

COUNTY OF UNION

DEPARTMENT OF ENGINEERING, PUBLIC WORKS & FACILITIES MANAGEMENT
Joseph A. Graziano Sr., Director

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THOMAS O. MINEO, P.E.
*County Engineer,
Director, Division of
Engineering*

MEMO TO: TO ALL POTENTIAL BIDDERS

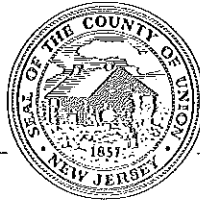
FROM: Thomas O. Mineo, P.E., County Engineer

DATE: October 16, 2015

**RE: CLARIFICATION NUMBER 1
ARTIFICIAL TURF FIELD AT MATTANO PARK
CITY OF ELIZABETH, COUNTY OF UNION, NEW JERSEY
BA#62-2015; UC ENGINEERING PROJECT #2011-018**

- Q.1: In Specification Section Sports Field Lighting Rehabilitation 1.1.G "Work includes Full re-lamp of 72 fixtures; Fine tune and adjust aiming as needed to meet uniformities as originally designed; Final light tests to document system performance. Replacement of ballast, capacitors and fuses to achieve 100% system operation." It is impossible to tell if the poles need new ballast, capacitors and/or wiring repairs--our quote will only include relamping, re-aiming & cleaning of all fixtures as outlined in specs. How should we handle pricing if additional components, ballast, capacitors, wiring harness' & lenses need to be replaced? These item quantities will have to evaluated after trouble shooting & relamping.
- R: ***The contractor should assume that 35% of the ballasts, capacitors and fuses will be required to be replaced.***
- Q.2: There is a note in the specs under quantity & payment for the sports lighting stating inspections for footings & foundations, electrification design & drawings. This statement is very vague and needs to be clarified of the contractors responsibility. Do we need to get an engineer for re-design & drawings & to sign off on the footing & foundation integrity?
- R: ***The contractor will not be responsible for footings and foundations since it is an existing field lighting system that is being renovated. The Contractor is responsible for any electrical drawings that may be required for permits.***

DIVISION OF ENGINEERING



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*County Engineer,
Director, Division of
Engineering*

MEMO TO: TO ALL POTENTIAL BIDDERS

FROM: Thomas O. Mineo, P.E.
County Engineer

Tom M

DATE: October 16, 2015

**RE: ADDENDUM NUMBER 1
ARTIFICIAL TURF FIELD AT MATTANO PARK
CITY OF ELIZABETH, COUNTY OF UNION, NEW JERSEY
BA#62-2015; UC ENGINEERING PROJECT #2011-018**

Attached is Addendum No. 1 for the above referenced project. Please sign the Acknowledgement of Addendum form and include it in your bid packet submission.

DIVISION OF ENGINEERING

Bidder's Name: _____

ACKNOWLEDGMENT OF ADDENDUM

ADDENDUM NUMBER 1

October 16, 2015

COUNTY OF UNION

ARTIFICIAL TURF FIELD AT MATTANO PARK
CITY OF ELIZABETH, COUNTY OF UNION, NJ

BA#62-2015
UC ENGINEERING PROJECT #2011-018

(Name of Construction /Public Works Project)

(Project or Bid Number)

Pursuant to N.J.S.A. 40A:11-23.1a., the undersigned bidder, hereby acknowledges receipt of the following notices, revisions, or addenda to the bid advertisement, specifications or bid documents. By indicating date of receipt, bidder acknowledges the submitted bid takes into account the provisions of the notice, revision or addendum. Note that the County of Union's record of notice to bidders shall take precedence and that failure to include provisions of changes in a bid proposal may be subject for rejection of the bid.

Local Unit Reference Number or Title of Addendum/Revision	How Received (mail, fax, pick-up, etc.)	Date Received
<u>ADDENDUM NUMBER 1:</u> Replace Technical Specifications – "Synthetic Turf" Pages 28 through 36 with the attached revised Technical Specifications – "Synthetic Turf" pages 28 through 36 denoted as "Addendum #1 10/16/15".		

ACKNOWLEDGMENT BY BIDDER:

NAME OF BIDDER: _____

ORIGINAL SIGNATURE: _____

PRINTED NAME AND TITLE: _____

DATE: _____

SYNTHETIC TURF

Description

- A. The synthetic turf shall be super premium high performance synthetic grass that simulates real grass in every imaginable way. It shall be engineered for consistent performance and durability, as well as improved traction, impact absorption and ball movement. The work include furnishing all labor, materials, tools and equipment necessary to install, in place, a synthetic turf system. The installation of all new materials shall be performed in strict accordance with the manufacturers written installation instructions, and in accordance with all approved shop drawings.

The bid shall include all work necessary to construct the multi-sport synthetic turf field with underdrain system which includes the complete removal and disposal of the existing natural turf field, and all excavation and disposal of topsoil and materials, rough and final grading, vibratory compaction, geotextile fabrics, underdrains, collector pipes, header pipes, clean stone, earthwork, concrete header curb, artificial turf system with pad, inlaid and tufted line striping, field markings, site construction photographs and any other item required to construct a complete turf field cross section as per the contract documents which shall include the furnishing of all materials, labor and equipment and all else necessary therefore and incidental thereto.

Submittals

- A. The following documents shall be provided to verify product quality, performance and installation procedures as well as for the evaluation of compliance with these specifications. The proposer shall provide written certification of 3rd party ASTM product test results listed in this specification for the synthetic turf system proposed. **Items B, D, E, F, G, I, K with bid submittal.** All other items within 10 days of contract award.
- B. Product Data: Include full specification cut sheets of the products specified and third party certified ASTM testing showing compliance with the published specifications with the bid submittal. The Proposer shall also provide documentation as to the sources of the component materials and relates characteristics.
- C. Shop Drawings: Show fabrication and installation details for synthetic turf. Drawing shall be in color and include the layout of all sports lines including those to be painted on to verify layout and compliance to specification.
- D. Samples for Verification: For the following products, in manufacturer's standard sizes.
- 1) A 12-inch x 12-inch, minimum sample of the exact synthetic turf proposed for this project.
underlayment pad system that is specified for this project.
 - 2) A 2.5 lbs sample of the exact infill (silica sand) to be utilized for this project.

- 3) A 12" x 12" sample of the exact underlayment pad to be utilized for this project.
- E. Manufacturer Certificates: The turf manufacturer shall have a certified list of Fifteen (15) existing synthetic turf system installations utilizing both a polyethylene face fiber & and nylon or polyethylene secondary fiber within the last three years, including Owner representative and telephone number, attesting compliance with quality assurance information. All must be located in areas of similar climate as this project location and have a minimum of 52 oz/sy of fiber face weight.
- F. Qualification Data: The turf manufacturer must have 15 installations of 80,000 square feet or more of this specific type nylon or polyethylene secondary fiber & polyethylene face fiber all being located in the Continental United States in locations similar in climate to this project location.
- G. Synthetic turf system shall be approved as ADA Handicap Accessible as determined by Test Method - ASTM 1951-99 (Standard Specification for determination of accessibility of surface under and around playground equipment. Proof of passing test must be submitted with bid.
- H. Warranties: The Contractor shall provide the following warranties for all system components.
- I. Synthetic Turf
1. Full term Manufacturer's Warranty and proof of a third party insurer that guarantees usability and playability on a non-prorated basis. Warranty will cover all materials, workmanship and entire system performance for a minimum of 8 years from the date of substantial completion. The turf manufacturer must verify that their representative has inspected the installation and that the work conforms to the manufacturer's requirements. The warranty shall specifically exclude vandalism, and acts of God beyond the control of the Owner or the manufacturer. The warranty shall be fully third party insured pre-paid for the entire term and be non-prorated. Prior to final payment for the synthetic turf, the Contractor shall submit to the Owner an insurance policy, guaranteeing the warranty to the Owner:
 - a. The insurance must reflect the following values:
 - i. Must provide coverage for \$7 million dollars per claim of total installed turf for removal, disposal and replacement of new synthetic turf.
 - ii. Must have a minimum of a \$15 million dollar annual aggregate towards repairs/replacements in a given policy year. The annual aggregate shall be applied only to policies executed in the 12 month policy window. Every annual policy year, another \$15 million worth of annual aggregate shall be set aside for the policies executed in that policy year.

- iii. Must cover full 100% removal and replacement value of the total square footage installed. Minimum of \$10/SF replacement value towards the replacement and installation of a new synthetic turf system.
- iv. The annual aggregate shall be applied only to policies executed in the 12 month policy window. The same annual aggregate from previous policy years cannot be utilized for the current policy year.
- v. Must warrant that the materials installed meet or exceed the product specifications.
- vi. Must have a provision to repair or replace such portions of the installed materials that are no longer serviceable toward maintaining a serviceable playing field.
- vii. No deductible shall apply to the owner.
- viii. Shall cover general wear, color fading and damage caused from UV degradation.
- ix. Shall provide coverage stating that the length and weight of the pile shall not decrease by more than 10% per year in accordance with ASTM D418. nor exceed 50% during the life of the warranty.
- x. Shall cover defects in the installation workmanship, and further warrant that the installation was done in accordance with both the manufacturer's recommendations and any written directives of the manufacturer's representative.
- xi. Shall provide that G-MAX values for all points of sampling and testing as determined and set forth using ASTM F355 protocols and additional requirements of the warranty shall be between 100 and 150 G's upon installation and shall not exceed 180 G's during the life of the warranty. Any one annual increase shall not exceed 5%.
- xii. Fabric seams shall remain attached and shall not become unattached or separate during the life of the warranty. All heat welded lines, numbers, logos etc shall remain attached and shall not become unattached or separate during the life of the warranty.
- xiii. Sample copy of the manufacturer's warranty & 3rd party insurance policy must be submitted with the bid.
- xiv. Must not limit the number of hours used annually.

2. Underlayment Pad

- a. Term length – 16 years

- b. Must carry the provision that the warranty will include the replacement of the synthetic turf carpet system should a replacement be necessary due to the underlayment pad.
 - c. Must include a copy of the manufacturer's warranty with the bid submission.
- J. Operational and Maintenance Data: Submit manufacturer's data in a three ring binder, labeled and indexed. Describe at a minimum recommended maintenance procedures, recommended frequency of each maintenance procedure and manpower to accomplish each required maintenance procedure. Provide statements and documentation for protocols for assessments of surface resilience, flammability and restoration. Provide statements and documentation for protocols for surface cleaning of fluid spills, animal waste, pathogens, vandalism, food and debris. Contractor shall provide training of County personnel on all maintenance requirements as scheduled by the Owner. Contractor shall be available for consultation should issues arrive after construction is complete.
- K. Installer Qualifications: The installation crew shall be a certified representative of the synthetic turf manufacturer for installation and maintenance of units required for this Project and shall consist of one lead installer with a minimum of 15 infill synthetic turf installations and two installers with a minimum of 10 infill synthetic turf installations. Installation foreman shall have the experience of 5 fields of synthetic turf with an underlayment resilient pad. Proof of a manufacturer's certified crew and meeting experience qualifications must be with bid.
- L. The synthetic turf company and Manufacturer (if different than specified manufacturer) shall specify in writing that their turf system does not violate any other manufacturers patents, patents allowed or patents pending.

Manufacturers

"Not Used" – The phrase means no manufacturer is specified. Bidders are directed to provide a manufacturer which meets the specification requirements for the material.

Materials

- A. Synthetic Turf System: A complete synthetic turf system consisting of a minimum of 1.25" tall blade with a combination of polyethylene slit-film fiber & and shorter texturized nylon or polyethylene monofilament thatch fiber tufted to a minimum three-part woven backing primary backing. A mechanically applied adhesive secondary backing is then added. The polyethylene face fiber shall be a minimum 8,000 denier and secondary fiber shall be 6,000 denier. The fiber shall be specifically designed to virtually eliminate abrasion.

The synthetic turf shall be as described below.

- B. Synthetic Turf: A complete synthetic grass system consisting of polyethylene slit-film fiber with a shorter texturized nylon or polyethylene monofilament thatch fiber tufted to a

minimum three-part woven backing primary backing and a mechanically applied adhesive secondary backing.

- a. The fiber shall be a minimum of 8,000 denier (polyethylene) and 6,000 denier (secondary nylon or polyethylene fiber) (in accordance with ASTM D1907) low friction fiber, measuring minimum 1 ¼" inches high (in accordance with ASTM D5848).
 - b. The low friction fiber shall be specifically designed to virtually eliminate abrasion. The carpet shall be delivered in 15 feet wide rolls. The rolls shall be of sufficient length to go from track edge to track edge. Head seams, other than at sidelines, will not be acceptable.
 - c. Perimeter edge details required for the system shall be as detailed and recommended by the manufacturer. All of the above field markings and lines of the various kinds shall be approved by the owner in writing before ordering the synthetic turf materials.
 - d. Infill shall be only washed, rounded silica sand. Minimum of 2.5 lbs/sf.
- C. Underlayment Pad: A 14 mm polypropylene pad shall be installed under the synthetic turf system.
- a. Thickness – 14 mm minimum
 - b. Size – 3' x 5' panels (rolled products are not acceptable).
 - c. Warranty length – 16 years
 - i. Must carry the provision that the warranty will include the replacement of the synthetic turf carpet system should a replacement be necessary due to the underlayment pad.
 - d. Product – Brock SP14 or approved equal. All equals must be reviewed post bid for acceptance.

The synthetic turf product shall meet all physical characteristics as tested in accordance with ASTM F1551, "Standard Test Methods for Comprehensive Characterization of Synthetic Turf Playing Surfaces and Materials" including but not limited to the following:

1. GMAX values between 100 and 150 G's upon installation in accordance with ASTM F355.
2. Fabric breaking strength of an average of 200 lbs force for both length and width in accordance with ASTM 5034.
3. Tuft bind force resistance of 8 pounds minimum in accordance with ASTM D1335.
4. Pile height of a minimum of 1 ¼" inches in accordance with ASTM D5823.
5. Pile weight of a minimum of 80 ounces per square yard permeable double-layered primary backing weight of a minimum of 6.5 ounces per square yard. Porous

secondary backing applied at a minimum rate of 20 ounces per square yard for a total weight of a minimum of 106.5 ounces per square yard in accordance with ASTM D5848.

6. Stitch rate of 4.6 spi and a gauge within the range of 3/16"-1/4" in accordance with ASTM D5793.
7. Ribbon breaking strength of a minimum of 20 pounds force in accordance with ASTM D2256.
8. Melting point for the polyethylene fiber greater than or equal to 200°F in accordance with ASTM D789.

Quality Assurance

A. Installer Qualifications: The installation crew shall be an authorized representative of synthetic turf manufacturer for installation and maintenance of units required for this Project and shall consist of one lead installer with a minimum of 15 infill synthetic turf installations and two installers with a minimum of 10 infill synthetic turf installations. Installation foreman shall have the experience of 10 fields of synthetic turf and an underlayment pad.

B. Source Limitations: Obtain synthetic turf through one source from a single manufacturer.

C. Preinstallation Conference: No turf installation shall commence until a formal pre-installation conference is held with the contractor, engineer, and County personnel.

D. All components and their installation method shall be designed and manufactured for use on outdoor athletic fields. The materials as hereinafter specified, should be able to withstand full climatic exposure in Northern NJ, be resistant to insect infestation, rot, fungus and mildew; to ultra-violet light and heat degradation, and shall have the basic characteristic of flow through drainage allowing free movement of surface run-off through turf and directly into the prepared granular base and into the field drainage system.

E. The synthetic turf and all components shall be of national reputation with previous use at all levels of competition, including professional and collegiate levels and shall have been in use for a period of not less than 5 years. The turf fabric shall be produced by the manufacturer and installed by factory-authorized distributors directly employing the installation crew.

F. With the bid, the synthetic turf company and Manufacturer (if different than specified manufacturer) shall specify in writing that their turf system does not violate any other manufacturers patents, patents allowed or patents pending.

G. Since the base preparation and construction is an integral part of the synthetic turf system, the manufacturer/ installer of the synthetic turf shall supervise construction and inspect the subbase and supply a Certificate of Sub-base Acceptance for the purpose of obtaining manufacturer's warranty for the finished synthetic playing surface.

627.03 Project Conditions

1. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit synthetic turf to be installed according to manufacturers' written instructions and warranty requirements.
2. Field Measurements: Indicate measurements on Shop Drawings.

Warranty

Warranties shall be in accordance with Paragraph H of Section 627.02 of this specification.

- A. Synthetic Turf: The carpet rolls are to be installed directly over the properly prepared base stone. Extreme care should be taken to avoid disturbing the base stone, both in regard to compaction and planarity. A 2-5 ton static roller shall be on site and available to repair and properly compact any disturbed areas of the base stone. The full width rolls shall be laid out across the field. Utilizing standard state of the art procedures, each roll shall be attached to the next. Each seam will be either attached using hot melt technology. When all of the rolls of the playing surface have been installed, the sideline areas shall be installed at right angles to the playing field turf.
- B. All seams shall be transverse to the field direction: i.e., run perpendicularly across the field. Seams shall be flat, tight, and permanent with no separation or fraying. Synthetic turf shall be installed across the field and attached to the perimeter edge detail. Turf shall be of sufficient length to permit full cross-field installation. No head or cross seams will be allowed.
- C. Resilient Layered Infill
 - a. Silica Sand - Infill particles shall be silica sand only at a minimum of 2.5 lbs/sf.

Field Quality Control

- A. Testing Services: installed system will be tested for GMAX at locations defined in ASTM F1936 upon substantial completion. All test locations will be offset approximately 12 inches from any fabric seam and all subsequent re-testing will be performed at the exact same location as previous tests for comparison. The Contractor is responsible for all costs incurred as a result of the testing.
- B. At substantial completion, the GMAX average shall not exceed 125 G's with no single location value in excess of 150 G's. The testing company shall submit three copies of the GMAX test report to the Engineer prior to the date of substantial completion.
- C. The synthetic turf manufacturer shall perform annual GMAX testing on the anniversary of the completion of the field by a licensed 3rd party testing firm (8 total). A copy of each test shall be submitted to the owner.
- D. If after a GMAX test the surface exceeds a GMAX rating, as noted in items 2 and 3 above at any one time during the life of the warranty the turf contractor will be required to repair the field at no cost to the Owner.
- E. The Owner and the Engineer shall review the proposed repair methods prior to the Contractor completing the repairs. If after two attempts to repair the field, the GMAX

rating exceeds the requirements noted above, the Contractor will be required to replace the field at no cost to the Owner. If replacement is required, construction shall be completed within 90 days.

- F. Remove and replace applications where test results indicate that it does not comply with specified requirements.
- G. The Contractor shall provide evidence from the manufacturer that the turf can be plowed with conventional rubber bladed snow removal equipment.
- H. Prior to Final Acceptance, the Contractor shall submit to the owner three (3) copies of Maintenance Manuals, which will include all necessary instructions for the proper care and preventative maintenance of the synthetic turf system including painting and striping.

FIELD MARKINGS AND TURF COLORS

ALL PROPOSED FIELD MARKINGS TO BE "INLAID" FABRIC MARKINGS. THERE IS TO BE NO PAINTED ON LINES.

- **CONTRACTOR SHALL VERIFY ALL DIMENSIONS.**
- **CONTRACTOR SHALL OBTAIN/PROVIDE A COLORIZED FIELD MARKING PLAN SHOP DRAWING FROM THE TURF MANUFACTURER SHOWING ALL MARKINGS, LINES, NUMBERS, LOGOS, COLORS, DIMENSIONS, ETC. FOR REVIEW AND APPROVAL BY UNION COUNTY WITHIN 5 DAYS OF NOTICE TO PROCEED .**
- **THE FIELD WILL BE STRIPED FOR 3 FIELDS TO INCLUDE FOOTBALL, SOCCER, AND LACROSSE. ALL MARKINGS SHALL BE PERMANENTLY INLAID IN THE TURF AS APPROVED BY UNION COUNTY.**
- **ALL SPORTS MARKINGS SHALL CONFORM TO THE LATEST NFHS REGULATIONS.**
- **ALL COLORS AND DIMENSIONS SHALL BE APPROVED BY UNION COUNTY.**

MAINTENANCE EQUIPMENT

- A. Sweeper – Greengroomer Litterkat or approved equal - The sweeper will have a basket which collects swept debris from the field. The equipment should be capable of being pulled behind a standard tractor or utility vehicle. No additional payment will be made for providing the equipment. Width of unit shall be a minimum of 73". No additional payment will be made for providing the equipment.
- B. Groomer – SMG TCA 1400 or approved equal - The groomer shall include a deep rake that penetrates the infill. The equipment should be capable of being pulled behind a standard tractor or utility vehicle. The rotary brush straightens up the turf fibers and in the same process, gathers up all kind of dirt particles. The vibrating screen can be precisely adjusted with variable settings from 4 - 10 mm depending on the degree of pollution and the grid size of the infilling material. A trailing brush row levels the

infilling material and with a gentle action, lightly works it back into the artificial turf.
No additional payment will be made for providing the equipment.

QUANTITY AND PAYMENT

Payment for Synthetic Turf will be made for the quantity as above determined, at the price bid per square yard for the item **“SYNTHETIC TURF (FOR CROSS SECTION ABOVE CHOKING STONE) INCLUDING CUSTOM EMBLEM, NUMBERS, AND INLAID MARKINGS”** in the Proposal, which shall include the all labor, materials, and all else required to furnish and install the artificial synthetic turf system as specified above.

-- END OF SECTION --

**SPECIFICATIONS
FOR
ARTIFICIAL TURF FIELD AT MATTANO PARK
CITY OF ELIZABETH, COUNTY OF UNION, NEW JERSEY
BA#62-2015; UNION COUNTY ENGINEERING PROJECT #2011-018
OCTOBER 2015**

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**DEPARTMENT OF ENGINEERING, PUBLIC WORKS AND
FACILITIES MANAGEMENT**

Joseph A. Graziano, Sr., CPWM
Director, Department of Engineering, Public Works and
Facilities Management

**COUNTY ENGINEER
DIVISION OF ENGINEERING**

Thomas O. Mineo, P.E.
2325 South Avenue
Scotch Plains, New Jersey 07076
Telephone: (908) 789-3675
Fax: (908) 789-3674

PREPARED BY:

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Clark, New Jersey 07066

T: 732-943-7067

F: 732-943-7249

**COUNTY OF UNION
NOTICE TO BIDDERS**

Sealed bids will be received by the director of the Division of Purchasing, or his designee, at the County of Union, New Jersey on October 28, 2015 at 2:30 p.m., prevailing time, in the 3rd Floor Conference Room, U.C. Administration Building, 10 Elizabethtown Plaza, Elizabeth, New Jersey for:

**ARTIFICIAL TURF FIELD AT MATTANO PARK
CITY OF ELIZABETH, COUNTY OF UNION, NEW JERSEY
BA#62-2015; UNION COUNTY ENGINEERING PROJECT #2011-018**

Bid Packages may be obtained at no charge by registering and downloading at <http://ucnj.org/bid-specs>. Bid Packages may also be obtained in person from the Division of Engineering at 2325 South Avenue, Scotch Plains, New Jersey 07076 between 8:30 a.m. and 4:00 p.m. weekdays upon payment of a non-refundable money order or bank check in the amount of \$275.00 made payable to the County of Union. No Personal / Company checks will be accepted. Requests for mailing of specifications will not be honored. For further information please call 908-789-3675.

The County reserves the right to reject any and all bids and to waive any and all informalities in the bid.

Bids shall be submitted in a sealed envelope and clearly marked with the subject of the bid, name and address of the bidder, phone & fax number, and date of the bid opening. Each bid must be delivered to reach the Division of Purchasing prior to the stated time of the opening of the bids. The County will not be responsible for late delivery by the U.S. Mail or any other carrier. If hand delivered, please note that parking and security access at the County Complex may cause delays and bidders should take them into consideration in order to submit a timely bid. **No** late bids will be accepted.

Bidders are required to comply with the requirements of N.J.S.A. 10:5-31 et seq. and N.J.S.A.C. 17:27.

MICHAEL M. YUSKA – DIRECTOR OF PURCHASING

**UNION COUNTY BOARD
OF CHOSEN FREEHOLDERS**

We're Connected to You!

NB-1

**ARTIFICIAL TURF FIELD AT MATTANO PARK
CITY OF ELIZABETH, COUNTY OF UNION, NEW JERSEY
BA#62-2015; Union County Engineering Project #2011-018**

TABLE OF CONTENTS

Cover Sheet: County Officials
NB-1: Notice to Bidders

GENERAL SPECIFICATIONS

Definitions

- Section 1: BID FORM
- Section 2: WITHDRAWAL OF BID DUE TO MISTAKE
- Section 3: QUALIFICATIONS OF BIDDERS AND REQUIRED SUBMISSIONS
- Section 4: INTERPRETATIONS AND ADDENDA
- Section 5: OBLIGATION OF BIDDER TO INSPECT SITE AND CONTRACT DOCUMENTS
- Section 6: BID AND PERFORMANCE GUARANTEE
- Section 7: COMMENCEMENT AND COMPLETION
- Section 8: BIDDER AFFIDAVIT
- Section 9: BID SECURITY
- Section 10: LABOR AND MATERIALS
- Section 11: INSURANCE REQUIREMENTS
- Section 12: INDEMNIFICATION REQUIREMENTS
- Section 13: ROYALTIES AND PATENTS
- Section 14: PLANS AND SPECIFICATIONS
- Section 15: GUARANTEE AGAINST DEFECTIVE WORK
- Section 16: TRAFFIC AND STREET MAINTENANCE
- Section 17: CONTRACTOR'S EMPLOYEES
- Section 18: OWNERSHIP DISCLOSURES REQUIRED
- Section 19: NON-COLLUSION AFFIDAVIT
- Section 20: EQUAL EMPLOYMENT OPPORTUNITY COMPLIANCES
- Section 21: COMPLIANCE WITH NEW JERSEY PREVAILING WAGE ACT
- Section 22: BRAND NAME OR EQUAL
- Section 23: LINES AND GRADES
- Section 24: NUMBER OF WORKING DAYS
- Section 25: PROMPT PAYMENT OF CONSTRUCTION CONTRACTS (NJ Prompt Payment Act)
- Section 26: STOPPING WORK ON ACCOUNT OF BAD WEATHER
- Section 27: ACCESS FOR OTHER CONTRACTORS
- Section 28: CONDEMNED MATERIALS AND WORK
- Section 29: STORAGE
- Section 30: FINAL CLEAN UP
- Section 31: SUB-LETTING OF WORK
- Section 32: SAFETY
- Section 33: QUALITY, SAFETY AND PERFORMANCE STANDARDS
- Section 34: MATTERS NOT MENTIONED IN CONTRACT DOCUMENTS
- Section 35: PERMITS
- Section 36: CONTRACTOR TO PROVIDE PROOF OF PAYMENT
- Section 37: CHANGE ORDERS
- Section 38: SUPPLEMENTAL WORK
- Section 39: FORM OF CONTRACT
- Section 40: PROGRESS PAYMENTS
- Section 41: INSPECTION
- Section 42: DAMAGES
- Section 43: LIQUIDATED DAMAGES
- Section 44: AFFIRMATIVE ACTION REQUIREMENTS
- Section 45: INVESTMENT ACTIVITIES WITH IRAN

GENERAL SPECIFICATIONS CONTINUED

- Section 46: COMPLIANCE WITH THE PUBLIC WORKS CONTRACTOR REGISTRATION ACT
(N.J.S.A. 34:11-56.48 et seq)
- Section 47: UTILITIES
- Section 48: MATERIAL COMPLIANCE AND SHOP DRAWINGS
- Section 49: PRECONSTRUCTION
- Section 50: DISPUTES UNDER THE CONTRACT
- Section 51: RESOLUTION NO. 2014-0408 ADOPTED ON MAY 8, 2014
BY THE UNION COUNTY BOARD OF CHOSEN FREEHOLDERS
- Section 52: CONTRACTOR BUSINESS REGISTRATION CERTIFICATE
(New Mandatory Requirement – Effective 1/18/2010)
- Section 53: BID PROTEST - LEGAL FEES AND COSTS
- Section 54: AMERICAN GOODS AND PRODUCTS WHERE POSSIBLE
- Section 55: NEW JERSEY PAY-TO-PLAY REQUIREMENTS
- Section 56: STATEMENT OF EQUIPMENT TO BE USED IN CONSTRUCTION
- Section 57: NEW JERSEY SALES AND USE TAX REQUIREMENTS

BIDDING DOCUMENTS

- Bid Document Submission Checklist
- Bidding Documents
- Bid Form
- Consent of Surety
- Bidder Signature Page
- Bidder Disclosure Statement
- Subcontractor Identification Statement: List of Subcontractors
- Subcontractor Identification Certification
- Acknowledgement of Addendum
- Contractor Business Registration Certificate
- Affirmative Action Requirement
- Experience Statement
- Certificate of Bidder Showing Ability to Perform Contract
- Non-Collusion Affidavit
- Contractor Registration Advisement
- Americans with Disabilities Act
- Contractor Responsibility Certification
- Affidavit of General Contractor & Subcontractor OSHA Compliance
- Statement of Bidder's Qualifications
- Contractor Performance Record
- Affidavit Regarding List of Disbarred, Suspended or Disqualified Bidders
- Prior Negative Experience Questionnaire-Certification
- Contractor's Certification of Compliance - New Jersey Prevailing Wage Act
- Uncompleted Contracts Affidavit
- Certificate of Insurance Statement
- Collection of Use Tax on Sales to Local Governments Statement
- Time of Completion
- Disclosure of Investment Activities in Iran

NEW JERSEY PREVAILING WAGE DETERMINATION DOCUMENTS

SS - STANDARD SPECIFICATIONS SS-1

STANDARD FORM OF AGREEMENT BETWEEN OWNER AND CONTRACTOR AIA DOCUMENT A-101/2007
(Draft form until contract is awarded)

GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION AIA DOCUMENT A-201/2007
(Draft form until contract is awarded)

PROJECT TECHNICAL SPECIFICATIONS

**UNION COUNTY BOARD OF CHOSEN FREEHOLDERS
INSTRUCTIONS TO BIDDERS AND FORMS**

DEFINITIONS

Wherever reference is made to the County, Title of Project, Bidder, or Vendor/Contractor they shall be as follows:

OWNER/COUNTY:

Union County Board of Chosen Freeholders
UC Administration Building, 6th Floor
10 Elizabethtown Plaza
Elizabeth, New Jersey 07207

ADDRESS BIDS AND SUBMIT TO:

Union County Division of Purchasing
UC Administration Building, 3rd Floor
10 Elizabethtown Plaza
Elizabeth, NJ 07207
Attn: Michael Yuska, QPA, Director, Division of Purchasing
Telephone: 908-527-4130
Facsimile: 908-558-2548

**TITLE OF PROJECT: Artificial Turf Field at Mattano Park
City of Elizabeth, County of Union, New Jersey
BA#62-2015; Union County Engineering Project #2011-018**

BIDDER: Bidder shall be a single overall contract bidder

**ENGINEER / ARCHITECT: Neglia Engineering Associates
1119 Raritan Road
Clark, New Jersey 07066**

COUNTY ENGINEER AND/OR CONSTRUCTION MANAGER (as applicable):

COUNTY ENGINEER:

Thomas O. Mineo, P.E.
Union County
Division of Engineering
2325 South Avenue
Scotch Plains, NJ 07076
Office: (908) 789-3675
Facsimile: (908) 789-3674
Email: tmineo@ucnj.org

CONSTRUCTION MANAGER:

GENERAL SPECIFICATIONS

1. BID FORM

Bids for this Work will be enclosed in a sealed envelope addressed to the Purchasing Division, County of Union, New Jersey, Union County Administration Building, 10 Elizabethtown Plaza, Elizabeth, New Jersey 07207, with the full name of the Project clearly marked on the outside. Refer to the sheet marked "Notice of Bid (Advertisement)" for the correct name of the Project. Bidders must submit their bids on the attached pricing sheet (Bid Form), in a sealed envelope addressed to the County and bearing on the outside: the name of the Bidder, Bidder's business address, and the title of the Project.

The Division of Purchasing will receive the bids for this Work at the Union County Administration Building, 10 Elizabethtown Plaza, Elizabeth, New Jersey on the date and time noted on the sheet marked "**Notice of Bid (Advertisement)**".

The County will not assume responsibility for bids forwarded by mail. It is the individual's responsibility to see that the bids are presented to the Purchasing Division at the time and at the place designated.

Bids will be accepted only on the Bid Form supplied. Bids on forms other than the original supplied herein will be rejected. The "complete" Bid Documents includes the Bid Bond, Bid Form, Bidder's Checklist, Consent of Surety, Ownership Disclosure Certification, Non-Collusion Affidavit, and any other documents noted in these Instructions to Bidders or Contract Document to be submitted with this Bid. (See AIA Owner/Contractor Agreement & General Conditions attached.)

The bidder will state in the bidding sheet the price per unit of measure for each scheduled Item of Work for which he will agree to carry out the Work, and the Total Bid Price for the construction of the Project.

The prices in the Bid Form shall be typed or written in pen and ink. Erasures or alterations must be initialed by the bidder in ink.

The bidding sheet for this Project may include a fixed amount as a Bid Allowance. If applicable, all bidders are required to add this fixed amount to their base bid and to include this additional amount in their Bid Bond. This sum will be included in the Contract as well as the performance, labor and materials bond. Payment by the County will be made to the Contractor from these funds only upon the completion of extra Work pursuant to a written Change Order(s) signed by the County's Engineer or his designee and the Contractor, prior to the commencement of such Work. Work commenced prior to written approval by the County shall be done at Contractor's risk. Such payment will only be in the amount agreed to by the parties, in writing in the Change Order(s). See Section 37, Change Orders, of these general specifications for further details.

Refer to Bid Document Submission Checklist for all required documents.

In the event there is a discrepancy between the unit price given and the extended total, the unit price will govern. Any discrepancies will be mathematically adjusted.

Insert applicable alternates, if any have been specified, applicable to the Bidder's Work. All alternates MUST be bid upon. Any Bidder's failure to do so will be deemed a material, non-waivable defect and shall render the bid nonresponsive. The Bidder shall clearly designate whether the change in price is an addition or subtraction, by using either a "+" sign or the word "addition", or in the alternative, a "-" sign or the word "minus". If there is no other change in price, the Bidder shall insert "NC" or "No Charge".

When two or more low bids are equal in all respects, awards will be made according to the provisions of N.J.S.A. 40A:11-6.1(d).

Where unit prices have already been established by the Contract Documents, the Bidder agrees that such unit prices shall prevail. All unit prices, whether filled in by the Bidder or established by the Contract Documents, shall become part of the Contract. No bid will be considered or award made, unless applicable unit prices, as required, are filled in.

The County reserves the right to reject any or all bids and also reserves the right to waive any informality in the bids received so long as said waiver is not of a response which is considered to be material and non-waivable pursuant to law.

The County of Union has the right to reject any and all bids from any bidder that is in, or contemplates bankruptcy of any chapter of nature. Said bidder shall notify the County, in writing, of any condition or knowledge of the same.

Conditional bids will not be accepted. Bids may be withdrawn prior to the advertised time for the opening of bids or authorized postponement thereof or in accordance with the provisions of N.J.S.A. 40A:11-23.3 discussed below. Bids received after the advertised time shall not be considered. Bidders shall be solely responsible for premature opening or late delivery of bids not properly marked, addressed, or directed.

2. WITHDRAWAL OF BID DUE TO MISTAKE

N.J.S.A. 40A:11-23.3 authorizes a bidder to request withdrawal of a public works bid due to a mistake on the part of the bidder. A mistake is defined by N.J.S.A. 40A:11-2(42) as a clerical error that is an **unintentional and substantial computational error or an unintentional omission of a substantial quantity of labor, material, or both, from the final bid computation.**

A bidder claiming a mistake under N.J.S.A. 40A:11-23.3 must submit a request for withdrawal, **in writing**, by certified or registered mail to Michael M. Yuska, QPA, Director, Division of Purchasing, County of Union, New Jersey, Union County Administration Building, 10 Elizabethtown Plaza, Elizabeth, New Jersey 07207. The bidder must request withdrawal of a bid due to a mistake, as defined by the law, within five business days after the receipt and opening of the bids. Since the bid withdrawal request shall be effective as of the postmark of the certified or registered mailing, Michael M. Yuska, QPA, Director of the Division of Purchasing or his designee may contact all bidders, after bids are opened, to ascertain if any bidders wish to, or already have exercised a request to withdraw their bid pursuant to N.J.S.A. 40A:11-23.3.

A bidder's request to withdraw the bid **shall** contain evidence, including any pertinent documents, demonstrating that a mistake was made. Such documents and relevant written information shall be reviewed and evaluated by the County's designated staff pursuant to the statutory criteria of N.J.S.A. 40A:11-23.3.

The County will not consider any written request for a bid withdrawal for a mistake, as defined by N.J.S.A. 40A:11-2(42), by a bidder in the preparation of a bid proposal unless the postmark of the certified or registered mailing is within the five business days following the opening of bids.

3. QUALIFICATIONS OF BIDDERS AND REQUIRED SUBMISSIONS

The County may make such investigation as it deems necessary to determine the ability of the Bidders to perform the Work, which includes investigation of any and all subcontractors listed with the bid. The Bidder shall furnish any information and data for this purpose as the County may request.

4. INTERPRETATIONS AND ADDENDA

Any explanation desired by a bidder regarding the meaning or interpretation of the Contract Documents must be requested in writing to the County Engineer or Design Professional as the case may be and with reasonable time allowed for a reply to reach bidders before submission of their bids. Any interpretation or instruction made by the County Engineer will be in the form of an addendum to the Contract Documents or clarification and will be furnished to all prospective bidders. Oral explanations or instructions given before the award of the Contract will not be binding. Bidders are required to bring to the attention of the County Engineer, the discovery of any apparent ambiguity, inconsistency, error, discrepancy, omission in the Contract Documents for interpretation and correction at least ten (10) working days before opening of bids with the exception of Saturdays, Sundays and holidays.

All Addenda issued through the Offices of the County Engineer are amendments to the Contract Documents and shall be considered in preparing bids. Same shall become part of the Contract Documents.

Addenda take precedence over all earlier documents and over each other according to the latest date. Addenda unless themselves interpretive remain subject to interpretation the same as any other document incorporated in the Contract.

Addenda may be issued by the County Engineer up to seven (7) working days prior to the opening of bids. Failure of any bidder to receive an addendum shall not relieve such bidder from the obligation imposed by such addendum. Bidders are to keep themselves currently acquainted with the Contract Documents during the entire bidding period and make inquiry on their own initiative as to issuance of any Addenda. Receipts of all Addenda shall be acknowledged on the “*Acknowledgement of Receipt of Changes*” included in the bid package and must be submitted with the bid.

5. OBLIGATION OF BIDDER TO INSPECT SITE AND CONTRACT DOCUMENTS

At the time of the opening of bids, each Bidder will be presumed to have inspected the site(s) and to have read, and be thoroughly familiar with the Contract Documents. The failure or neglect of any Bidder to receive or examine any form, instrument, or document shall in no way relieve any Bidder from any obligation in respect to its bid.

The Bidder shall examine the contents of the Project Manual and the set of Drawings and assure itself that all pages of the Specifications, Drawings, and other Contract Documents are included in the documents obtained for bidding purposes. Should the Specifications, Drawings, and other Contract Documents be incomplete, the Bidder shall notify the County Engineer in writing, who will supply the Bidder with any missing pages of Specifications, Drawings, or other Contract Documents. The lack of such written notification by the Bidder will be construed as evidence that the Specifications, Drawings, or other Contract Documents supplied it for bidding purposes are full and complete and as a waiver of any subsequent claim to the contrary.

6. BID AND PERFORMANCE GUARANTEE

Each bidder must furnish a Bid Bond, Certified Check or Bank Cashier’s Check in the amount of ten percent (10%) of the Bid. Checks shall be drawn to the order of the County of Union, New Jersey, not to exceed \$20,000.

Each bidder must furnish with the bid a certificate from a Surety Company, i.e. Consent of Surety, stating that in the event of the contract being awarded to said bidder, such Surety Company will provide the Contractor with Bonds guaranteeing the faithful performance of the Work in accordance with the plans and specifications, and the payment for labor, materials, and all other indebtedness which may accrue on the account of this Work. A Performance, Labor and Materials bond will be furnished by the Contractor upon an award of Contract, and will be in the amount of 100% of the contract price.

A one-year Maintenance Bond will be required upon acceptance of the Project by the County in the amount as stated in Section 15 of the General Specifications. Bonds will be written by a firm authorized to issue the bonds under the laws of the State of New Jersey and be in a form acceptable to the County Counsel.

N.J.S.A. 40A:11-1.1 et. seq. allows the prime Contractor to furnish the Performance Security for his Subcontractors. The County of Union requires Performance Security to be furnished by the prime contractor for the entire job in the total amount of the contract.

The County of Union shall award the contract or reject all bids within sixty (60) days; except that the bids of any bidders who consent thereto may, at the request of the County be held for consideration for such longer periods as may be agreed.

The County will return all certified checks or cashier's checks after the proposals have been opened, read, tabulated and checked except those of the three (3) bidders who have bid the lowest total price for carrying out the Project. The County will return the checks of these bidders when a contract is awarded to the successful bidder within ten (10) days after the award of the contract.

If the successful bidder refuses or neglects to sign the said Agreement and furnish the required bonds, the Bid Bond will be held and used by the County to offset any damages for such refusal or neglect.

7. COMMENCEMENT AND COMPLETION

Work will not commence until a Notice to Proceed is received from the County Engineer.

Upon substantial completion of the Project, the Contractor must request a joint inspection with the County Engineer. Upon completion of this inspection, the County Engineer will prepare a list of incomplete or incorrect items (punch list) and have Contractor initial and date same. The Contractor shall rectify all deficiencies noted on the punch list within 30 calendar days of receipt of the list. The County Engineer may approve extensions for extenuating circumstances.

8. BIDDER AFFIDAVIT

All Bidders are required to complete, sign, and submit with their Bid, the attached "Affidavit Regarding List of Debarred, Suspended or Disqualified Bidders". (See form enclosed)

9. BID SECURITY

All Bidders are required to submit a form of Bid Security with their bids.
(Bid Bond or Certified Funds)

The Bid Security shall be in the amount of ten percent (10%) of the Bid, but not in excess of Twenty Thousand Dollars (\$20,000.00), and payable to the order of the "County of Union."

10. LABOR AND MATERIALS

The prices will cover all costs of any nature incident to and growing out of the Work, including all labor, material, equipment, transportation, loss by damage or destruction of the Project, settlement of damages, and for replacement of defective work or materials. N.J.S.A. 54:32B-1 et seq. exempts all materials sold to the County of Union from sales or use taxes and should not be included in the prices provided on the Bidding Sheet.

11. INSURANCE REQUIREMENTS

The County of Union requires all contractors to be able to comply with the following insurance requirements. In the event a bid is accepted by the County, the contractor must accept the applicable insurance requirements, as set forth below, as part of any contract awarded to it by the County.

Contractor shall carry and maintain at all times while the contract is in full force and effect, the following insurance coverage with an insurance company or companies acceptable to the County, with limits not less than those shown below. A Certificate of Insurance shall be filed with the County prior to commencement of any Work indicating the following:

- a) Commercial General Liability (CGL): Coverage for all operations including, but not limited to, contractual, products and completed operations, and personal injury with limits no less than \$5,000,000 per occurrence/\$10,000,000 aggregate. The County of Union, its Board of Chosen Freeholders, officers, employees, agents and servants shall be included as an additional insured. Coverage is provided on a primary and non-contributory basis to the County of Union, et al.
- b) Automobile Liability: Coverage for all owned, non-owned and hired vehicles with limits not less than \$5,000,000 per occurrence, combined single limits (CSL) or its equivalent.
- c) Workers Compensation: As required by the State of New Jersey and Employers Liability with limits not less than \$1,000,000 per accident for bodily injury or disease.
- d) Professional Liability (if design/build): Coverage with limits not less than \$1,000,000 per occurrence or claim, \$2,000,000 aggregate

- e) Contractor's Pollution Legal Liability and/or Asbestos Legal Liability and/or Errors & Omissions (if project involves environmental hazards): Coverage with limits no less than \$1,000,000 per occurrence or claim/\$2,000,000 aggregate.
- f) Builders Risk (for major renovations): During the course of construction utilizing an "All Risk" coverage form with limits equal to the completed value of the project and no coinsurance penalty provisions.

Where applicable, a waiver of subrogation in favor of the County of Union, its Board of Chosen Freeholders, officers, employees, agents, servants and the State of New Jersey is to be included in those policies of insurance where permitted by law.

Notice of Cancellation: Each insurance policy required above shall provide that coverage shall not be canceled, except with notice to the Entity.

Special Risks or Circumstances: The County reserves the right to modify these requirements, including limits, based on the nature of the risk, prior experience, insurer, coverage, or other special circumstances.

12. INDEMNIFICATION REQUIREMENTS

The County of Union requires all bidders to accept the following indemnification requirements in the event the County accepts their bid. The Contract awarded by the County to the successful bidder will contain the following provision:

"To the fullest extent permitted by law the Contractor shall indemnify and hold harmless the owner and the owner's consultants, agents, representatives, and employees from and against any and all claims, damages, losses, costs, and expenses, including, but not limited to attorneys' fees, legal costs and legal expenses arising out of or resulting from the performance of the Contractor's work under this contract, provided that such claim, damage, loss, cost, 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) caused or alleged to be caused by the negligent acts, negligent omissions, and/or fault of the Contractor, anyone directly or indirectly employed or retained by the Contractor, or anyone for whose acts the Contractor may be liable regardless of whether caused in part by the negligent act or omission of a party indemnified hereunder provided it is not caused by the sole negligence of a party indemnified hereunder. Contractor shall further indemnify and hold harmless the County and the County's consultants, agents, representative, and employees from and against any and all claims, damages, losses, costs, and expenses, including, but not limited to attorneys' fees, legal costs and legal expenses, arising out of or resulting from performance of the work, provided that such claim, damage, loss, cost, 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) caused or alleged to be caused by the negligent acts, negligent omissions, and/or fault of

the County or the County's consultants, agents, representatives, or employees and arises out of this project and provided such claim, damage, loss, cost, or expense is not caused by the sole negligence of a party indemnified hereunder."

13. ROYALTIES AND PATENTS

The Contractor shall pay all royalties and license fees. He shall defend all suits or claims for infringement of any patent rights and shall hold the County harmless from loss on account thereof.

14. PLANS AND SPECIFICATIONS

In carrying out the Work, the plan(s) and the specifications will be followed by the Contractor. Minor alterations in the plan may be made or permitted by the County Engineer from time to time and, if no additional Work is necessary, there will be no additional charge for carrying out such minor alterations.

The Contractor shall provide the County Engineer a set of reproducible as-built drawings upon completion of the Project. The Contractor shall maintain an updated construction progress plan in the Project field office at all times.

When applicable, The New Jersey Department of Transportation Standard Specifications for Road and Bridge Construction, as amended, and Supplemental Specifications for State Aid Projects, herein after referred to as the "Standard Specifications", are made a part of these specifications and contract for the improvements, and will govern the construction of this Project, the material used and the execution of this Project, except as revised and modified herein. The references to these specifications are given herein for the purpose of aiding in the rapid location of the description of the various items herein specified. The entire Work must be carried on and completed to the satisfaction of the County. The Standard Specifications are amended as follows:

"Any reference to the Commissioner, Department, Department Laboratory, Engineer or Inspector should be redefined to be the County of Union".

15. GUARANTEE AGAINST DEFECTIVE WORK

Prior to final payment being made or before the release of the performance security required by Section 3 above, the Contractor and Surety shall execute and deliver to the County an original Maintenance Bond with an original signature and seal having a penal sum equal to:

- A) One hundred percent (100%) of the final adjusted Contract amount, if such amount is \$50,000.00 or less;

- B) Fifty percent (50%) of the final adjusted Contract amount, if such amount be greater than \$50,000.00 but less than \$250,000.00; and,
- C) Twenty-five percent (25%) of the final adjusted contract amount, if such amount is \$250,000.00 or more.

The Bond and Surety shall be satisfactory to the Union County Counsel. The Surety shall hold a Certificate of Authorization to do business in the State of New Jersey and shall conform to P.L. 1995 c.384, codified as N.J.S.A. 2A:44-143, 144. The Surety Disclosure Statement and Certification required by N.J.S.A. 2A: 44-143, 144, shall be attached to the Bond. Such Maintenance Bond shall remain in full force and effect for a period of one (1) year from the date of Final Completion. Such Maintenance Bond shall also provide that the Contractor and the Surety guarantee to replace for the said period of one (1) year from the date of Final Completion, all Work performed and/or all materials furnished that were not performed or were not furnished in accordance to the terms and performance requirements of the Contract Documents, and will make good any defects thereof which become apparent before the expiration of one (1) year. If, during that period, any part of the Project, in the judgment of the Engineer, is found defective, the Contractor will repair or replace same within five (5) days of receipt of notice from the County Engineer. If the Contractor refuses or neglects to do such Work in the time specified, the County Engineer may have the Work done by others and the Contractor or his Surety thereof will pay the cost.

The Contractor will furnish the County a Maintenance Bond for a percentage of the final adjusted contract price, as stated above. The one (1) year period will start the day of Final Completion of Project by the County. Final payment is conditional on the receipt of a maintenance bond in a form acceptable to County Counsel.

16. TRAFFIC AND STREET MAINTENANCE

The Work must be started and performed by the Contractor in such a manner as to minimize delays to the traveling public. It must be completed in a timely fashion, with little or no inconvenience to traffic and pedestrians, where such inconvenience may be avoided.

All municipal, county, and state roadways shall remain open to traffic unless otherwise provided for in the technical specifications.

If modified traffic patterns are authorized in order to provide a safe working or traveling environment, the Contractor is responsible for providing all equipment, barrels, cones, signs, and barricades to implement the work zone and detours, unless otherwise specified in the technical specifications. All work zones and detours shall be established in accordance with the technical plans and specifications if provided or in strict compliance with the current version of the Manual for Uniform Traffic Control Devices (MUTCD). The Contractor shall obtain approval for these work zones and

detour plans from the Municipal Police or applicable police agency and the Union County Bureau of Traffic Maintenance prior to implementation.

All traffic control plans shall provide for safe movement of vehicular, bicycle, and pedestrian traffic. Particular attention shall be given to requirements of the Americans with Disabilities Act.

No portion of any street or alleyway may be used for the storage of any materials or equipment without the approval of the Municipal Police or other applicable police agency. Sidewalks, gutters, drains, fire hydrants and private drives shall be maintained for their intended use unless specifically approved by the County Engineer.

Upon suspension of Work, at the end of the day or for protracted periods, the Contractor shall remove all rubbish and materials from the Work site to the approved storage/staging location. All road cuts, saw cuts, and trenches that may pose hazard to vehicular, pedestrian, or bicycle traffic, to include handicapped users, shall be filled to the surface of the roadway or sidewalk. At no time will steel plates or settled trenches be allowed at the daily suspension of Work, unless specifically approved by the County Engineer.

Use of Traffic Control Officers shall be determined by the County in accordance with the provisions of N.J.S.A. 40A:11-23.1(c). If applicable to the Project, the County shall have provided an allowance for same as set forth in the Bid Form.

With respect to pedestrian traffic, the Contractor shall install signs restricting access of the general public and, as necessary, Union County employees to the area of construction. The Contractor shall provide safe access to required areas and place physical barriers to restricted areas. These barriers may range from caution tape to actual barriers, at the direction of the County Engineer.

17. CONTRACTOR'S EMPLOYEES

The Contractor must employ only suitable and competent labor in the Work, and must remove from the Work any incompetent, unsuitable, or disorderly person upon complaint from the County Engineer.

The parties to any contract resulting from this proposal do hereby agree that the provisions of N.J.S.A. 10:2-1 through 10:2-4 (discrimination in employment on public works contracts); 34:11-56.25 et seq. (payment of prevailing rate of wages determined pursuant to N.J.S.A. 34:11-56.30 by the Commissioner), and the Rules and Regulations promulgated pursuant thereto, are hereby made a part of any contract and are binding upon them.

There will be no discrimination against any employee who is employed in the Work to be covered by any contract resulting from this bid because of age, race, creed, color, national origin, ancestry, marital status or sex.

Any person, firm, or corporation violating the provisions of this Section will be deemed and judged a disorderly person.

18. OWNERSHIP DISCLOSURES REQUIRED

Pursuant to P.L. 1977, N.J.S.A. 52:25-24.2, the Bidder shall submit with its Bid, or prior to receipt of bids, a statement setting forth the names and addresses of all stockholders in the corporation or partnership bidding who own ten percent (10%) or greater interest therein. (See forms attached)

19. NON-COLLUSION AFFIDAVIT

The Bidder shall submit with its bid either the attached completed "Non-Collusion Affidavit" or a statement of non-collusion with verbiage similar to same.

20. EQUAL EMPLOYMENT OPPORTUNITY COMPLIANCES

The successful bidder shall be required to complete and submit an Initial Project Workforce Report, New Jersey Department of Treasury Form AA-201, upon notification of award. Failure to submit this completed form may result in the Contract being terminated.

The successful bidder shall also be required to submit a copy of its Monthly Project Workforce Report, New Jersey Department of Treasury Form AA-202, to the New Jersey Department of Treasury's Division of Public Contracts Equal Employment Opportunity Compliance and to the Board.

21. COMPLIANCE WITH NEW JERSEY PREVAILING WAGE ACT

The County of Union, in order to fulfill the requirements of N.J.S.A. 34:11-56a.25 et seq, requires that the following additional conditions be strictly followed. The bidders represent that he is not listed or is not on record in the Office of the Commissioner or the Department of Labor and Industry as one who failed to pay prevailing wages in accordance with the provisions of this Act. The bidder agrees to the inclusion of a contract provision upon award which specifically requires said Contractor to fully comply with each and all of the requirements of the aforesaid Act as it relates to prevailing rates of wages on public contracts as set forth in the New Jersey Prevailing Wage Act, P.L. 1963, Chapter 150 and P.L. 1974, Chapter 64.

A Copy of the Prevailing Wage Rates is attached for your reference. Applicable rates are those wages and fringe benefit rates in effect on the date the contract is awarded. All predetermined rate increases listed at the time the contract award must also be paid, beginning on the dates specified. Rates may change between the time of issuance of this determination and the award of the public works contract. Therefore, prior to the award of the contract, verification must be made with the Public Contracts section, to insure that the rates contained in this determination are still prevailing.

The Contractor agrees to abide and be bound by each and all of the said statutory provisions with respect to the payment of prevailing rates of wages, and acknowledges that the County reserves the right to terminate the Contractor's (or his subcontractors') right to proceed with the scope of Work, or such portion thereof that relates to the failure to pay prevailing rates of wages. In such event or under the terms of N.J.S.A. 34:11-56.27, the Contractor and his surety will be liable to the County of Union for any excess costs occasioned by such a violation.

The Contractor or subcontractors for this Project will post the Prevailing Wage Rates for each craft and classification involved as determined by the Commissioner of Labor and Industry, including the effective date of any changes thereof, in prominent and easily accessible places at the site of the Work or at such place or places as are used by them to pay workmen their wages.

The County of Union requires a copy of payroll records from the Contractor and subcontractors. Payroll records shall be submitted with each voucher request for payment. Prevailing wage rates may be obtained from the New Jersey Labor, Division of Workplace Standards, Public Contracts Section, (609-292-2259).

In addition to compliance with the New Jersey Prevailing Wage Act, the County requires compliance with procedures established by Resolution No. 2014-0408 adopted by the Union County Board of Chosen Freeholders on May 8, 2014. The resolution is furnished in Section 51 of these General Specifications.

UNION LABOR IS PREFERRED ON ALL COUNTY WORK

The foregoing reference to specific laws will not be deemed to be a limitation of obligation of the Contractor to perform his obligations in full compliance with the provisions and requirements of all federal and state statutes and local ordinances applicable to the Work to be done under the contract.

It is agreed and understood that any contracts and/or orders placed as a result of this proposal will be governed and construed and the rights and obligations of the parties hereto will be determined in accordance with the laws of the State of New Jersey.

Upon completion of the Work, the Contractor will furnish a Certification of Compliance with the New Jersey Prevailing Wage Act. The certificate in a form acceptable to County Counsel is a condition of the final payment. (See form attached)

22. BRAND NAME OR EQUAL

When the Specifications, Forms, and other Contract Documents use “brand name or equivalent” or similar language, the listed brand name shall serve as a reference or point of comparison for the functional or operational characteristic desired for the goods or services being requested. Where a bidder attempts to submit an equivalent product for a brand name, it shall be the responsibility of the bidder to fully describe and document the product to be provided with the bid in order to establish the equivalence claim.

- A. If the Bidder proposes to offer substitute goods as an equal to those specified herein, the bidder shall so indicate with the Bid Proposal. For the purposes of this paragraph, a proposed item shall be considered equal to goods specified herein if:
 - 1. The County, in its sole discretion, determines that: (i) the goods conform substantially, even with deviations, to the brand name goods specified herein; (ii) the goods are equal to or greater than the brand name goods specified herein in terms of quality, durability, functionality, appearance, strength and design; (iii) the goods are capable, at least as well as the brand name goods specified herein, or performing with existing equipment; and (iv) the goods do not cost the County more than the brand name goods specified herein costs the County.

- B. To offer substitute goods as an equal to those specified herein, it is necessary that:
 - 1. The Bidder submits sufficient information with its bid to permit the County to determine that the goods are equivalent to the brand name goods specified herein, including, but not necessarily limited to the brand, catalog number and specifications/data sheets;
 - 2. The Bidder fully identifies and describes the variations of the goods from the brand name goods specified herein on a separate sheet that is to be submitted with the bid proposal. Bidder’s literature WILL NOT suffice in explaining exceptions to these specifications.

3. The Bidder certifies that the goods (i) are similar in substance to the brand name goods specified, and (ii) are suited to the same use as the item specified;
- C. The County shall be allowed a reasonable time within which to evaluate the Bidder's proposal to offer substitute goods as an equal to those specified herein. The County shall be the sole judge of acceptability. No "or-equal" goods shall be ordered, delivered, assembled, set-up or utilized until the County's evaluation is complete. The County's determination as to equivalency shall be deemed final and absolute.

In the event the Bidder does not provide sufficient supporting documentation with the bid, it will be presumed and required that the brand name goods and services as described in the specifications will be provided.

23. LINES AND GRADES

Normally, horizontal and vertical control points will be provided in the technical specifications. All other surveying will be the responsibility of the Contractor unless otherwise noted.

24. NUMBER OF WORKING DAYS

In accordance with NJSA 40A:11-17, the Work for the within Project shall be completed as specified on the Time of Completion Form. See form attached

There shall be taken a deduction from the contract price, or any wages paid by the County, to any inspector(s) necessarily employed by it on the Work, for any number of days in excess of the number allowed in the specifications.

25. PROMPT PAYMENT OF CONSTRUCTION CONTRACTS (NJ Prompt Payment Act)

Pursuant to NJSA 2A:30A-1 et. seq., payment to the Contractor, other than for Work done pursuant to a contact allowance, where applicable, shall be processed and paid as follows:

1. All contractor bills shall be either approved for payment, or notice provided as to why the bill or any portion of it will not be approved by the representative(s) of the governing body no later than the public meeting following 20 calendar days of the billing date as defined in the statute.

2. If the billing is approved, said bill shall be paid in the payment cycle following the meeting.

26. STOPPING WORK ON ACCOUNT OF BAD WEATHER

Work must only be performed in weather suitable for the type of construction planned or underway. Extremes in temperature, humidity, precipitation, evaporation, etc. can detrimentally affect the constructed product. Refer to the Standard and Technical Specifications for specific items.

27. ACCESS FOR OTHER CONTRACTORS

The Contractor for this Work will give proper access to other contractors who may be employed upon the Project and must not hinder or delay unnecessarily any Work that may be progressing under other contracts.

28. CONDEMNED MATERIALS AND WORK

Any materials and or part of the Work that may be condemned by the County Engineer will be removed and replaced by the Contractor or otherwise rectified, as may be directed by the County Engineer. No payment will be made upon the Work until such faulty work has been made good as may be directed. In the event the Contractor refuses or neglects to make good such faulty work, he will be deemed to have abandoned the contract and proceedings may be taken against him as provided herein.

29. STORAGE

In the event that it is necessary for the Contractor to stockpile or store materials or equipment on the job site, the Contractor shall inform the County of such necessity and the County may offer available space, if any, for storage of such materials or equipment. The Contractor shall use said space only for such purpose. Any and all materials which may be stored in such space or which may be brought onto the job site at any time by the Contractor will be at the Contractor's sole risk. The County will not be responsible for loss of or damage to said materials or equipment for any cause whatsoever. The Contractor shall take necessary measures to protect any such storage area and shall be responsible for any and all damages.

30. FINAL CLEAN UP

Upon completion of the Work, the Contractor will remove all equipment, unused materials, rubbish, etc., and will repair, or replace in an a manner acceptable to the County Engineer, all areas that may have been damaged in the prosecution of the Work. Same shall be a condition precedent to final payment. Should said Contractor

fail to comply with this requirement, the County shall undertake the clean-up with its own forces and charge the cost of same against the Contractor's contract balance.

31. SUB-LETTING OF WORK

Except for the List of Subcontractors, pursuant to NJSA 40A:11-16 (See form attached), no portion of the Work will be sublet by the Contractor to any other entities, except with the consent of the County Engineer. A complete list of subcontractors must be submitted to the County Engineer at the preconstruction meeting. If the job does not warrant a preconstruction meeting, the Contractor must submit such list prior to the start of Work.

All Subcontractors will be subject to NJSA 34:11-56 et al.

N.J.S.A. 40A:11-16 requires the bidder to list in the bid sheets the name or names of all subcontractors involved in the following types of Work: plumbing and gas fitting and all kindred work, steam and hot water heating, ventilating apparatus, steam power plants and kindred work, electrical work, ornamental iron work, and structural steel. In addition, the County may require the identification of specific additional subcontractors. If these trades are expected to be part of the contract, such subcontractors should be listed on the "Subcontractor Identification Statement List of Subcontractors" and Bidder shall certify same on the accompanying sheet titled "Subcontractor Identification Certification". (See forms attached) **Bidder's failure to submit these two forms shall be considered a material defect and result in rejection of Bidder's bid.** Substitutions of any listed subcontractors pursuant to NJSA 40A:11-16 will not be permitted except with the consent of the County Engineer.

32. SAFETY

The Contractor shall observe all rules and regulations of the Federal, State, and local health officials. Attention is directed to Federal, State, and local laws, rules, and regulations concerning construction safety and health standards. The Contractor shall not require any worker to work in surroundings or under conditions that are unsanitary, hazardous, or dangerous to the worker's health or safety.

The Contractor shall admit to the site, without delay and without the presentation of an inspection warrant, any inspector of OSHA or other legally responsible agency involved in safety and health administration upon presentation of proper credentials.

The Contractor shall make available to the Contractor's employees, subcontractors, the County Engineer, and the public, all information pursuant to OSHA 29 CFR Part 1926.59 of The Hazard Communication Standard 29 CFR 1910.1200, and shall also maintain a file on each job site containing all Material Safety Data Sheets (MSDS) for products in use at the Project. These Material Safety Data Sheets shall be made available to the Engineer upon request.

The Contractor shall at all times conduct the Work to provide for the safety and convenience of the general public and protection of persons and property. The safety provisions of applicable laws, OSHA regulations, building and construction codes, and the rules and regulations of the New Jersey Department of Labor and Commerce shall be observed.

33. QUALITY, SAFETY AND PERFORMANCE STANDARDS

All goods and services must be constructed and provided with the highest quality materials and workmanship. It is the intent of these specifications that only equipment equal to, or exceeding, the standard specified will be acceptable in order to protect the safety of the occupants of the Building.

34. MATTERS NOT MENTIONED IN CONTRACT DOCUMENTS

Any Work, material, or method, not specifically described in these specifications, but shown upon the plans of the Work, will be carried out as shown on said plan.

35. PERMITS

The Contractor will obtain all necessary permits required by law and provide the County with necessary approvals prior to commencement of permitted Work.

36. CONTRACTOR TO PROVIDE PROOF OF PAYMENT

Upon the completion of the Work, the Contractor will furnish a General Release as proof that all claims for labor, materials, etc., have been settled by the Contractor. The General Release, in a form acceptable to County Counsel, is a condition of final payment.

37. CHANGE ORDERS

Change Order Procedures shall comply with *N.J.A.C. 5:30-11.1 et seq.*, "Change Orders and Open End Contracts" and subsequent provisions of the New Jersey Administrative Code.

38. SUPPLEMENTAL WORK

In case any supplemental work is necessary, it will be performed by the Contractor at a price fixed by agreement between the Contractor and the County Engineer and approved by the County as specified in Section 36. The Contractor will do no supplemental work on any character, for which the Contractor will demand pay, except upon the written order of the County.

39. FORM OF CONTRACT

Contracts will be let on the attached Form of Agreement Between County (“Owner”) and Contractor (AIA 101), and General Conditions (AIA 201), as supplemented.

The Contract will be subject to all statutory provisions on the matter of Public Works, Public Contracts, The Law Against Discrimination, the Laws Governing Affirmative Action and Prevailing Rates of Wages under the laws of New Jersey.

The Agreements shall be executed by both parties not later than twenty-one (21) days from the date of the award by the County (Sundays and holidays excluded); however, such time frame may be extended by agreement of the parties.

40. PROGRESS PAYMENTS

Monthly progress payments will be made based on the value of labor and materials incorporated in the Work and of materials suitably stored at the site. An itemized schedule of values shall be submitted with each Application for Payment.

(Refer to the Owner/Contractor Agreement for Retainage and other conditions pertaining to payment and the application of NJSA 2A:30A-1 et. seq.)

All Applications for Payment shall be accompanied by paid invoices for materials incorporated in the Work and for materials suitably stored at the site, and affidavit(s) by Subcontractors whose Work was included in the next to the last application to the effect such Work and such materials have been paid for.

No payment shall be made without Contractor having provided all submittals set forth in this Section, and the approval of same by the County.

For contracts exceeding \$100,000.00, monthly payments will be made on the Work to the extent of 98% of the value of the Work done which is considered to be retainage.

For contracts less than \$100,000.00, monthly payments will be on the Work to the extent of 90% of the value of the Work done. In lieu of the retainage, the Contractor will, at his option, deposit with the County Counsel negotiable bearer bonds of the State of New Jersey or any political subdivision thereof, equal to the amount otherwise withheld as retainage.

When the Project is completed, the final cost of the Project will be based on actual quantities of authorized Work done under each item scheduled in the bidding sheet and approved Change Orders, if any. The money due to the Contractor as

determined by said final certificate after deduction of previous monthly payments on account, will be paid to the Contractor in accordance with the terms of the contract dealing with Prompt Payment, providing, however that before such final payment is made, all outstanding claims against the Contractor must be satisfied. Before final payment is released, the Contractor must furnish: **a)** Maintenance Bond (see Section 6 of these general specifications); **b)** Certification of Compliance, New Jersey Prevailing Wage Act (see Sections 21 and 51); and **c)** General Release (see Section 36) in a form satisfactory to County Counsel; **d)** complete set of as-built plans in the latest AutoCad on compact disc; and **e)** a complete set of in-progress photos in jpg, jpeg, or bmp digital format on a compact disc.

41. INSPECTION

The Work must be done in accordance with the plans and specifications, and will be inspected by the County Engineer. An inspector may be placed upon the Work at any time by the County Engineer to see that the plans, specifications, and instructions of the County Engineer are carried out. In connection herewith, bidders are referred to N.J.S.A. 40A:11-17.

42. DAMAGES

The Contractor will be held responsible for all damages that may occur to Work, or to persons or property by reason of the nature of the Work or from the elements, or by reason of inadequate protection of the Work, or from any carelessness or negligence on his part or on the part of his employees. The County will withhold payments on the Work until all suits or claims for damages sustained on, or by reason of, this Work will have been settled by the Contractor.

The construction and final completion of this Work will be guaranteed by the Contractor. Any damages that may be done to the Work or any part thereof, by the elements or otherwise, during its construction, will be made good by the Contractor.

43. LIQUIDATED DAMAGES

If the Project is not completed within the time specified herein or within such further time as may have been granted by the County Engineer, then the Contractor hereby agrees to pay to the County as liquidated damages, but not as a penalty, \$1,000.00 per day for each and every calendar day that he is in default on time to complete the Work. The said sum will be deducted from moneys due the Contractor and if the damages exceed this amount, then the Contractor or his Surety Company will pay the excess. These damages may be waived at the option of the County.

44. AFFIRMATIVE ACTION REQUIREMENTS

EXHIBIT B (Revised 4/10)

MANDATORY EQUAL EMPLOYMENT OPPORTUNITY LANGUAGE N.J.S.A. 10:5-31 et seq. (P.L. 1975, C. 127) N.J.A.C. 17:27

CONSTRUCTION CONTRACTS

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

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

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

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

The contractor or subcontractor, where applicable, agrees to comply with any regulations promulgated by the Treasurer, pursuant to N.J.S.A. 10:5-31 et seq., as amended and supplemented from time to time and the Americans with Disabilities Act.

When hiring or scheduling workers in each construction trade, the contractor or subcontractor agrees to make good faith efforts to employ minority and women workers in each construction trade consistent with the targeted employment goal prescribed by N.J.A.C. 17:27-7.2; provided, however, that the Division may, in its discretion, exempt a contractor or subcontractor from

compliance with the good faith procedures prescribed by the following provisions, A, B and C, as long as the Division is satisfied that the contractor or subcontractor is employing workers provided by a union which provides evidence, in accordance with standards prescribed by the Division, that its percentage of active "card carrying" members who are minority and women workers is equal to or greater than the targeted employment goal established in accordance with N.J.A.C. 17:27-7.2. The contractor or subcontractor agrees that a good faith effort shall include compliance with the following procedures:

(A) If the contractor or subcontractor has a referral agreement or arrangement with a union for a construction trade, the contractor or subcontractor shall, within three business days of the contract award, seek assurances from the union that it will cooperate with the contractor or subcontractor as it fulfills its affirmative action obligations under this contract and in accordance with the rules promulgated by the Treasurer pursuant to N.J.S.A. 10:5-31 et. seq., as supplemented and amended from time to time and the Americans with Disabilities Act. If the contractor or subcontractor is unable to obtain said assurances from the construction trade union at least five business days prior to the commencement of construction work, the contractor or subcontractor agrees to afford equal employment opportunities minority and women workers directly, consistent with this chapter. If the contractor's or subcontractor's prior experience with a construction trade union, regardless of whether the union has provided said assurances, indicates a significant possibility that the trade union will not refer sufficient minority and women workers consistent with affording equal employment opportunities as specified in this chapter, the contractor or subcontractor agrees to be prepared to provide such opportunities to minority and women workers directly, consistent with this chapter, by complying with the hiring or scheduling procedures prescribed under (B) below; and the contractor or subcontractor further agrees to take said action immediately if it determines that the union is not referring minority and women workers consistent with the equal employment opportunity goals set forth in this chapter.

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

(1) To notify the public agency compliance officer, the Division, and minority and women referral organizations listed by the Division pursuant to N.J.A.C. 17:27-5.3, of its workforce needs, and request referral of minority and women workers;

(2) To notify any minority and women workers who have been listed with it as awaiting available vacancies;

(3) Prior to commencement of work, to request that the local construction trade union refer minority and women workers to fill job openings, provided the contractor or subcontractor has a referral agreement or arrangement with a union for the construction trade;

(4) To leave standing requests for additional referral to minority and women workers with the local construction trade union, provided the contractor or subcontractor has a referral agreement or arrangement with a union for the construction trade, the State Training and Employment Service and other approved referral sources in the area;

(5) If it is necessary to lay off some of the workers in a given trade on the construction site, layoffs shall be conducted in compliance with the equal employment opportunity and non-discrimination standards set forth in this regulation, as well as with applicable Federal and State court decisions;

(6) To adhere to the following procedure when minority and women workers apply or are referred to the contractor or subcontractor:

(i) The contractor or subcontractor shall interview the referred minority or women worker.

(ii) If said individuals have never previously received any document or certification signifying a level of qualification lower than that required in order to perform the work of the construction trade, the contractor or subcontractor shall in good faith determine the qualifications of such individuals. The contractor or subcontractor shall hire or schedule those individuals who satisfy appropriate qualification standards in conformity with the equal employment opportunity and non-discrimination principles set forth in this chapter. However, a contractor or subcontractor shall determine that the individual at least possesses the requisite skills, and experience recognized by a union, apprentice program or a referral agency, provided the referral agency is acceptable to the Division. If necessary, the contractor or subcontractor shall hire or schedule minority and women workers who qualify as trainees pursuant to these rules. All of the requirements, however, are limited by the provisions of (C) below.

(iii) The name of any interested women or minority individual shall be maintained on a waiting list, and shall be considered for employment as described in (i) above, whenever vacancies occur. At the request of the Division, the contractor or subcontractor shall provide evidence of its good faith efforts to employ women and minorities from the list to fill vacancies.

(iv) If, for any reason, said contractor or subcontractor determines that a minority individual or a woman is not qualified or if the individual qualifies as an advanced trainee or apprentice, the contractor or subcontractor shall inform the individual in writing of the reasons for the determination, maintain a copy of the determination in its files, and send a copy to the public agency compliance officer and to the Division.

(7) To keep a complete and accurate record of all requests made for the referral of workers in any trade covered by the contract, on forms made available by the Division and submitted promptly to the Division upon request.

(C) The contractor or subcontractor agrees that nothing contained in (B) above shall preclude the contractor or subcontractor from complying with the union hiring hall or apprenticeship policies in any applicable collective bargaining agreement or union hiring hall arrangement, and, where required by custom or agreement, it shall send journeymen and trainees to the union for referral, or to the apprenticeship program for admission, pursuant to such agreement or arrangement. However, where the practices of a union or apprenticeship program will result in the exclusion of minorities and women or the failure to refer minorities and women consistent with the targeted county employment goal, the contractor or subcontractor shall consider for employment persons referred pursuant to (B) above without regard to such agreement or arrangement; provided further, however, that the contractor or subcontractor shall not be required to employ women and minority advanced trainees and trainees in numbers

which result in the employment of advanced trainees and trainees as a percentage of the total workforce for the construction trade, which percentage significantly exceeds the apprentice to journey worker ratio specified in the applicable collective bargaining agreement, or in the absence of a collective bargaining agreement, exceeds the ratio established by practice in the area for said construction trade. Also, the contractor or subcontractor agrees that, in implementing the procedures of (B) above, it shall, where applicable, employ minority and women workers residing within the geographical jurisdiction of the union.

After notification of award, but prior to signing a construction contract, the contractor shall submit to the public agency compliance officer and the Division an initial project workforce report (Form AA 201) electronically provided to the public agency by the Division, through its website, for distribution to and completion by the contractor, in accordance with N.J.A.C. 17:27-7. The contractor also agrees to submit a copy of the Monthly Project Workforce Report once a month thereafter for the duration of this contract to the Division and to the public agency compliance officer.

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

(D) The contractor and its subcontractors shall furnish such reports or other documents to the Division of Public Contracts Equal Employment Opportunity Compliance as may be requested by the Division from time to time in order to carry out the purposes of these regulations, and public agencies shall furnish such information as may be requested by the Division of Public Contracts Equal Employment Opportunity Compliance for conducting a compliance investigation pursuant to **Subchapter 10 of the Administrative Code (NJAC 17:27)**.

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45. INVESTMENT ACTIVITIES IN IRAN

Pursuant to P.L. 2012, c.25, codified as NJSA 2:32-55 *et seq*, prohibits State and local public contracts with persons or entities engaging in certain investment activities in energy or finance sectors of Iran.

46. COMPLIANCE WITH THE PUBLIC WORKS CONTRACTOR REGISTRATION ACT - (NJSA 34:11-56.48 *et. seq.*)

Pursuant to the above-referenced law, Bidders are required to be registered with the New Jersey Department of Labor and to possess a current certificate by said Department indicating compliance with the Act prior to the time and date that bids are received. Bidders are notified of this requirement of their compliance. Such certificates or applications shall also be provided for each Subcontractor furnishing plumbing and gas fitting, steam and hot water heating and ventilating apparatus, and all kindred work, steam power plants and kindred work, electrical work, structural steel and ornamental iron work, and such other subcontractors as the specifications require relative to prior identification.

47. UTILITIES

Attention of the bidder is directed to the fact that the approximate locations of known utility structures and facilities that may be encountered within and adjacent to the limits of the Work are shown on the plans and described herein. The accuracy and completeness of this information is not guaranteed by the County Engineer and the bidder is advised to ascertain for himself all the facts concerning the location of these and other utilities.

The Contractor will not proceed with his Work until he has made diligent inquiries of all public utility and municipal officials to determine the exact location of all underground structures and pipes within the site of the Project. The Contractor will notify utility owners not less than ten (10) days in advance of the time he proposes to perform any Work that will endanger or affect their facilities in compliance with **New Jersey One-Call**. In excavating in any part of the Work, care must be taken not to remove or damage any gas, water, sewer, or other pipe, conduit, or structure, - public or private - without the concurrence of the owner and the County Engineer. The Contractor will, at his own expense, shore up, secure and maintain a continuous flow in such structures, and will keep them in repair until final acceptance of the Work.

When pipes or other structures are encountered or when the removal, relocation or protection of these utilities are necessary in carrying out the Project as planned, the Contractor will cooperate with the owner of said utilities and will permit the owners or

their agents access to the site of the Work in order to relocate or protect their facilities and not hinder or delay unnecessarily the Work of the owners in moving same. No extra allowance of payment will be made to the Contractor for the use of any materials, equipment, etc., or for the performance of any Work in connection with the moving of said structures unless the Contractor is specifically ordered by the County Engineer to furnish such materials, equipment, or services. If directed by the County Engineer to do any Work or furnish any materials or equipment, payment will be allowed the Contractor in accordance with the unit prices bid for such Work, or, if such items are not scheduled in the proposal, such Work shall be allowed "Supplemental Work" as provided in Section 39 of these general specifications. The corporations, companies, agencies or municipalities owning or controlling the utilities, and the name, and telephone numbers are listed in the beginning of the Technical Specifications.

48. MATERIAL COMPLIANCE AND SHOP DRAWINGS

The Contractor will require the manufacturer or supplier to furnish three (3) copies of Certification of Compliance with each delivery of materials, components and manufactured items for the Project. Two (2) copies will be furnished to the County Engineer; one copy will be retained by the Contractor. Certificates of Compliance will contain the following information:

1. Project to which material is consigned;
2. Name of the Contractor to which the material is supplied;
3. Kind of material supplied;
4. Quantity of material represented by the Certificate;
5. Means of identifying the consignment, such as label marking, seal number, etc.;
6. Date and method of shipment;
7. That the material is in conformity with the pertinent specifications stated in the certificate; and
8. Signature of a person having legal authority to bind the supplier.

The Contractor will submit to the County Engineer for his approval five (5) copies of complete and fully detailed shop or working drawings for those items listed in the beginning of the technical specifications.

Each drawing will identify the name of the job, location and Contractor.

All drawings will be approved in accordance with the standard specifications. Refer to the Technical Specifications for specific items.

All materials or articles used in the Work will be of American manufacture, insofar as same are available, in conformance with N.J.S.A. 40A:11-18.

49. PRECONSTRUCTION

In order to provide full coordination of this Project among the parties concerned, the County Engineer will arrange for a preconstruction meeting between the Contractor, County Engineer and other interested parties as soon as possible after the contract is executed. At this meeting the Contractor will present his proposed schedule of Work which shall be subject to review and approval of the County through its designated representatives.

50. DISPUTES UNDER THE CONTRACT

A dispute arising under the Contract shall be submitted in writing to the County Engineer with all facts and supporting data. The County Engineer will review the dispute and issue his decision or request additional facts or documentation after which he will render his decision.

In the event the dispute is not then resolved, the matter shall, pursuant to law, be submitted to mediation before being submitted to a court of competent jurisdiction venued in Union County.

The County Engineer will notify the County Counsel when a matter is to be submitted to mediation. The County Counsel will communicate with the parties and inform them of the procedures to be followed in making such a submission.

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**51. RESOLUTION NO. 2014-0408 ADOPTED ON MAY 8, 2014
BY THE UNION COUNTY BOARD OF CHOSEN FREEHOLDERS**

In addition to compliance with the New Jersey Prevailing Wage Act, the Contractor shall comply with the requirement as set forth in Resolution No. 2014-0408 adopted on May 8, 2014 by the Union County Board of Chosen Freeholders.

**UNION COUNTY BOARD OF CHOSEN FREEHOLDERS RESOLUTION NO. 2014-0408
DATED: 05/08/2014**

WHEREAS, the County of Union recognizes there is a need to ensure that all work on significant public construction and maintenance contracts is performed by responsible, qualified firms that maintain the capacity, expertise, personnel, and other qualifications and resources necessary to successfully perform public contracts in a timely, reliable, and cost-effective manner; and

WHEREAS, in order to effectuate the purpose of selecting responsible contractors for significant public contracts and to protect Union County's capital investments in such contracts prospective contractors and subcontractors should be required to meet pre-established, clearly-defined, minimum standards relating to contractor responsibility, including requirements and criteria concerning qualifications, competency, expertise, adequacy of resources, including equipment, financial and personnel, and satisfactory records regarding past project performance, safety, legal compliance and business integrity; and

WHEREAS, the County has a compelling interest in assuring that its Public Works Projects meet the highest standard of safety and quality; and

WHEREAS, due to the critical impact that skilled construction craft labor has on public works projects, and due to the limited availability of skilled construction craft labor and imminent craft labor skill shortages, it is necessary to require contractors and subcontractors to participate in established, formal apprenticeship training programs for the purpose of both promoting successful project delivery and ensuring future workforce development; and

WHEREAS, an apprenticeship program is a structured system of training designed to prepare individuals for occupations and life long careers in skilled trades and crafts by providing a wage-paying job that incorporates extensive workplace and classroom training under the supervision of experienced workers, in preparation for highly skilled occupations; and

WHEREAS, apprenticeship programs are a critical component in public safety, by ensuring that workers on public projects are properly trained, able, competent and capable craftsmen, and provide assurance of compliance with the County's bid specifications and achieve high quality standards; and

WHEREAS, for an apprenticeship program to be fully effective, the public and private sectors must recognize its value and commit to supporting its mission; and

WHEREAS, Union County has long recognized the value of apprenticeship programs through its support of the Union County Vocational-Technical Schools, which offer training programs to help ensure that Union County will continue to produce a skilled

and educated work force in the trade specialties, and thus, strengthen Union County's economy by fostering the development of highly paid trade and craft careers; and

WHEREAS, the use of apprenticeship programs or apprenticeship trained employees on Union County Public Works Projects will serve the dual goal of providing the County with assurance that its public works projects are completed with a well-trained workforce, in a highly skilled and timely fashion, while creating opportunities for careers in the skilled trades and craft industry for County residents.

WHEREAS, the County of Union also recognizes that it is beneficial to their employees to utilize fair business, employment, and training practices that have a positive impact on local communities affected by such contracts.

NOW, THEREFORE, BE IT RESOLVED by the Board of Chosen Freeholders of the County of Union as follows:

1. The County of Union shall require compliance with the provisions of this Resolution by business entities seeking to provide services to the County of Union as specified herein. The requirements of this Resolution are intended to supplement, not replace, existing contractor qualifications and performance standards or criteria currently required by law, public policy or contracting documents, including but not limited to Union County's DPMC classification and Project Labor Agreement policies
2. All contractors and subcontractors that perform significant work on any public facility or public works project, including construction, alteration, renovation, repair, service, or maintenance work, shall meet the requirements of this Resolution. For purposes of this Resolution, the term "significant work" shall be defined as any work or activity covered under the New Jersey Prevailing Wage Act, N.J.S.A. 34:11-56.25 et seq.
3. All firms engaged in contracts covered by this Resolution shall be qualified responsible contractors or subcontractors that have sufficient capabilities in all respects to successfully perform contracts on which they are engaged, including the necessary experience, equipment, technical skills and qualifications and organizational, financial and personnel resources. Firms bidding on public contracts shall also be required to have a satisfactory past performance record and a satisfactory record of legal compliance, integrity and business ethics. Compliance with these standards shall be established by compliance with the requirements set forth in paragraph 8 of this Resolution.
4. As a condition of performing work on public works contracts over the public works threshold, the general contractor shall provide certification that he and each subcontractor working on the project shall have at least one (1) employee who has successfully completed the OSHA 10-hour construction safety and health course. As a condition of performing work on public works contracts of \$500,000.00 or more total cost of project, the general contractor shall provide certification that each subcontractor working on the project shall

have at least one (1) employee who has successfully completed the OSHA 30-hour construction safety and health course.

5. All contractors and subcontractors that perform significant work on any public facility or public works project shall be required to affirmatively provide evidence of and confirm compliance with proof of participation in an Apprenticeship Program currently registered and approved by the United States Department of Labor (“USDOL”), the New Jersey Department of Labor (“NJDOL”) or any state having equal to or higher requirements as either the USDOL or NJDOL apprenticeship programs. Additionally, Apprenticeship Programs shall meet the criteria set forth in Section 8(i) of this Resolution.

6. As a condition of performing work on public works contracts subject to this Resolution, a general contractor seeking award of a contract shall submit a Contractor Responsibility Certification at the time it submits its bid for contract.

7. The Contractor Responsibility Certification shall be completed on a form provided by the Union County Purchasing Department and shall reference the project for which a bid is being submitted by name and contract or project number.

8. In the Contractor Responsibility Certification, general contractors and subcontractors shall certify the following facts regarding their past performance and work history and its current qualifications and performance capabilities:

a. The firm has all valid, effective licenses, registrations or certificates required by federal, state, county, or local law, including, but not limited to, licenses, registrations, certificates required to: (1) do business in the designated locale; and (2) perform the contract work it seeks to perform. These shall include, but not be limited to, licenses, registrations or certificates for any type of trade work or specialty work, which the firm proposes to self-perform.

b. The firm meets the bonding requirements for the contract, as required by applicable law or contract specifications and any insurance requirements, as required by applicable law or contract specifications, including general liability insurance, workers compensation insurance and unemployment insurance requirements.

c. The firm has not been debarred by any federal, state or local government agency or authority in the past three (3) years.

d. The firm has not defaulted on any project in the past three (3) years.

e. The firm has not had any type of business, contracting or trade license, registration, or other certification suspended or revoked in the past three (3) years.

f. The firm has not been cited and found guilty for a willful violation of federal or state safety laws in the past three (3) years.

g. The firm and/or its owners have not been convicted of any crime relating to the contracting business by a final decision of a court or government agency in the past three (3) years.

h. The firm will pay all craft employees that it employs on the project the current wage rates and benefits as required under applicable Federal or State prevailing wage laws.

i. The firm participates in an Apprenticeship Program that is currently registered with the USDOL, the NJDOL or any state having equal to or higher requirements as either the USDOL or NJDOL apprenticeship programs, for each craft or trade in which it apprentices. The firm shall provide proof of meeting this qualification standard by submitting appropriate documentation as an attachment to this Certification. The firm shall continue to participate in applicable apprenticeship programs for the full duration of the contract work. The apprenticeship program in which the firm participates shall have graduated at least one (1) enrollee in each of the past three (3) years.

9. The County of Union may conduct any additional inquiries to verify that the prospective awardee and its subcontractors have the technical qualifications and performance capabilities necessary to successfully perform the contract and that the firms have a sufficient record of legal compliance and business integrity to justify the award of a public contract. In conducting such inquiries, the County of Union may seek relevant information from the firm, its prior clients or customers, its subcontractors or any other relevant source.

10. If any provision of this Resolution shall be held to be invalid or unenforceable by a court of competent jurisdiction, any such holding shall not invalidate any other provisions of this Resolution and all remaining provisions shall remain in full force and effect.

NOW, THEREFORE, BE IT RESOLVED by the Board of Chosen Freeholders of the County of Union that it hereby establishes and adopts the Responsible Contractor Policy, and it hereby authorizes the County Manager to sign any and all documents necessary to make said Policy effective immediately.

52. CONTRACTOR BUSINESS REGISTRATION CERTIFICATE New Mandatory Requirement -Effective 1/18/2010

The recently enacted **P.L. 2009, c.315**, requires that effective January 18, 2010; a contracting agency must receive proof of the bidder's business registration prior to the award of a contract. However, the proof must show that the bidder was in fact registered with the State of New Jersey Department of the Treasury, Division of Revenue and obtained the business registration prior to the receipt of bids.

If subcontractors are named on the bid, proof of the business registration for each subcontractor must be provided prior to the award of bid. Similarly to the bidder, the proof must show that each subcontractor was registered with the State of New Jersey Department of the Treasury, Division of Revenue and obtained the business registration prior to the receipt of bids.

Proof of business registration shall be

- A copy of a Business Registration Certificate issued by the Department of the Treasury, Division of Revenue; or
- A copy of the web version provided by the NJ Division of Revenue, or

Register online at <http://www.state.nj.us/treasury/revenue/busregcert.htm>. Click the "online" link and then select "Register for Tax and Employer Purposes or call the Division at 609-292-1730.

Note: A NJ Certificate of Authority is not acceptable.

FAILURE to submit proof of registration of the bidder or any subcontractor named on the bid prior to the award of contract shall be cause to reject the bid.

FAILURE of the bidder or any subcontractor named on the bid to be registered prior to the receipt of bids is cause for a **MANDATORY REJECTION** of bids. (A NON-WAIVABLE DEFECT). This covers construction Work as well as non-construction bids.

IN ADDITION:

N.J.S.A. 52:32-44 imposes the following requirements on Contractors and all subcontractors that knowingly provide goods or perform services for a Contractor fulfilling this contract:

- 1) the Contractor shall provide written notice to its subcontractors and suppliers to submit proof of business registration to the Contractor;
- 2) subcontractors through all tiers of a project must provide written notice to their subcontractors and suppliers to submit proof of business registration and subcontractors shall collect such proofs of business registration and maintain them on file;

- 3) prior to receipt of final payment from a contracting agency, the Contractor must submit to the contacting agency an accurate list of all subcontractors and suppliers or attest that none was used; and,
- 4) during the term of this contract, the Contractor and its affiliates shall collect and remit, and shall notify all subcontractors and their affiliates that they must collect and remit, to the Director, New Jersey Division of Taxation, the use tax due pursuant to the Sales and Use Tax Act, (*N.J.S.A. 54:32B-1 et seq.*) on all sales of tangible personal property delivered into this State.

A Contractor, subcontractor or supplier who fails to provide proof of business registration or provides false business registration information shall be liable to a penalty of \$25 for each day of violation, not to exceed \$50,000 for each business registration copy not properly provided or maintained under a contract with a contracting agency. Information on the law and its requirements are available by calling (609) 292-9292.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

53. BID PROTEST – LEGAL FEES AND COSTS

In the event a Bidder unsuccessfully challenges a Bid Submission by filing an action in a court of law concerning same, said Bidder shall be responsible for payment of reasonable legal costs and fees incurred by the County relating to said protest.

54. AMERICAN GOODS AND PRODUCTS WHERE POSSIBLE

Bidder shall comply with the requirements of NJSA 40A:11-18 and use only manufactured and farm products of the United States, wherever available, for the Project.

55. NEW JERSEY PAY-TO-PLAY REQUIREMENTS

This Contract is required by law to be publicly advertised for bids. As such, lists of political contributions pursuant to NJSA 19A:44A-1 et. seq. are NOT REQUIRED to be provided with the bids.

56. STATEMENT OF EQUIPMENT TO BE USED IN CONSTRUCTION

Pursuant to NJSA 40A:11-20 entitled Certificate of Bidder Showing Ability to Perform Contract, the County requires a Certification from all bidders submitting a bid showing that the Bidder owns, leases, or controls all necessary equipment required by the Project Plans and Specifications. All bidders shall provide this information at the time of the bid opening using the attached form entitled, "CERTIFICATE OF BIDDER SHOWING ABILITY TO PERFORM CONTRACT".

If the Bidder is not the actual owner of the equipment, it shall state the source from which the equipment will be obtained and shall attach a certificate from the owner or person in control of the equipment demonstrating that the equipment owner has granted the Bidder control of the requisite equipment during such time as may be necessary for completion of the portion of the contract for which the equipment is necessary.

57. NEW JERSEY SALES AND USE TAX REQUIREMENTS,

Contractors are required to comply with the following:

New Jersey Sales and Use Tax Requirements: All contractors with subcontractors, or any of their affiliates, who enter into contracts for the provision of goods or services with or for New Jersey local government entities, are required to collect and remit to the New Jersey Director of Taxation in the Department of the Treasury the use tax due on all of their sales of tangible personal property delivered into the State of New Jersey

pursuant to the "Sales and Use Tax Act," (NJSA 54:32B-1 et, seq.), regardless of whether the tangible personal property is intended for a contract with the contracting agency. This tax shall be remitted for the term of the Contract.

For purposes herein "affiliate" shall mean any entity that: (a) directly, indirectly, or constructively controls another entity, (b) is directly, indirectly, or constructively controlled by another entity, or (c) is subject to the control of a common entity. For purposes of the immediately preceding sentence, an entity controls another entity if it owns, directly or indirectly, more than fifty percent (50%) of the ownership interest in that entity. NJSA 52:32-44(g)(3).

ALFRED J. FAELLA
COUNTY MANAGER

MICHAEL M. YUSKA, DIRECTOR
DIVISION OF PURCHASING

BID DOCUMENT SUBMISSION CHECKLIST

ALL SIGNATURES AND SEALS SHALL BE ORIGINALS UNLESS OTHERWISE SPECIFIED
BID SHEETS SHOULD NOT BE SUBMITTED DOUBLE SIDED PAGES, (SINGLE SIDE ONLY)

EACH BIDDER SHOULD COMPLETE THIS FORM AND INITIAL EACH ENTRY.

DATE COMPLETED: _____

IN ACCORDANCE WITH THE BID SPECIFICATIONS I HAVE REVIEWED, COMPLETED / EXECUTED AND INCLUDED THE FOLLOWING FORMS:

_____ Bid Form Page (**Signed, Dated and Bid on all alternatives applicable to the Work**).

_____ Security in the form of:

_____ Bid bond in an amount equal to 10% of the total amount of this bid not to exceed \$20,000.00; or

_____ Certified check or cashier's check in the amount of 10% of this bid not to exceed \$20,000.00

_____ Consent of Surety form signed by a Surety Company if the total amount of your Bid is over \$36,000.00. If your bid is accepted, the Surety Company that provided the Consent shall be required to furnish a Performance, Labor and Materials Bond in the amount of 100% of the award of the contract.

The County of Union has provided its Consent of Surety form for your use. The use of this form by your Surety Company will expedite the bid review process and eliminate the possibility of having your bid rejected. If, however, you should need to use another form, please use language similar to that used on the Union County form and avoid making any additions or deletions to the Union County form language. In lieu of the Consent of Surety you may submit a Certified Check in the full amount of the bid.

_____ STATEMENT OF BIDDER OWNERSHIP. Pursuant to N.J.S.A. 52:25-24.2, which includes **BOTH** of the following documents:

- Bidder Signature Page
- Bidder Disclosure Statement (**Fill out 2 pages completely**)

_____ SUBCONTRACTOR IDENTIFICATION. Pursuant to N.J.S.A. 40A:11-16, which includes **BOTH** of the following documents:

- Subcontractor Identification Statement: List of Subcontractors (**only for certain types of work**)
- Subcontractor Identification Certification

_____ Acknowledgement of Addendum form: (**This form is to be used only when an addendum has been added to the specifications**).

_____ A copy of the State of New Jersey Department of the Treasury, Division of Revenue, **Business Registration Certificate ("BRC")** should be included with the bids as it must be received by the County prior to the award of the contract. The BRC provided must show that the Bidder was registered at the time of receipt of bids or the bid will be rejected.

_____ A copy of the State of New Jersey Department of the Treasury, Division of Revenue, **Business Registration Certificate ("BRC")** of all named or listed subcontractors (List of Subcontractors) in a Construction bid should be included with the bid as the BRC(s) must be received by the County prior to the award of the contract. Each subcontractor's certificate provided must show that the subcontractor was registered at the time of the receipt of bids or the bid will be rejected.

- _____ Affirmative Action Requirement
- _____ Experience Statement
- _____ Certificate of Bidder showing ability to perform Contract
- _____ Non-Collusion Affidavit – Fill out completely and notarize
- _____ Certificates from New Jersey Department of Labor – Public Works Contractor Registration Act. **(Only for certain types of work)**
- _____ Federal Attachments **(If applicable)**
- _____ NJDPMC Certificate / Notice of Classification **(If applicable)**
- _____ Americans with Disabilities Act
- _____ Contractor Responsibility Certification
- _____ Affidavit of General Contractor and Subcontractor OSHA Compliance
- _____ Statement of Bidder's Qualifications
- _____ Contractor Performance Record
- _____ Affidavit Regarding List of Debarred, Suspended or Disqualified Bidders
- _____ Prior Negative Experience Questionnaire
- _____ Contractor's Certification of Compliance – New Jersey Prevailing Wage Act
- _____ Uncompleted Contracts Affidavit **(For Bidder, if applicable) MUST ALSO PROVIDE DPMC FORM 701**
- _____ Certificate of Insurance Statement
- _____ Collection of Use Tax on Sales to Local Government Statement
- _____ Time of Completion
- _____ Disclosure of Investment Activities in Iran form

I HAVE TAKEN THE FOLLOWING ACTIONS:

- _____ Visited the site and attended the Pre-Bid Meeting **(Where applicable)**
- _____ Reviewed the Contract Documents (including any permits the County or its professionals may have obtained), Work, Site, Locality, and Local Conditions and Laws and Regulations that in any manner may affect Cost, Progress, Performance or Furnishing of Work.
- _____ Reviewed Bond Requirements
- _____ Provided Proof of Compliance with New Jersey Prevailing Wage Act
- _____ Reviewed Form of Owner/Contractor Agreement and General Conditions to the Contract

NOTE: QUESTIONS PERTAINING TO THIS BID ARE TO BE DIRECTED TO DIVISION OF ENGINEERING AT 908-789-3675

BIDDING DOCUMENTS

The Bidding Documents consist of the following items:

- **ADDENDA, if issued**
- **CLARIFICATIONS, if issued**
- **INSTRUCTION TO BIDDERS**
- **BID FORM**
- **OWNER-CONTRACTOR AGREEMENT (AIA 101) AND GENERAL CONDITIONS (AIA 201)**
- **SPECIFICATIONS: As outlined in the Table of Contents and included in the Project Manual.**
- **DRAWINGS: As per List of Drawings, indicated on the Project Title Sheet.**

Bidder's Name _____

BID FORM

I/We have carefully examined the plans, specifications, and advertisement for bid for the

**ARTIFICIAL TURF FIELD AT MATTANO PARK
CITY OF ELIZABETH, COUNTY OF UNION, NEW JERSEY
BA#62-2015; Union County Engineering Project #2011-018**

that is on file in the Union County Division of Engineering. I/We have inspected the site of the work and will contract to do all the work and furnish all materials mentioned in said plans and specifications. Work will be accomplished in the manner prescribed therein.

BASE BID ITEMS:

ITEM	DESCRIPTION	UNITS	CONTRACT QUANTITY	UNIT PRICE	AMOUNT
1	Mobilization/Demobilization	L.S.	1		
2	Construction Layout	L.S.	1		
3	Site Clearing & Demolition	L.S.	1		
4	Soil Erosion Sediment Control Measures	L.S.	1		
5	Test Pits, 10' Deep Max (If and Where Directed)	UNIT	10		
6	Site Grading (Includes Excavation of existing topsoil to 8" avg. depth and import of clean fill, compaction)	L.S.	1		
7	Synthetic Turf (for cross-section above choking stone) including Custom Emblem, Numbers, Inlaid Markings	S.Y.	9,225		
8	Porous Large Stone (for field sub-base)	C.Y.	1,700		
9	Choking Stone (for field sub-base)	C.Y.	575		
10	Geotextile Filter Fabric (for field sub-base)	S.Y.	9,225		
11	16' Portable Player Shelter & Bench	UNIT	2		
12	Football Goals, Complete w/ Turf Cover and Pads	UNIT	2		
13	Portable Soccer Goals, Complete w/ Netting	UNIT	2		
14	Portable Lacrosse Goals, Complete w/ Netting	UNIT	2		

15	Flagpole System, Complete with Up-Lights (including electric)	L.S.	1		
16	New ADA Bleachers, 5 Row, 21' Long w/ Concrete Pad	UNIT	2		
17	Relocate Existing Bleachers on New Concrete Pad	UNIT	3		
18	Decorative Park Benches w/ Concrete Pad	UNIT	3		
19	Trash Receptacles w/ Concrete Pads	UNIT	4		
20	Bicycle Rack	UNIT	1		
21	Black Vinyl Coated Chain Link Fencing, 4' High	L.F.	1,830		
22	Black Vinyl Coated Chain Link Double Swing Gate, 4' High, 10' Wide	UNIT	3		
23	Black Vinyl Coated Chain Link Single Swing Gate, 4' High, 4' Wide	UNIT	2		
24	Barrier Netting (30 feet high) and Footings/Posts Complete	L.F.	400		
25	Hot Mix Asphalt Surface Course, HMA9.5M64, 2" Min. Thick, Pedestrian Path	TONS	230		
26	Hot Mix Asphalt Base Course, HMA19M64, 2" Min. Thick, Pedestrian Path	TONS	230		
27	Dense Graded Aggregate Sub-Base Course, 6" min. Thick, Pedestrian Path	S.Y.	2,000		
28	Concrete Curb (9"x18")	L.F.	100		
29	Flush Concrete Header Curb (6"x12")	L.F.	1,200		
30	Landscape Block Retaining Wall, Max Exposed Height 3.25 Feet	S.F.	1,600		
31	Wetlands Signage	UNIT	6		
32	Inlet Type 'A' w/ Bicycle Safe Grate	UNIT	11		
33	Storm Manhole (4' Dia.)	UNIT	5		
34	Reinforced Concrete Headwall and Outlet Protection (10")	L.S.	1		
35	Reinforced Concrete Headwall and Outlet Protection (18")	L.S.	1		
36	6" PVC Storm Drain	L.F.	240		
37	8" HDPE Storm Drain	L.F.	775		
38	10" HDPE Storm Drain	L.F.	106		
39	12" Perforated HDPE Storm Drain	L.F.	840		
40	15" Perforated HDPE Storm Drain Header	L.F.	300		

41	18" HDPE Storm Drain Pipe	L.F.	60		
42	18" Tideflex Inline Backflow Preventer	UNIT	1		
43	24" Tideflex Inline Backflow Preventer	UNIT	1		
44	36" Tideflex Inline Backflow Preventer	UNIT	1		
45	1"x12" Flat Drains for Field Underdrain System	L.F.	4,200		
46	Remove and Construct New 36" Outfall, Headwall, Pipe Connection, Outlet Protection Complete	L.S.	1		
47	Remove and Construction New 24" Outfall, Headwall, Outlet Protection Complete	L.S.	1		
48	36" RCP Storm Drain	L.F.	30		
49	24" RCP Storm Drain	L.F.	30		
50	Re-Lamp, Clean, and Re-Calibrate Existing Sports Lighting	L.S.	1		
51	Topsoil and HydroSeed	S.Y.	7,000		
52	Contract Allowance for Asphalt Price Adjustment	ALLOW	1	\$3,000.00	\$3,000.00
53	Final Cleanup/Site Restoration	L.S.	1		

TOTAL BASE BID ITEMS:

Written

Figures

BID CONTINGENCY: (To be used if and when directed by the County)

ONE HUNDRED THOUSAND DOLLARS

\$100,000.00

Written

Figures

TOTAL BASE BID ITEMS PLUS BID CONTINGENCY AMOUNT:

Written

Figures

NOTE: Bid Contingency may include one-half of one percent of contract amount set aside for local training if and when directed by the County.

Bidder's Name _____

CONSENT OF SURETY
TO ACCOMPANY PROPOSAL (BID)

_____ (hereinafter called Surety), organized and existing under the laws of the State of _____ duly authorized and qualified to transact business in the State of New Jersey, in consideration of the sum of One Dollar (\$1.00), lawful money of the United States of America, to it in hand paid, receipt whereof is hereby acknowledged, and in consideration, hereby certifies and agrees that if the contract for which the attached proposal is made be awarded to _____ (hereinafter called Contractor) for the performance of certain work and labor or the supplying of certain materials, or both, as more particularly set forth in said proposal and described for purposes of this instrument as a proposal for _____ to the COUNTY OF UNION and if Contractor shall enter into the contract, Surety will become bound as surety for its faithful performance, labor and material payment and will provide the Contractor with a performance, labor and material payment bond in the full amount of the contract price.

NOTE:
Expiration date
Needed if Annual
Surety

NAME OF INSURANCE COMPANY
ADDRESS: _____

ORIGINAL SIGNATURE
ATTORNEY-IN-FACT FOR INSURANCE CO.

NOTE: PROOF OF AUTHORITY OF OFFICERS OF SURETY COMPANY TO EXECUTE THIS DOCUMENT MUST BE SUBMITTED.

BIDDER SIGNATURE PAGE

THE BIDDER MUST READ THE FOLLOWING INSTRUCTIONS TO COMPLETE THIS PAGE:

1. If doing business under a **trade name, partnership or a sole proprietorship**, you must submit the bid under exact title of the trade name, partnership, or proprietorship, and the bid must be signed by either the **owner**, or a **partner** and **witnessed** by a **notary public**.
2. If a **Corporation**, the bid must be signed by the **President** or **Vice President** and **witnessed** by a **Corporate Secretary** (corporate title must be exact) and **affix corporate seal**. If a Corporate Secretary does not exist, President or Vice President's signature shall be witnessed by a Notary Public.
3. Other persons **authorized** by **corporate resolution** to execute agreements in its behalf may also sign the bid documents (pages). **Copy of a resolution must accompany the bid.**
4. The person who signs this bid form **must also** sign the **Non-Collusion Affidavit**.
5. You **cannot** witness your own signature.

NAME OF BIDDER

ADDRESS OF BIDDER

**ORIGINAL SIGNATURE
CORPORATE SECRETARY**

**PRINT NAME AND TITLE
CORPORATE SECRETARY**

TEL: _____
FAX: _____
E-Mail: _____

BY: _____
ORIGINAL SIGNATURE

Corporate Seal

PRINT OR TYPE NAME AND TITLE

WARNING: IF YOU FAIL TO FULLY, ACCURATELY, AND COMPLETELY SUPPLY THE INFORMATION REQUESTED ON THIS PAGE, YOUR BID MAY BE REJECTED.

Bidder's Name _____

BIDDER DISCLOSURE STATEMENT

N.J.S.A. 52:25-24.2 (P.L. 1977 c. 33)

Failure of the bidder/respondent to submit the required information is cause for automatic rejection.

CHECK ONE

I certify that the list below contains the names and home addresses of all stockholders holding 10% or more of the issued and outstanding stock of the undersigned.

OR

I certify that no one stockholder owns 10% or more of the issued and outstanding stock of the undersigned.

LEGAL NAME OF BIDDER: _____

Check the box that represents the type of business organization:

- | | | |
|---|--|--|
| <input type="checkbox"/> Partnership | <input type="checkbox"/> Corporation | <input type="checkbox"/> Sole Proprietorship |
| <input type="checkbox"/> Limited Partnership | <input type="checkbox"/> Limited Liability Company | <input type="checkbox"/> Limited Liability Partnership |
| <input type="checkbox"/> Subchapter S Corporation | | |

Complete if the bidder/respondent is one of the 3 types of corporations:

Date Incorporated: _____ **Where Incorporated:** _____

BUSINESS ADDRESS:

Street Address	City	State	Zip Code
-----------------------	-------------	--------------	-----------------

Telephone #	Fax #
--------------------	--------------

Pursuant to N.J.S.A. 52:25-24.2, also referred to as P.L. 1977, c. 33, no corporation or partnership shall be awarded any contract for the performance of any work or the furnishing of any materials or supplies, unless, prior to the receipt of the bid or accompanying the bid of said corporation or partnership, there is submitted a statement setting forth the names and addresses of all stockholders in the corporation or partnership who own ten (10) percent or more of its stock of any class, or of all individual partners in the partnership who own a ten (10) percent or greater interest therein. Further, the Attorney General has concluded that the provisions of N.J.S.A. 52:25-24.2, in referring to corporations and partnerships, are intended to apply to all forms of business entities, including, but not limited to, corporations, limited partnerships, limited liability companies, limited liability partnerships, Subchapter S corporations, partnerships and sole proprietorships.

Bidders are required to disclose whether they are a partnership, corporation, limited liability company or sole proprietorship. The Stockholder Disclosure Certification form shall be completed, signed and notarized. Failure of the bidder to submit the required information is cause for automatic rejection of the bid.

BIDDER DISCLOSURE STATEMENT – (Continued)

N.J.S.A. 52:25-24.2, also referred to as **P.L. 1977, Ch. 33**, requires all corporate, limited liability and partnership bidders for state, county, municipal or school district contracts to submit a list of names and addresses of all stockholders owning 10% or more of their stock or 10% or more of the stock of the corporate stockholders or in the case of partnership or limited liability company, the names and addresses of those partners or owners owning 10% or greater interest in the partnership or limited liability company. Furthermore, the Union County Board of Chosen Freeholders requires a statement from all Bidders, which must indicate all Principals of Bidders.

You must set forth the name, home address, title and percentage of ownership of every person who is an owner of the bidder. You must also set forth the business form of the bidder.

II. Principals:

	NAME	HOME ADDRESS	TITLE	% OF OWNERSHIP
1.				
2.				
3.				
4.				

If one or more of the owners of the Bidder is itself a corporation, limited liability company or partnership, then for that corporation, limited liability company or partnership owner you must set forth the name, home address, title and percentage of ownership of every person who is an owner of that corporation, limited liability company or partnership.

	NAME	HOME ADDRESS	TITLE	% OF OWNERSHIP
1.				
2.				
3.				
4.				

Bidder's Name _____

SUBCONTRACTOR IDENTIFICATION STATEMENT

LIST OF SUBCONTRACTORS

This form is ONLY required for plumbing and gas fitting, steam and hot water heating and ventilating apparatus, steam power plants, electrical work, structural steel, ornamental iron work, and any other trades required to be identified by the specifications (including, but not limited, to satisfying any DPMC Classification requirements).

CHECK THIS BOX IF NONE OF THE ABOVE LISTED TRADES OR THOSE REQUIRED TO BE IDENTIFIED IN THE SPECIFICATIONS ARE TO BE USED TO PERFORM THE WORK

In compliance with N.J.S.A. 40A:11-16 and the bid specifications, the undersigned hereby lists the name or names of the following subcontractors:

Company Name: _____

Address: _____

Telephone: _____ Subcontract Amount: \$ _____

Specific Scope of Work Subcontracted: _____

License No. _____

Company Name: _____

Address: _____

Telephone: _____ Subcontract Amount: \$ _____

Specific Scope of Work Subcontracted: _____

License No. _____

Company Name: _____

Address: _____

Telephone: _____ Subcontract Amount: \$ _____

Specific Scope of Work Subcontracted: _____

License No. _____

IF MORE THAN THREE SUBCONTRACTORS, PLEASE COPY THIS SHEET AS NECESSARY AND ATTACH TO THE BID PACKAGE.

(Continued on following page)

Bidder's Name _____

SUBCONTRACTOR IDENTIFICATION CERTIFICATION

Note the law does not permit the listing of alternate subcontractors. However, multiple subcontractors for the same trade are permitted to be named provided the bidder meets the following requirements:

- Bidder identifies each subcontractor named for that category;
- Bidder states the scope of work, goods and services (the portion of the work) to be performed by each subcontractor; and
- Bidder provides the price quote provided by each subcontractor.

The bidder is advised that any change of subcontractor(s) from ones listed herein is subject to the County's approval. Change of subcontractor(s) will be approved only if made for good cause and not as a result of an arbitrary purpose.

The undersigned Bidder certifies and declares that the subcontractors listed above shall be used as subcontractors to complete certain portions of the work in this project as set forth in N.J.S.A. 40A: 11-16.

Witness

Date _____

NAME OF BIDDER

ADDRESS

By: _____
ORIGINAL SIGNATURE ONLY

PRINT NAME AND TITLE

Bidder's Name: _____

ACKNOWLEDGMENT OF ADDENDUM

COUNTY OF UNION

(Name of Construction /Public Works Project)

(Project or Bid Number)

Pursuant to N.J.S.A. 40A:11-23.1a., the undersigned bidder, hereby acknowledges receipt of the following notices, revisions, or addenda to the bid advertisement, specifications or bid documents. By indicating date of receipt, bidder acknowledges the submitted bid takes into account the provisions of the notice, revision or addendum. Note that the County of Union's record of notice to bidders shall take precedence and that failure to include provisions of changes in a bid proposal may be subject for rejection of the bid.

Local Unit Reference Number or Title of Addendum/Revision	How Received (mail, fax, pick-up, etc.)	Date Received

ACKNOWLEDGMENT BY BIDDER:

NAME OF BIDDER: _____

ORIGINAL SIGNATURE: _____

PRINTED NAME AND TITLE: _____

DATE: _____

CONTRACTOR BUSINESS REGISTRATION CERTIFICATE

New Mandatory Requirement - Effective 1/18/2010

The recently enacted **P.L. 2009, c.315**, requires that effective January 18, 2010; a contracting agency must receive proof of the bidder's business registration prior to the award of a contract. However, the proof must show that the bidder was in fact registered with the State of New Jersey Department of the Treasury, Division of Revenue and obtained the business registration prior to the receipt of bids.

If subcontractors are named on the bid, proof of the business registration for each subcontractor must be provided prior to the award of bid. Similarly to the bidder, the proof must show that each subcontractor was registered with the State of New Jersey Department of the Treasury, Division of Revenue and obtained the business registration prior to the receipt of bids.

Proof of business registration shall be

- A copy of a Business Registration Certificate issued by the Department of the Treasury, Division of Revenue; or
- A copy of the web version provided by the NJ Division of Revenue, or

Register online at www.nj.gov/treasury/revenue/taxreg.htm. Click the "online" link and then select "Register for Tax and Employer Purposes or call the Division at 609-292-1730.

Note: A NJ Certificate of Authority is not acceptable.

FAILURE to submit proof of registration of the bidder or any subcontractor named on the bid prior to the award of a contract shall be cause to reject the bids.

FAILURE of the bidder or any subcontractor named on the bid to be registered prior to the receipt of bids is cause for a **MANDATORY REJECTION** of bids. (A NON-WAIVABLE DEFECT). This covers construction work as well as non-construction bids.

IN ADDITION:

The contractor shall provide written notice to all **subcontractors and suppliers** not specifically named on the bid of the responsibility to register and submit proof of business registration to the contractor. The requirement of proof of business registration extends down through all levels (tiers) of the project.

Before final payment on the contract is made by the contracting agency, the contractor shall submit an accurate list and the proof of business registration of each subcontractor or supplier used in the fulfillment of the contract, or shall attest that no subcontractors were used.

For the term of the contract, the contractor and each of its affiliates and a subcontractor and each of its affiliates [N.J.S.A. 52:32-44(g)(3)] shall collect and remit to the Director, New Jersey Division of Taxation, the use tax due pursuant to the Sales and Use Tax Act on all sales of tangible personal property delivered into this State, regardless of whether the tangible personal property is intended for a contract with a contracting agency.

A business organization that fails to provide a copy of a business registration as required pursuant to section 1 of P.L.2001,c.134 (C.52:32-44 et al.) or subsection e. or f. of section 92 of P.L.1977,c.110 (C.5:12-92), or that provides false business registration information under the requirements of either of those sections, shall be liable for a penalty of \$25 for each day of violation, not to exceed \$50,000 for each business registration copy not properly provided under a contract with a contracting agency.

Bidder's Name _____

BUSINESS REGISTRATION
Mandatory Requirement

P.L. 2009, c.315, requires that effective January 18, 2010; a contracting agency must receive proof of the bidder's business registration prior to the award of a contract. However, the proof must show that the bidder was in fact registered with the State of New Jersey Department of the Treasury, Division of Revenue and obtained the business registration prior to the receipt of bids.

If subcontractors are named on the bid, proof of the business registration for each must be provided prior to the award of a contract. Similarly to the bidder, the proof must show that each subcontractor was registered with the State of New Jersey Department of the Treasury, Division of Revenue and obtained the business registration prior to the receipt of bids.

Proof of business registration shall be:

- A copy of a Business Registration Certificate issued by the Department of Treasury, Division of Revenue; or
- A copy of the web printed version provided by the NJ Division of Revenue

STATE OF NEW JERSEY BUSINESS REGISTRATION CERTIFICATE	
Taxpayer Name:	TAX REG TEST ACCOUNT
Trade Name:	
Address:	847 ROEBLING AVE TRENTON, NJ 08611
Certificate Number:	1093907
Date of Issuance:	October 14, 2004
For Office Use Only:	20041014112623533

ATTACH BRC HERE

Bidder's Name _____

AFFIRMATIVE ACTION REQUIREMENT

REQUIRED AFFIRMATIVE ACTION EVIDENCE

General Requirements of P.L. 1975, c. 127: You are hereby put on notice that:

CONSTRUCTION CONTRACTS: The successful contractor must submit within three (3) days of the notice of intent to award or the signing of the contract the initial project manning report (A.A.201). This report should be submitted at the time the signed contract is returned to the County of Union. Attention: *Affirmative Action Officer*.

If the successful contract does not submit the initial project manning report (A.A.201) within the three (3) days from the time the signed contract is returned to the County of Union, the County of Union WILL declare the contractor non-responsive and award the contract to the next lowest responsible bidder.

NAME OF BIDDER

ORIGINAL SIGNATURE

PRINT OR TYPE NAME AND TITLE

DATE THIS FORM IS COMPLETED

EXPERIENCE STATEMENT

I hereby certify that my company has performed the following private or public work, which is relevant to this bid. I further certify that my company has never defaulted under any contract. Should you not sign this form due to prior defaults, please provide details on an attached sheet.

Witness

Date

NAME OF BIDDER

ADDRESS

By: _____
ORIGINAL SIGNATURE ONLY

PRINT NAME AND TITLE

YOU MAY ATTACH ADDITIONAL SHEETS, BUT YOU MUST SIGN AND WITNESS THIS SHEET.

Contractor Registration Advisement
For Public Works Projects

A new law, known as "The Public Works Contractor Registration Act" (P.L. 1999, c.238), became effective April 11, 2000. Under the Act, no contractor/subcontractor will be permitted to bid on or engage in any contract for public work, as defined in Section 2 of P.L. 1963, c.150 (C:34:11-56.26), unless that contractor/subcontractor is registered with the New Jersey Department of Labor. The Act provides that upon registration with the Department, a public works contractor/subcontractor will be issued a certificate by the Department indicating compliance with the Act's requirements. The registration fee has been set at \$300.00 per year. Upon the effective date of the Act, public bodies will be expected to request production of such a certificate from those bidding on or engaging in public works projects.

It is important to note that the term "contractor," is defined in the, Act as, "a person, partnership, association, joint stock company, trust, corporation or other legal business entity or successor thereof who enters into a contract which is subject to the provision of the "New Jersey Prevailing Wage Act," P.L. 1963, c.150 (C.34:11-56.25, et seq.) for the construction, reconstruction, demolition, alteration, repair or maintenance of a public building regularly open to and used by the general public or a public institution, and includes any subcontractor or lower tier subcontractor as defined herein: except that, for the purposes of the act, no pumping station, treatment plant or other facility associated with utility and environmental construction, reconstruction, demolition, alteration, repair or maintenance shall be regarded as a public building regularly open to and used by the general public or a public institution."

Registration forms, copies of the Act, and other relevant information can be obtained by contacting:

Contractor Registration Unit
New Jersey Department of Labor
Division of Wage & Hour Compliance
PO Box 389
Trenton, New Jersey 08625-0389
Telephone: 609-292-9464
Fax: 609-633-8591
E-mail: contreg@dol.state.nj.us

Bidder's Name _____

AMERICANS WITH DISABILITIES ACT
EQUAL OPPORTUNITY FOR INDIVIDUALS WITH DISABILITIES

The contractor and the County of Union (hereafter "Owner") do hereby agree that the provisions of Title II of the Americans With Disabilities Act of 1990 (the "Act") (42 U.S.C.S12.101 et seq.), which prohibits discrimination on the basis of disability by public entities in all services, programs and activities provided or made available by public entities, and the rules and regulations promulgated pursuant thereto, are made a part of this contract. In providing any aid, benefit, or service on behalf of the Owner pursuant to this contract, the contractor agrees that the performance shall be in strict compliance with the Act. In the event the contractor, its agents, servants, employees, or subcontractors violate or are alleged to have violated the Act during the performance of this contract, the contractor shall defend the Owner in any action or administrative proceeding commenced pursuant to this Act. The contractor shall indemnify, protect, and save harmless the Owner, its agents, servants, and employees from and against any and all suits, claims, losses, demands, or damages of whatever kind or nature arising out of or claimed to arise out of the alleged violation. The contractor shall, at its own expense, appear, defend, and pay any and all charges for legal services and any and all costs and other expenses arising from such action or administrative proceeding or incurred in connection therewith. In any and all complaints brought pursuant to the Owner's grievance procedure, the contractor agrees to abide by any decision of the Owner which is rendered pursuant to said grievance procedure. If any action or administrative proceeding results in an award of damages against the Owner, or if the Owner incurs any expense to cure a violation of the ADA which has been brought pursuant to its grievance procedure, the contractor shall satisfy and discharge the same at its own expense.

The Owner shall, as soon as practicable after a claim has been made against it, give written notice thereof to the contractor along with full and complete particulars of the claim. If any action or administrative proceeding is brought against the Owner or any of its agents, servants, and employees, the Owner shall expeditiously forward or have forwarded to the contractor every demand, complaint, notice, summons, pleading, or process received by the Owner or its representatives.

It is expressly agreed and understood that any approval by the Owner of the services provided by the contractor pursuant to this contract will not relieve the contractor of the obligation to comply with the Act and to defend, indemnify, protect, and save harmless the Owner pursuant to this paragraph.

It is further agreed and understood that the Owner assumes no obligation to indemnify or save harmless the contractor, its agents, servants, employees and subcontractors for any claim which may arise out of their performance of this Agreement. Furthermore, the contractor expressly understands and agrees that the provisions of this indemnification clause shall in no way limit the contractor's obligations assumed in this Agreement, nor shall they be construed to relieve the contractor from any liability, nor preclude the Owner from taking any other actions available to it under any other provisions of this Agreement or otherwise at law.

Name _____ (Please print or type)

Signature _____ Date _____

Bidder's Name _____

CONTRACTOR RESPONSIBILITY CERTIFICATION

STATE OF NEW JERSEY / _____)

Specify, if Other) SS:

COUNTY OF _____)

I, _____, of the (City, Town, Borough, etc.) of _____ State of _____, of full age, being duly sworn according to law on my oath depose and say that:

I am _____ of the firm of _____, the Bidder making the proposal for the following Project ("Contractor"):

_____, and that I executed said proposal with full authority to do so;

With respect to past performance, work history, current qualifications and performance capabilities, I certify the following with respect to the Bidder/General Contractor and all of the subcontractors on this Project, I certify the following:

- a. The firms have all valid, effective licenses, registrations or certificates required by federal, state, county, or local law, including, but not limited to, licenses, registrations, certificates required to: (1) do business in the designated locale; and (2) perform the contract work it seeks to perform. These include, but are not limited to, licenses, registrations or certificates for any type of trade work or specialty work to be self-performed by Bidder and/or subcontractors.
- b. The firms meet the bonding requirements for the contract, as required by applicable law or the specifications and any insurance requirements, as required by applicable law or the specifications, including general liability insurance, workers compensation insurance and unemployment insurance requirements.
- c. The firms have not been debarred by any federal, state or local government agency or authority in the past three (3) years.
- d. The firms have not defaulted on any project in the past three (3) years.
- e. The firms have not had any type of business, contracting or trade license, registration, or other certification suspended or revoked in the past three (3) years.

f. The firms have not been cited and found guilty for a willful violation of federal or state safety laws in the past three (3) years.

g. The firms and/or its owners have not been convicted of any crime relating to the contracting business by a final decision of a court or government agency in the past three (3) years.

h. The firms will pay all craft employees that it employs on the project the current wage rates and benefits as required under applicable Federal or State prevailing wage laws.

i. The firms participates in an Apprenticeship Program that is currently registered with the USDOL, the NJDOL or any state having equal to or higher requirements as either the USDOL or NJDOL apprenticeship programs, for each craft or trade in which it apprentices. The apprenticeship program in which the firm participates shall have graduated at least one (1) enrollee in each of the past three (3) years.

***** Proof of meeting this qualification standard shall be attached to this form. Bidder shall provide proof of meeting this qualification for those subcontractors required to be identified either pursuant to law or the requirements of the specifications.**

The firms shall continue to participate in the applicable apprenticeship programs for the full duration of the contract work.

Name of Bidder/General Contractor

By: _____
(Signature of Authorized Representative)

Subscribed and sworn to before me
this _____ day of _____, 20__.

(Seal) Notary Public of New Jersey/

Specify Other State

My Commission expires _____, 20__.

NOTE: FAILURE TO COMPLETE AND SUBMIT THIS DOCUMENT WITH YOUR PROPOSAL MAY RESULT IN A REJECTION OF YOUR BID.

Bidder's Name _____

AFFIDAVIT OF GENERAL CONTRACTOR & SUBCONTRACTOR

OSHA COMPLIANCE

STATE OF NEW JERSEY / _____)

Specify, if Other) SS:

COUNTY OF _____)

In accordance with Union County Resolution 2014-0408 I, _____
_____, of the (City, Town, Borough, etc.) of _____
_____ State of _____, of full age, being duly sworn according to law on my oath
depose and say that:

- 1) I am _____ of the firm of _____
_____, the Bidder and General Contractor making the Proposal for the above named Project.
- 2) I have executed the said Proposal with full authority to do so.
- 3) Said Bidder/General Contractor and each subcontractor working on the Project have at least one (1) employee who has successfully completed the OSHA 10-hour construction safety and health course.
- 4) If this Project is in excess of \$500,000.00, the Bidder/General Contractor and each subcontractor working on the Project has at least one (1) employee who has successfully completed the OSHA 30-hour construction safety and health course.

Name of Bidder/General Contractor

By: _____
(Signature of Authorized Representative)

Bidder's Name _____

AFFIDAVIT OF GENERAL CONTRACTOR & SUBCONTRACTOR

OSHA COMPLIANCE – (Continued)

Subscribed and sworn to before me

this _____ day of _____, 20__.

(Seal) Notary Public of New Jersey/

Specify Other State

My Commission expires _____, 20__.

NOTE: FAILURE TO COMPLETE AND SUBMIT THIS DOCUMENT WITH YOUR PROPOSAL MAY RESULT IN A REJECTION OF YOUR BID.

Bidder's Name _____

STATEMENT OF BIDDER'S QUALIFICATIONS

All questions must be answered and the data given must be clear and comprehensive. This statement must be notarized. Questions may be answered on separate attached sheets. The Bidder may submit any additional information it desires.

1. _____
(Name of Bidder)

2. _____
(Permanent Main Office Address)

3. _____
(When Organized)

4. _____
(If a Corporation, where incorporated)

5. Number of years your organization has been engaged in construction or contracting business under present firm or trade name? _____

6. How many years of experience in construction work has your organization had (a) as a general contractor? And/or (b) As a subcontractor? _____

7. Contracts on hand: (Attach a list or table showing gross amounts of each Contract and the appropriate dates of completion) _____

8. General character of work performed by you. _____

9. Have you ever failed to complete any work awarded to you? _____

10. Have you ever defaulted on a Contract? _____ If so, complete details, including where and why?

Bidder's Name _____

STATEMENT OF BIDDER'S QUALIFICATIONS - (continued)

11. Has any officer or partner of your organization ever failed to complete a construction contract handled in its own name? If so, state name of individual, name of owner, location and type of project, and reason for the failure to complete. _____

12. List your major equipment available for this Contract.

13. Experience in the construction work similar in importance to this Project.

14. Have you had any material adverse changes from the trades as listed in NJ Notice of Classification within last five (5) years? _____. If so, list prior classification.

15. Background and experience of the principal members of your organization, including the officers.

Individual's Name	Present Position or Office	Yrs. of Construction Experience	Magnitude & Type of Work	In What Capacity

Bidder's Name _____

16. Bank Reference. (Name, Address, Phone, Representative) _____
17. Will you, upon request, fill out a detailed financial statement and furnish any other information that may be required by the proper agency? _____
18. The undersigned, hereby authorizes and requests any person, firm or corporation to furnish any information requested by the proper agency in verification of the responses comprising this Statement of Bidder's Qualifications.
17. Bidder's telephone number, fax number and e-mail address (if applicable).
- Phone _____
- Fax _____
- E-mail _____
- Mobile _____

Dated at _____ this _____ day of __, 20__.

BIDDER (Signature)

BIDDER (Print Name)

Subscribed and sworn to before me
this _____ day of _____, 20__.

(Seal) Notary Public of New Jersey/
Specify Other State
My Commission Expires _____, 20__.

**NOTE: FAILURE TO COMPLETE AND SUBMIT THIS DOCUMENT WITH
YOUR PROPOSAL MAY RESULT IN A REJECTION OF YOUR BID.**

Bidder's Name _____

CONTRACTOR PERFORMANCE RECORD

List all contracts completed by you below or provide separate form.

Name of Owner	Name & Location of Project: Type Of Work	Prime or Sub-Cont.	Engineer or Architect in Charge for Owner	Contract Price (Omit Cost)	Date Completed	Was Time* Extension Necessary	Were Any Penalties Imposed	Were Liens* Claims or Stop Notice Filed

* If answer is YES, provide explanation of details in connection with non-completion of contracts, time extensions, penalties imposed, labor troubles, liens, claims and notices filed against contracts listed in preceding item "Performance Record" on an attached sheet.

NOTE: FAILURE TO COMPLETE AND SUBMIT THIS DOCUMENT WITH YOUR PROPOSAL MAY RESULT IN A REJECTION OF YOUR BID.

Bidder's Name _____

CONTRACTOR PERFORMANCE RECORD
CERTIFICATION

The information above is true and complete to the best of my knowledge and belief.

(Name of Organization)

(Signature)

(Title)

Subscribed and sworn to before me

this _____ day of _____, 20__.

(Seal) Notary Public of New Jersey/
Specify Other State

My Commission Expires _____, 20__.

PRIOR NEGATIVE EXPERIENCE QUESTIONNAIRE

(N.J.S.A. 40A:11-4)

1. Within the past ten (10) years, have you been found, through either court adjudication, arbitration, mediation, or other contractually stipulated alternate dispute resolution mechanism, to have: failed to provide or perform goods or services; or failed to complete a contract in a timely manner; or otherwise performed unsatisfactorily under a prior contract with a public entity?

_____ yes _____ no If yes, please provide full, detailed explanation.

2. Within the past ten (10) years, have you defaulted on a contract, thereby requiring a public entity to utilize the services of another contractor to provide the goods or perform the services or to correct or complete the contract?

_____ yes _____ no If yes, please provide full, detailed explanation.

3. Within the past ten (10) years, have you defaulted on a contract, thereby requiring a public entity to look to your surety for completion of the contract or tender of the costs of completion?

_____ yes _____ no If yes, please provide full, detailed explanation.

4. Within the past ten (10) years, have you been debarred or suspended from contracting with any of the agencies or department of the executive branch of the State of New Jersey at the time of the contract award, where the action was based on failure to perform a contract for goods or services with a public entity?

_____ yes _____ no If yes, please provide full, detailed explanation.

Bidder's Name _____

PRIOR NEGATIVE EXPERIENCE CERTIFICATION

I hereby certify that the above statements are true and accurate as of this _____
day of _____, 20__.

Name of Contractor

By _____
(Signature of Authorized Representative)

Subscribed and sworn to before me
this _____ day of _____, 20__.

(Seal) Notary Public of New Jersey/
Specify Other State

My Commission Expires _____, 20__.

NOTE: FAILURE TO COMPLETE AND SUBMIT THIS DOCUMENT WITH YOUR PROPOSAL MAY RESULT IN A REJECTION OF YOUR BID.

Bidder's Name _____

TO BE COMPLETED ONLY WHEN FINAL PAYMENT IS REQUESTED

CONTRACTOR'S CERTIFICATION OF COMPLIANCE - NEW JERSEY PREVAILING WAGE ACT

TO: County of Union
Division of Engineering
2325 South Avenue
Scotch Plains, New Jersey 07076

CONTRACT:

PROJECT:

In accordance with the requirements of the New Jersey Prevailing Wage Act, N.J.S.A. 34:11-56 et al *, the undersigned contractor on the public work being performed for:

COUNTY OF UNION

hereby certifies that he/she has complied with the contract requirements regarding the payment of the minimum prevailing wages established under "The New Jersey Prevailing Wage Act" N.J.S.A. 34:11-56 et al.

CONTRACTOR:

ADDRESS:

BY:

ORIGINAL SIGNATURE ONLY

STATE OF NEW JERSEY
COUNTY OF _____

Being by me duly sworn according to law, on his oath deposes and says that _____ is _____ of _____ the above named contractor, and that the facts set forth in the above statement are true.

Subscribed and sworn before me
this ____ day of _____, 200__.

Notary Public: _____
My Commission Expires: _____

* N.J.S.A. 34:11-56.33 requires the contractor and subcontractor to file written statements with the public body in form satisfactory to the Commissioner certifying to the amounts then due and owing from such contractor and subcontractor filing such statement to any and all workmen for wages due on account of the public work, setting forth therein the names of the persons whose wages are unpaid and the amount due to each respectively. Union County will withhold the amount so deducted for the benefit of the workmen whose wages are unpaid as shown by the verified statement filed, and will pay directly to any workman the amount shown by such statement to be due to him for such wages. Such payment shall thereby discharge the obligation of the contractor to the person receiving such payment to the extent of the amount thereof.

Bidder's Name _____

UNCOMPLETED CONTRACTS AFFIDAVIT
(To be Submitted with DPMC Form 701)

PURSUANT TO N.J.A.C. 17:19-2.13, BIDDER DECLARES THE FOLLOWING WITH RESPECT TO ITS UNCOMPLETED CONTRACTS, ON ALL WORK, FROM WHATEVER SOURCE (PUBLIC AND PRIVATE), BOTH IN NEW JERSEY AND FROM OTHER GOVERNMENTAL JURISDICTIONS

ENTITY	PROJECT TITLE	ORIGINAL CONTRACT AMOUNT	UNCOMPLETED AMOUNT AS OF BID OPENING DATE	NAME AND TELEPHONE NUMBER OF PARTY TO BE CONTACTED FROM ENTITY FOR VERIFICATION

TOTAL AMOUNT OF UNCOMPLETED CONTRACTS \$ _____

Sworn and Subscribed to Before me

This _____ day of _____, 20____

Notary Public

BIDDER:

(Signature)

(Print Name)

NOTE: FAILURE TO COMPLETE AND SUBMIT THIS DOCUMENT WITH YOUR PROPOSAL MAY RESULT IN A REJECTION OF YOUR BID.

Bidder's Name _____

CERTIFICATE OF INSURANCE STATEMENT

The Bidder fully understands the County of Union insurance requirements as stated in the Instructions to Bidders as well as the Owner/Contractor Agreement and agrees to provide all insurance required by these documents prior to the issuance of the Notice to Proceed.

BIDDER (Signature)

BIDDER (Print Name)

NOTE: FAILURE TO COMPLETE AND SUBMIT THIS DOCUMENT WITH YOUR PROPOSAL MAY RESULT IN A REJECTION OF YOUR BID.

Bidder's Name _____

COLLECTION OF USE TAX ON SALES TO LOCAL GOVERNMENTS STATEMENT

The Bidder fully understands the requirements of the use tax on sales to local governments as stated in the General Conditions to the Contract for Construction and the Instructions to Bidders, and agrees at all times to comply with the "Contractor Use Tax Collection Legislation", as defined therein, and the terms relating thereto contained in the Contract Documents.

BIDDER (Signature)

BIDDER (Print Name)

NOTE: FAILURE TO COMPLETE AND SUBMIT THIS DOCUMENT WITH YOUR PROPOSAL MAY RESULT IN A REJECTION OF YOUR BID.

Bidder's Name _____

TIME OF COMPLETION

The undersigned proposed that if awarded the Contract, the scope of work will be started within ten (10) calendar days and will be substantially completed within **180 calendar days** from the date of the notice to proceed.

I, _____ of _____
NAME (Print or type) COMPANY

Agree to complete work in the time frame specified _____
SIGNATURE

SITE VISIT – GENERAL CONTRACTOR

I, _____ of _____
NAME (Print or type) COMPANY

Visited the site of the work on _____
SIGNATURE

**COUNTY OF UNION NEW JERSEY
Division of Purchasing**

DISCLOSURE OF INVESTMENT ACTIVITIES IN IRAN

Solicitation Number: _____ Bidder/Offeror: _____

Pursuant to Public law 2012, c. 25, any person or entity that submits a bid or proposal or otherwise proposes to enter into or renew a contract must complete the certification below to attest, under penalty of perjury, that the person or entity, or one of the person or entity's parents, subsidiaries, or affiliates, is not identified on a list created and maintained by the Department of the Treasury as a person or entity engaging in investment activities in Iran. If the Director finds a person or entity to be in violation of the principles which are the subject of the law, s/he shall take action as may be appropriate and provided by law, rule or contract, including but not limited to, imposing sanctions, seeking compliance, recovering damages, declaring the party in default and seeking debarment or suspension of the person or entity.

I certify, pursuant to Public Law 2012, c. 25, that the person or entity listed above for which I am authorized to bid/renew:

is not providing goods or services of \$20,000,000 or more in the energy sector of Iran, including a person or entity that provides oil or liquefied natural gas tankers, or products used to construct or maintain pipe lines used to transport oil or liquefied natural gas, for the energy sector of Iran,
AND

is not a financial institution that extends \$20,000,000 or more in credit to another person or entity, for 45 days or more, if that person or entity will use the credit to provide goods or services in the energy sector in Iran.

In the event that a person or entity is unable to make the above certification because it or one of its parents, subsidiaries, or affiliates has engaged in the above-referenced activities, a detailed, accurate and precise description of the activities must be provided in part 2 below to the Division of Purchase under penalty of perjury. Failure to provide such will result in the proposal being rendered as non-responsive and appropriate penalties, fines and/or sanctions will be assessed as provided by law.

PART 2: PLEASE PROVIDE FURTHER INFORMATION RELATED TO INVESTMENT ACTIVITIES IN IRAN. You must provide, accurate and precise description of the activities of the bidding person/entity, or one of its parents, subsidiaries or affiliates, engaging in the investment activities in Iran outlined above by completing the boxes below.

Name _____ Relationship to Bidder/Offeror _____

Description of Activities _____

Duration of Engagement _____ Anticipated Cessation Date _____

DISCLOSURE OF INVESTMENT ACTIVITIES IN IRAN – (Continued)

Bidder/Offeror
Contact Name _____ Contact Phone Number _____

Certification: I, being duly sworn upon my oath, hereby represent and state that the foregoing information and any attachments thereto to the best of my knowledge are true and complete. I attest that I am authorized to execute this certification on behalf of the above referenced person or entity. I acknowledge that Union County is relying on the information contained herein and hereby acknowledge that I am under a continuing obligation from the date of this certification through the completion of any contracts with the County to notify the County in writing of any changes to the answers of information contained herein. I acknowledge that I am aware that it is a criminal offense to make a false statement or misrepresentation in this certification, and if I do so, I recognize that I am subject to criminal prosecution under the law and that it will also constitute a material breach of my agreement(s) with Union County, New Jersey and that the County at its option may declare any contract(s) resulting from this certification void and unenforceable.

Full Name (Print) _____ Signature _____

Title _____ Date _____

STANDARD SPECIFICATIONS

The Standard Specifications for Road and Bridge Construction of New Jersey Department of Transportation, 2007 Edition; is added to and/or amended elsewhere herein by the Notice to Contractors (Advertisement), Proposal, Information for Bidders, General Conditions, Special Provisions, Project Plans, and Supplementary Specifications; shall, insofar as technical requirements are involved, govern in the execution of this project.

Such Standard Specifications are made a part of these Specifications by this reference and will not be repeated herein. It is the responsibility of prospective bidders to familiarize themselves with these Standard Specifications, copies of which may be examined at the office of the Engineer and may be obtained, upon payment of the cost thereof, from:

Department of Transportation
State of New Jersey
1035 Parkway Avenue
Trenton, New Jersey 08625

The Notice to Bidders (Advertisement), Proposal, General Conditions, Instructions to Bidders, Special Provisions, Project Plans and/or Technical Specifications shall govern and prevail in the case of conflict between them and the Standard Specifications.

In these Standard Specifications the words "COMMISSIONER" or "DEPARTMENT" shall refer to and mean the person, persons, body, board or agent legally empowered to enter into contracts and otherwise legally act for the Owner. The words "RESIDENT ENGINEER (RE)", "ENGINEER" or "STATE" shall refer to and mean the professional engineering representative of the Owner as hereinbefore defined and the word "INSPECTOR" shall mean the authorized project representative of the Engineer with the authority as hereinbefore defined. The word "LABORATORY" shall mean and refer to the Engineer who may, at his discretion, and with the consent of the Owner, employ qualified technical personnel or testing laboratories to assist him in fulfilling the duties normally assigned to the "LABORATORY" in these Standard Specifications.

When reference is made herein to the bulletins, standards, specifications, publications or requirements of the Manual on Uniform Traffic Control Devices (MUTCD), Institute of Traffic Engineers (ITE), Federal Highway Administration (FHWA), American Association of State Highway Officials (AASHTO), the American Concrete Institute (ACI), the American Society of Civil Engineers (ASCE) or similar national or regional societies, associations, institutes or organizations; the requirements of the bulletins, specifications, publications or requirements referred to shall be considered a part of these Specifications by such reference and shall not be repeated herein but shall have the same import and be as binding as if herein set forth in full.

DRAFT AIA Document A101™ - 2007

Standard Form of Agreement Between Owner and Contractor where the basis of payment is a Stipulated Sum

AGREEMENT made as of the day of in the year
(In words, indicate day, month and year.)

BETWEEN the Owner:
(Name, legal status, address and other information)

and the Contractor:
(Name, legal status, address and other information)

for the following Project:
(Name, location and detailed description)

The County Engineer or his designee:
(Name, legal status, address and other information)

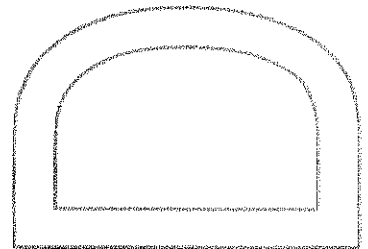
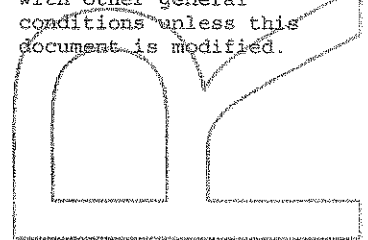
The Owner and Contractor agree as follows.



ADDITIONS AND DELETIONS:
The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An Additions and Deletions Report that notes added information as well as revisions to the standard form text is available from the author and should be reviewed.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

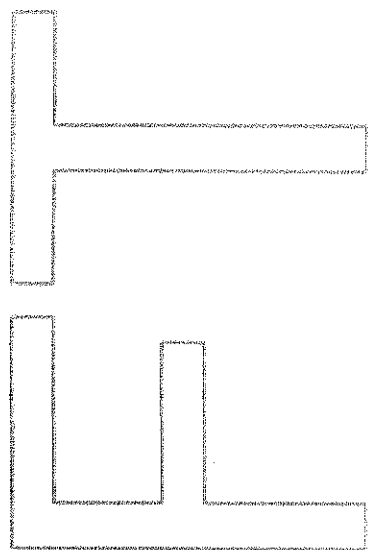
AIA Document A201™-2007, General Conditions of the Contract for Construction, is adopted in this document by reference. Do not use with other general conditions unless this document is modified.



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TABLE OF ARTICLES

- 1 THE CONTRACT DOCUMENTS
- 2 THE WORK OF THIS CONTRACT
- 3 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION
- 4 CONTRACT SUM
- 5 PAYMENTS
- 6 DISPUTE RESOLUTION
- 7 TERMINATION OR SUSPENSION
- 8 MISCELLANEOUS PROVISIONS
- 9 ENUMERATION OF CONTRACT DOCUMENTS
- 10 INSURANCE AND BONDS



ARTICLE 1 THE CONTRACT DOCUMENTS

The Contract Documents consist of this Agreement, Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications, Addenda issued prior to execution of this Agreement, other documents listed in this Agreement and Modifications issued after execution of this Agreement, all of which form the Contract, and are as fully a part of the Contract as if attached to this Agreement or repeated herein. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations or agreements, either written or oral. An enumeration of the Contract Documents, other than a Modification, appears in Article 9.

ARTICLE 2 THE WORK OF THIS CONTRACT

The Contractor shall fully execute the Work described in the Contract Documents, except as specifically indicated in the Contract Documents to be the responsibility of others. The Contractor will not be compensated for labor or materials outside the scope of work that is not properly authorized.

ARTICLE 3 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION

§ 3.1 The date of commencement of the Work shall be the date of this Agreement unless a different date is stated below or provision is made for the date to be fixed in a Notice to proceed issued by the Owner, which is anticipated to be on or about

()

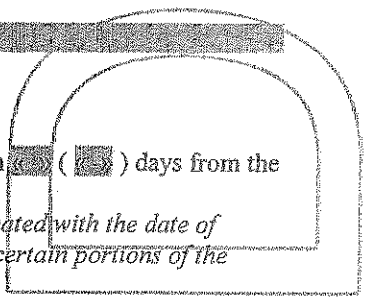
If, prior to the commencement of the Work, the Owner requires time to file mortgages and other security interests, the Owner's time requirement shall be as follows: Not applicable.

()

§ 3.2 The Contract Time shall be measured from the date of commencement.

§ 3.3 The Contractor shall achieve Substantial Completion of the entire Work not later than () days from the date of commencement, or as follows:

(Insert number of calendar days. Alternatively, a calendar date may be used when coordinated with the date of commencement. If appropriate, insert requirements for earlier Substantial Completion of certain portions of the Work.)



Portion of Work

Substantial Completion Date

Entire Work

TBD

, subject to adjustments of this Contract Time as provided in the Contract Documents.
(Insert provisions, if any, for liquidated damages relating to failure to achieve Substantial Completion on time or for bonus payments for early completion of the Work.)

« » Should the Contractor fail to complete fully, and in conformity with all provisions of the Contract within the Contract Time, the Contractor shall, and hereby agrees to pay the Owner One Thousand Dollars (\$1,000.00) per day for as liquidated damages, for each consecutive calendar day beyond the number of days allowed by the Contract, which sum is agreed upon as reasonable and proper measure of damages that the Owner will sustain per diem by failure of Contractor to complete Work within time as stipulated; it is being recognized by Owner and Contractor that the injury to Owner that could result from a failure of the Contractor to complete on schedule, is uncertain and cannot be computed exactly. In no way shall costs of Liquidated Damages to be construed as a penalty to the Contractor. (See Bid Documents)

ARTICLE 4 CONTRACT SUM

§ 4.1 The Owner shall pay the Contractor the Contract Sum in current funds for the Contractor's performance of the Contract. The Contract Sum shall be « » (\$ « »), subject to additions and deductions as provided in the Contract Documents.

§ 4.2 The Contract Sum is based upon the following alternates, if any, which are described in the Contract Documents and are hereby accepted by the Owner:
(State the numbers or other identification of accepted alternates. If the bidding or proposal documents permit the Owner to accept other alternates subsequent to the execution of this Agreement, attach a schedule of such other alternates showing the amount for each and the date when that amount expires.)

« »
§ 4.3 Unit prices, if any:
(Identify and state the unit price; state quantity limitations, if any, to which the unit price will be applicable.)

Item	Units and Limitations	Price Per Unit (\$0.00)
« »	« »	« »

§ 4.4 Allowances included in the Contract Sum, if any:
(Identify allowance and state exclusions, if any, from the allowance price.)

Item	Price
« »	« »

ARTICLE 5 PAYMENTS

§ 5.1 PROGRESS PAYMENTS

§ 5.1.1 Based upon Applications for Payment submitted to the County Engineer or his designee by the Contractor and Certificates for Payment issued by the County Engineer or his designee, the Owner shall make progress payments on account of the Contract Sum to the Contractor as provided below and elsewhere in the Contract Documents.

§ 5.1.2 The period covered by each Application for Payment shall be one calendar month ending on the last day of the month, or as follows:

« »
§ 5.1.3 The Contractor shall submit a Preliminary Payment Request (Pencil Requisition) to the County Engineer or his designee on the twenty-fifth (25th) day of any given calendar month for Work performed during that month,

Upon receipt of the Pencil Requisition from the Contractor, the County Engineer or his designee shall review the Pencil Requisition and approve or disapprove of it in whole or in part as set forth hereafter. Within (4) calendar days of receipt of the Pencil Requisition from the Contractor, the County Engineer or his designee shall return the Pencil Requisition to the Contractor, with those charges that are approved or disapproved, if any, by the County Engineer or his designee, for the Contractor's incorporation into an Application for Payment. Within two (2) calendar days of return of the Pencil Requisition from the County Engineer or his designee, the Contractor shall submit a formal application for Payment to the County Engineer or his designee for review and approval by the County Engineer or his designee incorporating any revisions made by the County Engineer or his designee in the Pencil Requisition submission. Within five (5) calendar days of receipt of Contractor's Application for Payment, the County Engineer or his designee shall take any one of the following actions:

- 1) Certify the entire Application for Payment;
- 2) Certify partial payment and provide the Contractor with reasons for withholding the remaining portion of the payment; or
- 3) Withhold certification of the entire Application for Payment and provide the Contractor with reasons for withholding the entire payment,

Once the Application for Payment is certified either in whole or in part, the County Engineer or his designee shall transmit the Certified Payment Application within three (3) calendar days to the Owner for its review and payment. The Owner shall make payment to the Contractor for the Certified Payment Amount by no later than the time period set forth in the New Jersey Prompt Payment Act following receipt of the Certificate for Payment from the County Engineer or his designee. The Owner shall not be obligated to pay any Application for Payment until the Application for Payment is certified by the County Engineer or his designee. Approval of any Application for Payment may be withheld should the Contractor fail to submit Manning Reports in a timely manner.

Pursuant to N.J.S.A. 2A:30A-1 et seq. (the "Prompt Payment Act"), a public or governmental entity that requires the entity's governing body to vote on authorizations for each periodic payment, final payment, or retainage monies, such as the Owner, is excepted from the timing requirements of the Act. Accordingly, the Owner shall not approve the Contractor's Application for Payment until it is certified by the County Engineer or his designee in accordance herewith and shall not approve the Contractor's Certified Payment Application until the next scheduled public meeting of the Owner following the Owner's receipt of the Certified Payment Application from the County Engineer or his designee. The Owner shall not make payment to the Contractor for the Certified Payment Amount until the Owner's subsequent payment cycle following its approval of the Payment Application.

Pursuant to this same Act, if a payment due pursuant to the provisions herein is not made in a timely manner, the Owner shall be liable for the amount of money owed under the contract, plus interest at a rate equal to the prime rate plus one percent (1%), notwithstanding anything to the contrary in the Contract Documents. Interest on amounts due pursuant to the Act shall be paid to the prime contractor for the period beginning on the day after the required payment date and ending on the day on which the check for payment is received by the Contractor.

Pursuant to this same Act, disputes regarding whether a party has failed to make payments required by the Act may be submitted to a process of alternative dispute resolution, notwithstanding anything to the contrary in the contract documents, where the parties agree to same. Alternative dispute resolution permitted by the Act shall not apply to disputes concerning any other matters that may arise under or from this Contract. Any civil action brought to collect payments shall be conducted in Union County, State of New Jersey, and the prevailing party shall be awarded reasonable costs and attorneys' fees.

§5.1.4 The County Engineer or his designee may decide not to certify payment and may withhold a Certificate for Payment, in whole or in part, to the extent reasonably necessary to protect the Owner if, in the County Engineer or his designee's opinion, the representations as described in Section 5.1.5 below cannot be made to the Owner. If the County Engineer or his designee withholds a Certificate for Payment, the County Engineer or his designee will notify the Contractor and Owner as provided in Section 5.1.3 above. If the Contractor and County Engineer or his designee cannot agree on a revised amount, the County Engineer or his designee will issue a Certificate for Payment for the amount for which the County Engineer or his designee is able to make such representations to the Owner as set forth in Section 5.1.3 above. The County Engineer or his designee may also decide to withhold certifying

payment in whole or in part, or, because of subsequently discovered evidence or subsequent observations, to such extent as may be necessary in the County Engineer or his designee's opinion to protect the Owner from loss because of:

- .1 Defective Work not remedied;
- .2 third party claims filed or reasonable evidence indicating probable filing of such claims;
- .3 failure of the Contractor to make payments properly to Subcontractors or for labor, materials, or equipment;
- .4 reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum;
- .5 damage to the Owner or another contractor;
- .6 reasonable evidence that the Work will not be completed within the Contract Time, and that the unpaid balance would not be adequate to cover actual or Liquidated Damages for the anticipated delay;
- .7 failure to carry out the Work in accordance with the Contract Documents;
- .8 avoidable delay in the progress of the Work;
- .9 deliberate delay in the submission for approval of names of Subcontractors, materialmen, sources of supply, shop drawings, and samples;
- .10 failure to maintain the Project Site in a safe and satisfactory condition in accordance with good construction practices as determined by the County Engineer or his designee; or
- .11 failure to submit updates as required by the General Conditions.

When the foregoing reasons for withholding certification are resolved, certification will be made for amounts previously withheld in the manner set forth in Section 5.1.3 above.

§5.1.5 The issuance of a separate Certificate for Payment will constitute representations made separately by the County Engineer or his designee to the Owner, based on its individual observations at the site and the data comprising the Application for Payment submitted by the Contractor, that the Work has progressed to the point indicated and that, to the best of the County Engineer or his designee's knowledge, information and belief, quality of the Work is in accordance with the Contract Documents.

The foregoing representations are subject to an evaluation of the Work for conformance with the Contract Documents upon Substantial Completion, to results of subsequent tests and inspections, to minor deviations from the Contract Documents correctable prior to completion and to specific qualifications expressed by the County Engineer or his designee. The

issuance of a separate Certificate of Payment will further constitute a representation that the Contractor is entitled to payment in the amount certified. However, the issuance of a separate Certificate for Payment will not be a representation that the County Engineer or his designees has (1) made exhaustive or continuous on-site inspections to check the quality or quantity of the Work; (2) reviewed the Contractor's construction means, methods, techniques, sequences or procedures; (3) reviewed copies of requisitions received from Subcontractor's and materials suppliers and other data requested by the Owner to substantiate the Contractor's right to payment; or (4) made examination to ascertain how or for what purpose the Contractor has used money previously paid on account of the Contract Sum.

§5.1.6 Each Application for Payment shall be based on the most recent schedule of values submitted by the Contractor in accordance with the Contract Documents. The schedule of values shall allocate the entire Contract Sum among the various portions of the Work. The schedule of values shall be prepared in such form and supported by such data to substantiate its accuracy as the County Engineer or his designee may require. This schedule, unless objected to by the County Engineer or his designee, shall be used as a basis for reviewing the Contractor's Applications for Payment.

§5.1.7 Applications for Payment shall show the percentage of completion of each portion of the Work as of the end of the period covered by the Application for Payment.

§ 5.1.8 Subject to other provisions of the Contract Documents, the amount of each progress payment shall be computed as follows:

- .1 Take that portion of the Contract Sum properly allocable to completed Work as determined by multiplying the percentage completion of each portion of the Work by the share of the Contract Sum allocated to that portion of the Work in the schedule of values, less retainage of percent (%). Pending final determination of cost to the Owner of changes in the Work, amounts not in dispute shall be included as provided in Section 7.3.9 of AIA Document A201™-2007, General Conditions of the Contract for Construction;
- .2 Add that portion of the Contract Sum properly allocable to materials and equipment delivered and suitably stored at the site for subsequent incorporation in the completed construction (or, if approved in advance by the Owner, suitably stored off the site at a location agreed upon in writing), less retainage of percent (%);
- .3 Subtract the aggregate of previous payments made by the Owner; and
- .4 Subtract amounts, if any, for which the County Engineer or his designee has withheld or nullified a Certificate for Payment as provided in Section 9.5 of AIA Document A201-2007.

§5.1.9 The progress payment amount determined in accordance with Section 5.1.8 shall be further modified under the following circumstances:

- .1 Add, upon Substantial Completion of the Work, a sum sufficient to increase the total payments to the full amount of the Contract Sum, less such amounts as the County Engineer or his designee shall determine for incomplete Work, retainage applicable to such work and unsettled claims; and
- .2 Add, if final completion of the Work is thereafter materially delayed through no fault of the Contractor, any additional amounts payable in accordance with Section 9.10.3 of AIA Document A201-2007.

§5.1.10 Retainage shall be determined as follows: Pursuant to N.J.S.A. 40A:11-6.1, the Owner will withhold two percent (2%) of the amount due on each partial payment when the outstanding balance of the Contract exceeds One Hundred Thousand Dollars (\$100,000.00).

§5.1.11 Except with the Owner's prior approval, the Contractor shall not make advance payments to suppliers for materials or equipment which have not been delivered and stored at the site.

§ 5.2 FINAL PAYMENT

§ 5.2.1 Final payment, constituting the entire unpaid balance of the Contract Sum, shall be made by the Owner to the Contractor when

- .1 the Contractor has fully performed the Contract except for the Contractor's responsibility to correct Work as provided in Section 12.2.2 of AIA Document A201-2007, and to satisfy other requirements, if any, which extend beyond final payment; and
- .2 a final Certificate for Payment has been issued by the County Engineer or his designee.

§ 5.2.2 The Owner's final payment to the Contractor shall be made no later than 30 days after the issuance of the County Engineer or his designee's final Certificate for Payment, or as follows:

« »

ARTICLE 6 DISPUTE RESOLUTION

§ 6.1 INITIAL DECISION MAKER

The County Engineer or his designee will serve as Initial Decision Maker pursuant to Section 15.2 of AIA Document A201-2007, unless the parties appoint below another individual, not a party to this Agreement, to serve as Initial Decision Maker.

(If the parties mutually agree, insert the name, address and other contact information of the Initial Decision Maker, if other than the County Engineer or his designee.)

« »
« »
« »
« »

§ 6.2 BINDING DISPUTE RESOLUTION

Except as provided in Section 5.1.3 of the Standard Form of Agreement between the Owner and Contractor, all claims, disputes or other matters in question between the parties to this Contract, arising out of or relating to the Project or to the Contract, or the alleged breach hereof, shall be subject one to mediation, and if not resolved, then same shall be decided in a Court of competent jurisdiction venued in Union County, New Jersey. No party may be compelled to submit any dispute concerning the Project to arbitration. In the event any claim arising from the Project is beyond the jurisdiction of the court, the Contract consents to joinder as a party to such action or alternative dispute proceeding.

ARTICLE 7 TERMINATION OR SUSPENSION

§ 7.1 The Contract may be terminated by the Owner or the Contractor as provided in Article 14 of AIA Document A201-2007.

§ 7.2 The Work may be suspended by the Owner as provided in Article 14 of AIA Document A201-2007.

ARTICLE 8 MISCELLANEOUS PROVISIONS

§ 8.1 Where reference is made in this Agreement to a provision of AIA Document A201-2007 or another Contract Document, the reference refers to that provision as amended or supplemented by other provisions of the Contract Documents.

§ 8.2 Payments due and unpaid under the Contract shall in no instance bear interest, except as required by law in accordance with Section 5.1.3 hereof.

§ 8.3 The Contractor shall ensure that the Project Site is maintained in a clean and safe condition at all times, based upon Owner's sole discretion. If the Contractor fails to keep the Project Site in a clean and safe condition, said failure shall result in the following:

- .1 all claims resulting from the Contractor's failure shall be the Contractor's responsibility;
- .2 said failure shall constitute an act of default and a substantial breach of the Contract giving the Owner remedies under the contract Documents; and
- .3 the Owner shall have the right to withhold any payments until the Contractor cures its failure.

Failure to do so shall authorize the Owner to withhold any Applications for payment until such time as the Contractor has rectified same. Further, if the Contractor fails to clean up as provided in the Contract Documents, the Owner may do so and the cost thereof shall be charged to the Contractor.

§ 8.4 Indemnification – See Indemnification Requirements in Bid Documents.

§ 8.5 The within contract shall be governed by and interpreted pursuant to the law of the State of New Jersey.

§ 8.6 The Contractor shall comply with the anti-discrimination provisions of N.J.S.A. 10:2-1 et seq., the New Jersey Law Against Discrimination, N.J.S.A. 10:5-1 et seq., N.J.A.C. 17:27-1.1 et seq. and shall guarantee to afford equal opportunity in performance of the Work in accordance with an affirmative action program approved by the State Treasurer. (See Page G-21).

§ 8.7 The Contractor shall submit proof of Business Registration for itself and its subcontractors to the Owner and shall provide written notice to its subcontractors and suppliers of the responsibility to submit proof of business registration to the contractor. The requirement of proof of Business Registration extends down through all levels (tiers) of the Project.

The Contractor agrees to comply with the rules and regulations promulgated pursuant to the Contractor Use Tax Collection Legislation.

For the term of the contract, the Contractor, any subcontractor, and each of their affiliates [N.J.S.A. 52:32-44(g)93], shall collect and remit to the New Jersey Director of the Division of Taxation in the Department of Treasury, the use tax due pursuant to the "Sales and Use Tax Act," P.L. 1966, c. 30 (C.54:32B-1 et seq.) on all of their sales of tangible personal property delivered into the State of New Jersey, regardless of whether the tangible personal property is intended for a contract with a contracting agency. For purposes herein, "affiliate" shall mean any entity that: (a)

directly, indirectly or constructively controls another entity; (b) is directly, indirectly, or constructively controlled by another entity; or (c) is subject to the control of a common entity. For purposes of the immediately preceding sentence, an entity controls another entity if it owns, directly or indirectly, more than fifty percent (50%) of the Ownership interest in that entity.

§8.8 This Standard Form of Agreement and the General Conditions set forth in the Bid Documents shall control in the case of conflict between these documents and the Project Specifications, the Project Manual, and any other exhibits incorporated by reference in this Contract.

ARTICLE 9 ENUMERATION OF CONTRACT DOCUMENTS

§ 9.1 The Contract Documents, except for Modifications issued after execution of this Agreement, are enumerated in the sections below, and incorporated herein as if set forth in their entirety.

§ 9.1.1 The Agreement is this executed AIA Document A101-2007, Standard Form of Agreement Between Owner and Contractor.

§ 9.1.2 The General Conditions are AIA Document A201-2007, General Conditions of the Contract for Construction.

§ 9.1.3 The Supplementary and other Conditions of the Contract:

Document	Title	Date	Pages

§ 9.1.4 The Specifications:

(Either list the Specifications here or refer to an exhibit attached to this Agreement.)

« See Specifications as referenced by Exhibit B.

Section	Title	Date	Pages

§ 9.1.5 The Drawings:

(Either list the Drawings here or refer to an exhibit attached to this Agreement.)

« See List of Drawings, annexed hereto as Exhibit C.

Number	Title	Date

§ 9.1.6 The Addenda, if any:

Number	Date	Pages

Portions of Addenda relating to bidding requirements are not part of the Contract Documents unless the bidding requirements are also enumerated in this Article 9.

§ 9.1.7 Additional documents, if any, forming part of the Contract Documents:

.1 AIA Document E201™-2007, Digital Data Protocol Exhibit, if completed by the parties, or the following:

■

.2 Other documents, if any, listed below:

■

ARTICLE 10 INSURANCE AND BONDS

The Contractor shall purchase and maintain insurance and provide bonds as set forth in Article 11 of AIA Document A201-2007.

(State bonding requirements, if any, and limits of liability for insurance required in Article 11 of AIA Document A201-2007.)

Type of insurance or bond

Limit of liability or bond amount (\$0.00)

This Agreement entered into as of the day and year first written above.

OWNER (Signature)

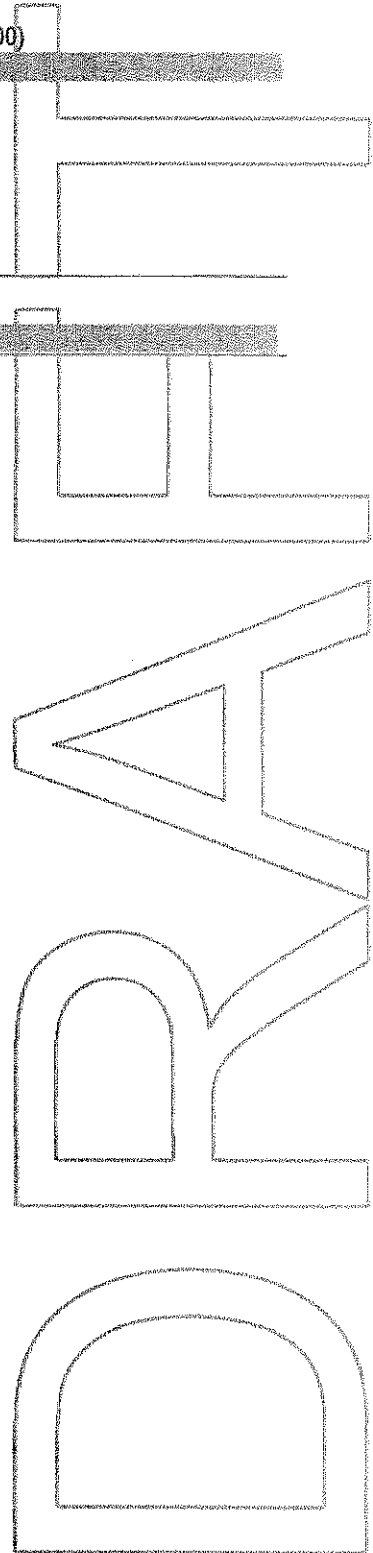
<><><>

(Printed name and title)

CONTRACTOR (Signature)

<><><>

(Printed name and title)



DRAFT AIA Document A201™ - 2007

General Conditions of the Contract for Construction

for the following PROJECT:

(Name and location or address)

«County of Union»

« »

THE OWNER:

(Name, legal status and address)

« »

« »

THE ENGINEER, OR HIS DESIGNEE :

(Name, legal status and address)

« »

« »

TABLE OF ARTICLES

- 1 GENERAL PROVISIONS
- 2 OWNER
- 3 CONTRACTOR
- 4 ENGINEER, OR HIS DESIGNEE :
- 5 SUBCONTRACTORS
- 6 CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS
- 7 CHANGES IN THE WORK
- 8 TIME
- 9 PAYMENTS AND COMPLETION
- 10 PROTECTION OF PERSONS AND PROPERTY
- 11 INSURANCE AND BONDS
- 12 UNCOVERING AND CORRECTION OF WORK
- 13 MISCELLANEOUS PROVISIONS
- 14 TERMINATION OR SUSPENSION OF THE CONTRACT
- 15 CLAIMS AND DISPUTES

ADDITIONS AND DELETIONS:

The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An Additions and Deletions Report that notes added information as well as revisions to the standard form text is available from the author and should be reviewed.

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INDEX

(Topics and numbers in bold are section headings.)

Acceptance of Nonconforming Work

9.6.6, 9.9.3, 12.3

Acceptance of Work

9.6.6, 9.8.2, 9.9.3, 9.10.1, 9.10.3, 12.3

Access to Work

3.16, 6.2.1, 12.1

Accident Prevention

10

Acts and Omissions

3.2, 3.3.2, 3.12.8, 3.18, 4.2.3, 8.3.1, 9.5.1, 10.2.5, 10.2.8, 13.4.2, 13.7, 14.1, 15.2

Addenda

1.1.1, 3.11.1

Additional Costs, Claims for

3.7.4, 3.7.5, 6.1.1, 7.3.7.5, 10.3, 15.1.4

Additional Inspections and Testing

9.4.2, 9.8.3, 12.2.1, 13.5

Additional Insured

11.1.4

Additional Time, Claims for

3.2.4, 3.7.4, 3.7.5, 3.10.2, 8.3.2, 15.1.5

Administration of the Contract

3.1.3, 4.2, 9.4, 9.5

Advertisement or Invitation to Bid

1.1.1

Aesthetic Effect

4.2.13

Allowances

3.8, 7.3.8

All-risk Insurance

11.3.1, 11.3.1.1

Applications for Payment

4.2.5, 7.3.9, 9.2, 9.3, 9.4, 9.5.1, 9.6.3, 9.7, 9.10, 11.1.3

Approvals

2.1.1, 2.2.2, 2.4, 3.1.3, 3.10.2, 3.12.8, 3.12.9, 3.12.10, 4.2.7, 9.3.2, 13.5.1

Arbitration

8.3.1, 11.3.10, 13.1.1, 15.3.2, 15.4

ENGINEER, OR HIS DESIGNEE

4

Engineer, or his designee, Definition of

4.1.1

Engineer, or his designee, Extent of Authority

2.4.1, 3.12.7, 4.1, 4.2, 5.2, 6.3, 7.1.2, 7.3.7, 7.4, 9.2, 9.3.1, 9.4, 9.5, 9.6.3, 9.8, 9.10.1, 9.10.3, 12.1, 12.2.1, 13.5.1, 13.5.2, 14.2.2, 14.2.4, 15.1.3, 15.2.1

Engineer, or his designee, Limitations of Authority and Responsibility

2.1.1, 3.12.4, 3.12.8, 3.12.10, 4.1.2, 4.2.1, 4.2.2, 4.2.3, 4.2.6, 4.2.7, 4.2.10, 4.2.12, 4.2.13, 5.2.1, 7.4, 9.4.2, 9.5.3, 9.6.4, 15.1.3, 15.2

Engineer, or his designee's Additional Services and Expenses

2.4.1, 11.3.1.1, 12.2.1, 13.5.2, 13.5.3, 14.2.4

Engineer, or his designee's Administration of the Contract

3.1.3, 4.2, 3.7.4, 15.2, 9.4.1, 9.5

Engineer, or his designee's Approvals

2.4.1, 3.1.3, 3.5, 3.10.2, 4.2.7

Engineer, or his designee's Authority to Reject Work

3.5, 4.2.6, 12.1.2, 12.2.1

Engineer, or his designee's Copyright

1.1.7, 1.5

Engineer, or his designee's Decisions

3.7.4, 4.2.6, 4.2.7, 4.2.11, 4.2.12, 4.2.13, 4.2.14, 6.3, 7.3.7, 7.3.9, 8.1.3, 8.3.1, 9.2, 9.4.1, 9.5, 9.8.7, 9.9.1, 13.5.2, 15.2, 15.3

Engineer, or his designee's Inspections

3.7.4, 4.2.2, 4.2.9, 9.4.2, 9.8.3, 9.9.2, 9.10.1, 13.5

Engineer, or his designee's Instructions

3.2.4, 3.3.1, 4.2.6, 4.2.7, 13.5.2

Engineer, or his designee's Interpretations

4.2.11, 4.2.12

Engineer, or his designee's Project Representative

4.2.10

Engineer, or his designee's Relationship with Contractor

1.1.2, 1.5, 3.1.3, 3.2.2, 3.2.3, 3.2.4, 3.3.1, 3.4.2, 3.5, 3.7.4, 3.7.5, 3.9.2, 3.9.3, 3.10, 3.11, 3.12, 3.16, 3.18, 4.1.2, 4.1.3, 4.2, 5.2, 6.2.2, 7, 8.3.1, 9.2, 9.3, 9.4, 9.5, 9.7, 9.8, 9.9, 10.2.6, 10.3, 11.3.7, 12, 13.4.2, 13.5, 15.2

Engineer, or his designee's Relationship with Subcontractors

1.1.2, 4.2.3, 4.2.4, 4.2.6, 9.6.3, 9.6.4, 11.3.7

Engineer, or his designee's Representations

9.4.2, 9.5.1, 9.10.1

Engineer, or his designee's Site Visits

3.7.4, 4.2.2, 4.2.9, 9.4.2, 9.5.1, 9.9.2, 9.10.1, 13.5

Asbestos

10.3.1

Attorneys' Fees

3.18.1, 9.10.2, 10.3.3

Award of Separate Contracts

6.1.1, 6.1.2

Award of Subcontracts and Other Contracts for Portions of the Work

5.2

Basic Definitions

1.1

Bidding Requirements

1.1.1, 5.2.1, 11.4.1

Binding Dispute Resolution

9.7, 11.3.9, 11.3.10, 13.1.1, 15.2.5, 15.2.6.1, 15.3.1, 15.3.2, 15.4.1

Boiler and Machinery Insurance
 11.3.2
Bonds, Lien
 7.3.7.4, 9.10.2, 9.10.3
Bonds, Performance, and Payment
 7.3.7.4, 9.6.7, 9.10.3, 11.3.9, 11.4
Building Permit
 3.7.1
Capitalization
 1.3
Certificate of Substantial Completion
 9.8.3, 9.8.4, 9.8.5
Certificates for Payment
 4.2.1, 4.2.5, 4.2.9, 9.3.3, 9.4, 9.5, 9.6.1, 9.6.6, 9.7,
 9.10.1, 9.10.3, 14.1.1.3, 14.2.4, 15.1.3
Certificates of Inspection, Testing or Approval
 13.5.4
Certificates of Insurance
 9.10.2, 11.1.3
Change Orders
 1.1.1, 2.4.1, 3.4.2, 3.7.4, 3.8.2.3, 3.11.1, 3.12.8, 4.2.8,
 5.2.3, 7.1.2, 7.1.3, 7.2, 7.3.2, 7.3.6, 7.3.9, 7.3.10,
 8.3.1, 9.3.1.1, 9.10.3, 10.3.2, 11.3.1.2, 11.3.4, 11.3.9,
 12.1.2, 15.1.3
Change Orders, Definition of
 7.2.1
CHANGES IN THE WORK
 2.2.1, 3.11, 4.2.8, 7, 7.2.1, 7.3.1, 7.4, 8.3.1, 9.3.1.1,
 11.3.9
Claims, Definition of
 15.1.1
CLAIMS AND DISPUTES
 3.2.4, 6.1.1, 6.3, 7.3.9, 9.3.3, 9.10.4, 10.3.3, 15, 15.4
Claims and Timely Assertion of Claims
 15.4.1
Claims for Additional Cost
 3.2.4, 3.7.4, 6.1.1, 7.3.9, 10.3.2, 15.1.4
Claims for Additional Time
 3.2.4, 3.7.4.6.1.1, 8.3.2, 10.3.2, 15.1.5
Concealed or Unknown Conditions, Claims for
 3.7.4
Claims for Damages
 3.2.4, 3.18, 6.1.1, 8.3.3, 9.5.1, 9.6.7, 10.3.3, 11.1.1,
 11.3.5, 11.3.7, 14.1.3, 14.2.4, 15.1.6
Claims Subject to Arbitration
 15.3.1, 15.4.1
Cleaning Up
 3.15, 6.3
Commencement of the Work, Conditions Relating to
 2.2.1, 3.2.2, 3.4.1, 3.7.1, 3.10.1, 3.12.6, 5.2.1, 5.2.3,
 6.2.2, 8.1.2, 8.2.2, 8.3.1, 11.1, 11.3.1, 11.3.6, 11.4.1,
 15.1.4
Commencement of the Work, Definition of
 8.1.2
Communications Facilitating Contract Administration
 3.9.1, 4.2.4

Completion, Conditions Relating to
 3.4.1, 3.11, 3.15, 4.2.2, 4.2.9, 8.2, 9.4.2, 9.8, 9.9.1,
 9.10, 12.2, 13.7, 14.1.2
COMPLETION, PAYMENTS AND
 9
Completion, Substantial
 4.2.9, 8.1.1, 8.1.3, 8.2.3, 9.4.2, 9.8, 9.9.1, 9.10.3,
 12.2, 13.7
Compliance with Laws
 1.6.1, 3.2.3, 3.6, 3.7, 3.12.10, 3.13, 4.1.1, 9.6.4,
 10.2.2, 11.1, 11.3, 13.1, 13.4, 13.5.1, 13.5.2, 13.6,
 14.1.1, 14.2.1.3, 15.2.8, 15.4.2, 15.4.3
Concealed or Unknown Conditions
 3.7.4, 4.2.8, 8.3.1, 10.3
Conditions of the Contract
 1.1.1, 6.1.1, 6.1.4
Consent, Written
 3.4.2, 3.7.4, 3.12.8, 3.14.2, 4.1.2, 9.3.2, 9.8.5, 9.9.1,
 9.10.2, 9.10.3, 11.3.1, 13.2, 13.4.2, 15.4.4.2
Consolidation or Joinder
 15.4.4
CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS
 1.1.4, 6
Construction Change Directive, Definition of
 7.3.1
Construction Change Directives
 1.1.1, 3.4.2, 3.12.8, 4.2.8, 7.1.1, 7.1.2, 7.1.3, 7.3,
 9.3.1.1
Construction Schedules, Contractor's
 3.10, 3.12.1, 3.12.2, 6.1.3, 15.1.5.2
Contingent Assignment of Subcontracts
 5.4, 14.2.2.2
Continuing Contract Performance
 15.1.3
Contract, Definition of
 1.1.2
CONTRACT, TERMINATION OR SUSPENSION OF THE
 5.4.1.1, 11.3.9, 14
Contract Administration
 3.1.3, 4, 9.4, 9.5
Contract Award and Execution, Conditions Relating to
 3.7.1, 3.10, 5.2, 6.1, 11.1.3, 11.3.6, 11.4.1
Contract Documents, Copies Furnished and Use of
 1.5.2, 2.2.5, 5.3
Contract Documents, Definition of
 1.1.1
Contract Sum
 3.7.4, 3.8, 5.2.3, 7.2, 7.3, 7.4, 9.1, 9.4.2, 9.5.1.4,
 9.6.7, 9.7, 10.3.2, 11.3.1, 14.2.4, 14.3.2, 15.1.4,
 15.2.5
Contract Sum, Definition of
 9.1

Contract Time
3.7.4, 3.7.5, 3.10.2, 5.2.3, 7.2.1.3, 7.3.1, 7.3.5, 7.4,
8.1.1, 8.2.1, 8.3.1, 9.5.1, 9.7, 10.3.2, 12.1.1, 14.3.2,
15.1.5.1, 15.2.5

Contract Time, Definition of
8.1.1

CONTRACTOR
3

Contractor, Definition of
3.1, 6.1.2

Contractor's Construction Schedules
3.10, 3.12.1, 3.12.2, 6.1.3, 15.1.5.2

Contractor's Employees
3.3.2, 3.4.3, 3.8.1, 3.9, 3.18.2, 4.2.3, 4.2.6, 10.2, 10.3,
11.1.1, 11.3.7, 14.1, 14.2.1.1

Contractor's Liability Insurance
11.1

Contractor's Relationship with Separate Contractors
and Owner's Forces
3.12.5, 3.14.2, 4.2.4, 6, 11.3.7, 12.1.2, 12.2.4

Contractor's Relationship with Subcontractors
1.2.2, 3.3.2, 3.18.1, 3.18.2, 5, 9.6.2, 9.6.7, 9.10.2,
11.3.1.2, 11.3.7, 11.3.8

Contractor's Relationship with the Engineer, or his
designee
1.1.2, 1.5, 3.1.3, 3.2.2, 3.2.3, 3.2.4, 3.3.1, 3.4.2, 3.5,
3.7.4, 3.10, 3.11, 3.12, 3.16, 3.18, 4.1.3, 4.2, 5.2,
6.2.2, 7, 8.3.1, 9.2, 9.3, 9.4, 9.5, 9.7, 9.8, 9.9, 10.2.6,
10.3, 11.3.7, 12, 13.5, 15.1.2, 15.2.1

Contractor's Representations
3.2.1, 3.2.2, 3.5, 3.12.6, 6.2.2, 8.2.1, 9.3.3, 9.8.2

Contractor's Responsibility for Those Performing the
Work
3.3.2, 3.18, 5.3.1, 6.1.3, 6.2, 9.5.1, 10.2.8

Contractor's Review of Contract Documents
3.2

Contractor's Right to Stop the Work
9.7

Contractor's Right to Terminate the Contract
14.1, 15.1.6

Contractor's Submittals
3.10, 3.11, 3.12.4, 4.2.7, 5.2.1, 5.2.3, 9.2, 9.3, 9.8.2,
9.8.3, 9.9.1, 9.10.2, 9.10.3, 11.1.3, 11.4.2

Contractor's Superintendent
3.9, 10.2.6

Contractor's Supervision and Construction
Procedures
1.2.2, 3.3, 3.4, 3.12.10, 4.2.2, 4.2.7, 6.1.3, 6.2.4,
7.1.3, 7.3.5, 7.3.7, 8.2, 10, 12, 14, 15.1.3

Contractual Liability Insurance
11.1.1.8, 11.2

Coordination and Correlation
1.2, 3.2.1, 3.3.1, 3.10, 3.12.6, 6.1.3, 6.2.1

Copies Furnished of Drawings and Specifications
1.5, 2.2.5, 3.11

Copyrights
1.5, 3.17

Correction of Work
2.3, 2.4, 3.7.3, 9.4.2, 9.8.2, 9.8.3, 9.9.1, 12.1.2, 12.2

Correlation and Intent of the Contract Documents
1.2

Cost, Definition of
7.3.7

Costs
2.4.1, 3.2.4, 3.7.3, 3.8.2, 3.15.2, 5.4.2, 6.1.1, 6.2.3,
7.3.3.3, 7.3.7, 7.3.8, 7.3.9, 9.10.2, 10.3.2, 10.3.6,
11.3, 12.1.2, 12.2.1, 12.2.4, 13.5, 14

Cutting and Patching
3.14, 6.2.5

Damage to Construction of Owner or Separate
Contractors
3.14.2, 6.2.4, 10.2.1.2, 10.2.5, 10.4, 11.1.1, 11.3,
12.2.4

Damage to the Work
3.14.2, 9.9.1, 10.2.1.2, 10.2.5, 10.4.1, 11.3.1, 12.2.4

Damages, Claims for
3.2.4, 3.18, 6.1.1, 8.3.3, 9.5.1, 9.6.7, 10.3.3, 11.1.1,
11.3.5, 11.3.7, 14.1.3, 14.2.4, 15.1.6

Damages for Delay
6.1.1, 8.3.3, 9.5.1.6, 9.7, 10.3.2

Date of Commencement of the Work, Definition of
8.1.2

Date of Substantial Completion, Definition of
8.1.3

Day, Definition of
8.1.4

Decisions of the Engineer, or his designee
3.7.4, 4.2.6, 4.2.7, 4.2.11, 4.2.12, 4.2.13, 15.2, 6.3,
7.3.7, 7.3.9, 8.1.3, 8.3.1, 9.2, 9.4, 9.5.1, 9.8.4, 9.9.1,
13.5.2, 14.2.2, 14.2.4, 15.1, 15.2

Decisions to Withhold Certification
9.4.1, 9.5, 9.7, 14.1.1.3

Defective or Nonconforming Work, Acceptance,
Rejection and Correction of
2.3.1, 2.4.1, 3.5, 4.2.6, 6.2.5, 9.5.1, 9.5.2, 9.6.6, 9.8.2,
9.9.3, 9.10.4, 12.2.1

Definitions
1.1, 2.1.1, 3.1.1, 3.5, 3.12.1, 3.12.2, 3.12.3, 4.1.1,
15.1.1, 5.1, 6.1.2, 7.2.1, 7.3.1, 8.1, 9.1, 9.8.1

Delays and Extensions of Time
3.2, 3.7.4, 5.2.3, 7.2.1, 7.3.1, 7.4, 8.3, 9.5.1, 9.7,
10.3.2, 10.4.1, 14.3.2, 15.1.5, 15.2.5

Disputes
6.3, 7.3.9, 15.1, 15.2

Documents and Samples at the Site
3.11

Drawings, Definition of
1.1.5

Drawings and Specifications, Use and Ownership of
3.11

Effective Date of Insurance
8.2.2, 11.1.2

Emergencies
10.4, 14.1.1.2, 15.1.4

Employees, Contractor's
3.3.2, 3.4.3, 3.8.1, 3.9, 3.18.2, 4.2.3, 4.2.6, 10.2,
10.3.3, 11.1.1, 11.3.7, 14.1, 14.2.1.1

Equipment, Labor, Materials or
1.1.3, 1.1.6, 3.4, 3.5, 3.8.2, 3.8.3, 3.12, 3.13.1, 3.15.1,
4.2.6, 4.2.7, 5.2.1, 6.2.1, 7.3.7, 9.3.2, 9.3.3, 9.5.1.3,
9.10.2, 10.2.1, 10.2.4, 14.2.1.1, 14.2.1.2

Execution and Progress of the Work
1.1.3, 1.2.1, 1.2.2, 2.2.3, 2.2.5, 3.1, 3.3.1, 3.4.1, 3.5,
3.7.1, 3.10.1, 3.12, 3.14, 4.2, 6.2.2, 7.1.3, 7.3.5, 8.2,
9.5.1, 9.9.1, 10.2, 10.3, 12.2, 14.2, 14.3.1, 15.1.3

Extensions of Time
3.2.4, 3.7.4, 5.2.3, 7.2.1, 7.3, 7.4, 9.5.1, 9.7, 10.3.2,
10.4.1, 14.3, 15.1.5, 15.2.5

Failure of Payment
9.5.1.3, 9.7, 9.10.2, 13.6, 14.1.1.3, 14.2.1.2

Faulty Work
(See Defective or Nonconforming Work)

Final Completion and Final Payment
4.2.1, 4.2.9, 9.8.2, 9.10, 11.1.2, 11.1.3, 11.3.1, 11.3.5,
12.3.1, 14.2.4, 14.4.3

Financial Arrangements, Owner's
2.2.1, 13.2.2, 14.1.1.4

Fire and Extended Coverage Insurance
11.3.1.1

GENERAL PROVISIONS

1

Governing Law

13.1

Guarantees (See Warranty)

Hazardous Materials
10.2.4, 10.3

Identification of Subcontractors and Suppliers
5.2.1

Indemnification
3.1.7, 3.18, 9.10.2, 10.3.3, 10.3.5, 10.3.6, 11.3.1.2,
11.3.7

Information and Services Required of the Owner
2.1.2, 2.2, 3.2.2, 3.12.4, 3.12.10, 6.1.3, 6.1.4, 6.2.5,
9.6.1, 9.6.4, 9.9.2, 9.10.3, 10.3.3, 11.2, 11.4, 13.5.1,
13.5.2, 14.1.1.4, 14.1.4, 15.1.3

Initial Decision
15.2

Initial Decision Maker, Definition of
1.1.8

Initial Decision Maker, Decisions
14.2.2, 14.2.4, 15.2.1, 15.2.2, 15.2.3, 15.2.4, 15.2.5

Initial Decision Maker, Extent of Authority
14.2.2, 14.2.4, 15.1.3, 15.2.1, 15.2.2, 15.2.3, 15.2.4,
15.2.5

Injury or Damage to Person or Property
10.2.8, 10.4.1

Inspections
3.1.3, 3.3.3, 3.7.1, 4.2.2, 4.2.6, 4.2.9, 9.4.2, 9.8.3,
9.9.2, 9.10.1, 12.2.1, 13.5

Instructions to Bidders
1.1.1

Instructions to the Contractor
3.2.4, 3.3.1, 3.8.1, 5.2.1, 7, 8.2.2, 12, 13.5.2

Instruments of Service, Definition of
1.1.7

Insurance
3.18.1, 6.1.1, 7.3.7, 9.3.2, 9.8.4, 9.9.1, 9.10.2, 11

Insurance, Boiler and Machinery
11.3.2

Insurance, Contractor's Liability
11.1

Insurance, Effective Date of
8.2.2, 11.1.2

Insurance, Loss of Use
11.3.3

Insurance, Owner's Liability
11.2

Insurance, Property
10.2.5, 11.3

Insurance, Stored Materials
9.3.2

INSURANCE AND BONDS
11

Insurance Companies, Consent to Partial Occupancy
9.9.1

Intent of the Contract Documents
1.2.1, 4.2.7, 4.2.12, 4.2.13, 7.4

Interest
13.6

Interpretation
1.2.3, 1.4, 4.1.1, 5.1, 6.1.2, 15.1.4

Interpretations, Written
4.2.11, 4.2.12, 15.1.4

Judgment on Final Award
15.4.2

Labor and Materials, Equipment
1.1.3, 1.1.6, 3.4, 3.5, 3.8.2, 3.8.3, 3.12, 3.13, 3.15.1,
4.2.6, 4.2.7, 5.2.1, 6.2.1, 7.3.7, 9.3.2, 9.3.3, 9.5.1.3,
9.10.2, 10.2.1, 10.2.4, 14.2.1.1, 14.2.1.2

Labor Disputes
8.3.1

Laws and Regulations
1.5, 3.2.3, 3.6, 3.7, 3.12.10, 5.13.1, 4.1.1, 9.6.4, 9.9.1,
10.2.2, 11.1.1, 11.3, 13.1.1, 13.4, 13.5.1, 13.5.2,
13.6.1, 14, 15.2.8, 15.4

Liens
2.1.2, 9.3.3, 9.10.2, 9.10.4, 15.2.8

Limitations, Statutes of
12.2.5, 13.7, 15.4.1.1

Limitations of Liability
2.3.1, 3.2.2, 3.5, 3.12.10, 3.17, 3.18.1, 4.2.6, 4.2.7,
4.2.12, 6.2.2, 9.4.2, 9.6.4, 9.6.7, 10.2.5, 10.3.3,
11.1.2, 11.2, 11.3.7, 12.2.5, 13.4.2

Limitations of Time
2.1.2, 2.2, 2.4, 3.2.2, 3.10, 3.11, 3.12.5, 3.15.1, 4.2.7,
5.2, 5.3.1, 5.4.1, 6.2.4, 7.3, 7.4, 8.2, 9.2, 9.3.1, 9.3.3,
9.4.1, 9.5, 9.6, 9.7, 9.8, 9.9, 9.10, 11.1.3, 11.3.1.5,
11.3.6, 11.3.10, 12.2, 13.5, 13.7, 14, 15

Loss of Use Insurance
 11.3.3
Material Suppliers
 1.5, 3.12.1, 4.2.4, 4.2.6, 5.2.1, 9.3, 9.4.2, 9.6, 9.10.5
Materials, Hazardous
 10.2.4, 10.3
Materials, Labor, Equipment and
 1.1.3, 1.1.6, 1.5.1, 3.4.1, 3.5, 3.8.2, 3.8.3, 3.12,
 3.13.1, 3.15.1, 4.2.6, 4.2.7, 5.2.1, 6.2.1, 7.3.7, 9.3.2,
 9.3.3, 9.5.1.3, 9.10.2, 10.2.1.2, 10.2.4, 14.2.1.1,
 14.2.1.2
Means, Methods, Techniques, Sequences and
Procedures of Construction
 3.3.1, 3.12.10, 4.2.2, 4.2.7, 9.4.2
Mechanic's Lien
 2.1.2, 15.2.8
Mediation
 8.3.1, 10.3.5, 10.3.6, 15.2.1, 15.2.5, 15.2.6, 15.3,
 15.4.1
Minor Changes in the Work
 1.1.1, 3.12.8, 4.2.8, 7.1, 7.4
MISCELLANEOUS PROVISIONS
 13
Modifications, Definition of
 1.1.1
Modifications to the Contract
 1.1.1, 1.1.2, 3.11, 4.1.2, 4.2.1, 5.2.3, 7, 8.3.1, 9.7,
 10.3.2, 11.3.1
Mutual Responsibility
 6.2
Nonconforming Work, Acceptance of
 9.6.6, 9.9.3, 12.3
Nonconforming Work, Rejection and Correction of
 2.3.1, 2.4.1, 3.5, 4.2.6, 6.2.4, 9.5.1, 9.8.2, 9.9.3,
 9.10.4, 12.2.1
Notice
 2.2.1, 2.3.1, 2.4.1, 3.2.4, 3.3.1, 3.7.2, 3.12.9, 5.2.1,
 9.7, 9.10, 10.2.2, 11.1.3, 12.2.2.1, 13.3, 13.5.1,
 13.5.2, 14.1, 14.2, 15.2.8, 15.4.1
Notice, Written
 2.3.1, 2.4.1, 3.3.1, 3.9.2, 3.12.9, 3.12.10, 5.2.1, 9.7,
 9.10, 10.2.2, 10.3, 11.1.3, 11.3.6, 12.2.2.1, 13.3, 14,
 15.2.8, 15.4.1
Notice of Claims
 3.7.4, 10.2.8, 15.1.2, 15.4
Notice of Testing and Inspections
 13.5.1, 13.5.2
Observations, Contractor's
 3.2, 3.7.4
Occupancy
 2.2.2, 9.6.6, 9.8, 11.3.1.5
Orders, Written
 1.1.1, 2.3, 3.9.2, 7, 8.2.2, 11.3.9, 12.1, 12.2.2.1,
 13.5.2, 14.3.1
OWNER
 2

Owner, Definition of
 2.1.1
Owner, Information and Services Required of the
 2.1.2, 2.2, 3.2.2, 3.12.10, 6.1.3, 6.1.4, 6.2.5, 9.3.2,
 9.6.1, 9.6.4, 9.9.2, 9.10.3, 10.3.3, 11.2, 11.3, 13.5.1,
 13.5.2, 14.1.1.4, 14.1.4, 15.1.3
Owner's Authority
 1.5, 2.1.1, 2.3.1, 2.4.1, 3.4.2, 3.8.1, 3.12.10, 3.14.2,
 4.1.2, 4.1.3, 4.2.4, 4.2.9, 5.2.1, 5.2.4, 5.4.1, 6.1, 6.3,
 7.2.1, 7.3.1, 8.2.2, 8.3.1, 9.3.1, 9.3.2, 9.3.1, 9.6.4,
 9.9.1, 9.10.2, 10.3.2, 11.1.3, 11.3.3, 11.3.10, 12.2.2,
 12.3.1, 13.2.2, 14.3, 14.4, 15.2.7
Owner's Financial Capability
 2.2.1, 13.2.2, 14.1.1.4
Owner's Liability Insurance
 11.2
Owner's Relationship with Subcontractors
 1.1.2, 5.2, 5.3, 5.4, 9.6.4, 9.10.2, 14.2.2
Owner's Right to Carry Out the Work
 2.4, 14.2.2
Owner's Right to Clean Up
 6.3
Owner's Right to Perform Construction and to
Award Separate Contracts
 6.1
Owner's Right to Stop the Work
 2.3
Owner's Right to Suspend the Work
 14.3
Owner's Right to Terminate the Contract
 14.2
Ownership and Use of Drawings, Specifications
and Other Instruments of Service
 1.1.1, 1.1.6, 1.1.7, 1.5, 2.2.5, 3.2.2, 3.11.1, 3.17,
 4.2.12, 5.3.1
Partial Occupancy or Use
 9.6.6, 9.9, 11.3.1.5
Patching, Cutting and
 3.14, 6.2.5
Patents
 3.17
Payment, Applications for
 4.2.5, 7.3.9, 9.2, 9.3, 9.4, 9.5, 9.6.3, 9.7, 9.8.5, 9.10.1,
 14.2.3, 14.2.4, 14.4.3
Payment, Certificates for
 4.2.5, 4.2.9, 9.3.3, 9.4, 9.5, 9.6.1, 9.6.6, 9.7, 9.10.1,
 9.10.3, 13.7, 14.1.1.3, 14.2.4
Payment, Failure of
 9.5.1.3, 9.7, 9.10.2, 13.6, 14.1.1.3, 14.2.1.2
Payment, Final
 4.2.1, 4.2.9, 9.8.2, 9.10, 11.1.2, 11.1.3, 11.4.1, 12.3.1,
 13.7, 14.2.4, 14.4.3
Payment Bond, Performance Bond and
 7.3.7.4, 9.6.7, 9.10.3, 11.4
Payments, Progress
 9.3, 9.6, 9.8.5, 9.10.3, 13.6, 14.2.3, 15.1.3

PAYMENTS AND COMPLETION

- 9
- Payments to Subcontractors
 - 5.4.2, 9.5.1.3, 9.6.2, 9.6.3, 9.6.4, 9.6.7, 14.2.1.2
- PCB
 - 10.3.1
- Performance Bond and Payment Bond
 - 7.3.7.4, 9.6.7, 9.10.3, 11.4
- Permits, Fees, Notices and Compliance with Laws
 - 2.2.2, 3.7, 3.13, 7.3.7.4, 10.2.2

PERSONS AND PROPERTY, PROTECTION OF

- 10
- Polychlorinated Biphenyl
 - 10.3.1
- Product Data, Definition of
 - 3.12.2
- Product Data and Samples, Shop Drawings
 - 3.11, 3.12, 4.2.7
- Progress and Completion
 - 4.2.2, 8.2, 9.8, 9.9.1, 14.1.4, 15.1.3
- Progress Payments
 - 9.3, 9.6, 9.8.5, 9.10.3, 13.6, 14.2.3, 15.1.3
- Project, Definition of
 - 1.1.4
- Project Representatives
 - 4.2.10
- Property Insurance
 - 10.2.5, 11.3

PROTECTION OF PERSONS AND PROPERTY

- 10
- Regulations and Laws
 - 1.5, 3.2.3, 3.6, 3.7, 3.12.10, 3.13, 4.1.1, 9.6.4, 9.9.1, 10.2.2, 11.1, 11.4, 13.1, 13.4, 13.5.1, 13.5.2, 13.6, 14, 15.2.8, 15.4
- Rejection of Work
 - 3.5, 4.2.6, 12.2.1
- Releases and Waivers of Liens
 - 9.10.2
- Representations
 - 3.2.1, 3.5, 3.12.6, 6.2.2, 8.2.1, 9.3.3, 9.4.2, 9.5.1, 9.8.2, 9.10.1
- Representatives
 - 2.1.1, 3.1.1, 3.9, 4.1.1, 4.2.1, 4.2.2, 4.2.10, 5.1.1, 5.1.2, 13.2.1
- Responsibility for Those Performing the Work
 - 3.3.2, 3.18, 4.2.3, 5.3.1, 6.1.3, 6.2, 6.3, 9.5.1, 10
- Retainage
 - 9.3.1, 9.6.2, 9.8.5, 9.9.1, 9.10.2, 9.10.3
- Review of Contract Documents and Field Conditions by Contractor
 - 3.2, 3.12.7, 6.1.3
- Review of Contractor's Submittals by Owner and Engineer, or his designee
 - 3.10.1, 3.10.2, 3.11, 3.12, 4.2, 5.2, 6.1.3, 9.2, 9.8.2

- Review of Shop Drawings, Product Data and Samples by Contractor
 - 3.12
- Rights and Remedies
 - 1.1.2, 2.3, 2.4, 3.5, 3.7.4, 3.15.2, 4.2.6, 5.3, 5.4, 6.1, 6.3, 7.3.1, 8.3, 9.5.1, 9.7, 10.2.5, 10.3, 12.2.2, 12.2.4, 13.4, 14, 15.4
- Royalties, Patents and Copyrights
 - 3.17
- Rules and Notices for Arbitration
 - 15.4.1
- Safety of Persons and Property
 - 10.2, 10.4
- Safety Precautions and Programs
 - 3.3.1, 4.2.2, 4.2.7, 5.3.1, 10.1, 10.2, 10.4
- Samples, Definition of
 - 3.12.3
- Samples, Shop Drawings, Product Data and
 - 3.11, 3.12, 4.2.7
- Samples at the Site, Documents and
 - 3.11
- Schedule of Values
 - 9.2, 9.3.1
- Schedules, Construction
 - 3.10, 3.12.1, 3.12.2, 6.1.3, 15.1.5.2
- Separate Contracts and Contractors
 - 1.1.4, 3.12.5, 3.14.2, 4.2.4, 4.2.7, 6, 8.3.1, 12.1.2
- Shop Drawings, Definition of
 - 3.12.1
- Shop Drawings, Product Data and Samples
 - 3.11, 3.12, 4.2.7
- Site, Use of
 - 3.13, 6.1.1, 6.2.1
- Site Inspections
 - 3.2.2, 3.3.3, 3.7.1, 3.7.4, 4.2, 9.4.2, 9.10.1, 13.5
- Site Visits, Engineer, or his designee's
 - 3.7.4, 4.2.2, 4.2.9, 9.4.2, 9.5.1, 9.9.2, 9.10.1, 13.5
- Special Inspections and Testing
 - 4.2.6, 12.2.1, 13.5
- Specifications, Definition of
 - 1.1.6
- Specifications
 - 1.1.1, 1.1.6, 1.2.2, 1.5, 3.11, 3.12.10, 3.17, 4.2.14
- Statute of Limitations
 - 13.7, 15.4.1.1
- Stopping the Work
 - 2.3, 9.7, 10.3, 14.1
- Stored Materials
 - 6.2.1, 9.3.2, 10.2.1.2, 10.2.4
- Subcontractor, Definition of
 - 5.1.1
- SUBCONTRACTORS**
- 5
- Subcontractors, Work by
 - 1.2.2, 3.3.2, 3.12.1, 4.2.3, 5.2.3, 5.3, 5.4, 9.3.1.2, 9.6.7

Subcontractual Relations
5.3, 5.4, 9.3.1.2, 9.6, 9.10, 10.2.1, 14.1, 14.2.1

Submittals
3.10, 3.11, 3.12, 4.2.7, 5.2.1, 5.2.3, 7.3.7, 9.2, 9.3, 9.8, 9.9.1, 9.10.2, 9.10.3, 11.1.3

Submittal Schedule
3.10.2, 3.12.5, 4.2.7

Subrogation, Waivers of
6.1.1, 11.3.7

Substantial Completion
4.2.9, 8.1.1, 8.1.3, 8.2.3, 9.4.2, 9.8, 9.9.1, 9.10.3, 12.2, 13.7

Substantial Completion, Definition of
9.8.1

Substitution of Subcontractors
5.2.3, 5.2.4

Substitution of Engineer, or his designee
4.1.3

Substitutions of Materials
3.4.2, 3.5, 7.3.8

Sub-subcontractor, Definition of
5.1.2

Subsurface Conditions
3.7.4

Successors and Assigns
13.2

Superintendent
3.9, 10.2.6

Supervision and Construction Procedures
1.2.2, 3.3, 3.4, 3.12.10, 4.2.2, 4.2.7, 6.1.3, 6.2.4, 7.1.3, 7.3.7, 8.2, 8.3.1, 9.4.2, 10, 12, 14, 15.1.3

Surety
5.4.1.2, 9.8.5, 9.10.2, 9.10.3, 14.2.2, 15.2.7

Surety, Consent of
9.10.2, 9.10.3

Surveys
2.2.3

Suspension by the Owner for Convenience
14.3

Suspension of the Work
5.4.2, 14.3

Suspension or Termination of the Contract
5.4.1.1, 14

Taxes
3.6, 3.8.2.1, 7.3.7.4

Termination by the Contractor
14.1, 15.1.6

Termination by the Owner for Cause
5.4.1.1, 14.2, 15.1.6

Termination by the Owner for Convenience
14.4

Termination of the Engineer, or his designee
4.1.3

Termination of the Contractor
14.2.2

TERMINATION OR SUSPENSION OF THE CONTRACT

14

Tests and Inspections
3.1.3, 3.3.3, 4.2.2, 4.2.6, 4.2.9, 9.4.2, 9.8.3, 9.9.2, 9.10.1, 10.3.2, 11.4.1.1, 12.2.1, 13.5

TIME
8

Time, Delays and Extensions of
3.2.4, 3.7.4, 5.2.3, 7.2.1, 7.3.1, 7.4, 8.3, 9.5.1, 9.7, 10.3.2, 10.4.1, 14.3.2, 15.1.5, 15.2.5

Time Limits
2.1.2, 2.2, 2.4, 3.2.2, 3.10, 3.11, 3.12.5, 3.15.1, 4.2, 5.2, 5.3, 5.4, 6.2.4, 7.3, 7.4, 8.2, 9.2, 9.3.1, 9.3.3, 9.4.1, 9.5, 9.6, 9.7, 9.8, 9.9, 9.10, 11.1.3, 12.2, 13.5, 13.7, 14, 15.1.2, 15.4

Time Limits on Claims
3.7.4, 10.2.8, 13.7, 15.1.2

Title to Work
9.3.2, 9.3.3

Transmission of Data in Digital Form
1.6

UNCOVERING AND CORRECTION OF WORK
12

Uncovering of Work
12.1

Unforeseen Conditions, Concealed or Unknown
3.7.4, 8.3.1, 10.3

Unit Prices
7.3.3.2, 7.3.4

Use of Documents
1.1.1, 1.5, 2.2.5, 3.12.6, 5.3

Use of Site
3.13, 6.1.1, 6.2.1

Values, Schedule of
9.2, 9.3.1

Waiver of Claims by the Engineer, or his designee
13.4.2

Waiver of Claims by the Contractor
9.10.5, 13.4.2, 15.1.6

Waiver of Claims by the Owner
9.9.3, 9.10.3, 9.10.4, 12.2.2.1, 13.4.2, 14.2.4, 15.1.6

Waiver of Consequential Damages
14.2.4, 15.1.6

Waiver of Liens
9.10.2, 9.10.4

Waivers of Subrogation
6.1.1, 11.3.7

Warranty
3.5, 4.2.9, 9.3.3, 9.8.4, 9.9.1, 9.10.4, 12.2.2, 13.7

Weather Delays
15.1.5.2

Work, Definition of
1.1.3

Use of Site

Written Consent

1.5.2, 3.4.2, 3.7.4, 3.12.8, 3.14.2, 4.1.2, 9.3.2, 9.8.5, 9.9.1, 9.10.2, 9.10.3, 11.4.1, 13.2, 13.4.2, 15.4.4.2

Written Interpretations

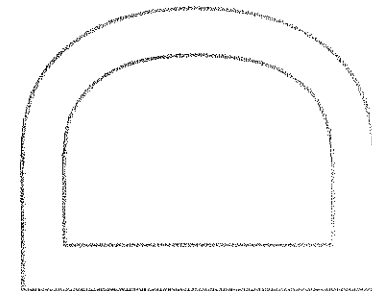
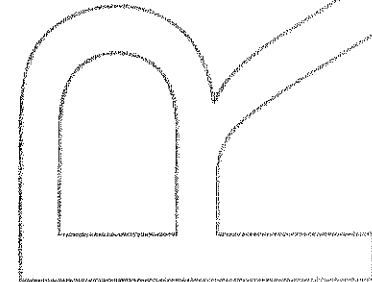
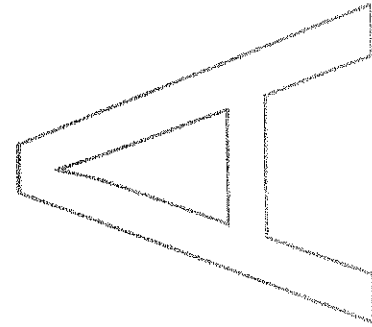
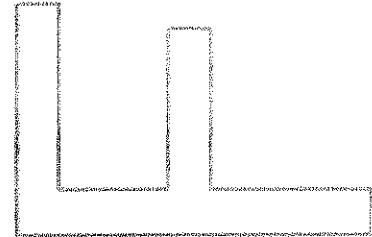
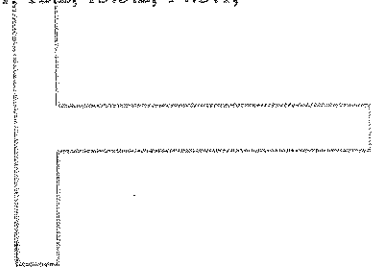
4.2.11, 4.2.12

Written Notice

2.3, 2.4, 3.3.1, 3.9, 3.12.9, 3.12.10, 5.2.1, 8.2.2, 9.7, 9.10, 10.2.2, 10.3, 11.1.3, 12.2.2, 12.2.4, 13.3, 14, 15.4.1

Written Orders

1.1.1, 2.3, 3.9, 7, 8.2.2, 12.1, 12.2, 13.5.2, 14.3.1, 15.1.2



ARTICLE 1 GENERAL PROVISIONS

§ 1.1 BASIC DEFINITIONS

§ 1.1.1 THE CONTRACT DOCUMENTS

The Contract Documents are enumerated in the Agreement between the Owner and Contractor (hereinafter the Agreement) and consist of the Agreement, Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications, Addenda issued prior to execution of the Contract, other documents listed in the Agreement and Modifications issued after execution of the Contract. A Modification is (1) a written amendment to the Contract signed by both parties, (2) a Change Order, (3) a Construction Change Directive or (4) a written order for a minor change in the Work issued by the Architect or Engineer. Unless specifically enumerated in the Agreement, the Contract Documents do not include the advertisement or invitation to bid, Instructions to Bidders, sample forms, other information furnished by the Owner in anticipation of receiving bids or proposals, the Contractor's bid or proposal, or portions of Addenda relating to bidding requirements.

§ 1.1.2 THE CONTRACT

The Contract Documents form the Contract for Construction. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations or agreements, either written or oral. The Contract may be amended or modified only by a Modification. The Contract Documents shall not be construed to create a contractual relationship of any kind (1) between the Contractor and the Engineer, or his designee or the Engineer, or his designee's consultants, (2) between the Owner and a Subcontractor or a Sub-subcontractor, (3) between the Owner and the Engineer, or his designee or the Engineer, or his designee's consultants or (4) between any persons or entities other than the Owner and the Contractor. The Engineer, or his designee's shall, however, be entitled to performance and enforcement of obligations under the Contract intended to facilitate performance of the Engineer, or his designee's duties.

§ 1.1.3 THE WORK

The term "Work" means the construction and services required by the Contract Documents, whether completed or partially completed, and includes all other labor, materials, equipment and services provided or to be provided by the Contractor to fulfill the Contractor's obligations. The Work may constitute the whole or a part of the Project.

§ 1.1.4 THE PROJECT

The Project is the total construction of which the Work performed under the Contract Documents may be the whole or a part and which may include construction by the Owner and by separate contractors.

§ 1.1.5 THE DRAWINGS

The Drawings are the graphic and pictorial portions of the Contract Documents showing the design, location and dimensions of the Work, generally including plans, elevations, sections, details, schedules and diagrams.

§ 1.1.6 THE SPECIFICATIONS

The Specifications are that portion of the Contract Documents consisting of the written requirements for materials, equipment, systems, standards and workmanship for the Work, and performance of related services.

§ 1.1.7 INSTRUMENTS OF SERVICE

Instruments of Service are representations, in any medium of expression now known or later developed, of the tangible and intangible creative work performed by the Engineer, or his designee and the Engineer, or his designee's consultants under their respective professional services agreements. Instruments of Service may include, without limitation, studies, surveys, models, sketches, drawings, specifications, and other similar materials.

§ 1.1.8 INITIAL DECISION MAKER

The Initial Decision Maker is the person identified in the Agreement to render initial decisions on Claims in accordance with Section 15.2 and certify termination of the Agreement under Section 14.2.2.

§ 1.2 CORRELATION AND INTENT OF THE CONTRACT DOCUMENTS

§ 1.2.1 The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the Contractor. The Contract Documents are complementary, and what is required by one shall be as binding as if required by all; performance by the Contractor shall be required only to the extent

consistent with the Contract Documents and reasonably inferable from them as being necessary to produce the indicated results.

§ 1.2.2 Organization of the Specifications into divisions, sections and articles, and arrangement of Drawings shall not control the Contractor in dividing the Work among Subcontractors or in establishing the extent of Work to be performed by any trade.

§ 1.2.3 Unless otherwise stated in the Contract Documents, words that have well-known technical or construction industry meanings are used in the Contract Documents in accordance with such recognized meanings.

§ 1.3 CAPITALIZATION

Terms capitalized in these General Conditions include those that are (1) specifically defined, (2) the titles of numbered articles or (3) the titles of other documents published by the American Institute of Engineer, or his designee s.

§ 1.4 INTERPRETATION

In the interest of brevity the Contract Documents frequently omit modifying words such as "all" and "any" and articles such as "the" and "an," but the fact that a modifier or an article is absent from one statement and appears in another is not intended to affect the interpretation of either statement.

§ 1.5 OWNERSHIP AND USE OF DRAWINGS, SPECIFICATIONS AND OTHER INSTRUMENTS OF SERVICE

§ 1.5.1 The Engineer, or his designee and the Engineer, or his designee 's consultants shall be deemed the authors and Owners of their respective Instruments of Service, including the Drawings and Specifications. The Contractor, Subcontractors, Sub-subcontractors, and material or equipment suppliers shall not own or claim a copyright in the Instruments of Service. Submittal or distribution to meet official regulatory requirements or for other purposes in connection with this Project is not to be construed as publication in derogation of the Engineer, or his designee or Engineer, or his designee 's consultants' reserved rights.

§ 1.5.2 The Contractor, Subcontractors, Sub-subcontractors and material or equipment suppliers are authorized to use and reproduce the Instruments of Service provided to them solely and exclusively for execution of the Work. All copies made under this authorization shall bear the copyright notice, if any, shown on the Instruments of Service. The Contractor, Subcontractors, Sub-subcontractors, and material or equipment suppliers may not use the Instruments of Service on other projects or for additions to this Project outside the scope of the Work without the specific written consent of the Owner, Engineer, or his designee and the Engineer, or his designee 's consultants.

§ 1.6 TRANSMISSION OF DATA IN DIGITAL FORM

If the parties intend to transmit Instruments of Service or any other information or documentation in digital form, they shall endeavor to establish necessary protocols governing such transmissions, unless otherwise already provided in the Agreement or the Contract Documents.

ARTICLE 2 OWNER

§ 2.1 GENERAL

§ 2.1.1 The Owner is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The Owner shall designate in writing a representative who shall have express authority to bind the Owner with respect to all matters requiring the Owner's approval or authorization. Except as otherwise provided elsewhere in the Contract Documents, the Engineer, or his designee does not have such authority. The term "Owner" means the Owner or the Owner's authorized representative.

§ 2.2 INFORMATION AND SERVICES REQUIRED OF THE OWNER

§ 2.2.1 The Contractor may request in writing that the Owner provide reasonable evidence that the Owner has made financial arrangements to fulfill the Owner's obligations under the Contract only in the event that: (1) the Owner fails to make payments to the Contractor as the Contract Documents require; (2) a change in the Work materially changes the Contract Sum. The Owner shall furnish such evidence as a condition precedent to commencement or continuation of the Work or the portion of the Work affected by a material change. After the Owner furnishes the evidence, the Owner shall not materially vary such financial arrangements without prior notice to the Contractor.

§ 2.2.2 Except for permits and fees that are the responsibility of the Contractor under the Contract Documents, including those required under Section 3.7.1, the Owner shall secure and pay for necessary approvals, easements, assessments and charges required for construction, use or occupancy of permanent structures or for permanent changes in existing facilities.

§ 2.2.3 If readily available, the Owner shall furnish surveys describing physical characteristics and legal limitations for the site of the Project, and a legal description of the site. The Contractor shall be entitled to rely on the accuracy of information furnished by the Owner but shall exercise proper precautions relating to the safe performance of the Work. The Contractor shall be responsible for requesting and obtaining a utility mark-out.

§ 2.2.4 The Owner shall furnish information or services required of the Owner by the Contract Documents with reasonable promptness. The Owner shall also furnish any other information or services under the Owner's control and relevant to the Contractor's performance of the Work with reasonable promptness after receiving the Contractor's written request for such information or services.

§ 2.2.5 Unless otherwise provided in the Contract Documents, the Owner shall furnish to the Contractor one copy of the Contract Documents for purposes of making reproductions pursuant to Section 1.5.2.

§ 2.3 OWNER'S RIGHT TO STOP THE WORK

If the Contractor fails to correct Work that is not in accordance with the requirements of the Contract Documents as required by Article 12 or fails to carry out Work in accordance with the Contract Documents, the Owner may issue a written order to the Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, the right of the Owner to stop the Work shall not give rise to a duty on the part of the Owner to exercise this right for the benefit of the Contractor or any other person or entity, except to the extent required by Section 6. Owner shall in no way be responsible for any delays or claims arising from delays for enforcement of this Section.

§ 2.4 OWNER'S RIGHT TO CARRY OUT THE WORK

If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents and fails within a seven-day period after receipt of written notice from the Owner to commence and continue correction of such default or neglect with diligence and promptness, the Owner may, without prejudice to other remedies the Owner may have, correct such deficiencies. In such case an appropriate Change Order shall be issued deducting from payments then or thereafter due the Contractor the reasonable cost of correcting such deficiencies, including Owner's expenses and compensation for the Engineer, or his designee's additional services made necessary by such default, neglect or failure. If payments then or thereafter due the Contractor are not sufficient to cover such amounts, the Contractor shall pay the difference to the Owner.

ARTICLE 3 CONTRACTOR

§ 3.1 GENERAL

§ 3.1.1 The Contractor is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The Contractor shall be lawfully licensed, if required in the jurisdiction where the Project is located and shall maintain as current any approvals or certifications that may be required to perform the Work. The term "Contractor" means the Contractor or the Contractor's authorized representative.

§ 3.1.2 The Contractor shall perform the Work in accordance with the Contract Documents.

§ 3.1.3 The Contractor shall not be relieved of obligations to perform the Work in accordance with the Contract Documents either by activities or duties of the Engineer, or his designee in the Engineer, or his designee's administration of the Contract, or by tests, inspections or approvals required or performed by persons or entities other than the Contractor.

§ 3.2 REVIEW OF CONTRACT DOCUMENTS AND FIELD CONDITIONS BY CONTRACTOR

§ 3.2.1 Execution of the Contract by the Contractor is a representation that the Contractor has visited the site, become generally familiar with local conditions under which the Work is to be performed and correlated personal observations with requirements of the Contract Documents.

§ 3.2.2 Because the Contract Documents are complementary, the Contractor shall, before starting each portion of the Work, carefully study and compare the various Contract Documents relative to that portion of the Work, as well as the information furnished by the Owner pursuant to Section 2.2.3, shall take field measurements of any existing conditions related to that portion of the Work, and shall observe any conditions at the site affecting it. These obligations are for the purpose of facilitating coordination and construction by the Contractor and are not for the purpose of discovering errors, omissions, or inconsistencies in the Contract Documents; however, the Contractor shall promptly report to the Engineer, or his designee any errors, inconsistencies or omissions discovered by or made known to the Contractor as a request for information in such form as the Engineer, or his designee may require. It is recognized that the Contractor's review is made in the Contractor's capacity as a Contractor and not as a licensed design professional, unless otherwise specifically provided in the Contract Documents.

§ 3.2.3 The Contractor is not required to ascertain that the Contract Documents are in accordance with applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, but the Contractor shall promptly report to the Engineer, or his designee any nonconformity discovered by or made known to the Contractor as a request for information in such form as the Engineer, or his designee may require.

§ 3.2.4 If the Contractor believes that additional cost or time is involved because of clarifications or instructions the Engineer, or his designee issues in response to the Contractor's notices or requests for information pursuant to Sections 3.2.2 or 3.2.3, the Contractor shall make Claims as provided in Article 15. If the Contractor fails to perform the obligations of Sections 3.2.2 or 3.2.3, the Contractor shall pay such costs and damages to the Owner as would have been avoided if the Contractor had performed such obligations. If the Contractor performs those obligations, the Contractor shall not be liable to the Owner or Engineer, or his designee for damages resulting from errors, inconsistencies or omissions in the Contract Documents, for differences between field measurements or conditions and the Contract Documents, or for nonconformities of the Contract Documents to applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities.

§ 3.3 SUPERVISION AND CONSTRUCTION PROCEDURES

§ 3.3.1 The Contractor shall supervise and direct the Work, using the Contractor's best skill and attention. The Contractor shall be solely responsible for, and have control over, construction means, methods, techniques, sequences and procedures and for coordinating all portions of the Work under the Contract, unless the Contract Documents give other specific instructions concerning these matters. If the Contract Documents give specific instructions concerning construction means, methods, techniques, sequences or procedures, the Contractor shall evaluate the jobsite safety thereof and, except as stated below, shall be fully and solely responsible for the jobsite safety of such means, methods, techniques, sequences or procedures. If the Contractor determines that such means, methods, techniques, sequences or procedures may not be safe, the Contractor shall give timely written notice to the Owner and Engineer, or his designee and shall not proceed with that portion of the Work without further written instructions from the Engineer, or his designee. If the Contractor is then instructed to proceed with the required means, methods, techniques, sequences or procedures without acceptance of changes proposed by the Contractor, the Owner shall be solely responsible for any loss or damage arising solely from those Owner-required means, methods, techniques, sequences or procedures.

§ 3.3.2 The Contractor shall be responsible to the Owner for acts and omissions of the Contractor's employees, Subcontractors and their agents and employees, and other persons or entities performing portions of the Work for, or on behalf of, the Contractor or any of its Subcontractors.

§ 3.3.3 The Contractor shall be responsible for inspection of portions of Work already performed to determine that such portions are in proper condition to receive subsequent Work.

§ 3.4 LABOR AND MATERIALS

§ 3.4.1 Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for proper execution and completion of the Work, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work.

§ 3.4.2 Except in the case of minor changes in the Work authorized by the Engineer, or his designee in accordance with Sections 3.12.8 or 7.4, the Contractor may make substitutions only with the consent of the Owner, after

evaluation by the Engineer, or his designee and in accordance with a Change Order or Construction Change Directive.

§ 3.4.3 The Contractor shall enforce strict discipline and good order among the Contractor's employees and other persons carrying out the Work. The Contractor shall not permit employment of unfit persons or persons not properly skilled in tasks assigned to them.

§ 3.5 WARRANTY

The Contractor warrants to the Owner and Engineer, or his designee that materials and equipment furnished under the Contract will be of good quality and new unless the Contract Documents require or permit otherwise. The Contractor further warrants that the Work will conform to the requirements of the Contract Documents and will be free from defects, except for those inherent in the quality of the Work the Contract Documents require or permit. Work, materials, or equipment not conforming to these requirements may be considered defective. The Contractor's warranty excludes remedy for damage or defect caused by abuse, alterations to the Work not executed by the Contractor, improper or insufficient maintenance, improper operation, or normal wear and tear and normal usage. If required by the Engineer, or his designee, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment. Such warranty shall continue for a period of one (1) year from the date of Substantial Completion of the Work. Under this warranty, the Contractor shall remedy at his expense any such failure for the Work to be conforming to the requirement of the Contract, or any other defect appearing in the Work. In addition, the Contractor shall remedy at his own expense, any damage to Owner's owned, controlled, real or personal property, when that damage is the result of the Contractor's failure to provide conforming Work as it relates to the Contract Documents or any other defect of equipment, material, workmanship or design. The Contractor shall also restore any Work damaged in fulfilling its obligations under the terms of this provision. The Contractor's warranty with respect to the Work repaired or replaced hereunder will run for a period of one (1) year from the date of repair or replacement.

§ 3.6 TAXES

The Contractor shall pay use and similar taxes for the Work provided by the Contractor that are legally enacted when bids are received or negotiations concluded, whether or not yet effective or merely scheduled to go into effect.

§ 3.7 PERMITS, FEES, NOTICES AND COMPLIANCE WITH LAWS

§ 3.7.1 Unless otherwise provided in the Contract Documents, the Contractor shall secure and pay for the building permit as well as for other permits, fees, licenses, and inspections by government agencies necessary for proper execution and completion of the Work that are customarily secured after execution of the Contract and legally required at the time bids are received or negotiations concluded.

§ 3.7.2 The Contractor shall comply with and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities applicable to performance of the Work.

§ 3.7.3 If the Contractor performs Work knowing it to be contrary to applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, the Contractor shall assume appropriate responsibility for such Work and shall bear the costs attributable to correction.

§ 3.7.4 **Concealed or Unknown Conditions.** If the Contractor encounters conditions at the site that are (1) subsurface or otherwise concealed physical conditions that differ materially from those indicated in the Contract Documents or (2) unknown physical conditions of an unusual nature, that differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents, the Contractor shall promptly provide notice to the Owner and the Engineer, or his designee before conditions are disturbed and in no event later than 21 days after first observance of the conditions. The Engineer, or his designee will promptly investigate such conditions and, if the Engineer, or his designee determines that they differ materially and cause an increase or decrease in the Contractor's cost of, or time required for, performance of any part of the Work, will recommend an equitable adjustment in the Contract Sum or Contract Time, or both. If the Engineer, or his designee determines that the conditions at the site are not materially different from those indicated in the Contract Documents and that no change in the terms of the Contract is justified, the Engineer, or his designee shall promptly notify the Owner and Contractor in writing, stating the reasons. If either party disputes the Engineer, or his designee's determination or recommendation, that party may proceed as provided in Article 15.

§ 3.7.5 If, in the course of the Work, the Contractor encounters human remains or recognizes the existence of burial markers, archaeological sites or wetlands not indicated in the Contract Documents, the Contractor shall immediately suspend any operations that would affect them and shall notify the Owner and Engineer, or his designee. Upon receipt of such notice, the Owner shall promptly take any action necessary to obtain governmental authorization required to resume the operations. The Contractor shall continue to suspend such operations until otherwise instructed by the Owner but shall continue with all other operations that do not affect those remains or features. Requests for adjustments in the Contract Sum and Contract Time arising from the existence of such remains or features may be made as provided in Article 15.

§ 3.8 ALLOWANCES

§ 3.8.1 The Contractor shall include in the Contract Sum all allowances stated in the Contract Documents. Items covered by allowances shall be supplied for such amounts and by such persons or entities as the Owner may direct.

§ 3.8.2 Unless otherwise provided in the Contract Documents,

- .1 Allowances shall cover the cost to the Contractor of materials and equipment delivered at the site and all required taxes, less applicable trade discounts;
- .2 Contractor's costs for unloading and handling at the site, labor, installation costs, overhead, profit and other expenses contemplated for stated allowance amounts shall be included in the Contract Sum but not in the allowances; and
- .3 Whenever costs are more than or less than allowances, the Contract Sum shall be adjusted accordingly by Change Order. The amount of the Change Order shall reflect (1) the difference between actual costs and the allowances under Section 3.8.2.1 and (2) changes in Contractor's costs under Section 3.8.2.2. The unused balance of any allowance shall be deducted from the Contract Sum upon completion and acceptance of the Work by Change Order.

§ 3.8.3 Materials and equipment under an allowance shall be selected by the Owner with reasonable promptness.

§ 3.9 SUPERINTENDENT

§ 3.9.1 The Contractor shall employ a competent superintendent and necessary assistants who shall be in attendance at the Project site during performance of the Work. The superintendent shall represent the Contractor, and communications given to the superintendent shall be as binding as if given to the Contractor.

§ 3.9.2 The Contractor, as soon as practicable after award of the Contract, shall furnish in writing to the Owner through the Engineer, or his designee the name and qualifications of a proposed superintendent. The Engineer, or his designee may reply within 14 days to the Contractor in writing stating (1) whether the Owner or the Engineer, or his designee has reasonable objection to the proposed superintendent or (2) that the Engineer, or his designee requires additional time to review. Failure of the Engineer, or his designee to reply within the 14 day period shall constitute notice of no reasonable objection.

§ 3.9.3 The Contractor shall not employ a proposed superintendent to whom the Owner or Engineer, or his designee has made reasonable and timely objection. The Contractor shall not change the superintendent without the Owner's consent, which shall not unreasonably be withheld or delayed.

§ 3.10 CONTRACTOR'S CONSTRUCTION SCHEDULES

§ 3.10.1 The Contractor, promptly after being awarded the Contract, shall prepare and submit for the Owner's and Engineer, or his designee's information a Contractor's construction schedule for the Work. The schedule shall not exceed time limits current under the Contract Documents, shall be revised at appropriate intervals as required by the conditions of the Work and Project, shall be related to the entire Project to the extent required by the Contract Documents, and shall provide for expeditious and practicable execution of the Work.

§ 3.10.2 The Contractor shall prepare a submittal schedule, promptly after being awarded the Contract and thereafter as necessary to maintain a current submittal schedule, and shall submit the schedule(s) for the Engineer, or his designee's approval. The Engineer, or his designee's approval shall not unreasonably be delayed or withheld. The submittal schedule shall (1) be coordinated with the Contractor's construction schedule, and (2) allow the Engineer, or his designee reasonable time to review submittals. If the Contractor fails to submit a submittal

schedule, the Contractor shall not be entitled to any increase in Contract Sum or extension of Contract Time based on the time required for review of submittals.

§ 3.10.3 The Contractor shall perform the Work in general accordance with the most recent schedules submitted to the Owner and Engineer, or his designee .

§3.10.4 Should the Contractor responsible for the scheduling requirements of Article 3 herein fail to comply with said scheduling requirements, said failure shall result in the following:

- 1 all claims resulting from the Contractor's failure to prepare or submit a schedule shall be the Contractor's responsibility;
- 2 shall constitute an act of default and a substantial breach of the Contract giving the Owner remedies under the Contract Documents; and
- 3 the Owner shall have the right to withhold any payments until the Contractor complies with the scheduling requirements of Article 3 herein.

§3.10.5 In the event of a Five Prime Contract, the General Contractor shall be responsible for the preparation and submittal of the schedule.

§ 3.11 DOCUMENTS AND SAMPLES AT THE SITE

The Contractor shall maintain at the site for the Owner one copy of the Drawings, Specifications, Addenda, Change Orders and other Modifications, in good order and marked currently to indicate field changes and selections made during construction, and one copy of approved Shop Drawings, Product Data, Samples and similar required submittals. These shall be available to the Engineer, or his designee and shall be delivered to the Engineer, or his designee for submittal to the Owner upon completion of the Work as a record of the Work as constructed.

§ 3.12 SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

§ 3.12.1 Shop Drawings are drawings, diagrams, schedules and other data specially prepared for the Work by the Contractor or a Subcontractor, Sub-subcontractor, manufacturer, supplier or distributor to illustrate some portion of the Work.

§ 3.12.2 Product Data are illustrations, standard schedules, performance charts, instructions, brochures, diagrams and other information furnished by the Contractor to illustrate materials or equipment for some portion of the Work.

§ 3.12.3 Samples are physical examples that illustrate materials, equipment or workmanship and establish standards by which the Work will be judged.

§ 3.12.4 Shop Drawings, Product Data, Samples and similar submittals are not Contract Documents. Their purpose is to demonstrate the way by which the Contractor proposes to conform to the information given and the design concept expressed in the Contract Documents for those portions of the Work for which the Contract Documents require submittals. Review by the Engineer, or his designee is subject to the limitations of Section 4.2.7. Informational submittals upon which the Engineer, or his designee is not expected to take responsive action may be so identified in the Contract Documents. Submittals that are not required by the Contract Documents may be returned by the Engineer, or his designee without action.

§ 3.12.5 The Contractor shall review for compliance with the Contract Documents, approve and submit to the Engineer, or his designee Shop Drawings, Product Data, Samples and similar submittals required by the Contract Documents in accordance with the submittal schedule approved by the Engineer, or his designee or, in the absence of an approved submittal schedule, with reasonable promptness and in such sequence as to cause no delay in the Work or in the activities of the Owner or of separate contractors.

§ 3.12.6 By submitting Shop Drawings, Product Data, Samples and similar submittals, the Contractor represents to the Owner and Engineer, or his designee that the Contractor has (1) reviewed and approved them, (2) determined and verified materials, field measurements and field construction criteria related thereto, or will do so and (3) checked and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents.

§ 3.12.7 The Contractor shall perform no portion of the Work for which the Contract Documents require submittal and review of Shop Drawings, Product Data, Samples or similar submittals until the respective submittal has been approved by the Engineer, or his designee .

§ 3.12.8 The Work shall be in accordance with approved submittals except that the Contractor shall not be relieved of responsibility for deviations from requirements of the Contract Documents by the Engineer or his designee 's approval of Shop Drawings, Product Data, Samples or similar submittals unless the Contractor has specifically informed the Engineer, or his designee in writing of such deviation at the time of submittal and (1) the Engineer, or his designee has given written approval to the specific deviation as a minor change in the Work, or (2) a Change Order or Construction Change Directive has been issued authorizing the deviation. The Contractor shall not be relieved of responsibility for errors or omissions in Shop Drawings, Product Data, Samples or similar submittals by the Engineer, or his designee 's approval thereof.

§ 3.12.9 The Contractor shall direct specific attention, in writing or on resubmitted Shop Drawings, Product Data, Samples or similar submittals, to revisions other than those requested by the Engineer, or his designee on previous submittals. In the absence of such written notice, the Engineer, or his designee 's approval of a resubmission shall not apply to such revisions.

§ 3.12.10 The Contractor shall not be required to provide professional services that constitute the practice of Engineer, or his designee ure or engineering unless such services are specifically required by the Contract Documents for a portion of the Work or unless the Contractor needs to provide such services in order to carry out the Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. The Contractor shall not be required to provide professional services in violation of applicable law. If professional design services or certifications by a design professional related to systems, materials or equipment are specifically required of the Contractor by the Contract Documents, the Owner and the Engineer, or his designee will specify all performance and design criteria that such services must satisfy. The Contractor shall cause such services or certifications to be provided by a properly licensed design professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to the Engineer or his designee . The Owner and the Engineer, or his designee shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications and approvals performed or provided by such design professionals, provided the Owner and Engineer, or his designee have specified to the Contractor all performance and design criteria that such services must satisfy. Pursuant to this Section 3.12.10, the Engineer, or his designee will review, approve or take other appropriate action on submittals only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. The Contractor shall not be responsible for the adequacy of the performance and design criteria specified in the Contract Documents.

§ 3.13 USE OF SITE

§ 3.13.1 The Contractor shall confine operations at the site to areas permitted by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities and the Contract Documents and shall not unreasonably encumber the site with materials or equipment.

§ 3.13.2 The Contractor shall coordinate the Contractor's operations with, and secure the approval of, the Owner before using any portion of the Site.

§ 3.13.3 The Contractor shall store its apparatuses, materials, supplies, and equipment in such orderly fashion at the Site of the Work, if permitted, as will not unduly interfere with the progress of the Work or ongoing operations. The Contractor shall provide protective fencing around the designated storage areas.

§ 3.13.4 The Contractor shall see that stockpiles of materials and storage of equipment are kept to a minimum and neatly stored where directed by the Owner and the Engineer, or his designee .

§ 3.13.5 If the Work is to be executed in areas occupied by the Owner, the Contractor shall inform the Owner in advance of the areas scheduled to be worked on, so that the Owner's personnel may make proper preparations to protect equipment and records.

§3.13.6 The Contractor understands that some or all the Work of the Contract may be performed while the facilities are occupied by personnel, and accordingly shall make all reasonable and necessary provisions to ensure that the contract Work will be of minimal disruption to the environment.

§3.13.7 Materials and equipment that are to be used only directly in the Work, shall be brought to and stored on the Project site by the Contractor. After equipment is no longer required for the Work, it shall be promptly removed from the Project Site. Protection of construction materials and equipment stored at the Project Site from weather, theft, damage and all other adversity is solely the Contractor's responsibility. The Contractor shall bear the responsibility to replace all such materials that may be lost, damaged, or stolen at its expense, whether such materials or equipment have been entirely or partially paid for by the Owner.

§3.13.8 The Contractor and any entity for whom the Contractor is responsibility, shall not erect any sign on the Project Site without the prior written consent of the Owner, which may be withheld in the sole discretion of the Owner.

§3.13.9 Contractor shall ensure that the Work is performed at all times in a manner that affords reasonable access, both vehicular and pedestrian, to the Site of the Work and all adjacent areas. The Work shall be performed, to the fullest extent reasonably possible, in such a manner that public areas adjacent to the Site of the Work shall be free from all debris, building materials, and equipment likely to cause hazardous conditions.

§3.13.10 Without prior approval of the Owner, the Contractor shall not permit any workers to use any existing facilities at the Project Site, including, without limitation, the lavatories, toilets, entrances, and parking areas, other than those designated by the Owner. Without limitation of any other provision of the Contract Documents, the Contractor shall use its best efforts to comply with all rules and regulations promulgated by the Owner in connection with the use and occupancy of the Project Site and the Building, as amended from time to time. The Contractor shall immediately notify the Owner in writing, if during the performance of the Work, the Contractor finds compliance with any portion of such rules and regulations to be impracticable. This notification shall set forth the problems of such compliance and shall suggest alternatives through which the same results intended by such portions of the rules and regulations can be achieved. The Owner may, in the Owner's sole discretion, adopt such suggestions, develop new alternatives or require compliance with the existing requirements of the rules and regulations. The Contractor shall also comply with all insurance requirements and collective bargaining agreements applicable to use and occupancy of the Project Site and the Building.

§ 3.14 CUTTING AND PATCHING

§ 3.14.1 The Contractor shall be responsible for cutting, fitting or patching required to complete the Work or to make its parts fit together properly. All areas requiring cutting, fitting and patching shall be restored to the condition existing prior to the cutting, fitting and patching, unless otherwise required by the Contract Documents. Any costs incurred by the Onwer for defective cutting or patching shall be borne by the Contractor responsible therefore.

§ 3.14.2 The Contractor shall not damage or endanger a portion of the Work or fully or partially completed construction of the Owner or separate contractors by cutting, patching or otherwise altering such construction, or by excavation. The Contractor shall not cut or otherwise alter such construction by the Owner or a separate Contractor except with written consent of the Owner and of such separate Contractor; such consent shall not be unreasonably withheld. The Contractor shall not unreasonably withhold from the Owner or a separate Contractor the Contractor's consent to cutting or otherwise altering the Work.

§ 3.15 CLEANING UP

§ 3.15.1 The Contractor shall keep the premises and surrounding area free from accumulation of waste materials or rubbish caused by operations under the Contract. At completion of the Work, the Contractor shall remove waste materials, rubbish, the Contractor's tools, construction equipment, machinery and surplus materials from and about the Project.

§ 3.15.2 If the Contractor fails to clean up as provided in the Contract Documents, the Owner may do so and Owner shall be entitled to reimbursement from the Contractor, or shall be entitled to reduce the Contract Amount in an amount equal to the Owner's cost to clean up.

§3.15.3 The Contractor shall, on a daily basis, clean debris resulting from its Work, and protect construction in progress and maintain adjoining materials in place during handling and installation, and provide protective covering where required to assure protection from damage or deterioration until Substantial Completion.

§3.15.4 The Contractor shall clean and provide maintenance on completed construction, after installation, as frequently as necessary through the remainder of the construction period.

§3.15.5 The Contractor shall supervise its construction operations to assure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period. The term "clean" shall include the removal of debris from the work area to dumpsters furnished by the Prime General Work Contractor or the Contractor for Single Overall Contract Work, whichever contracting method shall apply.

§ 3.16 ACCESS TO WORK

The Contractor shall provide the Owner and Engineer, or his designee access to the Work in preparation and progress wherever located.

§ 3.17 ROYALTIES, PATENTS AND COPYRIGHTS

The Contractor shall pay all royalties and license fees. The Contractor shall defend suits or claims for infringement of copyrights and patent rights and shall hold the Owner and Engineer, or his designee harmless from loss on account thereof, but shall not be responsible for such defense or loss when a particular design, process or product of a particular manufacturer or manufacturers is required by the Contract Documents, or where the copyright violations are contained in Drawings, Specifications or other documents prepared by the Owner or Engineer, or his designee. However, if the Contractor has reason to believe that the required design, process or product is an infringement of a copyright or a patent, the Contractor shall be responsible for such loss unless such information is promptly furnished to the Engineer, or his designee.

§ 3.18 INDEMNIFICATION

§ 3.18.1 The County of Union requires all bidders to accept the following indemnification requirements in the event the County accepts their bid. The Contract awarded by the County to the successful bidder will contain the following provision:

"To the fullest extent permitted by law the Contractor shall indemnify and hold harmless the Owner and Owner's consultants, agents, representatives, and employees from and against any and all claims, damages, losses, costs, and expenses, including, but not limited to attorney's fees, legal costs and legal expenses arising out of or resulting from the performance of the Contractor's work under this contract, provided that such claim, damage, loss, cost or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than work itself) caused or alleged to be caused by the negligent acts, negligent omissions, and/or fault of the Contractor, anyone directly or indirectly employed or retained by the Contractor, or anyone for whose acts the Contractor may be liable regardless of whether caused in part by the negligent act or omission of a party indemnified hereunder provided it is not caused by the sole negligence of a party indemnified hereunder. Contractor shall further indemnify and hold harmless the Owner and the Owner's consultants, agents, representative, and employees from and against any and all claims, damages, losses, costs, and expenses, including, but not limited to attorneys' fees, legal costs and legal expenses, arising out of or resulting from performance of the work, provided that such claims, damage, loss, cost, or expense is attributable to bodily injury, sickness, disease or death, or to injury to destruction of tangible property (other than work itself) caused or alleged to be caused by the negligent acts, negligent omissions, and/or fault of the Owner or the Owner's consultants, agents, representatives, or employees and arises out of this project and provided such claim, damage, loss, cost, or expense is not caused by the sole negligence of a party indemnified hereunder."

§ 3.18.2 In claims against any person or entity indemnified under this Section 3.18 by an employee of the Contractor, a Subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, the indemnification obligation under Section 3.18.1 shall not be limited by a limitation on amount or type of damages, compensation or benefits payable by or for the Contractor or a Subcontractor under workers' compensation acts, disability benefit acts or other employee benefit acts.

ARTICLE 4 ENGINEER, OR HIS DESIGNEE OR ENGINEER

§ 4.1 GENERAL

§ 4.1.1 The Owner shall retain an Engineer, or his designee lawfully licensed to practice Engineer, or his designee in the jurisdiction where the Project is located. That person or entity is identified as the Engineer, or his designee in the Agreement and is referred to throughout the Contract Documents as if singular in number.

§ 4.1.2 Duties, responsibilities and limitations of authority of the Engineer, or his designee as set forth in the Contract Documents shall not be restricted, modified or extended without written consent of the Owner, Contractor and Engineer, or his designee. Consent shall not be unreasonably withheld.

§ 4.2 ADMINISTRATION OF THE CONTRACT

§ 4.2.1 The Engineer, or his designee will provide administration of the Contract as set forth in its respective Agreements with the Owner and as described in the Contract Documents.

§ 4.2.2 The Engineer, or his designee will visit the site at intervals appropriate to the stage of construction, or as otherwise agreed with the Owner, to become generally familiar with the progress and quality of the portion of the Work completed, and to determine in general if the Work observed is being performed in a manner indicating that the Work, when fully completed, will be in accordance with the Contract Documents.

§ 4.2.3 On the basis of the site visits, the Engineer, or his designee will keep the Owner reasonably informed about the progress and quality of the portion of the Work completed, and report to the Owner (1) known deviations from the Contract Documents and from the most recent construction schedule submitted by the Contractor, and (2) defects and deficiencies observed in the Work.

§ 4.2.4 COMMUNICATIONS FACILITATING CONTRACT ADMINISTRATION

Except as otherwise provided in the Contract Documents or when direct communications have been specially authorized, the Owner and Contractor shall endeavor to communicate with each other through the Engineer, or his designee about matters arising out of or relating to the Contract. Communications by and with the Engineer, or his designee's consultants shall be through the Engineer, or his designee. Communications by and with Subcontractors and material suppliers shall be through the Contractor. Communications by and with separate contractors shall be through the Owner.

§ 4.2.5 Based on the Engineer, or his designee's evaluations of the Contractor's Applications for Payment, the Engineer, or his designee will review and certify the amounts due the Contractor and will issue Certificates for Payment in such amounts.

§ 4.2.6 The Engineer, or his designee has authority to reject Work that does not conform to the Contract Documents. Whenever the Engineer, or his designee considers it necessary or advisable, the Engineer, or his designee will have authority to require inspection or testing of the Work in accordance with Sections 13.5.2 and 13.5.3, whether or not such Work is fabricated, installed or completed. However, neither this authority of the Engineer, or his designee nor a decision made in good faith either to exercise or not to exercise such authority shall give rise to a duty or responsibility of the Engineer, or his designee to the Contractor, Subcontractors, material and equipment suppliers, their agents or employees, or other persons or entities performing portions of the Work.

§ 4.2.7 The Engineer, or his designee will review and approve, or take other appropriate action upon, the Contractor's submittals such as Shop Drawings, Product Data and Samples, but only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. The Engineer, or his designee's action will be taken in accordance with the submittal schedule approved by the Engineer, or his designee or, in the absence of an approved submittal schedule, with reasonable promptness while allowing sufficient time in the Engineer, or his designee's professional judgment to permit adequate review. Review of such submittals is not conducted for the purpose of determining the accuracy and completeness of other details such as dimensions and quantities, or for substantiating instructions for installation or performance of equipment or systems, all of which remain the responsibility of the Contractor as required by the Contract Documents. The Engineer, or his designee's review of the Contractor's submittals shall not relieve the Contractor of the obligations under Sections 3.3, 3.5 and 3.12. The Engineer, or his designee's review shall not constitute

approval of safety precautions or, unless otherwise specifically stated by the Engineer, or his designee, of any construction means, methods, techniques, sequences or procedures. The Engineer, or his designee's approval of a specific item shall not indicate approval of an assembly of which the item is a component.

§ 4.2.8 The Engineer, or his designee will prepare Change Orders and Construction Change Directives, and may authorize minor changes in the Work as provided in Section 7. The Engineer, or his designee will investigate and make determinations and recommendations regarding concealed and unknown conditions as provided in Section 3.7.4.

§ 4.2.9 The Engineer, or his designee will conduct inspections to determine the date or dates of Substantial Completion and the date of final completion; issue Certificates of Substantial Completion pursuant to Section 9.8; receive and forward to the Owner, for the Owner's review and records, written warranties and related documents required by the Contract and assembled by the Contractor pursuant to Section 9.10; and issue a final Certificate for Payment pursuant to Section 9.10.

§ 4.2.10 If the Owner and Engineer, or his designee agree, the Engineer, or his designee will provide one or more project representatives to assist in carrying out the Engineer, or his designee's responsibilities at the site. The duties, responsibilities and limitations of authority of such project representatives shall be as set forth in the Owner's Agreement with the Engineer, or his designee.

§ 4.2.11 The Engineer, or his designee will interpret and decide matters concerning performance under, and requirements of, the Contract Documents on written request of either the Owner or Contractor. The Engineer, or his designee's response to such requests will be made in writing within any time limits agreed upon or otherwise with reasonable promptness.

§ 4.2.12 Interpretations and decisions of the Engineer, or his designee will be consistent with the intent of, and reasonably inferable from, the Contract Documents and will be in writing or in the form of drawings. When making such interpretations and decisions, the Engineer, or his designee will endeavor to secure faithful performance by both Owner and Contractor and will not show partiality.

§ 4.2.13 The Engineer, or his designee will review and respond to requests for information about the Contract Documents. The Engineer, or his designee's response to such requests will be made in writing within any time limits agreed upon or otherwise with reasonable promptness. If appropriate, the Engineer, or his designee will prepare and issue supplemental Drawings and Specifications in response to the requests for information.

ARTICLE 5 SUBCONTRACTORS

§ 5.1 DEFINITIONS

§ 5.1.1 A Subcontractor is a person or entity who has a direct contract with the Contractor to perform a portion of the Work at the site. The term "Subcontractor" is referred to throughout the Contract Documents as if singular in number and means a Subcontractor or an authorized representative of the Subcontractor. The term "Subcontractor" does not include a separate Contractor or subcontractors of a separate Contractor.

§ 5.1.2 A Sub-subcontractor is a person or entity who has a direct or indirect contract with a Subcontractor to perform a portion of the Work at the site. The term "Sub-subcontractor" is referred to throughout the Contract Documents as if singular in number and means a Sub-subcontractor or an authorized representative of the Sub-subcontractor.

§ 5.2 AWARD OF SUBCONTRACTS AND OTHER CONTRACTS FOR PORTIONS OF THE WORK

§ 5.2.1 Identification of Subcontractors required by N.J.S.A. 40A:11-16 shall be provided with the bid submission in accordance with the requirements of that statute. Names of persons or entities for any Subcontractor not covered by N.J.S.A. 18A-18 shall be furnished within thirty (30) thirty days of notification of Award of Contract. The Engineer, or his designee will notify the Contractor in writing if the Owner or Engineer, or his designee, after due investigation, has reasonable objection to any such proposed person or entity. The list of proposed Subcontractors shall include a description of the materials and equipment each proposes to furnish and install in the Work. The description shall be insufficient detail to allow the Engineer, or his designee to determine general conformance to Contract requirements. Approval of the submittals as required under this Article shall not relieve the Contractor from conformance to Contract requirements.

§5.2.2 Subcontractors shall comply with the statutory requirements of N.J.S.A. 34:11-56.25 and N.J.S.A. 34:11-56.48. Any subcontractors who fail to comply with those statutory provisions shall be rejected.

§5.2.3 Written confirmation of award of each major subcontract shall be submitted to the Owner by the Contractor, in form subject to his approval, within seven (7) days after receipt of Owner's approval of proposed Subcontractor list as provided under this Article. Every subcontract shall be in writing, shall be submitted to Owner for review and approval prior to execution, and shall specifically provide that the Owner is an intended third (3rd) party beneficiary of such subcontract.

§ 5.2.4 The Contractor shall not contract with a proposed person or entity to whom the Owner or Engineer, or his designee has made reasonable and timely objection. The Contractor shall not be required to contract with anyone to whom the Contractor has made reasonable objection.

§ 5.2.5 If the Owner or Engineer, or his designee has reasonable objection to a person or entity proposed by the Contractor, the Contractor shall propose another to whom the Owner or Engineer, or his designee has no reasonable objection. If the proposed but rejected Subcontractor was reasonably capable of performing the Work, the Contract Sum and Contract Time shall be increased or decreased by the difference, if any, occasioned by such change, and an appropriate Change Order shall be issued before commencement of the substitute Subcontractor's Work. However, no increase in the Contract Sum or Contract Time shall be allowed for such change unless the Contractor has acted promptly and responsively in submitting names as required.

§ 5.2.6 The Contractor shall not substitute a Subcontractor, person or entity previously selected if the Owner or Engineer, or his designee makes reasonable objection to such substitution.

§ 5.3 SUBCONTRACTUAL RELATIONS

§5.3.1 By appropriate agreement, written where legally required for validity, the Contractor shall require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound to the Contractor by terms of the Contract Documents, and to assume toward the Contractor all the obligations and responsibilities, including the responsibility for safety of the Subcontractor's Work, which the Contractor, by these Documents, assumes toward the Owner and Engineer, or his designee. Each subcontract agreement shall preserve and protect the rights of the Owner and Engineer, or his designee under the Contract Documents and at law. No Subcontract shall diminish in any way any rights or benefits conferred upon the Owner by these Contract Documents. The Contractor shall make all Contract Documents available to the Subcontractors.

§5.3.2 Where the Contractor sublets portions of the Work, the entire responsibility for the subdividing of Work rests with the Contractor. The Owner and the Engineer, or his designee are not responsible for the manner of the subdivision of the Work, nor will they enter into or settle disagreements or disputes between Contractor and Subcontractors. The Contractor is, and will be held, responsible for the proper execution of the Work of all Subcontractors.

§ 5.4 CONTINGENT ASSIGNMENT OF SUBCONTRACTS

§ 5.4.1 Each subcontract agreement for a portion of the Work is assigned by the Contractor to the Owner, provided that

- 1 assignment is effective only after termination of the Contract by the Owner for cause pursuant to Section 14.2 and only for those subcontract agreements that the Owner accepts by notifying the Subcontractor and Contractor in writing.

§ 5.4.2 Upon such assignment to the Owner under this Section 5.4, the Owner may further assign the subcontract to a successor Contractor or other entity.

ARTICLE 6 CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS

§ 6.1 OWNER'S RIGHT TO PERFORM CONSTRUCTION AND TO AWARD SEPARATE CONTRACTS

§ 6.1.1 The Owner reserves the right to perform construction or operations related to the Project with the Owner's own forces, and to award separate contracts in connection with other portions of the Project or other construction or operations on the site.

§ 6.1.2 The Owner shall provide for coordination of the activities of the Owner's own forces and of each separate Contractor with the Work of the Contractor, who shall cooperate with them. The Contractor shall participate with other separate contractors and the Owner in reviewing their construction schedules. The Contractor shall make any revisions to the construction schedule deemed necessary after a joint review and mutual agreement. The construction schedules shall then constitute the schedules to be used by the Contractor, separate contractors and the Owner until subsequently revised.

§ 6.2 MUTUAL RESPONSIBILITY

§ 6.2.1 The Contractor shall afford the Owner and separate contractors reasonable opportunity for introduction and storage of their materials and equipment and performance of their activities, and shall connect and coordinate the Contractor's construction and operations with theirs as required by the Contract Documents.

§ 6.2.2 If part of the Contractor's Work depends for proper execution or results upon construction or operations by the Owner or a separate Contractor, the Contractor shall, prior to proceeding with that portion of the Work, promptly report to the Engineer, or his designee apparent discrepancies or defects in such other construction that would render it unsuitable for such proper execution and results. Failure of the Contractor so to report shall constitute an acknowledgment that the Owner's or separate Contractor's completed or partially completed construction is fit and proper to receive the Contractor's Work, except as to defects not then reasonably discoverable.

§ 6.2.3 The Contractor shall reimburse the Owner for costs the Owner incurs that are payable to a separate Contractor because of the Contractor's delays, improperly timed activities or defective construction. The Owner shall be responsible to the Contractor for costs the Contractor incurs because of a separate Contractor's delays, improperly timed activities, damage to the Work or defective construction.

§ 6.2.4 The Contractor shall promptly remedy damage the Contractor wrongfully causes to completed or partially completed construction or to property of the Owner or separate contractors as provided in Section 10.2.5.

§ 6.2.4.1 Should the Contractor cause damage to the Work or property of any separate Contractor on the Project, the Contractor shall promptly settle with such other Contractor by agreement, or otherwise resolve the dispute. If such separate Contractor institutes any legal proceeding against the Owner on account of any damage alleged to have been so sustained, the Contractor shall, indemnify, defend, or bear the cost of defense as the Owner shall in its own discretion determine, and hold the Owner's harmless. Said Indemnification shall be governed by Section 13, Page G7 of the Instructions to Bidders.

§ 6.2.5 The Owner and each separate Contractor shall have the same responsibilities for cutting and patching as are described for the Contractor in Section 3.14.

§ 6.3 OWNER'S RIGHT TO CLEAN UP

If a dispute arises among the Contractor, separate contractors and the Owner as to the responsibility under their respective contracts for maintaining the premises and surrounding area free from waste materials and rubbish, the Owner may clean up and the Engineer, or his designee will allocate the cost among those responsible, which amounts the Owner shall be entitled to reduce the Contract Amounts of the various contracts of those responsible.

ARTICLE 7 CHANGES IN THE WORK

§ 7.1 GENERAL

§ 7.1.1 Changes in the Work may be accomplished after execution of the Contract, and without invalidating the Contract, by Change Order, Construction Change Directive or order for a minor change in the Work, subject to the limitations stated in this Article 7 and elsewhere in the Contract Documents. Change Orders and Construction Change Directives shall be subject to and processed in accordance with N.J.A.C. 6A:23-7 and N.J.A.C. 6A:26-4.9, where applicable.

§ 7.1.2 A Change Order shall be based upon agreement among the Owner, Contractor and Engineer, or his designee; a Construction Change Directive requires a written agreement by the Owner and Engineer, or his designee and may or may not be agreed to by the Contractor; an order for a minor change in the Work which does not extend the Contract Time, increase the Contract Sum or change the Project Scope may be issued by the Engineer, or his designee alone.

§ 7.1.3 Changes in the Work shall be performed under applicable provisions of the Contract Documents, and the Contractor shall proceed promptly, unless otherwise provided in the Change Order, Construction Change Directive or order for a minor change in the Work.

§ 7.1.4 In order to facilitate checking of quotations for extras or credits, all proposals shall be accompanied by a complete itemization of costs including labor, materials and subcontracts. Labor and materials shall be itemized in the manner prescribed above. Where major cost items are subcontracts, they shall be itemized also. In no case will a change be approved without such itemization.

§ 7.2 CHANGE ORDERS

§ 7.2.1 A Change Order is a written instrument prepared by the Engineer, or his designee and signed by the Owner, Contractor and Engineer, or his designee stating their agreement upon all of the following:

- .1 The change in the Work;
- .2 The amount of the adjustment, if any, in the Contract Sum; and
- .3 The extent of the adjustment, if any, in the Contract Time.

A Change Order shall not require consent of the Owner if the Owner has provided an allowance for such a change.

§ 7.2.2 Methods used in determining adjustments to the Contract Sum shall be those listed in Section 7.3.3.

§ 7.2.3 Agreement on any Change Order shall constitute a final settlement of all matters relating to the change in the Work that is the subject of the Change Order, including, but not limited to, all direct and indirect costs associated with such change, and any and all adjustments to the Contract Sum and the construction schedule. In the event a Change Order increases the Contract Sum, Contractor shall include the Work covered by such Change Orders in Applications for Payment as if such Work were originally part of the Contract Documents.

§ 7.3 CONSTRUCTION CHANGE DIRECTIVES

§ 7.3.1 A Construction Change Directive is a written order prepared by the Engineer, or his designee and signed by the Owner and Engineer, or his designee, directing a change in the Work prior to agreement on adjustment, if any, in the Contract Sum or Contract Time, or both. A Construction Change Directive shall not require the Agreement of the Engineer, or his designee if the Owner specifically waives their consent in writing. The Owner may by Construction Change Directive, without invalidating the Contract, order changes in the Work within the general scope of the Contract consisting of additions, deletions or other revisions, the Contract Sum and Contract Time being adjusted accordingly.

§ 7.3.2 A Construction Change Directive shall be used in the absence of total agreement on the terms of a Change Order.

§ 7.3.3 If the Construction Change Directive provides for an adjustment to the Contract Sum, the adjustment shall be based on one of the following methods:

- .1 Mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation;
- .2 Unit prices stated in the Contract Documents or subsequently agreed upon;
- .3 Cost to be determined in a manner agreed upon by the parties and a mutually acceptable fixed or percentage fee; or
- .4 As provided in Section 7.3.6.

§ 7.3.4 Upon receipt of a Construction Change Directive, the Contractor shall promptly proceed with the change in the Work involved and advise the Engineer, or his designee of the Contractor's agreement or disagreement with the method, if any, provided in the Construction Change Directive for determining the proposed adjustment in the Contract Sum or Contract Time. The Contractor's failure to comply with a Construction Change Directive shall constitute an incident of default and cause for termination by the Owner.

§ 7.3.5 A Construction Change Directive signed by the Contractor indicates the Contractor's agreement therewith, including adjustment in Contract Sum and Contract Time or the method for determining them. Such agreement shall be effective immediately and shall be recorded as a Change Order.

§ 7.3.6 If the Contractor does not respond promptly or disagrees with the method for adjustment in the Contract Sum, the Engineer, or his designee shall determine the method and the adjustment on the basis of reasonable expenditures and savings of those performing the Work attributable to the change, including, in case of an increase in the Contract Sum, an amount for overhead and profit as set forth in the Agreement, or if no such amount is set forth in the Agreement, a reasonable amount. In such case, and also under Section 7.3.3.3, the Contractor shall keep and present, in such form as the Engineer, or his designee may prescribe, an itemized accounting together with appropriate supporting data. Unless otherwise provided in the Contract Documents, costs for the purposes of this Section 7.3.6 shall be limited to the following:

- .1 Costs of labor, including social security, old age and unemployment insurance, fringe benefits required by agreement or custom, and workers' compensation insurance;
- .2 Costs of materials, supplies and equipment, including cost of transportation, whether incorporated or consumed;
- .3 Rental costs of machinery and equipment, exclusive of hand tools, whether rented from the Contractor or others; and
- .4 Costs of premiums for all bonds and insurance, permit fees, and sales, use or similar taxes related to the Work.

§ 7.3.7 The amount of credit to be allowed by the Contractor to the Owner for a deletion or change that results in a net decrease in the Contract Sum shall be actual net cost as confirmed by the Engineer, or his designee. When both additions and credits covering related Work or substitutions are involved in a change, the allowance for overhead and profit shall be figured on the basis of net increase, if any, with respect to that change.

§ 7.3.8 Pending final determination of the total cost of a Construction Change Directive to the Owner, the Contractor may request payment for Work completed under the Construction Change Directive in Applications for Payment. The Engineer, or his designee will make an interim determination for purposes of monthly certification for payment for those costs and certify for payment the amount that the Engineer, or his designee determines, in the Engineer, or his designee's professional judgment, to be reasonably justified. The Engineer, or his designee's interim determination of cost shall adjust the Contract Sum on the same basis as a Change Order, subject to the right of either party to disagree and assert a Claim in accordance with Article 15.

§ 7.3.9 When the Owner and Contractor agree with a determination made by the Engineer, or his designee concerning the adjustments in the Contract Sum and Contract Time, or otherwise reach agreement upon the adjustments, such agreement shall be effective immediately and the Engineer, or his designee will prepare a Change Order. Change Orders may be issued for all or any part of a Construction Change Directive.

§ 7.3.10 In subparagraphs 7.3.3 and 7.3.6, the allowance for overhead and profit combined shall be based upon the following schedule:

- .1 For the Contractor, for work performed by his own forces, 10% of cost.
- .2 For each Subcontractor, for the work performed by his own forces, 10% of cost.
- .3 For the Contractor, for work performed by a subcontractor, 5% of cost.

§ 7.3.11 Lump sum quotations for changes in the Work will not be accepted. Proposals shall be completely itemized and broken down. They shall be accompanied by such supporting data as the Engineer, or his designee may require, such as copies of subcontractor's or vendor's quotations, quantity take-off sheets, or other similar information.

§ 7.4 MINOR CHANGES IN THE WORK

The Engineer, or his designee has authority to order minor changes in the Work not involving adjustment in the Contract Sum or extension of the Contract Time and not inconsistent with the intent of the Contract Documents. Such changes will be effected by written order signed by the Engineer, or his designee and shall be binding on the Owner and Contractor. The Contractor shall carry out such written orders promptly.

ARTICLE 8 TIME

§ 8.1 DEFINITIONS

§ 8.1.1 Unless otherwise provided, Contract Time is the period of time, including authorized adjustments, allotted in the Contract Documents for Substantial Completion of the Work and services as required by the Contract

Documents, Substantial Completion of the Work shall be accomplished within the period of consecutive calendar days (or by the date), as stated in the Agreement, plus any authorized extension(s) of time as approved by written agreement. Final Completion of the Work shall be no later than thirty (30) consecutive calendar days from the date of Substantial Completion of the Work, unless otherwise set forth in Article 3.2 of the Owner/Contractor Agreement.

§ 8.1.2 Intentionally omitted

§ 8.1.3 Intentionally omitted.

§ 8.1.4 The term "day" as used in the Contract Documents shall mean calendar day unless otherwise specifically defined.

§ 8.2 PROGRESS AND COMPLETION

§ 8.2.1 Time limits stated in the Contract Documents are of the essence of the Contract. By executing the Agreement the Contractor confirms that the Contract Time is a reasonable period for performing the Work. There will be no bonus or incentives paid, should the Work, or any portion thereof, be completed in advance of the specified activity milestone dates.

§ 8.2.2 The Contractor shall not knowingly, except by agreement or instruction of the Owner in writing, prematurely commence operations on the site or elsewhere prior to the effective date of insurance required by Article 11 to be furnished by the Contractor and Owner. The date of commencement of the Work shall not be changed by the effective date of such insurance.

§ 8.2.3 The Contractor shall proceed expeditiously with adequate forces and shall achieve Substantial Completion within the Contract Time.

§ 8.3 DELAYS AND EXTENSIONS OF TIME

§ 8.3.1 Intentionally omitted

§ 8.3.2 Claims relating to time shall be made in accordance with applicable provisions of Article 15.

§ 8.3.3 Intentionally omitted

§ 8.3.4 No payment, compensation, or adjustment of any kind shall be made to the Contractor by the Owner for damages resulting from hindrances or delays caused by the delays of other contractors, or from foreseeable circumstances not attributable to the Owner's conduct. The Contractor agrees that it will make no claim against the Owner for payment, compensation, damages, mitigation of Liquidated Damages, or adjustment of any kind for such hindrances or delays, and will accept such extensions of time as may be granted by the Owner in the Owner's sole discretion in full satisfaction for any and all alleged claims against the Owner for any and all such hindrances or delays. For purposes of this Agreement, disputes arising between contractors before or during construction, adverse weather conditions, and delays on the part of local authorities issuing permits shall be considered foreseeable circumstances. Notwithstanding the foregoing, nothing herein shall limit the Contractor's remedies for Owner's negligence, bad faith, active interference, tortious conduct, or other reasons unanticipated by the parties that delay expenditures paid by the Owner to the Engineer, or his designee, other individual or entity, or to any inspector or inspectors necessarily employed by it on the Work, for any number of days in excess of the Contract Time, shall be deducted for the Contract Sum.

§ 8.3.5 The provisions of this Article shall not be so interpreted or construed as to preclude or prevent the Contractor from making and prosecuting any claim against any separate Contractor engaged or employed by the Owner for damages alleged to have been caused or occasioned by any such separate Contractor.

§ 8.3.6 To the extent permitted by law, the Owner may suspend the whole or any part of the Work, if it shall deem it for the best interest of the Owner to do so, without compensation to the Contractor for such suspension, other than extending the time for completion of the Work as much as it may have been delayed by such suspension. During such suspension, all materials delivered upon, but not placed in the Work shall be neatly piled by the Contractor so as not to obstruct public travel, or shall be removed from the line of Work at the direction of the Owner and, unless the

materials be moved by the Contractor upon such direction, the materials shall be removed by the Owner and expense thereof will be charged to the Contractor.

§8.4.1 Should the Contractor fail to complete fully, and in conformity with all provisions of the Contract within the Contract Time, the Contractor shall, and hereby agrees to, pay the Owner one thousand dollars (\$1,000.00) per day, for each consecutive calendar day beyond the number of days allowed by the Contract, which sum is agreed upon as reasonable and proper measure of damages that the Owner will sustain per diem by failure of Contractor to complete Work within time as stipulated; it being recognized by Owner and Contractor that the injury to Owner that could result from a failure of the Contractor to complete on schedule, is uncertain and cannot be computed exactly. In no way shall costs of Liquidated Damages be construed as a penalty to the Contractor.

§8.4.2 It is expressly understood and agreed by and between the Contractor and Owner that the Contract Time prescribed herein is a reasonable time for the completion of the Work.

ARTICLE 9 PAYMENTS AND COMPLETION

§ 9.1 CONTRACT SUM

The Contract Sum is stated in the Agreement and, including authorized adjustments, is the total amount payable by the Owner to the Contractor for performance of the Work under the Contract Documents.

§ 9.2 SCHEDULE OF VALUES

Where the Contract is based on a stipulated sum or Guaranteed Maximum Price, the Contractor shall submit to the Engineer, or his designee, before the first Application for Payment, a schedule of values allocating the entire Contract Sum to the various portions of the Work and prepared in such form and supported by such data to substantiate its accuracy as the Engineer, or his designee may require. This schedule, unless objected to by the Engineer, or his designee, shall be used as a basis for reviewing the Contractor's Applications for Payment.

§ 9.3 APPLICATIONS FOR PAYMENT

§ 9.3.1 See Article 5 of Standard Form of Agreement between Owner/Contractor.

§ 9.3.1.1 Applications for Payment may include requests for payment on account of changes in the Work which have been properly authorized by Construction Change Directives but not yet included in Change Orders.

§ 9.3.1.2 Such applications may not include requests for payment of amounts the Contractor does not intend to pay to a Subcontractor or material supplier because of a dispute or other reason.

§ 9.3.1.3 All applications for payment shall be accompanied by the Application and Certificate of Payment, AIA Document G702, and the Continuation Sheet, AIA Document G703, fully completed as required or such other application for Payment as the Owner's representative shall use.

§9.3.1.4 In cases where the work is awarded on a Single Overall Contract basis, payments shall be made in accordance with applicable State of New Jersey statutes.

§ 9.3.2 Unless otherwise provided in the Contract Documents, payments shall be made on account of materials and equipment delivered and suitably stored at the site for subsequent incorporation in the Work. If approved in advance by the Owner, payment may similarly be made for materials and equipment suitably stored off the site at a location agreed upon in writing. Payment for materials and equipment stored on or off the site shall be conditioned upon compliance by the Contractor with procedures satisfactory to the Owner to establish the Owner's title to such materials and equipment or otherwise protect the Owner's interest, and shall include the costs of applicable insurance, storage and transportation to the site for such materials and equipment stored off the site.

§ 9.3.3 The Contractor warrants that title to all Work covered by an Application for Payment will pass to the Owner no later than the time of payment. The Contractor further warrants that upon submittal of an Application for Payment all Work for which Certificates for Payment have been previously issued and payments received from the Owner shall, to the best of the Contractor's knowledge, information and belief, be free and clear of liens, claims, security interests or encumbrances in favor of the Contractor, Subcontractors, material suppliers, or other persons or entities making a claim by reason of having provided labor, materials and equipment relating to the Work.

§9.3.3.1 All municipal mechanic's liens filed by a lien claimant shall be governed by N.J.S.A. 2A:44-125 et seq. In the event a municipal mechanic's lien is filed, the Owner reserves the right to withhold the full amount of the lien. The Owner may release the funds to the party against whose account the lien is claimed, only after that party files with the Owner's financial officer, a bond in an amount double of all sums claimed ("Double Bond") under the lien, and such bond's form has been approved by the Owner's chief law officer and financial officer, per N.J.S.A. 2A:44-130 or if an acceptable release of liens is filed by the lien claimant.

§ 9.4 CERTIFICATES FOR PAYMENT

§ 9.4.1 See Article 5 of Standard Form of Agreement between Owner and Contractor.

§ 9.4.2 See Article 5 of Standard Form of Agreement between Owner and Contractor

§9.4.3 See Article 5 of Standard Form of Agreement between Owner and Contractor.

§ 9.5 DECISIONS TO WITHHOLD CERTIFICATION

§ 9.5.1 See Article 5 of Standard Form of Agreement between Owner and Contractor

§ 9.5.2 See Article 5 if Standard Form of Agreement between Owner and Contractor.

§ 9.6 PROGRESS PAYMENTS

§ 9.6.1 After the Engineer, or his designee has issued a Certificate for Payment, the Owner shall make payment in the manner and within the time provided in the Contract Documents, and shall so notify the Engineer, or his designee .

§ 9.6.2 The Contractor shall promptly pay each Subcontractor, upon receipt of payment from the Owner, out of the amount paid to the Contractor on account of such Subcontractor's portion of the Work, the amount to which the Subcontractor is entitled, reflecting percentages actually retained from payments to the Contractor on account of the Subcontractor's portion of the Work and shall certify same to Owner. The Contractor shall, by appropriate agreement with each Subcontractor, require each Subcontractor to make payments to Sub-subcontractors in a similar manner.

§ 9.6.3 The Engineer, or his designee will, on request, furnish to a Subcontractor, if practicable, information regarding percentages of completion or amounts applied for by the Contractor and action taken thereon by the Owner and Engineer, or his designee on account of portions of the Work done by such Subcontractor.

§ 9.6.4 Neither the Owner nor Engineer, or his designee shall have an obligation to pay or to see to the payment of money to a Subcontractor except as may otherwise be required by law.

§ 9.6.5 Payment to material and equipment suppliers shall be treated in a manner similar to that provided in Sections 9.6.2, 9.6.3 and 9.6.4.

§ 9.7 FAILURE OF PAYMENT

If the Engineer, or his designee does not issue a Certificate for Payment, through no fault of the Contractor, within seven days after receipt of the Contractor's Application for Payment, or if the Owner does not pay the Contractor within seven days after the date established in the Contract Documents the amount certified by the Engineer, or his designee or awarded by binding dispute resolution, then the Contractor may, upon seven additional days' written notice to the Owner and Engineer, or his designee , stop the Work until payment of the amount owing has been received. The Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's reasonable costs of shut-down, delay and start-up, plus interest as provided for in the Contract Documents.

§9.7 REIMBURSEMENT TO OWNER

§9.7.1 If the Owner is entitled to any reimbursement or payment from the Contractor under, or pursuant to, the Contract Documents, such payment shall be made promptly upon demand by the Owner. Notwithstanding anything contained in the Contract Documents to the contrary, if the Contractor fails to promptly make any payment due the Owner, or the Owner incurs any costs and expenses to cure any default of the Contractor or to correct defective Work, the Owner shall have an absolute right to offset such amount against the Contract Sum and may, in the Owner's sole discretion, elect either to: (1) deduct an amount equal to that which the Owner is entitled from any

payment then, or thereafter, due the Contractor from the Owner; or (2) issue a written notice to the Contractor reducing the Contract Sum by an amount equal to that which the Owner is entitled.

§ 9.8 SUBSTANTIAL COMPLETION

§ 9.8.1 Substantial Completion is the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work for its intended use; provided, however, that a condition precedent to Substantial Completion shall be the Owner's receipt of all certificates of occupancy (permanent or temporary) and any other permits, approvals, licenses, and other documents from any governmental authority having jurisdiction thereof necessary for the occupancy of the Project. The Owner may withhold a certification of Substantial Completion if temporary installations or temporary construction exists in areas requesting certification, or if certificates of occupancy are temporary or conditional.

§ 9.8.2 When the Contractor considers that the Work, or a portion thereof which the Owner agrees to accept separately, is substantially complete, the Engineer, or his designee shall prepare a comprehensive list of items to be completed or corrected ("Punch List"). The Contractor shall proceed immediately and correct items on the list. Failure to include an item on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents. Upon receipt of the list, the Engineer, or his designee, will make an inspection to determine whether the Work or designated portion thereof is substantially complete. If the Engineer, or his designee's inspection discloses any item, whether or not included on the list, which is not in accordance with the requirements of the Contract Documents, the Contractor shall, before issuance of the Certificate of Substantial Completion, complete or correct such item upon notification by the Engineer, or his designee. The Contractor shall then submit a request for another inspection by the Engineer, or his designee to determine Substantial Completion. When the Work or designated portion thereof is substantially complete, the Engineer, or his designee will prepare a Certificate of Substantial Completion which shall establish the date of Substantial Completion, shall establish responsibilities of the Contractor for security, maintenance, heat, utilities, damage to the Work and insurance, and shall fix the time within which the Contractor shall finish all items on the List accompanying the Certificate. Warranties required by the Contract Documents shall commence on the date of Substantial Completion of the Work or designated portion thereof unless otherwise provided in the Certificate of Substantial Completion. The Certificate of Substantial Completion shall be submitted to the Contractor for its written acceptance and to the Owner for its approval and acceptance as required by Section 9.8.1. No Certificate of Substantial Completion shall be deemed effective unless executed by both Owner and Contractor.

§ 9.9 PARTIAL OCCUPANCY OR USE

§ 9.9.1 The Owner may occupy or use any completed or partially completed portion of the Work at any stage when such portion is designated by separate agreement with the Contractor, who shall obtain all necessary modifications to its insurance coverage to permit such occupancy or use. In addition, Contractor shall obtain consent of those public authorities having jurisdiction over the Work. Such partial occupancy or use may commence whether or not the portion is substantially complete pursuant to the terms of that Agreement. When the Contractor considers a portion substantially complete, the Engineer, or his designee shall prepare a Punch List as provided under Section 9.8.2. Consent of the Contractor to partial occupancy or use shall not be unreasonably withheld.

§ 9.9.2 Immediately prior to such partial occupancy or use, the Owner, Contractor and Engineer, or his designee shall jointly inspect the area to be occupied or portion of the Work to be used in order to determine and record the condition of the Work.

§ 9.9.3 Unless otherwise agreed upon, partial occupancy or use of a portion or portions of the Work shall not constitute acceptance of Work not complying with the requirements of the Contract Documents.

§ 9.9.4 The occupancy of any portion of the Work shall not constitute acceptance of any Work, except as hereinafter stated, nor does it waive the Owner's right to Liquidated Damages. Final Acceptance of the Work shall be for the whole Work only and not part.

§ 9.9.5 Occupancy by the Owner shall not be deemed to constitute a waiver of existing claims on behalf of the Owner or Contractor against each other.

§ 9.10 FINAL COMPLETION AND FINAL PAYMENT

§ 9.10.1 Upon completion of the Work, the Contractor shall forward to the Engineer, or his designee a written notice that the Work is ready for final inspection and acceptance and shall also forward to the Engineer, or his designee a final Contractor's Application for Payment. The Engineer, or his designee will promptly make such inspection. When the Engineer, or his designee finds the Work acceptable under the Contract Documents and the Contract fully performed, the Engineer, or his designee will promptly issue a final Certificate for Payment stating that to the best of their knowledge, information and belief, and on the basis of their observations and inspections, the Work has been completed in accordance with terms and conditions of the Contract Documents and that the entire balance found to be due the Contractor and noted in the final Certificate is due and payable. The Engineer, or his designee's final Certificate for Payment will constitute a further representation that conditions listed in Section 9.10.2 as precedent to the Contractor's being entitled to final payment have been fulfilled.

§ 9.10.2 Neither final payment nor any remaining retained percentage shall become due until the Contractor complies with all requirements set forth in Section 6 of the Standard Form of Agreement between Owner and Contractor and the Contractor submits to the Engineer, or his designee (1) an affidavit that payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the Owner or the Owner's property might be responsible or encumbered (less amounts withheld by Owner) have been paid or otherwise satisfied, (2) a certificate evidencing that insurance required by the Contract Documents to remain in force after final payment is currently in effect and will not be canceled or allowed to expire until at least 30 days' prior written notice has been given to the Owner, (3) a written statement that the Contractor knows of no substantial reason that the insurance will not be renewable to cover the period required by the Contract Documents, (4) consent of surety, if any, to final payment and (5), if required by the Owner, other data establishing payment or satisfaction of obligations, such as receipts, releases and waivers of liens, claims, security interests or encumbrances arising out of the Contract, to the extent and in such form as may be designated by the Owner. If a Subcontractor refuses to furnish a release or waiver required by the Owner, the Contractor may furnish a bond satisfactory to the Owner to indemnify the Owner against such lien. If such lien remains unsatisfied after payments are made, the Contractor shall refund to the Owner all money that the Owner may be compelled to pay in discharging such lien, including all costs and reasonable attorneys' fees.

§ 9.10.3 Intentionally omitted

§ 9.10.4 Acceptance of final payment by the Contractor, a Subcontractor or material supplier shall constitute a waiver of claims by that payee

ARTICLE 10 PROTECTION OF PERSONS AND PROPERTY

§ 10.1 SAFETY PRECAUTIONS AND PROGRAMS

The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the performance of the Contract. The Contractor shall submit the Contractor's safety program to the Engineer, or his designee for review and coordination with the safety programs of other Contractors.

§ 10.2 SAFETY OF PERSONS AND PROPERTY

§ 10.2.1 The Contractor shall take reasonable precautions for safety of, and shall provide reasonable protection to prevent damage, injury or loss to

- .1 employees on the Work and other persons who may be affected thereby;
- .2 the Work and materials and equipment to be incorporated therein, whether in storage on or off the site, under care, custody or control of the Contractor or the Contractor's Subcontractors or Sub-subcontractors; and
- .3 other property at the site or adjacent thereto, such as trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction.
- .4 Construction or operations by the Owner or other Contractors.

§ 10.2.2 The Contractor shall comply with and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities bearing on safety of persons or property or their protection from damage, injury or loss.

§ 10.2.3 The Contractor shall erect and maintain, as required by existing conditions and performance of the Contract, reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards, promulgating safety regulations and notifying Owners and users of adjacent sites and utilities.

§ 10.2.4 When use or storage of explosives or other hazardous materials or equipment or unusual methods are necessary for execution of the Work, the Contractor shall exercise utmost care and carry on such activities under supervision of properly qualified personnel.

§ 10.2.5 The Contractor shall promptly remedy damage and loss (other than damage or loss insured under property insurance required by the Contract Documents) to property referred to in Sections 10.2.1.2, 10.2.1.3 and 10.2.1.4 caused in whole or in part by the Contractor, a Subcontractor, a Sub-subcontractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts they may be liable and for which the Contractor is responsible under Sections 10.2.1.2, 10.2.1.3 and 10.2.1.4, except damage or loss attributable to acts or omissions of the Owner or Engineer, or his designee or anyone directly or indirectly employed by either of them, or by anyone for whose acts either of them may be liable, and not attributable to the fault or negligence of the Contractor. The foregoing obligations of the Contractor are in addition to the Contractor's obligations under Section 3.18.

§ 10.2.6 The Contractor shall designate a responsible member of the Contractor's organization at the site whose duty shall be the prevention of accidents. This person shall be the Contractor's superintendent unless otherwise designated by the Contractor in writing to the Owner and Engineer, or his designee.

§ 10.2.7 The Contractor shall not permit any part of the construction or site to be loaded so as to cause damage or create an unsafe condition.

§ 10.2.8 INJURY OR DAMAGE TO PERSON OR PROPERTY

If either party suffers injury or damage to person or property because of an act or omission of the other party, or of others for whose acts such party is legally responsible, written notice of such injury or damage, whether or not insured, shall be given to the other party within a reasonable time not exceeding 21 days after discovery. The notice shall provide sufficient detail to enable the other party to investigate the matter.

§ 10.3 HAZARDOUS MATERIALS

§ 10.3.1 The Contractor is responsible for compliance with any requirements included in the Contract Documents regarding hazardous materials. If the Contractor encounters a hazardous material or substance not addressed in the Contract Documents and if reasonable precautions will be inadequate to prevent foreseeable bodily injury or death to persons resulting from a material or substance, including but not limited to asbestos or polychlorinated biphenyl (PCB), encountered on the site by the Contractor, the Contractor shall, upon recognizing the condition, immediately stop Work in the affected area and report the condition to the Owner and Engineer, or his designee in writing.

§ 10.3.2 Upon receipt of the Contractor's written notice, the Owner shall obtain the services of a licensed laboratory to verify the presence or absence of the material or substance reported by the Contractor and, in the event such material or substance is found to be present, to cause it to be rendered harmless. Unless otherwise required by the Contract Documents, the Owner shall furnish in writing to the Contractor and Engineer, or his designee the names and qualifications of persons or entities who are to perform tests verifying the presence or absence of such material or substance or who are to perform the task of removal or safe containment of such material or substance.

§ 10.3.3 Intentionally omitted

§ 10.3.4 The Owner shall not be responsible under this Section 10.3 for materials or substances the Contractor brings to the site unless such materials or substances are required by the Contract Documents. The Owner shall be responsible for materials or substances required by the Contract Documents, except to the extent of the Contractor's fault or negligence in the use and handling of such materials or substances.

§ 10.3.5 The Contractor shall indemnify the Owner for the cost and expense the Owner incurs (1) for remediation of a material or substance the Contractor brings to the site and negligently handles, or (2) where the Contractor fails to perform its obligations under Section 10.3.1, except to the extent that the cost and expense are due to the Owner's fault or negligence.

§ 10.3.6 Intentionally omitted

§ 10.4 EMERGENCIES

In an emergency affecting safety of persons or property, the Contractor shall act, at the Contractor's discretion, to prevent threatened damage, injury or loss. Additional compensation or extension of time claimed by the Contractor on account of an emergency shall be determined as provided in Article 15 and Article 7.

ARTICLE 11 INSURANCE AND BONDS

§ 11.1 CONTRACTOR'S LIABILITY INSURANCE

§ 11.1.1 The County of Union requires all bidders to be able to comply with the following insurance requirements. In the event a bid is accepted by the County, the bidder must accept the applicable insurance requirements, as set forth below, as part of any contract, awarded to it by the County.

1. Automobile Liability Insurance in any amount of not less than \$1,000,000.00 combined single limits for Bodily Injury and Property Damage Liability. A certificate of such current insurance will be provided to the County and will reflect the provision of at least thirty (30) days notice to the County before any major cancellation or major change may be made the policy.

2. Workers Compensation Insurance insuring the obligations of the Contractor and all Subcontractors under the New Jersey Workers Compensation and Occupational Disability Laws as respects to Work performed under the Contract. Insurance will be extended to include any obligations under the United States Longshoremen's and Harbor Workers Act or any maritime act, when applicable.

3. General Liability Insurance will be provided on a Comprehensive General Liability form with a combined single limit of \$3,000,000.00 per occurrence for Bodily Injury Liability and Property Damage Liability and will include the interest of the County with respect to Work emanating from the Contract with the County. The insurance will include the following:

- a) Personal Injury Liability
- b) Blanket Contractual Liability applies to assumption of liability under any written Contract
- c) Coverage for A, X, C, U exposures, relating to excavation, blasting underground damage
- d) Broad Form Property Damage Liability
- e) Products and/or Completed Operations Liability

A Certificate of Insurance will be filed with the County prior to commencement of any Work. This certificate will contain a provision that insurance afforded under the policies will not be canceled without at least (30) days prior written notice being given to the County.

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§ 11.1.2 The insurance required by Section 11.1.1 shall remain in effect for the duration of the project, i.e., from beginning of construction until final payment and closeout.

§ 11.1.3 All insurance required by Section 11.1.1 shall be issued by insurance companies authorized to do business in the State of New Jersey and rated as "A" or better as determined by A.M. Best Company.

§ 11.1.4 The Contractor waives all rights against the Owner for damages caused by fire or other perils to the extent covered by insurance provided under this Article. Any deductibles, co-insurance, or contribution to the loss will be borne solely by the Contractor.

§ 11.1.5 A certificate of insurance evidencing the coverages required by Section 11.1.1 shall be submitted to the Owner's attorney for approval and transmittal to the Owner and Engineer, or his designee prior to the commencement of the Work. The certificate must be submitted on the ACORD form Certificate of Insurance. These certificates and the insurance policies required by this Section 11.1 shall contain a provision that coverages afforded under the policies will not be canceled or allowed to expire until at least thirty (30) days written notice has been given to the Owner. If requested by the Owner, the Contractor shall provide complete copies of any policies of insurance required by this Contract to be obtained by the Contractor and Subcontractor(s). Information concerning any reduction of coverage shall be furnished by the Contractor with reasonable promptness in accordance with the Contractor's information and belief.

§ 11.2 PROPERTY INSURANCE

§ 11.2.1 Unless otherwise provided, the Owner shall purchase and maintain, in a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located, property insurance in the amount of the initial Contract Sum as well as subsequent modifications thereto for the entire Work at the site on a replacement cost

basis without voluntary deductibles. Such property insurance shall be maintained, unless otherwise provided in the Contract Documents or otherwise agreed in writing by all persons and entities who are beneficiaries of such insurance, until final payment has been made as provided in Section 9.10 or until no person or entity other than the Owner has an insurance interest in the property required by this Section 11.2 to be covered, whichever is earlier. This insurance shall include the interest of the Owner, Contractor, Subcontractor(s), and Sub-Contractor(s) in the Work.

§ 11.2.1.1 Property insurance shall be on an "all-risk" policy form and shall be against the perils of fire and extended coverage and physical loss or damage including, without duplication of coverage, theft, vandalism, malicious mischief, collapse, falsework, temporary buildings and debris removal including demolition occasioned by enforcement of any applicable legal requirements, and shall cover reasonable compensation for Engineer, or his designee's services and expenses required as a result of such insured loss. Coverage for all other perils shall not be required unless otherwise provided in the Contract Documents.

§ 11.2.1.2 If the Owner does not intend to purchase such property insurance required by the Contract and with all of the coverages in the amount described above, the Owner shall so inform the Contractor in writing prior to commencement of the Work. The Contractor may then effect insurance which will protect the interests of the Contractor, Subcontractor(s) and Sub-subcontractor(s) in the Work. If the Contractor is damaged by the failure or neglect of the Owner to purchase or maintain insurance as described above, without so notifying the Contractor, then the Owner shall bear all reasonable costs properly attributable thereto.

§ 11.2.1.3 If the property insurance requires minimum deductibles, and such deductibles are identified in the Contract Documents, the Contractor shall pay costs not covered because of such deductibles. If the Owner or insurer increases the required minimum deductibles over the amounts so identified or if the Owner elects to purchase this insurance with voluntary deductible amounts, the Owner shall be responsible for payment of the additional costs not covered because of such increased or voluntary deductibles.

§ 11.2.1.4 Unless otherwise provided in the Contract documents, this property insurance shall cover portions of the Work stored off the site after written approval of the Owner at the value established in the approval, and also portions of the Work in transit.

§ 11.2.1.5 A loss insured under Owner's property insurance shall be adjusted by the Owner as fiduciary and made payable to the Owner as fiduciary for the insureds, as their interests may appear, subject to requirements of any applicable mortgage clause and of Section 11.3.10. The Contractor shall pay Subcontractor(s) their just shares of insurance proceeds received the Contractor, and by appropriate agreements, written where legally required for validity, shall require Subcontractor(s) to make payments to their Sub-Contractor(s) in a similar manner.

§ 11.2.2 BOILER AND MACHINERY INSURANCE

The Owner shall purchase and maintain boiler and machinery insurance required by the Contract Documents or by law, which shall specifically cover such insured objects during installation and until final acceptance by the Owner; this insurance shall include interests of the Owner, Contractor, Subcontractors and Sub-subcontractors in the Work, and the Owner and Contractor shall be named insureds. The Owner as fiduciary shall have the power to adjust and settle a loss with insurers.

§ 11.2.3 LOSS OF USE INSURANCE

The Owner, at the Owner's option, may purchase and maintain such insurance as will insure the Owner against loss of use of the Owner's property due to fire or other hazards, however caused.

§ 11.2.4 If the Contractor requests in writing that insurance for risks other than those described herein or other special causes of loss be included in the property insurance policy, the Owner shall, if possible, include such insurance, and the cost thereof shall be charged to the Contractor by appropriate Change Order.

§ 11.3 PERFORMANCE BOND, PAYMENT BOND AND MAINTENANCE BOND

§ 11.3.1 Contractor, at its sole expense, shall furnish bonds covering faithful performance of the contract and payment of obligations arising thereunder as stipulated in bidding requirements or specifically required in the Contract Documents on the date of execution of the Contract, including material and labor..

§ 11.3.2 Upon the request of any person or entity appearing to be a potential beneficiary of bonds covering payment of obligations arising under the Contract, the Contractor shall promptly furnish a copy of the bonds or shall authorize a copy to be made

§ 11.3.3 The Contractor shall file with the Owner, as a condition of final acceptance, a statement from the Surety of its Performance Bond and Payment Bond, that the Surety is satisfied that all claims for labor and material supplied under its contract have been satisfactorily settled.

§ 11.3.4 As a condition of Substantial Completion of the Work, the Contractor shall provide an acceptable Maintenance Bond in accordance with section 16, page G-9 of the Instructions to Bidders.

ARTICLE 12 UNCOVERING AND CORRECTION OF WORK

§ 12.1 UNCOVERING OF WORK

§ 12.1.1 If a portion of the Work uncovered is contrary to the Engineer, or his designee's request or to requirements specifically expressed in the Contract Documents, it must, if requested in writing by the Engineer, or his designee, be uncovered for the Engineer, or his designee's examination and be replaced at the Contractor's expense without change in the Contract Time or Contract Sum.

§ 12.1.2 If a portion of the Work has been covered that the Engineer, or his designee has not specifically requested to examine prior to its being covered, the Engineer, or his designee may request to see such Work and it shall be uncovered by the Contractor. If such Work is in accordance with the Contract Documents, costs of uncovering and replacement shall, by appropriate Change Order, be at the Owner's expense. If such Work is not in accordance with the Contract Documents, such costs and the cost of correction shall be at the Contractor's expense unless the condition was caused by the Owner or a separate Contractor in which event the Owner shall be responsible for payment of such costs.

§ 12.2 CORRECTION OF WORK

The Contractor shall promptly correct Work rejected by the Engineer, or his designee or failing to conform to the requirements of the Contract Documents, whether discovered before or after Substantial Completion and whether or not fabricated, installed or completed. Costs of correcting such rejected Work, including additional testing and inspections, the cost of uncovering and replacement, and compensation for the Engineer, or his designee's services and expenses made necessary thereby, shall be at the Contractor's expense.

§ 12.2.2.1 In addition to the Contractor's obligations under Section 3.5, if, within one year after the date of Substantial Completion of the Work or designated portion thereof or after the date for commencement of warranties established under Section 9.9.1, or by terms of an applicable special warranty required by the Contract Documents any of the Work is found to be not in accordance with the requirements of the Contract Documents, the Contractor shall correct it promptly after receipt of written notice from the Owner to do so unless the Owner has previously given the Contractor a written acceptance of such condition. The Owner shall give such notice promptly after discovery of the condition. The Contractor shall give such notice promptly after discovery of the non-conforming work. If the Contractor fails to correct nonconforming Work within a reasonable time during that period after the receipt of notice from the Owner or Engineer, or his designee, the Owner may correct it in accordance with Section 2.4. This obligation under Section 12.2.2 shall survive acceptance of the Work under the Contract and termination of the Contract.

§ 12.2.2.2 The one-year period for correction of Work shall be extended with respect to portions of Work first performed after Substantial Completion by the period of time between Substantial Completion and the actual completion of that portion of the Work.

§ 12.2.2.3 Intentionally omitted.

§ 12.2.3 The Contractor shall remove from the site portions of the Work that are not in accordance with the requirements of the Contract Documents and are neither corrected by the Contractor nor accepted by the Owner.

§ 12.2.4 The Contractor shall bear the cost of correcting destroyed or damaged work, whether completed or partially completed, of the Owner or separate contractors caused by the Contractor's correction or removal of Work that is not in accordance with the requirements of the Contract Documents.

§ 12.2.5 Nothing contained in this Section 12.2 shall be construed to establish a period of limitation with respect to other obligations the Contractor has under the Contract Documents. Establishment of the one-year period for correction of Work as described in Section 12.2.2 relates only to the specific obligation of the Contractor to correct the Work, and has no relationship to the time within which the obligation to comply with the Contract Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to the Contractor's obligations other than specifically to correct the Work, nor to any deficient Work discovered after the one-year period that could not have readily been discovered.

§ 12.3 ACCEPTANCE OF NONCONFORMING WORK

If the Owner prefers to accept Work, that is not in accordance with the requirements of the Contract Documents, the Owner may do so instead of requiring its removal and correction, in which case the Contract Sum will be reduced as appropriate and equitable. Such adjustment shall be effected whether or not final payment has been made. However, there shall be no implied or expressed acceptance of Work not in compliance with applicable law. The amount of said reduction will be within the exclusive determination of the Owner as its representative.

ARTICLE 13 MISCELLANEOUS PROVISIONS

§ 13.1 GOVERNING LAW

§ 13.1.1 The Contract shall be governed by the laws of the State of New Jersey.

§ 13.1.2 Nothing in the Contract Documents shall be construed to permit deviation from the governing law.

§ 13.1.3 In accordance with N.J.S.A. 40A:11-18, American manufactured products or materials shall be used in the Work, wherever possible.

13.1.4 RATE OF WAGES

Where the Project is not subject to a Project Labor Agreement, wage notes shall be paid pursuant to the New Jersey Prevailing Wage Act, N.J.S.A. 34:11-56.25 et seq, the Contractor and Subcontractor are required to do the following:

§ 13.1.4.1 Pay to all workmen engaged in the performance of services, directly upon a public work, the prevailing rate of wages, which shall be those in effect for the Project site(s) on the Contract Date and such rates shall remain in effect for (2) years, unless superseded by a subsequent determination.

§ 13.1.4.2 Before final payment, furnish Owner with an affidavit stating that all workmen have been paid the prevailing rate of wages specified in the contract.

§ 13.1.4.3 Keep an accurate record showing the name, craft, or trade and actual hourly rate of wages paid to each workman employed by it in connection with any public work. Records shall be preserved for two (2) years from date of payment.

§ 13.1.4.4 Post the prevailing wage rated for each craft and classification involved as determined by the Commissioner of Labor and Industry, including the effective date of any changes thereof in prominent and easily accessible places at the site of the Work, and at such place or places as are used by them to pay workmen their wages.

§ 13.1.4.5 Submit the Owner, certified payroll records for each payroll period within ten (10) days of the date of the payment of wages. A certified payroll record is defined as "a payroll record that is attested by the employer or the Owner of the company doing business as the employer, or a corporate officer of such company, or an authorized agent of the employer". A copy of the certified payroll form for submission of the payroll records may be obtained by contacting the Department of Labor, Division of Workplace Standards at 609.292.2259.

§ 13.1.4.6 In the event the Owner finds that any workers employed by the Contractor or Subcontractor, covered by the said contract, have been paid a rate of wages less than the prevailing wage required to be paid by such contract, the Owner may terminate the Contractor's or Subcontractor's right to proceed with the Work, or such part of the

Work as to where there has been a failure to pay required wages, and to prosecute the Work to completion or otherwise, the Contractor and its sureties shall be liable to the Owner for any excess costs occasioned thereby,

§ 13.1.4.7 a current wage rate determination is on file at the offices of the Owner for inspection and Contractor's use.

§ 13.1.5 SAFETY AND HEALTH REGULATIONS (OSHA)

§ 13.1.5.1 The Contractor shall comply with the laws, rules, regulations and codes dealing with occupational safety and health, including, but not limited to, the latest amendments of the following:

§ 13.1.5.2 Williams – Steiger Occupational Safety and Health Act of 1970, Public Law 91-595.

§ 13.1.5.3 Part 1910 – Occupational Safety and Health Standards Chapter XVII of Title 29, Code of Federal Regulations.

§ 13.1.5.4 Part 126 – Safety and Health Regulations for Construction, Chapter XVII of Title 29, Code of Federal Regulations.

§ 13.1.5.3 N.J.A.C. 8:59-5.1-5.109 requirements properly label any substances stored in containers) of the Worker and Community Right to Know Act, P.L. 1983, c.315.

§ 13.1.6 ENVIRONMENTAL REGULATIONS

§ 13.1.6.1 The Contractor shall comply with laws, rules, regulations, and codes dealing with the prevention of environmental pollution and the preservation of public natural resources, including but not limited to, the latest amendments of the following:

§ 13.1.6.2 Chapter 251, public Law of 1975 of the State of New Jersey, "soil Erosion and Sediment Control Act."

§ 13.1.7 AFFIRMATION ACTION EMPLOYMENT LAW

Contractor agrees to comply with the terms of the Mandatory Equal Employment Opportunity Language, a copy of which is annexed to the Contract Documents as Exhibit F and incorporated as if set forth herein.

§ 13.1.7.1 Contractor shall submit a copy of the Monthly Project Workforce Report, New Jersey Department of Treasury Form AA-202, to the New Jersey Department of Treasury's Division of Public Contracts Equal Employment Opportunity Compliance and to the Owner

§ 13.1.7.2 Contractor shall complete and submit to the Owner an Initial Project Workforce Report, New Jersey Department of Treasury Form AA 201, upon notification of award and no later than the execution of this Agreement. Failure to submit this completed form may result in this Agreement being terminated.

§ 13.2. SUCCESSORS AND ASSIGNS

§ 13.2.1 The Owner and Contractor respectively bind themselves, their partners, successors, assigns and legal representatives to covenants, agreements and obligations contained in the Contract Documents, neither party to the Contract shall assign the Contract as a whole without written consent of the other, unless as may be provided for elsewhere in the Contract Documents. If either party attempts to make such an assignment without such consent, that party shall nevertheless remain legally responsible for all obligations under the Contract.

§ 13.3 WRITTEN NOTICE

Written notice shall be deemed to have been duly served if delivered in person to the individual, to a member of the firm or entity, or to an officer of the corporation for which it was intended; or if delivered at or sent by registered or certified mail or by courier service providing proof of delivery to, the last business address known to the party giving notice.

§ 13.4 RIGHTS AND REMEDIES

§ 13.4.1 Duties and obligations imposed by the Contract Documents and rights and remedies available thereunder shall be in addition to and not a limitation of duties, obligations, rights and remedies otherwise imposed or available by law.

§ 13.4.2 No action or failure to act by the Owner, Engineer, or his designee or Contractor shall constitute a waiver of a right or duty afforded them under the Contract, nor shall such action or failure to act constitute approval of or acquiescence in a breach there under, except as may be specifically agreed in writing.

§ 13.5 TESTS AND INSPECTIONS

§ 13.5.1 Tests, inspections and approvals of portions of the Work shall be made as required by the Contract Documents and by applicable laws, statutes, ordinances, codes, rules and regulations or lawful orders of public authorities. Unless otherwise provided, the Contractor shall make arrangements for such tests, inspections and approvals with an independent testing laboratory or entity acceptable to the Owner, or with the appropriate public authority, and shall bear all related costs of tests, inspections and approvals. The Contractor shall give the Engineer, or his designee timely notice of when and where tests and inspections are to be made so that the Engineer, or his designee may be present for such procedures. The Owner shall bear costs of (1) tests, inspections or approvals that do not become requirements until after bids are received or negotiations concluded, and (2) tests, inspections or approvals where building codes or applicable laws or regulations prohibit the Owner from delegating their cost to the Contractor.

§ 13.5.2 If the Engineer, or his designee, Owner or public authorities having jurisdiction determine that portions of the Work require additional testing, inspection or approval not included under Section 13.5.1, the Engineer, or his designee will, upon written authorization from the Owner, instruct the Contractor to make arrangements for such additional testing, inspection or approval by an entity acceptable to the Owner, and the Contractor shall give timely notice to the Engineer, or his designee of when and where tests and inspections are to be made so that the Engineer, or his designee may be present for such procedures. Such costs, except as provided in Section 13.5.3, shall be at the Owner's expense.

§ 13.5.3 If such procedures for testing, inspection or approval under Sections 13.5.1 and 13.5.2 reveal failure of the portions of the Work to comply with requirements established by the Contract Documents, all costs made necessary by such failure including those of repeated procedures and compensation for the Engineer, or his designee's services and expenses shall be at the Contractor's expense.

§ 13.5.4 Required certificates of testing, inspection or approval shall, unless otherwise required by the Contract Documents, be secured by the Contractor and promptly delivered to the Engineer, or his designee.

§ 13.5.5 If the Engineer, or his designee is to observe tests, inspections or approvals required by the Contract Documents, the Engineer, or his designee will do so promptly and, where practicable, at the normal place of testing.

§ 13.5.6 Tests or inspections conducted pursuant to the Contract Documents shall be made promptly to avoid unreasonable delay in the Work.

§ 13.6 INTEREST

Except as required by Section 5.1.3 of the Owner Contractor Agreement and notwithstanding anything to the contrary contained in the Contract Documents and related documents, the Owner will pay no interest whatsoever for any payments due.

§ 13.7 TIME LIMITS ON CLAIMS

Intentionally deleted.

ARTICLE 14 TERMINATION OR SUSPENSION OF THE CONTRACT

§ 14.1 TERMINATION BY THE CONTRACTOR

§ 14.1.1 The Contractor may terminate the Contract if the Work is stopped for a period of 30 consecutive days through no act or fault of the Contractor or a Subcontractor, Sub-subcontractor or their agents or employees or any other persons or entities performing portions of the Work under direct or indirect contract with the Contractor, for any of the following reasons:

- .1 Issuance of an order of a court or other public authority having jurisdiction that requires all Work to be stopped;
- .2 An act of government, such as a declaration of national emergency that requires all Work to be stopped;

§ 14.1.2 Intentionally deleted

§ 14.1.3 If one of the reasons described in Section 14.1.1 exists, the Contractor may, upon thirty (30) days' written notice to the Owner and Engineer, or his designee, terminate the Contract

§ 14.1.4 Intentionally deleted.

§ 14.2 TERMINATION BY THE OWNER FOR CAUSE

§ 14.2.1 The Owner may terminate the Contract if the Contractor after Notice and an opportunity to cure.

- .1 refuses or fails to supply enough properly skilled workers or proper materials;
- .2 fails to make payment to Subcontractors for materials or labor in accordance with the respective agreements between the Contractor and the Subcontractors;
- .3 disregards laws, ordinances, rules or regulations, or orders of a public authority having jurisdiction;
- .4 fails to furnish the Owner with assurances satisfactory to the Owner, evidencing the Contractor's ability to complete the Work in compliance with all requirements of the Contract Documents;
- .5 fails after commencement of the Work, to proceed continuously with the construction and completion of the Work, for more than three (3) days, except as permitted by the Contract Documents;
- .6 disregards orders of the Owner or Engineer, or his designee;
- .7 fails to maintain the Site in a clean, safe and orderly manner;
- .8 fails to comply with a Construction Change Directive; or
- .9 otherwise is guilty of any breach of a provision of the Contract Documents.

§ 14.2.2 When any of the above reasons exist, the Owner, upon certification by the Initial Decision Maker that sufficient cause exists to justify such action, may without prejudice to any other rights or remedies of the Owner and after giving the Contractor and the Contractor's surety, if any, seven days' written notice, terminate employment of the Contractor and may, subject to any prior rights of the surety:

- .1 Exclude the Contractor from the site and take possession of all materials, equipment, tools, and construction equipment and machinery thereon owned by the Contractor;
- .2 Accept assignment of subcontracts pursuant to Section 5.4; and
- .3 Finish the Work by whatever reasonable method the Owner may deem expedient. And charge the costs incurred against the Contractor's Contract balance

§ 14.2.3 When the Owner terminates the Contract for one of the reasons stated in Section 14.2.1, the Contractor shall not be entitled to receive further payment until the Work is finished. The Engineer, or his designee's certification issued pursuant to Section 14.2.2 shall be given a presumption of correctness.

§ 14.2.4 If the unpaid balance of the Contract Sum exceeds costs of finishing the Work, including compensation for the Engineer, or his designee's services and expenses made necessary thereby, and other damages incurred by the Owner and not expressly waived, such excess shall be paid to the Contractor. If such costs and damages exceed the unpaid balance, the Contractor shall pay the difference to the Owner. The amount to be paid to the Contractor or Owner, as the case may be, shall be certified by the Engineer, or his designee, upon application, and this obligation for payment shall survive termination of the Contract.

§ 14.3 SUSPENSION BY THE OWNER FOR CONVENIENCE

§ 14.3.1 The Owner may, without cause, order the Contractor in writing to suspend, delay or interrupt the Work in whole or in part for such period of time as the Owner may determine.

§ 14.3.2 Intentionally deleted.

§ 14.4 TERMINATION BY THE OWNER FOR CONVENIENCE

§ 14.4.1 The Owner may, at any time, terminate the Contract for the Owner's convenience and without cause.

§ 14.4.2 Upon receipt of written notice from the Owner of such termination for the Owner's convenience, the Contractor shall

- .1 cease operations as directed by the Owner in the notice;

- 2 take actions necessary, or that the Owner may direct, for the protection and preservation of the Work; and
- 3 except for Work directed to be performed prior to the effective date of termination stated in the notice, terminate all existing subcontracts and purchase orders and enter into no further subcontracts and purchase orders.

§ 14.4.3 In case of such termination for the Owner's convenience, the Contractor shall be entitled to receive payment for Work executed, and costs incurred by reason of such termination, along with reasonable overhead and profit on the Work not executed.

ARTICLE 15 CLAIMS AND DISPUTES

§ 15.1 CLAIMS

§ 15.1.1 DEFINITION

A Claim is a demand or assertion by one of the parties seeking adjustment or interpretation of Contract terms, payment of money, extension of time, or other relief with respect to the terms of the Contract. Any Contractor Claim seeking the payment of money shall not include consequential damages, which Contractor hereby waives, and shall be calculated in accordance with Section 7.3.6 and Section 7.3.10 hereof.

§ 15.1.2 DECISION OF ENGINEER, OR HIS DESIGNEE

Owner and Contractor agree that the Engineer, or his designee shall be the initial arbiter of all Claims, including those alleging error or omission by the Engineer, or his designee. All claims, shall be referred, initially to the Engineer, or his designee for action as provided in Article 4 and shall be required as a condition precedent to litigation of a Claim between the Contractor and Owner to all such matters arising prior to the date final payment is due, regardless of: (1) whether such matters relate to execution and progress of the Work; or (2) the extent to which the work has been completed. The decision by the Engineer, or his designee in response to a Claim shall not be a condition precedent to litigation in the event: (1) the position of the Engineer, or his designee is vacant; (2) the Engineer, or his designee has not received evidence or has failed to render a decision within agreed time limits; (3) the Engineer, or his designee has failed to take action required under Article 4 within thirty (30) days after the Claim is made; (4) forty-five (45) days have passed after the Claim has been referred to the Engineer, or his designee; or, (5) the claim relates to a mechanic's lien.

§ 15.1.3 TIME LIMITS ON CLAIMS

Claims must be within twenty one (21) calendar days after the occurrence of the event giving rise to the Claim or within twenty-one (21) calendar days after the claimant first becomes aware of the condition giving rise to the Claim, whichever is later. There shall be no time limitation upon any Claims made by the Owner. Claims must be made by written notice to the Engineer, or his designee. An additional Claim made after the initial Claim has been implemented by Change Order will not be considered unless submitted pursuant to the requirements of this Paragraph. Notice shall be deemed effective upon the Engineer, or his designee's receipt of the Notice.

§ 15.1.4 CONTINUING CONTRACT PERFORMANCE

Pending final resolution of a Claim, unless otherwise agreed in writing, the Contractor shall proceed diligently with performance of the Contract and the Owner shall continue to make payments to the extent required by the Contract Documents.

§ 15.1.5 CLAIMS FOR CONCEALED OR UNKNOWN CONDITIONS

If conditions are encountered at the Site which are: (1) subsurface or otherwise concealed physical conditions which differ materially from those indicated in the Contract Documents; or (2) unknown physical conditions of an unusual nature, which differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for the Contract Documents, the Owner and Contractor mutually agree to give written notice to each other; including the Engineer, or his designee and any affected Contractor or subcontractor, upon the observation of the condition within twenty-four (24) hours of first observation of the condition. The Engineer, or his designee will investigate such conditions within seventy-two (72) hours and will diligently process and render a recommendation within twenty-one (21) days unless otherwise agreed in writing. If the Engineer, or his designee determines that the condition at the site are not materially different from those indicated in the Contract Documents and that no change in the terms of the Contract is justified the Engineer, or his designee shall so notify the Owner and Contractor in writing, stating the reasons. Claims by either party in

opposition to such determination must be made within seven (7) days after the Engineer, or his designee has given notice of the decision.

§ 15.1.6 CLAIMS FOR ADDITIONAL COST

If the Contractor wishes to make a Claim for an increase in the Contract Sum written notice as provided herein shall be given before proceeding to execute the Work. All documentation in support of the Contractor's request shall, likewise be provided at the time said written request is made. Prior notice is not required for Claims relating to an emergency endangering life or property arising under Section 10.3 or elsewhere in the Contract Documents.

§ 15.2 CLAIMS FOR ADDITIONAL TIME

§ 15.2.1 If the Contractor wishes to make a Claim for an increase in the Contract Time, written notice as provided herein shall be given. The Contractor's Claim shall include an estimate of cost and of probable effect of delay on progress of the Work, , all documentation in support of the Contractor's request shall, likewise be provided at the time said written request is made. In the case of a continuing delay, only one Claim is necessary.

§ 15.2.2 If adverse weather conditions are the basis for a Claim for additional time, such Claim shall be documented by data substantiating that weather conditions were abnormal for the period of time, could not have been reasonably anticipated and had an adverse effect on the scheduled construction. The term "abnormal" as used here shall be construed according to the following formula: average rainfall (or snow, low temperature, etc) for the past five (5) years for the month in question, plus ten percent (10%). Accordingly, weather is not deemed to be abnormal unless it is ten percent (10%) worse than the average for the month over the past five (5) years. Claims relating to weather must be submitted within seven (7) calendar days of the occurrence of any such delays.

§ 15.3 CLAIMS FOR INJURY OR DAMAGE TO PERSON OR PROPERTY. If either Party to the Contract suffers injury or damage to person or property because of an act or omission of the other party, of any of the other party's employees or agents, or of others for whose acts such party is legally liable, written notice of such injury or damage, whether or not insured, shall be given to the other party, including the Engineer, or his designee , within a reasonable time not exceeding twenty-one (21) days after first occurrence, unless another time period is required by law. The notice shall provide sufficient detail to enable the other party to investigate the matter. If a Claim for additional cost or time related to this Claim is to be asserted, it shall be filed as provided for in Article 15.

§ 15.3.2 The Owner is not required to institute a claim under this section in order to terminate this Agreement.

§ 15.4 RESOLUTION OF CLAIMS AND DISPUTES

The Engineer, or his designee will review Claims and take one or more of the following preliminary actions with ten (10) days of receipt of a Claim: (1) request additional supporting data from the claimant; (2) reject the Claim in who or in part, stating reasons for rejection ; (3) recommend approval of the Claim by other party; or (4) suggest a compromise.

§ 15.4.2 If a Claim has been resolved, the Engineer, or his designee will prepare or obtain appropriate documentation in consultation with Owner's counsel as circumstances dictate.

§ 15.4.3 If a Claim has not been resolved after consideration of the foregoing and of further evidence presented by the parties or requested by the Engineer, or his designee , the Engineer, or his designee will notify the parties in writing that the Engineer, or his designee 's decision will be made within seven (7) days, which decision shall be final. Upon expiration of such time period, the Engineer, or his designee will render to the parties the Engineer, or his designee 's written decision relative to the Claim, including any change in the Contract Sum or Contract Time or both.

§ 15.5. CLAIMS FORUM

Unless otherwise required by Section 5.1.3 of the Standard Form of Agreement between the Owner and Contractor, claims, disputes, or other matters in question between the parties to this Contract arising out of or relating to the Project or to this Contract, or the alleges breach thereof, shall be subject in the first instance to mediation and failing that, there in, a Court of competent jurisdiction venued in Union County, New Jersey. The Owner may not be compelled to submit any dispute concerning the Project to arbitration. By accepting award of the Contract and executing the Agreement, the Contractor consents to its joinder as a party in any litigation, mediation, arbitration or any other legal proceeding involving the Project and any references in the Contract documents.

§ 16.1 INTERPRETATIONS IN WRITING

§ 16.1.1 Neither the price bid for the work of any Contract, nor the Contract Sum, shall be based in any manner upon oral opinions, or real or alleged instructions of an oral nature, regardless if whether such opinions or instructions are expressed by the Owner, the Engineer, or his designee or its Consultants, the Contractor, or agents or representative of any of them and no such oral communication shall form the basis of a Claim.

§ 16.1.2 These provisions do not intend to deny, on an oral basis, normal discussion, recommendations, explanations, suggestions, approvals, rejections, and similar activity in pursuit of the work of the Project, such as at job conferences and otherwise at the Site. In such instances, the written minutes, correspondence, shop drawing records, written field orders, and other written data shall govern over personal claims regarding statements made contrary to the written data.

§ 17.1 JOB SITE MEETINGS

§ 17.1.1 Job site meetings, when called by the Engineer, or his designee, shall be held at a location and time convenient to the Owner's representatives, the Engineer, or his designee, and Contractor(s). Each Contractor shall attend such meeting, or be represented by a person in authority who is thoroughly familiar with the Project and who can speak and make decisions for the Contractor. In the instance of a Single Overall Contract, each of the major Subcontractors-Structural Steel, and ornamental iron work, plumbing, gas fitting and all kindered work and steam power plants, steam, and hot water heating and ventilating apparatus and Electrical-shall have a person in authority who is thoroughly familiar with the Project attend the meetings.

§ 18.1 MANDATORY LAW AGAINST DISCRIMINATION LANGUAGE
PROCUREMENT, PROFESSIONAL AND SERVICE CONTRACTS
(N.J.A.C. 13:6-1.3)

§ 18.1.1 The parties of this contract do hereby agree that the provision of N.J.S.A. 10:2-1 through N.J.S.A. 10:2-4 dealing with discrimination in employment on public contracts, and the rules and regulations promulgated pursuant thereto, are hereby made a part of this contract and are binding upon them.

§ 18.1.1 Pursuant to the provision of N.J.S.A. 10:2-1 through N.J.S.A. 10:2-4, during the performance of this contract, the Contractor agrees as follows:

§ 18.2.1.1 In the hiring of persons for the performance of work under this contract or any subcontract hereunder, or for the procurement, manufacture, assembling or furnishing of any such materials, equipment, supplies or services to be acquired under this contract, no Contractor, including without limitation, the Contractor, nor any person acting on behalf of such Contractor or subcontractor, shall by reason of race, creed, color national origin, ancestry, Marital status, gender identity or expression, affectional or sexual orientation, or sex, discriminate against any person who is qualified and available to perform the Work, to which the employment relates;

§ 18.2.1.2 No Contractor, including, without limitation, the Contractor, Subcontractor, nor any person acting on its behalf shall, in any manner, discriminate against or intimidate any employee engaged in the performance of work under this Contract or any subcontract hereunder, or engaged in the procurement, manufacture, assembling or furnishing of any such materials, equipment, supplies or services to be acquired under such Contract, on account of race, creed, color, national origin, ancestry, marital status, gender identity or expression, affectional or sexual orientation, or sex;

§ 18.2.1.3 There may be deducted from the amount payable to the Contractor by the Owner, under the Contract, a penalty of \$50.00 (fifty dollars) for each person for each calendar day during which such person is discriminated against or intimidated in violation of the provisions of the Contract; and

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

§ 19.1 CONTRACTOR AND SUBCONTRACTOR COLLECTION OF USE TAX TO LOCAL GOVERNMENTS

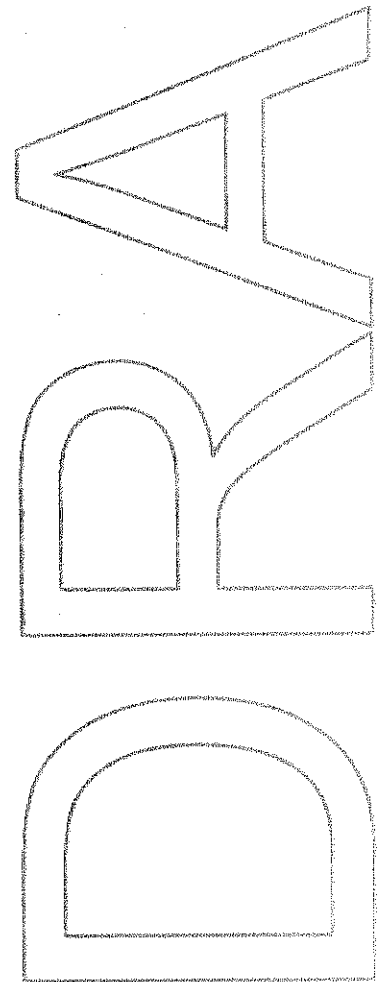
§ 19.1.1 The Contractor acknowledges and agrees that pursuant to P.L. 2004, c. 57, enacted by the State of New Jersey on June 29, 2004, contractors or contractors with subcontractors, or their affiliates, who enter into contracts

with New Jersey local government entities, including without limitation, boards of education, are, effective as of September 1, 2004, required to collect and remit to the New Jersey Director of Taxation in the Department of the Treasury the use tax pursuant to the "sales and Use Tax Act," P.L. 1966, c. 30 (C.54:32B-1 et. seq.) on all their sales of tangible personal property delivered into the State of New Jersey (hereinafter referred to as the "Contractor Use Tax Collection Legislation").

§ 19.2.1 The Contractor hereby covenants and agrees that the Contractor, any subcontractor and each of their affiliates, shall collect and remit to the New Jersey Director of the Division of Taxation in the Department of Treasury, the use tax due pursuant to the "Sales and Use Tax Act," P.L. 1966, c. 30 (C.54:32B-1 et. seq.) on all their sales of tangible personal property delivered into the State of New Jersey. For purposes herein, "affiliate" shall mean any entity that : (a) directly, indirectly or constructively controls another entity; (b) is directly, indirectly, or constructively controlled by another entity; or (c) is subject to the control of a common entity. For purposes of the immediately preceding sentence, an entity controls another entity if it owns, directly or indirectly, more than fifty percent (50%) of the Ownership interest in that entity.

§ 19.3.1 The parties intend that this Article 19 shall comply with the rules and regulations promulgated pursuant to the Contractor Use Tax Collection Legislation and shall be interpreted consistent therewith.

§ 19.4 Notwithstanding anything contained in the Agreement to the contrary, the Contractor hereby agrees to indemnify and hold the Owner harmless from and against any and all fines, taxes, penalties, interest, claims, losses. Costs, expenses, liabilities, or damages arising out of or in connection with the Contractor's failure to comply with the terms and condition of Sections 19.1 and 19.2 to the fullest extent permitted by law and public policy.





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

PREVAILING WAGE RATE DETERMINATION

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

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

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

Prevailing Wage Rate

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

W = Wage Rate per Hour **B** = Fringe Benefit Rate per Hour* **T** = Total Rate per Hour

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

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

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

Apprentice Rate Schedule

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

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

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

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

Comments/Notes

For each craft listed there will be comments/notes that cover the definition of the regular workday, shift differentials, overtime, recognized holidays, and any other relevant information.

Public Works Contractor Registration

The Public Works Contractor Registration Act (N.J.S.A. 34:11-56.48, et seq.) requires that **all** contractors, subcontractors, or lower tier subcontractors who are working on or who bid on public works projects register with the Department of Labor and Workforce Development. Applications are available at www.nj.gov/labor (click on Wage & Hour and then go to Registration & Permits).

Pursuant to N.J.S.A. 34:11-56.51:

No contractor shall bid on any contract for public work as defined in section 2 of P.L.1963, c. 150 (C.34:11-56.26) unless the contractor is registered pursuant to this act. No contractor shall list a subcontractor in a bid proposal for the contract unless the subcontractor is registered pursuant to P.L.1999, c.238 (C.34:11-56.48 et seq.) at the time the bid is made. No contractor or subcontractor, including a subcontractor not listed in the bid proposal, shall engage in the performance of any public work subject to the contract, unless the contractor or subcontractor is registered pursuant to that act.

Snow Plowing

Snow plowing contracts are not subject to the New Jersey Prevailing Wage Act or the Public Works Contractor Registration Act.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

Craft: Air Conditioning & Refrigeration - Service and Repair

PREVAILING WAGE RATE

	03/19/15
Journeyman (Mechanic)	W36.18 B21.10 T57.28

Expiration Date: 02/29/2016

Craft: Air Conditioning & Refrigeration - Service and Repair

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
	Mo. 1-3	Mo. 4-12	2nd Year	3rd Year	4th Year	5th Year		Wage = %	of Jnymn	Wage
As Shown										
Wage and Bene	50%	55%	60%	65%	75%	85%		Bene = %	of Jnymn	Bene

Ratio of Apprentices to Journeymen - 1:4

APPRENTICE RATE SCHEDULE FOR THOSE APPRENTICES ENTERING PROGRAM AFTER 3-1-13:

INTERVAL	PERIOD AND RATES							
As Shown	1st Year	2nd Year	3rd Year	4th Year	5th Year		Wage =% of Jnymn Wage	
Wage and Benefit	40%	50%	60%	70%	80%		Bene. =% of Jnymn Wage	

Craft: Air Conditioning & Refrigeration - Service and Repair

COMMENTS/NOTES

THESE RATES MAY BE USED FOR THE FOLLOWING:

- Service/Repair/Maintenance Work to EXISTING facilities.
- Replacement or Installation of air conditioning and refrigeration equipment when the combined tonnage does not exceed 15 tons for refrigeration, or 25 tons for air conditioning.
- Replacement or Installation of "packaged" or "unitary" rooftop-type units when the combined tonnage of the units does not exceed 75 tons.

NOTE: These rates may NOT be used for any work in new construction (including work on new additions).

The regular workday shall consist of 8 hours, starting between 6:00 AM and 10:00 AM, Monday through Friday.

SHIFT DIFFERENTIALS:

- The second and third shifts shall be paid an additional 15% of the hourly rate.
- All shifts must run for a minimum of 5 consecutive days.

OVERTIME:

Hours worked in excess of 8 per day or before or after the regular workday, that are not shift work, and all hours on Saturday shall be paid at time and one-half the hourly rate, inclusive of benefits. All hours on Sunday and holidays shall be paid at double the hourly rate, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Veterans' Day, Thanksgiving Day, Christmas Day.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

Craft: Boilermaker PREVAILING WAGE RATE

	01/09/15
Foreman	W45.00 B40.02 T85.02
General Foreman	W47.00 B41.00 T88.00
Journeyman	W41.00 B38.42 T79.42

Expiration Date: 12/31/2015

Craft: Boilermaker APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
	65%	70%	75%	80%	85%	90%	95%			
1000 Hours										
Benefit =	32.33	33.20	34.08	34.94	35.82	36.69	37.55			

Ratio of Apprentices to Journeymen - *

* 1 apprentice will be allowed for the first 5 journeymen, 1 apprentice for the next 10 journeymen and 1 apprentice for each succeeding 20 journeymen up to a maximum of 5 apprentices per contractor on any one job.

Craft: Boilermaker COMMENTS/NOTES

HIGH WORK: All apprentices working on the erection, repair, or dismantling of smoke stacks, standpipes, or water towers shall be paid the Journeyman rate.

The regular workday shall consist of 8 hours, between 8:00 AM and 4:30 PM.

SHIFT DIFFERENTIALS:

- The second shift shall work 7½ hours and receive 8 hours pay, at a rate equal to the regular hourly rate plus 10%.
- The third shift shall work 7 hours and receive 8 hours pay, at a rate equal to the regular hourly rate plus 20%.
- For "Municipal Water Works" projects only, the following shall apply: Two, four day, 10 hour shifts may be worked at straight time Monday through Thursday. The day shift shall work four days, at 10 hours, for 10 hours pay. The second shift shall work four days, at nine and a half hours, for 10 hours pay, plus 10% the hourly rate for new work and .25 cents on repair work. Friday may be used as a make-up day at straight time, due to weather conditions, holiday or any other circumstances beyond the employer's control.

OVERTIME:

- Hours in excess of 8 per day, Monday through Friday, and all hours on Saturdays shall be paid at time and one-half the hourly rate. All hours on Sundays and holidays (except Labor Day) shall be paid at double the hourly rate. All hours on Labor Day shall be paid at four times the hourly rate.
- If any other craft employed by the same contractor, or a subcontractor thereof, receives double time in lieu of time and one-half, then the Boilermaker shall receive double time in lieu of time and one-half.
- For "Municipal Water Works" projects only, the following shall apply: Four 10 hour days may be worked Monday through

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

Thursday at straight time. Friday may be used as a make-up day for a day lost to inclement weather, holiday or other conditions beyond the control of the employer. Overtime shall be paid for any hours that exceed 10 hours per day or 40 hours per week.

RECOGNIZED HOLIDAYS: New Year's Day, Washington's Birthday, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays observed the following Monday.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

Craft: Boilermaker - Minor Repairs

PREVAILING WAGE RATE

	01/09/15
Foreman	W30.29 B16.17 T46.46
General Foreman	W30.79 B16.17 T46.96
Mechanic	W28.79 B16.17 T44.96

Expiration Date: 12/31/2015

Craft: Boilermaker - Minor Repairs

COMMENTS/NOTES

NOTE: These rates apply to MINOR REPAIR WORK ONLY (repair work in the field for which the contract amount does not exceed \$20,000.00).

OVERTIME:

Hours in excess of 8 per day, Monday through Friday, and all hours on Saturdays shall be paid at time and one-half the hourly rate. All hours on Sundays and holidays (except Labor Day) shall be paid at double the hourly rate. All hours on Labor Day shall be paid at four times the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, Washington's Birthday, Good Friday, Memorial Day, July 4th, Labor Day, Presidential Election Day, Thanksgiving Day, day after Thanksgiving, Christmas Day. Saturday holidays observed the preceding Friday, Sunday holidays observed the following Monday.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

Craft: Bricklayer, Stone Mason

PREVAILING WAGE RATE

	05/01/15
Deputy Foreman	W41.25 B29.83 T71.08
Foreman	W44.25 B29.83 T74.08
Journeyman	W38.25 B29.83 T68.08

Expiration Date: 04/30/2016

Craft: Bricklayer, Stone Mason

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
6 Months	40%	50%	55%	60%	65%	70%	75%	80%		
Benefits	3.72	4.65	5.12	5.58	19.73	21.04	22.35	23.65		

Ratio of Apprentices to Journeymen - 1:5

Craft: Bricklayer, Stone Mason

COMMENTS/NOTES

The regular workday shall consist of 8 hours, between 6:00 AM and 4:30 PM.

SHIFT DIFFERENTIALS:

- When a 2 shift schedule (including a day shift) is established, the first, or day shift, shall be established on an 8 hour basis. The second shift shall be established on an 8 hour basis, and receive the regular rate plus 15%, inclusive of benefits.
- When a three shift schedule is established, the first shift shall be established on an 8 hour basis, the second shift on a 7.5 hour basis, and the third shift on a 7 hour basis. The first shift shall receive the regular hourly rate, the second shift shall receive the regular rate plus 15%, inclusive of benefits, and the third shift shall receive the regular rate plus 20%, inclusive of benefits.
- When there is no day shift, and a second or third shift is established, it shall be established on an 8 hour basis. The second shift shall receive the regular rate plus 15%, inclusive of benefits, and the third shift shall receive the regular rate plus 20%, inclusive of benefits.

OVERTIME:

- The first 2 hours in excess of 8 per day, or before or after the regular workday that are not shift work, Monday through Friday, shall be paid at time and one-half the regular rate, inclusive of benefits. Any additional overtime shall be paid at double the regular rate, inclusive of benefits. The first 10 hours on Saturday shall be paid at time and one-half the regular rate, inclusive of benefits. Any additional overtime shall be paid at double the regular rate, inclusive of benefits. All hours on Sundays and holidays shall be paid at double the regular rate, inclusive of benefits.
- Saturday may be used as a make-up day for hours lost to inclement weather.
- When Bricklayers/Stone Masons work on Saturday with Laborers, and no other crafts are working on the project for the day, benefits may be paid at straight time. If other crafts are present, the applicable overtime rate for benefits shall be paid.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays will be observed the following Monday.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

Craft: Carpenter

PREVAILING WAGE RATE

	05/12/15	11/01/15
Foreman	W51.22 B28.68 T79.90	W0.00 B0.00 T80.42
Journeyman	W44.54 B24.94 T69.48	W0.00 B0.00 T70.73

Expiration Date: 04/30/2016

Craft: Carpenter

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
	40%	45%	50%	55%	60%	65%	70%	75%	85%	95%
6 Months										
Benefit	56% of	Appren	tice	Wage	Rate		for all	intervals		

Ratio of Apprentices to Journeymen - 1:4

Craft: Carpenter

COMMENTS/NOTES

FOREMAN REQUIREMENTS:

- When there are 2 or more Carpenters on a job, 1 shall be designated as a Foreman.
- When there are 21 or more Carpenters on a job, 2 shall be designated as Foremen.

The regular workday shall consist of 8 hours, starting between 7:00 AM and 9:00 AM.

SHIFT DIFFERENTIALS:

- When a 2 shift schedule (including a day shift) is established, the day shift shall be established on an 8 hour basis. The second shift shall be established on an 8 hour basis, and receive the regular rate plus 15%, inclusive of benefits.
- When a three shift schedule is established, the first shift shall be established on an 8 hour basis, the second shift on a 7.5 hour basis, and the third shift on a 7 hour basis. The first shift shall receive the regular hourly rate, the second shift shall receive the regular rate plus 15% and the third shift shall receive the regular rate plus 20%, inclusive of benefits.
- When there is no day shift, and a second or third shift is established, it shall be established on an 8 hour basis. The second shift shall receive the regular rate plus 15% and the third shift shall receive the regular rate plus 20%, inclusive of benefits.

OVERTIME:

- All hours in excess of 8 per day, or before or after an established shift that are not shift work, and all hours on Saturdays shall be paid at time and one-half the hourly rate, inclusive of benefits. All hours on Sundays and holidays shall be paid at double the hourly rate, inclusive of benefits.
- Four 10-hour days may be worked, Monday to Thursday, at straight time. Friday may be used as a make-up day for a day lost due to inclement weather. If Friday is not a make-up day, all hours on Friday shall be paid at time and one-half the hourly rate, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays observed the following Monday.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

Craft: Carpenter - Resilient Flooring

PREVAILING WAGE RATE

	05/12/15
Foreman	W51.22 B28.68 T79.90
Journeyman	W44.54 B24.94 T69.48

Expiration Date: 10/31/2015

Craft: Carpenter - Resilient Flooring

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
6 Months	40%	45%	50%	55%	60%	65%	70%	75%	85%	95%
Benefit	56%	of	Appren	tice	Wage	Rate		for all	intervals	

Ratio of Apprentices to Journeymen - *

* 1 apprentice shall be allowed to every 2 journeymen or major fraction thereof. No more than 3 apprentices on any one job or project.

Craft: Carpenter - Resilient Flooring

COMMENTS/NOTES

FOREMAN REQUIREMENTS:

- On any job where there are 4 or more Carpenters of Resilient Flooring, 1 must be designated a Foreman.

FOR SYNTHETIC TURF INSTALLATION ONLY:

- The rate shall be 90% of the wage and benefit rate.

The regular workday consists of 8 hours, starting between 6:00 AM and 9:00 AM.

SHIFT DIFFERENTIALS:

- When a 2 shift schedule (including a day shift) is established, the day shift, shall be established on an 8 hour basis. The second shift shall be established on an 8 hour basis, and receive the regular wage rate plus 15%.

- When a three shift schedule is established, the first shift shall be established on an 8 hour basis, the second shift on a 7.5 hour basis, and the third shift on a 7 hour basis. The first shift shall receive the regular wage rate, the second shift shall receive the regular wage rate plus 15% and the third shift shall receive the regular wage rate plus 20%.

- When there is no day shift, and a second or third shift is established, it shall be established on an 8 hour basis. The second shift shall receive the regular wage rate plus 15% and the third shift shall receive the regular wage rate plus 20%.

OVERTIME:

- Hours in excess of 8 per day or 40 per week, or before or after the regular workday, Monday through Friday, shall be paid at time and one-half the wage rate. Saturday may be used as a make-up day, at straight time, up to 8 hours, for hours lost to reasons beyond the control of the employer, up to a total of 40 hours per week; hours in excess of 8 on Saturday shall then be paid at time and one-half the wage rate. If Saturday is not a make-up day, all hours on Saturday shall be paid at time and one-half the wage rate. All hours on Sundays and holidays shall be paid at double the wage rate.

- Four 10-hour days may be worked, Monday to Thursday, at straight time. Friday may be used as a make-up day for hours lost to reasons beyond the control of the employer. If Friday is not a make-up day, all hours on Friday shall be paid at time and one-half the wage rate.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays will be observed the following Monday.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

Craft: Cement Mason

PREVAILING WAGE RATE

See "Bricklayer, Stone Mason" Rates

Expiration Date:

Craft: Cement Mason

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									

Ratio of Apprentices to Journeymen - 1:4

Craft: Cement Mason

COMMENTS/NOTES

See "Bricklayer, Stone Mason" Rates

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

Craft: Dockbuilder PREVAILING WAGE RATE

	05/01/15	11/01/15
Foreman	W49.57 B42.32 T91.89	W0.00 B0.00 T93.14
Foreman (Concrete Form Work)	W49.57 B34.48 T84.05	W0.00 B0.00 T85.30
Journeyman	W43.10 B42.32 T85.42	W0.00 B0.00 T86.67
Journeyman (Concrete Form Work)	W43.10 B34.48 T77.58	W0.00 B0.00 T78.83

Expiration Date: 04/30/2016

Craft: Dockbuilder APPRENTICE RATE SCHEDULE

<u>INTERVAL</u>	<u>PERIOD AND RATES</u>									
Yearly	17.24	21.55	28.02	34.48						
Benefit	28.90	for all	intervals		Concrete	Form Work	Only Ben.	= 23.65	for all	intervals

Ratio of Apprentices to Journeymen - *

* When there are 4 or fewer Dockbuilders on a job, no more than 1 may be an apprentice. When there are 5 or more Dockbuilders, there may be 1 apprentice for every 5 Dockbuilders.

Craft: Dockbuilder COMMENTS/NOTES

CREOSOTE HANDLING:

When handling creosote products on land piledriving, floating marine construction, and construction of wharves, the worker shall receive an additional \$0.25 per hour.

HAZARDOUS WASTE WORK:

- Hazardous waste removal work on a state or federally designated hazardous waste site where Level A, B, or C personal protection is required: an additional 20% of the hourly rate, per hour.
- Hazardous waste removal work in Level D, or where personal protection is not required: an additional \$1.00 per hour.

CERTIFIED WELDER: When required on the job by the project owner, a Certified Welder shall receive an additional \$1.00 per hour.

FOREMAN REQUIREMENTS:

The first Dockbuilder on the job shall be designated a Foreman.

OVERTIME:

Hours in excess of 8 per day, Monday through Friday, and all hours on Saturdays shall be paid at time and one-half the

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

hourly rate. All hours on Sundays and holidays shall be paid at double the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Veterans' Day, Presidential Election Day, Thanksgiving Day, Christmas Day. Veterans' Day may be switched with the day after Thanksgiving.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

Craft: Drywall Finisher

PREVAILING WAGE RATE

	05/04/15	05/01/16	05/01/17
Foreman	W41.80 B22.60 T64.40	W43.05 B22.60 T65.65	W44.30 B22.60 T66.90
General Foreman	W43.70 B22.60 T66.30	W44.95 B22.60 T67.55	W46.20 B22.60 T68.80
Journeyman	W38.00 B22.60 T60.60	W39.25 B22.60 T61.85	W40.50 B22.60 T63.10

Expiration Date: 04/30/2018

Craft: Drywall Finisher

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
	30%	40%	50%	60%	70%	75%	80%	85%	90%	
4 Months										
Benefits	Intervals	1 to 3 =	9.85	Intervals	4 to 6 =	12.28	Intervals	7 to 9 =	14.95	

Ratio of Apprentices to Journeymen - 1:4

Craft: Drywall Finisher

COMMENTS/NOTES

The regular workday shall consist of 8 hours between 7:00 AM and 5:30 PM.

SHIFT DIFFERENTIALS:

- The second shift shall receive an additional 10% of the hourly rate, per hour, and the third shift shall receive an additional 15% of the hourly rate, per hour.
- When 3 shifts are worked, the second shift shall receive 8 hours pay for 7.5 hours of work, and the third shift shall receive 8 hours pay for 7 hours of work.
- Shift work must run for a minimum of 5 consecutive workdays.

OVERTIME:

- Hours in excess of 8 per day, Monday through Friday, and all hours on Saturdays shall be paid at time and one-half the regular rate, inclusive of benefits. All hours on Sundays and holidays shall be paid at double the regular rate, inclusive of benefits.
- Saturday or Sunday may be used to make up a day lost to inclement weather, at straight time.

RECOGNIZED HOLIDAYS: New Year's Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Saturday holiday observed the preceding Friday. Sunday holiday observed the following Monday.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

Craft: Electrician

PREVAILING WAGE RATE

	06/02/15	05/30/16	05/29/17	05/28/18
Cable Splicer	W57.52 B32.88 T90.40	W58.71 B33.74 T92.45	W60.08 B34.53 T94.61	W61.52 B35.35 T96.87
Foreman	W58.56 B33.47 T92.03	W59.77 B34.34 T94.11	W61.17 B35.15 T96.32	W62.64 B35.98 T98.62
Journeyman	W52.29 B29.90 T82.19	W53.37 B30.67 T84.04	W54.62 B31.39 T86.01	W55.93 B32.13 T88.06

Expiration Date: 05/31/2019

Craft: Electrician

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
	Yearly	40%	49%	58%	68%	80%		of Jour	neyman	Wage
Benefit	40%	49%	58%	68%	80%		of Jour	neyman	Benefit	Rate

Ratio of Apprentices to Journeymen - 2:3

Craft: Electrician

COMMENTS/NOTES

THESE RATES ALSO APPLY TO THE FOLLOWING:

- All burglar and fire alarm work.
- All fiber optic work.
- Teledata work in new construction.
- Teledata work involving 16 Voice/Data Lines or more.

The regular workday shall be 8 hours, between 8:00 AM and 4:30 PM.

FOREMAN REQUIREMENTS:

- On any job where there are 1 to 10 Journeymen electricians, 1 shall be designated a Foreman.

SHIFT DIFFERENTIALS:

- Shift work must run for a minimum of 5 consecutive workdays.
- 2nd Shift (4:30 PM to 12:30 AM) shall receive 8 hours pay for 7.5 hours work + an additional 10% of the regular rate, per hour, inclusive of benefits.
- 3rd Shift (12:30 AM to 8:00 AM) shall receive 8 hours pay for 7 hours work + an additional 15% of the regular rate, per hour, inclusive of benefits.

OVERTIME:

Hours in excess of 8 per day, or outside of the regular workday, Monday through Friday, and all hours on Saturdays, shall be paid at time and one-half the regular rate, inclusive of benefits. All hours on Sundays and holidays shall be paid at double the regular rate, inclusive of benefits.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

Craft: Electrician - Teledata (15 Voice/Data Lines & Less)

PREVAILING WAGE RATE

	12/04/14
Master Technician/General Foreman	W49.84 B28.49 T78.33
Senior Technician/Lead Foreman (21-30 Workers on Job)	W45.62 B26.08 T71.70
Technician A/Foreman (11-20 Workers on Job)	W43.71 B24.99 T68.70
Technician B/Working Foreman (4-10 Workers on Job)	W41.79 B23.89 T65.68
Technician C/Journeyman (1-3 Workers on Job)	W38.34 B21.92 T60.26

Expiration Date: 11/01/2015

Craft: Electrician - Teledata (15 Voice/Data Lines & Less)

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
6 Months	19.20	20.48	22.62	25.18	28.16	30.72	33.71	36.70		
Benefits	7.96	8.49	9.38	10.44	11.68	12.74	13.98	15.22		

Ratio of Apprentices to Journeymen - 2:3

Craft: Electrician - Teledata (15 Voice/Data Lines & Less)

COMMENTS/NOTES

APPRENTICE RATE SCHEDULE FOR THOSE APPRENTICES ENTERING PROGRAM AFTER 10-31-14:

INTERVAL	PERIOD AND RATES									
6 Months	17.07	18.35	20.48	23.04	26.03	28.59	31.58	34.56		
Benefits	7.08	7.61	8.49	9.56	10.79	11.86	13.09	14.33		

NOTES:

- These rates are for service, maintenance, moves, and/or changes affecting 15 Voice/Data (teledata) lines or less. These rates may NOT be used for any teledata work in new construction (including additions) or any fiber optic work.
- The number of Teledata workers on the jobsite is the determining factor for which Foreman category applies.

The regular workday shall be 8 hours, between 8:00 AM and 4:30 PM.

SHIFT DIFFERENTIALS:

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

- Shift work must run for a minimum of 5 consecutive workdays.
- 2nd Shift (4:30 PM to 12:30 AM) shall receive 8 hours pay for 7.5 hours work + an additional 10% of the regular rate, per hour, inclusive of benefits.
- 3rd Shift (12:30 AM to 8:00 AM) shall receive 8 hours pay for 7 hours work + an additional 15% of the regular rate, per hour, inclusive of benefits.

OVERTIME:

Hours in excess of 8 per day, or outside of the regular workday, Monday through Friday, and all hours on Saturdays, shall be paid at time and one-half the regular rate, inclusive of benefits. All hours on Sundays and holidays shall be paid at double the regular rate, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day.

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION

County - UNION

Craft: Electrician - Teledata (16 Instruments & More)

PREVAILING WAGE RATE

See "Electrician" Rates

Expiration Date:

Craft: Electrician - Teledata (16 Instruments & More)

COMMENTS/NOTES

See ELECTRICIAN Rates

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

Craft: Electrician- Outside Commercial

PREVAILING WAGE RATE

	08/20/15	05/30/16	05/29/17	05/28/18
Cable Splicer	W57.79 B32.60 T90.39	W58.99 B33.46 T92.45	W60.37 B34.24 T94.61	W61.82 B35.06 T96.88
Certified Welder	W55.17 B31.13 T86.30	W56.31 B31.94 T88.25	W57.62 B32.68 T90.30	W59.01 B33.47 T92.48
Equipment Operator	W52.54 B29.64 T82.18	W53.63 B30.42 T84.05	W54.88 B31.13 T86.01	W56.20 B31.88 T88.08
Foreman (1-10 Journeyman workers on job)	W58.84 B33.20 T92.04	W60.07 B34.07 T94.14	W61.47 B34.86 T96.33	W62.94 B35.70 T98.64
Foreman (11-20 Journeyman workers on job)	W60.42 B34.09 T94.51	W61.67 B34.98 T96.65	W63.11 B35.79 T98.90	W64.63 B36.66 T101.29
General Foreman (21-30 Journeyman workers on job)	W62.00 B34.98 T96.98	W63.28 B35.89 T99.17	W64.76 B36.73 T101.49	W66.32 B37.61 T103.93
General Foreman (31-60 Journeyman workers on job)	W67.25 B37.94 T105.19	W68.65 B38.94 T107.59	W70.25 B39.84 T110.09	W71.94 B40.80 T112.74
General Foreman (61+ Journeyman workers on job)	W68.30 B38.53 T106.83	W69.72 B39.54 T109.26	W71.34 B40.46 T111.80	W73.06 B41.44 T114.50
Groundman	W31.52 B17.79 T49.31	W32.18 B18.26 T50.44	W32.93 B18.68 T51.61	W33.72 B19.13 T52.85
Journeyman Lineman/Technician	W52.54 B29.64 T82.18	W53.63 B30.42 T84.05	W54.88 B31.13 T86.01	W56.20 B31.88 T88.08
Sub-Foreman	W58.84 B33.20 T92.04	W60.07 B34.07 T94.14	W61.47 B34.86 T96.33	W62.94 B35.70 T98.64

Expiration Date: 05/31/2019

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

Craft: Electrician- Outside Commercial

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
1000 Hours	60%	65%	70%	75%	80%	85%	90%			
Benefits	56.4% of	Journey	man	wage	+	\$.01				

Craft: Electrician- Outside Commercial

COMMENTS/NOTES

EFFECTIVE 5-30-16- The apprentice benefit rate shall be 56.7% + \$.01.
 EFFECTIVE 5-29-17- The apprentice benefit rate shall be 56.7% + \$.01.
 EFFECTIVE 5-28-18- The apprentice benefit rate shall be 56.7% + \$.01.

* FOR UTILITY WORK PLEASE SEE STATEWIDE RATES

The regular worday shall be 8 hours, between 8:00 AM and 4:30 PM.

FOREMAN REQUIREMENTS:

On jobs where there are 2 Journeymen, one shall be a Foreman. The following number of Foreman, General Foreman, Assistant General Foreman and Sub-Foreman shall be required with respect to number of Journeymen on site:

- 2-10 Journeymen (1 Foreman)
- 11-20 Journeymen (1 Foreman and 1 Sub-Foreman)
- 21-30 Journeymen (1 Foreman and 2 Sub-Foremen)

SHIFT DIFFERENTIALS:

- Shift work must run for a minimum of 5 consecutive workdays.
- 2nd Shift (4:30 PM to 12:30 AM): 8 hrs. pay for 7.5 hrs. work + an additional 10% of the regular rate, inclusive of benefits.
- 3rd Shift (12:30 AM to 8:00 AM): 8 hrs. pay for 7 hrs. work + an additional 15% of the regular rate per hour, inclusive benefits.

OVERTIME:

Hours in excess of 8 per day, or outside of the regular workday, Monday through Friday, and all hours on Saturdays, shall be paid at time and one-half the regular rate, inclusive of benefits. All hours on Sundays and holidays shall be paid at double the regular rate, inclusive of benefits.

RECOGNIZED HOLIDAYS:

New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day and Christmas Day.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

Craft: Electrician-Utility Work (North)

PREVAILING WAGE RATE

Rates are located in the "Statewide" rate package

Expiration Date:

Craft: Electrician-Utility Work (North)

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
6 Months	60%	65%	70%	75%	80%	85%	90%			
Benefits	62.5% of	Appren	tice	Wage	Rate	for all	intervals			

Craft: Electrician-Utility Work (North)

COMMENTS/NOTES

Electrician-Utility Work (North) rates are located in the "Statewide" rate package.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

Craft: Electrician-Utility Work (South)

PREVAILING WAGE RATE

Rates are located in the "Statewide" rate package

Expiration Date:

Craft: Electrician-Utility Work (South)

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
6 Months	26.27	28.46	30.65	32.84	35.03	37.22	39.41			
Benefits	21.83	23.08	24.32	25.57	26.81	28.06	29.32			

Craft: Electrician-Utility Work (South)

COMMENTS/NOTES

Electrician-Utility Work (South) rates are located in the "Statewide" rate package.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

Craft: Elevator Constructor

PREVAILING WAGE RATE

	03/27/15	03/17/16	03/17/17	03/17/18
Journeyman	W59.55	W60.96	W62.64	W64.48
	B38.02	B39.77	B41.56	B43.36
	T97.57	T100.73	T104.20	T107.84

Expiration Date: 03/16/2019

Craft: Elevator Constructor

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
	Yearly	26.62	32.75	38.71	44.66					
Benefits	30.23	31.32	32.81	34.30						

Ratio of Apprentices to Journeymen - 1:1

Craft: Elevator Constructor

COMMENTS/NOTES

The regular workday shall consist of either 7 or 8 hours to be established at the beginning of the project, between 7:00 AM and 4:30 PM.

OVERTIME:

For all hours worked before or after the regular workday, Monday through Friday, and all hours on Saturday and Sunday, shall be paid at double the hourly rate. Holiday pay is one days wages (8 hours) plus double the hourly rate for all hours worked.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Good Friday, Memorial Day, July 4th, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day and the day after, Christmas Day. Saturday holidays shall be observed on the previous Friday and Sunday holidays shall be observed on the following Monday.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

Craft: Elevator Modernization & Service

PREVAILING WAGE RATE

	03/27/15	03/17/16	03/17/17	03/17/18
Journeyman	W46.92	W47.91	W49.14	W50.49
	B36.46	B38.17	B39.91	B41.66
	T83.38	T86.08	T89.05	T92.15

Expiration Date: 03/16/2019

Craft: Elevator Modernization & Service

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
	Yearly	26.62	25.81	30.50	35.19					
Benefits	30.16	30.47	31.80	33.13						

Ratio of Apprentices to Journeymen - 1:1

Craft: Elevator Modernization & Service

COMMENTS/NOTES

MODERNIZATION (addition, replacement, refurbishing, relocation, or changes in design or appearance, of elevator equipment in existing buildings):

- The regular workday consists of 8 hours, between 7:00 AM and 4:30 PM.

- Overtime:

Hours in excess of 8 per day, or before or after the regular workday, Monday through Friday, and all hours on Saturday and Sunday shall be paid at time and one-half the hourly rate. Holiday pay is one days wages (8 hours) plus time and one-half the hourly rate for all hours worked.

SERVICE (repair or replacement of parts for the purpose of maintaining elevator equipment in good operating condition):

- The regular workday consists of 8 hours, between 6:00 AM and 6:00 PM.

- Overtime:

Hours in excess of 8 per day, or before or after the regular workday, Monday through Friday, and all hours on Saturday shall be paid at time and one-half the hourly rate. All hours on Sunday and holidays shall be paid at double the hourly rate.

RECOGNIZED HOLIDAYS (Modernization and Service): New Year's Day, Presidents' Day, Good Friday, Memorial Day, July 4th, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day and the day after, Christmas Day. Saturday holidays shall be observed on the previous Friday and Sunday holidays shall be observed on the following Monday.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

Craft: Glazier PREVAILING WAGE RATE

	06/11/15	05/01/16
Foreman	W46.50 B22.65 T69.15	W0.00 B0.00 T70.65
General Foreman	W48.50 B22.89 T71.39	W0.00 B0.00 T72.89
Journeyman	W42.50 B22.17 T64.67	W0.00 B0.00 T66.17

Expiration Date: 04/30/2017

Craft: Glazier APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
	30%	40%	50%	60%	70%	75%	80%	85%	90%	
4 Months										
Benefits	Intervals	1 to 3 =	6.51	Intervals	4 to 6 =	9.33	Intervals	7 to 9 =	11.67	

Ratio of Apprentices to Journeymen - 1:4

Craft: Glazier COMMENTS/NOTES

APPRENTICE RATE SCHEDULE FOR THOSE APPRENTICES ENTERING PROGRAM AS OF 5-1-14:

INTERVAL	PERIOD AND RATES							
6 Months	50%	55%	60%	65%	70%	75%	80%	90%
Benefits	8.10	8.10	10.34	10.34	11.51	11.51	14.62	14.62

Hazard/Height Pay: +\$1.00 per hour

FOREMAN REQUIREMENTS:

- When there are 4 or more Glaziers on a job, 1 must be designated a Foreman.
- When there are 15 or more Glaziers on a job, 1 must be designated a General Foreman.

The regular workday shall consist of 8 hours, between 7:00 AM and 5:30 PM, Monday to Friday.

SHIFT DIFFERENTIALS:

- The second shift shall receive an additional 10% of the hourly rate, per hour, and the third shift shall receive an additional 15% of the hourly rate, per hour.
- When 3 shifts are worked, the second shift shall receive 8 hours pay for 7.5 hours of work, and the third shift shall receive 8 hours pay for 7 hours of work.

OVERTIME:

Hours in excess of 8 per day, or before or after the regular workday Monday through Friday, and all hours on Saturdays shall be paid at time and one-half the regular rate. All hours on Sundays and holidays shall be paid at double the regular

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

rate.

RECOGNIZED HOLIDAYS: New Year's Day, Memorial Day, July 4th, Labor Day, General Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Saturday holiday observed the preceding Friday. Sunday holiday observed the following Monday.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

Craft: Heat & Frost Insulator

PREVAILING WAGE RATE

	09/19/14
Foreman	W51.52 B28.42 T79.94
General Foreman	W54.07 B29.53 T83.60
Journeyman	W50.24 B27.86 T78.10

Expiration Date: 09/18/2015

Craft: Heat & Frost Insulator

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
Yearly	23.27	27.59	33.35	39.16						
Benefits	16.96	20.03	21.99	23.76						

Ratio of Apprentices to Journeymen - 1:3

Craft: Heat & Frost Insulator

COMMENTS/NOTES

NOTE: These rates apply to the installing of insulation on hot and cold mechanical systems.

The regular workday shall be 8 hours between 8:00 AM and 4:30 PM.

SHIFT DIFFERENTIAL:

- Shift work must run for a minimum of 5 consecutive workdays.
- Second Shift shall work 7.5 hours and receive 8 hours pay, at the regular rate, plus 25% per hour.
- Third Shift shall work 7 hours and receive 8 hours pay, at the regular rate, plus 30% per hour.

OVERTIME:

The first 2 hours in excess of 8 per day, hours outside of the regular workday Monday through Friday that are not shift work, and the first 10 hours on Saturday, shall be paid at time and one-half the regular rate, inclusive of benefits. All hours in excess of 10 per day, and all hours on Sunday and holidays (except Labor Day) shall be paid at double the regular rate, inclusive of benefits. All hours on Labor Day shall be paid at triple the regular rate, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, President's Day, Memorial Day, July 4th, Labor Day, Veterans' Day, Presidential Election Day, Thanksgiving Day and Christmas Day. Sunday holidays observed the following Monday.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

Craft: Heat & Frost Insulator - Asbestos Worker

PREVAILING WAGE RATE

	09/19/14
Asbestos Worker/Firestop	W25.68 B9.25 T34.93
Foreman	W51.52 B28.42 T79.94

Expiration Date: 09/18/2015

Craft: Heat & Frost Insulator - Asbestos Worker

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
	SEE	HEAT &	FROST	INSULAT OR						

Ratio of Apprentices to Journeymen - 1:3

Craft: Heat & Frost Insulator - Asbestos Worker

COMMENTS/NOTES

NOTE: These rates apply only to the removal of insulation materials/asbestos from mechanical systems, including containment erection and demolition, and placing material in appropriate containers.

The regular workday shall be 8 hours between 8:00 AM and 4:30 PM.

SHIFT DIFFERENTIALS:

- Shift work must run for a minimum of 5 consecutive workdays.
- The second shift shall work 7.5 hours and receive 8 hours pay at the regular rate, plus 25% per hour.
- The third shift shall work 7 hours and receive 8 hours pay at the regular rate, plus 30% per hour.

OVERTIME: The first 2 hours in excess of 8 per day, hours outside of the regular workday Monday through Friday that are not shift work, and the first 10 hours on Saturday, shall be paid at time and one-half the regular rate, inclusive of benefits. All hours in excess of 10 per day, and all hours on Sunday and holidays (except Labor Day) shall be paid at double the regular rate, inclusive of benefits. All hours on Labor Day shall be paid at triple the regular rate, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Veterans' Day, Presidential Election Day, Thanksgiving Day and Christmas Day. Sunday holidays observed the following Monday.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

Craft: Ironworker

PREVAILING WAGE RATE

	08/13/15	01/01/16	07/01/16	07/01/17
Rod /Fence Foreman	W41.24 B42.27 T83.51	W0.00 B0.00 T84.51	W0.00 B0.00 T86.51	W0.00 B0.00 T88.51
Rod/Fence Journeyman	W38.24 B42.27 T80.51	W0.00 B0.00 T81.51	W0.00 B0.00 T83.51	W0.00 B0.00 T85.51
Structural Foreman	W44.29 B42.77 T87.06	W44.29 B42.77 T87.06	W0.00 B0.00 T88.81	W0.00 B0.00 T90.56
Structural Journeyman	W41.29 B42.77 T84.06	W41.29 B42.77 T84.06	W0.00 B0.00 T85.81	W0.00 B0.00 T87.56

Expiration Date: 06/30/2018

Craft: Ironworker

APPRENTICE RATE SCHEDULE

<u>INTERVAL</u>	<u>PERIOD AND RATES</u>									
6 Months	50%	60%		Yearly	70%	80%	90%			

Ratio of Apprentices to Journeymen - 1:4

Craft: Ironworker

COMMENTS/NOTES

HAZARDOUS WASTE WORK: On hazardous waste removal work on a state or federally designated hazardous waste site where the Ironworker is required to wear Level A,B, or C personal protection: + \$3.00 per hour

The regular workday consists of 8 hours between 6:00 AM and 4:30 PM.

FOREMAN REQUIREMENTS:

When there are 2 or more Ironworkers on a job, 1 shall be designated a Foreman.

SHIFT DIFFERENTIALS:

- When a 2 shift schedule is established, the first, or day shift , shall be established on an 8 hour basis .The second shift shall be established on an 8 hour basis, and receive the regular rate plus 15%.
- When a three shift schedule is established, the first shift shall be established on an 8 hour basis, the second shift on a 7.5 hour basis, and the third shift on a 7 hour basis. The first shift shall receive the regular hourly rate, the second shift shall receive the regular rate plus 15%, and the third shift shall receive the regular rate plus 20%.
- When there is no day shift, and a second or third shift is established, it shall be established on an 8 hour basis.
- When an irregular shift is established for 5 consecutive days, the rate shall be paid at the regular rate and benefit rate , with no wage premium included. When an irregular shift is established for less than 5 days, the rate shall be paid at the regular rate plus 15%.

OVERTIME:

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

- All hours in excess of 8 per day, or before or after an established shift that are not shift work, and all hours on Saturday, shall be paid at time and one-half the regular rate, inclusive of benefits. All hours on Sunday and holidays shall be paid at double the hourly rate, inclusive of benefits. Saturday may be used as a make-up day for a day lost to inclement weather. If Saturday is not a make-up day, all hours on Saturday shall be paid at time and one-half the hourly rate, inclusive of benefits.

- Four 10-hour days may be worked, Monday to Thursday, at straight time. Friday may be used as a make-up day for a day lost to inclement weather. If Friday is not a make-up day, all hours on Friday shall be paid at time and one-half the hourly rate, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans Day, Thanksgiving Day, Christmas Day.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

Craft: Laborer - Asbestos & Hazardous Waste Removal

PREVAILING WAGE RATE

	12/17/14
Foreman	W38.00 B16.20 T54.20
Journeyman (Handler)	W36.00 B16.20 T52.20

Expiration Date: 11/30/2015

Craft: Laborer - Asbestos & Hazardous Waste Removal

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
Yearly	27.96	28.66	29.72	31.84						
Benefits	16.15	for	all	intervals						

Ratio of Apprentices to Journeymen - *

* Ratio of apprentices to journeymen shall not be more than one apprentice for the first journeyman and no more than (1) apprentice for each additional three (3) journeymen.

Craft: Laborer - Asbestos & Hazardous Waste Removal

COMMENTS/NOTES

NOTE: These rates apply to work in connection with Asbestos, Radiation, Hazardous Waste, Lead, Chemical, Biological, Mold Remediation and Abatement.

The regular workday shall be 8 hours between 6:00 AM and 6:00 PM.

OVERTIME:

- Hours in excess of 8 per day, Monday through Saturday, and all hours on Sunday and holidays shall be paid at time and one-half the regular rate.
- When the owner (Public Body) mandates that work is to be performed on Sunday, those hours may be worked at straight time, up to 8 hours per day, up to 40 hours per week.
- Benefits on ALL overtime hours shall be paid at straight time.

RECOGNIZED HOLIDAYS: New Year's Day, President's Day, Good Friday, Easter, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

Craft: Laborer - Building

PREVAILING WAGE RATE

	05/04/15
Class A Journeyman	W30.65 B25.22 T55.87
Class B Journeyman	W30.15 B25.22 T55.37
Class C Journeyman	W25.63 B25.22 T50.85
Foreman	W34.48 B25.22 T59.70
General Foreman	W38.31 B25.22 T63.53

Expiration Date: 04/30/2016

Craft: Laborer - Building

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
	60%	70%	80%	90%						
6 Months										
Benefit	21.97	21.97	21.97	21.97						

Ratio of Apprentices to Journeymen - *

* Ratio of apprentices to journeymen shall not be more than one apprentice for the first journeyman and no more than (1) apprentice for each additional three (3) journeymen.

Craft: Laborer - Building

COMMENTS/NOTES

CLASS A: Specialist laborer including mason tender or concrete pour crew; scaffold builder (scaffolds up to 14 feet in height); operator of forklifts, Bobcats (or equivalent machinery), jack hammers, tampers, motorized tampers and compactors, vibrators, street cleaning machines, hydro demolition equipment, riding motor buggies, conveyors, burners; and nozzlemen on gunite work.

CLASS B: Basic laborer - includes all laborer work not listed in Class A or Class C.

CLASS C: Janitorial-type light clean-up work associated with the TURNOVER of a project, or part of a project, to the owner. All other clean-up work is Class B.

The regular workday shall be 8 hours between 6:00 AM and 6:00 PM.

SHIFT DIFFERENTIALS:

- Shift work must run for a minimum of 5 consecutive workdays.

- When a 2-shift schedule is worked, including a day shift, both shifts shall be established on the basis of 8 hours pay for 8 hours worked. The second shift shall receive the regular rate plus an additional 10%.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

- When a 3-shift schedule is worked, the day shift shall be established on the basis of 8 hours pay for 8 hours worked, the second shift shall be established on the basis of 8 hours pay for 7.5 hours worked, and the third shift shall be established on the basis of 8 hours pay for 7 hours worked. The day shift shall receive the regular rate, the second shift shall receive the regular rate plus an additional 10%, and the third shift shall receive the regular rate plus an additional 15%.
- When a second or third shift is worked with no day shift, the second or third shift shall be established on the basis of 8 hours pay for 8 hours worked. The second shift shall receive the regular rate plus an additional 10%, and the third shift shall receive the regular rate plus an additional 15%.

OVERTIME:

- Hours in excess of 8 per day, or outside the regular workday that are not shift work, Monday through Friday, and all hours on Saturdays shall be paid at time and one-half the regular rate. Saturday may be used as a make-up day (paid at straight time) for a day lost to inclement weather, or for a holiday that is observed during the work week, Monday through Friday. All hours on Sundays and holidays shall be paid at double the regular rate.
- Four 10-hour days may be worked Monday to Thursday, at straight time, with Friday used a make-up day for a day lost to inclement weather. If Friday is not a make-up day, all hours on Friday shall be paid at time and one-half the regular rate.
- Benefits on ALL overtime hours shall be paid at time and one-half.

RECOGNIZED HOLIDAYS: New Year's Day, Washington's Birthday, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays observed the following Monday.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

Craft: Laborer - Heavy & General

PREVAILING WAGE RATE

Rates are located in the
"Statewide" rate package

Expiration Date:

Craft: Laborer - Heavy & General

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
1000 Hours	60%	70%	80%	90%						
Benefit	18.03	for	all	intervals						

Ratio of Apprentices to Journeymen - *

* No more than 1 apprentice for the first journeyman and no more than 1 apprentice for each additional 3 journeymen.

Craft: Laborer - Heavy & General

COMMENTS/NOTES

Heavy & General Laborer rates are located in the "Statewide" rate package.

With respect to the APPRENTICE RATE SCHEDULE, the following shall apply:

- On 9-1-15- benefits shall be \$18.03.
- On 3-1-16- benefits shall be \$18.78.
- On 9-1-16- benefits shall be \$18.78.
- On 3-1-17- benefits shall be \$19.53.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

Craft: Millwright

PREVAILING WAGE RATE

	05/01/15
Foreman	W51.72 B29.52 T81.24
Journeyman	W44.97 B25.74 T70.71

Expiration Date: 10/31/2015

Craft: Millwright

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
	40%	45%	50%	55%	60%	65%	70%	75%	85%	95%
6 Months										
Benefits	56% of	Appren	tice	Wage	Rate	for all	intervals	+.55		

Ratio of Apprentices to Journeymen - 1:4

Craft: Millwright

COMMENTS/NOTES

FOREMAN REQUIREMENTS:

- When there are 2 or more Millwrights on a job, 1 shall be designated as a Foreman.
- When there are 21 or more Millwrights on a job, 2 shall be designated as Foremen.

The regular workday shall consist of 8 hours, starting between 7:00 AM and 9:00 AM.

SHIFT DIFFERENTIALS:

- When a 2 shift schedule (including a day shift) is established, the day shift shall be established on an 8 hour basis. The second shift shall be established on an 8 hour basis, and receive the regular rate plus 15%, inclusive of benefits.
- When a three shift schedule is established, the first shift shall be established on an 8 hour basis, the second shift on a 7.5 hour basis, and the third shift on a 7 hour basis. The first shift shall receive the regular hourly rate, the second shift shall receive the regular rate plus 15% and the third shift shall receive the regular rate plus 20%, inclusive of benefits.
- When there is no day shift, and a second or third shift is established, it shall be established on an 8 hour basis. The second shift shall receive the regular rate plus 15% and the third shift shall receive the regular rate plus 20%, inclusive of benefits.

OVERTIME:

- All hours in excess of 8 per day, or before or after an established shift that are not shift work, and all hours on Saturdays shall be paid at time and one-half the hourly rate, inclusive of benefits. All hours on Sundays and holidays shall be paid at double the hourly rate, inclusive of benefits.
- Four 10-hour days may be worked, Monday to Thursday, at straight time. Friday may be used as a make-up day for a day lost due to inclement weather. If Friday is not a make-up day, all hours on Friday shall be paid at time and one-half the hourly rate, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays will be observed the following Monday.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

Craft: Operating Engineer

PREVAILING WAGE RATE

Rates are located in the
"Statewide" rate package

Expiration Date:

Craft: Operating Engineer

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
Yearly	60%	70%	80%	90%						

Ratio of Apprentices to Journeymen - *

* 1 apprentice for each piece of heavy equipment. At least 10 pieces of heavy equipment or a minimum of 5 Operating Engineers must be on site.

Craft: Operating Engineer

COMMENTS/NOTES

Operating Engineer rates are located in the "Statewide" rate package.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

Craft: Operating Engineer - Field Engineer

PREVAILING WAGE RATE

Rates are located in the
"Statewide" rate package

Expiration Date:

Craft: Operating Engineer - Field Engineer

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
Yearly	70%	75%	of Rod/	Chainman	Wage					
Yearly			80%	90%	Transit/	Instrument	man	Wage		

Ratio of Apprentices to Journeymen - *

* No more than 1 Field Engineer Apprentice per Survey Crew.

Craft: Operating Engineer - Field Engineer

COMMENTS/NOTES

Operating Engineer - Field Engineer rates are located in the "Statewide" rate package.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

Craft: Painter - Bridges

PREVAILING WAGE RATE

	05/22/15	05/01/16	05/01/17
Foreman	W56.38 B25.67 T82.05	W58.63 B25.67 T84.30	W61.13 B25.67 T86.80
General Foreman	W58.38 B25.67 T84.05	W60.63 B25.67 T86.30	W63.13 B25.67 T88.80
Journeyman	W51.38 B25.67 T77.05	W53.63 B25.67 T79.30	W56.13 B25.67 T81.80

Expiration Date: 01/31/2019

Craft: Painter - Bridges

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
	40%	50%			60%	70%		80%	90%	
6 Months										
Benefits	Intervals	1 to 2 =	8.88	Intervals	3 to 4 =	10.81	Intervals	5 to 6 =	13.48	

Ratio of Apprentices to Journeymen - 1:4

Craft: Painter - Bridges

COMMENTS/NOTES

These rates apply to: All bridges that span waterways, roadways, railways and canyons. All tunnels, overpasses, viaducts and all appurtenances.

FOREMEN REQUIREMENTS:

- When there are 4 or more Painters on a job, 1 shall be designated a Foreman.
- When there are 15 or more Painters on a job, 1 shall be designated a General Foreman.

The regular workday shall consist of 8 hours between 7:00 AM and 5:30 PM.

SHIFT DIFFERENTIALS:

- The second shift shall receive an additional 10% of the hourly rate, per hour, and the third shift shall receive an additional 15% of the hourly rate, per hour.

OVERTIME:

- Hours in excess of 8 per day, Monday through Friday, and all hours on Saturdays and Sundays shall be paid at time and one-half the regular rate. All hours on holidays shall be paid at double the regular rate.
- Saturday or Sunday may be used to make up a day lost to inclement weather, at straight time.
- Four 10-hour days may be worked, at straight time, Monday through Friday.

RECOGNIZED HOLIDAYS: New Year's Day, President's Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Saturday holiday observed the preceding Friday. Sunday holiday observed the following Monday.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

Craft: Painter - Line Striping

PREVAILING WAGE RATE

	07/09/15
Foreman (Charge Person)	W34.80 B15.28 T50.08
Helper (1st Year)	W27.33 B14.97 T42.30
Helper (2nd Year)	W28.38 B15.05 T43.43
Helper (3rd Year)	W30.53 B15.11 T45.64
Journeyman	W34.30 B15.28 T49.58

Expiration Date: 11/30/2015

Craft: Painter - Line Striping

COMMENTS/NOTES

OVERTIME:

Hours in excess of 8 per day, Monday through Saturday, and all hours on Sundays and holidays shall be paid at time and one-half the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Veterans Day, Thanksgiving Day and Christmas Day. Veterans Day may be substituted for the day after Thanksgiving.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

Craft: Painter - New Construction

PREVAILING WAGE RATE

	06/30/15	05/01/16	05/01/17
Foreman	W41.54 B22.35 T63.89	W42.91 B22.35 T65.26	W44.39 B22.35 T66.74
General Foreman	W45.31 B22.81 T68.12	W46.81 B22.81 T69.62	W48.43 B22.81 T71.24
Journeyman	W37.76 B21.90 T59.66	W39.01 B21.90 T60.91	W40.36 B21.90 T62.26

Expiration Date: 04/30/2018

Craft: Painter - New Construction

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
	30%	40%	50%	60%	70%	75%	80%	85%	90%	
4 Months										
Benefits	Intervals	1 to 3 =	8.00	Intervals	4 to 6 =	10.00	Intervals	7 to 9 =	11.00	

Ratio of Apprentices to Journeymen - 1:4

Craft: Painter - New Construction

COMMENTS/NOTES

APPRENTICE RATE SCHEDULE FOR THOSE APPRENTICES ENTERING PROGRAM ON 5-1-14:

INTERVAL	PERIOD AND RATES							
6 Months	40%	45%	55%	65%	70%	75%	80%	90%
Benefits	8.00	8.00	10.00	10.00	11.00	11.00	14.00	14.00

Spraying, sandblasting, lead abatement, work on tanks or stacks, work performed above 3 stories or 30 feet in height, or using swing scaffolds requires an additional 10% of the wage rate.

FOREMEN REQUIREMENTS:

- When there are 4 or more Painters on a job, 1 shall be designated a Foreman.
- When there are 15 or more Painters on a job, 1 shall be designated a General Foreman.

The regular workday shall consist of 8 hours between 7:00 AM and 5:30 PM.

SHIFT DIFFERENTIALS:

- The second shift shall receive an additional 10% of the hourly rate, per hour, and the third shift shall receive an additional 15% of the hourly rate, per hour.

OVERTIME:

- Hours in excess of 8 per day, or before or after the regular workday, Monday through Friday, and all hours on Saturdays shall be paid at time and one-half the regular rate. All hours on Sundays and holidays shall be paid at double the regular

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

rate.

- Saturday or Sunday may be used to make up a day lost to inclement weather, at straight time.
- Four 10-hour days may be worked, at straight time, Monday through Friday.

RECOGNIZED HOLIDAYS: New Year's Day, President's Day, Memorial Day, July 4th, Labor Day, General Election Day, Veterans' Day, Thanksgiving Day, Christmas Day.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

Craft: Painter- Containment

PREVAILING WAGE RATE

	05/22/15	05/01/16	05/01/17
Journeyman	W32.93 B22.92 T55.85	W35.18 B22.92 T58.10	W37.68 B22.92 T60.60

Expiration Date: 01/31/2019

Craft: Painter- Containment

COMMENTS/NOTES

NOTE: These rates shall require no painting, but used in a supporting capacity only, such as wrapping, boxing, fencing, etc. on tanks.

The regular workday shall consist of 8 hours between 7:00 AM and 5:30 PM.

SHIFT DIFFERENTIALS:

- The second shift shall receive an additional 10% of the hourly rate, per hour, and the third shift shall receive an additional 15% of the hourly rate, per hour.

OVERTIME:

- Hours in excess of 8 per day, Monday through Friday, and all hours on Saturdays and Sundays shall be paid at time and one-half the regular rate. All hours on holidays shall be paid at double the regular rate..

RECOGNIZED HOLIDAYS: New Year's Day President's Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Saturday holiday observed the preceding Friday. Sunday holiday observed the following Monday.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

Craft: Painter-Elevated Water Tanks

PREVAILING WAGE RATE

	05/22/15	05/01/16	05/01/17
Foreman	W46.17 B22.92 T69.09	W48.42 B22.92 T71.34	W50.92 B22.92 T73.84
General Foreman	W48.17 B22.92 T71.09	W50.42 B22.92 T73.34	W52.92 B22.92 T75.84
Journeyman	W41.17 B22.92 T64.09	W43.42 B22.92 T66.34	W45.92 B22.92 T68.84

Expiration Date: 01/31/2019

Craft: Painter-Elevated Water Tanks

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
	SEE	PAINTER	BRIDGES							

Craft: Painter-Elevated Water Tanks

COMMENTS/NOTES

These rates apply to: All new and repaint elevated water tanks (interior and exterior).

FOREMEN REQUIREMENTS:

- When there are 4 or more Painters on a job, 1 shall be designated a Foreman.
- When there are 15 or more Painters on a job, 1 shall be designated a General Foreman.

The regular workday shall consist of 8 hours between 7:00 AM and 5:30 PM.

SHIFT DIFFERENTIALS:

- The second shift shall receive an additional 10% of the hourly rate, per hour, and the third shift shall receive an additional 15% of the hourly rate, per hour.

OVERTIME:

- Hours in excess of 8 per day, Monday through Friday, and all hours on Saturdays and Sundays shall be paid at time and one-half the regular rate. All hours on holidays shall be paid at double the regular rate.
- Saturday or Sunday may be used to make up a day lost to inclement weather, at straight time.
- Four 10-hour days may be worked, at straight time, Monday through Friday.

RECOGNIZED HOLIDAYS: New Year's Day, President's Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Saturday holiday observed the preceding Friday. Sunday holiday observed the following Monday.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

Craft: Painter-Structural Steel

PREVAILING WAGE RATE

	05/22/15	05/01/16	05/01/17
Foreman	W45.12 B23.26 T68.38	W47.37 B23.26 T70.63	W49.87 B23.26 T73.13
General Foreman	W47.12 B23.26 T70.38	W49.37 B23.26 T72.63	W51.87 B23.26 T75.13
Journeyman	W40.12 B23.26 T63.38	W42.37 B23.26 T65.63	W44.87 B23.26 T68.13

Expiration Date: 01/31/2019

Craft: Painter-Structural Steel

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
	SEE	PAINTER	BRIDGES							

Craft: Painter-Structural Steel

COMMENTS/NOTES

These rates apply to: All work in power plants (any aspect). On steeples, on dams, on hangers, transformers, substations, etc. and on open steel, whether new or repaint. All new work (excluding traditional commercial painting work) in refineries, tank farms, water/sewerage treatment facilities and on pipelines.

FOREMEN REQUIREMENTS:

- When there are 4 or more Painters on a job, 1 shall be designated a Foreman.
- When there are 15 or more Painters on a job, 1 shall be designated a General Foreman.

The regular workday shall consist of 8 hours between 7:00 AM and 5:30 PM.

SHIFT DIFFERENTIALS:

- The second shift shall receive an additional 10% of the hourly rate, per hour, and the third shift shall receive an additional 15% of the hourly rate, per hour.

OVERTIME:

- Hours in excess of 8 per day, Monday through Friday, and all hours on Saturdays and Sundays shall be paid at time and one-half the regular rate. All hours on holidays shall be paid at double the regular rate.
- Saturday or Sunday may be used to make up a day lost to inclement weather, at straight time.
- Four 10-hour days may be worked, at straight time, Monday through Friday.

RECOGNIZED HOLIDAYS: New Year's Day, President's Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Saturday holiday observed the preceding Friday. Sunday holiday observed the following Monday.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

Craft: Paperhanger - New Construction

PREVAILING WAGE RATE

	06/30/15	05/01/16	05/01/17
Foreman	W42.51 B21.44 T63.95	W43.83 B21.44 T65.27	W45.32 B21.44 T66.76
Journeyman	W38.65 B22.01 T60.66	W39.85 B22.01 T61.86	W41.20 B22.01 T63.21

Expiration Date: 04/30/2018

Craft: Paperhanger - New Construction

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
	30%	40%	50%	60%	70%	75%	80%	85%	90%	
4 Months										
Benefits	Intervals	1 to 3 =	8.00	Intervals	4 to 6 =	10.00	Intervals	7 to 9 =	11.00	

Ratio of Apprentices to Journeymen - 1:4

Craft: Paperhanger - New Construction

COMMENTS/NOTES

APPRENTICE RATE SCHEDULE FOR THOSE APPRENTICES ENTERING PROGRAM ON 5-1-14:

INTERVAL	PERIOD AND RATES							
6 Months	40%	45%	55%	65%	70%	75%	80%	90%
Benefits	8.00	8.00	10.00	10.00	11.00	11.00	14.00	14.00

FOREMEN REQUIREMENTS:

- When there are 4 or more Paperhangers on a job, 1 shall be designated a Foreman.

The regular workday shall consist of 8 hours between 7:00 AM and 5:30 PM.

SHIFT DIFFERENTIALS:

- The second shift shall receive an additional 10% of the hourly rate, per hour, and the third shift shall receive an additional 15% of the hourly rate, per hour.

OVERTIME:

- Hours in excess of 8 per day, Monday through Friday, and all hours on Saturdays shall be paid at time and one-half the regular rate. All hours on Sundays and holidays shall be paid at double the regular rate.
- Saturday or Sunday may be used to make up a day lost to inclement weather, at straight time.
- Four 10-hour days may be worked, at straight time, Monday through Friday.

RECOGNIZED HOLIDAYS: New Year's Day, President's Day, Memorial Day, July 4th, Labor Day, General Election Day, Veterans' Day, Thanksgiving Day, Christmas Day.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

Craft: Paperhanger - Renovation

PREVAILING WAGE RATE

	06/30/15	05/01/16	05/01/17
Foreman	W32.21 B18.53 T50.74	W33.58 B18.53 T52.11	W35.06 B18.53 T53.59
Journeyman	W29.28 B18.53 T47.81	W30.53 B18.53 T49.06	W31.88 B18.53 T50.41

Expiration Date: 04/30/2018

Craft: Paperhanger - Renovation

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
	SEE	PAPER-	HANGER	NEW	CONSTR	TION				
					UC					

Ratio of Apprentices to Journeymen - 1:4

Craft: Paperhanger - Renovation

COMMENTS/NOTES

NOTE: These rates may only be used on jobs where no major alterations occur, and where not more than 3 other trades are present on the job, but may NOT, under any circumstances, be used for work on bridges, stacks, elevated tanks, or generating stations.

FOREMEN REQUIREMENTS:

- When there are 4 or more Paperhangers on a job, 1 shall be designated a Foreman.

OVERTIME:

- Hours in excess of 8 per day and 40 per week shall be paid at time and one-half the regular rate.
- Four 10-hour days may be worked, at straight time, Monday through Sunday.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

Craft: Pipefitter PREVAILING WAGE RATE

	05/01/15
Foreman	W50.42 B38.67 T89.09
Journeyman	W46.67 B35.80 T82.47

Expiration Date: 04/30/2016

Craft: Pipefitter APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
Yearly	35%	45%	55%	65%	75%					
Benefit	76.5% of	Appren	tice	Wage	Rate + .10	cents				

Ratio of Apprentices to Journeymen - 1:5

Craft: Pipefitter COMMENTS/NOTES

FOREMAN REQUIREMENTS:

- When there are 2 or more Journeyman Pipefitters on a job, 1 shall be designated a Foreman.
- There shall be a Foreman for every 8 Journeyman Pipefitters on a job.

The regular workday shall be 8 hours between 7:00 AM and 3:30 PM.

SHIFT DIFFERENTIAL:

- 2nd Shift (3:30 PM-11:30 PM) shall work 7.5 hours and receive 8 hours pay at the regular rate, plus 25% per hour.
- 3rd Shift (11:30 PM-7:00 AM) shall work 7 hours and receive 8 hours pay at the regular rate, plus 30% per hour.

OVERTIME:

- All hours worked in excess of 8 per day, Monday through Friday, and all hours worked on Saturday, shall be paid at time and one-half, inclusive of benefits. All hours on Sunday and holidays shall be paid at double time, inclusive of benefits.
- By mutual agreement, employees may work four 10-hour days, Monday to Thursday, at straight time rate. Friday may be used as a make-up day for a day lost to inclement weather, and may be paid at straight time. If Friday is not a make-up day, the first 8 hours shall be paid at time and one-half, inclusive of benefits; hours in excess of 8 shall be paid at double time, inclusive of benefits.

SHIFT DIFFERENTIAL (Maintenance Work Only):

- 2nd Shift (3:30 PM-11:30 PM) shall work 7.5 hours and receive 8 hours pay at the regular rate, plus 10% per hour.
- 3rd Shift (11:30 PM-7:00 AM) shall work 7 hours and receive 8 hours pay at the regular rate, plus 15% per hour.

OVERTIME (Maintenance Work Only):

- All hours in excess of 8 per day, Monday through Saturday, shall be paid at time and one-half, inclusive of benefits. All hours on Sundays and holidays shall be paid at double time, inclusive of benefits.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

NOTE: Maintenance work is work to repair, restore, or improve the efficiency of existing facilities. This does NOT apply to ANY new construction.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays are observed the following Monday.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

Craft: Plasterer

PREVAILING WAGE RATE

See Bricklayer, Stone Mason Rates

Expiration Date:

Craft: Plasterer

COMMENTS/NOTES

See BRICKLAYER, STONE MASON Rates

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

Craft: Plumber PREVAILING WAGE RATE

	05/01/15
Foreman	W54.39 B31.94 T86.33
General Foreman	W57.91 B31.94 T89.85
Journeyman	W50.36 B31.94 T82.30

Expiration Date: 04/30/2016

Craft: Plumber APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
Yearly	30%	45%	55%	65%	75%					
Benefits	12.24	18.04	19.65	21.28	22.89					

Ratio of Apprentices to Journeymen - *

* Employers may employ 1 apprentice on any job where 1 or 2 journeymen are employed. Thereafter, 1 apprentice may be employed for every 4 journeymen.

Craft: Plumber COMMENTS/NOTES

FOREMAN REQUIREMENTS:

- On any job having 2 or more Plumbers, 1 must be designated a Foreman.
- On any job having 9 or more Plumbers, 2 shall be designated as Foremen.

The regular workday shall consist of 8 hours between 7:00 AM and 4:30 PM.

SHIFT DIFFERENTIALS:

- Shift work must continue for a minimum of 5 consecutive workdays.
- When two shifts are worked, the second shift shall work 7.5 hours and receive 8 hours pay, at a rate equal to the hourly rate plus 10%, inclusive of benefits.
- When a third shift is worked, the third shift shall work 7 hours and receive 8 hours pay, at a rate equal to the hourly rate plus 15%, inclusive of benefits.

OVERTIME:

- All hours in excess of 8 per day, or before of after the regular workday that are not shift work, Monday through Friday, and all hours on Saturday, shall be paid at time and one-half the regular rate, inclusive of benefits. All hours on Sunday and holidays, shall be paid at double the hourly rate, inclusive of benefits.
- Four 10-hour days may be worked, Monday to Thursday, at straight time. Friday may be used as a make-up day for a day lost due to inclement weather. If Friday is not a make-up day, all hours on Friday shall be paid at time and one-half, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays will be observed the following Monday.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

Craft: Roofer PREVAILING WAGE RATE

	06/02/15
Foreman	W36.27 B24.04 T60.31
Journeyman	W35.27 B24.04 T59.31

Expiration Date: 05/31/2016

Craft: Roofer APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
	40%	50%	60%	70%	80%	90%				
6 Months										
Benefits	1.85	1.85	21.25	21.25	21.25	21.25				

Ratio of Apprentices to Journeymen - *

- * A) For roofing jobs that are of the 1 or single ply nature: 1:2 or fraction thereof
- B) For roofing jobs on new built up roofs: 1:3 or fraction thereof
- C) For roofing jobs that are of a tear-off nature: 1:2 or fraction thereof
- D) For roofing jobs {not requiring complete removal of existing systems, installation done over existing roof}: 1:3 or fraction thereof

Craft: Roofer COMMENTS/NOTES

Pitch: +.50 per hour

Mop Man: +.30 per hour

The regular workday consists of 8 hours between 8:00 AM and 4:30 PM.

OVERTIME:

Hours in excess of 8 per day, or before or after the regular workday, Monday through Friday, and all hours on Saturdays, Sundays, and holidays shall be paid at time and one-half the regular rate.

RECOGNIZED HOLIDAYS: New Year's Day, Good Friday, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

Craft: Sheet Metal Sign Installation

PREVAILING WAGE RATE

	04/07/15
Foreman	W32.89 B28.07 T60.96
Journeyman	W31.64 B28.07 T59.71

Expiration Date: 09/30/2015

Craft: Sheet Metal Sign Installation

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
	35%	40%	45%	50%	55%	60%	65%	70%	75%	80%
1000 hours										
Benefits	10.34	11.53	12.73	13.92	15.51	16.73	17.97	19.20	20.44	21.66

Ratio of Apprentices to Journeymen - 1:3

Craft: Sheet Metal Sign Installation

COMMENTS/NOTES

FOREMAN REQUIREMENT:

When there are 6 or more Sheet Metal Sign Installers on a job, 1 shall be designated a Foreman.

The regular workday consists of 8 hours, between 7:00 AM and 3:30 PM.

OVERTIME:

Hours before or after the regular workday, Monday through Friday, and all hours worked on Saturday shall be paid at time and one-half the hourly rate. All hours on Sunday and holidays shall be paid at double the hourly rate.

Four(4) 10 hour days may be worked, Monday through Friday, at straight time, for projects lasting at least one week in duration. The fifth day may be used as a make-up day at straight time for a day lost due to inclement weather. However, if the fifth day is not a make-up day, all hours worked will be paid at time and one-half the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Good Friday, Memorial Day, July 4th, Labor Day, Veterans' Day, Thanksgiving Day and the day after, Christmas Day. Saturday holidays observed the preceding Friday, Sunday holidays observed the following Monday.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

Craft: Sheet Metal Worker

PREVAILING WAGE RATE

	07/23/15
Foreman	W49.22 B37.00 T86.22
General Foreman	W50.22 B37.00 T87.22
Journeyman	W45.72 B37.00 T82.72

Expiration Date: 05/31/2016

Craft: Sheet Metal Worker

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
Yearly	35%	45%	55%	65%	of	Journey	man	Wage	Rate	
Benefit	35%	45%	55%	65%	of	Journey	man	Benefit	Rate	

Ratio of Apprentices to Journeymen - 1:4

Craft: Sheet Metal Worker

COMMENTS/NOTES

FOREMAN REQUIREMENTS:

- When there are 2 or more Sheet Metal Workers on a project, 1 must be designated a Foreman.
- When there are 17 or more Sheet Metal Workers on a project, 1 must be designated a General Foreman.
- When there is only 1 Sheet Metal Worker (1 Journeyman) on a project, he/she shall receive \$1.00 more than the regular Journeyman's rate.

The regular workday is 8 hours between 7:00 AM and 4:30 PM.

SHIFT DIFFERENTIAL:

- 2nd Shift (3:30 PM - 12:00 AM) : +17% of regular hourly rate
- Shift work must run for a minimum of 5 consecutive workdays.

OVERTIME:

- Hours in excess of 8 per day, or before or after the regular workday, that are not shift work, and the first 10 hours on Saturdays shall be paid at time and one-half of the regular rate, inclusive of benefits. Hours in excess of 10 per day on Saturday, and all hours on Sundays and holidays shall be at double the regular rate, inclusive of benefits.
- Four 10-hour days may be worked, Monday through Friday, at straight time, with hours in excess of 10 per day, and hours in excess of 40 per week paid at the overtime rates listed above.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Good Friday, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays will be observed the following Monday.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

Craft: Sprinkler Fitter

PREVAILING WAGE RATE

	07/01/15
Foreman	W62.13 B24.52 T86.65
General Foreman	W65.10 B24.52 T89.62
Journeyman	W58.13 B24.52 T82.65

Expiration Date: 12/31/2015

Craft: Sprinkler Fitter

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
1000 Hours	9.50	11.25	29.07	31.97	34.88	37.78	40.69	43.60	46.50	49.41
Benefits	10.12	10.12	20.27	20.27	20.27	20.27	Intervals	7 to 10	Jourymn	Ben.

APPRENTICE RATE SCHEDULE FOR THOSE APPRENTICES REGISTERED AS OF 7-1-13:

INTERVAL	PERIOD AND RATES									
1000 hours	14.53	17.44	23.25	26.16	31.97	34.88	40.69	43.60	49.41	52.32
Benefits	10.12	10.12	20.27	20.27	20.27	20.27	Intervals	7 to 10	receive	Journeyman Ben.

Craft: Sprinkler Fitter

COMMENTS/NOTES

The regular workday consists of 8 consecutive hours between 6:00 AM and 4:30 PM.

FOREMAN REQUIREMENTS:

- The first Sprinkler Fitter on the job must be designated a Foreman.
- On any job having 12 or more Sprinkler Fitters, one must be designated a General Foreman.

SHIFT DIFFERENTIALS:

- Shift work must run for a minimum of 2 consecutive workdays.
- 2nd and 3rd shift shall receive an additional 15% of the regular rate, per hour.
- Any "off hours" shift starting at 8:00 PM or later shall receive an additional 25% of the regular rate, per hour.

OVERTIME:

The first 2 hours in excess of 8 per day, after the regular workday that are not shift work, Monday through Friday, shall be paid at time and one-half the regular rate. Hours worked in excess of 10 per day, Monday through Friday, and all hours on Saturday, Sunday and holidays, shall be paid double the regular rate.

Four 10 hour days may be worked, Monday through Thursday, at straight-time.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Good Friday, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans Day, Thanksgiving Day, Christmas Day.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

Craft: Tile Setter - Marble

PREVAILING WAGE RATE

	07/01/15	01/01/16	07/01/16	01/01/17	07/01/17	01/01/18
Tile Setter	W56.53	W56.89	W57.32	W57.74	W58.18	W58.53
	B31.32	B32.21	B33.23	B34.26	B35.27	B36.37
	T87.85	T89.10	T90.55	T92.00	T93.45	T94.90

Expiration Date: 06/30/2018

Craft: Tile Setter - Marble

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
	50%	55%	65%	70%	75%	85%	90%	95%		
750 Hours										

Ratio of Apprentices to Journeymen - 1:4

Craft: Tile Setter - Marble

COMMENTS/NOTES

OVERTIME:

Hours in excess of 7 per day, Monday through Friday, and the first 7 hours on Saturdays shall be paid at time and one-half the regular rate, inclusive of benefits. Hours in excess of 7 on Saturdays, and all hours on Sundays and holidays shall be paid at double the regular rate, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Good Friday, Memorial Day, July 4th, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day and the day after, Christmas Day. Sunday holidays observed the following Monday.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

Craft: Tile Setter - Mosaic & Terrazzo

PREVAILING WAGE RATE

	08/27/15	01/01/16	07/01/16	01/01/17
Grinder or Assistant	W49.10	W0.00	W0.00	W0.00
	B32.45	B0.00	B0.00	B0.00
	T81.55	T82.70	T83.85	T85.00
Mechanic	W50.71	W0.00	W0.00	W0.00
	B32.46	B0.00	B0.00	B0.00
	T83.17	T84.32	T85.47	T86.62

Expiration Date: 06/30/2017

Craft: Tile Setter - Mosaic & Terrazzo

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
	50%	55%	65%	70%	75%	85%	90%	95%		
750 Hours										

Ratio of Apprentices to Journeymen - 1:5

Craft: Tile Setter - Mosaic & Terrazzo

COMMENTS/NOTES

The regular workday consists of 7 hours, between 8:00 AM and 3:30 PM.

OVERTIME:

- Hours in excess of 7 per day, or before or after the regular workday, Monday through Friday, and all hours on Saturdays shall be paid at time and one-half the hourly rate. All hours on Sundays and holidays shall be paid at double the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Good Friday, Monday after Easter, Memorial Day, July 4th, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day and the day after, Christmas Day. Sunday holidays observed the following Monday.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

Craft: Truck Driver

PREVAILING WAGE RATE

	09/10/15	11/01/15
Bucket, Utility, Pick-up, Fuel Delivery trucks	W35.60 B31.26 T66.86	W0.00 B0.00 T67.36
Dump truck, Asphalt Distributor, Tack Spreader	W35.60 B31.26 T66.86	W0.00 B0.00 T67.36
Euclid-type vehicles (large, off-road equipment)	W35.75 B31.26 T67.01	W0.00 B0.00 T67.51
Helper on Asphalt Distributor truck	W35.60 B31.26 T66.86	W0.00 B0.00 T67.36
Slurry Seal, Seeding/Fertilizing/ Mulching truck	W35.60 B31.26 T66.86	W0.00 B0.00 T67.36
Straight 3-axle truck	W35.65 B31.26 T66.91	W0.00 B0.00 T67.41
Tractor Trailer (all types)	W35.75 B31.26 T67.01	W0.00 B0.00 T67.51
Vacuum or Vac-All truck (entire unit)	W35.60 B31.26 T66.86	W0.00 B0.00 T67.36
Winch Trailer	W35.85 B31.26 T67.11	W0.00 B0.00 T67.61

Expiration Date: 04/30/2016

Craft: Truck Driver

COMMENTS/NOTES

BLENDED RATE:

When a truck driver is performing work on the site and also serving as a material delivery driver, the driver shall be paid a "blended rate" which shall be 80% of the above-listed wage rates, plus the full benefit rate. This rate shall be used when the driver "round robins" for a minimum of 6 hours during the work day.

HAZARDOUS WASTE REMOVAL:

- On hazardous waste removal work on a State designated hazardous waste site where the driver is in direct contact with hazardous materials and when personal protective equipment is required for respiratory, skin, and eye protection, the driver shall receive an additional \$3.00 per hour (with or without protective gear).
- A hazardous waste related certified worker at a designated hazardous waste site who is not working in a zone requiring level A, B or C personal protection shall receive an additional \$1.00 per hour.

TRUCK FOREMAN: \$.75 cents per hour above regular rate. Overtime shall be increased accordingly.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

The regular workday shall be 8 hours, starting between 6:00 AM and 8:00 AM.

SHIFT DIFFERENTIAL:

- Shifts starting at 4:00 PM (2nd Shift): + \$2.50 per hour.
- Shifts starting at 12:00 AM (midnight/3rd Shift): time and one-half the hourly rate.
- Shifts starting at a time other than from 6:00 AM to 8:00 AM, when such hours are mandated by the project owner: + \$2.50 per hour.

OVERTIME:

- Hours in excess of 8 per day, or before or after the regular workday, Monday through Friday, that are not shift work, and all hours on Saturdays shall be paid at time and one-half the hourly rate. All hours on Sundays and holidays shall be paid at double the hourly rate.
- Employees may work four 10-hour days at straight time, Monday through Thursday, with Friday used as a make-up day for a lost day. If Friday is not a make-up day, then all hours on Friday shall be paid at time and one-half the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day (Decoration Day), July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays will be observed the following Monday. The day after Thanksgiving may be substituted for Veterans' Day.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

Craft: Truck Driver-Material Delivery Driver

PREVAILING WAGE RATE

	05/01/12
Driver	W22.90 B10.17 T33.07

Expiration Date: 05/30/2016

Craft: Truck Driver-Material Delivery Driver

COMMENTS/NOTES

BLENDED RATE:

When a truck driver is performing work on the site and also serving as a material delivery driver, the driver shall be paid a "blended rate". See the "Truck Driver" craft for the blended rates.

Truck Foreman/Shop Steward: +\$0.25 per hour

SHIFT DIFFERENTIALS:

- 2nd Shift shall receive an additional \$0.50 per hour
- 3rd Shift shall receive time and one-half the hourly rate.

OVERTIME:

- Hours in excess of 8 per day, or before or after the regular workday that are not shift work, Monday through Friday, and all hours on Saturday shall be paid at time and one-half the hourly rate. All hours on Sundays shall be paid at two and one-half times the hourly rate. All hours on holidays shall be paid at double the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, President's Day, Memorial Day (Decoration Day), July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays will be observed the following Monday. The day after Thanksgiving may be substituted for Veterans' Day.

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

County - UNION

Craft: Welder PREVAILING WAGE RATE

Welder

Expiration Date:

Craft: Welder COMMENTS/NOTES

Welders rate is the same as the craft to which the welding is incidental .

STATEWIDE RATES

OPERATING ENGINEERS Rates Expiration Date : 06/30/2017

{For apprentice rates refer to "Operating Engineers" apprentice rates in any county rate package}

On all machines, including pile drivers with booms of 100 feet and over (including jib) the Operating Engineer shall receive the regular hourly rate plus: \$1.00 per hour on rigs with 100 foot Boom (including jib) up to 139 feet, and \$2.00 per hour on rigs with 140 foot Boom (including jib) and over. On all hoists where "Cat Head" or "Sheave Point" is 100 feet or more above ground level, the same differential pay shall apply as applicable to booms 100 feet and over.

The regular workday consists of 8 hours, Monday to Friday, between 6:00 AM and 4:30 PM.

SHIFT DIFFERENTIALS:

- Shift work must run for 5 consecutive workdays.
- When 2 shifts are worked, the second shift shall receive an additional 10% of the regular rate inclusive of benefits, per hour.
- When 3 shifts are worked, the second shift shall receive 8 hours pay for 7.5 hours of work, plus an additional 10% of the regular rate inclusive of benefits, per hour. The third shift shall receive 8 hours pay for 7 hours of work, plus an additional 15% of the regular rate inclusive of benefits, per hour.
- When such hours are mandated by the project owner, a shift that starts between 8:00 PM and midnight and ends by 6:00 AM Saturday, or that starts after 8:00 PM on Sunday, provided there are consecutive hours of work within the shift, shall receive an additional 15% of the regular rate, inclusive of benefits.
- On Highway, Road, Street, and Sewer projects irregular shifts starting between 5:00 PM and 12:00 AM may be worked Monday through Friday, and shall receive an additional 15% of the regular rate, inclusive of benefits. When working with other trades that receive a higher irregular shift rate, the Operating Engineer shall also receive the higher irregular shift rate.

OVERTIME:

- Hours in excess of 8 per day, or outside of the regular workday, Monday through Friday, that are not shift work, and all hours on Saturdays shall be paid at time and one-half the regular rate, inclusive of benefits. All hours on Sundays and holidays shall be paid at double the regular rate, inclusive of benefits.
- Four 10-hour days may be worked, Monday through Thursday, at straight time, with all hours on Friday paid at time and one-half the regular rate, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays observed the following Monday.

On hazardous waste removal work or asbestos removal work, on a state or federally designated hazardous waste site, where the operating engineer is in direct contact with hazardous material and when personal protective equipment is required for respiratory, skin, and eye protection, the operating engineer shall receive an additional 20% of the hourly wage, per hour.

OPERATING ENGINEERS **Rates Expiration Date : 06/30/2017**

Effective Dates:

	07/23/2015		01/01/2016	07/01/2016	01/01/2017
Rate	Fringe	Total	Total	Total	Total
45.48	29.48	74.96	76.11	77.11	78.26

CLASSIFICATIONS:

- A-Frame
- Backhoe (combination)
- Boom Attachment on loaders (Except pipehook)
- Boring & Drilling Machine
- Brush Chopper, Brush Shredder, Tree Shredder
- Bulldozer, finish grade
- Cableway
- Carryall
- Concrete Pump
- Concrete Pumping System (Pumpcrete & similar types)
- Conveyor, 125 feet or longer
- Drill Doctor (Duties include dust collector and maintenance)
- Front End Loader (2 cu. yds. but less than 5 cu. yds.)
- Grader, finish
- Groove Cutting Machine (ride-on type)
- Heater Planer
- Hoist (all types including steam, gas, diesel, electric, air hydraulic, single and double drum, concrete, brick shaft caisson, snorkle roof, and other similar types, Except Chicago-boom type)
- Hydraulic Crane (10 tons & under)
- Hydro-Axe
- Hydro-Blaster
- Jack (screw, air hydraulic, power-operated unit, or console type, Except hand jack or pile load test type)
- Log Skidder

OPERATING ENGINEERS **Rates Expiration Date : 06/30/2017**

Effective Dates:

07/23/2015			01/01/2016	07/01/2016	01/01/2017
Rate	Fringe	Total	Total	Total	Total
45.48	29.48	74.96	76.11	77.11	78.26

CLASSIFICATIONS:

- Pan
- Paver, concrete
- Plate & Frame Filter Press
- Pumpcrete (unit type)
- Pumpcrete, Squeezecrete, or Concrete Pumping machine (regardless of size)
- Scraper
- Side Boom
- Straddle Carrier (Ross and similar types)
- Vacuum Truck
- Whiphammer
- Winch Truck (hoisting)

OPERATING ENGINEERS **Rates Expiration Date : 06/30/2017**

Effective Dates:

	07/23/2015		01/01/2016	07/01/2016	01/01/2017
Rate	Fringe	Total	Total	Total	Total
43.57	29.48	73.05	74.60	75.20	76.35

CLASSIFICATIONS:

- Asphalt Curbing Machine
- Asphalt Plant Engineer
- Asphalt Spreader
- Autograde Curb Trimmer & Sidewalk Shoulder Slipform (CMI & similar types)
- Autograde Curecrete Machine (CMI & similar types)
- Autograde Tube Finisher & Texturing Machine (CMI & similar types)
- Bar Bending Machines (Power)
- Batcher, Batching Plant, & Crusher [On Site]
- Belt Conveyor System
- Boom-Type Skimmer Machine
- Bridge Deck Finisher
- Bulldozer (all sizes)
- Captain (Power Boats)
- Car Dumper (railroad)
- Compressor & Blower unit for loading/unloading of concrete, cement, fly ash, or similar type materials (used independently or truck-mounted)
- Compressor (2 or 3 battery)
- Concrete Breaking Machine
- Concrete Cleaning/Decontamination Machine
- Concrete Finishing Machine
- Concrete Saw or Cutter (ride-on type)
- Concrete Spreader (Hetzl, Rexomatic & similar types)
- Concrete Vibrator

OPERATING ENGINEERS **Rates Expiration Date : 06/30/2017**

Effective Dates:

	07/23/2015		01/01/2016	07/01/2016	01/01/2017
Rate	Fringe	Total	Total	Total	Total
43.57	29.48	73.05	74.60	75.20	76.35

CLASSIFICATIONS:

- Conveyors - under 125 feet
- Crane Signalman
- Crushing Machine
- Directional Boring Machine
- Ditching Machine - Small (Ditchwitch, Vermeer or similar types)
- Dope Pot - Mechanical (with or without pump)
- Dumpster
- Elevator
- Fireman
- Fork Lift (Economobile, Lull & similar types)
- Front End Loader (1 cu. yd. and over but less than 2 cu. yds.)
- Generator (2 or 3 battery)
- Giraffe Grinder
- Grader & Motor Patrols
- Grout Pump
- Gunnite Machine (Excluding nozzle)
- Hammer - Vibratory (in conjunction with generator)
- Heavy Equipment Robotics - Operator/Technician
- Hoist (roof, tugger, aerial platform hoist, house car)
- Hopper
- Hopper Doors (power operated)
- Ladder (motorized)
- Laddervator

OPERATING ENGINEERS **Rates Expiration Date : 06/30/2017**

Effective Dates:

07/23/2015			01/01/2016	07/01/2016	01/01/2017
Rate	Fringe	Total	Total	Total	Total
43.57	29.48	73.05	74.60	75.20	76.35

CLASSIFICATIONS:

Locomotive (Dinky-type)

Maintenance Utility Man

Master Environmental Maintenance Technician

Mechanic

Mixer (Except paving mixers)

Pavement Breaker (truck-mounted or small self-propelled ride-on type)

Pavement Breaker - maintenance of compressor or hydraulic unit

Pipe Bending Machine (power)

Pitch Pump

Plaster Pump (regardless of size)

Post Hole Digger (post pounder, auger)

Roller (black top)

Scale (power)

Seamen Pulverizing Mixer

Shoulder Widener

Silo

Skimmer Machine (boom type)

Steel Cutting Machine (service & maintenance)

Tamrock Drill

Tractor

Transfer Machines

Tug Captains

Tug Master (Power Boats)

OPERATING ENGINEERS **Rates Expiration Date : 06/30/2017**

Effective Dates:

07/23/2015			01/01/2016	07/01/2016	01/01/2017
Rate	Fringe	Total	Total	Total	Total
43.57	29.48	73.05	74.60	75.20	76.35

CLASSIFICATIONS:

Ultra High Pressure Waterjet Cutting Tool System -
Operator/Maintenance Technician

Vacuum Blasting Machine - Operator/Maintenance Technician

Vibrating Plant (used with unloading)

Welder & Repair Mechanic

Effective Dates:

07/23/2015			01/01/2016	07/01/2016	01/01/2017
Rate	Fringe	Total	Total	Total	Total
40.23	29.48	69.71	70.86	71.86	73.01

CLASSIFICATIONS:

Assistant Engineer/Oiler

Driller's Helper

Field Engineer - Transit man or Instrument man

Maintenance Apprentice (Deckhand)

Maintenance Apprentice (Oiler)

Mechanic's Helper

Off Road Back Dump

Effective Dates:

07/23/2015			01/01/2016	07/01/2016	01/01/2017
Rate	Fringe	Total	Total	Total	Total
37.65	29.48	67.13	68.28	69.28	70.43

CLASSIFICATIONS:

Field Engineer - Rodman or Chainman

TERRITORY
ENTIRE STATE

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION

OPERATING ENGINEERS Rates Expiration Date : 06/30/2017

Effective Dates:

07/23/2015			01/01/2016	07/01/2016	01/01/2017
Rate	Fringe	Total	Total	Total	Total
47.81	29.48	77.29	78.44	79.44	80.59

CLASSIFICATIONS:

Lead Engineer, Foreman Engineer, Safety Engineer (minimum)

OPERATING ENGINEERS **Rates Expiration Date : 06/30/2017**

Effective Dates:

07/23/2015			01/01/2016	07/01/2016	01/01/2017
Rate	Fringe	Total	Total	Total	Total
47.07	29.48	76.55	77.70	78.70	79.85

CLASSIFICATIONS:

- Autograde Pavement Profiler (CMI & similar types)
- Autograde Pavement Profiler - Recycle Type (CMI & similar types)
- Autograde Placer/Trimmer/Spreader Combination (CMI & similar types)
- Autograde Slipform Paver (CMI & similar types)
- Backhoe (Excavator)
- Central Power Plant
- Concrete Paving Machine
- Draglines
- Drill, Bauer, AMI and similar types
- Drillmaster, Quarrymaster
- Drillmaster/Quarrymaster (down-the-hole drill), rotary drill, self-propelled hydraulic drill, self-powered drill
- Elevator Grader
- Field Engineer-Chief of Party
- Front End Loader (5 cu. yards or larger)
- Gradall
- Grader, Rago
- Helicopter Co-Pilot
- Helicopter Communications Engineer
- Juntann Pile Driver
- Locomotive (large)
- Mucking Machine
- Pavement & Concrete Breaker (Superhammer & Hoe Ram)

OPERATING ENGINEERS **Rates Expiration Date : 06/30/2017**

Effective Dates:

	07/23/2015		01/01/2016	07/01/2016	01/01/2017
Rate	Fringe	Total	Total	Total	Total
47.07	29.48	76.55	77.70	78.70	79.85

CLASSIFICATIONS:

Pile Driver

Prentice Truck

Roadway Surface Grinder

Scooper (loader & shovel)

Shovel (Excavator)

Trackhoe (Excavator)

Tree Chopper with boom

Trenching Machine (cable plow)

Tunnel Boring Machine

OPERATING ENGINEERS **Rates Expiration Date : 06/30/2017**

Effective Dates:

	07/23/2015		01/01/2016	07/01/2016	01/01/2017
Rate	Fringe	Total	Total	Total	Total
41.94	29.48	71.42	72.57	73.57	74.72

CLASSIFICATIONS:

- Chipper
- Compressor (single)
- Concrete Spreader (small type)
- Conveyor Loader (Except elevator graders)
- Engines, Large Diesel (1620 HP) & Staging Pump
- Farm Tractor
- Fertilizing Equipment (operation & maintenance)
- Fine Grade Machine (small type)
- Form Line Grader (small type)
- Front End Loader (under 1 cubic yard)
- Generator (single)
- Grease, Gas, Fuel, & Oil Supply Trucks
- Heaters (Nelson or other type)
- Lights - portable generating light plant
- Mixer, Concrete (small)
- Mulching Equipment (operation & maintenance)
- Power Broom or Sweeper
- Pump (diesel engine & hydraulic - regardless of power)
- Pump (larger than 2 inch suction, including submersible pumps)
- Road Finishing Machine (small type)
- Roller - grade, fill, or stone base
- Seeding Equipment (operation & maintenance)
- Sprinkler & Water Pump Trucks

OPERATING ENGINEERS Rates Expiration Date : 06/30/2017

Effective Dates:

07/23/2015			01/01/2016	07/01/2016	01/01/2017
Rate	Fringe	Total	Total	Total	Total
41.94	29.48	71.42	72.57	73.57	74.72

CLASSIFICATIONS:

Steam Generator or Boiler

Stone Spreader

Tamping Machine (vibrating ride-on type)

Temporary Heating Plant (Nelson or other type, including propane, natural gas, and flow-type units)

Water or Sprinkler Truck

Welding Machine (gas, diesel, or electric convertor, of any type)

Welding System - Multiple (rectifier transformer type)

Wellpoint Systems (including installation by bull gang and maintenance)

Effective Dates:

07/23/2015			01/01/2016	07/01/2016	01/01/2017
Rate	Fringe	Total	Total	Total	Total
48.89	29.48	78.37	79.52	80.52	81.67

CLASSIFICATIONS:

Helicopter Pilot/Engineer

Effective Dates:

07/23/2015			01/01/2016	07/01/2016	01/01/2017
Rate	Fringe	Total	Total	Total	Total
50.32	29.48	79.80	80.95	81.95	83.10

CLASSIFICATIONS:

Cranes, Derricks, Pile Driver (all types), over 100 tons and TOWER CRANE with boom (including jib and/or leads) 140 ft. and over

Effective Dates:

07/23/2015			01/01/2016	07/01/2016	01/01/2017
Rate	Fringe	Total	Total	Total	Total
49.32	29.48	78.80	79.95	80.95	82.10

CLASSIFICATIONS:

Cranes, Derricks, Pile Driver (all types), over 100 tons and TOWER CRANE with boom (including jib and/or leads) from 100 ft. to 139 ft.

OPERATING ENGINEERS **Rates Expiration Date : 06/30/2017**

Effective Dates:

07/23/2015			01/01/2016	07/01/2016	01/01/2017
Rate	Fringe	Total	Total	Total	Total
49.07	29.48	78.55	79.70	80.70	81.85

CLASSIFICATIONS:

Cranes, Derricks, Pile Driver (all types) , under 100 tons with a boom (including jib and/or leads) 140 ft. and over

Effective Dates:

07/23/2015			01/01/2016	07/01/2016	01/01/2017
Rate	Fringe	Total	Total	Total	Total
48.32	29.48	77.80	78.95	79.95	81.10

CLASSIFICATIONS:

Cranes, Derricks, Pile Driver (all types), over 100 tons and TOWER CRANE with a boom (including jib and/or leads) under 100 ft.

Effective Dates:

07/23/2015			01/01/2016	07/01/2016	01/01/2017
Rate	Fringe	Total	Total	Total	Total
48.07	29.48	77.55	78.70	79.70	80.85

CLASSIFICATIONS:

Cranes, Derricks, Pile Driver (all types), under 100 tons with a boom (including jib and/or leads) from 100 ft. to 139 ft.

STRUCTURAL STEEL ERECTION Rates Expiration Date : 06/30/2017

{For apprentice rates refer to "Operating Engineers" apprentice rates in any county rate package}

The regular workday consists of 8 hours, Monday to Friday, between 6:00 AM and 4:30 PM.

SHIFT DIFFERENTIALS:

- Shift work must run for 5 consecutive workdays.
- When 2 shifts are worked, the second shift shall receive an additional 10% of the regular rate inclusive of benefits, per hour.
- When 3 shifts are worked, the second shift shall receive 8 hours pay for 7.5 hours of work, plus an additional 10% of the regular rate inclusive of benefits, per hour. The third shift shall receive 8 hours pay for 7 hours of work, plus an additional 15% of the regular rate inclusive of benefits, per hour.
- When such hours are mandated by the project owner, a shift that starts between 8:00 PM and midnight and ends by 6:00 AM Saturday, or that starts after 8:00 PM on Sunday, provided there are consecutive hours of work within the shift, shall receive an additional 15% of the regular rate, inclusive of benefits.
- On Highway, Road, Street, and Sewer projects irregular shifts starting between 5:00 PM and 12:00 AM may be worked Monday through Friday, and shall receive an additional 15% of the regular rate, inclusive of benefits. When working with other trades that receive a higher irregular shift rate, the Operating Engineer shall also receive the higher irregular shift rate.

OVERTIME:

- Hours in excess of 8 per day, or outside of the regular workday, Monday through Friday, that are not shift work, and all hours on Saturdays shall be paid at time and one-half the regular rate, inclusive of benefits. All hours on Sundays and holidays shall be paid at double the regular rate, inclusive of benefits.
- Four 10-hour days may be worked, Monday through Thursday, at straight time, with all hours on Friday paid at time and one-half the regular rate, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays observed the following Monday.

On hazardous waste removal work or asbestos removal work, on a state or federally designated hazardous waste site, where the operating engineer is in direct contact with hazardous material and when personal protective equipment is required for respiratory, skin, and eye protection, the operating engineer shall receive an additional 20% of the hourly wage, per hour.

Effective Dates:

	07/23/2015		01/01/2016	07/01/2016	01/01/2017
Rate	Fringe	Total	Total	Total	Total
50.70	29.48	80.18	81.33	82.33	83.48

CLASSIFICATIONS:

Helicopter Pilot or Engineer

STRUCTURAL STEEL ERECTION **Rates Expiration Date : 06/30/2017**

Effective Dates:

07/23/2015			01/01/2016	07/01/2016	01/01/2017
Rate	Fringe	Total	Total	Total	Total
46.64	29.48	76.12	77.27	78.27	79.42

CLASSIFICATIONS:

- A-Frame
- Cherry Picker -10 tons or less (Over 10 tons use crane rate)
- Hoist (all types Except Chicago-boom)
- Jack (screw, air hydraulic, power-operated unit or console type, Except hand jack or pile load test type)
- Side Boom
- Straddle Carrier

Effective Dates:

07/23/2015			01/01/2016	07/01/2016	01/01/2017
Rate	Fringe	Total	Total	Total	Total
43.98	29.48	73.46	74.61	75.61	76.76

CLASSIFICATIONS:

- Aerial Platform Used On Hoists
- Apprentice Engineer/Oiler with Compressor or Welding Machine
- Captain (Power Boats)
- Compressor (2 or 3 in battery)
- Conveyor or Tugger Hoist
- Elevator or House Car
- Fireman
- Forklift
- Generator (2 or 3)
- Maintenance Utility Man
- Tug Master (Power Boats)
- Welding Machines, Gas or Electric Converters on any type-2 or 3 in battery including diesels

STRUCTURAL STEEL ERECTION **Rates Expiration Date : 06/30/2017**

Effective Dates:

07/23/2015			01/01/2016	07/01/2016	01/01/2017
Rate	Fringe	Total	Total	Total	Total
42.45	29.48	71.93	73.08	74.08	75.23

CLASSIFICATIONS:

Compressor (Single)

Generators

Welding Machines, Gas, Diesel, Or Electric Converters of any type-single

Welding System, Multiple (Rectifier Transformer Type)

Effective Dates:

07/23/2015			01/01/2016	07/01/2016	01/01/2017
Rate	Fringe	Total	Total	Total	Total
40.69	29.48	70.17	71.32	72.32	73.47

CLASSIFICATIONS:

Assistant Engineer/Oiler

Drillers Helper

Field Engineer - Transit/Instrument Man

Maintenance Apprentice (Deckhand)

Maintenance Apprentice (Oiler)

Effective Dates:

07/23/2015			01/01/2016	07/01/2016	01/01/2017
Rate	Fringe	Total	Total	Total	Total
48.26	29.48	77.74	78.89	79.89	81.04

CLASSIFICATIONS:

Lead Engineer, Foreman Engineer, Safety Engineer (Minimum)

Effective Dates:

07/23/2015			01/01/2016	07/01/2016	01/01/2017
Rate	Fringe	Total	Total	Total	Total
37.65	29.48	67.13	68.28	69.28	70.43

CLASSIFICATIONS:

Field Engineer - Rodman or Chainman

STRUCTURAL STEEL ERECTION **Rates Expiration Date : 06/30/2017**

Effective Dates:

07/23/2015			01/01/2016	07/01/2016	01/01/2017
Rate	Fringe	Total	Total	Total	Total
47.40	29.48	76.88	78.03	79.03	80.18

CLASSIFICATIONS:

Field Engineer-Chief of Party

Effective Dates:

07/23/2015			01/01/2016	07/01/2016	01/01/2017
Rate	Fringe	Total	Total	Total	Total
53.34	29.48	82.82	83.97	84.97	86.12

CLASSIFICATIONS:

Cranes (all cranes, land or floating with booms, including jib, 140 ft. and over, above ground). Derricks (all derricks, land, floating or Chicago Boom type with booms including jib, 140 ft. and over, above ground), and Pile Drivers (all types) over 100 tons and Tower Cranes.

Effective Dates:

07/23/2015			01/01/2016	07/01/2016	01/01/2017
Rate	Fringe	Total	Total	Total	Total
51.68	29.48	81.16	82.31	83.31	84.46

CLASSIFICATIONS:

Cranes (all cranes, land or floating with booms including jib, less than 140 ft. above ground), Derricks (all derricks, land, floating or Chicago Boom type with booms including jib, less than 140 ft. above ground), Pile Drivers (all types), over 100 tons and Tower Crane.

Effective Dates:

07/23/2015			01/01/2016	07/01/2016	01/01/2017
Rate	Fringe	Total	Total	Total	Total
51.09	29.48	80.57	81.72	82.72	83.87

CLASSIFICATIONS:

Cranes (all cranes, land or floating with booms including jib, 140 ft. and over, above ground), Derricks (all derricks, land, floating or Chicago Boom type with booms including jib, 140 ft. and over, above ground), Pile Drivers (all types), under 100 tons.

Effective Dates:

07/23/2015			01/01/2016	07/01/2016	01/01/2017
Rate	Fringe	Total	Total	Total	Total
49.43	29.48	78.91	80.06	81.06	82.21

CLASSIFICATIONS:

Cranes (all cranes, land or floating with booms including jib, less than 140 ft. above ground), Derricks (all derricks, land, floating or Chicago Boom type with booms including jib, less than 140 ft. above ground), Pile Drivers (all types), under 100 tons.

TERRITORY
ENTIRE STATE

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION

STRUCTURAL STEEL ERECTION Rates Expiration Date : 06/30/2017

Effective Dates:

07/23/2015			01/01/2016	07/01/2016	01/01/2017
Rate	Fringe	Total	Total	Total	Total
51.09	29.48	80.57	81.72	82.72	83.87

CLASSIFICATIONS:

Helicopter Co-Pilot

Helicopter Communications Engineer

TEST BORING PRELIMINARY TO CONSTRUCTION-SOUTH/WEST Rates Expiration Date : 06/30/2017

THESE RATES APPLY IN THE FOLLOWING COUNTIES ONLY:

Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Hunterdon, Mercer, Monmouth, Ocean, Salem, Sussex, Warren

On all machines, including pile drivers with booms of 100 feet and over (including jib) the Operating Engineer shall receive the regular hourly rate plus: \$1.00 per hour on rigs with 100 foot Boom (including jib) up to 139 feet, and \$2.00 per hour on rigs with 140 foot Boom (including jib) and over. On all hoists where "Cat Head" or "Sheave Point" is 100 feet or more above ground level, the same differential pay shall apply as applicable to booms 100 feet and over.

The regular workday consists of 8 hours, Monday to Friday, between 6:00 AM and 4:30 PM.

SHIFT DIFFERENTIALS:

- Shift work must run for 5 consecutive workdays.
- When 2 shifts are worked, the second shift shall receive an additional 10% of the regular rate inclusive of benefits, per hour.
- When 3 shifts are worked, the second shift shall receive 8 hours pay for 7.5 hours of work, plus an additional 10% of the regular rate inclusive of benefits, per hour. The third shift shall receive 8 hours pay for 7 hours of work, plus an additional 15% of the regular rate inclusive of benefits, per hour.
- When such hours are mandated by the project owner, a shift that starts between 8:00 PM and midnight and ends by 6:00 AM Saturday, or that starts after 8:00 PM on Sunday, provided there are consecutive hours of work within the shift, shall receive an additional 15% of the regular rate, inclusive of benefits.
- On Highway, Road, Street, and Sewer projects irregular shifts starting between 5:00 PM and 12:00 AM may be worked Monday through Friday, and shall receive an additional 15% of the regular rate, inclusive of benefits. When working with other trades that receive a higher irregular shift rate, the Operating Engineer shall also receive the higher irregular shift rate.

OVERTIME:

- Hours in excess of 8 per day, or outside of the regular workday, Monday through Friday, that are not shift work, and all hours on Saturdays shall be paid at time and one-half the regular rate, inclusive of benefits. All hours on Sundays and holidays shall be paid at double the regular rate, inclusive of benefits.
- Four 10-hour days may be worked, Monday through Thursday, at straight time, with all hours on Friday paid at time and one-half the regular rate, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays observed the following Monday.

On hazardous waste removal work or asbestos removal work, on a state or federally designated hazardous waste site, where the operating engineer is in direct contact with hazardous material and when personal protective equipment is required for respiratory, skin, and eye protection, the operating engineer shall receive an additional 20% of the hourly wage, per hour.

Effective Dates:

	07/23/2015		01/01/2016	07/01/2016	01/01/2017
Rate	Fringe	Total	Total	Total	Total
47.07	29.48	76.55	77.70	78.70	79.85

CLASSIFICATIONS:

Driller

TERRITORY
ENTIRE STATE

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION

TEST BORING PRELIMINARY TO CONSTRUCTION-SOUTH/WEST Rates Expiration Date : 06/30/2017

Effective Dates:

07/23/2015			01/01/2016	07/01/2016	01/01/2017
Rate	Fringe	Total	Total	Total	Total
40.23	29.48	69.71	70.86	71.86	73.01

CLASSIFICATIONS:

Driller's Helper

FREE AIR TUNNEL JOBS **Rates Expiration Date : 08/31/2017**

{For apprentice rates refer to "Heavy & General" apprentice rates in any county rate package}

The regular workday consists of 8 hours, starting at 7:00 AM or 8:00 AM.

SHIFT DIFFERENTIALS:

- Shifts must start at 3:00 PM, 4:00 PM, 12:00 AM, or 1:00 AM, to be considered shift work, except when the project owner mandates special hours of work in the job specifications, in which case those hours may be considered shift work.
- When such hours are mandated by the project owner, a shift that begins before midnight on Friday and ends on Saturday morning, or that begins at or after 8:00 PM on Sunday and ends on Monday morning may be paid at the shift differential rate.
- Shifts shall receive an additional \$2.50 per hour.

OVERTIME:

- Hours in excess of 8 per day, Monday through Friday, or outside of the regular workday that are not shift work, and all hours on Saturdays, shall be paid at time and one-half the hourly rate. All hours on Sundays and holidays shall be paid at double the hourly rate.
- Four 10-hour days may be worked, Monday through Thursday, at straight time, with Friday used as a make-up day for a day lost to inclement weather. If Friday is not a make-up day, all hours on Friday shall be paid at time and one-half the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays observed the following Monday. Veterans Day may be substituted for the day after Thanksgiving. However, in the trading of Veterans Day for the day after Thanksgiving, if overtime is worked on Veterans Day, it shall be paid at double the hourly rate.

Hazardous Waste Work:

- where Level A, B, or C protection is required: + \$3.00/hr
- other Hazardous Waste site: + \$1.00/hr

Effective Dates:

	09/01/2015		03/01/2016	09/01/2016	03/01/2017
Rate	Fringe	Total	Total	Total	Total
39.00	26.53	65.53	67.03	68.13	70.53

CLASSIFICATIONS:

Walking Boss & Superintendent

Effective Dates:

	09/01/2015		03/01/2016	09/01/2016	03/01/2017
Rate	Fringe	Total	Total	Total	Total
38.70	26.53	65.23	66.73	67.83	70.23

CLASSIFICATIONS:

Heading Foreman, Shaft Foreman, Rod Foreman, Electrician Foreman, Rigging Foreman

FREE AIR TUNNEL JOBS **Rates Expiration Date : 08/31/2017**

Effective Dates:

	09/01/2015		03/01/2016	09/01/2016	03/01/2017
Rate	Fringe	Total	Total	Total	Total
38.20	26.53	64.73	66.23	67.33	69.73

CLASSIFICATIONS:

Iron Foreman, Caulking Foreman, Form Foreman, Cement Finishing Foreman, Concrete Foreman, Track Foreman, Cleanup Foreman, Grout Foreman

Effective Dates:

	09/01/2015		03/01/2016	09/01/2016	03/01/2017
Rate	Fringe	Total	Total	Total	Total
40.70	26.53	67.23	68.73	69.83	72.23

CLASSIFICATIONS:

Blaster

Effective Dates:

	09/01/2015		03/01/2016	09/01/2016	03/01/2017
Rate	Fringe	Total	Total	Total	Total
37.65	26.53	64.18	65.68	66.78	69.18

CLASSIFICATIONS:

Top Labor Foreman

Effective Dates:

	09/01/2015		03/01/2016	09/01/2016	03/01/2017
Rate	Fringe	Total	Total	Total	Total
37.30	26.53	63.83	65.33	66.43	68.83

CLASSIFICATIONS:

Skilled Men (including Caulker, Powder Carrier, all other skilled men)

Skilled Men (including Miner, Drill Runner, Iron Man, Conveyor Man, Manintenance Man, Safety Miner, Rigger, Block Layer, Cement Finisher, Tod Man)

Effective Dates:

	09/01/2015		03/01/2016	09/01/2016	03/01/2017
Rate	Fringe	Total	Total	Total	Total
37.15	26.53	63.68	65.18	66.28	68.68

CLASSIFICATIONS:

Semi-Skilled Men (including Bell or Signal Man Top or Bottom, Form Worker & Mover, Concrete Worker, Shaft Man, Tunnel Laborer, Caulker's Helper, all other semi-skilled)

Semi-Skilled Men (including Miner's Helper, Chuck Tender, Track Man, Nipper, Brake Man, Derail Man, Cable Man, Hose Man, Gravel Man, Form Man)

TERRITORY
ENTIRE STATE

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION

FREE AIR TUNNEL JOBS Rates Expiration Date : 08/31/2017

Effective Dates:

09/01/2015			03/01/2016	09/01/2016	03/01/2017
Rate	Fringe	Total	Total	Total	Total
36.65	26.53	63.18	64.68	65.78	68.18

CLASSIFICATIONS:

All Others (including Powder Watchman, Change House Attendant, Top Laborer)

DRILL FOR GROUND WATER SUPPLY **Rates Expiration Date : 06/30/2017**

The well driller and/or helper may perform all work relative to the construction, finishing, and servicing of wells, pumps and borings for ground water supply. The present methods of well drilling entailing as they do, many diverse job operations calling for drilling, pump discharge, piping, and the operation of various types of related power equipment, shall all be within the job duties and functions of the well driller and/or helper. In the event that an extension of work should occur beyond water well drilling functions, into the field of general construction work, such extension of work would come under the appropriate rates listed elsewhere in this wage determination.

- For Work Hours, Shift Differentials, Overtime Rates, and Recognized Holidays see the "Operating Engineers" section of this wage determination.

Effective Dates:

07/23/2015			01/01/2016	07/01/2016	01/01/2017
Rate	Fringe	Total	Total	Total	Total
45.82	29.48	75.30	76.45	77.45	78.60

CLASSIFICATIONS:

Driller

Effective Dates:

07/23/2015			01/01/2016	07/01/2016	01/01/2017
Rate	Fringe	Total	Total	Total	Total
38.98	29.48	68.46	89.61	70.61	71.76

CLASSIFICATIONS:

Driller's Helper

OPERATING ENGINEERS MARINE-DREDGING **Rates Expiration Date : 09/30/2015**

NOTE: Boat crews carrying explosive material (dynamite, pourfex, and other similar materials) shall be paid at 120% of the hourly wage rate for hours engaged in handling of said materials. Employees required to possess a Hazardous Material Certification as a condition of employment shall be compensated at 120% of the hourly wage rate.

OVERTIME:

Hours in excess of 40 per week, and all hours on Saturdays and Sundays, shall be paid at time and one-half the hourly rate. All hours on holidays shall be paid at double the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, Martin Luther King Day, Good Friday, Memorial Day, July 4th, Labor Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays observed the following Monday.

Effective Dates:

10/01/2014

Rate	Fringe	Total
35.63	12.89	48.52

CLASSIFICATIONS:

Lead Dredgerman, Operator, Leverman

Licensed Tug Operator (over 1000 HP)

Effective Dates:

10/01/2014

Rate	Fringe	Total
30.81	12.50	43.31

CLASSIFICATIONS:

Derrick Operator, Spider/Spill Barge Operator

Engineer, Electrician, Chief Welder, Chief Mate

Fill Placer, Operator II

Licensed Boat Operator

Maintenance Engineer

Effective Dates:

10/01/2014

Rate	Fringe	Total
29.01	12.36	41.37

CLASSIFICATIONS:

Certified Welder

TERRITORY
ENTIRE STATE

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION

OPERATING ENGINEERS MARINE-DREDGING Rates Expiration Date : 09/30/2015

Effective Dates:

10/01/2014

Rate	Fringe	Total
28.22	12.00	40.22

CLASSIFICATIONS:

Mate, Drag Barge Operator, Steward, Assistant Fill Placer

Welder

Effective Dates:

10/01/2014

Rate	Fringe	Total
27.30	11.92	39.22

CLASSIFICATIONS:

Boat Operator

Effective Dates:

10/01/2014

Rate	Fringe	Total
22.68	11.25	33.93

CLASSIFICATIONS:

Shoreman, Deckhand, Rodman, Scowman

MICROSURFACING/SLURRY SEAL Rates Expiration Date : 02/28/2018

THESE RATES APPLY IN THE FOLLOWING COUNTIES ONLY:

Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Mercer, Ocean, Salem

IN ALL OTHER COUNTIES use the Heavy and General Laborers - North "Slurry Seal Laborer" rates.

SHIFT DIFFERENTIALS:

Any shift starting at 3:30 PM or later shall receive an additional \$0.35/hr

OVERTIME:

Hours in excess of 8 per day or 40 per week shall be paid at time and one-half the hourly rate. All hours on holidays shall be paid at double the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, Washington's Birthday, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day.

Effective Dates:

	03/01/2015		03/01/2016	03/01/2017
Rate	Fringe	Total	Total	Total
35.00	19.69	54.69	56.10	57.77

CLASSIFICATIONS:

Foreman

Effective Dates:

	03/01/2015		03/01/2016	03/01/2017
Rate	Fringe	Total	Total	Total
32.40	19.69	52.09	53.45	55.07

CLASSIFICATIONS:

Box man

Effective Dates:

	03/01/2015		03/01/2016	03/01/2017
Rate	Fringe	Total	Total	Total
30.40	19.69	50.09	51.45	53.02

CLASSIFICATIONS:

Microsurface/Slurry Preparation

Effective Dates:

	03/01/2015		03/01/2016	03/01/2017
Rate	Fringe	Total	Total	Total
30.40	19.69	50.09	51.45	53.02

CLASSIFICATIONS:

Squeegee man

TERRITORY
ENTIRE STATE

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION

MICROSURFACING/SLURRY SEAL Rates Expiration Date : 02/28/2018

Effective Dates:

03/01/2015			03/01/2016	03/01/2017
Rate	Fringe	Total	Total	Total
28.90	19.69	48.59	49.95	51.57

CLASSIFICATIONS:

Cleaner, Taper

ASPHALT LABORERS - SOUTH Rates Expiration Date : 08/31/2017

"THESE RATES APPLY IN THE FOLLOWING COUNTIES ONLY: Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Mercer, Ocean, Salem

{For apprentice rates refer to "Laborer - Heavy & General" apprentice rates in any county rate package}

The regular workday consists of 8 hours, starting at 7:00 AM or 8:00 AM.

SHIFT DIFFERENTIALS:

- Shifts must start at 3:00 PM, 4:00 PM, 12:00 AM, or 1:00 AM, to be considered shift work, except when the project owner mandates special hours of work in the job specifications, in which case those hours may be considered shift work.
- When such hours are mandated by the project owner, a shift that begins before midnight on Friday and ends on Saturday morning, or that begins at or after 8:00 PM on Sunday and ends on Monday morning may be paid at the shift differential rate.
- Shifts shall receive an additional \$2.50 per hour.

OVERTIME:

- Hours in excess of 8 per day, Monday through Friday, or outside of the regular workday that are not shift work, and all hours on Saturdays, shall be paid at time and one-half the hourly rate. All hours on Sundays and holidays shall be paid at double the hourly rate.
- Four 10-hour days may be worked, Monday through Thursday, at straight time, with Friday used as a make-up day for a day lost to inclement weather. If Friday is not a make-up day, all hours on Friday shall be paid at time and one-half the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays observed the following Monday. Veterans Day may be substituted for the day after Thanksgiving. However, in the trading of Veterans Day for the day after Thanksgiving, if overtime is worked on Veterans Day, it shall be paid at double the hourly rate.

Hazardous Waste Work:

- where Level A, B, or C protection is required: + \$3.00/hr
- other Hazardous Waste site: + \$1.00/hr

Effective Dates:

	09/01/2015		03/01/2016	09/01/2016	03/01/2017
Rate	Fringe	Total	Total	Total	Total
38.50	26.53	65.03	66.53	67.63	70.03

CLASSIFICATIONS:

Paving Foreman

Effective Dates:

	09/01/2015		03/01/2016	09/01/2016	03/01/2017
Rate	Fringe	Total	Total	Total	Total
37.05	26.53	63.58	65.08	66.18	68.58

CLASSIFICATIONS:

Head Raker

Effective Dates:

	09/01/2015		03/01/2016	09/01/2016	03/01/2017
Rate	Fringe	Total	Total	Total	Total
36.90	26.53	63.43	64.93	66.03	68.43

CLASSIFICATIONS:

Raker, Screedman, Luteman

ASPHALT LABORERS - SOUTH **Rates Expiration Date : 08/31/2017**

Effective Dates:

09/01/2015			03/01/2016	09/01/2016	03/01/2017
Rate	Fringe	Total	Total	Total	Total
36.65	26.53	63.18	64.68	65.78	68.18

CLASSIFICATIONS:

Tampers, Smoothers, Kettlemen,
Painters, Shovelers, Roller Boys

Effective Dates:

09/01/2015			03/01/2016	09/01/2016	03/01/2017
Rate	Fringe	Total	Total	Total	Total
36.75	26.53	63.28	64.78	65.88	68.28

CLASSIFICATIONS:

Milling Controller

Effective Dates:

09/01/2015			03/01/2016	09/01/2016	03/01/2017
Rate	Fringe	Total	Total	Total	Total
36.95	26.53	63.48	64.98	66.08	68.48

CLASSIFICATIONS:

Traffic Control Coordinator

TEST BORING PRELIMINARY TO CONSTRUCTION-NORTH **Rates Expiration Date : 10/16/2015**

THESE RATES APPLY IN THE FOLLOWING COUNTIES ONLY:
Bergen, Essex, Hudson, Middlesex, Morris, Passaic, Somerset, Union

SHIFT DIFFERENTIAL:

Employees on a shift other than between the hours of 8:00 AM and 5:00 PM shall receive an additional \$1.00 per hour.

OVERTIME:

Hours in excess of 8 per day, Monday through Friday, and all hours on Saturday shall be paid at time and one-half the regular rate. All hours on Sundays and holidays shall be paid at double the regular rate.

RECOGNIZED HOLIDAYS: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day, and Christmas Day. Sunday holidays observed the following Monday.

Hazardous Waste Pay (for Levels A, B, and C): an additional 10% of the hourly rate, per hour.

A newly hired Helper with no experience in the industry shall be paid as follows:

- 1st year on the job - 70% of Helper wage rate
- 2nd year on the job - 80% of Helper wage rate
- 3rd year on the job - 90% of Helper wage rate
- All helpers receive full fringe benefit rate.

Effective Dates:

11/13/2014

Rate	Fringe	Total
29.44	22.89	52.33

CLASSIFICATIONS:

Helper (4th year helper)

Effective Dates:

11/13/2014

Rate	Fringe	Total
36.82	22.89	59.71

CLASSIFICATIONS:

Driller

Effective Dates:

11/13/2014

Rate	Fringe	Total
42.22	22.89	65.11

CLASSIFICATIONS:

Foreman

HEAVY & GENERAL LABORERS - NORTH **Rates Expiration Date : 08/31/2017**

THESE RATES APPLY IN THE FOLLOWING COUNTIES ONLY:

Bergen, Essex, Hudson, Hunterdon, Middlesex, Monmouth, Morris, Passaic, Somerset, Sussex, Union, Warren

{For apprentice rates refer to "Laborer - Heavy & General" apprentice rates in any county rate package}

The regular workday consists of 8 hours, starting at 7:00 AM or 8:00 AM.

SHIFT DIFFERENTIALS:

- Shifts must start at 3:00 PM, 4:00 PM, 12:00 AM, or 1:00 AM, to be considered shift work, except when the project owner mandates special hours of work in the job specifications, in which case those hours may be considered shift work.
- When such hours are mandated by the project owner, a shift that begins before midnight on Friday and ends on Saturday morning, or that begins at or after 8:00 PM on Sunday and ends on Monday morning may be paid at the shift differential rate.
- Shifts shall receive an additional \$2.50 per hour.

OVERTIME:

- Hours in excess of 8 per day, Monday through Friday, or outside of the regular workday that are not shift work, and all hours on Saturdays, shall be paid at time and one-half the hourly rate. All hours on Sundays and holidays shall be paid at double the hourly rate.
- Four 10-hour days may be worked, Monday through Thursday, at straight time, with Friday used as a make-up day for a day lost to inclement weather. If Friday is not a make-up day, all hours on Friday shall be paid at time and one-half the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays observed the following Monday. Veterans Day may be substituted for the day after Thanksgiving. However, in the trading of Veterans Day for the day after Thanksgiving, if overtime is worked on Veterans Day, it shall be paid at double the hourly rate.

Hazardous Waste Work:

- where Level A, B, or C protection is required: + \$3.00/hr
- other Hazardous Waste site: + \$1.00/hr

Effective Dates:

	09/01/2015		03/01/2016	09/01/2016	03/01/2017
Rate	Fringe	Total	Total	Total	Total
36.25	26.53	62.78	64.28	65.38	67.78

CLASSIFICATIONS:

"D" Rate:

basic, landscape, asphalt, slurry seal, or railroad track laborer; utility meter installer; traffic director/flagman; salamander tender; pitman; dumpman; rakers or tampers on cold patch work; wrappers or coaters of pipe; waterproofer; timberman; wagon drill or drill master helper; powder carrier; magazine tender; signal man; power buggy operator; tree cutter; operator of basic power tools

Effective Dates:

	09/01/2015		03/01/2016	09/01/2016	03/01/2017
Rate	Fringe	Total	Total	Total	Total
36.95	26.53	63.48	64.98	66.08	68.48

CLASSIFICATIONS:

"C" Rate:

pipe layer; laser man; conduit or duct line layer; operator of jack hammer, chipping hammer, pavement breaker, concrete cutter, asphalt cutter, sheet hammer, or walk-behind saw cutter; sandblaster; acetylene cutting or burning; wagon drill, directional drill, or hydraulic drill operator; drill master; core driller; traffic control coordinator; asphalt raker or lute man

HEAVY & GENERAL LABORERS - NORTH **Rates Expiration Date : 08/31/2017**

Effective Dates:

09/01/2015			03/01/2016	09/01/2016	03/01/2017
Rate	Fringe	Total	Total	Total	Total
37.20	26.53	63.73	65.23	66.33	68.73

CLASSIFICATIONS:

"B" Rate:

concrete finisher; setter of brick or stone pavers; stone cutter; form setter; manhole, catch basin, or inlet builder; asphalt screedman; rammer; hardscaping; gunite nozzle man

Effective Dates:

09/01/2015			03/01/2016	09/01/2016	03/01/2017
Rate	Fringe	Total	Total	Total	Total
40.75	26.53	67.28	68.78	69.88	72.28

CLASSIFICATIONS:

"A" Rate:

blaster

Effective Dates:

09/01/2015			03/01/2016	09/01/2016	03/01/2017
Rate	Fringe	Total	Total	Total	Total
38.50	26.53	65.03	66.53	67.63	70.03

CLASSIFICATIONS:

"FOREMAN" Rate:

labor foreman, asphalt foreman, drill foreman, pipe foreman, grade foreman, finisher foreman, concrete foreman

Effective Dates:

09/01/2015			03/01/2016	09/01/2016	03/01/2017
Rate	Fringe	Total	Total	Total	Total
39.50	26.53	66.03	67.53	68.63	71.03

CLASSIFICATIONS:

"GENERAL FOREMAN" Rate

HEAVY & GENERAL LABORERS - SOUTH **Rates Expiration Date : 08/31/2017**

THESE RATES APPLY IN THE FOLLOWING COUNTIES ONLY:

Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Mercer, Ocean, Salem

{For apprentice rates refer to "Laborer - Heavy & General" apprentice rates in any county rate package}

The regular workday consists of 8 hours, starting at 7:00 AM or 8:00 AM.

SHIFT DIFFERENTIALS:

- Shifts must start at 3:00 PM, 4:00 PM, 12:00 AM, or 1:00 AM, to be considered shift work, except when the project owner mandates special hours of work in the job specifications, in which case those hours may be considered shift work.
- When such hours are mandated by the project owner, a shift that begins before midnight on Friday and ends on Saturday morning, or that begins at or after 8:00 PM on Sunday and ends on Monday morning may be paid at the shift differential rate.
- Shifts shall receive an additional \$2.50 per hour.

OVERTIME:

- Hours in excess of 8 per day, Monday through Friday, or outside of the regular workday that are not shift work, and all hours on Saturdays, shall be paid at time and one-half the hourly rate. All hours on Sundays and holidays shall be paid at double the hourly rate.
- Four 10-hour days may be worked, Monday through Thursday, at straight time, with Friday used as a make-up day for a day lost to inclement weather. If Friday is not a make-up day, all hours on Friday shall be paid at time and one-half the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays observed the following Monday. Veterans Day may be substituted for the day after Thanksgiving. However, in the trading of Veterans Day for the day after Thanksgiving, if overtime is worked on Veterans Day, it shall be paid at double the hourly rate.

Hazardous Waste Work:

- where Level A, B, or C protection is required: + \$3.00/hr
- other Hazardous Waste site: + \$1.00/hr

Effective Dates:

	09/01/2015		03/01/2016	09/01/2016	03/01/2017
Rate	Fringe	Total	Total	Total	Total
36.25	26.53	62.78	64.28	65.38	67.78

CLASSIFICATIONS:

basic, landscape, or railroad track laborer; utility meter installer; traffic director/flagman; salamander tender; pitman; dumpman; rakers or tampers on cold patch work; wrappers or coaters of pipe; waterproofers

tree cutter, timberman

Effective Dates:

	09/01/2015		03/01/2016	09/01/2016	03/01/2017
Rate	Fringe	Total	Total	Total	Total
36.25	26.53	62.78	64.98	66.08	68.48

CLASSIFICATIONS:

wagon drill or drill master helper; powder carrier; magazine tender; signal man

HEAVY & GENERAL LABORERS - SOUTH **Rates Expiration Date : 08/31/2017**

Effective Dates:

09/01/2015			03/01/2016	09/01/2016	03/01/2017
Rate	Fringe	Total	Total	Total	Total
36.95	26.53	63.48	64.98	66.08	68.48

CLASSIFICATIONS:

pipe layer; laser man; conduit or duct line layer; operator of jack hammer, chipping hammer, pavement breaker, concrete cutter, asphalt cutter, sheet hammer, or walk-behind saw cutter; sandblaster; acetylene cutting or burning

Effective Dates:

09/01/2015			03/01/2016	09/01/2016	03/01/2017
Rate	Fringe	Total	Total	Total	Total
36.95	26.53	63.48	64.98	66.08	68.48

CLASSIFICATIONS:

wagon or directional drill operator; drill master

Effective Dates:

09/01/2015			03/01/2016	09/01/2016	03/01/2017
Rate	Fringe	Total	Total	Total	Total
40.75	26.53	67.28	68.78	69.88	72.28

CLASSIFICATIONS:

blaster

Effective Dates:

09/01/2015			03/01/2016	09/01/2016	03/01/2017
Rate	Fringe	Total	Total	Total	Total
38.50	26.53	65.03	66.53	67.63	70.03

CLASSIFICATIONS:

labor foreman, drill foreman, pipe foreman, grade foreman, finisher foreman, concrete foreman

Effective Dates:

09/01/2015			03/01/2016	09/01/2016	03/01/2017
Rate	Fringe	Total	Total	Total	Total
39.50	26.53	66.03	67.53	68.63	71.03

CLASSIFICATIONS:

general foreman

TERRITORY
ENTIRE STATE

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION

HEAVY & GENERAL LABORERS - SOUTH **Rates Expiration Date : 08/31/2017**

Effective Dates:

	09/01/2015		03/01/2016	09/01/2016	03/01/2017
Rate	Fringe	Total	Total	Total	Total
37.20	26.53	63.73	65.23	66.33	68.73

CLASSIFICATIONS:

concrete finisher; setter of brick or stone pavers; stone cutter; form setter; manhole, catch basin, or inlet builder; rammer; gunite nozzle man

PIPELINE - MAINLINE TRANSMISSION Rates Expiration Date : 05/31/2016

These rates apply to the following: welding on Transportation Mainline pipe lines (cross-country pipe lines, or any segments thereof, transporting coal, gas, oil, water or other transportable materials, vapors or liquids, including portions of such pipe lines within private property boundaries up to the final metering station or connection - the point where a valve, consumer connection, or town border station divides mainline transmission lines or higher pressure lateral and branch lines from lower pressure distribution systems).

PER DIEM PAYMENT:

In addition to the total wage rate paid for each craft, the following per diem (per day) amounts must also be paid - Pipeline Journeyman: \$42.50; Pipeline Journeyman Welder: \$102.50; and Pipeline Helper: \$42.50. Note: in order to receive the per diem payment an employee must work a minimum of 8 hours in a 24 hour period.

NOTES:

- Journeymen employed as "stringer bead" welders and journeymen who are regularly employed as "hot-pass" welders shall receive \$1.00 per hour more than other journeymen.
- Welders running "stringer bead" or "hot-pass" on "cutouts" or "tie-ins" on a production basis shall be paid \$1.00 per hour above the journeymen rate.
- Whenever a welder helper is employed using a power buffer or power grinder immediately behind the stringer bead and/or hot-pass welders, and the pipe gang is set on a production basis, the helper shall be paid \$2.00 per hour above the helper rate.
- If back welding is performed inside a pipe under either or both of the following conditions, the welder engaged in the welding will receive \$3.00 per hour above the regular rate for the job only for the days on which such back welding is performed:
 - The employer elects, as a regular procedure, to back weld each line-up. This condition is not intended to apply to occasional back welding performed by the pipe gang to repair a bead, to rectify a "high-lo" condition or wall thickness, etc.
 - A welder is required to back weld a completed weld behind the firing line.
- If the welder helper is required to go inside the pipe for the purpose of brushing, buffing and grinding the weld, they shall receive a wage rate \$1.00 per hour above the regular helper rate for the days involved.
- Welders working on "hot work" shall be paid \$2.00 per hour above the regular rate for each day engaged in such work. "Hot work" is defined as work on lines in service where there is the danger of fire or explosion.

The regular workday shall be 8 hours, between 8:00 AM and 4:30 PM.

OVERTIME:

Hours in excess of 8 per day, and all hours on Sundays shall be paid at time and one-half the regular rate, inclusive of benefits. All hours on holidays shall be paid at double the regular rate, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, July 4th, Labor Day, Thanksgiving Day, and Christmas Day. Sunday holidays observed the following Monday.

Effective Dates:

06/02/2015

Rate	Fringe	Total
52.53	26.14	78.67

CLASSIFICATIONS:

Pipeline Journeyman Welder

TERRITORY
ENTIRE STATE

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION

PIPELINE - MAINLINE TRANSMISSION Rates Expiration Date : 05/31/2016

Effective Dates:

06/02/2015

Rate	Fringe	Total
52.53	26.14	78.67

CLASSIFICATIONS:

Pipeline Journeyman

Effective Dates:

06/02/2015

Rate	Fringe	Total
31.82	18.28	50.10

CLASSIFICATIONS:

Pipeline Helper

PIPELINE - GAS DISTRIBUTION **Rates Expiration Date : 10/31/2015**

These rates apply to the following: welding on gas line distribution systems (that portion of the gas distribution system placed in streets, roads, subways, tunnels, viaducts, highways and easements which serves the users of gas).

SHIFT DIFFERENTIALS:

An "irregular" shift may start any time from 5:00 PM to 12:00 AM, Monday through Friday, and shall receive an additional 15% of the regular rate per hour, inclusive of benefits.

OVERTIME:

Hours in excess of forty per week, and all hours on Saturdays shall be paid at time and one-half the regular rate, inclusive of benefits. All hours on Sundays and holidays shall be paid at double the regular rate, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day, and Christmas Day. Sunday holidays observed the following Monday.

Effective Dates:

10/30/2014

Rate	Fringe	Total
54.13	20.90	75.03

CLASSIFICATIONS:

Pipeline Journeyman Welder

Effective Dates:

10/30/2014

Rate	Fringe	Total
54.13	20.90	75.03

CLASSIFICATIONS:

Pipeline Journeyman

Effective Dates:

10/30/2014

Rate	Fringe	Total
35.07	15.09	50.16

CLASSIFICATIONS:

Pipeline Helper

ASPHALT LABORERS- NORTH **Rates Expiration Date : 08/31/2017**

THESE RATES APPLY IN THE FOLLOWING COUNTIES ONLY:

Bergen, Essex, Hudson, Hunterdon, Middlesex, Monmouth, Morris, Passaic, Somerset, Sussex, Union, Warren

{For apprentice rates refer to "Laborer - Heavy & General" apprentice rates in any county rate package}

The regular workday consists of 8 hours, starting at 7:00 AM or 8:00 AM.

SHIFT DIFFERENTIALS:

- Shifts must start at 3:00 PM, 4:00 PM, 12:00 AM, or 1:00 AM, to be considered shift work, except when the project owner mandates special hours of work in the job specifications, in which case those hours may be considered shift work.
- When such hours are mandated by the project owner, a shift that begins before midnight on Friday and ends on Saturday morning, or that begins at or after 8:00 PM on Sunday and ends on Monday morning may be paid at the shift differential rate.
- Shifts shall receive an additional \$2.50 per hour.

OVERTIME:

- Hours in excess of 8 per day, Monday through Friday, or outside of the regular workday that are not shift work, and all hours on Saturdays, shall be paid at time and one-half the hourly rate. All hours on Sundays and holidays shall be paid at double the hourly rate.
- Four 10-hour days may be worked, Monday through Thursday, at straight time, with Friday used as a make-up day for a day lost to inclement weather. If Friday is not a make-up day, all hours on Friday shall be paid at time and one-half the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays observed the following Monday. Veterans Day may be substituted for the day after Thanksgiving. However, in the trading of Veterans Day for the day after Thanksgiving, if overtime is worked on Veterans Day, it shall be paid at double the hourly rate.

Hazardous Waste Work:

- where Level A, B, or C protection is required: + \$3.00/hr
- other Hazardous Waste site: + \$1.00/hr

Effective Dates:

	09/01/2015		03/01/2016	09/01/2016	03/01/2017
Rate	Fringe	Total	Total	Total	Total
38.50	26.53	65.03	66.53	67.63	70.03

CLASSIFICATIONS:

Asphalt Foreman

Effective Dates:

	09/01/2015		03/01/2016	09/01/2016	03/01/2017
Rate	Fringe	Total	Total	Total	Total
37.20	26.53	63.73	65.23	66.33	68.73

CLASSIFICATIONS:

Asphalt Screedman

Effective Dates:

	09/01/2015		03/01/2016	09/01/2016	03/01/2017
Rate	Fringe	Total	Total	Total	Total
36.95	26.53	63.48	64.98	66.08	68.48

CLASSIFICATIONS:

Asphalt Raker or Lute Man

TERRITORY
ENTIRE STATE

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION

ASPHALT LABORERS- NORTH Rates Expiration Date : 08/31/2017

Effective Dates:

09/01/2015			03/01/2016	09/01/2016	03/01/2017
Rate	Fringe	Total	Total	Total	Total
36.25	26.53	62.78	64.28	65.38	67.78

CLASSIFICATIONS:

Asphalt Laborer

ELECTRICIAN- UTILITY WORK (NORTH) **Rates Expiration Date : 12/03/2017**

Electrician-Utility Work (North)

(For apprentice rates refer to Electrician-Utility Work (North) in any county rate package).

These rates apply to work contracted for by the following utility companies:

Public Service Electric & Gas Co. of NJ, GPU Energy, Borough of Madison Electric Department, Sussex Rural Electric Cooperative, Rockland Utilities, and Butler Municipal Electric Co.

These rates do not apply to work on substations or switching stations.

For Utility work contracted for by a utility company other than those listed above or those listed under "Electrician-Utility Work (South), see the "Outside Commercial Rates" for the county in which the jobsite is located.

* FOR OUTSIDE COMMERCIAL RATES PLEASE SEE COUNTY RATES

The regular workday is 8 hours, between 6:00 AM and 6:00 PM.

FOR EMERGENCY WORK ONLY: (emergency work is defined as work caused by storm, catastrophe, act of god, and circumstances beyond the control of the employer)-all hours of work shall be paid at double the hourly rate.

SHIFT DIFFERENTIALS:

Shift work must run for a minimum of 5 consecutive workdays.

2nd shift (between the hours of 4:30 PM and 1:00 AM): 8 hours of work + 17.3% of the regular rate, inclusive of benefits.

3rd shift (between the hours of 12:30 AM and 9:00 AM): 8 hours of work + 31.4% of the regular rate per hour, inclusive of benefits.

OVERTIME:

Hours in excess of 8 per day, or before or after the regular workday Monday through Friday, that is not shift work, and all hours on Saturday shall be paid at time and one-half the regular rate, inclusive of benefits. All hours on Sundays and holidays shall be paid at double the hourly rate, inclusive of benefits.

Four 10-hour days may worked, at straight time, between 7:00 AM and 6:30 PM, Monday through Thursday.

RECOGNIZED HOLIDAYS:

New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day and Christmas Day, or day on which they are legally observed.

Effective Dates:

	12/01/2014		11/29/2015	12/04/2016
Rate	Fringe	Total	Total	Total
48.93	32.78	81.71	84.36	87.27

CLASSIFICATIONS:

Chief Lineman

Effective Dates:

	12/01/2014		11/29/2015	12/04/2016
Rate	Fringe	Total	Total	Total
46.16	30.92	77.08	79.59	82.34

CLASSIFICATIONS:

Journeyman Lineman

ELECTRICIAN- UTILITY WORK (NORTH) **Rates Expiration Date : 12/03/2017**

Effective Dates:

12/01/2014			11/29/2015	12/04/2016
Rate	Fringe	Total	Total	Total
46.16	30.92	77.08	79.59	82.34

CLASSIFICATIONS:

Special License Operator

Effective Dates:

12/01/2014			11/29/2015	12/04/2016
Rate	Fringe	Total	Total	Total
45.70	30.61	76.31	78.79	81.51

CLASSIFICATIONS:

Transit Man

Effective Dates:

12/01/2014			11/29/2015	12/04/2016
Rate	Fringe	Total	Total	Total
44.32	29.69	74.01	76.40	79.04

CLASSIFICATIONS:

Line Equipment Operator

Effective Dates:

12/01/2014			11/29/2015	12/04/2016
Rate	Fringe	Total	Total	Total
38.78	25.98	64.76	66.85	69.17

CLASSIFICATIONS:

Dynamite Man

Effective Dates:

12/01/2014			11/29/2015	12/04/2016
Rate	Fringe	Total	Total	Total
54.47	36.49	90.96	93.92	97.16

CLASSIFICATIONS:

General Foreman

Effective Dates:

12/01/2014			11/29/2015	12/04/2016
Rate	Fringe	Total	Total	Total
53.09	35.57	88.66	91.53	94.68

CLASSIFICATIONS:

Assistant General Foreman

ELECTRICIAN- UTILITY WORK (NORTH) **Rates Expiration Date : 12/03/2017**

Effective Dates:

12/01/2014			11/29/2015	12/04/2016
Rate	Fringe	Total	Total	Total
51.70	34.63	86.33	89.14	92.21

CLASSIFICATIONS:

Line Foreman

Effective Dates:

12/01/2014			11/29/2015	12/04/2016
Rate	Fringe	Total	Total	Total
37.39	25.05	62.44	64.46	66.69

CLASSIFICATIONS:

Straight Light Mechanical Leader

Effective Dates:

12/01/2014			11/29/2015	12/04/2016
Rate	Fringe	Total	Total	Total
35.54	23.81	59.35	61.28	63.40

CLASSIFICATIONS:

Groundman Winch Operator

Effective Dates:

12/01/2014			11/29/2015	12/04/2016
Rate	Fringe	Total	Total	Total
35.54	23.81	59.35	61.28	63.40

CLASSIFICATIONS:

Groundman Truck Operator

Effective Dates:

12/01/2014			11/29/2015	12/04/2016
Rate	Fringe	Total	Total	Total
35.08	23.50	58.58	60.48	62.57

CLASSIFICATIONS:

Straight Light Mechanic

Effective Dates:

12/01/2014			11/29/2015	12/04/2016
Rate	Fringe	Total	Total	Total
35.08	23.50	58.58	60.48	62.57

CLASSIFICATIONS:

Line Equipment Mechanic

ELECTRICIAN- UTILITY WORK (NORTH) **Rates Expiration Date : 12/03/2017**

Effective Dates:

12/01/2014			11/29/2015	12/04/2016
Rate	Fringe	Total	Total	Total
30.01	20.10	50.11	51.73	53.52

CLASSIFICATIONS:

Groundman 2nd Year

Effective Dates:

12/01/2014			11/29/2015	12/04/2016
Rate	Fringe	Total	Total	Total
27.70	18.55	46.25	47.76	49.39

CLASSIFICATIONS:

Groundman 1st Year

Effective Dates:

12/01/2014			11/29/2015	12/04/2016
Rate	Fringe	Total	Total	Total
45.70	30.61	76.31	78.79	81.51

CLASSIFICATIONS:

Line Equipment Foreman

ELECTRICIAN- UTILITY WORK (SOUTH) Rates Expiration Date : 11/30/2015

Electrician-Utility Work (South)

(For apprentice rates refer to Electrician-Utility Work (South) in any county rate package).

These rates apply to work contracted for by the following utility company:

Atlantic City Electric.

These rates do not apply to work on substations or switching stations.

For utility work contracted for by a utility company other than the one listed above or those listed under "Electrician-Utility Work (North), see the "Outside Commercial Rates" for the county in which the jobsite is located.

* FOR OUTSIDE COMMERCIAL RATES PLEASE SEE COUNTY RATES

The regular workday is 8 hours, between 7:00 AM and 4:30 PM.

FOR EMERGENCY WORK ONLY: (emergency work is defined as work caused by storm, catastrophe, act of god, and circumstances beyond the control of the employer)- all hours of work shall be paid at double the hourly rate.

SHIFT DIFFERENTIALS:

Shift work must run for a minimum of 5 consecutive workdays.

When two (2) or three (3) shifts are worked the following shall apply:

1st shift (between the hours of 8:00 AM and 4:30 PM)

2nd shift (between the hours of 4:30 PM and 12:30 AM): 8 hours of work + 10% of the regular rate of pay for 7.5 hours worked.

3rd shift (between the hours of 12:30 AM and 8:00 AM): 8 hours of work + 15% of the regular rate of pay for 7 hours worked.

OVERTIME:

Hours in excess of 8 per day, or before or after the regular workday Monday through Friday, that is not shift work, and all hours on Saturday shall be paid at time and one-half the regular rate. All hours on Sundays and Holidays shall be paid double the hourly rate.

Four 10-hour days may be worked, at straight time, between 6:00 AM and 6:00 PM, Monday through Thursday with Friday used as a make-up day.

RECOGNIZED HOLIDAYS:

New Year's Day, Memorial Day, July 4th, Labor Day, Veterans' Day, Thanksgiving Day and Christmas Day or on days celebrated.

WORKING RULES:

There shall be a Foreman in charge of each work crew. No crews are to exceed twelve (12) men, including Foremen.

There shall be a General Foreman designated for transmission work when three (3) or more crews are on the same job and for distribution work where there are more than twenty (20) employees on site.

A small job crew shall consist of five (5) or less employees, one (1) of the Journeyman Linemen in the crew shall be designated as a Small Job Foreman.

Work performed from ladders and/or mechanical lift equipment shall be the work of Linemen and/or Apprentices.

On new construction, fitting and framing poles, towers or structures may be done by Journeymen and/or Apprentices. Groundmen may assist, but may not perform any work which would be performed by Linemen if assembled in the air.

There shall be a Journeyman Lineman in each pole setting, erection, grounding, wire and cable-pulling crew of more than three (3) men.

Effective Dates:

12/04/2014

Rate	Fringe	Total
56.05	41.02	97.07

CLASSIFICATIONS:

General Foreman

ELECTRICIAN- UTILITY WORK (SOUTH) **Rates Expiration Date : 11/30/2015**

Effective Dates:

12/04/2014

Rate	Fringe	Total
49.92	37.54	87.46

CLASSIFICATIONS:

Foreman

Effective Dates:

12/04/2014

Rate	Fringe	Total
47.29	36.06	83.35

CLASSIFICATIONS:

Small Job Foreman

Effective Dates:

12/04/2014

Rate	Fringe	Total
43.79	34.05	77.84

CLASSIFICATIONS:

Heavy Equipment Operator

Effective Dates:

12/04/2014

Rate	Fringe	Total
43.79	34.05	77.84

CLASSIFICATIONS:

Cable Splicer

Effective Dates:

12/04/2014

Rate	Fringe	Total
43.79	34.05	77.84

CLASSIFICATIONS:

Journeyman Lineman

Effective Dates:

12/04/2014

Rate	Fringe	Total
43.79	34.05	77.84

CLASSIFICATIONS:

Journeyman Welder

ELECTRICIAN- UTILITY WORK (SOUTH) Rates Expiration Date : 11/30/2015

Effective Dates:

12/04/2014

Rate	Fringe	Total
43.79	34.05	77.84

CLASSIFICATIONS:

Journeyman Painter

Effective Dates:

12/04/2014

Rate	Fringe	Total
35.03	29.07	64.10

CLASSIFICATIONS:

Light Equipment Operator

Effective Dates:

12/04/2014

Rate	Fringe	Total
30.65	26.57	57.22

CLASSIFICATIONS:

Groundman Truck Driver

Effective Dates:

12/04/2014

Rate	Fringe	Total
28.46	25.33	53.79

CLASSIFICATIONS:

Groundman 3rd Year

Effective Dates:

12/04/2014

Rate	Fringe	Total
26.27	24.08	50.35

CLASSIFICATIONS:

Groundman 2nd Year

Effective Dates:

12/04/2014

Rate	Fringe	Total
24.08	22.84	46.92

CLASSIFICATIONS:

Groundman 1st Year

TERRITORY
ENTIRE STATE

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION

ELECTRICIAN- UTILITY WORK (SOUTH) Rates Expiration Date : 11/30/2015

Effective Dates:

12/04/2014

Rate	Fringe	Total
19.27	20.09	39.36

CLASSIFICATIONS:

Flagman

HEAVY & GENERAL LABORERS- NEW TRANS HUDSON TUNNELS Rates Expiration Date : 08/31/2017

THESE RATES APPLY TO CONSTRUCTION ON NEW TRANS HUDSON TUNNELS ONLY

{For apprentice rates refer to "Laborer - Heavy & General" apprentice rates in any county rate package}

The regular workday consists of 8 hours, starting at 7:00 AM or 8:00 AM.

SHIFT DIFFERENTIALS:

- Shifts must start at 3:00 PM, 4:00 PM, 12:00 AM, or 1:00 AM, to be considered shift work, except when the project owner mandates special hours of work in the job specifications, in which case those hours may be considered shift work.
- When such hours are mandated by the project owner, a shift that begins before midnight on Friday and ends on Saturday morning, or that begins at or after 8:00 PM on Sunday and ends on Monday morning may be paid at the shift differential rate.
- Shifts shall receive an additional \$2.50 per hour.

OVERTIME:

- Hours in excess of 8 per day, Monday through Friday, or outside of the regular workday that are not shift work, and all hours on Saturdays, shall be paid at time and one-half the hourly rate. All hours on Sundays and holidays shall be paid at double the hourly rate.
- Four 10-hour days may be worked, Monday through Thursday, at straight time, with Friday used as a make-up day for a day lost to inclement weather. If Friday is not a make-up day, all hours on Friday shall be paid at time and one-half the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays observed the following Monday. Veterans Day may be substituted for the day after Thanksgiving. However, in the trading of Veterans Day for the day after Thanksgiving, if overtime is worked on Veterans Day, it shall be paid at double the hourly rate.

Hazardous Waste Work:

- where Level A, B, or C protection is required: + \$3.00/hr
- other Hazardous Waste site: + \$1.00/hr

Effective Dates:

	09/01/2015		03/01/2016	09/01/2016	03/01/2017
Rate	Fringe	Total	Total	Total	Total
58.50	26.53	85.03	86.78	88.31	91.28

CLASSIFICATIONS:

Walking Boss & Superintendent

Effective Dates:

	09/01/2015		03/01/2016	09/01/2016	03/01/2017
Rate	Fringe	Total	Total	Total	Total
58.05	26.53	84.58	86.03	87.86	90.83

CLASSIFICATIONS:

Heading Foreman, Shaft Foreman, Rod Foreman, Electrical Foreman, Rigging Foreman

HEAVY & GENERAL LABORERS- NEW TRANS HUDSON TUNNELS **Rates Expiration Date : 08/31/2017**

Effective Dates:

	09/01/2015		03/01/2016	09/01/2016	03/01/2017
Rate	Fringe	Total	Total	Total	Total
57.30	26.53	83.83	85.58	87.11	90.08

CLASSIFICATIONS:

Iron Foreman, Caulking Foreman, Form Foreman, Cement Finishing Foreman, Concrete Foreman, Track Foreman, Clean-up Foreman, Grout Foreman

Effective Dates:

	09/01/2015		03/01/2016	09/01/2016	03/01/2017
Rate	Fringe	Total	Total	Total	Total
61.05	26.53	87.58	89.33	90.86	93.83

CLASSIFICATIONS:

Blaster

Effective Dates:

	09/01/2015		03/01/2016	09/01/2016	03/01/2017
Rate	Fringe	Total	Total	Total	Total
56.48	26.53	83.01	84.76	86.28	89.26

CLASSIFICATIONS:

Top Labor Foreman

Effective Dates:

	09/01/2015		03/01/2016	09/01/2016	03/01/2017
Rate	Fringe	Total	Total	Total	Total
55.95	26.53	82.48	84.23	85.76	88.73

CLASSIFICATIONS:

Skilled Men (including Caulker, Powder Carrier, all other skilled men)

Skilled Men (including Miner, Drill Runner, Iron Man, Conveyor Man, Maintenance Man, Safety Miner, Rigger, Block Layer, Cement Finisher, Rod Man)

Effective Dates:

	09/01/2015		03/01/2016	09/01/2016	03/01/2017
Rate	Fringe	Total	Total	Total	Total
55.73	26.53	82.26	84.01	85.53	88.51

CLASSIFICATIONS:

Semi-Skilled Men (including Bell or Signal Man top or bottom, Form Worker & Mover, Concrete Worker, Shaft Man, Tunnel Laborer, Caulker's Helper, all other semi-skilled)

Semi-Skilled Men (including Miner's Helper, Chuck Tender, Track Man, Nipper, Brake Man, Derail Man, Cable Man, Hose Man, Gravel Man, Form Man)

TERRITORY
ENTIRE STATE

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION

HEAVY & GENERAL LABORERS- NEW TRANS HUDSON TUNNELS Rates Expiration Date : 08/31/2017

Effective Dates:

	09/01/2015		03/01/2016	09/01/2016	03/01/2017
Rate	Fringe	Total	Total	Total	Total
54.98	26.53	81.51	83.26	84.78	87.76

CLASSIFICATIONS:

All others (including Powder Watchman, Change House Attendant, Top Laborer, Job Steward)

TECHNICAL SPECIFICATIONS

This project shall be governed by the “New Jersey of Transportation Standard Specifications for Road and Bridge Construction” 2007 using U.S. Customary English Units except as noted in the following specification.

Payment descriptions within the following specifications prevail over the “New Jersey Department of Transportation Standard Specifications for Road and Bridge Construction” 2007

All unit prices shall be in accordance with the Bidder’s Proposal. Any unit prices not included in the Bidder’s Proposals shall be assumed distributed across all unit prices.

Any references in this specification to a specific product line or proprietary item, it is understood that the specification refers to that product or approved equal. The lack of the phrase “or approved equal” does not imply that the specified product is the only product that will be allowed. However, it will be the successful bidder’s burden to prove that an alternate product meets the specification called for.

Should there be a conflict between the plans and specifications, the items shall govern in the following order.

- Addendums to the bid to include changes to the plans
- Supplemental (Technical) Specifications
- Plans

MOBILIZATION / DEMOBILIZATION

Mobilization/Demobilization shall consist of the cost of initiating the contract, including preparatory work and operations, necessary for the movement of personnel, equipment, supplies and incidentals to the Project site, and other work performed or costs incurred prior to beginning work. In any case of inconsistencies with the N.J.A.C. 7:14-2.9, the New Jersey Administrative Code shall govern.

QUANTITY AND PAYMENT

Payment for mobilization will be made on a lump sum basis, which price shall include the cost of initiating the contract, regardless of the fact that the Contractor may have, for any reason, shut down his work on the Project or moved equipment away from the Project and back again, in accordance with the 2007 NJDOT Standard Specifications Section 154.04.

Payment will be made in accordance with the following schedule:

1. When 5% of the work is completed - 25% of the amount bid for mobilization or 2.5% of the Total Contract Price, whichever is less, will be paid.
2. When 10% of the work is completed - 50% of the amount bid for mobilization or 5% of the Total Contract Price, whichever is less, will be paid.
3. When 15% of the work is completed – 75% of the amount bid for mobilization or 7.5% of the Total Contract Price, whichever is less, will be paid.
4. When 20% of the work is completed – 100% of the amount bid for mobilization or 10% of the Total Contract Price, whichever is less, will be paid.

Upon completion of all work on the project, payment for the amount bid for mobilization in excess of 10% of the Total Contract Price will be made.

The percentage of work completed shall be the total of payments earned compared to the Total Contract Price. The total of payments earned excludes the amount paid for this item and the amount paid for materials furnished but not incorporated into the work in accordance with Subsection 109.06 – Materials Payments and Storage, as shown on the monthly estimates of the approximate quantities of work done, prepared in accordance with Subsection 109.05 – Estimates of the 2007 NJDOT Standard Specification.

(A) The lump sum price bid for mobilization is limited to the following maximum amounts:

Original Contract Amount (Including Mobilization)		
<u>For More Than</u>	<u>To and Including</u>	Max. Amount for Item of <u>Mobilization</u>
\$ 0	100,000	\$ 3,000
100,000	500,000	15,000
500,000	1,000,000	30,000
1,000,000	2,000,000	60,000
2,000,000	3,000,000	90,000
3,000,000	4,000,000	120,000
4,000,000	5,000,000	125,000

5,000,000	6,000,000	150,000
6,000,000	7,000,000	175,000
7,000,000	10,000,000	200,000
10,000,000		2.5% of amount bid

Quantity and Payment for Mobilization/Demobilization will be made in accordance with the Contract Documents on a lump sum basis at the price bid for the item **MOBILIZATION/DEMOBILIZATION** in the Proposal, which shall include the cost of delivery, installation, storage, permitting, agreements, and all labor, tools, equipment and materials necessary therefore and incidental thereto or as directed by the Engineer.

-- END OF SECTION --

CONSTRUCTION LAYOUT

DESCRIPTION

Under this item the Contractor shall provide all work required in connection with the layout for construction of the project, using the control points and data furnished by the Engineer.

METHOD OF STAKEOUT

The Contractor shall submit all necessary computations to establish the exact position of all the work from the control points furnished by the Engineer, along with construction grade sheets, prepared by a licensed land surveyor, to the Engineer for approval prior to the start of construction.

The Contractor shall maintain the line and grade stakes furnished by the engineer for his/her use in staking out the work. If such control points are damaged, lost, displaced or removed, they shall be reset or replaced at a charge to the Contractor for the actual cost of the work at no additional cost to the Owner or Owner's Representatives.

The Contractor shall be responsible for maintaining the points he has established. Any error or apparent discrepancies found in the plans or specifications shall be called to the Engineers attention in writing for interpretation prior to proceeding with the work.

QUANTITY AND PAYMENT

Quantity and Payment for Construction Layout will be made in accordance with the Contract Documents at the lump sum price bid for the item **CONSTRUCTION LAYOUT** in the Proposal, which shall include the cost of construction stake-out, markouts, surveying, and all labor, tools, equipment and materials necessary therefore and incidental thereto or as directed by the Engineer.

-- END OF SECTION --

SITE CLEARING / DEMOLITION

DESCRIPTION

Under this item the Contractor shall remove and dispose of all fences, concrete pads, concrete foundations, gates, boulders, drainage pipes, curb, sidewalk, natural turf, trees, tree roots/stumps, shrubs, hedges, brush, stumps, roots, dirt, stones, and all debris; not specifically called for and paid elsewhere and the removal of which is required for carrying out the work of this project, shall be removed as shown on the plans. Contractor shall perform test pits to locate any uncertainties in existing subsurface structures to determine if these structures interfere or affect the proposed construction.

The Contractor shall remove and dispose of pipes, inlets, manholes, reinforced concrete pavement, bituminous pavement, concrete and bituminous sidewalk, and old curb, as necessary for new construction. He shall remove and reset street and road signs, not otherwise paid for; remove and reset any monuments, shrubs and fences; remove and reset to grade manhole and catch basin frames, fire hydrants, guide rail, gas and water valves; and complete all other removals and relocations required for the work and not specifically covered elsewhere for payment.

CONSTRUCTION

GENERAL

The Contractor shall abide by all of the rules and regulations as set forth in Section 201 – Clearing Site of the NJDOT State Standard Specifications and the respective amendments. Site clearing work shall conform to all applicable requirements of Local, State and Federal Authorities having jurisdiction. All permits required for the execution of the work shall be obtained and paid for by the Contractor.

Removed material shall be properly disposed of by the Contractor. The excavation unclassified shall be disposed of outside of the limits of the contract at no extra cost to the Owner. Any and all clean soil that is excavated during site clearing/demolition shall be backfilled and compacted.

INSPECTION OF PREMISES

The Contractor before submitting his Proposal, shall visit and examine the premises so as to fully understand all the existing conditions relative to his work.

STREET REPAIRS

The Contractor shall make all repairs to street and sidewalk made necessary by his work.

ADJOINING PROPERTY

The Contractor shall repair any and all damages or injury to the adjoining properties caused by his work and leave the properties in as good condition as before work was started, and he shall relieve the Owner of all responsibility for any claims due to such injury and shall defend any action brought by reason thereof.

DUST CONTROL

If so directed, the Contractor shall thoroughly wet the work to prevent dust.

REMOVAL OF DEBRIS

The removal and disposal of materials and debris accumulated by clearing site is regulated under the Solid Waste Management Act (NJSA 13:1 E-1) and is governed by NJAC 7:26 *et seq.* The Contractor shall dispose of the material and debris according to the solid waste management plan developed by the solid waste management district of origin. Proper documentation from the disposal facility shall be submitted to the Engineer.

TREE REMOVALS

Contractor shall stake out the limit of disturbance and existing environmental buffers as depicted on the plans prior to conducting any Tree Removals. Only trees within the project limit of disturbance shall be removed. No trees or vegetation within the existing environmental buffer areas shall be disturbed or removed. Each tree to be removed shall be completely removed. Stumps and roots shall be completely removed. Contractor shall remove and dispose all stumps, and roots. Stump grinding shall only be permitted if and where directed by the engineer. Stumps, roots and or stump grindings shall not be permitted as backfill material.

Cutting of trees shall be done by competent workman only and in a workmanship like manner. All trees shall be topped and limbed previous to felling, unless otherwise directed by the Engineer. If necessary, trees shall be felled in sections and disposed of to prevent damage to adjacent vegetation, structures, utility wires, or other property.

When or where any direct or indirect damage or injury is done to public or private property by or on account of any act, omission, neglect or misconduct, on the part of the Contractor in the execution of the work, such property shall be restored by the Contractor, at his expense, to a condition equal to that existing before such damage or injury was done, or he shall make good such damage or injury in such other manner as may be acceptable to the Engineer.

It shall be the responsibility of the Bidders to ascertain, by their own inspection and investigations the sizes and types of trees to be removed and to determine and supply the necessary equipment to perform the work.

All trunks, limbs and branches shall be removed from the site as well as sweeping and removal of all chips to a degree that is satisfactory to the Engineer.

QUANTITY AND PAYMENT

Payment for Site Clearing for which payment will be made, will be on an area basis for the actual area cleared for the bid item **SITE CLEARING & DEMOLITION** as specified above. Such price shall include removal of debris, disposal of materials, and all else necessary therefore and incidental thereto.

The Contractor shall abide by all of the rules and regulations as set forth in applicable Sections and Subsections for - Clearing Site & Demolition of the NJDOT State Standard Specifications and the respective amendments

-- END OF SECTION --

PRE-CONSTRUCTION PHOTOGRAPHS

DESCRIPTION

The Contractor shall furnish photographs, taken by a photographer acceptable to the Engineer, to show the condition of the site prior to construction, as well as to show the progress of the work. Contractor shall provide the date of each photograph taken on the photograph and also provide a photograph location map showing the location and direction of the photograph taken.

MATERIALS

A CD/DVD of pre-construction photographs and a separate CD/DVD of construction photographs shall bear the name of the photographer, name of project, contract number, and date of submittal and shall be furnished to the Engineer.

MEHODS OF PHOTOGRAPHS

Pre-construction photographs shall be taken to especially note the character of all easements and the condition of any structures, lawns, trees, streets, sidewalks, etc., which might be damaged, and shall average at least one photograph for each 50 feet of street or easement in the contract. The Engineer shall be provided with one matte print of each photograph. A minimum of thirty six construction photographs shall be taken each month at regular intervals while the work is in progress. Photographs shall be taken at such times and at such locations as may be determined by the Engineer. One photograph shall be taken during the month and submitted to the Engineer via email at the time of submitting the periodic estimate for progress payment, progress payment requests shall include photograph prints relative to the work completed and requested for payment.

QUANTITY AND PAYMENT

Pre-Construction Photographs will not be measured and no separate payment will be made for pre-construction photos. Quantity and Payment for this item, and all work related thereto, shall be distributed amongst the items specified in the Proposal or as directed by the Engineer.

Contractors are advised that damage claims by property owners, which cannot be disputed by pre-construction photographs, will be required to restore the claimed damage. Therefore, pre-construction photos will be required, and furnished to the Engineer.

Should the Contractor fail to take pre-construction photos, any property damage and complaints received will be repaired by the Contractor at no cost to the Owner or Owner's Representatives.

-- END OF SECTION --

SOIL EROSION AND SEDIMENT CONTROL DEVICES

DESCRIPTION

The work performed under this item shall include construction of all soil erosion structures as shown on the plans or as required by the Somerset Union Soil Conservation District, temporary seeding or mulching and general soil stabilization.

The contractor shall construct additional stone tracking pads not specifically shown on the plans as necessary to facilitate the mobilization of construction equipment on site.

Furthermore, the contractor shall notify the Union County Soil Conservation District seventy-two (72) hours prior to the start of construction.

MATERIALS

Materials shall be in conformance with the Plan and Details, and shall include silt fences, gravel inlet filters, fertilizer and soil stabilization. All materials shall be approved by the Engineer. Permanent seeding shall not be paid for under this area.

METHODS OF CONSTRUCTION

State Standard Specifications and Somerset Union County Soil Conservation District Regulations.

- A. All erosion and sedimentation control measures shall be in place prior to any grading operations or construction of proposed facilities and shall be maintained until construction is complete and the construction area is stabilized. After restoration is complete, temporary control measures shall be removed and disposed of properly.
- B. All erosion and sedimentation control measures shall be constructed and maintained in accordance with the "Standards for Soil Erosion and Sediment Control in New Jersey," prepared by the New Jersey State Soil Conservation Committee, 1987.
- C. Disturbed areas that will be exposed in excess of 14 days shall be temporarily seeded and/or mulched until proper weather conditions exists for establishment of a permanent vegetative cover except in areas where final restoration is expected to be completed within seven days after the completion of construction, in which case no temporary protective measures will be required. If final restoration is expected to begin more than seven days and completed more than 30 days after the start of construction, seeding shall be required for temporary protection, except where seasonal conditions are not suitable for growing vegetation. In this case, mulch may be applied until conditions are suitable for establishing vegetative cover or until final restoration is implemented.

QUANTITY AND PAYMENT

The quantity of Soil Erosion and Sediment Control Measures will not be measured.

Payment for Soil Erosion and Sediment Control Measures for which payment will be made, will be a lump sum for the item **SOIL EROSION & SEDIMENT CONTROL MEASURES** specified above. Such price shall include all costs for furnishing, installing, and removing, when

no longer required the devices as directed, all materials, labor, tools and equipment and all else necessary therefore and incidental thereto. No additional payment will be made for maintaining or replacement of the erosion control measures as necessary or as directed by the engineer. The soil erosion devices shall include but are not limited to such items as: Construction Entrance, Silt Fence, Hay Bales, Portable Sediment Tanks, Stone Filters, Floating Turbidity Barriers, Sediment Control Bags, Inlet filter protection.

The payment for permanent topsoiling and seeding will be paid for under the item TOPSOILING, FERTILIZE AND HYDROSEED

-- END OF SECTION --

TEST PITS

DESCRIPTION

Test pits shall include the excavation of surface and subsurface materials for the location of subsurface utilities and backfill of all earth, rock, boulders, brick and removal of all materials encountered to a minimum depth below ground surface of ten (10') feet and all incidental work to the satisfaction of the engineer, and shall also include the restoration of all hardscape areas in accordance with the construction documents.

METHODS OF CONSTRUCTION

Prior to the excavation of Test Pits, all existing on-site and off-site subsurface items (e.g. utilities, drainage, conveyance networks, tunnels) shall be located, which may be affected by or interfere with the proposed construction. Test pits shall be backfilled in accordance with Section 202 - Excavation in the 2007 New Jersey Department of Transportation Standard Specifications.

QUANTITY AND PAYMENT

Quantity and Payment for Test Pits will be made in accordance with the Contract Documents at the per unit price bid for the item **TEST PITS, 10' DEEP MAX (IF AND WHERE DIRECTED)** in the Proposal, which shall include the cost of excavation, temporary or permanent backfill, pavement restoration, and all labor, tools, equipment and materials necessary therefore and incidental thereto or as directed by the Engineer.

-- END OF SECTION --

SAWCUTTING

DESCRIPTION

Sawcutting shall consist of the cutting of sidewalks, concrete, driveways, curbs and pavements of whatever nature in order to maintain a clean finished look when matching into existing areas of concrete and asphalt where directed by the Engineer.

MATERIALS - METHODS OF CONSTRUCTION

Concrete or bituminous surfaces shall be cut through the entire pavement thickness in a straight neat line using diamond-tipped blades with water, as approved by the Engineer.

QUANTITY AND PAYMENT

No specific payment will be made of Sawcutting as described above. Any cost for Sawcutting shall be distributed among the various items bid in the proposal for the installation of various sizes of the proposed pipe, walkways, pavement, turf field, curbing, driveways and other structures and shall include the cost of, any and all materials, all labor and equipment and all else necessary therefore and incidental thereto and in accordance with the Plans and Specifications or as directed by the Engineer.

***PLEASE NOTE THAT JACK-HAMMERED OR BROKEN EDGES WILL NOT BE ACCEPTED UNDER ANY CIRCUMSTANCES.**

-- END OF SECTION --

DEWATERING

DESCRIPTION

The Contractor shall at all times provide ample means and equipment with which to promptly remove and dispose of all water and drainage entering the excavations or other parts of the work, and to keep such excavations dry until the structures to be built therein are completed. In no case will the laying of pipe or placing of masonry be permitted with water in the excavation.

Dewatering methods and equipment shall be subject to the approval of the Engineer, and all water removed from the work shall be disposed of in a manner without damage to adjacent properties.

All applicable NJDEP regulations must be maintained with respect to dewatering and discharge.

QUANTITY AND PAYMENT

No specific payment will be made for dewatering and the cost thereof shall be included in the prices bid for the installation of various sizes of the proposed pipe and other structures.

-- END OF SECTION --

SITE GRADING

DESCRIPTION

Site Grading shall include but is not limited to grading, excavation, removal and disposal of any unsuitable material from the project site, importation of certified clean fill to the project site, preparing and compacting all material required for construction of the sub-grade in conformance with the elevations depicted on the contract documents of the entire disturbed area, furnishing a third party soils engineer for testing and verification of compaction and all incidental work necessary to construct the site to the proposed grades as shown on the contract documents and to the satisfaction of the Engineer and Owner.

NOTE: SEE GEOTECHNICAL ENGINEERING REPORT PREPARED BY JOHNSON SOILS COMPANY DATED JANUARY 27, 2012 FOR GRADING/EARTHWORK REQUIREMENTS INCLUDING, BUT NOT LIMITED TO SUBSURFACE EXPLORATIONS, SUBSURFACE CONDITIONS, FILL MATERIAL REQUIREMENTS, COMPACTION REQUIREMENTS, EXCAVATION REQUIREMENTS, AND GROUNDWATER CONTROL REQUIREMENTS. SITE GRADING, BACKFILLING AND COMPACTION SHALL BE IN ACCORDANCE WITH THE ABOVE REFERENCED REPORT. ALL FILL MATERIAL SHALL BE CERTIFIED CLEAN

SUBMITTALS

Product Data:

Samples: A 50 pound sample of each proposed material type to be used as fill shall be submitted to the soils engineer for approval and appropriate testing a minimum of 5 days prior to the start of work. Said material shall be certified clean. No fill material shall be utilized if not previously approved by the soils engineer.

Soils Engineer: The Contractor is responsible to furnish a third party Geotechnical Engineer that is licensed to do work in the State of New Jersey. The contractor shall submit the qualifications for review and approval to the Owner and/or Engineer prior to authorizing them to perform the work. The Geotechnical Engineer will be responsible to review and certify that the proposed controlled fill meets the required soil characteristics as specified as well as to certify that the material was compacted properly and meets the required densities. A report that is signed and sealed by a New Jersey Professional Engineer shall be furnished within 30 days of completion.

NOTE: The Contractor shall provide the Engineer with certification attesting that any material imported is free of contaminants, certified clean and suitable for this application. The soil shall be smooth, soft and free of depressions, clods, mounds, stones, or other debris as approved by the Soils Engineer. All fill materials shall meet all specifications contained within the Geotechnical Engineering Report prepared by Johnson Soils Company dated January 27, 2012. All fill material shall be certified clean.

PROJECT CONDITIONS

Protect existing trees and plants during performance of the Work unless otherwise indicated. Box trees and plants indicated to remain within the grading limit line with silt fence as required. Protect root systems from smothering. Do not store excavated material, or allow vehicular traffic

or parking within the branch drip line. Restrict foot traffic to prevent excessive compaction of soil over root systems.

Cold Weather Requirements:

- When freezing temperatures are predicted, do not excavate to final required elevations for concrete Work unless concrete can be placed immediately. Retain enough earth over the bottom elevation of footings to prevent frost penetration. If excavation has progressed to final footing elevations and concrete cannot be placed immediately, cover the bottom of the excavations with protective material to adequately insulate the exposed earth surface from frost. Remove protective material immediately before placing concrete.
- Do not backfill between November 1 and April 1, except with written permission of the Engineer.

MATERIALS

Controlled Fill:

- a) Sand and Gravel with less than 20% passing the #200 sieve, certified clean
- b) Dense Graded Aggregate (DGA), with less than 20% passing the #200 sieve, certified clean
- c) Any boulders or cobbles over 6 inches in diameter shall be removed from the fill placement area.
- d) On site Topsoil is unsuitable for use as backfill or controlled fill.

NOTE: The Contractor shall provide the Engineer with certification attesting that any material imported is free of contaminants, certified clean and suitable for this application. The soil shall be smooth, soft and free of depressions, clods, mounds, stones, or other debris as approved by the Engineer. All fill materials shall meet all specifications contained within the Geotechnical Engineering Report prepared by Johnson Soils Company dated January 27, 2012.

Filter Fabric (Separation, Drainage, Slope Protection): Amoco CEF 4545, CEF 4551; Exxon Chemical Co. GTF 150 EX; Mirafi Inc. 140N, 140NL; Nicolon Corp. Filterweave 70/06; Phillips Fibers Corp. Supac 4NP, 5NP, 7NP; Wellman Quline Inc. Q60, Q80, Q100.

METHOD OF CONSTRUCTION

CLEARING AND GRUBBING

Clear and grub the site of trees, shrubs, brush, other prominent vegetation, debris, and obstructions except for those items indicated to remain. Completely remove stumps and roots protruding through the ground surface.

Fill depressions caused by the clearing and grubbing operations in accordance with the requirements for filling and backfilling, unless further excavation is indicated.

UNDERGROUND UTILITIES

Locate existing underground utilities and service connections prior to commencing excavation Work. Determine exact utility locations by hand excavated test pits. Support and protect utilities to remain in place.

EXCAVATION

Excavate earth as required for the Work.

Maintain sides and slopes of excavations in a safe condition until completion of backfilling. Comply with Code of Federal Regulations Title 29 - Labor, Part 1926 (OSHA).

Stockpile excavated materials classified as suitable material where directed, until required for fill. Place, grade, and shape stockpiles for proper drainage as approved by the Engineer.

Pipe Trenches: Open only enough trench length to facilitate laying pipe sections. Unless otherwise indicated on the Drawings, excavate trenches approximately 24 inches wide plus the outside pipe diameter, equally divided on each side of pipe centerline. Cut trenches to cross section, elevation, profile, line, and grade indicated. Accurately grade and shape trench bottom for uniform bearing of pipe.

Pavement: Excavate to subgrade surface elevation.

Unauthorized Excavations: Unless otherwise directed, backfill and compact unauthorized excavation as specified for authorized excavation of the same classification, unless otherwise directed by the Engineer.

ROCK EXCAVATION

No blasting shall be performed by the Contractor except upon written permission of the Engineer. Any request by the Contractor for permission to blast must be submitted to the Engineer at least 24 hours prior to start of said proposed blasting.

If blasting permission is granted, the Contractor shall adhere strictly to all required Federal, State and Local safety regulations. In no case shall blasting caps or other exploders be kept at the same place where dynamite or other explosives are stored. A watchman shall be stationed at all times at the place of storage of explosives.

The prepared blast shall be carefully covered with a heavy woven wire blasting mat, placed so that the area affected by the explosion is positively confined. Should a gas, water or any other conduit intersect the line of trench, the rock must be removed without blasting from a distance of ten (10) feet on each side of such pipe or conduit.

The contractor shall be responsible for any damage to adjacent structures and property caused by his operations. He shall inspect all structures adjacent to the site of blasting and, when ordered by the Engineer, he shall take clear, close-up photographs of these structures before and after blasting. Copies of these photographs shall be submitted to the Engineer. The Engineer or his representative must be present at all times during blasting operations.

DEWATERING

Prevent surface and subsurface water from flowing into excavations and trenches and from flooding the site and surrounding area.

PLACING FILTER FABRIC

Place and overlap filter fabric in accordance with the manufacturer's installation instructions, unless otherwise shown. Backfill over fabric in accordance with the manufacturer's instructions and in a manner to prevent damage to the fabric.

PLACING FILL AND BACKFILL

Surface Preparation of Fill Areas: Strip topsoil, remaining vegetation, and other deleterious materials prior to placement of fill. Break up or scarify old pavements to a maximum of 2 square feet.

Excavations: Backfill as promptly as practicable, but only after approval by the Engineer. Do not backfill with excavated material unless it meets the requirements of this Section.

Place backfill and fill materials in layers not more than 6 inches thick in loose depth and compacted with a 10 ton vibratory roller or equivalent as approved by the Soils Engineer.. Before compaction, moisten or aerate each layer as necessary to facilitate compaction to the required density. Do not place backfill or fill material on surfaces that are muddy, frozen, or covered with ice.

Under Pavements and Walks:

- Up to Subgrade Surface Elevation: Place selected fill when fill or backfill is required.
- Subbase Material: Place as indicated.

Landscaped Areas: Place suitable material when required to complete fill or backfill areas up to subgrade surface elevation. Do not use material containing rocks over 4 inches in diameter within the top 12 inches of suitable material.

Plastic Pipe in Trenches: Place cushion material a minimum of 4 inches deep under pipe, 4 inches on both sides, and 4 inches over top of pipe. Complete balance of backfill as specified.

COMPACTION

Compact each layer of fill and backfill for the following area classifications to the percentage of maximum Modified Proctor dry density specified below and at a moisture content suitable to obtain the required densities, but at not less than 3 percent drier or more than 2 percent wetter than the optimum content as determined by ASTM D 698.

- Field Area and minimum three (3) feet beyond: 95 percent
- Landscaped Areas: 90 percent.
- Pavements and Walks: 95 percent.
- Pipes: 95 percent.

Field density tests shall be made by the Soils Engineer to determine the actual in-situ density attained in each layer of fill. No fill shall be placed over a layer that has not been tested and approved. Any layer showing less than 95% of maximum Modified Proctor dry density shall be reworked until the required density is obtained. Field density tests shall conform to ASTM-D2167, ASTM D2922, or ASTM D1556.

SUBGRADE SURFACE FOR WALKS AND PAVEMENT

Shape and grade subgrade surface as follows:

- Walks: Shape the surface of areas under walks to required line, grade and
- cross section, with the finish surface not more than 1 inch above or below the required subgrade surface elevation.

- Pavements: Shape the surface of areas under pavement to required line, grade and cross section, with the finish surface not more than 1/2 inch above or below the required subgrade surface elevation.

Grade Control: During construction, maintain lines and grades including profile and cross-slope of subbase course.

Thoroughly compact subgrade surface for walks and pavement by mechanical rolling, tamping, or with vibratory equipment as approved to the density specified.

RESTORATION

Restore pavements, walks, curbs, lawns, and other exterior surfaces damaged during performance of the Work to match the appearance and performance of existing corresponding surfaces as closely as practicable.

Topsoil and hydroseed damaged lawn areas outside of the project area as directed. Water as required until physical completion of the Work.

DISPOSAL OF EXCESS AND UNSUITABLE MATERIALS

Remove from the project site and dispose of excess and unsuitable materials, including materials resulting from clearing and grubbing and removal of existing improvements.

Transport excess and unsuitable materials, including materials resulting from clearing and grubbing and removal of existing improvements, to spoil areas away from the project site.

PROTECTION

Protect areas from traffic and erosion, and keep them free of trash and debris.

NOTE: SEE GEOTECHNICAL ENGINEERING REPORT PREPARED BY JOHNSON SOILS COMPANY DATED JANUARY 27, 2012 FOR GRADING/EARTHWORK REQUIREMENTS INCLUDING, BUT NOT LIMITED TO SUBSURFACE EXPLORATIONS, SUBSURFACE CONDITIONS, FILL MATERIAL REQUIREMENTS, COMPACTION REQUIREMENTS, EXCAVATION REQUIREMENTS, AND GROUNDWATER CONTROL REQUIREMENTS. SITE GRADING, BACKFILLING AND COMPACTION SHALL BE IN ACCORDANCE WITH THE ABOVE REFERENCED REPORT. ALL FILL MATERIAL SHALL BE CERTIFIED CLEAN

QUANTITY AND PAYMENT

The quantity of Site Grading for which payment will be made on a lump sum basis in accordance with the Plans and Specifications or as directed by the Engineer.

Payment for Site Grading will be on a lump sum basis at the price bid for the item **SITE GRADING** in the Proposal, which price shall include the cost of furnishing all equipment, labor, and all materials for excavation, placing backfill, placing controlled fill, importing of clean fill, compaction of soil, furnishing of Geotechnical Engineer and all else necessary therefor and incidental thereto. Any material excavated or removed from the site which is not suitable for backfill as determined by the Engineer shall be hauled off the site and disposed of in a suitable and timely manner and the cost thereof shall be included in the price bid for the item **SITE GRADING** in the Proposal.

EXCAVATION, UNCLASSIFIED

DESCRIPTION

Excavation Unclassified shall consist of the excavation, removal, and disposal of all materials of whatever nature, waste, rock, boulders, brick, stone, soil, and concrete masonry, small structures, removal of pipe where directed, removal of any other materials encountered of whatsoever nature, required for construction of the project, disposal of all excavated materials, the transportation of the excavated material, the construction of embankments with the material excavated when so required, the disposal of unsuitable and surplus materials, and all other work as herein described or as directed by the Engineer.

MATERIALS

NOT USED

METHODS OF CONSTRUCTION

2007 New Jersey Department of Transportation Standard Specifications, Division 200 – Earthwork, latest revised.

QUANTITY AND PAYMENT

No separate payment will be made for excavation unclassified. Any cost for excavation unclassified shall be distributed among the various items bid in the proposal for the installation of various sizes of the proposed pipe, walkways, pavement, turf field, curbing, driveways and other structures and shall include the cost of, any and all materials, all labor and equipment and all else necessary therefore and incidental thereto and in accordance with the Plans and Specifications or as directed by the Engineer.

-- END OF SECTION --

**MANHOLES, INLETS, DRAINAGE STRUCTURES, CONCRETE HEADWALLS AND
BACKFLOW PREVENTER**

DESCRIPTION

Manholes, Inlets, Drainage Structures & Backflow Preventer shall consist of the construction of these structures, the excavation and backfill therefore, and the furnishing and installing of said structures to complete the proposed drainage improvements.

MATERIALS

Pre-cast Concrete Manholes and Inlets may be used as approved by the Engineer.

Pre-cast Concrete Headwalls may be used as approved by the Engineer.

All materials used in the construction of Manholes, Inlets, and Catch Basins, shall conform to Section 603 - Inlets and Manholes of the Standard Specifications.

All inlet grates shall be bicycle safe grates.

All castings shall have the name of the County stamped or cast clearly and legibly thereon. Units not so furnished will not be accepted for use on County projects. Concrete blocks shall conform to the compressive strength and absorption requirements of A.S.T.M. C -139.

Tidflex in-line backflow preventer valves or approved equal in line backflow preventer may be utilized as approved by the Engineer.

METHODS OF CONSTRUCTION

N. J. Department of Transportation Standard Specifications.

Construction for Manholes, Inlets, and Catch Basins shall be in accordance with Section 603 - Inlets and Manholes. Particular attention should be brought to Section 603.06 – Pre-cast Concrete Inlets and Manholes, and Section 603.10 - Reconstruction and Conversion of Existing Structures.

QUANTITY AND PAYMENT

The quantity of the Manholes, Inlets, Drainage Structures, Concrete Headwalls, and Backflow Preventers for which payment will be made, will be measured by the number of each unit furnished and installed, in accordance with the Plans and Specifications or as directed by the Engineer.

Payment for the same will be made in accordance with the unit costs and lump sum costs for the various items as listed in the bid Proposal, which price shall include the cost of excavation, backfilling, concrete, forms, placing, finishing and curing of concrete, reinforcing steel, installation of stone base, all labor, materials, equipment and all else necessary therefore and incidental thereto in accordance with the Plans and Specifications or as directed by the Engineer.

-- END OF SECTION --

HDPE DRAINAGE PIPE

DESCRIPTION

This work shall consist of furnishing and installing storm drainage conveyance systems composed of lengths of high-density polyethylene (HDPE) pipe. It shall include the required excavation, clean stone, cleanouts (with caps), fabric and any other material, tools, equipment necessary to construct the underground detention basin and conveyance systems as shown on plan. It shall also include the required excavation, clean stone, street pavement sawcutting, street full depth pavement replacement, necessary police traffic directors and any other material, tools, equipment necessary to construct the HDPE storm drain piping as shown on plan and construction details.

SUBMITTALS

Submit samples and catalogue cuts of the proposed HDPE pipe, pvc pipe, geogrid, clean stone, cleanouts and geotextile fabric.

MATERIALS

High-density polyethylene pipe shall be Type N-12ST with soil tight joints as manufactured by Advanced Drainage Systems, Inc., Tel. 800-821-6710, or approved equal. Perforated piping shall be utilized for underground detention basin as depicted on the plans. Non-perforated piping shall be utilized for conveyance piping.

Geotextile fabric shall Type 140N as manufactured by Mirafi, Tel. 706-693-2226, or approved equal.

Geogrid to be Mirafi Miragrid or approved equal.

CONSTRUCTION

Excavation, bedding, and backfilling shall conform to Section 207 of the NJDOT Standard Specifications.

The underground detentions basins shall be installed in accordance with ASTM D2321 – Standard Practice for Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity-Flow Applications.

QUANTITY AND PAYMENT

The quantities of HDPE Pipe, for which payment will be made, will be the actual lengths constructed, in accordance with the Contract Plans, or as directed by the Engineer, measured in place where laid, except that the length between inner faces of catch basins, inlet, and manhole walls will not be measured for payment. Payment for HDPE, of all types and sizes specified, will be made for the length of each type and size as above determined, measured in linear feet, at the prices per linear foot bid for the various sizes of HDPE Pipe, in the Proposal, which prices shall include the cost of excavation, furnishing, laying, assembling and caulking the pipe, sheathing, shoring, bracing, pumping, backfilling, sawcutting, temporary pavement trench reconstruction, sub-grade, all materials, labor, equipment, and all else necessary to install the reinforced concrete pipe, as shown on the Contract Plans or as directed by the Engineer.

-- END OF SECTION --

REINFORCED CONCRETE PIPE

DESCRIPTION

This Specification covers reinforced concrete pipe intended to be used for the conveyance of storm water, and shall include the excavation for the construction of reinforced concrete storm pipe, subgrade, sawcutting, temporary reconstruction section for trench restoration, relocation of all gas, water and sanitary connections and in accordance with Section 602 - Storm Drains of the Standard Specifications, and as shown on the Contract Plans and Specifications, or as directed by the Engineer.

The contractor is responsible for providing neat sawcuts and for protection of existing curbs and driveway aprons adjacent to the installation of any reinforced concrete pipe. Any damage to existing curbs and/or driveway aprons shall be replaced at the contractor's cost.

Any gas and water relocations and connections shall be coordinated with PSE&G and United Water respectively. The contractor is responsible for the complete installation of these gas and water connections in accordance with PSE&G and United Water requirements and shall include (if required) any valves, bends, tees, taps, saddles, thrust blocks, site restoration, curb replacement, sidewalk replacement, etc. required for a continued use of service

The contractor is responsible for replacing any conflicts with the existing sanitary sewer laterals with newly constructed laterals, wye-connections, cleanouts, site restoration, curb replacement, sidewalk replacement, etc. required for a continued use of service.

Note: Contractor shall confirm location and elevation of all utility crossings via test pits prior to ordering reinforced concrete drainage pipe.

MATERIALS

All reinforced concrete pipe shall be Class IV.

Fine aggregate shall conform to the requirements of Section 901.13; Course aggregate shall be broken stone or washed gravel conforming to the requirements of Section 901.04 and Section 901.05, respectively. Elliptical reinforcing will not be permitted in circular pipe. Unless otherwise specifically provided, Class III, Wall B, shall be used as a minimum standard and Class IV, Wall B, shall be used as a minimum for extra strength reinforced concrete culvert pipe.

Sub-grade shall be as shown on the site plan

METHODS OF CONSTRUCTION

Construction shall be in accordance with Section 602 and excavation and backfill for all drains shall be governed by the provisions of Section 207 - Subsurface Structure Excavation of the Standard Specifications.

QUANTITY AND PAYMENT

The quantities of Reinforced Concrete Pipe, for which payment will be made, will be the actual lengths constructed, in accordance with the Contract Plans, or as directed by the Engineer, measured in place where laid, except that the length between inner faces of catch basins, inlet, and manhole walls will not be measured for payment.

Payment for Reinforced Concrete Pipe, of all types and sizes specified, will be made for the length of each type and size as above determined, measured in linear feet, at the prices per linear foot bid for the various sizes of REINFORCED CONCRETE PIPE STORM DRAIN in the Proposal, which prices shall include the cost of excavation, furnishing, laying, assembling and caulking the pipe, sheathing, shoring, bracing, pumping, backfilling, sawcutting, temporary pavement trench reconstruction, sub-grade, all materials, labor, equipment, and all else necessary to install the reinforced concrete pipe, as shown on the Contract Plans or as directed by the Engineer.

-- END OF SECTION --

CONCRETE CURB, VARIABLE HEIGHT

DESCRIPTION

This item Concrete Depressed Curbs & Concrete Variable Curb shall include the construction of 9" x 18" Concrete Vertical & Depressed Curbs, and 6"x18" Concrete Flush Header Curb as shown on the plans and curb repair as required for the construction of the proposed improvements, the excavation and removal of all earth, rock, boulders, brick, sawcutting, stone and concrete masonry, including small structures and other materials encountered of whatever nature, required for the construction of concrete curb. It shall also include the transportation and disposal of the excavated materials; the construction of embankments with the materials excavated; the disposal of unsuitable and surplus materials; and other work as shown on the plans or specified herein.

MATERIALS

NJDOT Standard Specifications Subsection 605.02.

METHODS OF CONSTRUCTION

Construction shall be in accordance with Section 605 – Curbs of the NJDOT Standard Specifications.

Excavation and backfill shall conform to the requirements of Section 202 - Roadway Excavation of the NJDOT Standard Specifications. The backfill and curb foundation shall be well compacted by means of flat-faced mechanical tampers, or by other means to be approved by the Engineer, and in accordance with Subsection 203.06. of the NJDOT Standard Specifications.

Curbs at handicap ramps shall be depressed so that the top is flush with the adjacent pavement or shoulder surface.

QUANTITY AND PAYMENT

The quantities of concrete curb for which payment will be made, will be the lengths actually constructed in accordance with the Plans or as directed by the Engineer.

Payment for concrete curbs will be made for the quantity of each, as above determined, measured in linear feet, at the price per linear foot bid for the item **CONCRETE CURB (9"x18")**, and **FLUSH CONCRETE CONCRETE HEADER CURB (6"X18")** in the Proposal, which shall include the cost of backfill, sub-grade, construction of curbs and headers, removal of existing curbs, construction/replacement of roof leaders, sawcutting, expansion joints in curb and between curb and adjacent concrete pavement or base course, doweling curbs to pavement, if prescribed, all work included in the two foot pay limit as shown in the detail, and cleaning pavement in connection therewith, all materials, labor and equipment necessary to construct Concrete Curbs, as shown on the Plans or as directed by the Engineer.

-- END OF SECTION --

CONCRETE PADS, 6" THICK REINFORCED CONCRETE

DESCRIPTION

Concrete Pads, 6" Thick Reinforced, shall include the construction of Portland Cement Concrete and landings and pads (6" thick) as shown on the plans, steel mesh reinforcement, and shall include the excavation and removal of all earth, rock, boulders, brick, sawcutting, stone and concrete masonry, including small structures and other materials encountered of whatever nature, required for the construction of reinforced concrete aprons. Concrete pads shall be constructed as all new bleachers, all new trash receptacles, all new benches, and at the proposed existing bleacher relocations as shown on the plans. It shall also include the transportation and disposal of the excavated materials; the construction of embankments with the materials excavated; the disposal of unsuitable and surplus materials; and other work as shown on the plans or specified herein.

MATERIALS

Materials shall be as those specified for Concrete Sidewalk and Driveways, as specified in Section 607, Sidewalks and Driveways of the N. J. Department of Transportation Standard Specifications.

METHODS OF CONSTRUCTION

Methods of construction shall be the same as for Concrete Sidewalk, as specified in Section 607, Sidewalks and Driveways of the N. J. Department of Transportation Standard Specifications.

QUANTITY AND PAYMENT

No separate payment will be made for Concrete Pads, 6" Thick Reinforced Concrete. Payment for reinforced concrete pads shall be included in the items, "**New Bleachers, 5 Row, 21' Long w/Concrete Pad,**" "**Relocate Existing Bleachers on New Concrete Pad,**" "**Trash Receptacles w/Concrete Pad,**" "**Benches w/Concrete Pad.**" Payment for any reinforced concrete pads as required per construction details or specifications shall be included in the various bid items.

-- END OF SECTION --

DENSE GRADED AGGREGATE, 6" THICK

DESCRIPTION

This item shall include the placement of 3/4" Dense Graded Aggregate, including all necessary excavation and removal of all earth, rock, boulders, brick, stone and concrete masonry, including small structures and other materials encountered. It shall also include all necessary transportation, grading, placement and disposal of material.

MATERIALS

The stone shall be free from pieces coated with clay, caked stone dust and other objectionable materials. It shall not contain more than 5% of weathered and decomposed rock, not more than 5% of stone of types other than the type being used, in accordance with the Specifications, and not more than 7% by weight of flat or elongated pieces. A flat piece shall be one in which the ratio of the width to thickness of its circumscribing rectangular prism is greater than 5:1, and an elongated piece shall be one in which the ratio of the length to width of its circumscribing rectangular prism is greater than 5:1. The percentage of wear shall be determined in accordance with A.A.S.H.T.O. Designation T3. All Dense Graded Aggregate shall be certified clean.

METHODS OF CONSTRUCTION

Excavation and backfill of the Dense Graded Aggregate shall be in accordance with Section 202, Roadway Excavation of the Standard Specifications.

QUANTITY AND PAYMENT

Payment for dense graded aggregate shall be made on a square yard basis for the dense graded aggregate pavement sub base constructed in accordance with the plans and specifications under the item, **DENSE GRADED AGGREGATE SUB-BASE COURSE, 6" MINIMUM THICKNESS, PEDESTRIAN PATH.**

-- END OF SECTION --

HOT MIX ASPHALT BASE COURSE, MIX 19M64

DESCRIPTION

This work shall consist of the furnishing and placing of hot mix asphalt base course on the prescribed surfaces, locations, in the specified thicknesses necessary for the construction of the proposed pedestrian pathways in accordance with the Plans and Specifications within the project limits.

MATERIALS

The composition of the Hot Mix Asphalt Mix 19M64 Course shall be coarse aggregate, fine aggregate, mineral filler and asphalt cement. These shall be as shown in the Standard Specifications, except that the materials shall conform to the requirements as shown for "Stone Mix". All reference to gravel mix is deleted.

CONSTRUCTION

After spreading and strike off, and while hot, each course shall be compacted thoroughly and uniformly by rolling. The rolling shall be done with a three-wheel ten (10) ton roller until the mixture is thoroughly compacted to the satisfaction of the Engineer.

A tack coat shall be applied to any one or more layers of the Hot Mix Asphalt, if in the opinion of the Engineer such layer or layers become coated with dust, dirt, or other foreign material sufficiently to prevent a good bond between the layers of Base Course or between the completed Base Course and Surface Course.

QUANTITY AND PAYMENT

Payment for the construction of the HMA Base Course, Mix 19M64, will be the actual tonnage delivered and used. In computing the tonnage, proven truck weights shall govern. The net weight mixture delivered in each truckload shall be determined in the following manner.

Each truckload of material delivered shall be weighted by a certified weigh master, on certified scales approved by the Division of Weights and Measures, Department of Law and Public Safety. The weigh master shall furnish to the truck driver duplicate weight slips showing the gross, tare and net weight. To each weight slip shall be affixed his signature and official seal or approved commissioned stamp attesting that he is a duly constituted weigh master. One of these delivery slips shall be furnished to the Engineer's Representative on the project. No material will be accepted unless accompanied by such a delivery slip, which shall be completely legible and clearly indicate the title of the project for which delivery is intended.

The Engineer shall deduct the weight of all material lost, wasted, damaged or rejected, or laid in excess of the Engineer's direction or contrary to the Specifications, in determining the quantity for payment.

Payment for Mix 19M64 will be made for the quantity as above determined, at the price bid per ton for **HMA BASE COURSE, 19M64, 2" MIN. THICKNESS, PEDESTRIAN PATH** in the Proposal, which shall include the cost of asphalt, tack coat, all materials, labor, equipment, testing of materials and all else necessary to complete the surface course as shown on the plans or as directed by the Engineer.

-- END OF SECTION --

HOT MIX ASPHALT SURFACE COURSE, MIX 9.5M64

DESCRIPTION

This work shall consist of the furnishing and placing of hot mix asphalt surface course on the prescribed surfaces, locations, in the specified thicknesses necessary for the construction of the proposed pedestrian pathways in accordance with the Plans and Specifications within the project limits.

MATERIALS

The composition of the Hot Mix Asphalt Mix 9.5M64 Course shall be coarse aggregate, fine aggregate, mineral filler and asphalt cement. These shall be as shown in the Standard Specifications, except that the materials shall conform to the requirements as shown for "Stone Mix". All reference to gravel mix is deleted.

CONSTRUCTION

After spreading and strike off, and while hot, each course shall be compacted thoroughly and uniformly by rolling. The rolling shall be done with a three-wheel ten (10) ton roller until the mixture is thoroughly compacted to the satisfaction of the Engineer.

A tack coat shall be applied to any one or more layers of the Hot Mix Asphalt, if in the opinion of the Engineer such layer or layers become coated with dust, dirt, or other foreign material sufficiently to prevent a good bond between the layers of Base Course or between the completed Base Course and Surface Course.

QUANTITY AND PAYMENT

Payment for the construction of the HMA Surface Course, Mix 9.5M64, will be the actual tonnage delivered and used.

In computing the tonnage, proven truck weights shall govern. The net weight mixture delivered in each truckload shall be determined in the following manner.

Each truckload of material delivered shall be weighted by a certified weigh master, on certified scales approved by the Division of Weights and Measures, Department of Law and Public Safety. The weigh master shall furnish to the truck driver duplicate weight slips showing the gross, tare and net weight. To each weight slip shall be affixed his signature and official seal or approved commissioned stamp attesting that he is a duly constituted weigh master. One of these delivery slips shall be furnished to the Engineer's Representative on the project. No material will be accepted unless accompanied by such a delivery slip, which shall be completely legible and clearly indicate the title of the project for which delivery is intended.

The Engineer shall deduct the weight of all material lost, wasted, damaged or rejected, or laid in excess of the Engineer's direction or contrary to the Specifications, in determining the quantity for payment.

Payment for Mix 9.5M64 will be made for the quantity as above determined, at the price bid per ton for **HMA SURFACE COURSE, 9.5M64, 2" THICK, PEDESTRIAN PATH** in the Proposal, which shall include the cost of asphalt, tack coat, all materials, labor, equipment, testing of materials and all else necessary to complete the surface course as shown on the plans or as directed by the Engineer.

-- END OF SECTION --

SYNTHETIC TURF

Description

- A. The synthetic turf shall be super premium high performance synthetic grass that simulates real grass in every imaginable way. It shall be engineered for consistent performance and durability, as well as improved traction, impact absorption and ball movement. The work include furnishing all labor, materials, tools and equipment necessary to install, in place, a synthetic turf system. The installation of all new materials shall be performed in strict accordance with the manufacturers written installation instructions, and in accordance with all approved shop drawings.

The bid shall include all work necessary to construct the multi-sport synthetic turf field with underdrain system which includes the complete removal and disposal of the existing natural turf field, and all excavation and disposal of topsoil and materials, rough and final grading, vibratory compaction, geotextile fabrics, underdrains, collector pipes, header pipes, clean stone, earthwork, concrete header curb, artificial turf system with pad, inlaid and tufted line striping, field markings, site construction photographs and any other item required to construct a complete turf field cross section as per the contract documents which shall include the furnishing of all materials, labor and equipment and all else necessary therefore and incidental thereto.

Submittals

- A. The following documents shall be provided to verify product quality, performance and installation procedures as well as for the evaluation of compliance with these specifications. The proposer shall provide written certification of 3rd party ASTM product test results listed in this specification for the synthetic turf system proposed. **Items B, D, E, F, G, I, K with bid submittal.** All other items within 10 days of contract award.
- B. Product Data: Include full specification cut sheets of the products specified and third party certified ASTM testing showing compliance with the published specifications with the bid submittal. The Proposer shall also provide documentation as to the sources of the component materials and relates characteristics.
- C. Shop Drawings: Show fabrication and installation details for synthetic turf. Drawing shall be in color and include the layout of all sports lines including those to be painted on to verify layout and compliance to specification.
- D. Samples for Verification: For the following products, in manufacturer's standard sizes.
- 1) A 12-inch x 12-inch, minimum sample of the exact synthetic turf proposed for this project.
underlayment pad system that is specified for this project.
 - 2) A 2.5 lbs sample of the exact infill (silica sand) to be utilized for this project.

3) A 12" x 12" sample of the exact underlayment pad to be utilized for this project.

- E. **Manufacturer Certificates:** The turf manufacturer shall have a certified list of Fifteen (15) existing synthetic turf system installations utilizing both a polyethylene face fiber & and nylon secondary fiber within the last three years, including Owner representative and telephone number, attesting compliance with quality assurance information. All must be located in areas of similar climate as this project location and have a minimum of 52 oz/sy of fiber face weight.
- F. **Qualification Data:** The turf manufacturer must have 15 installations of 80,000 square feet or more of this specific type nylon secondary fiber & polyethylene face fiber all being located in the Continental United States in locations similar in climate to this project location.
- G. **Synthetic turf system shall be approved as ADA Handicap Accessible as determined by Test Method - ASTM 1951-99 (Standard Specification for determination of accessibility of surface under and around playground equipment. Proof of passing test must be submitted with bid.**
- H. **Warranties:** The Contractor shall provide the following warranties for all system components.
- I. **Synthetic Turf**
 - 1. **Full term Manufacturer's Warranty and proof of a third party insurer that guarantees usability and playability on a non-prorated basis. Warranty will cover all materials, workmanship and entire system performance for a minimum of 8 years from the date of substantial completion. The turf manufacturer must verify that their representative has inspected the installation and that the work conforms to the manufacturer's requirements. The warranty shall specifically exclude vandalism, and acts of God beyond the control of the Owner or the manufacturer. The warranty shall be fully third party insured pre-paid for the entire term and be non-prorated. Prior to final payment for the synthetic turf, the Contractor shall submit to the Owner an insurance policy, guaranteeing the warranty to the Owner:**
 - a. **The insurance must reflect the following values:**
 - i. **Must provide coverage for \$10 million dollars per claim of total installed turf for removal, disposal and replacement of new synthetic turf.**
 - ii. **Must have a minimum of a \$15 million dollar annual aggregate towards repairs/replacements in a given policy year. The annual aggregate shall be applied only to policies executed in the 12 month policy window. Every annual policy year, another \$15 million worth of annual aggregate shall be set aside for the policies executed in that policy year.**

- iii. Must cover full 100% removal and replacement value of the total square footage installed. Minimum of \$10/SF replacement value towards the replacement and installation of a new synthetic turf system.
- iv. The annual aggregate shall be applied only to policies executed in the 12 month policy window. The same annual aggregate from previous policy years cannot be utilized for the current policy year.
- v. Must warrant that the materials installed meet or exceed the product specifications.
- vi. Must have a provision to repair or replace such portions of the installed materials that are no longer serviceable toward maintaining a serviceable playing field.
- vii. No deductible shall apply to the owner.
- viii. Shall cover general wear, color fading and damage caused from UV degradation.
- ix. Shall provide coverage stating that the length and weight of the pile shall not decrease by more than 10% per year in accordance with ASTM D418. nor exceed 50% during the life of the warranty.
- x. Shall cover defects in the installation workmanship, and further warrant that the installation was done in accordance with both the manufacturer's recommendations and any written directives of the manufacturer's representative.
- xi. Shall provide that G-MAX values for all points of sampling and testing as determined and set forth using ASTM F355 protocols and additional requirements of the warranty shall be between 100 and 150 G's upon installation and shall not exceed 180 G's during the life of the warranty. Any one annual increase shall not exceed 5%.
- xii. Fabric seams shall remain attached and shall not become unattached or separate during the life of the warranty. All heat welded lines, numbers, logos etc shall remain attached and shall not become unattached or separate during the life of the warranty.
- xiii. Sample copy of the manufacturer's warranty & 3rd party insurance policy must be submitted with the bid.
- xiv. Must not limit the number of hours used annually.

2. Underlayment Pad

- a. Term length – 16 years

- b. Must carry the provision that the warranty will include the replacement of the synthetic turf carpet system should a replacement be necessary due to the underlayment pad.
 - c. Must include a copy of the manufacturer's warranty with the bid submission.
- J. Operational and Maintenance Data: Submit manufacturer's data in a three ring binder, labeled and indexed. Describe at a minimum recommended maintenance procedures, recommended frequency of each maintenance procedure and manpower to accomplish each required maintenance procedure. Provide statements and documentation for protocols for assessments of surface resilience, flammability and restoration. Provide statements and documentation for protocols for surface cleaning of fluid spills, animal waste, pathogens, vandalism, food and debris. Contractor shall provide training of County personnel on all maintenance requirements as scheduled by the Owner. Contractor shall be available for consultation should issues arrive after construction is complete.
- K. Installer Qualifications: The installation crew shall be a certified representative of the synthetic turf manufacturer for installation and maintenance of units required for this Project and shall consist of one lead installer with a minimum of 15 infill synthetic turf installations and two installers with a minimum of 10 infill synthetic turf installations. Installation foreman shall have the experience of 5 fields of synthetic turf with an underlayment resilient pad. Proof of a manufacturer's certified crew and meeting experience qualifications must be with bid.
- L. The synthetic turf company and Manufacturer (if different than specified manufacturer) shall specify in writing that their turf system does not violate any other manufacturers patents, patents allowed or patents pending.

Manufacturers

“Not Used” – The phrase means no manufacturer is specified. Bidders are directed to provide a manufacturer which meets the specification requirements for the material.

Materials

- A. Synthetic Turf System: A complete synthetic turf system consisting of a minimum of 1.25" tall blade with a combination of polyethylene slit-film fiber & and shorter texturized nylon monofilament thatch fiber tufted to a minimum three-part woven backing primary backing. A mechanically applied adhesive secondary backing is then added. The polyethylene face fiber shall be a minimum 8,000 denier and secondary fiber shall be 6,000 denier. The fiber shall be specifically designed to virtually eliminate abrasion.

The synthetic turf shall be as described below.

- B. Synthetic Turf: A complete synthetic grass system consisting of polyethylene slit-film fiber with a shorter texturized nylon monofilament thatch fiber tufted to a minimum

three-part woven backing primary backing and a mechanically applied adhesive secondary backing.

- a. The fiber shall be a minimum of 8,000 denier (polyethylene) and 6,000 denier (secondary nylon fiber) (in accordance with ASTM D1907) low friction fiber, measuring minimum 1 ¼" inches high (in accordance with ASTM D5848).
 - b. The low friction fiber shall be specifically designed to virtually eliminate abrasion. The carpet shall be delivered in 15 feet wide rolls. The rolls shall be of sufficient length to go from track edge to track edge. Head seams, other than at sidelines, will not be acceptable.
 - c. Perimeter edge details required for the system shall be as detailed and recommended by the manufacturer. All of the above field markings and lines of the various kinds shall be approved by the owner in writing before ordering the synthetic turf materials.
 - d. Infill shall be only washed, rounded silica sand. Minimum of 2.5 lbs/sf.
- C. Underlayment Pad: A 14 mm polypropylene pad shall be installed under the synthetic turf system.
- a. Thickness – 14 mm minimum
 - b. Size – 3' x 5' panels (rolled products are not acceptable).
 - c. Warranty length – 16 years
 - i. Must carry the provision that the warranty will include the replacement of the synthetic turf carpet system should a replacement be necessary due to the underlayment pad.
 - d. Product – Brock SP14 or approved equal. All equals must be reviewed post bid for acceptance.

The synthetic turf product shall meet all physical characteristics as tested in accordance with ASTM F1551, "Standard Test Methods for Comprehensive Characterization of Synthetic Turf Playing Surfaces and Materials" including but not limited to the following:

1. GMAX values between 100 and 150 G's upon installation in accordance with ASTM F355.
2. Fabric breaking strength of an average of 200 lbs force for both length and width in accordance with ASTM 5034.
3. Tuft bind force resistance of 8 pounds minimum in accordance with ASTM D1335.
4. Pile height of a minimum of 1 ¼" inches in accordance with ASTM D5823.
5. Pile weight of a minimum of 80 ounces per square yard permeable double-layered primary backing weight of a minimum of 6.5 ounces per square yard. Porous secondary backing applied at a minimum rate of 20 ounces per square yard for a total

- weight of a minimum of 106.5 ounces per square yard in accordance with ASTM D5848.
6. Stitch rate of 4.6 spi and a gauge of only 3/16" in accordance with ASTM D5793.
 7. Ribbon breaking strength of a minimum of 20 pounds force in accordance with ASTM D2256.
 8. Melting point for the polyethylene fiber greater than or equal to 200°F in accordance with ASTM D789.

Quality Assurance

A. **Installer Qualifications:** The installation crew shall be an authorized representative of synthetic turf manufacturer for installation and maintenance of units required for this Project and shall consist of one lead installer with a minimum of 15 infill synthetic turf installations and two installers with a minimum of 10 infill synthetic turf installations. Installation foreman shall have the experience of 10 fields of synthetic turf and an underlayment pad.

B. **Source Limitations:** Obtain synthetic turf through one source from a single manufacturer.

C. **Preinstallation Conference:** No turf installation shall commence until a formal pre-installation conference is held with the contractor, engineer, and County personnel.

D. All components and their installation method shall be designed and manufactured for use on outdoor athletic fields. The materials as hereinafter specified, should be able to withstand full climatic exposure in Northern NJ, be resistant to insect infestation, rot, fungus and mildew; to ultra-violet light and heat degradation, and shall have the basic characteristic of flow through drainage allowing free movement of surface run-off through turf and directly into the prepared granular base and into the field drainage system.

E. The synthetic turf and all components shall be of national reputation with previous use at all levels of competition, including professional and collegiate levels and shall have been in use for a period of not less than 5 years. The turf fabric shall be produced by the manufacturer and installed by factory-authorized distributors directly employing the installation crew.

F. With the bid, the synthetic turf company and Manufacturer (if different than specified manufacturer) shall specify in writing that their turf system does not violate any other manufacturers patents, patents allowed or patents pending.

G. Since the base preparation and construction is an integral part of the synthetic turf system, the manufacturer/ installer of the synthetic turf shall supervise construction and inspect the subbase and supply a Certificate of Sub-base Acceptance for the purpose of obtaining manufacturer's warranty for the finished synthetic playing surface.

627.03 Project Conditions

1. **Weather Limitations:** Proceed with installation only when existing and forecasted weather conditions permit synthetic turf to be installed according to manufacturers' written instructions and warranty requirements.

2. Field Measurements: Indicate measurements on Shop Drawings.

Warranty

Warranties shall be in accordance with Paragraph H of Section 627.02 of this specification.

- A. Synthetic Turf: The carpet rolls are to be installed directly over the properly prepared base stone. Extreme care should be taken to avoid disturbing the base stone, both in regard to compaction and planarity. A 2-5 ton static roller shall be on site and available to repair and properly compact any disturbed areas of the base stone. The full width rolls shall be laid out across the field. Utilizing standard state of the art procedures, each roll shall be attached to the next. Each seam will be either attached using hot melt technology. When all of the rolls of the playing surface have been installed, the sideline areas shall be installed at right angles to the playing field turf.
- B. All seams shall be transverse to the field direction: i.e., run perpendicularly across the field. Seams shall be flat, tight, and permanent with no separation or fraying. Synthetic turf shall be installed across the field and attached to the perimeter edge detail. Turf shall be of sufficient length to permit full cross-field installation. No head or cross seams will be allowed.
- C. Resilient Layered Infill
 - a. Silica Sand - Infill particles shall be silica sand only at a minimum of 2.5 lbs/sf.

Field Quality Control

- A. Testing Services: installed system will be tested for GMAX at locations defined in ASTM F1936 upon substantial completion. All test locations will be offset approximately 12 inches from any fabric seam and all subsequent re-testing will be performed at the exact same location as previous tests for comparison. The Contractor is responsible for all costs incurred as a result of the testing.
- B. At substantial completion, the GMAX average shall not exceed 125 G's with no single location value in excess of 150 G's. The testing company shall submit three copies of the GMAX test report to the Engineer prior to the date of substantial completion.
- C. The synthetic turf manufacturer shall perform annual GMAX testing on the anniversary of the completion of the field by a licensed 3rd party testing firm (8 total). A copy of each test shall be submitted to the owner.
- D. If after a GMAX test, the surface exceeds a GMAX rating, as noted in items 2 and 3 above at any one time during the life of the warranty, the turf contractor will be required to repair the field at no cost to the Owner.
- E. The Owner and the Engineer shall review the proposed repair methods prior to the Contractor completing the repairs. If after two attempts to repair the field, the GMAX rating exceeds the requirements noted above, the Contractor will be required to replace the field at no cost to the Owner. If replacement is required, construction shall be completed within 90 days.

- F. Remove and replace applications where test results indicate that it does not comply with specified requirements.
- G. The Contractor shall provide evidence from the manufacturer that the turf can be plowed with conventional rubber bladed snow removal equipment.
- H. Prior to Final Acceptance, the Contractor shall submit to the owner three (3) copies of Maintenance Manuals, which will include all necessary instructions for the proper care and preventative maintenance of the synthetic turf system including painting and striping.

FIELD MARKINGS AND TURF COLORS

ALL PROPOSED FIELD MARKINGS TO BE “INLAID” FABRIC MARKINGS. THERE IS TO BE NO PAINTED ON LINES.

- **CONTRACTOR SHALL VERIFY ALL DIMENSIONS.**
- **CONTRACTOR SHALL OBTAIN/PROVIDE A COLORIZED FIELD MARKING PLAN SHOP DRAWING FROM THE TURF MANUFACTURER SHOWING ALL MARKINGS, LINES, NUMBERS, LOGOS, COLORS, DIMENSIONS, ETC. FOR REVIEW AND APPROVAL BY UNION COUNTY WITHIN 5 DAYS OF NOTICE TO PROCEED .**
- **THE FIELD WILL BE STRIPED FOR 3 FIELDS TO INCLUDE FOOTBALL, SOCCER, AND LACROSSE. ALL MARKINGS SHALL BE PERMANENTLY INLAID IN THE TURF AS APPROVED BY UNION COUNTY.**
- **ALL SPORTS MARKINGS SHALL CONFORM TO THE LATEST NFHS REGULATIONS.**
- **ALL COLORS AND DIMENSIONS SHALL BE APPROVED BY UNION COUNTY.**

MAINTENANCE EQUIPMENT

- A. Sweeper – Greengroomer Litterkat or approved equal - The sweeper will have a basket which collects swept debris from the field. The equipment should be capable of being pulled behind a standard tractor or utility vehicle. No additional payment will be made for providing the equipment. Width of unit shall be a minimum of 73”. No additional payment will be made for providing the equipment.
- B. Groomer – SMG TCA 1400 or approved equal - The groomer shall include a deep rake that penetrates the infill. The equipment should be capable of being pulled behind a standard tractor or utility vehicle. The rotary brush straightens up the turf fibers and in the same process, gathers up all kind of dirt particles. The vibrating screen can be precisely adjusted with variable settings from 4 - 10 mm depending on the degree of pollution and the grid size of the infilling material. A trailing brush row levels the infilling material and with a gentle action, lightly works it back into the artificial turf. No additional payment will be made for providing the equipment.

QUANTITY AND PAYMENT

Payment for Synthetic Turf will be made for the quantity as above determined, at the price bid per square yard for the item **“SYNTHETIC TURF (FOR CROSS SECTION ABOVE CHOKING STONE) INCLUDING CUSTOM EMBLEM, NUMBERS, AND INLAID MARKINGS”** in the Proposal, which shall include the all labor, materials, and all else required to furnish and install the artificial synthetic turf system as specified above.

-- END OF SECTION --

SYNTHETIC TURF BASE

DESCRIPTION

Furnish all labor, materials, tools and equipment necessary to install, in place, aggregate base and drainage for the synthetic turf as indicated on the plans and as specified herein. The installation of all new materials shall be performed in strict accordance with the manufacturers written installation instructions, and in accordance with all approved shop drawings.

MATERIALS

The system shall consist of a vertical draining base consisting of the following:

GEOTEXTILE FABRIC

The entire field shall be underlain directly on subgrade by a continuous non-woven permeable geotextile fabric, as manufactured by American Engineering Fabrics, Style 480; Mirafi 140N or approved equivalent.

UNDERDRAIN SYSTEM

The underdrain system shall be installed as indicated on the plan and in accordance with all shop drawings. The underdrain system shall be connected to a perimeter drain as indicated on the plans and details.

POROUS STONE BASE

The stone base shall consist of a large base stone and a porous "choking" finish aggregate material. The large stone base layer shall consist of a blended mix of clean, washed, No.3 and No. 2 Crushed Stone or ¾" clean stone as per turf manufacturers recommendation. The aggregate "choking" material shall consist of clean, washed, No. 1 Crushed Stone. All stone must be approved in writing by the turf installer / supplier and must conform to the following gradations:

%PASSING		
<u>SIEVES</u>	<u>BASE STONE</u>	<u>FINISHING STONE</u>

3" or 75mm		
2" or 50mm	100	
1½" or 38mm	90-100	
1" or 25mm	75-100	
¾ or 19mm	65-95	
½" or 12.5mm	55-85	100
3/8" or 9.5mm	40-75	85-100
¼" or 6.3mm	25-65	75-100
US #4 or 4.75mm	15-60	60-90
US #8 or 2.36mm	0-40	35-75
US #16 or 1.18mm	0-20	10-55
US #30 or 600mm	0-7	0-40
US #60 or 250mm	0-5	0-15
US #100 or 150mm	0-3	0-8
US #200 or 75mm	0-2	0-2

RESTRICTIONS:

To ensure structural stability: $D_{60}/D_{10} > 5$ and $1 < \frac{D_{30}^2}{D_{10} D_{60}} < 3$

Fragmentation must be 100%.

To ensure separation of both stones: $\frac{D_{85} \text{ of finishing stone}}{D_{15} \text{ of base stone}} > 2$

and $3 < \frac{D_{50} \text{ of base stone}}{D_{50} \text{ of finishing stone}} < 6$

To ensure proper drainage:

Permeability of base stone > 500 in/hr (3.5×10^{-1} cm/sec)

Permeability of finishing stone > 20 in/hr (1.4×10^{-2} cm/sec)

Porosity of both stones $> 25\%$

(When stone is saturated and compacted to 95% Proctor.)

Depending on the type of rock present in the crushed stone mix, other mechanical characteristics might be necessary for approval

“Dx” is the size of the sieve (in mm) that lets pass x% of the stone. For example, D_{60} is the size of the sieve that lets 60% of the stone pass. These sizes, for calculation purposes, may be obtained by interpolation on a semi-log graph of the sieve analysis.

CONSTRUCTION

All topsoil, organic, and non-compactable materials shall be removed. The sub-grade slope shall be 1% from the center of the field to the sidelines per plans and details. The base installer shall strictly adhere to the installation procedures outlined under this section. Any variance from these requirements must be approved in writing by the manufacturer's representative, and submitted to the ENGINEER, verifying that the changes do not in any way affect the warranty. The turf manufacturer and turf installer must accept the aggregate base prior to the installation of the synthetic grass system. The surface tolerance shall not exceed 1/4 inch over 10 feet. Laser grading shall be utilized. The soil bed must be compacted in both directions to attain the specified compaction rate which is generally 95% standard Proctor.

The crushed stone shall be laid without damaging the soil bed. If the required compacted depth of the base course exceeds 6", the base shall be constructed in 2 or more layers or lifts of approximate equal thickness. Each layer shall be compacted in both directions to attain the specified compaction rate. The finished crushed stone base shall be sloped 0.5% from the center longitudinal axis towards the sidelines or as specified. The finished crushed stone base surface of the leveling course shall not vary from the specified grade by more than 1/4 " in 10' when measured in any direction.

The final grade aggregate layer shall not be more than 2" thick. The final grade material shall be sloped 0.5% from the center longitudinal axis towards the sidelines unless otherwise specified. The final grade shall be compacted in both directions according to the specifications.

QUANTITY AND PAYMENT

Payment for Synthetic Turf Base will be made for the quantity as above determined, at the price bid per cubic yards for the item **"POROUS LARGE STONE (FOR FIELD SUB BASE)"** and **"CHOKING STONE (FOR FIELD SUB BASE)"** in the Proposal, which shall include the all labor, materials, and all else required to furnish and install the turf field stone sub base system.

-- END OF SECTION --

MODULAR CONCRETE BLOCK RETAINING WALLS

PART 1 GENERAL

1.01 DESCRIPTION

- A. Work shall consist of furnishing and construction of a TECHO or approved equal Reinforced Block Retaining Wall System or equal in accordance with these specifications and in reasonably close conformity with the lines, grades, design, and dimensions shown on the Plans. Please note that this specification is limited to landscape block walls having a maximum exposed height of 3.25 feet as shown on the plans.
- B. Work includes preparing foundation soil, furnishing and installing compacted granular leveling pad, ¾" clean stone unit drainage fill and reinforced compacted earth backfill, 4" perforated pvc drain, to the lines and grades shown on the construction drawings.
- C. Work includes furnishing and installing geogrid soil reinforcement of the type, size, location, and lengths designated on the Plans.

1.02 RELATED SECTIONS

- A. Section 31200 – Site Grading

1.03 REFERENCE DOCUMENTS

- A. American Society for Testing and Materials (ASTM)
 - 1. ASTM C-1372 Specification for Segmental Retaining Wall Units
 - 2. ASTM D-422 Particle Size Analysis
 - 3. ASTM D-698 Laboratory Compaction Characteristics of Soil -Standard Effort
 - 4. ASTM D-4318 Liquid Limit, Plastic Limit and Plasticity Index of Soils
 - 5. ASTM D-4595 Tensile Properties of Geotextiles - Wide Width Strip
 - 6. ASTM D-5262 Unconfined Tension Creep Behavior of Geosynthetics
 - 7. ASTM D-3034 Polyvinyl Chloride Pipe (PVC)
 - 8. ASTM D-1248 Corrugated Plastic Pipe
 - 9. ASTM D-4475 Horizontal Shear Strength of Pultruded Reinforced Plastic Rods
- B. Geosynthetic Research Institute (GRI)
 - 1. GRI-GG4 Determination of Long Tern Design Strength of Geogrids
 - 2. GRI-GG5 Determination of Geogrid (soil) Pullout
- C. National Concrete Masonry Association (NCMA)
 - 1. NCMA SRWU-1 Test Method for Determining Connection Strength of SRW
 - 2. NCMA SRWU-2 Test Method for Determining Shear Strength of SRW

1.04 SUBMITTALS/CERTIFICATION

- A. Contractor shall submit a Manufacturer's certification, prior to start of work, that the retaining wall system components meet the requirements of this specification and the structure design.
- B. Contractor shall submit construction shop drawings with design calculations for the retaining wall system certified by a Professional Engineer registered in the state of the NJ. The engineering designs, techniques, and material evaluations shall be in accordance

with the Manufacturer's Design Manual, NCMA Design Guidelines For Segmental Retaining Walls, or the AASHTO Standard Specifications for Highway Bridges, Section 5.8 (whichever is applicable to designer).

- C. Contractor shall submit a test report documenting strength of specific modular concrete unit and geogrid reinforcement connection. The maximum design tensile load of the geogrid shall be equal to the laboratory tested ultimate strength of geogrid / facing unit connection at a maximum normal force limited by the "Hinge Height" of the structure divided by a safety factor of 1.5. The connection strength evaluation shall be performed in accordance with NCMA test method SRWU-1.

1.05 QUALITY ASSURANCE

- A. Contractor shall submit a list of five (5) previously constructed projects of similar size and magnitude by the wall installer where the specific retaining wall system has been constructed successfully. Contact names and telephone numbers shall be listed for each project.
- B. Engineer may provide soil testing and quality assurance inspection during earthwork and wall construction operations. Contractor shall provide any quality control testing or inspection not provided by the Engineer. Engineer's quality assurance program does not relieve the contractor of responsibility for quality control and wall performance.

1.06 Delivery, Storage and Handling

- A. Contractor shall check all materials upon delivery to assure that the proper type, grade, color, and certification has been received.
- B. Contractor shall protect all materials from damage due to jobsite conditions and in accordance with manufacturer's recommendations. Damaged materials shall not be incorporated into the work.

PART 2 PRODUCTS

2.01 DEFINITIONS

- A. Modular Unit - a concrete retaining wall element machine made from Portland cement, water, and aggregates.
- B. Structural Geogrid - a structural element formed by a regular network of integrally connected tensile elements with apertures of sufficient size to allow interlocking with surrounding soil, rock, or earth and function primarily as reinforcement.
- C. Unit Drainage Fill - drainage aggregate, which is placed within and immediately behind the modular concrete units.
- D. Reinforced Backfill - compacted soil, which is placed within the reinforced soil volume as outlined on the plans.

2.02 MODULAR CONCRETE RETAINING WALL UNITS

- A. Modular concrete units shall conform to the following architectural requirements:

1. Face color – To be selected and approved by Union County and Engineer from standard available face colors.
2. Face finish - sculptured rock face in angular tri-planer configuration. Other face finishes will not be allowed without written approval of Engineer.
3. Bond configuration - running with bonds nominally located at midpoint vertically adjacent units, in both straight and curved alignments.
4. Exposed surfaces of units shall be free of chips, cracks or other imperfections when viewed from a distance of 10 feet under diffused lighting.

Note: product submittal for modular concrete unit to be provided to Engineering and Union County prior to construction or ordering the proposed units.

- B. Modular concrete materials shall conform to the requirements of ASTM C1372 - Standard Specifications for Segmental Retaining Wall Units.
- C. Modular concrete units shall conform to the following structural and geometric requirements measured in accordance with appropriate references or approved equal:
 1. Compressive strength: ≥ 3000 psi (21 MPa);
 2. Absorption: 8 % (6% in northern states) for standard weight aggregates;
 3. Dimensional tolerances: $\pm 1/8$ " (3 mm) from nominal unit dimensions not including rough split face, $\pm 1/16$ " (1.5 mm) unit height - top and bottom planes;
 4. Unit size: 8" (203 mm) (H) x 12" (457 mm)(W);
 5. Unit weight: 100 lbs/unit (45 kg) minimum for standard weight aggregates;
 6. Inter-unit shear strength: 1500 plf (21 kN/m) minimum at 2 psi (13 MPa) normal pressure;
 7. Geogrid/unit peak connection strength: 1000 plf (14 kN/m) minimum at 2-psi (13 MPa) normal force.
- D. Modular concrete units shall conform to the following constructability requirements:
 1. Wall batter of 4.4 degrees per design and construction details;
 2. Alignment and grid positioning mechanism - fiberglass pins, two per unit minimum;
 3. Maximum horizontal gap between erected units shall be $\leq 1/2$ inch (13 mm).

2.03 SHEAR CONNECTORS

- A. Shear connectors shall be 1/2-inch (12 mm) diameter thermoset isophthalic polyester resin-pultruded fiberglass reinforcement rods or equivalent to provide connection between vertically and horizontally adjacent units. Strength of shear connectors between vertical adjacent units shall be applicable over a design temperature of 10 degrees F to + 100 degrees F (-10 to 40 degrees C).
- C. Shear connectors shall be capable of holding the geogrid in the proper design position during grid pre-tensioning and backfilling.

2.04 BASE LEVELING PAD MATERIAL

- A. Material shall consist of a compacted crushed stone base as shown on the construction drawings.

2.05 UNIT DRAINAGE FILL

- A. Unit drainage fill shall consist of clean 1" (25 mm) minus crushed stone or crushed gravel meeting the following gradation tested in accordance with ASTM D-422:

<u>Sieve Size</u>	<u>Percent Passing</u>
1 inch (25 mm)	100
3/4-inch (19 mm)	75-100
No. 4	0 - 10
No. 50	0 - 5

- A. One cubic foot (0.028 m³), minimum, of drainage fill shall be used for each square foot (0.093 m²) of wall face. Drainage fill shall be placed within cores of, between, and behind units to meet this requirement.

2.06 REINFORCED BACKFILL

- A. Reinforced backfill shall be free of debris and meet the following gradation tested in accordance with ASTM D-422:

<u>Sieve Size</u>	<u>Percent Passing</u>
2-inch (50 mm)	100
3/4-inch (19 mm)	100-75
No. 40	0-60
No. 200	0-35

Plasticity Index (PI) <15 and Liquid Limit <40 per ASTM D-4318.

- B. The maximum aggregate size shall be limited to 3/4 inch (19 mm) unless field tests have been performed to evaluate potential strength reductions to the geogrid design due to damage during construction.
- C. Material can be site-excavated soils where the above requirements can be met. Unsuitable soils for backfill (high plastic clays or organic soils) shall not be used in the backfill or in the reinforced soil mass.
- D. Contractor shall submit reinforced fill sample and laboratory test results to the Architect/Engineer for approval prior to the use of any proposed reinforced fill material.

2.07 GEOGRID SOIL REINFORCEMENT

- A. Geosynthetic reinforcement shall consist of geogrids manufactured specifically for soil reinforcement applications and shall be manufactured from high tenacity polyester yarn or high-density polyethylene. Polyester geogrid shall be knitted from high tenacity polyester filament yarn with a molecular weight exceeding 25,000 Meg/m and a carboxyl end group values less than 30. Polyester geogrid shall be coated with an impregnated PVC coating that resists peeling, cracking, and stripping.
- B. Ta, Long Term Allowable Tensile Design Load, of the geogrid material shall be determined as follows:

$$T_a = T_{ult} / (R_{Fcr} * R_{Fd} * R_{Fid} * F_S)$$

T_a shall be evaluated based on a 75-year design life.

1. T_{ult}, Short Term Ultimate Tensile Strength
T_{ult} is based on the minimum average roll values (MARV)
 2. R_{Fcr}, Reduction Factor for Long Term Tension Creep
R_{Fcr} shall be determined from 10,000-hour creep testing performed in accordance with ASTM D5262. Reduction value = 1.60 minimum.
 3. R_{Fd}, Reduction Factor for Durability
R_{Fd} shall be determined from polymer specific durability testing covering the range of expected soil environments. R_{Fd} = 1.10 minimum.
 4. R_{Fid}, Reduction Factor for Installation Damage
R_{Fid} shall be determined from product specific construction damage testing performed in accordance with GRI-GG4. Test results shall be provided for each product to be used with project specific or more severe soil type. R_{Fid} = 1.05 minimum.
 5. F_S, Overall Design Factor of Safety
F_S shall be 1.5 unless otherwise noted for the maximum allowable working stress calculation.
- C. The maximum design tensile load of the geogrid shall not exceed the laboratory tested ultimate strength of the geogrid/facing unit connection as limited by the “Hinge Height” divided by a factor of safety of 1.5. The connection strength testing and computation procedures shall be in accordance with NCMA SRWU-1 Test Method for Determining Connection Strength of SRW.
- D. Soil Interaction Coefficient, C_i
C_i values shall be determined per GRI:GG5 at a maximum 0.75-inch (19 mm) displacement.
- E. Manufacturing Quality Control
The geogrid manufacturer shall have a manufacturing quality control program that includes QC testing by an independent laboratory.
The QC testing shall include:
 Tensile Strength Testing
 Melt Flow Index (HDPE)
 Molecular Weight (Polyester)

2.08 DRAINAGE PIPE

- A. The drainage pipe shall be perforated or slotted PVC pipe manufactured in accordance with ASTM D-3034 or corrugated HDPE pipe manufactured in accordance with ASTM D-1248.

PART 3 EXECUTION

3.01 EXCAVATION

- A. Contractor shall excavate to the lines and grades shown on the construction drawings. Engineer's representative shall inspect the excavation and approve prior to placement of

leveling material or fill soils. Proof roll foundation area as directed to determine if remedial work is required.

- B. Over-excavation and replacement of unsuitable foundation soils and replacement with approved compacted fill will be compensated as agreed upon with the Engineer.

3.02 BASE LEVELING PAD

- A. Compacted granular base leveling pad shall be placed to the lines and grades shown on the construction drawings, to a minimum thickness of 6 inches (150 mm) and extend laterally a minimum of 6" (150 mm) in front and a minimum of 12" behind the modular wall unit. The overall width of the leveling pad shall be 2.5' as per the design and construction details.
- B. Compacted granular base leveling pad shall be compacted to a minimum of 95 % Standard Proctor density per ASTM D-698
- C. Leveling pad shall be prepared to insure full contact to the base surface of the concrete units.

3.03 MODULAR UNIT INSTALLATION

- A. First course of units shall be placed on the leveling pad at the appropriate line and grade. Alignment and level shall be checked in all directions and insure that all units are in full contact with the base and properly seated.
 - B. Place the front of units side-by-side. Do not leave gaps between adjacent units. Layout of corners and curves shall be in accordance with manufacturer's recommendations.
 - C. Install shear/connecting devices per manufacturer's recommendations.
 - D. Place and compact drainage fill within and behind wall units. Place and compact backfill soil behind drainage fill. Follow wall erection and drainage fill closely with structure backfill.
- A. Maximum stacked vertical height of wall units, prior to unit drainage fill and backfill placement and compaction, shall not exceed two courses.

3.04 STRUCTURAL GEOGRID INSTALLATION

- A. Geogrid shall be oriented with the highest strength axis perpendicular to the wall alignment.
- B. Geogrid reinforcement shall be placed at the strengths, lengths, and elevations shown on the construction design drawings or as directed by the Engineer.
- C. The geogrid shall be laid horizontally on compacted backfill and attached to the modular wall units. Place the next course of modular concrete units over the geogrid. The geogrid shall be pulled taut, and anchored prior to backfill placement on the geogrid.
- D. Geogrid reinforcements shall be continuous throughout their embedment lengths and placed side-by-side to provide 100% coverage at each level. Spliced connections between shorter pieces of geogrid or gaps between adjacent pieces of geogrid are not permitted.

3.05 REINFORCED BACKFILL PLACEMENT

- A. Reinforced backfill shall be placed, spread, and compacted in such a manner that minimizes the development of slack in the geogrid and installation damage.
- B. Reinforced backfill shall be placed and compacted in lifts not to exceed 8 inch lifts and compacted to 95% maximum proctor density to achieve an installed unit soil weight of 120pcf and an angle of internal friction of 30 degrees. Lift thickness shall be decreased to achieve the required density, unit soil weight, and angle of internal friction as required.
- C. Reinforced backfill shall be compacted to 95% of the maximum density as determined by ASTM D698. The moisture content of the backfill material prior to and during compaction shall be uniformly distributed throughout each layer and shall be dry of optimum, + 0%, - 3%.
- D. Only lightweight hand-operated equipment shall be allowed within 3 feet (1m) from the tail of the modular concrete unit.
- E. Tracked construction equipment shall not be operated directly upon the geogrid reinforcement. A minimum fill thickness of 6 inches (150 mm) is required prior to operation of tracked vehicles over the geogrid. Tracked vehicle turning should be kept to a minimum to prevent tracks from displacing the fill and damaging the geogrid.
- F. Rubber tired equipment may pass over geogrid reinforcement at slow speeds, less than 10 MPH (15 KPH). Sudden braking and sharp turning shall be avoided.
- G. At the end of each day's operation, the Contractor shall slope the last lift of reinforced backfill away from the wall units to direct runoff away from wall face. The Contractor shall not allow surface runoff from adjacent areas to enter the wall construction site.

3.06 CAP INSTALLATION

- A. Cap units shall be glued to underlying units with an all-weather adhesive recommended by the manufacturer.

3.07 AS-BUILT CONSTRUCTION TOLERANCES

- A. Vertical alignment: ± 1.5 " (40 mm) over any 10' (3 m) distance.
- B. Wall Batter: within 2 degrees of design batter.
- C. Horizontal alignment: ± 1.5 " (40 mm) over any 10' (3 m) distance.
Corners, bends & curves: ± 1 ft (300 mm) to theoretical location.
- E. Maximum horizontal gap between erected units shall be $\leq 1/2$ inch (13 mm).

3.08 FIELD QUALITY CONTROL

- A. Quality Assurance - The Engineer shall/may engage inspection and testing services, including independent laboratories, to provide quality assurance and testing services

during construction. This does not relieve the Contractor from securing the necessary construction control testing.

- B. Quality assurance should include foundation soil inspection. Verification of geotechnical design parameters, and verification that the contractor's quality control testing is adequate as a minimum. Quality assurance shall also include observation of construction for general compliance with design drawings and project specifications. Quality assurance is best performed by the site geotechnical engineer.
- C. Quality Control – The Contractor shall engage inspection and testing services to perform the minimum quality control testing described in the retaining wall design plans and specifications. Only qualified and experienced technicians and engineers shall perform testing and inspection services.
- D. Quality control testing shall include soil and backfill testing to verify soil types and compaction and verification that the retaining wall is being constructed in accordance with the design plans and project specifications.

QUANTITY AND PAYMENT

The quantities of modular block retaining wall for which payment will be made, will be for the area of **EXPOSED** wall face actually constructed in accordance with the Plans or as directed by the Engineer.

Payment for modular block/landscape block retaining wall will be made for the quantity of each, as above determined, measured in square foot of Exposed Wall Face, at the price per square foot bid for the item “**LANDSCAPE BLOCK RETAINING WALL, MAX EXPOSED HEIGHT, 3.25 FEET**” in the Proposal, which shall include the cost of excavation, controlled backfill, wall drainage stone, perforated HDPE wall drain, geogrid, geotextile fabric, crushed stone, sub-grade, construction of wall, removal of existing soil, sawcutting, all materials, labor and equipment necessary to construct the retaining walls, as shown on the Plans or as directed by the Engineer.

END OF SECTION

BLACK VINYL COATED CHAIN LINK FENCE AND GATES

DESCRIPTION

Chain Link Fence shall include the furnishing of materials and the erection of Black Vinyl Coated Chain Link Fence and Gates in accordance with the Contract Plans, Specifications, and the direction of the Engineer.

MATERIALS

A. POSTS, RAILS, AND BRACES

All Structural and Roll-Formed shapes shall conform to provisions of ASTM A123 for galvanized coating. All tubular members shall comply with provisions of ASTM A120, Schedule 40, for weight and coating.

1. END, CORNER AND PULL POST

Fence - Up to and Including 12'-0" in Height: 3.00" O.D., Schedule 40 Pipe, with a minimum bending strength of 381 lbs.

2. LINE POSTS (10'-0" MAXIMUM SPACING)

Fabric - Up to 8'-0" in Height: "C" Section, Standard Roll-Formed, 2.50" O.D., Schedule 40 Pipe, with minimum bending strength of 117 lbs.

Fabric over 8'-0" in Height: "C" Section, Heavy Roll-form, 2.50" O.D., Schedule 40 Pipe, with minimum bending strength of 201 lbs.

3. GATE POSTS

Gate Leaves - Up to and Including 6'-0" Wide: Roll-Formed Section (2.50" O.D., Schedule 40 Pipe.)

Gate Leaves over 6'-0" and up to and Including 13'-0" wide: 2.50" O.D., Schedule 40 Pipe.

4. TOP RAIL

1 5/8" O.D., Schedule 40 Pipe, with minimum bending strength of 202 lbs. Furnish in manufacturer's standard lengths of approximately 21'-0" with couplings approximately 6" long for each joint; one (1) coupling in each five (5) shall have expansion spring. Provide means for attaching top rail securely to each gate, corner, pull and end posts. Top rail shall form continuous brace from end-to-end to each run of fence.

5. TENSION WIRE

6 Gauge galvanized vinyl coated coil spring wire.

6. POST BRACING ASSEMBLY

Shall match top rail. Brace rail assembly shall be complete with 3/8" diameter rod and adjustable take-up.

B. CHAIN-LINK FABRIC

One piece fabric widths for fences up to 12'-0"-2" mesh, #9 gauge, as indicated on contract drawings. Fence Fabric shall be coated with Black PVC or polyolefin elastomer coating, 7 mil thickness minimum, thermally used.

1. SELVAGE EDGES

Fabric in heights of 60" and under shall be knuckled at both selvages. Fabric 72" and over shall be knuckled at bottom selvage and twisted and barbed at top.

2. FINISHES

Black Vinyl Coated conforming to ASTM F 668 Class 2b fused and adhered or approved equal. Color to be approved by Union County and Engineer prior to ordering.

C. ACCESSORIES

All accessories, shall be black vinyl coated.

1. STRETCHER BARS

(For tubular end, corner, pull or gate posts only)

One piece lengths equal to full height of fabric with a minimum cross-section of 1" x 3/4". Provide one stretcher bar for each gate and end post, and two for each corner and pull post

2. STRETCHER BAR BANDS

Heavy pressed steel, spaced not over 15" O.C. to secure stretcher bars to tubular end, corner pull and gate post.

D. GATES

Fabricate Gate Perimeter Frames of 2.50" O.D. tubular members, Vinyl Coated Galvanized ASTM A120. Provide additional horizontal and vertical members to insure proper gate operation and for attachment of fabric, hardware and accessories.

Assemble gate frames by welding or fittings and rivets for rigid connections. Use same fabric as for fence, unless otherwise indicated. Install fabric with stretcher bars at vertical edges, and tie at top and bottom edges. Attach stretcher bars to gate frame at not more than 15" O.C. Attach hardware with rivets or by other means which will provide security against removal or breakage.

Provide diagonal cross-bracing consisting of 3/8" diameter adjustable length truss rods on gates where necessary to provide frame rigidity without sag or twist.

1. GATE HARDWARE

Provide the following hardware and accessories for each gate; finish – black vinyl coated

Hinges - Pressed steel or malleable iron to suit gate size, non-lift-off-type, offset to permit 180" gate opening. Provide (1) pair of hinges for each leaf.

Latch - Forked type or plunger bar type to permit operation from either side of gate. Provide padlock eye as integral part of latch.

Keeper - Provide keeper for all vehicle gates, which automatically engages the gate leaf and holds it in the open position until manually released.

Double Gates - Provide gate stops for all double gates, consisting of mushroom type or flush plate with anchors. Set in concrete to engage the center drop rod or plunger bar. Provide locking device and padlock eyes as an integral part of the latch, requiring one padlock for locking both gate leaves.

Sliding Gates - Provide manufacturer's standard heavy-duty track, ballbearing hanger sheaves, overhead framing and supports, guides, stays, bracing, and accessories as required.

E. MISCELLANEOUS MATERIAL AND ACCESSORIES

1. WIRE TIES

For tying fabric to line posts use 6 gage steel wire clips for "C" Section posts, and minimum 9 gage aluminum wire ties for tubular posts, spaced 10" O.C. For tying fabric to rails and braces use 9 gage aluminum wire ties spaced 24" O.C. For tying fabric to tension wire use 11 gage hog rings spaced 24" O.C.

2. CONCRETE

Provide concrete consisting of portland cement complying with ASTM C150, aggregates complying with ASTM C33, and clean water. Mix materials to obtain concrete with a minimum 28 day compressive strength of 2500 psi, using at least four sacks of cement per cubic yard.

CONSTRUCTION

The Chain Link Fence shall be erected in accordance with the details and to the lines and grade as on the Contract Plans, or as directed by the Engineer, and shall also comply with current practice for Fence construction, as recommended by the manufacturer and subject to the approval of the Engineer.

The Contractor shall clear the line of fence of all obstruction and dispose of such materials, all as directed by the engineer.

Terminal posts shall be located at the beginning and end of each continuous length of fence construction and at abrupt changes on vertical and horizontal alignment, as shown on the Contract Plans, or as directed by the Engineer.

All posts shall be set in concrete as shown on the Contract Plans and shall be plumb with tops properly aligned.

Concrete footings shall be constructed in accordance with the detail plans and requirements of Section 501 - Concrete Structures of the NJDOT Standard Specifications, except as follows:

Forms will not be required and the entire excavation shall be filled with concrete.

Where ledge rock is encountered, the depth of concrete footings for posts may be reduced one-half of that portion of the fence post set below the top of rock, and the diameter of the hole in rock may be reduced to a minimum of four (4") inches and filled with mortar.

Aluminum surfaces to be placed in contact with concrete shall be given a coat of zinc chromate primer.

Fence fabric shall face away from the roadway except where otherwise directed by the Engineer.

All carriage bolts shall be installed so as to be non-removable from outside of fence.

Gates shall be single or double gates and of the width as shown on the Contract Plans, and shall be installed to open through a minimum arc of 180 Degs.

QUANTITY AND PAYMENT

The quantities of Chain Link Fence, for which payment will be made, will be the actual lengths constructed in accordance with the Contract Plans, or as directed by the Engineer.

The quantities of Chain Link Gate, for which payment will be made, will be the actual units constructed in accordance with the Contract Plans, or as directed by the Engineer

Payment for Chain Link Fence of the types and sizes specified will be made for the length actually constructed, measured in linear feet, at the prices per linear foot bid for the items and “**BLACK VINYL COATED CHAIN LINK FENCE 4’ HIGH**” in the Proposal, which shall include the furnishing of all materials, labor and equipment and all else necessary therefore and incidental thereto.

Payment for Black Vinyl Chain Link Gates of the types and sizes specified will be made for the units actually constructed, measured at the unit prices bid for the items “**BLACK VINYL COATED CHAIN LINK SINGLE SWING GATE, 4’ HIGH, 4’ WIDE**” and “**BLACK VINYL COATED CHAIN LINK DOUBLE SWING GATE, 4’ HIGH, 10’ WIDE**” in the Proposal, which shall include the furnishing of all materials, labor and equipment and all else necessary therefore and incidental thereto.

-- END OF SECTION --

BARRIER NETTING, 30 FEET HIGH AND POSTS COMPLETE

PART 1 GENERAL

1.01 WORK INCLUDED

A. Provide all equipment and materials, and do all work necessary to furnish and install the Barrier Netting, 30 feet High and Posts complete, including furnishing and installing the barrier netting, posts, footings and foundations complete, all labor materials and all else required to provide a complete installation of the Barrier Netting as indicated on the drawings and as specified herein. Athletic equipment shall include, but not be limited to:

1. TFBSS630P - 30ft Ball Safety Netting System Painted – or approved equal, as provided by Sportsfield Specialties or approved equal.

Engineered shop drawings, signed and sealed by NJ Professional Engineer for complete netting, poles, footings, and foundations shall be obtained by contractor and provided prior to construction and the cost thereof included in the price bid for the Barrier Netting, 30 feet High and Pots complete.

1.02 RELATED WORK

A. Examine contract documents for requirements that affect work of this section. Other specification sections that directly relate to the work of this section include, but are not limited to:

1. Section 02200 – Earthwork; Excavation and Backfill and establishment of sub-grade elevations.
2. Section 02700 – Asphalt, Concrete, and Pavement
3. Section 02794 – Synthetic Grass & Turf
4. Section 02793 – Synthetic Field Surfacing
5. Section 03110 – Cast-in-Place Concrete

1.03 REFERENCES

A. Comply with applicable requirements of the following standards. Where these standards conflict with other specified requirements, the most restrictive requirements shall govern.

1. National Federation of State High School Associations (NFHS)
2. National Collegiate Athletic Association (NCAA)
3. International Amateur Athletic Association (IAAF)
4. American Sports Builders Association (ASBA)
5. Manufacturers Data and Recommended Installation Requirements

1.04 SUBMITTALS

A. Manufacturers Product Data

1. Provide manufacturers product data prior to actual field installation work, for Architects or Owners representatives review.

B. Shop Drawings

1. Provide drawings of the manufacturers recommended installation and foundation requirements prior to actual field installation work, for Architects or Owners representatives review.

Engineered shop drawings, signed and sealed by NJ Licensed Professional Engineer for complete netting, poles, footings, and foundations shall be obtained by the contractor and provided prior to construction and the cost thereof shall be included in the price bid. Foundation requirements shall meet all local code requirements and shall be based on the soil conditions provided in the project specifications. Foundation design, certified and signed by NJ Licensed Professional Engineer shall be obtained by the contractor and provided prior to construction the cost thereof included in the contractors bid for the Barrier Netting.

1.05 QUALITY ASSURANCE

- A.** Manufacturers warranties shall pass to the Owner and certification made that the product materials meet all applicable grade trademarks or conform to industry standards and inspection requirements.

1.06 PRODUCT DELIVERY AND STORAGE

- A.** Materials delivered to the site shall be examined for damage or defects in shipping. Any defects shall be noted and reported to the Owners representative. Replacements, if necessary, shall be immediately re-ordered, so as to minimize any conflict with the construction schedule. Sound materials shall be stored above ground under protective cover or indoors so as to provide proper protection.

PART 2 PRODUCTS

2.01 Ball Safety Netting System

- A.** BASE: TFBSS612-TFBSS640 - Ball Safety Netting System or approved equal as manufactured by:

Sportsfield Specialties Inc.
P.O. Box 231

41155 State Highway 10
Delhi, NY 13753
p. 888-975-3343
f. 607-746-8481
www.sportsfieldspecialties.com
OR APPROVED EQUAL

- B. COMPONENTS:
1. Upright Posts Fabricated with 6" SCH 40 Aluminum Pipe:
 - A. Height Above Ground equal to system height plus 1Ft (for hardware)
 - B. Aluminum Mill Finish (TFBSS630P Powder Coated)

 2. Upright Post Ground Sleeves Fabricated with 7in OD (6.782in ID)
Steel:
 - A. 30.0-60.0in Length
 - B. Steel Tube
 - C. Aluminum Ground Sleeve Caps

 3. Ball Safety Net:
 - A. 30 FEET Height x Length Specified by Customer
 - B. #36 Black Nylon 1-3/4" Mesh
 - C. Tethers 2X net height + 5Ft

 4. Accessories:
 - A. Stainless Steel Assembly Hardware
 - B. Shell Block Pulley System
 - C. 9.0in Net Guide Rings
 - D. Black Vinyl Coated Wire Rope

PART 3 EXECUTION
3.01 INSTALLATION OF EQUIPMENT

- A. All athletic equipment shall be installed as recommended with manufacturer's written directions, and as indicated on the drawings.

QUANTITY AND PAYMENT

Payment for the Barrier Netting will be made on a linear foot basis for the actual length of Barrier Netting constructed, at the price bid, per linear foot for the item "**BARRIER NETTING, 30' HIGH AND POSTS/FOOTINGS COMPLETE**" in the Proposal, which prices which shall include the cost of footings; foundations, engineered shop drawings and calculations, furnishing and installing the footings, foundations, posts, and netting complete, all material, accessories, labor, tools and equipment and all else necessary therefor and incidental thereto to construct the barrier netting system complete.

Note: Building codes may vary from site to site. The Contractor shall be responsible for verification of local code requirements.

END OF SECTION

ADA BLEACHERS

(5-Row, 21 feet long, Non-Elevated Bleachers)

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Design and fabrication of Non-Elevated ADA aluminum angle frame bleachers. Contractor shall furnish and install the ADA bleachers on 6" thick concrete pad in accordance with plans and specifications. Cost for the 6" thick concrete pad shall be included in the price bid for the item, "ADA BLEACHERS, 5 ROW, 21' LONG." This work shall also include the installation of river rock at the southerly most bleachers and connector path in accordance with the plans and details.

1.02 QUALITY ASSURANCE

- A. Manufacturer: National Recreation Systems, Inc.
P.O. Box 11487 Fort Wayne, In 46858-1487; **or equal.**
- B. Manufacturer Qualifications: Manufacturer must have a minimum of ten years experience in the design and manufacture of bleachers.
- C. Welders must conform to AWS standards.
- D. Source Quality Control: Mill Test Certification.
- E. Codes and Standards: 2009 International Building Code / ICC 300 2007.

1.03 WARRANTY

- A. Warranty shall guarantee bleachers to be free from defect in materials and workmanship for a period of 1 year under normal use. Warranty period shall begin on date of completion for projects installed by manufacturer, or its subcontractors, OR warranty period shall begin on date of final delivery on projects installed by others.
- B. Anodized finish of plank extrusions shall be covered by a 5 year warranty against loss of structural strength or finish deterioration due to exposure to weather conditions or UV rays. Discoloration of mill finish aluminum due to galvanic reaction not covered.

1.04 PRODUCT LIABILITY INSURANCE

A. Product liability insurance is carried for the life of the product in the amount of \$ 2,000,000.

1.05 ENGINEERING

A. Engineering certifications and calculations by a Registered Professional Engineer will be provided upon request.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURER

A. National Recreation Systems, Inc. **or equal.**

2.02 DESIGN

A. Applicable Codes: INTERNATIONAL BUILDING CODE (IBC), 2009 EDITION / ICC 300 2007

B. Design Loads:

1. Live Loads: Uniform loading - Structure = 100 psf
Uniform loading - Seat and Foot plank = 120 plf
2. Sway Loads: Perpendicular to seats = 10 plf
Parallel to seats = 24 plf
3. Guardrail Loads: Uniform vertical load = 100 plf
Uniform horizontal load = 50 plf
Concentrated horizontal load = 200 pounds
4. *Wind Loads: Basic design wind speed = 150 mph (exposure "B")

*Note: Bleacher must be anchored to reinforced concrete pad to meet wind loads above.

2.03 NON-ELEVATED ANGLE FRAME BLEACHERS

A. Quantity and Size: Shall consist of 1 unit(s) 5 rows high x 21'-0" long. Net seating capacity per unit 48 + 2 HC (50 nets seats) (excluding aisles, based on 18" per seat).

B. Framework: Prefabricated aluminum angle spaced at 6' - 0" intervals joined by means of aluminum angle cross bracing.

C. Shop connections: Welded to meet AWS standards and local code requirement.

D. Joint Sleeve Assembly: Internal splices, where required shall be two per joint, and shall penetrate the joint a minimum of 8" in each direction and be riveted at one end only to allow for contraction and expansion.

E. Rise and Depth Dimensions: 8" vertical rise and 24" tread depth, Seat height is 17" above its respective tread.

F. Seats: Nominal 2" x 10" anodized aluminum with anodized end caps.

G. Treads: Nominal two (2) 2" x 10" mill finish aluminum with anodized end caps on rows 2 & up.

H. Risers: Nominal two (2) 1" x 6" mill finish aluminum with mill finish end caps on top row.

Nominal 1" x 6" mill finish aluminum with end caps on all other rows.

I. Aisles: Aisle footboards shall be of aluminum alloy 6063-T6 and be of mill finish with contrasting aisle markings. Three aisle stiffener angles shall be used to strengthen the aisle step. There shall be 1 aisle(s) 54" wide.

J. Aisle Handrail: Anodized aluminum pipe with intermediate rail.

- K. Guardrail: Rails shall be anodized aluminum tube with end plugs and elbows where required. All Rails shall be secured to angle supports with galvanized fasteners. Top rails at sides, rear and front shall be 42" above the leading edge of seat or walking surfaces. Rear rail support members shall be aluminum channel, side and front rail supports shall be aluminum angle.
1. Chainlink System: Fencing shall consist of 9 gauge, 2" mesh galvanized chainlink fabric, heavy duty tension bands, tension bars, brace bands, combo rail endcaps, and wire ties.
- L. Handicapped Accessibility: Shall be provided as required by the code listed above.

2.04 MATERIALS / FINISHES

A. Framework:

1. Aluminum: Structural fabrication with aluminum alloy 6061-T6 mill finish. Each frame shall be unit-welded, using metal inert gas method, under guidelines by the American Welding Society. After fabrication all steel is hot dipped galvanized to ASTM A-123 specifications. All crossbracing and horizontal bracing shall be aluminum angle 6061-T6 mill finish.

B. Extruded Aluminum:

1. Seat planks: Aluminum alloy 6063-T6, clear anodized 204R1, AA-M10C22A31, Class II With a wall thickness nominally .078" for impact and deformation resistance.
2. Tread and Riser Planks: Aluminum alloy 6063-T6, mill finish. With a wall thickness nominally .078" for impact and deformation resistance.
3. Guardrail Pipe: 1-5/8 OD schedule 40 aluminum alloy 6105-T5, clear anodized 204R1, AA-M10C22A31, Class II.

C. Accessories:

1. Channel End Caps: Aluminum alloy 6063-T6, clear anodized 204R1, AA-M10C22A31, Class II.
2. Hardware: Bolts and Nuts shall be hot dipped galvanized.
3. Hold Down Clip Assembly: Aluminum alloy 6063-T6 mill finish.
4. Joint Sleeve Assembly: Aluminum alloy 6061-T6, mill finish.

D. Concrete Pad (Reinforced):

1. Concrete Pad: Shall be 6-inch thick reinforced concrete (4,000 PSI). The Contractor shall place concrete pad as shown on the Contract Drawings. The concrete pad shall meet and match the grade and alignment of the asphalt walkway at three sides of the concrete pad, the fourth side shall meet the elevation of the grass landscape area.

2. Reinforcement: Shall be 6x6 (#8/8 (W2.9/W2.9) wire mesh Reinforcement. Contractor shall position reinforcement at a clear distance of 2.5-inches from the surface (top) of the concrete pad. Contractor shall anchor each bleacher to the concrete pad as per the manufacturer's anchoring requirements.
3. Base: Shall be 6-inch thick dense graded aggregate (DGA), which all methods of construction shall be in accordance with Division 300 – Subbase and Base Courses, of the 2007 New Jersey Department of Transportation Standard Specifications for Road and Bridge Construction, latest revised. Base material shall be compacted to
4. Subgrade: Shall be of suitable subgrade material compacted to 95% maximum density .

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Install bleacher unit in accordance with manufacturer written instructions and shop drawings.

QUANTITY AND PAYMENT

Quantity and Payment for Bleachers will be made in accordance with the Contract Documents at the per unit price bid for the item **NEW ADA BLEACHERS, 5 ROW, 21' LONG ON CONCRETE SLAB** in the Proposal, which shall cover the cost of excavation, backfill, 6" thick reinforced concrete pad, grading, seeding, reinforcement, formwork, and all labor, tools, equipment and materials necessary therefore and incidental thereto or as directed by the Engineer.

Note: Building codes may vary from site to site. The Contractor shall be responsible for verification of local code requirements.

-- END OF SECTION --

FLAG POLE, 35' TO 40' HIGH

DESCRIPTION

Under this item the Contractor shall furnish and erect, where shown on the Contract Drawings, cone tapered aluminum flag pole, complete with all standard fittings, uprights and appurtenances, manufactured by Baartol Company Inc., Kenton, Ohio, **or Approved Equal**. Three (3) Flag Poles shall be ground set thirty-five (35') to forty (40') total feet above ground. Outside butt diameter shall be eight (8") inches. Outside top diameter shall be three and a half (3.5") inches, and Ground tube length shall be four feet (4') min. Contractor shall design-build the electrical system feeding this item and shall provide a working system in accordance with local codes and the National Electric Code (NEC).

MATERIALS

Materials:

- A. Aluminum – 6063T6 alloy, seamless.

Type of Taper:

- A. Cone tapered.

Classifications:

- A. Ground set pole, embedded.

- B. Cone Tapered aluminum tube flagpole.

Dimensions:

- A. Overall Length: 44'-0" & 39'-0" (as shown on Contract Drawings)
- B. Butt Diameter: 8"
- C. Top Diameter: 3 ½"
- D. Wall Thickness: 0.188"

Finish:

- A. Aluminum flagpole shall have a mechanical satin finish. (same as Baartol's "Lustratex" finish, **or approved equal**).

Fittings:

- A. Finial ball shall be Gold Anodized. Size to match pole butt diameter.
- B. Truck-cast aluminum internal halyard system.

Halyards:

- A. Stainless steel cable with vinyl or neoprene covered weight.
- B. Internally mounted direct drive winch with control stops to hold flag in any position on the pole.
- C. Removable winch crank.
- D. Flush mounted winch access door with cylinder lock.

Foundation:

- A. Concrete foundation diameter shall be at least thirty (30") inches at the top and twenty-four (24") inches at the bottom. Pole shall be set in foundation at least four (4') feet deep.
- B. 16 gauge corrugated galvanized steel tube.
- C. Foundation Sleeve Plate – Square steel plate. 3/16" min. thickness, welded to bottom of foundation sleeve.
- D. Centering Wedges – Internal steel wedges, 1/8" min. thickness, welded to support plate for centering of flagpole.

- E. Ground Spike – ¾” steel spike, welded to bottom of foundation sleeve plate. Minimum length below concrete foundation to be twice the footing thickness below foundation sleeve plate.
- F. Foundation Support Plate – Steel plate, 6” square by 3/16” min. thickness, welded to ground spike at base of concrete foundation.
- G. Contractor shall provide signed and sealed drawings of each foundation and submit to the Engineer for review prior to installation.

Flash Collar:

- A. Metal – Same as pole shaft.
- B. Design flash collar spun as supplied by Baartol Co., Inc. (or approved equal)

Light Fixtures:

- A. Provide three (3) 6” Diameter x 18”, 150 watt “Tunnel” Up-Lights mounted in the ground with rock guard. Finish to match flagpole. Model No. 01500620, **or Equal.**
- B. Provide 3” x 4” hand hole under flash collar for electrical access.
- C. Installation by electrical contractor.
- D. Contractor to provide two (2) spare bulbs.
- E. Fixtures shall be factory installed.
- F. Contractor to provide dusk/dawn controls for flag light.

EXECUTION

Shipping:

- A. Packaging – Flagpole to be packed in recommended fashion to assure protection during transit.
- B. Number of sections – Poles up to 38’-6” can be shipped in one piece by motor carrier.

Handling & Storage:

- A. Aluminum flagpoles, if stored in original packaging for extended periods can become stained due to adverse chemical reactions between aluminum and packaging materials. When poles are to be stored on site for extended periods, all wrapping materials should be removed and the pole stored bare in a dry place off the ground.

Installation:

- A. Flagpole to be installed by an experienced erection crew.

QUANTITY AND PAYMENT

Quantity and Payment for Flag Pole, 35’ to 40’ High will be made in accordance with the Contract Documents at the lump sum price bid for the item **FLAGPOLE SYSTEM, COMPLETE WITH UP-LIGHTS (INCLUDING ELECTRIC)** in the Proposal, which shall cover the cost of footing, foundation, concrete, excavation, backfill, grading, seeding, electrification design, electric installation, conduit, wiring, and terminations, and all labor, tools, equipment and materials necessary therefore and incidental thereto or as directed by the Engineer.

It will be the responsibility of the contractor to coordinate all construction, electrical service connection and installation of lighting and conduits with PSE&G. Contractor shall provide all as-built information to the Engineer upon completion of all work for review. It should be noted that the existing electrical feed is located in close proximity to the bathroom facility located near the 5th Avenue Parking Lot.

-- END OF SECTION --

DECORATIVE BENCHES, BICYCLE RACKS, AND TRASH RECEPTACLES

PART ONE - GENERAL

1.1 DESCRIPTION

Decorative Benches, Bicycle Racks, and Trash Receptacles shall include all materials and labor necessary for the furnishing and permanent installation of the above noted site furnishings consisting of decorative benches, ornamental trash receptacles, and decorative embedded foundation bicycle racks including stainless steel bolts and concrete anchors, permanent anchoring and fastening to concrete base, and the installation of concrete pads as shown on the Plans or as directed by the Engineer.

PART TWO - MATERIALS

2.1 PRODUCTS

Decorative Benches:

57-60PL, 6-foot length bench by DuMor, Inc. or approved equal.

Owner/Engineer to select color from standard colors.

Bicycle Racks:

188-09, by DuMor, Inc. or approved equal.

Owner/Engineer to select color from standard colors.

Trash Receptacles:

CFTR-011-02 Streetscape Receptacle, 44 gallon letter receptacle by Custom Fabrication

Incorporated or approved equal.

Owner/Engineer to select color from standard colors.

PART THREE – EXECUTION

3.1 METHODS OF CONSTRUCTION

Permanent installation and assembly shall be according to manufacturer's specifications, the plans and as directed by the Engineer. Bicycle Stand shall be embedded with footing per construction details. Site amenities shall be tamper resistant.

QUANTITY AND PAYMENT

Quantity and Payment for Decorative Park Benches, Trash Receptacles, and Bicycle Rack will be made for the actual site furnishings actually constructed in accordance with the Contract Documents at the unit price bid for the items **“DECORATIVE PARK BENCHES W/CONCRETE PAD,” “TRASH RECEPTACLES W/CONCRETE PAD,” and “BICYCLE RACK,”** in the Proposal, which shall cover the cost of all concrete pads, excavation, backfill, grading, seeding, furnishing and installing the above referenced site furnishing,, and all labor, tools, equipment and materials necessary therefore and incidental thereto or as directed by the Engineer.

END SECTION

16' PORTABLE PLAYER SHELTER AND BENCH

PART ONE - GENERAL

1.2 DESCRIPTION

16' Portable Player Shelter and Bench shall include all materials and labor necessary for the furnishing and installation of the above noted portable player shelter and bench as shown on the Plans or as directed by the Engineer.

PART TWO - MATERIALS

2.1 PRODUCTS

16' Portable Player Shelter and Bench:
Heavy Duty, Standard, 16' Portable Player Shelter with Attached Bench, shaded Lexan and Black Powder Coated, or approved equal, as Manufactured by Keeper Goals, 12400 Spring Drive, Butler, Wisconsin, (800-594-5126) or approved equal, to be approved by Union County and Engineer prior to ordering.

Benches shall be aluminum.
Shelter to include all required anchoring.

PART THREE – EXECUTION

3.1 METHODS OF CONSTRUCTION

Installation and assembly shall be according to manufacturer's specifications, the plans and as directed by the Engineer.

QUANTITY AND PAYMENT

Quantity and Payment for 16' Portable Player Shelter and Bench will be made for the actual portable shelter and bench units actually constructed in accordance with the Contract Documents at the unit price bid for the items **“16' PORTABLE PLAYER SHELTER AND BENCH,”** in the Proposal, which shall cover the cost of all labor, tools, equipment and materials necessary therefore and incidental thereto or as directed by the Engineer.

END SECTION

FOOTBALL GOAL, 8' OFFSET

PART 1 - GENERAL

1.01 RELATED WORK

- A. Review Contract Documents for requirements that affect work of this section. Specification sections that directly relate to work of this section include, but are not limited to:

Section 11 6601 – Athletic Equipment - Goal Post Pads

1.02 SUBMITTALS

- A. Product Data: Submit manufacturer's product literature, technical specifications, and other data required to demonstrate compliance with specified requirements for all athletic equipment.

1.03 QUALITY ASSURANCE

- A. Fabrication and installation of site improvements by experienced craftsmen with excellent record of performance on completed projects of comparable size, scope, and quality.
- B. All materials, hardware and furnishings shall be new, first quality

1.04 FIELD MEASUREMENTS

- A. Contractor shall verify position and layout of all athletic field equipment. Verify dimensions by field measurements.

1.05 SYSTEM DESCRIPTION

- A. Football goals manufactured of All Aluminum with an 8' minimum offset, and 20' minimum length uprights. Assembly number SEF305.

PART 2 - PRODUCTS

2.01 FOOTBALL GOAL POST

- A. Base: Model #SEF305 as manufactured by:

SportsEdge®
P.O. Box 837, 259 Murdock Rd.
Troutman, NC 28166
PH: 800-334-6057
info@sportsedge.com
www.sportsedge.com

Or Equal;

B. COMPONENTS

SUMMARY: Football goals shall be manufactured of all aluminum with an 8' (96") offset, and must meet the following criteria as a minimum.

1. Gooseneck support: fabricated of .25" thickness 6" SCH40 aluminum pipe, 6.625" OD minimum, 8' offset.
2. Crossbar: fabricated of .25" thickness 6" SCH40 aluminum pipe, (6.625 in) OD minimum.
 - a. Length: High School: 23'-4" between uprights.
3. Uprights: fabricated of aluminum tube, 4.0" OD minimum, Length: 20'-0"
4. Installation package consisting of the following components:
 - a. Ground Sleeve: Part # SEF30005, 8" SCH40 steel pipe, 5' long, 10"x10"x0.125" Steel Plate.
 - b. Access frame: fabricated of aluminum. Include cut-outs: fabricated of pressure treated plywood and artificial turf for grass field. Synthetic turf fields to have plywood cutouts wrapped on the job to match carpet.
5. Accessories:
 - a. 4 ea. - Directional wind flags.
 - b. Assembly bolts, nuts and spring (set) pins.

PART 3 - EXECUTION

3.01 INSTALLATION OF EQUIPMENT

- A. All athletic equipment shall be installed as recommended by manufacturer, and as indicated on the drawings.

PART 4 - QUANTITY AND PAYMENT

Quantity and Payment for Football Goal will be made in accordance with the Contract Documents at the per unit price bid for the item **FOOTBALL GOALS, COMPLETE W/ TURF COVER AND PADS** in the Proposal, which shall cover the cost of excavation, backfill, foundations, sleeves, caps, concrete, appurtenances, and all labor, equipment, and materials necessary therefore and incidental thereto or as directed by the Engineer.

-- END OF SECTION --

FOOTBALL GOAL POST PADS

PART 1 - GENERAL

1.01 RELATED WORK

- B. Review Contract Documents for requirements that affect work of this section. Specification sections that directly relate to work of this section include, but are not limited to:

Section 11 6600 – Football Goal

1.02 SUBMITTALS

- A. Product Data: Submit manufacturer's product literature, technical specifications, and other data required to demonstrate compliance with specified requirements for all athletic equipment.

1.03 QUALITY ASSURANCE

- A. Fabrication and installation of site improvements by experienced craftsmen with excellent record of performance on completed projects of comparable size, scope, and quality.

- B. All materials, hardware and furnishings shall be new, first quality.

1.04 FIELD MEASUREMENTS

- A. Contractor shall verify position and layout of all athletic field equipment. Verify dimensions by field measurements.

1.05 DESCRIPTION

- A. Goal post pads, 6.0' height, Velcro closure.

PART 2 - PRODUCTS

2.01 GOAL POST PADS

- A. Base: Shall be Model #SEF302 by:

SportsEdge®
P.O. Box 837, 259 Murdock Road
Troutman, NC 28166
PH: 800-334-6057
info@sportsedge.com
www.sportsedge.com
or Equal;

B. COMPONENTS

1. 18” thickness split cylindrical urethane foam core
2. Vinyl laminated polyester fabric, 18 oz. / square yard minimum weight.
3. Height of six feet (6.0') 72”.
4. Full length Velcro closure strip.

C. ACCESSORIES:

1. Custom colors, logo, and lettering are optional.

PART 3 - EXECUTION

3.01 INSTALLATION OF EQUIPMENT

- A. All athletic equipment shall be installed as recommended with manufacturer's written directions, and as indicated on the drawings.

PART 4 - QUANTITY AND PAYMENT

- A. Athletic Equipment – Goal Post Pads will not be measured as a separate item. Quantity and Payment for this item, and all costs related thereto, shall be included in the lump sum price bid for the item **FOOTBALL GOALS, COMPLETE W/ TURF COVER AND PADS** in the Proposal.

-- END OF SECTION --

SOCCER GOAL

PART 1 - GENERAL

1.06 RELATED WORK

A. Review Contract Documents for requirements that affect work of this section. Other specification sections that directly relate to the work of this section include, but are not limited to:

1. Section 02825 – 6B504 Official Corner Flag

1.07 SUBMITTALS

A. Product Data: Submit manufacturer's product literature, technical specifications, and other data required to demonstrate compliance with specified requirements for all athletic equipment.

1.08 QUALITY ASSURANCE

A. Fabrication and installation of site improvements by experienced craftsmen with excellent record of performance on completed projects of comparable size, scope, and quality.

B. All materials, hardware and furnishings shall be new, first quality.

1.09 FIELD MEASUREMENTS

A. Contractor shall verify position and layout of all athletic field equipment. Verify dimensions by field measurements.

1.10 SYSTEM DESCRIPTION

A. Soccer Goals, all aluminum construction, meeting NCAA and NFSHSA specifications.

PART 2 - PRODUCTS

2.01 SOCCER GOALS

A. BASE: Shall be Model #SE700 as supplied by:

SportsEdge
P.O. Box 837
Troutman, NC 28166
P: 800-334-6057
info@sportsedge.com
www.sportsedge.com

Or Equal;

B. COMPONENTS

SUMMARY: Model #SE700R Soccer Goals meeting NCAA and NFHS specifications; shall be all aluminum construction with White powder coated finish and must meet the following criteria as a minimum standard:

1. Frame: 8'H x 24'W x 4'B x 10'D.
 - a. SPECIFIER SELECT:
 - i. 4" Round aluminum tubing #SE700R
 - b. White powder coated finish
2. Backstays:
 - a. 2" O.D. Aluminum Backstays, 0.125" Wall thickness
 - b. White powder coated finish
3. Ground Bar:
 - a. 2" O.D. Aluminum, 0.125" Wall thickness
 - b. White powder coated finish
 - c. Must be adjustable & moveable
4. Net Attachments:
 - a. Crossbar & Uprights: Twist in nylon net clips
 - b. Backstays & Ground bar" Hoop & Loop strap
5. Nets: #SE755 3mm HTTP Nets, 4.0" square mesh.
6. Ground Anchors:
 - a. Natural Grass Field Applications: #SE752 16" Steel Spiral Anchor w/ Lanyards & quick clip attachment (Set of 4)
 - b. Synthetic Turf Field Applications: #SE753 (Set of 4) Heavy Duty Nylon Sand Bags (Holds 40 lbs.)
7. Wheel Kit: #SE751 rear mounted backstay wheel attachment (set of 4), 10" flat free polyurethane Marathon® tire with nylon bearing.

PART 3 - EXECUTION

3.01 INSTALLATION OF EQUIPMENT

- A. All athletic equipment shall be installed as recommended by manufacturer, and as indicated on the drawings.

QUANTITY AND PAYMENT

Quantity and Payment will be made for Soccer Goal in accordance with the Contract Documents at the per unit price for the item **PORTABLE SOCCER GOALS, COMPLETE W/ NETTING** in the Proposal, which shall cover the cost of wheel kits, corner flags, anchors, and all labor, tools, equipment, and materials necessary therefore and incidental thereto or as directed by the Engineer.

-- END OF SECTION --

KWIK GOAL CORNER FLAG

PART 1 - GENERAL

1.1 WORK INCLUDED

- A. Provide all equipment and materials, and do all work necessary to furnish and install the athletic equipment, as indicated on the drawings and as specified herein. Athletic equipment shall include, but not be limited to:
 - 1. 6B504 Official Corner Flag

1.2 RELATED WORK

- B. Examine contract documents for requirements that affect work of this section.
- C. Other specification sections that directly relate to the work of this section include, but are not limited to:
 - 2. Section 02820 – Soccer Goal

1.3 REFERENCES

- A. Comply with applicable requirements of the following standards. Where these standards conflict with other specified requirements, the most restrictive shall govern.
 - 1. National Federation of State High School Associations (NFSHSA)

1.4 SUBMITTALS

- A. Manufacturer's Product Data
 - 1. Provide manufacturer's product literature, technical specifications and other data prior to actual field installation work for architect or owner's representative review.
- B. Shop Drawings
 - 1. Provide drawings of manufacturer's recommended installation and foundation requirements prior to actual field installation work for architect or owner's representative review.

1.5 QUALITY ASSURANCE

- A. Manufacturer's warranties shall pass to the owner and certification made that the product materials meet all applicable grade trademarks or conform to industry standards and inspection requirements.

1.6 PRODUCT DELIVERY, STORAGE AND HANDLING

- B. Material delivered to the site shall be examined immediately for concealed damage or defects and noted on the carriers deliver receipt. If any damage is discovered after the initial delivery, you have 15 calendar days to notify Kwik Goal, Ltd. If the damage is reported within 15 days, Kwik Goal, Ltd. Will replace any damaged parts at no charge. If damage is discovered after 15 calendar days, the parts will need to be

purchased in full from Kwik Goal, Ltd.

- C. Replacements, if necessary, shall be immediately re-ordered, so as to minimize any conflict with the construction schedule.
- D. Sound materials shall be stored above the ground under protective cover or indoors so as to provide proper protection.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers and product selections named are provided to establish the minimum standard.
- B. BASE: 6B504 Official Corner Flag as manufactured by:

Kwik Goal Ltd.
140 Pacific Drive
Quakertown, PA 18951
P: 800-531-4252
F: 800-778-8869
www.kwikgoalspecs.com

Or Equal;

C. COMPONENTS:

- 1. 6B504 Official Corner Flag
 - i. 6B504 – pole fabricated of PVC, 1.05” outside diameter, having the following attributes:
 - a. Length: 60.00”
 - b. Round
 - c. 0.060” wall
 - d. White
 - ii. 6B504 – flag fabricated of nylon, having the following attributes:
 - a. Height: 12.25”
 - b. Width: 19.5625”
 - c. 1.3125” pocket open at bottom end only
 - d. Red with white trim

iii. 6B504 – ground peg, having the following attributes:

a. Base

- 1) Steel
- 2) 3.00” diameter
- 3) 0.109” wall steel
- 4) MIG weld to cup and peg

b. Cup

- 1) Steel
- 2) Height: 1.50”
- 3) 1.06” inside diameter
- 4) Riveted to PVC

c. Peg

- 1) Steel
- 2) Height: 5.75”
- 3) 0.375” outside diameter

PART 3 - EXECUTION

3.1 INSTALLATION OF ATHLETIC FIELD EQUIPMENT

- A. All athletic field equipment shall be installed as recommended with manufacturer’s written directions, included with product or found at www.kwikgoalspecs.com, and as indicated on the drawings.

QUANTITY AND PAYMENT

Kwik Goal Corner Flag will not be measured as a separate item. Quantity and Payment for this item, and all costs related thereto, shall be included in the bid item **PORTABLE SOCCER GOALS, COMPLETE W/ NETTING** in the Proposal.

-- END OF SECTION --

LACROSSE GOAL

PART 1 - GENERAL

1.5 WORK INCLUDED

- B. Provide all equipment and materials, and do all work necessary to furnish and install the athletic equipment, as indicated on the drawings and as specified herein.

1.6 RELATED WORK

- A. Examine contract documents for requirements that affect work of this section.

1.7 REFERENCES

- A. Comply with applicable requirements of the following standards. Where these standards conflict with other specified requirements, the most restrictive shall govern.
 - 2. National Collegiate Athletic Association (NCAA)
 - 3. National Federation of State High School Associations (NFSHSA)
 - 4. International Amateur Athletic Foundation (IAAF)

1.8 SUBMITTALS

C. Manufacturer's Product Data

- 2. Provide manufacturer's product literature, technical specifications and other data prior to actual field installation work for architect or owner's representative review.

D. Shop Drawings

- 1. Provide drawings of manufacturer's recommended installation and foundation requirements prior to actual field installation work for architect or owner's representative review.

2.5 QUALITY ASSURANCE

- A. Manufacturer's warranties shall pass to the owner and certification made that the product materials meet all applicable grade trademarks or conform to industry standards and inspection requirements.

2.6 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Material delivered to the site shall be examined immediately for concealed damage or defects and noted on the carriers deliver receipt. If any damage is discovered after the initial delivery, you have 15 calendar days to notify Kwik Goal, Ltd. If the damage is reported within 15 days, Kwik Goal, Ltd. Will replace any damaged parts at no

charge. If damage is discovered after 15 calendar days, the parts will need to be purchased in full from Kwik Goal, Ltd.

- B. Replacements, if necessary, shall be immediately re-ordered, so as to minimize any conflict with the construction schedule.
- C. Sound materials shall be stored above the ground under protective cover or indoors so as to provide proper protection.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

D. Manufacturers and product selections named are provided to establish the minimum standard.

E. BASE: 2E201 Official Lacrosse Goal as manufactured by:

Kwik Goal Ltd.
140 Pacific Drive
Quakertown, PA 18951
P: 800-531-4252
F: 800-778-8869
www.kwikgoalspecs.com

Or Equal;

F. COMPONENTS:

1. 2E201 Official Lacrosse Goal

- iv. 2E201 – crossbar and front posts fabricated of Schedule 10 Steel pipe, 1.90” outside diameter, having the following attributes:
 - a. Height: 72.40”
 - b. Width: 75.80”
 - c. Net rail MIG welded
 - d. Round
 - e. 0.109” wall steel
 - f. DuPont powder coated orange
- v. 2E201 – base fabricated of HR Steel, 0.5” x 3” x 91”, having the following attributes:
 - a. Length: 91.00”

- b. Width: 3.00”
 - c. Thickness: 0.5”
 - d. Flat
 - e. DuPont powder coated orange
- vi. 2E201 – connector plate fabricated of 6005 T5 extruded aluminum tube, 0.25” x4.00”.
- vii. Accessories:
- a. White HTPP Soccer Net
 - 1) 3mm rope thickness
 - 2) 1.5” mesh
 - b. Hardware
 - 1) Zinc Plated Steel

PART 3 - EXECUTION

3.1 INSTALLATION OF ATHLETIC FIELD EQUIPMENT

- A. All athletic field equipment shall be installed as recommended with manufacturer’s written directions, included with product or found at www.kwikgoalspecs.com, and as indicated on the drawings.

QUANTITY AND PAYMENT

Quantity and Payment will be made for Lacrosse Goal in accordance with the Contract Documents at the per unit price bid for the item **PORTABLE LACROSSE GOALS, COMPLETE W/ NETTING** in the Proposal, which shall cover the cost of sleeves, appurtenances, and all labor, tools, equipment and materials necessary therefore and incidental thereto or as directed by the Engineer.

-- END OF SECTION --

TOPSOILING AND HYDROSEEDING

DESCRIPTION

Provide topsoil(6" thick), fertilizer, hydro-seeding, and mulch for all disturbed and graded proposed lawn areas within the limit of disturbance or disturbed by the contractor as per plans and as directed by the Engineer. All seeded areas shall be watered daily to establish turf. Contractor shall water all seeded areas daily and as required to establish new turf/new lawn areas. Contractor shall be responsible providing water to the site to water all seeded and landscaped areas.

PART TWO - PRODUCTS

2.1 MATERIALS

Topsoil shall be screened topsoil and shall contain no stones, lumps, roots, or similar objects larger than 1/2 inches in any dimension, and shall have a pH value of not less than 5.8. When the pH value of the topsoil is less than 5.8, it shall be increased by applying ground limestone at a rate necessary to attain a pH value of 6.5.

Material stripped from the following sources shall not be considered suitable for use as topsoil.

- Soils having a pH value less than 4.1
- Chemically contaminated soils.
- Areas from which the original surface has been stripped and/or covered over, such as borrow pits, open mines, demolition sites, dumps, and sanitary landfills.
- Inacceptable wet excavation.

Topsoil furnished from sources outside the limits of the project shall have a minimum organic content of not less than 2.75 percent by weight. When the organic content of the topsoil furnished from sources outside the limits of the project is less than 2.75 percent, it shall be increased by adding peat at a rate necessary to attain this minimum organic content. The organic content of soils shall be determined by the Laboratory using the chromic acid titration method, as described in the United States Department of Agriculture's Circular 757.

The organic content of all topsoil used for planting shall conform to the requirements specified above.

The gradation of the topsoil furnished from sources outside the limits of the project shall be determined by the Laboratory, using the Bouyoucos Hydrometer Analysis conforming to the requirements of current A.A.S.H.O. Designation T88. The gradation of the topsoil shall be within the following ranges:

Sand (1.00 MM to 0.25 MM) 70% to 80%
Silt and Clay (less than .25 MM) 20% to 30%

A percolation rate of 1 inch/Hour to 2 inch/Hour is required after root growth by the sod has been established.

The materials to be used for topsoiling shall conform to the appropriate articles as follows:

Fertilizer, 5-10-5 Commercial DesignationSec. 909.02
Ground LimestoneSec. 909.03

Mulch, Hay	Sec. 909.04
Grain Seed.....	Sec. 909.06
Topsoil	Sec. 909.10
Grass Seed Mixture.....	Hydroseed (SEE PLAN FOR NATIVE SEED MIX)

The seed mix shall be furnished and delivered premixed. A manufacturer's certificate of compliance to the specified mixes shall be submitted by the manufacturer.

PART THREE - EXECUTION

3.1 METHODS OF CONSTRUCTION

The topsoil shall be spread over the surface in a uniform layer that will produce the prescribed compacted thickness of at least six (6") inches. When required, ground limestone which has been protected from moisture and is dry and free flowing, shall be evenly spread over the area to be seeded at a rate that will produce a pH value of the soil of 6.5. The area shall then be raked, disked or otherwise worked to incorporate the limestone into the upper 3 to 4 inches of soil to remove stones, roots, debris and other unsuitable material and to form an even surface. Fertilizer shall be applied at the rate of 1200 pounds per acre. Topsoil shall be screened topsoil and shall contain no stones, lumps, roots, or similar objects larger than 1/2 inches in any dimension.

The contractor shall seed only on a calm day. No seeding shall be performed on frozen ground or when the temperature is 32 degrees Fahrenheit or lower. Schedules for fertilizing and seeding must be submitted to the engineer for approval prior to the work. Seeding shall be done within ten days following soil preparation. All seeded areas shall be mulched with salt hay, penn mulch or approved equal.

Fertilizer shall be 5-10-5 and shall be applied at a rate of 325 lbs. per acre.

Virgin wood fiber mulch shall be applied at a rate of 1500 lbs. per acre.

QUANTITY AND PAYMENT

Payment for topsoil, and hydroseeding shall be made on a square yard basis for the actual area in square yards where topsoil and hydroseed is installed in accordance with the bid item **TOPSOIL, FERTILIZE & HYDROSEED** and shall include all labor, materials, and work described herein to install the topsoil, hydroseed, fertilizer, mulch, and all watering required to establish lawn areas.

SPORTS FIELD LIGHTING REHABILITATION

PART 1 – GENERAL

1.1 BACKGROUND AND SCOPE OF WORK

- A. The existing field lights at Mattano Park were manufactured by Musco and were installed on or around the year 2000. The existing fixture utilized is the Musco Sportscluster-2. There are currently 72 SC-2 Fixtures total, or 18 fixtures per pole and there are four (4) poles on site. The equipment was designed to provide an average maintained level of illumination of 50 footcandles on the field. A Musco Control Link was installed in 2007 to provide Union County with remote control of the lights.
- B. The scope of work for the Sports Field Lighting Rehabilitation is to re-aim all 72 fixtures in accordance with the Musco Lighting's aiming diagram. In addition, the scope of work shall include re-lamping and cleaning of all 72 fixtures to achieve the original design criteria of 50 Fc. Work shall include testing and calibration of the complete system including lights and controls to ensure a fully functional and operating system to meet the attached lighting performance specification. The scope of work shall include all parts, equipment, and labor to provide this rehabilitation to the existing sports lighting system.
NOTE: THE SCOPE OF WORK SHALL INCLUDE THE REHABILITATION OF THE EXISTING SPORTS LIGHTING ON SITE AS DESCRIBED ABOVE AND DOES NOT INCLUDE THE INSTALLATION OF A NEW "GROUND UP" SPORTS LIGHTING SYSTEM.
- C. Work covered by this section of the specifications shall conform to the contract documents, engineering plans as well as state and local codes.
- D. The purpose of these specifications is to define the performance and design standards for Mattano Park in the City of Elizabeth. The manufacturer / contractor shall supply a completely operation sports lighting system utilizing equipment to meet or exceed the standards set forth by the criteria set forth in these specifications.
- E. The sports lighting will be for a soccer field/multi sports field as depicted on the plan.
- F. The purpose of this specification is to define the parameters for the Rehabilitation of the existing Musco Sports Cluster 2 lighting system.
- G. Work includes; Full re-lamp of 72 fixtures; Fine tune and adjust aiming as needed to meet uniformities as originally designed; Final light tests to document system performance. Replacement of ballast, capacitors and fuses to achieve 100% system operation.

The contractor who is awarded this bid must comply with the following criteria.

PART 2 – EQUIPEMENT FOR RELAMP

1. Lamp Specification:

Facility

Mattano Field

QTY PART #

(72) Musco Catalog #LA-30Z-1-C3

Re-lamp Warranty

2. Lamp Warranty: 2 year lamp-only replacement; Installation by others
3. Lamps shall be rated for 3,000 hours.

PART 3 - Service—Re-lamp

1. Replace the following Lamps:
 - 72 Field Lights
2. Supply all necessary equipment, ie: Lift, Crane, etc.
3. Clean all 72 lenses
4. Troubleshoot any remaining outages after re-lamp, repair as needed.
5. Recycle and dispose of old metal halide lamps in an environmentally safe manner.
6. Complete post re-lamp light level test and uniformity measurements; adjust and fine tune aiming to meet 2.0 to uniformities and maximize light levels. Light level goal is 50 horizontal foot-candles or above .

QUANTITY AND PAYMENT

Quantity and Payment for Sports Field Lighting will be made in accordance with the Contract Documents at the lump sum price bid for the item **RE-LAMP, CLEAN, RE-AIM, AND CALIBRATE EXISTING SPORTS LIGHTING SYSTEM** in the Proposal, which shall cover the cost of sports field lighting lamps, servicing, inspection, and calibration of all electrical controls and monitoring cabinet, permitting, surge protection device, footings and foundations, electrification design and drawings, electric service, all labor, tools, equipment and material necessary therefore and incidental thereto or as directed by the Engineer.

-- END OF SECTION --

FINAL CLEANUP / SITE RESTORATION

DESCRIPTION

Under this item the Contractor shall restore the work site and access area to its original condition including, but not limited to installation of both temporary and permanent striping, signs, topsoil, seeding, fences, hedges, re-grading, seeding, repair of driveways, (both bituminous and concrete) sidewalks, roadways, curbs, cleaning and removal of stockpiles and equipment, cleaning of storm drain inlets (existing and proposed) and storm drain piping (existing and proposed) and any underground conduit encountered and all else not specifically covered elsewhere in these specifications.

MATERIALS

N. J. Department of Transportation Standard Specifications.

CONSTRUCTION

The site shall be returned to its original condition. Fences shall be reinstalled with posts in concrete footings in accordance with specifications herein. Hedges shall be reinstalled where possible or replaced in kind and in the same locations as existing. Lawn areas disturbed by Contractor's activities shall be re-graded, seeded and mulched as specified by the Engineer. Temporary safety fence shall be removed and returned to the Department of Public Works, and the holes repaired. Cleaning shall include hand brooming of sidewalk and pavement areas. Adjacent structures shall be cleaned, as necessary, by a method approved by the Engineer. Sidewalks shall be replaced with 4 inch thick concrete walk in evenly sized slabs, sawcut where necessary, only to the extent damaged by the construction. Both concrete and bituminous concrete shall be repaired as specified by the Engineer sawcut where necessary, only to the extent damaged by the construction. All construction equipment and stockpiles shall be removed from the site and disposed of by the Contractor in a suitable and timely manner.

The existing downstream storm conveyance system shall be cleaned including existing storm piping and storm inlets. Contractor shall ensure that existing storm drain system and proposed storm drain system are free flowing.

QUANTITY AND PAYMENT

Site Restoration will not be measured and payment will be made at the lump sum price bid for the item **FINAL CLEANUP / SITE RESTORATION** in the Proposal, which price shall include the cost of all materials, labor, tools and equipment and all else necessary therefore and incidental thereto.

APPENDIX A -

“CONTRACTOR RFI’S FROM JUNE 16, 2015 CANCELLED BID”

CONTRACTOR RFI'S FROM JUNE 16, 2015 CANCELLED BID

1. Will the CAD Files be released to the contractor who is awarded the project for purposes of layout and quality control during construction? - They can be provided during the construction phase for the contractors use upon execution of electronic waiver form.
2. Can submittals be sent via email? – Shop drawing submissions can be performed via email.
3. How much time will be required to review and return submittals by the owner's representative? – Typical turnaround time for reviews will be one to two weeks.
4. Will there be any permit fees that the contractor will be required to pay? If yes, please state what the fees will be, and under what pay Item number they should be included in. – It is customary that the Municipalities waive the permit fees for the County. In the event that there are permit fees the contractor will be reimbursed accordingly at cost.
5. Should there be a pay item for testing the topsoil/soil for contamination or will this work be paid under the Bid Contingency (\$100,000.00)? – I would direct the contractor's attention to the following sections within the specification "SITE CLEARING/DEMOLITION" and "SITE GRADING." The contractor is responsible to dispose of all excess and unsuitable material. The cost associated with that work inclusive of testing shall be included in the lump sum cost for SITE GRADING.
6. Where will the electric feed be located that will supply the Flag Pole Lights that all contractors should base their bids on? – The current electric feed to the facility is located in close proximity to the bathroom facility located near the 5th Avenue parking lot which is located to the east of the field.
7. Page 87 of Specification Section under Final Cleanup/Site Restoration notes "The existing downstream storm conveyance system shall be cleaned including existing storm piping and storm inlets". "Contractor shall ensure that existing storm drain system and proposed storm drain system are free flowing." Please clarify scope of work and quantify the amount and size of pipe, number of storm inlets, and/or other storm conveyance systems downstream that will require cleaning and are to be included in the bid. – The contractor shall be responsible to make sure that the existing and proposed drainage system as illustrated on the construction plans is operating properly and is free from any obstructions pre and post construction. The drainage systems discharge directly to Elizabeth River which is adjacent to the project site. Means and methods for this work is the contractor's responsibility.
8. Will a Temporary Field Office be required at the site? – No.
9. Payment for retaining wall is per sf of face. Is that exposed face or full wall face from the footing? – Payment for the retaining wall will be for the exposed face of the wall.

10. Will Temporary Chain Link Fence and a Gate be required to secure the site? If yes, where will the temporary fence be located (i.e. at limit of disturbance)? – The Contractor is responsible for public safety as well as for safe storage of material/equipment during construction. The Contractor shall provide fencing as deemed applicable. No separate payment will be made and the cost shall be included in the various pay items.
11. Are bidders to hire an independent soils engineer for compaction testing? –Yes. No separate payment will be made for this. Pursuant to the Specification the cost shall be included in the unit price for Site Grading.
12. Import page 14 states that RCA is acceptable. However RCA will not pass NJDEP residential clean requirements, please advise. – The specification has been revised and RCA has been replaced with DGA. Please note that it is the Contractor's responsibility to furnish certification that the import material is certified clean in accordance with the NJDEP's Solid and Hazardous Waste Management Program Guidance for Characterization of Concrete and Clean Material Certification for Recycling.
13. Import NJDEP residential clean import requirement, please specify if criteria is for groundwater limit or just residential limit parameter. – The importing of clean material shall meet the residential limit parameter and not the groundwater limit.
14. Imported materials, need frequency of tests required? (eg 1 test per 1000 cy) or following SRP site protocol? Please advise - In accordance with specification the fill material shall be Sand & Gravel with less than 20% passing the #200 sieve or RCA with less than 20% passing the #200 sieve. It is presumed that the Sand & Gravel is virgin material and would satisfy the clean certification requirement and the supplier would provide the necessary certification. With regards to RCA the testing would need to be done as follows:

Less than 400 yds³ - 1/100 total yds³

400 yds³ – 2000 yds³ - 1/200 total yds³ + 2

Over 2000 yds³ - 1/500 total yds³ + 8

(Ex. 1: 310 total yds³ project requires: $(310/100) = 4$ samples.)

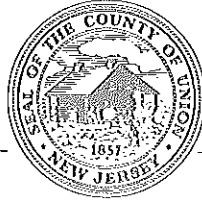
(Ex. 2: 735 total yds³ project requires: $(735/200) + 2 = 6$ samples.)

(Ex. 3: 1,750 total yds³ project requires: $(1750/200) + 2 = 11$ samples.)

(Ex. 4: 5,000 total yds³ project requires: $(5000/500) + 8 = 18$ samples.)

(Note: for any amount over a volume increment round up to the next highest number of samples as in ex. 1 and 2.)

15. For purposes of the bid, Is onsite topsoil considered residentially clean to the ground water standard? Are bidders responsible for soil export NJDEP testing? – Within the geotech report it states that the topsoil shall be removed from the site. The site being referenced in the report is the turf athletic field itself. The existing topsoil may be stockpiled and utilized in areas outside of the field. It is not the intent of the project to export material off site.



COUNTY OF UNION

DEPARTMENT OF ENGINEERING, PUBLIC WORKS & FACILITIES MANAGEMENT
Joseph A. Graziano Sr., Director

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County Manager

WILLIAM REYES, JR.
Deputy County Manager

ROBERT E. BARRY, ESQ.
County Counsel

JAMES E. PELLETTIERE
Clerk of the Board

THOMAS O. MINEO, P.E.
*County Engineer,
Director, Division of
Engineering*

MEMO TO: To All Potential Bidders

FROM: Thomas O. Mineo, P.E.
County Engineer

DATE: September 17, 2015

RE: **CLARIFICATION NO. 1**
ARTIFICIAL TURF FIELD AT MATTANO PARK, CITY OF
ELIZABETH, COUNTY OF UNION, NEW JERSEY
BA#50-2015; Union County Engineering Project #2011-018

The following is a response to an RFI regarding the above project:

- Q. The Bid Form Item 6 - states "Site Grading (Includes Excavation of existing topsoil and off-site removal of 8" avg.)". In Appendix A - "Contractor RFI's from June 16, 2015 Cancelled Bid" No. 5 states "the contractor is responsible to dispose of all excess material" and " the cost associated with that work inclusive of testing shall be included in the lump sum cost for SITE GRADING". In Appendix A - "Contractor RFI's from June 16, 2015 Cancelled Bid" No. 15 states "The existing topsoil may be stockpiled and utilized in areas outside of the field" and "It is not the intent of the project to export material off site." Please clarify whether or not excess topsoil will require removal after utilizing existing topsoil in areas outside the turf field to accommodate proposed grading as per plan.
- R. ***As mentioned in Appendix A - Item 15: It is not the intent of the project to export material off site. It is not anticipated that there will be excess topsoil; however in the event that there is, it will remain onsite and be utilized to restore existing grades within the park.***

DIVISION OF ENGINEERING

APPENDIX B -

“GEOTECHNICAL REPORT”



66 Glen Avenue
Glen Rock, NJ 07452
Telephone: 201-301-1045
Fax: 201-857-8002
Email: johnsonsoils@gmail.com

January 27, 2012

Neglia Engineering Associates
34 Park Avenue
PO Box 426
Lyndhurst, NJ 07071

RECEIVED

JAN 30 2012

Re: Geotechnical Engineering Report
Park Improvements
Mattano Park
Elizabeth, NJ

NEGLIA ENGINEERING ASSOCIATES

JSC Project No. 11-247-Elizabeth

This report is submitted to Neglia Engineering Associates as per our proposal dated October 27, 2011 & November 18, 2011. It includes our findings, conclusions and recommendations related to the design and construction the field improvements.

The site is located in Elizabeth, New Jersey. The existing and proposed features are shown on the plan entitled "Boring Location Plan", which was provided by **Neglia Engineering Associates**.

INVESTIGATIONS

Two (2) Borings were located in the field area were drilled on December 16, 2011 The Borings were advanced using truck mounted drilling equipment in accordance with the procedures of the Standard Penetration Test (ASTM-1586). For this test, a standard split barrel sampler of two (2) inches outside diameter, one and three eighth ($1\frac{3}{4}$) inches inside diameter is advanced into the soil using a one hundred and forty (140) pound weight hammer falling 30 inches. Standard Penetration Tests were taken at five (5) feet intervals to refusal depth.

Additionally, four (4) test pits were dug with a rubber tire backhoe on November 16, 2011.

The boring and test pit location plan and record sheet for the boring and test pits are attached to this report.

JSC Project No. 11-247-Elizabeth

FINDINGS

Surface Features: The area is an existing park and soccer field.

Subsurface Conditions: The explorations for this study indicate that the site is underlain by uniform subsurface conditions. The strata are listed below in order of increasing depth. Detailed descriptions of the subsurface conditions are shown on the individual log of Borings and Test Pits, Plate 3A & 3E.

1. Topsoil: A layer of Topsoil was encountered from the surface to a depth of six (6) inches below the existing surface grade.
2. Misc. Fill: A layer of Misc. Fill was encountered below the Topsoil to depths ranging from seven feet six inches to thirteen feet (10-13) below the existing surface grade.
3. Peat (Pt): A layer of Peat was encountered below the Misc. Fill in Boring 1 & 2 and Test Pit 4 to depths ranging from ten feet to seventeen feet six inches (10'-17'6") below the existing surface grade
4. Clay (CL): A layer of Clay was encountered below the Peat in Boring 1 to a depth of twenty (20) feet below the existing surface grade.
5. Sand & Silt (SP-ML): A layer of Sand & Silt was encountered below the Peat in Boring 2 to a depth of twenty (20) feet below the existing surface grade.
6. Silty Sand (SM): A layer of Silty Sand was encountered below the Clay in Boring 1 and below the Sand & Silt in Boring 2 depths ranging from twenty two to thirty five (22-35) feet below the existing surface grade.
7. Rock (Shale): A layer of Rock was encountered below the Silty Sand in Boring 1 to a refusal depth of thirty five feet one inch (35'1") below the existing surface grade.

Borings 1 encountered refusal at 35'1". The refusal depth is defined as the depth where no further penetration can be achieved with earth drilling and sampling procedures. Rock core drilling would be necessary to define whether the refusal depth is cobble, boulders or bedrock.

Ground water was encountered at depths between four feet and four feet six inches (4'-4'6") at the time of the investigation. It should be noted that the water level conditions might vary due to variations in seasons, rainfall, temperature and other factors.

JSC Project No. 11-247-Elizabeth

COMMENTS AND CONCLUSIONS

No percolation tests were able to be performed in the Misc. Fill layer.

The Topsoil & Misc. Fill located above the natural dense Silty Sand is unsuitable bearing material for structure or lights. The natural dense Silty Sand should provide a suitable bearing material. Any building or lights shall be placed on piles or caisson at depths in the thirty five foot range.

SETTLEMENT ANALYSIS

It is understood that a three (3) foot layer of additional fill is proposed to be placed on the existing field. Due to the amount of organics found in the borings, consolidation tests were performed to estimate the amount of settlement that can be expected.

Two consolidation tests were performed on the Shelby tube samples taken at a depth of 12'-14' in Boring 1 and a depth of 15'-17' in Boring 2.

The consolidation test in Boring 1 was found to be over-consolidated and therefore minimal amount of settlement will occur and is estimated less than 0.25 inches. The consolidation test in Boring 2 was found to be normally consolidated with an estimated 0.75 inches of settlement.

The existing fill will continue to settle overtime, but the amount is unknown.

We estimate that a total settlement of 2-4 inches can be expected, most of which will occur in the misc. fill portion.

In order to reduce the estimated settlement for the existing misc. fill section, please follow the recommendations found below.

JSC Project No. 11-247-Elizabeth

RECOMMENDATIONS

The following recommendations and specifications are offered:

1. The owner shall retain the services of a Soils Engineer licensed in the State of New Jersey to inspect all earthwork operations.
2. Notice shall be given at least 5 days in advance as to the source of the type of fill material, equipment and start date. The Company, name of supervisor, phone and cell phone shall also be given.
3. All existing topsoil shall be removed from the site.
4. The existing ground surface shall be compacted with a minimum of 12 passes with a 10 ton vibratory compactor or approved equal. Six passes shall be performed in one direction and the remaining 6 passes shall be performed perpendicular to the previous. All passes should overlap a minimum of six inches. All compaction shall be performed in the presence of a Soils Engineer.
5. All areas to receive fill shall be leveled. The surface shall be free ruts or uneven areas that would prevent uniform compaction by the equipment.
6. Material for the controlled fill for the proposed field shall be placed a minimum of three feet outside the proposed field dimensions.
7. Fill material can be as follows:
 - a. Sand & Gravel with less than 20% passing the #200 sieve.
 - b. Recycled Concrete Aggregate (RCA) with less than 20% passing the #200 sieve.
 - c. Any boulders or cobbles over 6 inches in diameter shall be removed from the fill placement area.
8. A 50 pound sample of each proposed material type to be used shall be submitted to the Soils Engineer for approval and appropriate testing a minimum of 5 days prior to the start of work. No fill material shall be used if not previously approved by the soils engineer.

JSC Project No. 11-247-Elizabeth

9. All approved material shall be placed in horizontal 6 inch layers and compacted with 10 ton vibratory roller or equivalent approved by the Soils Engineer.
10. After each layer has been placed and compacted to achieve 95% of the maximum Modified Proctor dry density. The maximum density of the material shall be determined by the Soils Engineer in accordance with the American Society for Testing and Materials ASTM D 1557.
11. A sufficient number of passes of the approved vibratory compactor shall be made in order to obtain the specified densities. A "pass" shall be defined as 1 passage of the contact portion of the vibratory compactor over the entire surface of the layer.
12. Field density tests shall be made by the Soils Engineer to determine the actual in-situ density attained in each layer of fill. No fill shall be placed over a layer that has not been tested and approved. Any layer or areas showing less than 95% of maximum Modified Proctor dry density shall be reworked until the required density is obtain. Field density tests shall conform to ASTM-D2167, ASTM D2922 or ASTM D1556.
13. The moisture content of the fill material shall be at or slightly below the option moisture content for the soils to be utilized during the entire time when the vibratory compactor is working on the fill placed. If, in the opinion of the Soils Engineer, the fill is too wet or dry for compaction to be achieved, the material should be dried back or wetted accordingly.
14. No fill material shall be placed, spread or compacted while the existing ground surface is frozen or thawing from previous weather. Work will continue only when the moisture content and density of the fill are at or above the previously specified amount.

JSC Project No. 11-247-Elizabeth

The recommendations above are based on the data obtained from soil borings and test pits performed at the indicated specific location and from other identified information. This report does not reflect any variations which may occur across the site apart from the borings or test pits. The nature and extent of such variations may not become evident until construction. If variations appear evident, it will be necessary to re-evaluate the recommendations of this report.

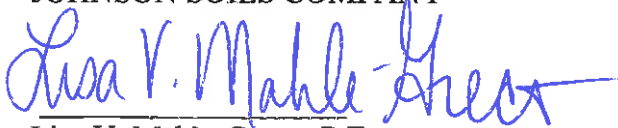
This report has been prepared for the specific application to the project noted. In the event that there are changes in the nature, design or locations of the proposed structures, the conclusions and recommendations contained herein are not valid unless the changes are reviewed and the recommendations modified in writing by JSC.

The information and opinions rendered in our report are exclusively for use by **Neglia Engineering Associates**. JSC will not distribute or publish this report without written consent except as required by law or court order. The information and opinions expressed in this report are given in response to a limited assignment and should be considered and implemented only in light of that assignment. The services provided by JSC in completing this project were consistent with normal standards of the profession. No warranty, expressed or implied, is made.

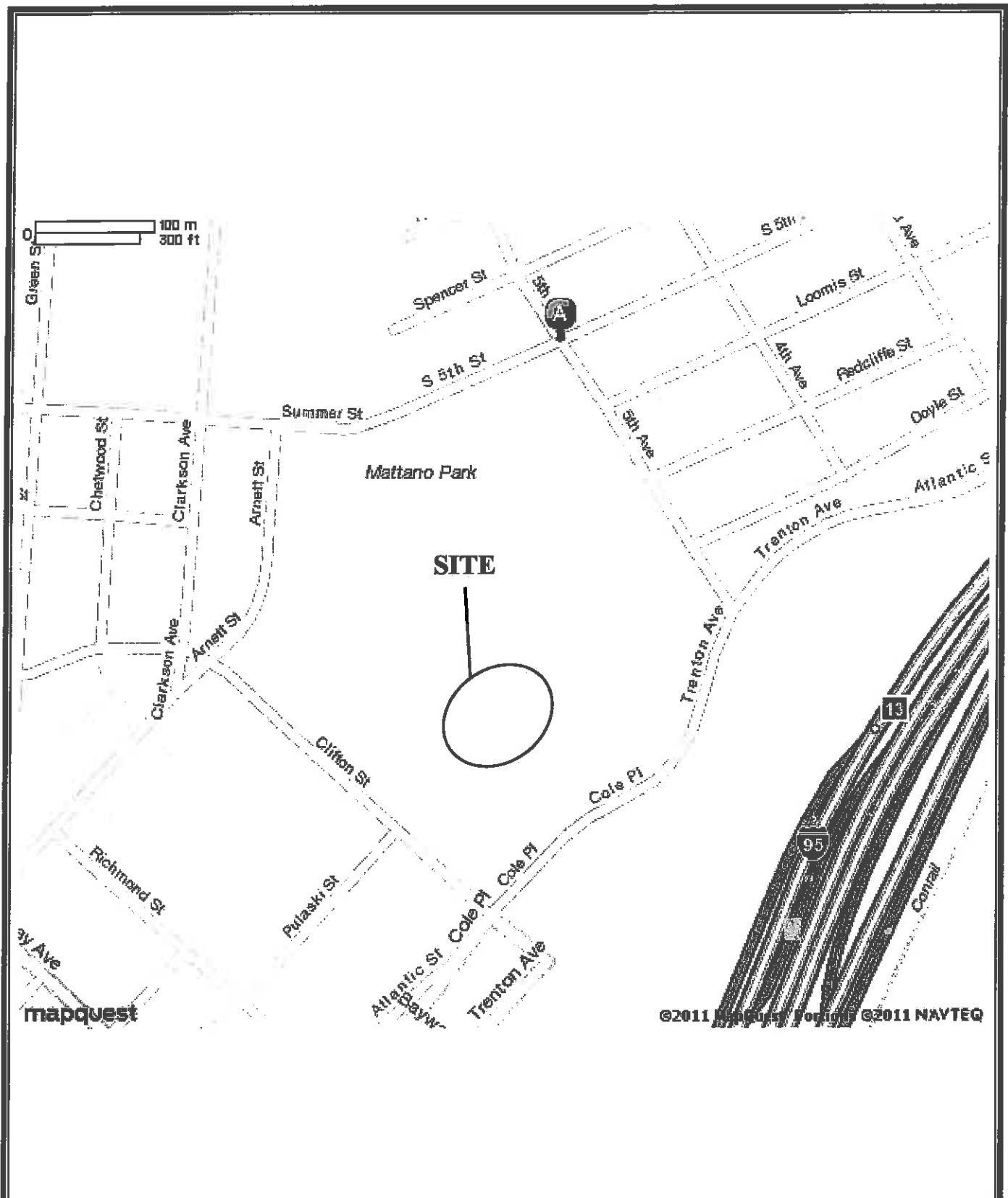
The following Plates are attached to this report:


Plate 1-	Site Location Map
Plate 2-	Boring & Test Pit Location Plan
Plate 3A to 3E-	Logs of Borings & Test Pits
Plate 4-	Unified Soil Classification System
Plate 5 -	Consolidation test results – U-1, B-1, 12'-14'
Plate 6 -	Consolidation test results – U-2, B-2, 15'-17'

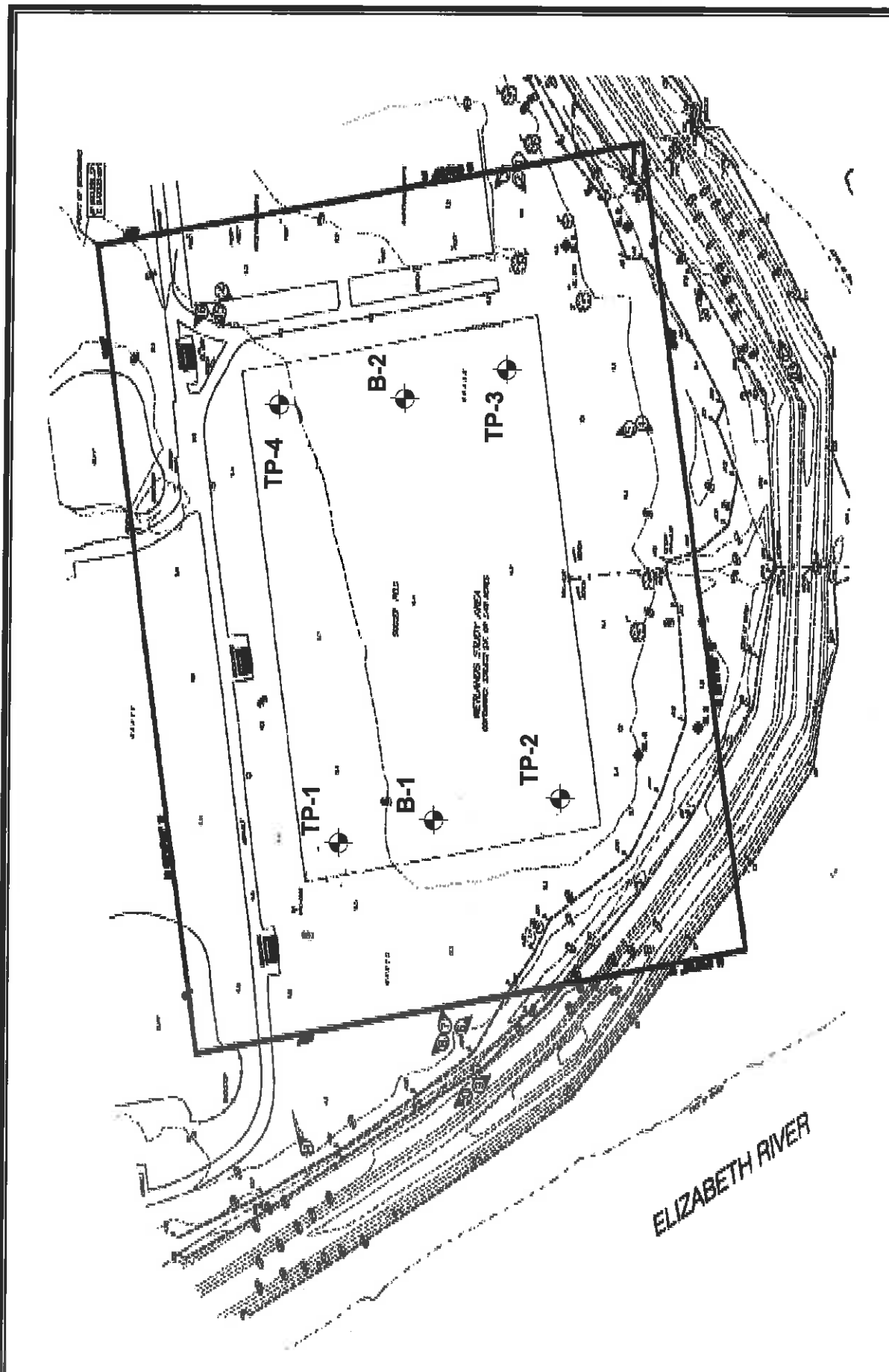
Very truly yours,
JOHNSON SOILS COMPANY




Lisa V. Mahle-Greco, P.E.
Engineering Manager



	Site Location Plan	JSC #11-247
	Mattano Park Elizabeth, NJ	PLATE 1



	<p>Boring & Test Pit Location Plan</p> <p>Mattiano Park Elizabeth, NJ</p>	<p>JSC # 11-247</p> <p>PLATE 2</p>
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**Neglia Engineering Associates
Mattano Park
Elizabeth, NJ
JSC Job # 11-247**

Inspected by: LVMG

Date: 11/16/2011

Log of Test Pits

TP-1

0-6"	Topsoil
6"-2'4"	Fill - (Red brown fine to medium Sand, little Gravels & Silt, Brick & shoe)
2'4"-6'	Fill - (Black Ash, Cinders, Glass bottle & Sand)

Water encountered at 6'

TP-2

0-7"	Topsoil
7"-4'6"	Fill - (Red brown fine to medium Sand, little Gravels & Silt)
4'6"-6'	Fill - (Black Sand, Silt, Gravels & Cinders)

Water encountered at 6'

Log of Test Pits (continued)

TP-3

0-6"	Topsoil
6"-3'6"	Fill - (Red brown fine to medium Sand, little Gravels & Silt)
3'6"-6'	Fill - (Black Sand, Silt, Gravels & Cinders)
	Water encountered at 6'

TP-4

0-6"	Topsoil
6"-2'	Fill - (Red brown fine to medium Sand, little Gravels & Silt)
2'-3'2"	Fill - (Black Ash, Cinders & Sand)
3'2"-7'6"	Fill - (Red brown fine to medium Sand, little Gravels & Silt)
7'6"-10'	Peat
	Dry



LOG OF BORING B-1

Sheet: 1 of 2
 Project Number : 11-247
 Date Completed: 12/16/11
 Ground Surface El:
 Depth to Ground Water: 4'

Depth (Feet)	Sample No.	Depth (Feet)	Sample/Spoon Blows/6"	Symbol USCS	Description
0	S-1	0-2	2-4-6-8		0-11'6" Misc. Fill (Black Ash, Cinders, Gravel & Sand) -grading to medium dense @ 6'
-	S-2	2-4	7-6-11-8		
-	S-3	4-6	8-9-10-7		
5	S-4	6-8	4-5-4-5		
-	S-5	8-10	3-3-8-9		
10	S-6	10-12	8-2-1-1		
-	U-1	12-14	Shelby tube	Pt	11'6"-16'6" Brown Peat. (wet, soft)
-	S-7	14-16	2-1-2-1		
-				CL	16'6"-20' Gray Clay (wet, soft)
20	S-8	20-22	8-8-7-7	SM	20'-35' Redbrown fine to medium Sand, some Silt, little decomposed Shale. (wet, medium dense)
-	S-9	23-25	7-9-8-9		
25					
30					

Remarks:

Client: Neglia Engineering Associates

Project: Mattano Park

Location: Elizabeth, NJ

Driller: RV. Drilling.

- Hollow Stem Auger
- Mud Rotary
- Air Rotary

PLATE: 3C



LOG OF BORING B-2

Sheet: 1 of 1
 Project Number : 11-247
 Date Completed: 12/16/11
 Ground Surface El:
 Depth to Ground Water: 4'6"

Depth (Feet)	Sample No.	Depth (Feet)	Sample/Spoon Blows/6"	Symbol USCS	Description
0	S-1	0-2	3-5-8-11		0-13' Misc. Fill (Black Ash, Cinders, Gravel, organic Silt & Sand) -grading to medium dense @ 6'
-	S-2	2-4	11-12-9-8		
-	S-3	4-6	7-8-6-5		
5	S-4	6-8	3-4-3-4		
-	S-5	8-10	4-5-4-4		
10	S-6	10-12	2-1-2-1		
-					
-					
15	U-2	15-17	Shelby tube	Pt	13'-17'6" Brown Peat. (wet, soft)
-	S-7	17-19	1-1-1-4	SP-ML	17'6"-20' Gray fine Sand and Silt. (wet, very loose)
20	S-8	20-22	7-10-13-15	SM	20'-22' Redbrown fine to medium Sand, some Silt, little decomposed Shale. (wet, medium dense)
-					Boring 2 completed @ 22' on 12/16/2011
-					
25					
-					
-					
30					

Remarks:

Client: Neglia Engineering Associates

Project: Mattano Park

Location: Elizabeth, NJ

Driller: RV. Drilling.

- Hollow Stem Auger
- Mud Rotary
- Air Rotary

PLATE: 3E



**LOG OF BORING
B-1**

Sheet: 2 of 2
 Project Number : 11-247
 Date Completed: 12/16/11
 Ground Surface El:
 Depth to Ground Water: 4'

Depth (Feet)	Sample No.	Depth (Feet)	Sample/Spoon Blows/6"	Symbol USCS	Description
30	S-10	30-32	37-34-25-27	SM	20'-35' Redbrown fine to medium Sand, some Silt, little decomposed Shale. (wet, very dense)
-					
-					
-					
35	S-11	35-37	100/1"		35'-35'1" Rock. Boring 1 refusal @35'1" on 12/16/2011
-					
-					
-					
-					
-					
-					
40					
-					
-					
-					
45					
-					
-					
-					
-					
50					
-					
-					
-					
-					
55					
-					
-					
-					
-					
60					

Remarks:

Client: **Neglia Engineering Associates**
 Project: **Mattano Park**
 Location: **Elizabeth, NJ**
 Driller: **RV. Drilling.**

Hollow Stem Auger
 Mud Rotary
 Air Rotary



66 Glen Avenue
 Glen Rock, NJ 07452
 Telephone: 201-943-1793
 Fax: 201-943-0951
 Email: johnsonsoils@gmail.com

UNIFIED SOIL CLASSIFICATION SYSTEM

SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			LETTER SYMBOL	TYPICAL DESCRIPTIONS
COARSE GRAINED SOILS	GRAVEL AND GRAVELLY SOILS	CLEAN GRAVELS (LITTLE OR NO FINES)	GW	WELL-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
		GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)	GP	POORLY-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
	SAND AND SANDY SOILS	CLEAN SAND (LITTLE OR NO FINES)	GM	SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES
		SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)	GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES
MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	MORE THAN 50% OF COURSE FRACTION RETAINED ON NO. 4 SIEVE		SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
			SP	POORLY-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
FINE GRAINED SOILS	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50	SM	SILTY SANDS, SAND-SILT MIXTURES
		LIQUID LIMIT GREATER THAN 50	SC	CLAYEY SANDS, SAND-CLAY MIXTURES
MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS		ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
			CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDS CLAYS, SILTY CLAYS, LEAN CLAYS
HIGHLY ORGANIC SOILS	SILTS AND CLAYS		OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
			MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS
			CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS
			OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
			PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS.

GRADUATION*

*% FINER BY WEIGHT	
TRACE.....	0% TO 10%
LITTLE.....	10% TO 20%
SOME.....	20% TO 35%
AND.....	35% TO 50%

COMPACTNESS* SAND AND/OR GRAVEL

RELATIVE DENSITY	
LOOSE.....	0% TO 40%
MEDIUM DENSE.....	40% TO 70%
DENSE.....	70% TO 90%
VERY DENSE.....	90% TO 100%

CONSISTENCY* CLAY AND/OR SILT

RANGE OF SHEARING STRENGTH IN POUNDS PER SQUARE FOOT	
VERY SOFT.....	LESS THAN 250
SOFT.....	250 TO 500
MEDIUM.....	500 TO 1000
STIFF.....	1000 TO 2000
VERY STIFF.....	2000 TO 4000
HARD.....	GREATER THAN 4000

*VALUES ARE FROM LABORATORY OR FIELD TEST DATA, WHERE APPLICABLE.

APPENDIX C –

“NJDEP WATERFRONT DEVELOPMENT PERMIT”



**STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF LAND USE REGULATION**

Mail Code 501-02A, P.O. Box 420, Trenton, New Jersey 08625-0420
Telephone: (609) 777-0454 or Fax: (609) 777-3656
www.state.nj.us/dep/landuse



PERMIT

<p>In accordance with the laws and regulations of the State of New Jersey, the Department of Environmental Protection hereby grants this permit to perform the activities described below. This permit is revocable with due cause and is subject to the limitations, terms and conditions listed below and on the attached pages. For the purpose of this document, "permit" means "approval, certification, registration, authorization, waiver, etc." Violation of any term, condition or limitation of this permit is a violation of the implementing rules and may subject the permittee to enforcement action.</p>		Approval Date JUL 02 2014
		Expiration Date JUL 01 2019
<p>Permit Number(s): 2004-11-0007.1 FHA 140001 Verification, WFD 140001 IP Upland, FWW 140001 GP11, FWW 140002 TAWIP</p>	<p>Type of Approval(s): Flood Hazard Area Verification, Waterfront Development Upland Individual Permit, Freshwater Wetlands General Permit No. 11, Special Activity Transition Area Waiver Individual Permit and a Water Quality Certificate</p>	<p>Enabling Statute(s): N.J.S.A. 12:5-3 N.J.S.A. 13:9B N.J.S.A. 40:55D-93-99 N.J.S.A. 58:10A N.J.S.A. 58:16A</p>
<p>Permittee: Walter Patrylo County of Union 10 Elizabethtown Plaza Elizabeth, New Jersey 07207</p>	<p>Site Location: Block: 5 Lot: 453B Municipality: Elizabeth City County: Union</p>	
<p>Description of Authorized Activities: The permittee, County of Union, will upgrade an existing sports field within Mattano Park located in Lot 453B of Block 5 in the City of Elizabeth, Union County, New Jersey. The field upgrades include the following: conversion of an existing grass soccer field to a turf field with an underdrain system, construction of a new retaining wall, modification of existing pedestrian paths leading to and from the field, installation of benches, bleachers and field lighting. The overall field improvements will result in the disturbance of 0.067 of an acre of freshwater wetlands for the placement of four stormwater outfall structures associated with turf field's drainage system under a Freshwater Wetlands General Permit No. 11 and the disturbance of 6,620 square feet of wetland transition area under a Special Activity Transition Area Waiver Individual Permit. Prior to site preparation, the permittee shall submit a draft copy of the required conservation restriction for review and written approval of the Division. Upon written approval of the draft, a final conservation restriction shall be recorded with the property deed in the office of the County Clerk and proof of recordation shall be submitted to the Division. No site preparation or construction authorized by this permit shall commence until the approved conservation restriction is recorded with the property deed in the office of the County Clerk.</p> <p>This permit is authorized under, and in compliance with the Flood Hazard Area Control Act Rules, Freshwater Wetlands Protection Act Rules and the Rules on Coastal Zone Management, N.J.A.C. 7:7E-1.1 et seq., specifically: <i>Flood Hazard Areas 7:7E-3.25, Riparian Zone 7:7E-3.26, Wetlands and Wetland Buffers 7:7E-3.27-3.28, Historic and Archaeological Resources 7:7E-3.36, Endangered or Threatened Wildlife or Vegetation Species Habitats 7:7E-3.38, Public Open Space 7:7E-3.40, Special Urban Areas 7:7E-3.43, Geodetic Reference Marks 7:7E-3.47, Stormwater Management 7:7E-8.7, and Public Access 7:7E-8.11.</i></p> <p>By issuance of this permit, the State of New Jersey does not relinquish tidelands ownership or claim to any portion of the subject property or adjacent properties. The permittee shall allow an authorized Division representative the right to inspect the construction pursuant to N.J.A.C. 7:7E-1.5(b)4.</p>		
<p>Prepared by: Kimberly Kerkuska</p>	<p>Received and/or Recorded by County Clerk:</p>	
<p>THIS PERMIT IS NOT EFFECTIVE AND NO CONSTRUCTION APPROVED BY THIS PERMIT, OR OTHER REGULATED ACTIVITY, MAY BE UNDERTAKEN UNTIL THE APPLICANT HAS SATISFIED ALL PRE-CONSTRUCTION CONDITIONS AS SET FORTH HEREIN.</p>		
<p align="center">This permit is not valid unless authorizing signature appears on the last page.</p>		

STANDARD CONDITIONS:

1. **Responsibilities:**
 - a. The permittee, its contractors and subcontractors shall comply with all conditions of this permit, authorizing and/or supporting documents and approved plans and drawings.
 - b. A copy of this permit, other authorizing documents, records and information including all approved plans and drawings shall be maintained at the authorized site at all times and made available to Department representatives or their designated agents upon request.
2. **Permit modification:** Plans and specifications in the application and conditions imposed by this permit shall remain in full force and effect so long as the proposed development or any portion thereof is in existence, unless modified by the Department. No change in plans or specifications upon which this permit is issued shall be made except with the prior written permission of the Department. The filing of a request to modify an issued permit by the permittee, or a notification of planned changes or anticipated noncompliance does not stay any condition of this permit.
3. **Duty to minimize environmental impacts:** The permittee shall take all reasonable steps to prevent, minimize or correct any adverse impact on the environment resulting from activities conducted pursuant to the permit, or from noncompliance with the permit. The permittee shall immediately inform the Department of any unanticipated adverse effects on the environment not described in the application or in the conditions of this permit. The Department may, upon discovery of such unanticipated adverse effects, and upon the failure of the permittee to submit a report thereon, notify the permittee of its intent to suspend the permit
4. **Proper site maintenance:** While the regulated activities are being undertaken, neither the permittee, its contractors nor subcontractors shall cause or permit any unreasonable interference with the free flow of a regulated feature by placing or dumping any materials, equipment, debris or structures within or adjacent to the regulated area. Upon completion or abandonment of the work, the permittee, its contractors or subcontractors shall remove and dispose of in a lawful manner all excess materials, debris, equipment, silt fences and other temporary soil erosion and sediment control devices from all regulated areas. Only clean non-toxic fill shall be used where necessary.
5. **Sediment control:** Development which requires soil disturbance, creation of drainage structures, or changes in natural contours shall conduct operations in accordance with the latest revised version of "Standards for Soil Erosion Sediment Control in New Jersey," promulgated by the New Jersey State Soil Conservation Committee, pursuant to the Soil Erosion and Sediment Control Act of 1975, N.J.S.A. 4:24-42 et seq. and N.J.A.C. 2:90-1.3-1.14.
6. **Rights of the State:**
 - a. This permit does not convey any property rights of any sort, or any exclusive privilege.
 - b. Upon notification and presentation of credentials, the permittee shall allow Department representatives or their designated agents, to enter upon the project site and/or where records must be kept under the conditions of this permit, inspect at reasonable times any facilities, equipment, practices or operations regulated or required under the permit, and sample or monitor for the purposes of determining compliance. Failure to allow

reasonable access shall be considered a violation of this permit and subject the permittee to enforcement action.

- c. The issuance of this permit shall in no way expose the State of New Jersey or the Department to liability for the sufficiency or correctness of the design of any construction, structure or structures. Neither the State nor the Department shall, in any way, be liable for the loss of life or property which may occur by virtue of the activity of development resulting from any permit.
7. **Duty to Reapply:** If the permittee wishes to continue an activity covered by the permit after the expiration date of the permit authorization, the permittee must apply for and obtain a new permit authorization.
 8. **Transfer of Permit:** This permit may not be transferable to any person unless the transfer is approved by the Department. Please refer to the applicable rules for more information.
 9. **Other Approvals:** The permittee must obtain any and all other Federal, State and/or Local approvals. Authorization to undertake a regulated activity under this permit does not indicate that the activity also meets the requirements of any other rule, plan or ordinance.
 10. **Noncompliance:**
 - a. Any noncompliance with this permit constitutes a violation, and is grounds for enforcement action, as well as modification, suspension and/or termination of the permit.
 - b. The permittee shall immediately report to the Department by telephone at (877) 927-6337 any noncompliance that may endanger health or the environment. In addition, the permittee shall report all noncompliance to Bureau of Coastal and Land Use Compliance and Enforcement, 401 E. State Street, 4th Floor, P.O. Box 420, Mail Code: 401-04C, Trenton, NJ 08625, in writing within five business days of the time the permittee becomes aware of the noncompliance. The written notice shall include: a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and, if the noncompliance has not been corrected, the anticipated length of time it is expected to continue; and steps taken or planned to reduce, eliminate and prevent recurrence of the noncompliance. Such notice shall not, however, serve as a defense to enforcement action if the project is found to be in violation of this chapter.
 11. **Appeal of Permit:** In accordance with the applicable regulations, any person who is aggrieved by this decision or any of the conditions of this permit may request a hearing within 30 days after notice of the decision is published in the DEP Bulletin. This request must include a completed copy of the Administrative Hearing Request Checklist. The DEP Bulletin is available through the Department's website at <http://www.nj.gov/dep/bulletin> and the Checklist is available through the Division's website at http://www.nj.gov/dep/landuse/download/lur_024.pdf. In addition to your hearing request, you may file a request with the Office of Dispute Resolution to engage in alternative dispute resolution. Please see the website www.nj.gov/dep/odr for more information about this process.

SPECIAL CONDITIONS:

12. **Recording of Permit:** This permit shall be recorded in its entirety in the office of the County Clerk or the Registrar of Deeds and Mortgages for each county where this project is located. Verified notice of this action shall be forwarded to the Division immediately thereafter. **NOTE:** The following information is to be submitted to the clerk for all Flood Hazard Area Verifications:
 - a. The Department file number for the verification;
 - b. The approval and expiration dates of the verification;
 - c. A metes and bounds description of any flood hazard area limit and/or floodway limit approved under the verification;
 - d. The flood hazard area design flood elevation, or range of elevations if variable, approved under the verification; and
 - e. The following statement: "The State of New Jersey has determined that all or a portion of this lot lies in a flood hazard area. Certain activities in flood hazard areas are regulated by the New Jersey Department of Environmental Protection and some activities may be prohibited on this site or may first require a permit. Contact the Division of Land Use Regulation at (609) 777-0454 for more information prior to any construction onsite."
13. All necessary local, Federal, and other State approvals must be obtained by the applicant prior to the commencement of the herein-permitted activities, including, but not limited to, the Historic Preservation Office and Bureau of Tidelands Management, New Jersey Department of Environmental Protection.
14. The fence and aesthetic treatment of the retaining wall will be compatible with the Union County Park System Historic District. The County shall consult with Historic Preservation Office (HPO) and other interested parties, as identified through consultation, as to the appropriate appearance and materials of the wall and fence. **HPO must approve the materials before the project is bid.** If you need any additional information and/or clarification with regard to this condition, please feel free to contact Michelle Hughes of the Historic Preservation Office, NJDEP at (609) 984-6018.
15. All sediment barriers and other soil erosion control measures shall be installed prior to commencing any clearing, grading or construction onsite, and shall be maintained in proper working condition throughout the entire duration of the project.
16. The Department has determined that this project meets the requirements of the Stormwater Management rules at N.J.A.C. 7:8. Any future expansion or alteration of the approved site layout or drainage system, which would affect water quality, increase the rate or volume of stormwater leaving the site, affect the infiltration capacity on the site, or alter the approved low impact site design, shall be reviewed and approved by the Department prior to construction. This includes any proposed changes to the discharge characteristics of any basin, the construction of new inlets or pipes that tie into the storm sewer network and/or the replacement of existing inlets or pipes with structures of different capacity.
17. This portion of the permit verifies the flood hazard elevation at 13 feet NGVD on-site, and that the entire site is located within the flood hazard area. The Department has also determined that the floodway is located at the top of bank. Within 90 calendar days of the date of this permit, the permittee shall submit the following information to the clerk of each county in which the site is

located, and shall send proof to the Department that this information is recorded on the deed of each lot referenced in the verification:

- a. The Department file number for the verification;
- b. The approval and expiration dates of the verification;
- c. The flood hazard area design flood elevation approved under the verification;
- d. Failure to have this information recorded in the deed of each lot and/or to submit proof of recording to the Department constitutes a violation of the Flood Hazard Area Control Act rules and may result in suspension or termination of the verification and/or subject the applicant to enforcement action pursuant to N.J.A.C. 7:13-19.

Conditions for an Individual Transition Area Waiver:

Waiver Conditions

18. The transition area will be reduced by 6,620 square feet for the construction of a turf athletic field and associated amenities.
19. Prior to any construction on site, the applicant/ owner shall install a silt fence at the limits of the herein-modified transition areas.
20. The transition area shall not be reduced to less than the width at any location as shown on the referenced plan.
21. The applicant/owner shall sign a Department approved conservation restriction for the modified transition area on the subject parcel(s) in accordance with N.J.A.C. 7:7A-6.1(h). The conservation restriction shall address **all** wetlands and transition areas on site, including both the boundary of the reduced area as well as the compensated area. The restriction shall be included on the deed, and recorded in the office of the County Clerk (the REGISTRAR OF DEEDS AND MORTGAGES), in the county wherein the lands included in the waiver are located. Said restriction shall run with the land and be binding upon all successive owners. All individual lot surveys shall show the approved wetland and transition area boundaries. Any regulated activities undertaken on the site before a copy of this recorded restriction is submitted to the Department will be considered in violation of the Freshwater Wetlands Protection Act. **The conservation restriction should conform to the format and content of the model "Transition Area & Associated Wetlands Conservation Restriction/Easement," located on the Division's website at www.state.nj.us/dep/landuse. Please submit a copy of the draft restriction to Kimberly Kerkuska of this office for review, as well as the final restriction once filed.**
22. The remaining portion of the wetland transition area and wetlands shall remain undisturbed and not be maintained as a lawn or landscaped area.

TRANSITION AREA MITIGATION PERMIT CONDITIONS:

22. The permittee shall mitigate for the permanent disturbance of 0.15 acres of freshwater wetland transition areas through an on-site enhancement project. The permittee has proposed an on-site project; however, the plan cannot be approved at this time because the plan needs to be revised to show native plantings in the proposed enhancement area.

23. **All mitigation shall be conducted prior to or concurrent with the construction of the approved project** (N.J.A.C. 7:7A-15.3(a)1). Concurrent means that at any given time, the mitigation must track at the same or greater percentage of completion as the project as a whole.
24. If the permittee fails to perform mitigation within the applicable time period the acreage of mitigation required shall be increased by 20 percent each year after the date mitigation was to begin (N.J.A.C. 7:7A-15.3(b)).
25. **At least 90 days prior to the initiation of regulated activities authorized by this permit**, the permittee shall submit a revised mitigation proposal showing native plantings within the area of compensation to the Division of Land Use Regulation (Division) for review and approval. Activities authorized by this permit shall not begin until the permittee has obtained written approval of a mitigation plan from the Department (N.J.A.C. 7:7A-15.11(a)1).
26. If the permittee is considering conducting a creation, restoration or enhancement project, the following conditions shall apply:
 - a. **Prior to the completion of the mitigation project**, the permittee shall complete, sign and file with the County Clerk (the Registrar of Deeds and Mortgages in some counties), a conservation restriction that meets the requirements of N.J.A.C. 7:7A-15.14. The conservation restriction shall include the transition area that comprises the mitigation project and conform to the format and content of the Wetlands Mitigation Area model conservation restriction that is available at: <http://www.nj.gov/dep/landuse/forms/index.html>. The applicant is required to include a metes and bounds description shown on a map. Within 10 days of filing the conservation restriction, the permittee must send a copy of the conservation restriction to the Mitigation Unit, NJDEP Division of Land Use Regulation for verification. (N.J.A.C. 7:7A-15.14(a))
 - b. To ensure the intent of the mitigation design and its predicted wetland hydrology is realized in the landscape, the mitigation designer shall be present on-site during all critical stages of mitigation construction and during the restoration of any temporarily impacted areas. Critical stages of construction include but are not limited to herbicide applications, earthmoving activities, planting, and inspections.
 - c. The permittee shall be responsible for ensuring that best management practices are used throughout construction to control the spread and colonization of highly invasive plants. Specifically, all equipment, especially tracks and tires, must be thoroughly cleaned every time equipment or vehicles move from an area containing invasive plants or from off-site to the mitigation area. In addition, soil containing root fragments and above-ground vegetative material from invasive plants shall be carefully managed during earthmoving activities and disposed of at a suitable off site location rather than mulched and reused or stockpiled elsewhere on the site. For information on the specific species that are considered to be invasive, please refer to the Invasive Plant Atlas at <http://www.invasiveplantatlas.org/index.html>.
 - d. In the event that changes to the mitigation design are necessary to ensure success of the project as a result of on-site conditions, the mitigation designer shall immediately notify the Division in writing and submit an alternative plan which achieves the proposed wetland conditions. The Division shall review the plan in accordance with N.J.A.C. 7:7A-15.15. Any modifications to the plan that are reviewed and approved by the Division must be shown on a signed and sealed revised plan. The As-Built plans required as a part of the Construction Completion Report may serve as the signed and sealed revised plan required to be submitted

as part of the construction modification process described above if time constraints warrant such action and have been approved by the Division in writing.

- e. **Within 30 days following the final planting of the mitigation project**, the permittee shall submit a Construction Completion Report to the Division detailing as-built conditions (see below) and any changes to the approved mitigation plan that were made during construction (N.J.A.C. 7:7A-15.16). The Construction Completion Report shall contain, at a minimum, the following information:
 - i. A completed Wetland Mitigation Project Completion of Construction Form. This form is located at <http://www.nj.gov/dep/landuse/forms/index.html> and certifies that the mitigation project has been constructed as designed and that the proposed area of wetland creation, restoration or enhancement has been accomplished;
 - ii. Include a table of the species and quantities of vegetation that were planted including any grasses that may have been used for soil stabilization purposes; and
 - iii. Photos of the constructed wetland mitigation project with a photo location map as well as the GPS waypoints in NJ state plane coordinates NAD 1983.
- j. **Within 30 days following final planting of the mitigation project**, the permittee shall post the mitigation area with permanent signs which identify the site as a mitigation project and that all-terrain vehicle use, motorbike use, mowing, dumping, draining, cutting and/or removal of plant materials is prohibited and that violators shall be prosecuted and fined to the fullest extent under the law. The signs must also state the name of the permittee, a contact name and phone number, and the Department's permit number.
- k. The permittee shall monitor the mitigation project for 3 full growing seasons beginning the year after the mitigation project has been completed. The permittee shall submit monitoring reports to the Division of Land Use Regulation no later than December 31st of each full monitoring year (N.J.A.C. 7:7A-15.16(c)). All monitoring reports must include the standard items identified in the checklist entitled, "Wetland Mitigation Monitoring Project Checklist", which can be found at <http://www.nj.gov/dep/landuse/forms/index.html>.
- l. Once the required monitoring period has expired and the permittee has submitted the final monitoring report, the Division will make the finding that the mitigation project is either a success or a failure. This mitigation project will be considered successful if the permittee demonstrates all of the following:
 - i. That the goals of the mitigation project, including acreage, as stated in the approved mitigation proposal and the permit have been satisfied;
 - ii. The site has an 85 percent survival and 85 percent area coverage of the mitigation plantings, which are species native to the area and similar to ones identified on the mitigation planting plan. All plant species in the mitigation area must be healthy and thriving and all trees must be at least five feet in height;
 - iii. The site is less than 10 percent coverage by invasive or noxious species.
- m. The permittee is responsible for assuming all liability for any corrective work necessary to meet the success criteria established above (N.J.A.C. 7:7A-15.16(f)). The Division will notify the permittee in writing if the mitigation project is considered to be a failure. Within 30 days

of notification, the permittee shall submit a revised mitigation plan to meet the success criteria identified above for Division review and approval.

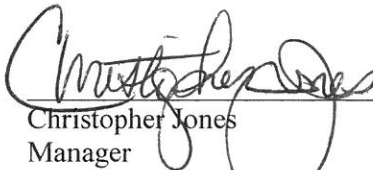
APPROVED PLANS:

27. **The drawings hereby approved** are three (3) sheets, prepared by Neglia Engineering Associates, dated December 14, 2011, last revised March 14, 2014 and collectively entitled, "ARTIFICIAL TURF FIELD AT MATTANO PARK CITY OF ELIZABETH ~ BLOCK 5 ~ LOT 453B COUNTY OF UNION ~ PROJECT # 2011-018"

"SITE PLAN," SHEET NO. 2.00,
"GRADING AND DRAINAGE PLAN," SHEET NO. 3.00; and
"NJDEP PERMITTING SITE DEVELOPMENT PLAN," SHEET NO. 1 OF 1.

If you need clarification on any section of this permit or conditions, please contact the Division of Land Use Regulation's Technical Support Call Center at (609) 777-0454.

Approved By:



Christopher Jones
Manager
Bureau of Urban Growth and Redevelopment
Division of Land Use Regulation



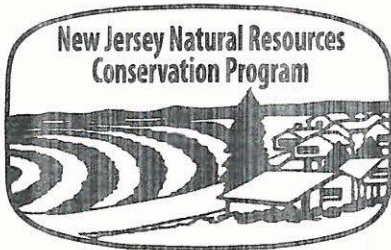
Date

Original sent to Agent to record

c: City of Elizabeth Construction Official
Neglia Engineering Associates

APPENDIX D -

“SOMERSET UNION SOIL CONSERVATION DISTRICT PERMIT”



SOMERSET - UNION SOIL CONSERVATION DISTRICT

Somerset County 4-H Center
308 Milltown Road • Bridgewater, NJ 08807
(908) 526-2701 Fax (908) 575-3977

September 17, 2014

County of Union
Division of Engineering
2325 South Ave.
Scotch Plains, NJ 07076

RECEIVED

SEP 19 2014

Neglia Engineering Associates

RE: **Mattano Park Field Improvements**
(plan dated 3/14/2014)
Block 5, Lot 453B
City of Elizabeth
Application #2014-1399

Dear Sir or Madam:

The Somerset-Union Soil Conservation District has reviewed the above erosion control plan and certifies that the plan is in accordance with the N.J. Erosion and Sediment Control Act, Chapter 251, P.L. 1975.

This approval is limited to the soil erosion and sedimentation controls specified in this plan. It is not authorization to engage in the proposed land use unless such use has been previously approved by the municipality or other controlling agency.

All revisions and municipal renewals of this project will require resubmission and approval by the District. Any conveyance of the project (or portion thereof) will transfer full responsibility for compliance to subsequent owner(s). The District must be notified in writing of any change of ownership.

The District requires written notification prior to the start of land disturbance. Please be advised that failure to do so is considered a violation of State Law and a fine will be imposed.

If there are any questions, please feel free to call our office.

Very truly yours,

SOMERSET-UNION S.C.D.

Mark Kirby
District Supervisor

MK/FC/JK J:\Access\MASTERS\Cert\Let-35-SU.doc

Enclosure

cc: City of Elizabeth Const. Off.
Mun. Planning Board
Mun. Engineer
Neglia Engineering Associates

ARTIFICIAL TURF FIELD AT MATTANO PARK

COUNTY OF UNION PROJECT #2011-018 ~ NEW JERSEY
 BLOCK 5 ~ LOT 453B
 CITY OF ELIZABETH
 ISSUED FOR BID OCTOBER 2015

CONSTRUCTION NOTES:

- THE LOCATIONS OF UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE. THE CONTRACTOR SHALL CONTACT THE RESPECTIVE UTILITY COMPANIES FOR THEIR EXACT LOCATIONS.
- TRENCHES OR AREAS EXCAVATED ARE TO BE BACK FILLED WITH DENSE GRADED AGGREGATE AT THE END OF EACH WORKING DAY AND PAVED AT THE END OF THE WORK WEEK. TRENCHES LEFT OPEN OVERNIGHT ARE NOT PERMITTED.
- THE 2007 NJDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AS AMENDED AND ADDED TO HEREIN, SHALL GOVERN IN THIS CONTRACT AND CONSTRUCTION, SHOULD THE SPECIFICATIONS NOT INCLUDE PARTICULAR CONSTRUCTION ITEMS.
- ANY MATERIAL THAT MAY BE DISTURBED DURING THE REMOVAL AND REPLACEMENT TO EXISTING CURBS AND SIDEWALKS, MUST BE RETURNED TO ITS ORIGINAL CONDITION. THE COST FOR THIS SHALL BE INCLUDED IN THE UNIT PRICE BID IN THE APPROPRIATE PAY ITEM.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR TAPERING PROPOSED WORK TO MEET EXISTING CONDITIONS IN A UNIFORM MANNER.
- THE CONTRACTOR SHALL RECEIVE ALL THE NECESSARY PERMITS & APPROVALS FROM ALL LOCAL, COUNTY, AND STATE GOVERNING AGENCIES, PRIOR TO CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR ANY ASSOCIATED FEES, AND SAME TO BE INCLUDED IN THE VARIOUS BID ITEMS.
- THE CONTRACTOR SHALL INSTALL PROTECTIVE BLOCKING, BRACING OR SHEETING TO SUPPORT ANY EXPOSED GAS OR WATER UTILITIES IN ACCORDANCE WITH PSE&G GAS AND UNITED WATER REGULATIONS.
- THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE ONE CALL NUMBER (800) 272-1000 FOR MARK OUTS PRIOR TO START OF WORK. THE CONTRACTOR SHALL RECORD AND HAVE THE CONFIRMATION NUMBER ONSITE DURING CONSTRUCTION.
- THE CONTRACTOR SHALL VISIT THE SITE TO PERFORM HIS OWN DUE DILIGENCE, AND FAMILIARIZE HIMSELF WITH THE EXISTING CONDITIONS PRIOR TO SUBMITTING HIS BID. ANY DISCREPANCIES SHALL BE IMMEDIATELY REPORTED TO THE ENGINEER.

GENERAL NOTES:

EXISTING CONDITIONS

- IT IS THE CONTRACTORS RESPONSIBILITY TO ASCERTAIN ALL UTILITY LOCATIONS PRIOR TO BIDDING.

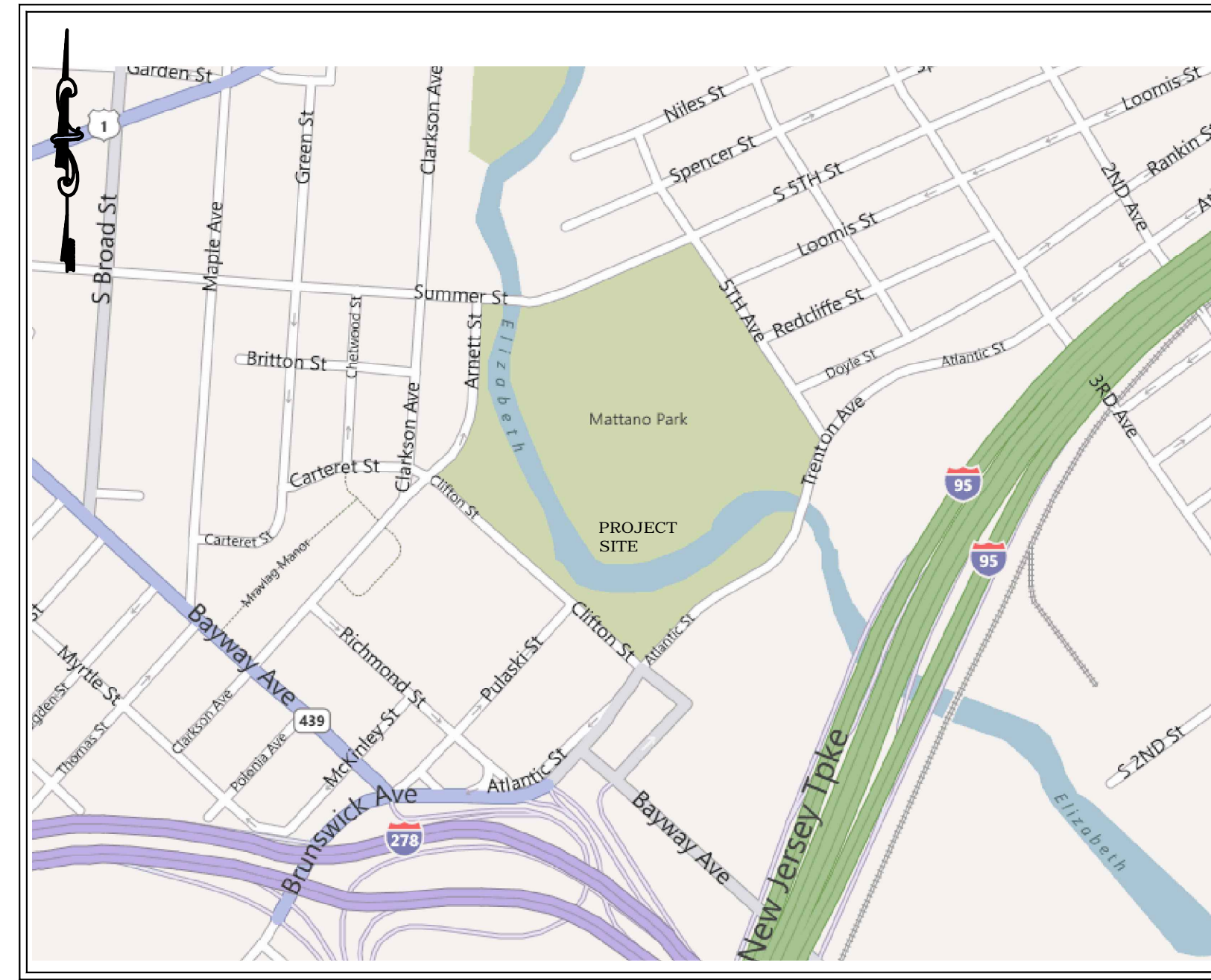
PROPOSED WORK

- MAINTENANCE AND PROTECTION OF PEDESTRIAN TRAFFIC CONTROL, MUST CONFORM TO NJDOT AND MUTCD STANDARDS ALONG WITH THE REQUIREMENTS OF THE MUNICIPALITY. POLICE TRAFFIC DIRECTORS SHALL BE COORDINATED WITH THE MUNICIPALITY.
- ALL STORM DRAINS AND CATCH BASINS WILL BE PROTECTED AT ALL TIMES. ANY DAMAGE WILL BE REPAIRED BY THE CONTRACTOR AT THE CONTRACTORS EXPENSE.
- ALL FILL REMOVED FROM THE TRENCH IS TO BE DISCARDED BY THE CONTRACTOR IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REQUIREMENTS. THE TRENCH MUST BE OF SUITABLE WIDTH TO OBTAIN PROPER MECHANICAL COMPACTING, NOT TO EXCEED 4 FEET IN WIDTH. ALL BACKFILL IS TO BE DONE WITH QUARRY PROCESS STONE, TYPE 1.5 OR DGA FOR THE FULL DEPTH OF THE TRENCH. FIRST LIFT OF FILL, TWELVE (12) INCHES ABOVE THE PIPE, SHALL BE COMPACTED USING A JUMPING JACK TAMPER. SUCCESSIVE LIFTS SHALL BE COMPACTED BY MECHANICAL MEANS SUCH AS TAMPING, VIBRATING OR ROLLING. A VIBRA PLATE TAMPER IS NOT ACCEPTABLE.
- SEE SITE PLAN FOR PROPOSED FINISHED SURFACE TREATMENTS.
- THE CONTRACTOR SHALL KEEP THE TRENCH FILLED TO THE LEVEL OF THE SURROUNDING GRADES UNTIL SETTLEMENT HAS CEASED.
- TRAFFIC CONTROL DEVICES AS NECESSARY TO BE INCLUDED IN THE VARIOUS BID ITEMS.
- TRAFFIC CONTROL TO BE IN ACCORDANCE WITH MUNICIPAL, UNION COUNTY, AND MUTCD STANDARDS.

RESTRICTIONS AND REQUIREMENTS

- WORKING HOURS SHALL BE IN ACCORDANCE WITH UNION COUNTY REQUIREMENTS.
- THE CONTRACTOR SHALL NOTIFY RESIDENTS AND OWNERS 24 HOURS PRIOR TO WORK BEGINNING ON THEIR STREET. NOTIFICATIONS SHALL BE IN THE FORM OF A HAND DELIVERED FLYER THAT WILL STATE: 1) THE DATES OF CONSTRUCTION; 2) HOURS OF CONSTRUCTION; 3) INSTRUCTION ON HOW AND WHERE TO PARK VEHICLES ON STREETS; 4) INSTRUCTION ON HOW TO ACCESS THEIR HOMES DURING HOURS OF CONSTRUCTION AND AFTER HOURS. FLYERS SHALL BE APPROVED BY THE MUNICIPALITY AND THE ENGINEER PRIOR TO DISTRIBUTION. A SAMPLE FLYER SHALL BE SUBMITTED TO THE ENGINEER PRIOR TO THE START OF THE PROJECT. ALL COSTS SHALL BE INCLUDED IN THE VARIOUS BID ITEMS.
- THE CONTRACTOR SHALL FURNISH AN APPROVED CONSTRUCTION SCHEDULE PRIOR TO MOBILIZATION.
- THE CONTRACTOR SHALL MAINTAIN ACCESS FOR EMERGENCY VEHICLES.
- THE CONTRACTOR SHALL PROVIDE PRE-CONSTRUCTION PHOTOGRAPHS OR VIDEOTAPES OF THE PROJECT AREA. PHOTOGRAPHS SHALL BE LABELED WITH DESCRIPTORS AND CORRESPONDING PHOTO LOCATION MAP AND MOUNTED INTO BINDERS. AUDIO SHALL BE USED ON VIDEOTAPES TO DESIGNATE THE PHOTO LOCATIONS AND DESCRIPTORS. THE CONTRACTOR SHALL PROVIDE THE PHOTOGRAPHS OR VIDEOTAPES PRIOR TO MOBILIZATION.
- THE CONTRACTOR SHALL OBSERVE ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES ILLUSTRATED WITHIN THESE CONSTRUCTION PLANS. A STAGING AREA HAS NOT BEEN DETERMINED FOR USE BY THE CONTRACTOR AT THE TIME THESE CONTRACT DRAWINGS WERE DRAWN. WHEN A STAGING AREA IS DETERMINED, THE CONTRACTOR SHALL CALL THE UNION COUNTY SOIL CONSERVATION DISTRICT (908-231-7000) FOR INSPECTION OF THE STAGING AREA. THE CONTRACTOR IS RESPONSIBLE TO IMPLEMENT ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES AT THE STAGING AREA PRIOR TO INSPECTION. ALL COSTS TO BE INCLUDED IN THE VARIOUS ITEMS BID.

ALL WORK STATED IN THESE NOTES, PLANS AND SPECIFICATIONS SHALL BE INCLUDED IN THE VARIOUS BID ITEMS UNLESS SPECIFICALLY ITEMIZED ON THE PROPOSAL SHEET. THE CONTRACTOR IS NOT LIMITED TO THE REQUIREMENTS WITHIN THESE NOTES AND IS STRONGLY ADVISED TO REVIEW THE SPECIFICATIONS FOR ADDITIONAL INFORMATION.



LOCATION MAP (N.T.S.)

THE UNION COUNTY BOARD OF CHOSEN FREEHOLDERS

MOHAMED S. JALLOH, CHAIRMAN BRUCE BERGEN, VICE CHAIRMAN
 ANGEL G. ESTRADA LINDA CARTER
 CHRISTOPHER HUDAK SERGIO GRANADOS
 BETTE JANE KOWALSKI ALEXANDER MIRABELLA
 VERNELL WRIGHT

COUNTY MANAGER
 ALFRED FAELLA

NEGLIA ENGINEERING ASSOCIATES - CONSULTING ENGINEERS & LAND SURVEYORS - CIVIL • MUNICIPAL • LAND SURVEYING • PLANNING ARTIFICIAL TURF FIELD AT MATTANO PARK COUNTY OF UNION PROJECT #2011-018			
BASE BID - TURF FIELD AND SITE/DRAINAGE IMPROVEMENTS			
ITEM NO.	DESCRIPTION	UNIT	QUANTITY
1	Mobilization/Demobilization	L.S.	1
2	Construction Layout	L.S.	1
3	Site Cleaning & Demolition	L.S.	1
4	Soil Erosion Sediment Control Measures	L.S.	1
5	Test Pits, 10" Deep Max (If and Where Directed)	UNIT	10
6	Site Grading (includes excavation of existing topsoil to 8" avg. depth and import of clean fill, compaction)	L.S.	1
7	Synthetic Turf (for cross section above choking stone) including Custom Emblem, Numbers, Inlaid Markings	S.Y.	9,225
8	Porous Large Stone (for field sub-base)	C.Y.	1,700
9	Choking Stone (for field sub-base)	C.Y.	575
10	Geotextile Filter Fabric (for field sub-base)	S.Y.	9,225
11	16' Portable Player Shelter & Bench	UNIT	2
12	Football Goals, Complete w/ Turf Cover and Pads	UNIT	2
13	Portable Soccer Goals, Complete w/ Netting	UNIT	2
14	Portable Lacrosse Goals, Complete w/ Netting	UNIT	2
15	Flagpole System, Complete with Up-Lights (including electric)	L.S.	1
16	New ADA Bleachers, 5 Row, 21' Long w/ Concrete Pad	UNIT	2
17	Relocate Existing Bleachers on New Concrete Pad	UNIT	3
18	Decorative Park Benches w/ Concrete Pad	UNIT	3
19	Trash Receptacles w/ Concrete Pad	UNIT	4
20	Bicycle Rack	UNIT	1
21	Black Vinyl Coated Chain Link Fencing, 4' High	LF	1,830
22	Black Vinyl Coated Chain Link Double Swing Gate, 4' High, 10' Wide	UNIT	3
23	Black Vinyl Coated Chain Link Single Swing Gate, 4' High, 4' Wide	UNIT	2
24	Barrier Netting (30 feet high) and Footings/Posts Complete	LF	400
25	Hot Mix Asphalt Surface Course, HMA 9.5M64, 2" min. thickness - Pedestrian Path	TONS	230
26	Hot Mix Asphalt Base Course, HMA 19M64, 2" min. thickness - Pedestrian Path	TONS	230
27	Dense Graded Aggregate Sub-Base Course, 6" min. thickness - Pedestrian Path	S.Y.	2,000
28	Concrete Curb (8"x18")	L.F.	100
29	Flush Concrete Header Curb (6"x12")	L.F.	1,200
30	Landscape Block Retaining Wall, Max Exposed Height 3.25 feet	SF	1,600
31	Wetlands Signage	UNIT	6
32	Inlet Type 'A' w/ Bicycle Safe Gate	UNIT	11
33	Storm Manhole (4' Dia)	UNIT	5
34	Reinforced Concrete Headwall and Outlet Protection 10"	L.S.	1
35	Reinforced Concrete Headwall and Outlet Protection 18"	L.S.	1
36	6" PVC Storm Drain	L.F.	240
37	8" HDPE Storm Drain	L.F.	775
38	10" HDPE Storm Drain	L.F.	106
39	12" Perforated HDPE Storm Drain	L.F.	840
40	15" Perforated HDPE Storm Drain Header	L.F.	300
41	18" HDPE Storm Drain Pipe	L.F.	60
42	18" Tidedflex Inline Backflow Preventer	UNIT	1
43	24" Tidedflex Inline Backflow Preventer	UNIT	1
44	36" Tidedflex Inline Backflow Preventer	UNIT	1
45	1"x12" Flat Drains for Field Underdrain System	L.F.	4,200
46	Remove and Construct New 36" Outfall, Headwall, Pipe Connection, Outlet Protection Complete	LS	1
47	Remove and Construct New 24" Outfall, Headwall, Outlet Protection Complete	LS	1
48	36" RCP Storm Drain	L.F.	30
49	24" RCP Storm Drain	L.F.	30
50	Re-Lamp, Clean, and Re-Calibrate Existing Sports Lighting	L.S.	1
51	Topsoil and HydroSeed	S.Y.	7,000
52	Contract Allowance for Asphalt Price Adjustment	Allow	1
53	Final Cleanup/ Site Restoration	L.S.	1

ENGINEERING SITE PLAN SHEETS	
SHEET NUMBER	DRAWING NAME
1.00	COVER SHEET/ KEY MAP
2.00	SITE PLAN
3.00	GRADING AND DRAINAGE PLAN
4.00	SOIL EROSION AND SEDIMENT CONTROL PLAN
5.00-5.07	CONSTRUCTION DETAILS
1 OF 1	NJ/DEP PERMITTING PLAN
1 OF 1	TOPOGRAPHIC SURVEY PHOTO LOCATION PLAN

REVISIONS				
NO.	DATE	DESCRIPTION	DRAWN	CHECKED
1.	3/14/2014	REVISED FOR WP PERMIT SUBMITTAL	AK	AK/RS
2.	10/15/2014	REVISED FOR BIDDING	AK	AK/RS
3.	5/22/2015	REVISED FOR BIDDING	AK	AK/RS

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 N.J. LICENSE NO. 41635

ANTHONY KURUS, P.E., P.P.
 PROFESSIONAL ENGINEER
 N.J. LICENSE NO. 48445

A PROJECT OF

NEGLIA ENGINEERING ASSOCIATES

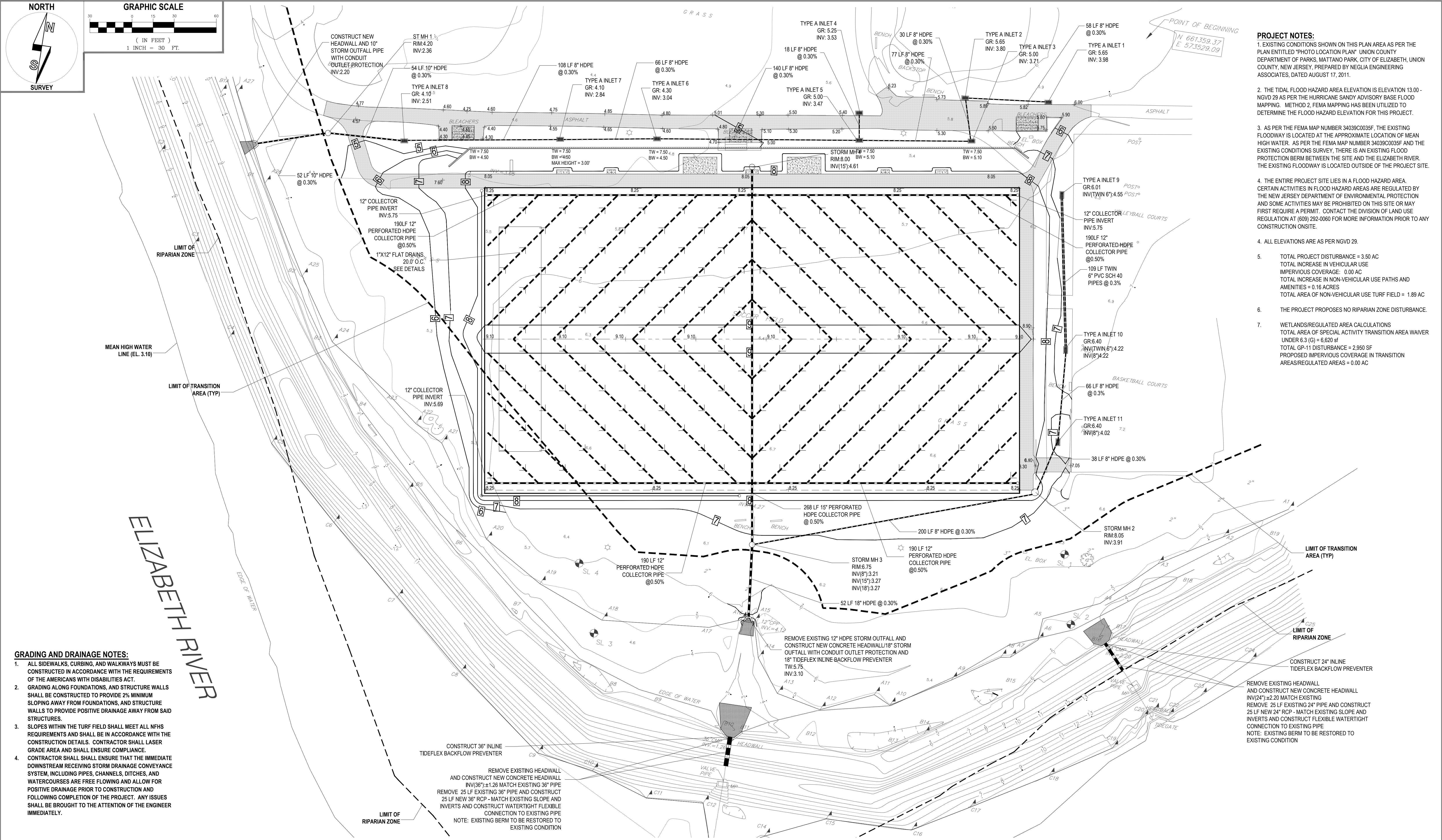
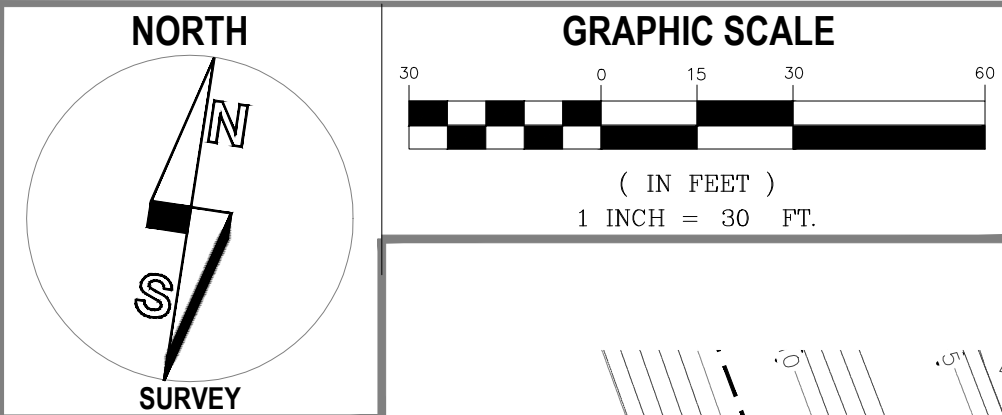
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MICHAEL J. NEGLIA
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PROFESSIONAL ENGINEER PROFESSIONAL LAND SURVEYOR PROFESSIONAL PLANNER
 N.J. LICENSE NO. 38864 N.J. LICENSE NO. 38864 N.J. LICENSE NO. 3886

COVER SHEET / KEY MAP
 ARTIFICIAL TURF FIELD AT MATTANO PARK
 CITY OF ELIZABETH ~ BLOCK 5 ~ LOT 453B
 COUNTY OF UNION ~ PROJECT # 2011-018
 UNION COUNTY NEW JERSEY

PROJECT NO.: UNIOCTY11.013 SHEET NO.: 1.00



- PROJECT NOTES:**
- EXISTING CONDITIONS SHOWN ON THIS PLAN AREA AS PER THE PLAN ENTITLED "PHOTO LOCATION PLAN" UNION COUNTY DEPARTMENT OF PARKS, MATTANO PARK, CITY OF ELIZABETH, UNION COUNTY, NEW JERSEY, PREPARED BY NEGLIA ENGINEERING ASSOCIATES, DATED AUGUST 17, 2011.
 - THE TIDAL FLOOD HAZARD AREA ELEVATION IS ELEVATION 13.00 - NGVD 29 AS PER THE HURRICANE SANDY ADVISORY BASE FLOOD MAPPING. METHOD 2. FEMA MAPPING HAS BEEN UTILIZED TO DETERMINE THE FLOOD HAZARD ELEVATION FOR THIS PROJECT.
 - AS PER THE FEMA MAP NUMBER 34039C0035F, THE EXISTING FLOODWAY IS LOCATED AT THE APPROXIMATE LOCATION OF MEAN HIGH WATER. AS PER THE FEMA MAP NUMBER 34039C0035F AND THE EXISTING CONDITIONS SURVEY, THERE IS AN EXISTING FLOOD PROTECTION BERM BETWEEN THE SITE AND THE ELIZABETH RIVER. THE EXISTING FLOODWAY IS LOCATED OUTSIDE OF THE PROJECT SITE.
 - THE ENTIRE PROJECT SITE LIES IN A FLOOD HAZARD AREA. CERTAIN ACTIVITIES IN FLOOD HAZARD AREAS ARE REGULATED BY THE NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND SOME ACTIVITIES MAY BE PROHIBITED ON THIS SITE OR MAY FIRST REQUIRE A PERMIT. CONTACT THE DIVISION OF LAND USE REGULATION AT (609) 292-0060 FOR MORE INFORMATION PRIOR TO ANY CONSTRUCTION ONSITE.
 - ALL ELEVATIONS ARE AS PER NGVD 29.
 - TOTAL PROJECT DISTURBANCE = 3.50 AC
TOTAL INCREASE IN VEHICULAR USE IMPERVIOUS COVERAGE = 0.00 AC
TOTAL INCREASE IN NON-VEHICULAR USE PATHS AND AMENITIES = 0.16 ACRES
TOTAL AREA OF NON-VEHICULAR USE TURF FIELD = 1.89 AC
 - THE PROJECT PROPOSES NO RIPARIAN ZONE DISTURBANCE.
 - WETLANDS/REGULATED AREA CALCULATIONS
TOTAL AREA OF SPECIAL ACTIVITY TRANSITION AREA WAIVER UNDER 6.3 (G) = 6,620 SF
TOTAL GP-11 DISTURBANCE = 2,950 SF
PROPOSED IMPERVIOUS COVERAGE IN TRANSITION AREAS/REGULATED AREAS = 0.00 AC

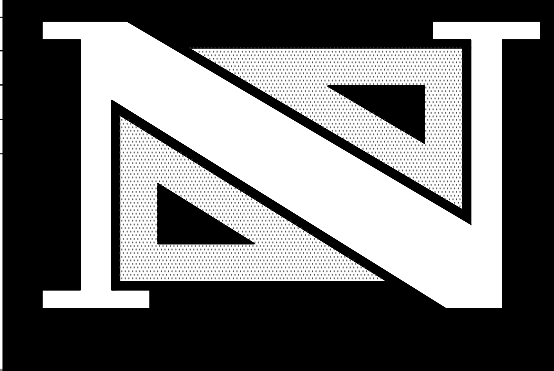
GRADING AND DRAINAGE NOTES:

- ALL SIDEWALKS, CURBING, AND WALKWAYS MUST BE CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT.
- GRADING ALONG FOUNDATIONS, AND STRUCTURE WALLS SHALL BE CONSTRUCTED TO PROVIDE 2% MINIMUM SLOPING AWAY FROM FOUNDATIONS, AND STRUCTURE WALLS TO PROVIDE POSITIVE DRAINAGE AWAY FROM SAID STRUCTURES.
- SLOPES WITHIN THE TURF FIELD SHALL MEET ALL NFHS REQUIREMENTS AND SHALL BE IN ACCORDANCE WITH THE CONSTRUCTION DETAILS. CONTRACTOR SHALL LASER GRADE AREA AND SHALL ENSURE COMPLIANCE.
- CONTRACTOR SHALL ENSURE THAT THE IMMEDIATE DOWNSTREAM RECEIVING STORM DRAINAGE CONVEYANCE SYSTEM, INCLUDING PIPES, CHANNELS, DITCHES, AND WATERCOURSES ARE FREE FLOWING AND ALLOW FOR POSITIVE DRAINAGE PRIOR TO CONSTRUCTION AND FOLLOWING COMPLETION OF THE PROJECT. ANY ISSUES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.

ELIZABETH RIVER

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REVISIONS			
NO.	DATE	DESCRIPTION	
1.	09/14/2014	REVISED FOR RFP/RFI PERMIT	AK AK MATRO
2.	09/25/2014	REVISED FOR BIDDING	AK AK MATRO
3.	09/25/2015	REVISED FOR BIDDING	AK AK MATRO



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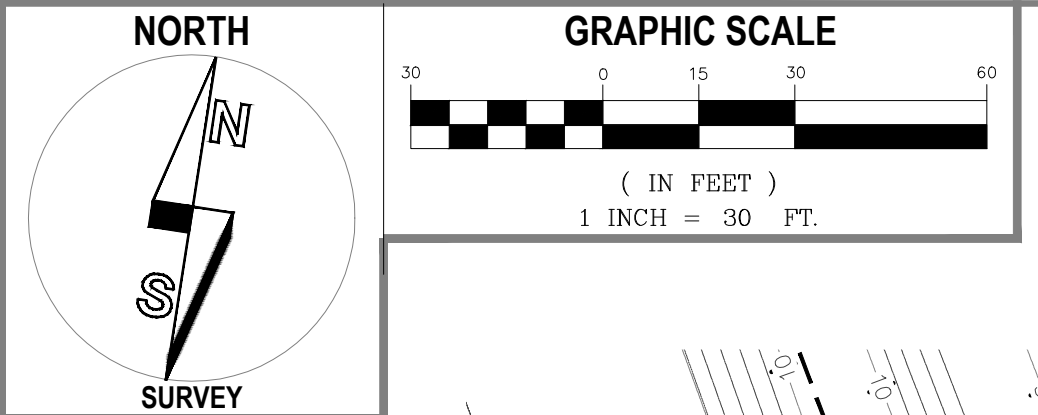
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PROFESSIONAL LAND SURVEYOR
PROFESSIONAL PLANNER
N.J. LICENSE NO. 38654 N.J. LICENSE NO. 38654 N.J. LICENSE NO. 38654

GRADING AND DRAINAGE PLAN
ARTIFICIAL TURF FIELD AT MATTANO PARK
CITY OF ELIZABETH ~ BLOCK 5 ~ LOT 453B
COUNTY OF UNION ~ PROJECT # 2011-018
UNIION COUNTY **NEW JERSEY**

DESIGNED BY: A.K.	CHECKED BY: T.S.	PROJECT NO: UNIOCTY11.013	SHEET NO: 3.00
SCALE: 1" = 30'			
DATE: DECEMBER 14, 2011			



GRAPHIC SCALE

(IN FEET)
1 INCH = 30 FT.

SURVEY

MEAN HIGH WATER LINE (EL. 3.10)

LIMIT OF RIPARIAN ZONE

LIMIT OF TRANSITION AREA (TYP)

LIMIT OF DISTURBANCE

SILT FENCE

ELIZABETH RIVER

EDGE OF WATER

CLAY

GRASS

CONSTRUCT NEW HEADWALL AND 10" STORM OUTFALL PIPE WITH CONDUIT OUTLET PROTECTION INV. 2.20

ST MH 1 1/2 RIM 4.20 INV. 2.36

54 LF 10" HDPE @ 0.30%

TYPE A INLET 8 GR: 4.10 INV: 2.51

108 LF 8" HDPE @ 0.30%

TYPE A INLET 7 GR: 4.10 INV: 2.84

66 LF 8" HDPE @ 0.30%

TYPE A INLET 6 GR: 4.30 INV: 3.04

18 LF 8" HDPE @ 0.30%

TYPE A INLET 5 GR: 5.00 INV: 3.47

140 LF 8" HDPE @ 0.30%

TYPE A INLET 4 GR: 5.25 INV: 3.53

77 LF 8" HDPE @ 0.30%

TYPE A INLET 3 GR: 5.00 INV: 3.71

30 LF 8" HDPE @ 0.30%

TYPE A INLET 2 GR: 5.65 INV: 3.80

58 LF 8" HDPE @ 0.30%

TYPE A INLET 1 GR: 5.65 INV: 3.98

POINT OF BEGINNING N 661.359.37 E 57.3529.09

STABILIZED CONSTRUCTION ACCESS ASPHALT

BLEACHERS

POST

EL BOX

STORM MH 4 RIM 8.00 INV (15) 4.61

TYPE A INLET 9 GR: 6.01 INV (TWIN 6") 4.55 POS 7"

12" COLLECTOR PIPE INVERT INV. 5.75

190 LF 12" PERFORATED HDPE COLLECTOR PIPE @ 0.50%

1'X12" FLAT DRAINS 20' O.C. SEE DETAILS

109 LF TWIN 6" PVC SCH 40 PIPES @ 0.3%

TYPE A INLET 10 GR: 6.40 INV (TWIN 6") 4.22 INV (8") 4.22

66 LF 8" HDPE @ 0.3%

TYPE A INLET 11 GR: 6.40 INV (8") 4.02

38 LF 8" HDPE @ 0.30%

SILT FENCE (TYP)

LIMIT OF DISTURBANCE

BASKETBALL COURTS

EL. BOX

STORM MH 2 RIM 8.05 INV. 3.91

268 LF 15" PERFORATED HDPE COLLECTOR PIPE @ 0.50%

200 LF 8" HDPE @ 0.30%

190 LF 12" PERFORATED HDPE COLLECTOR PIPE @ 0.50%

STORM MH 3 RIM 6.75 INV (8") 3.21 INV (15") 3.27 INV (18") 3.27

52 LF 18" HDPE @ 0.30%

REMOVE EXISTING 12" HDPE STORM OUTFALL AND CONSTRUCT NEW CONCRETE HEADWALL/18" STORM OUTFALL WITH CONDUIT OUTLET PROTECTION AND 18" TIDEFLEX INLINE BACKFLOW PREVENTER TW: 5.75 INV: 3.10

CONSTRUCT 36" INLINE TIDEFLEX BACKFLOW PREVENTOR

REMOVE EXISTING HEADWALL AND CONSTRUCT NEW CONCRETE HEADWALL INV (36") ± 1.26 MATCH EXISTING 36" PIPE REMOVE 25 LF EXISTING 36" PIPE AND CONSTRUCT 25 LF NEW 36" RCP - MATCH EXISTING SLOPE AND INVERTS AND CONSTRUCT WATERTIGHT FLEXIBLE CONNECTION TO EXISTING PIPE NOTE: EXISTING BERM TO BE RESTORED TO EXISTING CONDITION

REMOVE EXISTING HEADWALL AND CONSTRUCT NEW CONCRETE HEADWALL INV (24") ± 2.20 MATCH EXISTING REMOVE 25 LF EXISTING 24" PIPE AND CONSTRUCT 25 LF NEW 24" RCP - MATCH EXISTING SLOPE AND INVERTS AND CONSTRUCT FLEXIBLE WATERTIGHT CONNECTION TO EXISTING PIPE NOTE: EXISTING BERM TO BE RESTORED TO EXISTING CONDITION

CONSTRUCT 24" INLINE TIDEFLEX BACKFLOW PREVENTOR

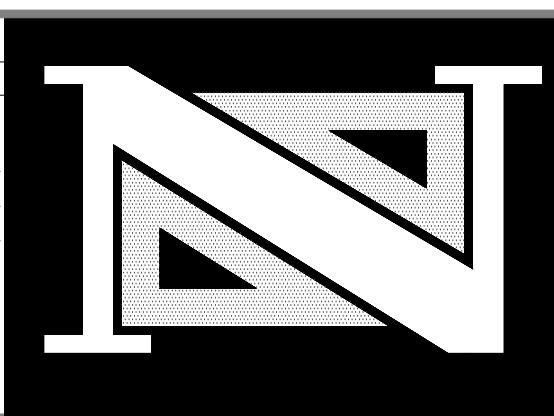
LIMIT OF RIPARIAN ZONE

LIMIT OF TRANSITION AREA (TYP)

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2. THE TIDAL FLOOD HAZARD AREA ELEVATION IS ELEVATION 13.00 - NGVD 29 AS PER THE HURRICANE SANDY ADVISORY BASE FLOOD MAPPING. METHOD 2, FEMA MAPPING HAS BEEN UTILIZED TO DETERMINE THE FLOOD HAZARD ELEVATION FOR THIS PROJECT.
3. AS PER THE FEMA MAP NUMBER 34039C0035F, THE EXISTING FLOODWAY IS LOCATED AT THE APPROXIMATE LOCATION OF MEAN HIGH WATER. AS PER THE FEMA MAP NUMBER 34039C0035F AND THE EXISTING CONDITIONS SURVEY, THERE IS AN EXISTING FLOOD PROTECTION BERM BETWEEN THE SITE AND THE ELIZABETH RIVER. THE EXISTING FLOODWAY IS LOCATED OUTSIDE OF THE PROJECT SITE.
4. THE ENTIRE PROJECT SITE LIES IN A FLOOD HAZARD AREA. CERTAIN ACTIVITIES IN FLOOD HAZARD AREAS ARE REGULATED BY THE NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND SOME ACTIVITIES MAY BE PROHIBITED ON THIS SITE OR MAY FIRST REQUIRE A PERMIT. CONTACT THE DIVISION OF LAND USE REGULATION AT (609) 292-0060 FOR MORE INFORMATION PRIOR TO ANY CONSTRUCTION ON SITE.
4. ALL ELEVATIONS ARE AS PER NGVD 29.
5. TOTAL PROJECT DISTURBANCE = 3.50 AC
TOTAL INCREASE IN VEHICULAR USE IMPERVIOUS COVERAGE = 0.00 AC
TOTAL INCREASE IN NON-VEHICULAR USE PATHS AND AMENITIES = 0.15 ACRES
TOTAL AREA OF NON-VEHICULAR USE TURF FIELD = 1.89 AC
6. THE PROJECT PROPOSES NO RIPARIAN ZONE DISTURBANCE.
7. WETLANDS/REGULATED AREA CALCULATIONS
TOTAL AREA OF SPECIAL ACTIVITY TRANSITION AREA WAIVER UNDER 6.3 (G) = 6,620 SF
TOTAL GP-11 DISTURBANCE = 2,950 SF
PROPOSED IMPERVIOUS COVERAGE IN TRANSITION AREAS/REGULATED AREAS = 0.00 AC

REVISIONS			
NO.	DATE	DESCRIPTION	
1.	03/14/2014	REVISED FOR NDEP WFD PERMIT	AK AK AK/RS
2.	08/19/14	UPDATED FOR SCD SUBMITTAL	AK AK AK/RS
3.	09/02/14	REVISED FOR BIDDING	AK AK AK/RS
4.	09/22/15	REVISED FOR BIDDING	AK AK AK/RS



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N.J. LICENSE NO. 38064

PROFESSIONAL PLANNER
N.J. LICENSE NO. 38066

SOIL EROSION AND SEDIMENT CONTROL PLAN
ARTIFICIAL TURF FIELD AT MATTANO PARK
CITY OF ELIZABETH ~ BLOCK 5 ~ LOT 453B
COUNTY OF UNION ~ PROJECT # 2011-018
UNION COUNTY NEW JERSEY

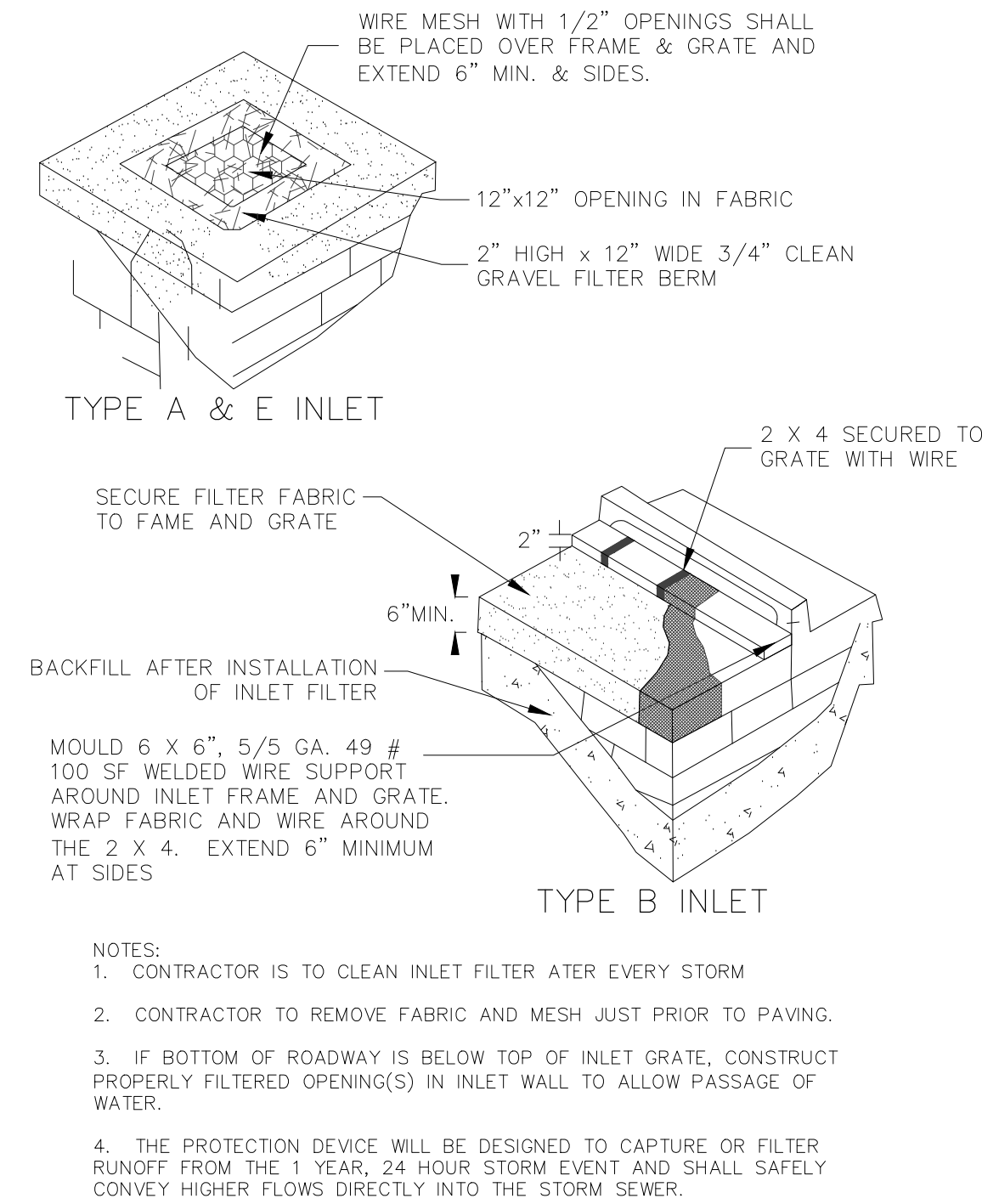
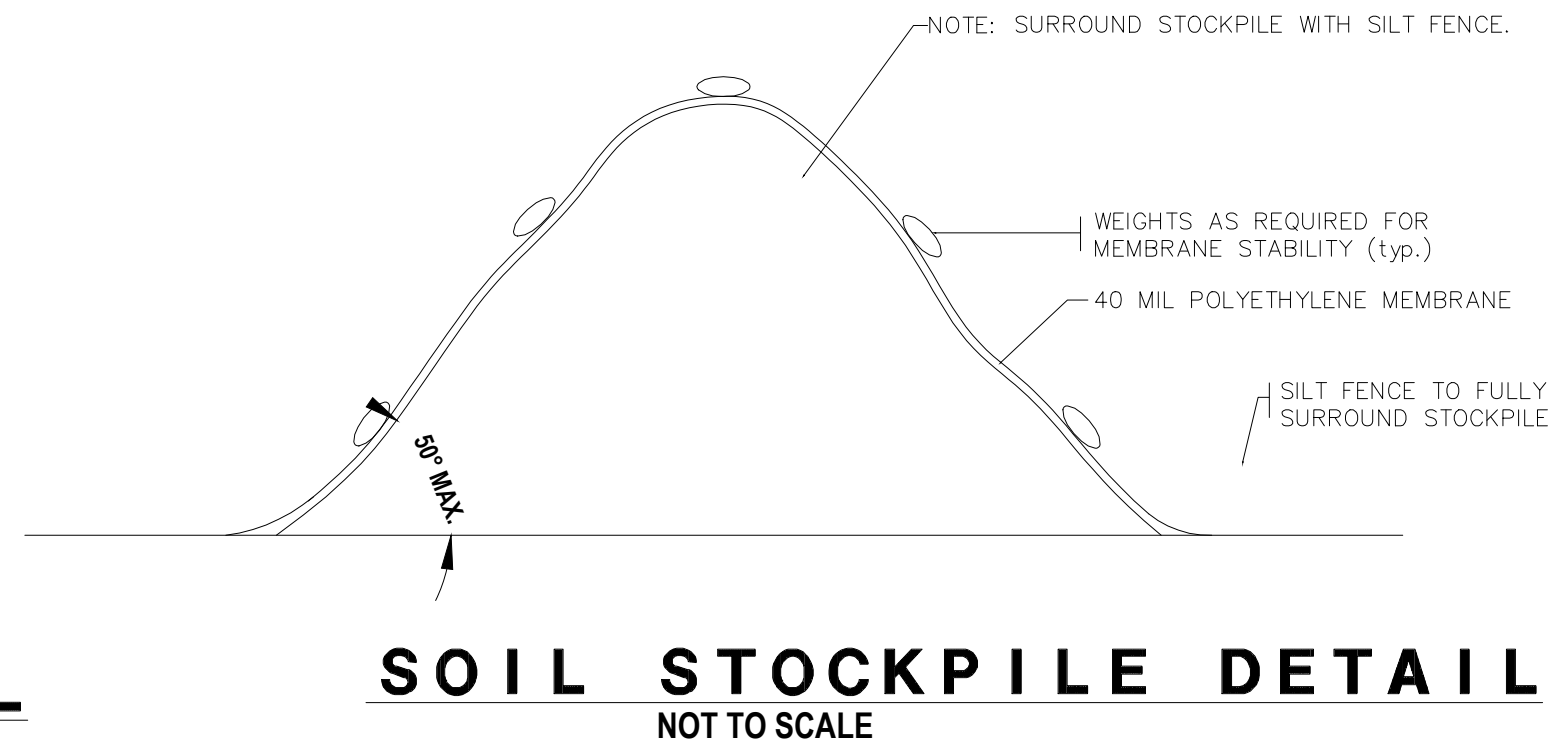
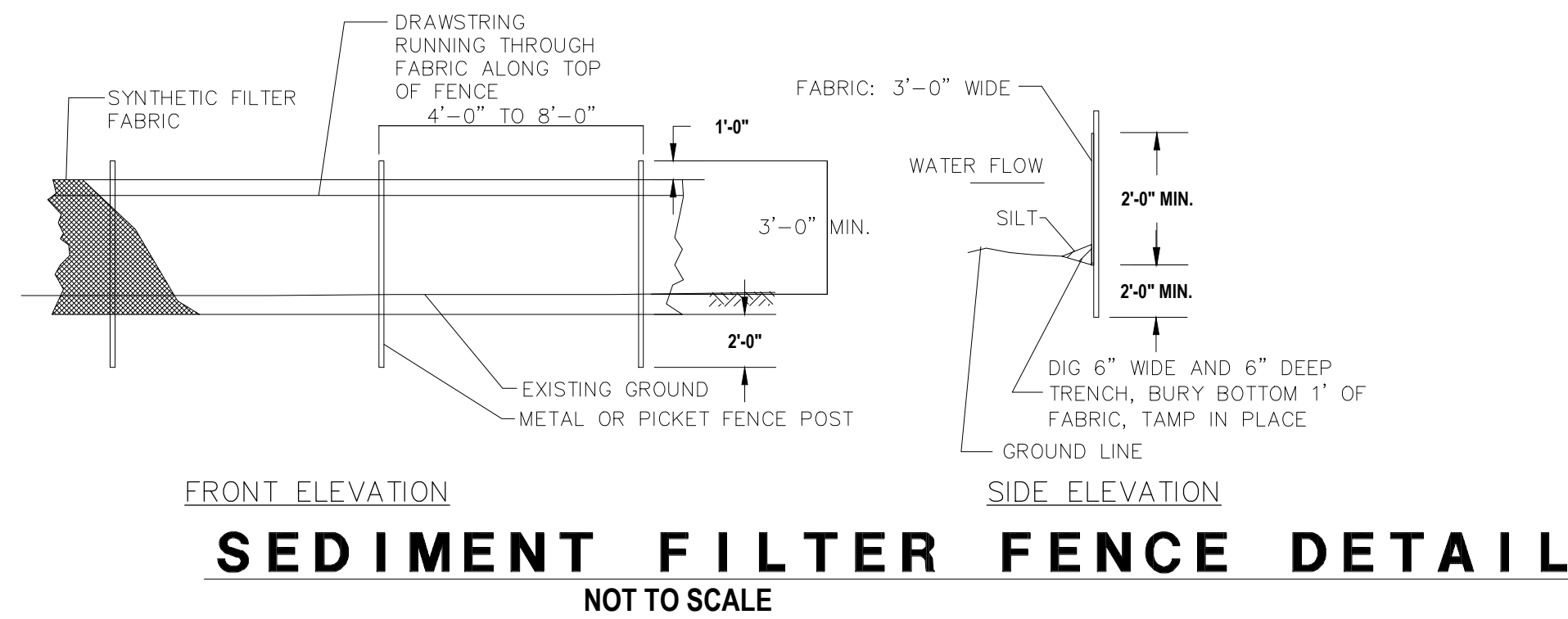
DESIGNED BY: A.K. CHECKED BY: T.S. PROJECT NO: UNIOCTY11.010 SHEET NO: 4.00
SCALE: 1" = 30' FIELD BOOK NO: DATE: DECEMBER 14, 2011

CERTIFICATE OF AUTHORIZATION (N.J.S.A. 45:8-56) GA 278890

SEQUENCE OF CONSTRUCTION

1. INSTALL SILT FENCE & STABILIZED CONSTRUCTION ACCESS (2 DAYS)
2. DEMOLISH EXISTING ITEMS (2 WEEKS)
3. INSTALL DRAINAGE & INLET PROTECTION (1 WEEK)
4. ROUGH GRADE SITE AND INSTALL RETAINING WALL (12 WEEKS)
5. FINE GRADE SITE (4 WEEKS)
6. INSTALL ARTIFICIAL TURF SYSTEM (2 WEEKS)
7. INSTALL FENCING (2 WEEK)
8. INSTALL LANDSCAPING (2 WEEKS)
9. FINAL GRADING OF SITE, AND TOPSOILING & SEEDING (1 WEEK)
10. STABILIZATION OF SITE (1 MONTH)
11. REMOVE SOIL EROSION & SEDIMENT CONTROL DEVICES (2 DAYS)

LIMIT OF DISTURBANCE = 152,460 SF (3.5 ACRES)



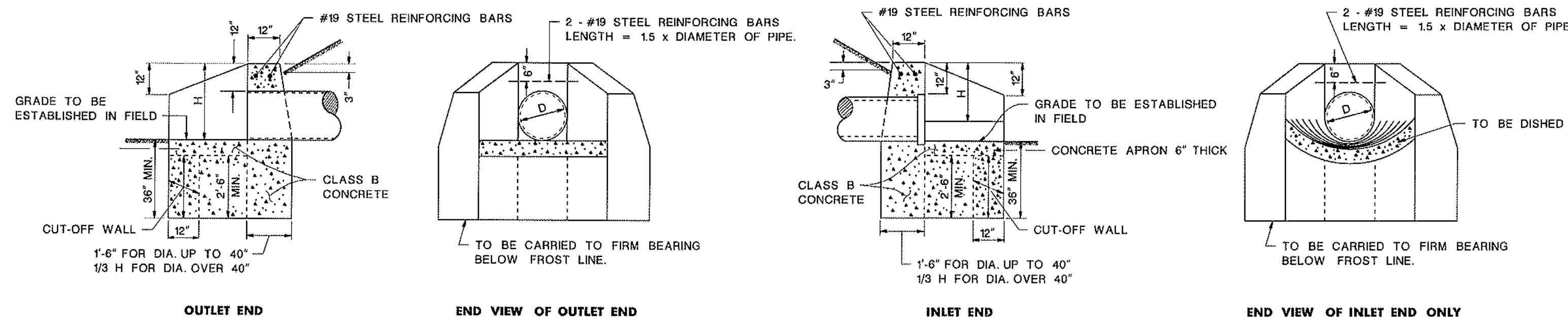
INLET FILTER & PROTECTION

NOT TO SCALE

- NOTES:
1. CONTRACTOR IS TO CLEAN INLET FILTER AFTER EVERY STORM
 2. CONTRACTOR TO REMOVE FABRIC AND MESH JUST PRIOR TO PAVING.
 3. IF BOTTOM OF ROADWAY IS BELOW TOP OF INLET GRATE, CONSTRUCT PROPERLY FILTERED OPENING(S) IN INLET WALL TO ALLOW PASSAGE OF WATER.
 4. THE PROTECTION DEVICE WILL BE DESIGNED TO CAPTURE OR FILTER RUNOFF FROM THE 1 YEAR, 24 HOUR STORM EVENT AND SHALL SAFELY CONVEY HIGHER FLOWS DIRECTLY INTO THE STORM SEWER.

SOIL EROSION & SEDIMENT CONTROL NOTES

1. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE INSTALLED IN ACCORDANCE WITH THE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY (NJ STANDARDS), AND WILL BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCE, OR IN PROPER SEQUENCE AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
2. ANY DISTURBED AREA THAT WILL BE LEFT EXPOSED FOR MORE THAN THIRTY (30) DAYS AND NOT SUBJECT TO CONSTRUCTION TRAFFIC SHALL IMMEDIATELY RECEIVE A TEMPORARY SEEDING AND MULCHING. IF THE SEASON PROHIBITS TEMPORARY SEEDING, THE DISTURBED AREA WILL BE MULCHED WITH SALT HAY OR EQUIVALENT AND BOUND IN ACCORDANCE WITH THE NEW JERSEY STANDARDS (I.E. PEG AND TWINE, MULCH NETTING OR LIQUID MULCH BINDER), AT A RATE OF 2 TO 2.5 TONS PER ACRE, ACCORDING TO STATE STANDARD FOR STABILIZATION WITH MULCH ONLY.
3. IMMEDIATELY FOLLOWING INITIAL DISTURBANCE OR ROUGH GRADING, ALL CRITICAL AREAS SUBJECT TO EROSION WILL RECEIVE A TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH OR A SUITABLE EQUIVALENT, AT A RATE OF 2 TONS PER ACRE, ACCORDING TO THE NEW JERSEY STANDARDS.
4. STABILIZATION SPECIFICATIONS:
 - A. TEMPORARY SEEDING AND MULCHING:
 - LIME - 90 LBS./1,000 S.F. GROUND LIMESTONE
 - FERTILIZER - 11 LBS./1,000 S.F. 10-20-10 OR EQUIVALENT WORKED INTO SOIL A MINIMUM OF 4".
 - SEED - PERENNIAL RYEGRASS 40 LBS./ACRE (1LB./1,000 S.F.) OR OTHER APPROVED SEEDS; PLANT BETWEEN MARCH 1 AND MAY 15 OR BETWEEN AUGUST 15 AND OCTOBER 1.
 - MULCH - SALT HAY OR SMALL GRAIN STRAW AT A RATE OF 70 TO 90 LBS./1,000 S.F. TO BE APPLIED ACCORDING TO THE NEW JERSEY STANDARDS. MULCH SHALL BE SECURED BY APPROVED METHODS (I.E. PEG AND TWINE, MULCH NETTING OR LIQUID MULCH BINDER).
 - B. PERMANENT SEEDING AND MULCHING:
 - TOPSOIL - UNIFORM APPLICATION TO A DEPTH OF 5" (UNSETTLED)
 - LIME - 90 LBS./1,000 S.F. GROUND LIMESTONE
 - FERTILIZER - 11 LBS./1,000 S.F. 10-20-10 OR EQUIVALENT WORKED INTO SOIL A MINIMUM OF 4".
 - SEED - TURF TYPE FESCUE (BLEND OF 3 CULTIVARS) 150 LBS./ACRE (3.5 LBS./1,000 S.F.) OR OTHER APPROVED SEEDS; PLANT BETWEEN MARCH 1 AND MAY 15 OR BETWEEN AUGUST 15 AND OCTOBER 1.
 - MULCH - SALT HAY OR SMALL GRAIN STRAW AT A RATE OF 70 TO 90 LBS./1,000 S.F. TO BE APPLIED ACCORDING TO THE NEW JERSEY STANDARDS. MULCH SHALL BE SECURED BY APPROVED METHODS (I.E. PEG AND TWINE, MULCH NETTING OR LIQUID MULCH BINDER).
5. THE SITE SHALL AT ALL TIMES BE GRADED AND MAINTAINED SUCH THAT ALL STORMWATER RUNOFF IS DIVERTED TO SOIL EROSION AND SEDIMENT CONTROL FACILITIES.
6. SOIL EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSPECTED AND MAINTAINED ON A REGULAR BASIS, INCLUDING AFTER EVERY STORM EVENT.
7. STOCKPILES ARE NOT TO BE LOCATED WITHIN 50' OF A FLOODPLAIN, SLOPE, ROADWAY OR DRAINAGE FACILITY. THE BASE OF ALL STOCKPILES SHOULD BE CONTAINED BY A HAYBALE SEDIMENT BARRIER OR SILT FENCE AND SHOULD BE TEMPORARILY STABILIZED IN ACCORDANCE WITH NOTE #2.
8. A CRUSHED STONE, VEHICLE WHEEL CLEANING BLANKET WILL BE INSTALLED WHEREVER A CONSTRUCTION ACCESS ROAD INTERSECTS ANY PAVED ROADWAY. SAID BLANKET WILL BE COMPOSED OF 1" - 2 1/2" CRUSHED STONE, 6" THICK, WILL BE AT LEAST 30' x 100', AND SHOULD BE UNDERLAIN WITH A SUITABLE SYNTHETIC SEDIMENT FILTER FABRIC AND MAINTAINED.
9. MAXIMUM SIDE SLOPES OF ALL EXPOSED SURFACES SHALL NOT EXCEED 3:1 UNLESS OTHERWISE APPROVED BY THE DISTRICT.
10. DRIVEWAYS MUST BE STABILIZED WITH 1" - 2" CRUSHED STONE OR SUBBASE PRIOR TO INDIVIDUAL LOT CONSTRUCTION.
11. ALL SOIL WASHED, DROPPED, SPILLED OR TRACKED OUTSIDE THE LIMIT OF DISTURBANCE OR ONTO PUBLIC RIGHT-OF-WAYS, WILL BE REMOVED IMMEDIATELY. PAVED ROADWAYS MUST BE KEPT CLEAN AT ALL TIMES.
12. CATCH BASIN INLETS WILL BE PROTECTED WITH AN INLET FILTER DESIGNED IN ACCORDANCE WITH SECTION 30-1 OF THE NEW JERSEY STANDARDS.
13. STORM DRAINAGE OUTLETS WILL BE STABILIZED, AS REQUIRED, BEFORE THE DISCHARGE POINTS BECOME OPERATIONAL.
14. DEWATERING OPERATIONS MUST DISCHARGE DIRECTLY INTO A SEDIMENT CONTROL BAG OR OTHER APPROVED FILTER IN ACCORDANCE WITH SECTION 14-1 OF THE NEW JERSEY STANDARDS.
15. DUST SHALL BE CONTROLLED VIA THE APPLICATION OF WATER, CALCIUM CHLORIDE OR OTHER APPROVED METHOD IN ACCORDANCE WITH SECTION 16-1 OF THE NEW JERSEY STANDARDS. TEMPORARY VEGETATIVE COVER SHALL BE ESTABLISHED OR MULCH SHALL BE APPLIED BY THE STANDARD FOR DUST CONTROL.
16. TREES TO REMAIN AFTER CONSTRUCTION ARE TO BE PROTECTED WITH A SUITABLE FENCE INSTALLED AT THE DRIP LINE OR BEYOND IN ACCORDANCE WITH SECTION 9-1 OF THE NEW JERSEY STANDARDS.
17. THE PROJECT OWNER SHALL BE RESPONSIBLE FOR ANY EROSION OR SEDIMENTATION THAT MAY OCCUR BELOW STORMWATER OUTFALLS OR OFF-SITE AS A RESULT OF CONSTRUCTION OF THE PROJECT.
18. ANY REVISION TO THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN MUST BE SUBMITTED TO THE DISTRICT FOR REVIEW AND APPROVAL PRIOR TO IMPLEMENTATION IN THE FIELD. THE REVISED PLANS MUST MEET ALL CURRENT STATE SOIL EROSION AND SEDIMENT CONTROL STANDARDS.
19. A COPY OF THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN MUST BE AVAILABLE AT THE PROJECT SITE THROUGHOUT THE CONSTRUCTION.
20. THE OWNER MUST OBTAIN THE DISTRICT ISSUED REPORT OF COMPLIANCE PRIOR TO THE ISSUANCE OF ANY CERTIFICATE OF OCCUPANCY. THE DISTRICT REQUIRES AT LEAST ONE WEEK'S NOTICE TO FACILITATE THE SCHEDULING OF ALL REPORTS OF COMPLIANCE INSPECTIONS. ALL SITE WORK MUST BE COMPLETED, INCLUDING TEMPORARY PERMANENT STABILIZATION OF ALL EXPOSED AREAS, PRIOR TO THE ISSUANCE OF A REPORT OF COMPLIANCE BY THE DISTRICT (PER N.J.S.A. 4:24-39 ET. SEQ.).
21. THE SOMERSET-UNION COUNTY SOIL CONSERVATION MUST BE CONTACTED IN WRITING (WRITTEN NOTIFICATION REQUIRED) 72 HRS. (3 DAYS) PRIOR TO ANY LAND DISTURBANCE ACTIVITY.
22. A SUB-BASE COURSE WILL BE APPLIED IMMEDIATELY FOLLOWING ROUGH GRADING AND INSTALLATION OF IMPROVEMENTS TO STABILIZE STREETS, ROADS, DRIVEWAYS, AND PARKING AREAS. IN AREAS WHERE NO UTILITIES ARE PRESENT, THE SUB-BASE SHALL BE INSTALLED WITHIN 15 DAYS OF PRELIMINARY GRADING.
23. ANY STEEP SLOPES RECEIVING PIPELINE INSTALLATION WILL BE BACKFILLED AND STABILIZED DAILY, AS THE INSTALLATION CONTINUES (I.E. SLOPES GREATER THAN 3:1).
24. PERMANENT VEGETATION IS TO BE SEEDED OR SOODED ON ALL EXPOSED AREAS WITHIN 10 DAYS AFTER FINAL GRADING.
25. AT THE TIME THAT SITE PREPARATION FOR PERMANENT VEGETATIVE STABILIZATION IS GOING TO BE ACCOMPLISHED, ANY SOIL THAT WILL NOT PROVIDE SUITABLE ENVIRONMENT TO SUPPORT ADEQUATE VEGETATIVE GROUND COVER SHALL BE REMOVED OR TREATED IN SUCH A WAY THAT IT WILL PERMANENTLY ADJUST THE SOIL CONDITIONS AND RENDER IT SUITABLE FOR VEGETATIVE GROUND COVER. IF THE REMOVAL OF TREATMENT OF THE SOIL WILL NOT PROVIDE SUITABLE CONDITIONS, NON-VEGETATIVE MEANS OF PERMANENT GROUND STABILIZATION WILL HAVE TO BE EMPLOYED.
26. IN ACCORDANCE WITH THE STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOILS, ANY SOIL HAVING A PH OF 4 OR LESS OR CONTAINING IRON SULFIDES SHALL BE COVERED WITH A MINIMUM OF 12 INCHES OF SOIL HAVING A PH OF 5 OR MORE PRIOR TO SEEDBED PREPARATION. AREAS WHERE TREES OR SHRUBS ARE TO BE PLANTED SHALL BE COVERED WITH A MINIMUM OF 24 INCHES OF SOIL HAVING A PH OF 5 OR MORE.
27. HYDROSEEDING IS A TWO-STEP PROCESS. THE FIRST STEP INCLUDES SEED, FERTILIZER, LIME, ETC., ALONG WITH MINIMAL AMOUNTS OF MULCH TO PROMOTE CONSISTENCY, GOOD SEED TO SOIL CONTACT, AND GIVE A VISUAL INDICATION OF COVERAGE. UPON COMPLETION OF THE SEEDING OPERATION, HYDRO-MULCH SHOULD BE APPLIED AT A RATE OF 1500 LBS. PER ACRE IN THE SECOND STEP. THE USE OF HYDRO-MULCH AS OPPOSED TO STRAW, IS LIMITED TO OPTIMUM SEEDING DATES AS LISTED IN THE STANDARDS.



VOLUME OF CONCRETE IN HEADWALLS AND APRONS IN CUBIC YARDS

PIPE DIA.	CORR. STEEL PIPE	REIN. CONC. PIPE	APRONS
36"	5.3	5.6	1.5
24"	3.3	3.4	0.9
18"	2.4	2.5	0.6
10"	1.6	1.7	0.4

NOTES:
REINFORCED CONCRETE HEADWALL FOR PROPOSED 10" OUTFALL, PROPOSED 18" OUTFALL, PROPOSED 24" OUTFALL PIPE RECONSTRUCTION (ALT BID) AND PROPOSED 36" OUTFALL PIPE RECONSTRUCTION (ALT BID) SHALL BE AS SHOWN OR APPROVED EQUAL

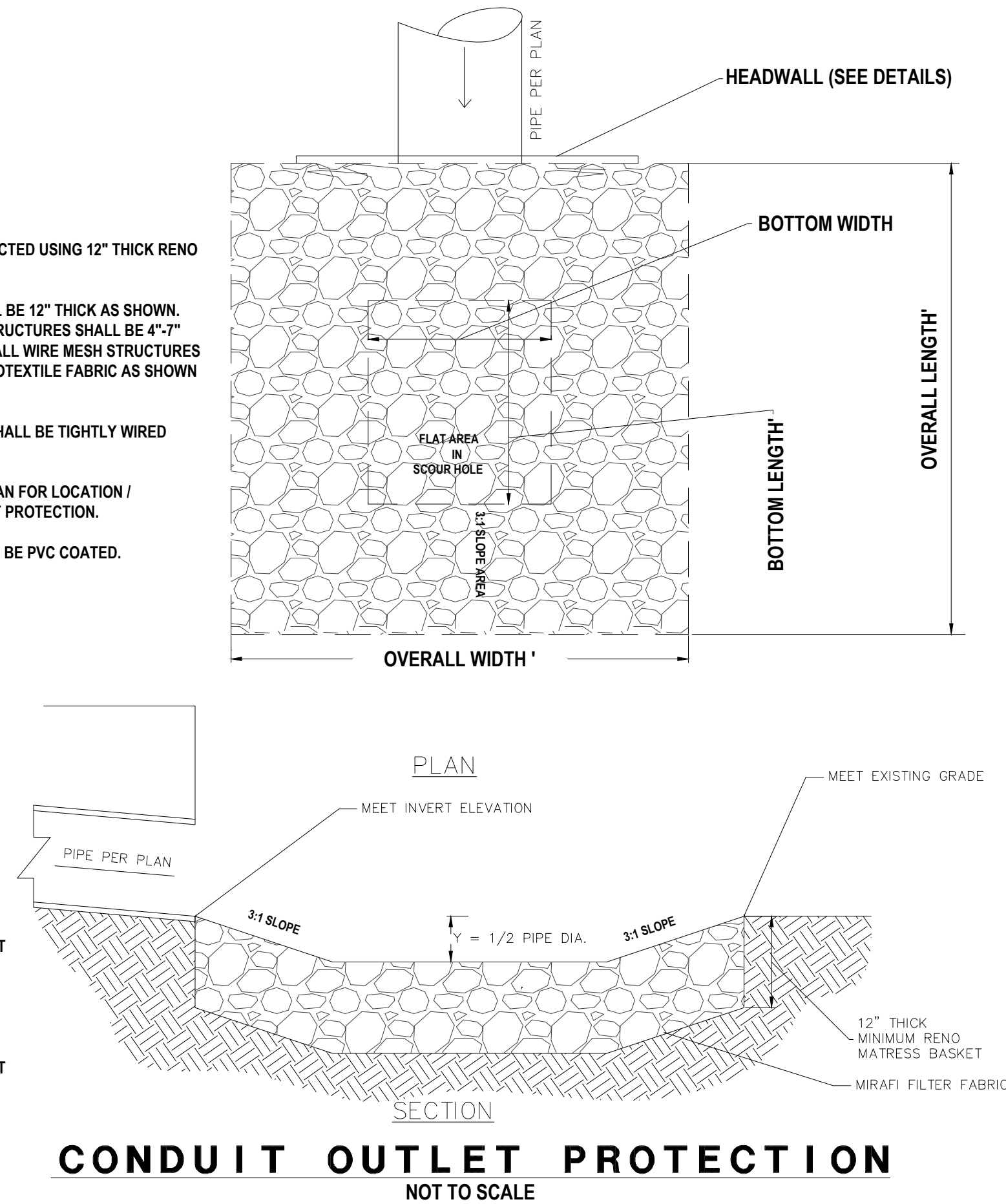
CONCRETE HEADWALLS AND APRONS

CONCRETE HEADWALL DETAILS

NOT TO SCALE

- NOTES:
1. SCOUR HOLE SHALL BE CONSTRUCTED USING 12" THICK RENO MATTRESS AS SHOWN.
 2. THE MATTRESS THICKNESS SHALL BE 12" THICK AS SHOWN. THE ROCK USED TO FILL BASKET STRUCTURES SHALL BE 4-7" ANGULAR, BLOCK SHAPED STONE. ALL WIRE MESH STRUCTURES SHALL BE UNDERLAIN BY MIRAFI GEOTEXTILE FABRIC AS SHOWN OR APPROVED EQUAL.
 3. ALL RENO MATTRESS BASKETS SHALL BE TIGHTLY WIRED TOGETHER TO ACT AS ONE UNIT.
 4. SEE GRADING AND DRAINAGE PLAN FOR LOCATION / ORIENTATION OF PROPOSED OUTLET PROTECTION.
 5. RENO MATTRESS BASKETS SHALL BE PVC COATED.

- 18" STORM OUTFALL
BOTTOM LENGTH = 4.50 FEET
BOTTOM WIDTH = 3.00 FEET
SIDE SLOPES = 3:1 MAX
OVERALL LENGTH = 9.00 FEET
OVERALL WIDTH = 7.50 FEET
- 10" STORM OUTFALL
BOTTOM LENGTH = 2.50 FEET
BOTTOM WIDTH = 1.67 FEET
OVERALL LENGTH = 5.00 FEET
OVERALL WIDTH = 4.17 FEET
- 36" STORM OUTFALL
BOTTOM LENGTH = 9.00 FEET
BOTTOM WIDTH = 6.00 FEET
OVERALL LENGTH = 18.00 FEET
OVERALL WIDTH = 15.00 FEET
- 24" STORM OUTFALL
BOTTOM LENGTH = 8.00 FEET
BOTTOM WIDTH = 4.00 FEET
OVERALL LENGTH = 12.00 FEET
OVERALL WIDTH = 10.00 FEET



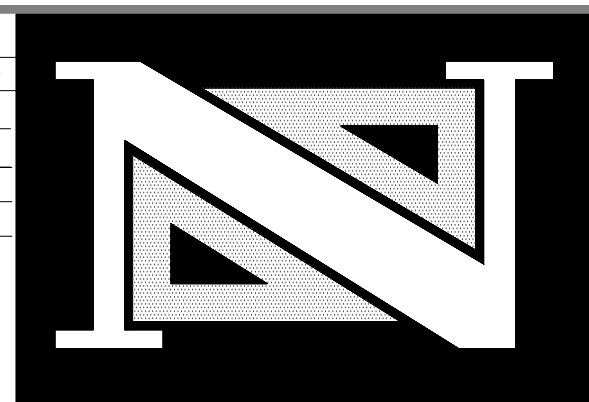
CONDUIT OUTLET PROTECTION

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CERTIFICATE OF AUTHORIZATION (N.J.S.A. 45:8-56) GA 276890

REVISIONS				
NO.	DATE	DESCRIPTION	DRAWN	DESIGNED
1.	03/14/2014	REVISED FOR NADP INFO PERMIT	AK	AK
2.	08/19/14	UPDATED NOTES FOR SCD SUBMITTAL	AK	AK
3.	09/05/2014	REVISED FOR BIDDING	AK	AK
4.	02/22/2015	REVISED FOR BIDDING	AK	AK



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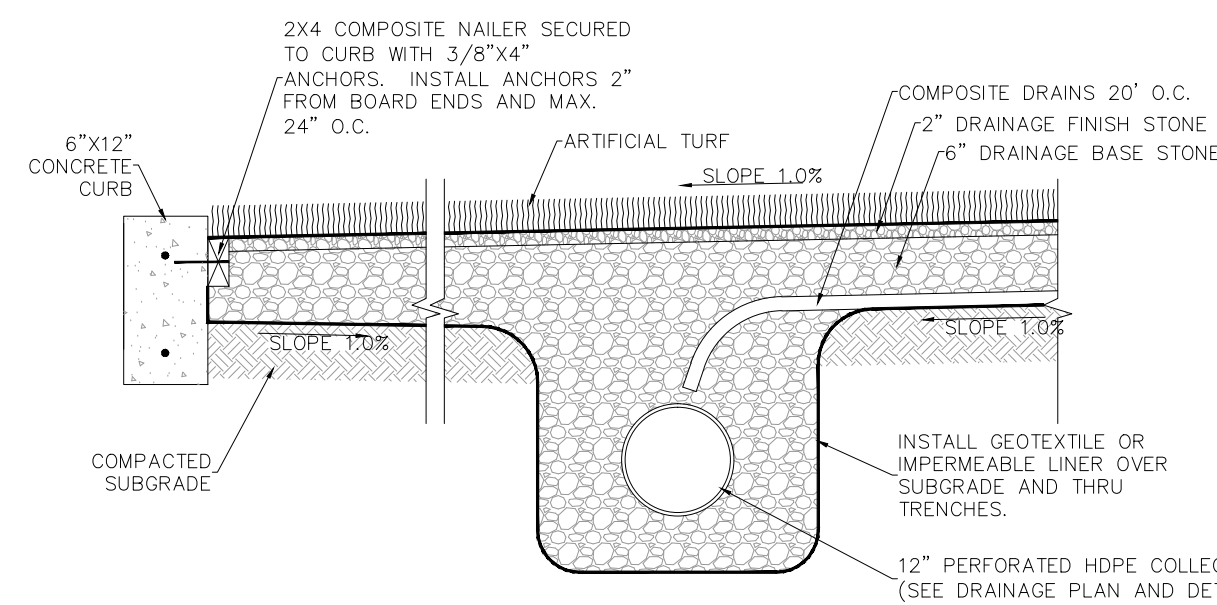
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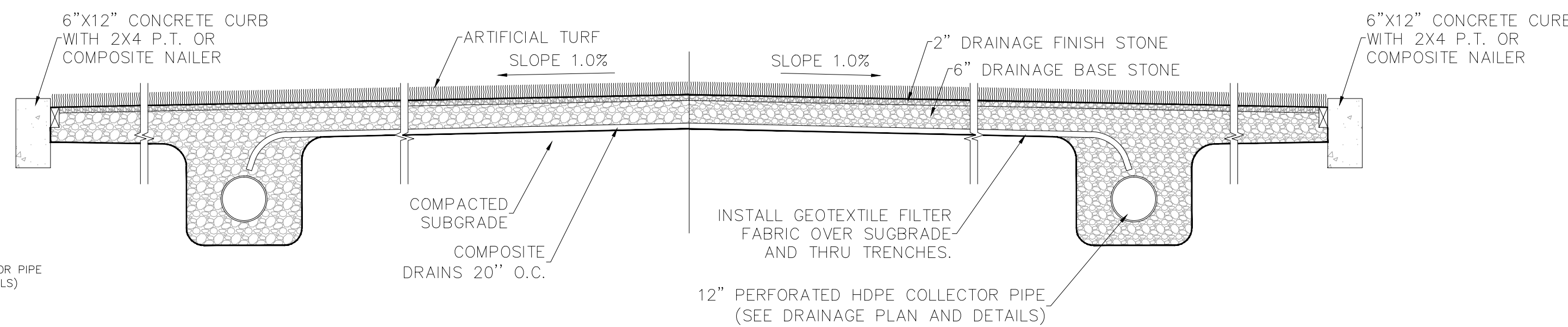
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CONSTRUCTION DETAILS
ARTIFICIAL TURF FIELD AT MATTANO PARK
CITY OF ELIZABETH ~ BLOCK 5 ~ LOT 453B
COUNTY OF UNION ~ PROJECT # 2011-018
UNIION COUNTY NEW JERSEY

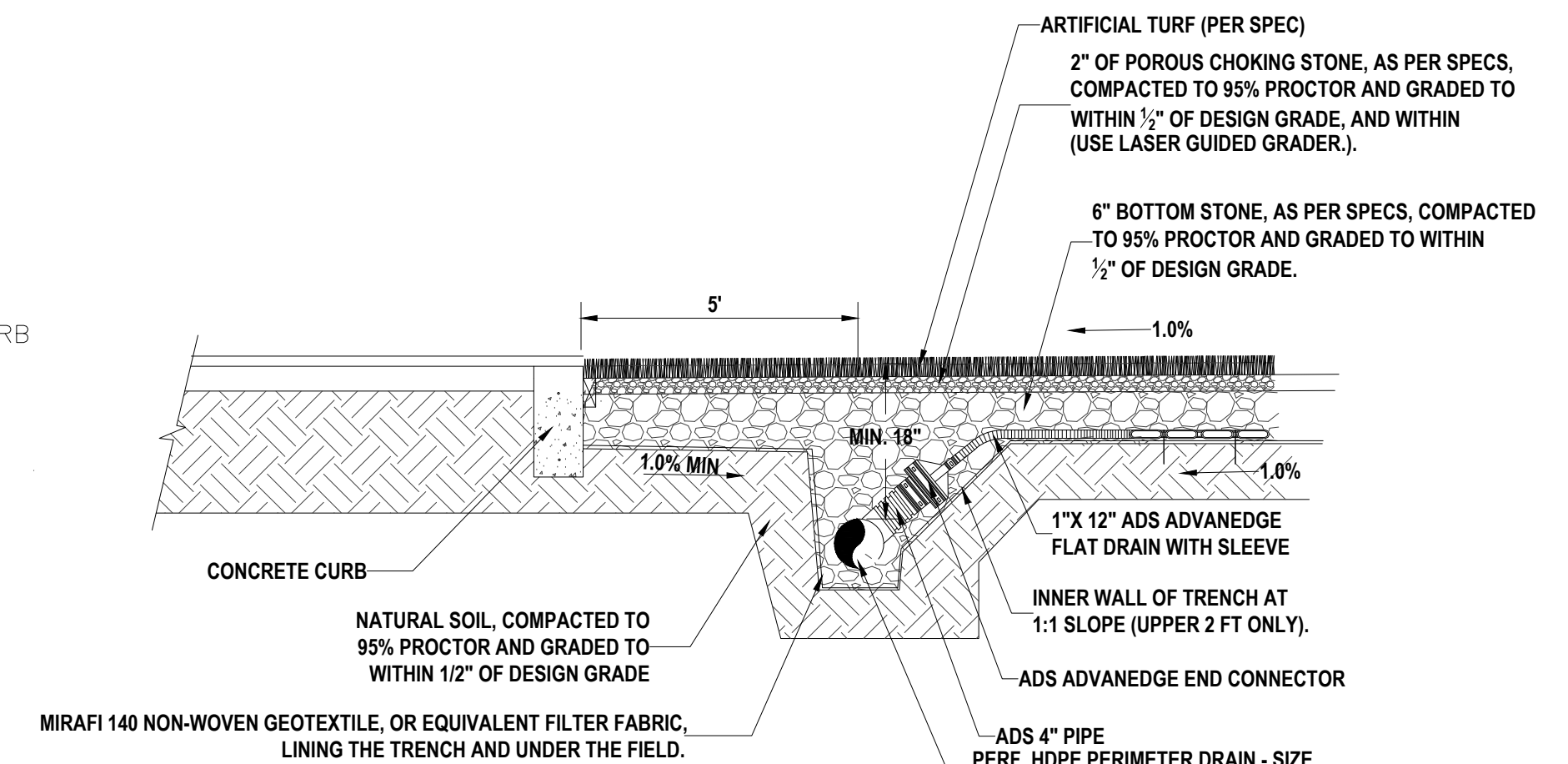
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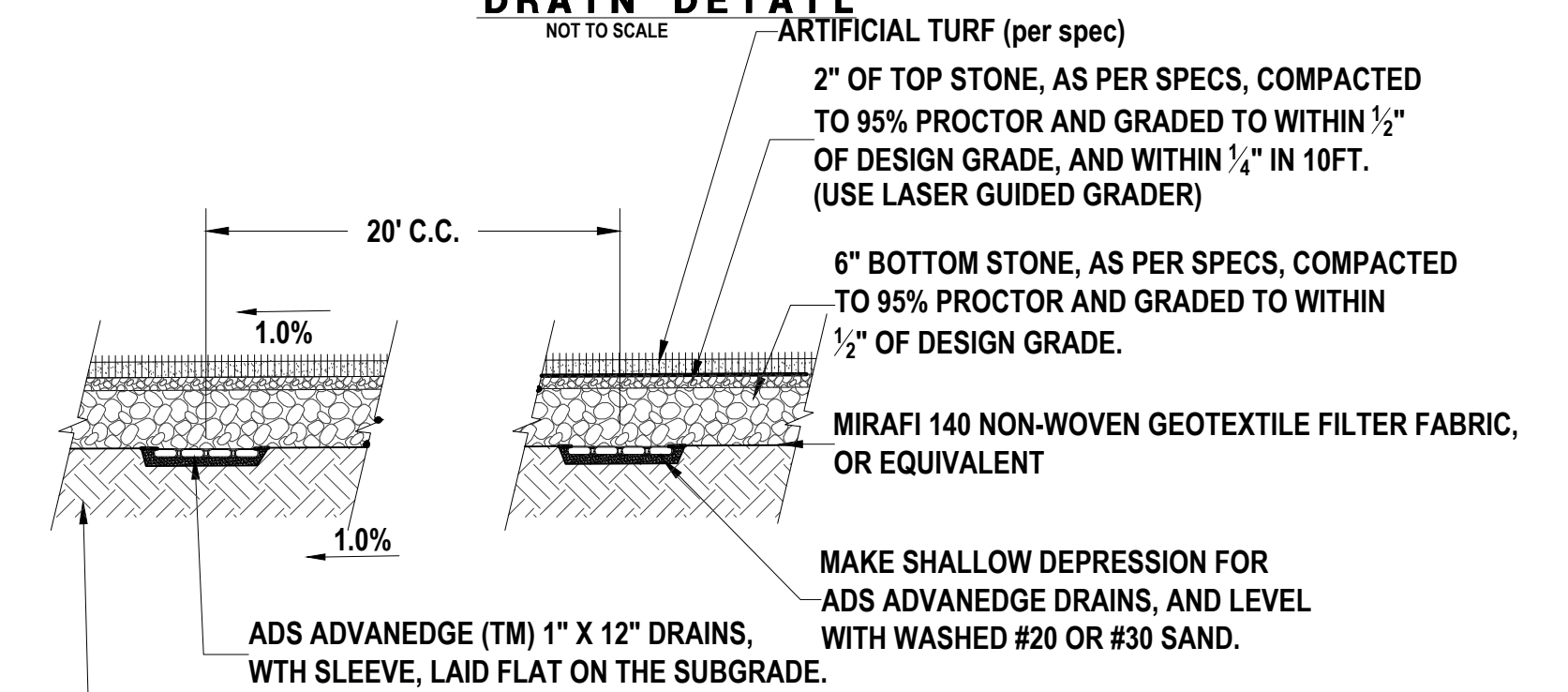
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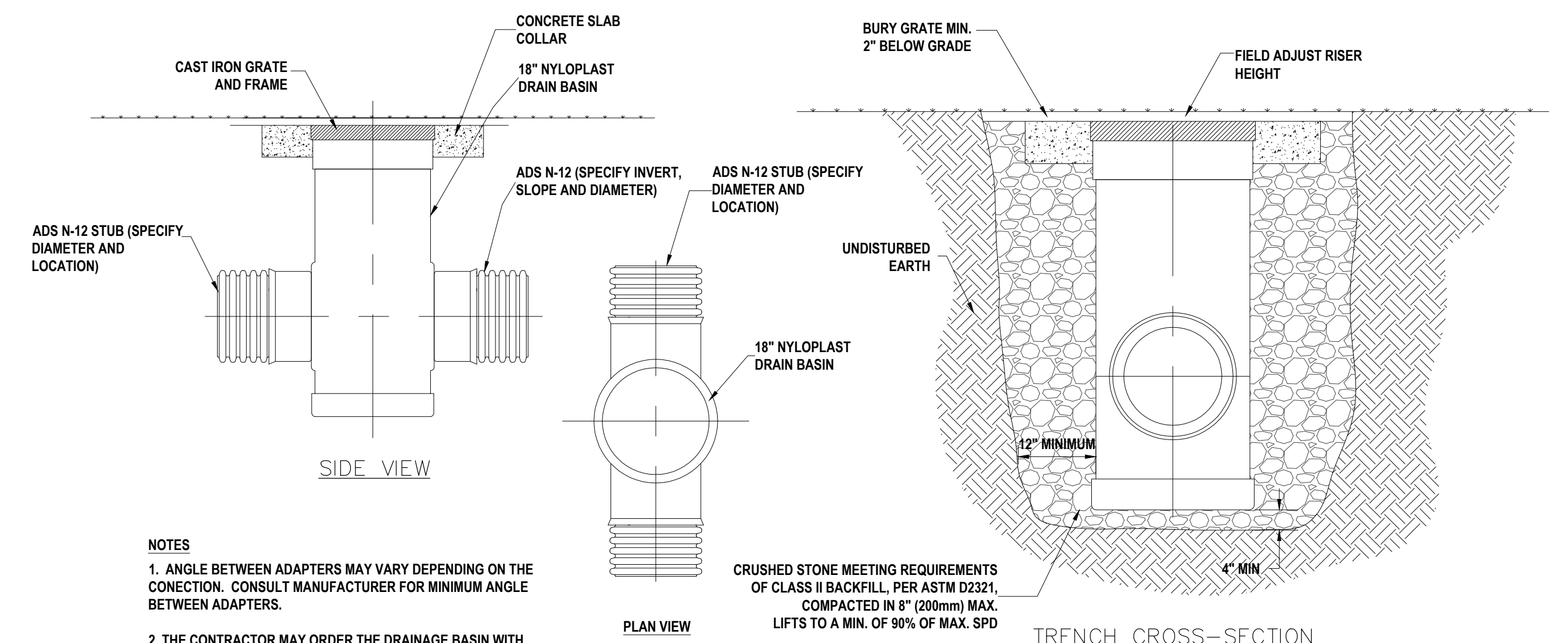
1 SECTION THRU FIELD
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ARTIFICIAL TURF PERIMETER DRAIN DETAIL
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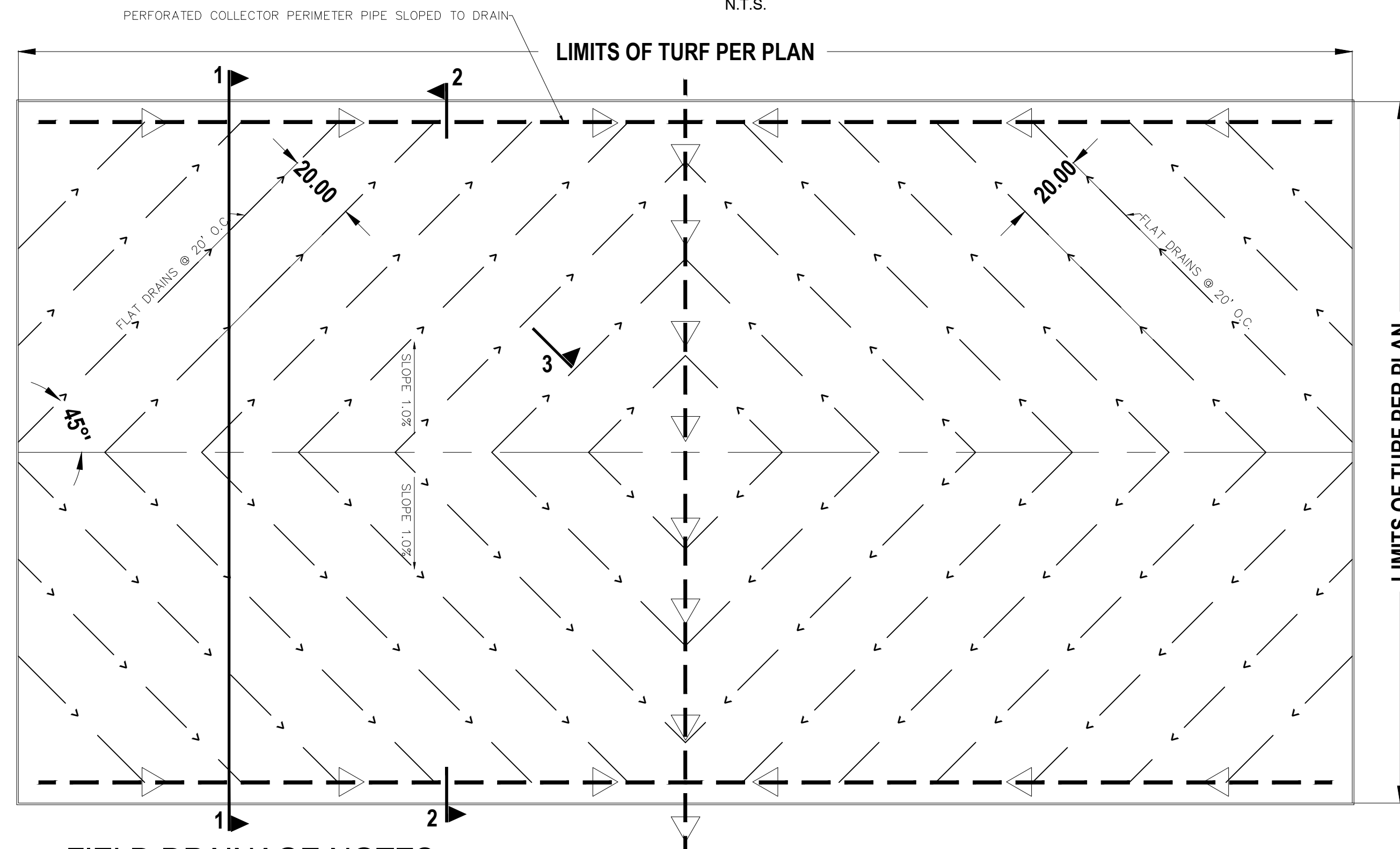


ADS ADVANEDGE FLAT DRAIN DETAIL
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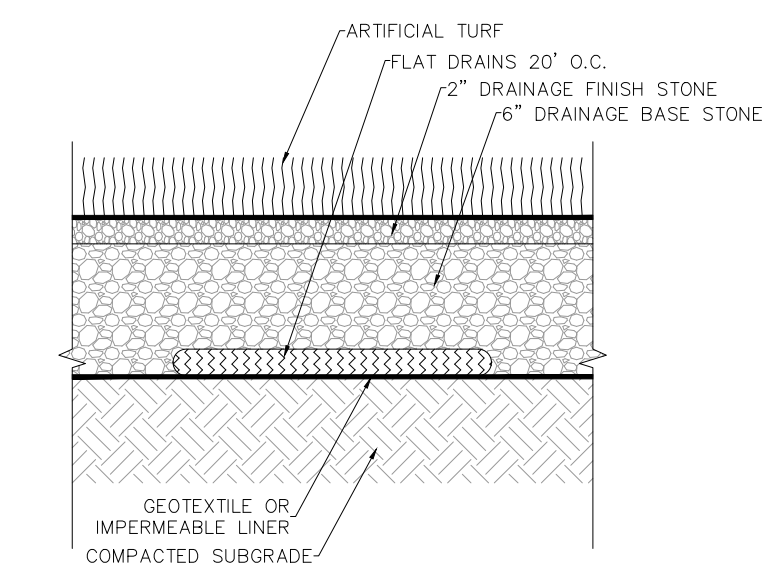
RISER/BURIED CLEANOUT DETAIL
NOT TO SCALE

NOTES
1. ANGLE BETWEEN ADAPTERS MAY VARY DEPENDING ON THE CONNECTION. CONSULT MANUFACTURER FOR MINIMUM ANGLE BETWEEN ADAPTERS.
2. THE CONTRACTOR MAY ORDER THE DRAINAGE BASIN WITH ADAPTERS PREMADE OR UTILIZE ADD A BRANCH SYSTEM AS NECESSARY.

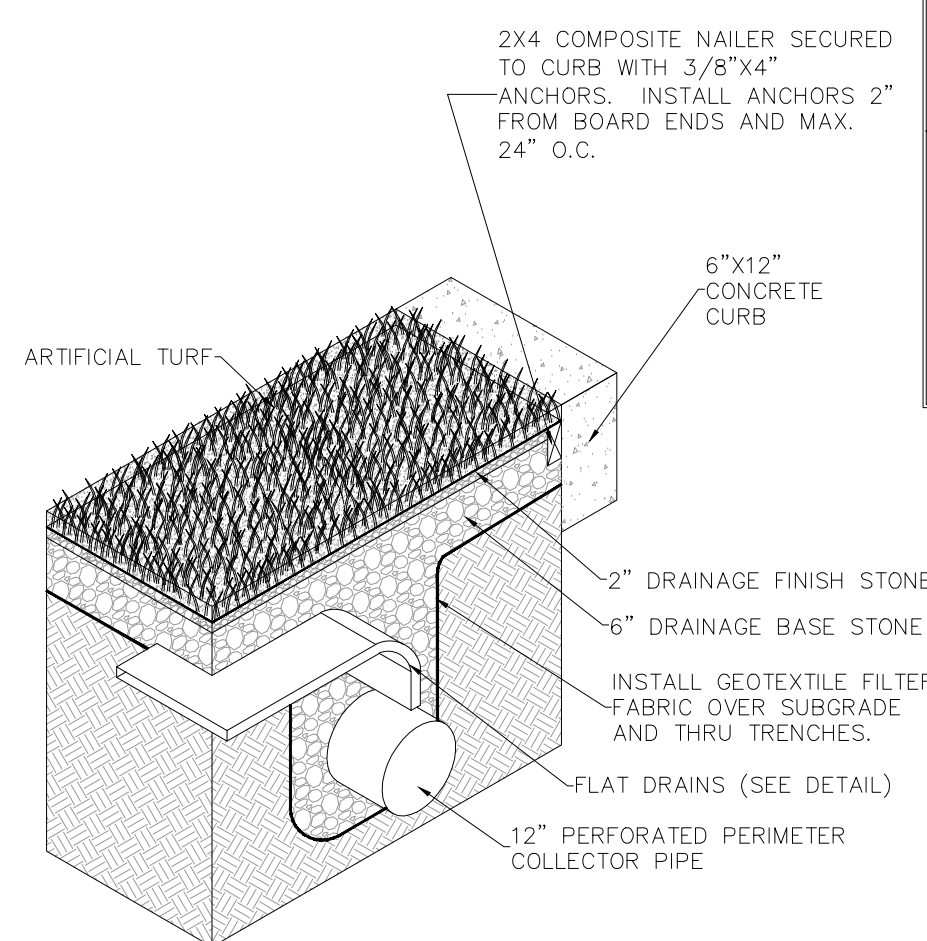


FIELD DRAINAGE NOTES:

1. THE NEW SUBGRADE WILL BE SHAPED AND COMPACTED TO 95% DENSITY WITH A 1.0% SLOPE TO ALLOW FOR DRAINAGE.
2. A NEW CONCRETE CURB AND NAILER WILL BE INSTALLED AROUND THE PERIMETER TO PROVIDE A SECURE EDGE FOR FASTENING THE SYNTHETIC TURF. IN ALL CASES THE NAILER AND STONE ARE AT THE SAME ELEVATION.
3. A GEOTEXTILE FILTER FABRIC WILL BE PLACED OVER THE SUBGRADE AND COMPOSITE DRAINS WILL BE INSTALLED AT 20 FEET ON CENTER AT A 45 DEGREE ANGLE TO THE FIELD. REFER TO THE FIELD DRAINAGE PLAN.
4. THE FLAT DRAINS WILL DRAIN TO A PERIMETER COLLECTOR WHICH WILL BE CONNECTED TO THE PROPOSED DRAINAGE SYSTEM. REFER TO THE GRADING AND DRAINAGE PLAN AND DRAINAGE DETAILS.
5. CLEAN WASHED STONE WILL BE PLACED OVER THE FLAT DRAINS AND THE PERIMETER COLLECTORS AND FINE GRADED FOR A FIELD WITH A 1.0% SLOPE.
6. A 2" LAYER (MAX. DEPTH) OF FINISH STONE WILL BE FINE GRADED OVER THE BASE STONE FOR A FINISH SLOPE OF 1.0%.
7. SYNTHETIC TURF WILL BE INSTALLED OVER THE STONE BASE.



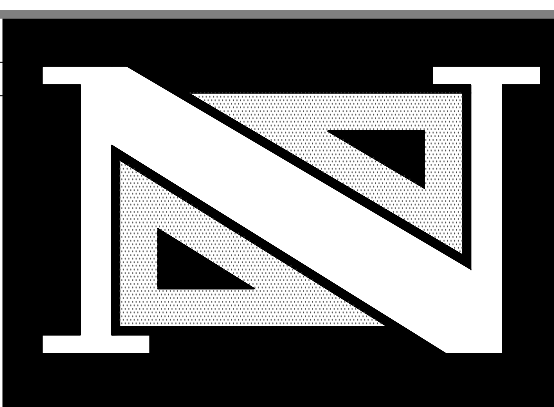
3 FLAT DRAIN SECTION
SCALE: N.T.S.



4 ISOMETRIC VIEW
N.T.S.

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REVISIONS				
NO.	DATE	DESCRIPTION	DRAWN	CHECKED
1.	09/14/2014	REVISED FOR NJDEP INFO PERMIT	AK	AK/TKS
2.	09/09/2014	REVISED FOR BIDDING	AK	AK/TKS
3.	09/09/2015	REVISED FOR BIDDING	AK	AK/TKS

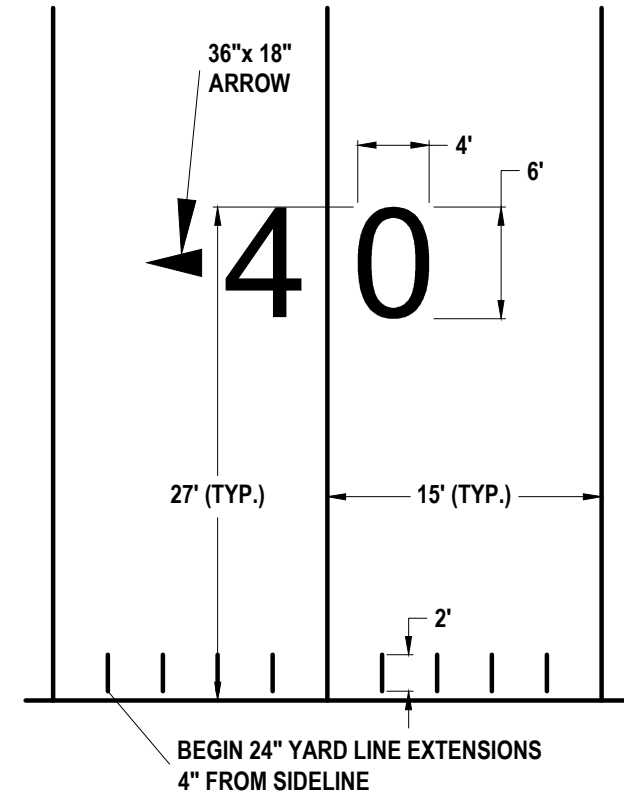


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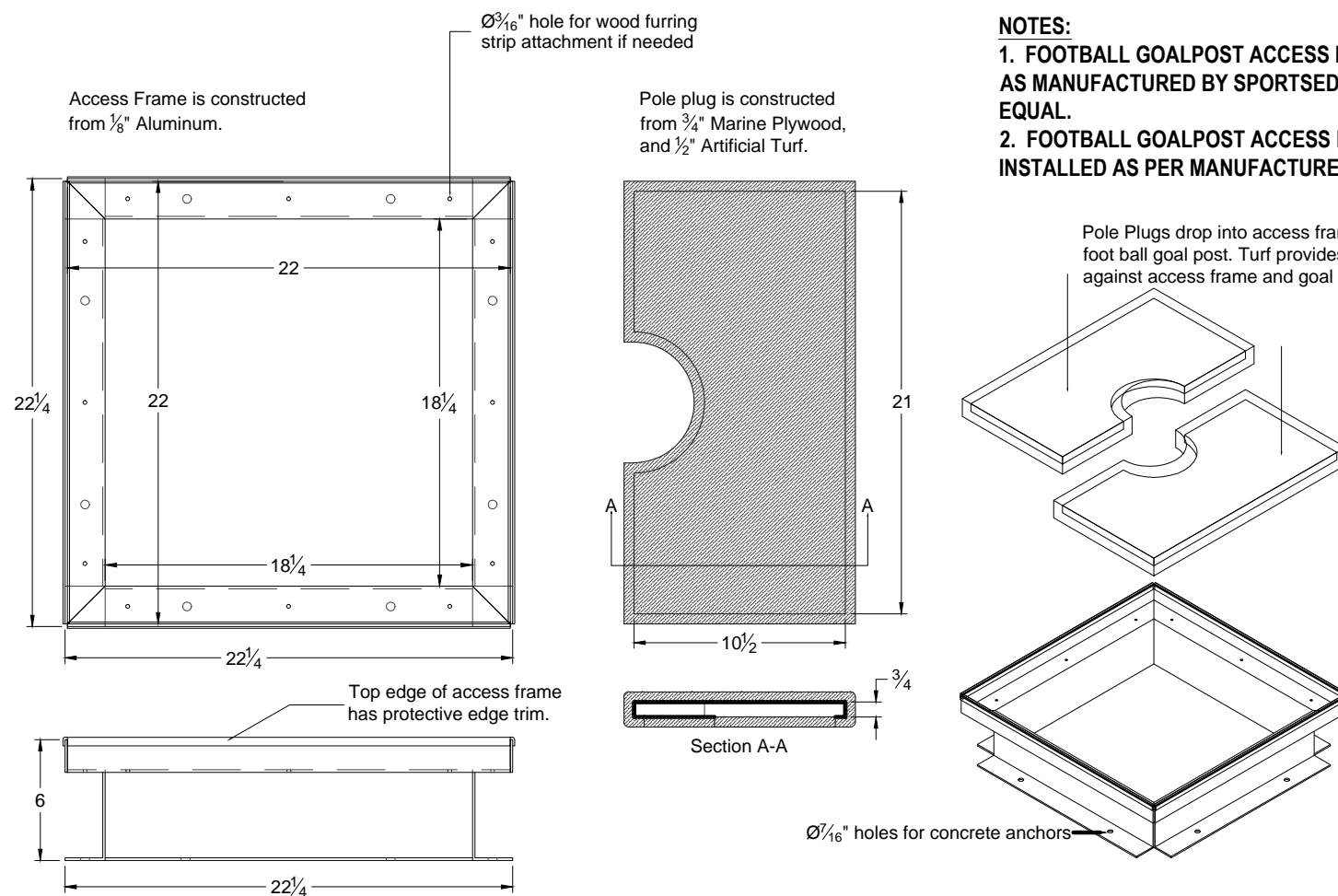
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N.J. LICENSE NO. 38854
N.J. LICENSE NO. 38854

CONSTRUCTION DETAILS
ARTIFICIAL TURF FIELD AT MATTANO PARK
CITY OF ELIZABETH ~ BLOCK 5 ~ LOT 453B
COUNTY OF UNION ~ PROJECT # 2011-018
UNION COUNTY **NEW JERSEY**
DRAWN BY: A.K. CHECKED BY: T.S. PROJECT NO: UNIOCTY11.013 SHEET NO: 5.01
DESIGNED BY: A.K. SCALE: N.T.S. FIELD BOOK NO: DATE: DECEMBER 14, 2011

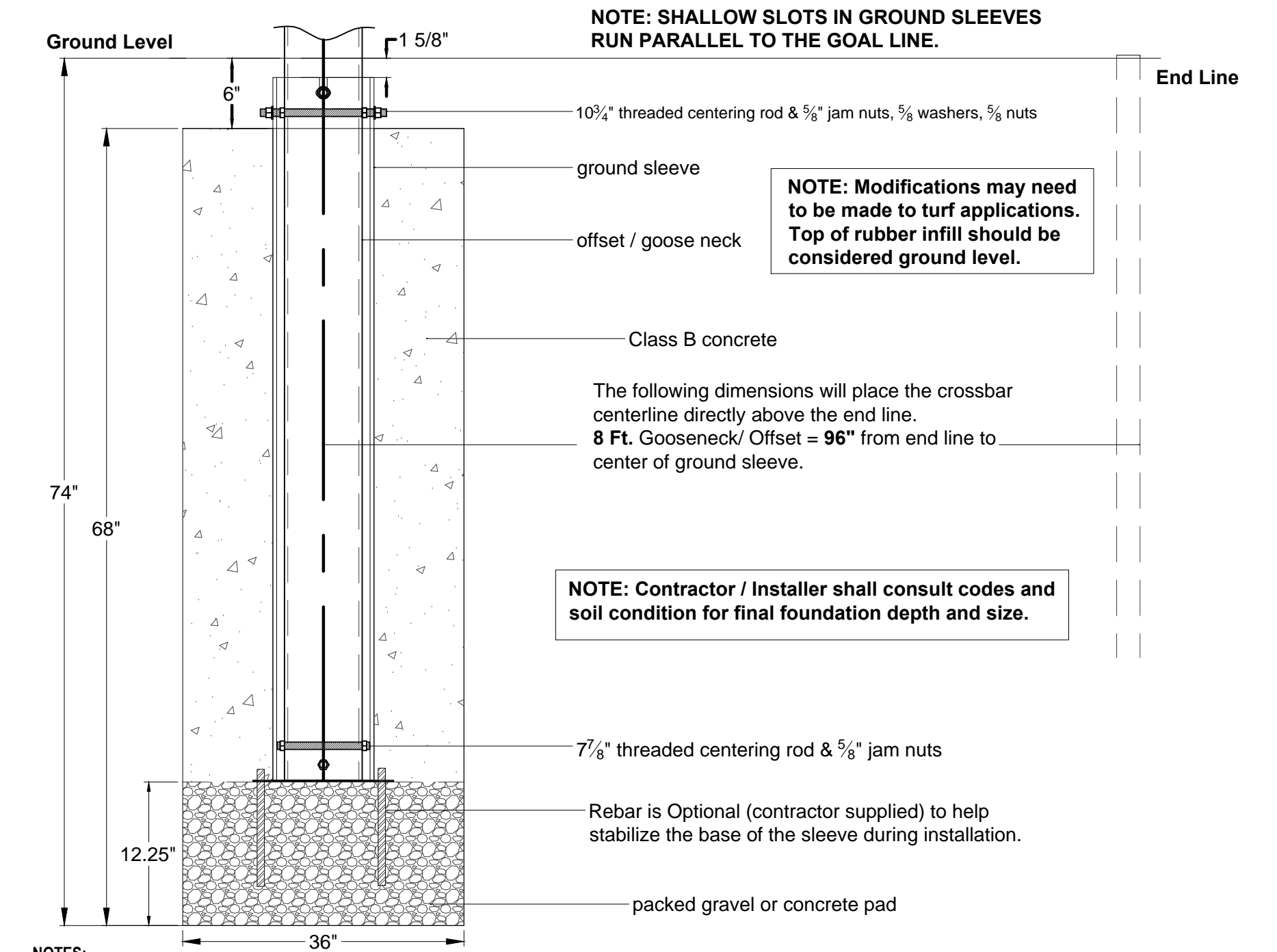
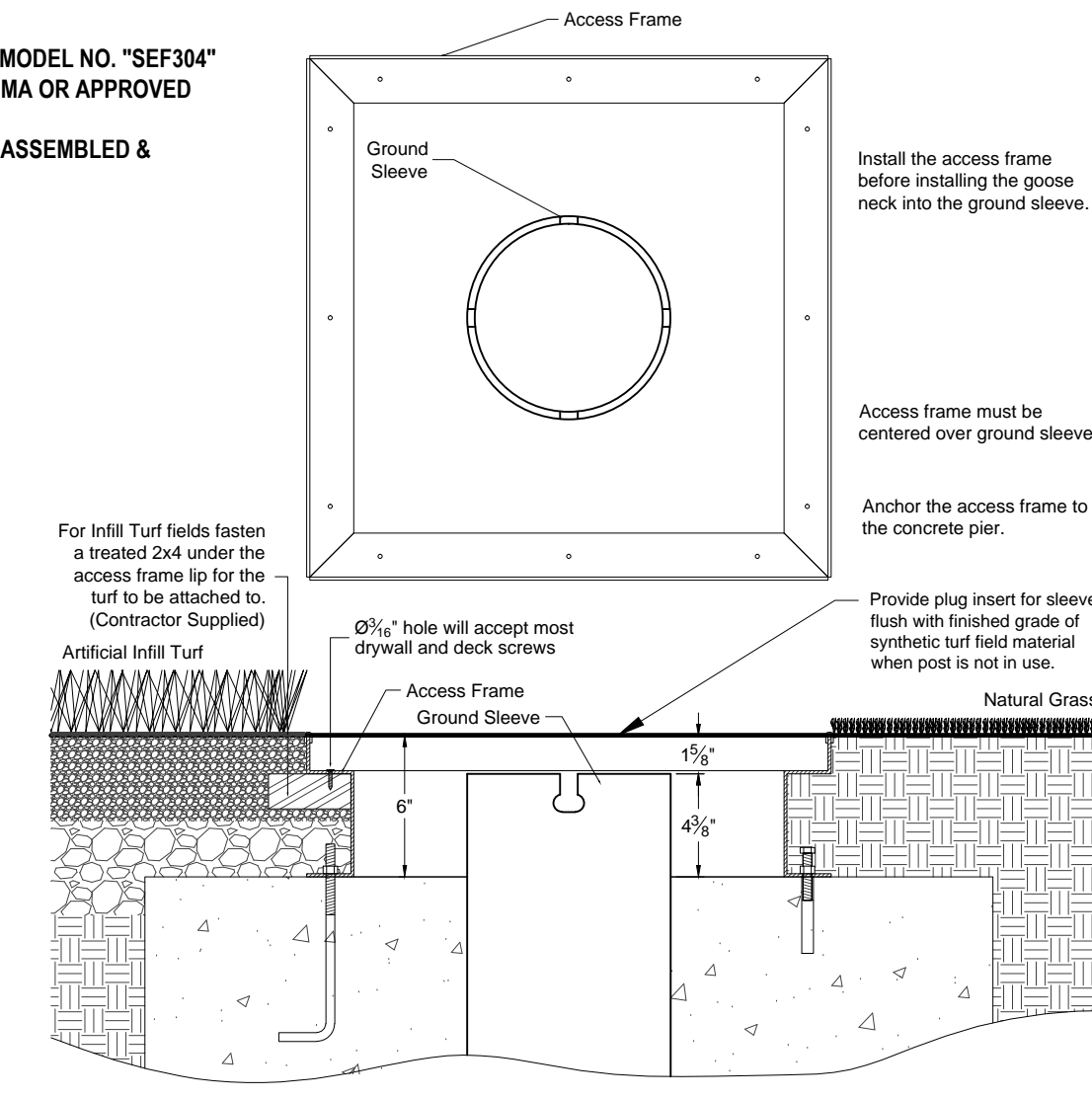


FOOTBALL YARD MARKER DETAIL
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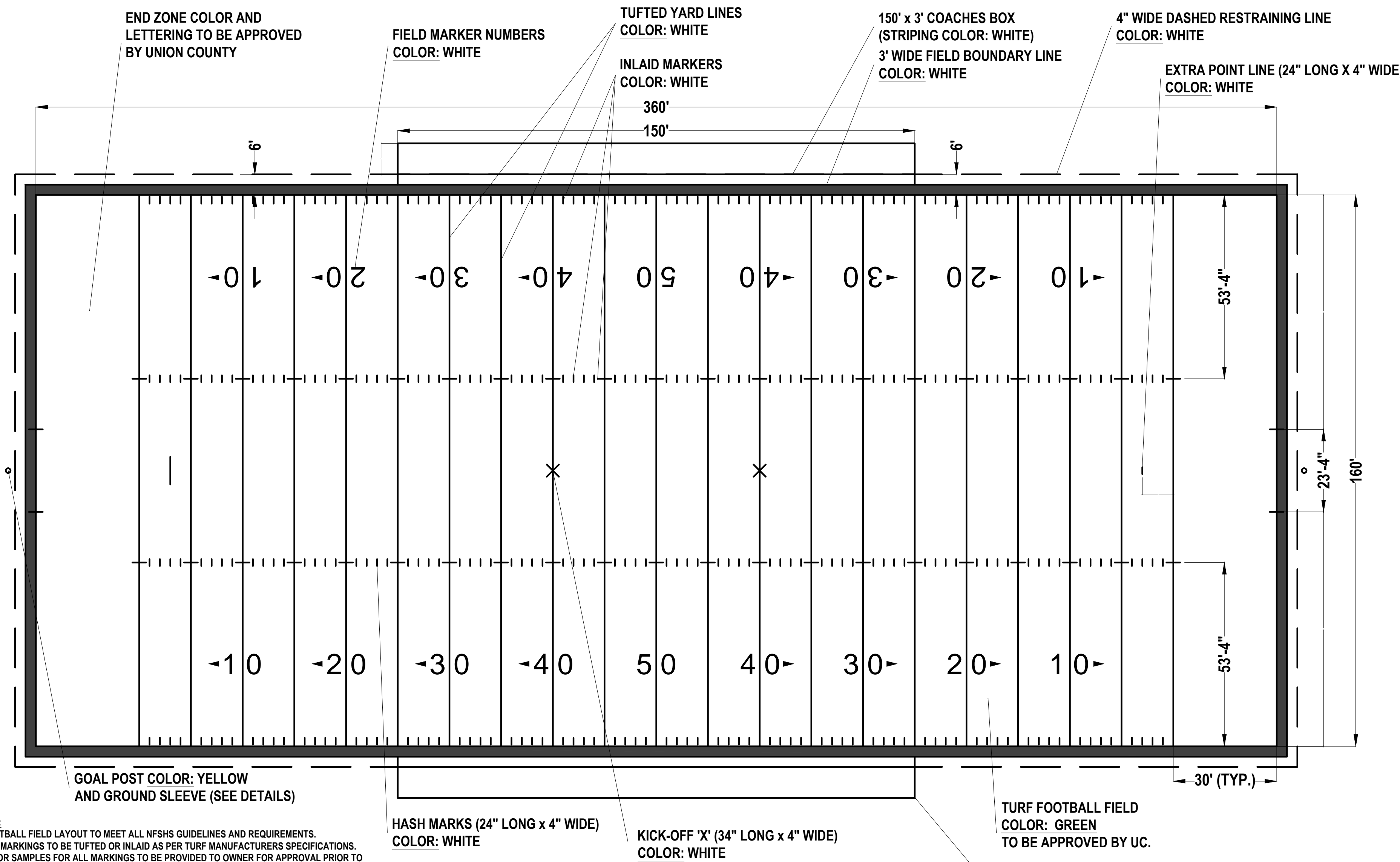
FOOTBALL GOAL ACCESS FRAME KIT DETAIL
NOT TO SCALE

NOTES:
1. FOOTBALL GOALPOST ACCESS FRAME KIT SHALL BE MODEL NO. "SEF304" AS MANUFACTURED BY SPORTSEGE, PROVINCETOWN, MA OR APPROVED EQUAL.
2. FOOTBALL GOALPOST ACCESS FRAME KIT SHALL BE ASSEMBLED & INSTALLED AS PER MANUFACTURERS SPECIFICATIONS.



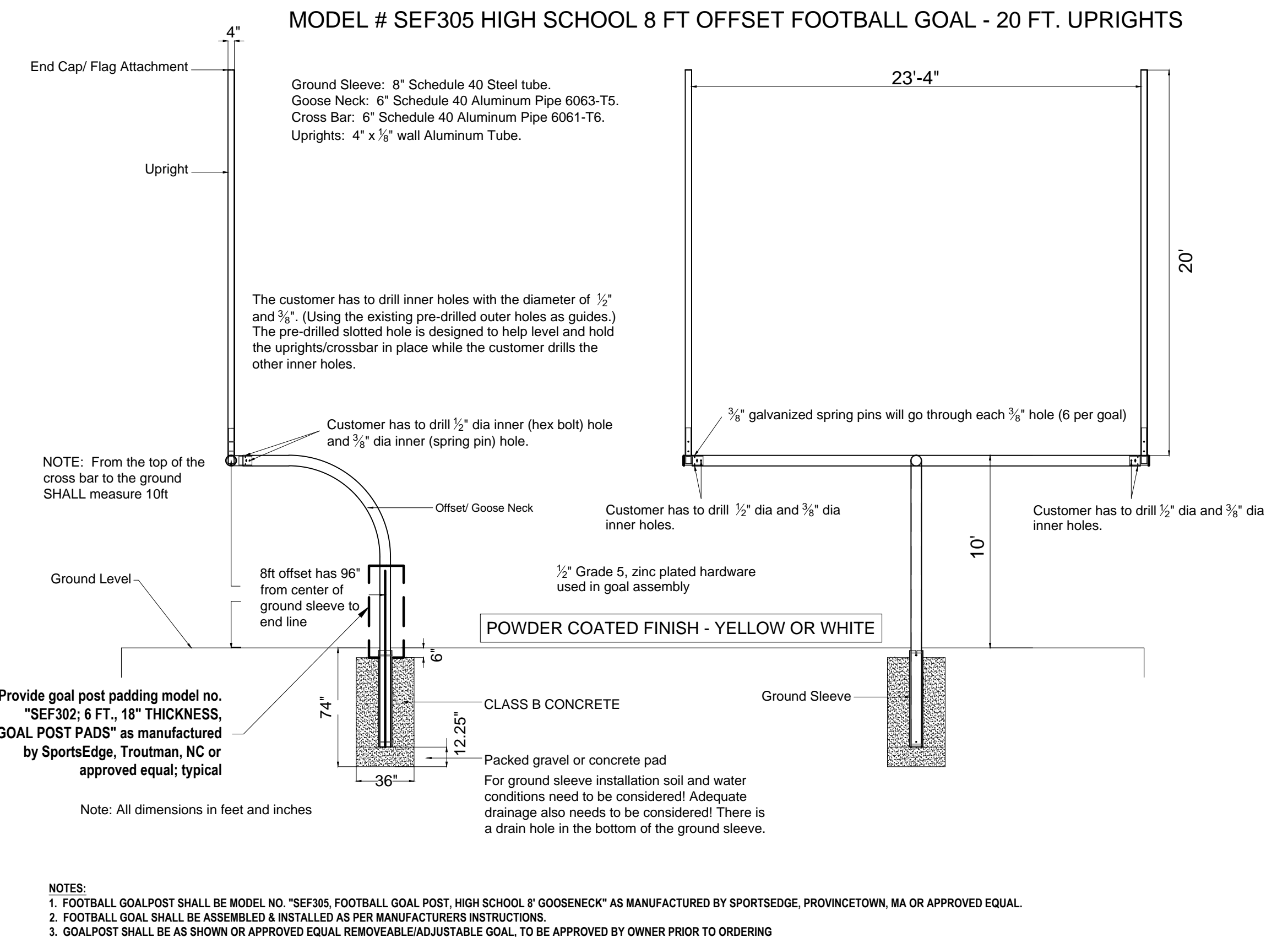
NOTES:
1. FOOTBALL GOALPOST GROUND SLEEVE SHALL BE MODEL NO. "SEF30005" AS MANUFACTURED BY SPORTSEGE, PROVINCETOWN, MA OR APPROVED EQUAL.
2. FOOTBALL GOALPOST GROUND SLEEVE SHALL BE ASSEMBLED & INSTALLED AS PER MANUFACTURER'S SPECIFICATIONS AND SHALL MEET NFHS SPECIFICATIONS.
3. GOALPOSTS SHALL BE REMOVEABLE/ADJUSTABLE.

GOALPOST GROUND SLEEVE DETAIL
NOT TO SCALE



FOOTBALL FIELD DETAIL LAYOUT
NOT TO SCALE

NOTES:
1. FOOTBALL FIELD LAYOUT TO MEET ALL NFHS GUIDELINES AND REQUIREMENTS.
2. ALL MARKINGS TO BE TUFTED OR INLAID AS PER TURF MANUFACTURERS SPECIFICATIONS.
3. COLOR SAMPLES FOR ALL MARKINGS TO BE PROVIDED TO OWNER FOR APPROVAL PRIOR TO CONSTRUCTION.
4. CONTRACTOR TO PROVIDE COLOR RENDERING FOR APPROVAL BY OWNER PRIOR TO CONSTRUCTION.
5. CONTRACTOR TO VERIFY ALL DIMENSIONS.



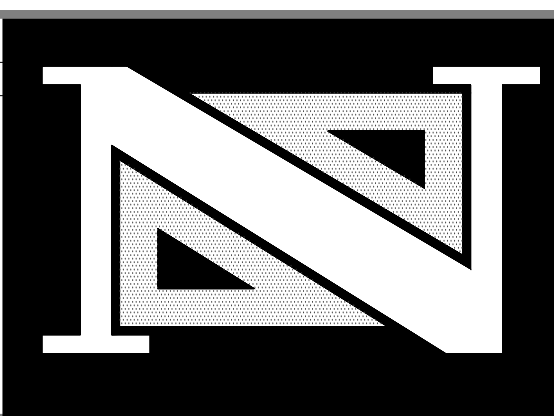
8' OFFSET REMOVEABLE/ADJUSTABLE FOOTBALL GOAL DETAIL
NOT TO SCALE

MODEL # SEF305 HIGH SCHOOL 8 FT OFFSET FOOTBALL GOAL - 20 FT. UPRIGHTS
Ground Sleeve: 8" Schedule 40 Steel tube.
Goose Neck: 6" Schedule 40 Aluminum Pipe 6063-T5.
Cross Bar: 6" Schedule 40 Aluminum Pipe 6061-T6.
Uprights: 4" x 1/2" wall Aluminum Tube.
The customer has to drill inner holes with the diameter of 1/2" and 3/8". (Using the existing pre-drilled outer holes as guides.) The pre-drilled slotted hole is designed to help level and hold the uprights/crossbar in place while the customer drills the other inner holes.
Customer has to drill 1/2" dia inner (hex bolt) hole and 3/8" dia inner (spring pin) hole.
NOTE: From the top of the cross bar to the ground SHALL measure 10ft
Customer has to drill 1/2" dia and 3/8" dia inner holes.
Customer has to drill 1/2" dia and 3/8" dia inner holes.
3/8" galvanized spring pins will go through each 3/8" hole (6 per goal)
1/2" Grade 5, zinc plated hardware used in goal assembly
POWDER COATED FINISH - YELLOW OR WHITE
Provide goal post padding model no. "SEF302; 6 FT., 18" THICKNESS, GOAL POST PADS" as manufactured by SportsEdge, Troutman, NC or approved equal; typical
NOTE: All dimensions in feet and inches

NOTES:
1. FOOTBALL GOALPOST SHALL BE MODEL NO. "SEF305, FOOTBALL GOAL POST, HIGH SCHOOL, 8' GOOSENECK" AS MANUFACTURED BY SPORTSEGE, PROVINCETOWN, MA OR APPROVED EQUAL.
2. FOOTBALL GOAL SHALL BE ASSEMBLED & INSTALLED AS PER MANUFACTURERS INSTRUCTIONS.
3. GOALPOST SHALL BE AS SHOWN OR APPROVED EQUAL REMOVEABLE/ADJUSTABLE GOAL, TO BE APPROVED BY OWNER PRIOR TO ORDERING

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2.	06/09/2014	REVISED FOR BIDDING	AK	AK
3.	06/20/2015	REVISED FOR BIDDING	AK	AK



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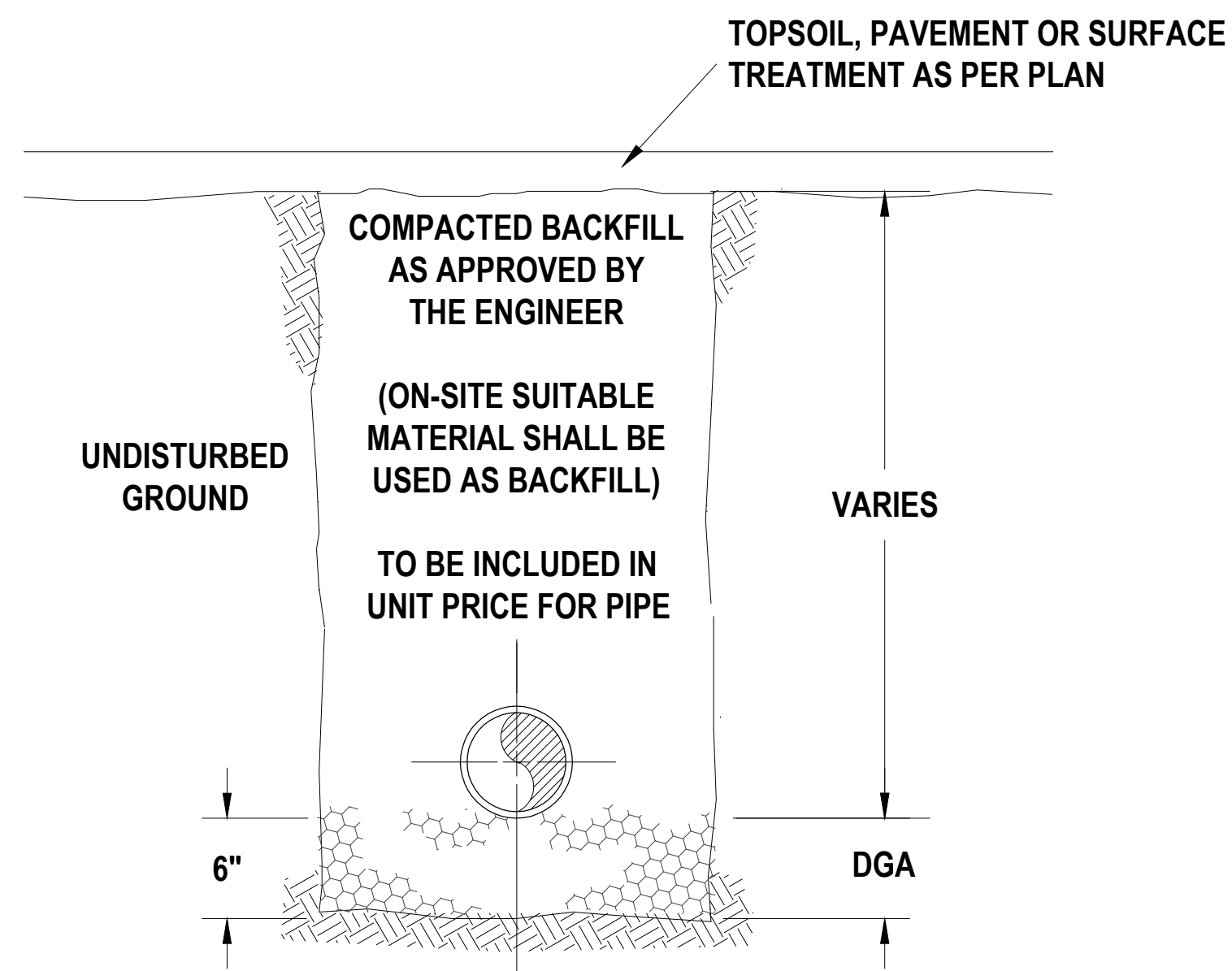
MICHAEL J. NEGLIA, P.E., P.L.S., P.P.
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PROFESSIONAL LAND SURVEYOR
N.J. LICENSE NO. 38054

PROFESSIONAL PLANNER
N.J. LICENSE NO. 38054

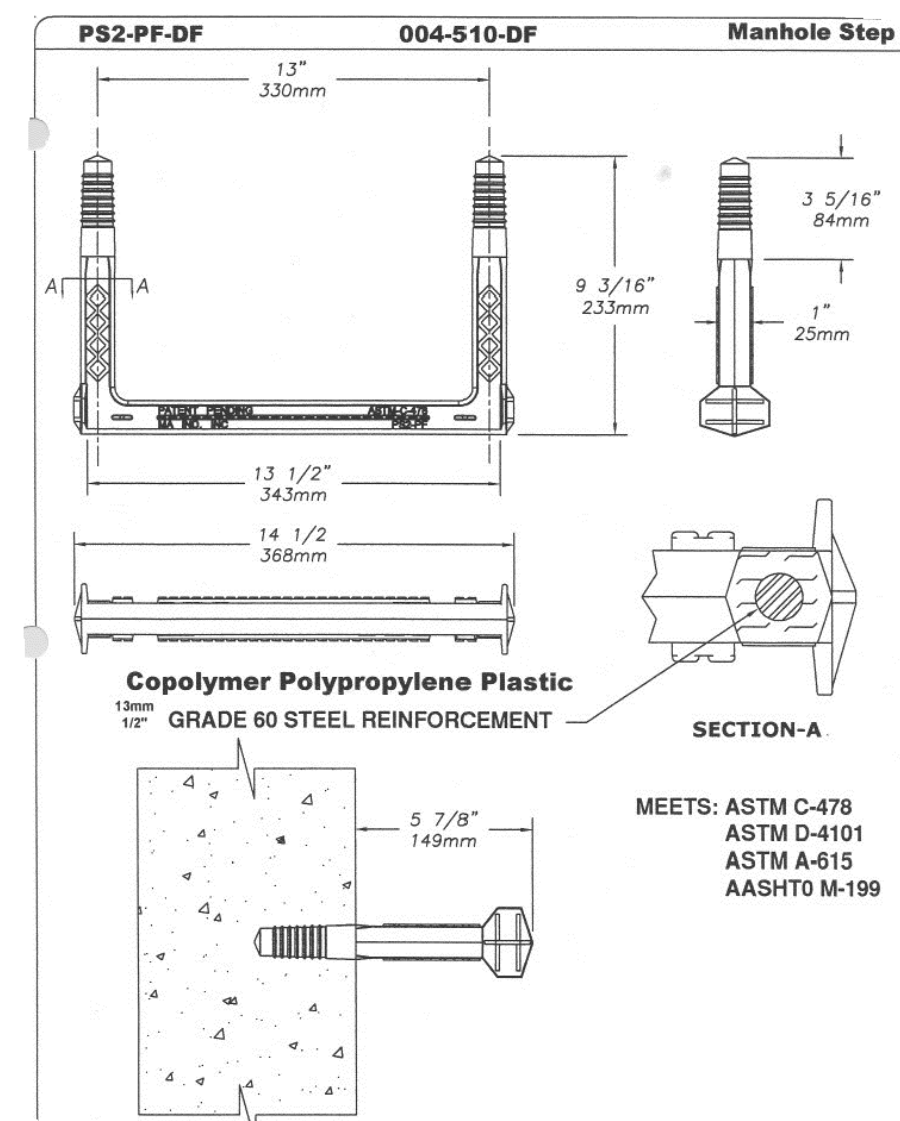
CONSTRUCTION DETAILS
ARTIFICIAL TURF FIELD AT MATTANO PARK
CITY OF ELIZABETH ~ BLOCK 5 ~ LOT 453B
COUNTY OF UNION ~ PROJECT # 2011-018
UNION COUNTY **NEW JERSEY**

DRAWN BY: A.K. CHECKED BY: T.S. PROJECT NO: UNIOCTY11.013 SHEET NO: 5.02
DESIGNED BY: A.K. SCALE: N.T.S. FIELD BOOK NO: DATE: DECEMBER 14, 2011

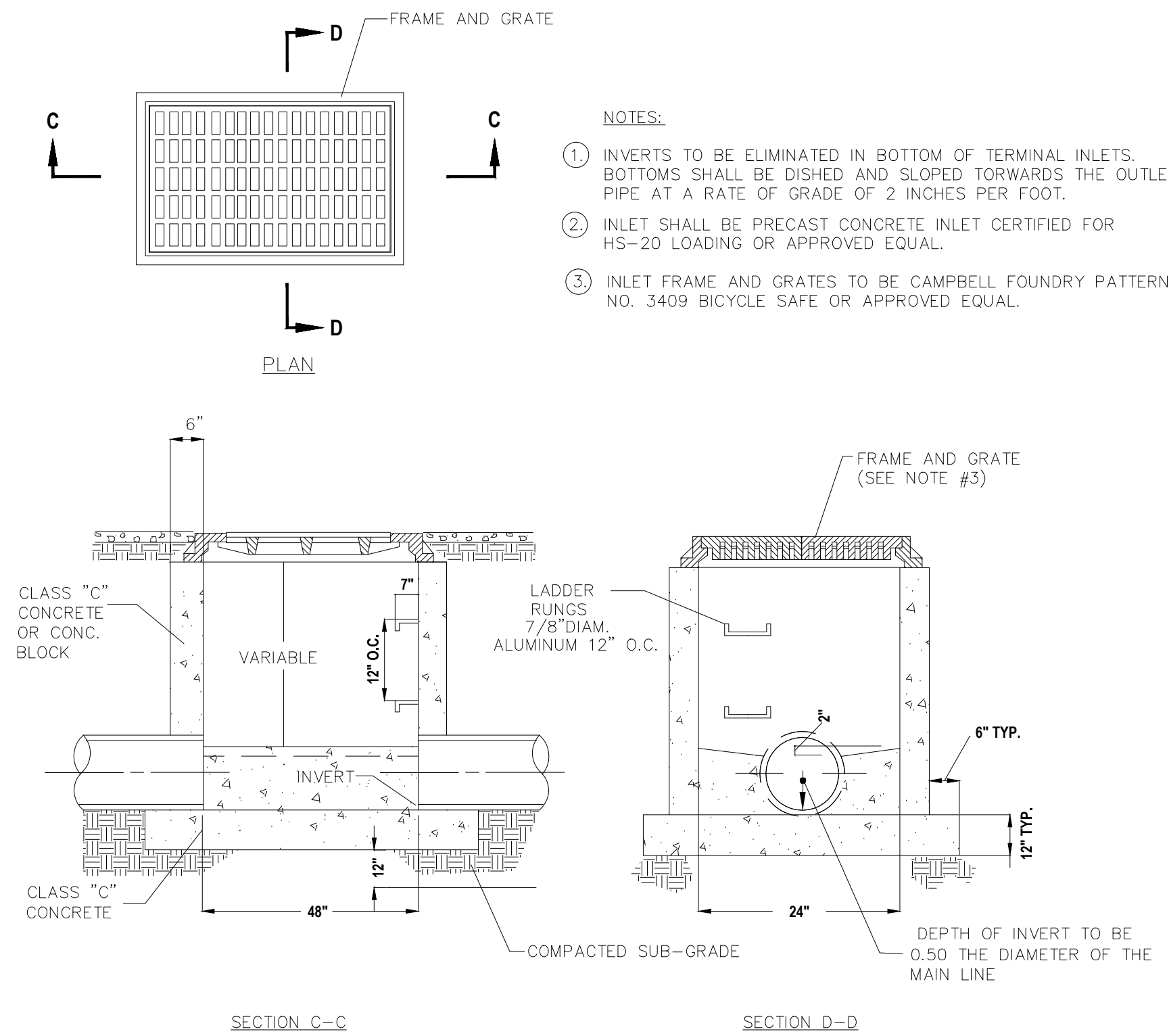


STORM SEWER TRENCH DETAIL
NOT TO SCALE

- NOTES:**
- ALL EXCAVATED MATERIAL SHALL BE STOCKPILED ON-SITE. MATERIAL DEEMED SUITABLE SHALL BE USED AS BACKFILL.
 - UNSUITABLE MATERIAL WILL BE DISPOSED OF OFF SITE.



MANHOLE LADDER STEPS
NOT TO SCALE



TYPE 'A' INLET
NOT TO SCALE

Specifications

HOUSING:
Single-pipe compression molded fiberglass reinforced polyester composite, factory pressure tested to ensure water will not wick or leak through. Trim ring is a compression molded polyester. Trim ring is a die-cast stainless steel. Trim ring is natural cast bronze. Rock guard used for directional glare control made of compression molded polyester.

FINISH:
Composite is textured, pressure formed, molded-in-color.

OPTICAL ASSEMBLY:
Clear composite, tempered soda-lime glass for high impact resistance. 2,200-pound live-load rated, standard walk-over lens.

LAMPING:
100W maximum PAR20R30 medium base lamp. 100W maximum PAR20R20 medium base lamp. Lamp is not included. Lower wattage lamps are acceptable. (Note: PAR20R20 and PAR20R30 are not suitable.)

ELECTRICAL ASSEMBLY:
4W rated medium base porcelain socket. Nickel-plated screw shell with center contact.

WARRANTY:
Ten-year limited warranty.

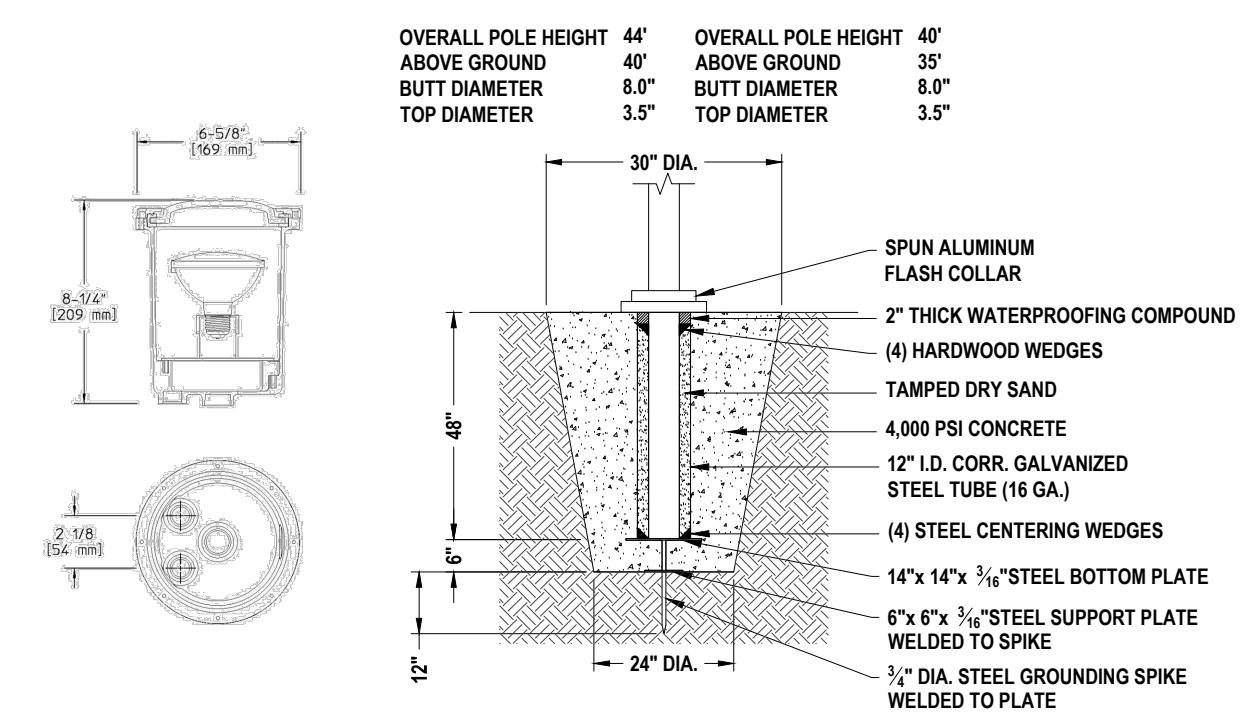
CERTIFICATIONS:
ETL listed to U.S. safety standards for wet locations. eTL listed to Canadian safety standards for wet locations. Manufactured to ISO 9001:2008 Standards. ADA Compliant when flush mounted with CP2 or CP2S.

IP RATING:
IPX5 Dusk light and sealed against direct jets of water and against prolonged effects of immersion.

Height:
8 1/2\"/>

Width:
6 5/8\"/>

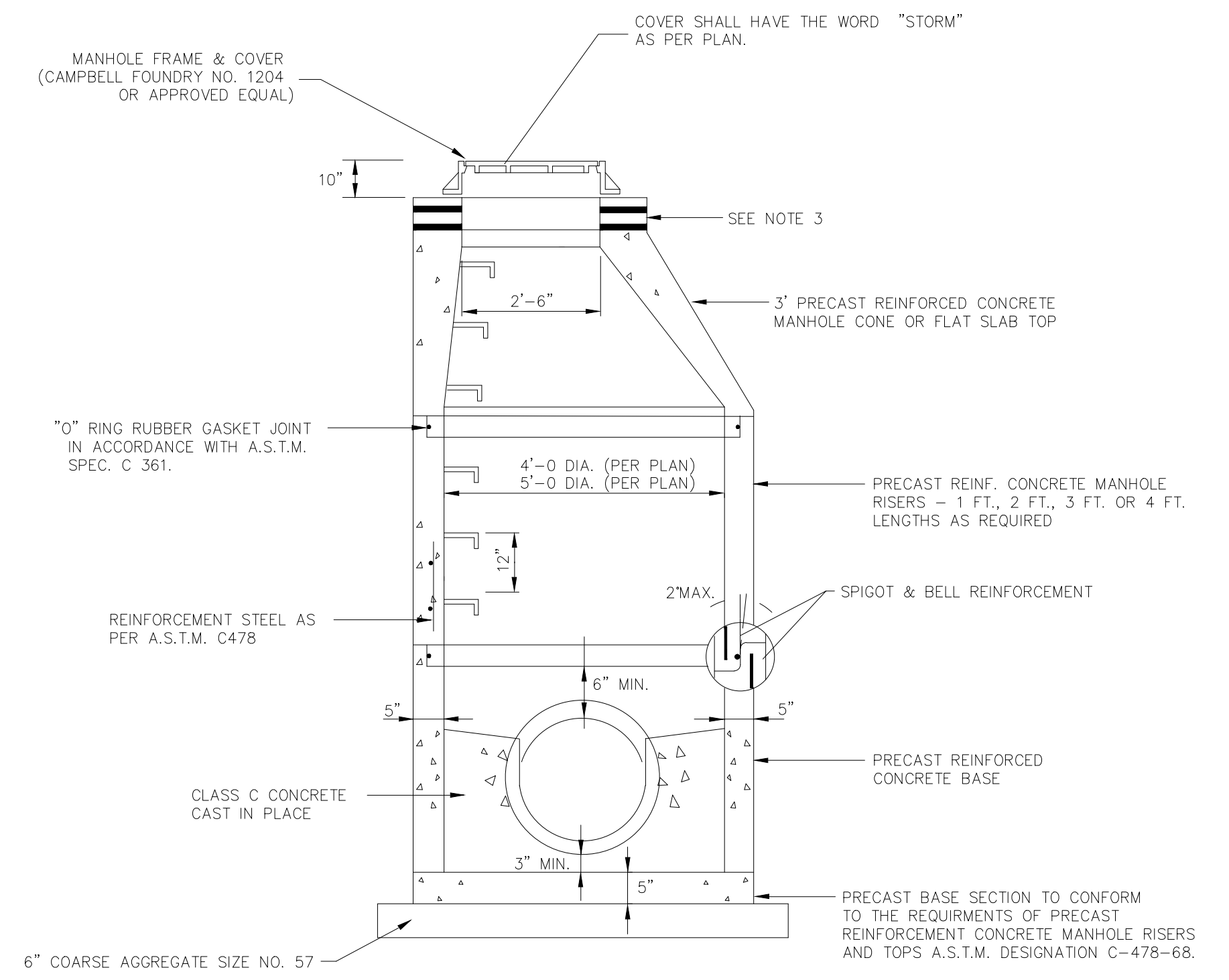
Max. Weight:
3.6 lb.



NOTE:

- CONTRACTOR TO PROVIDE NECESSARY ELECTRICAL SOURCE.
- ROCK GUARD TO BE PROVIDED WITH A BRONZE FINISH.
- CONTRACTOR TO PROVIDE 2 FLAGPOLES OF 35 FEET IN HEIGHT AND 1 FLAGPOLE OF 40 FEET IN HEIGHT.
- 3 UPLIGHTS PER FLAGPOLE TO BE PROVIDED PER SPECIFICATIONS.
- FLAG LIGHTING SHALL INCLUDE DUSK/DAWN CONTROLS.

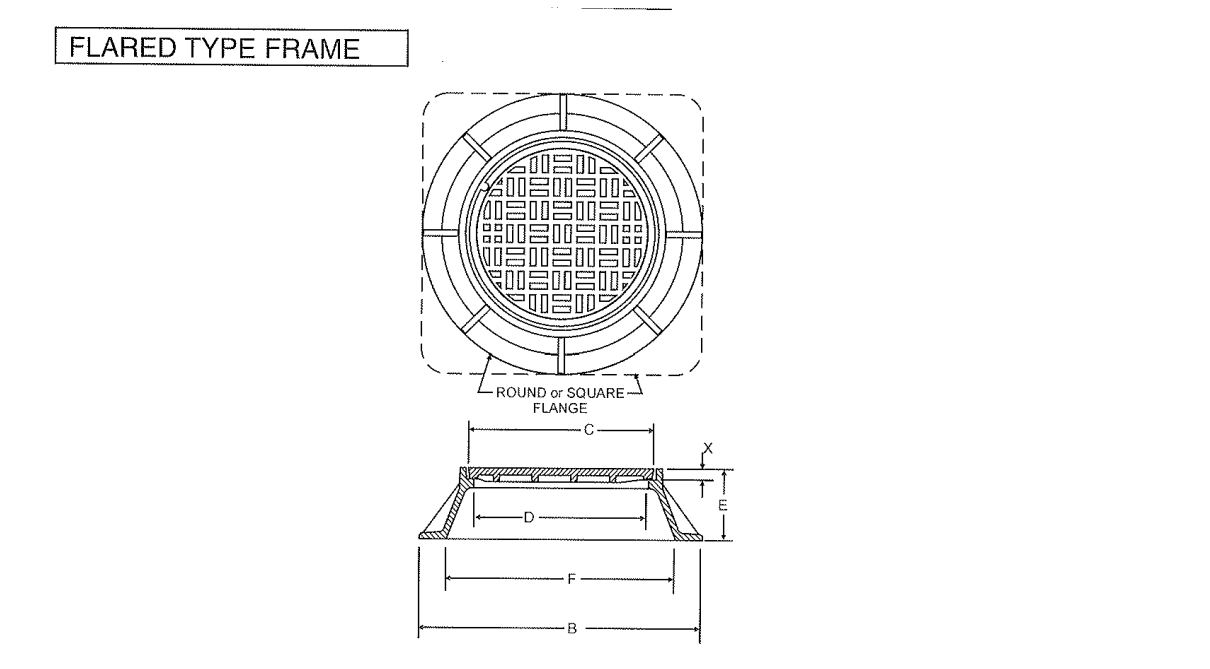
35'-40' FLAGPOLE W/ UPLIGHTS DETAIL
NOT TO SCALE



PRECAST STORM MANHOLE DETAIL
NOT TO SCALE

- NOTES:**
- ALL MANHOLES TO MEET CRITERIA FOR H-20 LOADING CRITERIA.
 - STORM MANHOLE SHALL BE AS SHOWN OR APPROVED EQUAL, DESIGNED FOR H-20 LOADING. SHOP DRAWINGS SHOWING PROPOSED REINFORCEMENT PREPARED /CERTIFIED BY A NJ LICENSED STRUCTURAL ENGINEER TO BE PROVIDED PRIOR TO CONSTRUCTION. CONTRACTOR IS RESPONSIBLE TO OBTAIN AND PROVIDE SAID SHOP DRAWINGS AND THE COST OF THE SAME SHALL BE INCLUDED IN HIS PRICE BID.
 - SEE GRADING AND DRAINAGE PLAN FOR LOCATION/ORIENTATION OF PROPOSED STORM MANHOLES.
 - PRICE BID FOR STORM MANHOLES 5' DIA. AND 4' DIA. SHALL INCLUDE LOCKING STORM MANHOLE FRAME AND COVERS.

Heavy Duty Manhole Frames and Covers



PATTERN NUMBER		DIMENSIONS IN INCHES					
ROUND FLANGE	SQUARE FLANGE	B	C	D	E	F	X
1204	1229	43	25 3/4	24	10	35	1 3/4

NOTES:

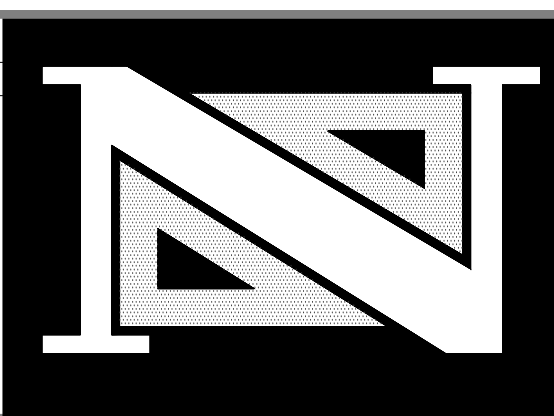
- COVER TO BE "FLOW SEAL" TYPE OR EQUIVALENT.

MANHOLE FRAME AND COVER
NOT TO SCALE

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1.	09/14/2014	REVISED FOR NADP INFO PERMIT	AK	AK
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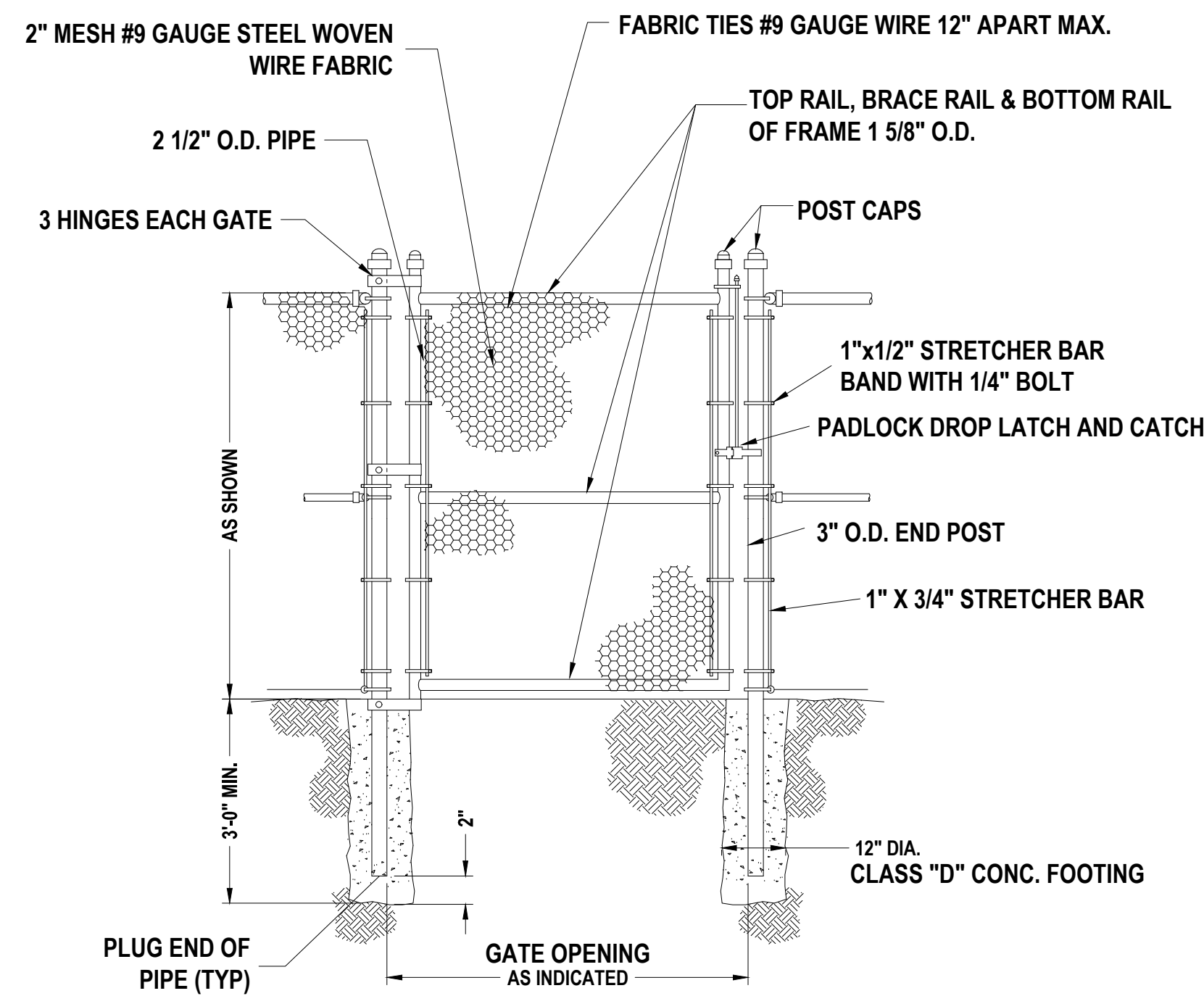
PROFESSIONAL LAND SURVEYOR
N.J. LICENSE NO. 38854

PROFESSIONAL PLANNER
N.J. LICENSE NO. 38854

CONSTRUCTION DETAILS
ARTIFICIAL TURF FIELD AT MATTANO PARK
CITY OF ELIZABETH ~ BLOCK 5 ~ LOT 453B
COUNTY OF UNION ~ PROJECT # 2011-018

UNIION COUNTY **NEW JERSEY**

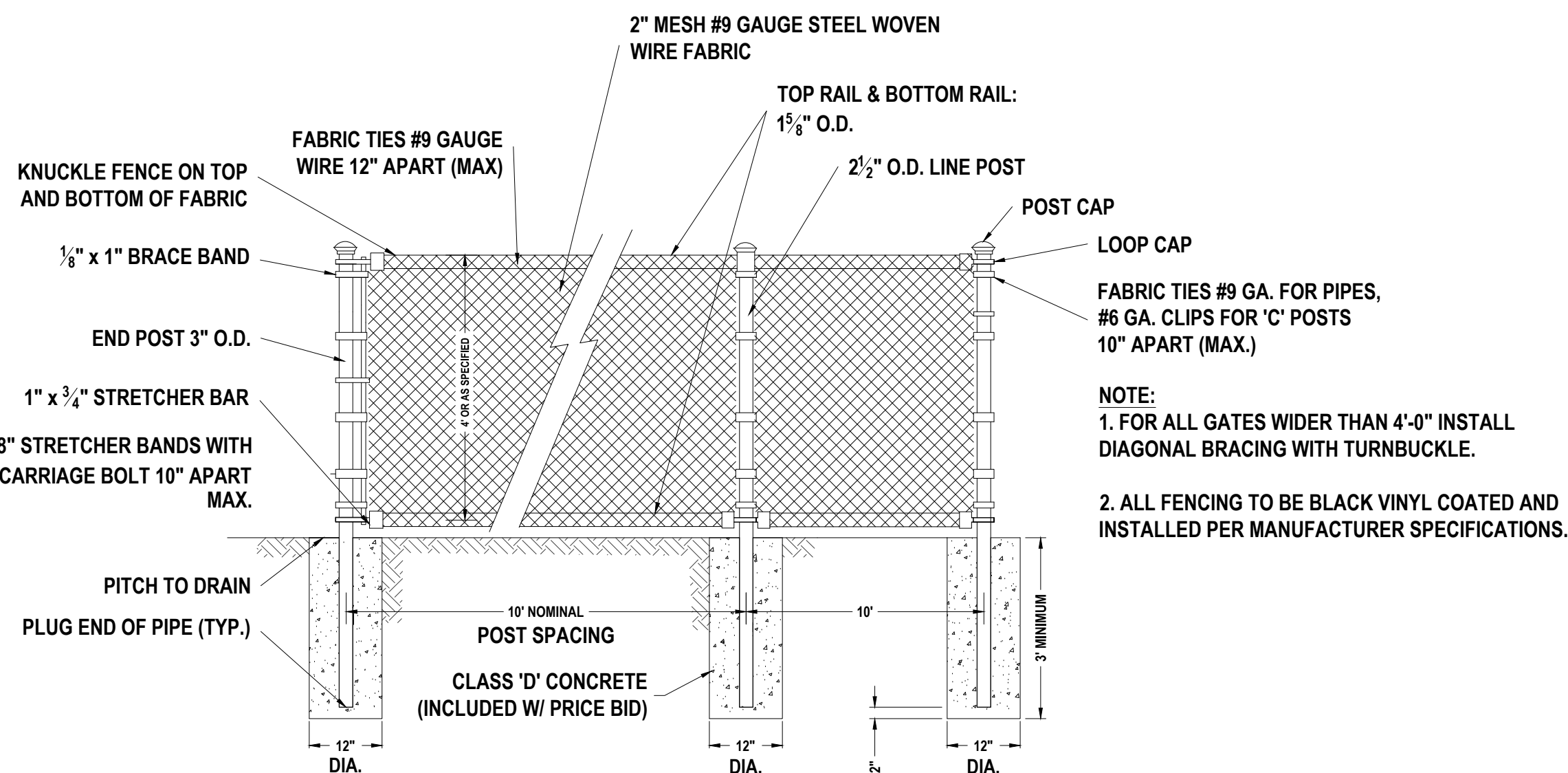
DRAWN BY: A.K. CHECKED BY: T.S. PROJECT NO: UNIOCTY11.013 SHEET NO: 5.03
DESIGNED BY: A.K. SCALE: N.T.S. FIELD BOOK NO: DATE: DECEMBER 14, 2011



NOTE:
 1. FOR ALL GATES WIDER THAN 4'-0" INSTALL DIAGONAL BRACING WITH TURNBUCKLE.
 2. ALL FENCING TO BE BLACK VINYL COATED AND INSTALLED PER MANUFACTURER SPECIFICATIONS.

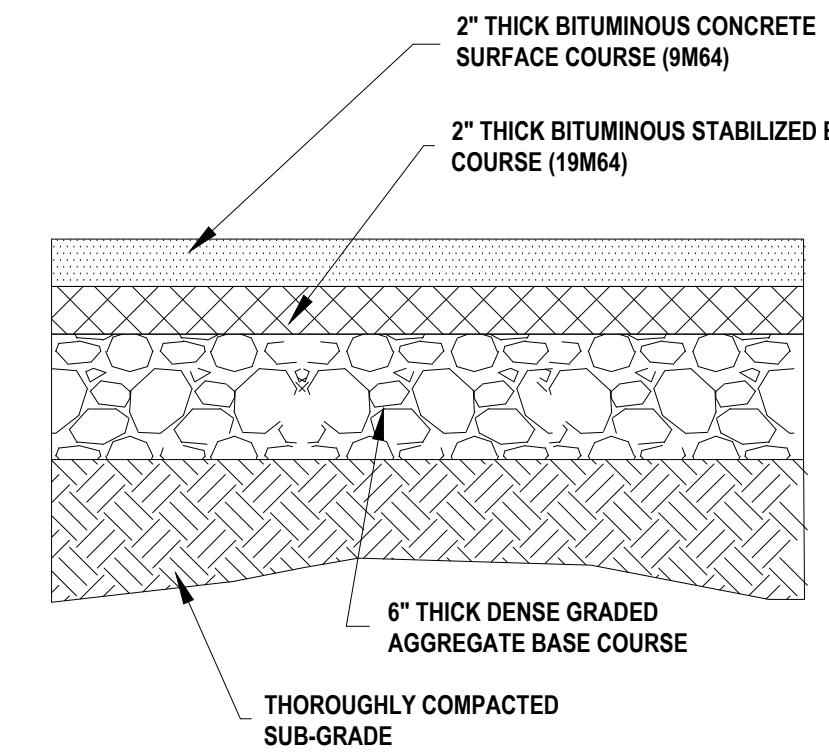
SINGLE LEAF SWING GATE DETAIL

NOT TO SCALE



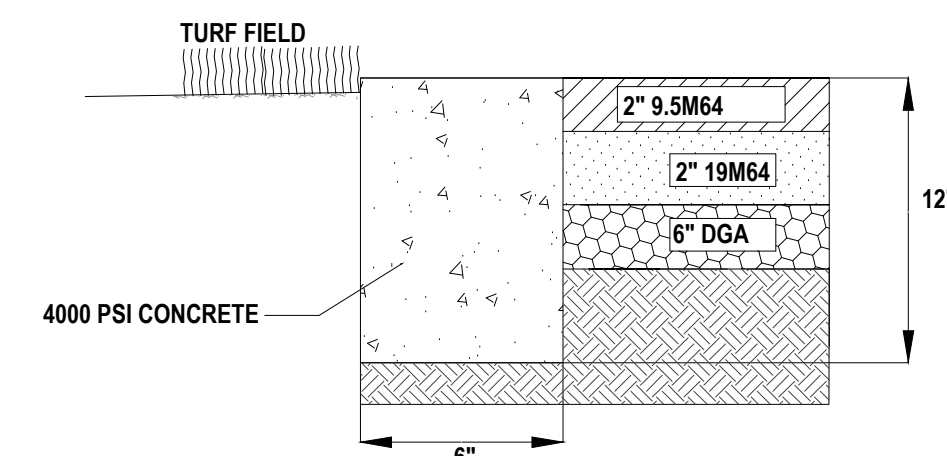
BLACK VINYL COATED CHAIN LINK FENCE DETAIL

NOT TO SCALE



PARK PATH PAVEMENT SECTION DETAIL

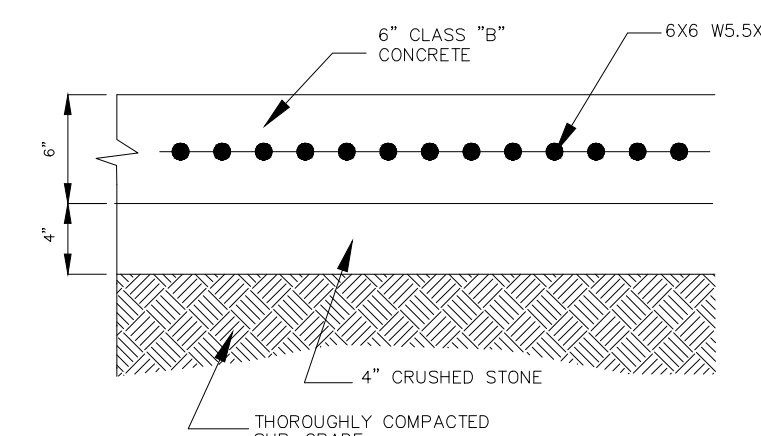
NOT TO SCALE



NOTES:
 1. FLUSH CURB EDGING SHALL BE INSTALLED AROUND THE PROPOSED TURF LIMITS PERIMETER PER SITE PLAN.

6\"/>

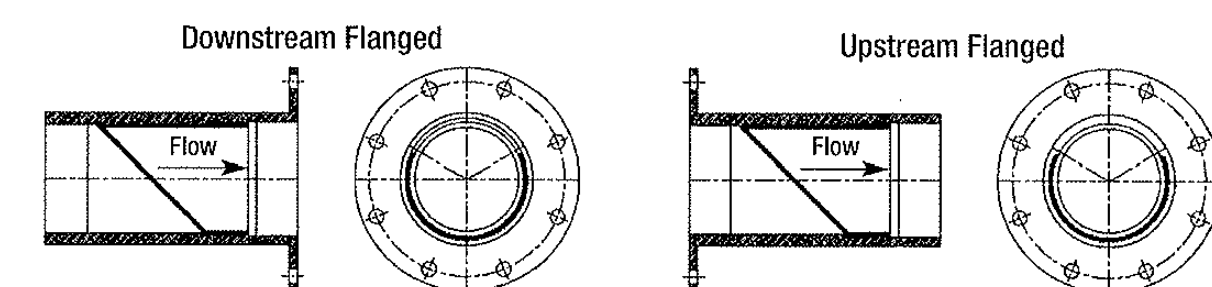
NOT TO SCALE



CONCRETE PAD

NOT TO SCALE

Mounting Styles and Configurations

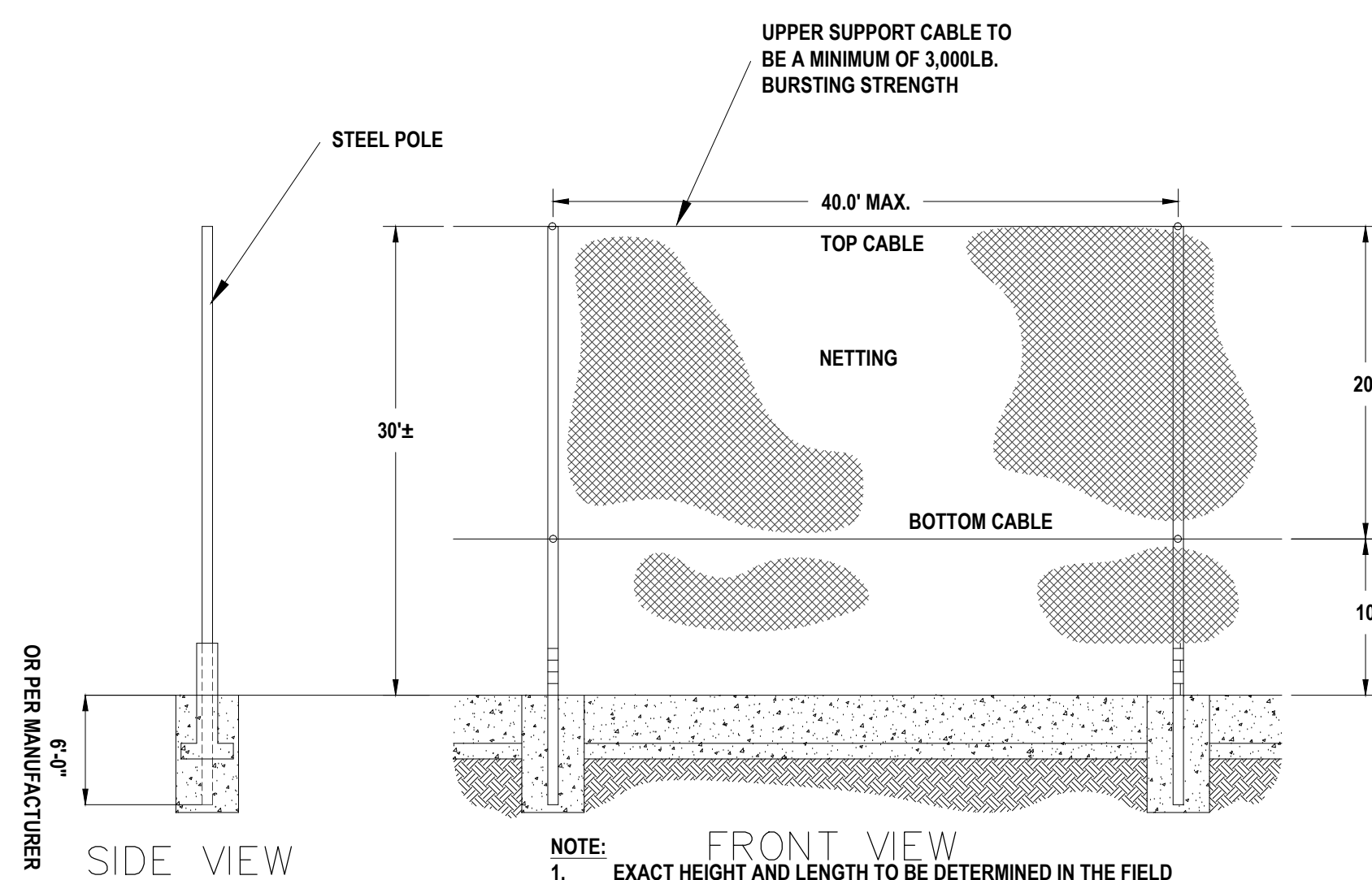


NOMINAL PIPE SIZE I.D. ^a	OVERALL LENGTH ^{bb}		NUMBER OF CLAMPS	CUFF DEPTH		BACK PRESSURE RATING		
	Inches	Millimeters		Inches	Millimeters	Feet	Meters	
18	450	31	787	1	4	102	20	6
20	500	42.14	1070	2	8	203	20	6
24	600	47.5	1207	2	8	203	20	6
30	750	54.87	1394	2	8	203	20	6
36	900	62.25	1581	2	8	203	20	6

IN-LINE BACKFLOW PREVENTER VALVE

NOT TO SCALE

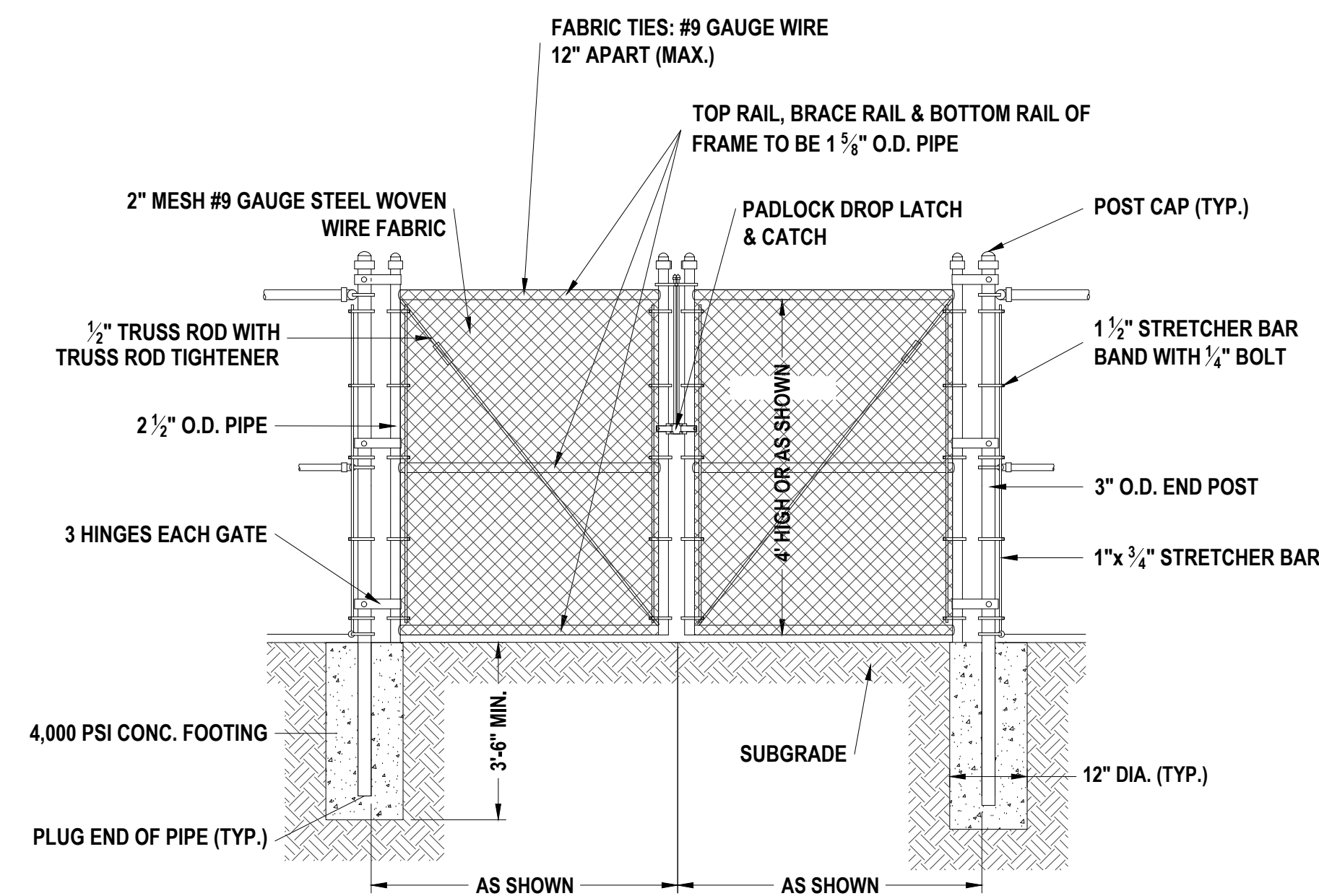
NOTE:
 1. BACKFLOW PREVENTER VALVE SHALL BE TIDEFLEX CHECKMATE INLINE CHECK VALVE AS SHOWN OR APPROVED EQUAL.
 2. SHOP DRAWINGS SHALL BE PROVIDED AND MANUFACTURER'S CERTIFICATION TO MINIMUM HEAD PRESSURE (EQUAL TO OPEN VALVE) SHALL BE PROVIDED.



NOTE:
 1. EXACT HEIGHT AND LENGTH TO BE DETERMINED IN THE FIELD BARRIER NETTING AS SHOWN OR EQUAL.
 2. BARRIER NETTING SHALL BE AS SHOWN OR APPROVED EQUAL ENGINEERED SHOP DRAWINGS, SIGNED AND SEALED BY NJ P.E. FOR COMPLETE NETTING, POLES, FOOTINGS, FOUNDATIONS, CERTIFIED BY LICENSED STRUCTURAL ENGINEER IN NJ SHALL BE OBTAINED BY CONTRACTOR AND PROVIDED PRIOR TO CONSTRUCTION AND THE COST SHALL BE INCLUDED IN THE PRICE BID.
 4. FOUNDATION REQUIREMENTS SHALL MEET ALL LOCAL CODE REQUIREMENTS AND SHALL BE BASED ON SOIL CONDITIONS FOUND IN THE SPECIFICATIONS. FOUNDATION DESIGN, CERTIFIED BY LICENSED STRUCTURAL ENGINEER IN THE STATE OF NJ SHALL BE PROVIDED PRIOR TO CONSTRUCTION AND THE COST THEREOF SHALL BE INCLUDED IN THE CONTRACTORS BID FOR THE BARRIER NETTING.

BARRIER NETTING DETAIL

NOT TO SCALE



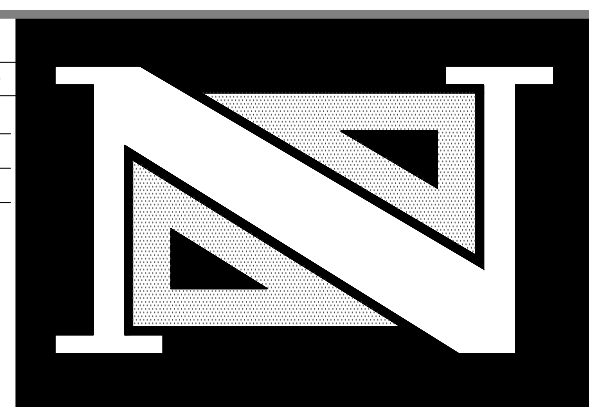
DOUBLE LEAF SWING GATE DETAIL

NOT TO SCALE

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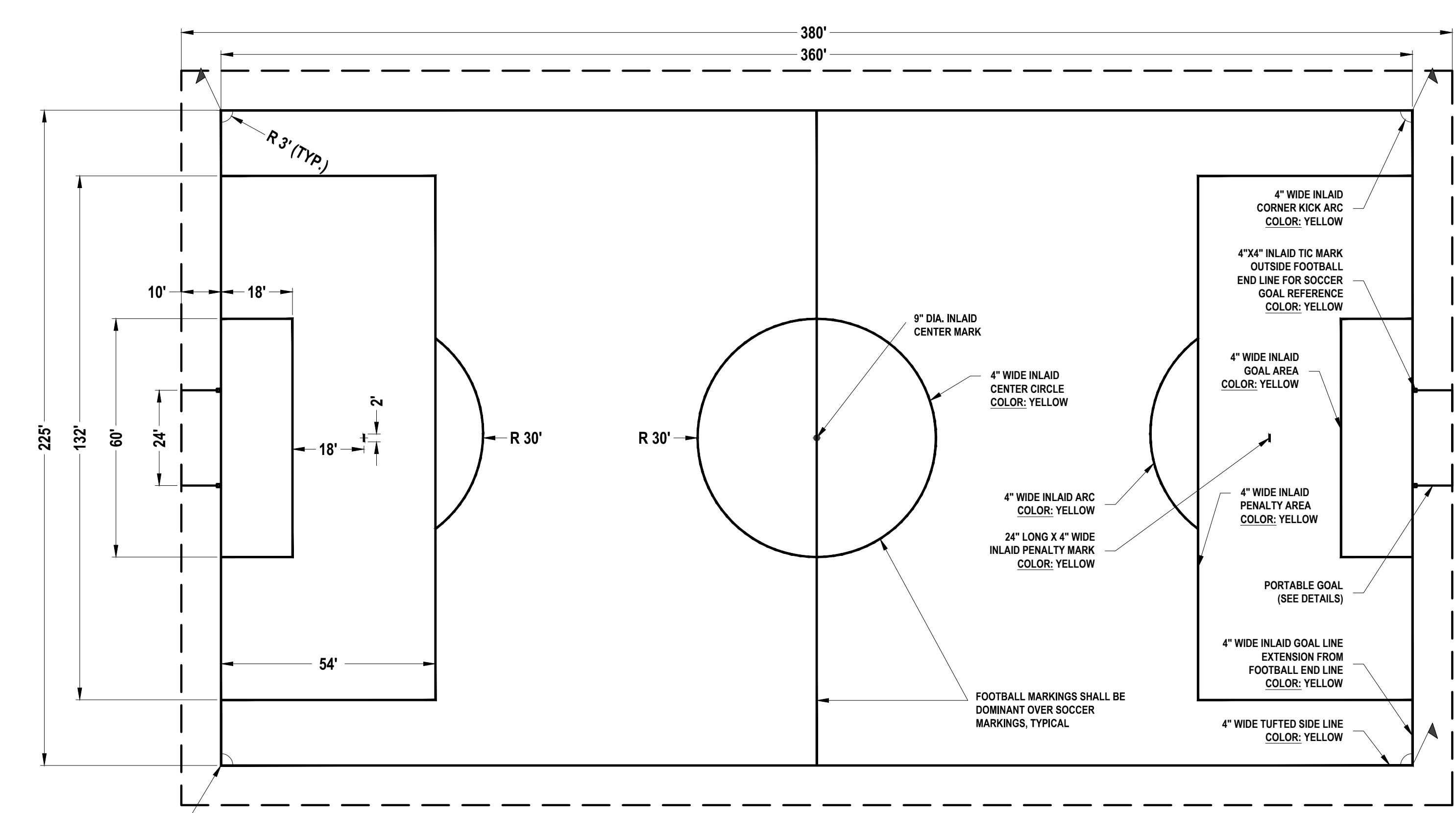


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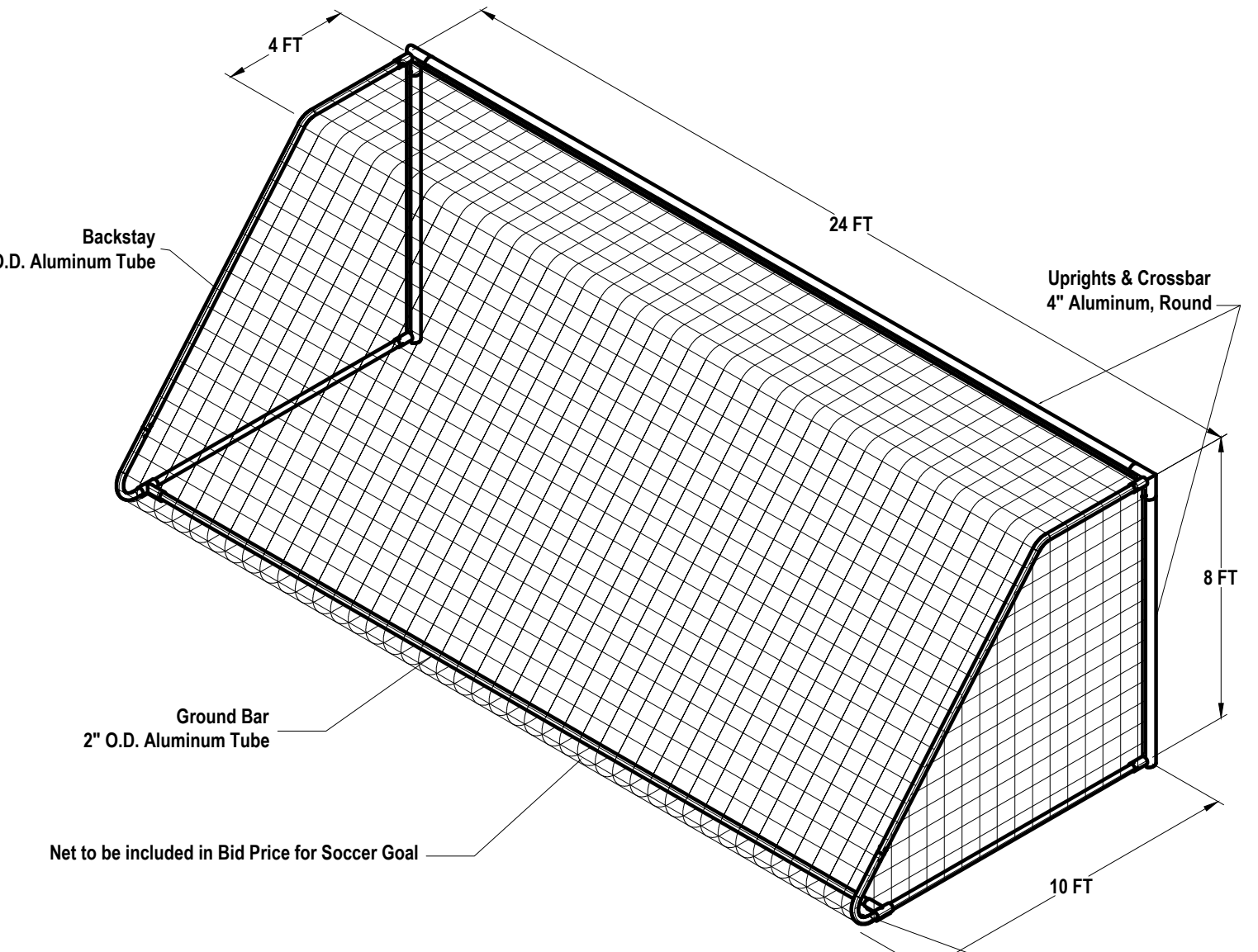
CONSTRUCTION DETAILS
ARTIFICIAL TURF FIELD AT MATTANO PARK
 CITY OF ELIZABETH ~ BLOCK 5 ~ LOT 453B
 COUNTY OF UNION ~ PROJECT # 2011-018
UNIION COUNTY
 NEW JERSEY
 DRAWN BY: A.K. CHECKED BY: T.S. PROJECT NO.: UNIOCTY11.013 SHEET NO.: 5.04
 DESIGNED BY: A.K. SCALE: N.T.S. FIELD BOOK NO.: DATE: DECEMBER 14, 2011



Removable Corner Flag
(typical for 4 - see detail)

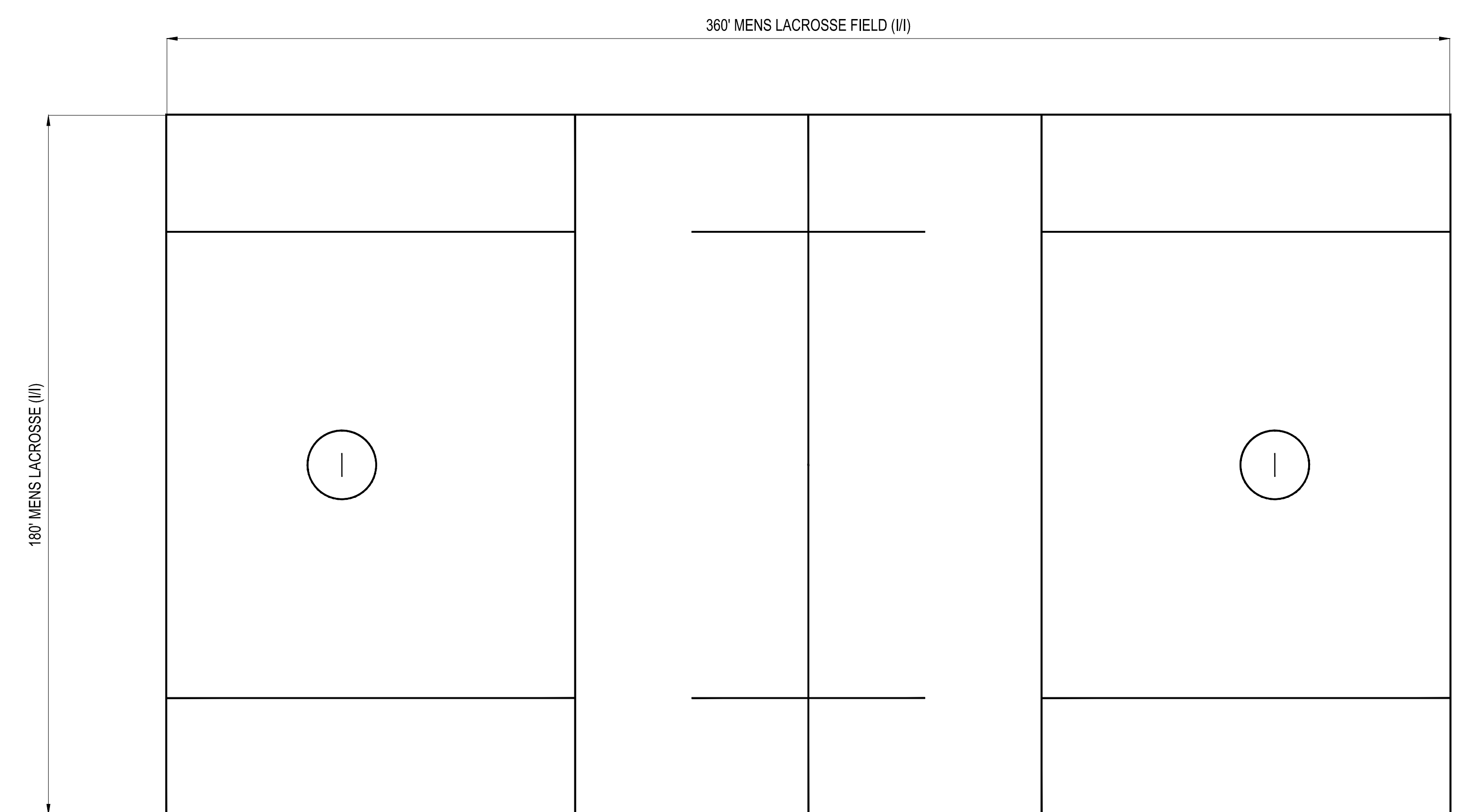
SOCCER FIELD NOTES:
 1. SOCCER FIELD MARKINGS ARE 4" YELLOW AND SHALL CONFORM TO NFHS STANDARDS.
 2. CONTRACTOR TO VERIFY ALL DIMENSIONS AND MARKINGS ARE IN FULL COMPLIANCE/CONFORMANCE NFHS STANDARDS.

SOCCER FIELD STRIPING/LAYOUT DETAIL
NOT TO SCALE



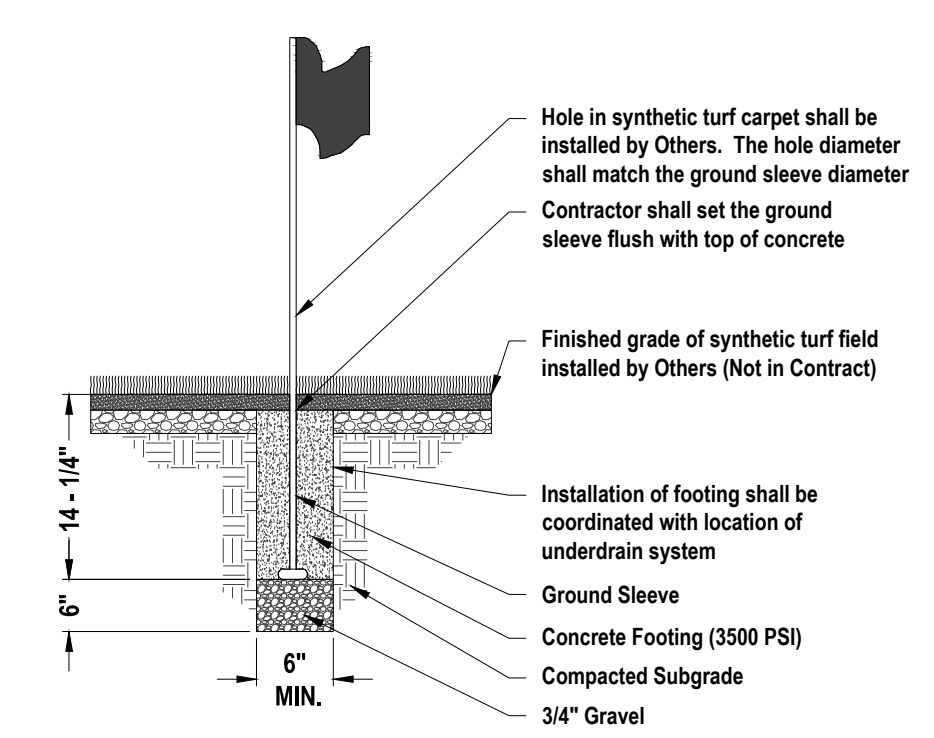
NOTES:
 1. SOCCER GOAL SHALL BE MODEL NO. "SET700R, SOCCER GOAL" AS MANUFACTURED BY SPORTSEGE, PROVINCETOWN, MA, OR APPROVED EQUAL.
 2. SOCCER GOAL SHALL BE EQUIPPED WITH MOBILITY WHEEL KIT, AS MANUFACTURED BY SPORTSEGE, PROVINCETOWN, MA, OR APPROVED EQUAL.
 3. SOCCER GOAL SHALL BE ASSEMBLED & INSTALLED AS PER MANUFACTURERS INSTRUCTIONS.

SOCCER GOAL DETAIL
NOT TO SCALE



LACROSSE FIELD STRIPING/LAYOUT DETAIL
NOT TO SCALE

NOTES:
 1. LACROSSE MARKINGS ARE 4" RED AND SHALL CONFORM TO ALL NFHS STANDARDS.
 2. CONTRACTOR TO VERIFY ALL DIMENSIONS AND MARKINGS ARE IN FULL COMPLIANCE/CONFORMANCE WITH ALL NCAA STANDARDS.



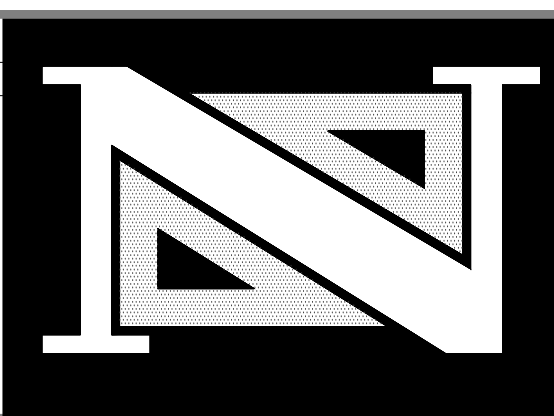
NOTES:
 1. CORNER FLAGS SHALL BE INSTALLED AT SOCCER FIELD CORNERS, TOTAL 4, AS DENOTED ON PROPOSED SOCCER FIELD LAYOUT DETAIL.
 2. CORNER FLAG SHALL BE MODEL NO. 60754 "INTERNATIONAL CORNER FLAG" AS MANUFACTURED BY KWIK GOAL, (215) 538-2200, OR APPROVED EQUAL.
 3. PROVIDE PLUG INSERT FOR SLEEVE FLUSH WITH FINISHED GRADE OF SYNTHETIC TURF FIELD MATERIAL WHEN FLAGS ARE NOT IN USE.

REMOVEABLE SOCCER FIELD CORNER FLAG
NOT TO SCALE

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3.	05/20/2015	REVISED FOR BIDDING	AK	AK



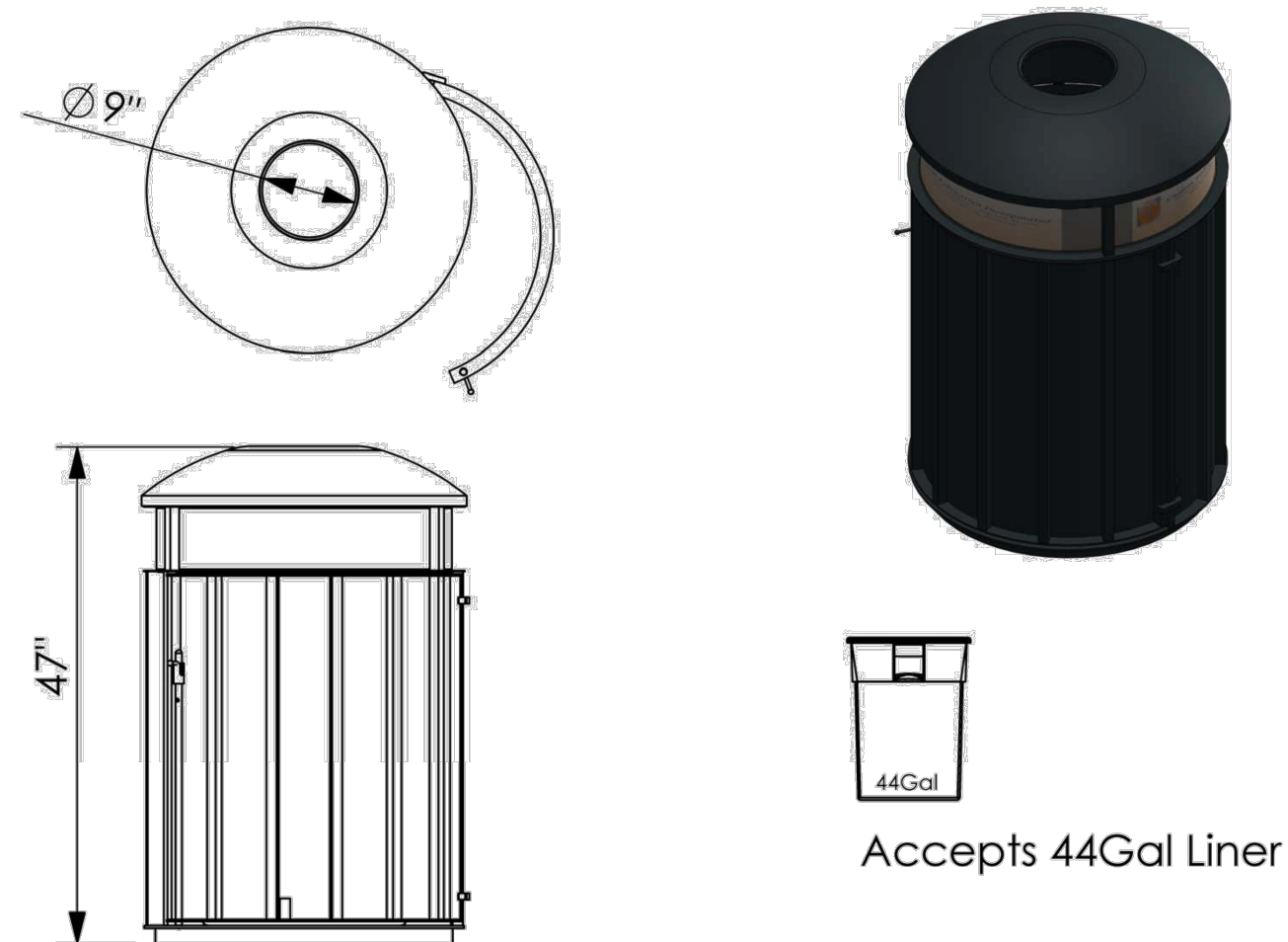
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CONSTRUCTION DETAILS
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 CITY OF ELIZABETH ~ BLOCK 5 ~ LOT 453B
 COUNTY OF UNION ~ PROJECT # 2011-018
UNIION COUNTY
 NEW JERSEY
 DRAWN BY: A.K. CHECKED BY: T.S. PROJECT NO: UNIOCTY11.013 SHEET NO: 5.05
 DESIGNED BY: A.K. SCALE: N.T.S. FIELD BOOK NO: DATE: DECEMBER 14, 2011

CUSTOM FABRICATION INCORPORATED
CFTR-011-02 TRASH RECEPTACLE
STREETSCAPE RECEPTACLE

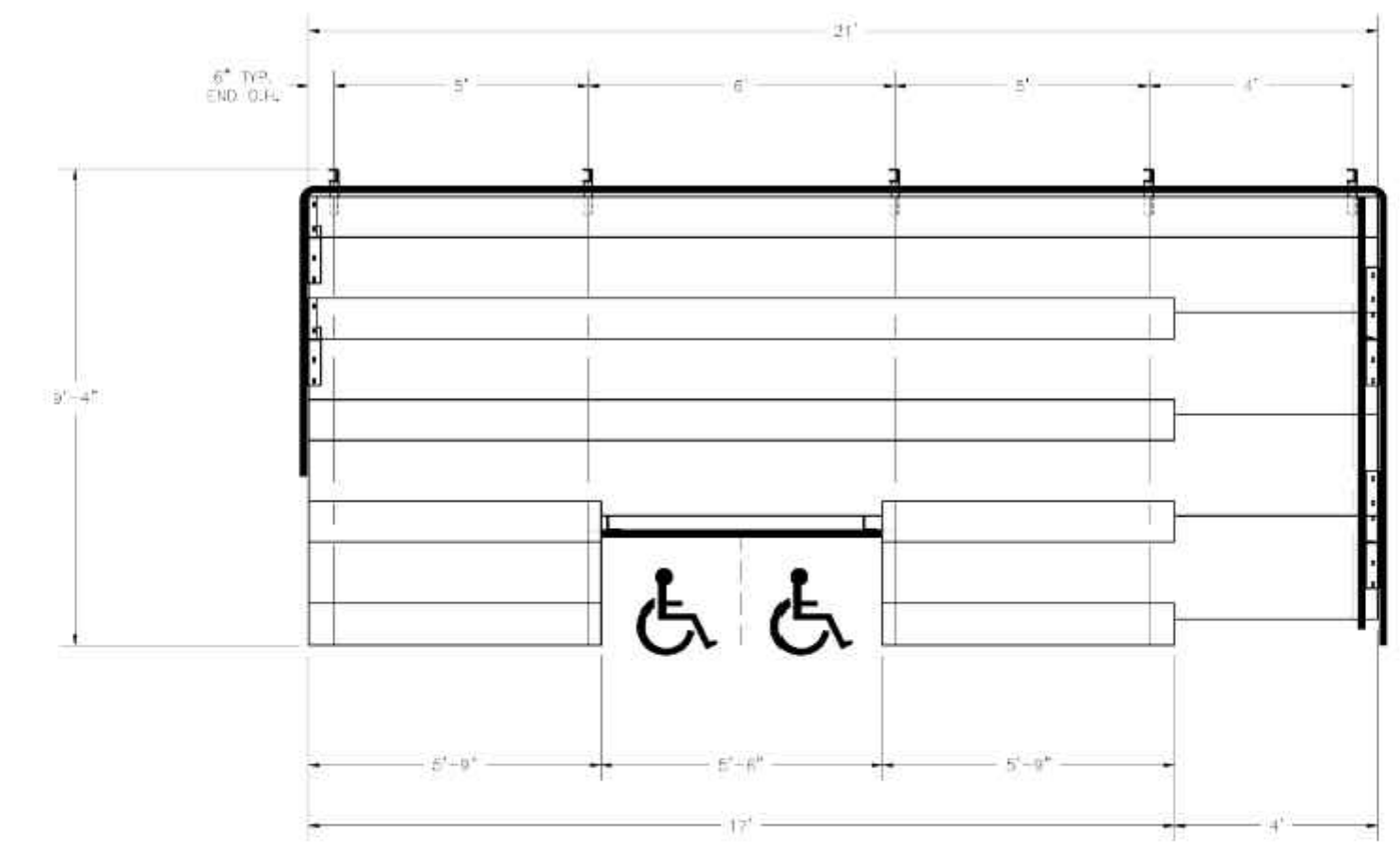


Accepts 44Gal Liner

TRASH RECEPTACLE DETAIL
NOT TO SCALE

- NOTES:
1. TRASH RECEPTACLES SHALL BE AS SHOWN OR APPROVED EQUAL.
 2. OWNER/ARCHITECT TO APPROVE TRASH RECEPTACLE PRIOR TO ORDERING.
 3. OWNER/ARCHITECT TO SELECT COLOR FROM STANDARD COLORS.
 4. PERMANENT CONNECTIONS TO CONCRETE SIDEWALK SHALL BE TAMPER RESISTANT.
 5. SHOP DRAWINGS SHALL BE PROVIDED FOR REVIEW AND APPROVAL PRIOR TO ORDERING.

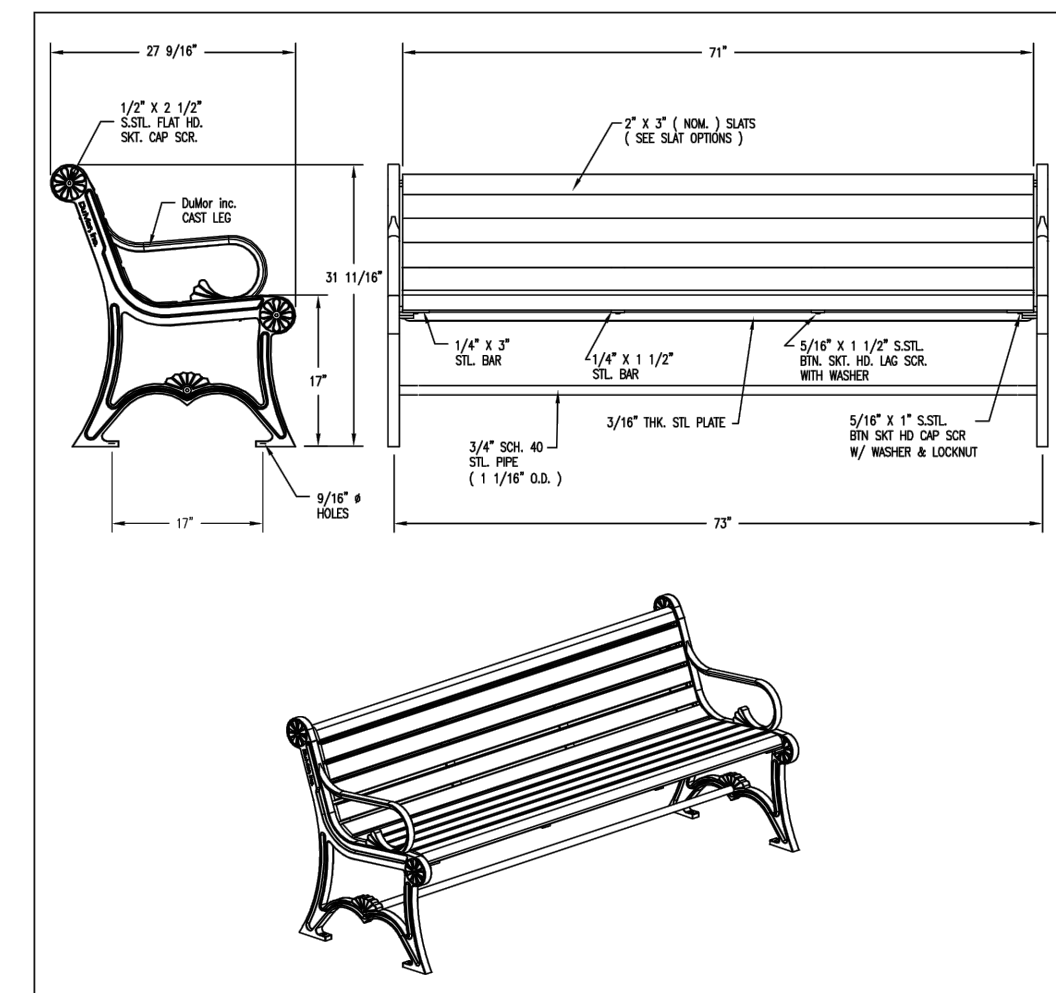
SECTION LENGTH	GROSS SEATS	ACTUAL SEATS	NO. OF SEATS	OF ROWS	NET SEATS
21	14.00	14.00	1	14	
17	11.33	11.00	2	22	
5.75	3.83	3.00	2	6	
5.75	3.83	3.00	2	6	
					NET SEATS 48
					WHEELCHAIR SPACES 2
					TOTAL NET SEATING CAPACITY 50
<i>(BASED ON 18" PER SEAT)</i>					



National Recreation Systems, Inc.
P.O. BOX 11487 FORT WAYNE, IN 46858-1487
SCALE: N.T.S. APPROVED BY: CK/JMH 1/12/10 DRAWN BY: IMP
DATE: 1/11/10
TITLE: NON-ELEV. 5 ROW x 21'-0" BLEACHER SEATING PLAN
CUSTOMER: DRAWING NUMBER: NE050210002B0

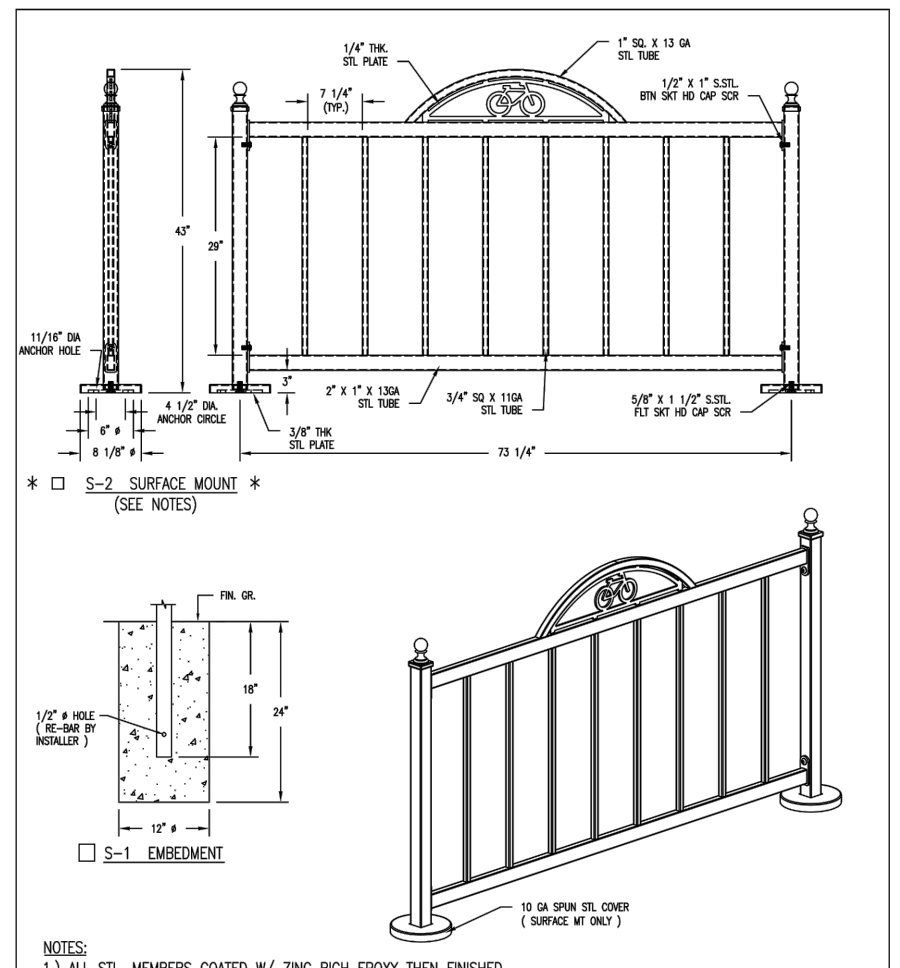
- NOTES:
1. ADA BLEACHERS SHALL BE AS SHOWN, OR APPROVED EQUAL AND SHALL MEET ALL ADA/BARRIER FREE REQUIREMENTS FOR BLEACHERS.
 2. BLEACHERS SHALL BE INSTALLED ON LEVEL CONCRETE SLAB, AND THE PRICE OF THE CONCRETE SLAB SHALL BE INCLUDED IN THE PRICE BID FOR THE BLEACHERS. SEE CONCRETE PAD DETAIL.

ADA COMPLIANT BLEACHER DETAIL
NOT TO SCALE



- NOTES:
- 1.) ALL STL. MEMBERS COATED W/ ZINC RICH EPOXY THEN FINISHED W/ POLYESTER POWDER COATING.
 - 2.) 1/2" X 3/4" EXPANSION ANCHOR BOLTS PROVIDED.
 - 3.) CUSTOM LETTERING AVAILABLE FOR RECESSED SIDE PANELS (TOTAL OF 37 SPACES).

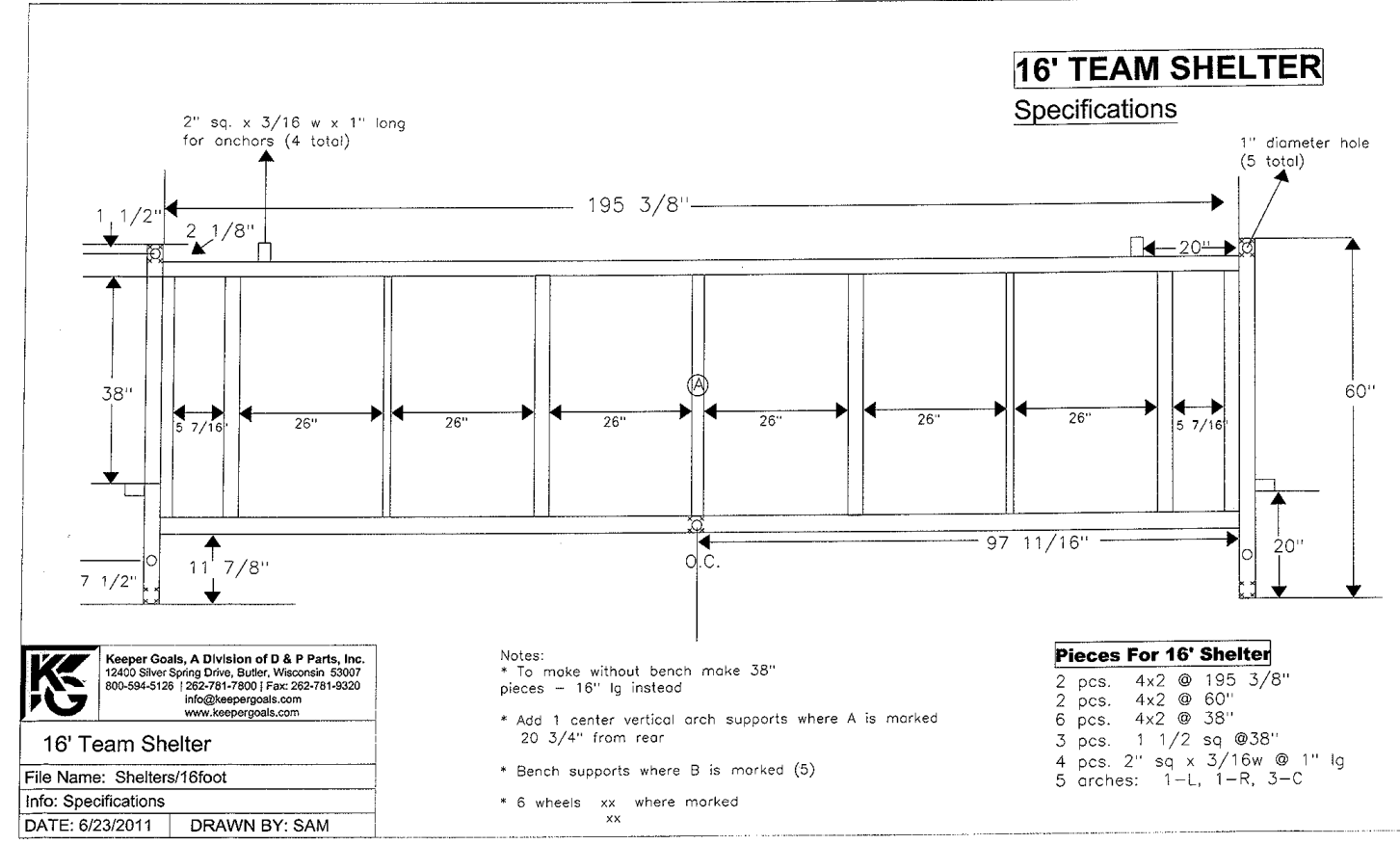
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DATE DRAWN: 12/17/10	REV. DRAWING NUMBER: 57-60PL
DRAWN BY: JAK	REV. BY: SDH
DATE REV: 10/26/11	E
P.O. Box 142 Millintown, PA 17059-0142	SHEET 1 OF 2



SCALE: NONE	TITLE: BIKE RACK
DATE DRAWN: 12/17/10	REV. DRAWING NUMBER: 188-09
DRAWN BY: JAK	REV. BY: A
DATE REV: 10/26/11	E
P.O. Box 142 Millintown, PA 17059-0142	SHEET 1 OF 2

EMBEDDED BICYCLE RACK DETAIL
NOT TO SCALE

- NOTES:
1. BICYCLE RACK SHALL BE AS SHOWN OR APPROVED EQUAL.
 2. OWNER/ENGINEER TO APPROVE BICYCLE RACK PRIOR TO ORDERING.
 3. OWNER/ARCHITECT TO SELECT BENCH COLOR FROM STANDARD COLORS.
 4. PERMANENT CONNECTIONS TO CONCRETE SIDEWALK SHALL BE TAMPER RESISTANT.
 5. SHOP DRAWINGS SHALL BE PROVIDED FOR REVIEW AND APPROVAL PRIOR TO ORDERING.



SCALE: NONE	TITLE: 16' TEAM SHELTER
DATE DRAWN: 12/17/10	REV. DRAWING NUMBER: 188-09
DRAWN BY: JAK	REV. BY: A
DATE REV: 10/26/11	E
P.O. Box 142 Millintown, PA 17059-0142	SHEET 1 OF 2

16' PORTABLE PLAYER SHELTER & BENCH DETAIL
NOT TO SCALE



- NOTES:
1. CONTRACTOR TO PROVIDE A HEAVY DUTY, STANDARD 16' PORTABLE PLAYER SHELTER W/ ATTACHED BENCH, SHADED LEXAN AND BLACK POWDER COATED AS MANUFACTURED BY KEEPER GOALS, 1260 SILVER SPRING DRIVE, BUTLER, WISCONSIN 53004-9412 OR APPROVED EQUAL, TO BE APPROVED BY UNION COUNTY PRIOR TO ORDERING.
 2. BENCHES SHALL BE ALUMINUM.
 3. SHELTER TO INCLUDE ALL REQUIRED ANCHORING.

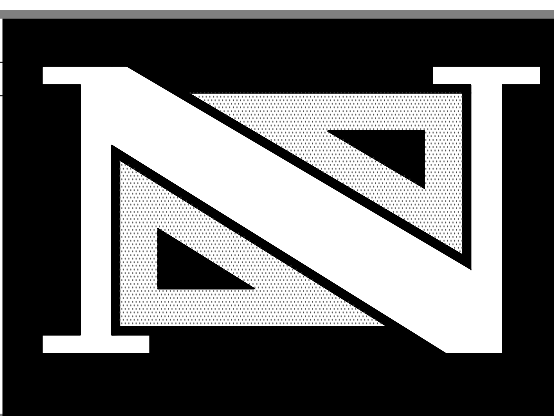
DECORATIVE BENCH DETAIL
NOT TO SCALE

- NOTES:
1. DECORATIVE BENCHES SHALL BE AS SHOWN OR APPROVED EQUAL.
 2. OWNER/ARCHITECT TO APPROVE BENCH STYLE PRIOR TO ORDERING.
 3. OWNER/ARCHITECT TO SELECT BENCH COLOR FROM STANDARD COLORS.
 4. PERMANENT CONNECTIONS TO CONCRETE SIDEWALK SHALL BE TAMPER RESISTANT.
 5. SHOP DRAWINGS SHALL BE PROVIDED FOR REVIEW AND APPROVAL PRIOR TO ORDERING.

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CERTIFICATE OF AUTHORIZATION (N.J.S.A. 45:8-56) GA 276890

REVISIONS				
NO.	DATE	DESCRIPTION	DRAWN	CHECKED
1.	09/14/2014	REVISED FOR NDEP INFO PERMIT	AK	AK AKTRS
2.	06/09/2014	REVISED FOR BIDDING	AK	AK AKTRS
3.	05/02/2015	REVISED FOR BIDDING	AK	AK AKTRS



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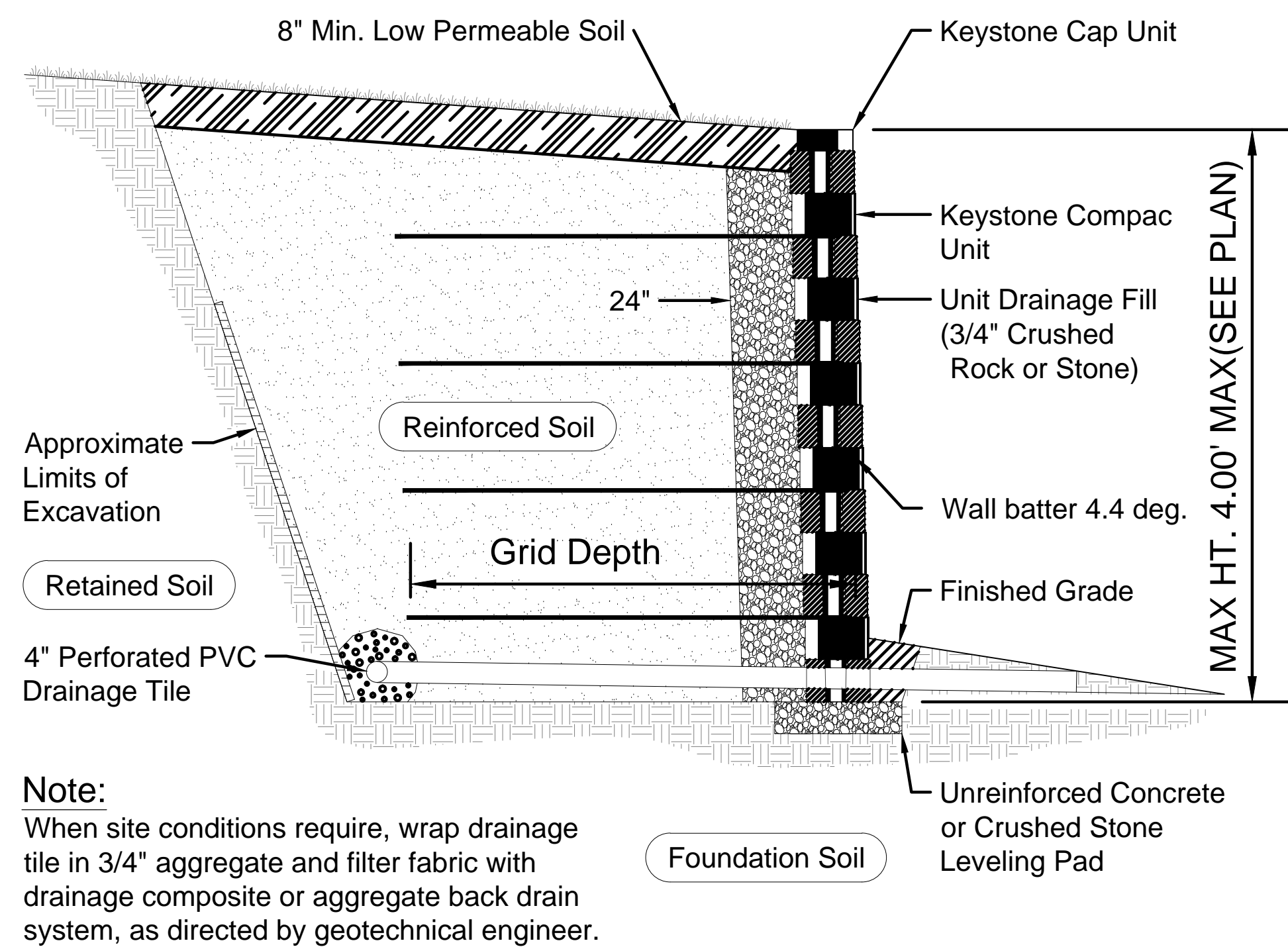
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PROFESSIONAL LAND SURVEYOR
N.J. LICENSE NO. 38054

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CONSTRUCTION DETAILS
ARTIFICIAL TURF FIELD AT MATTANO PARK
CITY OF ELIZABETH ~ BLOCK 5 ~ LOT 453B
COUNTY OF UNION ~ PROJECT # 2011-018
UNIION COUNTY **NEW JERSEY**

DRAWN BY: A.K. CHECKED BY: T.S. PROJECT NO: UNIOCTY11.013 SHEET NO: 5.06
DESIGNED BY: A.K. SCALE: N.T.S. FIELD BOOK NO: DATE: DECEMBER 14, 2011



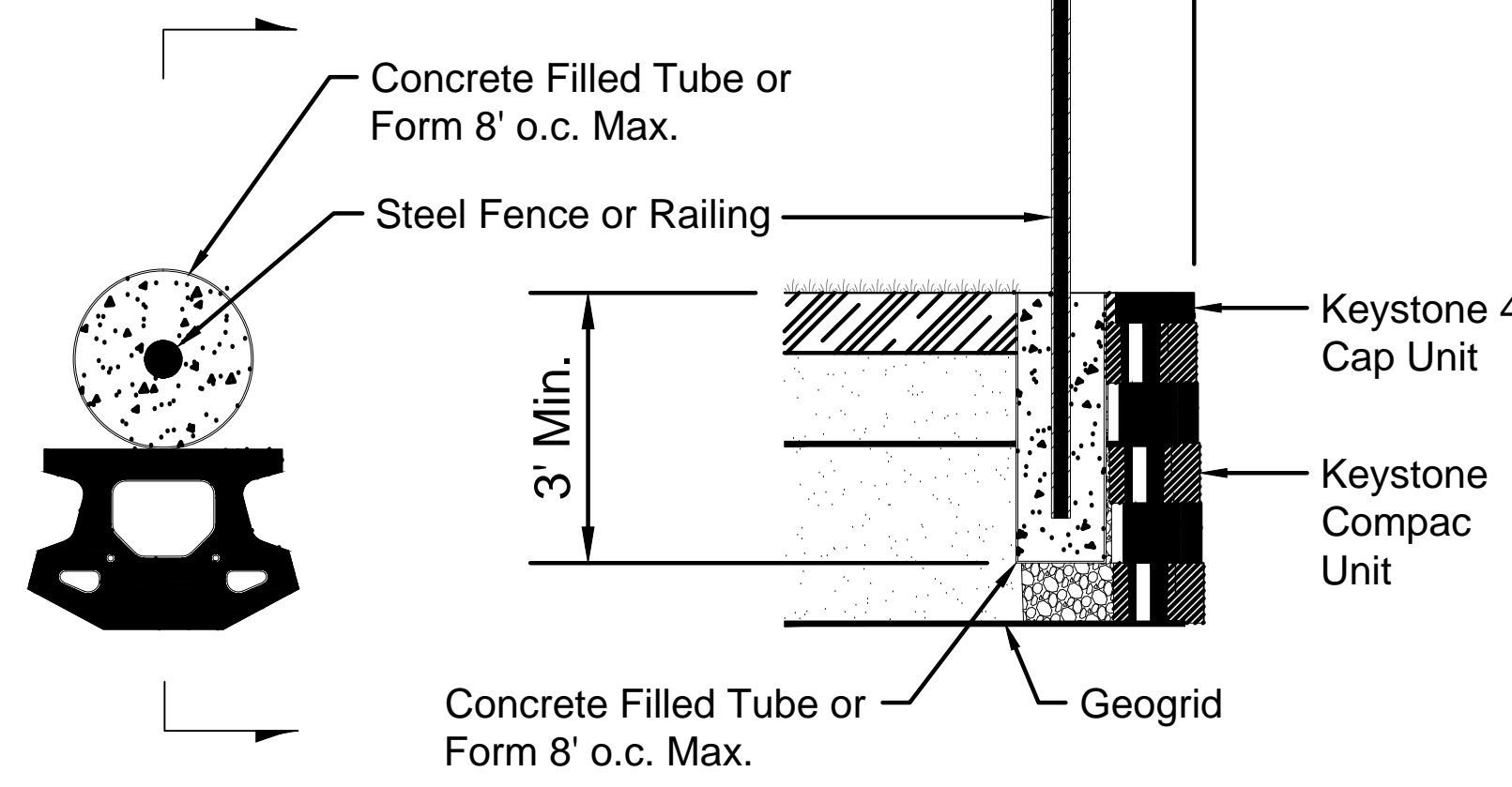
Note:
When site conditions require, wrap drainage tile in 3/4" aggregate and filter fabric with drainage composite or aggregate back drain system, as directed by geotechnical engineer.

- NOTES:**
1. WORK SHALL ONLY BE PERFORMED BY A MANUFACTURER CERTIFIED CONTRACTOR WHO IS FAMILIAR WITH THE WALL SYSTEM TO BE USED.
 2. BACKFILL MATERIAL IN THE INFILL OR REINFORCED EARTH ZONE SHALL BE PLACED IN 8-INCH LIFTS AND COMPACTED TO 95% MAXIMUM PROCTOR DENSITY TO ACHIEVE AN INSTALLED UNIT SOIL WEIGHT OF 120 PCF AND AN ANGLE OF INTERNAL FRICTION OF 28°.
 3. GEOTEXTILE FABRIC SHALL BE EQUAL TO MIRAFI MIRAGRID 3 XT OR APPROVED EQUAL.
 4. ALL WALL DIMENSIONS AND MATERIALS SHALL CONFORM TO THE FOLLOWING CHART:

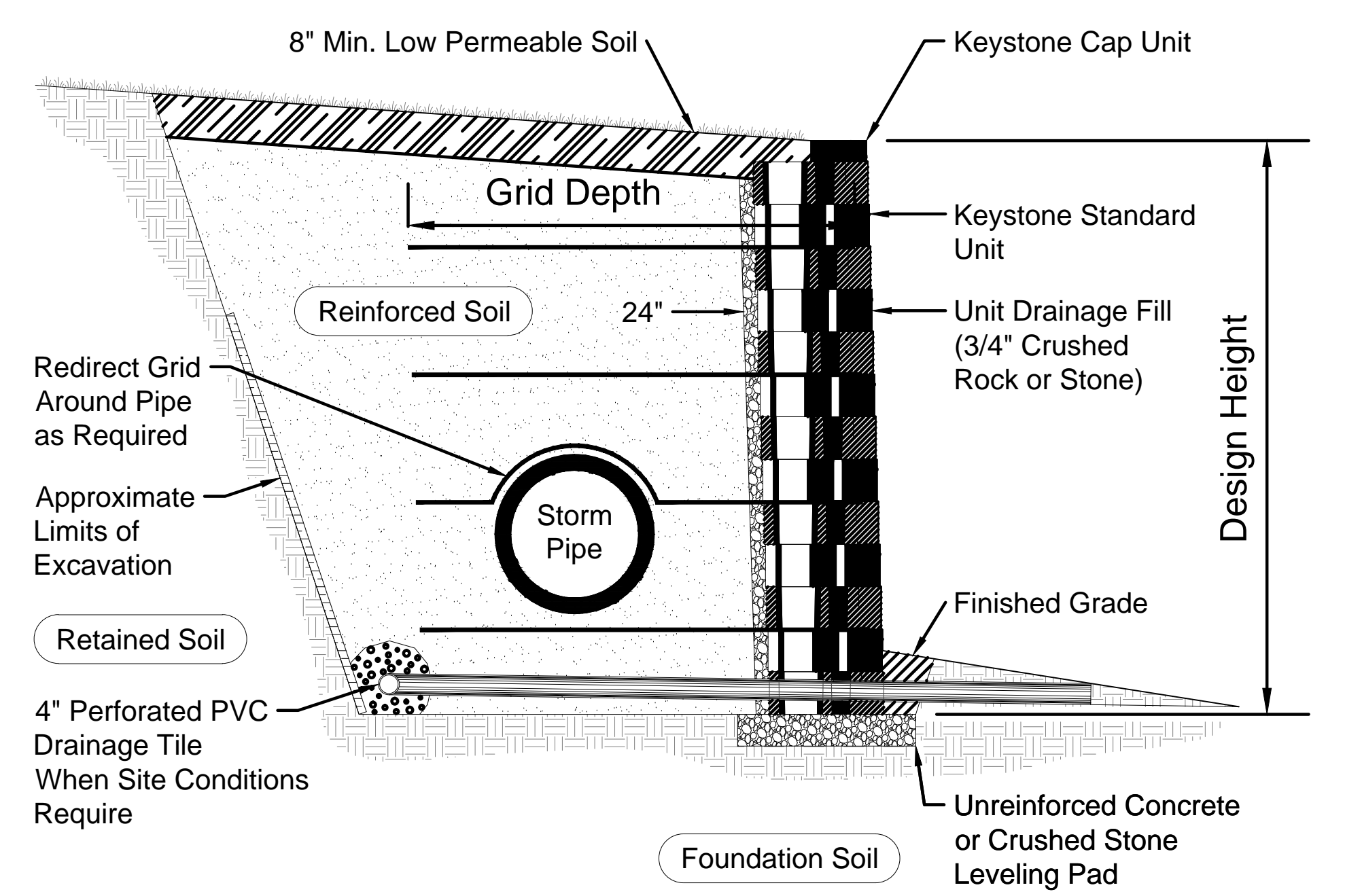
EXPOSED WALL HEIGHT	EMBED. DEPTH	REINFORCED EARTH ZONE WIDTH	GEOGRID REINFORCEMENT	
			LAYERS	DEPTH BELOW UPPER SURFACE
3'-0"	1'-0"	3'-0"	1	2'-0"
1'-6"	0'-8"	3'-0"	1	1'-4"

Typical Reinforced Wall Section

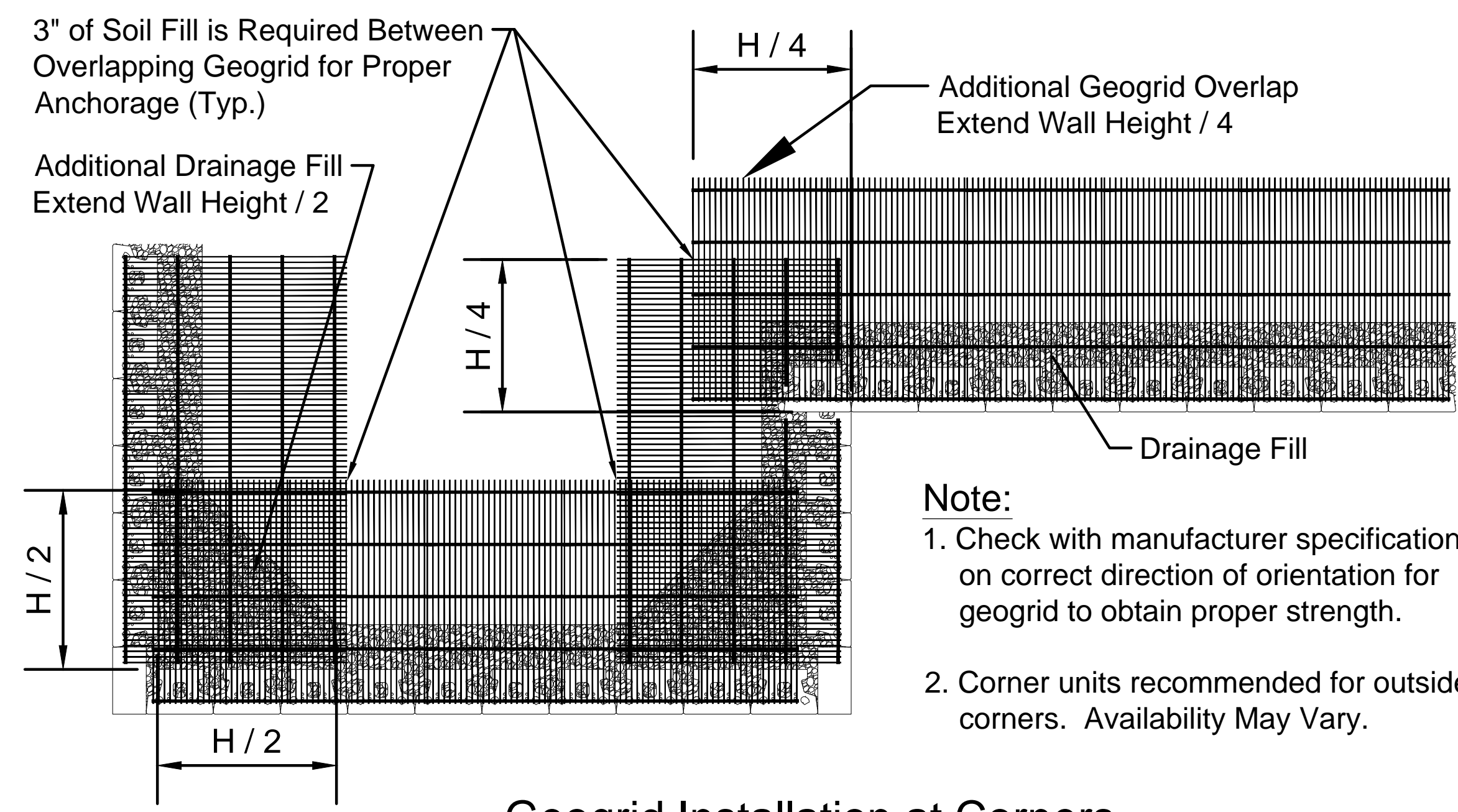
Note:
Concrete filled tube or form to be set during the wall construction, not drilled through geogrid afterwards, when directly behind units.



Fence Plan Detail
Fence Section & Plan Detail
CompacII Unit - Near Vertical Setback



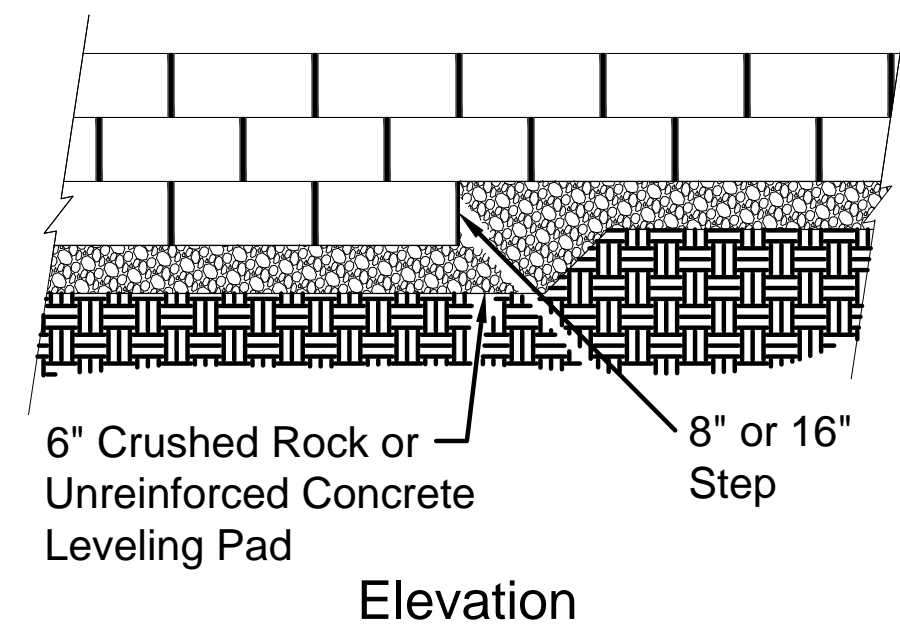
Wall Section with Pipe in Reinforced Zone



Note:

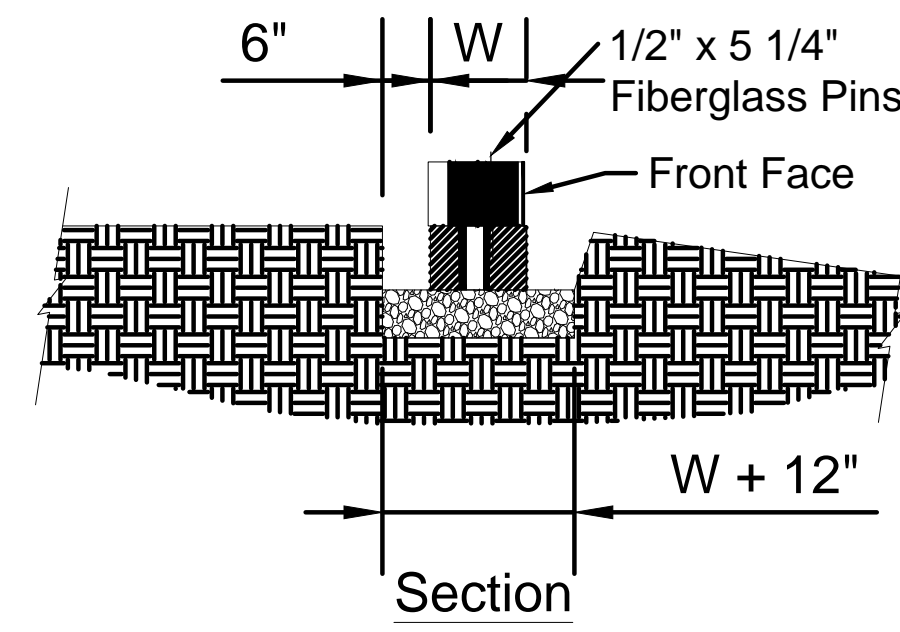
1. Check with manufacturer specifications on correct direction of orientation for geogrid to obtain proper strength.
2. Corner units recommended for outside corners. Availability May Vary.

Geogrid Installation at Corners



Note:

1. The leveling pad is to be constructed of crushed stone or 2000 psi ± unreinforced concrete.

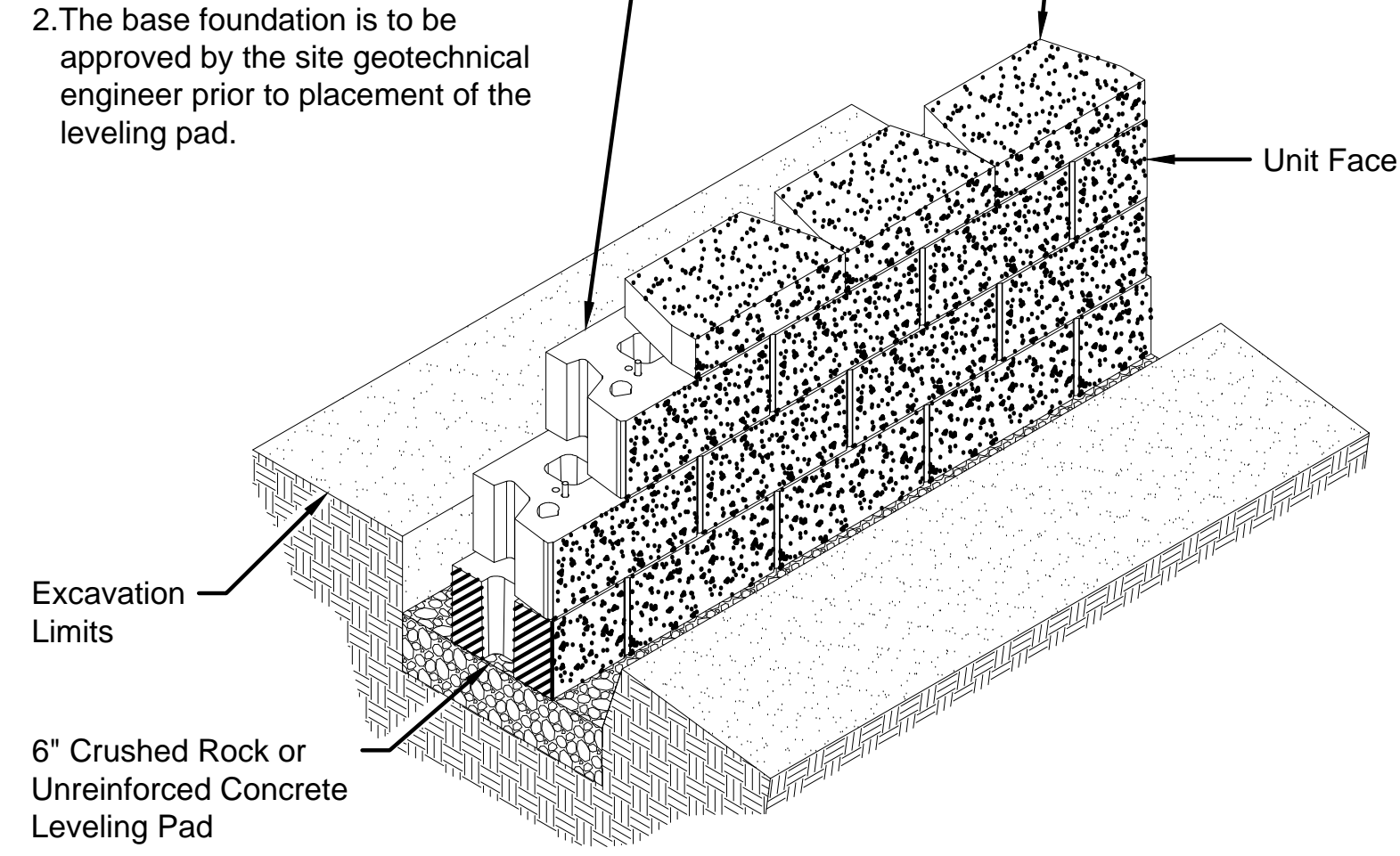


Leveling Pad Detail

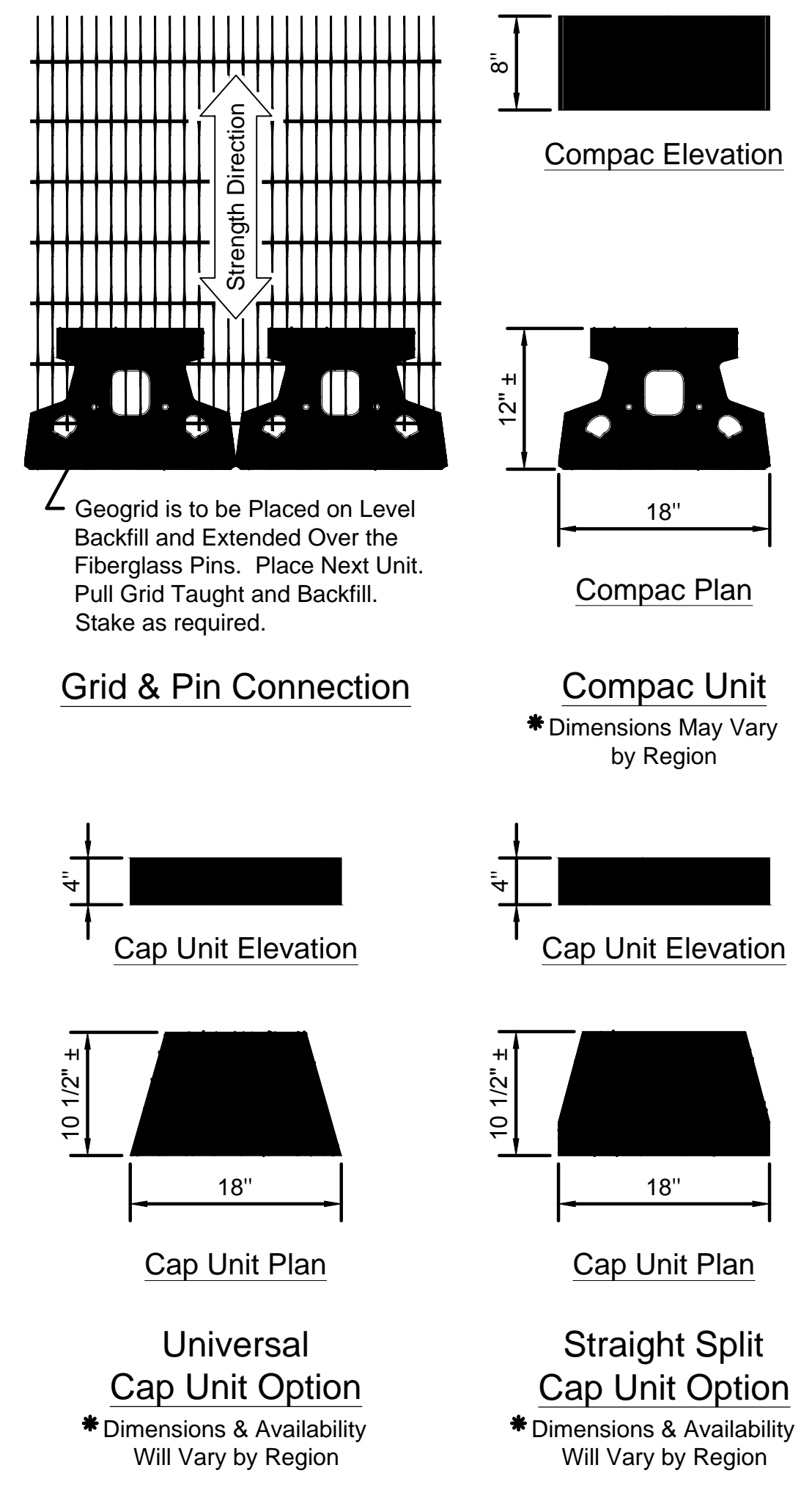
Base Leveling Pad Notes:

1. The leveling pad is to be constructed of crushed stone or 2,000 psi± unreinforced concrete
2. The base foundation is to be approved by the site geotechnical engineer prior to placement of the leveling pad.

Compac Unit		Cap Unit	
*Width:	18"	*Width:	18"
*Depth:	12"	*Depth:	10 1/2"
*Height:	8"	*Height:	4"
*Weight:	90 lbs	*Weight:	50 lbs

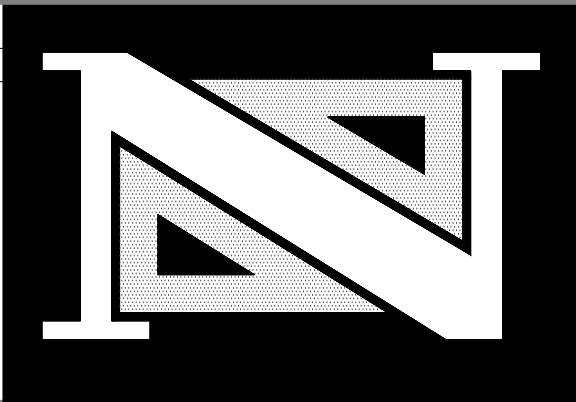


Compac Unit/Base Pad Isometric Section View
* Dimensions & Weight May Vary by Region



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REVISIONS				
NO.	DATE	DESCRIPTION	DRAWN	CHECKED
1.	03/14/2014	REVISED FOR N.J. DEP. PERMIT	AK	AK/TRS
2.	06/09/2014	REVISED FOR BIDDING	AK	AK/TRS
3.	06/20/2015	REVISED FOR BIDDING	AK	AK/TRS



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N.J. LICENSE NO. 38654

CONSTRUCTION DETAILS
ARTIFICIAL TURF FIELD AT MATTANO PARK
CITY OF ELIZABETH ~ BLOCK 5 ~ LOT 453B
COUNTY OF UNION ~ PROJECT # 2011-018
UNIION COUNTY
NEW JERSEY
DRAWN BY: A.K. CHECKED BY: T.S. PROJECT NO: UNIOCTY11.013 SHEET NO: 5.07
DESIGNED BY: A.K. SCALE: N.T.S. FIELD BOOK NO: DATE: DECEMBER 14, 2011

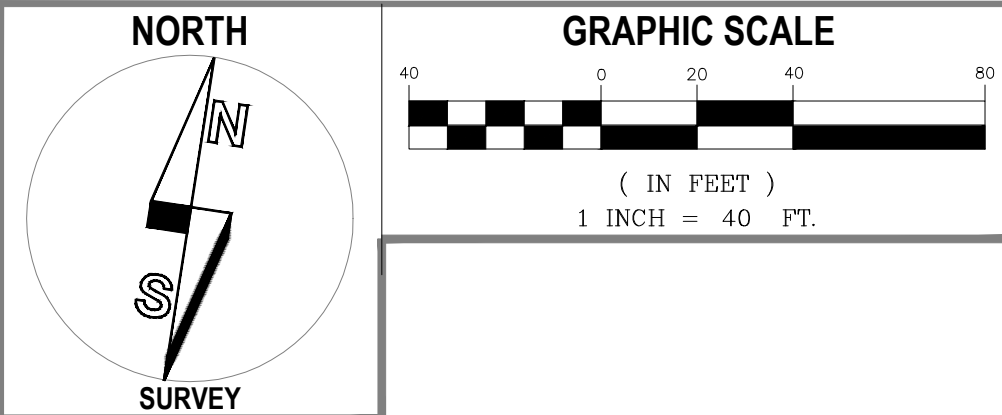
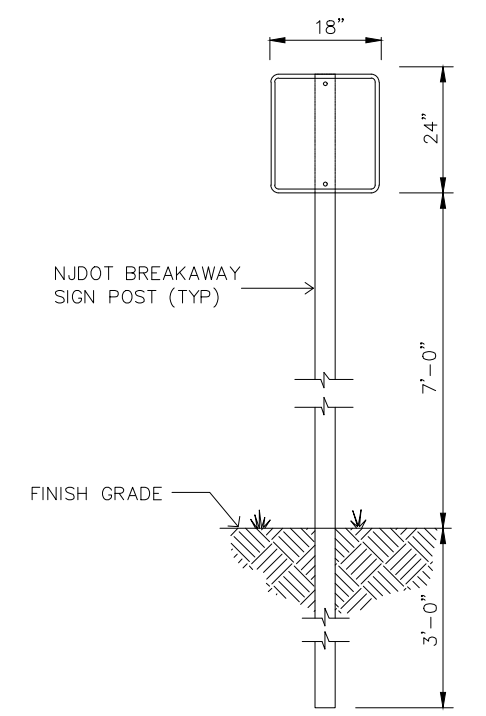


TABLE OF COURSES

1. S 37° 42' 46" E	77.00'
2. S 53° 59' 30" W	282.04'
3. S 89° 44' 30" W	114.00'
4. N 81° 49' 59" W	89.16'
5. N 55° 13' 52" W	105.45'
6. N 47° 36' 59" W	149.11'
7. N 37° 18' 02" W	61.87'
8. N 35° 50' 39" W	26.70'
9. N 29° 44' 36" W	233.63'
10. N 60° 27' 05" E	73.02'
11. S 23° 58' 22" E	70.52'
12. S 26° 05' 51" E	61.89'
13. S 30° 44' 07" E	78.22'
14. R=150.00'	L=52.18'
Ch=S 60° 48' 40" E	51.92'
15. S 20° 26' 09" E	150.00'
16. N 88° 39' 56" E	34.07'
17. N 80° 37' 30" E	62.33'
18. S 48° 52' 09" E	34.82'
19. N 84° 57' 50" E	47.10'
20. R=60.58'	L=105.60'
Ch=S 75° 34' 04" E	92.73'
21. R=337.31'	L=44.55'
Ch=N 86° 32' 48" E	44.51'
22. N 58° 56' 33" E	81.67'
23. R=50.00'	L=27.83'
Ch=N 50° 12' 06" E	27.83'
24. N 66° 08' 56" E	33.55'
25. N 46° 59' 34" E	46.44'
26. N 58° 17' 00" E	39.23'



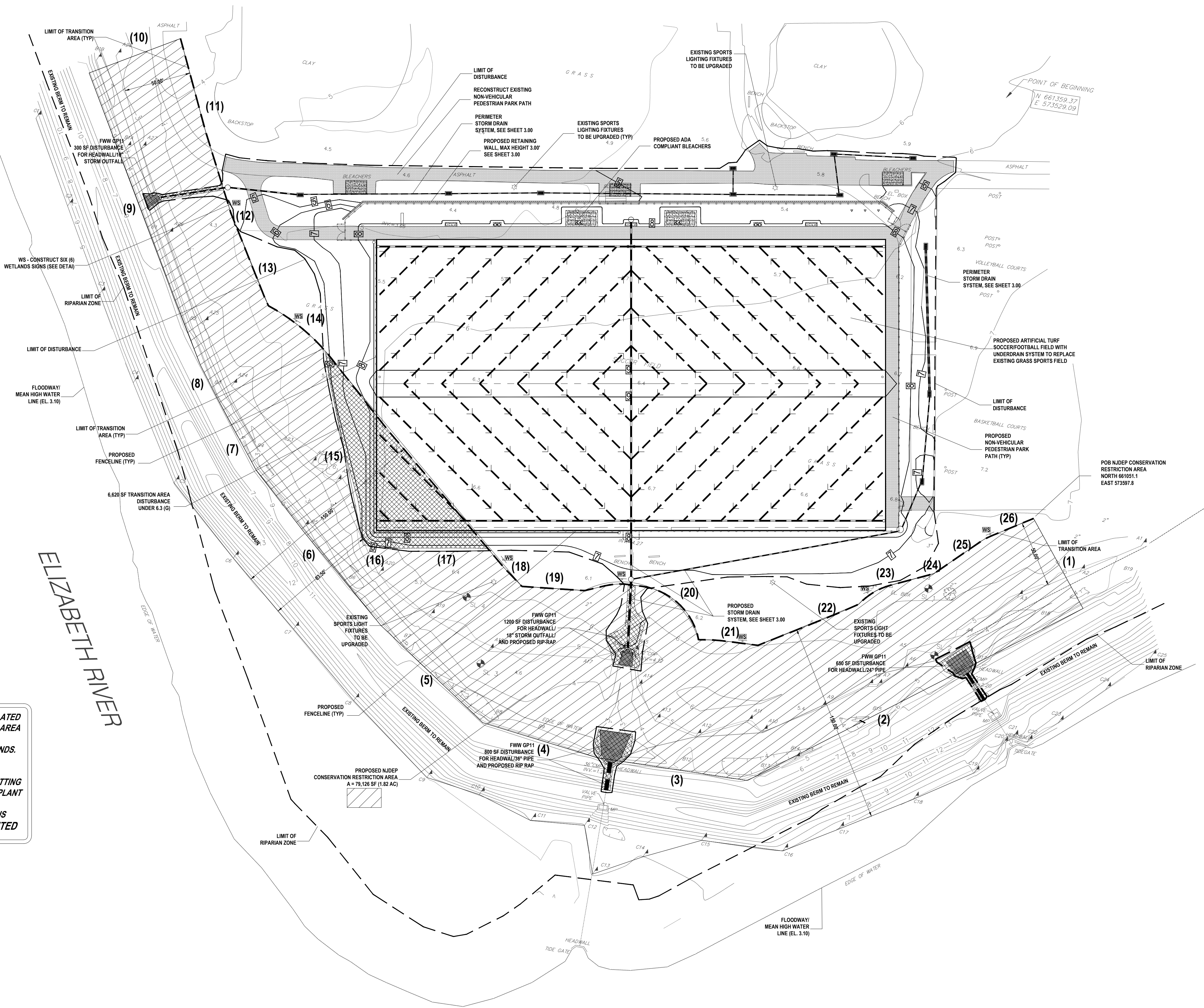
THIS AREA IS A REGULATED WETLAND TRANSITION AREA ADJACENT TO FRESHWATER WETLANDS.

MOWING, DUMPING, CUTTING AND/OR REMOVAL OF PLANT MATERIALS WITHIN THIS AREA IS STRICTLY PROHIBITED

WS - WETLAND SIGNAGE
NOT TO SCALE

NOTE:

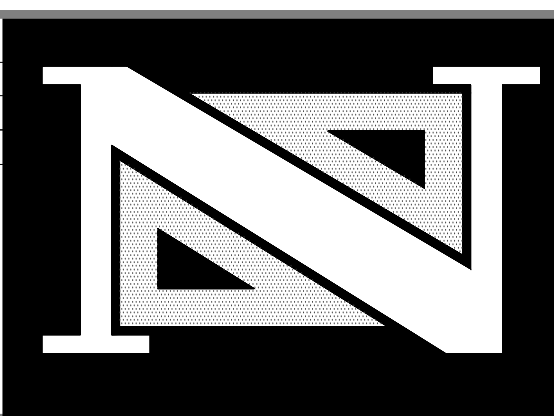
- SIGNS SHALL BE AS SHOWN OR NJDEP APPROVED EQUAL, AND MUST EDUCATE THE USER ABOUT THE IMPORTANCE OF FRESHWATER WETLANDS AND FRESHWATER WETLAND TRANSITION AREAS.
- SIGNS SHALL BE BROWN WITH A WHITE BORDER AND WHITE TEXT, AS SHOWN OR APPROVED EQUAL.



- PROJECT NOTES:**
- EXISTING CONDITIONS SHOWN ON THIS PLAN AREA AS PER THE PLAN ENTITLED "PHOTO LOCATION PLAN" UNION COUNTY DEPARTMENT OF PARKS, MATTANO PARK, CITY OF ELIZABETH, UNION COUNTY, NEW JERSEY, PREPARED BY NEGLIA ENGINEERING ASSOCIATES, DATED AUGUST 17, 2011.
 - THE TIDAL FLOOD HAZARD AREA ELEVATION IS ELEVATION 13.00 - NGVD 29 AS PER THE HURRICANE SANDY ADVISORY BASE FLOOD MAPPING. METHOD 2, FEMA MAPPING HAS BEEN UTILIZED TO DETERMINE THE FLOOD HAZARD ELEVATION FOR THIS PROJECT.
 - AS PER THE FEMA MAP NUMBER 34039C0035F, THE EXISTING FLOODWAY IS LOCATED AT THE APPROXIMATE LOCATION OF MEAN HIGH WATER. AS PER THE FEMA MAP NUMBER 34039C0035F AND THE EXISTING CONDITIONS SURVEY, THERE IS AN EXISTING FLOOD PROTECTION BERM BETWEEN THE SITE AND THE ELIZABETH RIVER. THE EXISTING FLOODWAY IS LOCATED OUTSIDE OF THE PROJECT SITE.
 - THE ENTIRE PROJECT SITE LIES IN A FLOOD HAZARD AREA. CERTAIN ACTIVITIES IN FLOOD HAZARD AREAS ARE REGULATED BY THE NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND SOME ACTIVITIES MAY BE PROHIBITED ON THIS SITE OR MAY FIRST REQUIRE A PERMIT. CONTACT THE DIVISION OF LAND USE REGULATION AT (609) 292-0060 FOR MORE INFORMATION PRIOR TO ANY CONSTRUCTION ON SITE.
 - ALL ELEVATIONS ARE AS PER NGVD 29.
 - TOTAL PROJECT DISTURBANCE = 3.50 AC
TOTAL INCREASE IN VEHICULAR USE IMPERVIOUS COVERAGE = 0.00 AC
TOTAL INCREASE IN NON-VEHICULAR USE PATHS AND AMENITIES = 0.16 ACRES
TOTAL AREA OF NON-VEHICULAR USE TURF FIELD = 1.89 AC
 - THE PROJECT PROPOSES NO RIPARIAN ZONE DISTURBANCE.
 - WETLANDS/REGULATED AREA CALCULATIONS
TOTAL AREA OF SPECIAL ACTIVITY TRANSITION AREA WAIVER UNDER 6.3 (G) = 6,620 SF
TOTAL GP-11 DISTURBANCE = 2,950 SF
PROPOSED IMPERVIOUS COVERAGE IN TRANSITION AREAS/REGULATED AREAS = 0.00 AC

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REVISIONS			DRAWN	DESIGNED	CHECKED
NO.	DATE	DESCRIPTION	AK	AK	AK/TJS
1.	3/16/14	REVISED FOR NJDEP WFO PERMIT			
2.	8/26/14	REVISED PER NJDEP WFO PERMIT N02094-11-0001 WAIVER CONDITION 21	RD	AK	AK/TJS



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NJDEP PERMITTING SITE DEVELOPMENT PLAN
ARTIFICIAL TURF FIELDS AT MATTANO PARK
CITY OF ELIZABETH ~ BLOCK 5 ~ LOT 453B
COUNTY OF UNION ~ PROJECT # 2011-018
UNIION COUNTY
NEW JERSEY

DRAWN BY: A.K. CHECKED BY: T.S. PROJECT NO: UNIOCTY11.010 SHEET NO: 1 OF 1
DESIGNED BY: A.K. SCALE: 1" = 40' FIELD BOOK NO: DATE: DECEMBER 14, 2011

NORTH

GRAPHIC SCALE

(IN FEET)
1 INCH = 40 FT.

NJSPCS

PLAN LEGEND:

RD	ROAD	⊙	MONITORING WELL
DC	DEPRESSED CURB	EP	EDGE OF PAVEMENT
⊙	UTILITY POLE	—	SIGN
⊙	FIRE HYDRANT	△	SURVEY POINT
⊙	WATER VALVE	⊙	SANITARY MANHOLE
⊙	GAS VALVE	⊙	WATER MANHOLE
⊙	UNKNOWN VALVE	⊙	ELECTRIC MANHOLE
⊙	GAS BOX	⊙	TELEPHONE MANHOLE
⊙	LIGHT POLE	⊙	DRAINAGE MANHOLE
⊙	TREE	⊙	GAS MANHOLE
⊙	SHRUB	⊙	D.O.T. MANHOLE
		⊙	INLET



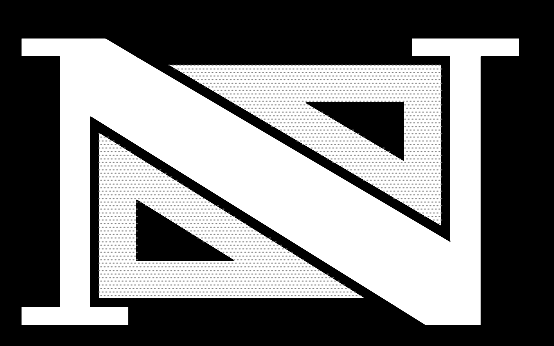
SURVEYOR'S CERTIFICATION:

I CERTIFY THAT I AM A PROFESSIONAL LAND SURVEYOR, LICENSED TO PRACTICE IN THE STATE OF NEW JERSEY, AND THAT THIS MAP OR PLAN IS A RESULT OF A FIELD SURVEY MADE ON 08-17-2011, UNDER MY DIRECT SUPERVISION IN ACCORDANCE WITH THE RULES AND REGULATIONS PROMULGATED BY THE STATE BOARD OF ENGINEERS AND LAND SURVEYORS. I DECLARE THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE INFORMATION SHOWN HEREON CORRECTLY REPRESENTS THE CONDITIONS FOUND AT, AND AS OF THE DATE OF THE FIELD SURVEY, EXCEPT SUCH IMPROVEMENTS OR EASEMENTS, IF ANY, BELOW THE SURFACE AND NOT VISIBLE. ALSO, THAT THIS PLAN WAS PREPARED IN ACCORDANCE WITH CONTRACTUAL AGREEMENT.

- SURVEY NOTES:**
- UNDERGROUND UTILITIES IF DEPICTED ARE BASED ON VISIBLE EVIDENCE. THE LACK OF UTILITY INFORMATION DOES NOT DENY THE EXISTENCE OF SAME. REFERENCE TO THE APPROPRIATE UTILITY AUTHORITY SHOULD BE MADE TO VERIFY THE PRESENCE OR ABSENCE OF UTILITIES.
 - WETLANDS DELINEATED BY NEGLIA ENGINEERING ASSOCIATES.
 - TOXIC WASTES ARE NOT DEPICTED. THE LACK OF TOXIC WASTE INFORMATION DOES NOT DENY THE EXISTENCE OF SAME. SITE REVIEW FOR THE SAME SHOULD BE PURSUED AND APART FROM THIS SURVEY.
 - HORIZONTAL DATUM BASED ON NAD'83, VERTICAL DATUM BASED ON NGVD'29 AND ESTABLISHED BY RAPID STATIC GPS OBSERVATIONS USING COR STATION NJ12. CONVERTED FROM NAVD'88 TO NGVD'29 BY NATIONAL GEODETIC SURVEY PROGRAM "VERTCON".

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REVISIONS				
NO.	DATE	DESCRIPTION	DRAWN	CHECKED



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TOPOGRAPHIC SURVEY
UNION COUNTY DEPARTMENT OF PARKS
MATTANO PARK
CITY OF ELIZABETH
UNION COUNTY NEW JERSEY

DRAWN BY: _____ CHECKED BY: _____
DESIGNED BY: _____ SCALE: 1"=40'
FIELD BOOK NO.: 456 PROJECT NO.: UNIOCTY11.013 SHEET NO.: 1 OF 1
DATE: AUGUST 17, 2011