchor mulch into the soil surface. This practice affords maximum erosion control, but its use is limited to those slopes upon which the tractor can operate safely. Tool penetration should be about 3 to 4 inches. On sloping land, the operation should be done on the contour.
 4. Liquid Mulch-binders - May be used to anchor salt hay, hay or straw mulches.
 - a. Applications should be heavier at edges where wind catches the mulch, in valleys and at crests of banks. Remainder of area should be uniform in appearance.
 - b. Use one of the following:
 - i. Emulsified asphalt - (SS-1, CSS-1, CMS-2, MS-2, RS-2, CRS-1, and CRS-2). Apply 0.04 gal/sq. yd. or 194 gal/ac on flat slopes and on slopes less than 8

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ft. high. On slopes 8 ft. or more high use 0.075 gal/sq. yd. or 363 gal/ac.

- ii. Cutback asphalt rapid curing (RC-70, RC-250, and RC-800) or medium curing (MC-250 or MC-800). Apply 0.04 gal/sq. yd. or 194 gal/ac on flat areas and on slopes less than 8 ft. high. On slopes 8 ft. or more high use 0.075 gal/sq. yd. or 363 gal/ac.
- iii. Synthetic or Organic Binders - binders such as Curasol, DCA-70, Petro-set and Terra-tack may be used at rates recommended by the manufacturer to anchor mulch materials.

NOTE: All names given above are registered trade names. This does not constitute a recommendation of these products to the exclusion of other products. Or equals may be deemed acceptable based upon review.

- 8. Wood-fiber or paper-fiber mulch at the rate of 1,500 lbs. per acre may be applied by hydroseeder. Use is limited to flatter slopes and during optimum seeding periods in spring and fall.
- 9. Irrigation - (where feasible) - If soil moisture is deficient, and mulch is not used, supply new seedings with adequate water (a minimum of 1/4 in. twice a day until vegetation is well established). This is especially true when seedings are made in abnormally dry or hot weather or on droughty sites.
- 10. Install and maintain temporary measures for soil erosion and sediment control in accordance with the "Standards for Soil Erosion and Sediment Control in New Jersey" and as shown on the plans.
- 11. Contractor shall be responsible for immediate repairs of damages incurred by failure to maintain temporary measures for soil erosion and sediment control.
- 12. Install temporary seeding on all areas exposed for three (3) months or more.
- 13. If applicable, Contractor must notify governing Soil Erosion Control Agency in writing at least 72 hours prior to beginning construction. Failure to do so may result in a fine by the Agency, which fine shall be the responsibility of the Contractor.

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11:00 (41) TECHNICAL SPECIFICATION:

DUST CONTROL:

Dust control shall conform with and be performed in accordance with the construction plans, and/or as directed by the Engineer, Section 4.10.1 of the Standard for Soil Erosion Control in New Jersey, July 1999 and Section 107.28 of the New Jersey Department of Transportation Standard Specifications.

ROADWAY CLEANING:

If approved by the Engineer and the Contractor utilizes the roadways as a construction entrance, existing roadways shall be cleaned as needed and directed by the Cape Atlantic Soil Conservation District and the Engineer.

The Contractor shall install all soil erosion and sediment control measures in accordance with Chapters 3 and 4 of the Standards for Soil Erosion and Sediment Control in New Jersey, July 1999. All measures shall be maintained and left in place until construction is complete and area is stabilized.

When seasons and/or other conditions are not suitable for growing an erosion-resistant cover, areas shall be temporarily stabilized in accordance with the Standards for Soil Erosion and Sediment Control in New Jersey, July 1999.

No specific payment will be made for Soil Erosion Control and should be included in the bid for Item No. 1 – General Work. The cost thereof will be included in Item No. 1 – General Work, which price shall include the cost of furnishing and installing all required hay bales and lath, silt fence and inlet protection structure materials, dust control, complete, any and all temporary stabilization as may be required, roadway cleaning, all labor, equipment and all else necessary therefore and incidental thereto.

11:00 (42) TECHNICAL SPECIFICATION:

11:11 SITE GRADING:

Site Grading shall consist of all grading required within the construction area including rough grading and final grading. Fine grading of the entire construction area shall consist of mechanically or manually raking, scraping, dragging, smoothing and rolling all surfaces for the preparation of the respective improvements. Fine grading shall remove all irregularities and undulations and shall follow the grades shown on the plan.

No specific payment will be made for Site Grading and should be included in the bid for Item No. 1 – General Work which includes all fine grading of the entire construction area, all embankment, all materials, labor, equipment and appurtenances required. Payment will be made for one occasion, no matter how many occasions are required to complete the site grading to the satisfaction of the Engineer.

11:12 ONSITE MATERIAL:

All existing debris, rubble, roots, stumps, logs, rocks, rip-rap, cable or hulks which come within the lines of the work or which interfere with the prosecution of the work shall be removed and disposed of in a manner satisfactory to the Engineer, or their appointed representative, by the Contractor, and the cost thereof shall be included in the bid for Item No. 1 – General Work.

Bidders are encouraged to visit the site of the work, and to ascertain for themselves the kind of material to be met with and all other local conditions, and it will be assumed that their bids are based upon personal information. No extra allowance will be made for excavation of material different than herein specified, nor will extra allowances be paid should mechanical breakdowns occur due to the above-mentioned obstacles.

11:13 STOCKPILING:

Stockpiling/staging area shall be indicated as the area along the leeward side of the South Absecon Inlet Jetty, 100' in width and extending from Station 1+50 to the Mean High Water Line, as is identified on the project plans. The stockpiled stone should not exceed a vertical stacking height of 8'0", and for larger armor stone that exceeds 4'0" in diameter, these stones should be stacked at a maximum of two (2) stones in height, in order to achieve safe working conditions. The entire stockpile area should be delineated along the perimeter by approved safety fencing during construction, and the area shall be secured before leaving the site each night. The Contractor can make their own

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11:00 (43) TECHNICAL SPECIFICATION:

arrangements for areas of stockpiling of materials. However, all arrangements of any kind made by the Contractor relative to stockpiling will be subject to the approval of the Engineer and shall be submitted for approval prior to use of the subject area.

It is the responsibility of the Contractor to ensure that all stockpiles are managed properly. The Contractor should carefully track all materials brought on site as they are incorporated into the Jetty and should ensure that the stockpile does not exceed the quantity necessary to complete the restoration work. The Department will reimburse the Contractor only for materials that are to be utilized in the reconstruction of the Jetty.

The stockpiling area mentioned herein and as delineated in the contract drawings shall be protected to ensure that debris or loose material displaced from passing vehicles will not leave the work site. It is the responsibility of the Contractor to provide adequate security personnel and security measures to restrict unauthorized entry into the work area during all times of operation.

11:14 CONTRACT TIME:

The allowed contract time is one hundred eighty **(180)** consecutive calendar days. In the event of severe weather, which would not allow for work during these days, the Contractor will be credited by the inspector against total elapsed time.

See Sub-section 8:01 for further details.

11:15 PAYMENT:

ITEMS NO. 1-2, 13

These items are to be paid for on a lump sum basis. See associated sections for payment schedule.

ITEMS NO. 3-12

All remaining items will be paid for based on the unit price bid for each item. All unit price bids are for complete in place to the lines and grades as shown on the project plans.

11:16 ACCESS:

The Contractor shall obtain all access and/or rights of way as necessary for the operations. All access areas shall be barricaded when not in use and shall be maintained in a safe, clean condition.

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11:00 (44) TECHNICAL SPECIFICATION:

No access point will be used unless approved in writing by the Project Manager.

All land based access shall be located as indicated on Plan Sheet 2 of the Contract Drawings. All water based access shall be approved by the USCG, the City of Atlantic City, and DCE.

11:17 CONSTRUCTION SCHEDULE:

Within ten (10) calendar days after the date of the contract award, the Contractor shall furnish to the Manager or representative, for approval, a construction schedule which shall include a statement as to the planned mode of operations; a listing of construction material orders including a delivery schedule, and a full description of the equipment the Contractor plans to use. The approximate dates for each phase of operations shall be furnished at the pre-construction meeting.

The Project Manager reserves the right to reject, modify, require different construction methods or operations, additional rigging, equipment and/or personnel as he/she deems necessary in order to accomplish the contract requirements.

Any changes to the approved construction plan shall be reviewed and approved by the Project Manager prior to implementation. Said schedule shall be updated at least twice a month and shall be updated prior to, and provided at, all project meetings.

11:18 PROJECT MEETINGS:

Project meetings shall be held on a weekly basis or at an interval determined by the Project Manager. The Contractor will be required to have all Superintendents, foremen and other persons involved in the oversight of the project in attendance, including same for all subcontractors.

A 3-Week Look Ahead of the intended project schedule that is inclusive of tide predictions and weather forecasts should be distributed at each weekly meeting. DCE Project Manager will prepare weekly meeting agendas and the corresponding meeting minutes for distribution.

11:19 PERMIT CONDITIONS:

The Contractor shall adhere to all requirements and conditions set for the in the permits granted to the Division on May 25, 2016 from the NJDEP Division of Land Use & Regulation – Division of Coastal Regulation (DLUR Fil No. 0102-02-0027.16 CDT160001) and on July 25, 2018 from the United States Army Corps of

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11:00 (45) TECHNICAL SPECIFICATION:

Engineers Regulatory Branch – Philadelphia District (CENAP-OP-R-2016-00535 (NWP)), obtained by the Owner for this project. These documents have been included in the Appendix for your use.

Please note that per the Division of Land Use & Regulation, it is required that the Division of Coastal Engineering prepare an "Unanticipated Discoveries Plan" for potential cultural resources discovered during construction operations. This plan has been attached in the appendix for your reference.

12:00 SURVEYS

12:01 PART 1 - GENERAL:

12:01.1 SCOPE OF WORK:

The work covered under this section consists of furnishing all labor, materials, plant and equipment, and performing all operations required for conducting pre and post hydrographic surveys, pre-construction and as-built topographic surveys, mark-out surveys, volume estimates, and survey data submittals.

12:01.2 MEASUREMENT AND PAYMENT

Payment for Surveys shall be in accordance with Section 11:00 "PAYMENT" subsection.

12:01.3 PRE-DREDGE HYDROGRAPHIC SURVEY(S):

Pre-dredge hydrographic surveys of the entire channel(s) proposed for dredging shall be performed as specified in Section 11:00 and as outlined on the project plans. The pre-dredge hydrographic survey(s) and accompanying map(s) must be performed by a Professional Land Surveyor licensed in the State of New Jersey experienced in conducting hydrographic surveys, and shall be submitted to the Division of Coastal Engineering within thirty (30) calendar days from the Notice to Proceed.

12:01.4 PRE-DREDGE VOLUME ESTIMATE(S):

Volume estimate(s) of material to be removed from each channel section, based upon the pre-dredge hydrographic survey(s) and the proposed dredge channel depths, widths, and sideslopes as indicated on the project plans, shall accompany the pre-dredge survey(s) as specified in Section 11:00 and as outlined on the project plans. The volume estimate(s) of material to be removed must be prepared by a Professional Engineer licensed in the State of New Jersey and submitted to the Division of Coastal Engineering within thirty (30) calendar days from the Notice to Proceed.

12:01.5 POST-DREDGE HYDROGRAPHIC SURVEY(S):

Post-dredge hydrographic survey(s) of the entire channel(s) proposed for dredging shall be performed as specified in Section 11:00 and as outlined on the project plans. The post-dredge hydrographic survey(s) and accompanying map(s) must be performed by a Professional Land Surveyor licensed in the State of New Jersey experienced in conducting hydrographic surveys, and shall be submitted to the Division of Coastal Engineering within fifteen (15) calendar days upon the completion of dredging of each channel section.

12:00 SURVEYS

12:01 PART 1 - GENERAL Con't:

12:01.6 POST-DREDGE VOLUME ESTIMATE(S):

Volume estimate(s) of actual material removed from each section, based upon the volume difference between the pre-dredge and post-dredge hydrographic surveys, shall accompany the post-dredge survey(s) as specified in Section 11:00 and as outlined on the project plans. The volume estimate(s) of actual material removed must be prepared by a Professional Engineer licensed in the State of New Jersey and submitted to the Division of Coastal Engineering within fifteen (15) calendar days upon the completion of dredging of each channel section.

12:01.7 PRE-CONSTRUCTION SURVEY(S):

Pre-construction hydro/topographic surveys shall be performed of the entire area specified in Section 11:00 and as outlined on the project plans. The pre-construction hydro/topographic survey(s) and accompanying map(s) must be performed by a Professional Land Surveyor licensed in the State of New Jersey and shall be submitted to the Division of Coastal Engineering within thirty (30) calendar days from the Notice to Proceed.

12:01.8 AS-BUILT SURVEY(S):

As-built hydro/topographic surveys shall be performed of the entire area as specified in Section 11:00 and as outlined on the project plans. The as-built hydro/topographic survey(s) and accompanying map(s) must be performed by a Professional Land Surveyor licensed in the State of New Jersey and shall be submitted to the Division of Coastal Engineering within fifteen (15) calendar days upon the completion of work for that related bid item.

12:01.9 VOLUME ESTIMATE(S):

Volume estimate(s) of material, based upon the volume difference between the pre-construction and as-built surveys, shall accompany the as-built survey(s) as specified in Section 11:00 and as outlined on the project plans. The volume estimate(s) of must be prepared by a Professional Engineer licensed in the State of New Jersey and submitted to the Division of Coastal Engineering within fifteen (15) calendar days upon the completion of work for that related bid item.

12:01.10 MARK-OUT SURVEY(S):

Stake-out surveys shall be performed of the entire area as specified in Section 11:00 and as outlined on the project plans. The stake-out survey(s) must be performed by a Professional Land Surveyor licensed in the State of New Jersey.

12:00

SURVEYS

12:02

PART 2 - SURVEY REQUIREMENTS:

All surveys must be performed under the direction and supervision of a Professional Land Surveyor licensed in the State of New Jersey experienced in conducting surveys of a similar nature, and by the accompaniment of a representative from the Division of Coastal Engineering.

All calibrations, settings and tide gauge readings shall be made with the accompaniment of a representative from the Division of Coastal Engineering. Upon completion of the survey, the recording chart shall be signed and dated by the Division's representative as well as the Contractor's representative.

1. All survey data shall be referenced to National Geodetic Survey monumentation. First order vertical and horizontal. PID # of all monuments used shall be provided (ex. AB1234). Tidal benchmarks used/referenced shall be listed by PID # also.
2. The contractor shall establish ground control.
3. The contractor shall be responsible for identifying the location of the channel in the field, including locating and staking of corners, turning points, etc.
4. All existing structures, roads, utilities, topography, vegetation, wetlands, piers, bulkheads, pilings, stone, etc., shall be clearly surveyed within the project limits.
5. All existing navigational markers shall be accurately surveyed and recorded.
6. Hydrographic cross-sectional surveys shall be taken at the starting and ending stations and regular intervals not to exceed 50-feet. The cross-sections shall extend a minimum of 50 feet beyond the limits of the channel section(s).
7. Topographic cross sectional surveys shall be taken at the starting and ending stations and regular intervals not to exceed 10-feet. The cross-sections shall extend a minimum of 100 feet beyond the limits of the project area to be surveyed.
8. All information supplied (data, work drawings, cross-sections) shall include all raw survey data/notes.

12:00 SURVEYS

12:03 PART 3 - SURVEY MAP REQUIREMENTS:

All data obtained from survey(s) shall be used to produce an accurate map which shall be submitted along with the original recording chart and all original ground control data notes.

12:03.1 SURVEY MAPS:

The maps generated from the obtained surveys shall include the following:

1. The original map shall be drawn on mylar using a high quality black drafting ink.
2. All verbage and numbering shall be either computer generated or leroxed.
3. Drawing scale shall be one (1) inch equals one hundred (100) feet for the channel alignment and so indicated on the drawing.
4. The drawing shall be twenty-four (24) inches by thirty-six (36) inches only. If additional sheets are required, match lines must be shown and sheets shall be consecutively numbered.
5. Each sheet shall contain a title block stating the following:
 - A. "(Type of Survey)", Name of Project and/or Channel Section(s), Municipality, County, State of New Jersey, Department of Environmental Protection, Office of Engineering and Construction, Division of Coastal Engineering.
 - B. Survey Date.
 - C. Scale one (1) inch equals one hundred (100) feet.
 - D. Project No.
 - E. Sheet number and total sheets.
6. The New Jersey State Plane coordinate system shall be used for the map grid system and clearly shown on the map and location plan.
7. Local tidal benchmark used for this project shall be listed by PID # and must be tied to NAVD88 (North American Vertical Datum of 1988) and shown on the generated maps.
8. All land elevations shall be in feet and tenths of feet and refer to NAVD88. All water depths shall be in local MEAN LOW WATER (MLW), unless otherwise specified, and shall be adjusted for tide. Adjustment between MLW and NAVD88 shall be noted.
9. All channel alignments and their name as well as the location of the tide gauge.
10. The name of all water bodies, municipality(s), roads, lots and blocks.

12:00 SURVEYS

12:03 PART 3 - SURVEY MAP REQUIREMENTS:

12:03.1 SURVEY MAPS Con't:

11. Mean high, mean low and spring high water lines.
12. Hydrographic surveys shall display contour lines at 1-foot increments unless otherwise specified in Section 11:00.
13. Topographic surveys shall display contour lines at 1-foot increments unless otherwise specified in Section 11:00.

12:03.2 COMPUTER DATA FILES:

In addition to the hard copy maps, computer data files of the submitted maps shall be provided on compact disks with the following requirements.

1. PREFERRED FORMAT: .DCD drawing format (DesignCAD 3D MAX).
Each page of the drawing shall be in a separate file:
Example PROJECT1.DCD PERMIT1.DCD
 PROJECT2.DCD PERMIT2.DCD
 etc. etc.
2. .DXF files or AutoCad 2000 .DWG files may be used as an alternative to DesignCAD 3D MAX.
3. IF ANY FORMAT OTHER THAN DesignCAD 3D MAX IS USED, CONSULTANT SHALL ENSURE COMPLETE AND TOTAL DRAWING EXCHANGE (fonts, line weight and type, proper location and orientation of all drawing details) BETWEEN CHOSEN FORMAT AND DesignCAD 3000, BEFORE SUBMISSION.
4. No X-REF in drawings or attached image files.
5. Layers: Maximum 3 layers (3 colors).
6. Font: One font only, standard block lettering.
7. No shading or solid fill areas.
8. Limited cross-hatching, only if absolutely necessary.
9. All plan views shall be in the State Plane Coordinate System NAD83, in feet and tenths of feet, with a north orientation to the top of drawing sheet. Graphic scale shall be included.
10. All land elevations shall be in feet and tenths of feet and refer to NAVD88. All water depths shall be in local MEAN LOW WATER (MLW), unless otherwise specified, and shall be adjusted for tide. Adjustment between MLW and NAVD88 shall be noted.

12:00 SURVEYS

12:04 PART 4 - VOLUME ESTIMATES:

Volume estimates shall be calculated and submitted by a Professional Engineer licensed in the State of New Jersey and shall accompany the appropriate survey.

All volume estimate calculations shall conform to the following:

1. All calculations and computations utilized shall be performed by a Professional Engineer licensed in the State of New Jersey and shall be signed and sealed.
2. Volume estimates shall be in cubic yards unless otherwise specified in Section 11:00.
3. The pre-dredge volume estimate of material to be removed from each section shall be based upon the pre-dredge hydrographic survey and the proposed dredge channel depths, widths, and sideslopes as indicated on the project plans.
4. The post-dredge estimate of actual material removed from each section shall be based upon the volume difference between the pre-dredge and post-dredge hydrographic surveys.
5. General volume estimates shall be based upon the volume difference between the pre-construction and as-built hydro/topographic surveys and as further specified in Section 11:00.

12:00 SURVEYS

12:05 PART 5 - SUBMITTALS:

12:05.1 SURVEYS:

The contractor shall submit to the Division of Coastal Engineering for approval an original mylar along with two (2) copies of each generated map accompanied by computer data files of all submitted maps.

All submitted maps shall bear the embossed seal of the Professional Land Surveyor licensed in the State of New Jersey responsible for conducting and preparing the surveys.

All original fathometer data, recording rolls, survey rolls, survey field data and ground control data, shall be submitted along with the maps. All submitted data, charts and maps shall become the property of the State of New Jersey, Division of Coastal Engineering. The contractor shall be given copies of all submitted data and generated maps if requested.

Should the survey data and/or generated maps be deficient, lacking information, illegible, or not in conformance with the standards outlined under this section, the Division reserves the right to order the contractor to re-perform the hydrographic survey and/or redraw the map(s). Should this be required, no additional monies will be paid to the contractor by the State. The additional cost shall be the sole responsibility of the contractor.

12:05.2 VOLUME ESTIMATES:

The contractor shall submit to the Division of Coastal Engineering for approval two (2) copies of each volume estimate performed. All volume estimates shall bear the embossed seal of the Professional Engineer licensed in the State of New Jersey responsible for preparing said estimate.

The engineer shall submit all data, calculations and computations utilized for estimating the volume of material. All submitted information is subject to review and approval by the Division of Coastal Engineering. All submitted calculations, data, charts and maps shall become the property of the State of New Jersey, Division of Coastal Engineering. The contractor shall be given copies of all submitted data and generated maps if requested.

Should the estimates, volume calculations and/or methods utilized be deficient, lacking information, illegible or not in conformance with the standards outlined under this section, the Division reserves the right to order the contractor to re-perform the survey, redraw the map(s) and/or re-calculate volume estimates. Should this be required, no additional monies will be paid to the contractor by the State. The additional cost shall be the sole responsibility of the contractor.

--END OF SECTION 12:00 --

18:00 IMPORTED BEACH SAND

18:01 PART 1 – GENERAL

18:01.1 SCOPE OF WORK:

Unless otherwise specified in Section 11:00, all sand furnished under these specifications shall be of the kind, grade and manufacture for beach restoration and beach nourishment purposes; all in strict accordance with the Project Plans and Specifications.

18:01.2 APPLICABLE PUBLICATIONS:

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM) - Latest Edition

ASTM D 422 Particle-size Analysis of Soils

MUNSELL SOIL COLOR CHART - Latest Edition

18:01.3 MEASUREMENT AND PAYMENT:

All costs associated with imported beach sand shall be measured and paid for in accordance with Section 11:00 of the Specifications and as further specified herein.

18:01.4 SUBMITTALS:

18:01.4a Quarry/Borrow Site:

The Contractor shall notify the Project Manager of the name and the location of the site from which he proposes to furnish sand accompanied by an actual 1,000 cubic centimeter sample of the proposed sand, accompanied by the quarry's certified material analyses, to the Project Manager for review and approval at least ten (10) days prior to conducting any testing and analysis required under Sub-section 18:02.2b.

The Project Manager reserves the right to inspect said site(s) and select representative sample specimens of sand for additional testing.

The Contractor shall notify the Project Manager of the name and the location of the site from which he proposes to furnish sand at least 45 days prior to any sand being furnished under this contract.

The Project Manager reserves the right to inspect said site(s) and select representative sample specimens of sand for additional testing.

18:00 IMPORTED BEACH SAND

18:01 PART 1 – GENERAL

18:01.4 SUBMITTALS Con't:

18:01.4b Quality Test Results:

All applicable test results from an approved testing organization attesting that the sand to be used in the work is of the kind, grade and manufacture required by these specifications shall be submitted to the Project Manager for review and approval within thirty days (30) prior to furnishing.

All applicable test results, including grain size analysis and Munsell Color Determination and physical sand sample(s) as required above shall be submitted to the Project Manager for review immediately following sampling and analysis (in no case to exceed 48-hours).

18:01.4c Qualification of Testing Laboratory:

All applicable certifications demonstrating that the testing laboratory conducting the soil analysis is qualified to perform said work shall be submitted to the project manager for review and approval prior to commencing any soil testing or analysis.

18:01.4d Delivery Records:

Field inspect and submit all material weight records and transport receipts / tickets.

18:00 IMPORTED BEACH SAND

18:02 PART 2 PRODUCTS

18:02.2 IMPORTED BEACH SAND:

18:02.2a General:

All fill material shall be clean medium sand (0.2mm - 0.6mm) as classified by the Wentworth scale and shall match the gradation and color (hue and value within one chroma according to the Munsell Soil Color Chart) of the surrounding sands.

At any time a visual inspection by the Department of fill materials indicates non-conformance with these specifications, sand filling operations shall be ceased until results from additional testing indicates otherwise.

18:02.2b Sampling, Testing and Acceptance:

The acceptability of fill material will be determined by comparing the results of the particle-size analysis and soil color classification of the proposed fill and the existing ("native") surrounding sands.

The particle-size (grain-size / gradation) analysis must be performed by a certified testing facility and in strict conformance with ASTM D 422. The soil color classification shall be conducted by the same facility and shall evaluate hue, value & chroma in accordance with the Munsell Soil Color Chart System.

1. Testing & Analysis of Existing ("native") Surrounding Sands:

The testing & analysis described above shall be conducted at the limits of the project site and at intervals not to exceed 500 linear feet parallel to the shoreline in order to determine the existing color and gradation of the native sands.

2. Testing & Analysis of Proposed Sand Fill:

The testing & analysis described above shall be conducted of the proposed fill material at the proposed borrow site in order to determine the acceptability of the proposed fill material.

The analyses described in #'s 1 and 2 above shall be conducted thirty (30) days prior to commencement of filling activities.

The results of the analyses conducted, accompanied by an actual 1,000 cubic centimeter sample of each material sampled (native & proposed), shall be submitted to the Project Manager for review immediately following sampling and analysis.

At any time that visual inspection of the fill materials indicate non-conformance with these specifications, operations shall be ceased, and additional samples shall be taken and tested within 48-hours at the Contractor's expense. No additional sand shall be imported until results from additional testing indicates compliance and has been approved by the Project Manager.

18:00 IMPORTED BEACH SAND

18:02 PART 2 PRODUCTS

18:02.2 IMPORTED BEACH SAND CONT'D:

18:02.2c Non-Conformance of Materials:

In the event the sample fails to pass the required tests, the Contractor, at his/her discretion, may perform subsequent tests of the same proposed fill material at their own expense. The Project Manager shall be notified of the results of all additional laboratory tests performed. If additional testing continues to demonstrate non-conformance with these Specifications, the Contractor shall locate and propose an alternate borrow site with conforming materials for approval by the Project Manager.

Satisfactory Contractor documentation or laboratory test results on sand samples will not constitute approval of all sand in the quarry or borrow area, and will not in any way change the Contractor's responsibility for obtaining, developing, and maintaining a satisfactory source of sand.

Throughout the duration of this contract, the Division may sample and test sand delivered to the site and proposed for use. No contract extension will be granted for specified submittal and testing time or delays incurred because materials failed to meet the specification requirements. Sand failing to meet specified requirements will be removed from the construction site at no additional cost to the State. No sand shall be placed by the Contractor until sand has been met all requirements of this specification and has approved by the Project Manager.

The Contractor shall furnish waybills and delivery tickets for each load of all sand delivered to the site.

18:03 PART 3 EXECUTION

18:03.1 PLACEMENT OF SAND

Imported sand shall be placed and shaped to the construction template lines, grades, and elevations shown on the drawings. There shall be no pronounced ridges or wash holes in the final grades and slopes unless otherwise indicated.

Placement of sand fill shall not deviate from the grade lines and slopes indicated in the plans by more than the tolerances listed on the Project Plans or in Section 11:00, and in no case shall exceed 6-inches vertically, unless approved in writing by the Project Manager.

-- End of Section 18:00 --

19:00 STANDARDS FOR JETTY STONE

19:01 PART 1 – GENERAL

19:01.1 SCOPE OF WORK:

Unless otherwise specified in Section 11:00, all stone furnished under these specifications shall be of the kind, grade and manufacture for the construction of the rubble-mound jetties, groins and related structures; all in strict accordance with the Project Plans and Specifications.

19:01.2 APPLICABLE PUBLICATIONS:

CORPS OF ENGINEERS TESTING PROCEDURE (CRD-C) - Latest Edition

CRD-C 107-69	Standard Method of Test for Specific Gravity, Absorption, and Unit Weight of Coarse Aggregate and Riprap
CRD-C 137	Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate
CRD-C 144	Standard Test Method for Resistance of Rock to Freezing and Thawing
CRD-C 145	Standard Test Method for Resistance to Degradation of Large-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine
CRD-C 148	Expansive Breakdown on Soaking in Ethylene Glycol

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM) - Latest Edition

ASTM C 88	Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate
ASTM C 535-89	Standard Test Method for Resistance to Degradation of Large-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine

19:01.3 MEASUREMENT AND PAYMENT:

All costs associated with jetty stone shall be measured and paid for in accordance with Section 11:00 of the Specifications and as further specified herein.

19:01.4 SUBMITTALS:

Before any stone is furnished under this contract, the Contractor shall notify the Project Manager of the name and the location of the quarry or quarries from which they propose to furnish stone. The Project Manager reserves the right to inspect said quarries and select representative sample specimens of stone for testing.

The Contractor shall establish and maintain quality control on placement operations to assure compliance with contract requirements and maintain

19:00 STANDARDS FOR JETTY STONE

records of quality control for all construction. A copy of the following records and Contractor tests, as well as the records of corrective actions taken, shall be furnished to the Division as directed by the Project Manager:

19:01.4a Quarry Stone Quality Test Results:

All applicable test results from an approved testing organization attesting that the stone to be used in the work is of the kind, grade and manufacture required by these specifications shall be submitted to the Project Manager for review and approval within fifteen days (15) prior to furnishing.

19:01.4b Stone Setting Equipment:

The Contractor shall submit complete descriptions of all stone setting equipment and appurtenances to the Project Manager for approval prior to commencement of work.

19:01.4c Scale Certification:

The Contractor shall submit the certification records for all scales utilized on the project as required under these Specifications and in accordance with New Jersey's Weights and Measures.

19:01.4d Delivery Records:

Field inspect and submit all material weight records and receipts. The Inspector shall reject all materials damaged in transport from quarry to site.

19:01.4e Construction Records:

At an interval determined by the Project Manager, however, not to exceed more than once a month, the Contractor shall submit all related construction records to the Project Manager, including, but not limited to the following:

1. Determination of proper gradation of stone, by weight, and by creation of gradation curve based on stone used.
2. Control of stone placement by vertical and horizontal alignment to lines and grades indicated in the contract
3. Records of all stones on-hand and placed to date
4. Records of all loads that have been rejected
5. Records of all surveys performed
6. Daily inspection reports of wire ropes

19:01.5 OFF-LOADING FACILITIES:

The Contractor shall determine the means to receive material at the project site but will be subject to the approval of the Project Manager prior to implementation. The Contractor will be responsible for ensuring that any surrounding waterways and beaches adjacent to the site are not duly

19:00**STANDARDS FOR JETTY STONE**

compromised or obstructed in conjunction with the receiving area. The Contractor is responsible for coordinating with local agencies and the Coast Guard if delivery of construction material by water is utilized and must submit an off-loading plan 14 days prior to the start of construction of any facility. The Contractor is responsible for compliance with all U.S. Coast Guard regulations. The Contractor is responsible for the protection of roads and utilities in the off-loading, hauling, and construction areas, and for coordinating this protection with local agencies and entities.

19:00 STANDARDS FOR JETTY STONE

19:02 PART 2 PRODUCTS

19:02.1 REHANDLED ARMOR CAPSTONE

19:02.1a General:

The Contractor shall be responsible for all arrangements including right-of-ways, transportation of stone, stockpiling and sorting of armor capstone to supply stones for this project of the weight, size, and quality specified herein. Inspection for acceptance of individual stones will be at the construction site.

19:02.1b Acceptability of Rehandled Armor Capstone:

The acceptability of stones for reuse in the structure will be determined by weight and inspection. Each stone accepted for reuse shall be composed of hard, strong, durable materials that will not slake or deteriorate on exposure to the action of water or the atmosphere, shall not contain cracks, joints, faults, seams or bands of minerals or deleterious materials which would result in breakage or reduction of specified stone weights or dimensions during or after placement in the groin, and shall be free of expansive or other materials which would cause accelerated deterioration by exposure to project climatic conditions. Stones exhibiting weak or inferior appearing portions of any non-uniform type stone, such as igneous flow breccias, volcanic breccias, cataclastic metamorphics or irregularly cemented sedimentaries, will be rejected as unsatisfactory for groin construction.

Acceptable stone shall have at least 75% of its surface area free of grout, with thickness of any remaining attached grout not exceeding one inch in any section. Each stone shall be clean and angular, and the longest dimension of any stone shall not exceed three times its shortest dimension. A stockpile of stone that meet the requirements described herein shall be created at the work site for sorting by weight.

19:02.1c Measurement of Rehandled Armor Capstone:

The Contractor shall stockpile armor capstones taken from the existing structure, which meet the criteria described in Section 19:02.1b above. These stones will be weighed on-site by scales for acceptability for use in the new structure that meets the stone weight requirements as per Section 19:02.3.

The scales shall be certified for accuracy by a properly accredited official. A certified Weigh Master shall operate the scale. Additional methods for determining the weight of stone may be requested by the Contractor and submitted to the Project Manager for his approval. Scales shall be re-certified every six months or when they have been moved or if any disturbance may have altered the accuracy. Scales shall have printers that indicate Gross, Tare and Net weights. This ticket shall be signed by the Project Manager or representative. The scale used at the site will be certified by the manufacturer or by the certified Weigh Master.

19:00 STANDARDS FOR JETTY STONE

19:02.2 QUARRY STONE:

19:02.2a General:

Quarry stone shall be supplied so that total stone amounts meet the gradation and quantity required for completion of the structure. The Contractor shall be responsible for all arrangements for right-of-ways, for adequate investigation and exploration, and for selection, development, and operation of the quarry to supply stones of the weight, size, and quality specified herein.

19:02.2b Sampling, Testing and Acceptance of Quarry Stones:

The acceptability of groin stones will be determined by laboratory tests, geologic examination, and service records. When satisfactory test and service records are not available, the proposed groin stones must be subjected to all of the following tests and as are necessary to determine that the stones are durable and suitable for use in the work.

Tests to which the stones must be subjected include specific gravity, absorption, abrasion, accelerated expansion, wetting and drying, and such other tests as may be necessary. Testing to determine conformance with the requirements of Section 19:02.2d for acceptance or rejection of stones proposed for use by the Contractor and to determine stone classification will be performed by a certified testing laboratory. No tests will be performed by the laboratory prior to award of the contract.

Immediately after award of contract, and within 5 days of receipt of Notice to Proceed, The Contractor shall submit to the Project Manager for approval all pertinent test and service records from his quarry from the past year. Such tests and service records will be evaluated to help determine if stones from the source can meet quality standards as hereinafter specified.

Should the Contractor's documentation not include previous satisfactory laboratory test results or satisfactory service records from previous projects undertaken by the Division, or fail to satisfy the Project Manager, samples of the stones proposed for use in the groin construction shall be selected in the presence of the Division Inspector and delivered by the Contractor to the certified testing laboratory for testing. These samples shall be selected and delivered to the laboratory within 20 days after receipt of notification of insufficient or unsatisfactory test and service records.

Samples of stones shall consist of 5 to 10 pieces with a total weight of approximately 500 pounds. No single piece shall weigh more than 100 pounds. The presence of the Project Manager or representative during selection of samples of stones will not relieve the Contractor of the responsibility to secure representative samples from the quarry for testing. The initial sample will be tested at the Contractor's expense.

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In the event the sample fails to pass the required tests, subsequent tests will be conducted at the Contractor's expense. The Contractor will be notified of the results of all additional laboratory tests. Satisfactory Contractor documentation or laboratory test results on stone samples will not constitute approval of all rock in the quarry and will not in any way change the Contractor's responsibility for obtaining, developing, and maintaining a satisfactory source of stones. Throughout the duration of this contract, the Division may sample and test stones delivered to the site and proposed for use in the groin construction. No contract extension will be granted for specified submittal and testing time or because materials failed to meet the specification requirements. Stones failing to meet specified requirements will be removed from the off-loading facility or construction site at no additional cost to the Division. No materials or stones shall be placed in the groin until those materials or stones have been approved for use. The Contractor shall furnish waybills and delivery tickets for each load of stone delivered to the site.

19:02.2c Quarry Stone Weights:

The Contractor shall have scales at locations where quarry stone is delivered to the project site. The scales shall be certified for accuracy by a properly accredited official. A certified Weigh Master shall operate the scale. Scales shall be re-certified every six months or when they have been moved or if any disturbance may have altered the accuracy. Scales shall have printers that indicate Gross, Tare and Net weights. This ticket shall be signed by the Project Manager or his representative.

In the event that the Contractor proposes to deliver stone to the work location by barge and to place stone directly from the barge into the groin structure, the Division will accept barge weight tickets. The scale at the quarry will be certified by the manufacturer or by the certified Weigh Master. Additional methods for determining the weight of stone may be requested by the Contractor and submitted to the Project Manager for his approval.

19:02.2d Quarry Stone Quality:

Each stone accepted for use in the groin shall be composed of hard, strong, durable materials that will not slake or deteriorate on exposure to the action of water or the atmosphere, shall not contain cracks, joints, faults, seams or bands of minerals or deleterious materials which would result in breakage or reduction of specified stone weights or dimensions during or after placement in the groin, and shall be free of expansive or other materials which would cause accelerated deterioration by exposure to project climatic conditions.

Each stone must have sufficiently uniform physical properties throughout so that all portions of the stone will meet the specified test requirements. Weak or inferior appearing portions of any non-uniform type stone, such as igneous flow breccias, volcanic breccias, cataclastic metamorphics or irregularly cemented sedimentaries, will be subjected to all testing necessary to

determine that the stone will not be susceptible to splitting or differential weathering. Any stone containing an inferior rock material portion that does not meet the specified test requirements will be rejected as unsatisfactory for groin construction. Each stone shall be clean and angular, and the longest dimension of any stone shall not exceed three times its shortest dimension. Each stone shall meet all the following test requirements for quality.

<u>Test</u>	<u>Requirement</u>
Unit Weight	Dry unit weight 175 lb./cu ft or greater
Absorption	Less than 1 percent
Sulfate Soundness	Less than 5 percent loss
Glycol Soundness	No deterioration except minor crumbs from surface
Abrasion	Less than 20 percent loss for 500 revolutions
Freezing-Thawing	Less than 10 percent loss for 12 cycles
Wetting-Drying	No major progressive cracking
Drop Test	No breakage or cracking
Set Aside	No breakage or cracking after one season cycle

19:02.2e Quarry Stone Testing:

The following tests shall be performed by a certified testing laboratory at the Contractor's expense. The test results reported by the laboratory will be considered as exact results for unit weight, absorption, abrasion, wetting and drying, accelerated expansion or other necessary tests, regardless of any permissible variance that may be established by test procedures, in determining the acceptability of groin stone furnished under this contract. Test procedures to be utilized will be as follows:

1. *Unit Weight and Absorption:*

The unit weight, or weight per cubic foot, shall be determined by multiplying the bulk-saturated-surface-dry specific gravity (BSSD) times 62.4 pounds per cubic foot. Specific gravity and absorption shall be determined in accordance with the Corps of Engineers testing procedure CRD-C 107-69, "Standard Method of Test for Specific Gravity, Absorption, and Unit Weight of Coarse Aggregate and Riprap", modified as follows: The test sample shall consist of about 5,000 grams of generally cubical pieces of stone passing the 2-inch and retained on the 1-1/2-inch standard square mesh sieve sizes. The test pieces shall be laboratory prepared by jaw crushing or chipping.

2. *Soundness:*

Tests that subject the rock to severe chemical treatments are intended to reveal weaknesses in a shortened time frame. The dissimilarity in comparison to natural weathering is sometimes a source of concern in translating laboratory results into estimates of stone performance. Both tests below are relatively simple and inexpensive.

a) *Magnesium Sulfate:*

Standardized testing follows CRD-C 137, a method developed for

evaluating aggregate. Samples soaked in a sulfate solution will break apart when the solution invades weak planes or cracks and then crystallizes upon heating and drying. A major shortcoming of this test for large stone is that the test specimens are broken from the large stone to a weight approximately 100 grams each. The breakage and segregation will eliminate weak areas when preparing the sample, and test results tend to be too favorable. Nevertheless, a loss exceeding 10 percent generally indicated poor-quality stone. The test is usually meaningful for sedimentary rocks when augmented by an absorption or abrasion test, except for some sandstones.

b) *Ethylene Glycol:*

Standardized testing follows CRD-C 148. This method is used to detect the presence of swelling clay minerals and provides an indication of the severity of deterioration of the stone to be expected in service. Ethylene glycol enters the clay mineral structure and causes rapid expansion. The test has been particularly useful in distinguishing questionable varieties among altered basaltic rocks.

3. *Abrasion:*

The Los Angeles abrasion test follows method CRD-C 145. The test is useful in determining the resistance of stone to abrasion and battering and also provides an index of toughness, durability, and abundance of incipient cracks. The significance of the test for large stone is indefinite since individual test pieces are limited to about 100 g in weight. Weaknesses along widely spaced surfaces are missed in this test. Roughly, losses less than 20 percent for 500 revolutions are generally considered satisfactory while losses exceeding 40 percent suggest probable poor service. The test is sometimes effective for evaluating metamorphic rock, particularly when supported by absorption and sulfate soundness tests.

4. *Freezing-Thawing:*

Method:

The standard method follows CRD-C 144, but modifications for large slabs cut perpendicular to bedding or for whole large stones are preferred by some laboratories because of better representation. Large-stone testing is discussed at length in Evaluation of Quality and Performance of Stone as Riprap or Armor. Regardless of details, a consistency in procedure is desirable, at least within a division laboratory and its service area. The test simulates the effects of a cold environment by inducing numerous cycles of freezing and thawing through a bath of water and alcohol. Again, the number of cycles to which, the specimen is subjected and the overall interpretation of the results should be determined on a district or laboratory basis. The number of cycles commonly exceeds 10, occasionally

going to 50 or more, depending upon local climate or established method. Failures along weak surfaces should be given special attention since their impact is easily underestimated.

Evaluation:

For small pieces wherein bedding and jointing are insignificant, a loss of 10 percent by testing CRD-C 144 should cause concern. Large stones and slabs losing more than 25 percent during 12 cycles will probably not perform well in service. Large stones losing no more than 10 percent commonly do perform satisfactorily. The effects of geological structure and other important characteristics of a material are less likely to be overlooked when at least three specimens are tested simultaneously in the same test bath.

5. *Wetting and Drying:*

The test sample, consisting of approximately 10 pounds of 2-inch to 1-1/2-inch pieces, will be prepared as specified above for unit weight and absorption tests. The test sample will be oven-dried and weighted then soaked for 24 hours prior to starting tests. Testing will consist of soaking 3 hours in tap water at approximately 60 degrees F and drying for 3 hours with an infrared heat lamp so that surface temperature of rocks will reach 165 degrees F. Upon completion of the test, samples will be oven-dried, screened over 1-1/2-inch sieve and weighed. Percent loss will be computed based on original dry weight.

6. *Drop Test:*

Method:

A drop test provides an immediate evaluation of the suitability of very large stone material and is also potentially useful for quality control and QA. For comparability, the test stone(s) should be dropped from a bucket or cherry picker, or by other means from a height half the average diameter of the stone onto a rigid surface or second stone of comparable size. Dumping with other stones from a haulage truck is usually an unsatisfactory practice.

Evaluation:

The stone should be examined carefully before testing as well as afterward. Failure criteria are development of new cracks, opening of old cracks, and loss of small pieces from the surface.

7. *Set Aside:*

The set-aside test is a particularly good method of forewarning of future problems with stone deterioration. Typically, large stones are set aside in the quarry and immediately examined and photographed. These specimens are examined and photographed again after a predetermined period of exposure. Stone that endures without signs of deterioration may be considered for acceptance. Observations from set-aside exposure are

19:00 STANDARDS FOR JETTY STONE

potentially useful in identifying materials in need of curing. The one disadvantage of this test is the long exposure period required, that is, preferably a year or more.

19:02.3 STONE CLASSIFICATION:

The following classification tables give the required weights of armor capstone in tons (2,000 lbs.), secondary armor stone in pounds, core and bedding stone and stone for use in Reno Mattresses in pounds based on a unit weight of not less than 175 lbs. per cubic foot. The material will be well graded and possess grading curves that do not exhibit abrupt changes in slope denoting skip grading, scalping of certain sizes, or any other irregularities. The gradations are those required for materials after they are in final position on the groin.

19:02.3a Primary at Head and Trunk – Armor Stone:

Gradation requirements for acceptable armor capstone will be as follows:

Weight (tons)		Percent Lighter by Weight
Head	Trunk	
20 (Max)	19 (Max)	100
16 (W50)	15 (W50)	50
12 (Min)	11 (Min)	0

19:02.3b Secondary Armor Stone:

Gradation requirements for acceptable secondary armor stone will be as follows:

Weight (tons)	Percent Lighter by Weight
1.40 (Max)	100
1.00 (W50)	50
0.75 (Min)	0

19:00 STANDARDS FOR JETTY STONE

19:02.3c Core Stone Gradation:

Gradation requirements for acceptable core/bedding stone will be as follows:

CORE STONE

Weight (pounds)	Percent Lighter by Weight
14 (Max)	100
8 (W50)	50
3 (Min)	0

Core and bedding stone shall be free from silt, clay, organic material, debris or other unsuitable material. The required weight of the core and bedding stone is based on a minimum unit weight of 175 Lbs. per cubic foot. The stone shall be of the quality specified in Section 19:02(2d) "Quarry Stone Quality."

19:02.3d Chinking Stone: AASHTO – R-5:

Gradation requirements for acceptable core/Chinking bedding stone will be as follows:

CHINKING STONE

Weight (pounds)	Percent Lighter by Weight
176	100
60	50
22	0

Mat stone shall be free from silt, clay, organic material, debris or other unsuitable material. The required weight of the core and bedding stone is based on a minimum unit weight of 175 Lbs. per cubic foot. The stone shall be of the quality specified in Section 19:02(2d) "Quarry Stone Quality."

19:02.3f Re-breaking Stone:

No acceptable armor stone that can be placed with the stone-handling equipment shall be re-broken.

19:00 STANDARDS FOR JETTY STONE

19:02.3g Handling Breakage:

If any armor stone is broken in handling after being weighed, the broken pieces may, upon approval by the Project Manager, be reclassified and placed in a lower weight class stone if they meet the requirements for that class stone.

19:00 STANDARDS FOR JETTY STONE

19:03 PART 3 EXECUTION

19:03.1 STRUCTURE DISMANTLING/DEMOLITION

19:03.1a Removal, Disposal, Sorting, and Storage of Existing Armor Capstones:

Existing armor capstone shall be removed in accordance with the project plans and stored in an on-site approved by the Project Manager. Sorting of armor capstone shall be performed using visual inspection and measurement of stone weight as described in Section 19:02.1. The visual inspection and weighing shall be performed by the Contractor, with the Project Manager, or his representative accompanying the Contractor during this process.

Armor capstones that do not meet the criteria defined in Section 19:02.1 shall be removed from the work site and disposed of by the Contractor, at the site stone storage area specified in Section 11:00 and/or as indicated on the Project Plans. All disposal shall be coordinated with the Project Manager and shall be accomplished in accordance with all Local, State and Federal Regulations.

19:03.1b Removal of Existing Grout from Jetty/Groin Crest & Capstone:

Contractor shall remove and dispose of all concrete grout between armor capstones as shown on the project plans and found within the structure in the field. The procedure for grout removal shall be approved by the Project Manager prior to the commencement of demolition and shall be accomplished in accordance with all Local, State and Federal Regulations. Steps shall be taken to ensure that loss of grout into the surrounding water is minimized. Disposal of removed grout shall be coordinated with the Project Manager and disposed of at an approved recycling center.

19:03.1c Removal, Disposal, Sorting, and Storage of Existing Core/Bedding Stone:

Core/bedding material shall be removed to the limits of the fabric wrapped core box in accordance with the project plans and stored in an on-site area approved by the Project Manager using mechanical means that will avoid damaging the surrounding ground surface.

All removed suitable core/bedding material shall be returned and placed within the new core box area and paid for under the rehandled stone item. Stone not specifically called for in the new structure shall be disposed of by the Contractor, at the storage site area specified on the project plans or in Section 11:00 of the specifications. All disposal shall be coordinated with the Project Manager and shall be accomplished in accordance with all Local, State and Federal Regulations.

19:00 STANDARDS FOR JETTY STONE

19:03.2 STONE PLACEMENT

All materials to be deposited in the groin shall be placed by means such as a crane, backhoe, backhoe type excavators with articulated rock claw pincher arm attachments, or derrick to the required cross-section and preferred axis orientation and as needed for the type of stone being placed. Material to be deposited below Mean Low Water (MLW) may be placed by any means that will obtain the required cross-section and preferred axis orientation and contact points to adjacent stone to meet the purpose and intent of the stone placement. Stone placed below the MLW line shall be coordinated to be placed during tidal conditions to maximize placement in dry conditions.

Placement of armor capstone, secondary armor stone and core/bedding stone shall not deviate from the grade lines and slopes indicated in the plans by more than the tolerances discussed in Subsection 19:03.4 unless approved in writing by the Project Manager.

Equipment suitable for handling the specific stone will be used. The material will be handled and placed in such a manner as to minimize segregation of the stone. Any material placed on or in the structure for the convenience of construction must be completely removed prior to final placement of stone in the affected portion of the structure.

The finished structure will be a well-graded mass, free of pockets of either smaller or larger stone with a minimum of voids and a maximum interlocking of stones. The Contractor will conduct his operation and sequence his construction so the amount of protection offered to the structure during construction is maximized at all times.

Construction of individual elements in advance of the completed section will be at the sole risk of the Contractor.

19:03.2a Armor Capstone Construction:

Armor capstone will be placed to the thickness and sizes shown on the project plans in a manner to avoid displacing underlying materials. The material will be placed in a manner that will not result in breakage of armor capstone or underlying secondary armor stone. Casting or dropping the stone will not be allowed.

Armor capstone will be placed in a manner to produce a resultant well-graded mass of stone with minimum voids and maximum interlocking. Armor capstone will make contact with adjacent stones on a minimum of three faces. Continuous joints will not be permitted between adjoining stones. All stones will be placed into a stable, keyed, and interlocked position. Voids should be minimized to the extent that the smallest stone within the secondary armor layer is not able to pass through the armor capstone voids. No overhanging or perched stones will be allowed.

Armor capstone placement will begin at the base (toe) of the structure, with stones from the heavier 40%, i.e., above the W50 weight, of the armor stone gradation as described in Section 19:02.3 and proceed toward the crest (top of the structure) by placing stone to the full layer thickness before advancing upward.

If an outfall is encased in the structure, the Contractor shall pre-select rectangular armor stone for specific placement against the outfall. Armor capstone placement on both sides of the outfall shall proceed at the same pace and elevation. Placement of armor capstone at a higher elevation on one side of the outfall can lead to the displacement of the outfall from its foundation. Contractor shall ensure that this situation is avoided.

The final finish of the groin slope will be done as material is placed. No placement or finishing of the layer by drifting and manipulating the armor capstone downslope will be permitted. The Project Manager shall be advised as to any and all situations that may result in a possible interruption of the work.

19:03.2b Secondary (Underlayer) Armor Stone Construction:

Secondary armor stone shall be placed in a manner to avoid displacing the underlying core/bedding material or placing undue impact force on underlying materials and supporting subsoils. The secondary armor stone shall be placed in a manner to produce a resultant graded mass of stone with minimum voids and maximum interlocking. Rearranging of individual stones may be required to achieve this result. Placement of any method that is likely to cause segregation of the various sizes will not be permitted. Un-segregated stone shall be lowered in a bucket or container and placed in a systematic manner directly on the underlying materials.

Placement shall begin at the bottom of the slope and proceed upward. Casting or dropping of stone or moving by drifting and manipulation down the slope will not be permitted. Final finish of slope shall be done as the material is placed.

Secondary armor stone placed in advance of the completed groin structure primary armor stone shall be at the Contractor's risk. Secondary armor stone shall be adjusted under primary armor stone to create even bearing for the primary armor when placed. In the event an unprotected section of secondary armor stone is damaged, or causes damage to a completed section, the damages shall be repaired and/or replaced to the approval of the Project Manager, at no additional cost to the Division. The Project Manager shall be advised as to any and all situations that may result in a possible interruption of the work.

If an outfall is encased in the structure, secondary armor stone placement on both sides of the outfall shall proceed at the same pace and elevation.

19:00 STANDARDS FOR JETTY STONE

19:03.2c Bedding/Core Stone Construction:

The material shall be handled and placed in such a manner as to minimize segregation and provide a well-graded bedding layer. If the materials are placed by clamshell, dragline or other similar equipment, the stone shall not be dropped from a height exceeding one (1) foot above the geotextile material. The core stone shall be placed in such a manner to avoid displacing the geotextile material.

Core stone placed in advance of completed groin structure shall be at the Contractor's risk. In the event an unprotected section of core stone is damaged, or causes damage to a completed section, the damages shall be repaired and/or replaced to the approval of the Project Manager, at no additional cost to the Division. The Division shall be advised as to any and all situations that may result in a possible interruption of the work.

19:03.2d Sideslope Transition Construction:

Placement of stone at the boundaries between changing side slopes or section details will be constructed to create maximum interlocking. Where zones of dissimilar size, shape and/or gradation of stone abut, the smaller material will be knitted together with the larger material. This transition zone will span a distance of at least five times the dimension of the larger material present, as measured along the larger material's shortest axis, to create a smooth transition. Transitions along the groin slope are to achieve a smooth, continuous surface, free of major geometric discontinuities or continuous joints.

19:03.2e Long Stone:

All acceptable stones that have a long axis which exceeds twice either of its other dimensions shall be placed with the long axis normal to the slope at the location where the stone is placed.

19:00 STANDARDS FOR JETTY STONE

19:03 PART 3 EXECUTION

19:03.3 STONE PLACING EQUIPMENT:

All equipment for lifting and placing should be load tested. The equipment shall be capable of placing stone in such a manner as to produce a well-keyed mass without damage. Stone placing equipment shall have adequate safe capacity to construct the structure to the lines, grades, and slopes indicated on the drawings.

Mats are required under all moving cranes, etc. Temporary filling of voids with sand or stone will not be permitted. All stone cracked by equipment riding over them shall be removed if the cracked pieces do not meet the required weights. The method of placement shall provide means of turning all stones placed in the groin at least 90 degrees in the horizontal plane and for vertical rotation, to the extent necessary for final positioning. A representative of the Division shall be permitted to ride in the cab of the stone placing equipment in order to view the operation for positioning of individual stones.

19:03.4 TOLERANCES:

19:03.4a Armor Capstone Placement:

Placement of armor capstone will not deviate from the lines and slopes shown on the project plans by more than plus 12.0 inches or minus 6.0 inches, except that exceeding a 9 inch total variation will not be allowed on the exposed surface of adjacent stones.

The above tolerance is only applicable to armor capstone not adjacent to outfalls, box culverts or other drainage structures. For armor capstones adjacent to these drainage structures, the stone can not be lower than 1 inch below and no higher than 6 inches above the top elevation of the adjacent drainage structure or appurtenance.

The extreme limits of tolerance shall not be continuous over a distance greater than 20 feet by 20 feet, or 400 square feet. Upon completion of stone placement along any portion of the work, a survey will be made by the Division on 20-foot centers to determine if the tolerances have been met. If the 9 inch tolerance between adjacent stones; the minimum tolerance of minus 6 inches; the plus 12 inch tolerance have been exceeded; or if the final elevation of any stone across the jetty crest is lower by 1.0 inch nor more than 6.0 inches than that of the top elevation of the designed jetty crest, the Contractor, at his expense, shall remove and replace the stone to remain within the allowed tolerances except as modified by the Project Manager.

19:00 STANDARDS FOR JETTY STONE

19:03.4b FINAL TOLERANCE SURVEY/AS-BUILT SURVEY:

A survey of the structure shall be taken 30 days after the completion of the placement of the armor capstone to ensure that the tolerances stated herein are still met. If any of the tolerances along the length of the constructed structure has not been met, the Contractor, at his expense, shall remove and replace the necessary portions of the structure to remain within the allowed tolerances except as modified by the Project Manager.

The final as-built survey shall be conducted in accordance with the Section entitled "Surveys."

Only after the stated tolerances have been met, as determined by surveys, shall permission be granted the Contractor by the Project Manager to proceed with the application of the cement-silicate grout.

-- End of Section 19:00 --

28:00 GEOTEXTILE

28:01 PART 1 - GENERAL

28:01.1 SCOPE OF SECTION

The work covered by this section consists of furnishing all labor, material, and equipment, and performing all operations required for providing geotextile under the handicap and vehicular dune crossovers as indicated on the contract drawings.

28:01.2 REFERENCES

The publications listed below form a part of the specification to the extent referenced. The publications are referred to in the text by basic designation only.

ASTM INTERNATIONAL (ASTM) - LATEST EDITION

ASTM D 3786	Hydraulic Bursting Strength of Knitted Goods & Nonwoven Fabrics - Diaphragm Bursting Strength Tester Method
ASTM D 4354	Sampling of Geosynthetics for Testing
ASTM D 4355	Deterioration of Geotextiles from Exposure to Ultraviolet Light and Water (Xenon-Arc Type Apparatus)
ASTM D 4491	Water Permeability of Geotextiles by Permittivity
ASTM D 4533	Trapezoid Tearing Strength of Geotextiles
ASTM D 4632	Grab Breaking Load and Elongation of Geotextiles
ASTM D 4751	Determining Apparent Opening Size of a Geotextile
ASTM D 4759	Determining the Specification Conformance of Geosynthetics
ASTM D 4833	Index Puncture Resistance of Geotextiles, Geomembranes, and Related Products
ASTM D 4873	Identification, Storage, and Handling of Geosynthetic Rolls and Samples

28:01.3 SUBMITTALS

28:01.3a Product Data:

1. Thread: A minimum of 7 days prior to scheduled use, proposed thread type for sewn seams along with data sheets showing the physical properties of the thread.
2. Geotextile Samples: A minimum of 7 days prior to scheduled use, a sample of the material shall be submitted, and an additional 7 days shall be allotted in the schedule to allow for quality assurance testing.

28:00 GEOTEXTILE

28:01 PART 1 - GENERAL

28:01.3 SUBMITTALS Con't:

3. Geotextile Certificates: A minimum of 7 days prior to scheduled use, manufacturers certificate of compliance stating that the geotextile meets the requirements of this section. The certificate of compliance shall be attested to by a person having legal authority to bind the geotextile manufacturer. Certificate shall be a statement signed by an official authorized to certify on behalf of the manufacturer of the geotextile, attesting that the product meets specified requirements. The statement must be dated after the award of the contract, must state the Contractor's name and address, must name the project and location, and must list the specific requirements which are being certified.

28:01.4 DELIVERY, STORAGE AND HANDLING:

All delivery, storage, and handling of geotextile shall conform to ASTM D 4873.

28:01.4.1 Delivery:

The Project Manager shall be notified a minimum of 24 hours prior to delivery and unloading of geotextile rolls. Rolls shall be packaged in an opaque, waterproof, protective plastic wrapping. The plastic wrapping shall not be removed until deployment. If quality assurance samples are collected, rolls shall be immediately rewrapped with the plastic wrapping. Geotextile or plastic wrapping damaged during storage or handling shall be repaired or replaced, as directed. Each roll shall be labeled with the manufacturer's name, geotextile type, roll number, roll dimensions (length, width, gross weight), and date manufactured.

28:01.4.2 Storage:

Rolls of geotextile shall be protected from construction equipment, chemicals, sparks and flames, temperatures in excess of 160 degrees F, or any other environmental condition that may damage the physical properties of the geotextile. To protect geotextile from becoming saturated, rolls shall either be elevated off the ground or placed on a sacrificial sheet of plastic in an area where water will not accumulate.

28:01.4.3 Handling:

Geotextile rolls shall be handled and unloaded with load carrying straps, a fork lift with a stinger bar, or an axial bar assembly. Rolls shall not be dragged along the ground, lifted by one end, or dropped to the ground.

28:00 GEOTEXTILE

28:02 PART 2 - PRODUCTS

28:02.1 GEOTEXTILE

Geotextile shall be a woven pervious sheet of polymeric material and shall consist of long-chain synthetic polymers composed of at least 95 percent by weight polyolefins, polyesters, or polyamides. The use of woven slit film geotextiles (i.e. geotextiles made from yarns of a flat, tape-like character) will not be allowed. Stabilizers and/or inhibitors shall be added to the base polymer, as needed, to make the filaments resistant to deterioration by ultraviolet light, oxidation, and heat exposure. Re grind material, which consists of edge trimmings and other scraps that have never reached the consumer, may be used to produce the geotextile. Post-consumer recycled material may also be used. Geotextile shall be formed into a network such that the filaments or yarns retain dimensional stability relative to each other, including the edges. Geotextiles shall meet the requirements specified in Table 1. Where applicable, Table 1 property values represent minimum average roll values (MARV) in the weakest principal direction. Values for AOS represent maximum average roll values.

TABLE 1
MINIMUM PHYSICAL REQUIREMENTS FOR SEPARATION GEOTEXTILE

PROPERTY	UNITS	ACCEPTABLE VALUES	TEST METHOD
WIDE WIDTH TENSILE	LBS	400 X 400	ASTM D4595
SEAM STRENGTH	LBS	240	ASTM D4632
PUNCTURE	LBS	1600	ASTM D4833
TRAPEZOID TEAR	LBS	222 X 220	ASTM D4533
APP. OPENING SIZE	U.S. SIEVE	30	ASTM D 4751
PERMITTIVITY	SEC -I	0.7	ASTM D 4491
UV DEGRADATION	PERCENT	50 AT 500 HRS	ASTM D 4355

28:02.2 THREAD:

Sewn seams shall be constructed with high-strength polyester, nylon, or other approved thread type. Thread shall have ultraviolet light stability equivalent to the geotextile and the color shall contrast with the geotextile.

28:02.3 MANUFACTURING QUALITY CONTROL SAMPLING AND TESTING:

The Manufacturer shall be responsible for establishing and maintaining a quality control program to assure compliance with the requirements of the specification. Documentation describing the quality control program shall be made available upon request. Manufacturing quality control sampling and testing shall be performed in accordance with the manufacturer's approved quality control manual. As a minimum, geotextiles shall be randomly sampled for testing in accordance with ASTM D 4354, Procedure A. Acceptance of geotextile shall be in accordance with ASTM D 4759. Tests not meeting the specified requirements shall result in the rejection of applicable rolls.

28:00 GEOTEXTILE

28:03 PART 3 - EXECUTION

28:03.1 SUBGRADE PREPARATION:

The surface underlying the geotextile shall be smooth and free of ruts or protrusions which could damage the geotextile. Any irregularities shall be removed so as to insure continuous, intimate, contact of the geotextile with all the surface. Any loose material, soft or low density pockets of material, shall be removed; erosion features such as rills, gullies, etc. must be graded out of the surface before geotextile placement.

28:03.2 INSTALLATION:

The Contractor shall notify the Project Manager a minimum of 24 hours prior to installation of geotextile. Geotextile rolls which are damaged or contain imperfections shall be repaired or replaced as directed. The geotextile shall be laid flat and smooth so that it is in direct contact with the subgrade. The geotextile shall be placed with the long dimension parallel to the crossover centerline and shall be laid smooth and free of tension, stress, folds, wrinkles or creases. The placement procedures require that the length of the geotextile be slightly greater than the dune cross-over length. The geotextile shall be carried up the sides of the base and infield mix materials and the extra shall be tucked down and covered with sand.

28:03.3 SEAMS:

28:03.3.1 Overlap Seams:

Geotextile panels shall be continuously overlapped a minimum of 60 inches at all longitudinal and transverse joints. Where seams must be oriented across the slope, the upper panel shall be lapped over the lower panel. If approved, sewn seams may be used instead of overlapped seams.

28:03.3.2 Sewn Seams:

The stitch type used shall be a 401 locking chain stitch or as recommended by the manufacturer. Seam strength shall meet the minimum requirements specified in Table 1. The thread at the end of each seam run shall be tied off to prevent unraveling. Skipped stitches or discontinuities shall be sewn with an extra line of stitching with a minimum of 18 inches of overlap.

28:03.4 PROTECTION:

The geotextile shall be protected during installation from clogging, tears, and other damage. Damaged geotextile shall be repaired or replaced as directed. Adequate ballast (e.g. sand bags) shall be used to prevent uplift by wind. The geotextile shall not be left uncovered for more than 4 hours after installation.

28:00 GEOTEXTILE

28:03 PART 3 - EXECUTION

28:03.5 REPAIRS:

Torn or damaged geotextile shall be repaired. Repairs shall be performed by placing a patch of the same type of geotextile over the damaged area. The patch shall extend a minimum of 12 inches beyond the edge of the damaged area. A nonwoven geotextile shall be patched by either sewing, using one row of a two-thread chain stitch, or, by tack welding the patch to the surrounding undamaged geotextile using a hot-air tack-welding tool such that the patch does not move while backfilling over the geotextile. A woven geotextile shall be patched using a special tape, as recommended by the geotextile manufacturer, made for patching wovens (using a hot-air tack-welding tool is prohibited on a woven geotextile). The machine direction of the patch shall be aligned with the machine direction of the geotextile being repaired. Geotextile rolls which cannot be repaired shall be removed and replaced. Repairs shall be performed at no additional cost to the Division.

28:03.6 COVERING:

Geotextile shall not be covered prior to inspection and approval by the Project Manager. The geotextile shall be protected from damage during the placement of overlying materials primarily by limiting the height of drop of materials to no greater than 1-foot unless otherwise approved by the Project Manager. Any damage to the geotextile during placement of the overlying materials shall be repaired or replaced by the Contractor at his own expense.

28:03.7 MEASUREMENT AND PAYMENT:

No separate measurement or payment will be made for the work specified in this section. All costs in connection with providing and installing geotextile shall be included in the contract prices of those items for which the geotextile is incidental.

-- End of Section 28:00 --

32:00 EXCAVATION

32:01.1 SCOPE OF WORK:

This Section describes the requirements for stripping, excavating, and reusing excavated material for backfill. Excavation purposes are to obtain specified top and bottom elevations of structures as identified on the attached set of plans.

32:01.2 EXCAVATING TEST PITS:

Before beginning Construction Operations, locate existing subsurface structures and utilities that may be affected by or interfere with the proposed construction. Obtain utility locations. If directed by the Project Manager, excavate to obtain the utility location.

Excavate as specified in the plans and as directed by the Project Manager. Excavate test pits or portions of a test pit by hand when in close proximity to utilities or when directed. Backfill test pits with excavated material in 6-inch lifts and compacted.

32:01.3 EXCAVATING UNCLASSIFIED MATERIAL:

Excavating. The Project Manager is solely responsible for the designation of excavated material. Unclassified excavation consists of excavation and management of material of whatever nature encountered, except for regulated material or acid producing soil.

Excavate using equipment and methods that remove material to the specified excavation limits without disturbing the material outside of the excavation limits. While excavating, protect facilities and structures from damage and disturbance. All excavation methods, including but not limited to shoring, benching, and dewatering shall be conducted in accordance with the requirements of OSHA 29 CFR 1910 and 29 CFR 1926. Ensure that material outside excavation limits is not disturbed. If any material outside the excavation limits becomes disturbed, restore the area as directed by the Project Manager. Excavate and grade to ensure proper drainage.

Notify the Project Manager if excavation to the finished grade section results in unstable subgrade or slopes. Obtain Project Manager approval before removing unstable material and backfilling the area with suitable material. Backfill with excavated material and compact.

Use excavated material on the Project, as directed by the Project Manager, or as specified in plans.

32:00

EXCAVATION

32:01.3

EXCAVATING UNCLASSIFIED MATERIAL CON'T:

Wet Areas. If required, submit a dewatering plan including method of dewatering and controlling sediment and contaminants from entering adjacent waterbodies, wetlands, and environmentally sensitive areas. Obtain Project Manager approval for dewatering operations before beginning the work.

Excavate using equipment and methods to the specified elevation without disturbing the material below that elevation. If the methods and equipment disturb the material below the specified elevation, immediately stop operations. Resume excavation using alternate methods and equipment as approved by the Project Manager.

The Project Manager may allow the use of dikes, well points, or other means for dewatering the excavation areas if cofferdams are not shown on the Plans. If permits are required for this work, submit a copy of approvals to the Project Manager before proceeding with the work.

Temporary Storing. Temporarily store soil in stockpiles in well-drained areas no closer than 50 feet from streams, wetlands, floodplains, other waterbodies, and as shown on the Plans. In areas not on the beach, construct stockpiles on polyethylene sheeting. Overlap joints in the underlying polyethylene sheeting a minimum of 12 inches. Contain stockpiles with haybales or silt fence placed continuously at the perimeter of the stockpiles. Construct stockpiles to heights not exceeding 15 feet and with side slopes no steeper than 2H:1V.

Protect and maintain the stockpile and embankment until reuse or disposal. Provide protection for the stockpile to control the stormwater run-off, erosion, and unauthorized contact. Where the material in the stockpile is saturated, pitch the bottom polyethylene sheeting towards a discharge basin to collect water drained from the stockpile. Manage the collected water in the same manner as that generated during dewatering operations.

Maintain the polyethylene sheeting or replace it as needed for as long as the stockpile remains. Periodically inspect stockpiles to ensure that material is not released into the surrounding environment.

When temporarily storing soil is not possible within the Project Limits, the Contractor may temporarily store soil at a site provided by the Contractor outside the Project Limits as approved by the Project Manager.

When the stockpile is removed, restore the area to the original condition.

32:00 EXCAVATION

32:01.4 EXCAVATING REGULATED MATERIAL:

The Project Manager is solely responsible for the designation of excavated material. Regulated material excavation consists of excavation and management of material of whatever nature encountered that is classified as regulated or hazardous in the NJDEP Solid Waste Regulations, N.J.A.C 7:26-1 et seq. or N.J.A.C 7:26-8.

There are no known areas of regulated material on the Plans. If found, alert the Project Manager and handle regulated material according to applicable Federal, State, and local laws, rules, and regulations; and as specified herein.

Pre-Excavation Plans. Submit 4 copies of the following plans to the Project Manager 30 days before beginning construction operations. Update and resubmit plans to identify changes in the condition or operation of the Work. If the Contractor fails to follow the pre-excavation plans, the Project Manager will suspend the Work.

32.01.05 MEASUREMENT AND PAYMENT:

All costs associated with the excavation of materials shall be measured and paid for in accordance with Section 11:00 of the Specifications and as further specified herein.

-- End of Section 32:00 --



State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION

Division of Land Use Regulation

Mail Code 501-02A

P.O. Box 420

Trenton, New Jersey 08625-0420

www.state.nj.us/dep/landuse

CHRIS CHRISTIE
Governor

KIM GUADAGNO
Lt. Governor

BOB MARTIN
Commissioner

MAY 25 2016

William Dixon, Manager
NJDEP Bureau of Coastal Engineering
1510 Hooper Avenue, Suite 140
Toms River, NJ 08753

Rob Lore
Environmental and Historic Advisor
FEMA - 4086 - DR-NJ
260 Industrial Way West
Eatontown, NJ 07724

Re: Federal Consistency Determination and Water Quality Certificate for South Absecon Inlet Jetty
in the City of Atlantic
DLUR File No. 0102-02-0027.16 CDT160001

Dear Mr. Dixon and Mr. Lore:

The New Jersey Department of Environmental Protection, Division of Land Use Regulation, acting under Section 307 of the Federal Coastal Management Act (P.L. 92-583) as amended, finds the Federal Emergency Management Agency (FEMA) and the NJDEP Bureau of Coastal Engineering's (BCE) proposed repairs to the South Absecon Inlet Jetty in the City of Atlantic City, Atlantic County, consistent with the approved New Jersey Coastal Management Program and authorizes a Section 401 Water Quality Certificate.

FEMA and BCE are proposing to repair the South Absecon jetty within the original footprint to pre-superstorm Sandy conditions. The proposed repairs include clearing of existing concrete grout and replacement of the cap and core box, removal of existing cap stone, resetting of the removed cap stone, construction of a new core box, removal and disposal of broken concrete, placement of new stone, which includes additional armor stone to ensure protection from future storm events.

This work is shown on 16 sheets, all entitled:

"STATE OF NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF COASTAL ENGINEERING DIVISION OF PROPERTY MANAGEMENT AND CONSTRUCTION SOUTH ABSECON INLET JETTY REPAIR ATLANTIC CITY, ATLANTIC COUNTY, NEW JERSEY N.J.D.E.P. PROJECT NUMBER 4264-15 D.P.M.C. PROJECT NUMBER P1128-00", all sheets undated, last revised March 14, 2016, signed March 16, 2016 and prepared by Hatch Mott MacDonald.

To ensure consistency with the New Jersey Coastal Management Program, the following conditions must be met:

1. All staging areas must be returned to the pre-existing condition within 60 days of completion of the project.
2. For work scheduled to begin within the seabeach amaranth growing season (between May 15 and November 30) the permittee shall conduct a survey of the area of disturbance no more than one week prior to its commencement. If seabeach amaranth is observed, the permittee shall coordinate with the US Fish & Wildlife Service – New Jersey Field Office prior to recommencement of work.
3. Consistent with Assembly Bill, No. 2804, P.L. 2007, CHAPTER 113, the use of creosote treated material (or other descriptive term from the law) in the construction of the authorized structure(s) is prohibited.
4. This permit does not obviate you from obtaining any other necessary federal, state or local approvals.
5. This permit does not authorize dredging activities.
6. All material shall be disposed of in a lawful manner. For example, it should be placed outside of any flood hazard area, riparian zone, regulated water, freshwater wetland and adjacent transition area, and in such a way as to not interfere with the positive drainage of the receiving area.
7. Public access to the waterfront and along the beach must be maintained during and after project construction. Public access along the jetty must be maintained upon completion of the project.

This Federal Consistency is authorized pursuant to all parties following the guidelines set forth, and agreed upon, for the proposed work.

Pursuant to 15 CFR 930.44, the Division reserves the right to object and request remedial action if this proposal is conducted in a manner, or is having an effect on, the coastal zone that is substantially different than originally proposed.

Thank you for your attention to and cooperation with New Jersey's Coastal Zone Management Program. If you have any questions with regard to this determination, please do not hesitate to contact Kara Turner, at the above address or at 609-633-2289.

Sincerely,



Colleen Keller
Manager
Bureau of Coastal Regulation

Cc: Elizabeth Semple, Division of Coastal and Land Use Planning

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
ENGINEERING & CONSTRUCTION
DIVISION OF COASTAL ENGINEERING

STANDARD OPERATING PROCEDURE FOR:

UNANTICIPATED DISCOVERIES PLAN
SOUTH ABSECON INLET JETTY REPAIR
CITY OF ATLANTIC CITY, ATLANTIC COUNTY, NEW JERSEY
DIVISION OF COASTAL ENGINEERING PROJECT #4264-15

Prepared by

Division of Coastal Engineering

September 2016

Standard Operating Procedure- Unexpected Cultural Resources Discovery During Undertakings

The objective of this project is to complete the necessary repairs of the South Absecon Inlet jetty located in Atlantic City, Atlantic County, New Jersey. The project site is located at the northeast extent of Oriental Avenue, where the jetty structure makes landfall. From this point the structure extends out into the Atlantic Ocean, roughly 1,200 linear feet, along the southerly limit of the Absecon Inlet. During Superstorm Sandy, heavy wave impact, tidal surges and undermining attributed to significant damages along the extent of the jetty. Field inspections reported displacement of armor stone and destruction of the existing core box resulting in heavy settlement of cap stone and armor stone rotation throughout the structure. The proposed repairs are to include; clearing of existing concrete grout and replacement of the cap and core box, removal of existing cap stone, resetting of the removed cap stone, construction of the new core box, removal and disposal of broken concrete, and placement of new stone, which includes additional armor stone to ensure protection from future storm events. The reconstructed jetty is to be restored within its pre-storm site footprint in order to meet funding eligibility from the Federal Emergency Management Agency. Therefore, the jetty will be returned to its pre-storm conditions.

The project's area of potential effects (APE) was formerly open water. While no shipwrecks have been identified within the APE, the project location exhibits a high sensitivity for the presence of historic shipwreck remains, due to the dynamic environment of the Inlet and the multitude of previously identified shipwrecks in the area. Similar work conducted by the United States Department of the Army, Corps of Engineers (USACE) on the north jetty within Barnegat Inlet identified the presence of a previously unknown historic shipwreck within jetty during construction. In the event of an unexpected discovery of cultural resources during the reconstruction of the south Absecon Inlet jetty, the following procedure shall apply:

1. Halt Work

- a. In the event of an archaeological discovery, all work shall cease in the area of discovery. Construction activities within the immediate area of the archaeological resource will be halted ("immediate area" is a context-specific measure, however roughly 100 feet around the find is generally adequate, although special attention should be given to the possible extension of a new find beyond this buffer zone), and the discovery protected from further disturbance. The on-site construction supervisor will have the authority and responsibility to halt construction in the immediate area of the find.

2. Notify Project Manager(s)

- a. The contractor shall immediately notify the on-site Division of Coastal Engineering (DCE) inspector of the discovery, who will then notify the DCE project manager and/or engineer.

3. Notify Agencies

- a. The DCE project manager will notify the New Jersey Historic Preservation Office (HPO), USACE, and the Federal Emergency Management Agency (FEMA) within 48 hours of the discovery.

4. Protect the Site

- a. DCE will arrange for necessary measures to protect the find spot from vandalism.
- b. Any artifacts discovered shall be preserved on-site in fresh water until they can be collected by HPO. Any artifact too large to store in fresh water containers shall be placed in waters adjacent to the site.

5. Engage in Consultation

- a. DCE, in consultation with their cultural resources consultant, will engage in consultation with the HPO, USACE, and FEMA, to determine the potential National Register of Historic Places significance of the find.
- b. The HPO, USACE, and FEMA shall response within 48 hours of the notification.
- c. If the site is determined to be eligible for inclusion in the National Register of Historic Places, DCE, HPO, USACE, and FEMA will develop and implement actions taking into account the adverse effects of the undertaking on the historic property and will be performed as required/approved by DCE, HPO, USACE, and FEMA. Construction activities will remain halted until the DCE indicates to project manager that it may proceed in the area of a specific unanticipated discovery.

6. Report

- a. The unanticipated discovery and the actions taken to address it will be documented in a written report that will be submitted to the DCE, HPO, USACE, and FEMA. The report format will be determined by the level of effort required.

Contact Information:

Division of Coastal Engineering Project Manager:

Glenn Golden
Environmental Specialist
Division of Coastal Engineering
Department of Environmental Protection
1510 Hooper Ave.
Toms River, N.J. 08753
Phone: (732) 255-0762
E-mail: Glenn.Golden@dep.nj.gov

Historic Preservation Office Project Manager:

Jesse West-Rosenthal
Senior Historic Preservation Specialist
Historic Preservation Office
Department of Environmental Protection
Mail Code 501-04B
501 E. State Street
PO Box 420
Trenton, NJ 08625
Phone: (609) 984-6019
E-mail: jesse.west-rosenthal@dep.nj.gov

United States Department of Army, Corps of Engineers Project Manager:

Rachel Ward
Biologist
U.S. Army Corps of Engineers
Philadelphia District Regulatory Branch
100 Penn Square East
Philadelphia, PA 19107
Phone: (215) 656-6733
E-mail: Rachel.J.Ward@usace.army.mil

Federal Emergency Management Agency Project Manager:



REPLY TO
ATTENTION OF

CERTIFIED MAIL- RETURN RECEIPT REQUESTED

DEPARTMENT OF THE ARMY
PHILADELPHIA DISTRICT CORPS OF ENGINEERS
WANAMAKER BUILDING, 100 PENN SQUARE EAST
PHILADELPHIA, PENNSYLVANIA 19107-3390

JUL 25 2018

Regulatory Branch
Application Section I

SUBJECT: CENAP-OP-R-2016-00535 (NWP 3)
Project Name: South Absecon Inlet Jetty Repair AT
NJDEP#: DLUR File No. 0102-020027.16 CDT160001
Latitude and Longitude: 39.365152° N, 74.408394° S

Kelley Staffieri
NJDEP Bureau of Coastal Engineering
1510 Hooper Ave.
Toms River, NJ 08753

Dear Ms. Staffieri:

This is in regard to your proposal to repair and reconstruct approximately 1,200 linear feet of the south Absecon Inlet Jetty located in Atlantic City, Atlantic County, Pennsylvania. Under current Federal regulations, a Department of the Army permit is required for work or structures in navigable waters of the United States and/or the discharge of dredged or fill material into waters of the United States including wetlands.

Based upon our review of the information you have provided, it has been determined that your project is approved by the existing Department of the Army Nationwide Permit 3 (NWP 3) described below provided the work is conducted in compliance with the NWP general conditions, regional conditions, and the project specific special conditions.

NWP 3. Maintenance. (a) The repair, rehabilitation, or replacement of any previously authorized, currently serviceable structure or fill, or of any currently serviceable structure or fill authorized by 33 CFR 330.3, provided that the structure or fill is not to be put to uses differing from those uses specified or contemplated for it in the original permit or the most recently authorized modification. Minor deviations in the structure's configuration or filled area, including those due to changes in materials, construction techniques, requirements of other regulatory agencies, or current construction codes or safety standards that are necessary to make the repair, rehabilitation, or replacement are authorized. This NWP also authorizes the removal of previously authorized structures or fills. Any stream channel modification is limited to the minimum necessary for the repair, rehabilitation, or replacement of the structure or fill; such modifications, including the removal of material from the stream channel, must be immediately adjacent to the project. This NWP also authorizes the removal of accumulated sediment and debris within, and in the immediate vicinity of, the structure or fill. This NWP also authorizes the repair, rehabilitation, or replacement of those structures or fills destroyed or damaged by storms,

floods, fire or other discrete events, provided the repair, rehabilitation, or replacement is commenced, or is under contract to commence, within two years of the date of their destruction or damage. In cases of catastrophic events, such as hurricanes or tornadoes, this two-year limit may be waived by the district engineer, provided the permittee can demonstrate funding, contract, or other similar delays.

(b) This NWP also authorizes the removal of accumulated sediments and debris outside the immediate vicinity of existing structures (e.g., bridges, culverted road crossings, water intake structures, etc.). The removal of sediment is limited to the minimum necessary to restore the waterway in the vicinity of the structure to the approximate dimensions that existed when the structure was built, but cannot extend farther than 200 feet in any direction from the structure. This 200 foot limit does not apply to maintenance dredging to remove accumulated sediments blocking or restricting outfall and intake structures or to maintenance dredging to remove accumulated sediments from canals associated with outfall and intake structures. All dredged or excavated materials must be deposited and retained in an area that has no waters of the United States unless otherwise specifically approved by the district engineer under separate authorization.

(c) This NWP also authorizes temporary structures, fills, and work, including the use of temporary mats, necessary to conduct the maintenance activity. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary structures, work, and discharges, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. After conducting the maintenance activity, temporary fills must be removed in their entirety and the affected areas returned to preconstruction elevations. The areas affected by temporary fills must be revegetated, as appropriate.

(d) This NWP does not authorize maintenance dredging for the primary purpose of navigation. This NWP does not authorize beach restoration. This NWP does not authorize new stream channelization or stream relocation projects.

Notification: For activities authorized by paragraph (b) of this NWP, the permittee must submit a preconstruction notification to the district engineer prior to commencing the activity (see general condition 32). The pre-construction notification must include information regarding the original design capacities and configurations of the outfalls, intakes, small impoundments, and canals.

(Authorities: Section 10 of the Rivers and Harbors Act of 1899 and section 404 of the Clean Water Act (Sections 10 and 404))

Note: This NWP authorizes the repair, rehabilitation, or replacement of any previously authorized structure or fill that does not qualify for the Clean Water Act section 404(f) exemption for maintenance.

You are advised that this verification of NWP authorization is valid until the Nationwide Permits expire on March 18, 2022, unless the NWP authorization is modified, suspended, or revoked prior to this date. In the event that the NWP authorization is modified during that time period, this expiration date will remain valid, provided the activity complies with any subsequent modification of the NWP authorization.

It is noted that CZM consistency from the State is only required for those activities in or affecting a State's coastal zone. Additionally, some of the NWPs do not involve a discharge of dredged or fill material, and as such, do not require a 401 WQC. If the State has denied the required WQC and/or not concurred with the Corps' CZM consistency determination, the NWP authorization is considered denied without prejudice until an individual project specific WQC and/or CZM approval is obtained.

The State of New Jersey has denied 401 WQC and has not concurred with CZM consistency during the issuance of Philadelphia District's regional conditions for NWP 3 therefore you are being directed to seek further review by the state in which they will attach the required Federal consistency determination and certification as part of their review as applicable. This approval must be obtained in order for the activity to be authorized under the NWP and a copy provided to this office before work begins. Any project specific conditions required by the State for the WQC and/or CZM approval will automatically become part of the NWP authorization.

The activities authorized by this NWP verification must comply with the NWP General Conditions, as applicable, in addition to any regional or case-specific conditions imposed by the division engineer or district engineer. A copy of the NWP General Conditions and the Philadelphia District 2017 NWP Regional Permit Conditions for New Jersey for which this verification is subject to, can be found at:

(<http://www.nap.usace.army.mil/Portals/39/docs/regulatory/publicnotices/2017%20Nationwide%20Permit%20General%20Conditions.pdf>).

(http://www.nap.usace.army.mil/Portals/39/docs/regulatory/publicnotices/2017_NJ_Reg_Cond_Final.pdf).

In instances where you are unable to access a digital copy of the 2017 NWP General conditions and/or the 2017 NWP Regional Permit Conditions for New Jersey, a hard copy will be transmitted by registered mail to you per request. It is further noted that you may request a copy by email at any time in which the NWP General Conditions and Regional Permit Conditions will be provided to you by facsimile or other electronic means per your request.

Activities which have commenced (i.e, are under construction) or are under contract to commence in reliance upon an NWP will remain authorized provided the activity is completed within twelve months of the date of an NWP's expiration, modification, or revocation, unless discretionary authority has been exercised on a case-by-case basis to modify, suspend, or revoke the authorization in accordance with 33 CFR 330.4(e) and 33 CFR 330.5 (c) or (d). Activities completed under the authorization of an NWP which was in effect at the time the activity was completed continue to be authorized by that NWP.

You should carefully note that this NWP authorization is based upon your agreement to comply with the terms and conditions of this NWP including any and all attached project specific special conditions listed below. Initiation of any authorized work shall constitute your agreement to comply with all of the NWP's conditions. You should also note that the authorized work may be subject to periodic inspections by a representative of this office. The verification of a Nationwide Permit including all general and special conditions is not subject to appeal.

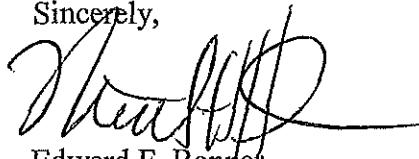
PROJECT SPECIFIC SPECIAL CONDITIONS:

1. All work performed in association with the above noted project shall be conducted in accordance with the attached project plans identified as *"State of New Jersey Department of Environmental Protection, Bureau of Coastal Engineering, Division of Property Management and Construction, South Absecon Inlet Jetty Repair, Atlantic City, Atlantic County, New Jersey N.J.D.E.P. Project Number 4264-15, D.P.M.C. Project Number P1128-00", pages 4 - 10"*, by *Douglas A. Gaffney, P.E. dated 2-2-16, revised 3-14-16*. The project plans provide for clearing of existing concrete grout, the repair/replacement of the cap stone and core box, removal of the existing cap stone, resetting of the removed cap stone, construction of the new core box, removal and disposal of broken concrete, and placement of new stone along an approximately 1,200 linear feet section of the south Absecon Inlet Jetty in the Absecon Inlet. The stated purpose of the project is to provide for storm damage and flood prevention and protection.
2. Construction activities shall not result in the disturbance or alteration of greater than 1.2 acre of waters of the United States.
3. Any deviation in construction methodology or project design from that shown on the above noted drawings or repair plan 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. This office shall be notified prior to the commencement of authorized work by completing and signing the enclosed Notification/ Certification of Work Commencement Form (Enclosure 1). This office shall also be notified within 10 days of the completion of the authorized work by completing and signing the enclosed Notification/Certification of Work Completion/Compliance Form (Enclosure 2). All notifications required by this condition shall be in writing. The Notification of Commencement of work may be sent to this office by facsimile or other electronic means; all other notification shall be transmitted to this office by registered mail. Oral notifications are not acceptable. Similar notification is required each time maintenance work is to be done under the terms of this Corps of Engineers permit.
5. The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

6. The permittee shall implement the plan titled, "Standard Operating Procedure for: Unanticipated Discoveries Plan, South Absecon Inlet Jetty Repair, City of Atlantic City, Atlantic County, New Jersey, Division of Coastal Engineering Project #4264-15" prepared by New Jersey Department of Environmental Protection, Engineering and Construction, Division of Coastal Engineering, dated September 2016.

Also enclosed is a pre-addressed postal card (Enclosure 3) soliciting your comments on the processing of your application. Any comments, positive or otherwise, on the procedures, timeliness, fairness, etc., may be made on this card. If you should have any questions regarding this matter, please contact Rachel Ward at 215-656-6733 or write to the above address.

Sincerely,



for Edward E. Bonner
Chief, Regulatory Branch

Enclosures

TECHNICAL DRAWINGS FOR THIS PROJECT ARE NOT REPRINTED HERE
DUE TO SIZE

4264-15
Proposal (1)

PROPOSAL

DIVISION OF COASTAL ENGINEERING
PROJECT NO. 4264-15
Absecon Inlet Jetty Repair Project
in the City of Atlantic City, Atlantic County, New Jersey

Department of Environmental Protection
Engineering & Construction
Division of Coastal Engineering
1510 Hooper Avenue
Toms River, New Jersey 08753

~~January 31~~ March 1, 2019

Apple Construction Co., Inc.
Contractor Name
(Print or type)

1030 Route 83
Address

Clermont, NJ 08210
City / State / Zip

Dear Sir or Madam:

In accordance with your advertisement of 1/31/2019 inviting proposals for the Absecon Inlet Jetty Repair Project in the City of Atlantic City, Atlantic County, New Jersey and subject to the conditions and requirements thereof, and to the Specifications dated January 2019, both of which are attached hereto and so far as they relate to this proposal are made a part of it, I (or we) will provide all necessary material, equipment, supplies and facilities, and perform all the work called for by the said Specifications, in the manner described therein and in accordance with the requirements of the Manager and the Inspectors under him, for the consideration of the bid specified and outlined as follows:

The bidder, hereby certifies to the best of its knowledge and belief and under penalty of perjury under the laws of the United States and the State of New Jersey, to the following:

4264-15
Proposal (2)

I. AFFIRMATIVE ACTION

That an affirmative action program of equal opportunity, in support of P.L. 1945, c 169, the New Jersey "Law Against Discrimination" as supplemented and amended, as well as in accordance with Executive Order No. 11246 promulgated by the President of the United States, September 24, 1965 and Executive Order No. 11625, promulgated by the President of the United States, October 13, 1971, has been adopted by this organization to ensure that applicants are employed, employees are treated without regard to their race, creed, color, national origin, sex or age, and that the selection and utilization of Contractors, subcontractors, consultants, materials suppliers and equipment lessors shall be done without regard to their race, creed, color, national origin, sex or age. Said affirmative action program addresses both the internal recruitment, employment and utilization of minorities and the external recruitment policy regarding minority Contractors, subcontractors, consultants, materials suppliers and equipment lessors.

II. EQUAL EMPLOYMENT OPPORTUNITY

The performance of previous contracts or subcontracts subject to the Equal Opportunity Clause and the filing of required reports.

That if the bidder has participated in a previous contract or subcontract subject to the equal opportunity clause, as required by Executive Orders 10925, 11114, or 11246, all reports due under the applicable filing requirements have been filed with the joint reporting committee, the director of the office of federal contract compliance, a federal government contracting or administering agency, or the former president's committee on equal employment opportunity.

Note: This section (II) is required by the Equal Employment Opportunity regulations of the Secretary of Labor (41 CFR 60-1.7(b) (1)) for federally funded projects, and must be certified to by bidders only in connection with contracts and subcontracts which are subject to the Equal Opportunity Clause. Contracts and subcontracts which are exempt from the Equal Opportunity Clause are set forth in 41 CFR 60-1.5. (Generally only contracts or subcontracts of \$10,000 or under are exempt). Currently, Standard Form 100 (EEO-1) is for FHWA and FRA funded projects and Standard Forms 100 (EEO-1) and 257 are for UMTA funded projects as required by executive orders or their implementing regulations.

Contractors who have participated in a previous contract or subcontract subject to the executive orders and have not filed the required reports should note that 41 CFR 60-1.7(b) (1) prevents the award of contracts unless such Contractor submits a report covering the delinquent period or such other period specified by the participating federal agency or by the director, office of federal contract compliance, U.S. Dept. of Labor.

4264-15

Proposal (3)

III. NON-COLLUSION AND WARRANTY CONCERNING SOLICITATION OF THE CONTRACT BY OTHERS

That this proposal has been executed with full authority to do so; that said bidder has not, directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free, competitive bidding in connection with the above named project; and that all statements contained in said proposal and in this affidavit are true and correct, and made with full knowledge that the State of New Jersey relies upon the truth of the statements contained in said proposal and in the statements contained in this affidavit in awarding the contract for the said project.

That the bidder warrants that no person or selling agency has been employed or retained to solicit or secure such contract upon an agreement or understanding for a commission, percentage, brokerage or contingent fee, except bona fide employees or bona fide established commercial or selling agencies maintained by the bidder. (N.J.S.A.52:34-15).

IV. DEBARMENT

That the bidder and principals:

Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any federal, state, or local governmental entity.

Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (federal, state or local) transaction or contract under a public transaction; violation of federal or state antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, of receiving stolen property.

Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (federal, state or local) with commission of any of the offenses enumerated in the above paragraph of this certification.

Have not within a three-year period preceding this proposal had one or more public transactions (federal, state or local) terminated for cause or default.

Where the bidder is unable to certify to any of the statement in this certification, the Bidder shall explain below and/or on additional pages if necessary.

4264-15

Proposal (4)

The bidder shall submit the forms listed within Appendix A at the time of bid.~~below within the attached Division of Purchasing & Property Checklist:~~

- ~~1. State of New Jersey Standard Terms and Conditions~~
- ~~2. Waivered Contracts Supplement to the State of New Jersey Standard Terms and Conditions (If Applicable)~~
- ~~3. Ownership Disclosure Form~~
- ~~4. Disclosure of Investigations and Actions Involving Bidder~~
- ~~5. Disclosure of Investment Activities in Iran~~
- ~~6. Two Year Chapter 51/Executive Order 117 Vender Certification and Disclosure of Political Contributions~~
- ~~7. Chapter 271 Vendor Certification and Political Contribution Disclosure~~
- ~~8. MacBride Principles Certification~~
- ~~9. Proof of Business Registration~~
- ~~10. Certificate of Insurance/Acord~~
- ~~11. Source Disclosure Certification~~
- ~~12. Affirmative Action Compliance~~

~~Please utilize the link below to find the above mentioned forms :-~~

~~<https://www.state.nj.us/treasury/purchase/forms/Waiver%20and%20DPA%20Contract%20Checklist.pdf>~~

4264-15
Proposal (5)

BIDDING SCHEDULE

ITEM NO. 1 - GENERAL WORK:

The completion of all General Work as specified in Section 11:01, as shown on the project plans for the lump sum of \$ 1,104,200.00.

ITEM NO. 2 - SURVEY:

The completion of all Survey work as specified in Section 11:02, as shown on the project plans, for the lump sum of \$ 40,000.00

ITEM NO. 3 - CORESTONE FOR CORE BOX CONSTRUCTION AND JETTY "CHINKING":

Construction of 3,500.00 tons (TON) of Corestone for Core Box Construction and Jetty "Chinking", as specified at Section 11:03, as shown on the project plans at a unit price of \$ 80.00 per TON or \$ 280,000.00

ITEM NO. 4 - REHANDLED ARMOR STONE:

Construction of 14,000.00 tons (TON) of Rehandled Armor Stone, as specified at Section 11:04, as shown on the project plans at a unit price of \$ 39.00 per TON or \$ 546,000.00

ITEM NO. 5 - NEW ARMOR STONE - Primary (Head):

Construction of 250.00 tons (TON) of New Armor Stone - Primary (Head) as specified at Section 11:05, as shown on the project plans at a unit price of \$ 150.00 per TON or \$ 37,500.00

ITEM NO. 6 - NEW ARMOR STONE - Primary (Trunk):

Construction of 850.00 tons (TON) of New Armor Stone - Primary (Trunk) as specified at Section 11:05, as shown on the project plans at a unit price of \$ 98.00 per TON or \$ 83,300.00

4264-15
Proposal (6)

ITEM NO. 7 – NEW ARMOR STONE – Secondary (Head and Trunk):

Construction of 6,250.00 tons (TON) of
New Armor Stone – Secondary (Head and Trunk) as specified at
Section 11:05, as shown on the project plans at a unit
price of \$ 65.00 per TON or\$ 406,250.00

ITEM NO. 8 – REMOVAL OF VOID FILLER:

Construction of 1,250.00 tons (TON) of
Removal of Void Filler as specified at
Section 11:06, as shown on the project plans at a unit
price of \$ 80.00 per TON or\$ 100,000.00

ITEM NO. 9 – CONCRETE VOID FILLER:

Construction of 650.00 cubic yards (CY) of
Concrete Void Filler as specified at
Section 11:06, as shown on the project plans at a unit
price of \$ 250.00 per CY or\$ 162,500.00

**ITEM NO. 10 – GEOTEXTILE STRUCTURAL FABRIC WRAPPING FOR
CORE BOX CONSTRUCTION, Station 1+30 to 6+00:**

Construction of 470.00 linear foot (LF) of
Geotextile Structural Fabric Wrapping for Core Box Construction; Station
1+30 to 6+00 as specified at Section 11:07,
as shown on the project plans at
a unit price of \$ 30.00 per LF or\$ 14,100.00

**ITEM NO. 11 – GEOTEXTILE STRUCTURAL FABRIC WRAPPING FOR
CORE BOX CONSTRUCTION; Station 6+00 to 11+92:**

Construction of 600.00 linear foot (LF) of
Geotextile Structural Fabric Wrapping for Core Box Construction; Station
6+00 to 11+92 as specified at Section 11:07,
as shown on the project plans at
a unit price of \$ 35.00 per LF or\$ 21,000.00

ITEM NO. 12 – EXCAVATION "IF & WHERE DIRECTED":

Excavation of 10,000 cubic yards (CY) of Beach Sand as specified in
Section 11:08, at unit price of
\$.01 per CY or\$ 100.00

4264-15
Proposal (7)

ITEM NO. 13 – STRUCTURE MONITORING:

The completion of all Structure Monitoring work as specified in
Section 11:09, as shown on the project plans, for the
lump sum of \$ 30,000.00

TOTAL AMOUNT OF BID \$ 2,824,950.00

AMOUNT OF CERTIFIED CHECK OR BID BOND \$ 10% OF AMOUNT BID
(Minimum of 10% of total amount of bid)

4264-15
Proposal (8)

BIDDER'S CERTIFICATION

The person signing this Proposal (hereinafter "I") hereby certifies that I have the full authority to execute this proposal on behalf of the bidder named on page one of this proposal. In executing this proposal, I hereby declare that the bidder has carefully examined the Advertisement, Specifications, Plans, Proposal and all other contract documents required for the construction of the project named above.

I hereby acknowledge that, as the signatory below, the bidder understands that work under this project will not commence until a contract, executed by the Commissioner of the Department of Environmental Protection, is in possession of the bidder and that this may be as long as 90 days after bids have been received.

I hereby certify that I have full authority to execute this proposal on behalf of the bidder named on page one of this proposal. In executing this proposal I hereby declare that the bidder has carefully examined the advertisement, specifications, plans, proposal, and all other contract documents required for the construction of the project named above.

By submitting this bid, the bidder certifies and represents that its bid, updated financial statement(s), certifications as to business registration/representative, public works Contractor registration/representative, and proposal bond have been signed by an authorized representative of the bidder.

J. E. Johnston, III
Signature of Contractor

James E. Johnston, III
Print Name of Contractor

President
Title

22-2346498
Federal I.D. Number

estimating@agateconstruction.net
Email

609.624.9090
Telephone Number

COPIES OF INSURANCE CERTIFICATES AND BONDS ARE NOT REPRINTED
HERE DUE TO SIZE

CERTAIN BIDDER FORMS SUBMITTED WITH THE PROPOSAL HAVE BEEN
REMOVED DUE TO SIZE

Proposal

(STD.)

CONTRACTOR'S QUALIFICATION AFFIDAVIT

This is to certify under oath that as of the end of the calendar month immediately preceding the date of the proposal of which this affidavit is a part, the financial equipment, and personnel condition of the within named bidder is as good as or better than that upon which said bidder was last classified or reclassified in accordance with N.J.S.A 52:35 et seq. R.S. 52:35 and the Regulations adopted by the Department of Environmental Protection, and filed in the Office of the Secretary of State, February 26, 1960, and any amendments thereto; and that the said Bidder has no contracts in force that will affect the completion of the contract on which bid is submitted in full accordance with plans and specifications.

James E. Johnston, III L.S.
James E. Johnston, III
President

Sworn and Subscribed
before me this

21 day of March 20 19

at Ocean View, NJ

Susan D. Sharp

Notary Public

SUSAN D. SHARP
NOTARY PUBLIC OF NEW JERSEY
ID # 2299665
My Commission Expires 4/25/2023

Proposal (STD.)

It is understood that the bidding and award of contract will be based on Sections 1:00 and 3:00 of these specifications.

Accompanying this proposal is a:

☐ Certified check in the sum of \$ _____

☒ Bid Bond in the amount of \$ 10% of total amount bid

Guaranteed payable to the Department of Environmental Protection which check I (or We) agree is to be forfeited as liquidated damages and not as a penalty, if in this case the proposal is found to be the lowest contract awarded thereon, the undersigned shall fail under the conditions of the proposal to execute a contract with this body or furnish evidence as requested under experience, otherwise the certified check is to be returned to the undersigned.

I (or We) make this proposal with full knowledge of the kind, quantity and quality of the service required and if it is accepted, will after receiving notice of such acceptance enter into the contract with good and sufficient sureties for the faithful performance thereof.

Under the laws of the State of New Jersey

☐ partnership

The undersigned is a

☒ corporation

☐ individual

Having its principal office at 1030 Route 83, Clermont, NJ 08210

Signed

James E. Johnston, III
President

By

(SEAL)
ATTEST

James E. Johnston, III
Secretary / Treasurer

STONE SETTER EXPERIENCE AFFIDAVIT

This is to certify under oath that the project experience listed in the Contractor's bid submission for the ~~Project Superintendent and~~ Stone Setter(s) is true and accurate in accordance with Section 1:00 of the specifications, and that the Stone Setter(s) listed will be the operator(s) physically executing the placement and keying in of stone for the duration of the project for as long as the stone setter(s) is/are employed by the Contractor, and that the said Stone Setter(s) has/have not been and will not be committed to other construction contracts, including by means of temporary termination and reassignment, that will affect the quality and timely completion of the contract on which bid is submitted in full accordance with plans and specifications.



L.S.

Name: James E. Johnston, III
President

Title: _____

Sworn and Subscribed
before me this

21 day of March 2019

at Ocean View, NJ



SUSAN D. SHARP
Notary PublicNOTARY PUBLIC OF NEW JERSEY
ID # 2299665
My Commission Expires 4/25/2023

I/We Understand that the bidding and award of contract will be pursuant to Sections 1:00 et seq. and 3:00 et seq. of these specifications.

Under the laws of the State of New Jersey

The undersigned is a ☐ partnership
☒ corporation
☐ individual

Having its principal office at 1030 Route 83, Clermont, NJ 08210

Signed J. E. Johnston
Name James E. Johnston, III
Title President

(SEAL)
ATTEST

J. E. Johnston
James E. Johnston, III
Secretary / Treasurer

CONTRACTOR REPRESENTATIVE EXPERIENCE AFFIDAVIT

This is to certify under oath that the project experience listed in the Contractor's bid submission for the ~~and~~-Contractor Representative is true and accurate in accordance with Section 1:00 of the specifications, and that the Contractor Representative listed will be responsible for project staffing, worksite protection, overseeing construction and maintaining stone stockpiles, for the duration of the project for as long as the Representative is employed by the Contractor, and that the said Representative has/have not been and will not be committed to other construction contracts, including by means of temporary termination and reassignment, that will affect the quality and timely completion of the contract on which bid is submitted in full accordance with plans and specifications.

James E. Johnson III L.S.

Name: James E. Johnson III

Title: President

Sworn and Subscribed
before me this

21 day of March 20 19

at Ocean View, NJ

Susan D. Sharp

Notary Public
SUSAN D. SHARP
NOTARY PUBLIC OF NEW JERSEY
ID # 2299665
My Commission Expires 4/25/2023

I/We Understand that the bidding and award of contract will be pursuant to Sections 1:00 et seq. and 3:00 et seq. of these specifications.

Under the laws of the State of New Jersey

The undersigned is a ☐ partnership
☒ corporation
☐ individual

Having its principal office at 1030 Route 83, Clermont, NJ

Signed J. E. Johnston
Name James E. Johnston, III
President
Title _____

(SEAL)
ATTEST

J. E. Johnston
James E. Johnston, III
Secretary / Treasurer

CONTRACTOR EXPERIENCE AFFIDAVIT

This is to certify under oath that the project experience listed in the Contractor's bid submission for the Contractor is true and accurate in accordance with Section 1:00 of the specifications, and that the project(s) submitted ensure the Contractor has the management abilities to adequately staff the project, effectively manage their personnel, and implement a project of this magnitude. The Contractor ensures that their experience their staff will provide quality work and a timely completion of the contract.

J. E. Johnston L.S.

Name: James E. Johnston, III
President

Title: _____

Sworn and Subscribed
before me this

21 day of March 20 19

at 1030 Route 83, Clermont, NJ 08210

Susan D. Sharp

Notary Public
SUSAN D. SHARP
NOTARY PUBLIC OF NEW JERSEY
ID # 2299665
My Commission Expires 4/25/2023

APPENDIX F
PROVISIONS FOR FEDERALLY FUNDED PROJECTS

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF ENGINEERING & CONSTRUCTION
DIVISION OF COASTAL ENGINEERING

The Division of Coastal Engineering, herein referred to as "Department", shall ensure that all Contractors entering into a construction contract with the Department that is federally-funded, either in whole or in part, comply with all terms and conditions of the provisions stated in Appendix F. All Contractors should be aware that these provisions also apply to all potential Sub-Contractors and it will be the responsibility of the Contractor to ensure any Sub-Contract they may enter include these provisions.

I. Required Certification

The Contractor shall include the following certification, signed by an official who is authorized to legally bind the Contractor, with the submission of any annual or final fiscal report, as well as with the submission of any voucher requesting payment pursuant to this Contract via the Contractor Payment Affidavit. The Contractor Payment Affidavit shall include the following language:

"By signing this report, I certify to the best of my knowledge and belief that the report is true, complete, and accurate, and the expenditures, disbursements, and cash receipts are for the purposes and objectives set forth in the terms and conditions of the Contract which utilizes Federal funds. I am aware that any false, fictitious, or fraudulent information, or the omission of any material fact, may subject me to criminal, civil or administrative penalties for fraud, false statements, false claims or otherwise. (U.S. Code Title 18, Section 1001 and Title 31, Sections 3729-3730 and 3801-3812)."

II. Requirement for Data Universal Numbering System (DUNS) number

No entity, as defined at 2 CFR Part 25, Subpart C, may receive a sub-award from the Department unless the entity has provided its DUNS Number to the Department.

III. Federal Funding Accountability and Transparency Act Reporting

A. The Contractor shall report the names and total compensation of each of the Contractor's five most highly compensated executives for the Contractor's preceding completed fiscal year, if:

1. In the Contractor's preceding fiscal year, the Contractor received:

- i. 80 percent or more of its annual gross revenues from Federal procurement contracts (and subcontracts) and Federal financial assistance subject to the Transparency Act, as defined in 2 CFR 170.320 (and subawards); and
- ii. \$25,000,000 or more in annual gross revenues from Federal procurement contracts (and subcontracts), and Federal financial assistance subject to the Transparency Act (and subawards); and

2. The public does not have access to information about the compensation of the executives through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m(a), 78o(d)) or section 6104 of the Internal Revenue Code for 1986. (To determine if the public has access to the compensation information see U.S. Security and Exchange Commission total compensation filings at <http://www.sec.gov/answers/excomp.htm>.)

B. Such reporting shall be made, to the Department, upon the Contractor's execution of this Contract.

C. Definitions applicable to this reporting requirement can be found in Appendix A of 2 CFR Part 170.

IV. Debarment and Suspension

A. The Contractor shall fully comply with Subpart C of 2 CFR Part 180 – Responsibilities of Participants Regarding Transactions Doing Business with Other Persons and, further, pass the requirement to comply to each person with whom the Contractor enters into a covered transaction at the next lowest tier.

B. The Contractor acknowledges that failing to disclose information as required at 2 CFR 180.355 may result in the delay or negation of this Contract, or pursuit of legal remedies, including suspension and debarment.

V. Restrictions on Lobbying

- A. The Contractor agrees to fully comply with the Byrd Anti-Lobbying Amendment (31 U.S.C. 1352) and the appropriate Federal Agency Regulations for Grants and Agreements and Federal Agency Regulations, whichever would be applicable under Federal law, with respect to New Restrictions on Lobbying.
- B. The Contractor and all lower tier subrecipients shall include the following language in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements). The Contractor and all lower tier subrecipients shall certify and disclose accordingly:
 1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
 2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form- LLL, "Disclosure Form to Report Lobbying", in accordance with its instructions.
- C. Contractors and their subcontractors that apply or bid for an award exceeding \$100,000 must file the Certification Regarding Lobbying. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. 1352. Each tier must also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the non-Federal award. Accordingly, Standard Form-LLL, if required at any tier, shall ultimately be forwarded to the Department.

VI. Equal Employment Opportunity

This agreement constitutes a Federally assisted construction contract, or modification thereof, as defined in the regulations of the Secretary of Labor at 41 CFR Chapter 60, then:

- A. During the performance of this agreement, the Contractor agrees as follows:
 1. The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following:

Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
 2. The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.
 3. The Contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicant to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer or is consistent with the Contractor's legal duty to furnish information.

4. The Contractor will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the contractor's commitments under this section and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
5. The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
6. The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to its books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
7. In the event of the Contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts or Federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
8. The Contractor will include the provisions of Subparagraphs (A)(1) through (8) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to a subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance:

Provided, however, that in the event the Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

VII. Federal Labor Standards

To the extent applicable, the Contractor shall comply with Federal Labor Standards, including:

1. The Davis-Bacon Act, as amended (40 U.S.C. 3141-3144, and 3146-3148), as supplemented by Department of Labor regulations (29 CFR Part 5, "Labor Standards Provisions Applicable to Contracts Covering Federally Financed and Assisted Construction"). In accordance with the statute, the Contractor and its subcontractors, where applicable, are required to pay wages to laborers and mechanics at a rate not less than the prevailing wages specified in a wage determination made by the Secretary of Labor. In addition, the Contractor and its subcontractors, where applicable, are required to pay wages not less than once a week. If the prevailing wage rate prescribed for any craft by the United States Secretary of Labor is not the same as the prevailing wage rate prescribed for that craft by the New Jersey Department of Labor, the Contractor and its subcontractors, where applicable, shall pay the higher rate.

General wage determinations issued under Davis-Bacon and related acts, published by the US Department of Labor, may be obtained from the Wage Determinations online website at <https://www.wdol.gov.dba.aspx>. The Federal wage determinations in effect at the time of this award are part of this agreement. The Contractor hereby accepts the wage determinations and agrees that its award of any subcontract under this agreement shall be conditioned upon the subcontractor's acceptance of the wage determinations.

2. The Copeland "Anti-Kickback" Act (40 U.S.C. 3145), as supplemented by Department of Labor Regulations (29 CFR Part 3, "Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in Part by Loans or Grants from the United States"). The Act provides that each Contractor and its subcontractors, where applicable, must be prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public work, to give up any part of the compensation to which he or she is otherwise entitled.
3. The Contract Work Hours and Safety Standards Act (40 U.S.C. 3701-3708). The Contractor and its subcontractors, where applicable, shall comply with 40 U.S.C. 3702 and 3704, as supplemented by Department of Labor Regulations (29 CFR Part 5). Under 40 U.S.C. 3702 of the Act, the Contractor and its

subcontractors must be required to compute the wages of every mechanic and laborer on the basis of a standard work week of 40 hours. Work in excess of the standard work week is permissible provided that the worker is compensated at a rate of not less than one and a half times the basic rate of pay for all hours worked in excess of 40 hours in the work week. The requirements of 40 U.S.C. 3704 are applicable to construction work and provide that no laborer or mechanic must be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous. These requirements do not apply to the purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence.

VIII. Rights to Inventions

If the State award meets the definition of "funding agreement" under 37 CFR 401.2(a) and the Contractor or its subrecipients at any tier wish to enter into a contract with a small business firm or nonprofit organization regarding the substitution of parties, assignment or performance of experimental, developmental, or research work under that "funding agreement," the Contractor or subrecipient must comply with the requirements of 37 CFR Part 401, "Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements," and any implementing regulations issued by the awarding agency.

IX. Environmental Regulatory Compliance

The Contractor shall comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal awarding agency and the Regional Office of the Environmental Protection Agency (EPA).

X. Procurement of Recovered Materials

Any Contractor that is an agency of a political subdivision of a State and its contractors must comply with Section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA) (42 U.S.C. 6962). The requirements of Section 6002 include procuring only items designated in guidelines of the Environmental Protection Agency (EPA) at 40 CFR Part 247 that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition, where the purchase price of an item exceeds \$10,000 or the value of the quantity acquired during the preceding fiscal year exceeded \$10,000; procuring solid waste management services in a manner that maximizes energy and resource recovery; and establishing an affirmative procurement program for procurement of recovered materials identified in the EPA guidelines.

XI. Buy American Act

The Contractor shall comply with the provisions of the Buy American Act under 41 U.S.C. §§ 8301-8305; 48 C.F.R. Part 25 which requires the Contractor to buy domestic "articles, materials, and property" when they are acquired for public use unless a specific exemption applies.

XII. Additional Provisions

N/A

RECEIPT OF ACKNOWLEDGEMENT

Please complete this form and return to NJDEP Division of Coastal Engineering at time of bid

The Contractor has read and understands all the terms and conditions of the provisions stated within Appendix F and shall adhere to them to perform work on NJDEP Project No. 4264-15. The Contractor is also obligated under these provisions to ensure that any Sub-Contractors they may enter into an agreement with shall be fully aware of these provisions and should include this Appendix as an attachment to their Sub-Contract.

I HEREBY ACCEPT THE TERMS AND CONDITIONS OF THESE PROVISIONS

Signature J. Johnston Date 3/21/2019

James E. Johnston, III
President

Print Name and Title

JOHN CONSTRUCTION CO., INC.

Print Name of Contractor

Sworn to and subscribed
before me this

21 day of March, 2019

Notary Signature Susan D. Sharp

Date

SUSAN D. SHARP
NOTARY PUBLIC OF NEW JERSEY
ID # 2299665
My Commission Expires 4/25/2023

Certificate Number
607179

Registration Date: 07/10/2018
Expiration Date: 07/09/2020



State of New Jersey

Department of Labor and Workforce Development Division of Wage and Hour Compliance

Public Works Contractor Registration Act

Pursuant to N.J.S.A. 34:11-56.48, et seq. of the Public Works Contractor Registration Act, this certificate of registration is issued for purposes of bidding on any contract for public work or for engaging in the performance of any public work to:

Agate Construction Co., Inc.
2018

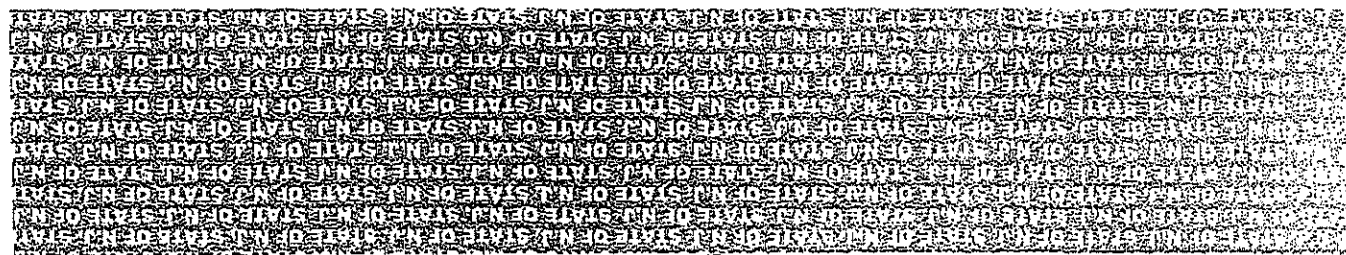
Responsible Representative(s):
James E. Johnston, Jr., CEO

A handwritten signature in black ink, reading "RA Angelo".

Robert Asaro-Angelo, Commissioner
Department of Labor and Workforce Development

NON TRANSFERABLE

This certificate may not be transferred or assigned
and may be revoked for cause by the Commissioner
of Labor and Workforce Development.



STATE OF NEW JERSEY
BUSINESS REGISTRATION CERTIFICATE
FOR STATE AGENCY AND CASINO SERVICE CONTRACTORS

DEPARTMENT OF TREASURY/
DIVISION OF REVENUE
PO BOX 252
TRENTON, N J 08646-0252

TAXPAYER NAME:
AGATE CONSTRUCTION COMPANY, INC.

TRADE NAME:

TAXPAYER IDENTIFICATION#

CONTRACTOR CERTIFICATION#

0103112

ADDRESS
1030 ROUTE 83
OCEAN VIEW NJ 08230

ISSUANCE DATE:

10/15/01

EFFECTIVE DATE:
03/30/81

Patricia A. Chiacchis
Director, Division of Revenue

FORM-BRC(08-01)

This Certificate is NOT assignable or transferable. It must be conspicuously displayed at above address.



STATE OF NEW JERSEY BUSINESS REGISTRATION CERTIFICATE

Taxpayer Name: AGATE CONSTRUCTION COMPANY, INC.

Trade Name:

Address: 1030 ROUTE 83
OCEAN VIEW, NJ 08230

Certificate Number: 0103112

Date of Issuance: February 15, 2006

For Office Use Only:

20060215110430043



Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107

TEL 609-624-9090
FAX 609-624-0957

Agate Construction Co., Inc
Corporate Resolution

BE IT RESOLVED that the transaction herein referred to, being herewith approved, that James E. Johnston III President, Secretary & Treasurer (Officer Names as many as applicable) of this corporation each individually has the ability to bind the corporation to the contract and are hereby directed, authorized and empowered to execute, acknowledge and deliver such documents, instructions and papers and perform such acts as may be legally, properly and reasonably required or necessary for the purpose of procuring and executing any bid, bid bonds or contracts which may be awarded by NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION specifically (Complete & Full Project Description) NJ DEP PROJECT 4264-15 ABSECON INLET JETTY REPAIR PROJECT.

I, James E. Johnston, III, Secretary of a Corporation of New Jersey (State) CERTIFY that this is a true copy of a Resolution as it appears in the records of the corporation and as was duly and legally adopted at a meeting of the Board of Directors of the corporation called for that purpose and held on March 6TH, 2019, pursuant to and in accordance with the Certificate of Incorporation and By-Laws thereof; that is has not been modified, amended or rescinded, and is in full force and effect as of the date hereof.

DATED: 3/6/2019


Signature, Corp. Secretary

JAMES E. JOHNSTON III
Print Name, Corp. Secretary

AFFIX CORPORATE SEAL

STATE OF NEW JERSEY

DEPARTMENT OF LABOR & WORKFORCE DEVELOPMENT
CONSTRUCTION EEO COMPLIANCE MONITORING PROGRAM

FORM AA-201

Revised 11/11

INITIAL PROJECT WORKFORCE REPORT CONSTRUCTION

Assignment

Code

For instructions on completing the form, go to: http://www.state.nj.us/treasury/contract_compliance/pdf/aa201ins.pdf

1. FID NUMBER 22-2346498		2. CONTRACTOR ID NUMBER 4137		5. NAME AND ADDRESS OF PUBLIC AGENCY AWARDED CONTRACT Name: NJ DEP Address: 1510 HOOPER AVE TOMS RIVER, NJ 08753							
3. NAME AND ADDRESS OF PRIME CONTRACTOR AGATE CONSTRUCTION (Name) PO Box 107 (Street Address) Bloomfield, NJ 08230 (City) (State) (Zip Code)				CONTRACT NUMBER 4264-15		DATE OF AWARD 4/18/19		DOLLAR AMOUNT OF AWARD \$2,824,950.00			
4. IS THIS COMPANY MINORITY OWNED [] OR WOMAN OWNED []				6. NAME AND ADDRESS OF PROJECT Name: ABSECON INLET JETTY REPAIR Address: ATLANTIC CITY, NJ		7. PROJECT NUMBER 4264-15		8. IS THIS PROJECT COVERED BY A PROJECT LABOR AGREEMENT (PLA)? YES <input checked="" type="checkbox"/>			
TRADE OR CRAFT		PROJECTED TOTAL EMPLOYEES		PROJECTED MINORITY EMPLOYEES				PROJECTED PHASE - IN DATE		PROJECTED COMPLETION DATE	
		MALE FEMALE		MALE FEMALE							
		J AP J AP		J AP J AP							
1. ASBESTOS WORKER		6									
2. BRICKLAYER OR MASON		0									
3. CARPENTER		0									
4. ELECTRICIAN		0									
5. GLAZIER		0									
6. HVAC MECHANIC		0									
7. IRONWORKER		0									
8. OPERATING ENGINEER		3		1				6/1/19		10/31/19	
9. PAINTER		0									
10. PLUMBER		0									
11. ROOFER		0									
12. SHEET METAL WORKER		0									
13. SPRINKLER FITTER		0									
14. STEAMFITTER		0									
15. SURVEYOR		1									
16. TILER		0									
17. TRUCK DRIVER		3		1		1		6/1/19		10/31/19	
18. LABORER		2				1		6/1/19		10/31/19	
19. OTHER		0									
20. OTHER		0									

I hereby certify that the foregoing statements made by me are true. I am aware that if any of the foregoing statements are false, I am subject to punishment.

GREGORY SCOTT
(Please Print Your Name)
609 624-9090 x217
(Area Code) (Telephone Number) (Ext.)

Project Manager
(Title)
4/16/19
(Date)

