

### DOCUMENTS AND SPECIFICATIONS CONTRACT # NAT-201701/BROAD.DUNE

#### **BROADKILL BEACH DUNE ENHANCEMENTS**

#### **FOR**

## STATE OF DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL (DNREC)

Division of Watershed Stewardship 89 Kings Highway Dover, Delaware, 19901 (302) 739-9921

Date: March 2017





Gahagan and Bryant Associates 9008-O Yellow Brick Road Baltimore, Maryland 21237 (410) 682-5595 Fax (410) 682-2175

BIDS WILL BE RECEIVED AT THE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL <u>UNTIL 2:00 P.M. MAY 17, 2017</u> AND WILL BE PUBLICLY OPENED AND READ ALOUD AT THAT TIME. PROPOSALS RECEIVED AFTER THE DATE AND TIME SET FOR THE OPENING WILL BE RETURNED UNOPENED.





# BROADKILL BEACH DUNE ENHANCEMENTS BROADKILL BEACH, DE CONTRACT NO. NAT-201701/BROAD.DUNE ADVERTISEMENT DATES: April 17, 2017 & April 24, 2017

**BID OPENING DATE: May 17, 2017** 

#### **INVITATION TO BID**

The Department of Natural Resources and Environmental Control, Division of Watershed Stewardship will receive sealed bids in Room B172, Richardson & Robbins Building, 89 Kings Highway, Dover, Delaware 19901, until 2:00 p.m., May 17, 2017 at which time they will be publicly opened for the following project Broadkill Beach Dune Enhancements Broadkill Beach, Delaware Contract No. NAT-201701/BROAD.DUNE.

The project includes the construction of pedestrian, vehicular, and handicap crossovers, the erection of sand fence, the erection of post and rail fence, and the planting and seeding of dune grass.

A pre-bid meeting will be held at 10:00 A.M., May 2, 2017 at the project's site on Broadkill Beach. Attendance at this meeting is **mandatory** for all prospective bidders and will be a pre-requisite for submitting a bid.

Proposals shall be placed in a sealed envelope clearly marked "BID ENCLOSED", Broadkill Beach Dune Enhancements; Contract No. NAT-201701/BROAD.DUNE and be addressed to:

Department of Natural Resources and Environmental Control Division of Watershed Stewardship 89 Kings Highway Dover, Delaware 19901

Attn: Mr. Charles E. Williams, II Phone: 302-739-9921

Prospective Bidders may obtain contract documents upon payment of \$50.00 for each set at The Department of Natural Resources and Environmental Control, Division of Watershed Stewardship, 89 Kings Highway, Dover, DE 19901. This payment is non-refundable and the documents need not be returned.

Each bid must be accompanied by a bid guarantee equivalent to ten percent (10%) of the amount of the base bid. The bid guarantee may be a certified check or a bid bond secured by a surety authorized to do business in Delaware. The bid guarantee shall be made payable to the Department of Natural Resources and Environmental Control, Division of Watershed Stewardship. Further, the successful bidder shall provide payment and performance bonds, each in an amount equal to the total contract amount.

The Department of Natural Resources and Environmental Control, Division of Watershed Stewardship reserves the right to reject any or all bids and to waive any informality therein. The Department also reserves the right to extend the time and place of the bid opening from that described in this advertisement of not less than five calendar days notice by Certified mail to those bidders who have obtained copies of the plans and specifications.

The Department of Natural Resources prohibits discrimination in its programs on the basis of race, color, national origin, sex, religion, age, disability, political belief and marital or family status.



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## SECTION 1 GENERAL PROVISIONS



#### SECTION 1A DEFINITION OF TERMS

**<u>DEFINITIONS</u>** Wherever used in these Administrative Specifications or in the other Contract Documents, the following terms shall have the meanings indicated which shall be applicable to both the singular and plural thereof.

<u>Application for Payment</u> - The invoice sent to the Department by the Contractor, imprinted with the name and address of the firm in requesting progress payments.

<u>Bid</u> - The offer or proposal of the Bidder submitted on the prescribed form setting forth the prices for the work to be performed.

**<u>Bidder</u>** - Any persons, firm or corporation submitting a bid for the work.

**Bonds** - Bid, performance and payment bonds and other instruments of security, furnished by the Contractor and his surety in accordance with the Contract Documents.

**By Others** - Refers to all persons or firms other than the contractor to whom this contract is awarded.

<u>Change Order</u> - A written order to the Contractor, issued after execution of the Contract, signed by the Director and Engineer, authorizing an addition, deletion or revision in the work, and if required, adjustment in the Contract Price or Contract Time.

<u>Contract</u> - The written agreement between the Department and the Contractor covering the work to be performed, including the Contractor's bid and the Bonds.

<u>Contract Documents</u> - The Contract, Specifications, Drawings, Addenda (whether issued prior to opening of bids or execution of the Contract) and Modifications.

<u>Contract Price</u> - The total moneys payable to the Contractor under the Contract Documents.

<u>Contract Time</u> - The total number of calendar or working days, and any completion dates for phases or segments of the contract work shown on the Construction Schedule or stated in the specifications or Contract.

**Contractor** - The person, firm or corporation with whom the Department has executed the Contract.

<u>Department \*DNREC+</u> - The legally appointed body known as the Department of Natural Resources and Environmental Control.

<u>Drawings</u> - The drawings and plans which show the character and scope of the work to be performed and which have been prepared or approved by the Engineer and/or Architect and are referred to in the Contract Documents.

**Engineer and/or Architect** - Refer to Special Provisions, Section 1J.

<u>Field Work Order</u> - A written order to the Contractor, authorized by the Engineer or Inspector, for minor changes or alterations in the work, not involving extra cost and not inconsistent with the overall intent of the Contract Documents.

<u>Furnish</u> - To obtain and deliver on the job for installation by other trades.

<u>Inspector</u> - An authorized representative of the Department assigned to on-site inspection of any feature of materials or work entering into the Contract.

<u>Installation</u> - In addition to actual installation, includes all unloading, handling, rigging and hoisting, and the furnishing of all tools, equipment and materials required to handle and install the work, except as otherwise specified in the Contract Documents.

<u>Job Site</u> - The site upon which the Contract work is to be performed.

<u>Modification</u> - Any written amendments of any of the Contract Documents (including Change Orders and Field Work Orders) duly executed and delivered after execution of the Contract.

**Owner** - Same as Department.

**<u>Property</u>** - The metes and bounds of lands administered by the Department, and containing the project to be constructed.

**Project** - The entire construction to be performed as provided in the Contract Documents.

**Provide** - Furnish and install.

**Secretary** - The Secretary of the Department acting either directly or through authorized Agents.

**Shop Drawings** - All drawings, diagrams, illustrations, brochures, schedules and other data which illustrate the equipment, material and work to be furnished by the Contractor.

**Specifications** - The Administrative Specifications and the Technical Specifications.

**State** - State of Delaware.

<u>Subcontractor</u> - An individual, firm or corporation having a direct contract with the Contractor or with any other Subcontractor for the performance of a part of the work at the site.

<u>Superintendent</u> - The Contractor's representative at the site, and shall have authority to act on behalf of the Contractor.

<u>Testing Laboratory</u> - A materials testing laboratory approved by the Secretary.

<u>Work</u> - Any and all obligations, duties and responsibilities necessary to the successful completion of the Project assigned to or undertaken by the Contractor under the Contract Documents, including the furnishing of all labor, materials, equipment and other incidentals.



#### SECTION 1B INSTRUCTIONS TO BIDDERS

#### 1B.01 PROPOSALS

- (a) Refer to Special Provisions, Section 1J, for instructions for submitting proposal and bid opening date and time, Section 1J.05.
- (b) Shall be on the furnished proposal forms. All blank spaces in the form shall be filled, signed in ink in longhand where designated, and all numbers shall be stated in words and in figures. The completed forms shall be without interlineations, alterations, or erasures. All attachments to the specifications and proposal are a necessary part thereof, and shall not be detached or altered.
- (c) Shall not contain any recapitulation of the work to be done. No changes shall be made in the phraseology of the form. Nor partial bids nor any alternative bids not provided for in the form will be considered. Where proposal provides for quoting either addition or deduction for an "Alternate" item, indicate whether the sum named is an addition or deduction by ruling out the words not wanted

#### 1B.02 DRAWINGS AND SPECIFICATIONS

- (a) Will be issued by the Department. Refer to Special Provisions, Section 1J.
- (b) Prospective Bidders may obtain contract documents upon payment of \$50.00 for each set at the Department of Natural Resources and Environmental Control, Division of Watershed Stewardship, 89 Kings Highway, Dover, DE 19901. This payment is non-refundable and the documents need not to be returned

#### 1B.03 THE BIDDER

- (a) Shall carefully examine the documents, the drawings and the specifications, shall visit the site and fully inform himself as to all existing and controlling conditions and limitations including availability of materials and labor. The submission of a bid shall be a representation that he has inspected the site and has familiarized himself with all of the controlling conditions. Failure to conduct these thorough examinations shall in no way relieve the successful bidder of his responsibility for the complete and satisfactory performance of all required work.
- (b) Shall notify the Project Manager and/or Engineer in writing within seven working days following the pre-bid meeting if he finds discrepancies in, or omissions from, the drawings and/or specifications, or is in doubt as to their meanings. If explanation is necessary, a reply will be made by an addendum issued to all bidders. No oral statement shall change the requirements of the specifications or drawings unless confirmed in writing.

Addenda will be mailed or delivered to all who are known by the Agency to have received a complete set of the Bidding Documents.

Copies of the Addenda will be made available for inspection wherever Bidding Documents are on file for that purpose.

No Addenda will be issued later than 4 calendar days prior to the date for receipt of bids except an Addendum withdrawing the request for Bids or one which extends the time or changes the location for the opening of bids.

Each bidder shall ascertain prior to submitting his bid that he has received all Addenda issued, and shall acknowledge their receipt in his bid in the appropriate space. Not acknowledging an issued Addendum could be grounds for determining a bid to be non-responsive.

- (c) Shall state the lump sum price for which he will execute and complete base bid item and the alternate items in accordance with the drawings, specifications, and the requirements of the Contract. Prices quoted shall include federal or state taxes, if such are applicable.
- (d) For Public Works Contracts, the contractor shall not subcontract, sublet, sell, transfer, assign, purchase work or materials from an organization other than his/her own, or otherwise dispose of the contract or contracts or any portion thereof, or of his/her right, title or interest therein, without written permission form the State. In case such permission is given, the contractor will be permitted to subcontract or sublet a portion thereof but shall perform with his/her own organization, work amounting to not less than fifty percent (50%) of the total contract bid price, exclusive of General Condition Items, Overhead, and Profit.
  - (e) Shall submit with his proposal a guarantee in accordance with Section 1B.05 below.
- (f) Shall submit with his proposal a properly executed Non-Collusion statement in accordance with Section 1B.06 below.
- (g) Shall submit with his proposal a properly executed Sub-Contractors List in accordance with Section 1B.07 below.
  - (h) Shall submit with his proposal a copy of their Delaware Business License.
- (i) Shall sign his name in the space provided therefore. If the proposal is made by a partnership or corporation, the name and address of the partnership or corporation shall be shown, together with the names of the partners or the officers. A proposal made by a corporation shall be signed by one of the authorized officers thereof.
- (j) If awarded the contract, the bidder will be required to furnish copies of Insurance Certificates endorsed to meet the requirements of the contract.
- (k) Each bidder shall include signed Affidavit(s) for the Bidder and each listed Subcontractor certifying compliance with OMB Regulation 4104- "Regulations for the Drug Testing of Contractor and Subcontractor Employees Working on "Large Public Works Projects." "Large Public Works" is

based upon the current threshold required for bidding Public Works as set by the Purchasing and Contracting Advisory Council.

#### 1B.04 THE SECRETARY OF THE DEPARTMENT OR HIS REPRESENTATIVE

- (a) May, during the bidding period, advise the bidders by addenda, of additions, omissions or alterations in the specifications and drawings. All such changes shall be included in the work covered by the proposal and shall become part of the specifications as if originally included therein.
- (b) Reserves the right to waive technicalities, to reject any and all bids, to advertise for new proposals, to proceed to do the work otherwise, or to abandon the work, if, in the judgment of the Secretary, the best interest of the State will be promoted thereby.
- (c) Reserves the right to adjust, delete, increase or reduce any or all items contained in the technical specifications by amounts which will not exceed twenty-five percent (25%) of the total bid price.
- (d) Reserves the right to reject bids if any unit or alternate bid prices are obviously unbalanced, either above or below reasonable cost analysis values.

#### 1B.05 PROPOSAL GUARANTEE

Each bidder shall submit with proposal a guarantee in sum equal to ten percent (10%) of the total value of his bid. This guarantee shall be submitted in the form of a good and sufficient bond (sample copy attached) to the State of Delaware for the benefit of the Department; or, a certified check drawn on a reputable banking institution, or payable to the order of the Department of Natural Resources and Environmental Control. Certified check and bond guarantees of all bidders will be returned after the contract has been executed.

#### 1B.06 NON-COLLUSION STATEMENT

The Department requires, as a condition precedent to acceptance of bids, a sworn statement executed by, or on behalf of the persons, firm association or corporation to whom such Contract is to be awarded, certifying that such person, firm, association or corporation has not, either directly or indirectly, entered into an agreement, participated in any collusion or otherwise taken any action in restraint of free competitive bidding in connection with such contract. The form for this sworn statement is included in the proposal and must be properly executed in order to have the bid considered. Failure to execute the Non-Collusion Statement will automatically disqualify the bid.

#### 1B.07 SUB-CONTRACTOR LIST

(a) As required by Delaware Code, Title 29, Section 6962 (d) (10) b, each Bidder shall submit with their Bid a completed Lost of Sub-Contractors included with the Bid Form. NAME ONLY ONE SUB-CONTRACTOR FOR EACH TRADE. A Bid will be considered non-responsive unless the completed list is included.

- (b) Provide the Name and Address for each listed sub-contractor. Addresses by City, Town or Locality, plus State will be acceptable.
- (c) It is the responsibility of the Contractor to ensure that their Sub-Contractors are in compliance with the provisions of this law. Also, if a Contractor elects to list themselves as a Sub-Contractor for any category, they must specifically name themselves on the Bid Form and be able to document their capability to act as a Sub-Contractor in that category in accordance with this law.

#### 1B.08 PREFERENCE FOR DELAWARE LABOR

As referenced in 29DELC 6962 (d) (4) (b). "In the construction of all public works for the State or any political subdivision thereof or by firms contracting with the State or any political subdivision thereof, preference in employment of labors, workers or mechanics shall be given to bona-fide legal citizens of the State who have established citizenship by residence of at least 90 days in the State.

#### 1B.09 LICENSE AND TAX REQUIREMENTS

- (a) Each Contractor and Subcontractor shall be licensed to do business in the State of Delaware and shall pay all fees and taxes due under State laws. In conformance with Section 2503, Chapter 25, Title 30, Delaware Code, the Contractor shall furnish the State Tax Department, within 10 days after award of contract, a statement of the total values of each contract and subcontract, together with the names and addresses of the contracting parties. The Contractor, before the payment of any award or amount payable to any contractor or subcontractor not a resident of Delaware, shall ascertain from said non-resident contractor or Subcontractor and/or State Tax Department, whether they have obtained a license and satisfied their liability paid by the non-resident Contractor or Subcontractor, the Contractor shall deduct from the award the amount payable to said non-resident Contractor or Subcontractor the amount of said license liability and shall pay the same to the State Tax Department within 10 days after final payment and settlement within the non-resident Contractor or Subcontractor.
  - (b) Taxes: The Contractor shall pay all sales, consumer, use and other taxes required by law.

#### **1B.10 PAYMENTS**

The Department may, at the discretion of the Secretary, make partial payments based upon the Contractor's continuous and conscientious performance. The partial payments shall not exceed 95% of the cost of materials and labor incorporated in the work. See Section 1D General Conditions Part II Sections 1D.21; 1D.22; and 1D.23 for additional information and clarification.

#### 1B.11 MINIMUM WAGES

(a) The Contractor and each of his Subcontractors, or any other person employing laborers and/or mechanics at the site in the performance of this Contract, shall pay the various classes of laborers and

mechanics no less than the hourly rate set forth in the attached prevailing wage rate scale determined by the Department of Labor of the State of Delaware, (Section 1F).

- (b) The Contractor and each of his Subcontractors shall pay all mechanics and laborers employed directly on the site of the work, unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account, the full amounts accrued at time of payment, computed at wage rates not less than those stated in the attached wage rate scale, regardless of any contractual relationship which may be alleged to exist between the Contractor or Subcontractor and such laborers and mechanics.
- (c) The scale of wages attached hereto shall be posted by the Contractor in a prominent and accessible place at the project site.
- (d) The owner may withhold from the Contractor so much of the accrued payment as he may consider necessary to pay to laborers and mechanics employed by the Contractor or any Subcontractor the difference between the rates of wages required by the Contractor to be paid to laborers and mechanics employed in the work and the rates of wages received by such laborers and mechanics and not refunded to the Contractor, Subcontractor, or their agents.
- (e) The Contractor shall furnish sworn payroll information to the Department of Labor weekly. Sample copies enclosed.

#### 1B.12 NON-DISCRIMINATION

The Department prohibits discrimination in its programs on the basis of race, color, national origin, sex, religion, age, disability, political belief, and marital or family status.

#### 1B.13 LUMP SUM BID

Notwithstanding any other provision of this contract to the contrary, this is a Lump Sum Bid contract and the State shall not be responsible for any cost escalations whatsoever, under any circumstances. In the event that this provision conflicts with any other provision of this contract, this provision shall control.

#### 1B.14 ACCEPTANCE OF BID AND AWARD OF CONTRACT

- (a) A formal Contract shall be executed with the successful Bidder within twenty (20) calendar days after the award of the Contract.
- (b) Per Section 6962(d)(13) a., Title 29, Delaware Code, "The contracting agency shall award any public works contract within thirty (30) days of the bid opening to the lowest responsive and responsible Bidder...".

- (c) Each Bid on any Public Works Contract must be deemed responsive by the Agency to be considered for award. A responsive Bid shall conform in all material respects to the requirements and criteria set forth in the Contract Documents and specifications.
- (d) The successful Bidder shall execute a formal contract, submit the required Insurance Certificate and furnish good and sufficient bonds, unless specifically waived in the General Requirements, in accordance with the General Requirements, within twenty (20) days of the official notice of contract award. Bonds shall be for the benefit of the Agency with surety in the amount of 100% of the total contract award. Said Bonds shall be conditioned upon the faithful performance for the contract. Bonds shall remain in effect for period of one year after the date of substantial completion.
- (e) If the successful Bidder fails to execute the required Contract and Bond, as aforesaid, within twenty (20) calendar days after the date of official Notice of the Award of the Contract, their Bid guaranty shall immediately be taken and become the property of the State for the benefit of the Agency as liquidated damages, and not as a forfeiture or as a penalty. (A sample copy of the required contract is attached). Award will then be made to the next lowest qualified Bidder of the Work or re-advertised, as the Agency may decide.
- (f) Each bidder shall supply with its bid its taxpayer identification number (i.e.: federal employer identification number or social security number) and a copy of it Delaware Business License, and should the vendor be awarded a contract, such vendor shall provide to the Agency the taxpayer identification license numbers of such sub-contractors. Such numbers shall be provided on the later of the date on which such sub-contractor is required to be identified or the time the contract is executed. The successful Bidder shall provide to the Agency to which it is contracting within 30 days of entering into such public works contract, copies of all Delaware Business Licenses of sub-contractors and/or independent contractors that will perform work for such public works contract. However, if a sub-contractor or independent contract the Delaware Business License of such sub-contractor or independent contract the Delaware Business License of such sub-contractor or independent contractor shall be provided to the agency within 10 days of being contracted or hired.
- (g) The Bid Security shall be returned to the successful Bidder upon the execution of the formal contract. The Bid Security of unsuccessful bidders shall be returned within thirty (30) calendar days after the opening of the Bids.

#### SECTION 1C GENERAL CONDITIONS - PART 1 AWARD AND EXECUTION OF CONTRACT

#### 1C.01 AWARD OF CONTRACT

If the contract is awarded, it will be awarded to the eligible bidder who's Base Bid Price Bid selected by the Department produces the lowest net bid. If the contract is awarded, the Department will give the successful bidder written notice of the award within thirty (30) days after the opening of the bids. The contract award shall not be final until an approved Delaware State Purchase Order has been received by the Contractor.

#### **1C.02 DELIVERY OF BONDS**

The successful bidder must furnish the State of Delaware for the benefit of the Department of Natural Resources and Environmental Control a **performance bond and a payment bond,** each in an amount equal to the total contract price (sample copy attached). <u>Delaware Code</u> requires that all bonds for this bid and the ensuing contract be signed by a bona-fide agent duly empowered to represent the bonding/surety company, (also duly authorized to do business in the State of Delaware) that will furnish said bonds.



#### SECTION 1D GENERAL CONDITIONS PART II

#### 1D.01 NOTICE TO PROCEED

The work shall be started at the job site promptly upon receipt of the State of Delaware Purchase Order and shall be performed with such progress as may be necessary to prevent any delay to other contractors, or to the general completion of the project. The work shall be prosecuted at such times and with such forces, materials, and equipment as may be necessary to assure the substantial completion of the work in accordance with the Contract Time. If the work falls behind the Progress Schedule submitted by the Contractor, the Contractor shall employ additional labor and equipment as necessary to bring the work up to schedule.

#### **1D.02 PRECONSTRUCTION CONFERENCE**

Before starting the work, a conference will be held to review schedules to establish procedures for handling shop drawings and other submissions and for processing Applications for payment, and to establish a working understanding between the parties as to the project. Present at the conference will be the Secretary or his authorized representative, the Contractor and the superintendent.

#### **1D.03 SCHEDULES**

- (a) <u>Delivery Schedule</u> The Contractor shall, within ten (10) calendar days after the award of the contract for the work prepare and submit to the Department, in triplicate, a Delivery Schedule in a form acceptable to the Department. The Delivery Schedule shall list the principal and critical equipment and materials required for the contract work, both of the Contractor's own production and those parts to be procured from others, with dates and time period of deliveries at the site. The Delivery Schedule shall be submitted each month on or before the 10th day of the month, corrected to reflect the current status of orders and deliveries until the completion of the deliveries.
- (b) <u>Progress Schedule</u> Prior to the starting date of erection of the work, the Contractor shall prepare and submit to the Department, in triplicate, a Progress Schedule in a form acceptable to the Department, listing the principal component parts of the work, and showing the proposed starting dates and duration of time allotted for the erection and installation of each component part. The Progress Schedule shall be submitted each month with the Application for Payment to show percentage of each component part of the work completed as of that date.
- (c) <u>Schedule of Values</u> At least ten days prior to submitting the first application for a progress payment, the Contractor will submit a schedule of values of the work including quantities and unit prices, aggregating the Contract Price. This schedule shall be satisfactory in form and substance to the Owner and shall subdivide the work into component parts in sufficient detail to serve as the basis for progress payments during construction. Upon approval of the Schedule of Values by the Owner, it shall be incorporated into the form of application for payment.

- (d) The Contractor's Delivery Schedule and Progress Schedule shall be designed to meet the completion dates and sequences of construction required by the Contract Documents.
- (e) It shall be the Contractor's responsibility to check with the Department concerning actual delivery dates, actual progress of the construction and other work being carried on by the Department and to schedule the arrival of his materials, equipment and labor at the site so as to properly coordinate his work with the Owner's work and the work of other contractors. There will be no extra compensation for work resulting from extra work which the Contractor must perform due to failure to coordinate this work with the Owner's work and the work of other contractors.
- (f) In no case shall the contractor, except as instructed by the Department, delay the progress of the work, or any part thereof, on account of changes in the work or disputes of any nature, without limitation, caused by proposed or ordered changes in the work, or any disputes or disagreements as to the equitable value of the changes.

#### 1D.04 INTENT OF CONTRACT DOCUMENTS

It is the intent of the contract documents, specifications and drawings, to describe a complete project to be performed under the Contract.

The Contract Documents comprise the entire agreement between the Department and the Contractor. They may only be altered by a modification or as provided in Section 1D.17, 1D.18, 1D.19 and 1D.20.

#### 1D.05 CORRELATION AND INTERPRETATION OF CONTRACT DOCUMENTS

The Contract Documents are complementary; what is called for by one is as binding as if called for by all; if the Contractor finds a conflict, error or discrepancy in the Contract Documents, he will call it to the Owner's attention in writing before proceeding with the Work affected thereby. In resolving such conflicts, errors or discrepancies, the documents shall be given precedence in the following order: Contract, Specifications, Drawings. Within the specifications the order of the precedence shall be as follows: Special Conditions, Instructions to Bidders, General Conditions, Technical Provisions. Figures dimensions on Drawings shall govern over scale dimensions, and detailed drawings shall govern over general drawings. Any work that may be reasonably inferred from the specifications or drawings as being required to produce the intended result shall be supplied whether or not it is specifically called for. Work, materials or equipment described in words which so applied have a well-known technical or trade meaning shall be deemed to refer to such recognized standards. The Contractor assumes full responsibility for having familiarized himself with the nature and extent of the Contract Documents, work locality, conditions that may in any manner affect the work to be done.

#### 1D.06 WORK BY OTHERS

(a) The Owner may perform work related to the project by himself, or he may let other direct contracts therefore which shall contain General Conditions similar to these. The Contractor will

afford the other contractors who are parties to such direct contracts (or the Owner, if he is performing the additional work himself), reasonable opportunity for the introduction and storage of materials and equipment and the execution of work, and shall properly connect and coordinate his work with theirs.

- (b) If any part of the Contractor's work depends for proper execution or results upon the work of any such other contractor (or the Owner), the Contractor will inspect and promptly report to the Owner in writing any defects or deficiencies in such work that render it unsuitable for such proper execution and results. His failure so to report shall constitute an acceptance of the other work as fit and proper for the relationship of his work except as to defects and deficiencies which may appear in the other work after the execution of his work.
- (c) The Contractor will do all cutting, fitting and patching of his work that may be required to make its several parts come together properly and fit it to receive or be received by such other work. The Contractor will not endanger any work of others by cutting, excavating or otherwise altering their work and will only cut or alter their work with the written consent of the Owner.
- (d) If the performance of additional work by other contractors or the Owner is not noted in the Contract Documents prior to the award of the Contract, written notice thereof shall be given to the Contractor prior to starting any such additional work. The contractor will afford the Owner and the other contractors who are parties to such direct contract reasonable opportunity for the introduction and storage of materials and equipment and the execution of their work. If the Contractor believes that the performance of such additional expense entitles him to an extension of the Contract Time, he may make a claim therefore as provided in Section 1D.18 and 1D.19.

#### **1D.07 SUBCONTRACTORS**

The following is in compliance with Title 29, Chapter 69 of the Delaware Code:

- (a) "Subcontractor" means any person, partnership, firm, corporation, or other business association which enters into a contract directly with a contractor to perform actual construction labor on the site, or to perform actual construction labor and provide material in connection with such labor on the site. Labor performed in the delivery and unloading of material at the project site is not to be construed to mean actual construction labor.
- (b) In the case of any public works contract for the construction, reconstruction, alteration or repair of any public building (not a road, street or highway) of the State, of any county in the State, of any public school district, or of any political subdivision of the State, there shall be a meeting of all prospective bidders and of the Agency called by the agency upon reasonable notice and at a place and time stated in such notice which meeting shall be at least fifteen (15) days before the date for the submission of bids; at the meeting all the participants, including the agency, shall attempt to agree upon a listing of all subcontractor categories to be included in the bids for performing the work as required, and any such agreed listing shall be final and binding upon all bidders and upon the agency. If all of the participants do not agree on such a listing at the meeting then the agency itself at least ten (10) days before the due date for the submission of bids shall determine the subcontractor categories

to be included in the listing. The listing, whether agreed to by all of the participants at the meeting or determined by the agency itself in the absence of the unanimous agreement of the participants at the meeting, shall be published by the agency at least ten (10) days before the due date for the submission of bids by mailing and listing to all of the participants at the meeting. The listing as so published shall be final and binding upon all bidders and the agency and it shall be filled out completely in full without any abbreviations (Section 3C).

- (c) Such contract shall be awarded only to a bidder whose bid is accompanied by a statement containing for each subcontractor category set forth in the listing as provided in S6962, the name and address and State of Delaware Business License number of the subcontractor whose services he intends to use in performing the work and providing the material, for such subcontractor category. No bidder for such a contract shall list himself in any accompanying statement as the subcontractor of any part of the public building unless the bidder, in addition to being licensed as a contractor of the State, shall also be recognized in the industry not only as a prime contractor, but also as a subcontractor or contractor in and for any such part or parts of such work so listed in such accompanying statement.
- (d) Neither the State nor County nor public school district not any political subdivision of the State, nor any agency of any of them, shall accept any bid for such a contract or award any such contract to any bidder, as the prime contractor, if the bidder has listed himself as the subcontractor for any subcontractor category set forth on the listing as provided in Section 6962, unless it has been established to the satisfaction of the awarding agency that the bidder has customarily performed the specialty work of such subcontractor category by artisans regularly employed by the bidder is duly licensed by the State to engage in such specialty work, if the State requires such licenses, and that the bidder is recognized in the industry as a bona fide subcontractor or contractor in such specialty work Illustrative only (and not intended to be exhaustive) of typical and subcontractor category. subcontractor categories involving their own respective types of specialty work, are plumbing, electrical wiring, heating, roofing, insulating, weather stripping, masonry, bricklaying and plastering. The decision of the awarding agency as to whether a bidder who lists himself as the subcontractor for a subcontractor category set forth in the listing as provided in Section 6962(b2) for such subcontractor category, shall be final and binding upon all bidders, and no action of any nature shall lie against any awarding agency because of its decision in this regard.

#### **1D.08 SUBCONTRACTS**

- (a) The Contractor shall not make any substitution of subcontractors or suppliers who have been submitted with the Contractor's proposal without the written authorization of the Owner. The Contractor will not make any substitution for any subcontractor or supplier who has been accepted by the Owner unless the Owner determines that there is good cause for doing so.
- (b) The Contractor will be fully responsible for all acts and omissions of his subcontractors and of persons directly or indirectly employed by them and of persons whose acts may be liable to the same extent that he is responsible for the acts and omissions of persons directly employed by him. Nothing in the Contract Documents shall create any contractual relationship between any subcontractor and the Owner or any obligation on the part of the Owner to pay or to see to the payment of any moneys due any subcontractor. The Owner may furnish to any subcontractor, to the

extent practical, evidence of amounts paid to the Contractor on account of specific work done in accordance with the schedule of values.

- (c) The divisions or sections of the specifications or the identifications of any drawings shall not control the Contractor in dividing the work among subcontractors or delineating the work to be performed by any trade.
- (d) The Contractor agrees to specifically bind every subcontractor to all of the applicable terms and conditions of the Contract Documents. Every subcontractor, by undertaking to perform any of the work, will thereby automatically be deemed to be bound by such terms and conditions.

#### 1D.09 MATERIALS, EQUIPMENT AND LABOR

- (a) Unless otherwise specified the Contractor will provide and pay for all materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water and sanitary facilities and all other facilities and incidentals necessary for the execution, testing, initial operation and completion of the work.
- (b) Unless otherwise specified all materials and equipment will be new. If required by the Owner, the Contractor will furnish satisfactory evidence as to the kind and quality of materials and equipment.
- (c) All manufactured materials and equipment shall be applied, installed, connected, erected, used, cleansed and conditioned as directed by the manufacturer.
- (1) <u>General</u> All materials, fittings and equipment shall be new, unless otherwise specified, of the best quality obtainable within the class or type specified, and in strict compliance with the requirements of the specifications.
- (2) <u>Substitutions</u> Where materials or equipment are specified by description or by brand or manufacturer's names, they are so named in the specifications to denote the kind and quality required, whether or not the words "or approved equal" are used, and bids shall be based on the products described or named. The Contractor's having submitted a bid shall be a representation that he is prepared to furnish the products described or named or substitutes acceptable and approved by the Department. Regardless of whether or not the phrase "or approved equal" or similar notation appears in the specifications or on the drawings, no substitutions for any materials or equipment will be allowed except upon written request of the Contractor and written approval of the Department and subject to the conditions specified below:
- a. All requests for substitutions shall be made in a consolidated request submitted with the Contractor's Delivery Schedule within ten (10) days after the award of the contract. Requests shall give complete description of the proposed alternate material, the reason for substitution, and comparison of the price of the substitution with the price of the material specified. No requests for substitution will be considered unless accompanied by technical information sufficient for

comparison with the quality and suitability of the specified products. Samples shall be provided by the Contractor if requested by the Department.

- b. No request for substitution will be considered thereafter except for emergency requests made because of non- availability of the specified material, danger of schedule delay, or to adjust unforeseen field conditions. All emergency requests shall be made through the Inspector. If in connection with such emergency requests the Contractor's proposed substitute is declined, the Department shall have the privilege of specifying a substitute material or equipment, provided that, if the Contract is performed on a lump sum, unit price or maximum sum basis, the current market price of the Substitute specified by the Department does not exceed the current market price of the product named in the specifications.
- c. The Contractor shall not be entitled to additional compensation for additional cost or extra work resulting from any substitutions requested by him. If the cost of the material substituted is less than the cost of the material specified, such savings in cost shall be credited to the Department and deducted from the Contract Price.
- d. The Department may decline substitutions and require that products specified be furnished.
- (3) <u>Warranties</u> In addition to and not in limitation of the provisions of Section 1D.24, the Contractor shall fulfill any special warranties of material or equipment he is furnishing. The Contractor's having submitted a bid shall be a representation that he is able and prepared to obtain manufacturer's warranty bonds, where required for the products named in the specifications.
- (4) <u>Samples</u> The Contractor shall furnish, for approval, samples of the items he is to supply, as required by the Contract Documents or requested by the Department. The work shall be in accordance with the approved samples.
- (5) Department Furnished Materials & Equipment If any materials or equipment are to be furnished by the Department for the work, they will be so specified in the Contract Documents. Unless otherwise specified, it shall be the Contractor's responsibility to locate, receive, handle and store, if necessary, any item of Department furnished material or equipment which he is required by the Contract to install, erect or handle in any way, from the time it is received by the Contractor at the job site or other Department approved location until completion of the work in accordance with the Contract Documents. Damaged or lost Department furnished items shall be repaired or replaced by the Contractor without additional cost to the Department.

#### **1D.10 PATENT FEES AND ROYALTIES**

The Contractor will pay all license fees and royalties and assume all costs incidental to the use of any invention, design, process or device which is the subject of patent rights or copyrights held by others. He will indemnify and hold harmless the Department and the Engineer and/or Architect and anyone directly or indirectly employed by either of them from and against all claims, damages, losses and expenses (including attorney's fees) arising out of any infringement of such rights during or after

completion of the work, and shall defend all such claims in connection with any alleged infringement of such right.

#### **1D.11 USE OF PREMISES**

- (a) The Contractor will confine his equipment, the storage of materials and equipment and the operation of his workmen to limits indicated by law, ordinances, permits or the requirements of the Contract Documents and shall not unreasonably encumber the premises with materials or equipment.
- (b) The Contractor will not load nor permit any part of the structure to be loaded with weight that will endanger the structure.
- (c) Storage areas will be provided for the storage of the Contractor's materials and equipment and he shall confine his materials, equipment and operations of his workmen to such limits as indicated by the Department and shall not encumber the premises. Unless otherwise indicated in the specifications, the storage areas will be outdoors, and the Contractor shall provide whatever shelter is necessary for his storage and fabricating needs. No workmen shall trespass within areas or buildings of the Department other than those related to the work of the contract. The Contractor shall rigidly enforce this regulation. Any materials, equipment or temporary structures belonging to the Contractor shall be moved when so directed by the Department to permit the execution of the work of others in connection with the project.

#### **1D.12 TESTS**

- (a) If the Contract Documents, the Owner's instructions, laws, ordinance or any public authority requires any work to be tested specifically or approved by another authority, the Contractor will give the Inspector timely notice of readiness therefore. The Contractor will furnish the Department the required certificates of testing or approval. All such tests will be in accordance with the methods prescribed by the American Society for Testing and Materials, or as otherwise required by the Department or by applicable codes or ordinances. If any such work required to be tested is covered up without written approval or consent of the Inspector, it must, if directed by the Inspector be uncovered for examination at the Contractor's expense. The cost of all such tests shall be borne by the Contractor; provided that, if such test is called for only by the Department's instructions (and not required by the Contract Documents or otherwise) and if the test reveals that the work involved meets the requirements of the Contract Documents, the Contractor will be allowed an increase in the Contract Price or an extension of the Contract Time directly attributable to making the test if he makes claim therefore as provided in Section 1D.18, 1D.19, or 1D.20.
- (b) Any work which fails to meet the requirements of any such test or approval and any work which meets the requirements of any such test or approval but does not meet the requirements of the Contract Documents shall be considered defective or may be rejected. Rejected work shall be removed promptly from the site by the Contractor unless the deficiencies are corrected promptly by him. If, instead of requiring correction or removal of any such defective work, the Department prefers to accept it, they may do so, in which case a Change Order shall be issued incorporating the necessary revisions in the Contract Documents including an appropriate reduction in the Contract Price

#### 1D.13 CONTRACTOR'S SUPERVISION AND SUPERINTENDENCE

- (a) The Contractor will supervise and direct the work efficiently and with his best skill and attention. He will be solely responsible for techniques and sequences of construction. Before undertaking the work he will carefully study and compare the Contract Documents and check and verify all figures shown thereon and all field measurements. He will at once report in writing to the Department any conflict, error or discrepancy which may be discovered. The Contractor will be responsible to see that the finished work complies accurately with the Contract Documents.
- (b) He shall keep on the work site at all times during its progress a competent resident superintendent and supervisory staff. The superintendent will be the Contractor's representative at the site and shall have authority to act on behalf of the Contractor. All instructions and notices given to the superintendent will be as binding as if given to the Contractor.
- (c) The Contractor will provide competent, suitably qualified personnel to survey and lay out the work and perform construction as required by the Contract Documents. He will at all times maintain good discipline and order among his employees at the site.
- (d) The Department will not be responsible for the acts or omissions of the Contractor, or any subcontractors, or any of his or their superintendents, supervisory staffs, agents or employees.

#### **1D.14 SAFETY AND PROTECTION: EMERGENCIES**

- (a) The Contractor will take all necessary precautions for the safety of, and will provide the necessary protection to prevent damage, injury or loss to:
  - 1. All employees and other persons who may be affected thereby.
- 2. All the Work and all materials or equipment to be incorporated therein, whether in storage on or off the site.
- 3. Other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction.

The Contractor will comply with all applicable safety and building laws and codes of federal, state, municipal and other governmental bodies for the safety of persons or property to protect them from damage, injury or loss. He will maintain and erect, as required by the conditions and progress of the work, all necessary safeguards for their safety and protection, including posting danger signs and other warnings against hazards, promulgating safety regulations and notifying owners of adjacent utilities. When the use or storage of explosives or other hazardous materials is necessary for the prosecution of the work, the Contractor will exercise the utmost care and will carry on such activities under the supervision of licensed specially qualified personnel. All damage injury or loss to any such property caused, directly or indirectly, in whole or in part, by the Contractor, any

subcontractor or anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, will be remedied by the Contractor.

- (b) In emergencies affecting the safety of persons or the work or property at the site or adjacent thereto, the Contractor, without special instructions or authorization from the Owner, is obligated to act, at his discretion, to prevent threatened damage, injury or losses. He will give the Owner prompt written notice of any significant changes in the work or deviations from the Contract Documents caused thereby, and a Change Order will thereupon be issued covering the changes and deviations involved. If the Contractor believes that additional work done by him in an emergency which arose from causes beyond his control entitles him to an increase in the Contract Price or and extension of the Contract Time, he may make a claim therefore as provided in Section 1D.18 or 1D.19 or 1D.20.
- (c) The Contractor shall at all times protect all work, materials, equipment and fixtures against dirt, water, chemical and mechanical injury. The Contractor shall make good at his own expense any and all damage to his work, to the work of others, or to any materials or equipment in place or stored in the structure, whether such damage is caused directly in or indirectly by his work or by his failure to take adequate protective measures. During the progress of the work the Contractor shall handle the materials and equipment with care and good judgment to avoid the accumulation of unnecessary dirt, and shall use special care to prevent foreign materials from entering the interior parts of the equipment.
- (d) The Contractor shall be responsible for maintaining the proper fire prevention safeguards and discipline necessary for the type of work he is performing, and shall institute procedures for giving alarm and protecting adjacent work and materials in case of fire, so as to minimize loss or damage.
- (e) The Contractor shall use established roadways except as otherwise authorized and shall be responsible for the coordination of his work activities with those of others so as to minimize traffic congestion on roads, streets and highways and shall cooperate with officials who have jurisdiction over those facilities.
- (f) All construction must be done in compliance with the Occupational Safety and Health Act of 1970 and all rules and regulations thereto appurtenant.
- (g) During the contract Work, the Contractor and each listed Subcontractor, shall implement an Employee Drug Testing Program in accordance with OMB Regulation 4104- "Regulations for the Drug Testing of Contractor and Subcontractor Employees Working on "Large Public Works Projects". "Large Public Works" is based upon the current threshold required for bidding Public Works as set by the Purchasing and Contracting Advisory Council. The Contractor shall be responsible for providing the Department with a quarterly report summarizing the results of the drug testing program.

#### **1D.15 CLEANING UP**

The Contractor will keep State property free from accumulations of waste materials, rubbish and other debris from and about the site clean and ready for occupancy by the Department. The

Contractor will restore to their original condition those portions of the site not designated for alteration by the Contract Documents.

It shall be understood that the cost of regular or continuous cleanup as required to keep the worksite clean has been included in the Contract Price.

#### 1D.16 ACCESS TO THE WORK: UNCOVERING FINISHED WORK

- (a) The Department will at all times have access to the work. The Contractor will provide proper facilities for such access and observation of the work or for any examination or testing thereof.
- (b) Should it be considered necessary or advisable by the Department to reexamine any part of work already fabricated, installed, or completed, the Contractor, at the Department's request, will uncover, expose or otherwise make available for examination or testing that portion of the work in question, furnishing all necessary labor, material and equipment. If it is found that such work, does not meet the requirements of the Contract Documents, the Contractor will defray all the expense of such examination, and testing of satisfactory reconstruction.
- If, however, such work is found to meet the requirements of the Contract Documents, the Contractor will be allowed an increase in the Contract Price or extension of the Contract Time directly attributable to such uncovering, exposure, examination and testing, if he makes a claim therefore as provided in Section 1D.18, 1D.19 and 1D.20.

#### 1D.17 DEFECTIVE OR NEGLECTED WORK

- (a) All work not conforming to the requirements of the Documents shall be considered defective, and all defective work, whether in place or not, may be rejected. Rejected work shall be removed promptly from the site by the Contractor unless the deficiencies are corrected promptly by him. The Contractor will also bear the expense of making good all work of other contractors destroyed or damaged by removal or replacement of his defective work. If the Contractor does not correct such deficiencies within a reasonable time, fixed by written notice from the Department, the Department may correct the deficiency or remove the rejected work. All direct or indirect costs of such correction or removal will be charged against the Contractor. If, instead of requiring correction or removal of any such defective work, the Department prefers to accept it, they may do so in which case a Change Order shall be issued incorporating the necessary revisions in the Contract Documents including an appropriate reduction in the Contract Price.
- (b) If the Contractor should neglect to prosecute the work in accordance with the Contract Documents, including any requirements of the Progress Schedule, the Department, after three days written notice to the contractor may, without prejudice to any other remedy he may have, make good such deficiencies and the cost thereof shall be charged against the Contractor, in which case a Change Order shall be issued incorporating the necessary revisions in the Contract Documents, including an appropriate reduction in the Contract Price.

#### **1D.18 CHANGES IN WORK**

- (a) Without invalidating the Contract, the Department may, at any time or from time to time, order additions, deletions or revisions in the work; these will be authorized by Change Orders. Upon receipt of a Change Order, the Contractor will proceed with the work involved. All such work shall be executed under the applicable conditions of the Contract Documents. If any Change Order causes an increase or decrease in the Contract Price or an extension/shortening of the Contract Time, the change in the Contract Price/Time, will be noted in the Change Order. Any equitable adjustment will be made as provided in Sect. 1D.19 and 1D.20.
- (b) The Inspector may authorize minor changes and/or alterations in the work not involving extra cost and not inconsistent with the over-all intent of the Contract Documents by means of a Field Work Order. If the Contractor believes that any minor change or alteration authorized by the Inspector entitles him to an increase in the Contract Price or Contract Time, he shall not proceed with the work until after receipt of a Change Order.
- (c) The Contractor shall submit a written lump sum quotation within forty-eight (48) hours after receipt of a Field Work Order from the Inspector at the jobsite, or within five (5) days after receipt of a change notice from the Department for changes or alterations which the Contractor believes entitles him to an increase in the Contract Price. These time limits may be extended only with the written consent of the Department.
- (d) Additional work performed by the Contractor without authorization of a Change Order will not entitle him to an increase in the Contract Price or an extension of the Contract Time, except in case of an emergency as provided in Section 1D.14b and except as provided in Section 1D.06b, 1D.12a and 1D.16b.
- (e) The Department will execute any appropriate Change Order for work performed in an emergency as provided in Section 1D.19b and any other valid claim of the Contractor accompanied by a lump sum quotation agreeable to the Department for a change in the Contract Time or the Contract Price approved by the Department.
- (f) It is the Contractor's responsibility to notify his Surety for any changes affecting the general scope of the work or change in the Contract Price and the amount of the applicable Bonds shall be adjusted accordingly. The Contractor will furnish proof of such adjustment to the Department.

#### 1D.19 CHANGE OF CONTRACT PRICE

- (a) The Contract Price constitutes the total compensation payable to the Contractor for performing the work. All duties, responsibilities and obligations assigned to or undertaken by the Department shall be at his expense without change in the Contract Price.
- (b) The Contract Price may only be changed by a Change Order. If the Contractor is entitled by the Contract Documents (Section 1D.06, 1D.12b, 1D.18a and 1D.18b) to make a claim for an increase in the Contract Price, his claim shall be in writing delivered to the Department within fifteen

- (15) days of the occurrence of the event giving rise to the claim. Any change in the Contract Price resulting from any such claim shall be incorporated in a Change Order.
- (c) The value of any work covered by a Change Order or of any claim for an increase or decrease in the Contract Price shall be determined in one of the following ways:
- 1. Where the work involved is covered by unit prices contained in the Contract Documents, by application of unit prices to the quantity of the times involved.
  - 2. By mutual acceptance of a lump sum.
- 3. By payment of Reimbursable Costs and mutually acceptable fixed amount for overhead and profit.
- 4. Reimbursable Costs and overhead shall be as defined in Section 1D.31 of these General Conditions, and shall apply only to costs incurred solely for the work covered by the Change Order, claim or allowance.
  - (d) The amount of credit to be allowed by the Contractor to the Owner for any such change which results in a net decrease in cost, will be the amount of the actual net decrease agreed by the Owner.
- (e) The additional cost, or credit to the Owner resulting from a change in the work shall be by mutual agreement of the Owner, Contractor and the Architect. In all cases, this cost or credit shall be based on the "DPE" wages required and the "invoice price" of the materials/equipment needed.

"DPE" shall be defined to mean "direct personnel expense". Direct payroll expense includes direct salary (prevailing wage rates) plus customary fringe benefits and documented statutory costs such as workman's compensation insurance, Social Security/Medicare, and unemployment insurance (a maximum of the prevailing wage rate times 1.35.)

"Invoice price" of materials/equipment shall be defined to mean the actual cost of materials and /or equipment that is paid by the Contractor, (or subcontractor), to a material distributor, direct factory vendor, store, material provider, or equipment leasing entity. Rates for equipment that is leased and/or owned by the Contractor or subcontractor(s) shall not exceed those listed in the latest version of the "Means Building Construction Cost Data" publication.

In addition to the above, the General Contractor is allowed a fifteen percent, 15%, overhead and profit for additional work performed by the General Contractor's own forces. For additional subcontractor work, the Subcontractor is allowed a fifteen percent overhead and profit on change order work above and beyond the direct costs stated previously. To this amount, the General Contractor will be allowed a mark-up not exceeding five percent, 5%, on the subcontractors work. These mark-ups shall include all costs including, but not limited to: overhead, profit, bonds, insurance, etc. There will be no other costs associated with the change order.

#### 1D.20 CHANGE OF THE CONTRACT TIME

- (a) The Contract Time may only be changed by a Change Order. If the Contractor is entitled by the Contract Documents to make a claim for an extension in the Contract Time, his claim shall be in writing delivered to the Owner within 10 days of the occurrence of the event giving rise to the claim. Any change in the Contract Time resulting from any such claim shall be incorporated in the Change Order
- (b) The Contract Time will be extended to an amount equal to time lost due to delays beyond the control of the Contractor if he makes a claim therefore as provided in Section 1D.19a.

#### 1D.21 APPLICATION FOR PROGRESS PAYMENT

- (a) At least ten days prior to submitting the first application for a progress payment, the Contractor will submit a schedule of values of the work including quantities and unit prices, aggregating the Contract Price. This schedule shall be satisfactory in form and substance to the Owner and shall subdivide the work into component parts in sufficient detail to serve as the basis for progress payments during construction. Upon approval of the schedule of values by the Owner, it shall be incorporated into the form of application of payment.
- (b) At least ten (10) days before each progress payment falls due (but not more often than once a month), the Contractor will submit to the Inspector for review the Application for Payment filled out and signed by the Contractor covering the work completed as of the date of application and supported by such data as the Architect/Project Manager may reasonably require.
- (c) The Contractor warrants that he and all his subcontractors have and will have good title to all materials and equipment incorporated in the Project and all material and equipment otherwise listed in an Application for Payment, free and clear of all liens, claims, security interests and encumbrances; and he will not permit any Subcontractor to, acquire any such material and equipment subject to an agreement under which an interest therein or encumbrance thereon is retained by the seller or otherwise imposed by the Contractor.
- (d) The Inspector will, within ten (10) days after receipt of each application for payment, either indicate in writing his approval of payment, or return the Application to the Contractor indicating in writing his reasons for refusing to approve payment. In the latter case, the Contractor may make the necessary corrections and re-submit the application. The Department will, within ten (10) days of presentation to him of an approved Application of Payment, pay the Contractor the amount approved by the Inspector.

#### **1D.22 APPROVAL OF PAYMENTS**

(a) The Inspector's approval of any payment requested in an Application of Payment shall constitute a representation by him, based on the on-site observation of work in progress and on his review of the Application of Payment and the supporting data, that the work has progressed to the point indicated; that, to the best of his knowledge, information and belief, the quality of the work is

in accordance with the Contract Documents (subject to the results of any subsequent tests called for in the Contract Documents and any qualifications stated in his approval); and that the Contractor is entitled to payment of the amount approved. However, by approving any such payment the Inspector shall not thereby be deemed to have represented that he made exhaustive or continuous on-site inspections to check the quality or the quantity of the work, or that he has made any examination to ascertain how or for what purpose the Contractor has used monies paid or to be paid to him on account of the Contract Price.

- (b) The Inspector may refuse to approve the whole or any part of any payment if, in his opinion, he is unable to make such representations. He may also refuse to approve any such payment, or, because of subsequent tests, nullify in his opinion to protect the Department from loss because:
  - 1. The work does not comply with the requirements of the Contract Documents.
- 2. Claims have been filed or there is reasonable evidence indicating the probable filing thereof.
  - 3. The Contract Price has been reduced because of modifications, or
- 4. The Department has been required to correct faulty or defective work or complete work in accordance with Section 1D.16.

#### **1D.23 SUBSTANTIAL COMPLETION**

Prior to final payment, the Contractor may, in writing to the Department certify that the entire project is substantially complete and request that the Department issue a certificate of Substantial Completion. With a reasonable time thereafter, the Contractor and Inspector will make an inspection of the project to determine the status of completion. If the Department does not consider the project substantially complete, the Department will execute and deliver to the Contractor a certificate of Substantial Completion with a tentative list of items to be completed or corrected before final payment will be made and the certificate shall fix the time within which such items shall be completed or corrected.

The Department shall have the right to exclude the Contractor from the project after the date of Substantial Completion, but the Department will allow the Contractor reasonable access to complete or correct items on the tentative list.

### 1D.24 GUARANTEES AND CORRECTION OR WORK AFTER SUBSTANTIAL COMPLETION

The Contractor warrants and guarantees that all work, materials and equipment will be of good quality and free from faults or defects and in accordance with the Contract Documents. Upon receipt of written instructions from the Department, he will correct all faults and deficiencies in the work and remedy all variations from the Contract Documents which appear within one year after Substantial Completion and also comply with the terms of any special guarantee provided in the

Contract Documents. The Department will give prompt written notice of observed defects. The warranties and guarantees provided in this Section shall be in addition to and not a limitation of any other remedies provided by the Contract Documents or by law.

If the Contractor, after notice, fails to proceed promptly to comply with the terms of the guarantee, the Department may have the work corrected and the Contractor and his surety shall be liable for all expenses incurred.

#### **1D.25 FINAL PAYMENT**

- (a) Upon written notice from the Contractor that the project is complete, the Inspector and Engineer will make final inspection with the Contractor and will notify the Contractor in writing of any particulars in which this inspection reveals that the work does not comply with the requirements of the Contract Documents. The Contractor shall immediately make such corrections as are necessary to meet such requirement.
- (b) After the Contractor has completed any such corrections to the satisfaction of the Department and delivered all maintenance and operating instructions, schedules, guarantees, bonds, certificates or inspection and other documents, all as required by the Contract Documents, he may make application for final payment following the procedure for progress payments. The final application for payment shall be accompanied by such supporting data as the Inspection may require, together with complete and legally effective releases and releases (satisfactory to the Department) of all liens arising out of the Contract Documents and the labor and services performed and the material and equipment furnished receipts and releases in full and affidavit of the Contractor that the releases and receipts include all labor, services, materials and equipment for which a lien could be filed. If any Subcontractor or supplier fails to furnish a release or receipt in full, the Contractor shall furnish a bond satisfactory to the Department to indemnify him against any liens.
- (c) If, on the basis of his observation and review of the work during construction, his final inspection and review of the final application for payment, all as required by the Contract Documents, the Inspector is satisfied that the work has been completed and the Contractor has fulfilled all of his obligations under the Contract Documents, he will within ten (10) days after receipt of the final application for payment indicate in writing his approval of payment and present the application to the Department for payment. Otherwise, he will return the application to the Contractor indicating in writing his reasons for refusing to approve final payment, in which case the Contractor will make the necessary corrections and re-submit the application.
- (d) The acceptance by the Contractor of the final payment made shall operate as and be released to the Owner and every agent thereof from all claims and liabilities to the Contractor for anything done or furnished for or relating to the work, or for any act or neglect of the Owner or of any persons relating to or affecting this work.

#### 1D.26 WAIVERS OF CLAIMS AND CONTINUING OBLIGATIONS

- (a) The Contractor's obligation to perform the work and complete the project in accordance with the Contract Document shall be absolute. Neither approval of any progress for the issuance of a certificate of Substantial Completion, nor any payment by the Department to the Contractor under the Contract Documents, nor any use of occupancy of the project or any part thereof by the Department, nor any act of acceptance by the Department nor any failure to do so, nor any correction of faulty or defective work by the Department shall constitute an acceptance of work not in accordance with the Contract Documents.
  - (b) The making and acceptance of final payment shall constitute:
- 1. A waiver of all claims by the Department against the Contractor other than those arising from unsettled liens, from faulty or defective work appearing after final payment or from failure to comply with the requirements of the Contract Documents or the terms of any special guarantees specified therein, and
- 2. A waiver of all claims by the Contractor against the Department other than those previously made in writing and still unsettled.

#### **1D.27 INDEMNIFICATION**

The Contractor will indemnify and hold harmless the Department and the Engineer and/or Architect and all of their agents and employees from and against all claims, damages, losses and expenses (including attorney's fees) arising out of or resulting from operations under the Contract Documents by the Contractor, any Subcontractor, anyone directly or indirectly employed by the Contractor or any Subcontractor, or anyone for who's acts the Contractor or Subcontractor, may be liable, the indemnification obligations of the Contract under this Section 1D.26 shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the Contractor, or any Subcontractor, under Workman's Compensation Laws, disability benefit laws, or other employee benefit laws.

#### 1D.28 OWNER'S RIGHTS TO SUSPEND WORK

The Owner may, at any time without cause, suspend the work or any portion thereof for a period of not more than ninety (90) days by notice in writing to the Contractor which shall fix the date on which work shall be resumed. The Contractor will resume the work on the date so fixed. In general, no allowance will be made for suspended work except for possible extension of the Contract Time, if completion of the work is later carried on to successful conclusion. If the Contractor believes that the suspension of work by the Owner entitled him to increase in the Contract Price of any extension of the Contract Time directly attributable to any suspension, he may make a claim within five (5) days after receipt of a notice of suspension and any equitable adjustment will be made as provided in Sections 1D 18 and 1D 19

#### 1D.29 OWNER'S RIGHT TO TERMINATE

- (a) If the Contractor is adjudged as bankrupt or insolvent, or if he makes a general assignment for the benefit of his creditors, or if a trustee or receiver is appointed for the Contractor or for any of his property, or if he files petition to take advantage of any debtors act, or to reorganize under the bankruptcy or similar laws, or if he refuses to supply sufficient skilled workmen or suitable materials and equipment, or if he fails to make prompt payments to Subcontractor or for labor, materials or equipment or if he disregards laws and ordinances, or if he otherwise violates any provision of the Contract Documents, then the Owner, may without prejudice to any other right or remedy and after giving the Contractor seven (7) days written notice, terminate the services of the Contractor and take work by whatever method he may deem expedient. In such case the Contractor shall not be entitled to receive any further payment until the work is finished. If the unpaid balance of the Contract Price exceeds the direct and indirect costs of completing the project, including compensation for additional professional services, such excess shall be paid to the Contractor. If such costs exceed such unpaid balance the Contractor will pay the difference to the Owner.
- (b) Where the Contractor's services have been so terminated by the Owner, said termination shall not affect any rights of the Owner against the Contractor then existent or which may thereafter accrue. Any retention or payment of monies by the Owner due the Contractor will not release the Contractor from liability.
- (c) Upon seven (7) days written notice to the Contractor, the Owner may, without cause and without prejudice to any other right or remedy, elect to abandon the project and terminate the Agreement. In such case, the Contractor shall be paid for all work executed and any expense sustained plus a reasonable profit.

## 1D.30 CONTRACTOR'S RIGHT TO STOP WORK OR TERMINATE

If, through no act or fault of the Contractor, the work is suspended for a period of more than ninety (90) days by the Owner or under an order of court or other public authority, or the Owner's Representative fails to act on any application for payment within thirty (30) days after it is submitted, or the Owner fails to pay the Contractor any sum approved by the Owner's Representative or awarded by arbitrators within thirty (30) days of its approval and presentation, then the Contractor may, upon seven (7) days written notice to the Owner, terminate the Agreement and recover from the Owner payment for all work executed and any expense sustained plus a reasonable profit.

## **1D.31 PAYMENT FOR EXTRA WORK**

- (a) All extra work done will be paid for in the following manner.
- (b) Labor. For all labor and foreman indirect charge of the specific operations, the Contractor shall receive the State wage rates (or scale) agreed upon in writing before beginning work for each and every hour that said labor and foreman are actually engaged in such work.

The Contractor shall receive the actual cost paid to, or in behalf of, workmen by reason of subsistence and travel allowances, health and welfare benefits, pension fund benefits or other benefits, when such amounts are required by collective bargaining agreement or other employment contract generally applicable to the classes of labor employed on the work. An amount equal of 20% of the sum of the above items will also be paid the Contractor.

- (c) Bond, Insurance and Tax. For property damage, liability and workmen's compensation insurance premiums, unemployment insurance contributions and social security taxes on the force account work, the Contractor shall receive the actual cost, to which cost 6% will be added. The Contractor shall furnish satisfactory evidence of the rate or rates paid for such bond, insurance and tax.
- (d) Materials. For materials accepted by the Engineer and used, the Contractor shall receive the actual cost of such materials delivered on the work, including transportation charges paid by him (exclusive of machinery rentals as hereinafter set forth), to which cost 15% will be added.
- (e) Equipment. For any machinery or special equipment (other than small tools) including fuel and lubricants, plus transportation costs, the use of which has been authorized by the Engineer, the Contractor shall receive the rental rates agreed upon in writing before such work is begun for the actual time that such equipment is in operation on the work, to which rental sum 15% will be added.
- (f) Miscellaneous. No additional allowance will be made for general superintendence, the use of small tools, or other costs for which no specific allowance is herein provided.
- (g) Compensation. The Contractor's representative and the Engineer shall compare records daily of the cost of work done as ordered on a force account basis.
- (h) Statements. No payment will be made for work performed on a force account basis until the Contractor has furnished the Engineer with duplicate itemized statements of the cost of such force account work detailed as follows:
- 1. Name, classification, date, daily hours, total hours, rental rate, and extension for each laborer and foreman.
- 2. Designation, dates, daily hours, total hours, rental rate, and extension for each unit of machinery and equipment.
  - 3. Quantities of materials, prices and extensions.
  - 4. Transportation of materials.
- 5. Cost of property damage, liability and workmen's compensation insurance premiums, unemployment insurance contributions, and social security tax.

(i) Statements shall be accompanied and supported by invoices for all materials used and transportation charges. However, if materials used on the force account work are not specifically purchased for such work but are taken from the Contractor's stock, then in lieu of the invoices the Contractor shall furnish an affidavit certifying that such materials were taken from his stock, that the quantity claimed was actually used, and that the price and transportation claimed represent the actual cost to the Contractor. If unit measurement is by weight, certified weight slips will be required.

Should the Contractor refuse or fail to prosecute the work as directed or to submit his claim as required, the Engineer may withhold payment of all current estimates until the Contractor complies with these requirements or, after giving the Contractor due notice, the Engineer may make payment for said work on the basis of a reasonable estimate for the value of work performed.

## 1D.32 ASSIGNMENT OF ANTITRUST CLAIMS

As consideration for the award and execution by the Owner of this Contract, the Contractor hereby grants, conveys, sells, assigns and transfers to the State of Delaware all of its right, title and interests in and to known or unknown causes of action it presently has or may now or hereafter acquire under the antitrust laws of the United States and the State of Delaware, relating to the particular goods or services purchased or acquired by the Owner pursuant to this Contract.

## **1D.33 MISCELLANEOUS**

- (a) Whenever any provision of the Contract Documents requires the giving of written notice, it shall be deemed to have been validly given if delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or if delivered at or sent by registered or certified mail, who it is intended, or if delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to him who gives the notice.
- (b) Should the Owner or the Contractor suffer injury or damage to its person or property because of any error, omission or act of the other or of any of his employees or agents or others for whose acts he is legally liable, claim shall be made in writing to the other party within a reasonable time of the first observance of such injury or damage.
- (c) The Contract Documents shall be governed by all Delaware laws and all such laws shall be as binding as though quoted herein and their applicable provisions shall be fully adhered to by all parties affected thereby.

## **1D.34 ARCHAEOLOGICAL EVIDENCE**

When in the course of construction any archaeological evidence is encountered on the surface or below the surface of the ground the Contractor shall notify the Bureau of Archives and Historic Preservation and suspend work in the immediate area for a reasonable time to permit those authorities, or persons designated by them to examine the area and insure the proper removal of the archaeological evidence for suitable preservation in the State Museum.

#### 1D.35 SAFETY AND HEALTH REGULATIONS

All contracts shall be governed by the United States Department of Labor, Occupational Safety and Health Administration, 29 CFR 1926 Safety and Health Regulations for Construction (current edition).

## **1D.36 FOREST PROTECTION**

In carrying out work within or adjacent to State, County and National Forests and/or Parks, the Contractor shall comply with all regulations of the State Fire Marshal, Conservation Commission, State Forestry Department, or other Authority having jurisdiction, governing the protection of forests and the carrying out of work within forests, and shall observe all sanitary laws and regulations with respect to the performance of work in forest areas. He shall keep the areas in an orderly condition, dispose of refuse, and obtain permits for the construction and maintenance of all construction camps, stores, warehouses, residences, latrines, cesspools, septic tanks and other structures in accordance with the requirements of the State Forester.

The Contractor shall take all responsible precautions to prevent and suppress forest fires and shall require his employees and subcontractors, both independently and at request of the forest or park officials, to do all reasonably within their power to prevent and suppress and to assist in preventing and suppressing forest fires and make every possible effort to notify a forest or park official at the earliest possible moment of the location and the extent of any fire seen by them.

## SECTION 1E SPECIAL CONDITIONS - PART 1 SCOPE OF WORK

#### 1E.01 SCOPE OF WORK

Furnishing all materials, labor and supervision, and performing all operations required to complete the construction described in Section 1J, Special Provisions, as shown on the drawings or described in the specifications and as evidently necessary to complete the work.

## 1E.02 LOCATION AND ACCESS

The site upon which the contract work is to be performed, and it access, is set out in Section 1J, Special Provisions.

## **1E.03 REFERENCE POINTS**

The Department will, if required, establish a base line as shown on the drawings and an adjacent bench mark. The Contractor will be responsible for the layout of the work and will protect and preserve the established reference points and will make no changes or relocations without the prior written approval of the Department. The Contractor will be responsible for replacing and accurately relocating reference points lost, destroyed or moved.

## <u>**1E.04 DATUM**</u>

All elevations and all vertical dimensions mentioned herein or shown on the drawings are in feet and are referenced to the North American Vertical Datum of 1988 (NAVD 88). All coordinates and all horizontal dimensions mentioned herein or shown on the drawings are in feet and are referenced to the Delaware State Plane Coordinate System, North American Datum of 1983 (NAD83).

## 1E.05 COOPERATION WITH PUBLIC UTILITY CORPORATIONS

It shall be the duty of the Contractor to ascertain from the utility corporations the locations of services adjacent to the work under this contract. Wherever water or gas pipes, telephone or electric cable ducts or poles are encountered, and may be interfered with in any way, the Contractor shall keep the utility company involved fully informed of same. He shall fully protect such structure and, where necessary, shall cooperate with the utility company in the removal, relocation, or replacement of same. Any damage caused by the neglect of the Contractor to first locate these structures shall be repaired by the Contractor at his expense.

## 1E.06 WORK IN OR OVER NAVIGABLE WATERS

All work in, on or over waters declared navigable by the Department of the Army of the United States shall conform to all applicable Federal Rules and Regulations. All such rules and regulations are hereby made a part of the Contract. The Contractor is cautioned and charged with the

responsibility of obtaining complete knowledge thereof and complying therewith. The Contractor shall also comply with the provisions of other applicable Federal, State and local laws which pertain to work in these locations.

## **1E.07 USE OF EXPLOSIVE**

The use of explosives will not be permitted adjacent to or on any existing structures unless authorized in writing by the Engineer. When the use of explosives is permitted, the Contractor shall use the utmost care, so as not to endanger life or property. Whenever necessary the number of charges and size of the charge shall be reduced. The Contractor's attention is directed to the necessity of safeguarding the public during dynamiting operations and a sufficient number of watchmen, flagmen signs, etc., shall be clearly marked, and shall be in care of competent watchmen at all times. Explosives shall be stored and handled in conformity with the provisions of the statutes of the State of Delaware, and local laws and ordinances.

The Contractor shall notify each public utility company, having structures in proximity to the site of the work, of his intention to use explosives and such notice shall be given sufficiently in advance to enable the companies to take such steps as they may deem necessary to protect their property from injury. Such notice shall not relieve the Contractor of responsibility for any damage resulting from his blasting operations.

## 1E.08 EROSION CONTROL AND WATER POLLUTION

The Contractor shall schedule and conduct his operations to minimize erosion of soils and to prevent silting and muddying of streams, rivers, irrigation systems and impoundments (lakes, reservoirs, etc.). Construction of drainage facilities and performance of other contract work which will contribute to the control of erosion and sedimentations shall be carried out in conjunction with earthwork operations or as soon thereafter as practicable. The area of bare soil exposed at any one time by construction operations shall be kept to a minimum.

Prior to suspension of construction operations for appreciable lengths of time the Contractor shall shape the earthwork in a manner that will permit storm run-off with a minimum of erosion. Temporary erosion and sediment control measures such as berms, dikes, slope drains, or sedimentation basins deemed necessary by the Engineer shall be provided and maintained until permanent drainage facilities and erosion control measures are installed. Temporary measures will not be paid for directly, but will be considered as subsidiary obligations of the Contractor covered under the various contract items of work

The Contractor shall also conform to the following practices and controls:

1. When borrow material is obtained from other than commercially operated sources, erosion of the borrow site shall be so controlled during and after completion of the work that erosion will be minimized and sediment will not enter streams or other bodies of water. Waste or disposal areas and construction roads shall be located and constructed in a manner that will keep sediment from entering streams.

- 2. Frequent fording of live streams will not be permitted; therefore, temporary bridges or other structures shall be used wherever an appreciable number of stream crossings are necessary. Unless otherwise approved in writing, mechanized equipment shall not be operated in live streams.
- 3. When work areas or gravel pits are located in or adjacent to live streams, such areas shall be separated from the main stream by a dike or other barrier to keep sediment from entering a flowing stream. Care shall be taken during the construction and removal of such barriers to minimize the muddying of a stream.
- 4. All waterways shall be cleared as soon as practicable of falsework, piling, debris or other obstructions placed during construction operations and not a part of the finished work.
- 5. Water from aggregate washing or other operations containing sediment content shall not contain more sediment than that of the stream into which it discharges.
- 6. Pollutants such as fuels, lubricants, bitumens, raw sewage and other harmful materials shall not be discharged into or near rivers, streams, and impoundments or into natural or manmade channels leading thereto. Wash water or waste from concrete mixing operations shall not be allowed to enter live streams.
- 7. All applicable regulations of fish and wildlife agencies and statutes relating to the prevention and abatement of pollution shall be compiled with in the performance of the contract.
- 8. It shall be the responsibility of the Contractor to comply with all applicable regulations of the Department of Natural Resources and Environmental Control regarding any open burning operations carried out during the conduct of this contract.
- 9. When it becomes necessary, the Engineer will inform the Contractor of unsatisfactory construction procedures and operations insofar as erosion control and water pollution are concerned. If the unsatisfactory construction procedures and operations are not corrected promptly, the Engineer may suspend the performance of the other construction until unsatisfactory condition has been corrected. There will not be any adjustment of contract time for suspension of other work in the event it is necessary to suspend the other work until correction of unsatisfactory control of erosion and water pollution has been accomplished.



## SECTION 1F SPECIAL CONDITIONS - PART II MINIMUM WAGES AND EMPLOYMENT

#### 1F.01 MINIMUM WAGES

The following minimum wages are to be paid various classes of laborers and mechanics as determined by the Department of Labor and Industrial Relations of the State of Delaware in accordance with Title 29, Section 6960, Delaware Code relating to wages. Delaware Code relating to wages further stipulates that the Contractor or his subcontractor shall pay all mechanics and laborers employed directly upon the site of the work, unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account, the full amounts accrued at time of payment, computed at wage rates not less than those stated in the advertised specifications, regardless of any contractual relationship which may be alleged to exist between the contractor or sub-contractor and such laborers and mechanics, and that the scale of wages to be paid shall be posted by the contractor in a prominent and easily accessible place at the site of work; and so much of accrued payments as may be considered necessary by the contracting officer to pay laborers and mechanics employed by the contractor or any sub-contractor on the work, the difference between the rates of wages required by the contractor to be paid laborers and mechanics on the work and rates of wages required received by such laborers and mechanics and not refunded to the contractor, subcontractor or their agents.

These rates in certain instances include a monetary equivalent for health, welfare and pension, benefits which are given employees pursuant to a bona fide enforceable, uniformly applied agreement between employers and employees. The direct payment to the employee may be reduced by such monetary equivalent. In the absence of any such agreement, the full amount indicated, less any legal deductions, shall be paid directly to the employee.

## The Wage scale for this project is; Heavy and Highway Construction in Sussex County:

The Scope of Work includes: the construction of pedestrian, vehicular, and handicap crossovers, the erection of sand fence, and the planting and seeding of dune grass on Broadkill Beach.

In addition, the following information shall be furnished weekly to the Department by the Contractor and Sub-Contractor (if any) in the form of sworn copies of payrolls.

- (a) Identification of the contract.
- (b) Payroll period covered.
- (c) For each worker listed on the payroll:
  - 1. Name of worker
  - 2. Job classifications or classifications at which he was employed during the payroll period.
  - 3. Hourly rate paid for work at such classification or classifications.
  - 4. Number of hours worked at such classification or classifications.

The Department may withhold from the contractor and sub-contractors the amount of funds necessary to pay laborers and mechanics employed on the work the minimum prevailing hourly wages.

The Delaware Code (Title 29, Chapter 69, Section 6960, Paragraph (c)) requires the Contractor to keep and maintain the sworn payroll information for a period of 2 years from the last day of the work week covered by the payroll.

If the Contractor needs further clarification pertaining to prevailing wage rates, the Department has on file two publications published by the Delaware Department of Labor, entitled "Delaware Prevailing Wage Regulations" and "Classifications of Workers Under Delaware Prevailing Wage Law." These publications are available for review upon request. These documents and other relevant information can also be found online at:

https://dia.delawareworks.com/#pw1

## **HEAVY CONSTRUCTION** (EFFECTIVE MARCH 15, 2017)

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CLASSIFICATION	NEW CASTLE	KENT	SUSSEX
ASBESTOS WORKERS	\$22.10	\$19.44	\$42.27
BOILERMAKERS	\$77.62	\$32.12	\$58.92
BRICKLAYERS	\$47.02	\$23.20	\$24.91
CARPENTERS	\$53.81	\$53.81	\$42.77
CEMENT FINISHERS	\$43.59	\$24.35	\$18.14
ELECTRICAL LINE WORKERS	\$73.65	\$28.24	\$64.65
ELECTRICIANS	\$66.85	\$66.85	\$66.85
GLAZIERS	\$20.42	\$17.73	\$12.00
INSULATORS	\$55.48	\$55.48	\$55.48
IRON WORKERS	\$60.95	\$60.95	\$58.31
LABORERS	\$44.70	\$44.70	\$44.70
MILLWRIGHTS	\$69.18	\$69.18	\$55.75
PAINTERS	\$79.76	\$79.76	\$79.76
PILEDRIVERS	\$75.27	\$39.35	\$30.63
PLASTERERS	\$19.23	\$16.70	\$11.29
PLUMBERS/PIPEFITTERS/STEAMFITTERS	\$82.03	\$77.84	\$17.89
POWER EQUIPMENT OPERATORS	\$67.29	\$62.96	\$67.29
SHEET METAL WORKERS	\$30.73	\$19.06	\$17.90
SPRINKLER FITTERS	\$33.11	\$12.54	\$10.38
TRUCK DRIVERS	\$31.96	\$20.62	\$22.27

#### **HIGHWAY CONSTRUCTION (EFFECTIVE MARCH 15, 2017)**

CLASSIFICATION	NEW CASTLE	KENT	SUSSEX
BRICKLAYERS	\$51.99	\$51.99	\$15.17
CARPENTERS	\$53.48	\$53.81	\$42.77
CEMENT FINISHERS	\$33.91	\$34.12	\$27.13
ELECTRICAL LINE WORKERS	\$23.52	\$45.39	\$22.22
ELECTRICIANS	\$66.85	\$66.85	\$66.85
IRON WORKERS	\$62.35	\$24.95	\$26.50
LABORERS	\$43.30	\$39.85	\$39.12
MILLWRIGHTS	\$16.84	\$16.34	\$14.11
PAINTERS	\$67.07	\$67.07	\$67.07
PILEDRIVERS	\$69.44	\$24.83	\$28.17
POWER EQUIPMENT OPERATORS	\$42.91	\$41.41	\$37.92
SHEET METAL WORKERS	\$23.79	\$21.23	\$19.23
TRUCK DRIVERS	\$35.73	\$29.51	\$35.95

## 1F.02 SUNDAYS AND OFFICIAL HOLIDAYS

Except with the written permission of the Secretary, and extreme emergencies, there shall be no contract work performed on Saturdays, Sundays and the following official holidays of this Department:

New Year's Day

M.L. King's Birthday

Veterans Day Election Day Return Day (Sussex Co. only) Good Friday after 12:00 noon Election Year

Memorial Day Thanksgiving Day Independence Day Day after Thanksgiving

Labor Day Christmas Day

## **1F.03 OVERTIME WORK**

#### (a) Overtime Notices:

If the contractor should desire to perform work at night or outside regular working hours, he shall notify the Secretary and shall allow ample time for satisfactory arrangements to be made for observation by the Inspector of the work in progress. The contractor shall adequately light the work as necessary for safety and for satisfactory performance of the work.

#### (b) Compensation for Overtime:

If and when the Owner orders the contractor to perform work included in the Contract outside of regular working hours for purposes not covered by the Contract, the contractor shall be paid an extra to the contract price. The payment for such overtime ordered by the Owner shall be at the applicable rate for overtime hours, minus the applicable rate for straight time hours. The contractor

shall not be entitled to extra compensation for overtime necessary to meet the construction schedule of the completion date of the Contract. Note: The provisions of this paragraph 1F.02 (b) apply only when the Contract is performed on a lump sum, unit price or maximum sum basis.

## 1F.04 DELAWARE STATE EMPLOYMENT AGENCY (BRANCH OFFICES)

Sussex County Delaware State Employment Agency

Rt. 113 & 20

Georgetown, DE 19947

# 1F.05 DELAWARE LAW, SECTION 6913 OF TITLE 29 OF THE DELAWARE CODE (AS AMENDED)

"On the construction of all public works for city, county or the State, preference in employment of laborers, workmen or mechanics shall be given to bona fide legal citizens of the State, who have established such citizenship by residence of at least 90 days in the State. Each contract for the construction of public works for city, county or the State shall contain a stipulation that any person, company or corporation who violates the provisions of this section shall pay a penalty to the State Treasurer equal to the amount of compensations paid to any person, in violation of this chapter. This section shall not apply to any project or contract, any part of the cost of which shall be paid by the United States Government, if the provisions of this section are contrary to or inconsistent with any Federal statute, regulation or rule governing or applying to the Federal participation in the cost of such project."

## SECTION 1G SPECIAL CONDITIONS PART III PERMITS, LAWS, TAXES, INSURANCE AND INDEMNIFICATION

#### 1G.01 PERMITS

The Owner will secure the U.S. Army Corps of Engineers and State of Delaware DNREC permits. The Contractor will secure and pay for all remaining construction permits and licenses including all governmental and public utility charges and inspection fees necessary for the prosecution of the Work.

## **1G.02 LAWS AND REGULATIONS**

The Contractor will give all notices and comply with all laws, ordinances, rules and regulations applicable to work. If the Contractor observes that the Specifications or Drawings are at variance therewith, he will give the Owner prompt written notice thereof. If the Contractor performs any work knowing it to be contrary to such laws, ordinances, rules and regulations, and without such notice to the Owner, he will bear all costs arising therefrom.

## 1G.03 INSURANCE AND INDEMNIFICATION

#### 2. Insurance coverage

- 2.1 The Contractor shall carry all insurance required by law, such as Unemployment Insurance, etc. He shall carry such insurance coverage as he desires on his own property such as his field office, storage sheds or other structures erected upon the project site that belong to him and for his own use. The Subcontractors involved with this project shall carry whatever insurance protection they consider necessary to cover the loss of any of their personal property, etc.
- 2.2 Upon being awarded the contract, the Contractor shall obtain a minimum of two (2) copies of all required insurance certificates called for herein, and submit one (1) copy of each certificate, to the Owner, within 20 days of contract award.
- 2.3 Bodily Injury Liability and Property Damage Liability Insurance shall, in addition to the coverage included herein, include coverage for injury to or destruction of any property arising out of the collapse of or structural injury to any building or structure due to demolition work and evidence of these coverages shall be filed with and approved by the Owner.
- 2.4 The Contractor's Property Damage Liability Insurance shall, in addition to the coverage noted herein, include coverage on all real and personal property in their care, custody and control damaged in any way by him or his Subcontractors during the entire construction period on this project.

- 2.5 The Contractor and his Subcontractors shall be responsible for insuring building materials (installed and stored) and their tools and equipment whenever in use on the project, against fire damage, theft, vandalism, etc.
- 2.6 Certificates of the insurance company or companies stating the amount and type of coverage, terms of policies, etc., shall be furnished to the Owner, within 20 days of the contract award.
- 2.7 The Contractor shall, at his own expense, (in addition to the above) carry the following forms of insurance:

## 2.7.1 Contractor's Contractual Liability Insurance

Minimum coverage to be:

Bodily Injury \$ 500,000 for each person

\$1,000,000 for each occurrence

\$ 1,000,000 aggregate

Property Damage \$ 500,000 for each occurrence

\$ 1,000,000 aggregate

## 2.7.2 <u>Contractor's Protective Liability Insurance</u>

Minimum coverage to be:

Bodily Injury \$ 500,000 for each person

\$1,000,000 for each occurrence

\$ 1,000,000 aggregate

Property Damage \$ 500,000 for each occurrence

\$ 500,000 aggregate

## 2.7.3 Automobile Liability Insurance

Minimum coverage to be:

Bodily Injury \$1,000,000 for each person

\$1,000,000 for each occurrence

Property Damage \$ 500,000 per accident

2.7.4 Prime Contractor's and Subcontractor's policies shall include contingent and contractual liability coverage in the same minimum amounts as 2.7.1 above.

2.7.5 Workman's Compensation (including Employer's Liability):

Minimum Limit on employer's liability to be as required by law.

Minimum Limit for all employees working at one site.

2.7.6 Certificates of Insurance must be filed with the Owner guaranteeing fifteen (15) days prior notice of cancellation, non-renewal, or any change in coverage and limits of liability shown as included on certificates.

## 2.7.7 Social Security Liability

- 2.7.7.1 With respect to all persons at any time employed by or on the payroll of the Contractor or performing any work for or on his behalf, or in connection with arising out of his business, the Contractor shall accept full and exclusive liability for the payment of any and all contributions or taxes or unemployment insurance, or old age retirement benefits, pensions or annuities now or hereafter imposed by the Government of the United States and the State or political subdivision thereof, whether the same be measured by wages, salaries or other remuneration paid to such persons or otherwise.
- 2.7.7.2 Upon request, the Contractor shall furnish Owner such information on payrolls or employment records as may be necessary to enable it to fully comply with the law imposing the aforesaid contributions or taxes.
- 2.7.7.3 If the Owner is required by law to and does pay any and/or all of the aforesaid contributions or taxes, the Contractor shall forthwith reimburse the Owner for the entire amount so paid by the Owner.

## 2.7.8 Indemnity

2.7.8.1 To the fullest extent permitted by law, Contractor shall indemnify and hold harmless DNREC, its officers, officials, agents and employees and Gahagan & Bryant Associates, Inc., Engineer, from and against liability, claims, damages, losses and expenses, including attorneys' fees, arising out of or resulting from performance of the Work, provided that such liability, claims, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself) including loss of use resulting therefrom, but only to the extent caused in whole or in part by negligent acts or omissions of Contractor, anyone directly or indirectly employed by it or anyone for whose acts they may be liable, regardless of whether or not such liability, claim, damage, loss or expense is caused in part by County, its officers, officials, agents and employees.



## SECTION 1H SPECIAL CONDITIONS - PART IV DRAWINGS

## 1H.01 BIDDING DRAWINGS

Proposals shall be based upon the bidding drawings as listed in the Special Provisions Section 1J, and included with the specifications as issued to all bidders, which drawings may be modified by addenda issued by the Department during the bidding period, and later will, as modified by the addenda, become the contract drawings.

## 1H.02 CONSTRUCTION DRAWINGS

The owner will furnish to the Contractor, free from charge, five (5) sets of the drawings as issued or released for construction and for each subsequent construction revision. The Contractor shall bear the cost of reproduction of any additional copies which he may require.

## 1H.03 RECORD OR AS-BUILT DRAWINGS

The Contractor shall keep at the site a record set of prints on which he shall clearly and accurately record all approved changes and/or additions to the contract work made to meet field conditions. The set of drawings shall be used for this purpose only. At project completion, the Contractor shall obtain a set of sepia reproducibles, and neatly transfer to it all the recorded as-built information; and then provide two (2) prints of these sepias, along with the sepias themselves. These drawings shall be delivered to the Owner at the completion of the work, before the final payment shall be due and payable, as an accurate record of the work as actually executed.

## **1H.04 ADJACENT CONDITIONS**

Wherever existing conditions, or construction not required as part of the work of this contract are shown on the drawings, they are so shown as a source of information to the Bidder. The Owner while believing such information to be substantially correct assumes no responsibility therefore. The Contractor shall have made himself familiar with all conditions affecting the nature and manner of performing the work and shall not be entitled to any extra compensation for any work or expense arising from or caused by his neglect to have verified all existing conditions and requirements.

## 1H.05 DIMENSIONS

The drawings are made to scale unless otherwise noted on drawing. All working dimensions shall be taken from the figured dimensions, or by actual measurements at the job. The Contractor shall study and compare all drawings and verify all figures before laying out or constructing the work and shall be responsible for any and all errors in his work which might have been avoided thereby. Whether or not an error is believed to exist, deviations from the drawings and the dimensions given thereon shall be made only after all measurements of existing established conditions notwithstanding the figured dimensions on the drawings. When figured dimensions are not in agreement with the

Contractor's measurements, he shall immediately notify the Owner, who shall promptly adjust the same.

## **1H.06 DISCREPANCIES**

If the Contractor discovers any discrepancies between the physical conditions of the work and the drawings, he shall immediately notify the Owner, who shall promptly adjust the same. Any work performed after such discovery without the approval of the Owner shall be at the Contractor's risk and expense.

## 1H.07 SHOP DRAWINGS

- (a) After checking and verifying all field measurements, the Contractor will submit to the owner for approval in accordance with the accepted schedule of shop drawings submissions, a minimum of three copies of all shop or setting drawings or schedules for approval, two will be retained by the Department and one copy will be returned. When the drawings or schedules have been corrected, if necessary, and approved, six (6) copies shall be furnished to the Owner, including, if requested, one (1) transparent reproducible copy. All shop drawings shall have been checked and approved by the Contractor before submitting to the Owner. The date shown on the shop drawings will be complete with respect to dimensions, design criteria, materials of construction and the like to enable the Owner to review the information as required.
- (b) The Contractor will also submit to the Owner for approval with such promptness as to cause no delay in the work, all samples required by the Contract Documents. All samples will have been checked and approved by the Contractor, identified clearly as to material, manufacturer, any pertinent catalog numbers and the use for which intended.
- (c) At the time of each submission, the Contractor will, in writing, call the Owner's attention to any deviations that the shop drawing or sample may have from the requirements of the Contract Documents. Substitution of alternate materials or equipment will be considered for approval by the Owner only in accordance with the provisions of Section 1D.09.
- (d) The Owner will check and approve with reasonable promptness shop drawings and samples, but his checking and approval shall be only for conformance with the design concept of the Project and for compliance with the information given in the Contract Documents. The Contractor will make any corrections required by the Owner and return the required number of corrected copies of shop drawings or resubmit new samples. The approval of a separate item as such will not indicate approval of the assembly in which the item functions.
- (e) No work requiring a shop drawing or sample submission shall be proceeded with until the submission has been approved by the Owner.
- (f) The Owner's approval of shop drawings or samples shall not relieve the Contractor from his responsibility for any deviations from the requirements of the Contract Documents unless the Contractor has in writing called the Owner's attention to such deviations at the time of submission

and the Owner has given written approval to the specific deviation, nor shall it relieve the Contractor from errors or omissions in the shop drawings.

## 1H.08 BIDDING DRAWINGS

- (a) At the Contractor's written request, electronic copies of Engineer's Digital Data Files of the Contract Drawing's site plan will be provided by the engineer per the following. Files for details, etc. will not be provided.
- (b) AutoCAD (or other dwg format files): Contractor or Sub-Contractor to be utilizing the files will obtain and sign an Electronic File Agreement from the Engineer.
- (c) Engineer makes no representations as to the accuracy or completeness of digital data drawing files as they relate to the Contract Drawings. Files are for recipients use only and files are not to be transferred to others.
- (d) First Digital File (per order): Eight Hundred Dollars (\$800.00). A file is defined to mean a single drawing sheet. Subsequent Files (per same order): Four Hundred Dollars (\$400.00). A file is defined to mean a single drawing sheet. Electronic File Agreement and payment to be received by Engineer prior to release of file(s).
  - (e) Digital File Format: AutoCAD 2007.

## 1H.09 LIST OF BIDDING DRAWINGS

The drawings issued for bidding and which are a part of these specifications are listed in Section 1J, Special Provisions.



## SECTION 1I SPECIAL CONDITIONS PART V COMPLETION DATE AND PENALTY CLAUSE

## 11.01 COMPLETION DATE

All work of this contract shall be completed within the time limit set out in Section 1J of the Special Provisions, (1J19; 1J20).

## 11.02 FAILURE TO COMPLETE WORK ON TIME

**Failure to Complete on Time**. For each calendar day or work day that work remains uncompleted after the Contract time has expired or beyond the completion date established by the Contract, the sum specified in Subsection 1.03 will be deducted from any money due the Contractor. This sum shall not be considered and treated as a penalty but as liquidated damages due the Department by reason of inconvenience to the public, added cost of engineering and supervision, and other extra expenditures of public funds due to the Contractor's failure to complete the work on time. Any adjustment of the Contract time for completion of work granted will be considered in the assessment of liquidated damages.

The column indicated in the charts as "Calendar Day" will also be used in the assessment of liquidated damages for contracts with a predetermined completion date.

Computations for the assessment of liquidated damages shall be made in accordance with the daily computations described in the definition of working day, when the Contract is a working contract. On all other contracts each and every consecutive calendar day, including Saturdays, Sundays and holidays, shall be included in the computations for the assessment of liquidated damages.

The Contractor shall become liable for liquidated damages for delays commencing from the date on which the Contract time shall expire.

If there is a delay in the delivery of critical materials, such as steel, copper, or aluminum, due to defense needs, energy crisis, etc. a time extension shall be allowed for such delays. Each case will be independently evaluated to determine if delays were, in fact, beyond the control of the Contractor or fabricator and delayed the Project completion. Satisfactory supported time extension requests shall be made concurrently with the delay and not after the fact.

Requests for time extensions shall be subject to review by the Engineer, and the Engineer will determine the amount of time extension allowed.

There will be no acceptance of unsupported claims of delays in delivery of material as a basis for time extensions. The Contractor is presumed to have included in its Contract price, allowance for any anticipated delays in procurement of materials, which procurement is its sole responsibility. Unless some unusual market condition such as an industry wide strike, natural disaster, or area wide storages arises after bids are taken and prevents procurement of materials within the allowable time

limitations, delays in delivery of such materials do not provide sufficient reason for suspending time charges.

Permission for the Contractor or surety to continue and finish work after the Contract time and approved extensions have elapsed shall not waive the Department's rights under the Contract.

The Department may waive such portions of the liquidated damages as may accrue after the work is substantially complete and is in a condition for safe and convenient use by the traveling public.

Payment of liquidated damages will be deducted from payments otherwise due the Contractor or be made by direct payment by the Contractor in the event the total liquidated damages due exceed said deductions.

## 1I.03 Schedule of Liquidated Damages

## **Schedule of Liquidated Damages**

Awarded Contract Value		Daily Change		
For More Than	To and including	Work Day	Calendar Day	
\$ 0	\$ 25,000	\$ 380.00	\$ 275.00	
25,000	50,000	400.00	290.00	
50,000	100,000	540.00	390.00	
100,000	500,000	840.00	600.00	
500,000	1,000,000	1,090.00	780.00	
1,000,000	2,000,000	1,350.00	960.00	
2,000,000	5,000,000	1,410.00	1,010.00	
5,000,000	10,000,000	1,590.00	1,130.00	
10,000,000	15,000,000	2,510.00	1,790.00	
15,000,000	20,000,000	4,180.00	2,990.00	
20,000,000	25,000,000	5,850.00	4,180.00	
25,000,000	30,000,000	7,520.00	5,370.00	
30,000,000	35,000,000	9,190.00	6,570.00	
35,000,000	Over	10,870.00	7,760.00	

## SECTION 1J SPECIAL PROVISIONS



## SECTION 1J SPECIAL PROVISIONS

#### 1J.01 GENERAL

These special conditions shall govern over the drawings and other sections of these Specifications.

## **1J.02 SCOPE OF WORK**

- A. The Contractor shall not begin construction until authorization is received from the State.
- B. The plans and specifications are intended to cover a complete project. It should be distinctly understood that failure to mention any work that would be required to complete this project shall not relieve the Contractor of his responsibility to perform such work.
- C. The work to be done under this contract includes, but is not limited to furnishing all labor, materials, tools, equipment, superintendent, transportation and performing all work in strict accordance with these specifications and required drawings.
- D. The work shall be accomplished under contract to and supervision of Department of Natural Resources and Environmental Control (DNREC) for the State of Delaware.
- E. The Contractor shall assume all responsibility for the project and construction site until accepted by DNREC, Division of Watershed Stewardship.
- F. The work under this Contract including all necessary temporary items required for good, safe and sanitary construction practices and administration of the project, is subject to the approval of the Owner or Owner's Representative.
- G. The work shall be complete in all its parts and ready for use in the time specified and in strict accordance with the terms and conditions of the Contract. Any deviation shall be subject to the written approval of the Owner and Owner's Representative.
- H. The Contractor shall follow the requirements of all the permits issued for the proposed construction.

## 1J.03 CONTRACT DOCUMENTS AND SCHEDULE OF DRAWINGS

A. The Contract Documents consist of these specifications and any all subsequent addenda thereto and the Drawings as listed below.

The following list of drawings all dated March 2017 form a part of the Contract Documents.

## **INDEX OF SHEETS**

#### COVER / LOCATION MAP AND INDEX

Sheet #C-101 PLAN SHEET 1

Sheet #C-102 PLAN SHEET 2

Sheet #C-103 PLAN SHEET 3

Sheet #C-104 PLAN SHEET 4

Sheet #C-105 PLAN SHEET 5

Sheet #C-301 TYPICAL DETAIL 1

Sheet #C-302 TYPICAL DETAIL 2

## **1J.04 PROJECT SITE**

The project site is located on Broadkill Beach, Sussex County, Delaware as indicated on the Drawings.

- B. The project site will be turned over to the Contractor as is, including any and all structures and/or construction work that may be present. The Contractor shall perform all work of every description necessary to permit him to proceed with the execution of all the work called for in the Specifications and/or as shown or indicated on the Contract Drawings.
- C. The Contractor shall satisfy himself as to the accuracy and completeness of these specifications regarding the nature and extent of all work described.
- D. Because of the proximity of improved properties, the Contractor shall exercise extreme care in his construction operations. The Contractor shall secure the approval of the property owner for the particular method of ingress and egress, place for storage of materials and equipment, etc., prior to beginning work.
- E. The existing bottom profiles, beach contours and/or bank alignment shown on the Drawings were correct when surveyed. However, because of interim erosion and littoral transport, the Contractor shall satisfy himself as to all conditions at the time of bidding this project and include in his proposal any changes that would be necessary to accomplish a complete and functional project.
- F. The Contractor shall make all necessary field measurements at the job site so as to complete the project as required in the specifications.
- G. Should there be any discrepancies between the Drawings, Specifications and/or field conditions after bidding and prior to the beginning work, the Contractor shall bring such discrepancies to the attention of the Owner or Owner's Representative at the initiation conference.
- H. The Contractor shall take all necessary precautions and measures to protect all properties from damage. He shall repair all damage caused by his operations to all public and private property

including roads, walks, curbing, utilities, trees, shrubs, plantings, etc. and leave the property in good condition and/or at least equivalent to the condition found.

I. The Contractor shall, at all times, keep the work site free from accumulation of waste materials, rubbish, surplus materials, etc. and shall leave the work area completely clean.

## 1J.05 PRE-BID MEETING AND BID OPENING

A mandatory pre-bid meeting will be held at 10:00 A.M., May 2 2017 at the site. The bid quotation reply section must be completed and returned no later than 2:00 P.M., May 17, 2017. The bid must be returned in a sealed envelope clearly marked on the outside, "Contract No. NAT-201701/BROAD.DUNE Broadkill Beach Dune Enhancements" to DNREC DIVISION OF WATERSHED STEWARDSHIP the bid opening will be held in Room B172, 89 Kings Highway, Dover, Delaware 19901.

## **1J.06 PRICE**

Prices shall be quoted net 30 days.

## **1J.07 BOND REQUIREMENTS**

#### A. Bid Bond

Each bidder shall furnish a bond to the State of Delaware, for the benefit of the Department of Natural Resources and Environmental Control, in the amount equal to 10% of the total bid. The bond shall be drawn upon an insurance or bonding company authorized to do business in the State of Delaware. If the enclosed State of Delaware bond form is not used, the substitute bond must reflect the minimum conditions specified in the standard form. A certified check made out to the Department of Natural Resources and Environmental Control in an amount equal to 10% of the total contract value may be submitted in lieu of a bid bond.

#### B. Performance Bond and Payment Bonds

Vendors awarded contracts are required to furnish 100% Performance Bond AND Payments Bonds to the State of Delaware for the benefit of the Department of Natural Resources with each surety in the amount of the 100% of total contract. Said bonds shall be conditioned upon the faithful performance of the contract. These guarantees shall be submitted in the form of good and sufficient bond drawn upon an insurance or bonding company authorized to do business in the State of Delaware. If the Department form is not utilized, the substituted bond form must reflect the minimum conditions specified in the form. (1C.02)

## 1J.08 DRAWINGS

Any required drawings shall be produced by the Contractor, following on the job measurements. All drawings must be approved by the Owner and/or Engineer before fabrication or construction begins.

#### 1J.09 SPECIFICATIONS

The Technical specification section lists the materials to be used for this project. The list generally indicates the type and quality of the desired item. Substitutes are permitted provided the substituted item is of equal quality and will provide the same functionality and longevity as the item specified. Items with the initials OAE (OR APPROVED EQUAL) will require written approval of the Project Manager for substitution.

## 1J.10 REFUSE & WASTE MATERIALS

The Contractor shall at all times keep the project site clean and free from refuse and construction waste materials. It shall be the contractor's responsibility to arrange for removal of any and all waste material generated from this project. The project area shall be clean and free from construction refuse at project completion.

## 1J.11 BID ALTERNATIVES

Bid alternatives that provide comparable functionality, maintenance, and utility, while reducing the project cost, will be entertained as a value engineering issue following the award of the contract.

## 1J.12 CONTACT PERSON(S)

Charles E. Williams, II DNREC – Division of Watershed Stewardship (302) 739-9921

## 1J.13 FUNDING

The Department reserves the right to award partially by BID Item or to make no award pending availability of funds.

## 1J.14 AWARD OF CONTRACT

This contract shall be awarded to the lowest responsible bidder submitting the lowest lump sum price accepted by the Owner, pending availability of funds.

The Owner reserves the right to select any combination of lump sum or unit prices (based on estimated quantities), to be consistent with allowable moneys and to best serve the interest of the State.

#### 1J.15 SPECIAL INSTRUCTIONS TO THE CONTRACTOR

A. As soon as possible after the Award of Contract, and before starting work, the Contractor shall meet with the State on site, to discuss all aspects of the proposed work. At this meeting the Contractor shall be prepared to review all procedures involved in carrying out the proposed work and shall deliver a planned work schedule and material delivery schedule.

- B. The Contractor shall coordinate his work schedule with the State at all times. The Contractor shall not perform any work at the site without representatives of the State present unless he has previously obtained the permission from the State.
  - C. The Contractor shall not ingress into the existing wetlands areas.
- D. Existing Utilities: The Contractor shall contact Miss Utility at 1-800-257-7777 at least 72 hours prior to the onset of construction, so that existing utilities in the work area may be located and marked. If utilities are to remain in place, provide adequate means of protection during earthwork operations. Should uncharted or incorrectly charted piping or other utilities be encountered during excavation, consult the Owner or Owner's Representative immediately for directions on how to proceed. Cooperate with the Owner and utility companies in keeping respective services and facilities in operation. Repair damaged utilities to satisfaction of utility owner. Do not interrupt existing utilities serving facilities occupied and used by Owner or others, except when permitted in writing by the Owner or Owner's representative, and then only after acceptable temporary utility services have been provided.
- E. While it is believed that the test borings accurately indicate subsurface conditions for boring locations on the date taken, the Owner and Engineer assume no responsibility for actual conditions which may be encountered in execution of Contract. Should Contractor rely, for any purpose, upon accuracy or completeness of said borings, or log thereof, he does so at his own risk.
- F. Certifications, material testing, and soil testing as outlined elsewhere in these Specifications shall be performed by an independent testing firm approved by the State or State's Representative. The testing firm shall coordinate and perform all testing with the General Contractor and his suppliers. Certification and test reports shall be submitted to the Project Manager for approval. Costs associated with testing shall be borne by the General Contractor and included in the Contractor's lump sum price bid.
- G. The Contractor shall be allowed to work 5 days a week, Monday thru Friday, from 7:00 a.m. to 6:00 p.m.

#### 1J.16 SCHEDULES

The Contractor shall coordinate his work schedule with the Owner at all times. The Contractor shall not perform any work at the site without representatives of the Owner and Engineer present unless he has previously obtained the permission of both.

## 1J.17 TRAFFIC

Local traffic at the site must be maintained as necessary in accordance with plans which must be approved at the pre-construction meeting.

## **1J.18 COMPLETION DATE**

All construction of pedestrian, vehicular, and handicap crossovers, the erection of sand fence, and the planting and seeding of dune grass shall be completed no later than April 1, 2018.

## 1J.19 GUARANTEE

The Contractor shall guarantee the work of its employees, suppliers and subcontractors for one year from time of final payment, and the Contractor shall, at his expense, remedy any defects of which the Contractor is given written notice, in a manner acceptable to the owner.

#### 1J.20 INSPECTION

Inspection of the supplies, material and/or work will be performed by the Department and/or its authorized representative. The Department reserves the right to reject or stop any or all portions of the work which fail to meet these specifications.

#### 1J.21 INVOICES

All billing shall be to the Department of Natural Resources and Environmental Control Division of Watershed Stewardship, 89 Kings Highway, Dover, DE 19901 and marked Contract No. NAT-201701/BROAD.DUNE; Attention: Charles E. Williams, II.

#### 1J.22 BASIS OF PAYMENT

Payment of this contract shall be at the accepted contractual bid price. There will be monthly progress payments allowed based on percentage complete. Request for payments must be submitted by the 25<sup>th</sup> of each month. As referenced in 29 DELC 6962 (c) (5) (a): "Retainage shall be withheld from each monthly request for payment. The amount withheld shall be ten (10) percent of each request for payment. Upon completion of ninety (90) percent of the project the retainage shall be reduced to five (5) percent. Upon completion of the final punch list and acceptance of the project the remaining retainage shall be released."

#### 1J.23 ENGINEER AND/OR ARCHITECT

Gahagan & Bryant Associates, Inc. 9008-O Yellow Brick Road Baltimore, MD 21237

## SECTION 2 TECHNICAL SPECIFICATIONS



## SECTION 31 05 19 GEOTEXTILE

## PART 1 GENERAL

## 1.1 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 pedestrian and vehicular dune crossovers as indicated on the drawings.

## 1.2 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

## ASTM INTERNATIONAL (ASTM)

ASTM D4354	(2012) Sampling of Geosynthetics for Testing	
ASTM D4355	(2014) Deterioration of Geotextiles by Exposure to Light, Moisture and Heat in a Xenon Arc Type Apparatus	
ASTM D4491/D4491M	(2015) Standard Test Methods for Water Permeability of Geotextiles by Permittivity	
ASTM D4533/D4533M	(2015) Standard Test Method for Trapezoid Tearing Strength of Geotextiles	
ASTM D4632/D4632M	(2015a) Grab Breaking Load and Elongation of Geotextiles	
ASTM D4751	(2012) Determining Apparent Opening Size of a Geotextile	
ASTM D4873	(2015) Identification, Storage, and Handling of Geosynthetic Rolls and Samples	
ASTM D6241	(2014) Standard Test Method for the Static Puncture Strength of Geotextiles and Geotextile-Related Products Using a 50-mm Probe	

#### 1.3 SUBMITTALS

The following shall be submitted:

Product Data

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.

Manufacturing Quality Control Sampling and Testing

A minimum of 7 days prior to scheduled use, manufacturer's quality control manual.

Samples Quality Assurance Samples and Tests

Samples for quality assurance testing; assign 7 days in the schedule to allow for testing.

Certificates

Geotextile

A minimum of 7 days prior to scheduled use, manufacturer's certificate of compliance stating that the geotextile meets the requirements of this section. For needle punched geotextiles, the manufacturer shall also certify that the geotextile has been continuously inspected using permanent on-line full-width metal detectors and does not contain any needles which could damage other geosynthetic layers. 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.

## 1.4 DELIVERY, STORAGE, AND HANDLING

Deliver, store, and handle geotextile in accordance with ASTM D4873.

## 1.4.1 Delivery

Notify DNREC a minimum of 24 hours prior to delivery and unloading of geotextile rolls packaged in an opaque, waterproof, protective plastic wrapping. The plastic wrapping shall not be removed until deployment. If quality assurance samples are collected, immediately rewrap rolls with the plastic wrapping. Geotextile or plastic wrapping

damaged during storage or handling shall be repaired or replaced, as directed. Label each roll with the manufacturer's name, geotextile type, roll number, roll dimensions (length, width, gross weight), and date manufactured.

## 1.4.2 Storage

Protect rolls of geotextile 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, either elevate rolls off the ground or place them on a sacrificial sheet of plastic in an area where water will not accumulate.

## 1.4.3 Handling

Handle and unload geotextile rolls 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.

#### PART 2 PRODUCTS

#### 2.1 RAW MATERIALS

#### 2.1.1 Geotextile

Provide geotextile that is a nonwoven pervious sheet of polymeric material consisting 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. Add stabilizers and/or inhibitors to the base polymer, as needed, to make the filaments resistant to deterioration by ultraviolet light, oxidation, and heat exposure. Regrind 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 all values.

TABLE 1
MINIMUM PHYSICAL REQUIREMENTS FOR DRAINAGE GEOTEXTILE

PROPERTY	UNITS	ACCEPTABLE VALUES	TEST METHOD
GRAB STRENGTH	LBS	250	ASTM D4632/D4632M
SEAM STRENGTH	LBS	200	ASTM D4632
PUNCTURE	LBS	700	ASTM D6241
TRAPEZOID TEAR	LBS	100	ASTM D4533/D4533M
APPARENT OPENING SIZE	U.S. SIEVE	70-100	ASTM D4751
PERMITTIVITY	SEC -1	0.7	ASTM D4491/D4491M
ULTRAVIOLET DEGRADATION	PERCENT	50 AT 500 HRS	ASTM D4355

#### 2.1.2 Thread

Construct sewn seams 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.

## 2.2 MANUFACTURING QUALITY CONTROL SAMPLING AND TESTING

The Manufacturer is 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. Perform manufacturing quality control sampling and testing in accordance with the manufacturer's approved quality control manual. As a minimum, geotextiles shall be randomly sampled for testing in accordance with ASTM D4354, Procedure A.

## PART 3 EXECUTION

### 3.1 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.

#### 3.2 INSTALLATION

#### 3 2 1 Placement

Notify DNREC 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 also be free of tensile stresses, folds, and wrinkles. 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 crossover length. The geotextile shall be carried up the sides of the soil aggregate materials and the extra shall be tucked down and covered with sand.

#### 3.3 SEAMS

#### 3.3.1 Overlap Seams

Continuously overlap geotextile panels a minimum of 24 inches at all longitudinal and transverse joints. Where seams must be oriented across the slope, lap the upper panel over the lower panel. If approved, sewn seams may be used instead of overlapped seams.

#### 3 3 2 Sewn Seams

Factory and field seams shall be continuously sewn. The stitch type used shall be a 401 locking chain stitch or as recommended by the manufacturer. Provide Quality Assurance seam samples to the DNREC upon request. 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.

-- End of Section --



## SECTION 32 15 00 DUNE CROSSOVERS

#### PART 1 GENERAL

#### 1.1 SCOPE OF SECTION

The work covered by this section consists of furnishing all labor, materials, and equipment, and performing all operations required for the construction of pedestrian, vehicular, and handicap crossovers, as specified herein and shown on the drawings.

#### 1.2 REFERENCES

The following publications form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

### ASTM INTERNATIONAL (ASTM)

ASTM D422	(1963; R 2007; E 2014; E 2014) Particle-Size Analysis of Soils
ASTM D1556	(2007) Density and Unit Weight of Soil in Place by the Sand-Cone Method
ASTM D1557	(2012; E 2015) Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft3) (2700 kN-m/m3)
ASTM D6938	(2015) Standard Test Method for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)
ASTM E11	(2015) Wire Cloth and Sieves for Testing Purposes
ASTM D6112	(2013) Compressive and Flexural Creep and Creep-Rupture of Plastic Lumber and Shapes
ASTM F593	(2013a) Stainless Steel Bolts, Hex Cap Screws, and Studs

## AMERICAN WOOD PROTECTION ASSOCIATION (AWPA)

AWPA M4	(2015) Standard for the Care of Preservative-Treated Wood Products
AWPA T1	(2015) Use Category System: Processing and Treatment Standard
AWPA U1	(2015) Use Category System: User Specification for Treated Wood

#### SOUTHERN PINE INSPECTION BUREAU (SPIB)

SPIB 1003 (2002) Standard Grading Rules for Southern Pine Lumber

## DELAWARE DEPARTMENT OF TRANSPORTATION (DelDOT)

DelDOT Specifications (2001; R2011) Specifications for Road and Bridge Construction

#### 1.3 SUBMITTALS

The following shall be submitted:

**Preconstruction Submittals** 

Work Plans for Pedestrian and Vehicle Crossovers Submit typical work plans for the construction of the pedestrian, vehicular crossovers, as shown on the drawings, including the labor, equipment, and methods to be used to construct pedestrian and vehicle crossovers. Prepare an individual work plan for each crossover location, for each type of crossover, detailing the aforementioned.

#### **Shop Drawings**

Pedestrian, Handicap, and Vehicular Crossovers

Submit drawings which graphically show the details of the pedestrian, handicap, and vehicle crossovers construction, including materials, connections, and details of fabrication and installation. A separate shop drawing shall be submitted for each location requiring a pedestrian, handicap, and vehicular crossover including plan views and elevations.

#### Product Data

#### Materials

Submit information describing the quality and performance of the materials proposed for construction of all crossovers.

Source for Infield Mix Material

Source for Crusher Run Material

Submit the proposed source for the Infield Mix and Crusher Run material.

#### Samples

#### Infield Mix and Crusher Run Material

A sample of the Infield Mix Material and Crusher Run materials shall be submitted to confirm the color is similar to the beachfill material and to ensure the material includes non-angular aggregate.

#### **Test Reports**

#### **Grain Size Distribution Curves**

Grain size distribution curves shall be in accordance with ASTM D422 and shall be submitted from the source of the Crusher Run base course material and the infield mix surface course material to be used on the dune crossovers

#### **Test Results**

Within one week of conclusion of physical tests, including gradation tests, proctor tests and nuclear density tests, three copies of test results, including calibration curves and results of calibration tests. Reports shall indicate the location of the sample/test, the test data, and a statement of compliance or non-compliance, where applicable.

#### Certificates

#### **Nuclear Gauges**

Submit the type/model of each proposed nuclear gauge and its latest laboratory calibration certificate.

#### Quality Assurance

Provide Materials and Safety Data Sheets (MSDS) and Consumer Information Sheets (CIS) associated with pile preservative treatment. Contractor shall comply with all safety precautions indicated on MSDS and CIS.

#### Best Management Practices (BMPs)

The producer of the treated wood products shall provide certification that Best Management Practices (BMPs) for the use of Treated Wood in Aquatic Environments were utilized including a written description and appropriate documentation of the BMPs utilized.

#### 1.4 DELIVERY, STORAGE, AND HANDLING

Handle and store in accordance with AWPA M4. Comply with paragraph entitled "Quality

Assurance". Special care shall be taken in supporting lumber products to prevent excessive bending stresses.

#### PART 2 PRODUCTS

#### 2.1 CRUSHER RUN BASE COURSE

Graded aggregate having the properties and gradation as specified for Type B (Crusher Run), Subsection 821.03 of the DelDOT Specifications. Recycled materials are not acceptable.

#### 2.2 INFIELD MIX MATERIAL SURFACE COURSE

Soil aggregate commercially and locally known as "infield mix". Process infield mix from soil/aggregates conforming to the same quality requirements of the base course. Infield mix soil/aggregates shall be well graded within the limits specified in TABLE 1. Sieves shall conform to ASTM E11. Infield mix color shall be similar to the beachfill material.

TABLE 1
GRADATION FOR INFIELD MIX SURFACE COURSE

Sieve Designation	Infield Mix Percent Passing
1/2 inch Sieve	100
3/8 inch Sieve	95-100
No. 4 Sieve	90-100
No. 10 Sieve	80-97
No. 30	55-80
No. 50	25-65
No. 100 Sieve	15-35
No. 200 Sieve	10-25
0.002 mm	5-20

#### 2.3 GEOTEXTILE

Geotextile shall be as specified in Section 31 05 19 GEOTEXTILE.

#### 2.4 SAND FENCE

Sand fence shall be as specified in Section 32 92 00 SAND FENCE.

#### 2.5 POST AND RAIL FENCE

#### 2.5.1 Lumber and Timbers

Lumber shall be the Southern Yellow Pine, grade No. 1, per SPIB 1003. Treat all lumber and timber in accordance with AWPA C1 and AWPA C2 of 0.40 pcf. Lumber shall be treated in accordance with AWPA T1 for use as specified in AWPA U1 for UCS category as follows:

- a. intended for above ground use
- b. intended for ground contact
- c. 0.40 pcf intended for ground contact

All wood shall be air or kiln dried after treatment. Specific treatments shall be verified by the report of an approved independent inspection agency, or the AWPA Quality Mark on each piece. Do not incise surfaces of lumber that will be exposed. Brush coat areas that are cut or drilled after treatment with either the same preservative used in the treatment or with a 2 percent copper naphthenate solution. All lumber and woodwork shall be preservative treated. (Individual must present proper certification for field application of preservative treatment.)

Preservative treat all lumber and woodwork. Air or kiln dry all wood after treatment. Verify specific treatments by the report of an approved independent inspection agency, or the AWPA Quality Mark on each piece. Do not incise surfaces of lumber that will be exposed. Brush coat areas that are cut or drilled after treatment as specified in AWPA M4. (Individual must present proper certification for field application of preservative treatment.)

## 2.5.2 Lumber for Handrails, Side Rails and Top Rails

Lumber used for the handrails, side rails and top rails shall be wood-polymer composite lumber. The product shall meet the structural integrity test requirements, ASTM D6112. The materials shall be new and clean. Color shall be light gray.

#### 2.5.3 Fasteners

Fasteners shall be ASTM F593 Type 304 stainless steel, as indicated on the drawings. Deck screws shall be weather-guard coated steel.

#### PART 3 EXECUTION

Crossovers shall be constructed as indicated on the drawings and in accordance with the approved work plans and shop drawings.

#### 3.1 SITE PREPARATION

Crossover construction will require excavation of portions of the dune and berm, clearing and grubbing of dune vegetation and dune grass, and the removal of existing fence and posts. Excavation, clearing and grubbing shall be done only to the extent necessary for the construction of crossovers. Fence removed shall be salvaged for replacement upon completion of construction.

#### 3.1.1 Clearing

Clearing shall consist of the satisfactory removal and disposal of vegetation, including snags, brush, and rubbish occurring within the areas to be cleared as necessary for the crossover construction. Stumps, roots, brush, and other vegetation in areas to be cleared shall be removed in their entirety. Dispose of cleared material off-site.

## 3.1.2 Grubbing

Grubbing shall consist of the removal and disposal of stumps, roots larger than 3 inches in diameter, and matted roots. Material to be grubbed, shall be removed to a depth of not less than 18 inches below the original surface level of the ground. Fill depressions made by grubbing with suitable material and compact to make the surface conform with the original adjacent surface of the ground. Dispose of grubbed material off-site.

#### 3.1.3 Demolition

Remove existing dune crossovers to the extent and limit of the construction, as directed by DNREC.

#### 3.1.4 Excavation

Minimize excavation of dunes. Dispose of unsatisfactory excavated material off-site. Stockpile remaining material for reuse in restoring dune to preconstruction configuration.

#### 3.2 DUNE CROSSOVERS

#### 3.2.1 General

Construct dune crossovers at the locations and in the manner indicated on the drawings and in accordance with the approved work plan.

#### 3.2.2 Placement of Base Material

Prior to placement of base material, place geotextile in accordance with Section 31 05 19 GEOTEXTILE. Place Crusher Run base course and Infield Mix surface course in maximum 12 inch lifts and compact to at least 90 percent laboratory maximum dry density as determined by the Modified Proctor test procedure as specified in ASTM D1557. Remove, replace or dry materials that are too wet to facilitate proper compaction, by any method approved by DNREC. Place materials to the lines and grades shown and compact by the controlled use of the hauling and spreading equipment. Movement of the equipment shall be distributed as much as practicable over the surface to provide uniform compaction and complete coverage of the fill.

## 3.2.3 Testing

Furnish materials meeting the requirements specified herein, for placing the materials within the limits of moisture suitable for proper compaction, and for compacting the materials in accordance with the requirements of this section. Perform laboratory tests as required to control the work and demonstrate compliance with material specifications. Determine field in-place moisture/density in accordance with ASTM D6938. All nuclear gauges proposed for use on site shall have been laboratory calibrated within 9 months of their actual use on site. When test results indicate, as determined by DNREC, that compaction is not as specified, remove, replace and recompact the material to meet specification requirements. Perform tests on recompacted areas to determine conformance with specification requirements. The following number of tests, if performed at the appropriate time, will be the minimum acceptable for each type operation.

Perform not less than one gradation test on material placed in each vehicular, pedestrian, and handicap crossover, unless otherwise directed or approved by DNREC. DNREC may require additional tests, whenever materials are questionable, at no additional cost to DNREC. During the course of construction, if the source or appearance or performance of the crossover materials noticeably changes, in the opinion of DNREC, repeat the appropriate index testing as described herein, of the materials to ensure compliance and reestablish moisture/density relationships for compaction, at no additional cost to DNREC.

Generate a compaction curve from a modified Proctor test in accordance with ASTM D1557 for each type of material used and for any change in appearance or composition of each material source as determined by DNREC. Perform tests, in accordance with ASTM D1557, to determine the respective material's optimum moisture and laboratory maximum density value at the following frequency: one preconstruction test for this project.

Perform three in-place nuclear density tests per lift of material placed at each crossover.

Check in-place densities using ASTM D1556 one time during placement of the crossover

materials. Additional checks shall be performed as requested by DNREC, at no additional cost to DNREC

## 3.2.3.1 Action Required for Non-Compliance

Whenever test results indicate material non-compliance, remove, replace or dry, and recompact such material, at no additional cost to DNREC. Perform additional tests as directed by DNREC, to identify the limits of unsuitable material, at no additional cost to DNREC.

#### 3.3 POST AND RAIL FENCING

## 3.3.1 Installation of New Post and Rail Fencing

Construct new post and rail fencing at the areas shown for handicap crossover construction. Excavate to the depths indicated for posts. Remove debris encountered during excavation. Set posts plumb and in proper alignment. Backfill shall be compacted with hand tampers or other approved method. Pre-drill holes for screws to prevent splitting. Replace items that split at no additional cost to DNREC. Treat pressure treated lumber immediately after cutting, notching and drilling all lumber, as specified in AWPA M4.

#### 3.3.1.1 Handrail Installation

Install handrails for handicap crossovers. Handrail shall be installed such that handrails maintain uniform height above grade and are installed at the same slope of the ramp, as shown on the drawings.

#### 3.4 MEASUREMENT AND PAYMENT

## 3.4.1 Vehicular Dune Crossovers

The work specified in this section for the construction of vehicular dune crossovers shall be measured for payment by the square foot of vehicular dune crossovers satisfactorily constructed and accepted. Payment will be made at the contract prices per unit for the Bid Item titled "Vehicle Dune Crossover", and shall include all costs in connection therewith. Payment will include geotextile, and the removal and re-installation of existing sand fence, considered incidental to the construction of the vehicular dune crossovers.

#### 3.4.2 Handicap Dune Crossovers

The work specified in this section for the construction of handicap dune crossovers will be measured for payment by the square foot of handicap dune crossovers satisfactorily constructed and accepted. Payment will be made at the contract prices per unit for the Bid Item titled "Handicap Dune Crossover", and shall include all costs in connection therewith. Payment will include geotextile considered incidental to the construction of these handicap dune crossovers.

#### 3.4.3 Pedestrian Dune Crossovers

The work specified in this section for the construction of pedestrian dune crossovers will be measured for payment by the square foot of pedestrian dune crossovers satisfactorily constructed and accepted. Payment will be made at the contract prices per unit for the Bid Item titled "Pedestrian Dune Crossover", and shall include all costs in connection therewith. Payment will include geotextile, and the removal and re-installation of existing sand fence, considered incidental to the construction of these pedestrian dune crossovers.

#### 3.4.4 Post and Rail Fence

The work specified in this section for the construction of post and rail fencing will be measured for payment by the linear footage of post and rail fence satisfactorily installed and accepted. Payment will be made at the contract price per unit for the Bid Item titled "Post and Rail Fence", and shall include all costs in connection therewith. Payment will include all costs for associated handrail, considered incidental to the construction of this fence.

-- End of Section --



## SECTION 32 92 00 SAND FENCE AND DUNE GRASS

#### PART 1 GENERAL

#### 1.1 SCOPE OF SECTION

The work covered by this section consists of furnishing all labor, materials and equipment, and performing all operations required for the erection of sand fence and the planting and seeding of dune grass, as specified herein and shown on the drawings.

#### 1.2 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

ASTM INTERNATIONAL (ASTM)

ASTM F537 (2001; R 2007) Standard Specification for Design, Fabrication, and Installation of Fences Constructed of Wood and Related Materials

ASTM A641/A641M (2009a; R 2014) Standard Specification for Zinc-Coated (Galvanized) Carbon Steel Wire

#### 1.3 SUBMITTALS

The following shall be submitted:

**Product Data** 

Fertilizer

Include physical characteristics, and recommendations.

Certificates

Sand Fence

Dune Grass Plants; Seed

Statement signed by an official authorized to certify on behalf of the manufacturer of a product, system or material, attesting that the product, system or material 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.

## 1.4 DELIVERY, STORAGE, AND HANDLING

## 1.4.1 Delivery

#### 1 4 1 1 Dune Grass Plants and Seed

Protect materials from damage and contamination during delivery, on-site storage, and handling.

#### 1.4.1.2 Fertilizer

Deliver to the site in original, unopened containers bearing manufacturer's chemical analysis, name, trade name, trademark, and indication of conformance to state and federal laws. Instead of containers, fertilizer may be furnished in bulk with certificate indicating the above information.

#### 1.4.1.3 Sand Fence

Deliver products to the project site in undamaged condition.

## 1.4.2 Storage

#### 1 4 2 1 Seed and Fertilizer

Store in cool, dry locations away from contaminants.

#### 1 4 2 2 Plants

Protect from exposure to wind and direct sunlight until planted. Do not store directly on concrete or bituminous surfaces.

#### 1.4.2.3 Sand Fence

Store products out of contact with the ground, and protect against damage.

#### 1.4.3 Handling

Do not drop or dump materials from vehicles.

#### PART 2 PRODUCTS

#### 2.1 SAND FENCE

#### 2.1.1 Fence

Fence shall be ASTM F537, Type III, wire-bound wood picket fence. Pickets/slats shall be No. 1 White Cedar, Aspen, Douglas Fir or Spruce; minimum 0.375 inches thick; 1.5 inches wide; 48 inches long, square cut both ends; substantially free from excessive wane, knots, short pickets/slats and unsquare ends. Fence shall be free of decay, broken wire, and missing or broken pickets/slats. Fence binding wire shall be minimum 14 gauge galvanized wire. Fence shall be stretched after weaving to ensure the pickets/slats are tightly bound by the wire. Fence shall be furnished in minimum 50 foot lengths and shall be unpainted.

#### 2.1.2 Fence Posts

Fence posts shall be a minimum of three-inch diameter cedar, free of large knots and structural defects.

## 2.1.3 Post Binding Wire

Wire for attaching the fence to the posts shall be ASTM A641/A641M, soft temper, galvanized, 14 gauge minimum.

#### 2.2 DUNE GRASS

#### 2.2.1 Plants

Plants shall be the 'Cape' variety of American Beachgrass (Ammophila breviligulata). Each plant shall consist of healthy culms. Care shall be taken to protect plant root system. Plants which are damaged will not be accepted. Each plant shall arrive at the planting site in a dormant state and be cut to length as shown on the plans, prior to planting.

#### 2.2.2 Seed

Seed shall be the 'Atlantic' variety of coastal panicgrass (Panicum amarum). Wet, moldy, or otherwise damaged seed shall be rejected. Provide State-certified seed of the latest season's crop.

#### 2.2.3 Fertilizer

Fertilizer shall be 10-10-10 grade. Fertilizer shall be uniform in composition, free-flowing, and suitable for application with approved equipment.

#### PART 3 EXECUTION

#### 3.1 REQUIRED ORDER OF WORK

To avoid damaging the beachgrass and panicgrass, the sand fence shall be installed prior to the beachgrass and panicgrass planting in a particular location.

#### 3.2 SAND FENCE

Fence shall be erected in the locations and along the lines shown on the drawings. Posts and pickets/slats shall be set vertical, including on slope. Debris may be encountered when excavating to install posts. The Contractor may be required to excavate at an adjacent location to avoid the debris encountered. Posts shall be set plumb, in proper alignment, at intervals not exceeding 8 feet, and placed so that the top of the post is even with the top of the pickets/slats. Backfill shall be moistened to optimum condition and compacted with hand tampers. The posts shall be set such that the number of protrusions, i.e. knots, are minimized on the side to which the fence is to be attached. Place the sand fence on posts as shown and attach to the posts by pulling fence taut and securely wrapping with minimum 14 gauge soft, galvanized wire around fence post and picket, and subsequently twisting wire ends together to secure fence picket to post at each of the locations as the picket bindings. Splice fence by overlapping a minimum of two pickets/slats and wrapping with wire at each of the locations as the fence picket bindings and twisting ends securely. All wire ends shall be tucked in at all locations to prevent injury to workers and the public.

#### 3.3 DUNE GRASS

#### 3 3 1 General

New dunes within the Contractor's Work Limit, shall be fertilized, planted with Beachgrass, and seeded with Panicgrass after finish grading of all dune crossovers and associated sand fence installation.

### 3.3.2 Surface Preparation

Grade all surfaces to be planted with no sharp depressions greater than 2 inches in depth.

## 3.3.3 Planting Method

#### 3.3.3.1 Beachgrass

Beachgrass shall only be planted from 15 October to 1 April. One beachgrass plant shall be planted per hole. Space plants 18 inches apart within a row, and space rows 18 inches apart. The ends of rows shall be staggered 9 inches. Insert dune grass into a preformed hole to a depth as shown on the drawings. Once plants break dormancy, as determined by DNREC, the Contractor shall uniformly apply fertilizer at the rate 50 pounds of nitrogen per acre. Fertilizer shall not be applied without prior approval by

the DNREC and shall not be applied when wind speeds are more than 10 miles per hour. Between May 20 and June 10, after the initial planting, the Contractor shall again uniformly apply fertilizer at a rate of 50 pounds of nitrogen per acre. Both applications of fertilizer shall be made via an approved broadcast methodology, demonstrated in the field to apply the product at the specified rate.

#### 3.3.3.2 Panicgrass

Panicgrass seeds shall only be planted between 1 November and 15 April, under nonfrozen soil conditions. New dunes shall subsequently be overseeded into the stands of Beachgrass with Panicgrass from the dune centerline to the landward side dune toe. Seed Panicgrass at a rate of 8 to 12 pounds of seed per acre. Seeds shall be planted 1.5 to 2 inches deep either by hand or by a mechanically operated drill or seeder. Broadcast seeding methods shall not be used. The number of successful seedlings is related to whether the seeds are buried deep enough, which is essential to establishment.

#### 3.3.4 Care and Protection

The Contractor shall be responsible for proper care and protection of all planted areas. At least 80 percent plant survival is required in areas at the end of the first growing season. Areas having less than an 80 percent survival rate shall be replanted and fertilized by the Contractor.

#### 3.4 MEASUREMENT AND PAYMENT

#### 3.4.1 Dune Grass

The work specified in this section for planting, seeding and fertilizing of dune grass (beachgrass and panicgrass) will be measured for payment by the square yard of dune grass installed. Payment for this work will be made at the contract unit price for the Bid Item titled "Dune Grass", and shall include all costs in connection therewith.

#### 3.4.2 Sand Fence

The work specified in this section for sand fence will be measured for payment by the linear footage of new sand fence installed. Payment for this work will be made at the contract unit price for the Bid Items titled "Sand Fence", and shall include all costs in connection therewith. Payment will also include all costs associated with removal and disposal of existing sand fence on Broadkill Beach, as needed to complete the work.

-- End of Section --



## SECTION 3 BID QUOTATION REPLY



## SECTION 3A BID FORM

## DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL BROADKILL BEACH DUNE ENHANCEMENTS CONTRACT NO. NAT-201701/BROAD.DUNE

For Bids Due:	To: <u>DEPARTMENT OF NATURAL RESOURCES &amp;</u>
(Date)	ENVIRONMENTAL CONTROL
	98 Kings Highway
	Dover, DE 19901
Name of Bidder:	
Delaware Business License No.:	Taxpayer ID No.:
(A copy of Bidder's Delaware Busines	ss License must be attached to this form.)
(Other License Nos.):	
Phone No.: ( )	Fax No.: ( )
bid is made in accordance therewith, that local conditions under which the Work is systems and equipment described in the agrees to provide all labor, materials, pla	as read and understands the Bidding Documents and that this at he has visited the site and has familiarized himself with the sto be performed, and that his bid is based upon the materials Bidding Documents without exception, hereby proposes and ant, equipment, supplies, transport and other facilities required bresaid documents for the lump sum itemized below:
(\$	

## **BROADKILL BEACH DUNE ENHANCEMENTS**

## **BIDDING SCHEDULE**

<u>ITEM</u>	ESTIMATED QUANITY	<u>UNIT</u>	<u>UNIT PRICE</u>	BID AMOUNT
Pedestrian Crossovers (46 crossings)	62,100 SF	SF	\$	\$
Vehicular Crossovers (2 crossings)	4,045 SF	SF	\$	\$
Handicapped Crossove (1 crossing)	er 1,645 SF	SF	\$	\$
Post and Rail Fence	470 LF	LF	\$	\$
Sand Fence	12,960 LF	LF	\$	\$
Dune Grass	131,000 SY	SY	\$	\$

TOTAL BID AMOUNT

#### **ALTERNATES**

Alternate prices conform to applicable project specification section. Refer to specifications for a complete description of the following Alternates. An "ADD" or "DEDUCT" amount is indicated by the crossed out part that does not apply.

### **UNIT PRICES**

All unit prices must be the same as those listed in the above bidding schedule for each item.

Unit prices conform to applicable project specification section. Refer to the specifications for a complete description of the following Unit Prices:

		UNIT	ADD or DEDUCT UNIT PRICE
UNIT PRICE No. 1:	Pedestrian Dune Crossovers	SF	\$
UNIT PRICE No. 2:	Vehicular Dune Crossovers	SF	\$
UNIT PRICE No. 3:	Handicap Dune Crossovers	SF	\$
UNIT PRICE No. 4:	Post and Rail Fence	LF	\$
UNIT PRICE No. 5	Sand Fence	LF	\$
UNIT PRICE No. 6	Dune Grass	SY	\$

I/We acknowledge Addendums numbered \_\_\_\_\_ and the price(s) submitted include any cost/schedule impact they may have.

This bid shall remain valid and cannot be withdrawn for thirty (30) days from the date of opening of bids (60 days for School Districts and Department of Education), and the undersigned shall abide by the Bid Security forfeiture provisions. Bid Security is attached to this Bid.

The Owner shall have the right to reject any or all bids, and to waive any informality or irregularity in any bid received.

This bid is based upon work being accomplished by the Sub-Contractors named on the list attached to this bid.

Should I/We be awarded this contract, I/We pledge to achieve substantial completion of all the work within \_\_\_\_\_calendar days of the Notice to Proceed.

The undersigned represents and warrants that he has complied and shall comply with all requirements of local, state, and national laws; that no legal requirement has been or shall be violated in making or accepting this bid, in awarding the contract to him or in the prosecution of the work required; that the bid is legal and firm; that he has not, directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken action in restraint of free competitive bidding.

Upon receipt of written notice of the acceptance of this Bid, the Bidder shall, within twenty (20) calendar days, execute the agreement in the required form and deliver the Contract Bonds, and Insurance Certificates, required by the Contract Documents.

I am	/ We are an Indi	vidual / a Partne	rship / a Corpo	oration	
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ATTACHMENTS
Bid Security Sub-Contractor List Non-Collusion Statement Certification of Non-Segregated Facilities No Bid Reply Equality of Employment Opportunity Statement Affidavit(s) of Employee Drug Testing Program (Others as Required by Project Manuals)

## SECTION 3B 10% BID BOND TO ACCOMPANY PROPOSAL (NOT NECESSARY IF CERTIFIED CHECK IS USED)

## DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL BROADKILL BEACH DUNE ENHANCEMENTS CONTRACT NO. NAT-201701/BROAD.DUNE

KNOW ALL MEN BY THESE PRESEN	TS That				
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ofas surety, le	egally author	rized to do bus	siness in the S	State of	
Delaware, are held and firmly bound un	to the State	of Delaware in	n the sum of		_
dollars or percent (not to exceed		dollars) of	amount bid o	on Contract No.	
NAT-201701/BROAD.DUNE to be paid Department of Natural resources and Entof said State, for which payment well at each of our heirs, executors, administrate whole, firmly by these presents.	nvironmental nd truly to b	Control (here be made, we do	inafter referro o bind oursel	ed to as Agency lves, our and	7)
NOW THE CONDITION OF THIS OBIT who has submitted to said Agency of the certain contract to be known as <b>Contract</b> certain product and/or services within the <b>No. NAT-201701/BROAD.DUNE</b> and the terms of said contract and approved be into within twenty days after the date of terms of said proposal, then this obligation wirtue.	the State of t No. NAT- e said State furnish there y said Agen official notice	Delaware, a contract of Delaware should be such such such such contract of the award	certain propose AD.DUNE for all be award as most and said be thereof in acceptance.	sal to enter into or the furnishing led said Contra hay be required to be entered cordance with the said to be with the said to be entered to be said	a; a ct
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## SECTION 3C BID FORM

#### SUBCONTRACTOR LIST

## DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL BROADKILL BEACH DUNE ENHANCEMENTS CONTRACT NO. NAT-201701/BROAD.DUNE

In accordance with Title 29, Chapter 6962 (d) (l0)G <u>Delaware Code</u> the following sub-contractor listing must accompany the bid submittal. The name and address of the sub-contractor must be listed for each category where the bidder intends to use a sub-contractor to perform that category of work. In order to provide full disclosure and acceptance of the bid by the *Owner*, it is required that bidders list themselves as being the sub-contractor for all categories where he/she is qualified and intends to perform such work. Fill out this form with no additions or alterations and provide at the time of bid.

Each bidder shall include signed Affidavit(s) for the Bidder and each listed Subcontractor certifying compliance with OMB Regulation 4104- "Regulations for the Drug Testing of Contractor and Subcontractor Employees Working on "Large Public Works Projects." "Large Public Works" is based upon the current threshold required for bidding Public Works as set by the Purchasing and Contracting Advisory Council. Fill out this form with no additions or alterations and provide at the time of Bid.

SUBCONTRACTOR CATEGORY	,
	BUSINESS LICENSE NUMBER
	Name:
	Address:
	St. of DE Bus. Lic. #:
	Name:
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	Name:
	Address:
	St. of DE Bus. Lic. #:
	Name:
	Address:
	St. of DE Bus. Lic. #:
Signature	Date
THIS PAGE MUST BE SIGNED AND	NOTARIZED FOR YOUR BID TO BE CONSIDERED
SWORN TO AND SUBSCRIBED BEFO	ORE ME THISDAY OF, 2017.
NOTARY BUILDING	<u> </u>
NOTARY PUBLIC CITY of; COUNTY of	of; STATE of
BROADKILL BEACH DUNE ENHANCEM	ENTS



## SECTION 3D BID FORM NON-COLLUSION STATEMENT

## DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL BROADKILL BEACH DUNE ENHANCEMENTS CONTRACT NO. NAT-201701/BROAD.DUNE

This is to certify that the undersigned bidder has neither directly nor indirectly, entered into any agreement, participated in any collusion or otherwise taken any action in restraint of free competitive bidding in connection with this proposal submitted this date to DNREC - Division of Watershed Stewardship.

It is agreed by the undersigned bidder that the signed delivery of this bid represents the bidder's acceptance of the terms and conditions of this invitation to the bid including all specifications and special provisions.

NAME OF BIDDER SIGNATURE OF AUTHO REPRESENTATIVE TITLE	RIZED		<u> </u>
ADDRESS OF BIDDER			
PHONE NUMBER			
PURCHASE ORDERS SH	OULD BE SENT TO:		
COMPANY NAME			
ATTENTION OF:			
ADDRESS			
PHONE NUMBER			
FEDERAL I.D. NUMBER STATE OF DELAWARE I			
THIS PAGE MUST BE SIG	GNED AND NOTARIZI	ED FOR YOUR BID TO BE C	ONSIDERED
SWORN TO AND SUBSC	RIBED BEFORE ME T	HISDAY OF	, 2017.
NOTARY PUBLIC			
CITY of	; COUNTY of	; STATE of	



## SECTION 3E BID FORM CERTIFICATION OF NON-SEGREGATED FACILITIES

## DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL BROADKILL BEACH DUNE ENHANCEMENTS CONTRACT NO. NAT-201701/BROAD.DUNE

**NOTE:** Applicable to federally assisted construction contracts and related subcontracts exceeding \$10,000 which are not exempt from the Equal Opportunity clause.

The federally assisted construction contractor certifies that he does not maintain or provide for his employees any segregated facilities at any of his establishments, and that he does not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. The federally assisted construction contractor certifies further that he will not maintain or provide for his employees any segregated facilities at any of his establishments and that he will not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. The federally assisted construction contractor agrees that a breach of this certification is a violation of the Equal Opportunity clause in this contract. As used in this certification, the term "segregated facilities" means any waiting rooms work area, restrooms and washrooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, creed, color or national origin, because of habit, local custom or otherwise. The federally assisted construction contractor agrees that (except where he has obtained identical certifications from proposed contractors for specific time periods) he will obtain identical certifications from proposed subcontractors prior to the award of subcontractors exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity clause and that he will retain such certifications in his files

	Signature		Date	
NOTE:	The penalty for making false statem	nent in offers is p	prescribed in 18 U	S.C. 1001.
THIS PA	AGE MUST BE SIGNED AND NO	TARIZED FOR	YOUR BID TO I	BE CONSIDERED
SWORN	TO AND SUBSCRIBED BEFORE	E ME THIS	_DAY OF	, 2017.
NOTAR	Y PUBLIC			
CITY of	; COUNTY of		_; STATE of	



## SECTION 3F PURCHASING SECTION NO BID REPLY FORM

# DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL BROADKILL BEACH DUNE ENHANCEMENTS CONTRACT NO. NAT-201701/BROAD.DUNE

Contract No.	Bid Ti	Title
received an invitation	0 0	n on our Request for Bid, we ask that each firm that has n to bid, state their reason. This information will not to bid.
Unfortunately, we m	nust offer a "no Bid" at t	this time because:
1. V	We do not wish to partic	cipate in the bid process.
document. Our obje		under the terms and conditions of the Request for Bid
3. \	We do not feel we can b	be competitive.
Firm Name		
Signature		
We v	wish to remain on the B	Bidder's List.
We v	wish to be deleted from	the Bidder's List



## SECTION 3G BID FORM EQUALITY OF EMPLOYMENT OPPORTUNITY STATEMENT

## DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL BROADKILL BEACH DUNE ENHANCEMENTS CONTRACT NO. NAT-201701/BROAD.DUNE

- 2) § 6962 (b7) Equality of Employment opportunity on public works.
- a) As a condition to the awarding of any contract for public works financed in whole or in part by state appropriation all state contracting agencies shall include in every contract hereinafter entered into the following provisions:

"During the performance of this contract, the Contractor agrees as follows:

- (1) The Contractor will not discriminate against any employee or applicant for employment because of race, creed, color, sex 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, creed color, sex or national origin. Such action shall include, but not 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 notices to be approved by the contracting agency setting forth 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, creed, color, sex or national origin.
- b) The term "contract for public works" means construction, reconstruction, demolition, alteration and repair work and maintenance work paid for in whole or in part out of the funds of a public body except work performed under a vocational rehabilitation program. The manufacturing or furnishing of materials, articles, supplies or equipment is not a public work within the meaning of this subsection unless conducted in connection with and at the site of the public work.
- c) The Secretary of the Department of Labor shall be responsible for the administration of this section and shall adopt such rules and regulations and issue such orders as he deems necessary to achieve the purposes thereof, provided that no requirement established hereby shall be in conflict with § 6904 of this title. (29 Del. C. 1953, § 6921; 58 Del. Laws, C. 370, §1)

It is agreed by the undersigned bidder that the signed delivery of this bid represents the bidder's acceptance of the terms and conditions of the invitation to bid including all specifications and special provisions.

NAME OF BIDDER			
SIGNATURE OF AUTI REPRESENTATIVE	HORIZED		
TITLE			
ADDRESS OF BIDDER			
PHONE NUMBER			
PURCHASE ORDERS	SHOULD BE SENT TO:		
ADDRESS			
CONTACT			
PHONE NUMBER			
FEDERAL E.I. NUMBI	ER		
STATE OF DELAWAR	E LICENSE NUMBER		
THIS PAGE MUST BE	SIGNED AND NOTARIZED	FOR YOUR BID TO BE	CONSIDERED
SWORN TO AND SUB	SCRIBED BEFORE ME THIS	DAY OF	, 2017.
NOTARY PUBLIC			
	; COUNTY of	; STATE of	

### SECTION 3H BID FORM AFFIDAVIT OF EMPLOYEE DRUG TESTING PROGRAM

## DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL BROADKILL BEACH DUNE ENHANCEMENTS CONTRACT NO. NAT-201701/BROAD.DUNE

4104 Regulations for the Drug Testing of Contractor and Subcontractor Employees Working on Large Public Works Projects requires that Contractors and Subcontractors implement a program of mandatory drug testing for Employees who work on Large Public Works Contracts funded all or in part with public funds.

We hereby certify that we have in place or will implement during the entire term of the contract a Mandatory Drug Testing Program for our employees on the jobsite that complies with this regulation:

Contractor/Subcontra	ctor Name:			
Contractor/Subcontra	ctor Address:			
Authorized Representa	ative:			
•		(typed or print		
Authorized Representa	ative:			
		(signature)		
Title:				
THIS PAGE MUST BI	E SIGNED AND NO	OTARIZED FO	R YOUR BID TO BE C	ONSIDERED
SWORN TO AND SU	BSCRIBED BEFOR	RE ME THIS_	DAY OF	, 2017.
		_		
NOTARY PUBLIC				
CITY of	; COUNTY of	•	; STATE of	



### THESE SECTIONS TO BE COMPLETED BY SUCCESSFUL BIDDER AFTER NOTICE OF AWARD



#### SECTION 3I PERFORMANCE BOND

## DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL BROADKILL BEACH DUNE ENHANCEMENTS CONTRACT NO. NAT-201701/BROAD.DUNE

KNOW ALL MEN	N BY THESE PRESE	ENTS THAT:			of
i1	N BY THESE PRESE on the County of	and tl	he State of	as su	rety,
legally authorized to do	business in the State of	Delaware, are	held and firmly	bound unto the Sta	ate of
Delaware in the sum of percent (not to exceed	• 	dollars	(\$	) or	
percent (not to exceed	d	dollars) of a	mount bid on	Contract No. N	JAT-
201701/BROAD.DUNF	E to be paid to the sa	id State of De	elaware for the	use and benefit o	f the
Department of Natural F				•	
made, we do bind oursel	· ·	•			ssors
and assigns, jointly and	severally for and in the	whole firmly b	by these present	S.	
NOW THE CONDI	TION OF THIS OBL	IGATION IS	SUCH that if t	he said above bou	nded
principal	who has been	awarded by the	e Department of	f Natural Resources	s and
Environmental Control,					
201701/BROAD.DUNE	E, and dated the	day of _		in the year of our	Lord
two thousand and seve					
Delaware, shall well and					
the work and labor requ					
NAT-201701/BROAD.					
shall also indemnify and	-			1	
Resources and Environr		,		0	
reason of the work not in					
at the time under said C					
and truly pay all and ever					
all and every sum or sun which the contractor is l	•	•			
and virtue.	nable, then this obligati	ion shan de vo	id of else to be	and itiliani in fun	TOICE
	D DELIVEDED IN		C	armarata Caal	
SIGNED, SEALED AN THE PRESENCE OF	D DELIVERED IN		C	orporate Seal	
THE TRESENCE OF					
BY		Tr: 41			
THE DACE MIET D	E CICNED AND NOT	Title	NOUD DID T	O DE CONCIDEI	DED
THIS PAGE MUST BI Sworn to and sui					
SWORN TO AND SUI	DOCKIDED DEPORE	IVIL TIIIO	DAT OF	, ∠	01/.
NOTARY PUBLIC					
CITY of	· COUNTY of		· STATE of		
	,		, 5 1111111111111111111111111111111		_



#### SECTION 3J PAYMENT BOND

## DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL BROADKILL BEACH DUNE ENHANCEMENTS CONTRACT NO. NAT-201701/BROAD.DUNE

Bond Numb	er:
KNOW ALL PERSONS BY THESE PRESENTS, that we _	
principal ( <b>Principal),</b> and	, a
principal ( <b>Principal</b> ), and	
("Owner") (insert State agency name), in the amount of	(\$),
to be paid to <b>Owner</b> , for which payment well and truly to be meach and every of our heirs, executors, administrations, successo for and in the whole firmly by these presents.	nade, we do bind ourselves, our and
Sealed with our seals and dated this day of	, 20
NOW THE CONDITION OF THIS OBLIGATION IS SUCT awarded by <b>Owner</b> that certain contract known as <b>Contract No.</b> If theday of, 20 (the "Contract"), we by reference, shall well and truly pay all and every person furnish service in and about the performance of the work under the Contract him, her, them or any of them, for all such materials, labor and shall make good and reimburse <b>Owner</b> sufficient funds to pay Contract as <b>Owner</b> may sustain by reason of any failure or defau	NAT-201701/BROAD.DUNE dated which Contract is incorporated herein ning materials or performing labor or act, all and every sums of money due service for which <b>Principal</b> is liable, such costs in the completion of the alt on the part of <b>Principal</b> and shall
also indemnify and save harmless <b>Owner</b> from all costs, damag reason of the performance of the Contract and for as long as obligation shall be void, otherwise to be and remain in full force	provided by the Contract; then this
oungainen shan oc void, ounci wise to oc and icinalli ill full folce	and cricci.

**Surety**, for value received, for itself and its successors and assigns, hereby stipulates and agrees that the obligation of **Surety** and its bond shall be in no way impaired or affected by an extension of time, modification, omission, addition or change in or to the Contract or the work to be performed thereunder, or by any payment thereunder before the time required therein, or by any waiver of any provisions thereof, or by any assignment, subletting or other transfer thereof or of any work to be performed or any monies due or to become due thereunder; and **Surety** hereby waives notice of any and all such extensions, modifications, omissions, additions, changes, payments, waivers, things done and omitted to be done by and in relation to assignees, subcontractors, and other transferees shall have the same effect as to **Surety** as though done or omitted to be done by or in relation to **Principal**.

**Surety** hereby stipulates and agrees that no modifications, omission or additions in or to the terms of the Contract shall in any way whatsoever affect the obligation of **Surety** and its bond.

Any proceeding, legal or equitable, under this Bond may be brought in any court of competent jurisdiction in the State of Delaware. Notices to **Surety** or Contractor may be mailed or delivered to them at their respective addresses shown below.

IN WITHNESS WHEREOF, **Principal** and **Surety** have hereunto set their hand and seals, and such of them as are corporations have caused their corporate seal to be hereto affixed and these presents to be signed by their duly authorized officers, the day and year first above written.

	PRINCIPAL	
	Name:	
Witness or Attest: Address:		
	By:	(SEAL)
Name	Name:	
(0, 1)	Title:	
(Corporate Seal)	SURETY	
	Name:	
Witness or Attest: Address:		
	By:	(SEAL)
Name	Name:	
	Title:	
(Corporate Seal)		

#### SECTION 3K CONTRACT DOCUMENT

**FOR** 

## DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL BROADKILL BEACH DUNE ENHANCEMENTS CONTRACT NO. NAT-201701/BROAD.DUNE

THIS AGREEMENT, made and executed this	day c	of	, 2017, by and
between		(Hereinafter	designated as
Contractor) party of the first part, and the Department o	f Natural	Resources and	Environmental
Control, a Department created under the laws of the State	e of Delay	ware (hereinafter	r designated as
Department) party of the second part.			

WITNESSETH that the Contractor, in consideration of the covenants and agreements herein contained and made by the Department, agrees to the following:

ARTICLE ONE. The Contractor shall will provide and furnish all the material, supplies, machinery, implements, appliances, tools and labor required to complete this contract in Kent County, State of Delaware, as shown and specified in the specifications, proposals, drawings or plans as indicated in the project manual issued for the Department, which specifications, proposals, drawings or plans entitled **BROADKILL BEACH DUNE ENHANCEMENTS CONTRACT NO. NAT-201701/BROAD.DUNE** is hereby incorporated by reference as part of this contract. This contract will be binding on both parties upon receipt by the Contractor of an approved State of Delaware Purchase Order. The Contractor must prosecute the work in such order as to complete the construction of pedestrian, vehicular, and handicap crossovers, the erection of sand fence, the erection of post and rail fence, and the planting and seeding of dune grass no later than April 1, 2018.

CONTRACT DOCUMENT (CONTINUED)

IN WITNESS WHEREOF, the said parties have duly executed this agreement in triplicate the day and year first above written.

	Contractor	
P	SV.	
Witness	Title	
State of		
Sworn and subscribed before me the	nis day of	, 2017.
	Notary Public	
IN WITNESS WHEREOF, the parties day of, 2017.	below have hereunto set the	neir hands on
Witness	Project Manager Division of Watershed S	Stewardship
State of		
State ofCounty of		
Sworn and subscribed before me this _	day of	, 2017.

#### CONTRACT DOCUMENT (CONTINUED)

Witness	Director, Division of Watershed Stewardship
State ofCounty of	
Sworn and subscribed before me this _	day of, 2017.
	Notary Public
Witness	Secretary, Department of Natural Resources & Environmental Control
State of	
	his, 201



# APPENDIX 1 PAYROLL REPORT SAMPLE



PAYROLL REPORT  NAME OF CONTRACTOR OR SUBCONTE	RACTOR			DIA	A-Offic 425 N	e of La . Mark	bor Lat et Stre	e <b>nt of</b> w Enfo et-3rd	rcemer Floor			ADDRESS								
					Wi		on, DE 761-83	E 19802	2			PHONE:								
PROJECT AND LOCATION		WEE	K END	ING DA	TE			RACT N	UMBEI	3		DATE OF PR	EVAILI	NG WAC	SE DETE	ERMINA	TION US	SED ON THI	S PROJECT:	
NAME, ADDRESS AND	WORK			DAY	& DAT	E & H	OURS	WORK	ED EA	CH DAY		GROSS		DE	DUCTIO	ONS		NET	HOURLY	
SOCIAL SECURITY NUMBER OF EMPLOYEE	CLASSIFICATION		3.6	T.	***	T.	Б	C	G	RATE O	F PAY	AMOUNT EARNED						WAGES PAID	VALUE OF FRINGES	
		a	M	Т	W	Т	F	S	S	HOURS	RATE		FICA	FWT	SWT					
		S																		
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		S																		
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		S																		
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		S																		
7		О																		
7.		S																		
8.		О																		

TE	List only those fringe benefits:					
I,(Name of signatory party) (Title)	For which the employer has paid; and Which have been used to offset the full prevailing wage rate.					
do hereby state:	(See Delaware Prevailing Wage Regulations for explanation of how hourly value of					
That I pay or supervise the payment of persons employed by	benefits is the be computed.)					
on the	HOURLY COST OF BENEFITS					
(Contractor or Subcontractor)	(List in same order shown on front of record)					
(public project)	Employee					
that during the payroll period commencing on theday of	1.					
, 20and ending on theday of	2.					
	3.					
have been paid the full weekly wages earned, that no rebates have been or will be made	4.					
either directly or indirectly to or on behalf of the contractor or subcontractor from the full weekly wages earned by any person and that no deductions have been made either directly	5.					
or indirectly from the full wages earned by any person, other than permissible deductions as defined in the prevailing wage regulations of the State of Delaware.	6.					
That any payrolls otherwise under this contract required to be submitted for the above	7.					
period are correct and complete; that the wage rates for laborers or mechanics contained therein are not less than applicable wage rates contained in any wage determination	8.					
incorporated into the contract; that the classifications set forth therein for each laborer or mechanic conform with the work performed.	I hereby certify that the foregoing information is true and correct to the best of m					
That any apprentices employed in the above period are duly registered in a bona fide	knowledge and belief. I realize that making a false statement under oath is a crime in State of Delaware					
apprenticeship program registered with a state apprenticeship agency recognized by the Bureau of Apprenticeship and Training, United States Department of Labor, and that the						
worksite ratio of apprentices to mechanics does not exceed the ratio permitted by the prevailing wage regulations of the State of Delaware.	Signature					
	STATE OF					

SWORN TO AND SUBSCRIBED BEFORE ME, A NOTARY PUBLIC,

THIS\_\_\_\_\_\_, A.D. 20\_\_\_\_\_.

Notary Public

An employer who fails to submit sworn payroll information to the Department of Labor weekly shall be subject to fines of \$1,000.00 and \$5,000. for each violation.

# APPENDIX 2 PREVAILING WAGE RATE DETERMINATION



## STATE OF DELAWARE DEPARTMENT OF LABOR DIVISION OF INDUSTRIAL AFFAIRS OFFICE OF LABOR LAW ENFORCEMENT

PHONE: (302) 451-3423

Mailing Address: 225 CORPORATE BOULEVARD SUITE 104 NEWARK, DE 19702 Located at: 225 CORPORATE BOULEVARD SUITE 104 NEWARK, DE 19702

PREVAILING WAGES FOR HEAVY CONSTRUCTION EFFECTIVE MARCH 15, 2017

CLASSIFICATION	NEW CASTLE	KENT	SUSSEX		
ASBESTOS WORKERS	22.10	19.44	42.27		
BOILERMAKERS	77.62	32.12	58.92		
BRICKLAYERS	47.02	23.20	24.91		
CARPENTERS	53.81	53.81	42.77		
CEMENT FINISHERS	43.59	24.35	18.14		
ELECTRICAL LINE WORKERS	73.65	28.24	64.65		
ELECTRICIANS	66.85	66.85	66.85		
GLAZIERS	20.42	17.73	12.00		
INSULATORS	55.48	55.48	55.48		
IRON WORKERS	60.95	60.95	58.31		
LABORERS	44.70	44.70	44.70		
MILLWRIGHTS	69.18	69.18	55.75		
PAINTERS	79.76	79.76	79.76		
PILEDRIVERS	75.27	39.35	30.63		
PLASTERERS	19.23	16.70	11.29		
PLUMBERS/PIPEFITTERS/STEAMFITTERS	82.03	77.84	17.89		
POWER EQUIPMENT OPERATORS	67.29	62.96	67.29		
SHEET METAL WORKERS	30.73	19.06	17.90		
SPRINKLER FITTERS	33.11	12.54	10.38		
TRUCK DRIVERS	31.96	20.02	22.27		

CERTIFIED 03/24/2017

BY:

ADMINISTRATOR, OFFICE OF LABOR LAW ENFORCEMENT

NOTE: THESE RATES ARE PROMULGATED AND ENFORCED PURSUANT TO THE PREVAILING WAGE REGULATIONS ADOPTED BY THE DEPARTMENT OF LABOR ON APRIL 3, 1992.

CLASSIFICATIONS OF WORKERS ARE DETERMINED BY THE DEPARTMENT OF LABOR. FOR ASSISTANCE IN CLASSIFYING WORKERS, OR FOR A COPY OF THE REGULATIONS OR CLASSIFICATIONS, PHONE  $(302)\ 451-3423$ .

NON-REGISTERED APPRENTICES MUST BE PAID THE MECHANIC'S RATE.

PROJECT: NAT201701 Broad.Dune Broadkill Beach Dune Enhancements- Dune Grass Planting Sand Fencing and Post and Rail Fence, Sussex County

#### STATE OF DELAWARE DEPARTMENT OF LABOR DIVISION OF INDUSTRIAL AFFAIRS OFFICE OF LABOR LAW ENFORCEMENT

PHONE: (302) 451-3423

Mailing Address: 225 CORPORATE BOULEVARD SUITE 104 NEWARK, DE 19702

Located at: 225 CORPORATE BOULEVARD SUITE 104 NEWARK, DE 19702

#### PREVAILING WAGES FOR HIGHWAY CONSTRUCTION EFFECTIVE MARCH 15, 2017

CLASSIFICATION	NEW CASTLE	KENT	SUSSEX
BRICKLAYERS	51.99	51.99	15.17
CARPENTERS	53.48	53.81	42.77
CEMENT FINISHERS	33.91	34.12	27.13
ELECTRICAL LINE WORKERS	23.52	45.39	22.22
ELECTRICIANS	66.85	66.85	66.85
IRON WORKERS	62.35	24.95	26.50
LABORERS	43.30	39.85	39.12
MILLWRIGHTS	16.84	16.34	14.11
PAINTERS	67.07	67.07	67.07
PILEDRIVERS	69.44	24.83	28.17
POWER EQUIPMENT OPERATORS	42.91	41.41	37.92
SHEET METAL WORKERS	23.79	21.23	19.23
TRUCK DRIVERS	35.73	29.57	35.95

BY:

ADMINISTRATOR, OFFICE OF

LABOR LAW ENFORCEMENT

NOTE:

THESE RATES ARE PROMULGATED AND ENFORCED PURSUANT TO THE PREVAILING WAGE REGULATIONS ADOPTED BY THE DEPARTMENT OF LABOR ON APRIL 3, 1992.

CLASSIFICATIONS OF WORKERS ARE DETERMINED BY THE DEPARTMENT OF LABOR. FOR ASSISTANCE IN CLASSIFYING WORKERS, OR FOR A COPY OF THE REGULATIONS OR CLASSIFICATIONS, PHONE (302) 451-3423.

NON-REGISTERED APPRENTICES MUST BE PAID THE MECHANIC'S RATE.

PROJECT: NAT201701 Broad.Dune Broadkill Beach Dune Enhancements- Pedestrian Crossover ADA Crossover and Vehicle Crossover, Sussex County

# APPENDIX 3 EMPLOYEE DRUG TESTING REPORT FORMS



#### EMPLOYEE DRUG TESTING REPORT FORM

Period Ending:
4104 Regulations for the Drug Testing of Contractor and Subcontractor Employees Working on Large Public Works Projects requires that Contractors and Subcontractors who work on Large Public Works Contracts funded all or in part with public funds submit Testing Report Forms to the Owner no less han quarterly.
Project Number:
Project Name:
Contractor/Subcontractor Name:
Contractor/Subcontractor Address:
Number of employees who worked on the jobsite during the report period:
Number of Negative Results Number of Positive Results
Action taken on employee(s) in response to a failed or positive random test:
Authorized Representative of Contractor/Subcontractor:
Authorized Representative of Contractor/Subcontractor:
Date:



### EMPLOYEE DRUG TESTING REPORT OF POSITIVE RESULTS

4104 Regulations for the Drug Testing of Contractor and Subcontractor Employees Working on Large Public Works Projects requires that Contractors and Subcontractors who work on Large Public Works Contracts funded all or in part with public funds to notify the Owner in writing of a positive random drug test.

Project Number:	
Project Name:	
Contractor/Subcontractor Name:	
Contractor/Subcontractor Address:	
Name of employee with positive test result:	
Last 4 digits of employee SSN:	
Date test results received:	
Action taken on employee in response to a positive test result:	
Authorized Representative of Contractor/Subcontractor:	(4 1 : 4 N
Authorized Representative of Contractor/Subcontractor:	(signature)
Date:	

This form shall be sent by mail to the Owner within 24 hours of receipt of test results.

Enclose this test results form in a sealed envelope with the notation "Drug Testing Form – DO NOT OPEN" on the face thereof and place in a separate mailing envelope.

