



COUNTY OF UNION

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

**BOARD OF
CHOSEN FREEHOLDERS**

BRUCE H. BERGEN
Chairman

SERGIO GRANADOS
Vice Chairman

LINDA CARTER

ANGEL G. ESTRADA

CHRISTOPHER HUDAK

MOHAMED S. JALLOH

BETTE JANE KOWALSKI

ALEXANDER MIRABELLA

VERNELL WRIGHT

ALFRED J. FAELLA
County Manager

ROBERT E. BARRY, ESQ.
County Counsel

JAMES E. PELLETIERE, RMC
Clerk of the Board

MEMO TO: TO ALL PROSPECTIVE BIDDERS

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

DATE: October 23, 2017

**RE: CLARIFICATION NUMBER 1
BA#12-2017 - MATTANO SKATEBOARD PARK
MATTANO PARK, CITY OF ELIZABETH
COUNTY OF UNION, NEW JERSEY
UNION COUNTY ENGINEERING PROJECT #2016-008**

The following is in response to an RFI received for the above referenced project:

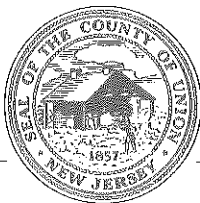
Q1. As per the bid documents I am reaching out to you with a quick question I have on the Mattano Park Skateboard Park bid that is due on 11.9.17. Below is what is listed as the minimum insurance requirements in the bid: Commercial General Liability (CGL): Coverage for all operations including, but not 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.

Based on the total value of this project I was wondering if the County would be willing to accept "no less then \$2,000,000 per occurrence / \$5,000,000 aggregate ..."

R1. **No.**

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

DIVISION OF ENGINEERING



COUNTY OF UNION

DEPARTMENT OF ENGINEERING, PUBLIC WORKS & FACILITIES MANAGEMENT

Joseph A. Graziano Sr., Director

**BOARD OF
CHOSEN FREEHOLDERS**

BRUCE H. BERGEN
Chairman

SERGIO GRANADOS
Vice Chairman

LINDA CARTER

ANGEL G. ESTRADA

CHRISTOPHER HUDAK

MOHAMED S. JALLOH

BETTE JANE KOWALSKI

ALEXANDER MIRABELLA

VERNELL WRIGHT

ALFRED J. FAELLA
County Manager

ROBERT E. BARRY, ESQ.
County Counsel

JAMES E. PELLETIERE, RMC
Clerk of the Board

MEMO TO: TO ALL PROSPECTIVE BIDDERS

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

DATE: October 23, 2017

**RE: ADDENDUM NUMBER 1
BA#12-2017 – MATTANO SKATEBOARD PARK
MATTANO PARK, CITY OF ELIZABETH
COUNTY OF UNION, NEW JERSEY
UNION COUNTY ENGINEERING PROJECT #2016-008**

Attached is Addendum Number 1 dated October 23, 2017 for the above referenced project.

Bidders must acknowledge receipt of this Addendum and submit with original bid submission packet. (Copy of Acknowledgement of Addendum Number 1 dated October 23, 2017 is attached).

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

DIVISION OF ENGINEERING

Bidder's Name: _____

ACKNOWLEDGMENT OF ADDENDUM

ADDENDUM NUMBER 1

October 23, 2017

COUNTY OF UNION

MATTANO SKATEBOARD PARK
MATTANO PARK, CITY OF ELIZABETH
COUNTY OF UNION, NEW JERSEY

BA#12-2017
UNION COUNTY ENGINEERING PROJECT #2016-008

(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> Bid Sheets: Replace Page B-36 "DISCLOSURE OF INVESTMENT ACTIVITIES IN IRAN FORM" with the Revised "DISCLOSURE OF INVESTMENT ACTIVITIES IN IRAN FORM - Addendum Number 1 dated October 23, 2017"		

ACKNOWLEDGMENT BY BIDDER:

NAME OF BIDDER: _____

ORIGINAL SIGNATURE: _____

PRINTED NAME AND TITLE: _____

DATE: _____

Bidder's Name _____

COUNTY OF UNION NEW JERSEY
Division of Purchasing
DISCLOSURE OF INVESTMENT ACTIVITIES IN IRAN FORM

Solicitation Number: _____

Vendor/Bidder: _____

PART 1
CERTIFICATION

VENDOR/BIDDER MUST COMPLETE PART 1 BY CHECKING ONE OF THE BOXES
FAILURE TO CHECK ONE OF THE BOXES WILL RENDER THE PROPOSAL NON-RESPONSIVE

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 neither the person nor entity, nor any of its parents, subsidiaries, or affiliates, is identified on the State of New Jersey, Department of the Treasury's Chapter 25 list as a person or entity engaged in investment activities in Iran. The Chapter 25 list is found on the Department's website at <http://www.state.nj.us/treasury/pdf/Chapter25List.pdf>. Vendors/Bidders must review this list prior to completing the below certification. **Failure to complete the certification will render a Vendor's/Bidder's proposal non-responsive.** If the Director of the Division of Purchase and Property finds a person or entity to be in violation 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 party.

CHECK THE APPROPRIATE BOX

A. I certify, pursuant to Public Law 2012, c.25, that neither the Vendor/Bidder listed above nor any of its parents, subsidiaries, or affiliates is listed on the N.J. Department of Treasury's list of entities determined to be engaged in prohibited activities in Iran pursuant to P.L. 2012, c. 25 ("Chapter 25 List"). Disregard Part 2 and complete and sign the Certification below.

OR

B. I am unable to certify as above because the Vendor/Bidder and/or one or more of its parents, subsidiaries, or affiliates is listed on the Department's Chapter 25 list. I will provide a detailed, accurate and precise description of the activities in Part 2 below and sign and complete the Certification below. Failure to provide such information 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 ADDITIONAL INFORMATION RELATED TO INVESTMENT ACTIVITIES IN IRAN

If you checked Box "B" above, provide a detailed, accurate and precise description of the activities of the Vendor/Bidder, or one of its parents, subsidiaries or affiliates, engaged in investment activities in Iran by completing the information below.

ENTITY NAME: _____
RELATIONSHIP TO VENDOR/BIDDER: _____
DESCRIPTION OF ACTIVITIES: _____
DURATION OF ENGAGEMENT: _____
ANTICIPATED CESSATION DATE: _____
VENDOR/BIDDER CONTACT NAME: _____
VENDOR/BIDDER CONTACT PHONE#: _____
Attach Additional Sheets If Necessary

CERTIFICATION

I, the undersigned, certify that I am authorized to execute this certification on behalf of the Vendor/Bidder, that the foregoing information and any attachments hereto, to the best of my knowledge are true and complete. I acknowledge that the County of Union, New Jersey is relying on the information contained herein, and that the Vendor/Bidder is under a continuing obligation from the date of this certification through the completion of any contract(s) with the County of Union to notify the County of Union in writing of any changes to the information contained herein; that I am aware that it is a criminal offense to make a false statement or misrepresentation in this certification. If I do so, I will be subject to criminal prosecution under the law, and it will constitute a material breach of my agreement(s) with the County of Union, permitting the County of Union to declare any contract(s) resulting from this certification void and unenforceable.

Signature _____

Date _____

Print Name and Title _____

Revised 10/19/17

**SPECIFICATIONS
FOR
MATTANO SKATEBOARD PARK
MATTANO PARK
CITY OF ELIZABETH, COUNTY OF UNION, NEW JERSEY
BA#12-2017; UNION COUNTY ENGINEERING PROJECT #2016-008**

OCTOBER 2017

**UNION COUNTY OFFICIALS
BOARD OF CHOSEN FREEHOLDERS**

Bruce H. Bergen, Chairman
Sergio Granados, Vice Chairman
Linda Carter, Freeholder
Angel G. Estrada, Freeholder
Christopher Hudak, Freeholder
Mohamed S. Jalloh, Freeholder
Bette Jane Kowalski, Freeholder
Alexander Mirabella, Freeholder
Vernell Wright, Freeholder

CLERK OF THE BOARD
James E. Pellettiere, RMC

COUNTY MANAGER
Alfred J. Faella

**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:
SUBURBAN CONSULTING ENGINEERS, INC.**
2430 Highway 34, Building A
Wall, New Jersey 08736
T: 732-282-1776

**COUNTY OF UNION
NOTICE TO BIDDERS**

Sealed bids will be received by the director of the Division of Purchasing, or her designee, at the County of Union, New Jersey on November 9, 2017 at 10:30 a.m., prevailing time, in the 3rd Floor Conference Room, U.C. Administration Building, 10 Elizabethtown Plaza, Elizabeth, New Jersey for:

**MATTANO SKATEBOARD PARK
MATTANO PARK, CITY OF ELIZABETH, COUNTY OF UNION, NEW JERSEY
BA#12-2017; UNION COUNTY ENGINEERING PROJECT #2016-008**

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.

LAURA M. SCUTARI, QPA, MPA, DIRECTOR OF PURCHASING

**UNION COUNTY BOARD
OF CHOSEN FREEHOLDERS**

We're Connected to You!

NB-1

MATTANO SKATEBOARD PARK
MATTANO PARK, CITY OF ELIZABETH, COUNTY OF UNION, NEW JERSEY
BA#12-2017; Union County Engineering Project #2016-008

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: CONTRACTOR BUSINESS REGISTRATION CERTIFICATE
(New Mandatory Requirement – Effective 1/18/2010)
- Section 52: BID PROTEST - LEGAL FEES AND COSTS
- Section 53: AMERICAN GOODS AND PRODUCTS WHERE POSSIBLE
- Section 54: NEW JERSEY PAY-TO-PLAY REQUIREMENTS
- Section 55: STATEMENT OF EQUIPMENT TO BE USED IN CONSTRUCTION
- Section 56: 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

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

STANDARD SPECIFICATION FORM - SS-1

NEW JERSEY PREVAILING WAGE DETERMINATION DOCUMENTS

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: Laura M. Scutari, QPA, MPA, Director, Division of Purchasing
Telephone: 908-527-4130
Facsimile: 908-558-2548

TITLE OF PROJECT: **Mattano Skateboard Park, Mattano Park
City of Elizabeth, County of Union, New Jersey**

BIDDER: Bidder shall be a single overall contract bidder

ENGINEER: **Suburban Consulting Engineers, Inc.
2430 Highway 34, Building A
Wall, New Jersey 08736**

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.

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 Contactor'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 Laura M. Scutari, QPA, MPA,

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, Laura M. Scutari, 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

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)**.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

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.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

51. 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]

52. 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.

53. 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.

54. 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.

55. 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.

56. 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

LAURA M. SCUTARI, QPA, MPA
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: _____

PLEASE SUBMIT BID DOCUMENTS ON SINGLE SIDED PAPER ONLY, WITH THE EXCEPTION OF THE SURETY AND BID BOND DOCUMENTS.

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
- _____ 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**
- **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

**MATTANO SKATEBOARD PARK
MATTANO PARK, CITY OF ELIZABETH, COUNTY OF UNION, NEW JERSEY
BA#12-2017; UNION COUNTY ENGINEERING PROJECT #2016-008**

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 NO.	ITEM DESCRIPTION	UNIT	CONTRACT QUANTITY	UNIT PRICE	AMOUNT
1	SOIL EROSION AND SEDIMENT CONTROL	L.S.	1		
2	GRADING AND EARTHWORK	L.S.	1		
3	PRE-CAST SKATE ELEMENTS	L.S.	1		
4	POURED IN PLACE SKATE ELEMENTS	L.S.	1		
5	8" PVC SCH 40 PIPE	L.F.	290		
6	4" INLINE DRAIN	UNIT	2		
7	8" DRAIN BASIN	UNIT	2		
8	TYPE "A" INLET	UNIT	1		
9	CONCRETE SIDEWALK, 4" THICK	S.Y.	365		
10	CONCRETE FOOTINGS, REINFORCED	L.S.	1		
11	REINSTALLED ADA PARKING SIGN	UNIT	1		
12	RULES AND REGULATIONS SIGN	UNIT	1		
13	RED MAPLE 'OCTOBER GLORY', 2.5"-3 CAL., B&B	UNIT	3		
14	SUGAR MAPLE 'LEGACY', 2.5"-3" CAL., B&B	UNIT	3		
15	EASTERN REDBUD, 2"-2.5" CAL., B&B	UNIT	4		
16	WHITE PINE, 6'-7', B&B	UNIT	8		
17	POTENTILLA ' KATHERINE DYKES', 18"-24", 3 GAL.	UNIT	42		
18	BLACK-EYED SUSAN, 1 GAL.	UNIT	26		
19	ARROWWOOD VIBURNUM 'BLUE MUFFIN', 24"-30", 5 GAL.	UNIT	12		
20	TOPSOILING, 4" THICK	S.Y.	1,359		
21	FERTILIZING, SEEDING AND MULCHING	S.Y.	1,359		
22	3/4" CLEAN STONE, 6" THICK (IF AND WHERE DIRECTED)	S.Y.	130		

Bidder's Name _____

BASE BID ITEMS (NOS. 1 THROUGH 22)

Written

Figures

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

FORTY-FIVE THOUSAND DOLLARS AND NO CENTS
Written

\$45,000.00
Figures

TOTAL BASE BID ITEMS (NOS. 1 THROUGH 22) 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 Count

ALTERNATES:

Alternates may be added to the Total Base Bid Amount. The bid will be awarded and / or Alternates will be selected as follows:

1. Award Base Bid Only
2. Award Base Bid + Alternate 1
3. Award Base Bid + Alternate 2
4. Award Base Bid + Alternate 1 and Alternate 2

Contractor must propose on all of the alternates listed below and as further described in Section 700 Alternates.

ITEM NO	DESCRIPTION	UNIT	CONTRACT QUANTITY	UNIT PRICE	AMOUNT
A-1	Site Electric and Conduit Runs	LS	1		
A-2	Decorative Post Top Light Fixture	UNIT	13		

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 _____

STATEMENT OF OWNERSHIP DISCLOSURE

N.J.S.A. 52:25-24.2 (P.L. 1977, c.33, as amended by P.L. 2016, c.43)

This statement shall be completed, certified to, and included with all bid and proposal submissions. Failure to submit the required information is cause for automatic rejection of the bid or proposal.

Name of Organization: _____

Organization Address: _____

Part I Check the box that represents the type of business organization:

- Sole Proprietorship (skip Parts II and III, execute certification in Part IV)
- Non-Profit Corporation (skip Parts II and III, execute certification in Part IV)
- For-Profit Corporation (any type) Limited Liability Company (LLC)
- Partnership Limited Partnership Limited Liability Partnership (LLP)
- Other (be specific): _____

Part II

- The list below contains the names and addresses of all stockholders in the corporation who own 10 percent or more of its stock, of any class, or of all individual partners in the partnership who own a 10 percent or greater interest therein, or of all members in the limited liability company who own a 10 percent or greater interest therein, as the case may be. **(COMPLETE THE LIST BELOW IN THIS SECTION)**

OR

- No one stockholder in the corporation owns 10 percent or more of its stock, of any class, or no individual partner in the partnership owns a 10 percent or greater interest therein, or no member in the limited liability company owns a 10 percent or greater interest therein, as the case may be. **(SKIP TO PART IV)**

STATEMENT OF OWNERSHIP DISCLOSURE - CONTINUED

(Please attach additional sheets if more space is needed):

Name of Individual or Business Entity	Home Address (for Individuals) or Business Address

Part III DISCLOSURE OF 10% OR GREATER OWNERSHIP IN THE STOCKHOLDERS, PARTNERS OR LLC MEMBERS LISTED IN PART II

If a bidder has a direct or indirect parent entity which is publicly traded, and any person holds a 10 percent or greater beneficial interest in the publicly traded parent entity as of the last annual federal Security and Exchange Commission (SEC) or foreign equivalent filing, ownership disclosure can be met by providing links to the website(s) containing the last annual filing(s) with the federal Securities and Exchange Commission (or foreign equivalent) that contain the name and address of each person holding a 10% or greater beneficial interest in the publicly traded parent entity, along with the relevant page numbers of the filing(s) that contain the information on each such person. **Attach additional sheets if more space is needed.**

Website (URL) containing the last annual SEC (or foreign equivalent) filing	Page #'s

STATEMENT OF OWNERSHIP DISCLOSURE - CONTINUED

Please list the names and addresses of each stockholder, partner or member owning a 10 percent or greater interest in any corresponding corporation, partnership and/or limited liability company (LLC) listed in Part II **other than for any publicly traded parent entities referenced above**. The disclosure shall be continued until names and addresses of every noncorporate stockholder, and individual partner, and member exceeding the 10 percent ownership criteria established pursuant to N.J.S.A. 52:25-24.2 has been listed. **Attach additional sheets if more space is needed.**

Stockholder/Partner/Member and Corresponding Entity Listed in Part II	Home Address (for Individuals) or Business Address

Part IV Certification

I, being duly sworn upon my oath, hereby represent that the foregoing information and any attachments thereto to the best of my knowledge are true and complete. I acknowledge: that I am authorized to execute this certification on behalf of the bidder/proposer; that the **County of Union** is relying on the information contained herein and that I am under a continuing obligation from the date of this certification through the completion of any contracts with **County of Union** to notify the **County of Union** in writing of any changes to the information contained herein; 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 am subject to criminal prosecution under the law and that it will constitute a material breach of my agreement(s) with the, permitting the **County of Union** to declare any contract(s) resulting from this certification void and unenforceable.

Full Name (Print):		Title:	
Signature:		Date:	

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
FOR STATE AGENCY AND CASINO SERVICE CONTRACTORS

DEPARTMENT OF TREASURY
DIVISION OF REVENUE
PO BOX 352
TRENTON, NJ 08646

TAXPAYER NAME: TAX REG TEST ACCOUNT
TRADE NAME: CLIENT REGISTRATION
TAX REGISTRATION TEST ACCOUNT
TAXPAYER IDENTIFICATION: 070-007-382/000
SEQUENCE NUMBER: 0107510
ADDRESS: 847 ROEBLING AVE
TRENTON NJ 08611
ISSUANCE DATE: 07/14/04
EFFECTIVE DATE: 01/01/01
FORM BRC(04/01)

Accepted for
John S. Kelly
This Certificate is NOT assignable or transferable. It must be conspicuously displayed at above address.

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 _____

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

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__.

Bidder's Name_____

**AFFIDAVIT REGARDING LIST OF DEBARRED,
SUSPENDED OR DISQUALIFIED BIDDERS**

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 above named Project. I have executed the said Proposal with full
authority to do so. Said Bidder is not at the time of the making this bid included on the New Jersey State
Treasurer's or the Federal Government's List of Debarred, Suspended or Disqualified Bidders as a result
of action taken by any State or Federal Agency.

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.**

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 **One Hundred Twenty (120) 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 _____

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.

OPERATING ENGINEERS **Rates Expiration Date : 03/31/2020**

{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, Presidential Election Day, Veterans Day, Thanksgiving Day, Christmas Day. Sunday holidays observed the following Monday. When all trades on a particular job site agree, the day after Thanksgiving may be substituted for Veteran's Day.

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 : 03/31/2020**

Effective Dates:

	07/01/2017		01/01/2018	07/01/2018	01/01/2019	07/01/2019
Rate	Fringe	Total	Total	Total	Total	Total
48.98	30.70	79.68	80.68	82.03	83.03	85.38

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 : 03/31/2020**

Effective Dates:

07/01/2017			01/01/2018	07/01/2018	01/01/2019	07/01/2019
Rate	Fringe	Total	Total	Total	Total	Total
48.98	30.70	79.68	80.68	82.03	83.03	85.38

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 : 03/31/2020**

Effective Dates:

	07/01/2017		01/01/2018	07/01/2018	01/01/2019	07/01/2019
Rate	Fringe	Total	Total	Total	Total	Total
47.07	30.70	77.77	78.77	80.12	81.12	83.47

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 : 03/31/2020**

Effective Dates:

07/01/2017			01/01/2018	07/01/2018	01/01/2019	07/01/2019
Rate	Fringe	Total	Total	Total	Total	Total
47.07	30.70	77.77	78.77	80.12	81.12	83.47

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 : 03/31/2020**

Effective Dates:

07/01/2017			01/01/2018	07/01/2018	01/01/2019	07/01/2019
Rate	Fringe	Total	Total	Total	Total	Total
47.07	30.70	77.77	78.77	80.12	81.12	83.47

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 : 03/31/2020**

Effective Dates:

07/01/2017			01/01/2018	07/01/2018	01/01/2019	07/01/2019
Rate	Fringe	Total	Total	Total	Total	Total
47.07	30.70	77.77	78.77	80.12	81.12	83.47

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:

07/01/2017			01/01/2018	07/01/2018	01/01/2019	07/01/2019
Rate	Fringe	Total	Total	Total	Total	Total
43.73	30.70	74.43	75.43	76.78	77.78	80.13

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:

07/01/2017			01/01/2018	07/01/2018	01/01/2019	07/01/2019
Rate	Fringe	Total	Total	Total	Total	Total
41.15	30.70	71.85	72.85	74.20	75.20	77.55

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 : 03/31/2020**

Effective Dates:

07/01/2017			01/01/2018	07/01/2018	01/01/2019	07/01/2019
Rate	Fringe	Total	Total	Total	Total	Total
51.31	30.70	82.01	83.01	84.36	85.36	87.71

CLASSIFICATIONS:

Lead Engineer, Foreman Engineer, Safety Engineer (minimum)

OPERATING ENGINEERS **Rates Expiration Date : 03/31/2020**

Effective Dates:

	07/01/2017		01/01/2018	07/01/2018	01/01/2019	07/01/2019
Rate	Fringe	Total	Total	Total	Total	Total
50.57	30.70	81.27	82.27	83.62	84.62	86.97

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 : 03/31/2020**

Effective Dates:

07/01/2017			01/01/2018	07/01/2018	01/01/2019	07/01/2019
Rate	Fringe	Total	Total	Total	Total	Total
50.57	30.70	81.27	82.27	83.62	84.62	86.97

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 : 03/31/2020**

Effective Dates:

	07/01/2017		01/01/2018	07/01/2018	01/01/2019	07/01/2019
Rate	Fringe	Total	Total	Total	Total	Total
45.44	30.70	76.14	77.14	78.49	79.49	81.84

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 : 03/31/2020

Effective Dates:

	07/01/2017		01/01/2018	07/01/2018	01/01/2019	07/01/2019
Rate	Fringe	Total	Total	Total	Total	Total
45.44	30.70	76.14	77.14	78.49	79.49	81.84

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:

	07/01/2017		01/01/2018	07/01/2018	01/01/2019	07/01/2019
Rate	Fringe	Total	Total	Total	Total	Total
52.39	30.70	83.09	84.09	85.44	86.44	88.79

CLASSIFICATIONS:

Helicopter Pilot/Engineer

Effective Dates:

	07/01/2017		01/01/2018	07/01/2018	01/01/2019	07/01/2019
Rate	Fringe	Total	Total	Total	Total	Total
57.07	30.70	87.77	88.77	90.12	91.12	93.47

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:

	07/01/2017		01/01/2018	07/01/2018	01/01/2019	07/01/2019
Rate	Fringe	Total	Total	Total	Total	Total
56.07	30.70	86.77	87.77	89.12	90.12	92.47

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 : 03/31/2020**

Effective Dates:

07/01/2017			01/01/2018	07/01/2018	01/01/2019	07/01/2019
Rate	Fringe	Total	Total	Total	Total	Total
52.57	30.70	83.27	84.27	85.62	86.62	88.97

CLASSIFICATIONS:

Cranes, Derricks, Pile Driver (all types) , under 100 tons with a boom (including jib and/or leads) 140 ft. and over

Effective Dates:

07/01/2017			01/01/2018	07/01/2018	01/01/2019	07/01/2019
Rate	Fringe	Total	Total	Total	Total	Total
55.07	30.70	85.77	86.77	88.12	89.12	91.47

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:

07/01/2017			01/01/2018	07/01/2018	01/01/2019	07/01/2019
Rate	Fringe	Total	Total	Total	Total	Total
51.57	30.70	82.27	83.27	84.62	85.62	87.97

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 : 03/31/2020**

{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, Presidential Election Day, Veterans Day, Thanksgiving Day, Christmas Day. Sunday holidays observed the following Monday. When all trades on a particular job site agree, the day after Thanksgiving may be substituted for Veteran's Day.

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:

	07/01/2017		01/01/2018	07/01/2018	01/01/2019	07/01/2019
Rate	Fringe	Total	Total	Total	Total	Total
54.20	30.70	84.90	85.90	87.25	88.25	90.60

CLASSIFICATIONS:

Helicopter Pilot or Engineer

STRUCTURAL STEEL ERECTION **Rates Expiration Date : 03/31/2020**

Effective Dates:

07/01/2017			01/01/2018	07/01/2018	01/01/2019	07/01/2019
Rate	Fringe	Total	Total	Total	Total	Total
50.14	30.70	80.84	81.84	83.19	84.19	86.54

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:

07/01/2017			01/01/2018	07/01/2018	01/01/2019	07/01/2019
Rate	Fringe	Total	Total	Total	Total	Total
47.48	30.70	78.18	79.18	80.53	81.53	83.88

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 : 03/31/2020**

Effective Dates:

	07/01/2017		01/01/2018	07/01/2018	01/01/2019	07/01/2019
Rate	Fringe	Total	Total	Total	Total	Total
45.95	30.70	76.65	77.65	79.00	80.00	82.35

CLASSIFICATIONS:

Compressor (Single)

Generators

Welding Machines, Gas, Diesel, Or Electric Converters of any type-single

Welding System, Multiple (Rectifier Transformer Type)

Effective Dates:

	07/01/2017		01/01/2018	07/01/2018	01/01/2019	07/01/2019
Rate	Fringe	Total	Total	Total	Total	Total
44.19	30.70	74.89	75.89	77.24	78.24	80.59

CLASSIFICATIONS:

Assistant Engineer/Oiler

Drillers Helper

Field Engineer - Transit/Instrument Man

Maintenance Apprentice (Deckhand)

Maintenance Apprentice (Oiler)

Effective Dates:

	07/01/2017		01/01/2018	07/01/2018	01/01/2019	07/01/2019
Rate	Fringe	Total	Total	Total	Total	Total
51.76	30.70	82.46	83.46	84.81	85.81	88.16

CLASSIFICATIONS:

Lead Engineer, Foreman Engineer, Safety Engineer (Minimum)

Effective Dates:

	07/01/2017		01/01/2018	07/01/2018	01/01/2019	07/01/2019
Rate	Fringe	Total	Total	Total	Total	Total
41.15	30.70	71.85	72.85	74.20	75.20	77.55

CLASSIFICATIONS:

Field Engineer - Rodman or Chainman

STRUCTURAL STEEL ERECTION **Rates Expiration Date : 03/31/2020**

Effective Dates:

07/01/2017			01/01/2018	07/01/2018	01/01/2019	07/01/2019
Rate	Fringe	Total	Total	Total	Total	Total
50.90	30.70	81.60	82.60	83.95	84.95	87.30

CLASSIFICATIONS:

Field Engineer-Chief of Party

Effective Dates:

07/01/2017			01/01/2018	07/01/2018	01/01/2019	07/01/2019
Rate	Fringe	Total	Total	Total	Total	Total
59.09	30.70	89.79	90.79	92.14	93.14	95.49

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:

07/01/2017			01/01/2018	07/01/2018	01/01/2019	07/01/2019
Rate	Fringe	Total	Total	Total	Total	Total
57.43	30.70	88.13	89.13	90.48	91.48	93.83

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:

07/01/2017			01/01/2018	07/01/2018	01/01/2019	07/01/2019
Rate	Fringe	Total	Total	Total	Total	Total
54.59	30.70	85.29	86.29	87.64	88.64	90.99

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:

07/01/2017			01/01/2018	07/01/2018	01/01/2019	07/01/2019
Rate	Fringe	Total	Total	Total	Total	Total
52.93	30.70	83.63	84.63	85.98	86.98	89.33

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 : 03/31/2020

Effective Dates:

07/01/2017			01/01/2018	07/01/2018	01/01/2019	07/01/2019
Rate	Fringe	Total	Total	Total	Total	Total
54.59	30.70	85.29	86.29	87.64	88.64	90.99

CLASSIFICATIONS:

Helicopter Co-Pilot

Helicopter Communications Engineer

TEST BORING PRELIMINARY TO CONSTRUCTION-SOUTH/WEST **Rates Expiration Date : 03/31/2020**

THESE RATES APPLY IN THE FOLLOWING COUNTIES ONLY:

Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Hunterdon, Mercer, Monmouth, Ocean, Salem, Sussex, Warren

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, Presidential Election Day, Veterans Day, Thanksgiving Day, Christmas Day. Sunday holidays observed the following Monday. When all trades on a particular job site agree, the day after Thanksgiving may be substituted for Veteran's Day.

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:

	07/01/2017		01/01/2018	07/01/2018	01/01/2019	07/01/2019
Rate	Fringe	Total	Total	Total	Total	Total
50.57	30.70	81.27	82.27	83.62	84.62	86.97

CLASSIFICATIONS:

Driller

Effective Dates:

	07/01/2017		01/01/2018	07/01/2018	01/01/2019	07/01/2019
Rate	Fringe	Total	Total	Total	Total	Total
43.73	30.70	74.43	75.43	76.78	77.78	80.13

CLASSIFICATIONS:

Driller's Helper

FREE AIR TUNNEL JOBS **Rates Expiration Date : 02/28/2018**

{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:

03/01/2017

Rate	Fringe	Total
41.50	29.03	70.53

CLASSIFICATIONS:

Walking Boss & Superintendent

Effective Dates:

03/01/2017

Rate	Fringe	Total
41.20	29.03	70.23

CLASSIFICATIONS:

Heading Foreman, Shaft Foreman, Rod Foreman, Electrician Foreman, Rigging Foreman

FREE AIR TUNNEL JOBS **Rates Expiration Date : 02/28/2018**

Effective Dates:

03/01/2017

Rate	Fringe	Total
40.70	29.03	69.73

CLASSIFICATIONS:

Iron Foreman, Caulking Foreman, Form Foreman, Cement Finishing Foreman, Concrete Foreman, Track Foreman, Cleanup Foreman, Grout Foreman

Effective Dates:

03/01/2017

Rate	Fringe	Total
43.20	29.03	72.23

CLASSIFICATIONS:

Blaster

Effective Dates:

03/01/2017

Rate	Fringe	Total
40.15	29.03	69.18

CLASSIFICATIONS:

Top Labor Foreman

Effective Dates:

03/01/2017

Rate	Fringe	Total
39.80	29.03	68.83

CLASSIFICATIONS:

Skilled Men (including Caulker, Powder Carrier, all other skilled men)

Skilled Men (including Miner, Drill Runner, Iron Man, Conveyor Man, Manitenance Man, Safety Miner, Rigger, Block Layer, Cement Finisher, Tod Man)

Effective Dates:

03/01/2017

Rate	Fringe	Total
39.65	29.03	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 : 02/28/2018

Effective Dates:

03/01/2017

Rate	Fringe	Total
39.15	29.03	68.18

CLASSIFICATIONS:

All Others (including Powder Watchman, Change House Attendant, Top Laborer)

DRILL FOR GROUND WATER SUPPLY **Rates Expiration Date : 03/31/2020**

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:

	07/01/2017		01/01/2018	07/01/2018	01/01/2019	07/01/2019
Rate	Fringe	Total	Total	Total	Total	Total
49.32	30.70	80.02	81.02	82.37	83.37	85.72

CLASSIFICATIONS:

Driller

Effective Dates:

	07/01/2017		01/01/2018	07/01/2018	01/01/2019	07/01/2019
Rate	Fringe	Total	Total	Total	Total	Total
42.48	30.70	73.18	74.18	75.53	76.53	78.88

CLASSIFICATIONS:

Driller's Helper

OPERATING ENGINEERS MARINE-DREDGING **Rates Expiration Date : 09/30/2018**

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:

10/01/2016			10/01/2017
Rate	Fringe	Total	Total
37.25	13.78	51.03	52.51

CLASSIFICATIONS:

Lead Dredgerman, Operator, Leverman

Licensed Tug Operator (over 1000 HP)

Effective Dates:

10/01/2016			10/01/2017
Rate	Fringe	Total	Total
32.22	13.38	45.60	46.95

CLASSIFICATIONS:

Derrick Operator, Spider/Spill Barge Operator

Engineer, Electrician, Chief Welder, Chief Mate

Fill Placer, Operator II

Licensed Boat Operator

Maintenance Engineer

Effective Dates:

10/01/2016			10/01/2017
Rate	Fringe	Total	Total
30.33	13.23	43.56	44.86

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 : 09/30/2018**

Effective Dates:

10/01/2016			10/01/2017
Rate	Fringe	Total	Total
29.50	12.86	42.36	43.64

CLASSIFICATIONS:

Mate, Drag Barge Operator, Steward, Assistant Fill Placer

Welder

Effective Dates:

10/01/2016			10/01/2017
Rate	Fringe	Total	Total
28.54	12.78	41.32	42.58

CLASSIFICATIONS:

Boat Operator

Effective Dates:

10/01/2016			10/01/2017
Rate	Fringe	Total	Total
23.71	12.10	35.81	36.92

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:

03/01/2017

Rate	Fringe	Total
36.50	21.27	57.77

CLASSIFICATIONS:

Foreman

Effective Dates:

03/01/2017

Rate	Fringe	Total
33.80	21.27	55.07

CLASSIFICATIONS:

Box man

Effective Dates:

03/01/2017

Rate	Fringe	Total
31.75	21.27	53.02

CLASSIFICATIONS:

Microsurface/Slurry Preparation

Effective Dates:

03/01/2017

Rate	Fringe	Total
31.75	21.27	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:

03/01/2017

Rate	Fringe	Total
30.30	21.27	51.57

CLASSIFICATIONS:

Cleaner, Taper

ASPHALT LABORERS - SOUTH Rates Expiration Date : 02/28/2018

"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:

03/01/2017

Rate	Fringe	Total
41.00	29.03	70.03

CLASSIFICATIONS:

Paving Foreman

Effective Dates:

03/01/2017

Rate	Fringe	Total
39.55	29.03	68.58

CLASSIFICATIONS:

Head Raker

Effective Dates:

03/01/2017

Rate	Fringe	Total
39.40	29.03	68.43

CLASSIFICATIONS:

Raker, Screedman, Luteman

TERRITORY
ENTIRE STATE

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION

ASPHALT LABORERS - SOUTH Rates Expiration Date : 02/28/2018

Effective Dates:

03/01/2017

Rate	Fringe	Total
39.15	29.03	68.18

CLASSIFICATIONS:

Tampers, Smoothers, Kettlemen,
Painters, Shovelers, Roller Boys

Effective Dates:

03/01/2017

Rate	Fringe	Total
39.25	29.03	68.28

CLASSIFICATIONS:

Milling Controller

Effective Dates:

03/01/2017

Rate	Fringe	Total
39.45	29.03	68.48

CLASSIFICATIONS:

Traffic Control Coordinator

TEST BORING PRELIMINARY TO CONSTRUCTION-NORTH **Rates Expiration Date : 10/16/2018**

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:

11/01/2016			10/17/2017
Rate	Fringe	Total	Total
30.96	24.76	55.72	57.17

CLASSIFICATIONS:

Helper (4th year helper)

Effective Dates:

11/01/2016			10/17/2017
Rate	Fringe	Total	Total
38.82	24.76	63.58	65.24

CLASSIFICATIONS:

Driller

Effective Dates:

11/01/2016			10/17/2017
Rate	Fringe	Total	Total
44.64	24.76	69.40	71.28

CLASSIFICATIONS:

Foreman

HEAVY & GENERAL LABORERS - NORTH **Rates Expiration Date : 02/28/2018**

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:

03/01/2017

Rate	Fringe	Total
38.75	29.03	67.78

CLASSIFICATIONS:

"D" Rate:

basic, landscape, asphalt, slurry seal, or railroad track laborer; utility meter installer; 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:

03/01/2017

Rate	Fringe	Total
39.45	29.03	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 : 02/28/2018**

Effective Dates:

03/01/2017

Rate	Fringe	Total
39.70	29.03	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:

03/01/2017

Rate	Fringe	Total
43.25	29.03	72.28

CLASSIFICATIONS:

"A" Rate:

blaster

Effective Dates:

03/01/2017

Rate	Fringe	Total
41.00	29.03	70.03

CLASSIFICATIONS:

"FOREMAN" Rate:

labor foreman, asphalt foreman, drill foreman, pipe foreman, grade foreman, finisher foreman, concrete foreman

Effective Dates:

03/01/2017

Rate	Fringe	Total
42.00	29.03	71.03

CLASSIFICATIONS:

"GENERAL FOREMAN" Rate

HEAVY & GENERAL LABORERS - SOUTH **Rates Expiration Date : 02/28/2018**

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:

03/01/2017

Rate	Fringe	Total
38.75	29.03	67.78

CLASSIFICATIONS:

basic, landscape, or railroad track laborer; utility meter installer; flagman; salamander tender; pitman; dumpman; rakers or tampers on cold patch work; wrappers or coaters of pipe; waterproofers; tree cutter, timberman

Effective Dates:

03/01/2017

Rate	Fringe	Total
39.45	29.03	68.48

CLASSIFICATIONS:

wagon drill or drill master helper; powder carrier; magazine tender; signal man

HEAVY & GENERAL LABORERS - SOUTH **Rates Expiration Date : 02/28/2018**

Effective Dates:

03/01/2017

Rate	Fringe	Total
39.45	29.03	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:

03/01/2017

Rate	Fringe	Total
39.45	29.03	68.48

CLASSIFICATIONS:

wagon or directional drill operator; drill master

Effective Dates:

03/01/2017

Rate	Fringe	Total
43.25	29.03	72.28

CLASSIFICATIONS:

blaster

Effective Dates:

03/01/2017

Rate	Fringe	Total
41.00	29.03	70.03

CLASSIFICATIONS:

labor foreman, drill foreman, pipe foreman, grade foreman, finisher foreman, concrete foreman

Effective Dates:

03/01/2017

Rate	Fringe	Total
42.00	29.03	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 : 02/28/2018**

Effective Dates:

03/01/2017

Rate	Fringe	Total
39.70	29.03	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 : 06/03/2018**

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:

06/05/2017

Rate	Fringe	Total
54.58	28.97	83.55

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 : 06/03/2018

Effective Dates:

06/05/2017

Rate	Fringe	Total
54.58	28.97	83.55

CLASSIFICATIONS:

Pipeline Journeyman

Effective Dates:

06/05/2017

Rate	Fringe	Total
33.27	19.97	53.24

CLASSIFICATIONS:

Pipeline Helper

PIPELINE - GAS DISTRIBUTION **Rates Expiration Date : 10/31/2017**

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:

11/01/2016

Rate	Fringe	Total
57.58	21.55	79.13

CLASSIFICATIONS:

Pipeline Journeyman Welder

Effective Dates:

11/01/2016

Rate	Fringe	Total
57.58	21.55	79.13

CLASSIFICATIONS:

Pipeline Journeyman

Effective Dates:

11/01/2016

Rate	Fringe	Total
37.16	15.74	52.90

CLASSIFICATIONS:

Pipeline Helper

ASPHALT LABORERS- NORTH **Rates Expiration Date : 02/28/2018**

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:

03/01/2017

Rate	Fringe	Total
41.00	29.03	70.03

CLASSIFICATIONS:

Asphalt Foreman

Effective Dates:

03/01/2017

Rate	Fringe	Total
39.70	29.03	68.73

CLASSIFICATIONS:

Asphalt Screedman

Effective Dates:

03/01/2017

Rate	Fringe	Total
39.45	29.03	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 : 02/28/2018

Effective Dates:

03/01/2017

Rate	Fringe	Total
38.75	29.03	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:

12/04/2016

Rate	Fringe	Total
52.26	35.01	87.27

CLASSIFICATIONS:

Chief Lineman

Effective Dates:

12/04/2016

Rate	Fringe	Total
49.31	33.03	82.34

CLASSIFICATIONS:

Journeyman Lineman

ELECTRICIAN- UTILITY WORK (NORTH) Rates Expiration Date : 12/03/2017

Effective Dates:

12/04/2016

Rate	Fringe	Total
49.31	33.03	82.34

CLASSIFICATIONS:

Special License Operator

Effective Dates:

12/04/2016

Rate	Fringe	Total
48.81	32.70	81.51

CLASSIFICATIONS:

Transit Man

Effective Dates:

12/04/2016

Rate	Fringe	Total
47.33	31.71	79.04

CLASSIFICATIONS:

Line Equipment Operator

Effective Dates:

12/04/2016

Rate	Fringe	Total
41.42	27.75	69.17

CLASSIFICATIONS:

Dynamite Man

Effective Dates:

12/04/2016

Rate	Fringe	Total
58.18	38.98	97.16

CLASSIFICATIONS:

General Foreman

Effective Dates:

12/04/2016

Rate	Fringe	Total
56.70	37.98	94.68

CLASSIFICATIONS:

Assistant General Foreman

ELECTRICIAN- UTILITY WORK (NORTH) Rates Expiration Date : 12/03/2017

Effective Dates:

12/04/2016

Rate	Fringe	Total
55.22	36.99	92.21

CLASSIFICATIONS:

Line Foreman

Effective Dates:

12/04/2016

Rate	Fringe	Total
39.94	26.75	66.69

CLASSIFICATIONS:

Straight Light Mechanical Leader

Effective Dates:

12/04/2016

Rate	Fringe	Total
37.97	25.43	63.40

CLASSIFICATIONS:

Groundman Winch Operator

Effective Dates:

12/04/2016

Rate	Fringe	Total
37.97	25.43	63.40

CLASSIFICATIONS:

Groundman Truck Operator

Effective Dates:

12/04/2016

Rate	Fringe	Total
37.47	25.10	62.57

CLASSIFICATIONS:

Straight Light Mechanic

Effective Dates:

12/04/2016

Rate	Fringe	Total
37.47	25.10	62.57

CLASSIFICATIONS:

Line Equipment Mechanic

ELECTRICIAN- UTILITY WORK (NORTH) Rates Expiration Date : 12/03/2017

Effective Dates:

12/04/2016

Rate	Fringe	Total
32.05	21.47	53.52

CLASSIFICATIONS:

Groundman 2nd Year

Effective Dates:

12/04/2016

Rate	Fringe	Total
29.58	19.81	49.39

CLASSIFICATIONS:

Groundman 1st Year

Effective Dates:

12/04/2016

Rate	Fringe	Total
48.81	32.70	81.51

CLASSIFICATIONS:

Line Equipment Foreman

ELECTRICIAN- UTILITY WORK (SOUTH) Rates Expiration Date : 12/02/2017

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:

12/04/2016

Rate	Fringe	Total
58.38	45.19	103.57

CLASSIFICATIONS:

General Foreman

ELECTRICIAN- UTILITY WORK (SOUTH) **Rates Expiration Date : 12/02/2017**

Effective Dates:

12/04/2016

Rate	Fringe	Total
52.00	41.37	93.37

CLASSIFICATIONS:

Foreman

Effective Dates:

12/04/2016

Rate	Fringe	Total
49.26	39.74	89.00

CLASSIFICATIONS:

Small Job Foreman

Effective Dates:

12/04/2016

Rate	Fringe	Total
45.61	37.54	83.15

CLASSIFICATIONS:

Heavy Equipment Operator

Effective Dates:

12/04/2016

Rate	Fringe	Total
45.61	37.54	83.15

CLASSIFICATIONS:

Cable Splicer

Effective Dates:

12/04/2016

Rate	Fringe	Total
45.61	37.54	83.15

CLASSIFICATIONS:

Journeyman Lineman

Effective Dates:

12/04/2016

Rate	Fringe	Total
45.61	37.54	83.15

CLASSIFICATIONS:

Journeyman Welder

ELECTRICIAN- UTILITY WORK (SOUTH) Rates Expiration Date : 12/02/2017

Effective Dates:

12/04/2016

Rate	Fringe	Total
45.61	37.54	83.15

CLASSIFICATIONS:

Journeyman Painter

Effective Dates:

12/04/2016

Rate	Fringe	Total
36.49	32.08	68.57

CLASSIFICATIONS:

Light Equipment Operator

Effective Dates:

12/04/2016

Rate	Fringe	Total
31.93	29.37	61.30

CLASSIFICATIONS:

Groundman Truck Driver

Effective Dates:

12/04/2016

Rate	Fringe	Total
29.65	27.99	57.64

CLASSIFICATIONS:

Groundman 3rd Year

Effective Dates:

12/04/2016

Rate	Fringe	Total
27.37	26.66	54.03

CLASSIFICATIONS:

Groundman 2nd Year

Effective Dates:

12/04/2016

Rate	Fringe	Total
25.09	25.29	50.38

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 : 12/02/2017

Effective Dates:

12/04/2016

Rate	Fringe	Total
20.07	22.27	42.34

CLASSIFICATIONS:

Flagman

HEAVY & GENERAL LABORERS- NEW TRANS HUDSON TUNNELS Rates Expiration Date : 02/28/2018

****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:

03/01/2017

Rate	Fringe	Total
62.25	29.03	91.28

CLASSIFICATIONS:

Walking Boss & Superintendent

Effective Dates:

03/01/2017

Rate	Fringe	Total
61.80	29.03	90.83

CLASSIFICATIONS:

Heading Foreman, Shaft Foreman, Rod Foreman, Electrical Foreman, Rigging Foreman

HEAVY & GENERAL LABORERS- NEW TRANS HUDSON TUNNELS **Rates Expiration Date : 02/28/2018**

Effective Dates:

03/01/2017

Rate	Fringe	Total
61.05	29.03	90.08

CLASSIFICATIONS:

Iron Foreman, Caulking Foreman, Form Foreman, Cement Finishing Foreman, Concrete Foreman, Track Foreman, Clean-up Foreman, Grout Foreman

Effective Dates:

03/01/2017

Rate	Fringe	Total
64.80	29.03	93.83

CLASSIFICATIONS:

Blaster

Effective Dates:

03/01/2017

Rate	Fringe	Total
60.23	29.03	89.26

CLASSIFICATIONS:

Top Labor Foreman

Effective Dates:

03/01/2017

Rate	Fringe	Total
59.70	29.03	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:

03/01/2017

Rate	Fringe	Total
59.48	29.03	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 : 02/28/2018

Effective Dates:

03/01/2017

Rate	Fringe	Total
58.73	29.03	87.76

CLASSIFICATIONS:

All others (including Powder Watchman, Change House Attendant, Top Laborer, Job Steward)

TECHNICAL SPECIFICATIONS

FOR

MATTANO SKATEBOARD PARK

UNION COUNTY PROJECT NO. 2016-008

OUR FILE No.: SCE-R08745.011

MATTANO PARK

CITY OF ELIZABETH COUNTY OF UNION, STATE OF NEW JERSEY

OCTOBER 2017

A circular professional engineer seal for the State of New Jersey, featuring the text "STATE OF NEW JERSEY" at the top, "DAREN J. PHIL" in the center, "No. 24GE03619100" below the name, and "LICENSED PROFESSIONAL ENGINEER" at the bottom. A handwritten signature in black ink is written over the seal.

10-13-2017

DAREN J. PHIL, PE
NJPE LICENSE #24GE03619100

Date

SUBURBAN CONSULTING ENGINEERS, INC.

2430 U.S. Highway 34, Building A - Wall, New Jersey 08736

Tel. 732-282-1776; Fax 973-398-2121

TABLE OF CONTENTS

<u>DESCRIPTION</u>	<u>PAGE</u>
GENERAL PROVISIONS – DIVISION 100.....	G-1
CONTRACT REQUIREMENTS – DIVISION 150.....	G-8
EARTHWORK – DIVISION 200.....	E-1
BASE COURSES – DIVISION 300.....	BC-1
SURFACE COURSES – DIVISION 400.....	SC-1
BRIDGES AND STRUCTURES – DIVISION 500.....	BS-1
MISCELLANEOUS CONSTRUCTION – DIVISION 600.....	IC-1
ELECTRICAL – DIVISION 700.....	EL-1
LANDSCAPING – DIVISION 800.....	L-1
MATERIALS – DIVISION 900.....	M-1

APPENDICES TO SUPPLEMENTARY SPECIFICATIONS

- APPENDIX A – SKATEPARK QUALIFICATION FORM

DIVISION 100 – GENERAL PROVISIONS

SECTION 101 – GENERAL INFORMATION

101.01 INTRODUCTION

The following is added to this subsection:

Whenever any section, subsection, subpart or subheading is amended by such terms as but not limited to *changed to, supplemented, replaced, added or deleted*, it is construed to mean that it amends that section, subsection, subpart or subheading of the *New Jersey Department of Transportation Standard Specifications for Road and Bridge Construction, 2007 Edition*, the most recent revisions to that edition, and the supplemental specifications for State Aid Projects.

101.03 TERMS

The following is added to this subsection:

Whenever the following terms, or pronouns in place of them, are used, the intent and meaning, unless a different intent or meaning is clearly indicated, shall be interpreted as set forth in the following:

COMMISSIONER: Shall mean the Project Owner, in this case The County of Union Parks Department

COUNTY: The County of Union, New Jersey.

DEPARTMENT: Shall mean the Project Owner, in this case The County of Union Parks Department

ENGINEER: The word "Engineer" shall mean Suburban Consulting Engineers, Inc. /or properly authorized agent acting within the scope of the particular duties entrusted to them.

NOTE: In order to avoid cumbersome and confusing repetition of expressions in these Specifications, it is provided that whenever anything is or is to be done, if, as, or when "contemplated, required, determined, directed, specified, authorized, ordered, given, designated, indicated, considered necessary, deemed necessary, permitted, reserved, suspended, established, approval, approved, disapproved, accepted, acceptable, unacceptable, suitable, satisfactory, unsatisfactory, sufficient, insufficient, rejected, or condemned," it shall be understood as if the expression were followed by the words "by the Engineer" or "to the Engineer".

“OWNER” The County of Union

“MUNICIPALITY” The County of Union, New Jersey

“TOWN” The County of Union, New Jersey

“SPECIFIED COMPLETION DATE”: The date on which the contract work is specified to be completed.

“STATE”: The State of New Jersey and/or the County of Union

SECTION 105 – CONTROL OF WORK

105.01 AUTHORITY OF THE DEPARTMENT

105.01.01 RE

The following is added to this subsection:

In the performance of the Work, the Contractor shall abide by all orders, directions and requirements of the Engineer issued within the limitations of the current Documents.

The Engineer shall in all cases, subject to the power and authority of the Owner, determine classifications, quantities, quality, acceptability and fitness of the several kinds of work which are to be paid for under the Contract; he shall interpret the Plans and Specifications, and all extra work order and shall determine all questions in relation to the Work and the construction thereof.

The Contractor shall employ no plant, equipment, materials, methods or men to which the Engineer objects, and shall remove no plant, materials, equipment or other facilities from the site of the Work without the Engineer's permission.

Engineer will have authority to disapprove or reject Work which is "defective", which term is hereinafter used to describe Work that is unsatisfactory, faulty or defective, or does not conform to requirements of the Contract Documents or does not meet the requirements of any inspection, test, approval, has been damaged prior to approval of final payment.

Whenever, in Engineer's reasonable opinion, he considers it necessary or advisable for the implementation of the intent of the Contract Documents, he will have authority to require special inspection or testing of the Work, whether or not such Work be then fabricated, installed or completed.

Engineer will be the interpreter of the requirements of the Contract Documents and the judge of the performance thereunder. In his capacity as interpreter and judge he will endeavor to secure faithful performance by both Owner and Contractor. He will not show partiality to either and will not be liable for the result of any interpretation or decision rendered in good faith. Claims, disputes and other matters relating to the execution and progress of the Work or the interpretation of or performance under the Contract Documents shall be referred to the Engineer for a decision which he will render in writing within a reasonable time.

Neither the Engineer's authority to act under this Subsection or elsewhere in the Contract Documents nor any decision made by him in good faith either to exercise or not exercise such authority shall give rise to any duty or responsibility of Engineer to Contractor, any subcontractor, any material man, fabricator, supplier or any of their agents or employees or any other person performing any of the Work.

Engineer will not be responsible for or have control or charge over the acts or omissions of Contractor, or any Subcontractors, or any of his or their suppliers, agents, or employees or any other persons at the site or otherwise performing any of the Work, and he will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

105.04 PLANS AND SPECIFICATIONS

This entire subsection is deleted and replaced with the following:

The Contractor will be furnished with three (3) sets of Plans and Contract Documents & Specifications. It is the responsibility of the Contractor to acquire at his own cost a copy of "Standard Specifications for Road and Bridge Construction 2007" which is available from the cashier of the New Jersey Department of Transportation office at 1035 Parkway Avenue, Trenton, New Jersey 08625. One copy of the Plans and Specifications furnished to the Contractor shall be kept constantly at the site of the Work. Anything shown on the Plans and not mentioned in the Specifications, or mentioned in the Specifications and not shown on the Plans, and all work and materials necessary for the completion of the Work according to the intent and meaning of the Contract Documents, shall be furnished, performed, and done, as if the

same were both mentioned in the Specifications and shown on the Drawings. Any conflict or inconsistency between the Plans and Specifications, or any discrepancy between the figures and scale of drawings shall be submitted in writing by the Contractor to the Engineer, whose decision thereon shall be conclusive. In case of conflict or inconsistency, the more stringent and demanding requirement will be interpreted and payment rendered accordingly.

In the event the meaning of any portions of the Specifications or Drawings or any supplementary drawings or instructions of the Engineer is doubtful, the same shall be understood to call for the best type of construction, both as to materials and workmanship, which reasonably can be interpreted.

The Engineer will make all necessary explanations as to the meaning and intent of the Plans and Specifications, and shall give all orders contemplated therein or thereby or in every case in which a difficult or unforeseen condition shall arise in the performance of the Work.

The Table of Contents, titles, headings, running headlines and marginal notes contained in the Contract Documents are solely to facilitate reference to various provisions of the Contract Documents and in no way affect, limit or cast light on the interpretation of the provisions to which they refer.

All materials and workmanship shall be strictly in accordance with the Plans and Specifications. When applicable and when the requirements are more strict, more detailed, or of a higher quality than the Plans and Specifications, the Manufacturer's specifications and drawings shall govern.

The plans show the approximate size, arrangement and location of the Work. During construction, exact lines, grades, shapes, and dimensions will be established, and the Contractor shall construct the Work exactly in accordance therewith, subject however to changes as provided for in CHANGES IN PLANS AND SPECIFICATIONS AND EXTRA WORK.

The figures shown on the Plans after the word "elevation", or abbreviation of it, shall mean the distance in feet above the datum adopted by the Engineer. If the Contractor has any doubt or question as to such datum, he shall ascertain the datum being used, from the Engineer.

Any errors or omissions in the Plans and Specifications may be corrected by the Engineer, when such corrections are necessary for the proper fulfillment or their intentions as construed by him.

Any work that may reasonably be inferred from the Specifications or Drawings as being required to produce the intended result shall be provided whether or not specifically called for. Work, materials or equipment described in words which so applied have a well known technical or trade meaning shall be deemed to refer to such recognized standards.

The Drawings show the sizes, materials, elevation and locations of underground and exposed utilities, structures and other physical features, upon which Engineer has relied in the preparation of the Drawings and Specifications, and which have been determined from the best available information, by actual surveys or furnished and taken from the records of utility companies and drawings of existing facilities. Neither Owner nor Engineer assumes responsibility for the possibility that utilities, structures and objects other than those shown on the Drawings may be encountered or that actual sizes, materials, elevations and locations may be different from those shown. It is the Contractor's sole responsibility to coordinate all conflicts with utilities. Neither the Owner nor Engineer will assume liability for conflicts, delays, damages, or other impacted costs arising out of conflicts with utilities or coordination problems with utilities.

Where detailed information may be required for the Work, Contractor shall, at his expense, furnish all labor, tools, equipment and all other items and do whatever is necessary to verify and substantiate the conditions and to definitely establish the information required. Because of the nature of the Work, minor adjustments may be required in the Work to meet existing conditions. Contractor shall make such adjustments at no additional cost to Owner.

The Drawings indicate the extent and general arrangement of the Work. Any proposed departures from the Drawings, deemed necessary by Contractor to accommodate the materials and equipment he proposes to provide, shall be submitted to Engineer as soon as practical with complete details, designs, reasons for the departure and any other information Engineer may require. Departures from the Drawings without Engineer's approval are not permitted. All costs associated with proposed changes shall be borne by Contractor.

If any part of the Contract Documents is in conflict with the requirements of a public authority having jurisdiction over the Work, then the public authority's requirements shall govern. However, where the requirements of the Contract Documents exceed the public authority, then the Contract Document shall govern.

The organization of the Specifications into sections, and subsections, and the arrangement of the Drawings shall not control Contractor in dividing the Work among Subcontractors or in establishing the extent of Work to be performed by any trade, or any individual Contractor in the case of multiple contracts. Whenever the provisions of the Contract Documents may conflict with any agreement or regulations of any kind in force among, members of any trade association, union or council which regulates or distinguishes that work shall or shall not be included in the work of any particular trade. Contractor shall make all necessary arrangements on his own to reconcile any such conflict of provisions without recourse to Engineer or Owner.

The Contractor to be advised that the Owner reserves the right to **delete bid items**. The Owner also reserves the right to delete certain equipment if awarded or items that are not to be awarded in the contract.

105.06 COOPERATION WITH OTHERS

The heading and entire text of this of this subsection is deleted and replaced with the following:

105.06 COOPERATION BY CONTRACTOR

105.06.01 Cooperation with Owner

The Contractor shall be conclusively presumed to be acquainted with all existing conditions and to guarantee that all work materials and equipment shall, upon final completion of the Work, be turned over to the Owner in a complete and perfect condition. The Contractor shall be responsible for the proper care, maintenance and protection of all work, materials and equipment, until the entire Contract is completed and all work, materials, and equipment are found in good condition and accepted. The Contractor shall be responsible for the entire Work until completed and accepted by the Engineer and the Owner.

The Contractor shall, at all times, provide the Owner, the Engineer, assistants and inspectors under him, and all state and federal agencies having jurisdiction, with necessary facilities for determining both on the work and at the places of manufacture, that all work being performed and all materials and equipment being manufactured are strictly in accordance with the Contract Documents. A seven day notification in writing, stipulating the time and place where the manufacturing is to be done, shall be given the Engineer prior to the commencement of manufacture of any materials and equipment, in order that a representative of the Owner may be present, if so desired, to observe and inspect the operations.

Until acceptance of the Work by the Owner, the Contractor shall be responsible for all damage to the Work, including action of the elements and all other causes. The Contractor shall continuously and adequately protect the Work against damage from any cause.

If proper provision for the carrying out of this stipulation is not made, then the Contractor shall be held responsible for the execution of such orders and instructions as the Engineer may deem necessary to given to any foremen or other employee about the Work, and the engineer may order the Work stopped until a duly authorized representative of the Contractor appears and receives his instructions. No claim for damages nor any extension of time in which to complete the Work by reason of such delay will be allowed the Contractor.

The employment of a competent superintendent, foreman, and experienced mechanics and laborers and others skilled in the particular duties entrusted to them is required. When requested, the Contractor shall furnish to the Engineer, the qualifications of the superintendent, foreman, or any other individuals delegated with important functions connected with the Project.

Whenever the Engineer informs the Contractor or his representative in charge that any man on the Work is incompetent or disorderly, or is working contrary to the Specifications or the instructions of the Engineer, or that the Engineer knows that the man has been incompetent or disorderly on this or any previous work, or is objectionable, that man shall thereupon be immediately dismissed from the job and shall not be given employment on any work connected with the Contract.

When requested, the Contractor shall deliver to the Engineer each week a record of the numbers and classifications of men employed upon the Work each day of the previous week. The Contractor shall not permit the use of intoxicating liquors on or about the Project nor shall he permit anyone suffering from the effects thereof to remain on the Work.

The Contractor shall give preference in employment to local labor whenever qualified local labor is available, and he shall be the judge of the qualifications of local labor.

105.06.02 Cooperation with Others

The Owner reserves the right at any time to contract for and perform other or additional work on or near the work site covered by this Contract.

When separate contracts are let within the limits of the Project, or in areas adjacent thereto, each Contractor shall conduct his work so as not to interfere with or hinder the progress or completion of the work being performed by other contractors. Moreover, the Contractor assumes the positive obligation of cooperating with such other contractors and coordinating his activities with theirs. If there is a difference of opinion as to the respective rights of the Contractor and others doing work within the limits of or adjacent to the Project, the Engineer will decide as to the respective rights of the various parties involved in order to secure the completion of the Owner's work in general harmony and in a satisfactory manner. His decision shall be final and binding on, and shall not be cause for claims by the Contractor for additional compensation.

Each Contractor involved shall assume all liability, financial or otherwise, in connection with his contract and hereby waives any and all claims against the Owner for additional compensation that may arise because of inconvenience, delay or loss experienced by him because of the presence and operations of other contractors working within the limits of or adjacent to the Project.

The Contractor shall arrange his work and shall place and dispose of the materials being used so as not to interfere with the operation of the other contractors within the limits of the Project or adjacent thereto. He shall join his work with that of the others in an acceptable manner and shall perform it in proper sequence to that of the others.

The Contractor will not be held responsible for damage to work performed on the Contract or on other contracts within or adjacent to the site of the Project that may be caused by or on account of the work of other contractors. The Contractor will be held responsible for any damage done or caused by his work or forces to the work performed by other contractors within or adjacent to the site of the Project and he shall repair or make good any such damage in a manner satisfactory to the Engineer and without cost to the Owner.

If any portion of the Work of the Contractor or any of his Subcontractors depends for proper execution or results upon the work of any other contractor, the Contractor shall inspect same and promptly give to the Engineer notice of all defects in the work of such other contractor as renders it unsuitable for proper execution and completion of the Work. The Contractor shall further notify the Engineer of all delays by such other contractor, in the performance of his work, as will affect the timely performance of the work. The failure of the Contractor to so inspect and give notice shall constitute an acceptance by him (but not by the Owner) of the work of such other contractor as fit and proper for the reception of the work, except as to defects developing in the work of such other contractor after the execution of the work, and an acknowledgment of the timely performance of such other contractor of his work.

The provisions of this Subsection shall also apply to utilities and their contractors working on the Project site and adjacent thereto.

The following subsection is added:

105.11 OBSTRUCTIONS ENCOUNTERED

The drawings show certain information, which has been obtained from various sources regarding various pipelines, and other structures, which exist at the location of the Project both below and at the surface of the ground. The Owner and the Engineer expressly disclaim all responsibility for the accuracy or completeness of the information given on the Drawings with regard to existing structures and pipelines, and the Contractor will not be entitled to any extra compensation on account of inaccuracy or incompleteness of such information, said structures and pipelines being shown only for the convenience of the Contractor, who shall verify the information to his own satisfaction.

The provision of this information within the Contract Drawings does not relieve the Contractor of his obligation to support and during the Construction of the Work, and to make good all damages due to such pipelines and structures, as provided in these Specifications.

The following subsection is added:

105.12 WORKING HOURS - HOLIDAYS AND OVERTIME

The work day for the Engineer and his staff shall begin at 8:00 a.m. and end at 5:00 p.m., except Saturdays, Sundays, and Legal Holidays. If the Contractor wishes to prosecute any portion of the Work beyond these hours, he shall notify the Engineer each time in advance, giving him ample time in which to produce an Engineer and/or Inspector (or Survey as required) for the overtime work and notify the Owner for his representative to be present. The Contractor shall compensate the Owner for Engineering, Inspection, and Surveying overtime and such compensation shall be deducted from the Contractor's monthly payment. Said compensation will be in the exact sum billed to the Owner by the Engineer or others.

SECTION 107 – LEGAL RELATIONS

107.11 RISKS ASSUMED BY THE CONTRACTOR

The following is added to this subsection:

The Contractor shall, in furtherance of the above paragraphs, but not by way of limitation, at the Contractor's expense, provide suitable drainage for the Project and erect such temporary structures where necessary to protect the Work from damage. The Contractor shall assume the risks for failure to take such actions.

In case of suspension of the Work from any cause whatever, the Contractor shall continue to be responsible for the Project as provided above and shall take such precautions as may be necessary to prevent damage to the Project, provide for drainage, and shall erect any necessary temporary structures, signs, or other facilities. During such period of suspension of the Work, the Contractor shall properly and continuously maintain in an acceptable growing condition all living material in newly established plantings, seedings, and soddings furnished under the Contract, and shall take adequate precautions to protect new tree growth and other important vegetative growth against injury. If ordered by the Engineer, the Contractor shall properly store, during such suspension of the Work, materials which have been partially paid for or furnished by the Department. The Department will be entitled to the possession of such materials, and the Contractor shall promptly return the same to the Project site when requested. The Contractor shall not dispose of any of the materials so stored except on written authorization. The Contractor shall be responsible for the loss of or damage to such materials.

SECTION 108 – PROSECUTION AND COMPLETION

108.02 COMMENCEMENT OF WORK

The following is added to this subsection:

Construction operations shall not begin until the Contractor has supplied and the engineer accepted, the preliminary schedule and other certifications, forms, schedules and any other information required by the contract documents.

108.11 MODIFICATIONS TO CONTRACT TIME

The following is added to this subsection:

All work on this contract must be completed within **One Hundred Twenty (120)** calendar days from the notice to proceed. If the work exceeds **One Hundred Twenty (120)** calendar days, in addition to the liquidated damages as outlined in Section 42 of the General Specifications the contractor shall also be responsible for all Engineering and Inspection services after this date. This cost will be deducted from the contractor's final payment(s) along with any/all liquidated damages.

108.11.01 Extensions to Contract Time

A. Qualifications for Extensions

The following is added to this subsection:

Extension of contract time for the reasons set forth in this Subsection 108.11 will not be granted unless the Contractor has notified the engineer in writing of the causes of delay within 10 State Business days from the beginning of any such delay.

108.18 SUBSTANTIAL COMPLETION

The following is added:

The Contractor shall notify the Engineer when the Project is completed. If the Project is not acceptable to the Engineer, he will advise the Contractor as to the particular defects to be remedied before final acceptance will be made. The cost of all subsequent visits by the Engineer and/or his representative will be deducted out of the contractor's final payment.

The whole work must have been furnished in a neat and workmanlike manner and must be in that condition at that date. Defects arising from any cause or at any time before acceptance must be made good and the whole work put in the condition as herein specified before acceptance.

This section is not to be construed to prevent the Owner from entering upon and using the whole or any portion of the Project which may be in condition for use at any time prior to the final acceptance by the Owner and such privilege is hereby given. The final inspection and acceptance will be made by the Owner when the Project is completed.

Payments made to the Contractor before final acceptance does not commit the Owner to acceptance of the work.

Neither the final payment nor any part of the retained percentage shall become due until the Contractor, if required, shall deliver to the Owner a complete release of all liens arising out of this Contract, or receipts in full in lieu thereof and, if required in either case, an affidavit that so far as he has knowledge or information the releases and receipts include all the labor and materials for which a lien could be filed; but the Contractor may, if any Subcontractor refuses to furnish a release in full, furnish a bond satisfactory to the Engineer, to indemnify the Owner against any lien. If any lien remains unsatisfied after all payments are made, the Contractor shall refund to the Owner all monies that the latter may be compelled to pay in discharging such a lien, including all costs and a reasonable attorney's fee.

The Contractor shall be responsible for maintaining copies of all Punch Lists issued by the Owner. The Contractor shall address all items on the Punch Lists and provide a written response indicating the status of each item on the list. Until all Punch List items have been resolved, the Project cannot be considered to have reached Final Completion.

All Punch List Items shall be completed within seven (7) Workdays of Substantial Completion of a Building for which the Punch List has been prepared, or within seven (7) Workdays of Substantial Completion for a site improvement for which the Punch List has been prepared, except that all Punch List work shall be completed within fourteen (14) calendar days of Substantial Completion of the final Building, or within fourteen (14) calendar days of Substantial Completion of all work related to the site at the project. If such Punch List work is not complete within this schedule, the Owner may engage a separate Contractor to perform the work, and deduct the cost of this work from remaining payments to the Contractor.

If Punch List work is completed after Substantial Completion of the final building or the site improvement at the project, the Contractor shall notify the Owner when all Punch List work has been finished. The Owner will then arrange for Final Inspection of the Punch List work. Should Punch List work not be completed in a satisfactory manner, the Contractor shall be responsible for any costs related to re-inspection at a later date.

SECTION 109 – MEASUREMENT AND PAYMENT

109.09 WITHHOLDING PAYMENTS

The Engineer may withhold, or on account of subsequently discovered evidence, nullify the whole or part of the certificate for payment to such extent as may be necessary to protect the Owner from loss on account of:

1. Defective work not remedied.
2. Claims filed or reasonable evidence indicating probable filing of claims.
3. Failure of any Contractor to make payments promptly to subcontractors or for material or labor.
4. A reasonable doubt that the Contract can be completed for the balance then unpaid.

When all the above grounds are removed certificates will at once be issued for amounts withheld because of them.

109.10 CONDITIONS OF ACCEPTANCE

The Contractor shall notify the Engineer when the Project is completed. If the Project is not acceptable to the Engineer, he will advise the Contractor as to the particular defects to be remedied before final acceptance will be made.

The whole work must have been furnished in a neat and workmanlike manner and must be in that condition at that date. Defects arising from any cause or at any time before acceptance must be made good and the whole work put in the condition as herein specified before acceptance.

This section is not to be construed to prevent the Owner from entering upon and using the whole or any portion of the Project which may be in condition for use at any time prior to the final acceptance by the Owner and such privilege is hereby given. The final inspection and acceptance will be made by the Owner when the Project is completed.

Payments made to the Contractor before final acceptance does not commit the Owner to acceptance of the work.

Neither the final payment nor any part of the retained percentage shall become due until the Contractor, if required, shall deliver to the Owner a complete release of all liens arising out of this Contract, or receipts in full in lieu thereof and, if required in either case, an affidavit that so far as he has knowledge or information the releases and receipts include all the labor and materials for which a lien could be filed; but the Contractor may, if any subcontractor refuses to furnish a release in full, furnish a bond satisfactory to the Engineer, to indemnify the Owner against any lien. If any lien remains unsatisfied after all payments are made, the Contractor shall refund to the Owner all monies that the latter may be compelled to pay in discharging such a lien, including all costs and a reasonable attorney's fee.

109.11 ACCEPTANCE OF PAYMENT NOT A WAIVER

Neither the acceptance by the Owner or the Engineer, nor any of their employees, nor any order, measurement or certificate of the Engineer, nor any order by the Owner for payment of money, nor any payment for, nor acceptance, or, the whole or any part of the work by the Engineer or the Owner, nor any extension of time, nor any possession taken by the Owner or employees thereof, shall operate as a waiver of any portion of this Contract or any power herein reserved to the Owner, or any right to damages herein provided, nor shall any waiver of any breach of this Contract be held to be a waiver of any other or subsequent breach. All remedies provided in this Contract shall be taken and construed as cumulative, that is, in addition to each and every remedy herein provided.

109.12 FINAL PAYMENT TERMINATES OWNER'S LIABILITY

No person, firm or corporation other than the signer of this Contract as Contractor now has any interest hereunder, no claim shall be made or be valid and neither the Owner nor any of his agents shall be liable for or be held to pay any money,

except as provided in this Contract. The acceptance by the Contractor of the final payment aforesaid shall operate as, and shall be, a release to the Owner and his agents.

The following is added to this subsection

109.13 GUARANTY (MAINTENANCE) BOND

Unless otherwise specified, before final payment is made as herein provided, the Contractor shall furnish a Surety Corporation Bond to the Owner in a sum equal to One Hundred percent (100%) of the final adjusted Contract amount for a period of two (2) years from the date of final payment for the work.

109.14 MANDATORY ARBITRATION FOR CONSTRUCTION CONTRACTS

All disputes arising under the contract shall be submitted to a process of resolution pursuant to alternative dispute resolution practice in accordance with P.L. 1997, Chapter 371, Mandatory Arbitration for Construction Contracts.

DIVISION 150 – CONTRACT REQUIREMENTS

SECTION 157 – CONSTRUCTION LAYOUT AND MONUMENTS

157.03 PROCEDURE

This subsection is deleted and replaced with the following:

The Contractor is responsible for setting construction stakes, establishing lines and continuous profile grade. Survey verification of grades is required to insure proper installation with normal water surface elevation.

These stakes and marks shall constitute the field control by and in accordance with which the Contractor shall establish other necessary controls and perform the work. The Contractor is encouraged to stage work and stake-setting requests to minimize the need to reset stakes.

All marking devices used shall be temporary in nature and removed prior to final acceptance. If such devices are not removed, the cost to remove them shall be deducted from final payment.

SECTION 158 – SOIL EROSION AND SEDIMENT CONTROL AND WATER QUALITY CONTROL

158.01 DESCRIPTION

The subsection is supplemented with the following:

All soil erosion and sediment control measures shall be in place prior to any construction activities or other related operations.

If modifications are needed to the contract drawings, a plan showing proposed soil erosion and sediment control measures shall be prepared and submitted to the Engineer for approval in accordance with Soil Erosion and Control Plan. All erosion and sediment control measures shall be left in place until construction is completed and/or the area is stabilized.

158.04 MEASUREMENT AND PAYMENT

This entire subsection is deleted and replaced with the following:

Work shall include all labor, materials, and equipment necessary for the furnishing and installation of soil erosion and sediment control devices. This includes but is not limited to installation of control devices and the maintenance of the devices until completion of the project.

SOIL EROSION AND SEDIMENT CONTROL will not be measured and payment will be made on a lump sum basis under the base bid item SOIL EROSION AND SEDIMENT CONTROL.

Partial payment during construction will be made on the following schedule: 50% of lump sum at completion and acceptance of installation, next 25% at 50% completion of overall contract value and the remaining 25% with final acceptance and final payment.

Pay Item:

Pay Unit

Soil Erosion and Sediment Control

Lump Sum

SECTION 161 – FINAL CLEANUP

161.02 MATERIALS

This entire subsection is deleted and replaced with the following:

The Contractor will provide the materials, labor and equipment to conduct a final cleanup of the project site, including existing and newly constructed items and the surrounding area affected by the construction.

161.04 MEASUREMENT AND PAYMENT

This entire subsection is deleted and replaced with the following:

FINAL CLEANUP will not be measured and payment shall be included in the various appropriate bid items in the Contract.

END OF SECTION

DIVISION 200 – EARTHWORK

SECTION 201 – CLEARING SITE

201.01 DESCRIPTION

This subsection is supplemented as follows:

Any and all work associated with demolition and clearing of the project site of existing skate equipment, pavement and fencing is the responsibility of the owner. All demolition and clearing site work for the items is to be completed by the owner prior to the beginning of construction on site. The contractor is responsible for all coordination and communication regarding demolition and clearing site measures with the project owner. Contractor is to be advised that the owner is to leave the existing stone base on the project site for re-use in the construction of the proposed park features. Contractor is also to be advised that while the existing stone base is to be re-used in the construction of the proposed park features, additional stone may be required to supplement the existing base material. Any and all ¾" clean stone brought on site to supplement the existing stone base material is the responsibility of the contractor. All costs associated with supplemental ¾" clean stone base material are to be included in the costs of the various bid items, no additional payments will be made by the owner in regards to supplemental stone base material required to furnish and install a proper base. Clearing site shall also include the removal of existing stone base to subgrade and any filter fabric that may be present in areas where topsoil, and fill material will be in areas that will be lawn and/or landscaped as shown on plans. Any existing stone base that will not be utilized during construction and installation of skate elements will be available to owner and delivered to their location of choice or will be removed from site and disposed of by contractor.

CLEARING SITE shall also include the removal or protection in place of any fences, signs, pavement, inlets, or other items which are in conflict with construction whether or not they are designated to be removed or reset in the plans. The contractor is encouraged to walk the site to make his/her own determination of the items which are in conflict with construction and which must be removed and/or reset. The contractor is responsible for communicating his findings and coordinating appropriate action with the owner in a timely manner. No additional payment will be given for items removed or reset by the contractor during the course of construction which have not been identified in the plans and were not brought to the attention of the engineer prior to removal.

201.03 CONSTRUCTION

201.03.09 Disposal of Materials and Debris

201.04 MEASUREMENT AND PAYMENT

This subsection is replaced with the following:

CLEARING SITE items as described herein, and all associated costs are the responsibility of the project owner, The County of Union for removal of asphalt, fencing, skate equipment; all other items listed below are the responsibility of the contractor. For areas where existing stone needs to be relocated, stockpiled, moved for reuse or moved for use by the owner, including all costs associated with loading, transportation and delivery will be the responsibility of the contractor. Costs for these activities will not be measured, all costs are to be included in the various bid items.

SECTION 202 – EXCAVATION

202.01 DESCRIPTION

This subsection is supplemented as follows:

The work shall consist of stripping existing topsoil and other ground cover if applicable and excavation for the installation of facility improvements including skate equipment, footings, foundations, site appurtenances, storm water pipe and structures, concrete sidewalk, etc. The work shall also consist of all earthwork and berming as per the grading plans.

Excavated material may be used as backfill material upon the approval of the Engineer. Any unsuitable material for backfill shall be disposed off - site by the Contractor at not addition cost to the Owner. Any and all costs associated with additional fill material required to meet all finished grades of the proposed earthwork are to be included in the Grading and Earthwork bid items. No additional payments will be made by the owner for necessary fill material.

If desired, the Contractor may perform site geotechnical investigation work at his expense.

Excavated materials shall either be immediately removed from the site or protected in accordance with appropriate soil erosion and sediment control measures.

The Contractor shall also insure that Soil Erosion and Sediment Control Certification has been received and provide necessary notices to the local Soil Conservation Authority prior to excavating any material.

202.03 MATERIALS

Import Certified clean and compactable fill meeting the soil characteristics below with supporting source and analytical data verifying to its cleanliness. The contractor shall provide all load tickets of imported fill.

- A. General: Provide borrow soil materials when sufficient satisfactory soil materials are not available from excavations.
- B. Satisfactory Soils: ASTM D 2487 Soil Classification Groups GW, GP, GM, SW, SP, and SM, or a combination of these groups; free of rock or gravel larger than 2 ½” inches in any dimension, debris, waste, frozen materials, vegetation, and other deleterious matter.
- C. Unsatisfactory Soils: Soil Classification Groups GC, SC, CL, ML, OL, CH, MH, OH, and PT according to ASTM D 2487, or a combination of these groups.
 - 1. Unsatisfactory soils also include satisfactory soils not maintained within 2 percent of optimum moisture content at time of compaction.
- D. Sand: ASTM C 33; fine aggregate, natural, or manufactured sand.
- E. Impervious Fill: Clayey gravel and sand mixture capable of compacting to a dense state.

202.03 CONSTRUCTION

This subsection has been changed to:

202.03 MEASUREMENT AND PAYMENT

Measurement and Payment for EXCAVATION shall be paid for under the appropriately awarded base bid and supplemental bid contracts.

All soil, including unsuitable soil, that do not exceed the NJ Residential or Non-Residential Cleanup Standards or the Impact to Groundwater Standards shall not be measured and cost for disposal shall be included in the various bid items in the contract. Environmental classification / soil disposal sampling and testing costs necessary are to be included in the cost for the various applicable bid items. No separate payment will be made for this work.

GRADING AND EARTHWORK will not be measured and payment will be made on a lump sum basis. This bid item shall include all labor, material and equipment needed to PERFORM THE REQUIRED grading, sub-base leveling and earthwork necessary as included in the contract documents.

Payment shall be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
Grading and Earthwork	Lump Sum

END OF SECTION

DIVISION 300 – BASE COURSES SECTION 302 – AGGREGATE BASE COURSE

302.01 DESCRIPTION

The following is added to this section:

This work shall consist of all equipment, material and construction and grading of the concrete sidewalk and poured-in place areas as shown on the plans. Aggregate base course shall also be utilized as shown on the plans and details for the installation of many stormwater and site improvements and equipment.

Contractor is to be advised that the owner is to leave the existing stone base on the project site for re-use in the construction of the proposed park features. Contractor is also to be advised that while the existing stone base is to be re-used in the construction of the proposed park features, additional stone may be required to supplement the existing base material. Any and all ¾” clean stone brought on site to supplement the existing stone base material is the responsibility of the contractor. All costs associated with supplemental ¾” clean stone base material are to be included in the costs of the various bid items, no additional payments will be made by the owner in regards to supplemental stone base material and preparation required to furnish and install a proper base. All costs associated with proper sub-base preparation and leveling are to be included in the various bid items.

302.02 MATERIALS

Base courses for concrete and paved areas shall utilize dense graded aggregate (Section 900 of the 2007 NJDOT Specifications) as detailed on the plans.

302.03 CONSTRUCTION

302.03.01 Compaction

This subpart is supplemented as follows:

The compaction requirements in this subsection are waived. The base course shall be placed and compacted according to subsection 203.03.02.D of the NJDOT Standard Specifications.

302.04 MEASUREMENT AND PAYMENT

The following is added to this subsection:

Measurement and payment for Aggregate Base Course items and preparation measures for concrete sidewalk, 4” thick shall not be made. The costs shall instead be included in the various applicable bid item in the Contract. Aggregate Base Course item and preparation shall include the excavation, removal, aggregate, grading, leveling, compaction and all else necessary for installation as detailed on the Plans.

Measurement and payment for ¾” CLEAN STONE, 6” THICK (IF AND WHERE DIRECTED) item and preparation measures will be made on a per square yard basis if and where directed. ¾” CLEAN STONE, 6” THICK (IF AND WHERE DIRECTED) item shall include the excavation, removal, aggregate, grading, leveling, compaction and all else necessary for installation as detailed on the Plans.

Pay Item

Pay Unit

¾” Clean Stone, 6” Thick (If and Where Directed)

Square Yard

END OF SECTION

DIVISION 400 – SURFACE COURSES

SECTION 401 – HOT MIX ASPHALT (HMA) COURSES

401.01 DESCRIPTION

This subsection is supplemented with the following:

Although limited in scope, the hot mix asphalt for the project includes areas of pavement restoration as a result of proposed drainage improvements in the area of the existing volleyball courts as depicted on the plans or disturbed by the Contractor.

The Contractor is directed to the Plan details for asphalt related details.

Asphalt areas damaged by the Contractor during construction shall be neatly sawcut and replaced at the direction of the Engineer. Damage shall include cracking, broken sawcut edges, rutting caused by heavy equipment traffic, etc.

401.02 MATERIALS

This subsection is supplemented with the following:

Whenever the term “Hot Mix Asphalt,” is used, it shall be interpreted as “**Superpave Hot Mix Asphalt.**” The Contractor is directed to the plans for pavement box design. The various mixes shall be in accordance with NJDOT Standard Specifications.

401.03.03 HMA Courses

I. Thickness

This Subsection is deleted. In no instance will a compacted average thickness of less than 2 inches be acceptable.

J. Ride Quality Requirements:

This subsection is replaced by the following:

The paving operation is acceptable if the surface course is in substantial conformity with 1/8 inch in 10 feet surface tolerance. Should the surface be found not in conformity, the Engineer may direct that paving operations be discontinued until mutually acceptable paving methods or equipment is utilized. Additional compensation, extension of contract time, or other concession will not be permitted because of revised methods or equipment necessary to produce a Superpave HMA surface in substantial conformity with a 1/8 inch in 10 feet surface tolerance.

401.04 MEASUREMENT AND PAYMENT

The following is added to this subsection:

Measurement and payment for sawcutting will not be made; the cost will instead be included in the various bid items in the proposal. Measurement and payment for milling, as applicable, will not be made: the cost(s) will instead be included in the various bid items in the proposal.

PAVEMENT REPAIR items will not be measured, payment will be made under the 8” HDPE PIPE bid item in the Contract.

END OF SECTION

DIVISION 500 – BRIDGES AND STRUCTURES

SECTION 504 – STRUCTURAL CONCRETE

504.01 DESCRIPTION

The following is added to this Subsection:

This section covers the concrete work for the construction of Poured in Place concrete skate elements, footings and foundations as shown and detailed on the plan and as described below.

1. Shotcrete for skate park Poured in Place Skate Elements in accordance with plans, details, specifications and skate element manufacturer's recommendations. The supply and installation of Shotcrete will be considered specialty work and a qualified installer will be required. The installer will also need to be qualified in the installation of the pre cast concrete skate park elements. Qualifications on installations of Poured in Place Skate Elements are to be provided at time of bidding. Qualifications to include a minimum of 5 years of Poured in Place Skate Elements experience to include placing, shooting, finishing concrete for skate parks. Form in the appendix section of the specification to be provided at time of bid.
2. Skate Element Footings: Poured in Place concrete design specific footings installation for skate-park precast concrete elements in accordance with details, specifications and precast element manufacturer.
3. Sign Footings: Poured in Place concrete footings in accordance with the plans and specifications.

The Contractor shall furnish all materials, labor, equipment and machinery for the construction of the aforementioned items in accordance with contract plans, specifications, NJ DOT Standard Specifications and as directed by the Engineer and skate park manufacturer's recommendations.

504.02 MATERIALS

The following sentence is added to the subsection:

The concrete materials used for this project shall be as specified on the plans and herein in the specifications and shall conform to the Division 900 of the standard specification. Any material not covered in Division 900 of the specification shall be governed by the NJDOT Standard Specifications for Road and Bridge Construction, 2007 or latest version.

Grout material shall be non-shrink cementitious grout with a minimum strength of 4,000 psi at 28 days.

All anchoring devices shall be corrosion resistant and as specified by the appropriate component manufacturer. The Contractor shall coordinate with the individual manufacturers/suppliers to identify anchoring materials needed to install the components. If reinforcing anchors are to be drilled and epoxyed into poured footings, the anchors shall be installed to the depths recommended by the component manufacturers and the epoxy shall be rated appropriate for the structural loading.

All reinforced concrete footings shall be 4,000 psi concrete, hard steel-trowel finish (just before glassy) and shall be chemically sealed with permanent, non-glossy concrete sealant. If deemed necessary to apply the sealant shall be Kure-N-Seal as manufactured by BASF or approved equal. Sealant for skate surfaces shall be WR Meadows 1100-Clear as recommended by the skate feature manufacturer or approved equal. Slip and smooth steel dowels as manufactured by Greenstreak or approved equal shall be installed as detailed on the plans. Reinforcing steel shall be No. 3 Rebar spaced both ways as depicted on the plans and recommended by the skate feature manufacturer. The Contractor shall coordinate with the skate feature manufacturer to identify specific acceptable as-built footing tolerances. The skate feature manufacturer and Engineer shall thoroughly inspect the footings for conformance with said tolerances and reject items that do not comply prior to the installation of any skate park or site elements. If deemed acceptable by the skate feature manufacturer and/or Engineer the inspection may be done through photos otherwise site inspection will be required. The bidder is encouraged to contact the skate feature manufacturer during the bidding process to discuss the footing installation and coordinated efforts. The cost for this item shall include all coordination with the skate feature manufacturer. The Contractor shall provide the necessary stabilized access paths and crane use areas for installation of the skate features by the Contractor's Manufacturer Certified Skate Feature Installer as described in Section 515 of these specifications. The Contractor shall schedule activities appropriately to allow recommended concrete cure time prior to scheduling of skate feature installation. See Attachment A for additional Skate Feature information.

Shotcrete shall meet ACI standard 506, latest edition, "specification for Materials, Proportioning and Application of Shotcrete" an ACI 506.2, Latest edition, "Recommended practices for Shotcreting" shall be followed. The amount of fly ash used shall not exceed 30% by weight of the combined weight of fly ash plus cement.

Air entrainment not to exceed 3%. Provide mix designs that will meet the minimum requirements listed herein. Wet mix shotcrete capable of thoroughly mixing aggregate, cement and water in sufficient quantity to maintain continuous placement. Ready mixed concrete shall meet ASTM C94, except that it may be delivered to the site in the dry state if the equipment is capable of adding the water and mixing it satisfactorily with the dry ingredients. Air supply shall be clean air adequate for maintaining sufficient nozzle velocity for parts of work, and for simultaneous operation of blow pipe for cleaning away rebound. Delivery equipment shall be capable of discharging aggregate, cement, water, mixture accurately, uniformly, and continuously through delivery hose.

It is the responsibility of the Contractor to contact the various vendors to coordinate accurate footing horizontal and vertical placement. Prior to coordinating equipment installer mobilizing the Contractor shall confirm with them the proper placement of the footings, anchors and all else needed for installation. The Contractor shall also coordinate site access and provide safe and stable access to their work areas. The Contractor shall also provide staging and assembly areas to insure safe and efficient construction of all site improvements.

504.03 CONSTRUCTION

The following sentence is added to the subsection:

Concrete/shotcrete form work is to be examined for slope, size, dimension, and reinforcement etc. prior to pouring or shooting. Any concrete/shotcrete that is poured prior to be examined will be subject to being removed and replaced at contractor's expense if slopes, size, dimensions, reinforcements are deemed insufficient of not in accordance with the plans, specifications, or details. Forms shall be constructed to permit escape of air and rebound but to prevent leakage during shotcreting. Forms are to have a form coating material on removable forms to prevent absorption of moisture and to prevent bond with shotcrete.

Adequate forms/bracing shall be used prior to pouring/shooting concrete, any forms or bracing that are deemed in adequate will result in contractor reinstalling forms/bracing at no additional cost for the reinstallation or time delays.

Coordination with sub-contractors while forming, shooting, pouring will be the responsibility of the contractor.

Mix proportions shall be controlled by weight batching. Concrete shall not exceed a temperature of 100 degrees Fahrenheit at time of placement unless pre-approved by the Engineer. Use suitable delivery equipment and procedures that will result in shotcrete in place meeting the requirements of this specification. Determine operating procedures for placement in, extended distances, and around any obstructions where placement velocities and mix consistency must be adjusted.

Do not place shotcrete if drying or stiffening of the mix takes place at any time prior to delivery to the nozzle. Control thickness, method of support, air pressure and /or water content of shotcrete to preclude sagging or slouching off. Discontinue shotcreting or provide suitable means to screen the nozzle stream if wind or air currents cause separation of the nozzle stream during placement.

Hold nozzle as perpendicular to surface as work will permit to secure maximum compaction with minimum rebound. In shotcreting walls, begin application at bottom. Ensure work does not sag. Build up layers by making several passes of nozzle over work area. Make sure surface is adequately rough to which, after hardening, additional layers of shotcrete are to be bonded. Dampen surface just prior to application of succeeding layers. Allow each layer of shotcrete to take initial set before applying succeeding layers. Use radial templates to insure exact radii from flat bottom of bowl/pipe to face of coping. Template shall be fabricated from steel or 3/4" minimum plywood. Check every horizontal foot when applying shotcrete for conformance of intended wall radii. Brace template and place levels art arc to tangent connections to insure no kinks will be formed. Kinks at the bottom of bowls will not be acceptable. Slumping of the shotcrete causing coping setback will not be acceptable. Remove any rebound or accumulated loose aggregate from surfaces to be covered prior to placing the initial or any succeeding layers of shotcrete. Rebound shall not be used as aggregate.

Hold the nozzle at such distance and angle to place materials behind reinforcement before any material is allowed to accumulate on its face. Test to ascertain if any void or sand pockets have developed around or behind reinforcement by probing with an awl or other pointed tool after the shotcrete has achieved its initial set, by removal of randomly selected

bars, or coring or other suitable standards. Allow easy access to shotcrete surfaces for screening and finishing permitting uninterrupted application.

Remove and replace shotcrete which lacks uniformity, exhibits segregation honeycombing, or lamination, or which contains any dry patches, slugs, voids, or pockets. Remove defective areas at no additional cost to Owner. Sound work with hammer for voids. Remove and replace damaged in place shotcrete at no additional cost to Owner.

All exposed shotcrete surfaces are to be hard steel trowel finish unless otherwise noted. Trowel until all visible pours are closed. Cease trowel before glass forms on surface. Do not broom finish and do not burn surface. Grinding the surfaces will not be an acceptable means of achieving the intended radii/angle.

During the curing period, concrete shall be maintained at a temperature above 40 degrees Fahrenheit and in moist condition for initial curing, concrete shall be kept continuously moist for 24 hours after placement is complete. Final curing shall continue for 7 days after placement. Cover concrete with polyethylene plastic to maintain temperature if necessary. Lap seams in the plastic 6" and weigh down.

The contractor shall fix all cracks and displacement larger than 1/16". Concrete joints shall be thoroughly cleaned and wetted prior to the application of additional shotcrete. Make joints perpendicular to the main reinforcement. Continue reinforcement across joints. Cracking from inadequate curing is not allowed. Saw cut joints and construction joints may be shown in the construction drawings for diagrammatic purposes only. The contractor may, with the approval of the Owner/Engineer, recommend and detail other joints required to prevent cracking. The contractor shall fix all cracks and displacement larger than 1/16"

504.04 MEASUREMENT AND PAYMENT

This subsection is supplemented with the following:

Galvanized steel rails, concrete sealants, reinforcing steel and mesh for Poured in Place concrete items shall not be measured and the cost shall be included in the appropriate bid item.

Measurement and payment for skate park structural element foundations shall be made on a lump sum basis under item CONCRETE FOOTINGS, REINFORCED / POURED IN PLACE SKATE ELEMENTS / CONCRETE FOOTINGS, REINFORCED shall include all work associated with skate element footing preparation and construction in accordance with Section 504 (excavation, shoring, subbase, concrete, forms, placing, finishing, backfill and grading) as well as, coordination and installation of the Owner Purchase Skate Features and all incidental work as required).

Measurement for installation of Poured in Place concrete footings associated with the site signage shall not be made. Payment shall be made on a unit basis under items: POURED IN PLACE SKATE ELEMENTS, REINSTALLED ADA PARKING SIGN and RULES AND REGULATIONS SIGN. See Section 612 for additional information for these items.

Payment shall be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
Poured In Place Skate Element	Lump Sum
Concrete Footings, Reinforced	Lump Sum
Reinstalled ADA parking Sign	Unit

SECTION 515 – SKATE PARK ELEMENTS

515.01 DESCRIPTION

Skate Elements shall include supply and installation as per manufacturers recommendations of all work associated with skate element footing construction in accordance with Section 504 (excavation, shoring, subbase, concrete, forms, placing, finishing, backfill and grading) as well as, installation of all poured in place skate elements as well as coordination and installation of the pre-cast concrete skate park elements and all incidental work as required. Installation of the pre-cast and poured in place skate park elements includes but is not limited to, coordination with the skate feature manufacturer/installer, picking, inspection, unloading, protection of the skate features upon delivery to the site. The general contractor's scope shall also include the footing preparation, formwork, access path installation, and overhead utility shutdown/reenergizing coordination and fees if necessary by the contractor.

Scope shall include crane and operator for picking, setting, and installation of the skate park elements by a Skate Elements Manufacturer Certified Installer meeting the requirements detailed in this section. The contractor shall insure that the complete scope of services is included in either the Skate Elements Manufacturer Certified Installer's scope of services or else completed by the contractor. The contractor is responsible to insure the skate features are completely installed and functional at the discretion and approval of the skate park manufacturer and Engineer. Lack of coordination to clarify scope between the Skate Elements Manufacturer Certified Installer and the Contractor shall not be tolerated and no additional payment shall be made for gaps in services to complete the work.

All work contained in this Section is considered specialty skate park construction work. Only manufacturers and installers that meet the minimum experience requirements contained in the QUALITY ASSURANCE Section are qualified to perform this work. All Pre-Cast Skate Elements and Poured in Place Concrete Skate Park Elements are to be installed by Spohn Ranch, 6824 S. Centinela Avenue, Los Angeles, CA 90230, (877) 489-3539 x 212 (Jason Baldessari / jason@spohnranch.com), or pre-approved equal skate park contractors.

515.02 MATERIALS

515.02.01 General

- A. Spohn Ranch Skateparks precast concrete features are to be provided by the contractor or sub-contractor. Coordination for the delivery of the skate features can be made through Doug Hagen of Spohn Ranch Skateparks Doug@spohnranch.com 626-330-5803.
- B. Skate element footing construction shall be in accordance with Section 504.
- C. Poured in Place Skate Elements: All poured in place concrete skate element installation in accordance with details, specifications and skate park designer's recommendations.

515.02.02 Submittals

- A. Contractor Experience: **All contractors must provide written proof of sufficient experience installing pre-cast elements for skate parks similar to that specified; and demonstrate successful experience through past project documentation and references. THIS INFORMATION MUST BE SUBMITTED WITH THE BID PROPOSAL.** The Engineer shall determine whether any contractor meets these requirements.
 1. Required Installer Experience: Precast concrete installer must have completed **ten (10) public pre-cast concrete skate park facilities with a minimum size of 7,500 square feet within the last 5 years from the date this bid is due.** Qualifying parks must be in continuous operation for 1 year and currently in good operating condition in the discretion of the Engineer. Precast concrete installer's firm must have been the prime skate park contractor for all qualifying projects. Qualifying parks must have at least 75% of skate elements be non-approach plate, pre-cast concrete skate elements. The precast concrete installer to perform the installation work shall have a minimum of five (5) years experience installing precast concrete skate park equipment similar to the work specified.

2. **Evidence of Experience: Contractor or Subcontractor shall submit to Engineer proof of the experience and nature and quality requirements set forth above. The Engineer shall have sole discretion to determine compliance experience requirements.**
3. **Each Contractor is required to submit the ‘EXPERIENCE VERIFICATION FOR CONTRACTORS AND SUB-CONTRACTORS’ form with their bid (Included in the contract section of these specifications).**
4. Safety and Performance Guidelines: Comply with all safety and performance requirements and all applicable references as specified in the ASTM F2480 Standard Guide for In-ground Skate Parks.

515.02.02 Delivery, Storage, and Handling

- A. The contractor shall coordinate delivery of the skate features from the manufacturers, inspect the products for deficiencies or missing components, unload the structures and store and protect them. It is the Certified Skate Park Element Installer’s intent to pick and install the features directly from the delivery truck(s). All equipment must be delivered to site and secured properly. Security is the responsibility of the Contractor. Upon delivery, it is the Contractor’s responsibility to examine all boxes and elements to confirm that all parts are present and undamaged. Any missing or damaged pieces must be reported immediately by the Contractor to the Engineer and the County of Union. Any missing or damaged pieces reported before structure installation begins shall be replaced by the Contractor and the manufacturer of the equipment. The Contractor shall supply a chain-of-custody letter on the Contractor’s letterhead taking ownership of each item and releasing the Owner of any responsibility following initial inspection. Any parts reported as missing or damaged after receiving the material shall be replaced by the Contractor.

515.03 CONSTRUCTION

515.03.01 Site Conditions

- A. Coordination:
 1. Coordinate schedules of concrete placement by the contractor with the Certified Skate Park Element Installer to allow adequate time for installation of other related work.
 2. Coordinate size and location of mechanical and electrical equipment for concrete pads.
 3. Coordinate earthwork with placement requirements.
 4. Coordinate with form-work and finishes sections to provide finish floor levelness and flatness as specified herein. Confirm that slabs slopes to drains at grades and percent slope shown on contract documents.
 5. Contractor shall install safe and adequate access to install all skate features.
 6. Contractor shall verify all skate feature footing tolerance are in accordance with the skate feature manufacturer prior to feature installation.

515.03.02 Skate Elements

- A. Contractor shall coordinate all efforts and clearly define scopes of work and scheduling with the Skate Elements Manufacturer Certified Installer.
- B. The contract shall prepare all skate Elements footings in accordance with Section 504.
- C. Contractor shall provide all necessary safe and adequate access around the site.
- D. Contractor shall insure all features are onsite and in good condition for installation.
- E. Contractor shall coordinate with local utilities for temporary shutdowns/re-energizing events as necessary for the delivery and installation of skate features (crane utility proximity requirements). All applicable fees shall be paid by the contractor. When possible the contractor shall avoid utility disturbance.
- F. A schedule of coordinated events shall be kept and submitted to the Engineer before construction and submitted for each revision.

515.03.03 Inspection

1. Inspect subgrade, forms, reinforcing steel, welded wire mesh, anchors, inserts, and other work required to be built into concrete and report any discrepancies. Notify Owner's Representative at least 5 working days in advance of scheduled placement.
2. Correct unsatisfactory work prior to placing concrete.
3. Remove debris from formwork immediately prior to placing concrete.
4. Verify all tolerances required by the skate feature manufacturer are met prior to feature installation. Written verification of conformance from the Manufacturer Certified Skate Feature Installer shall be submitted to the Engineer prior to feature installation.

515.03.04 Repairs and Protection

1. Remove and replace pre-cast elements that are broken, damaged, defective, or do not meet the requirements of this Section or conformance with ASTM F 2480 - Standard Guide for In-ground Skate Parks.
2. Protect pre-cast skate elements from damage until approval by Engineer and acceptance by Owner.

515.04 MEASUREMENT AND PAYMENT

This subsection is supplemented with the following:

Measurement for pre-cast skate park structural element coordination unloading, storage and protection shall not be made. Payment shall instead be made on a lump sum basis under item PRE-CAST SKATE ELEMENTS. Measurement for the installation and delivery of all pre-cast skate element structural elements shall not be made. Payment shall instead be made on a lump sum basis under item PRE-CAST SKATE ELEMENTS. Measurement for poured in place concrete skate park structural element installation, coordination unloading, storage and protection shall not be made. Payment shall instead be made on a lump sum basis under item POURED IN PLACE SKATE ELEMENTS. Installation of the skate park elements include but is not limited to, coordination with the skate feature manufacturer, picking, inspection, unloading, storage and protection of the skate features upon delivery to the site. The scope shall also include access path installation, and overhead utility shutdown/re-energizing coordination and fees if necessary by the contractor. Scope shall include crane and operator for picking, setting, and installation of the skate park elements. The contractor shall insure that the complete scope of services is included in either the Skate Elements Manufacturer Certified Installer's scope of services or else completed by the contractor. The contractor is responsible to insure the skate features are completely installed and functional at the discretion and approval of the skate park manufacturer and Engineer. Lack of coordination to clarify scope between the Skate Elements Manufacturer Certified Installer and the Contractor shall not be tolerated and no additional payment shall be made for gaps in services to complete the work.

Payment shall be made under:

Pay Item

Pre-Cast Skate Elements

Pay Unit

Lump Sum

END OF SECTION

DIVISION 600 – MISCELLANEOUS CONSTRUCTION SECTION 601 – PIPE

601.01 DESCRIPTION

The following is added to this subsection:

The project includes supply and install of 8” pvc sch. 40 pipe including all fittings, reducers, connections, etc. connecting to proposed and existing drainage structures and drainage basins. These items include all work items associated with installation and restoration of the areas in which they are installed including but not limited to, excavation, bedding, backfilling, pavement repair as shown on the plans and details and specification section 400, etc.

The piping to be installed under proposed concrete surfaces, lawn and existing asphalt surfaces shall be as specified on the plans and installed in accordance with the plans, details and manufacturer's recommendations. The PVC pipe shall be sloped positively towards the discharge locations as indicated on the plans.

The Contractor shall verify all the invert elevations in this contract prior to installing any drainage materials. Any discrepancies shall be submitted to the Engineer for review.

601.02 MATERIALS

- 8” pvc sch. 40 pipe or approved equal.

601.03 CONSTRUCTION

The following is added to this subsection:

No backfill shall be placed until the piping has been inspected in place and approved by the Engineer. Backfilling shall be carried out as soon as possible after such approval. All backfilling, unless otherwise permitted, shall consist of approved sound material, free from organic matter, rubbish, or other unsuitable materials. No frozen materials or blasted ledge rock shall be used for backfill. Backfill shall be placed in uniform horizontal layers compacted to 95 percent of modified proctor or 90 percent relative density. Backfill material shall be Dense Graded Aggregate, as specified in Standard Specification Section 901.10. Trenches in the grassed area shall be backfilled with excavated material free from organic matter, rubbish or unsuitable material.

601.04 MEASUREMENT AND PAYMENT

The following is added to this subsection:

Measurement for 8” PVC SCH. 40 PIPE will be made on a linear foot basis. The cost shall be included under the item 8” PVC SCH. 40 PIPE. This item includes all labor, materials and equipment necessary for the installation including but not limited to, excavation, bedding, backfilling, utility crossing provisions, pavement repair, fittings, reducers, glues, solvents cements, etc. to install a properly functioning drainage line.

Payment shall be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
8” PVC sch. 40 Pipe	Linear Foot

SECTION 602 – DRAINAGE STRUCTURES

602.01 DESCRIPTION

The following is added to this subsection:

The work shall include the installation of proposed inlets, drains and drain basins as depicted on the plans and details. For structures that intersect existing drainage pipe, the Contractor shall maintain the existing pipe inverts for proper connection. The Contractor shall replace piping and make connections as needed to connect the existing piping to the structures.

602.02 MATERIALS

The following is added to this subsection:

- Type "A" Inlet – Shall be as manufactured by Modern Precast Concrete Products, Peerless Concrete Products, Oldcastle Precast, or approved equal. Type "A" inlet grate shall be bicycle safe with emblem denote the "Drains to Waterways" as manufactured by Campbell Foundry or approved equal.
- 4" Drain – Shall be model number FD2210-VP4-NT as manufactured by Zurn or approved equal. Grate shall be 4" Type B Nickel Bronze Strainer or approved equal.
- 8" Drain Basin – Shall be drawing number 7001-110-272 rev E titled 8" Drain Basin Quick Spec Installation Detail with a standard ductile iron grate secured and vandal resistant as manufactured by Nyloplast 3130 Verona Avenue Buford, Georgia or approved equal. Multiple angles will be required for 8" pvc sch. 40 pipe entry and relative fittings.

All precast concrete products shall utilize waterproof seals between segments. Pipe shall be secured to manholes/inlets using non-shrink grout. The Contractor shall place structures on 6" compacted ¾" Clean Stone (Coarse Aggregate #57) or as depicted on the plans. All structures shall comply with Phase II Stormwater Compliant requirements.

602.04 MEASUREMENT AND PAYMENT

The following is added to this subsection:

Measurement for TYPE "A" INLET, 4" DRAIN, and 8" DRAIN BASIN will be made on a per unit basis. The cost shall be included under the items TYPE "A" INLET, 4" DRAIN, and 8" DRAIN BASIN. This item includes all labor, materials and equipment necessary for the installation including but not limited to, excavation, bedding, backfilling, utility crossing provisions, grates, fittings, reducers, glues, solvents cements, etc. to install a properly functioning drainage line.

Concrete collars around the 8" Drain Basins will be included in the bid item CONCRETE SIDEWALK, 4" THICK.

Payment shall be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
4" Drain	Unit
8" Drain Basin	Unit
Type "A" Inlet	Unit

SECTION 606 – SIDEWALKS, DRIVEWAYS AND ISLANDS

606.01 DESCRIPTION

The following is added to this subsection:

This work shall consist of all labor, materials and equipment necessary for the furnishing and installation of Concrete Sidewalk, 4" Thick. This shall include but not be limited to all necessary excavation, forms, installation of materials, base courses, welded wire mesh, required finish of surface and related items as shown on the plans, details and as specified herein.

This work shall also consist of all labor, materials and equipment necessary for the furnishing and installation of the cobble outcrop beneath the pre-cast concrete cantilevered skate park element. This shall include but not be limited to all necessary excavation, delivery and installation of materials, geotextile fabric and related items as shown on the plans and as specified herein.

The control joint pattern in the concrete has been designed as depicted on the plans. If the Contractor wishes to deviate from the proposed design, a drawing of the revisions shall be generated and the reasoning for the modification shall be submitted to the Engineer for review.

606.02 MATERIALS

The following is added to this subsection:

General: All anchoring devices shall be corrosion resistant and as specified by the appropriate component manufacturer. The Contractor shall coordinate with the individual manufacturers/suppliers to identify anchoring materials needed to install the components. If reinforcing anchors are to be drilled and epoxied into poured footings/sidewalk, the anchors shall be installed to the depths recommended by the component manufacturers and the epoxy shall be rated appropriate for the structural loading.

Only sidewalk leading to the skate park feature shall have expansion joints unless otherwise noted. All onsite concrete sidewalk/flatwork shall be installed in accordance with skate park element/component manufacturer/installer. See cold joint detail depicted on the plans which indicates haunching and doweling requirements at these areas. The contractor shall minimize the number of cold joints such that the skate surface is as uniform as practical. Control joints 1/4" wide x 3/4" deep in a 10' x 10' grid (or as depicted on the Plans) and filled with traffic-grade elastomeric caulk shall be utilized on-site.

A. Concrete Sidewalk

Concrete shall be Class B, 4,000 PSI as specified in Subsection 903.03 of the Standard Specifications and shall be air entrained. When air temperatures are below 40° F or when air temperatures are expected to fall below 40° F within a 24-hour period, then the Engineer may specify Type III cement to be used in the Mix or require an approved cold weather concrete placement plan. No additional payment will be made for this substitution.

Welded Wire Mesh/Steel Reinforcement: Reinforcing steel shall be made from billets and shall conform to the following schedule: ASTM Designation, Reinforcing A615, Grade 60 No.4 deformed. Welded wire fabric shall be A185 ASTM designated. Unless otherwise shown on the Drawings, wire mesh reinforcement wherever required shall be electric welded 6 x 6 inch mesh, No. 4 gage wire. Mesh #5 gage and heavier shall be provided in sheets.

Reinforcement shall be clean and free from rust, scale, dirt, grease, oil, snow, ice, burs, etc. upon delivery and before fabrication. Reinforcement shall be protected against mechanical injury and excessive rusting. Steel shall be kept at least 3 inches above the ground. Any steel having scale deposits shall be rejected.

Finish: Hard steel-trowel finish, trowel until all visible pours are closed, cease trowel before glass forms on surface and if decided by owner or skate element manufacturer, shall be chemically sealed with permanent, non-glossy

concrete sealant. Sealant shall be Kure-N-Seal as manufactured by BASF or approved equal. This finish shall be utilized for all concrete sidewalk/flatwork within the skate park area.

- B. Cobble Outcrop: A cobble outcrop is to be furnished and installed in the area beneath the pre-cast concrete, cantilevered skate park element as depicted on the Site Layout plan. The cobble outcrop is to consist of a layer of geotextile fabric beneath a 4" thick layer of cobble stones. Cobble stones are to be 2"-3" in size and are to be gray in color. Contractor is to submit a color sample selection during the shop drawing submittal review period; final color determination is to be made by the Owner and Project Engineer. Cobble stones are to be Delaware River Gravel, 2"-3" as supplied by New Jersey Gravel & Sand Co., 1661 Hwy 34 South, Wall Township, NJ 07719 (732) 938-5252, or approved equal.

606.03 CONSTRUCTION

606.03.02 Concrete Sidewalks, Driveways and Islands

The following is added to this subsection:

A. Concrete Sidewalk

All concrete sidewalk/flatwork within the skate park area shall be constructed with a slope of 1/8 inch vertically for every 1 foot horizontally or as noted on the plans. On-site the sidewalks shall be constructed of class "B" air entrained concrete with reinforcement steel, 4 inches thick over dense-graded aggregate base course or existing stone compacted in accordance with the details and specifications unless otherwise directed by the Owner or Engineer.

Expansion Joints (Off-Site Only):

Construct 1/2-inch wide expansion joints, placed at intervals of approximately 12 feet or as shown on the plans, filled with preformed joint filler.

Sidewalk leading to skate park feature shall have expansion joints. All onsite concrete sidewalk/flatwork shall be installed in accordance with skate park element/component manufacturer/installer. Control joints 1/4" wide x 3/4" deep in a 10' x 10' grid (or as depicted on the Plans) and filled with traffic-grade elastomeric caulk shall be utilized on-site.

Construction Requirements -Mixing of Concrete:

Ready mix concrete shall be mixed and delivered in accordance with all applicable codes and ASTM Designation C94. The quantity of concrete being mixed in a mixer shall be no less than 40% of the capacity of the mixing drum (minimum of four yards in a nine yard truck) and must always be in full yard increments. The slump of the concrete must be consistent throughout the project not to exceed four inches (4"). No water shall be added after a portion of the batch has been discharged. Any which has started to set shall not be re-tempered but must be discarded. Concrete must be deposited near its final position to avoid segregation of the coarse aggregate from the mix due to re-handling or flowing. The slump shall be taken by ASTM methods on the first load of concrete and thereafter when deemed necessary by the Owner. In the placement of concrete there shall be limited access for large machinery. Concrete shall be delivered to the site by trucks and transported to the place of pouring using carts or through chutes.

Formwork:

Formwork for architectural concrete must be of the highest quality to obtain smooth, straight, rigid surfaces. In sections designed for smooth continuous curves, the forms shall mimic the design layout. Lumber should be of a resin overlay type. All wood form joints must be clean of release agent residue and then sealed with a 2" wide vinyl or polyester film tape to prevent leakage of mix water. A silicone sealant may be used for joint sealing. Plastic snap tie cones should be of the non-leaking type. Concrete areas shall be a thickness as indicated on the plans. Concrete areas shall be staked out according to the plans. The Owner and Engineer shall be notified when all forms are in place. No concrete shall be poured before final form placement is approved by the Owner and Engineer. Concrete installed prior to final form approval is subject to immediate rejection as per the Owner and Engineers direction. All

costs for repairs/reconstruction of these areas shall be borne by the Contractor at no additional cost to the Owner.

Subgrade Preparation and Concrete Placement:

The subgrade must be well drained and have adequate load bearing characteristics and be uniformly graded below finished grade. It must be moistened to a nominal depth, and free of frost, at the time of concreting. If necessary, it should be dampened with water just prior to concreting, but there must be no free standing water on the subgrade nor should there be any muddy or soft spots when the concrete is placed. Concrete shall be placed and consolidated so as to fill completely all spaces in the forms and to provide a suitable surface for finishing. Concrete is to be placed against the edges of the forms first, using a spudding tool or the back of a flat shovel to spud the edges so as to avoid rock pockets and make a fine edge for tooling. The plastic concrete shall be struck off or rodded to a uniform grade. If temperature conditions are near ninety degrees Fahrenheit (90 F) and humidity low so as to produce rapid drying conditions, fog spray may be necessary to prevent plastic shrinkage. The surface of the concrete shall be worked with a wood bull float and/or a wood or fiberglass darby, in order that the surface will not be sealed off prior to final floating and finishing. Concrete must be then left alone until it has no standing water and will bear a man's weight leaving a slight imprint. It is then ready for final floating and finishing. To avoid variation in the finish, all surfaces must be worked in the same relative state of hardening. No water shall be applied to the surface to re-temper the plastic concrete for additional troweling. Long handled Fresnos shall not be used.

Finishing & Inspection:

Hard steel-trowel finish (just before glassy) and shall be chemically sealed with permanent, non-glossy concrete sealant if directed by Owner, Engineer or skate element/component manufacturer. Sealant shall be Kure-N-Seal as manufactured by BASF or approved equal. This finish shall be utilized for all concrete flatwork within the skate park. Damaged concrete shall be removed and replaced with concrete of the type and finish as is in the original construction. Damage caused by construction operations or cold weather shall be repaired without additional compensation.

Expansion Joints:

Only sidewalk areas outside the skate park feature shall have expansion joints. All onsite concrete flatwork shall be installed in accordance with skate park component manufacturer/installer.

Control Joints:

Control joints shall be as shown on the plan details in a 10' x 10' grid (or as depicted on the Plans) and filled with traffic-grade elastomeric caulk shall be utilized on-site.

606.04 MEASUREMENT AND PAYMENT

Measurement and payment for cobble outcrop will not be made. Any and all costs associated with the furnishing and installation of the COBBLE OUTCROP including but not limited to excavation, geotextile fabric, stone, material and equipment necessary to provide the outcropping as depicted on the plans and herein are to be included in the cost of the CONCRETE SIDEWALK, 4" THICK bid item. No additional payment will be made for any material, equipment or labor necessary to furnish and install the cobble outcrop.

Measurement and payment for the CONCRETE SIDEWALK, 4" THICK will be measured on a square yard basis. Payment will be made under the base bid item for CONCRETE SIDEWALK, 4" THICK. The square yard price shall include all labor, materials, and equipment necessary for the furnishing and installation of the sidewalk. This includes but is not limited to any necessary excavation, subbase, forming, pouring, expansion and control joints, ADA ramps, detectable warning pavers and all else necessary therefore and incidental thereto.

Payment shall be made under:

Pay Item

Concrete Sidewalk, 4" Thick

Pay Unit

Square Yard

Add the following section to the standard specifications:

SECTION 612 - SIGNS

612.01 DESCRIPTION

The following is added to this subsection:

This work shall also consist of furnishing and installing sign supports and signs including all appurtenant signs, frames, finials, clamps, fitting, fasteners, anchors, foundations, excavation, and backfilling in accordance with the plan details and manufacturer's recommendations. Signage to be furnished includes Rules & Regulations signage. Installation of all signs shall be in accordance with the Standard Specifications. All sign hardware shall be stainless steel and tamper proof.

612.02 MATERIALS

Signage types shall be as follows, see plan and proposal sections for quantities:

Rules & Regulations Custom Aluminum Signs, 48"x36" affixed to chain link fencing with stainless steel tamper resistant hardware. Sign shall have two full color seals/images (County Seal and Skate Boarder Image), colored sign background with colored text. Following discussion with the Owner, the Contractor shall submit sign layouts for approval by the County. Language for the sign shall use minimum ½" high lettering with the following text:

MATTANO SKATE BOARD PARK RULES AND REGULATIONS

- THE SKATE BOARD PARK IS A SKATE-AT-YOUR-OWN-RISK FACILITY. THIS IS A NON-SUPERVISED FACILITY DESIGNED FOR SKATEBOARDING AND IN-LINE SKATING ONLY.
- SKATEBOARDING AND IN-LINE SKATING ARE HIGH RISK ACTIVITIES. WEARING PROTECTIVE HELMETS, KNEE AND ELBOW PADS AND WRIST GUARDS ARE MANDATORY. USE OF THIS PARK MAY EXPOSE THE USER TO SERIOUS INJURY. ALL PARTICIPANTS MUST BE FULLY CLOTHED.
- KNOW YOUR ABILITY AND SKATE ACCORDINGLY.
- INSPECT THE SKATE SURFACES BEFORE YOU BEGIN AND REMOVE ANY TRASH, DEBRIS, OR OBJECTS THAT MAY PREVENT A SMOOTH AND SAFE RIDE. DO NOT SKATE IF THERE IS DAMAGE TO THE SKATING SURFACE; REPORT ANY FACILITY DAMAGE IMMEDIATELY TO THE UNION COUNTY RECREATION DEPARTMENT. (908) 527-4900.
- NO SKATING WHEN SURFACE IS WET OR DURING ROUTINE MAINTENANCE PERIODS.
- BICYCLES, MOTORIZED VEHICLES, GO-PEDS, ROLLER SKATES, SPEED SKATES, AND SKATEBOARDS OF 34" IN LENGTH OR OTHER WHEELED DEVICES ARE NOT PERMITTED IN THE SKATE RINK.
- NO MODIFICATIONS TO THE SKATING SURFACE OR FEATURES ARE ALLOWED. NO SKATING ON PARK STRUCTURES NOT SPECIFICALLY DESIGNED FOR THAT PURPOSE.
- SKATING ALLOWED ONLY FROM DAWN TO DUSK. ANYONE CAUGHT IN THE SKATE PARK WHEN CLOSED WILL BE CHARGED WITH TRESPASSING.
- SKATE PARK USERS LESS THAN 10 YEARS OF AGE MUST BE ACCOMPANIED BY AN ADULT AT ALL TIMES.
- NO FOOD OR BEVERAGES ALLOWED IN THE SKATE PARK AREA.
- ORGANIZED EVENTS REQUIRE THE PRIOR APPROVAL OF THE UNION COUNTY RECREATION DEPARTMENT.
- THIS IS A DRUG-FREE/ALCOHOL-FREE/SMOKE-FREE RECREATION AREA.
- ABUSIVE, PROFANE OR FOUL LANGUAGE OR AGGRESSIVE BEHAVIOR WILL NOT BE PERMITTED.
- NO PETS ALLOWED
- FAILURE TO ADHERE TO SKATE PARK AND PLAYGROUND REGULATIONS CAN RESULT IN LOSS OF FACILITY PRIVILEGES AND/OR SUMMONS.

612.03 CONSTRUCTION

Installation of all signs shall be in accordance with the Standard Specifications. All sign hardware shall be stainless steel and tamper proof. Refer to the plan details for additional information.

612.04 MEASUREMENT AND PAYMENT

Measurement and payment for the RULES AND REGULATIONS SIGN shall be measured by the unit and payment shall be included in the unit price bid item RULES AND REGULATIONS SIGN. This includes all labor, equipment and material cost(s) for furnishing and installing sign supports and signs including all appurtenant signs, frames, finials, clamps, fitting, fasteners, anchors, foundations, excavation, and backfilling in accordance with the plan details and manufacturer's recommendations.

<u>Pay Item</u>	<u>Pay Unit</u>
Rules and Regulations Sign	Unit

Add the following section to the standard specifications:

SECTION 634 – MISCELLANEOUS ADDITIONAL WORK

634.04 MEASUREMENT & PAYMENT

An allowance has been included for construction contingency for items that may be encountered during the course of construction of the project that may not be reasonably anticipated at the time of bid. Any contingency shall be subject to review and approval by the County and subject to any documentation that the County may deem necessary to justify same.

Payment shall be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
Construction Contingency	Lump Sum

END OF SECTION

DIVISION 700 – ELECTRICAL

SECTION 701 – GENERAL ITEMS

701.1 DESCRIPTION

This Section describes the requirements for constructing or installing various electrical Items including electrical conduit, cable, pull boxes (vaults) and related electrical connections and improvements.

It is the intent of these specifications to include all labor, materials, tools, services, transportation, equipment, temporary protection, superintendent, permits, and all necessary and related items required to provide the Owner with a complete and properly operation electrical installation and system.

701.2 MATERIALS

701.2.01 Materials

CONDUIT AND FITTINGS

The Contractor shall furnish and install all new materials require for the complete electrical conduit system as indicated on the Drawings and otherwise required to provide the projects complete electrical power delivery requirements in accordance with the following:

Rigid Nonmetallic Conduit: PVC Type II conduit made from virgin polyvinyl resins conforming to ASTM D 1784, Class 12454-B, UL 651, and NEMA TC 2.

- Schedule 40 for direct burial underground in grass and/or berm areas
- Schedule 80 under roadways.

Fittings: high-impact PVC, socket type, joined to the conduit using PVC solvent cement. Conform to NEMA TC 3. Solvent cement shall be heavy-bodied cement complying with ASTM D 2564 and apply with a natural bristle or nylon brush.

CABLE AND WIRES

The Contractor shall furnish, install and connect the various types and sizes of insulated wire and cable to provide the electrical power supply to each component of the electrical system and equipment. The installation shall include cable runs in conduit, duct banks, or as required. All wire and cable shall have copper connectors.

Standard References for Material Specifications

IPCEA S-68-516, NEMA WC-8 EPR insulated cable

IPCEA S-66-524, NEMA WC-7 Cross-linked thermosetting polyethylene insulated wire and cable

UL 1072 cable and wire

NEC – 2014 or latest edition

All Cables shall be in accordance with the National Electric Code (NEC), NEMA, and IPCEA standards and shall bear the UL Label on the outer covering in addition to being copper and stranded Class B.

All conductors shall be soft, annealed, uncoated stranded copper having a 600 volt insulation rating and conform to ASTM Standards. Type and minimum wire size for various use shall be as follows:

Power: Type XHHW, sizes as indicated or required, #12 AWG minimum

Control: Type XHHW, sizes as indicated or required, #14 AWG minimum

Signal Cable (4-20ma): 18/2 twisted shielded with belfoil shield and #18 AWG drain wire

BONDING AND GROUNDING

The Contractor shall furnish and install a complete grounded and bonded system in accordance with all requirements of the NEC, NFPA, ANSI C33.8, and in addition as shown or indicated on the Plans and Drawings. The grounding and bonding system shall also be in accordance with the local inspection authority, service utility company, and manufactures recommendations of specified equipment, fixtures, or other electrical devices.

ELECTRICAL JUNCTION BOX (VAULT)

Electrical Junction boxes shall be installed as identified on the Electrical Plan. Junction boxes are to be installed in various surfaces including, natural turf, asphalt, concrete and rubberized asphalt.

Electrical Junction boxes shall be locking type as manufactured by Pencil Specialties or approved equal.

1. Pencil PEM-1218PC Assembly; Includes Factory Installed Black Mat for Concrete by Contractor.

PANEL BOARDS AND CIRCUIT BREAKERS

Use panel boards conforming to Federal Specification W-P-115C, Type 1, Class 2. Use circuit breakers that are UL listed, comply with NEMA Standards, and conform to Federal Specification W-C-375C, Class 10A.

Submit a certificate of compliance, as specified in 106.07, for all materials, components, and assemblies.

New circuit breakers shall be manufactured by existing panelboard manufacturer.

701.03 CONSTRUCTION

701.03.01 Codes and Procedures

The Contractor and their sub-contractor shall abide by and comply with the following:

ANSI/IEEE C2 – National Electrical Safety Code
ANSI/NFPA 70 – National Electrical Code (NEC)
NECA – Standard of Installation
National Electrical Manufacturers Association (NEMA)
Insulated Power Cable Engineers Association (IPCEA)
Occupational Safety Hazards Act (OSHA)

In addition to the above, the Contractor shall furnish to the proper authorities having jurisdiction, the required electrical permits, and application with all necessary drawings as required, and shall pay all fees in connection therefore. In particular, the Contractor shall file an electrical construction/inspection permit with the local sub code department with accompanied fee if required. During the execution of work, the Contractor shall maintain all required permits, licenses and certificates of inspection.

The drawings are for engineering and general requirement purposes only, are diagrammatic and are not intended to depict all necessary fittings, boxes supports, conduit penetration or locations, wires, etc., required for a complete and accessible installation. The Contractor shall provide their own workings drawings for the final installation and these shall be on certified manufacturer's shop drawings for the electrical equipment, fixtures, and devices to be installed under this Contract.

The locations of equipment, light fixtures and other devices shown on the drawings are approximate only. Drawings are to be modified by the Contractor and approved by the Engineer to comply with the actual equipment furnished. Vendor systems and equipment furnished shall require interconnecting wires and cables and the Contractor shall be responsible for determining and furnishing these required connections.

Where certain kinds, type, brand, or manufacturers of materials or equipment are named, they are regarded as a standard of quality and performance. The electrical materials, equipment, and vendor systems approvals shall be made by the Engineer based on the review of the submittals and descriptive data. The Engineer shall require the Contractor to supply whatever data and design computations the Engineer considers necessary to determine equal equipment of systems.

701.03.02 Rigid Nonmetallic Conduit

The Contractor shall install and make all conduit connections to equipment, including excavation, bedding and backfill in accordance with the Drawings and as required by the Code. All of the conduit shall be installed complete with necessary fittings and supports. All bends shall be gradual and smooth to permit the pulling of insulated electrical wires and cables without stress to the insulation of cable sheath. All conduit runs and bends shall be free from kinks, indentations or flattened surfaces.

Nonmetallic conduit field bends shall be made with an industry accepted flameless bender with internal supports installed as necessary to prevent deformation of the conduit.

All threaded connections shall be made tight. Where physical restraints prevent conduit from being tightened, union fitting shall be used.

All threads shall be coated with a liberal application of a conductive sealant such as Thomas & Betts Kopr-Shield before make-up.

701.03.04 Cable and Wire

The Contractor shall install all required cable and wire and leave sufficient length at its end to enable efficient connection to electrical equipment, fixtures and devices. No splices shall be permitted in any power cable with runs being continuous end to end. Where splices are necessary, junction boxes shall be furnished with mounting panel and terminal strip. Terminals shall be box lug type. Terminal strips shall be screwed to the mounting panel. Adhesive backed mounting methods are not acceptable.

701.04 MEASUREMENT AND PAYMENT

Measurement and payment for the ELECTRICAL IMPROVEMENTS and various components as specified herein will not be measured and payment will be made on a lump sum basis. The lump sum price shall include all labor, materials, and equipment necessary for the design, furnishing and installation of the ELECTRICAL IMPROVEMENTS as specified herein. This includes but is not limited to any necessary excavation, wiring, installation of components, fittings, conduit, related hardware, and all else necessary therefore and incidental thereto.

Payment for all costs associated with exterior electrical system and various components as specified herein shall be included in ELECTRICAL IMPROVEMENTS.

Base Bid Pay Item

Pay Unit

ELECTRICAL IMPROVEMENTS

LS

DIVISION 800 – LANDSCAPING

SECTION 804 – TOPSOILING

804.01 DESCRIPTION

The following is added to this subsection:

This work shall consist of all labor, materials, and equipment necessary for the furnishing and placement of topsoil. This includes but is not limited to the preparation of areas to receive topsoil, screening of topsoil (if needed), and the delivery & placement of topsoil. Topsoil available from the site as a result of clearing site operations shall be evaluated for use on the site.

The Contractor shall submit samples of the topsoil to the Engineer for approval.

1. Topsoil shall be amended as required to meet the specifications. Following the incorporation of amendments and additives, the Contractor shall provide a minimum of one (1) six inch (6") depth by three inch (3") diameter core sample for every 1000 cubic yards of soil material. The samples shall be taken for testing, analysis, and approval. The cost of all testing shall be the responsibility of the Contractor. No final grading or seeding operations shall occur until acceptance of the soil samples has been obtained. Contractor shall deliver samples to testing laboratories and shall have the testing report sent directly to the Owner's Designated Representative (the Engineer or Landscape Architect).
2. Mechanical gradation (sieve analysis with no particles over 1/2") and chemical (pH soluble salts) shall be performed by public extension agency or a certified private testing laboratory in accordance with the current standards of the Association of Official Agricultural Chemists. A hydrometer shall be used to determine percent of clay and silt.
3. Percent of organics shall be determined by the loss on ignition of oven-dried samples. Test samples shall be oven-dried to a constant weight at a temperature of 110°C, plus or minus 5°C.
4. Chemical analysis shall be undertaken for Nitrate Nitrogen, Ammonium Nitrogen, Phosphorus, Potassium, Calcium, Aluminum, Soluble Salts, and acidity (pH).
5. Tests, as specified, for gradation, organics, soil chemistry and pH shall be performed by a qualified testing laboratory acceptable to the Owner's Designated Representative.
6. Soil analysis tests shall show recommendations for soil additives to correct soils deficiencies as necessary, and for fertilizing and liming applications to support successful turf growth.
7. All tests shall be performed in accordance with the current standards of the Association of Official Agricultural Chemists.

804.02 MATERIALS

This subsection is changed to:

Topsoil:

The cleaning of existing topsoil shall be on the site with the use of Bleckevator power rake or equal down to a maximum stone size of 1/2" and any stockpiled topsoil shall be shredded and screened for removal of stone and other debris in excess of one-half (1/2") inch at the storage site with a Royer Shredder – Screener or approved equal.

Sand:

The Contractor shall provide a high quality silica sand (here after designated as sand) for the modification procedure. The sand shall consist of 90% (by weight) of particles in the range of 2.0 mm to .25 mm with a minimum of 60% in 1.0 mm to .5 mm range.

In addition, the sand shall be free of extraneous materials. Soil acidity shall be in the range of pH 5.0 to 7.0 and free from any contaminants detrimental to plant growth.

Sand which does not conform to the specifications will be rejected by the Engineer or its designated representative and removed by the Contractor at his/her expense and replaced with sand that meets the specifications

Root Zone Mix (Topsoil):

The Topsoil blended by the Contractor shall contain no stones, lumps, roots or similar objects larger than one-half (1/2") inch in any dimension, and free of any contaminants detrimental to Turfgrass establishment and growth. The Topsoil shall have a pH value of between 6.5 and 7.0. If initial PH is less than 6.5, it shall be increased by applying ground limestone at a rate necessary to attain a pH value of 6.5.

Soil blending process shall be monitored by the Engineer or designated representative for conformance to specifications. Topsoil shall also be free of Quackgrass rhizomes, Agropyron Repens, and the nut-like tubers of Nutgrass, Cyperus Esculentus, and all other primary noxious weeds.

Any Topsoil which does not meet specifications shall be removed by the Contractor and replaced with specified soil at his/her expense.

Both existing Topsoil to be amended and any Imported Topsoil shall conform to the following particle size distribution, as determined by pipette method in compliance with ASTM F-1632:

Root Zone Mix Particle Size Distribution		
Gravel**	(>2.0mm)	<4%
Sand	(0.05 to 2mm)	70% to 80%
Silt	(0.002 to 0.05 mm)	10% to 15%
Clay	(<0.002 mm)	10% to 15%

note Maximum size shall be ½ inches (13 mm) largest dimension.

If organic amendments are needed to obtain the specified organic matter content of the topsoil, the organic matter source may be a peat or compost material. The peat shall be Canadian sphagnum peat having an ash content not exceeding 15%, as determined by ASTM D-2974. Composts may be used, provided that the material has been composted in an in-vessel system and has ash content not exceeding 40%, and is screened to ¼ inch.

804.03 CONSTRUCTION

The following is added to this subsection:

Topsoil shall not be placed until it has been screened and the area to be topsoiled has been approved. All stones 1-inch or larger in any dimension, and other debris such as wires, cables, tree roots, pieces of concrete, clods, and lumps shall be removed.

For lawn areas: Provide imported topsoil to meet material specifications. After spreading topsoil, rake up large stiff clods, hard lumps, roots, litter, other foreign matter and stones larger than 1" in greatest dimension. Remove from the premises or dispose where directed, in a satisfactory manner. Apply topsoil to lawn areas to provide 4" depth of topsoil.

No greater than 1" of depth shall be lost to natural settlement, picking of rocks and final preparation of seed beds. If any area is found to have lost greater than 1", additional topsoil shall be spread to raise depths to the original minimum depth.

Fine grade and rake topsoiled areas to a smooth, uniform surface. Compact with an approved roller weighing approximately 500 pounds. Regrade and reroll until satisfactory grades as shown are obtained with the required depths of topsoil. Do not finish grade during unsuitable weather. If soil tests indicate organic matter content below the required levels, humus shall be applied to the surface of the spread topsoil and worked into the mix during raking operations. Apply quantity of organic amendments, either humus or mushroom compost, as necessary to meet the organic matter content specified. Submit soil test results demonstrating compliance with the requirements.

Topsoil spreading shall be performed in such a manner that seeding can proceed with a minimum of additional soil preparation and tillage. Irregularities in the surface resulting from topsoiling or other operations shall be corrected in order to prevent the formation of depressions or crowns. Topsoil shall not be placed while the ground is frozen or muddy, or in a

condition that may otherwise be detrimental to proper grading. After the topsoil has been spread and the final grade is established, the area shall be cleared of all grade stakes, surface trash and debris.

The Contractor shall, wherever possible, conduct topsoiling immediately upon completion of approved subgrade preparation. The Contractor shall commence seeding, or other finished surfacing operations immediately upon completion of approved topsoil installation.

In no case shall completed topsoiled lawn areas, which have been topsoiled, stand for more than two days prior to commencement of seeding.

Excess topsoil, which is not used on the job site, shall be stockpiled and stabilized by the Contractor onsite or removed from the site as directed by the Engineer.

804.04 MEASUREMENT AND PAYMENT

This entire subsection is deleted and replaced with the following:

Measurement for Topsoiling shall be made on a square yard basis as placed at a thickness of 4". The square yard price shall include all labor, materials, and equipment necessary for the furnishing and installation of Topsoiling. This includes but is not limited to any necessary excavation, subgrade preparation, soil amendments, pre-treatment fertilizers, placement, rolling, dragging, dressing, and all materials as shown on the plans and all else necessary therefore and incidental thereto. Payment for Topsoil shall be made under the base bid item TOPSOILING, 4" THICK.

Payment shall be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
Topsoiling, 4" Thick	Square Yard

SECTION 806 – FERTILIZING AND SEEDING

The heading of this section is changed to:

SECTION 806 – FERTILIZING, SEEDING AND MULCHING

806.01 DESCRIPTION

This entire subsection is deleted and replaced with the following:

This work shall consist of furnishing and placing pulverized limestone, fertilizer, seed mixtures and straw mulch. This includes but is not limited to the preparation of the seed bed, incorporation of fertilizer, placement of seed and watering as shown on the plans and as specified herein. The Contractor shall be responsible for the repair/replacement of natural turf disturbance, leaving greater than a 1/4" depression.

Lawn areas shall be fertilized, seeded and mulched in accordance with these specifications. Planting areas not designated as lawn on the plans shall be cedar mulched in accordance with the plans details.

806.03 CONSTRUCTION

Planting Season

Seeding operations shall be carried out between April 1 to May 15th and August 15 and September 30. In no event shall seeding take place later than October 31 for lawn areas and no seeding shall be done on frozen ground or when the temperature is 32 F or lower. No changes or extensions of the above seeding periods will be made unless approved in writing by the Engineer.

Seedbed Preparation

Provide fine grading, addition of soil amendments and raking as specified under Section 804 Topsoiling.

Dry Application Method of Lime, Fertilizer and Seed

Lime, seed, fertilizer and mulch shall be applied in dry form for all lawn areas and margin areas. Lime shall be applied at the rate of 4,000 pounds per acre (or as necessary to adjust soil pH to >6.5-7.0) and shall be applied separately and prior to fertilizing and seeding on prepared seedbeds.

The lime shall be spread evenly and worked into the upper three (3) to four (4) inches of the soil after which the seedbed shall have the proper, smooth grade. Commercial fertilizer of analysis 10-20-10 as previously specified herein, shall be applied at the rate of between 600 and 800 pounds per acre. Apply the specified **Type A-3 seed mix** evenly at a rate of 300 pounds per acre immediately after fertilizing. Turf type tall fescue consisting of three different types of species to be submitted for approval by landscape architect.

Seeding method

For all lawn areas, seed may be broadcast using hydro-seeders. Seed shall be applied in two perpendicular courses. After the seed has been properly applied, the seedbed shall be immediately mulched. Mulch seedbed as specified, to establish a uniform complete coverage and to ensure optimal moisture retention. Maintain optimal watering schedules throughout the seeding process.

Mulch Seeded Areas

Spread straw mulch with a properly equipped mulcher blower, run by an experienced operator. Mulch shall be evenly spread to a uniform 1-1 1/2 inch depth loose measurement, and tacked in place.

Establishment Period

Provide watering of all lawn areas as required to promote growth. Until the project is substantially completed, and accepted by the Engineer, the Contractor shall be required to maintain all turf between two (2) and four (4) inches in height. (Depending upon prevailing weather conditions at the time of turf establishment, the Contractor may maintain longer shoot heights, providing that mowing operations remove no more than 1/3 the length of the shoot). The Contractor shall maintain the seedbed, and seeding operation, including watering, fertilizing, re-seeding and mulching, until a uniform, vigorous stand of turfgrass, having a minimum seedling count of 6 plants per square inch, uniformly distributed, is established to the satisfaction of the Engineer. Localized areas which must be re-seeded will be justification for withholding payment for this item, until entire area has been satisfactorily established.

Guarantee

Seeded area shall obtain 100% coverage by the end of one (1) year; or the Contractor shall reseed the areas. Replacement seeding shall be done not later than the proper planting season following the end of the guarantee period. All replacement seeded areas are subject to the same guarantee from the time they are seeded.

Maintenance

The Contractor's responsibility for maintenance shall be continuous until acceptance of the work. The Contractor shall submit a lawn maintenance schedule to the Engineer for review and approval no later than two (2) weeks after the award of the contract. Maintenance shall include, but not be limited to watering, reseeding, and reworking as follows:

- Checking the seeded areas before watering to avoid excessive moisture.
- Refilling of rain-washed gullies and rutted areas.
- Reworking and reseeding of any areas which fail to show a uniform stand of grass.
- Weeding, cultivating, control of insects, fungus, and other diseases by means of spraying with an all-purpose insecticide and fungicide.

Grass shall be mowed as many times as necessary during the maintenance period in order to maintain a maximum height of 4" as measured from the top of the ground. No more than 1/3 of the grass height shall be removed during any one (1) mowing.

Watering

The Contractor shall maintain all new lawn areas including watering until date of substantial completion.

Refertilization

At the completion of the second mowing, fertilize the grass with complete specified fertilizer at the rate of 10 pounds per 1,000 square feet.

Reseeding

Reseeding of any areas which fail to show a uniform stand of grass shall be accomplished without additional cost to the Owner using originally specified materials and methods. Reseeding shall be repeated until all lawn areas are covered with a satisfactory stand of grass. A satisfactory stand of grass, as described above, shall be required.

Clean-up

The Contractor shall dispose of excess materials and debris, including but not limited to branches, paper, leaves, and rubbish resulting from this work.

All areas shall be kept neat and clean and upon completion of work, the site shall be left in an orderly condition satisfactory to the Engineer.

Approval and Acceptance

An inspection of turf shall be made by the Engineer 30 calendar days after completion of seeding and mulching on all lawn areas. Calendar day count shall commence only after the total completion of all lawn areas. Random test locations representative of the overall turf density shall be selected by the Owner's Landscape Architect based upon

one test location per 15,000 square feet. Blade counts should be recorded for each test location. Criteria shall be met when all locations equal or exceed the minimal uniform plant count specified herein.

Seeding Type A-3 shall be placed in all grass areas.

806.04 MEASUREMENT AND PAYMENT

This entire subsection is deleted and replaced with the following:

Measurement for Fertilizing, Seeding and Mulching shall be made on a square yard basis as placed. The square yard price shall include all labor, materials, and equipment necessary for the furnishing and installation of Fertilizing, Seeding and Mulching. This includes but is not limited to any necessary fertilizing, seeding, mulching placement, rolling, dragging, dressing, and all materials as shown on the plans and all else necessary therefore and incidental thereto. Payment for fertilizing, seeding and mulching shall be made under the base bid item FERTILIZING, SEEDING & MULCHING (LAWN AREAS).

Measurement for Mulching shall be made on a square yard basis as placed. The square yard price shall include all labor, materials, and equipment necessary for the furnishing and installation of Cedar Mulching. This includes but is not limited to any necessary mulching placement, rolling, dragging, dressing, and all materials as shown on the plans and all else necessary therefore and incidental thereto. Payment for cedar mulching shall be made under the base bid item MULCHING (PLANTING AREAS).

Payment shall be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
Fertilizing, Seeding & Mulching	Square Yard

SECTION 811 – PLANTING

811.01 DESCRIPTION

This work shall consist of all labor, materials, and equipment necessary for the furnishing and installation of all specified plant materials. This includes but is not limited to all necessary excavation, plant installation, installation of approved backfill mix and soil amendments, subgrade tree stake, shredded hardwood bark mulch, watering, fertilization, feeding, maintenance and plant guarantee as indicated on the plans and as specified herein.

The Contractor shall be liable for any damage to property caused by planting operations and related work, and all areas and construction disturbed shall be restored to their original conditions, to the satisfaction of the Engineer.

811.02 MATERIALS

The following is added to the subsection:

All trees and shrubs shall be tagged, inspected and approved by the Owner's Landscape Architect prior to digging and purchase from all nurseries. All trees and shrubs and all other plant materials shall be inspected at the site prior to installation. The Landscape Architect shall monitor delivery, unloading and handling of trees during installation. It is the Contractor's responsibility to notify and coordinate approvals, tree selection, tagging, inspection and monitoring with the Owner's Landscape Architect. Notification shall be a written request at least 5 business days prior to the time of plant purchase and landscape installation.

The Contractor is directed to the Plans for planting list for the project. The Contractor shall purchase and install plantings from Halka Nurseries 240 Sweetmans Lane, Englishtown, New Jersey, 07726 phone: 732-462-8450, fax: 732-409-2705 or approved equal meeting the ANN standards.

All trees, shrubs and other plant material determined to be unacceptable by the Landscape Architect, shall immediately be replaced by the Contractor with materials acceptable to the Landscape Architect and at no additional cost to Owner.

811.03 CONSTRUCTION

The following is added to the subsection:

PLANT MATERIAL:

Names: Plant names, size, and grading standards shall conform to those prepared by the American Association of Nurserymen Horticultural Standards, ANSI Z60. 1-2004 Edition, unless otherwise specified. No substitution shall be permitted except by written permission of the Landscape Architect.

Quality: All trees shall be typical of their species or variety. They shall have normal well-developed branches and vigorous fibrous root systems. They shall be sound, healthy, vigorous trees, free from defects, disfiguring knots, sunscald injuries, abrasions of the bark, plant diseases, insect eggs, borers, and all forms of infestation. All trees shall be tagged by the Landscape Architect, who shall reject all trees not meeting the above specifications, and trees having damaged or missing leaders, multiple leaders, Y-crotches, or indications of topping or heading back. All trees shall be nursery grown and shall have been growing under the same climatic conditions as the location of this project for at least two (2) years prior to date of contract. Trees held in storage will be rejected if they show signs of growth during storage.

Dimensions: Each tree shall be dimensioned as it stands in its natural position. Trees shall be callipered six inches (6") above ground. Stock furnished shall be a fair average of the minimum and maximum sizes specified.

PREPARATION OF TREES: All precautions customary in good trade practice shall be taken in preparing trees for moving, and workmanship that fails to meet the highest standards will be rejected. All trees shall be dug immediately before moving unless otherwise specified. All trees shall be dug to retain as many fibrous roots as possible. Balled and burlapped trees shall have a solid ball of earth of the minimum specified size, securely held in place by burlap and stout rope or twine. Oversize or exceptionally heavy trees are acceptable if the size of the ball or spread of roots is proportionally increased, to the satisfaction of the Owner's Landscape Architect. Loose, broken, or manufactured balls will be rejected.

Backfill: A soil analysis from an approved Laboratory shall be submitted prior to delivery of all planting soils. Topsoil for backfill in the tree pit shall be mixed with well-rotted manure. Topsoil and manure shall be thoroughly mixed and deposited in each tree pit. The mixture shall be two (2) parts manure to seven (7) parts topsoil.

Topsoil: A soil analysis from an approved Laboratory shall be submitted prior to delivery of all planting soils. Material shall consist of natural loam topsoil, free from subsoil. It shall be removed to a depth of one foot (1') or less, if subsoil is encountered. Topsoil shall be of uniform quality, free from hard clods, stiff clay, hardpan, sods, partially disintegrated stone, lime, cement, ashes, slag, concrete, tar residues, tarred paper, board chips, sticks, metals, glass, or any other undesirable material. No topsoil shall be delivered in a frozen or muddy condition.

Organic Content: A soil analysis from an approved Laboratory shall be submitted prior to delivery of all planting soils. Topsoil shall contain at least five percent (5%) organic matter, determined by loss on ignition of moisture-free samples, dried in accordance with the current method of the Association of Official Agricultural Chemists. The acidity range shall be pH 6.0 to pH 7.0 inclusive. The mechanical analysis of the soil shall be as follows:

SIEVE ANALYSIS (By Wash Test, ASTM Designation C-117)

A sieve analysis shall accompany a soil analysis from an approved Laboratory shall be submitted prior to delivery of all planting soils.

Passing 2" sieve	100%
Passing 1" sieve	95% to 100%
Passing #4 sieve	90% to 100%
Passing #100 sieve	30% to 60%

When the topsoil otherwise complies with the requirements of the specification, but shows a deficiency of not more than one percent (1%) in organic matter, such organic matter may be incorporated when as permitted by the Engineer.

When directed by the Landscape Architect or Resident Engineer, or when quantities of topsoil exceed thirty (30) cubic yards, the Contractor shall furnish a certified report of an approved analytical chemist showing the analysis of representative samples of topsoil, which he proposed to use. All samples are to be taken to the Engineer and delivered to the laboratory. The price bid per tree shall include topsoil inspection and laboratory charges. No topsoil shall be delivered until the approval of samples by the Engineer, but such approval shall not constitute final acceptance. The Engineer reserves the right to reject, on or after delivery, any material that does not, in their opinion, meet these specifications.

The Engineer reserves the right to reject topsoil in which more than sixty percent (60%) of the material passing the No. 100 U.S.S. mesh sieve consists of clay, as determined by the Buoyocous Hydrometer or the decantation method. All percentages are to be based on dry weight of sample. If the Engineer directs, topsoil which varies only slightly from the specifications may be made acceptable by such corrections as the Engineer deems necessary.

Mycorrhizal Fungi Inoculant: Shall be applied by means of a three ounce (3 oz.) pre-measured dry formulation packet, such as Mycor Tree Saver Transplant^(R), as manufactured by Plant Health Care, Inc., 440 William Pitt Way, Pittsburgh, PA, local number: (516) 338-8786, or approved equal. Packets shall contain, as a minimum: one thousand (1000) live spores of Vesicular-Arbuscular fungi, including: Entrophosphora Columbiana, Glomus clarum, Glomus etunicatum, and Glomus sp. Seventeen million five hundred thousand (17,500,000) live spores of Ectomycorrhizal fungi, including: Pisolithus tinctorius; biostimulants including Yucca schidigera extract; soluble sea kelp extract derived from Ascophylum nodosum; humic acids; and acrylamide copolymer gel as a water absorbent medium. Three (3) three ounce (3 oz.) packets shall be added to the top six to eight inches (6-8") of backfill soil added to each pit and thoroughly mixed to distribute the inoculant.

Fertilizer Tablets: Shall be Healthy Start Macro Tablet^(R), as manufactured by Plant Health Care, Inc. or approved equal. The tablets shall have a nutrient analysis of 12-8-8 and contain a minimum twelve percent (12%) humic acid by weight, as well as biostimulants derived from sea kelp, amino acids, and a wetting agent derived from Yucca schidigera. Tablets shall contain a minimum 695,000 each of the following beneficial bacteria: nitrogen fixing, phosphorus solubilizing, and growth promoting. Five (5) Twenty one gram (21 gm.) twenty four month (24 mo.) release tablets shall be added to the top four inches (4") of backfilled soil.

Manure: Material shall be well rotted horse or cow manure, or a combination of well rotted horse and cow manure. It shall contain not over forty percent (40%) of straw or litter, and shall be free from fresh manure, sawdust, wood chips, leather chips, tanbark, long straw salt hay, stones, chemicals used to hasten decomposition artificially, and other foreign or injurious substances. It shall be not more than two (2) years or less than nine (9) months old, and shall have been turned in the pile at least three (3) times during that period. No burned or fire-franged manure will be acceptable. The Engineer may inspect the manure before delivery, but they reserve the right to reject, on and after delivery, any material which does not, in their opinion, meet these specifications. The price bid shall include the cost of inspection. Manure is not to be stored at the job site.

Tree Irrigation Bags: When planting trees, the Contractor shall provide irrigation bags as directed and fill them so as to provide a minimum one inch (1") rainfall equivalent per week after initial planting saturation. The irrigation bags shall be one hundred percent (100%) reinforced UV stable polyethylene, at least ten (10) mils. thick with a polyester scrim lining, such as TreeGator, as manufactured by Spectrum Products, Raleigh, N.C. (919) 878-8911, or approved equal. The irrigation bags shall have a minimum twenty gallon (20 gal.) capacity, and the Contractor shall fill the bags to capacity at least once per week during the contract period. The bags shall be installed with two (2) holes open to provide a drip time of six to ten hours (6-10 hrs.).

Delivery: Trees shall be packed, transported, and handled with utmost care to insure adequate protection against injury. When transported in closed vehicles, plants shall receive adequate ventilation to prevent sweating. When transported in open vehicles, plants shall be protected by tarpaulins or other suitable cover material. Balled and burlapped trees shall be set on the ground and balls covered with soil. Until planted, all materials shall be properly maintained and kept adequately moist, to the satisfaction of the Engineer.

Inspection: Inspection may be made before digging, if the Engineer directs, but no trees shall be planted by the Contractor until inspected by the Engineer at the site of the work. All rejected trees shall be immediately removed from the site and replaced with acceptable material at no additional cost. Final inspection shall be made upon completion of the contract. Contractor shall request regular inspections through the landscape installation.

SITE SPECIFICATIONS:

Time of Planting: Unless otherwise directed by the Landscape Architect, deciduous trees shall be planted from March 1st to May 1st and from October 15th to December 15th.

Location: Site characteristics, such as overhead power lines, existing vegetation, and infrastructure items, such as curbs and sidewalks, shall be considered. Trees that grow taller than thirty feet (30') should not be planted directly under power lines. When the design allows, the tree leader shall be offset from power lines.

Excavation of Tree Pits: Sizes of tree pits shall be as shown on the Planting Plan. When subsurface obstructions are encountered during excavation, the Contractor shall restore the disturbed area to its original condition. Each tree shall be planted in an individual pit as specified. Pits shall be dug three (3) times the size of the root ball in diameter and only deep enough so that the root ball sits on undisturbed subgrade, except in situations where curbs and/or adjacent pavements prevent achievement of planting pit dimensions. Sizes of restricted planting pits (i.e. street trees) shall be at the maximum width allowed, and the same depth as the root ball being planted. Any changes in the planting pit sizes shall be broad enough to accommodate the roots fully extended and only deep enough so that the uppermost roots will be just below the original grade.

No tree pits shall be dug until the proposed locations have been staked on site by the Contractor and approved by the Engineer. No tree pits shall be backfilled until approved by the Engineer. All tree pits shall have vertical sides, unless otherwise directed. Excavated material shall be removed from the site unless the Engineer determines the material is suitable for backfilling. Any amendment will be as directed and determined by the Landscape Architect.

Extreme care shall be taken not to excavate to a depth greater than required. The subgrade below the root ball shall be tamped slightly to prevent settlement. Where, in the opinion of the Engineer, the subgrade material is unsuitable, the size of the tree pits shall be dug one-half (1/2) wider than normally required. The bottom and sides of the pits shall be backfilled with topsoil thoroughly worked into place.

PLANTING: No planting shall be done, without the presence of the inspecting Landscape Architect; this includes the unloading of plants from trucks, and placement in an approved storage area or the designated planting site. All rejected material shall be removed from the site and replaced with acceptable material at not cost to the City.

Placed balled and burlapped material in the prepared planting pit by lifting, and carry it by the rootball. Set the tree straight and in the center of the pit, with the most desirable side facing the predominant view. All trees shall set, after settlement, as the same level at which they have grown in the nursery. Care shall be exercised in setting the trees plumb. All ropes, stones, etc. shall be removed from the pit before backfilling. The backfilling mixture shall be loose and friable, and not frozen or solid.

Cut and remove rope or wire from the top fifty percent (50%) of the rootball and pull the burlap back to the edge of the ball. Remove as much woven product and twine as possible. All plastic or synthetic fabric must be removed from the ball at the time of planting. Any wire basket enclosed root ball will need to have at least 2/3 of the wire basket cut away from the sides and top of the ball, and removed from the site. Remaining lateral wires must be cut to prevent future root interference. Wire must not be galvanized or aluminum wire.

Trees shall be handled so that the ball will not be loosened. After the soil has been thoroughly firmed under and around the ball, the burlap shall be cut away from the upper half of the ball, and the remaining burlap adjusted to prevent the formation of air pockets. Where directed by the Engineer, the burlap shall be entirely removed. Soil shall be firmed at six (6") to eight inch (8") intervals and thoroughly settled with water.

All ropes, stones, etc. shall be removed from the pit before backfilling. Soil for backfilling shall be loose, friable, and not frozen. Trees shall be handled so that the ball will not be loosened.

FINISHING SURFACE AFTER BACKFILLING:

The Contractor shall cultivate and rake over finished planting areas and shall leave them in an orderly condition. On level ground or slight slopes a shallow basin a little larger than the diameter of the tree pit shall be left around each tree, as shown on the details, or as directed by the Landscape Architect. After the shallow basins have been prepared, they shall be mulched three to four inches (3" – 4") deep. Mulch shall consist of shredded hardwood or bark not exceeding three inches (3") in length and one inch (1") in width. Mulch with leaves, twigs, and/or debris shall not be acceptable. Mulch

for tree pits shall be included in the bid price. After installation of the mulch, the tree irrigation bags shall be installed and filled as per manufacturer's recommendations. Tree irrigation bags and periodic filling with water shall be included in the bid price for this Item.

STAKING: All staking shall be in accordance with the details on the Plans. Subsurface stakes shall be installed during planting operations and all stakes shall be maintained. Stake dimensions and driven depths shall be as indicated on the plans and details. Trees shall stand plumb after staking. Stakes shall be set parallel to curbs where applicable. Stakes shall not be removed at the end of the guarantee period and shall become the property of the City.

PRUNING: Broken or badly bruised branches shall be removed with a clean cut. Do not cut leaders or use wound paint or dressing to treat cut areas. Crossed branches shall be pruned with a sharp tool in such a manner as to preserve and encourage the plants natural growth form. Crowns of young trees shall not be cut back to compensate for root loss.

MAINTENANCE: At the time of planting, the soil around each tree shall be thoroughly saturated with at least twenty (20) gallons of water. After the initial saturation, the tree irrigation bags shall be filled and refilled on at least a weekly basis until final acceptance of the work.

Where water is supplied from hydrants, the Contractor shall obtain a written permission and attain all permits and pay any fees associated with accessing hydrants.

The Contractor shall maintain all planted trees within the limits of this contract, in accordance with the plans, specifications, and directions of the Engineer, until the acceptance and completion of each site of this contract.

Maintenance shall include filling irrigations bags with water on a weekly basis, fertilization, weeding, cultivating, edging, control of insects, fungus, and other diseases by means of spraying with an approved insecticide or fungicide, pruning, adjustment and repair of stakes, anchors and wires, repair of minor washouts and gullies up to twelve inches (12") in depth, and other horticultural operations necessary for proper growth of all trees, and for keeping the entire area within the contract limits neat in appearance until the final acceptance and completion of the whole work of this contract.

All planting areas shall be cultivated and weeded with hoes or other approved tools within the period from May 1st to October 1st, and such cultivating and weeding shall be repeated at least every three (3) weeks. Under no conditions shall weeds be allowed to attain more than six inches (6") of growth. The cost of maintenance shall be included in the price bid.

The Contractor shall provide seasonal fertilization and feeding for all plant material for the duration of the 1-year maintenance and guarantee period as directed by the County of Union and the Engineer.

REPLACEMENT: The Contractor shall replace, in accordance with the contract plans and specifications, any planted tree that is dead or, in the opinion of the Engineer, in an unhealthy or unsightly condition, and/or have lost their natural shape due to dead branches, excessive pruning, inadequate or improper maintenance, or other causes, by the date of one (1) year after the final acceptance and the completion of the whole work of this contract. The cost of replacement shall be included in the unit price bid for the various furnished items of their contract.

Where vandalism or natural disaster conditions are agreed by the Engineer as the reason for tree replacement, as agreed by the Engineer, the Contractor shall not be responsible for replacement during the one (1) year guarantee period after final acceptance.

Where plant material has been vandalized, the Contractor shall remove the vandalized material, including stakes, burlap and wire. They shall add topsoil and grass seed to the pit center to eliminate potential tripping hazards. Pit pavement shall be maintained flush with adjacent pavement during the guarantee period.

PLANT ESTABLISHMENT PERIOD AND REPLACEMENTS:

Planting will be determined as established **one (1) year from the date of acceptance** of the planting.

At the conclusion of the **one (1)-year plant establishment period**, all weeds, debris, damaged or unacceptable plant material shall be removed and disposed of in accordance with Section 201.

811.04 MEASUREMENT & PAYMENT

Measurement for the various Site Landscaping items listed below shall be made per unit installed. Payment for the various unit price items shall include all labor, materials and equipment necessary for the furnishing and installation of the specified landscaping material(s). This includes but is not limited to all necessary excavation, plant installation with backfill mix, subgrade tree stake(as applicable), natural stone/boulders, shredded hardwood bark mulch, watering, fertilization, feeding, plant guarantee and all else necessary therefore and incidental thereto. No separate payment will be made for topsoil in backfill mix, and watering. All costs thereof shall be included in the various unit price bid items below.

Payment shall be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
October Glory Red Maple, 2.5"-3" cal., B&B	Unit
Legacy Sugar Maple, 2.5"-3" cal., B&B	Unit
Eastern Redbud, 2"-2.5" cal., B&B	Unit
White Pine, 6'-7', B&B	Unit
Katherine Dykes Potentilla, 18"-24", 3 Gal.	Unit
Black-Eyed Susan, 12", 1 Gal.	Unit
Blue Muffin Arrowwood Viburnum, 24"-30", 5 Gal.	Unit

END OF SECTION

DIVISION 900 – MATERIALS

SECTION 903 – CONCRETE

903.02 CONCRETE ADMIXTURES

The following is added:

If a type F admixture is used, its chloride content shall not exceed 0.8 percent by weight of the admixture.

The use of Type F, water reducing, high range admixtures shall be in accordance with the admixture manufacturer's recommendation for the given mix design and anticipated field conditions, including the admixture dosage rate(s) and the location (plant or placement site) where it is to be introduced into the mixture. The admixture manufacturer's technical representative shall be on the project site for the first full day's production of mix containing a Type F admixture in order to recommend methods and operations based on prevailing climate and job conditions.

903.03.01 COMPOSITION

The following is added:

Portland cement concrete may include fly ash, except that fly ash shall not be used for bridge structures, retaining walls, culverts or white concrete.

A water-reducing admixture (Type A) may be used. A water reducing and retarding admixture (Type D) or a water reducing admixture (Type A) and a retarding admixture (Type B) may be used when the ambient temperature reaches 75 degrees F. A water reducing, high range admixture (Type F) may be used in accordance with Tables 914-1 or 914-2 and Tables 914-3 of Subsection 914.05.

A water-reducing, high range admixture conforming to ASTM C494 type F, may be used for precast structural concrete items subject to the following restrictions:

1. The chloride content of the admixture shall not exceed 0.8% by weight of admixture.
2. The maximum acceptable slump shall be 6" and the percentage of entrained air shall be 6 +/- 1 1/2%.

903.03.02 MIX DESIGN AND VERIFICATION

The following is added:

Manufacturer's certification for polyethylene sheeting shall be submitted to the engineer prior to installation.

If the concrete producer has satisfactorily met applicable design, control and acceptance testing requirements at the batch plant and has provided automatic recordation of the various batched weights which comply with specified design criteria, slump and air content, the concrete will be presumed to be in compliance with department standards at the time of delivery. This presumption shall not waive or alter any other requirements or otherwise affect the engineer's ability to impose pay adjustments.

903.03.05 CONTROL AND ACCEPTANCE TESTING REQUIREMENTS

(A) SAMPLING AND TESTING METHODS

The following is added:

Note – Wherever the reference to 6 inch (diameter) X 12 inch (height) compression test cylinder appears in these specifications, the use of 4 inch (diameter) X 8 inch (height) test cylinders will be permitted for mix designs containing coarse aggregate sizes not exceeding a nominal maximum size of one inch.

(C) ACCEPTANCE TESTING PROCEDURES FOR SLUMP AND AIR ENTRAINMENT

The following is added:

If the average of the two test results for either slump or air-entrainment falls below the lower specification limit, a single addition of mix water (or the approved Type F admixture for those mixes containing a water reducing, high range admixture) and/or air-entraining agent will be permitted provided that this additional step can be accomplished without exceeding the time or revolution limits specified in Subsection 405.08. When an air-entraining agent is added, it shall be diluted with water prior to addition to the drum.

Following any permitted additions, the drum shall be rotated at the recommended mixing speed for a minimum of 10 and a maximum of 20 revolutions, the original test results are to be disregarded, and a single test for both slump and air-entrainment performed. Further additions of mix water or admixtures will not be permitted. If the measured values for slump and air content are not within the ranges specified in Subsection 914.05 (Tables 914-1 or 914-2) the load of concrete will be rejected and removed from the project.

(D) GENERAL ACCEPTANCE TESTING REQUIREMENTS FOR STRENGTH

The following is added:

If curing facilities are not provided as required, the engineer will instruct the Contractor to provide such facilities. If, within ten days of the engineer's request, the facilities are not provided, the Contractor shall not place any concrete.

903.03.06 TABLES

The following note is added at the end of Table 914-1:

Note 1 – Except for surface and base course, bridge approach slabs and transition slabs, a Type F – water-reducing, high range admixture will be permitted in accordance with Subsection 905-02 and Subsection 914.02 subparts (B) and (C). When a Type F admixture is used, the table slump and air content values for the given concrete item shall be changed as follows:

Slump:	6 +/- 2 inches
Air Content:	Increase both the target value and tolerance percentage by 0.5.

The following note is added at the end of Table 914-2:

Note 1 – Except for bridge decks, Type F – water-reducing, high range admixtures will be permitted in accordance with Subsection 905.02 and Subsection 914.02 subparts (B) and (C). When a Type F admixture is used, the table slump and air content values for the given concrete item shall be changed as follows:

Slump:	6 +/- 2 inches
Air Content:	Increase both the target value and tolerance percentage by 0.5.

The following changes are made to table 914-3:

Class design strength (28 days, psi) of class a concrete is changed to 4600.

Verification strength (28 days, psi) of class a concrete is changed to 5400.

Note 1 at the end of Table 914-3 is changed to:

Note 1 – in accordance with PCI manual, except as indicated in Note 2.

The following note is added at the end of Table 914-3:

Note 2 – The maximum water/cement ratio for all classes of concrete, when a Type F, water reducing, high range admixture is used in accordance with tables 914-1 and 914-2, shall be 0.40 lb/lb (4.5 gals/bag).

The following changes are made to table 914-4:

Retest limit (psi) for class a concrete pay-adjustment is changed to 4000.

Retest limit (psi) for class a concrete non-pay-adjustment items is changed to 4400.

The following note is added at the end of table 914-4:

Note 7 - retest limit for non-pay adjustment roadway and structural items requiring the use of class B, white concrete, shall be 3000 psi.

903.08.01 MORTAR

The following is added:

Mortar used to reset inlet castings shall be non-shrink and develop a one-hour compressive strength of 2500 psi.

SECTION 919 – MISCELLANEOUS

919.08 WATER

The following is added:

Water used in mixing or curing shall be clean and free of oil, salt, acid, alkali, sugar, vegetable, or other substances injurious to the finished product. Water will be tested in accordance with and shall meet the requirements of AASHTO T 26. Water known to be of potable quality may be used without test. Where the source of water is relatively shallow, the intake shall be so enclosed as to exclude silt, mud, grass or other foreign materials.

The following subsection is added:

919.15 CERTIFICATION OF COMPLIANCE

Manufacturer's certifications are required for Portland cement and shall be submitted for review by the Engineer.

END OF SECTION

APPENDIX A

SKATEPARK QUALIFICATION FORM

SKATE PARK QUALIFICATION FORM

As part of their bid, the General Contractor must submit this form identifying the supplier and installer of the pre-cast concrete skate elements, as well as the contractor placing, shooting and finishing the specialty skatepark concrete.

Submission of these forms does not constitute qualification. The Owner will review the firm's project references for acceptable quality and workmanship. In the Owner's absolute discretion, if the prior work of the firm or sub-contractors is deemed unacceptable, the General Contractor will be declared a non-responsive bidder.

PRE-CAST CONCRETE INSTALLATION QUESTIONNAIRE

Installer/Sub-contractor/Contractor:

- Company Name _____
- Address _____
- Phone _____
- Email _____

Does the installer or specified sub-contractor have a minimum of 5 (five) years of experience installing monolithic pre-cast concrete skate elements? YES or NO

List 5 (five) public projects where the installer or specified sub-contractor installed the pre-cast concrete product specified above. Projects must have been open and continuously in good operating condition for at least one year.

1. PROJECT NAME: _____

OWNER: _____

OWNER CONTACT INFORMATION: _____

YEAR INSTALLED: _____

2. PROJECT NAME: _____

OWNER: _____

OWNER CONTACT INFORMATION: _____

YEAR INSTALLED: _____

3. PROJECT NAME: _____

OWNER: _____

OWNER CONTACT INFORMATION: _____

YEAR INSTALLED: _____

4. PROJECT NAME: _____

OWNER: _____

OWNER CONTACT INFORMATION: _____

YEAR INSTALLED: _____

5. PROJECT NAME: _____

OWNER: _____

OWNER CONTACT INFORMATION: _____

YEAR INSTALLED: _____

CAST-IN-PLACE CONCRETE & SHOTCRETE QUESTIONNAIRE

List 5 (five) public projects where the contractor or specified sub-contractor successfully placed, shot and finished concrete for a public skatepark within the last 5 (five) years. Projects must have been open and continuously in good operating condition for at least one year.

1. PROJECT NAME: _____

OWNER: _____

OWNER CONTACT INFORMATION: _____

YEAR CONSTRUCTED: _____

2. PROJECT NAME: _____

OWNER: _____

OWNER CONTACT INFORMATION: _____

YEAR CONSTRUCTED: _____

3. PROJECT NAME: _____

OWNER: _____

OWNER CONTACT INFORMATION: _____

YEAR CONSTRUCTED: _____

4. PROJECT NAME: _____

OWNER: _____

OWNER CONTACT INFORMATION: _____

YEAR CONSTRUCTED: _____

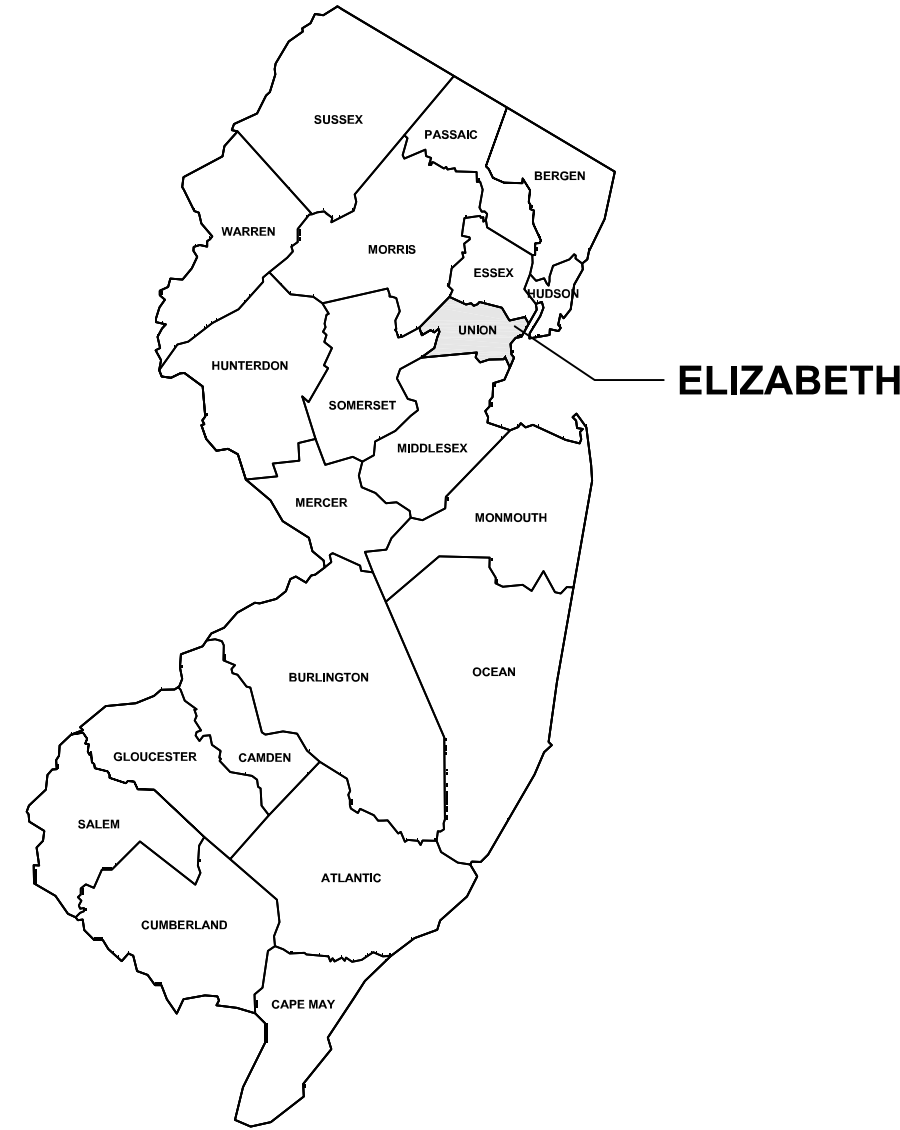
5. PROJECT NAME: _____

OWNER: _____

OWNER CONTACT INFORMATION: _____

YEAR CONSTRUCTED: _____

CONSTRUCTION PLANS FOR MATTANO SKATEBOARD PARK MATTANO PARK BLOCK 5, LOTS 453 B CITY OF ELIZABETH UNION COUNTY, NEW JERSEY



STATE OF NEW JERSEY

UNION COUNTY PROJECT NO. 2016.008

INDEX OF DRAWINGS

SHEET	TITLE	REVISION
1	COVER SHEET	-
2	LEGEND, GENERAL NOTES AND QUANTITIES	-
3	DEMOLITION PLAN	-
4	SITE LAYOUT PLAN	-
5	SITE GRADING AND DRAINAGE PLAN	-
6	SKATE ELEMENT INFORMATION PLAN	-
7	SKATE ELEMENT LAYOUT PLAN	-
8	SKATE ELEMENT SECTIONS	-
9	SKATE ELEMENT STEEL PLAN	-
10	SKATE ELEMENT DETAILS I	-
11	SKATE ELEMENT DETAILS II	-
12	ELECTRICAL PLAN, NOTES AND DETAILS	-
13	ELECTRICAL NOTES AND DETAILS	-
14	LANDSCAPE PLAN, NOTES AND DETAILS	-
15	CONSTRUCTION DETAILS	-
16	SOIL EROSION AND SEDIMENT CONTROL PLAN	-
17	SOIL EROSION AND SEDIMENT CONTROL NOTES AND DETAILS	-

UNION COUNTY BOARD OF CHOSEN FREEHOLDERS	
BRUCE H. BERGEN CHAIRMAN	SERGIO GRANADOS VICE CHAIRMAN
LINDA CARTER FREEHOLDER	ANGEL G. ESTRADA FREEHOLDER
CHRISTOPHER HUDAK FREEHOLDER	MOHAMED S. JALLOH FREEHOLDER
BETTE JANE KOWALSKI FREEHOLDER	ALEXANDER MIRABELLA FREEHOLDER
VERNELL WRIGHT FREEHOLDER	



SOURCE: NEW JERSEY GEOGRAPHIC INFORMATION NETWORK 2015

KEY MAP



SCALE: 1"= 400'

UTILITIES
PSE&G - ELECTRIC
VERIZON - TELEPHONE / INTERNET
PSE&G / ELIZABETHTOWN GAS (AGL RESOURCES)- GAS
NJ AMERICAN WATER (ELIZABETHTOWN WATER CO.) - WATER
CABLEVISION OPTIMUM - CABLE / INTERNET
CITY OF ELIZABETH / JOINT MEETING ESSEX UNION - SEWER

E:\SCE\Elizabeth\Drawings\Sheets\8745 01 Cover Sheet.dwg Thu, Oct 12, 2017 - 3:51 pm mfreeman Suburban Consulting Engineers, Inc.

COVER SHEET

SUBURBAN CONSULTING ENGINEERS, INC.

- Civil Engineers - Municipal Engineers -
- Landscape Architects -
- Planners - Environmentalists - Land Surveyors -

96 U.S. Highway 206, Suite 101, Flanders, NJ, 07836 973.398.1776
2430 Highway 34, Suite 1R, Wall, N.J. 08736 732.282.1776
www.suburbanconsulting.com
CERTIFICATE OF AUTHORIZATION NO.: 24GA28037500

PROJECT NUMBER: SCE - 8745.011 SHEET 1 OF 17
REVISION -

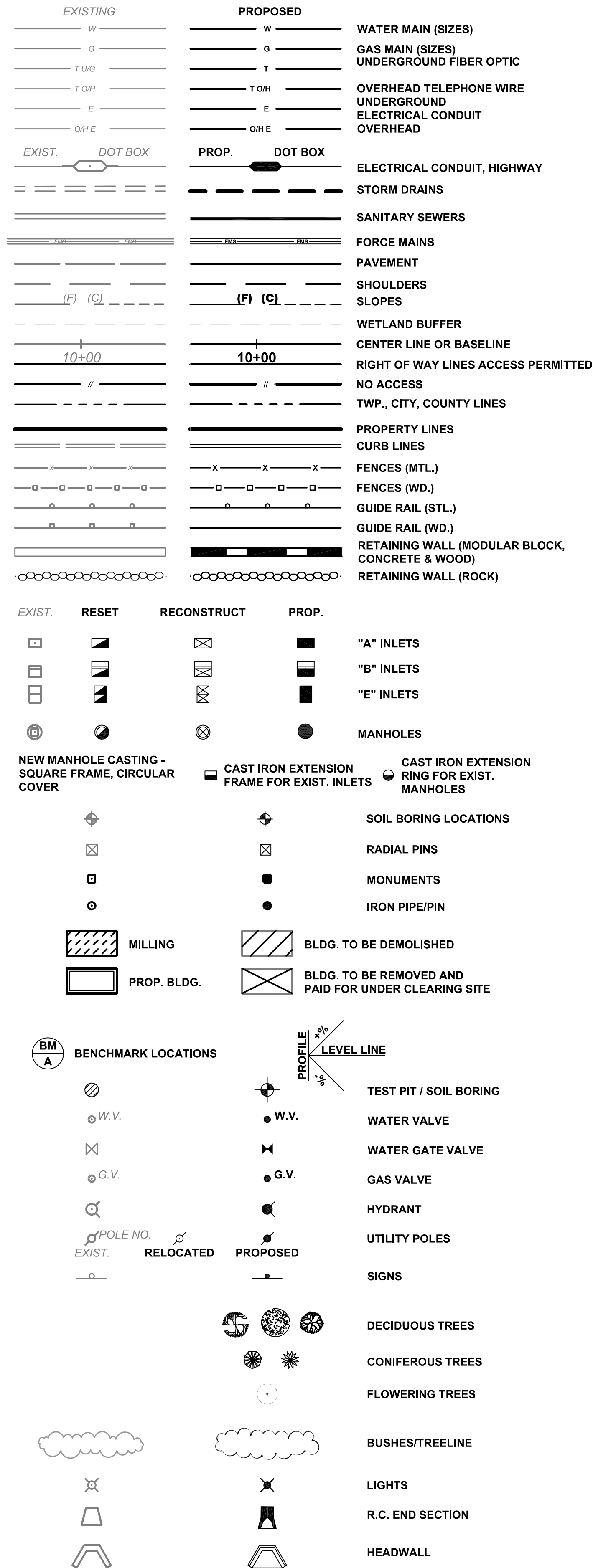
DAREN J. PHIL, PE
NEW JERSEY PROFESSIONAL ENGINEER
LICENSE NO. 24GE03619100

NOTE:
PRIOR TO ANY EXCAVATION, CONTRACTOR MUST HAVE ALL UTILITIES MARKED
OUT BY THE APPROPRIATE UTILITY COMPANIES -> 811 OR 1-800-272-1000

10/13/2017
DATE:

**CONSTRUCTION PLANS FOR
MATTANO SKATEBOARD PARK
UNION COUNTY PARKS
BLOCK 5, LOTS 453 B
CITY OF ELIZABETH
UNION COUNTY, NEW JERSEY**

LEGEND



GENERAL NOTES:

- ALL LOCATIONS AND ELEVATIONS ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY ALL INFORMATION AND REPORT ALL DISCREPANCIES AT THE TIME OF BID.
- THE CONTRACTOR SHALL PROVIDE ALL TOOLS, TRANSPORTATION, MATERIALS, LABOR, INSURANCE, AND ALL ELSE NECESSARY FOR THE WORK AND/OR INCIDENTAL THERETO.
- ADEQUATE WARNING SIGNS AND BARRICADES SHALL BE PLACED AROUND ALL EXCAVATIONS. FLASHING LIGHTS OR OTHER ILLUMINATION DEVICES SHALL BE EMPLOYED TO WARN MOTORISTS AND PEDESTRIANS AFTER DARK. ALL TRAFFIC CONTROL MEASURES SHALL MEET THE REQUIREMENTS OF THE N.J.D.O.T. REGULATIONS AND THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" CURRENT EDITION.
- ALL EXISTING SIGNS SHALL BE REMOVED STORED AND RESET EACH DAY DURING CONSTRUCTION. DAMAGE TO SIGNS BY CONTRACTOR SHALL REQUIRE REPLACEMENT WITH NEW SIGNS AT HIS OWN EXPENSE.
- WHENEVER THE DRAWINGS INDICATE TO MEET EXISTING CONDITIONS, THE CONTRACTOR SHALL PROVIDE FOR A SMOOTH AND CONTINUOUS TRANSITION FROM PROPOSED TO EXISTING GRADES TO THE ACCEPTANCE OF THE ENGINEER.
- THE PROPOSED ELEVATIONS SHOWN IN THE PLANS SHALL BE SUBJECT TO CHANGE AS DIRECTED BY THE ENGINEER TO MEET THE EXISTING CONDITIONS. THE CONTRACTOR SHALL PERFORM ALL GRADING OPERATIONS AS NECESSARY TO FACILITATE POSITIVE DRAINAGE AND ELIMINATE ANY LOW SPOTS OR PONDING ON SURFACE.
- WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS.
- WORK MAY BE PERFORMED MONDAY THROUGH FRIDAY BETWEEN THE HOURS OF 8:00 AM AND 5:00 PM. THE ENGINEER MUST APPROVE EARLY STARTS AND WORK ON SATURDAYS, SUNDAYS AND HOLIDAYS. THE COST FOR INSPECTION SERVICES BY THE ENGINEER BEYOND NORMAL WORK DAYS AND HOURS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- THE EXISTENCE OF UNDERGROUND UTILITIES ARE KNOWN IN THE PROJECT AREA. THE CONTRACTOR SHALL NOT PROCEED WITH ANY EXCAVATION UNTIL HE HAS CONTACTED EACH OF THE UTILITY COMPANIES, MUNICIPAL AUTHORITIES, AND THE OWNER TO DETERMINE THE EXACT LOCATION OF ALL UTILITIES. THIS SHALL INCLUDE THE "MARKING OUT" OF PHYSICAL LOCATION OF EACH UTILITY VIA THE ONE CALL SYSTEM - (811). LOCATIONS OF UTILITIES AS SHOWN ON THESE PLANS ARE PLOTTED FROM AVAILABLE DATA ON FILE WITH THE UTILITY COMPANIES AND ARE NO GUARANTEED AS TO EXACTNESS. THE CONTRACTOR SHALL USE THE UTILITY LOCATIONS AS SHOWN AS AN AID IN DETERMINING EXACT LOCATIONS AND IS SOLELY RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES DURING CONSTRUCTION.
- THIS PLAN DOES NOT CERTIFY TO THE LOCATION, BOTH HORIZONTAL AND VERTICAL, OF ANY UNDERGROUND FEATURE OR STRUCTURE WHICH HAS NOT BEEN EXPOSED FOR DIRECT MEASUREMENT. THE CONTRACTOR SHALL BE RESPONSIBLE TO PERFORM TEST PITS AS REQUIRED AT NO ADDITIONAL COST TO THE OWNER PRIOR TO CONSTRUCTION ACTIVITIES TO VERIFY LOCATIONS OF UTILITIES. CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER DISPOSAL OF ALL WASTE MATERIAL IN ACCORDANCE WITH GOVERNING REGULATIONS AND THE PROJECT SPECIFICATIONS.
- ALL QUANTITIES DEPICTED ON THESE PLANS ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY ALL QUANTITIES AND BRING DISCREPANCIES TO THE ATTENTION OF THE ENGINEER. FORMAL CHANGE ORDERS SHALL BE APPROVED PRIOR TO ANY ITEM INCREASE. WORK PERFORMED PRIOR TO A CHANGE ORDER WILL NOT BE THE RESPONSIBILITY OF THE OWNER.
- THE CONTRACTOR MUST PROVIDE A MEANS OF SAFE INGRESS AND EGRESS AT ALL TIMES TO THE PUBLIC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING SAFE ACCESS TO ALL DRIVEWAYS, PARKING LOTS, WALKS AND BUILDINGS AND PROVIDE ADEQUATE MEASURES TO PREVENT NON-AUTHORIZED PERSONNEL FROM ACCESSING THE SITE DURING CONSTRUCTION. SHOULD WORK HOURS OUTSIDE OF THE DESIGNATED HOURS BE APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PROVIDE SECURITY FOR ALL EMPLOYEES AND INSPECTORS.
- THE CONTRACTOR SHALL VERIFY THAT ALL PEDESTRIAN ACCESS IS IN COMPLIANCE WITH ALL AMERICANS WITH DISABILITIES ACT (ADA) REQUIREMENTS AND NOTIFY THE ENGINEER WITH ANY DISCREPANCIES PRIOR TO THE INSTALLATION OF ANY IMPROVEMENTS
- NO MATERIAL OR EQUIPMENT IS TO BE STORED ON ANY AREA THAT HAS NOT BEEN ESTABLISHED AS A DESIGNATED STAGING AREA. ALL EXCAVATIONS SHALL BE PROTECTED AT THE END OF EACH WORK DAY. THE CONTRACTOR IS RESPONSIBLE FOR SITE SAFETY DURING THE CONTRACT PERIOD. STAGING AREAS SHALL BE RESTORED TO PRE-CONSTRUCTION CONDITIONS BY THE CONTRACTOR.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN ALL NECESSARY LOCAL BUILDING PERMITS IF AND AS NEEDED.
- THE CONTRACTOR WILL BE RESPONSIBLE FOR THE INSTALLATION, MAINTENANCE AND REPAIR OF SOIL EROSION AND SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH THE APPROVED SOIL EROSION AND SEDIMENT CONTROL PERMIT. CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGES OR REMEDIATION REQUIRED DUE TO EROSION OR DOWNSTREAM SEDIMENT DEPOSITION.
- THE CONTRACTOR SHALL MAKE NO PERMANENT MARKINGS OUTSIDE OF THE WORK AREA. IF MARKINGS OUTSIDE THE WORK AREA ARE REQUIRED FOR ANY REASON, THEY SHALL BE NON-PERMANENT IN NATURE (REMOVABLE STAKES, ETC.). IF ANY PERMANENT MARKINGS ARE MADE OUTSIDE OF THE WORK AREA, THEY SHALL BE REPAIRED IN ACCORDANCE WITH THE ENGINEER'S REQUIREMENTS AT NO ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR IS REQUIRED TO PROTECT THE EXISTING FACILITIES AND UTILITIES DESIGNATED TO REMAIN. PHOTOGRAPHIC EVIDENCE OF THE EXISTING CONDITIONS OF THE ENTIRE SITE MUST BE PERFORMED AND PROVIDED TO THE OWNER PRIOR TO THE INSTALLATION OF IMPROVEMENTS. THE CONTRACTOR IS RESPONSIBLE TO REPAIR ANY DAMAGED AREAS SO THAT THEY MATCH IN ELEVATION, COLOR, AND TEXTURE. CONTRACTOR TO RESTORE ANY UTILITIES DISTURBED BY CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SECURITY DURING THE CONSTRUCTION SEQUENCE. THE CONTRACTOR SHALL PROVIDE TEMPORARY 6' HIGH CHAIN LINK FENCE FOR SITE SECURITY PRIOR TO ANY EXCAVATION AND SHALL REMAIN CONTINUOUSLY UNTIL ALL GRADING OPERATIONS ARE COMPLETE AS PART OF THE PROJECT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE HEALTH AND SAFETY OF THEIR OWN EMPLOYEES, ALL THEIR SUBCONTRACTORS, AND ALL OTHER PERSONNEL ON-SITE DURING WORK ACTIVITIES UNDER THIS CONTRACT.
- THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL APPROPRIATE SAFETY DEVICES AND TRAINING TO ALL WORKERS IN ORDER TO MAINTAIN SAFE CONDITIONS ON THE PROJECT SITE.
- ALL CONSTRUCTION EXCAVATIONS SHALL BE PERFORMED IN ACCORDANCE WITH OSHA REGULATION GUIDELINES.
- ALL MATERIALS, WORKMANSHIP, AND CONSTRUCTION FOR SITE IMPROVEMENTS SHOWN HEREON SHALL BE IN ACCORDANCE WITH:
N.J. DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", AS AMENDED THROUGH 2007.
- CURRENT, PREVAILING MUNICIPAL AND/OR COUNTY SPECIFICATIONS, STANDARDS AND REQUIREMENTS.
- CURRENT, PREVAILING UTILITY COMPANY/AUTHORITY AND OWNER SPECIFICATIONS, STANDARDS AND REQUIREMENTS.
- THE CONTRACTOR SHALL NOTIFY THE UNDERSIGNED PROFESSIONAL IMMEDIATELY IF ANY FIELD OR SOIL CONDITIONS ENCOUNTERED DIFFER MATERIALLY FROM THOSE REPRESENTED HEREON.
- ANY DAMAGES TO UTILITIES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. ALL COSTS FOR REPAIRS SHALL BE BORNE BY THE CONTRACTOR.
- THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO MAINTAIN DUST CONTROL AS DEFINED AND/OR AS DIRECTED BY THE ENGINEER. ALL VEHICLES SHALL BE CLEANED AND ALL ROADWAYS SHALL BE MAINTAINED AS DIRECTED BY THE ENGINEER.
- ONCE THE CONTRACTOR HAS COMMENCED CONSTRUCTION, THE WORK SHALL CONTINUE ON A DAILY BASIS WITHOUT INTERRUPTION UNTIL ALL WORK HAS BEEN COMPLETED.
- CONTRACTOR TO BE ADVISED THAT THE CLEARING OF THE PROJECT SITE, INCLUDING THE REMOVAL OF THE EXISTING ASPHALT PAVEMENT, EXISTING SKATE PARK FEATURES AND EXISTING FENCING IS THE RESPONSIBILITY OF THE OWNER AND IS TO BE COMPLETED PRIOR TO THE CONSTRUCTION OF THE PROPOSED SKATE PARK FEATURES. CONTRACTOR TO BE ADVISED THAT UPON CLEARING THE PROJECT SITE, THE OWNER IS TO LEAVE THE EXISTING STONE BASE ON SITE FOR USE IN CONSTRUCTING PROPOSED PARK FEATURES.
- CONTRACTOR TO BE ADVISED THAT WHILE THE OWNER IS TO LEAVE THE EXISTING STONE BASE FOR USE IN THE CONSTRUCTION OF PROPOSED PARK FEATURES, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SUPPLEMENT THE EXISTING STONE BASE WITH NEW, CLEAN 3/4" STONE AS NECESSARY. ALL COSTS ASSOCIATED WITH THE NECESSARY, SUPPLEMENTAL STONE ARE TO BE INCLUDED IN THE VARIOUS BID ITEMS, NO ADDITIONAL PAYMENT BY THE OWNER WILL BE MADE FOR ANY SUPPLEMENTAL BASE STONE MATERIAL.
- CONTRACTOR TO BE ADVISED THAT ANY EXCESS STONE BASE MATERIAL ON SITE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. ANY UNUSED OR EXCESS STONE MATERIAL IS TO BE TRANSPORTED OFF SITE AT NO ADDITIONAL COST TO THE OWNER.

BASE BID ITEMS			
ITEM NO.	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY
1	SOIL EROSION AND SEDIMENT CONTROL	L.S.	1
2	GRADING AND EARTHWORK	L.S.	1
3	PRE-CAST SKATE ELEMENTS	L.S.	1
4	POURED IN PLACE SKATE ELEMENTS	L.S.	1
5	8" PVC SCH 40 PIPE	L.F.	290
6	4" INLINE DRAIN	UNIT	2
7	8" DRAIN BASIN	UNIT	2
8	TYPE "A" INLET	UNIT	1
9	CONCRETE SIDEWALK, 4" THICK	S.Y.	365
10	CONCRETE FOOTINGS, REINFORCED	L.S.	1
11	REINSTALLED ADA PARKING SIGN	UNIT	1
12	RULES AND REGULATIONS SIGN	UNIT	1
13	RED MAPLE 'OCTOBER GLORY', 2.5"-3 CAL., B&B	UNIT	3
14	SUGAR MAPLE 'LEGACY', 2.5"-3" CAL., B&B	UNIT	3
15	EASTERN REDBUD, 2"-2.5" CAL., B&B	UNIT	4
16	WHITE PINE, 6'-7', B&B	UNIT	8
17	POTENTILLA 'KATHERINE DYKES', 18"-24", 3 GAL.	UNIT	42
18	BLACK-EYED SUSAN, 1 GAL.	UNIT	26
19	ARROWWOOD VIBURNUM 'BLUE MUFFIN', 24"-30", 5 GAL.	UNIT	12
20	TOPSOILING, 4" THICK	S.Y.	1,359
21	FERTILIZING, SEEDING AND MULCHING	S.Y.	1,359
22	3/4" CLEAN STONE, 6" THICK (IF AND WHERE DIRECTED)	S.Y.	130

ALTERNATE BID ITEMS			
ITEM NO.	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY
A-1	SITE ELECTRIC AND CONDUIT RUNS	L.S.	1
A-2	DECORATIVE POST TOP LIGHT FIXTURE	UNIT	13

E:\SCE\Elizabeth\Drawings\Sheets\8745 02 Legend Notes.dwg Thu, Oct 12, 2017 - 2:51pm mfreeman Suburban Consulting Engineers, Inc.

NOTICE
THIS DRAWING AND ALL INFORMATION CONTAINED HEREIN IS AUTHORIZED FOR USE ONLY BY THE PARTY FOR WHOM THE WORK WAS CONTRACTED OR TO WHOM IT IS CERTIFIED.
THIS DRAWING MAY NOT BE COPIED, REUSED, DISCLOSED, DISTRIBUTED, OR REPRODUCED FOR ANY OTHER PURPOSE WITHOUT THE WRITTEN CONSENT OF
Suburban Consulting Engineers, Inc.
PER N.J.A.C. ELECTRONIC SUBMISSIONS NOT CONTAINING A VALID DIGITAL SEAL OR PAPER COPIES NOT CONTAINING A RAISED SEAL ARE NOT ORIGINALS AND MAY HAVE BEEN ALTERED.
© COPYRIGHT 2017 Suburban Consulting Engineers, Inc.™
CERTIFICATE OF AUTHORIZATION NO: 24GA28037500
ALL RIGHTS RESERVED

DESCRIPTION	NO.	DATE:	BY:	CHK:
REVISIONS				

DRAWN BY:
SD
10/13/17
CHECKED BY:
KBD
10/13/17
CHECKED BY:

DAREN J. PHIL, PE
NEW JERSEY PROFESSIONAL ENGINEER
LICENSE NO: 24GE03619100

DATE: 10/13/17

SUBURBAN CONSULTING ENGINEERS, INC.
COA NO.: 24GA28037500
- Civil Engineers - Municipal Engineers -
- Landscape Architects -
- Planners - Environmentalists - Land Surveyors -
96 US Highway 206, Suite 101 2430 Highway 54, Bldg. A Suite 1B
Flanders, N.J. 07836 - 973.398.1776 Wall, N.J. 08736 - 732.282.1776
EXCELLENCE ♦ ECONOMY ♦ ENVIRONMENT

CONSTRUCTION PLANS FOR MATTANO SKATEBOARD PARK
MATTANO PARK
BLOCK 5, LOT 453 B
CITY OF ELIZABETH, UNION COUNTY, N.J.
LEGEND, GENERAL NOTES AND QUANTITIES

PROJECT NUMBER:
SCE-8745.011
SCALE:
1"=30'
SHEET 2 OF 17
REVISION

E:\SCE\Elizabeth\Drawings\Sheets\745 03 Demolition Plan.dwg Thu, Oct 12, 2017 - 3:20pm mfreeman Suburban Consulting Engineers, Inc.

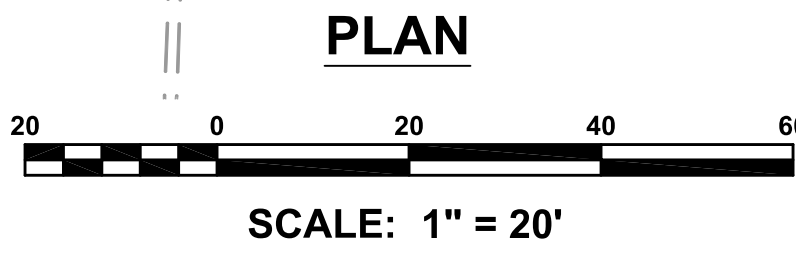
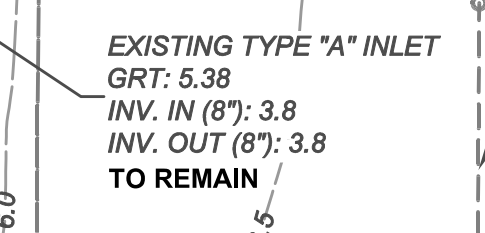
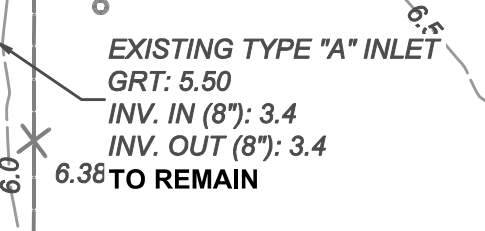
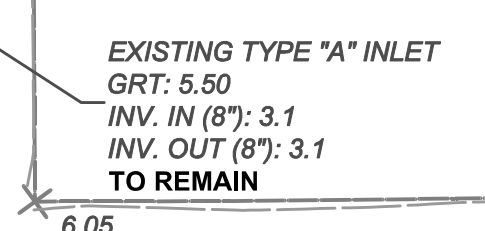
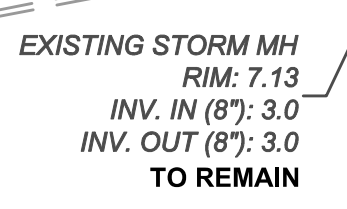
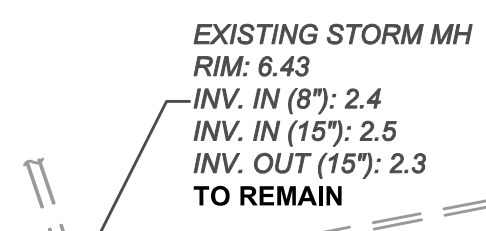
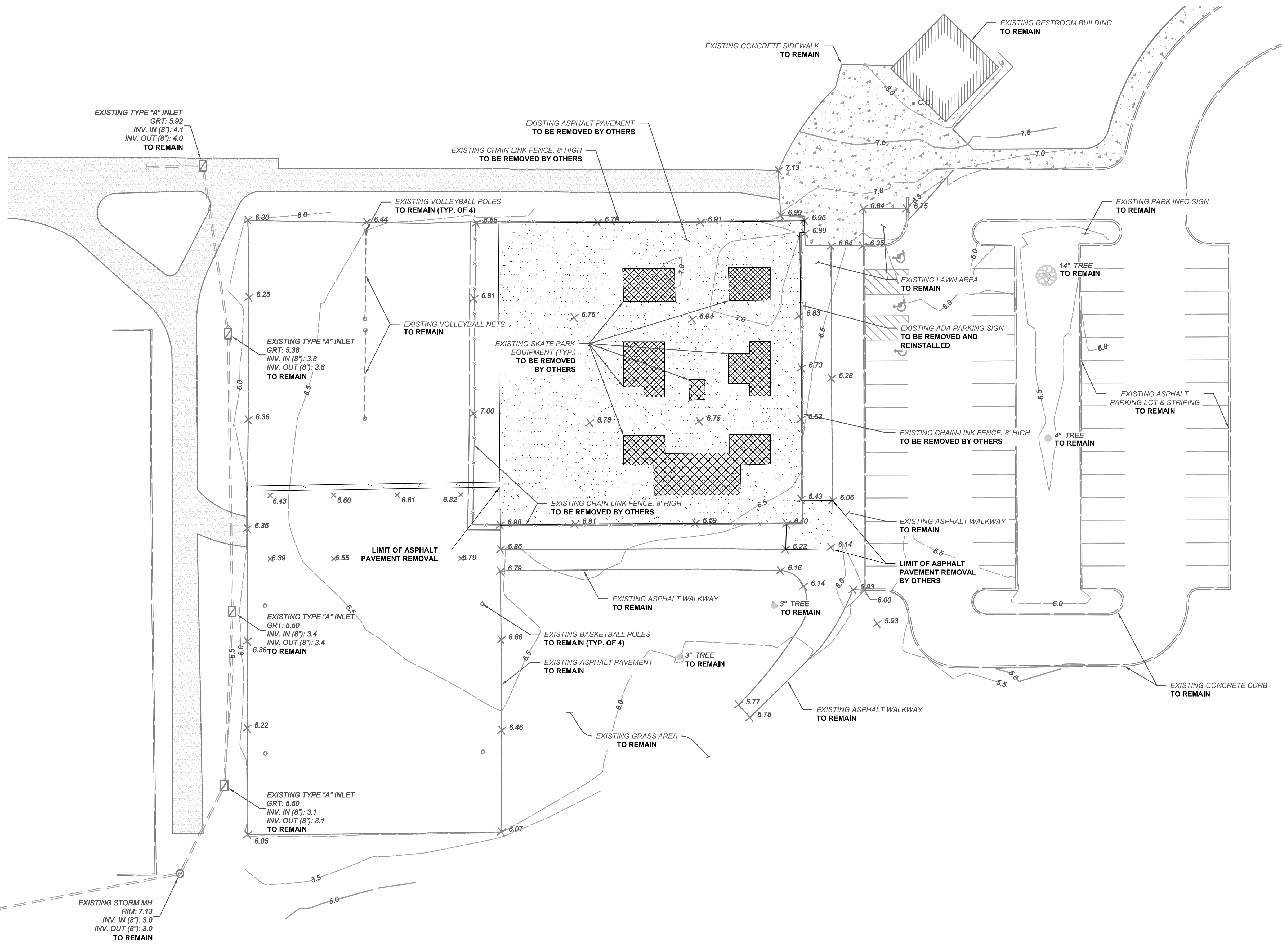


REFERENCES:

1. EXISTING CONDITIONS DEPICTED HEREIN PER SITE SURVEY ENTITLED, "PARTIAL EXISTING CONDITIONS PLAN, BLOCK 5, LOT 453 B, CITY OF ELIZABETH, UNION COUNTY, NEW JERSEY" PREPARED BY SUBURBAN CONSULTING ENGINEERS, INC., DATED DECEMBER 16, 2016.

NOTE:

1. CONTRACTOR TO BE ADVISED THAT THE DEMOLITION AND CLEARING OF THE PROJECT SITE, INCLUDING THE REMOVAL OF THE EXISTING ASPHALT PAVEMENT, EXISTING SKATE PARK FEATURES AND EXISTING FENCING IS THE RESPONSIBILITY OF THE OWNER AND IS TO BE COMPLETED PRIOR TO THE CONSTRUCTION OF THE PROPOSED SKATE PARK FEATURES. CONTRACTOR TO BE ADVISED THAT UPON CLEARING THE PROJECT SITE, THE OWNER IS TO LEAVE THE EXISTING STONE BASE ON SITE FOR USE IN CONSTRUCTING PROPOSED PARK FEATURES.
2. CONTRACTOR TO BE ADVISED THAT WHILE THE OWNER IS TO LEAVE THE EXISTING STONE BASE FOR USE IN THE CONSTRUCTION OF PROPOSED PARK FEATURES, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SUPPLEMENT THE EXISTING STONE BASE WITH NEW, CLEAN 3/4" STONE AS NECESSARY. ALL COSTS ASSOCIATED WITH THE NECESSARY, SUPPLEMENTAL STONE ARE TO BE INCLUDED IN THE VARIOUS BID ITEMS, NO ADDITIONAL PAYMENT BY THE OWNER WILL BE MADE FOR ANY SUPPLEMENTAL BASE STONE MATERIAL.
3. CONTRACTOR TO BE ADVISED THAT SHOULD ANY EXCESS STONE MATERIAL RESIDE ON SITE UPON COMPLETION OF ALL PARK ELEMENTS, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REMOVE THE STONE MATERIAL. NO ADDITIONAL PAYMENT FOR THE TRANSPORTATION OF AND REMOVAL OF EXCESS STONE MATERIAL WILL BE MADE BY THE OWNER.



NOTICE
 THIS DRAWING AND ALL INFORMATION CONTAINED HEREIN IS AUTHORIZED FOR USE ONLY BY THE PARTY FOR WHOM THE WORK WAS CONTRACTED OR TO WHOM IT IS CERTIFIED. THIS DRAWING MAY NOT BE COPIED, REUSED, DISCLOSED, DISTRIBUTED, OR RELIED UPON FOR ANY OTHER PURPOSE WITHOUT THE WRITTEN CONSENT OF Suburban Consulting Engineers, Inc.
 PER N.J.A.C. ELECTRONIC SUBMISSIONS NOT CONTAINING A VALID ORIGINAL SEAL OR PAPER COPIES NOT CONTAINING A RAISED SEAL ARE NOT ORIGINALS AND MAY HAVE BEEN ALTERED.
 © COPYRIGHT 2017 Suburban Consulting Engineers, Inc.™
 CERTIFICATE OF AUTHORIZATION NO. 24GA28037500
 ALL RIGHTS RESERVED

DESCRIPTION	NO.	DATE:	BY:	CHK:
REVISIONS				

DRAWN BY:
SD
10/13/17
CHECKED BY:
KBD
10/13/17
CHECKED BY:

DAREN J. PHIL, PE
 NEW JERSEY PROFESSIONAL ENGINEER
 LICENSE NO. 24GE03619100

 DATE: 10/13/17

SC E SUBURBAN CONSULTING ENGINEERS, INC.
 COA NO.: 24GA28037500
 - Civil Engineers - Municipal Engineers -
 - Landscape Architects -
 - Planners - Environmentalists - Land Surveyors -
 96 US Highway 206, Suite 101 2430 Highway 34, Bldg. A Suite 1B
 Flanders, N.J. 07836 - 973.398.1776 Wall, N.J. 08736 - 732.282.1776
 EXCELLENCE ♦ ECONOMY ♦ ENVIRONMENT

CONSTRUCTION PLANS FOR MATTANO SKATEBOARD PARK
 BLOCK 5, LOT 453 B
 CITY OF ELIZABETH, UNION COUNTY, N.J.
 DEMOLITION PLAN

PROJECT NUMBER:
SCE-8745.011
 SCALE:
1"=30'
 SHEET 3 OF 17
 REVISION



PRE-CAST SKATE ELEMENTS COMPONENT LIST		
REF#	DESCRIPTION	QTY
1	FLOATING RAMP W/ MOUSE HOLE 8'-0 1/4" L x 14'-4" W x 3'-11 1/2" H	1
2	FLOATING RAMP W/ MOUSE HOLE 8'-0 1/4" L x 14'-4" W x 3'-11 1/2" H	1
3	GRIND LEDGE 10'-10" L x 1'-6" W x 2'-2" H	1
4	GRIND LEDGE 10'-10" L x 1'-6" W x 2'-2" H	1
5	PLATFORM 12'-8" L x 4" W x 2" H	1
6	HUBBA LEDGE 10'-2" L x 1'-6" W x 2'-6" H	1
7	HUBBA LEDGE 10'-2" L x 1'-6" W x 2'-6" H	1
8	35° BANK 8'-4 1/4" L x 15'-8" W x 3'-11 1/2" H	1
9	35° BANK 8'-4 1/4" L x 15'-7 1/2" W x 3'-11 1/2" H	1
	INTEGRAL S.S. COPING	29ft.
	INTEGRAL 2" x 2" S.S. EDGE PROTECTION	86ft.

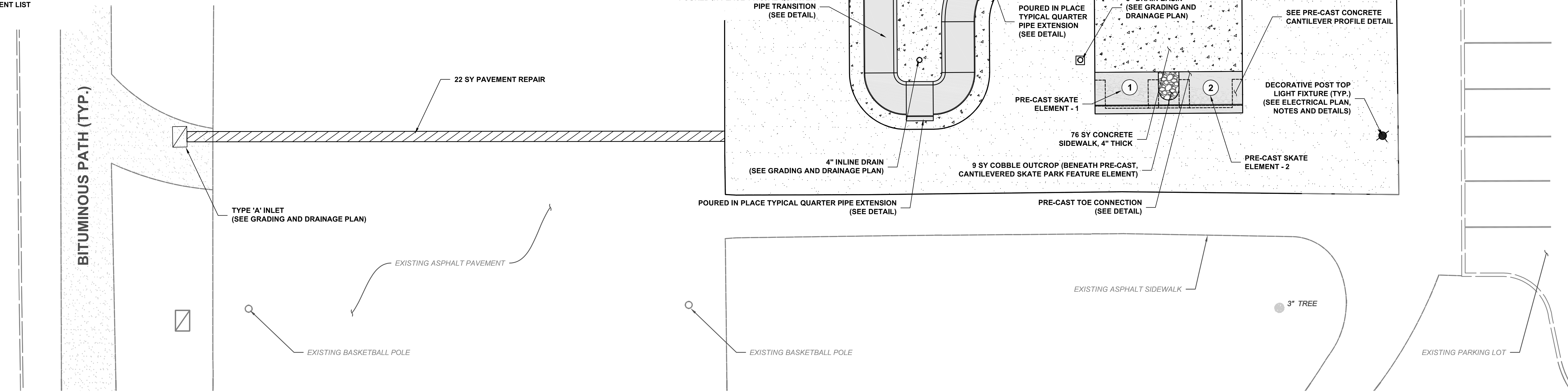
NOTES:

- CONTRACTOR IS RESPONSIBLE FOR COORDINATING AND SUB-CONTRACTING THE INSTALLATION OF ALL PRE-CAST SKATE ELEMENTS WITH SPOHN RANCH SKATE PARKS.
- POURED IN PLACE SKATE ELEMENTS AND STEEL EDGE PROTECTION TO BE INSTALLED BY A CERTIFIED INSTALLER. SEE INFORMATION ON SKATE PARK FEATURE INFORMATION PLAN FOR POURED IN PLACE SKATE FEATURE INFORMATION.
- CONTRACTOR TO BE ADVISED THAT WHILE THE OWNER IS TO LEAVE THE EXISTING STONE BASE FOR USE IN THE CONSTRUCTION OF PROPOSED PARK FEATURES, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SUPPLEMENT THE EXISTING STONE BASE WITH NEW, CLEAN 3/4" STONE AS NECESSARY. ALL COSTS ASSOCIATED WITH THE NECESSARY, SUPPLEMENTAL STONE ARE TO BE INCLUDED IN THE VARIOUS BID ITEMS, NO ADDITIONAL PAYMENT BY THE OWNER WILL BE MADE FOR ANY SUPPLEMENTAL BASE STONE MATERIAL.

LEGEND:

- CONCRETE
- TOPSOILING, FERTILIZING, SEEDING AND MULCHING
- SEE COMPONENT LIST

BITUMINOUS PATH (TYP.)



PLAN

SCALE: 1" = 10'

DESCRIPTION	NO.	DATE:	BY:	CHK:
REVISIONS				

DESCRIPTION	NO.	DATE:	BY:	CHK:
REVISIONS				

DRAWN BY: SD 10/13/17
CHECKED BY: KBD 10/13/17
CHECKED BY:

DAREN J. PHIL, PE
NEW JERSEY PROFESSIONAL ENGINEER
LICENSE NO. 24GE03619100

DATE: 10/13/17

SC E SUBURBAN CONSULTING ENGINEERS, INC.
COA NO.: 24GA28037500

Civil Engineers - Municipal Engineers -
Landscape Architects -
Planners - Environmentalists - Land Surveyors -

96 US Highway 206, Suite 101 2430 Highway 34, Bldg. A Suite 1B
Flinders, N.J. 07836 - 973.398.1776 Wall, N.J. 08736 - 732.282.1776

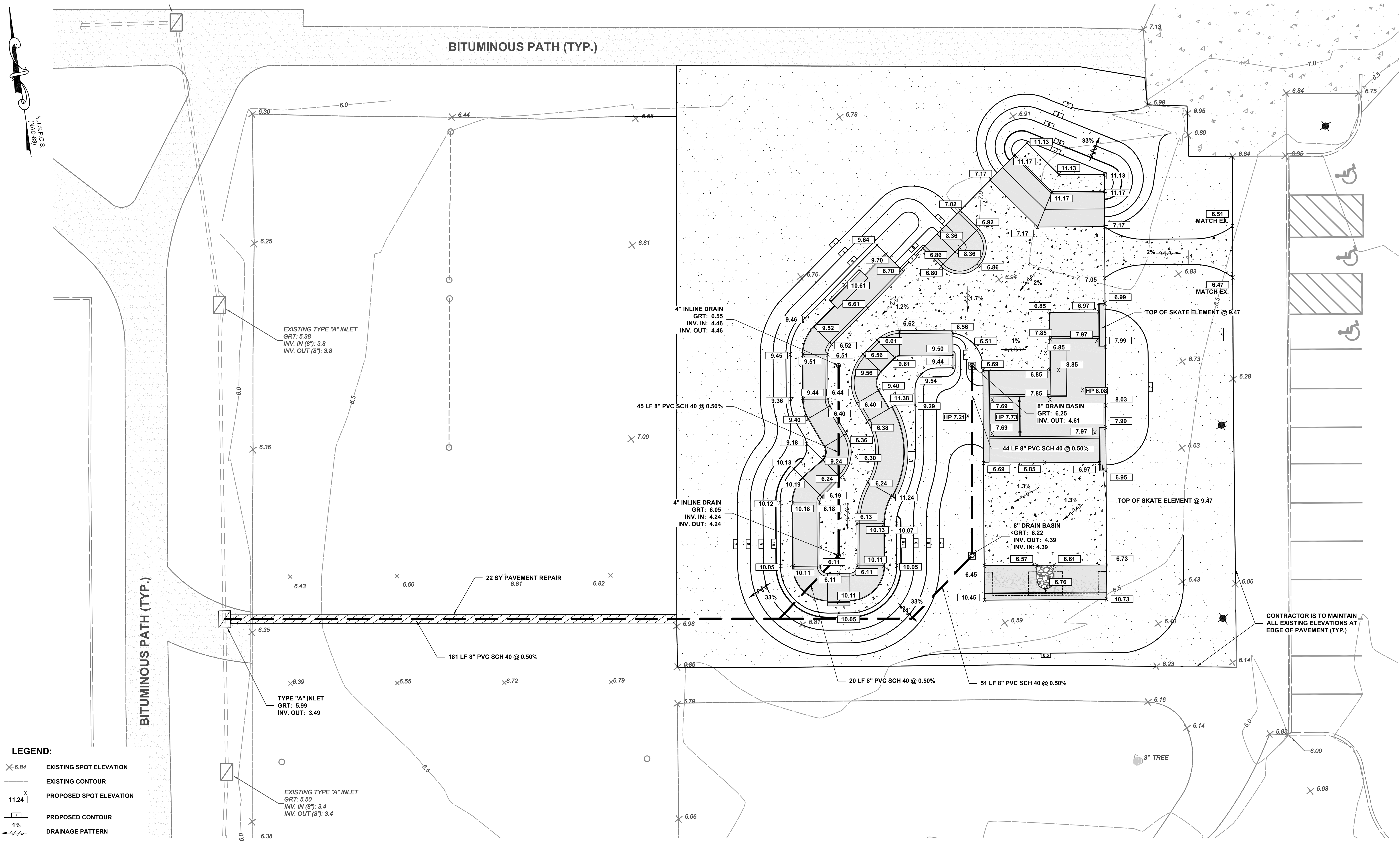
EXCELLENCE ♦ ECONOMY ♦ ENVIRONMENT

**CONSTRUCTION PLANS FOR
MATTANO SKATEBOARD PARK**
BLOCK 5, LOT 453 B
CITY OF ELIZABETH, UNION COUNTY, N.J.

SITE LAYOUT PLAN

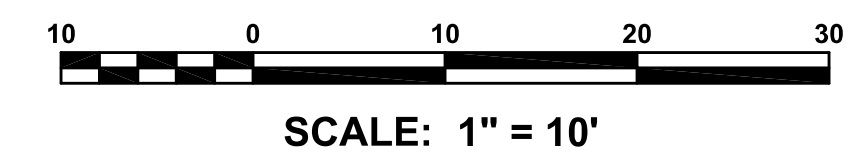
PROJECT NUMBER: SCE-8745.011
SCALE: 1"=10'
SHEET 4 OF 17
REVISION

E:\SCE\Elizabeth\Drawings\Sheets\8745 05 Grading and Drainage Plan.dwg Thu, Oct 12, 2017 - 3:16pm mfreeman Suburban Consulting Engineers, Inc.



- LEGEND:**
- ⊗ 6.84 EXISTING SPOT ELEVATION
 - EXISTING CONTOUR
 - ⊗ 11.24 PROPOSED SPOT ELEVATION
 - PROPOSED CONTOUR
 - 1% DRAINAGE PATTERN

PLAN



EXISTING TYPE "A" INLET
GRT: 5.38
INV. IN (8"): 3.8
INV. OUT (8"): 3.8

TYPE "A" INLET
GRT: 5.99
INV. OUT: 3.49

EXISTING TYPE "A" INLET
GRT: 5.90
INV. IN (8"): 3.4
INV. OUT (8"): 3.4

4" INLINE DRAIN
GRT: 6.55
INV. IN: 4.46
INV. OUT: 4.46

4" INLINE DRAIN
GRT: 6.05
INV. IN: 4.24
INV. OUT: 4.24

8" DRAIN BASIN
GRT: 6.25
INV. OUT: 4.61

8" DRAIN BASIN
GRT: 6.22
INV. OUT: 4.39
INV. IN: 4.39

CONTRACTOR IS TO MAINTAIN ALL EXISTING ELEVATIONS AT EDGE OF PAVEMENT (TYP.)

NOTICE
THIS DRAWING AND ALL INFORMATION CONTAINED HEREIN IS AUTHORIZED FOR USE ONLY BY THE PARTY FOR WHOM THE WORK WAS CONTRACTED OR TO WHOM IT IS CERTIFIED. THIS DRAWING MAY NOT BE COPIED, REPRODUCED, DISCLOSED, DISTRIBUTED, OR REPRODUCED FOR ANY OTHER PURPOSE WITHOUT THE WRITTEN CONSENT OF Suburban Consulting Engineers, Inc. PER N.J.A.C. ELECTRONIC SUBMISSIONS NOT CONTAINING A VALID DIGITAL SEAL OR PAPER COPIES NOT CONTAINING A RAISED SEAL ARE NOT ORIGINALS AND MAY HAVE BEEN ALTERED.
© COPYRIGHT 2017 Suburban Consulting Engineers, Inc.™
CERTIFICATE OF AUTHORIZATION NO: 24GA28037500
ALL RIGHTS RESERVED

DESCRIPTION	NO.	DATE:	BY:	CHK:
REVISIONS				

DRAWN BY:
SD
10/13/17
CHECKED BY:
KBD
10/13/17
CHECKED BY:

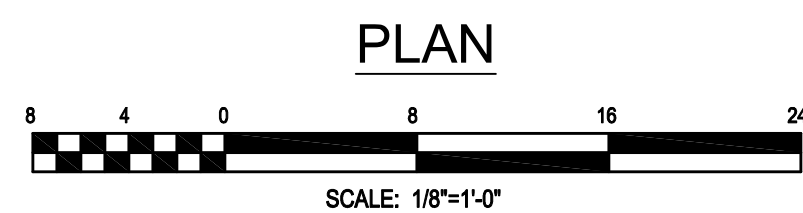
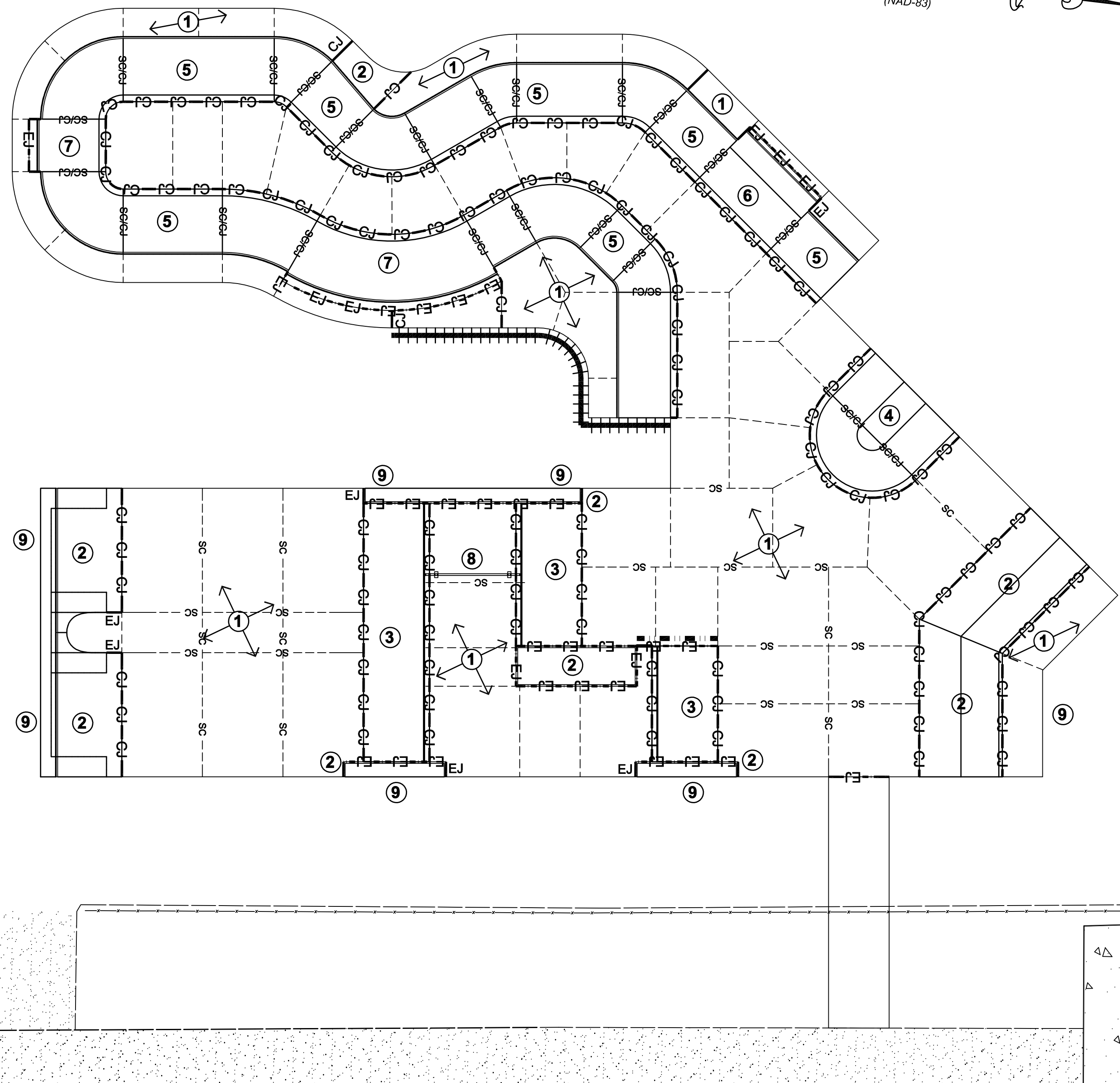
DAREN J. PHIL, PE
NEW JERSEY PROFESSIONAL ENGINEER
LICENSE NO. 24GE03619100
Daren J. Phil
DATE: 10/13/17

SC ENGINEERS, INC.
SUBURBAN CONSULTING ENGINEERS, INC.
COA NO.: 24GA28037500
Civil Engineers - Municipal Engineers -
Landscape Architects -
Planners - Environmentalists - Land Surveyors -
96 US Highway 206, Suite 101 2430 Highway 34, Bldg. A Suite 1B
Flinders, NJ 07836 - 973.398.1776 Wall, NJ 08736 - 732.282.1776
EXCELLENCE ♦ ECONOMY ♦ ENVIRONMENT

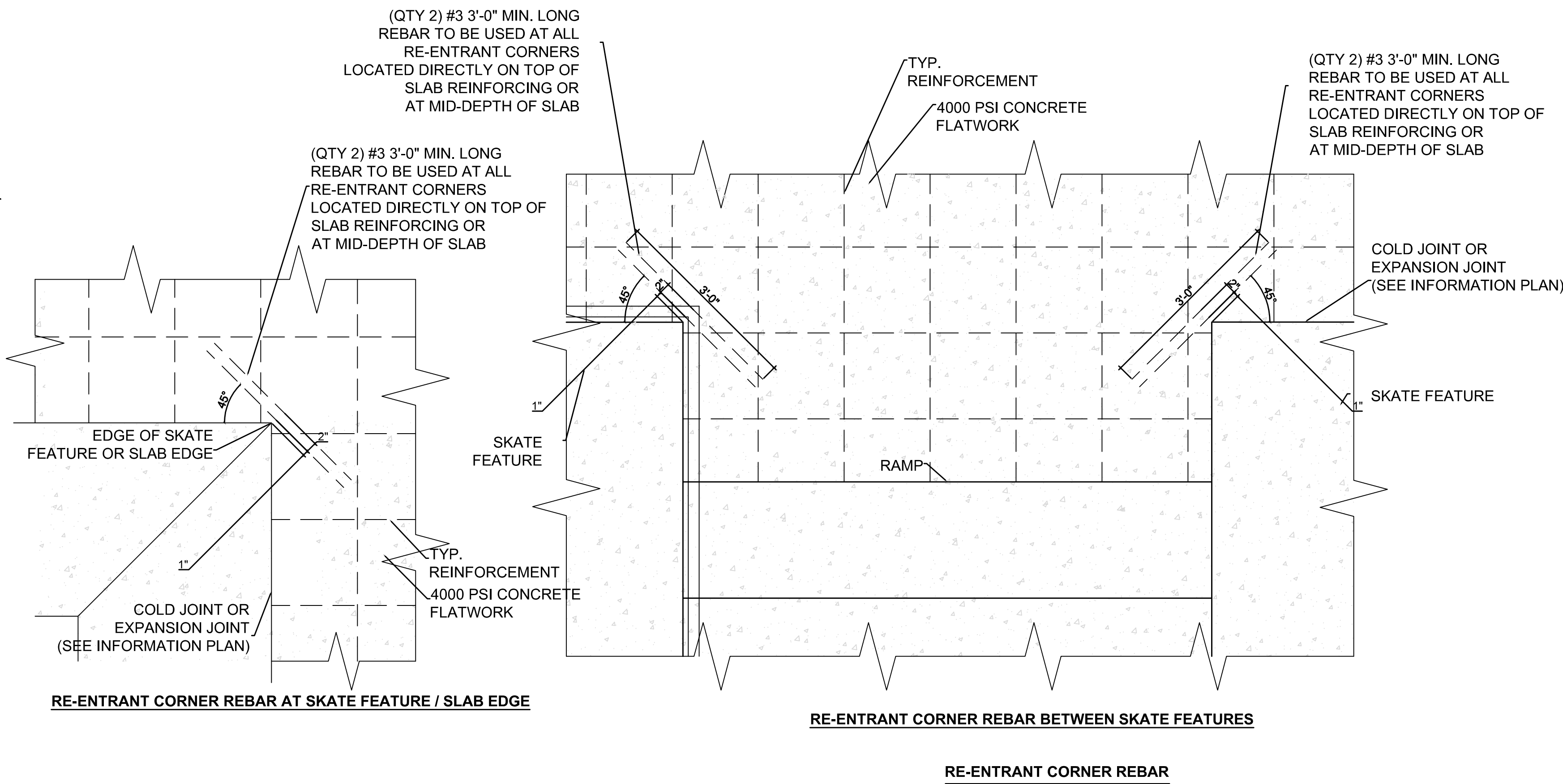
CONSTRUCTION PLANS FOR MATTANO SKATEBOARD PARK
BLOCK 5, LOT 453 B
CITY OF ELIZABETH, UNION COUNTY, N.J.
SITE GRADING AND DRAINAGE PLAN

PROJECT NUMBER:
SCE-8745.011
SCALE:
1"=10'
SHEET 5 OF 17
REVISION

E:\SCE\Elizabeth\Drawings\UnionCounty\N\MattanoPark\90\PlanSet\7-25-16\8745 06 Info-Plan.dwg Thu, Oct 12, 2017 - 3:23pm mfcseman Suburban Consulting Engineers, Inc.



PLAN



INFORMATION LEGEND	
①	4" THICK CONCRETE SIDEWALK - SEE DETAILS ON SHEET 15
②	PRE-CAST CONCRETE SKATE ELEMENT WITH 6" THICK CONCRETE FOOTER - SEE DETAILS ON SHEET 10
③	POURED IN PLACE FLAT BANK - SEE SECTION G ON SHEET 8 AND DETAIL ON SHEET 11
④	POURED IN PLACE ROLL OVER - SEE SECTION F ON SHEET 8 AND DETAIL ON SHEET 11
⑤	POURED IN PLACE QUARTER PIPE - SEE SECTIONS B & D ON SHEET 8 AND DETAILS ON SHEETS 10 AND 11
⑥	POURED IN PLACE RADIUS WEDGE EXTENSION - SEE SECTION E ON SHEET 8 AND DETAILS ON SHEET 11
⑦	POURED IN PLACE QUARTER PIPE EXTENSION - SEE SECTIONS A & C ON SHEET 8 AND DETAILS ON SHEET 10 AND 11
⑧	GRIND RAIL - SEE DETAILS ON SHEET 10
⑨	CONTOUR TO MATCH GRADES FOR A POSITIVE FLOW TO DRAIN. - SEE DETAIL ON SHEET 10

- NOTES:**
- ALL EXPOSED CONCRETE AND SHOTCRETE SURFACES TO BE NATURAL GRAY IN COLOR WITH SMOOTH STEEL TROWEL FINISH UNLESS OTHERWISE SPECIFIED.
 - THE SLAB CONFIGURATION, NOTES, LOCATION OF EXPANSION JOINTS, COLD JOINTS, SAW CUTS, DETAIL REFERENCES, AND APPLICABLE DETAILS HAVE BEEN INCLUDED FOR CLARITY. JOINTS AND DETAILS SHOWN ARE FOR THE SKATEBOARD PARK ONLY. REFER TO THE LANDSCAPE PLAN FOR SCOPES BEYOND THE SKATEPARK.
 - REFER TO LANDSCAPE ARCHITECT/CIVIL ENGINEER DRAWINGS FOR EARTHWORK, GRADING, AND DRAINAGE.
 - SUGGESTED ORDER OF CONSTRUCTION FOR CONCRETE ELEMENTS WITHIN THE SKATEPARK FOOTPRINT:
 - SUBGRADE PREP - GRADE, MOISTURE CONDITION, AND COMPACT SKATEPARK FOOTPRINT TO +/- .1' OF SPECIFIED SUBGRADE ELEVATIONS.
 - FINE GRADING
 - PRE-CAST FOOTINGS
 - PRE-CAST INSTALLATION
 - POURED IN PLACE LEDGES AND MANUAL PADS
 - POURED IN PLACE BANKS, RADIUS WEDGES AND TRANSITIONS
 - FLOOR SLAB/FLATWORK
 - GRIND RAIL INSTALLATION

	TYPICAL TURNDOWN EDGE SEE DETAILS ON SHEET 10
	PERIMETER TURNDOWN EDGE SEE DETAILS ON SHEET 10

FIELD DETERMINED SC OR CJ

NOTE: ALL SAW CUTS OR COLD JOINTS WITHIN THE SHOTCRETE AREAS SHALL BE FIELD DETERMINED & UP TO THE DISCRETION OF THE SPECIALTY SKATEBOARD PARK CONTRACTOR.

	EXPANSION JOINT SEE DETAILS ON SHEET 10
	COLD JOINT SEE DETAILS ON SHEET 10
	SAW CUT SEE DETAILS ON SHEET 10

**JOINT PLAN HAS BEEN DEVELOPED TO PROVIDE GUIDANCE TO THE CONTRACTOR FOR THE USE OF SAW CUTS, COLD & EXPANSION JOINTS. ACTUAL FIELD VARIANCES WILL TAKE PRECEDENCE OVER THIS GUIDE. CONTRACTOR SHALL CUT SLAB AS NEEDED TO PREVENT CRACKING.

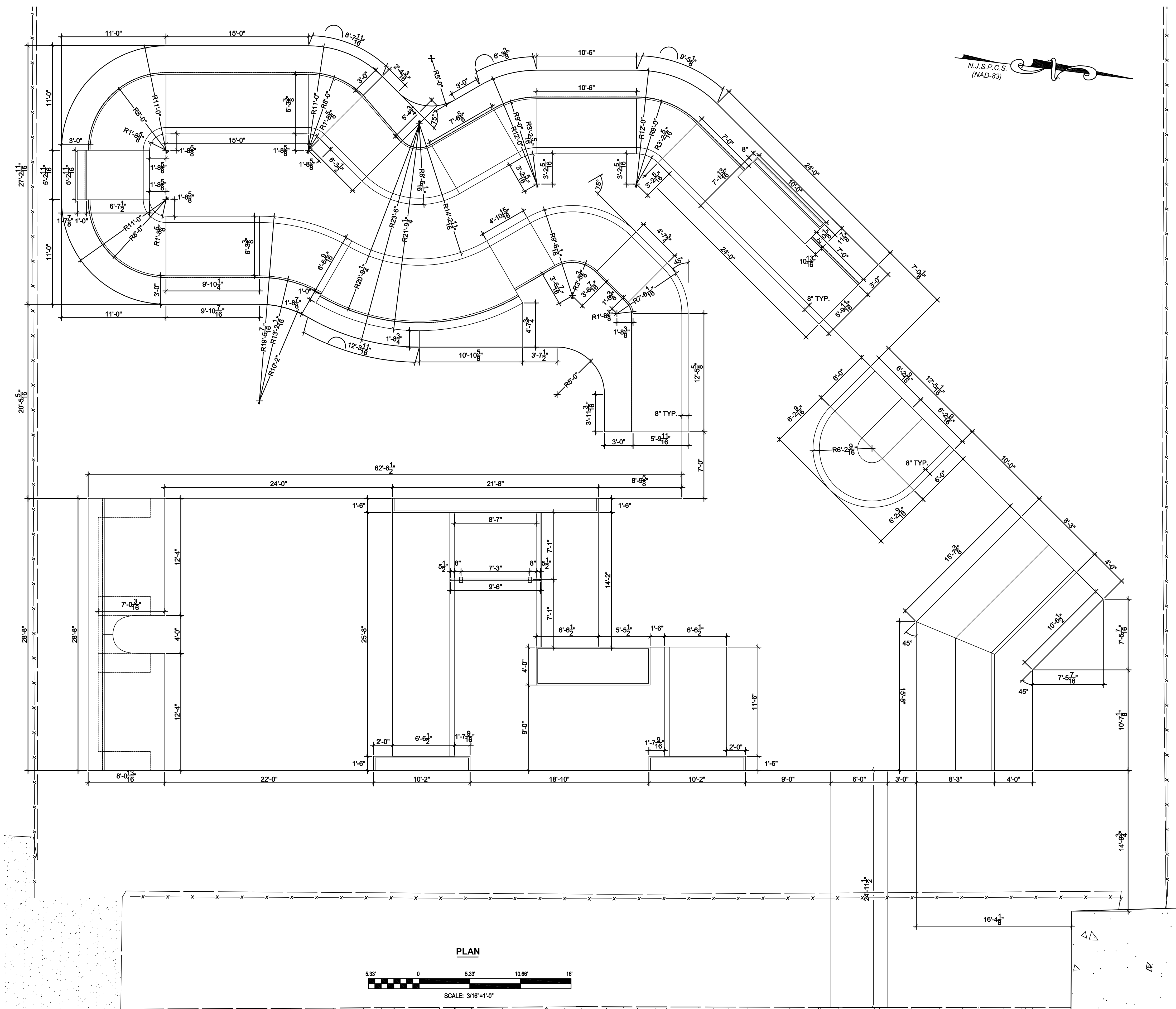
ALIGN SAW CUTS WITH EXPANSION AND COLD JOINTS AND START FROM CORNERS WHERE POSSIBLE TO PREVENT EXCESS CRACKING. SAW CUTS SHALL BE NO MORE THAN 10' X 12' AND/OR NOT TO EXCEED 120 SQUARE FEET AND A 2:1 MAX. RATIO BETWEEN SAW CUTS AND COLD OR EXPANSION JOINTS.

ALL SAW CUTS TO BE FILLED WITH SELF-LEVELING POLYURETHANE SEALANT AND TOOLED FLAT. EXPANSION JOINTS TO BE FILLED WITH POLYURETHANE BASED NON-SAGGING ELASTOMERIC SEALANT AND TOOLED FLAT. COLOR OF CAULK SHOULD RESEMBLE COLOR OF CONCRETE (ALUMINUM GRAY OR SIMILAR)

** PROVIDE 1/8" TOOLED EDGES TO JOINTS - SEE TYPICAL DETAILS & CONSTRUCTION SPECIFICATIONS FOR JOINT INFORMATION & INSTALLATION

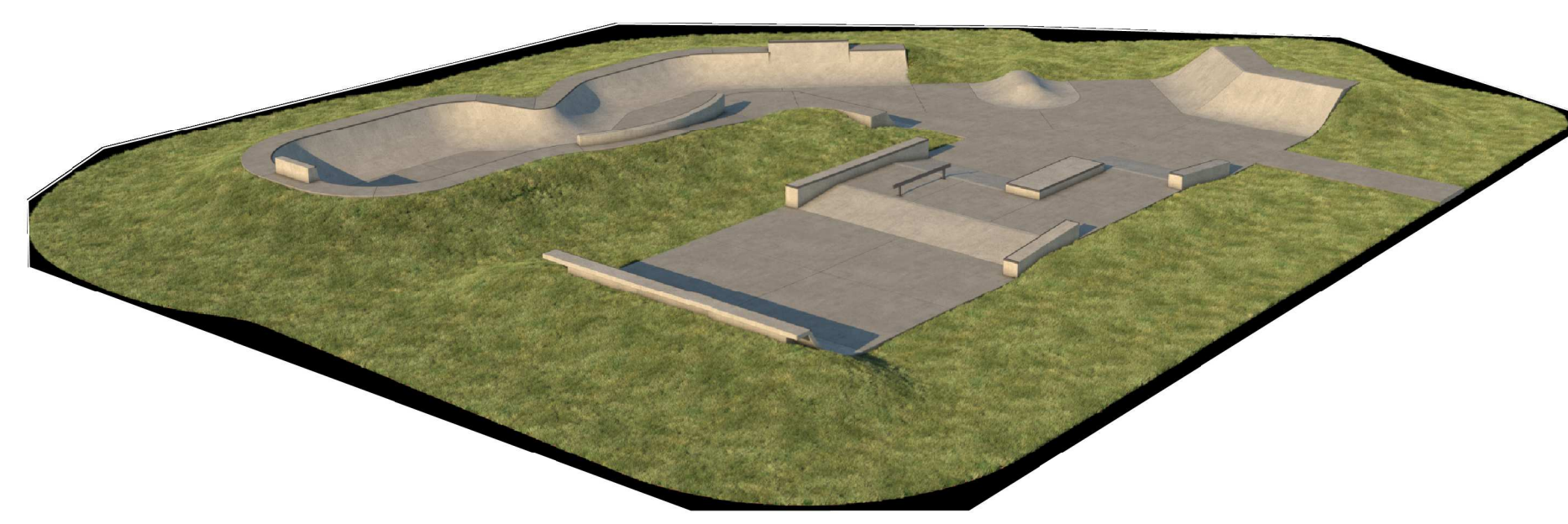
 SPOHNBRANCH SKATE PARKS <small>DESIGN, BUILD & COME TOGETHER</small> SUBURBAN CONSULTING ENGINEERS, INC.	<p>NOTICE</p> <p>THIS DRAWING AND ALL INFORMATION CONTAINED HEREIN IS AUTHORIZED FOR USE ONLY BY THE PARTY FOR WHOM THE WORK WAS CONTRACTED OR TO WHOM IT IS CERTIFIED.</p> <p>THIS DRAWING MAY NOT BE COPIED, REUSED, DISCLOSED, DISTRIBUTED, OR REPRODUCED FOR ANY OTHER PURPOSE WITHOUT THE WRITTEN CONSENT OF Suburban Consulting Engineers, Inc.</p> <p>PER N.J.A.C. ELECTRONIC SUBMISSIONS NOT CONTAINING A VALID DIGITAL SEAL OR PAPER COPIES NOT CONTAINING A RAISED SEAL ARE NOT ORIGINALS AND MAY HAVE BEEN ALTERED.</p> <p>© COPYRIGHT 2017 Suburban Consulting Engineers, Inc.™ CERTIFICATE OF AUTHORIZATION NO. 34GA28037500 ALL RIGHTS RESERVED</p>	<table border="1"> <thead> <tr> <th>DESCRIPTION</th> <th>NO.</th> <th>DATE:</th> <th>BY:</th> <th>CHK:</th> </tr> </thead> <tbody> <tr> <td colspan="5" style="text-align: center;">REVISIONS</td> </tr> </tbody> </table>	DESCRIPTION	NO.	DATE:	BY:	CHK:	REVISIONS					DRAWN BY: SD 10/13/17 CHECKED BY: KBD 10/13/17 CHECKED BY:	DAREN J. PHIL, PE NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE03619100 DATE: 10/13/17	 Suburban Consulting Engineers, Inc. COA NO.: 24GA28037500 Civil Engineers - Municipal Engineers - Planners - Environmentalists - Land Surveyors - Landscape Architects - 96 US Highway 206, Suite 101 2430 Highway 34, Bldg. A Suite 1B Flemington, NJ 07836 - 973.398.1776 Wall, NJ 08736 - 732.282.1776 EXCELLENCE ♦ ECONOMY ♦ ENVIRONMENT	CONSTRUCTION PLANS FOR MATTANO SKATEBOARD PARK MATTANO PARK BLOCK 5, LOT 453 B CITY OF ELIZABETH, UNION COUNTY, N.J.	PROJECT NUMBER: SCE-8745.011 SCALE: AS NOTED SHEET <u>6</u> OF <u>17</u> REVISION <u> </u>
			DESCRIPTION	NO.	DATE:	BY:	CHK:										
REVISIONS																	
SKATE ELEMENT INFORMATION PLAN																	

E:\SCE\Elizabeth\Drawings\Sheets\UnionCounty\N.J.\MattanoPark\90%PlanSet\7-25-16\8745-07 Layout-Plan.dwg Thu, Oct 12, 2017 - 3:27pm infreeman Suburban Consulting Engineers, Inc.



- CONSTRUCTION NOTES**
- ALL MATERIAL AND WORKMANSHIP SHALL CONFORM TO ALL APPLICABLE GOVERNING CODES AND ORDINANCES.
 - ALL FORMS AND ALIGNMENTS OF PAVING, LAYOUT, AND SPECIAL PAVING AREAS SHALL BE REVIEWED AND APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO POURING (GIVE A MINIMUM OF 24 HOURS NOTICE)
 - CONTRACTOR SHALL VERIFY THE LOCATION OF ALL PUBLIC IMPROVEMENTS, INCLUDING UNDERGROUND UTILITIES PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR SHALL REPAIR AND/OR REPLACE IN-KIND ALL PUBLIC IMPROVEMENTS DAMAGED, BROKEN, OR REMOVED DURING CONSTRUCTION
 - CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS (UNLESS OTHERWISE NOTED).
 - ALL REBAR CROSSINGS TO BE TIED.
 - ALL CONSTRUCTION TO BE PLUMB AND TRUE, UNLESS OTHERWISE NOTED OR INDICATED.
 - THE CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS AT THE JOB SITE. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE SKATE PARK DESIGNER, OWNER/BUILDER OR OWNER'S REPRESENTATIVE.
 - THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL CONSTRUCTION METHODS AND FOR SAFETY CONDITIONS AT THE WORK SITE.
 - ALL BRACING, TEMPORARY SUPPORTS, SHORING, ETC.. ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. OBSERVATION VISITS TO THE JOB SITE BY THE SKATE PARK DESIGNER OR OWNER, DO NOT INCLUDE INSPECTION OF CONSTRUCTION PROCEDURES. THE VISIT SHALL NOT BE CONSTRUED AS CONTINUOUS AND DETAILED INSPECTIONS.
 - CONDITIONS NOT SPECIFICALLY SHOWN SHALL BE CONSTRUCTED SIMILAR TO THE DETAILS FOR THE RESPECTIVE MATERIALS.
 - THE DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED CONSTRUCTION PRODUCT. THESE DOCUMENTS, ALTHOUGH PREPARED WITH CARE AND DILIGENCE, MAY CONTAIN ERRORS, OMISSIONS, CONTRADICTIONS, ETC. THE CONTRACTOR SHALL REVIEW ALL DOCUMENTS THOROUGHLY AND SHALL NOTIFY THE SKATE PARK DESIGNER IMMEDIATELY UPON ANY SUCH DISCOVERY OR DISCREPANCY. GOVERNING CODES SHALL THEN APPLY.
 - ALL SCALE DIMENSIONS ARE APPROXIMATE. WRITTEN DIMENSIONS AND DETAILS TAKE PRECEDENCE OVER SCALED DIMENSIONS. THE CONTRACTOR SHALL CHECK AND VERIFY ALL SITE DIMENSIONS PRIOR TO PROCEEDING WITH WORK AND CLARIFY WITH SKATE PARK DESIGNER, OWNER IF NECESSARY.
 - DESIGN, MATERIAL, EQUIPMENT AND PRODUCTS OTHER THEN THOSE DESCRIBED OR INDICATED ON DRAWINGS MAY BE CONSIDERED FOR USE. APPROVAL FOR SUBSTITUTIONS SHALL BE OBTAINED FROM THE SKATE PARK DESIGNER
 - SHOP DRAWINGS SHALL BE SUBMITTED BY THE CONTRACTOR FOR THE CLARIFICATION OF DESIGN CONCEPT DETAILS & SUBSTITUTIONS.
 - DURING WORK AND THROUGH ITS COMPLETION, THE CONTRACTOR SHALL KEEP THE SITE CLEAN TO THE SATISFACTION OF THE OWNER.
 - FINAL MATERIAL, FINISHES AND COLOR SHALL BE APPROVED BY OWNER AND SKATE PARK DESIGNER PRIOR TO INSTALLATION.
 - CLEAN-UP SHALL TAKE PLACE ON A DAILY BASIS.
 - REFER TO SPECIFICATIONS FOR ANY ADDITIONAL INFORMATION.

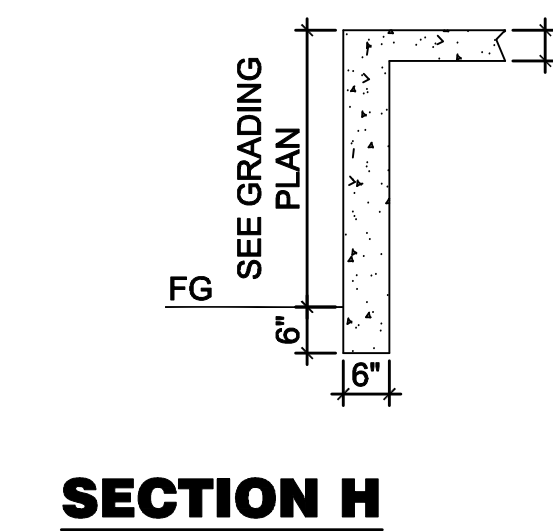
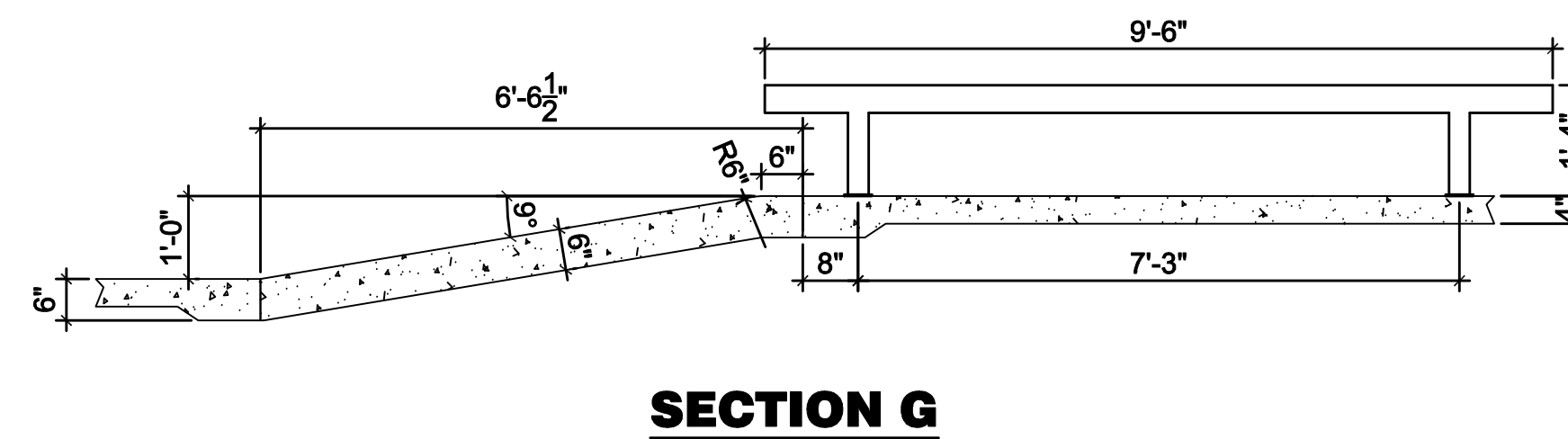
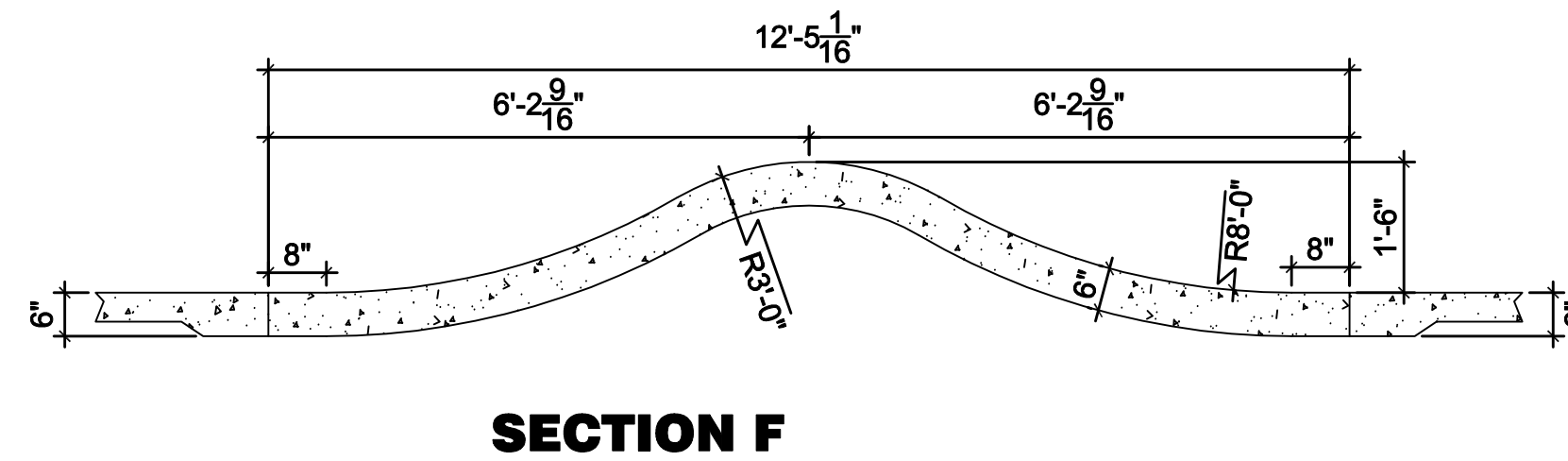
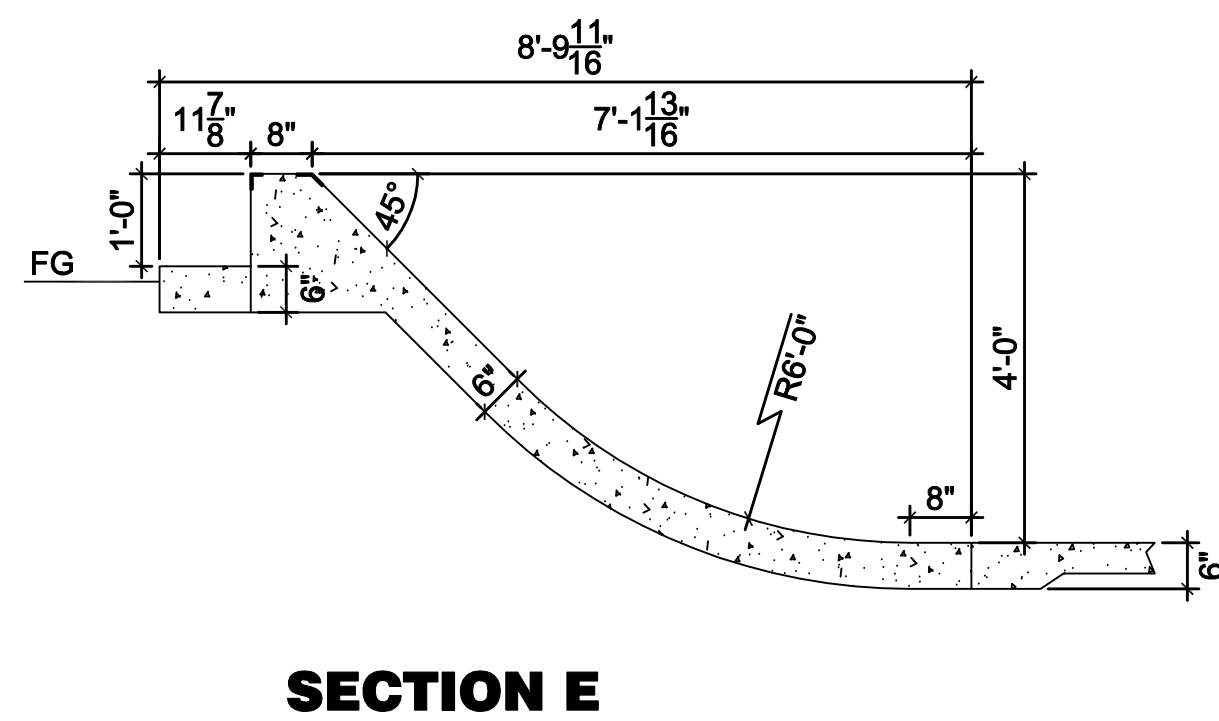
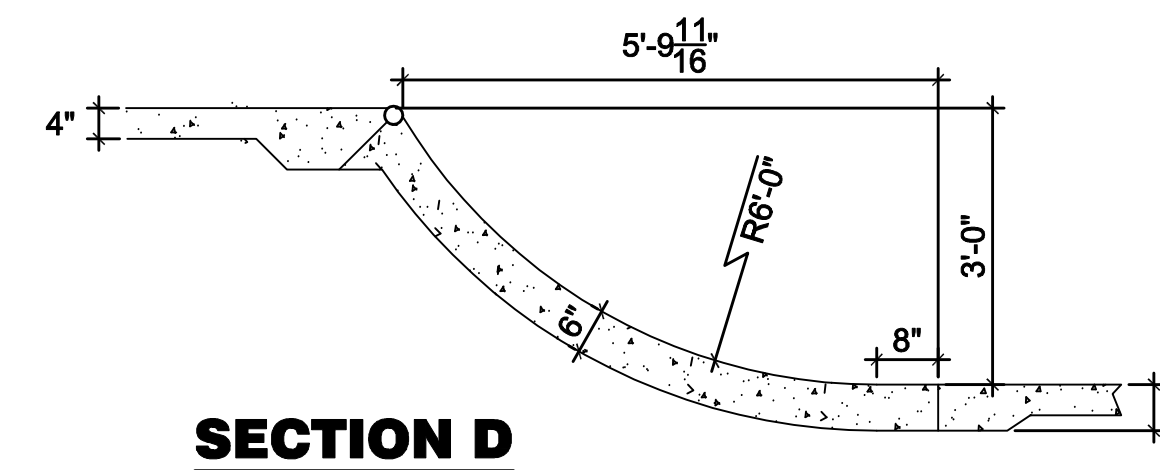
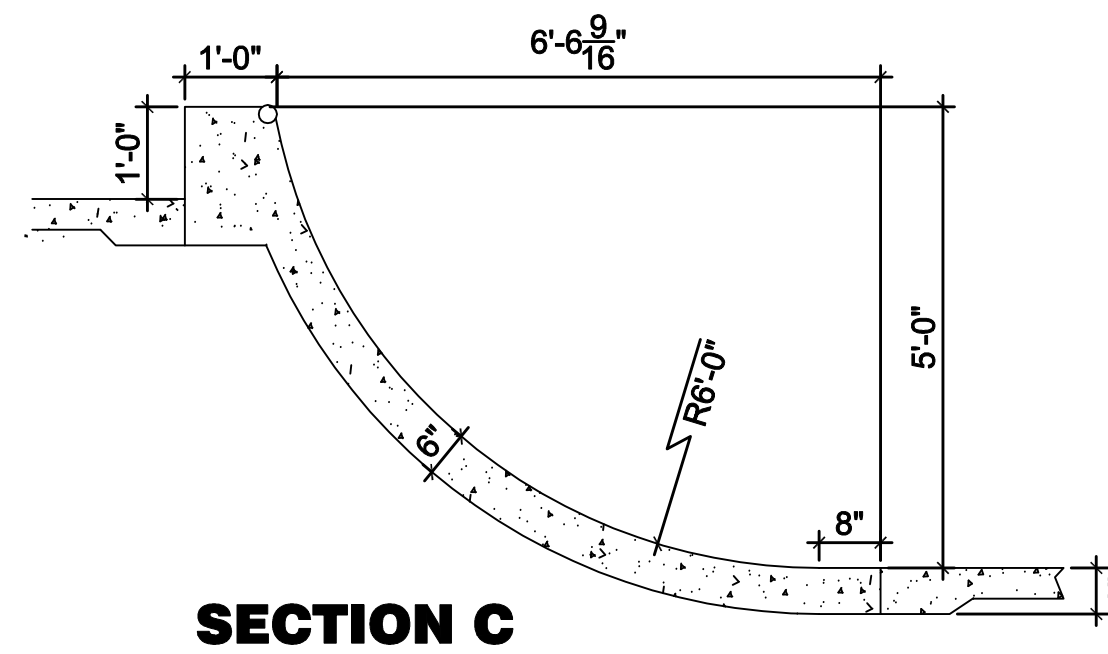
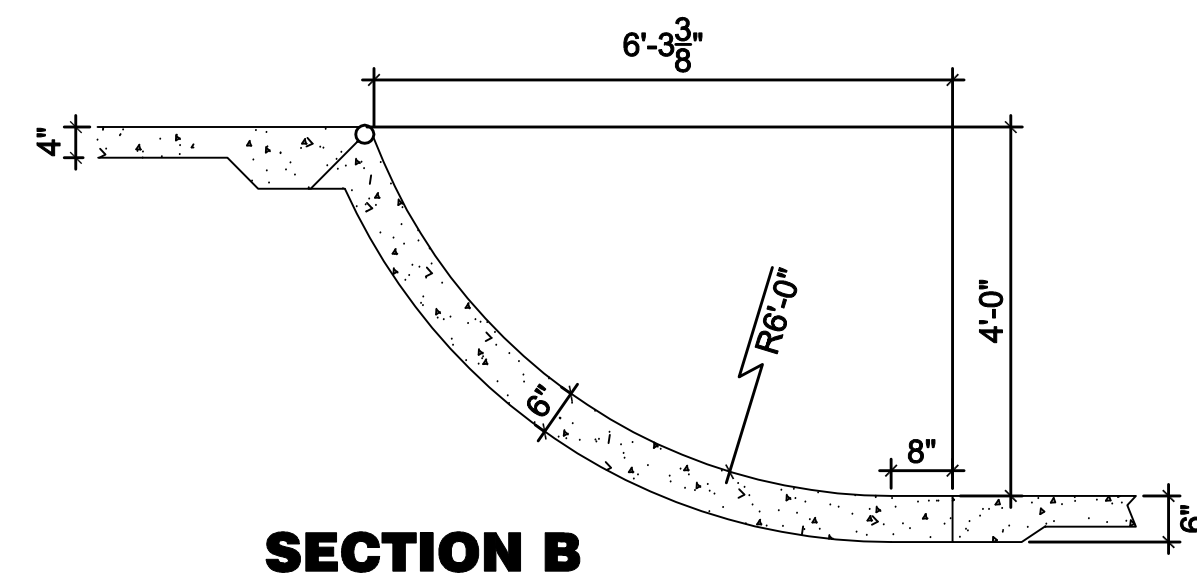
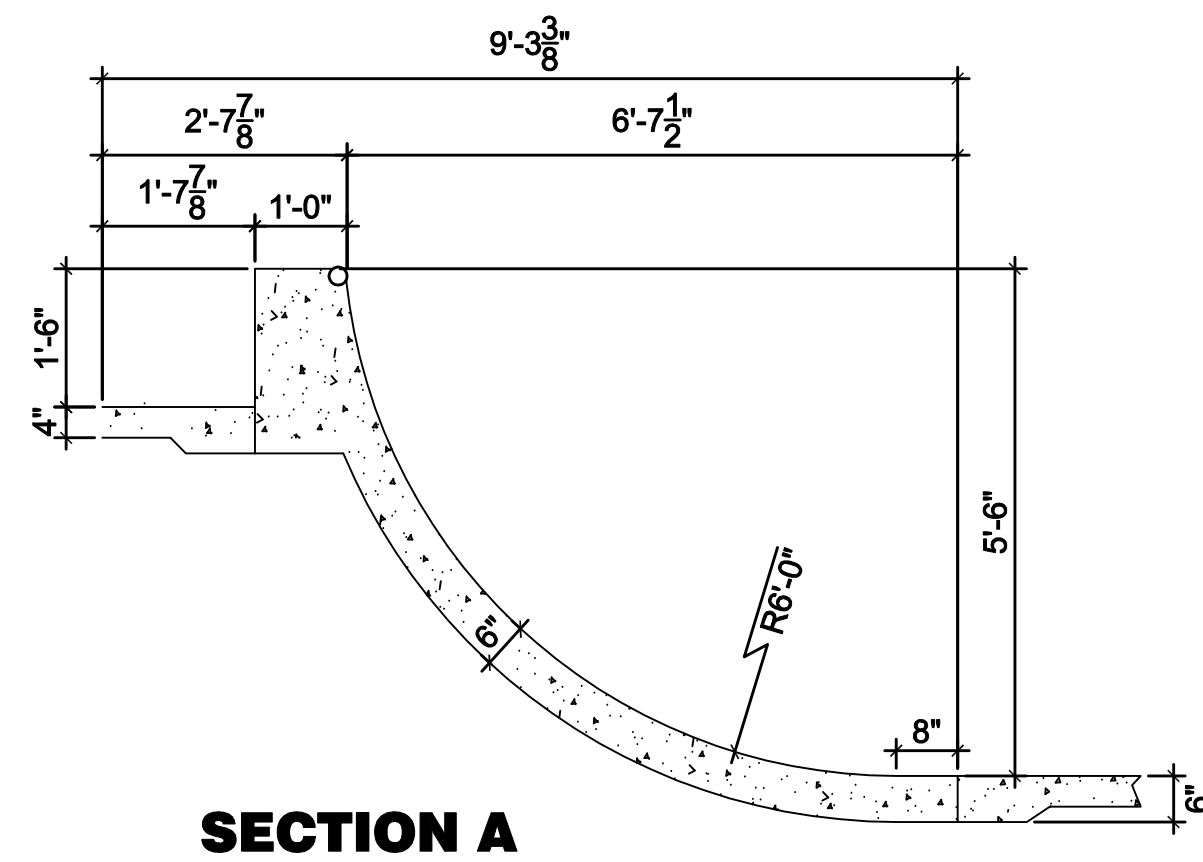
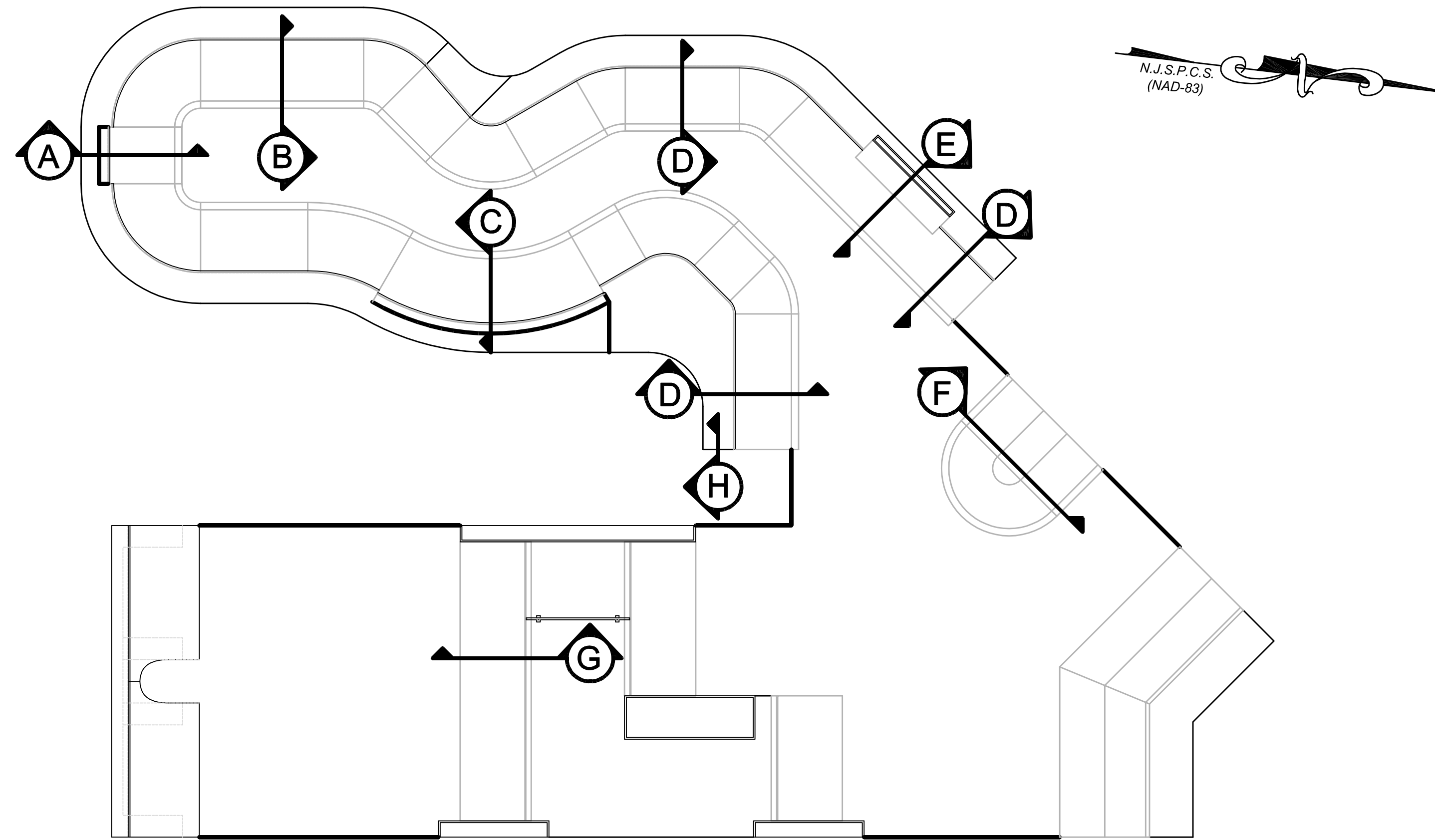
****ALL COLD JOINTS AT THE BOTTOM OF ALL RADIUS TRANSITIONS & RADIUS BANKS SHALL BE LOCATED 8" MAX. FROM THE POINT OF TANGENCY. SEE TYPICAL DETAILS FOR CLARIFICATION.**



SKATE PARK PERSPECTIVE
N.T.S.

	<p>NOTICE</p> <p>THIS DRAWING AND ALL INFORMATION CONTAINED HEREIN IS AUTHORIZED FOR USE ONLY BY THE PARTY FOR WHOM THE WORK WAS CONTRACTED OR TO WHOM IT IS CERTIFIED.</p> <p>THIS DRAWING MAY NOT BE COPIED, REUSED, DISCLOSED, DISTRIBUTED, OR REPRODUCED FOR ANY OTHER PURPOSE WITHOUT THE WRITTEN CONSENT OF Suburban Consulting Engineers, Inc.</p> <p>PER N.J.A.C. ELECTRONIC SUBMISSIONS NOT CONTAINING A RAISED SEAL ARE NOT ORIGINALS AND MAY HAVE BEEN ALTERED.</p> <p>© COPYRIGHT 2017 Suburban Consulting Engineers, Inc.™ CERTIFICATE OF AUTHORIZATION NO. 34GA28037500 ALL RIGHTS RESERVED</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>DESCRIPTION</th> <th>NO.</th> <th>DATE:</th> <th>BY:</th> <th>CHK:</th> </tr> </thead> <tbody> <tr> <td colspan="5" style="text-align: center;">REVISIONS</td> </tr> </tbody> </table>	DESCRIPTION	NO.	DATE:	BY:	CHK:	REVISIONS					<p>DRAWN BY: SD 10/13/17</p> <p>CHECKED BY: KBD 10/13/17</p> <p>CHECKED BY:</p>	<p>DAREN J. PHIL, PE NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24CE03619100</p> <p>DATE: 10/13/17</p>	<p>SUBURBAN CONSULTING ENGINEERS, INC. COA NO.: 24GA28037500</p> <p style="font-size: 8px;">Civil Engineers - Municipal Engineers - Landscape Architects - Planners - Environmentalists - Land Surveyors -</p> <p style="font-size: 8px;">96 US Highway 206, Suite 101 2430 Highway 34, Bldg. A Suite 1B Flanders, NJ 07836 - 973.398.1776 Wall, NJ 08736 - 732.282.1776</p> <p style="font-size: 8px;">EXCELLENCE ♦ ECONOMY ♦ ENVIRONMENT</p>	<p>CONSTRUCTION PLANS FOR MATTANO SKATEBOARD PARK MATTANO PARK BLOCK 5, LOT 453 B CITY OF ELIZABETH, UNION COUNTY, N.J.</p> <p>SKATE ELEMENT LAYOUT PLAN</p>	<p>PROJECT NUMBER: SCE-8745.011</p> <p>SCALE: AS NOTED</p> <p>SHEET 7 OF 17</p> <p>REVISION</p>
	DESCRIPTION	NO.	DATE:	BY:	CHK:												
REVISIONS																	
<p>PLAN</p> <p>SCALE: 3/16"=1'-0"</p>																	

E:\SCE\Elizabeth\745 Elizabeth\Drawings\Sheets\UnionCounty\N.J.\MattanoPark\90% PlanSet\7-25-16\8745 08 Sections.dwg Thu, Oct 12, 2017 - 3:28pm mrceman Suburban Consulting Engineers, Inc.



NOTICE
THIS DRAWING AND ALL INFORMATION CONTAINED HEREIN IS AUTHORIZED FOR USE ONLY BY THE PARTY FOR WHOM THE WORK WAS CONTRACTED OR TO WHOM IT IS CERTIFIED.
THIS DRAWING MAY NOT BE COPIED, REUSED, DISCLOSED, DISTRIBUTED, OR SELLER LICENSED FOR ANY OTHER PURPOSE WITHOUT THE WRITTEN CONSENT OF
Suburban Consulting Engineers, Inc.
PER N.J.A.C. ELECTRONIC SUBMISSIONS NOT CONTAINING A VALID DIGITAL SEAL OR PAPER COPIES NOT CONTAINING A RAISED SEAL ARE NOT ORIGINALS AND MAY HAVE BEEN ALTERED.
© COPYRIGHT 2017 Suburban Consulting Engineers, Inc.™
CERTIFICATE OF AUTHORIZATION NO. 24GA28037500
ALL RIGHTS RESERVED

DESCRIPTION	NO.	DATE:	BY:	CHK:
REVISIONS				

DRAWN BY:
SD
10/13/17
CHECKED BY:
KBD
10/13/17
CHECKED BY:

DAREN J. PHIL, PE
NEW JERSEY PROFESSIONAL ENGINEER
LICENSE NO. 24CE03619100
Daren J. Phil
DATE: 10/13/17

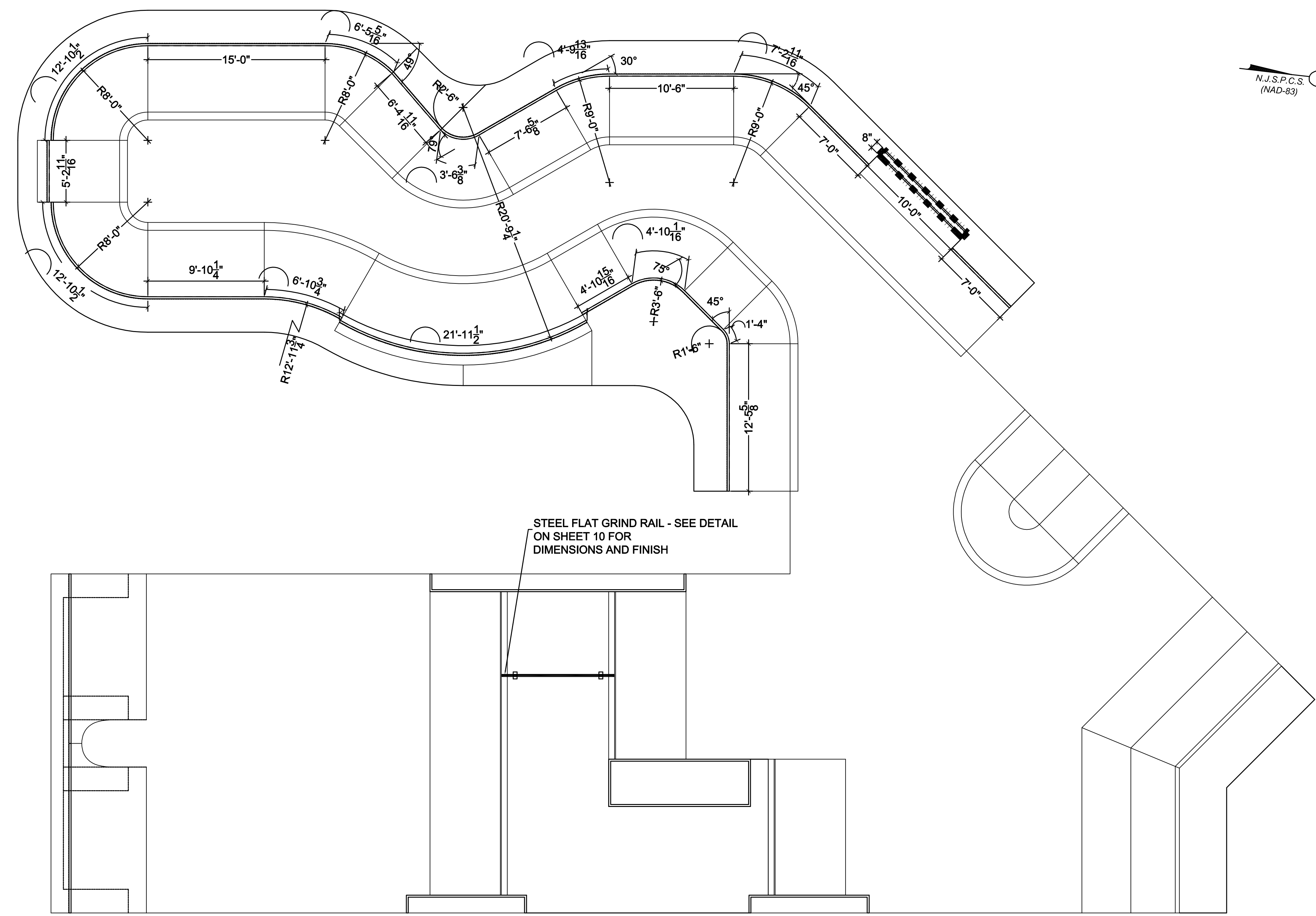
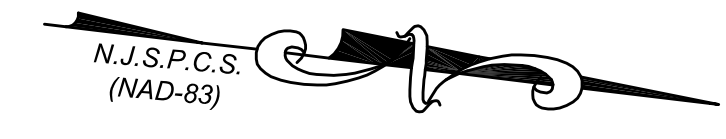
SCE SUBURBAN CONSULTING ENGINEERS, INC.
COA NO.: 24GA28037500
Civil Engineers - Municipal Engineers -
Planners - Landscape Architects -
Environmentalists - Land Surveyors -
96 US Highway 206, Suite 101 2430 Highway 34, Bldg. A Suite 1B
Flinders, N.J. 07836 - 973.398.1776 Wall, N.J. 08736 - 732.282.1776
EXCELLENCE ♦ ECONOMY ♦ ENVIRONMENT

**CONSTRUCTION PLANS FOR
MATTANO SKATEBOARD PARK
BLOCK 5, LOT 453 B
CITY OF ELIZABETH, UNION COUNTY, N.J.**

SKATE ELEMENT
SECTIONS

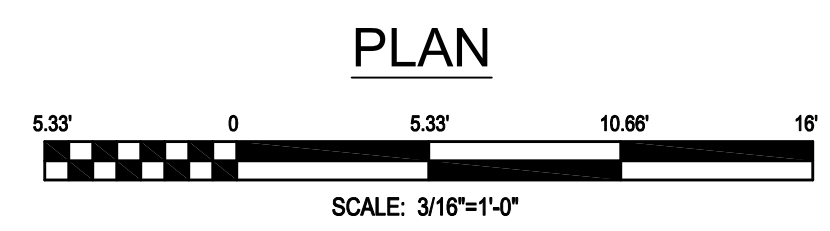
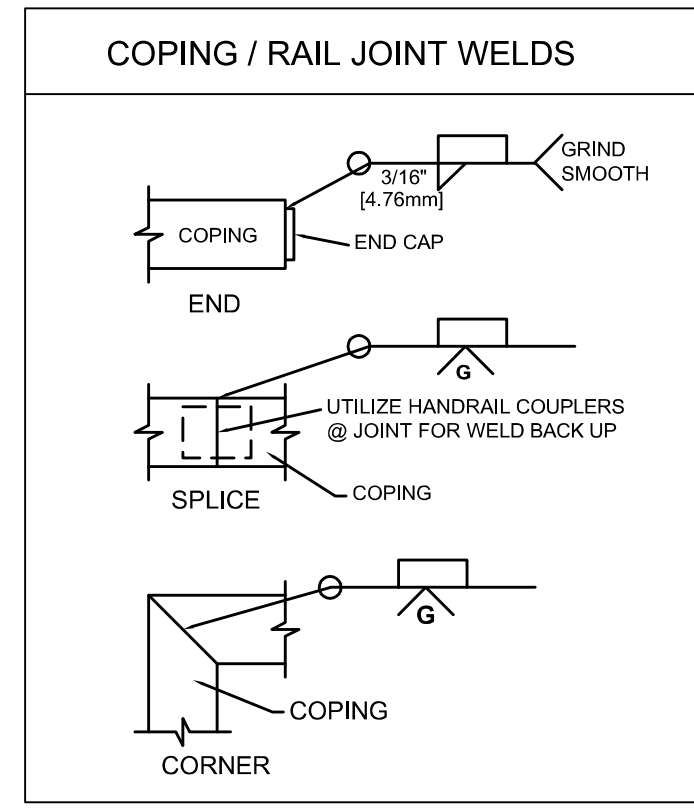
PROJECT NUMBER:
SCE-8745.011
SCALE:
AS NOTED
SHEET 8 OF 17
REVISION

E:\SCE\Elizabeth\Drawings\Sheets\UnionCounty\NJ-MattanoPark\90%PlanSet\7-25-16\8745 09-Steel-Plan.dwg Thu, Oct 12, 2017 - 3:28pm infreeman Suburban Consulting Engineers, Inc.

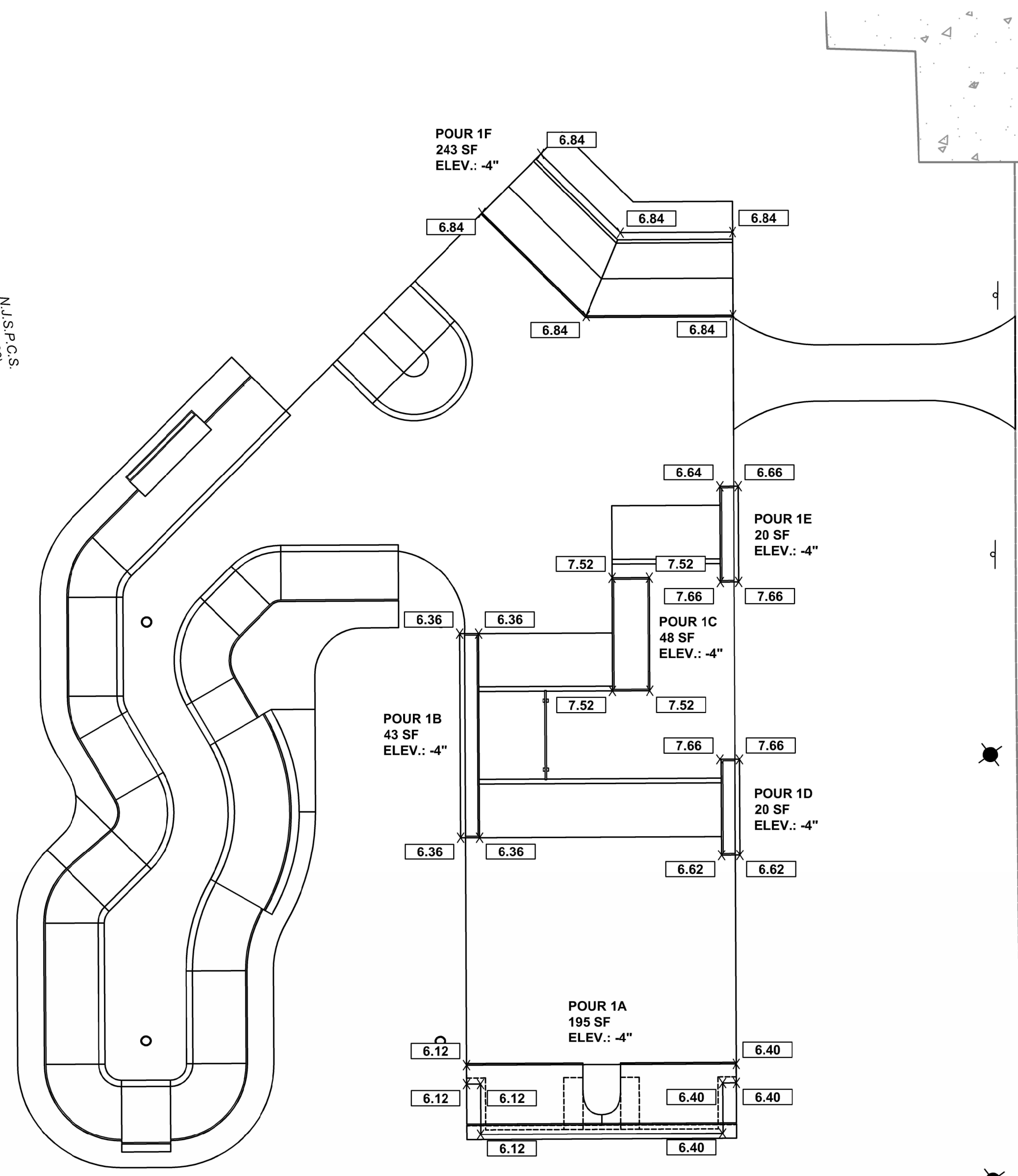
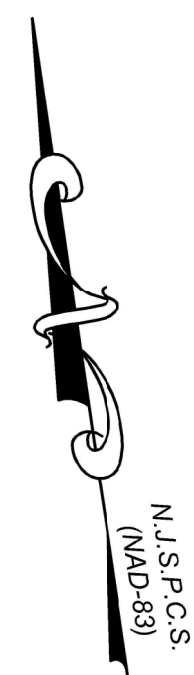


LEGEND			
SYMBOL	DESCRIPTION	FINISH	QTY
— — — — —	1.5 x 2 x 3/16 THK. STEEL EDGING - SEE SHEET 10	HOT DIPPED GALVANIZED	31'-6"
— — — — —	2" SCH. 40 STEEL COPING - SEE SHEET 10	HOT DIPPED GALVANIZED	188'-6"

- NOTES**
1. STEEL FINISH TO BE HOT DIPPED GALVANIZED.
 2. GALVANIZATION MUST OCCUR AFTER ALL WELDING IS COMPLETE.
 3. CAP ALL EXPOSED TUBE OR PIPE ENDS AND ROUND ALL SHARP EDGES.
 4. ALL WELDS TO BE ALL AROUND.
 5. GRIND ALL WELDS SMOOTH BEFORE GALVANIZATION.
 6. VENT ADEQUATELY FOR HOT DIP GALVANIZATION.
 7. FABRICATE STEEL GRIND EDGES IN LONG SECTIONS THAT WILL WORK FOR SHIPPING AND REDUCE THE NUMBER OF WELDS IN THE FIELD.
 8. CLEAN METAL EDGES AFTER PLACEMENT OF CONCRETE.
 9. SEE SPECIFICATIONS SECTION 05 50 00 - METAL FABRICATIONS FOR SKATEPARKS FOR ALL STEEL SPECIFICATIONS.



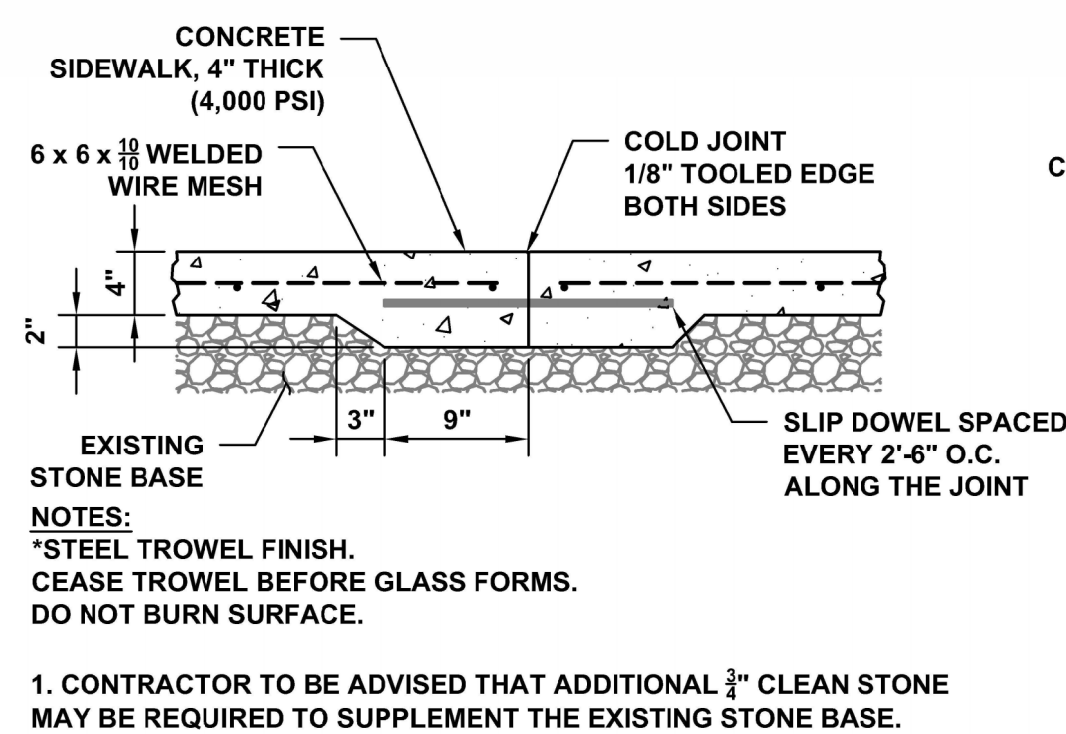
	<p>NOTICE</p> <p>THIS DRAWING AND ALL INFORMATION CONTAINED HEREIN IS AUTHORIZED FOR USE ONLY BY THE PARTY FOR WHOM THE WORK WAS CONTRACTED OR TO WHOM IT IS CERTIFIED. THIS DRAWING MAY NOT BE COPIED, REUSED, DISCLOSED, DISTRIBUTED, OR REPRODUCED FOR ANY OTHER PURPOSE WITHOUT THE WRITTEN CONSENT OF Suburban Consulting Engineers, Inc.</p> <p>PER N.J.A.C. ELECTRONIC SUBMISSIONS NOT CONTAINING A VALID DIGITAL SEAL OR PAPER COPIES NOT CONTAINING A RAISED SEAL ARE NOT ORIGINALS AND MAY HAVE BEEN ALTERED.</p> <p>© COPYRIGHT 2017 Suburban Consulting Engineers, Inc.™ CERTIFICATE OF AUTHORIZATION NO. 34GA28037500 ALL RIGHTS RESERVED</p>	<table border="1"> <thead> <tr> <th>DESCRIPTION</th> <th>NO.</th> <th>DATE:</th> <th>BY:</th> <th>CHK:</th> </tr> </thead> <tbody> <tr> <td colspan="5" style="text-align: center;">REVISIONS</td> </tr> </tbody> </table>	DESCRIPTION	NO.	DATE:	BY:	CHK:	REVISIONS					<p>DRAWN BY: SD 10/13/17</p> <p>CHECKED BY: KBD 10/13/17</p> <p>CHECKED BY:</p>	<p>DAREN J. PHIL, PE NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE03619100</p> <p>DATE: 10/13/17</p>	<p>SE SUBURBAN CONSULTING ENGINEERS, INC. COA NO.: 24GA28037500</p> <p>- Civil Engineers - Municipal Engineers - - Landscape Architects - - Planners - Environmentalists - Land Surveyors -</p> <p>96 US Highway 206, Suite 101 2430 Highway 34, Bldg. A Suite 1B Flinders, N.J. 07836 - 973.398.1776 Wall, N.J. 08736 - 732.282.1776</p> <p>EXCELLENCE ♦ ECONOMY ♦ ENVIRONMENT</p>	<p>CONSTRUCTION PLANS FOR MATTANO SKATEBOARD PARK MATTANO PARK BLOCK 5, LOT 453 B CITY OF ELIZABETH, UNION COUNTY, N.J.</p>	<p>PROJECT NUMBER: SCE-8745.011</p> <p>SCALE: AS NOTED</p> <p>SHEET 9 OF 17</p> <p>REVISION _____</p>
			DESCRIPTION	NO.	DATE:	BY:	CHK:										
REVISIONS																	
<p>SKATE ELEMENT STEEL PLAN</p>																	



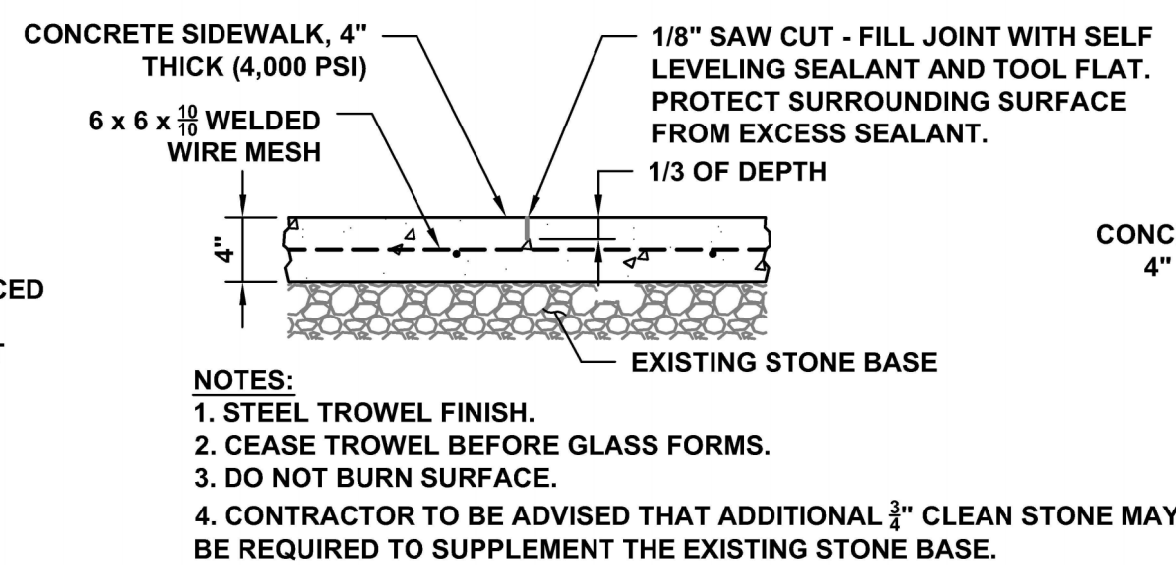
PRE-CAST FOOTING PLAN
N.T.S.

SCALE: 1" = 10'

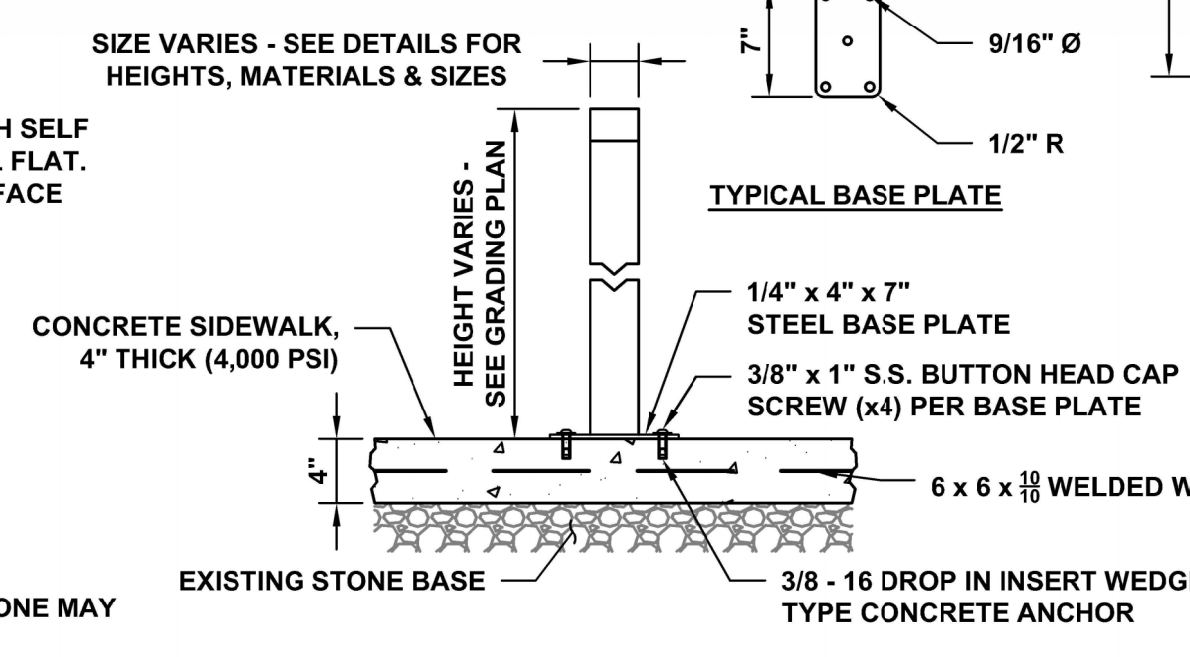
- NOTES:**
- ALL DIMENSIONS APPROXIMATE. SUCCESSFUL BIDDER WILL BE FURNISHED WITH PRECAST SKATE FEATURE CUT SHEETS AND CAST IN PLACE FEATURE SECTION DRAWINGS BY SPOHN RANCH, 15131 CLARK AVE., INDUSTRY, CA 91745. AREA REPRESENTATIVE: JASON BALDESSARI (732)-687-5886; CONSTRUCTION MANAGER: DOUG HAGEN (719)-480-8143.
 - CONTRACTOR TO VERIFY ALL DIMENSIONS PRIOR TO INSTALLATION.
 - CONTRACTOR SHALL COORDINATE DELIVERY AND INSTALL OF ALL CONCRETE SKATE FEATURES WITH OWNER, ENGINEER AND SPOHN RANCH.
 - CONTRACTOR SHALL COORDINATE WITH OWNER, ENGINEER AND SPOHN RANCH FOR CONCRETE SKATE FEATURE INSTALLATION.
 - ELEVATIONS SHOWN ON PLAN ARE FINISHED FOUNDATION ELEVATION.
 - CONTRACTOR TO BE ADVISED THAT THE EXISTING STONE BASE MAY NEED TO BE SUPPLEMENTED WITH ADDITIONAL, NEW 3/4" CLEAN STONE WHERE DEEMED NECESSARY. ALL COSTS TO BE INCLUDED IN VARIOUS BID ITEMS.



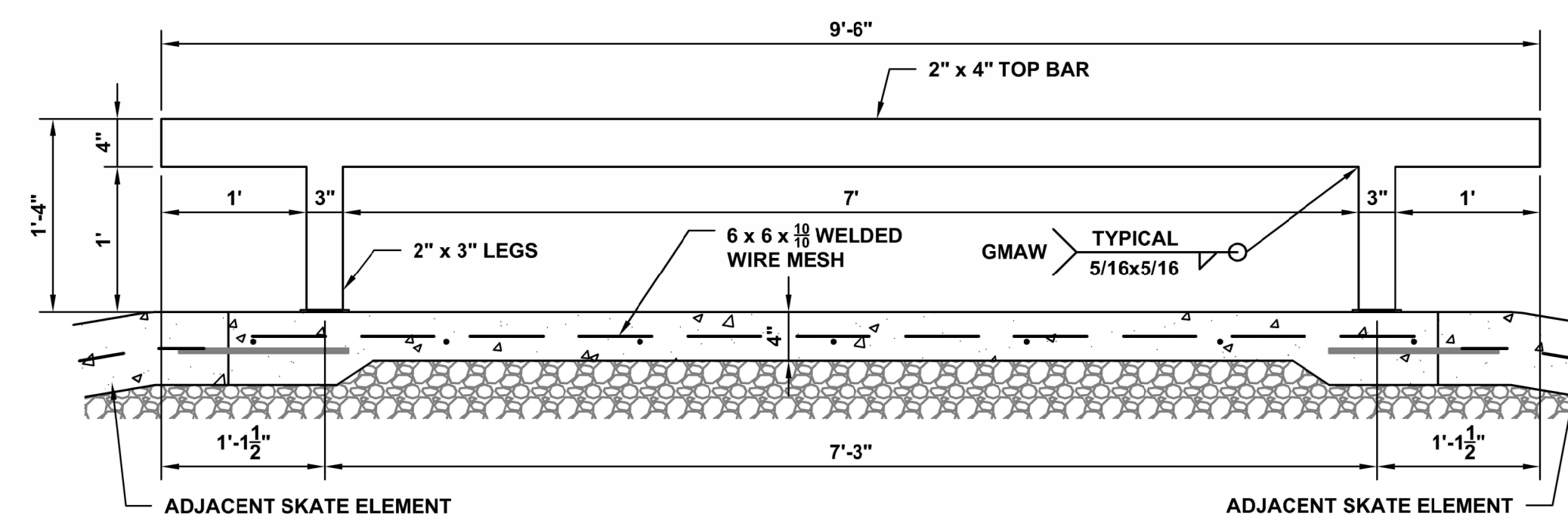
COLD JOINT
N.T.S.



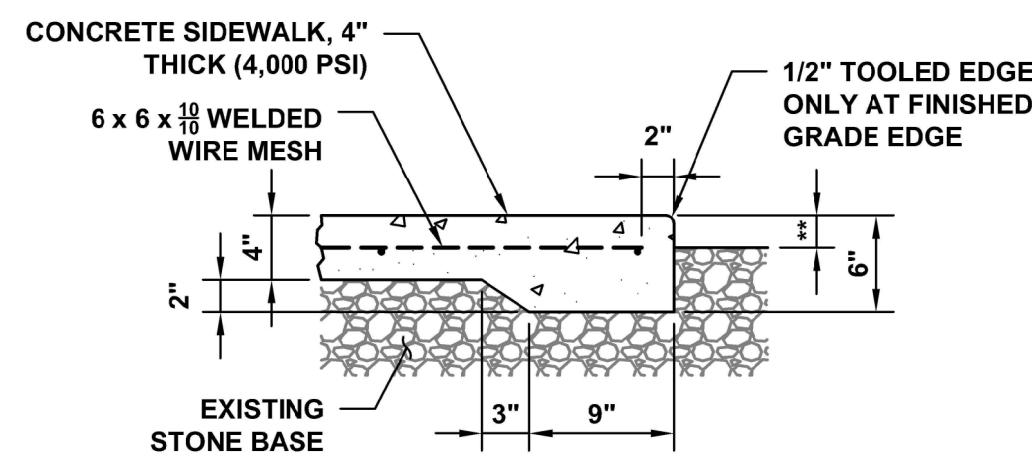
SAW CUT
N.T.S.



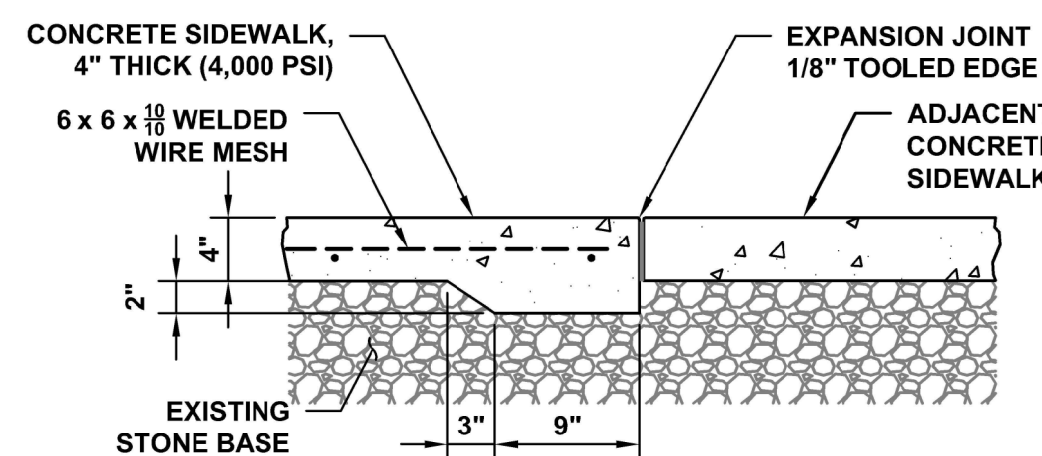
FLAT GRIND RAIL CONNECTION
N.T.S.



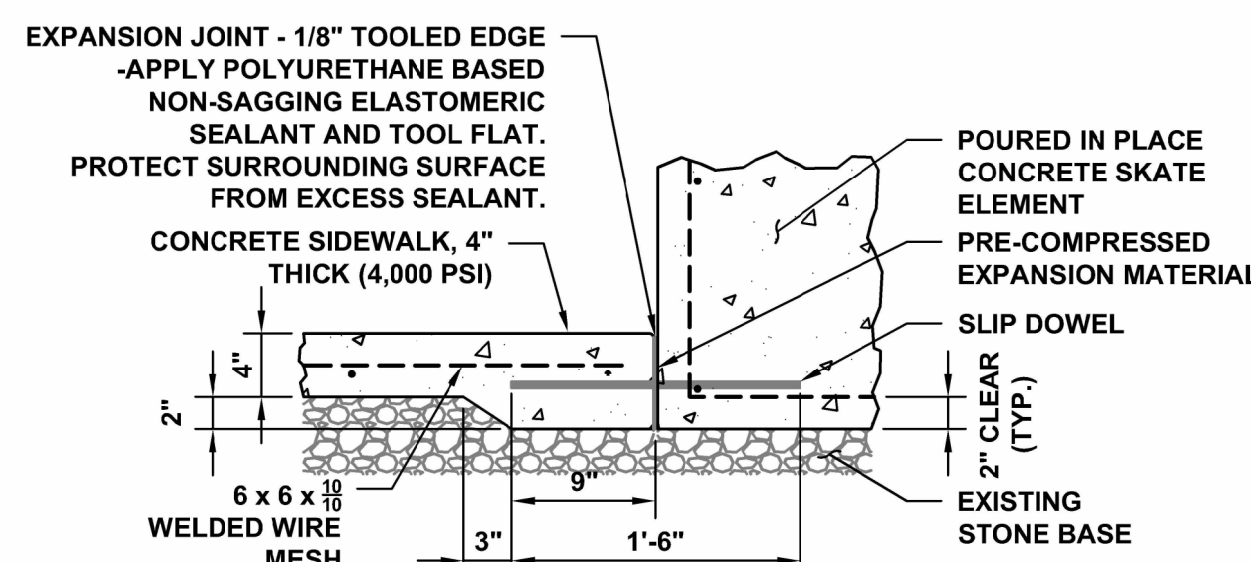
FLAT GRIND RAIL
N.T.S.



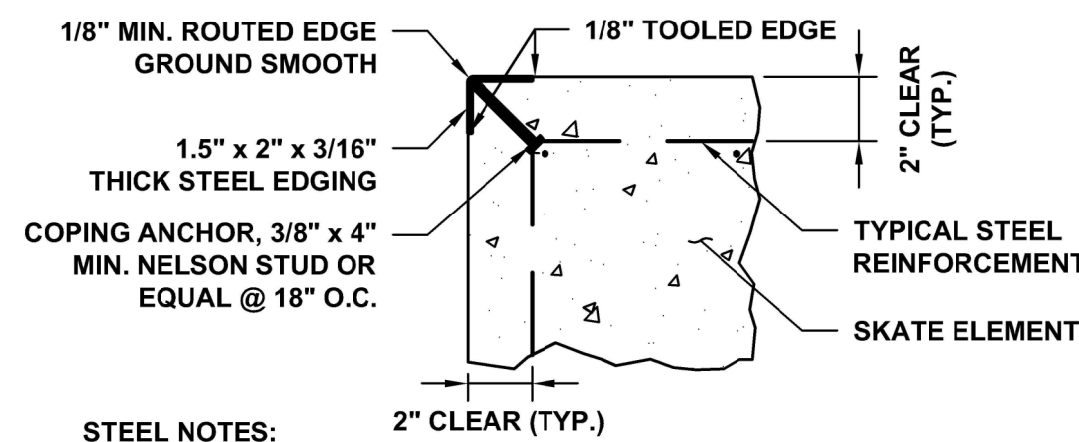
CONCRETE SLAB EDGE
N.T.S.



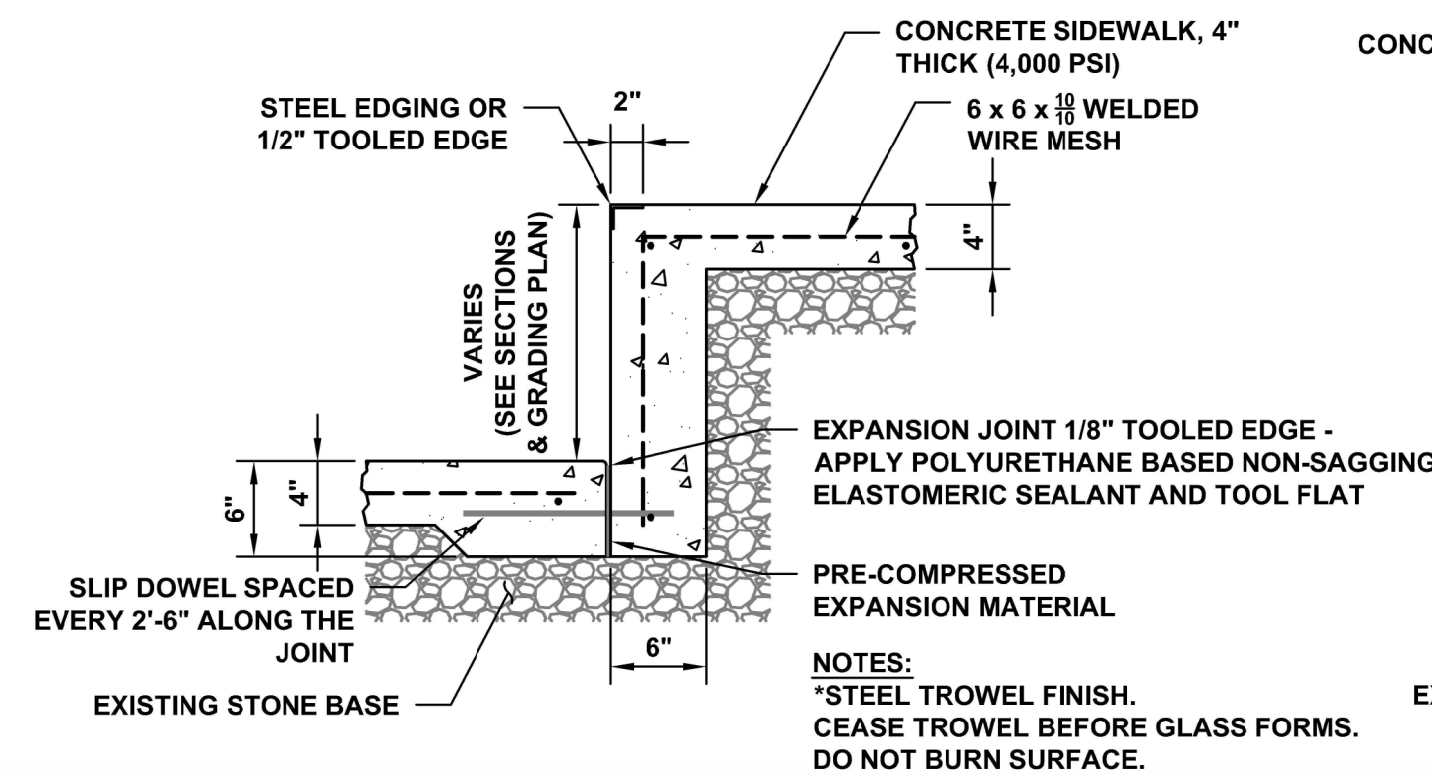
SKATE PARK TO CONCRETE SIDEWALK CONNECTION
N.T.S.



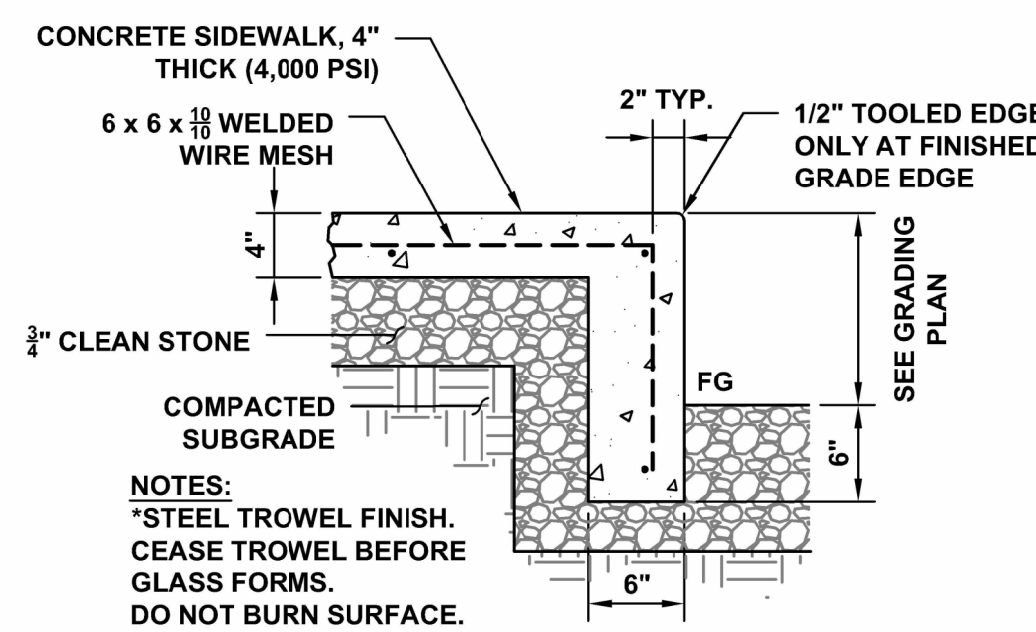
POURED IN PLACE EXPANSION JOINT
N.T.S.



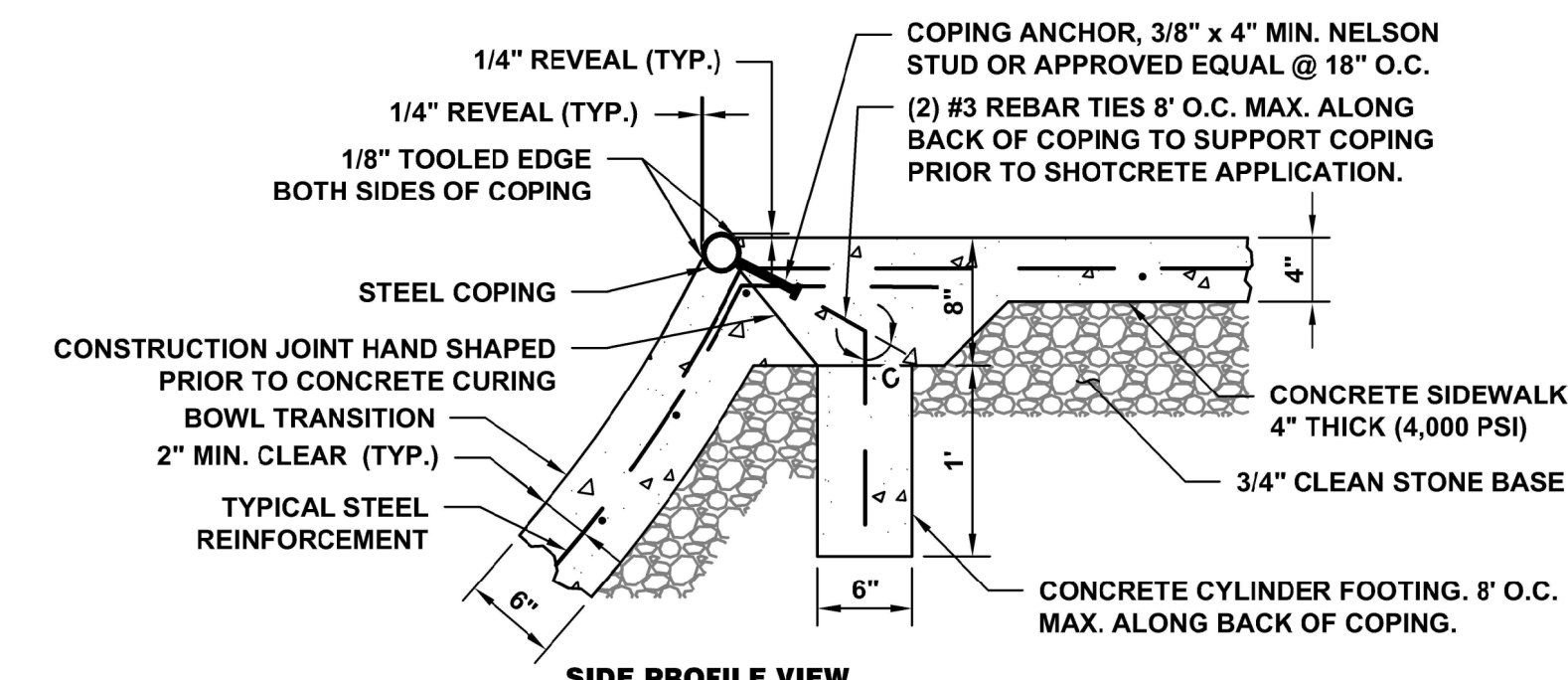
STEEL EDGING
N.T.S.



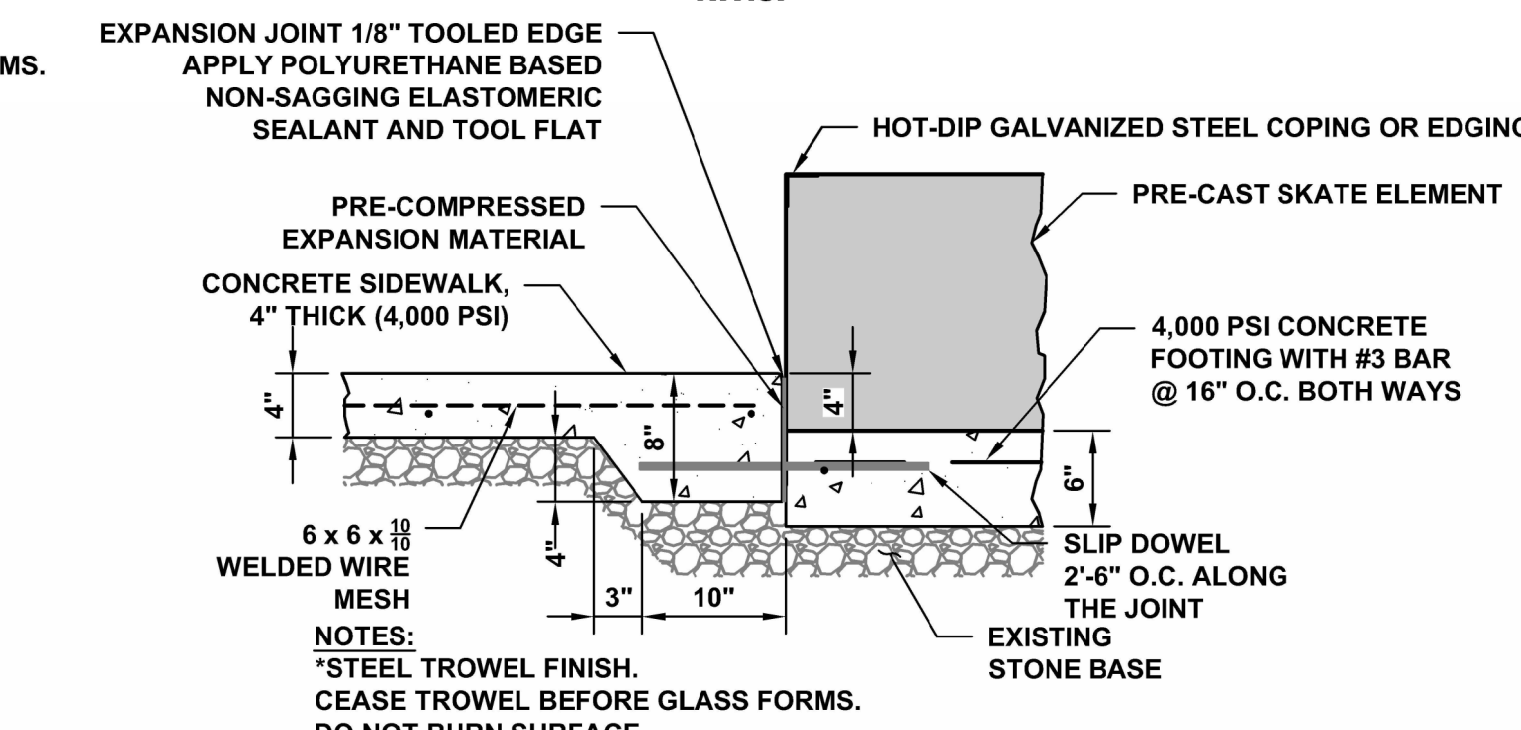
TYPICAL TURNDOWN EDGE
N.T.S.



PERIMETER TURNDOWN EDGE
N.T.S.



STEEL COPING
N.T.S.



PRE-CAST CONCRETE EXPANSION JOINT (PRE-CAST SKATE ELEMENT NO. 5, PLATFORM)
N.T.S.

- STEEL NOTES:**
- STEEL FINISH TO BE HOT DIPPED GALVANIZED UNLESS OTHERWISE NOTED.
 - GALVANIZATION MUST OCCUR AFTER ALL WELDING IS COMPLETE.
 - CAP ALL EXPOSED TUBE OR PIPE ENDS AND ROUND ALL SHARP EDGES.
 - ALL WELDS TO BE ALL AROUND.
 - GRIND ALL WELDS SMOOTH BEFORE GALVANIZATION.
 - VENT ADEQUATELY FOR HOT DIP GALVANIZATION.
 - FABRICATE STEEL GRIND EDGES IN LONG SECTIONS THAT WILL WORK FOR SHIPPING AND REDUCE THE NUMBER OF WELDS IN THE FIELD.
 - CLEAN METAL EDGES AFTER PLACEMENT OF CONCRETE.
 - FIELD WELDS SHALL BE GROUND SMOOTH AND TREATED WITH COLD GALVANIZING SPRAY.

COPING SUPPORT REBAR		BENDING DIMENSIONS			
SIZE	THEO LENGTH	A	B	C	D
3	1-10	0-10	1-00	60	45

NOTICE
THIS DRAWING AND ALL INFORMATION CONTAINED HEREIN IS AUTHORIZED FOR USE ONLY BY THE PARTY FOR WHOM THE WORK WAS CONTRACTED OR TO WHOM IT IS CERTIFIED. THIS DRAWING MAY NOT BE COPIED, REUSED, DISCLOSED, DISTRIBUTED, OR REPRODUCED FOR ANY OTHER PURPOSE WITHOUT THE WRITTEN CONSENT OF Suburban Consulting Engineers, Inc. PER N.J.A.C. ELECTRONIC SUBMISSIONS NOT CONTAINING A VALID ORIGINAL SEAL OR PAPER COPIES NOT CONTAINING A RAISED SEAL ARE NOT ORIGINALS AND MAY BE ALTERED.
© COPYRIGHT 2017 Suburban Consulting Engineers, Inc.™ CERTIFICATE OF AUTHORIZATION NO. 24GA28037500 ALL RIGHTS RESERVED

DESCRIPTION	NO.	DATE:	BY:	CHK:
REVISIONS				

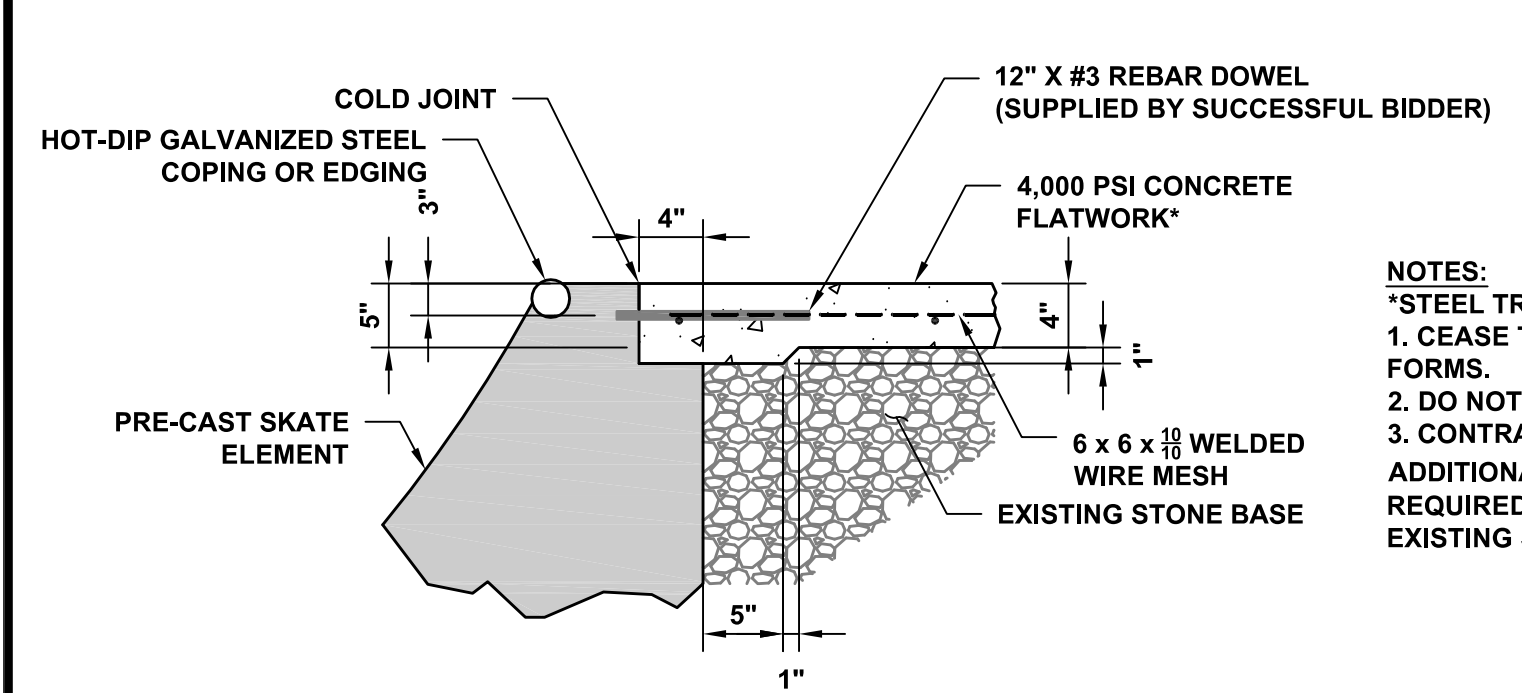
DRAWN BY:
SD
10/13/17
CHECKED BY:
KBD
10/13/17
CHECKED BY:

DAREN J. PHIL, PE
NEW JERSEY PROFESSIONAL ENGINEER
LICENSE NO. 24GE03619100
DATE: 10/13/17

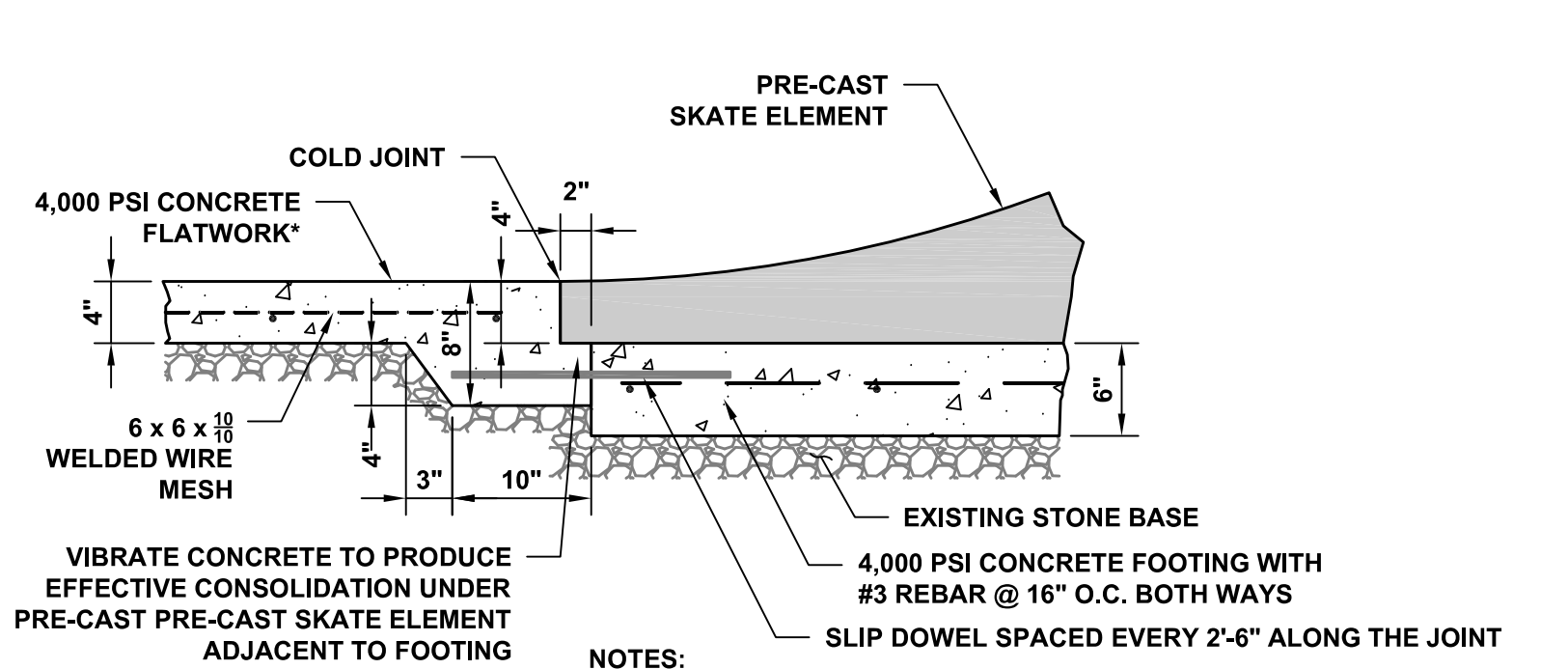
SE SUBURBAN CONSULTING ENGINEERS, INC.
COA NO.: 24GA28037500
Civil Engineers - Municipal Engineers - Landscape Architects - Planners - Environmentalists - Land Surveyors -
96 US Highway 206, Suite 101 2430 Highway 34, Bldg. A Suite 1R
Flinders, NJ 07836 - 973.398.1776 Wall, NJ 08736 - 732.282.1776
EXCELLENCE • ECONOMY • ENVIRONMENT

CONSTRUCTION PLANS FOR
MATTANO SKATEBOARD PARK
BLOCK 5, LOT 453 B
CITY OF ELIZABETH, UNION COUNTY, N.J.
SKATE ELEMENT DETAILS I
PROJECT NUMBER:
SCE-8745.011
SCALE:
AS NOTED
SHEET 10 OF 17
REVISION

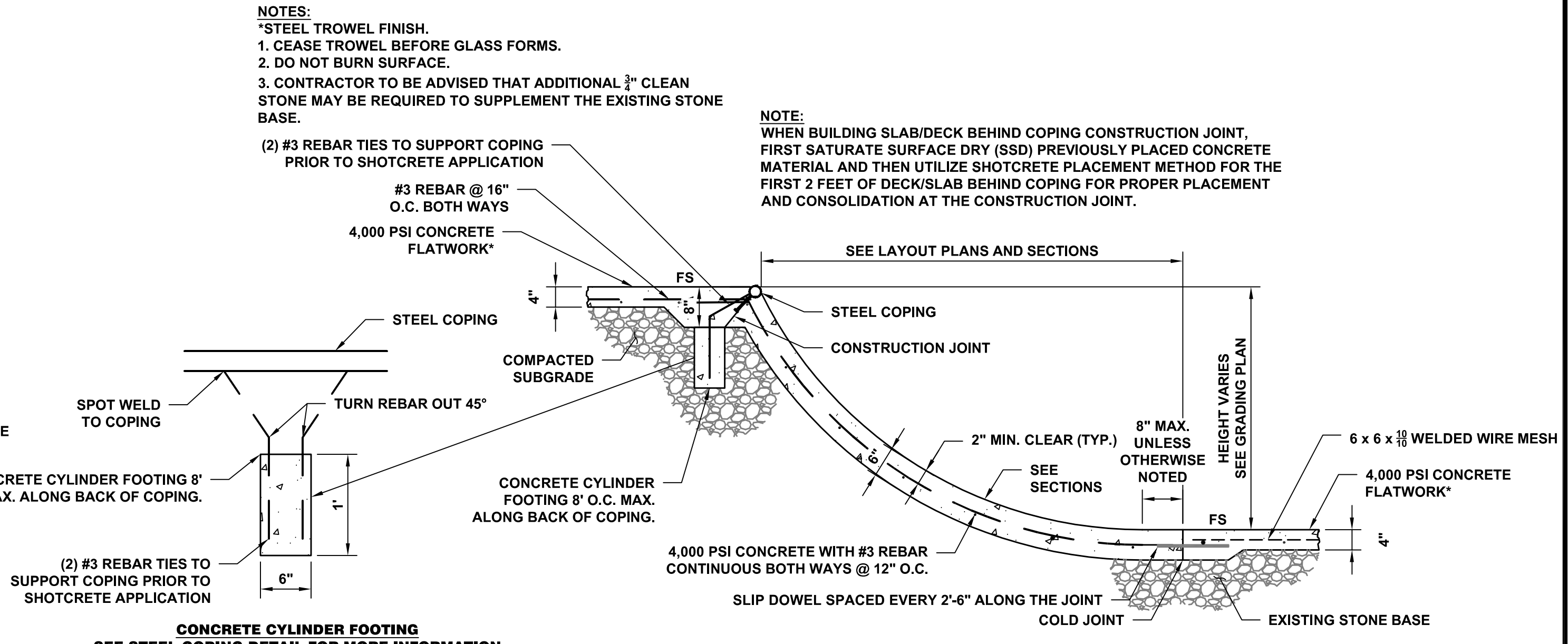
E:\SCE\Elizabeth\Drawings\Sheets\745 11 Foundation Details\0-21-16.dwg Thu, Oct 12, 2017 - 3:49pm mfreeman Suburban Consulting Engineers, Inc.



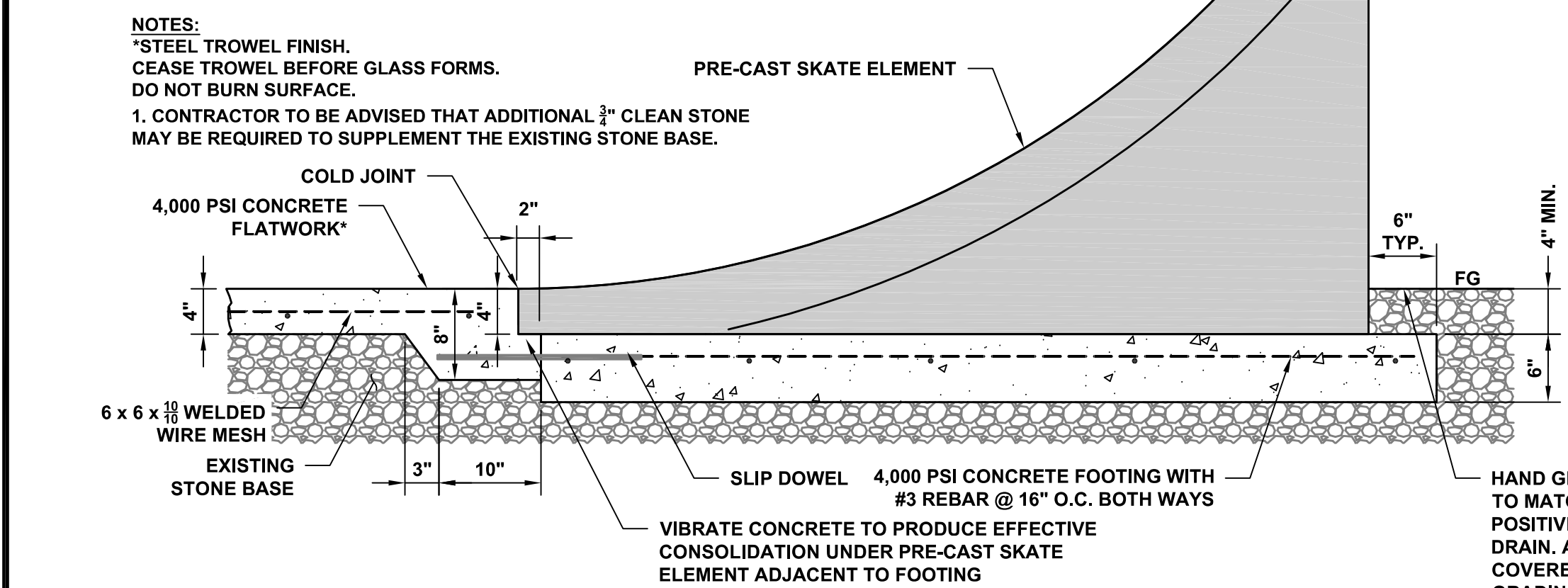
**PRE-CAST CONCRETE TOP CONNECTION
(PRE-CAST SKATE ELEMENT NO. 8 AND 9,
35" BANK)**
N.T.S.



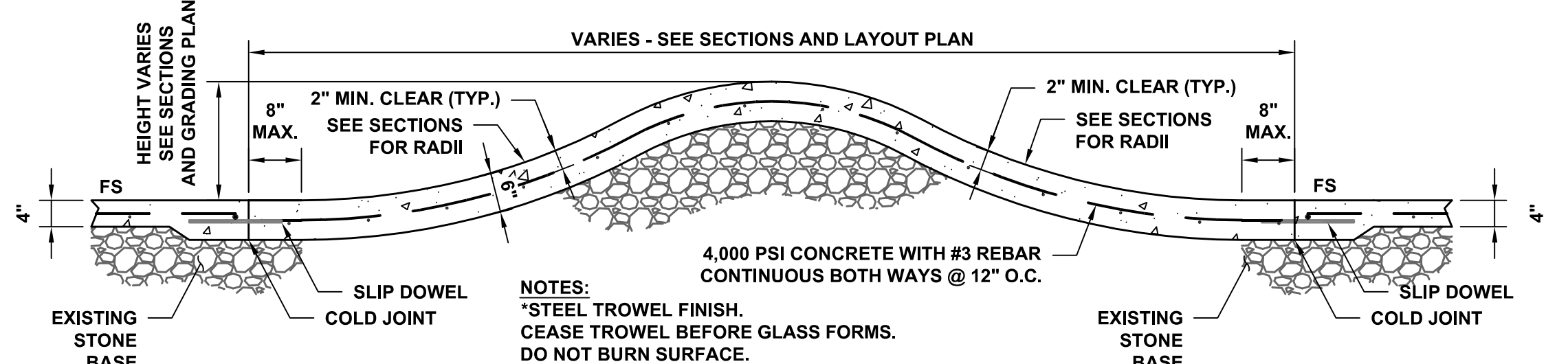
**PRE-CAST CONCRETE TOE CONNECTION
(PRE-CAST SKATE ELEMENT NO. 1 AND 2,
FLOATING RAMP WITH MOUSE HOLE)**
N.T.S.



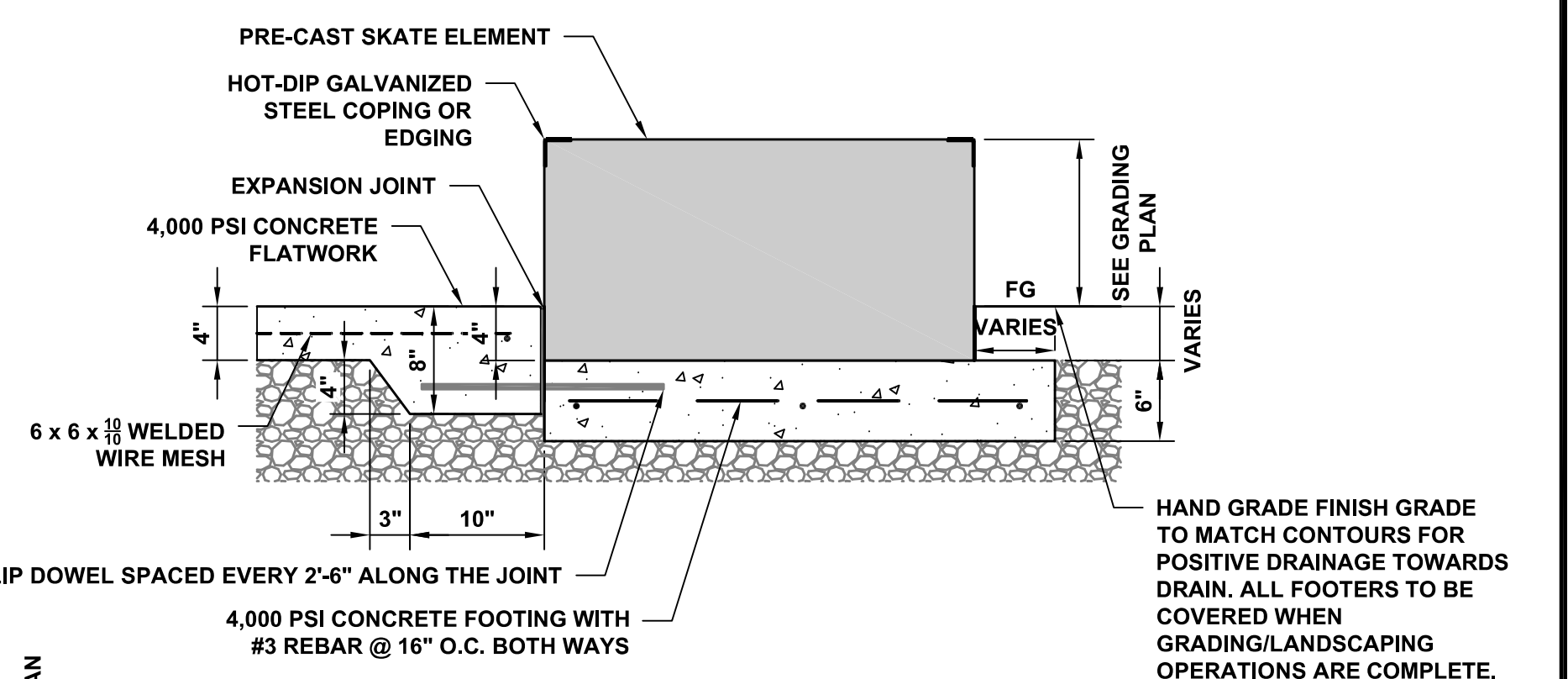
TYPICAL TRANSITION DETAIL
N.T.S.



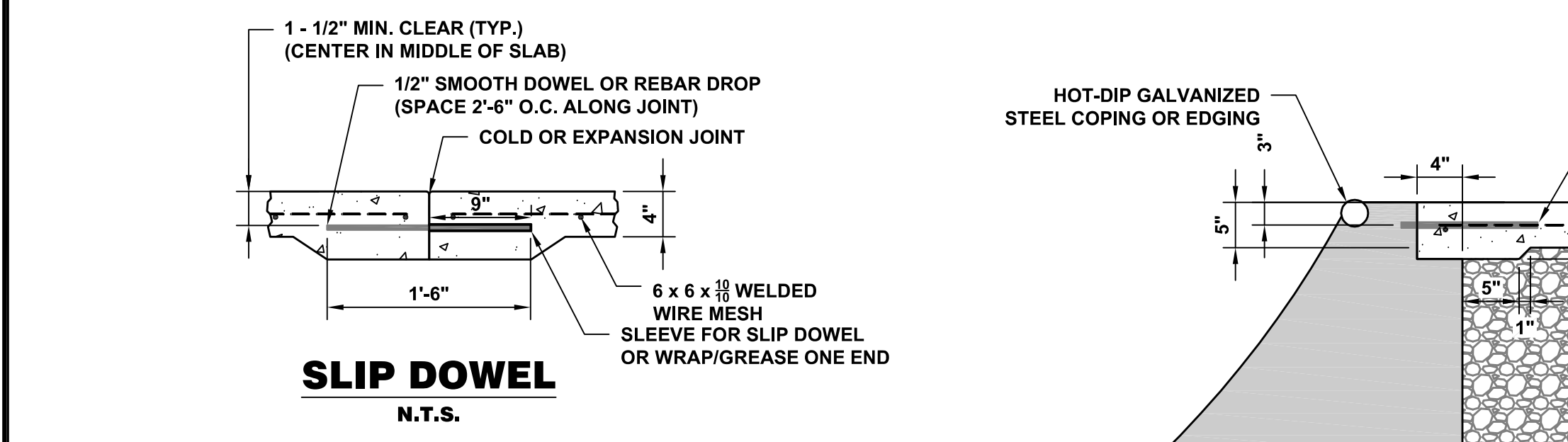
**PRE-CAST CONCRETE CANTILEVER PROFILE
(PRE-CAST SKATE ELEMENT NO. 1 AND 2,
FLOATING RAMP WITH MOUSE HOLE)**
N.T.S.



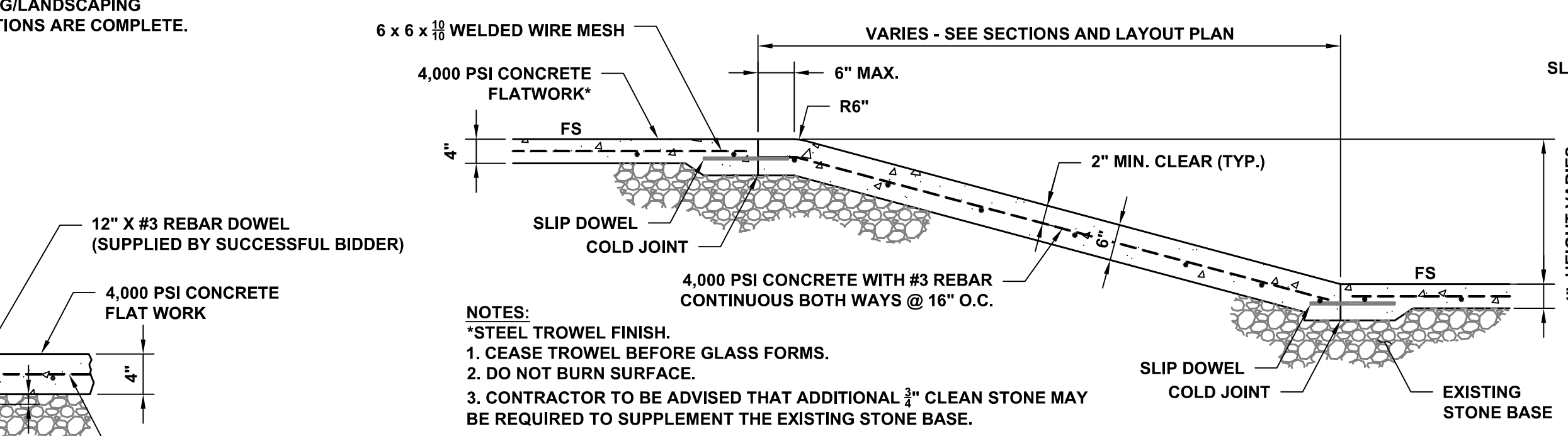
TYPICAL ROLL OVER
N.T.S.



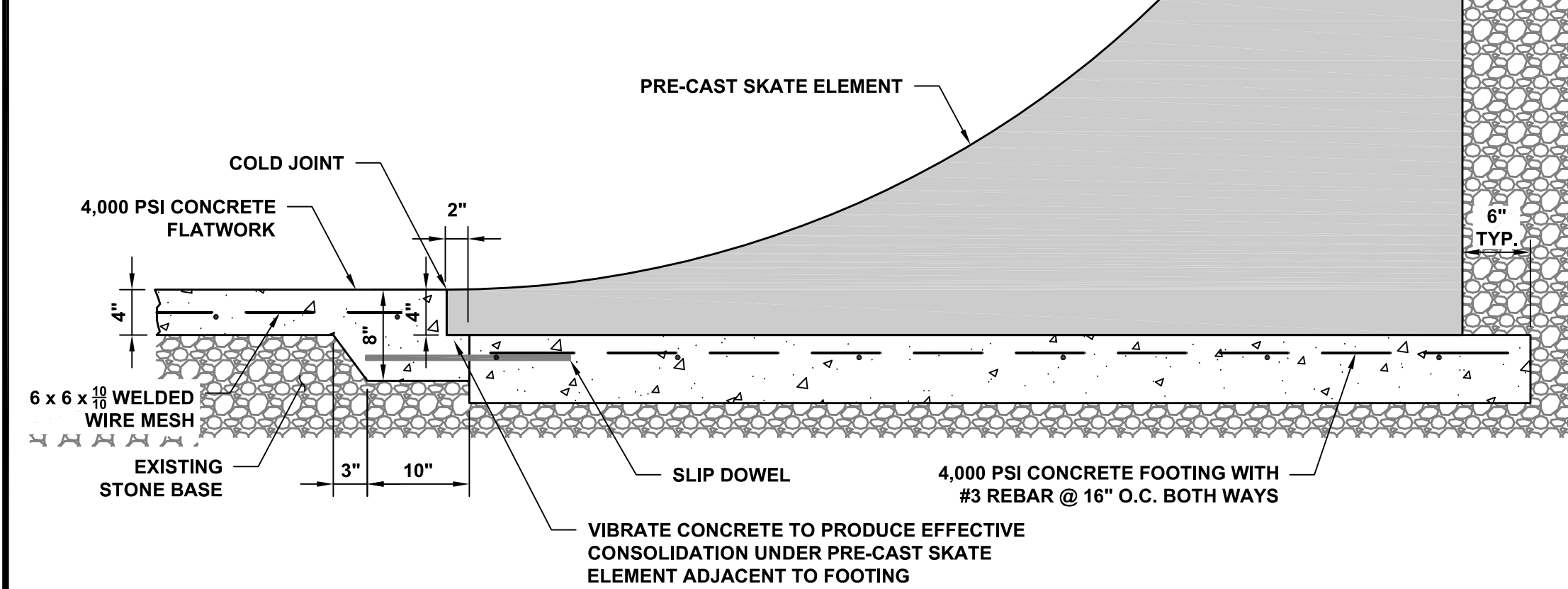
**PRE-CAST PROFILE II
(PRE-CAST SKATE ELEMENT NO. 3, 4, 6
AND 7, HUBBA AND GRIND LEDGE)**
N.T.S.



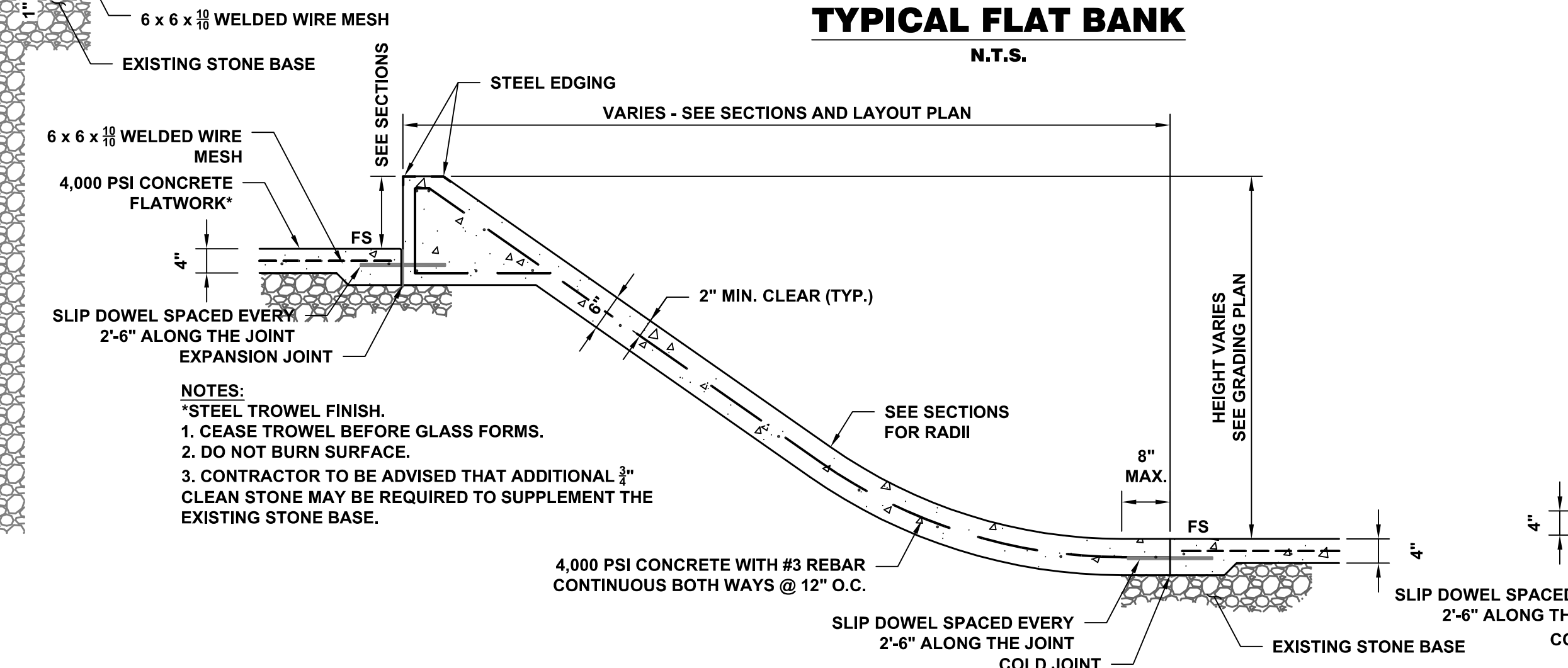
SLIP DOWEL
N.T.S.



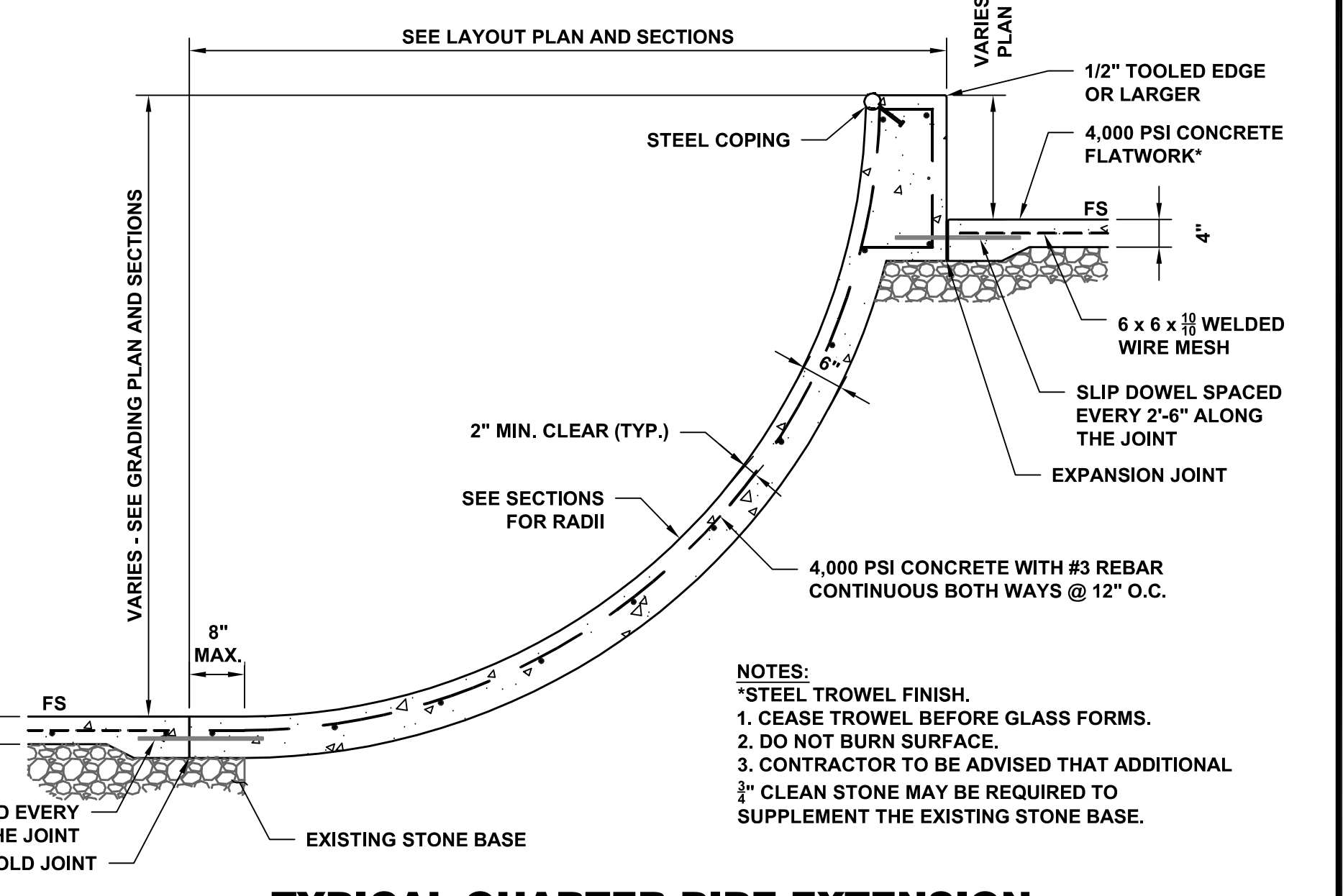
TYPICAL FLAT BANK
N.T.S.



PRE-CAST CONCRETE PROFILE (PRE-CAST SKATE ELEMENT NO. 8 AND 9, 35" BANK)
N.T.S.



TYPICAL RADIUS WEDGE EXTENSION
N.T.S.



TYPICAL QUARTER PIPE EXTENSION
N.T.S.

NOTICE
THIS DRAWING AND ALL INFORMATION CONTAINED HEREIN IS AUTHORIZED FOR USE ONLY BY THE PARTY FOR WHOM THE WORK WAS CONTRACTED OR TO WHOM IT IS CERTIFIED. THIS DRAWING MAY NOT BE COPIED, REPRODUCED, DISCLOSED, DISTRIBUTED, OR REPRODUCED FOR ANY OTHER PURPOSE WITHOUT THE WRITTEN CONSENT OF Suburban Consulting Engineers, Inc. SUBURBAN CONSULTING ENGINEERS, INC. 96 US Highway 206, Suite 101 2430 Highway 34, Bldg. A Suite 1B Flinders, N.J. 07736 - 973.398.1776 Wall, N.J. 08736 - 732.282.1776
© COPYRIGHT 2017 Suburban Consulting Engineers, Inc.™ CERTIFICATE OF AUTHORIZATION NO. 24GA28037500 ALL RIGHTS RESERVED

NO.	DATE	BY	CHK

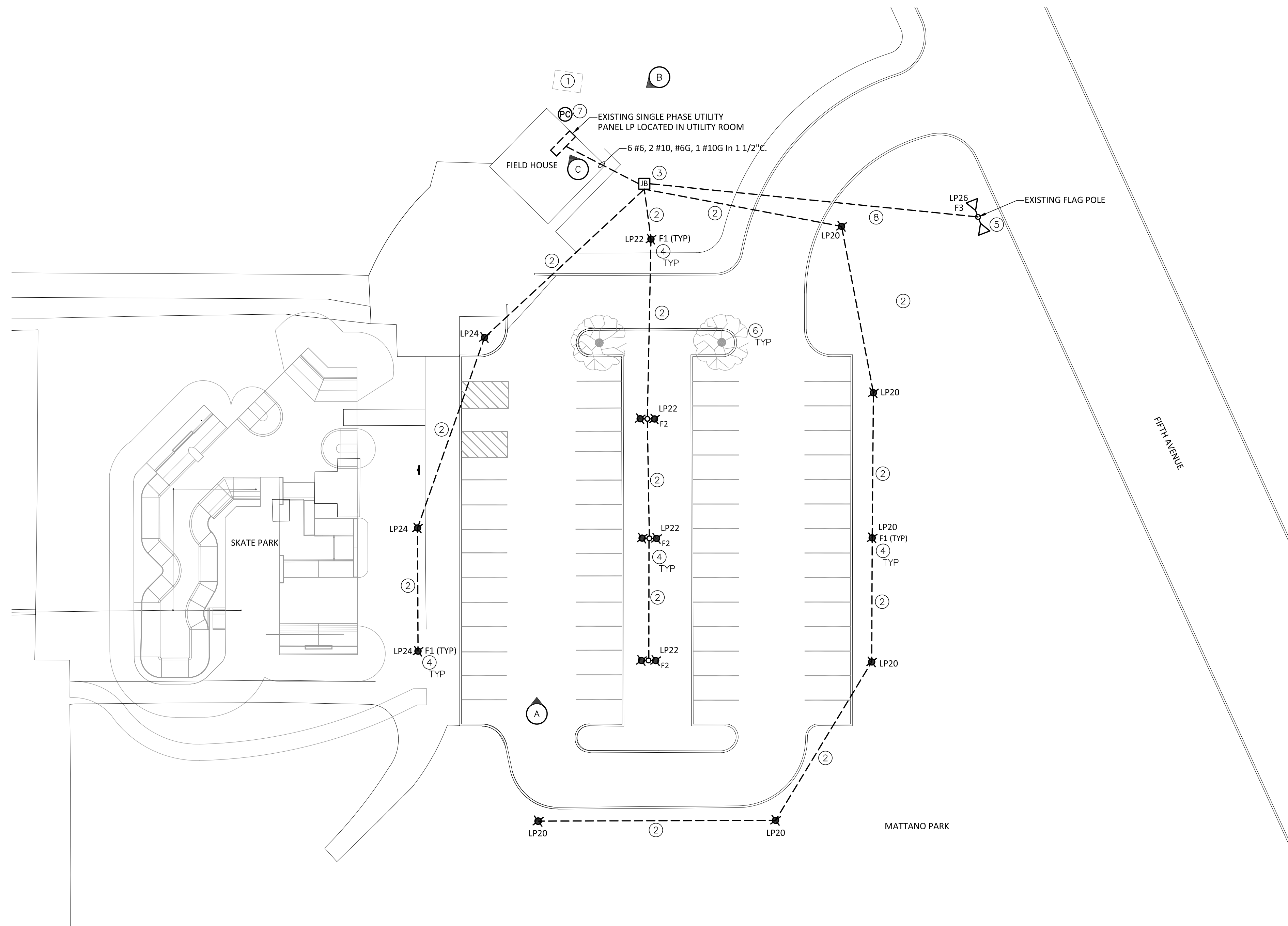
DRAWN BY:
SD
10/13/17
CHECKED BY:
KBD
10/13/17
CHECKED BY:

DAREN J. PHIL, PE
NEW JERSEY PROFESSIONAL ENGINEER
LICENSE NO. 24GE03619100
DATE: 10/13/17

SC SUBURBAN CONSULTING ENGINEERS, INC.
COA NO.: 24GA28037500
Civil Engineers - Municipal Engineers - Landscape Architects - Planners - Environmentalists - Land Surveyors
96 US Highway 206, Suite 101 2430 Highway 34, Bldg. A Suite 1B Flinders, N.J. 07736 - 973.398.1776 Wall, N.J. 08736 - 732.282.1776
EXCELLENCE ♦ ECONOMY ♦ ENVIRONMENT

**CONSTRUCTION PLANS FOR
MATTANO SKATEBOARD PARK
MATTANO PARK
BLOCK 5, LOT 453 B
CITY OF ELIZABETH, UNION COUNTY, N.J.**
SKATE ELEMENT DETAILS II

PROJECT NUMBER:
SCE-8745.011
SCALE:
AS NOTED
SHEET 11 OF 17
REVISION



KEY NOTES (SYMBOLS ①, ②, ETC.)

- Existing Utility Company Electrical Service And Enclosure To Remain.
- 3 - #6 Cable In 1" Conduit. Routing Shown Is Diagrammatic, Contractor Is Responsible For Determining Routing In The Field.
- Provide New Lockable In Ground Electrical Junction Boxes For Power. To Be Pencil PEM-1218 PC Or Approved Equal.
- Provide New Pathway Lighting Fixture F1 And F2 (2 Heads). See Details 2 & 4 On Sheet 13.
- F3 Flag Pole With Lights. See Detail 3 On Sheet 13.
- Coordinate Routing With Existing Buried Infrastructure, Utilities And Trees.
- Roof Mounted Photocell (3 #10, 3/4"C.) For Control Of Flag Pole Lights.
- 3 - #10 In 1" Conduit. Routing Shown Is Diagrammatic, Contractor Is Responsible For Determining Routing In The Field.

GENERAL NOTES

- Entire Installation Shall Comply With All Local And State Codes And Other Authorities Having Jurisdiction. Contractor To Be Advised That Should They Not Be Covered By The County, Each Contractor / Subcontractor Shall Pay For, Secure, And Schedule All Required Permits, And Inspections Required For Their work.
- Lighting Fixture Locations Shown Are Approximate. Coordinate The Final Lighting Fixture Locations, Trim Type, And Color With The Civil Plan.
- See Civil Plan For Additional Fixture Details, Photometrics And Light Distributions.
- Underground Conduit Location Is Diagrammatic. Coordinate Exact Routing With Existing Utilities, Landscaping, Structures Etc.
- Patch And Repair Surface To Match Original Conditions.
- Contractor Shall Obtain A Private Mark-Out Of The Area Of Work. Contractor Also To Coordinate With Local Utility Companies And New Jersey One Call (811) As Required By Those Entities To Identify And Mark Out All Buried Infrastructure And Utilities In The Vicinity Of Proposed Conduit Routing Prior To Any Excavation. Hand Digging In Certain Locations May Be Required.

PARTIAL SYMBOL & ABBREVIATION LIST

Identifier	Description	Identifier	Description
---	Underground Conduit	A	Amp
⊛	New Light Pole & Fixture	C	Conduit
⊛⊛	New Light Pole & Two Fixtures	G	Ground
⊛⊛⊛	New Flag Pole Lights	JB	Junction Box
⊙	Photocell	TYP	Typical
⊞	Existing Panel		
⊙	Photograph Identifier And Direction		
②	Keynote		
⊛	Connect To Existing		

SITE LOCATION

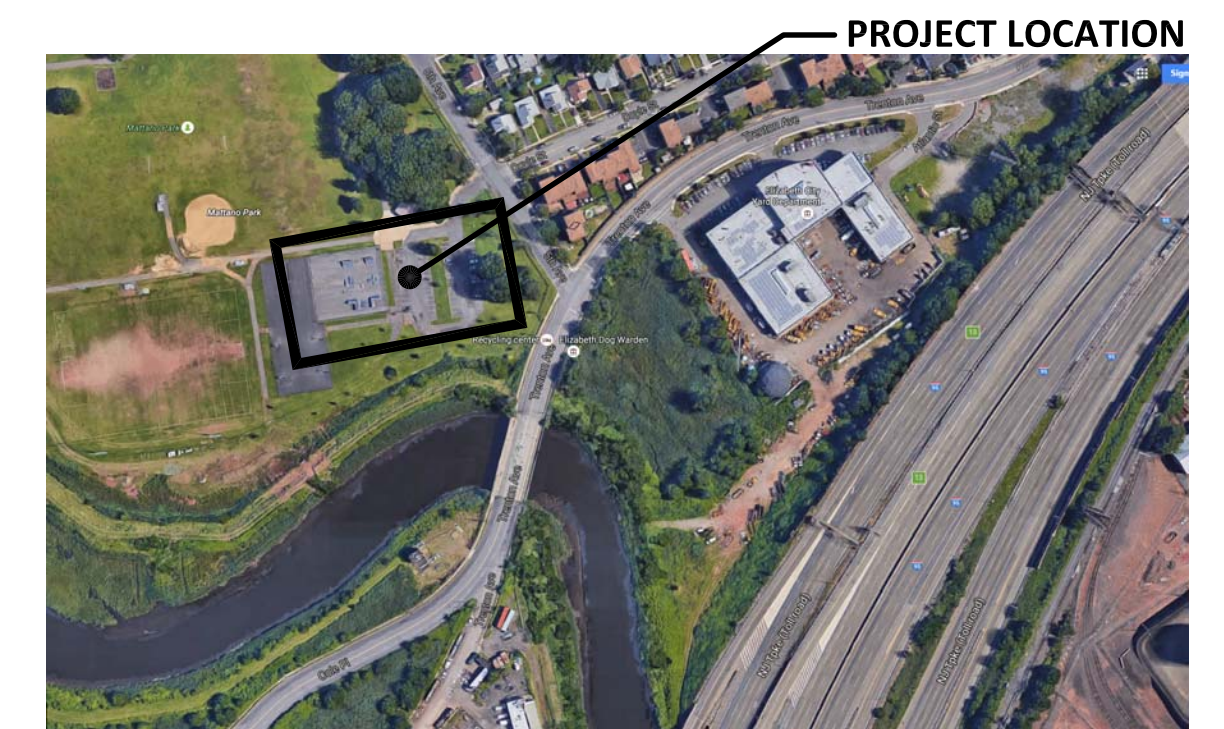


PHOTO A - PARKING LOT
Parking Lot With Field House Building



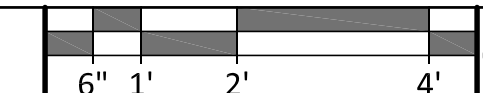
PHOTO B - FIELD HOUSE UTILITY ROOM
Existing Field House Building



PHOTO C - PANEL LP
Existing Utility Room Panel In Field House With Space For New Lighting

LIGHTING PLAN

Scale: 1/2"=1'-0"



Drawing: 8
Detail: 01

NOTICE
THIS DRAWING AND ALL INFORMATION CONTAINED HEREIN IS AUTHORIZED FOR USE ONLY BY THE PARTY FOR WHOM THE WORK WAS CONTRACTED OR TO WHOM IT IS CERTIFIED.
THIS DRAWING MAY NOT BE COPIED, REUSED, DISCLOSED, DISTRIBUTED, OR RELIED UPON FOR ANY OTHER PURPOSE WITHOUT THE WRITTEN CONSENT OF SUBURBAN CONSULTING ENGINEERS, INC.
© COPYRIGHT 2017 SUBURBAN CONSULTING ENGINEERS, INC.™ ALL RIGHTS RESERVED.

ISSUED FOR BID	1	10/13/17	SF	SG
DESCRIPTION	NO.	DATE:	BY:	CHK:
REVISIONS				

DRAWN BY: SG	DATE: 02/12/16
CHECKED BY: SF	DATE: 02/12/16
CHECKED BY:	DATE:

consultant:
dlb associates
CONSULTING ENGINEERS, P.C.
265 Industrial Way West, Eatontown, N.J. 07724

SC SUBURBAN CONSULTING ENGINEERS, INC.
COA NO.: 24GA28037500
- Civil Engineers - Municipal Engineers -
- Landscape Architects -
- Planners - Environmentalists - Land Surveyors -
96 US Highway 206, Suite 101
Flankers, N.J. 07836
973.398.1776

CONSTRUCTION PLANS FOR MATTANO SKATE PARK MATTANO PARK
BLOCK 5, LOT 453 B
CITY OF ELIZABETH, UNION COUNTY, N.J.

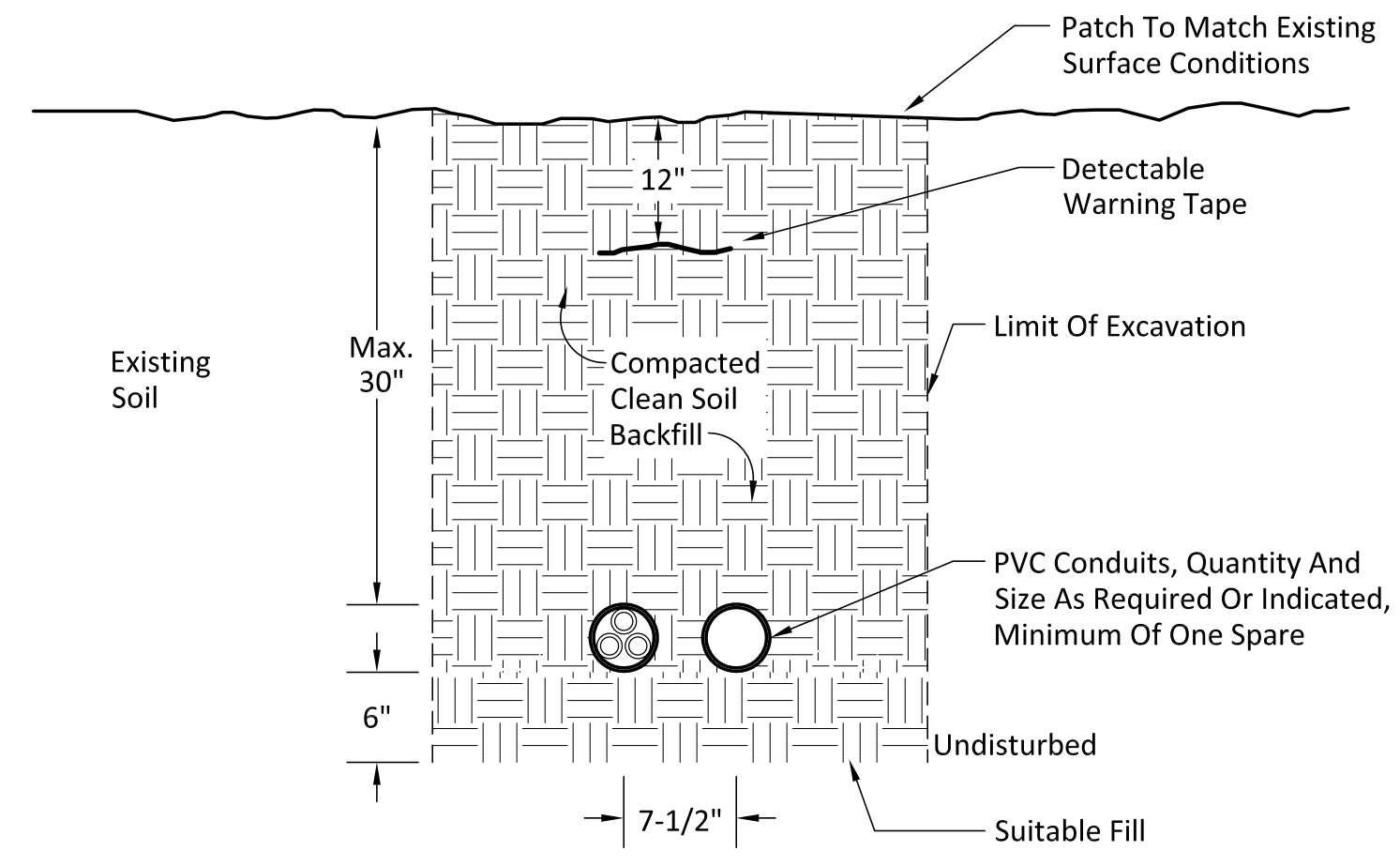
ELECTRICAL PLAN, NOTES AND DETAILS

PROJECT NUMBER: 12329
SCALE: AS NOTED
SHEET 12 OF 17
REVISION: 0

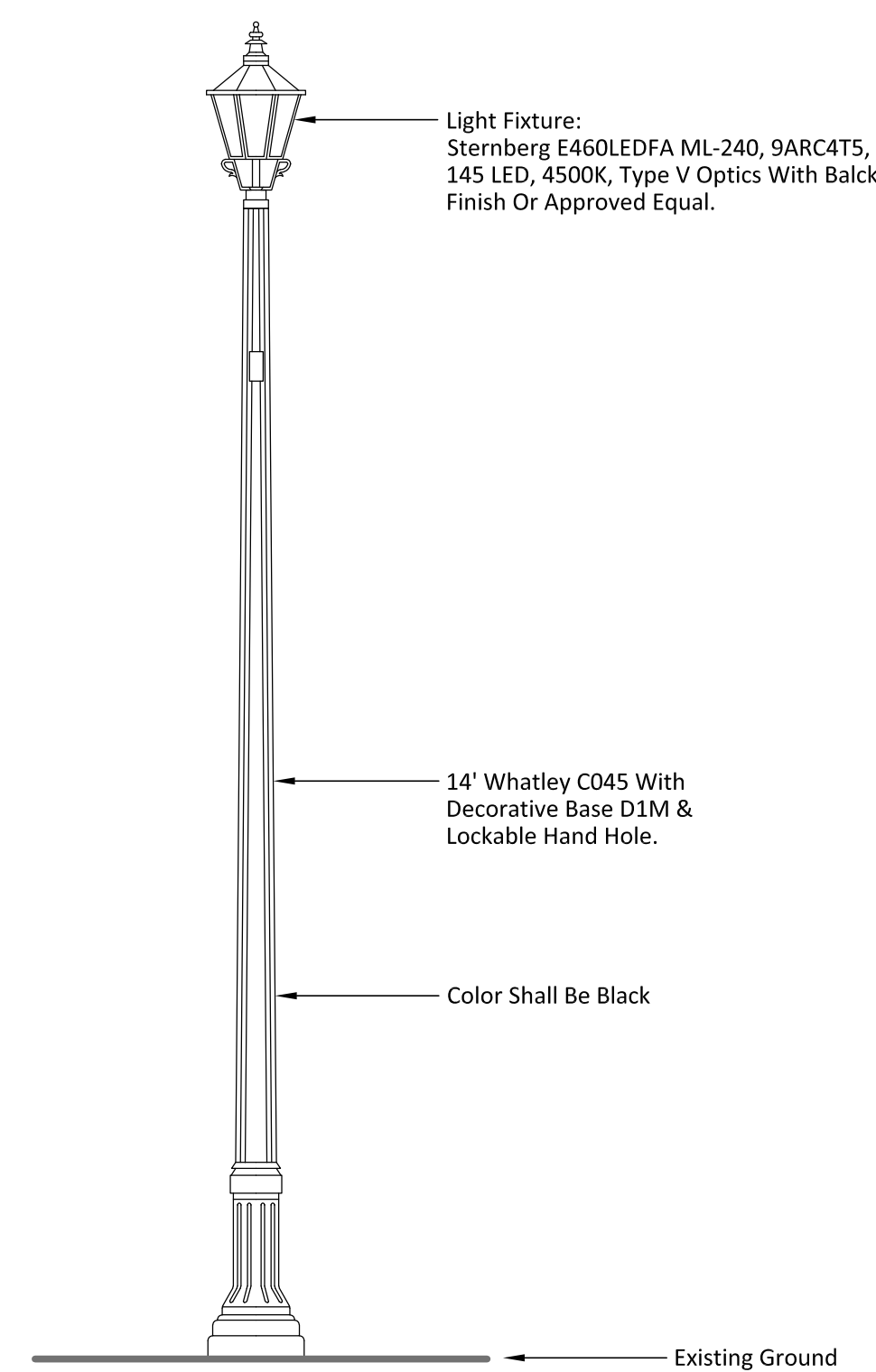
SCHEDULE FOR PANEL: LP "EXISTING"															
SYSTEM: 120/240V, 1Ø, 3W			NUMBER OF POLES: 30			AREA SERVED: FIELD HOUSE (RESTROOM)									
BUS RATING: 225			MINIMUM CB IC:			EQUIP GROUND BUS:			PANEL LOCATION: UTILITY ROOM						
MAINS TYPE: MCB			MAINS RATING: 200 A			ISOLATED GND BUS:			MOUNTING: SURFACE						
SUPPLIED FROM:			MOUNTING: SURFACE			SUPPLIED FROM:									
CIR. #	SERVES	LOAD	MINIMUM BRANCH CIRCUIT & CONDUIT SIZE	BREAKER P	TRIP	PHASE A	B	BREAKER P	TRIP	MINIMUM BRANCH CIRCUIT & CONDUIT SIZE	LOAD	SERVES	CIR. #		
1	Light (Exterior) - EXISTING			1	20	0		20	1			Light & Recepticals Chase - EXISTING	2		
3	Lights - Men - EXISTING			1	20		0	20	2			Water Heater - EXISTING	4		
5	Lights - Women - EXISTING			1	20	0		20				Water Heater - EXISTING	6		
7	Hand Dryer 1+2 - EXISTING			1	20		0	20	1			Video - EXISTING	8		
9	Hand Dryer 3+4 - EXISTING			1	20	0		20	1			Recetacles - EXISTING	10		
11	Hand Dryer 5+6 - EXISTING			1	20		0	20	1			Spare	12		
13	Video - EXISTING			1	20	0		20	1			Spare	14		
15	Unit Heater - EXISTING			2	20		0	15	2			Unit Heater - EXISTING	16		
17						0							18		
19	Unit Heater - EXISTING			2	20		790	20	1	2#6, #6G, 1" C	790	Lights - NEW	20		
21						931		20	1	2#6, #6G, 1" C	931	Lights - NEW	22		
23	Sub Panel - Spray - EXISTING			2	50		399	20	1	2#6, #6G, 1" C	399	Lights - NEW	24		
25						26		20	1	2#10, #10G, 1" C.	26	Flag Pole Lights - New	26		
27	SPACE			1	-		0	-	1			SPACE	28		
29	SPACE			1	-		0	-	1			SPACE	30		
TOTAL CONNECTED LOAD (VA)				2146		957		1189		VA PER PHASE		9		TOTAL CONNECTED LOAD (AMPS)	
						8		10		AMPS PER PHASE					

NOTES:

- EXISTING CIRCUITS
- FLAG POLE LIGHTS CONTROLLED BY PHOTOCELL TO BE MOUNTED ON ROOF OF FIELD HOUSE



- NOTES:
- All Depth Measurements Shall Be Measured From Finished Grade To The Top Of The Top Conduit.
 - Minimum Burial Depth Shall Be In Accordance With NEC Table 300.5 Unless Otherwise Noted. Maximum Depth Shall Be 30 Inches Unless Otherwise Noted, Or As Required For Short Distances Based On Site Conditions To Avoid Conflicts.
 - Maintain Uniform Spacing Using Conduit Spacers Along The Entire Length (Not Shown For Clarity).
 - Include Drag Line In All Empty Conduits.



MISSION STATEMENT AND SCOPE

Project Mission Statement
Provide New Pathway and Flagpole Lighting.

Project Description

- This Project Consists Of Electrical Infrastructure (Conduits, Conductors) for The Pathway And Flagpole Lighting Located In Mattano Park In Elizabeth NJ.
- New Flag Pole Lighting, Pathway Lighting.

Special Emphasis, Concerns And Limitations

- Coordinate All Work With Owner.

KEY PARTICIPANTS AND THEIR ROLES

<u>Civil Engineer (Prime)</u>	<u>Electrical Engineer</u>
Suburban Consulting Engineers, Inc. 2430 Highwat 34, Bldg. A Wall NJ 09736	DLB Associates Consulting Engineers, PC - NJ 265 Industrial Way West Eatontown, NJ 07724
Contact: Mark Lescavage Tel: 732-282-1776	Contact: Scot Gowers Tel: (732) 774-2000 Email: SGowers@dlbassociates.com

ELECTRICAL GENERAL NOTES

General:

- The Entire Installation Shall Comply With All Local And State Codes And Other Authorities Having Jurisdiction.
- All Work Shall Be Performed In A Neat Workmanlike Manner.
- "Furnish And Install" Or "Provide" Means To Supply, Erect, Install, And Connect Up To Complete For Readiness For Regular Operation, The Particular Work Referred To.

Coordination:

- Contractors Shall Coordinate Their Work With The Work Of All Other Trades And The Existing Field Conditions.
- Contractor Shall Visit The Job Site And Verify Existing Field Conditions Prior To Submission Of Bid.
- Contractor Shall Secure And Pay For All Required Permits And Shall Arrange All Required Inspections.

Installation / Demolition:

- Contractor To Visit The Site To Verify Installation Methods, Products, Accessibility, Conduit Access And Existing Utility Conditions.

Wiring Methods:

- Outdoors:
 - Exposed: RGS Conduit
 - Underground: PVC Conduit Schedule 40, PVC Schedule 80 Under Roadways And Drive Paths
- Underground: Pencil Polymer Concrete Underground Pull Box

Equipment Grounding:

- Insulated (Green) Equipment Ground Wires Shall Be Provided In All Feeders And Branch Circuits. Utilizing The Conduit As The Grounding Path Is Not Acceptable.

Site Lighting:

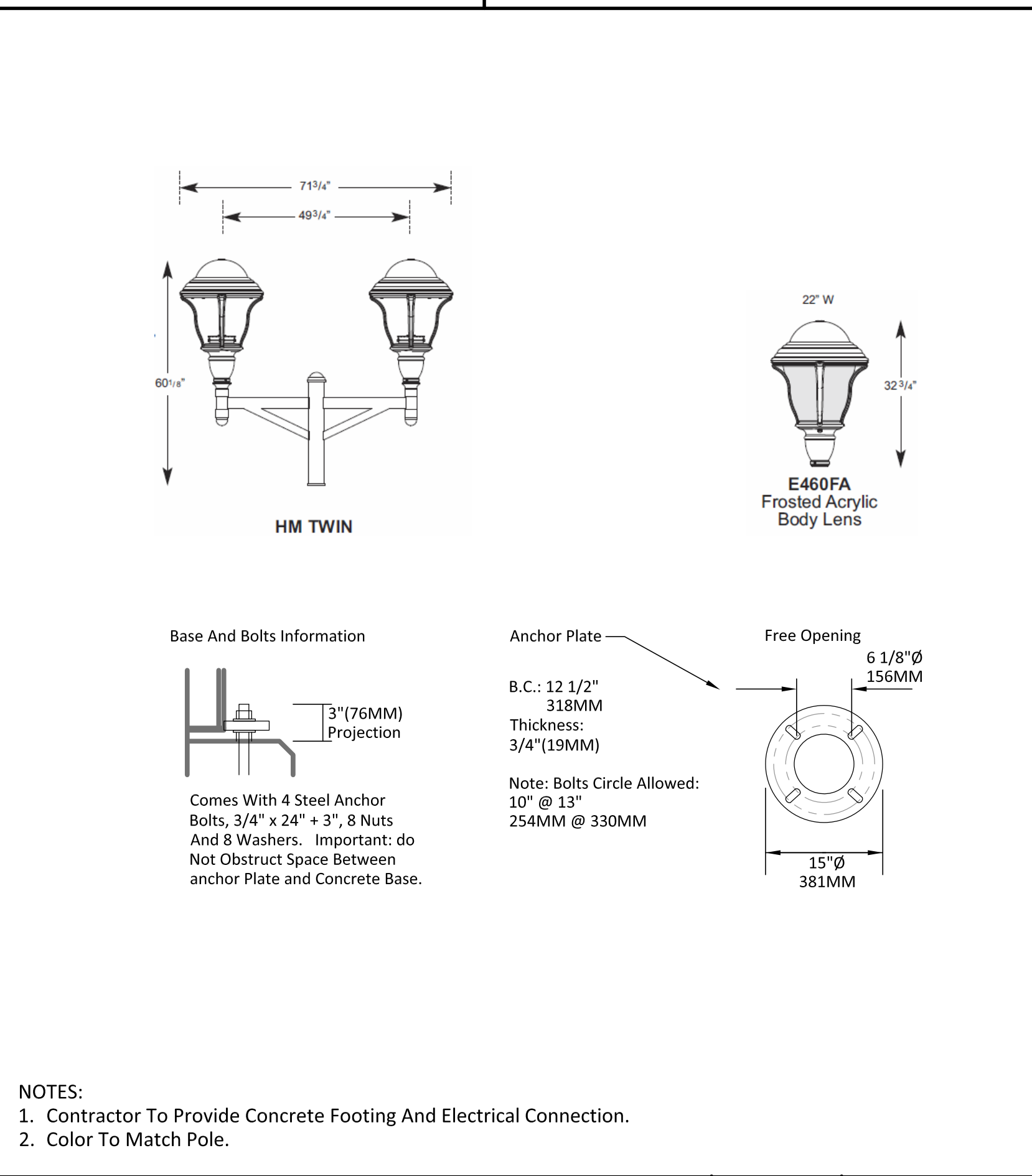
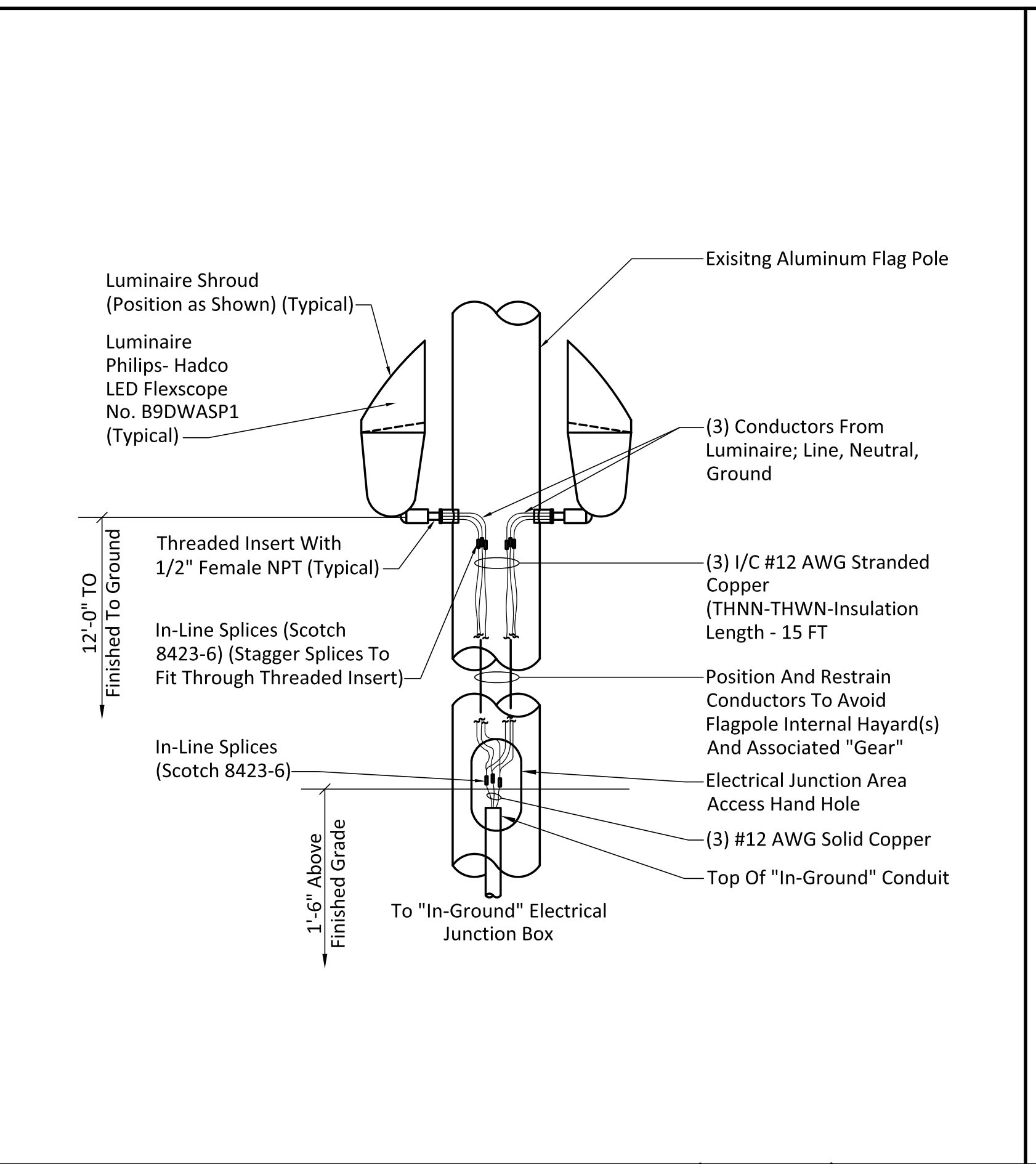
- All Lighting Poles Shall Provide A Ground Stud Inside The Shaft And Be Accessible Via Junction Box.
- The Electrical Contractor Shall Be Responsible For Installing All Light Fixtures, Poles, Foundation, and Lamps. This Includes Pole Foundations Complete With Conduits For Power, Grounding, And Anchor Bolts.
- All Site Lighting Shall Conform To The Requirements Of The Borough, The Local Electric Company, And The Recommendations Of The Illumination Engineering Society Of North America (IESNA).
- Site Lighting Shown On This Plan Shall Be Installed Per Manufacturers Details And Specifications.

General:

- Electrical Terminations (Lugs, Terminals, Etc.) On All Equipment Shall Be Rated For Use With 75°C Conductors.

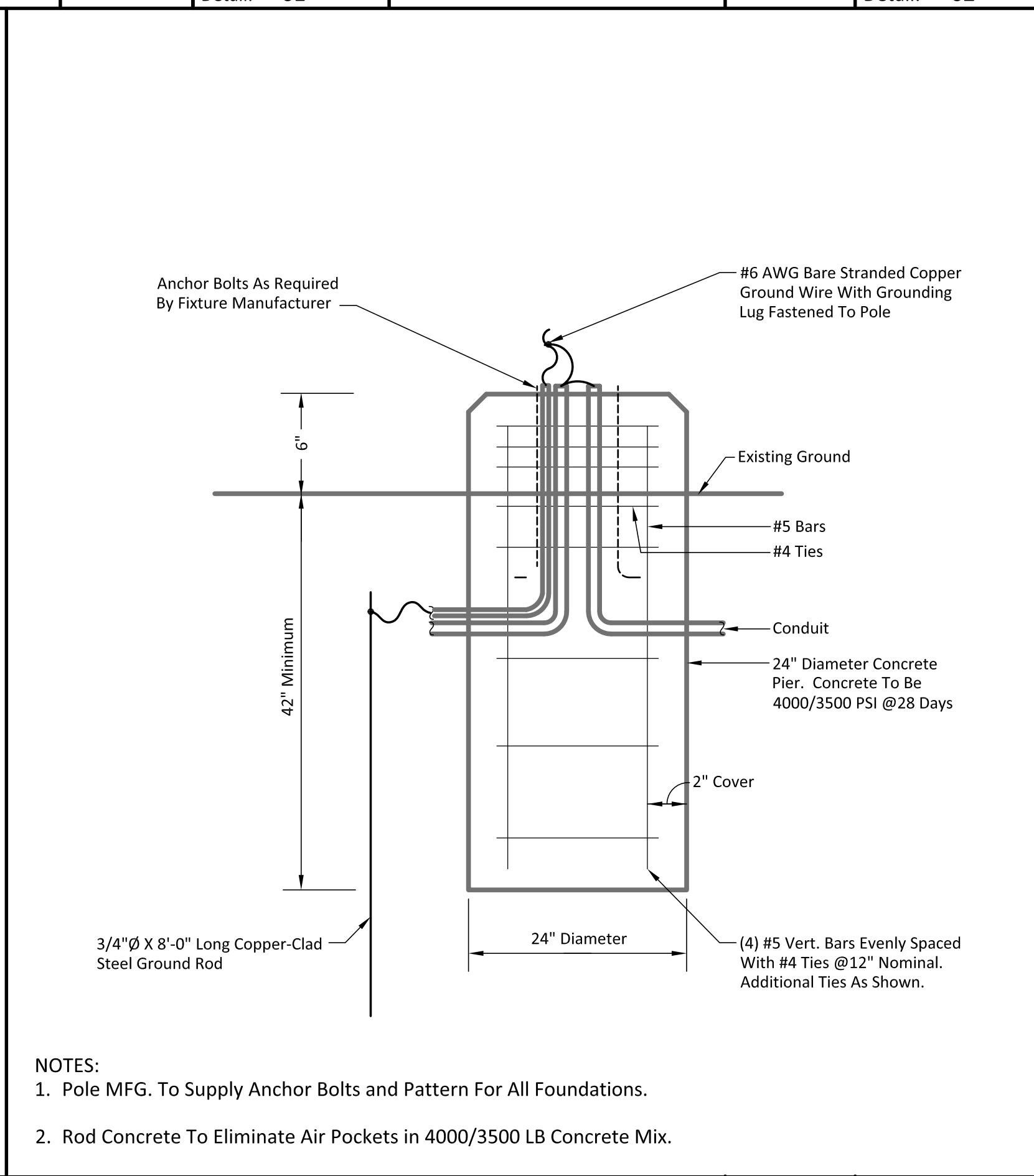
ELECTRIC SERVICE DUCT BANK DETAIL Scale: NTS Drawing: 9 Detail: 01

LAMP POST Scale: NTS Drawing: 9 Detail: 02



- NOTES:
- Contractor To Provide Concrete Footing And Electrical Connection.
 - Color To Match Pole.

STERNBURG SINGLE HEAD LUMINAIRE Scale: NTS Drawing: 9 Detail: 04



- NOTES:
- Pole MFG. To Supply Anchor Bolts and Pattern For All Foundations.
 - Rod Concrete To Eliminate Air Pockets in 4000/3500 LB Concrete Mix.

LIGHT POST FOOTING DETAIL Scale: NTS Drawing: 9 Detail: 05

NEW LUMINAIRES ON NEW FLAGPOLE		Scale: NTS	Drawing: 9	Detail: 03
--------------------------------	--	------------	------------	------------

STERNBURG SINGLE HEAD LUMINAIRE		Scale: NTS	Drawing: 9	Detail: 04
---------------------------------	--	------------	------------	------------

LIGHT POST FOOTING DETAIL		Scale: NTS	Drawing: 9	Detail: 05
---------------------------	--	------------	------------	------------

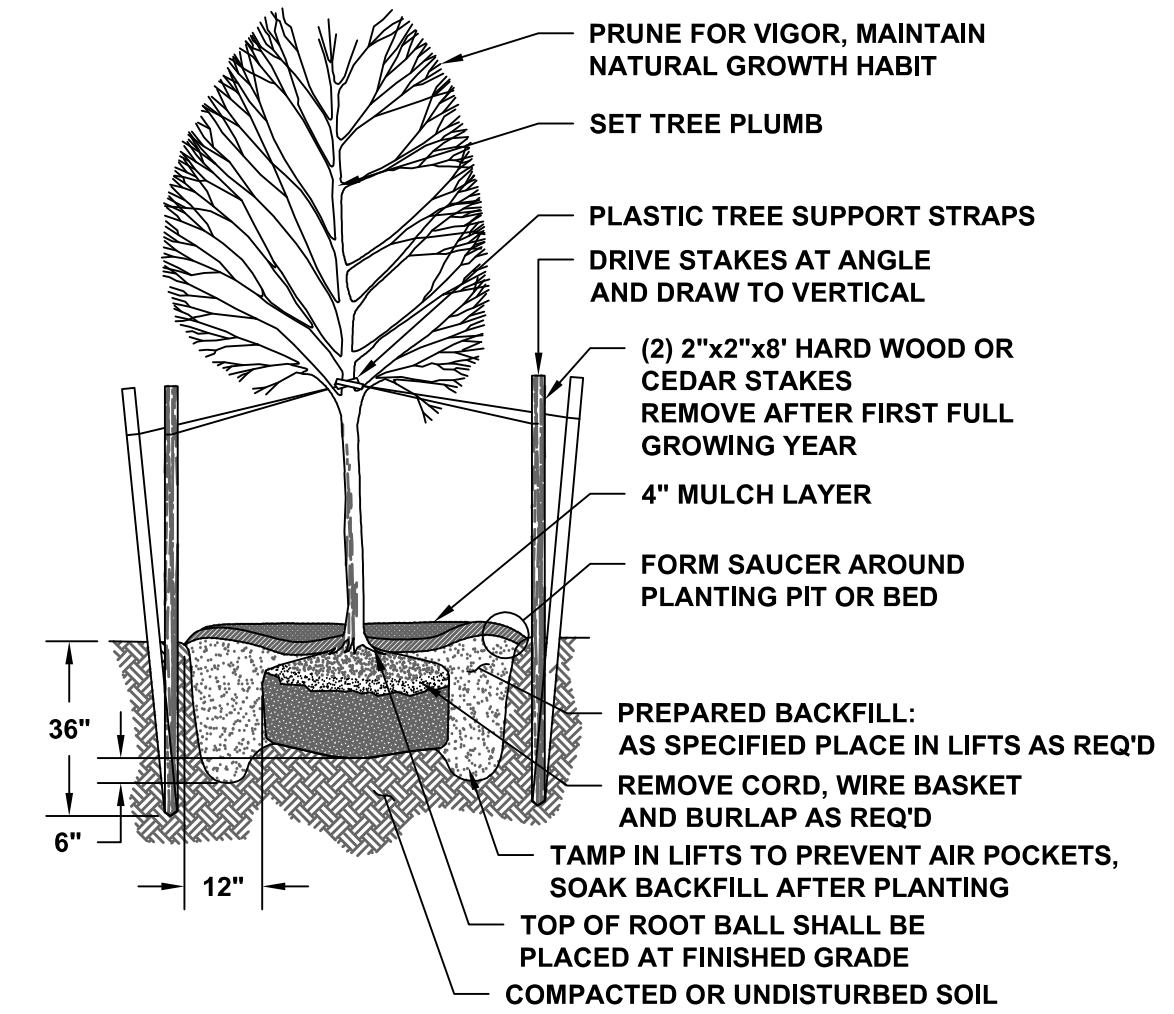
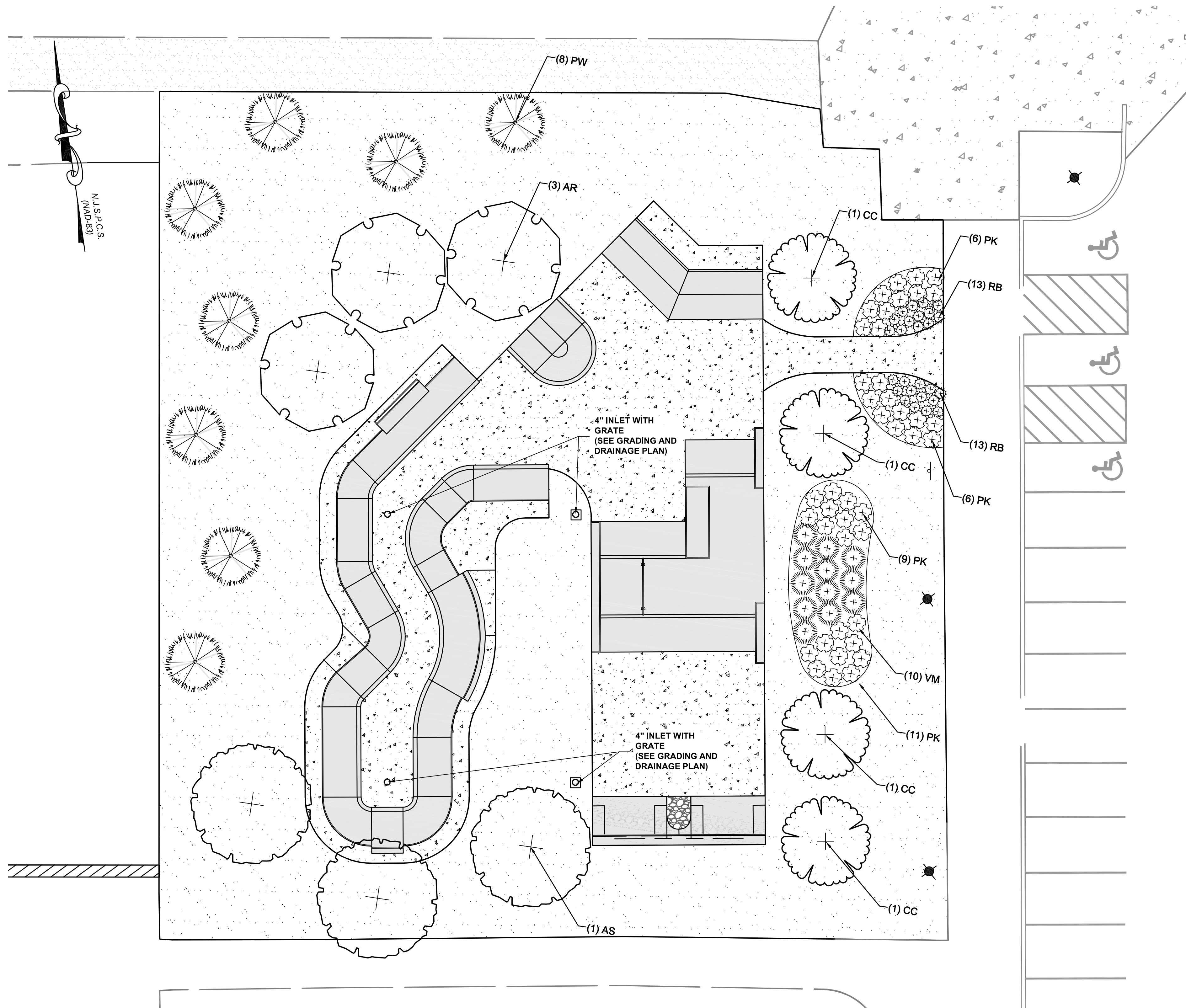
NOTICE				
THIS DRAWING AND ALL INFORMATION CONTAINED HEREIN IS AUTHORIZED FOR USE ONLY BY THE PARTY FOR WHOM THE WORK WAS CONTRACTED OR TO WHOM IT IS CERTIFIED.				
THIS DRAWING MAY NOT BE COPIED, REUSED, DISCLOSED, DISTRIBUTED, OR BELIEVED UPON FOR ANY OTHER PURPOSE WITHOUT THE WRITTEN CONSENT OF SUBURBAN CONSULTING ENGINEERS, INC.				
© COPYRIGHT 2017 SUBURBAN CONSULTING ENGINEERS, INC.™ ALL RIGHTS RESERVED				

DRAWN BY: SG DATE: 02/12/16 CHECKED BY: SF DATE: 02/12/16 CHECKED BY:	dlb associates CONSULTING ENGINEERS, P.C. 265 Industrial Way West, Eatontown, N.J. 07724	SUBURBAN CONSULTING ENGINEERS, INC. COA NO.: 24GA28037500 - Civil Engineers - Municipal Engineers - - Landscape Architects - - Planners - Environmentalists - Land Surveyors -
---	---	---

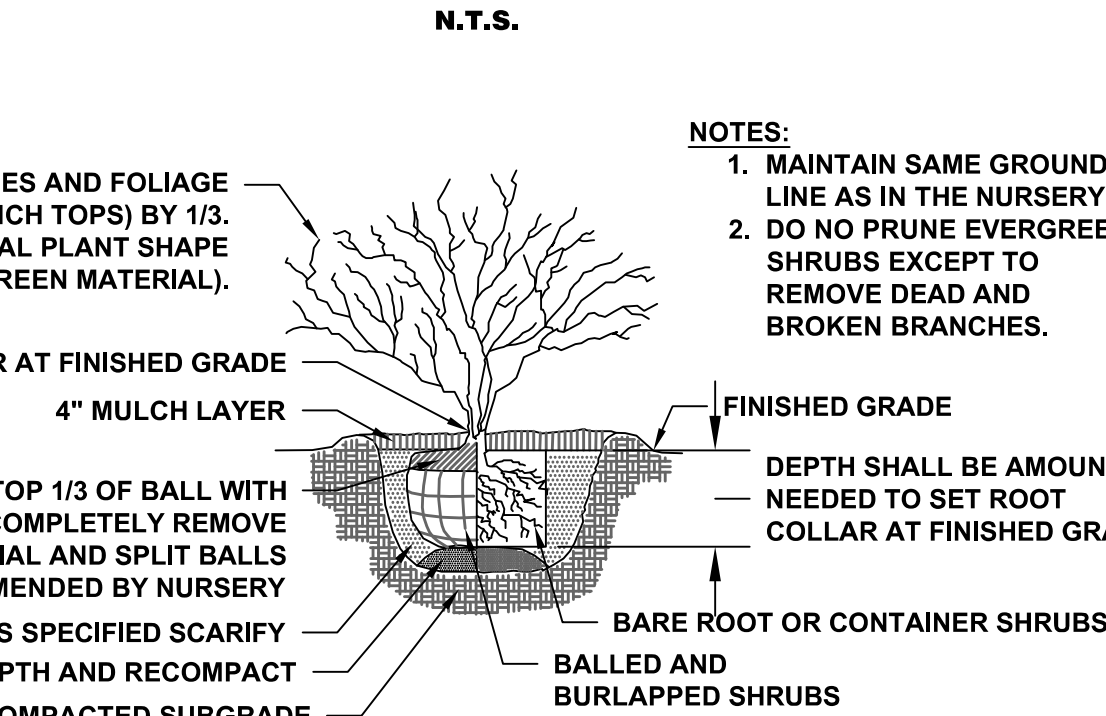
CONSTRUCTION PLANS FOR MATTANO SKATE PARK MATTANO PARK BLOCK 5, LOT 453 B CITY OF ELIZABETH, UNION COUNTY, N.J.		PROJECT NUMBER: 12329 SCALE: AS NOTED
ELECTRICAL NOTES AND DETAILS		SHEET 13 OF 17 REVISION: 0

N:\12\12312329\12329E2.dwg Thu, Oct 12, 2017 - 1:34pm MArvantes Suburban Consulting Engineers, Inc.

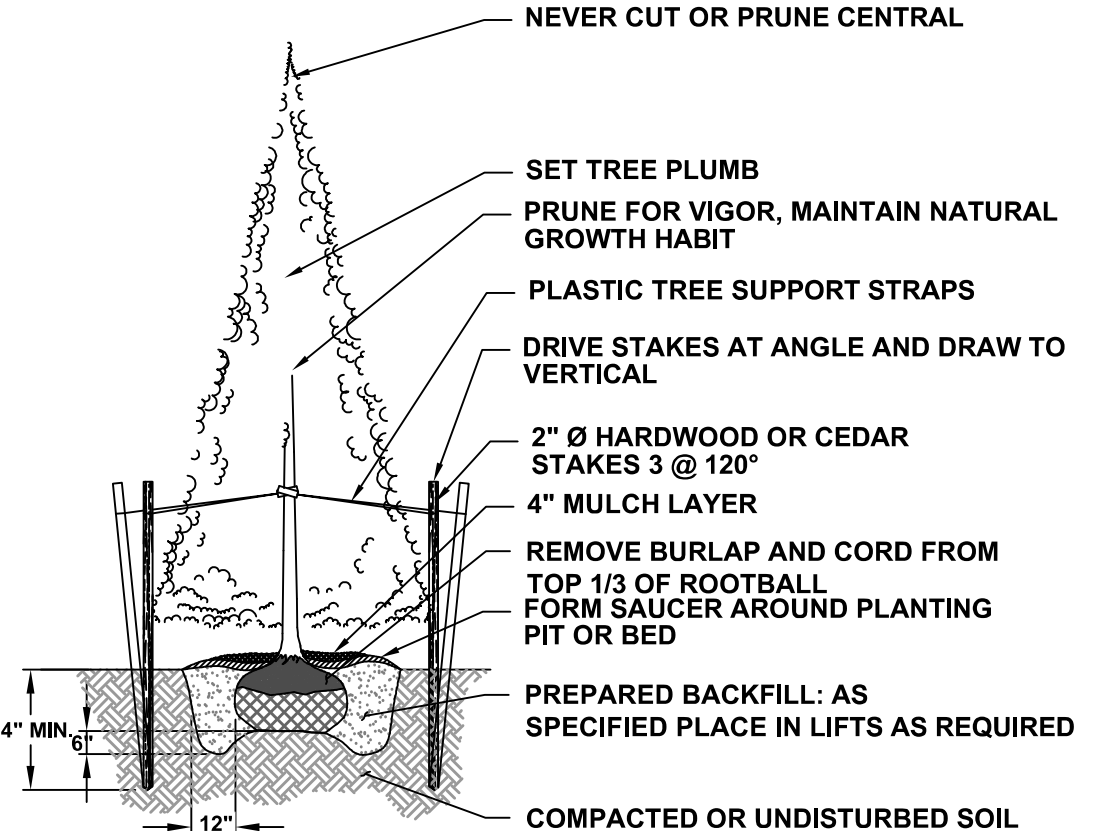
E:\SCE\Elizabeth\Drawings\Sheets\8745 14 Landscape Plan.dwg Thu, Oct 12, 2017 - 3:38pm mfreeman Suburban Consulting Engineers, Inc.



DECIDUOUS TREE PLANTING



SHRUB PLANTING DETAIL



CONIFEROUS TREE PLANTING

- GENERAL NOTES**
- THIS PLAN TO BE USED ONLY FOR THE PURPOSES OF LANDSCAPING.
 - EXAMINE ALL ENGINEERING DRAWINGS AND FIELD CONDITIONS FOR SPECIFIC LOCATIONS OF UTILITIES, STRUCTURES, ETC. NOTIFY THE ENGINEER IMMEDIATELY REGARDING ANY DISCREPANCIES OR LOCATION CONFLICTS PRIOR TO PLANTING.
 - IN THE EVENT THAT PLANT QUANTITY DISCREPANCIES OR MATERIAL OMISSIONS OCCUR IN THE PLANTING SCHEDULE, THE PLAN SHALL SUPERSEDE.
 - ALL PLANTING MATERIALS AND METHODS SHALL MEET OR EXCEED THE REQUIREMENTS OF THE LOCAL MUNICIPAL ORDINANCES AND ANSI Z-60.1 (CURRENT VERSION), THE AMERICAN STANDARD FOR NURSERY STOCK, PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN. IN THE EVENT OF CONFLICTS BETWEEN A.A.N. AND MUNICIPAL STANDARDS, THE MUNICIPAL REQUIREMENTS SHALL SUPERSEDE.
 - ALL LANDSCAPING SHALL BE PLANTED AS TO NOT TO INTERFERE WITH UTILITY LINES, SIGHT TRIANGLES, UNDERGROUND UTILITIES, OR PUBLIC WALKWAYS OR OTHER EXISTING OR PROPOSED STRUCTURES. ALL PLANT MATERIAL REQUIRED IN SIGHT DISTANCES OR SIGHT TRIANGLE SHALL NOT EXCEED A MATURE HEIGHT GREATER THAN 30' ABOVE THE ELEVATION OF THE ADJACENT ROADWAY. STREET TREES AND SHADE TREES PLANTED NEAR PEDESTRIAN OR VEHICULAR ACCESSES, OR WITHIN REQUIRED SIGHT DISTANCES OR SIGHT TRIANGLE EASEMENTS SHALL NOT BE BRANCHED ANY LOWER THAN 8'-0" ABOVE GRADE, AND MUST BE APPROPRIATELY PRUNED. NO WOODY PLANTS, EXCEPT GROUNDCOVERS, ARE TO HAVE THEIR CENTERS CLOSER THAN 36" TO THE BACK OF THE CURB.

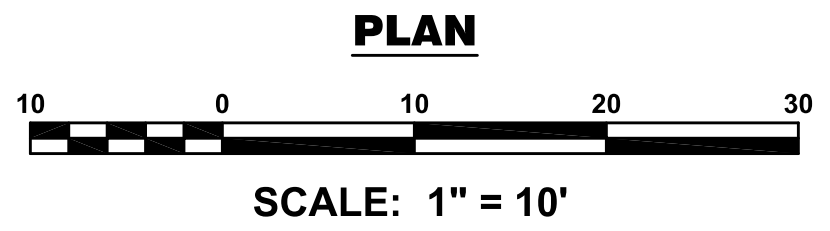
- PLANT MATERIAL**
- NO PLANT SUBSTITUTION SHALL BE ALLOWED WITH REGARD TO SIZE, SPECIES, NAMED VARIETY OR CULTIVAR WITHOUT PRIOR PERMISSION OF THE APPROVING AUTHORITY.
 - ALL PLANTS SHALL BE DUG, PACKED, TRANSPORTED AND HANDLED WITH THE UTMOST CARE TO ENSURE ADEQUATE PROTECTION FROM INJURY DESICCATION.
 - ALL PLANTS SHALL BE FREE FROM DISEASE AND INFESTATION, AND HAVE ALL LEGALLY REQUIRED AGRICULTURAL CERTIFICATIONS.
 - ALL PLANTS SHALL BE PRUNED TO ENHANCE VIGOR PRIOR TO OR UPON INSTALLATION WHILE RETAINING NATURAL GROWTH HABIT OF THE PLANTS. THE CENTRAL LEADER SHALL NOT BE CUT; PLANTS PROVIDED IN THIS CONDITION SHALL NOT BE ACCEPTED. DAMAGED, BROKEN, OR CONFLICTING BRANCHES SHALL BE PRUNED CLEANLY, FLUSH WITH THE MAIN TRUNK OR BRANCH.
 - ALL PLANTS SHALL BE NURSERY-GROWN AND TAGGED WITH A DURABLE LABEL INDICATING THE GENUS, SPECIES AND SPECIFIED VARIETY OR CULTIVAR.

- PLANTING**
- SOIL MUST BE FROST-FREE, FRIABLE AND NOT MUDDY AT THE TIME OF PLANTING.
 - BACKFILL MATERIAL FOR PLANTING PITS SHALL BE COMPOSED OF 70% TOPSOIL, 20% FULLY COMPOSTED COW OR HORSE MANURE AND 10% PEAT MOSS. TOPSOIL SHALL MEET NJDOT 1989 STANDARD SPECIFICATIONS SECTION 909.10 AND MAY BE FROM ON-SITE OR IMPORTED SOURCES. SOIL SHALL CONTAIN NO ACIDIC MARL, NOR ANY LARGE STONES.
 - PLANTS SHALL BE SET TO ULTIMATE FINISHED GRADE SO THAT THEY WILL BE LEFT IN THE RELATIONSHIP TO THE SURROUNDING GROUND AS THEY HAD, PRIOR TO BEING DUG. PLANTS SHALL BE SET SO THAT THEIR CROWNS ARE APPROXIMATELY THREE INCHES ABOVE THE FINAL GRADE WITH ROOT TOPSOIL AND MULCH GENTLY MOUND TO AVOID EXCESSIVE DRYING AT THE SURFACE. UNDER NO CIRCUMSTANCES SHALL PLANTINGS AT RELATIVELY DRY LOCATIONS BE PERFORMED IN A MOUNDED MANNER.
 - THE CORD BINDING THE BALL OF ALL BALLED AND BURLAPPED (B&B) PLANTS SHALL BE CUT AND REMOVED, AND BURLAP ON THE UPPER 1/3 OF THE ROOT BALL SHALL BE REMOVED. PLANTS WITH SYNTHETIC NON-DEGRADABLE ROOT BALL WRAPS SHALL NOT BE ACCEPTABLE.
 - ALL PROPOSED TREES SHALL BE SET IN BEDS MULCHED TO THE LIMIT OF THEIR PLANTING PITS. ALL PROPOSED SHRUBS SHALL BE SET IN CONTINUOUS MASSES PLANTING BEDS RATHER THAN ISOLATED INDIVIDUALS. ALL TREE AND SHRUB BEDS SHALL RECEIVE A 4" THICK APPLICATION OF A THOROUGHLY COMPOSTED ORGANIC MULCH, FREE OF ANY OBJECTIONABLE OR FOREIGN MATERIALS.

- MAINTENANCE**
- ALL PLANTINGS SHALL BE WATERED AS NECESSARY FOR SOUND HORTICULTURAL PRACTICE DURING THE FIRST GROWING SEASON TO ENSURE THEIR PROPER ESTABLISHMENT.
 - ALL DISTURBED AREAS BEYOND THE LIMITS OF THE MULCHED PLANTING BEDS SHALL BE PERMANENTLY STABILIZED WITH TURFGRASSES PER THE SOIL EROSION AND SEDIMENT CONTROL PLANS.
 - IN GENERAL, SHRUBS ARE TO BE PLANTED AT INTERVALS WHICH WILL ALLOW THEM TO FULLY DEVELOP INTO CONTINUOUS MASSES OF THE INDIVIDUAL SPECIES. THEREFORE, NO PRUNING TO SHAPE OR SHEARING IS REQUIRED OR DESIRABLE. WHERE DEAD OR CONFLICTING BRANCHING DEVELOPS, IT SHOULD BE PRUNED OUT.

PLANT SCHEDULE

TREES	QTY	BOTANICAL NAME	COMMON NAME	CONT	CAL	SIZE	REMARKS
AR	3	ACER RUBRUM	RED MAPLE	B & B	2.5"-3"		SYMMETRICAL BRANCHING
AS	3	ACER SACCHARUM	SUGAR MAPLE	B & B	2.5"-3"		SYMMETRICAL BRANCHING
CC	4	CERCIS CANADENSIS	EASTERN REDBUD	B & B	2"-2.5"		SYMMETRICAL BRANCHING
PW	8	PINUS ALBA	WHITE PINE	B & B	6'-7'		FULL PLANTS
SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	CONT	SIZE	SPACING	REMARKS
PK	42	POTENTILLA FRUTICOSA 'KATHERINE DYKES'	POTENTILLA	3 GAL	18"-24"	36" o.c.	
RB	26	RUBBECKIA FULGIDA	BLACK EYED SUSAN	1 GAL	24" o.c.		FULL PLANTS
VM	12	VIBURNUM DENTATUM 'BLUE MUFFIN'	'BLUE MUFFIN' VIBURNUM	5 GAL	24"-30"	48" o.c.	FULL PLANTS



NOTICE

THIS DRAWING AND ALL INFORMATION CONTAINED HEREIN IS AUTHORIZED FOR USE ONLY BY THE PARTY FOR WHOM THE WORK WAS CONTRACTED OR TO WHOM IT IS CERTIFIED. THIS DRAWING MAY NOT BE COPIED, REUSED, DISCLOSED, DISTRIBUTED, OR RELIED UPON FOR ANY OTHER PURPOSE WITHOUT THE WRITTEN CONSENT OF Suburban Consulting Engineers, Inc.

PER N.J.A.C. ELECTRONIC SUBMISSIONS NOT CONTAINING A VALID DIGITAL SEAL OR PAPER COPIES NOT CONTAINING A RAISED SEAL ARE NOT ORIGINALS AND MAY HAVE BEEN ALTERED.

© COPYRIGHT 2017 Suburban Consulting Engineers, Inc.™ CERTIFICATE OF AUTHORIZATION NO. 24GE03619100 ALL RIGHTS RESERVED

DESCRIPTION	NO.	DATE:	BY:	CHK:
REVISIONS				

DRAWN BY: SD 10/13/17

CHECKED BY: KBD 10/13/17

CHECKED BY:

DAREN J. PHIL, PE
NEW JERSEY PROFESSIONAL ENGINEER
LICENSE NO. 24GE03619100

DATE: 10/13/17

SCE SUBURBAN CONSULTING ENGINEERS, INC.

COA NO.: 24GA28037500

Civil Engineers - Municipal Engineers - Landscape Architects - Planners - Environmentalists - Land Surveyors -

96 US Highway 206, Suite 101 2430 Highway 34, Bldg. A Suite 1B
Flanders, NJ 07836 - 973.398.1776 Wall, NJ 08736 - 732.282.1776

EXCELLENCE ♦ ECONOMY ♦ ENVIRONMENT

CONSTRUCTION PLANS FOR MATTANO SKATEBOARD PARK

MATTANO PARK
BLOCK 5, LOT 453 B
CITY OF ELIZABETH, UNION COUNTY, N.J.

LANDSCAPE PLAN, NOTED AND DETAILS

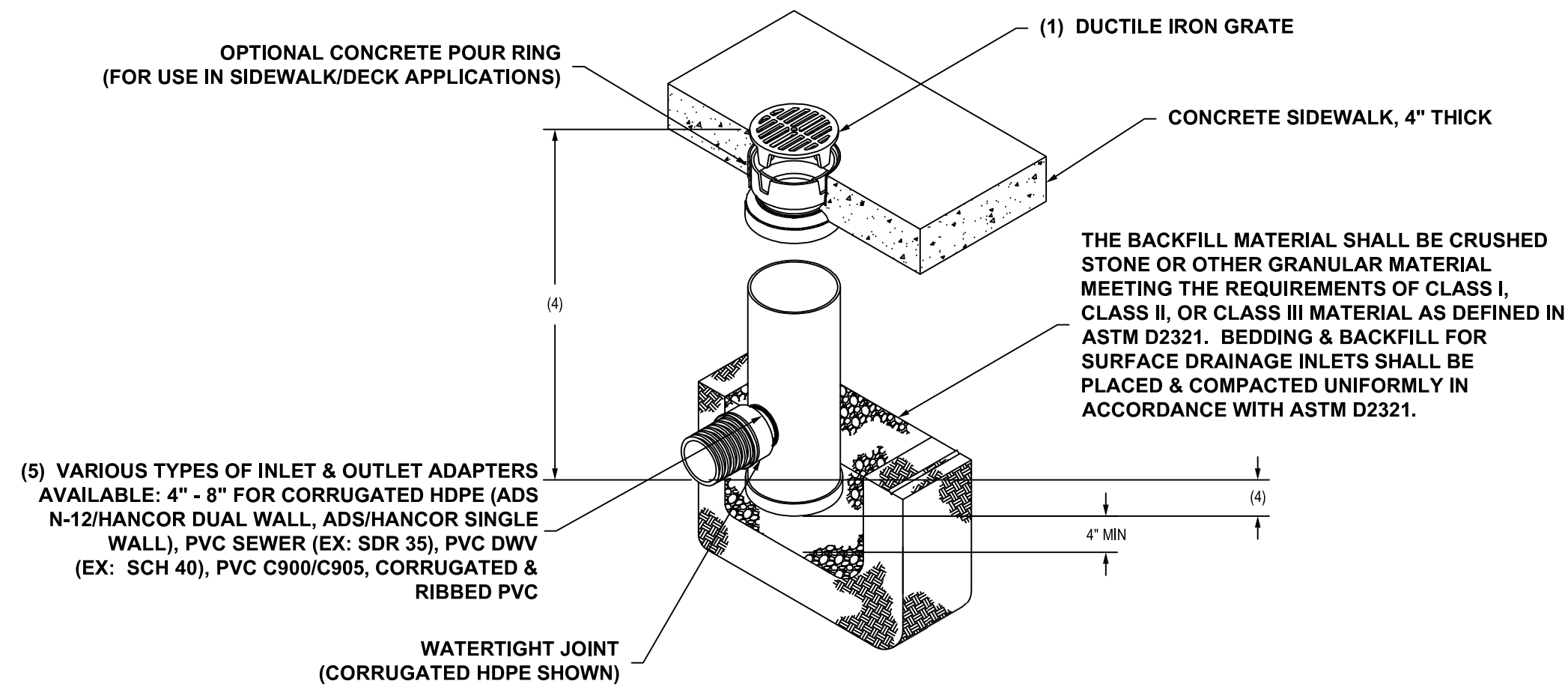
PROJECT NUMBER: SCE-8745.011

SCALE: AS NOTED

SHEET 14 OF 17

REVISION

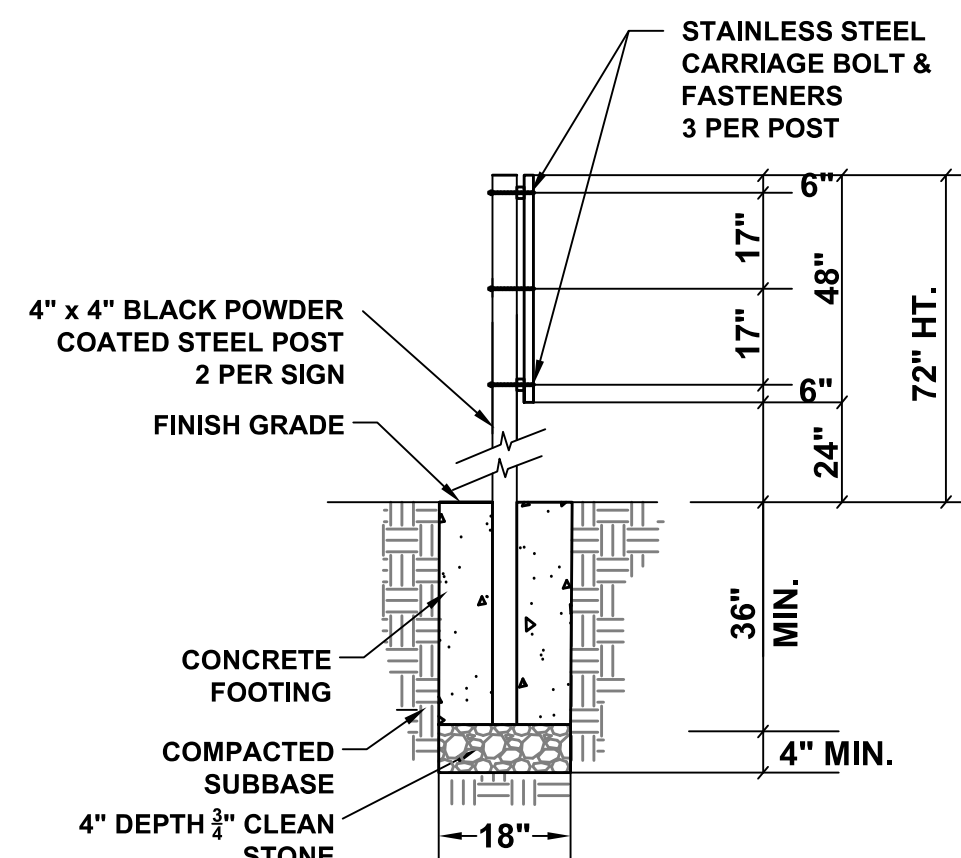
E:\SCE\Elizabeth\Drawings\Sheets\745 15 Construction Details Ldwg - Thu, Oct 12, 2017 - 3:40pm - mfreeman - Suburban Consulting Engineers, Inc.



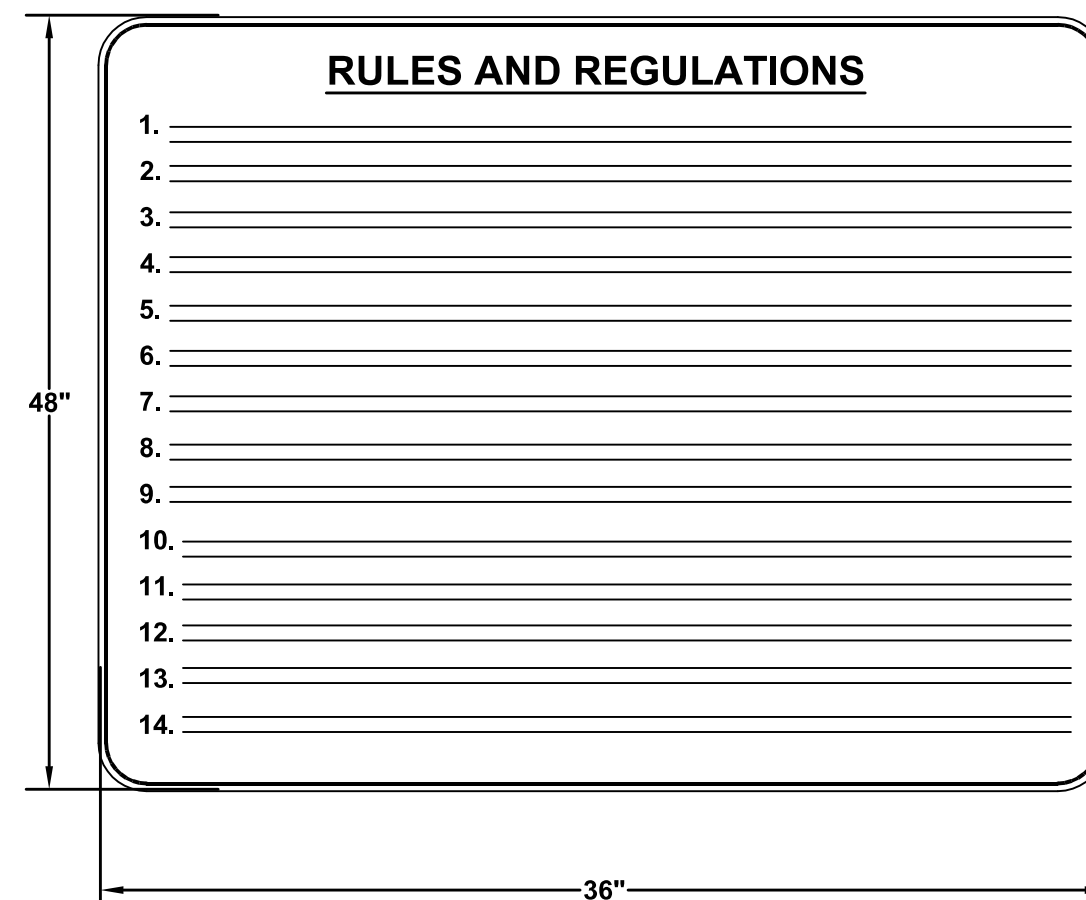
GRATE OPTIONS	LOAD RATING	PART #	DRAWING #
STANDARD	LIGHT DUTY	0860CIS	7001-110-194
SOLID COVER	LIGHT DUTY	0860CIC	7001-110-195
BRONZE	N/A	0860CIB	7001-110-196
DOME	N/A	0860CID	7001-110-197
DROP IN GRATE	LIGHT DUTY	0801DI	7001-110-010

- GRATES/SOLID COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05, WITH THE EXCEPTION OF THE BRONZE GRATE.
- CUSTOM DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-065.
- STANDARD DRAIN BASIN HAS FIXED ADAPTER LOCATIONS OF 0° & 180°. CUSTOM DRAIN BASIN ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.
- FOR COMPLETE DESIGN DETAILS SEE DRAWING NO. 7001-110-045.
- DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL) & PVC SEWER (4" - 24").

8" DRAIN BASIN
N.T.S.

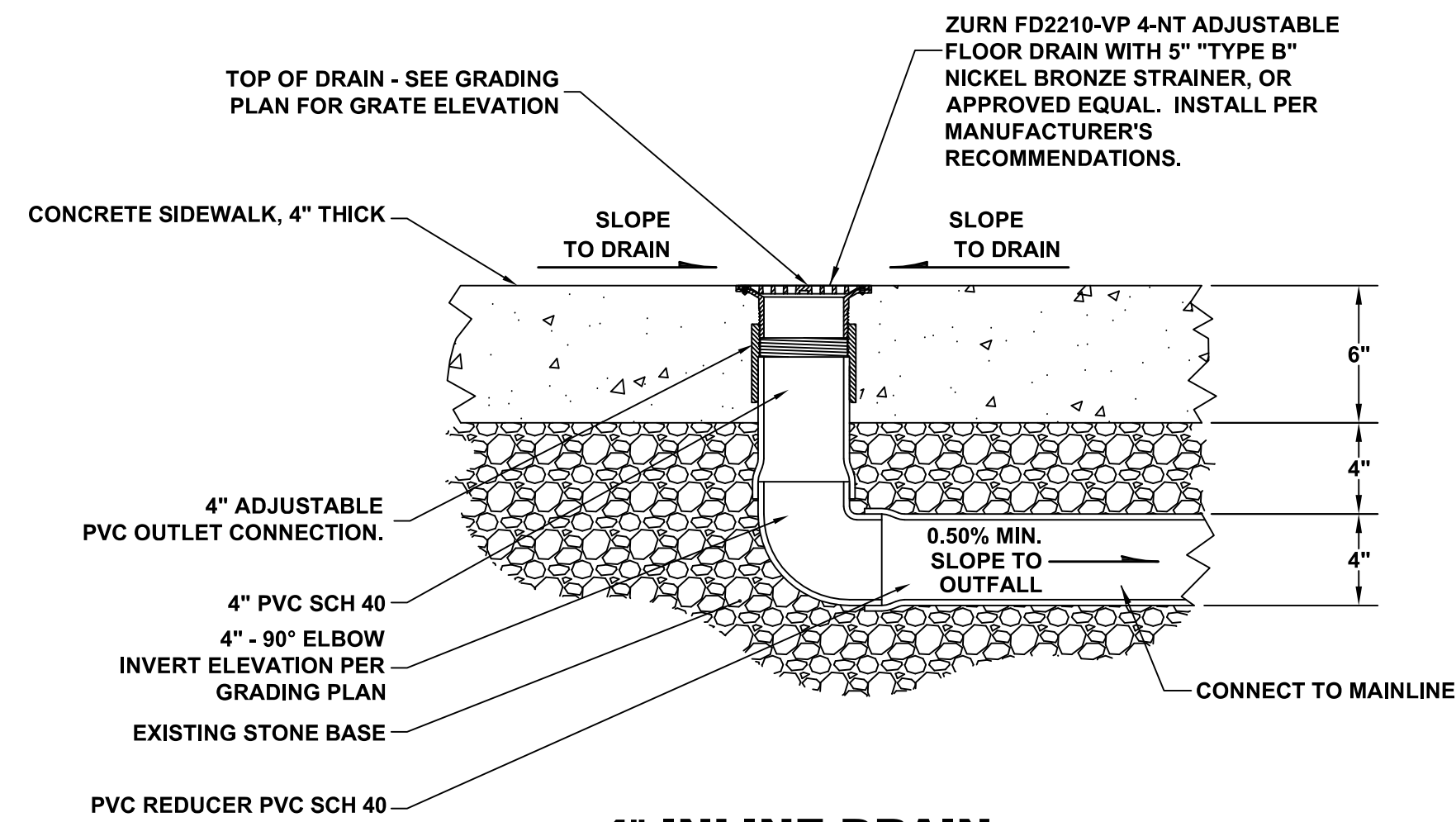


ELEVATION VIEW
N.T.S.



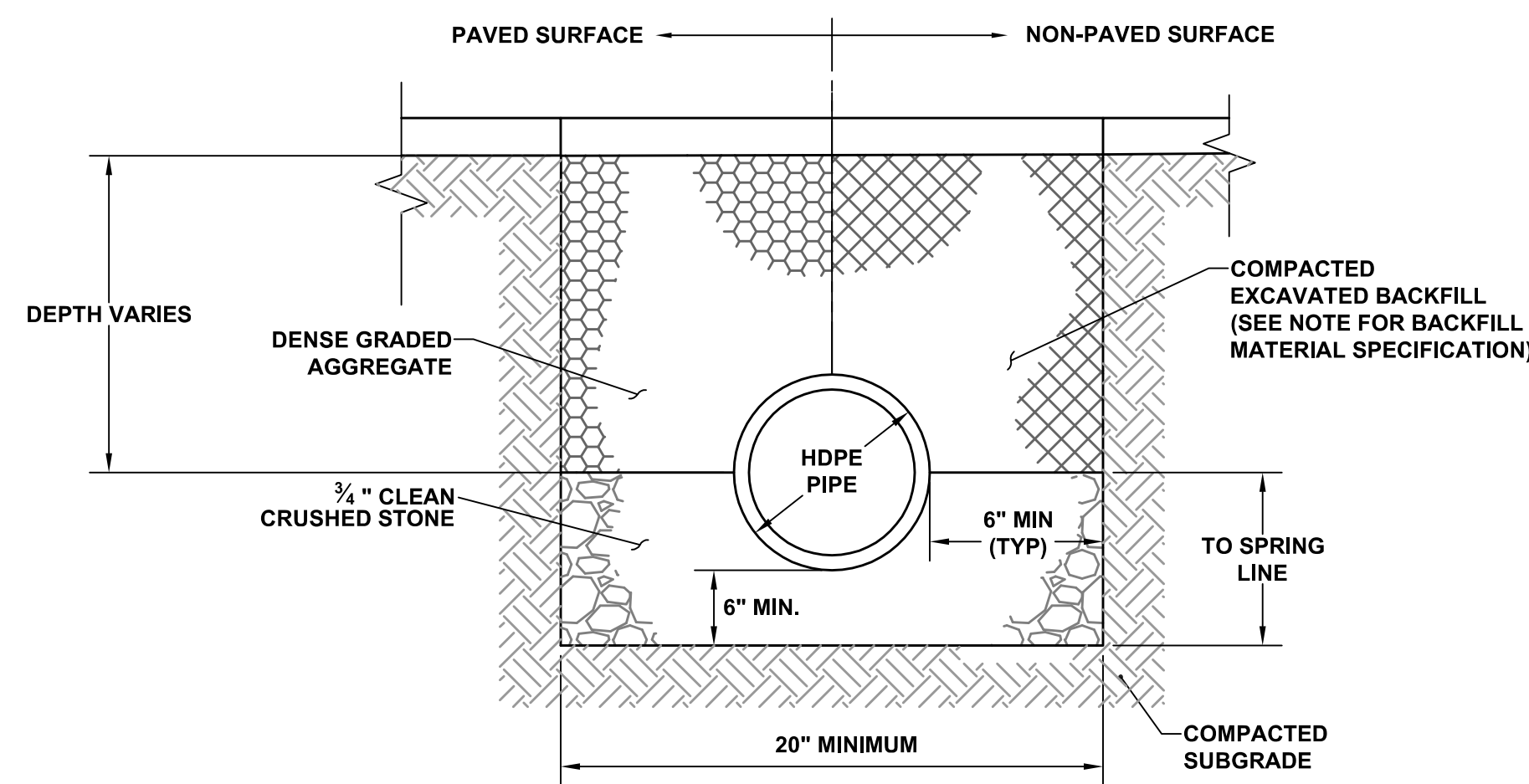
- THE CONTRACTOR SHALL PROVIDE A SIGN THAT IS 30"x40" ALUMINUM W/ BLOCK REFLECTIVE LETTERING SHOWING THE RULES FOR THE SKATEBOARD PARK. SEE SPECIFICATIONS FOR TEXT. OWNER TO PROVIDE ADDITIONAL / APPROVE SIGN TEXT LANGUAGE DURING SHOP DRAWING REVIEW PERIOD.
- SIGN TO BE INSTALLED WITH STAINLESS STEEL TAMPER PROOF HARDWARE
- SIGN TO BE INSTALLED 24" ABOVE FINISHED GRADE.

RULES AND REGULATIONS SIGN
N.T.S.



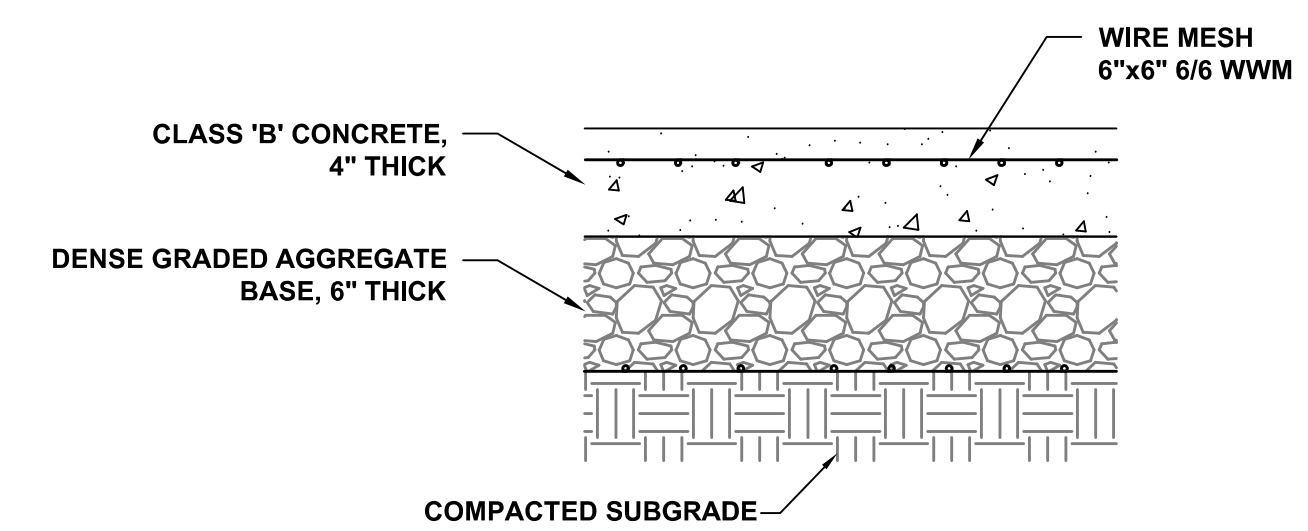
GENERAL NOTES:

- INLETS MUST BE CONSTRUCTED OF CONCRETE OR PRECAST CONCRETE. INLET FOUNDATIONS AND INVERTS SHALL BE CLASS 'C' CONCRETE.
- INLET FOUNDATIONS WHICH ARE PRECAST SHALL BE PLACED ON A 6" THICK BED OF COMPACTED 3/4" CLEAN STONE. THE STONE SHALL EXTEND 6" BEYOND THE HORIZONTAL LIMITS OF THE INLET FOUNDATION.
- CASTINGS FOR PRECAST INLETS SHALL BE CLASS 'B' ADJUSTED TO GRADE WITH COURSES OF BRICK, AS REQUIRED, 12" MAXIMUM.
- WHEN THE DEPTH OF A PRECAST INLET EXCEEDS 10' AS MEASURED FROM TOP OF GRATE TO INVERT, THE FOUNDATION SHALL BE INCREASED TO 12". WHEN ROCK IS ENCOUNTERED THE DEPTH OF THE FOUNDATION SHALL NOT BE INCREASED.
- MINIMUM WALL REINFORCEMENT AS PER AMERICAN CONCRETE INSTITUTE 318-11: BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE.



- BACKFILL SPECIFICATION**
- SHALL BE FREE OF DEBRIS AND STONES 2" OR GREATER IN ANY DIMENSION.
 - SHALL BE PLACED IN 12" LIFTS AND COMPACTED TO 95% MAXIMUM DENSITY.

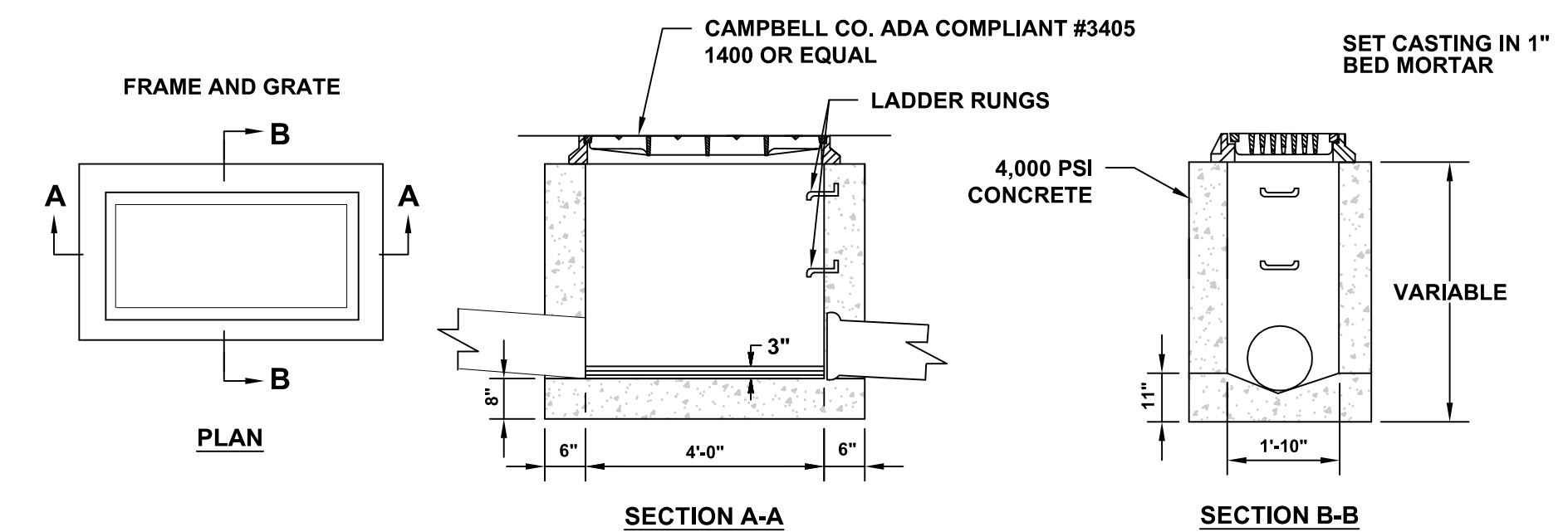
DRAINAGE PIPE TRENCH
N.T.S.



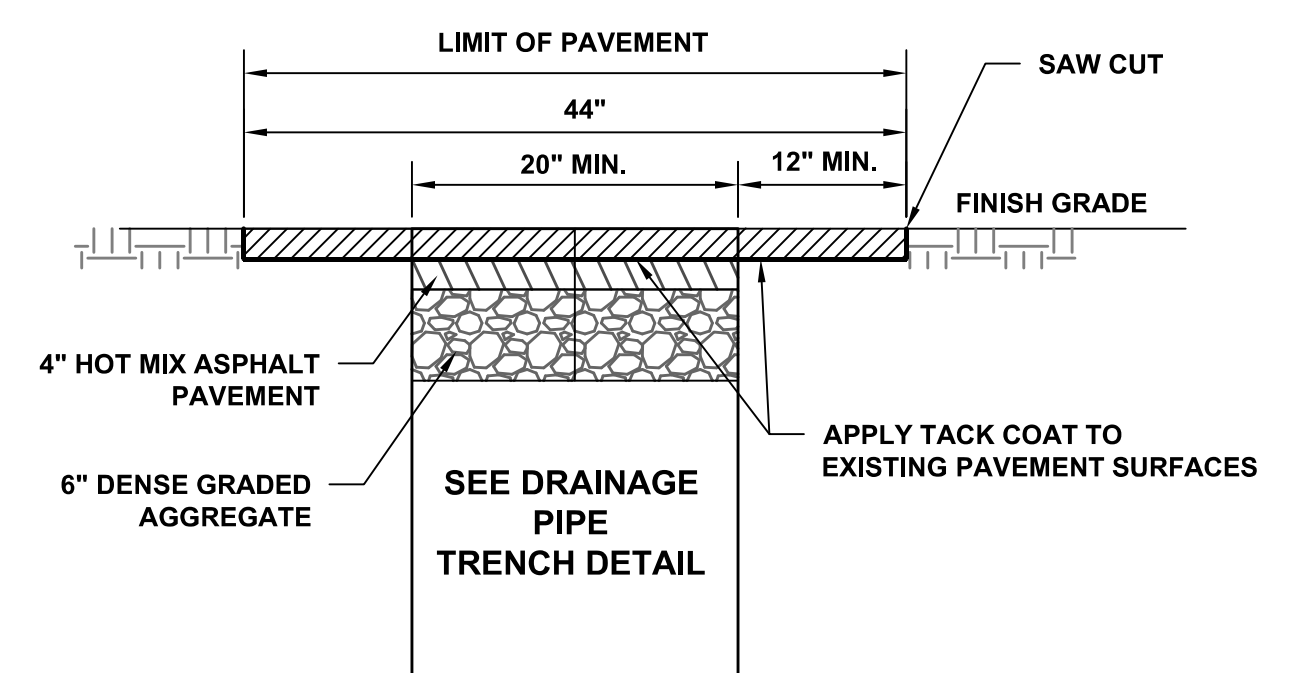
NOTES:

- SUBBASE SHALL BE COMPACTED TO THE SATISFACTION OF THE ENGINEER.
- EXPANSION JOINTS OF 1/2" WIDE BITUMINOUS CELLULAR TYPE JOINT FILLER WILL BE PROVIDED EVERY 12' MAX IN BOTH DIRECTIONS.
- LONGITUDINAL JOINTS, 1/4" WIDE, SHALL BE PROVIDED BETWEEN ABUTTING SIDEWALKS AND SHALL BE FILLED WITH PREMOULDED BITUMINOUS TYPE JOINT FILLER.
- TRANSVERSE SURFACE GROOVES SHALL BE CUT IN SIDEWALKS BETWEEN EXPANSION JOINTS AT INTERVALS EQUAL TO THE SIDEWALK WIDTH.
- ALL CONCRETE SHALL BE CLASS 'B' AIR ENTRAINED.
- ALL JOINTS AND EDGES ARE TO BE TOOLED.
- SURFACE SHALL BE BRUSHED TRANSVERSELY TO A NEAT FINISH.
- LIQUID MEMBRANE FORMING CURING COMPOUND SHALL BE APPLIED IN COMPLIANCE WITH N.J.D.O.T. SPECS.
- SCORING JOINTS WILL BE 10' O.C.
- CONTRACTOR TO SAWCUT EXISTING ASPHALT PAVEMENT TO CREATE A CLEAN, STRAIGHT AND SMOOTH EDGE FOR CONCRETE SIDEWALK INSTALLATION.

CONCRETE SIDEWALK, 4" THICK
N.T.S.



TYPE "A" INLET
N.T.S.



- NOTE:**
- AFTER A (6) SIX MONTH PERIOD, THE TOP (2) TWO INCHES OF TRENCH RESTORATION SHALL BE MILLED (1) ONE FOOT WIDER THAN THE TRENCH ON EACH SIDE AND HOT MIX ASPHALT SURFACE COURSE PLACED, INCLUDING TACK COAT

PAVEMENT REPAIR DETAIL
N.T.S.

NOTICE

THIS DRAWING AND ALL INFORMATION CONTAINED HEREIN IS AUTHORIZED FOR USE ONLY BY THE PARTY FOR WHOM THE WORK WAS CONTRACTED OR TO WHOM IT IS CERTIFIED. THIS DRAWING MAY NOT BE COPIED, REPRODUCED, DISCLOSED, DISTRIBUTED, OR RELIED UPON FOR ANY OTHER PURPOSE WITHOUT THE WRITTEN CONSENT OF Suburban Consulting Engineers, Inc.

PER N.J.A.C. ELECTRONIC SUBMISSIONS NOT CONTAINING A VALID DIGITAL SEAL OR PAPER COPIES NOT CONTAINING A RAISED SEAL ARE NOT ORIGINALS AND MAY HAVE BEEN ALTERED.

© COPYRIGHT 2017 Suburban Consulting Engineers, Inc.™ CERTIFICATE OF AUTHORIZATION NO. 24GE03619100 ALL RIGHTS RESERVED

DESCRIPTION	NO.	DATE:	BY:	CHK:
REVISIONS				

DRAWN BY:
SD
10/13/17

CHECKED BY:
KBD
10/13/17

CHECKED BY:

DAREN J. PHIL, PE
NEW JERSEY PROFESSIONAL ENGINEER
LICENSE NO. 24GE03619100

Daren J. Phil

DATE: 10/13/17

SC E SUBURBAN CONSULTING ENGINEERS, INC.

COA NO.: 24GA28037500

- Civil Engineers - Municipal Engineers -
- Planners - Environmentalists - Land Surveyors -
- Landscape Architects -

96 US Highway 206, Suite 101 2430 Highway 34, Bldg. A Suite 1B
Flanders, NJ 07836 - 973.398.1776 Wall, NJ 08736 - 732.282.1776

EXCELLENCE ♦ ECONOMY ♦ ENVIRONMENT

CONSTRUCTION PLANS FOR MATTANO SKATEBOARD PARK
BLOCK 5, LOT 453 B
CITY OF ELIZABETH, UNION COUNTY, N.J.

CONSTRUCTION DETAILS

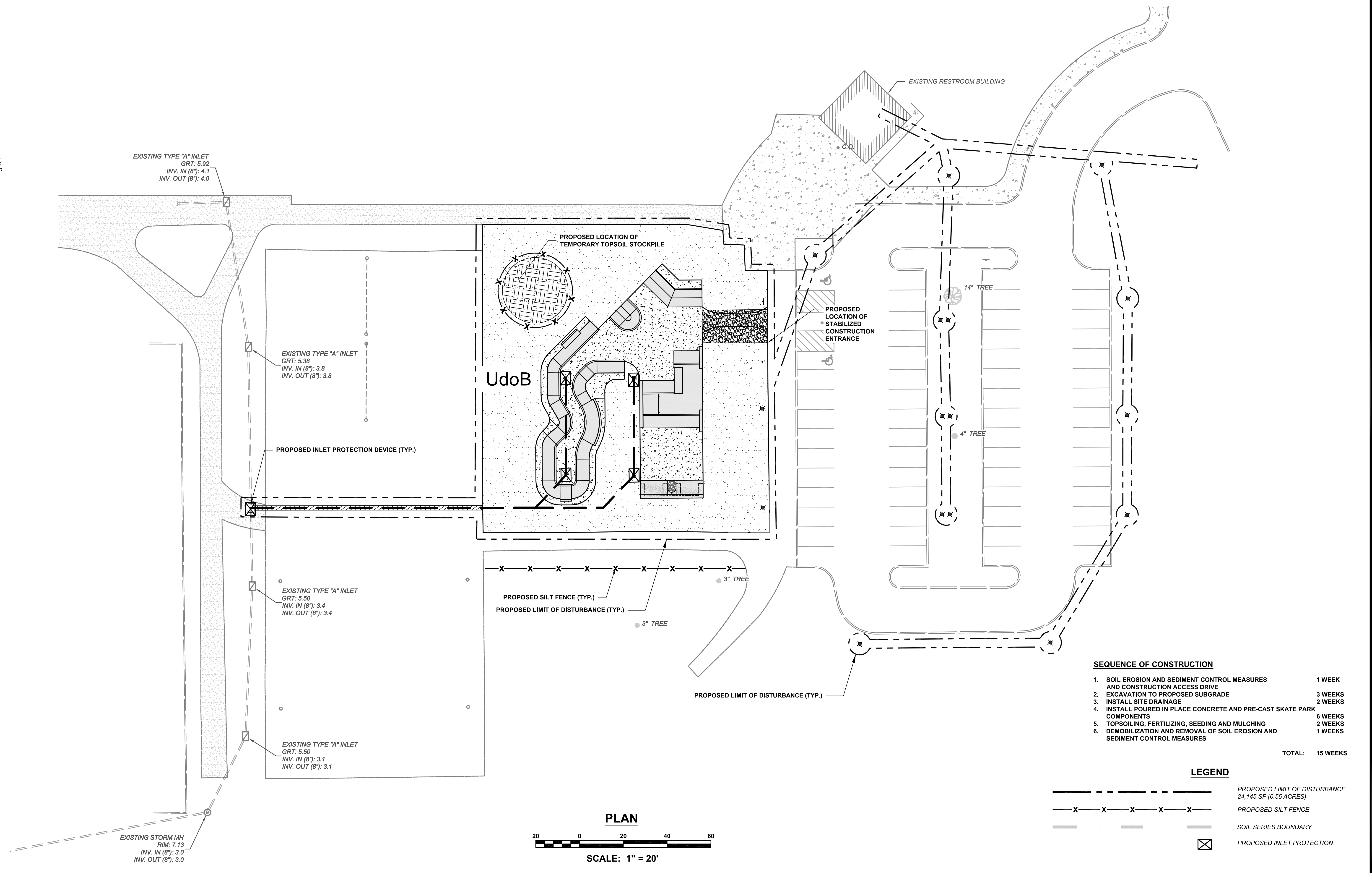
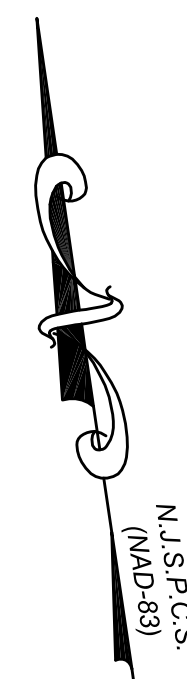
PROJECT NUMBER:
SCE-8745.011

SCALE:
AS NOTED

SHEET 15 OF 17

REVISION

E:\SCE\Elizabeth\Drawings\Sheets\8745 16 SEESC Plan.dwg Thu, Oct 12, 2017 - 3:43pm mfreeman Suburban Consulting Engineers, Inc.



NOTICE
THIS DRAWING AND ALL INFORMATION CONTAINED HEREIN IS AUTHORIZED FOR USE ONLY BY THE PARTY FOR WHOM THE WORK WAS CONTRACTED OR TO WHOM IT IS CERTIFIED. THIS DRAWING MAY NOT BE COPIED, REUSED, DISCLOSED, DISTRIBUTED, OR RELIED UPON FOR ANY OTHER PURPOSE WITHOUT THE WRITTEN CONSENT OF Suburban Consulting Engineers, Inc.
PER N.J.A.C. ELECTRONIC SUBMISSIONS NOT CONTAINING A VALID DIGITAL SEAL OR PAPER COPIES NOT CONTAINING A RAISED SEAL ARE NOT ORIGINALS AND MAY HAVE BEEN ALTERED.
© COPYRIGHT 2017 Suburban Consulting Engineers, Inc.™ CERTIFICATE OF AUTHORIZATION NO. 24GA28037500
ALL RIGHTS RESERVED

DESCRIPTION	NO.	DATE:	BY:	CHK:
REVISIONS				

DRAWN BY:
SD
10/13/17

CHECKED BY:
KBD
10/13/17

CHECKED BY:

DAREN J. PHIL, PE
NEW JERSEY PROFESSIONAL ENGINEER
LICENSE NO. 24GE03619100

Daren J. Phil

DATE: 10/13/17

SC **SUBURBAN CONSULTING ENGINEERS, INC.**
COA NO.: 24GA28037500

Civil Engineers - Municipal Engineers -
Planners - Environmentalists - Land Surveyors -
Landscape Architects -
- Planners - Environmentalists - Land Surveyors -

96 US Highway 206, Suite 101 2430 Highway 34, Bldg. A Suite 1B
Flanders, N.J. 07836 - 973.398.1776 Wall, N.J. 08736 - 732.282.1776

EXCELLENCE ♦ ECONOMY ♦ ENVIRONMENT

CONSTRUCTION PLANS FOR
MATTANO SKATEBOARD PARK
BLOCK 5, LOT 453 B
CITY OF ELIZABETH, UNION COUNTY, N.J.

SOIL EROSION AND SEDIMENT CONTROL PLAN

PROJECT NUMBER:
SCE-8745.011

SCALE:
1"=20'

SHEET 16 OF 17

REVISION _____

SOMERSET - UNION SOIL CONSERVATION DISTRICT SOIL EROSION & SEDIMENT CONTROL NOTES

1. THE SOMERSET - UNION SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED IN WRITING FORTY-EIGHT (48) HOURS IN ADVANCE OF ANY LAND DISTURBING ACTIVITY.
2. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCES, OR IN THEIR PROPER SEQUENCE AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
3. ANY DISTURBED AREAS THAT WILL BE LEFT EXPOSED MORE THAN THIRTY (30) DAYS AND NOT SUBJECT TO CONSTRUCTION TRAFFIC, WILL IMMEDIATELY RECEIVE A TEMPORARY SEEDING. IF THE SEASON PREVENTS THE ESTABLISHMENT OF A TEMPORARY COVER, THE DISTURBED AREAS WILL BE MULCHED WITH STRAW, OR EQUIVALENT MATERIAL, AT A RATE OF TWO (2) TONS PER ACRE, ACCORDING TO NJ STATE STANDARDS.
4. PERMANENT VEGETATION SHALL BE SEED OR SODDED ON ALL EXPOSED AREAS WITHIN TEN (10) DAYS AFTER FINAL GRADING. MULCH WILL BE USED FOR PROTECTION UNTIL SEEDING IS ESTABLISHED.
5. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE NJ STATE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY.
6. A SUB-BASE COURSE WILL BE APPLIED IMMEDIATELY FOLLOWING ROUGH GRADING AND INSTALLATION OF IMPROVEMENTS IN ORDER TO STABILIZE STREETS, ROADS, DRIVEWAYS AND PARKING AREAS. IN AREAS WHERE NO UTILITIES ARE PRESENT, THE SUB-BASE SHALL BE INSTALLED WITHIN FIFTEEN (15) DAYS OR PRELIMINARY GRADING.
7. IMMEDIATELY FOLLOWING INITIAL DISTURBANCE OR ROUGH GRADING ALL CRITICAL AREAS SUBJECT TO EROSION (I.E. STEEP SLOPES, ROADWAY EMBANKMENTS) WILL RECEIVE A TEMPORARY SEEDING IN COMBINATION WITH STRAW, MULCH OR A SUITABLE EQUIVALENT AT A RATE OF TWO (2) TONS PER ACRE, ACCORDING TO THE NJ STATE STANDARDS.
8. ANY STEEP SLOPES RECEIVING PIPELINE INSTALLATION WILL BE BACKFILLED AND STABILIZED DAILY, AS THE INSTALLATION PROCEEDS (I.E. SLOPES GREATER THAN 3:1)
9. TRAFFIC CONTROL STANDARDS REQUIRE THE INSTALLATION OF A 50"x30"x6" PAD OF 1 1/2" OR 2" STONE, AT ALL CONSTRUCTION DRIVEWAYS, IMMEDIATELY AFTER INITIAL SITE DISTURBANCE.
10. AT THE TIME WHEN THE SITE PREPARATION FOR PERMANENT VEGETATIVE STABILIZATION IS GOING TO BE ACCOMPLISHED, ANY SOIL THAT WILL NOT PROVIDE A SUITABLE ENVIRONMENT TO SUPPORT ADEQUATE VEGETATIVE GROUND COVER SHALL BE REMOVED OR TREATED IN SUCH A WAY THAT WILL PERMANENTLY ADJUST THE SOIL CONDITIONS AND RENDER IT SUITABLE FOR VEGETATIVE GROUND COVER. IF THE REMOVAL OR TREATMENT OF THE SOIL WILL NOT PROVIDE SUITABLE CONDITIONS, NON-VEGETATIVE MEANS OF PERMANENT GROUND STABILIZATION WILL HAVE TO BE EMPLOYED.
11. IN THAT N.J.S.A. 4:24-39 ET SEQ., REQUIRES THAT NO CERTIFICATE OF OCCUPANCY BE ISSUED BEFORE THE PROVISIONS OF THE CERTIFIED PLAN FOR SOIL EROSION AND SEDIMENT CONTROL HAVE BEEN COMPLIED WITH FOR PERMANENT MEASURES, ALL SITE WORK FOR SITE PLANS AND ALL WORK AROUND INDIVIDUAL LOTS IN SUBDIVISIONS WILL HAVE TO BE COMPLETED PRIOR TO THE DISTRICT ISSUING A REPORT OF COMPLIANCE FOR THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY BY THE MUNICIPALITY.
12. CONDUIT OUTLET PROTECTION MUST BE INSTALLED AT ALL REQUIRED OUTFALLS PRIOR TO THE DRAINAGE SYSTEM BECOMING OPERATIONAL.
13. ANY CHANGES TO THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN WILL REQUIRE THE SUBMISSION OF REVISED SOIL EROSION AND SEDIMENT CONTROL PLANS TO THE DISTRICT FOR RE-CERTIFICATION. THE REVISED PLANS MUST MEET ALL CURRENT NJ STATE SOIL EROSION AND SEDIMENT CONTROL STANDARDS.
14. THE SOMERSET - UNION SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED OF ANY CHANGES IN OWNERSHIP.
15. MULCHING TO THE NJ STANDARDS IS REQUIRED FOR OBTAINING A CONDITIONAL REPORT OF COMPLIANCE. CONDITIONALS ARE ONLY ISSUED WHEN THE SEASON PROHIBITS SEEDING.
16. CONTRACTOR IS RESPONSIBLE FOR KEEPING ALL ADJACENT ROADS CLEAN DURING LIFE OF CONSTRUCTION PROJECT.
17. THE DEVELOPER SHALL BE RESPONSIBLE FOR REMEDIATING ANY EROSION OR SEDIMENT PROBLEMS THAT ARISE AS A RESULT OF ONGOING CONSTRUCTION AT THE REQUEST OF THE SOMERSET - UNION SOIL CONSERVATION DISTRICT.
18. HYDRO SEEDING 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 SEEDING OPERATION, HYDRO-MULCH, AS OPPOSED TO STRAW, IS LIMITED TO OPTIMUM SEEDING DATES AS LISTED IN THE NJ STANDARDS.
19. UNFILTERED DE-WATERING IS NOT PERMITTED. NECESSARY PRECAUTIONS MUST BE TAKEN DURING ALL DE-WATERING OPERATIONS TO MINIMIZE SOIL TRANSFER. ANY DE-WATERING METHODS MUST BE IN ACCORDANCE WITH THE STANDARD FOR DE-WATERING.
20. THE FOLLOWING PERMANENT SEED MIXTURE SHOULD BE PROVIDED:
70% TURF TYPE ALL FESCUE
20% PERENNIAL RYE GRASS
10% KENTUCKY BLUE GRASS
APPLY AT A TOTAL RATE OF 200# / ACRE

ADDITIONAL SOIL EROSION & SEDIMENT CONTROL NOTES

1. 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. IF THE SEASON PROHIBITS TEMPORARY SEEDING, THE DISTURBED AREAS WILL BE MULCHED WITH STRAW OR HAY AND TACKED IN ACCORDANCE WITH THE NEW JERSEY STANDARDS. SEE NOTE 3 BELOW.
2. PERMANENT SEEDING AND STABILIZATION TO BE IN ACCORDANCE WITH THE "STANDARDS FOR PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION COVER". SPECIFIED RATES AND LOCATIONS SHALL BE ON THE APPROVED SOIL EROSION AND SEDIMENT CONTROL PLAN.
3. **TOPSOIL STOCKPILE PROTECTION**
 - A. APPLY GROUND LIMESTONE AT A RATE OF 90 LBS PER 1,000 SQ. FT. UNLESS A SOIL TEST SPECIFIES OTHERWISE.
 - B. APPLY FERTILIZER (10-10-10) AT A RATE OF 11 LBS. PER 1,000 SQ. FT. UNLESS A SOIL TEST SPECIFIES OTHERWISE.
 - C. APPLY PERENNIAL RYEGRASS SEED AT 1 LB. PER 1,000 SQ. FT. AND ANNUAL RYEGRASS AT 1 LB. PER 1,000 SQ. FT.
 - D. MULCH STOCKPILE WITH UNROTTED SMALL GRAIN STRAW AT A RATE OF 90 LBS. PER 1,000 SQ. FT.
 - E. APPLY A LIQUID MULCH BINDER OR TACK TO UNROTTED SMALL GRAIN STRAW.
 - F. PROPERLY ENTRENCH A SILT FENCE AT THE BOTTOM OF THE STOCKPILE.
4. **TEMPORARY SEEDING SPECIFICATIONS**
 - A. APPLY GROUND LIMESTONE AT A RATE OF 90 LBS PER 1,000 SQ. FT. UNLESS A SOIL TEST SPECIFIES OTHERWISE.
 - B. APPLY FERTILIZER (10-10-10) AT A RATE OF 11 LBS. PER 1,000 SQ. FT. UNLESS A SOIL TEST SPECIFIES OTHERWISE.
 - C. APPLY PERENNIAL RYEGRASS SEED AT 1 LB. PER 1,000 SQ. FT. AND ANNUAL RYEGRASS AT 1 LB. PER 1,000 SQ. FT. (2/15 - 5/1 OR 8/15 - 10/15) OR PEARL MILLET AT A RATE OF 0.5 LB PER 1,000 SQ. FT. (5/1 - 9/1).
 - D. MULCH SEEDING AREAS WITH UNROTTED SMALL GRAIN STRAW AT A RATE OF 90 LBS. PER 1,000 SQ. FT.
 - E. APPLY A LIQUID MULCH BINDER OR TACK TO UNROTTED SMALL GRAIN STRAW.
5. **PERMANENT SEEDING SPECIFICATIONS**
 - A. APPLY TOPSOIL TO A DEPTH OF 5 INCHES (UNSETTLED).
 - B. APPLY GROUND LIMESTONE AT A RATE OF 90 LBS PER 1,000 SQ. FT. AND WORK FOUR INCHES INTO SOIL UNLESS A SOIL TEST SPECIFIES OTHERWISE
 - C. APPLY FERTILIZER (10-20-10) AT A OF RATE 11 LBS. PER 1,000 SQ. FT. UNLESS A SOIL TEST SPECIFIES OTHERWISE.
 - D. APPLY HARD FESCUE SEED AT 2.5 LBS. PER 1,000 SQ. FT. AND CREEPING RED FESCUE SEED AT 1.5 LBS PER 1,000 SQ. FT. AND PERENNIAL RYEGRASS SEED AT 1.0 LBS PER 1,000 SQ. FT. PLANTING SHALL OCCUR BETWEEN 2/1 - 4/30 OR 8/15 - 10/30. PLANTING MAY BE CONDUCTED FROM 5/1 TO 8/14 IF IRRIGATION IS PROVIDED IN ACCORDANCE WITH THE NEW JERSEY STANDARDS.
 - E. MULCH SEEDING AREAS WITH UNROTTED SMALL GRAIN STRAW AT A RATE OF 90 LBS. PER 1,000 SQ. FT.
 - F. APPLY A LIQUID MULCH BINDER OR TACK TO STRAW OR HAY MULCH.

DUST CONTROL NOTES

THE FOLLOWING METHODS SHOULD BE USED FOR CONTROLLING DUST:

MULCHES - SEE STANDARDS FOR STABILIZATION WITH MULCHES ONLY (Pg. 5-1).

VEGETATIVE COVER - SEE STANDARDS FOR TEMPORARY VEGETATIVE COVER (Pg 7-1), PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION (Pg 4-1), AND PERMANENT STABILIZATION WITH SOD (6-1).

SPRAY-ON ADHESIVE - ON MINERAL SOILS (NOT EFFECTIVE ON MUCK SOILS). KEEP TRAFFIC OFF THESE AREAS.

TABLE 16-1: DUST CONTROL MATERIALS

MATERIAL	WATER DILUTION	TYPE OF NOZZLE	APPLY GALLONS / ACRE
ANIONIC ASPHALT EMULSION	7 : 1	COARSE SPRAY	1,200
LATEX EMULSION	12.5 : 1	FINE SPRAY	235
RESIN IN WATER	4 : 1	FINE SPRAY	300
POLYACRYLAMIDE (PAM)- SPRAY ON POLYACRYLAMIDE (PAM)- DRY SPRAY		APPLY ACCORDING TO MANUFACTURER'S INSTRUCTIONS, MAY ALSO BE USED AS AN ADDITIVE TO SEDIMENT BASINS TO FLOCCULATE AND PRECIPITATE SUSPENDED COLLOIDS. SEE SEDIMENT BASIN STANDARD (Pg. 26-1)	
ACIDULATED SOY BEAN STICK	NONE	COARSE SPRAY	1,200

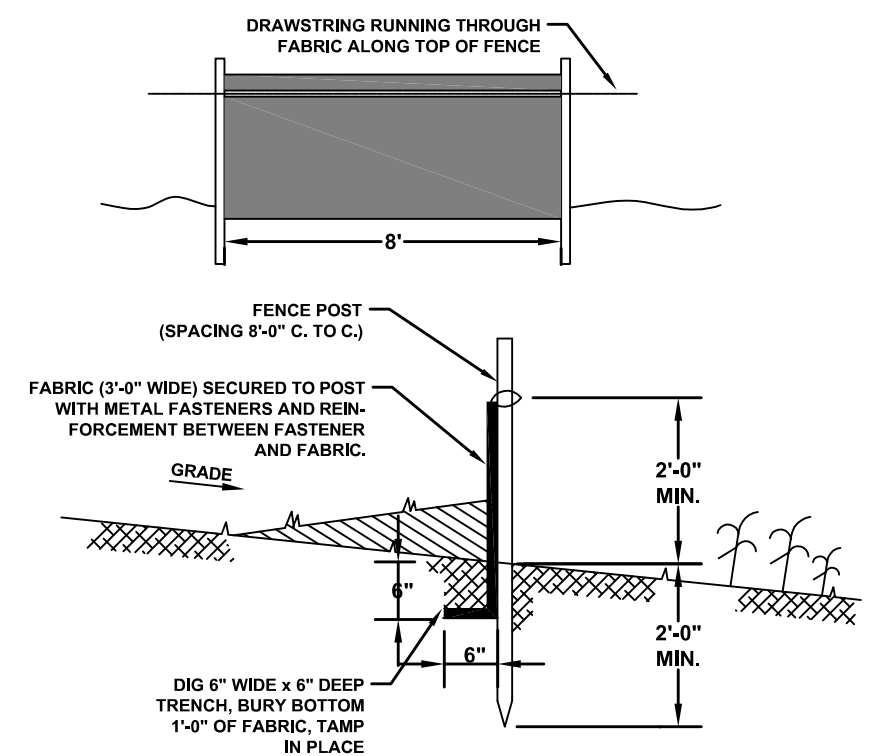
TILLAGE - TO ROUGHEN SURFACE AND BRING CLOUDS TO THE SURFACE. THIS IS A TEMPORARY EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE SOIL BLOWING STARTS. BEGIN PLOWING ON WINDWARD SIDE OF SITE. CHISEL-TYPE PLOWS SPACED ABOUT 12 INCHES APART, AND SPRING-TOOTHED HARROWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED EFFECT.

SPRINKLING - SITE IS SPRINKLED UNTIL THE SURFACE IS WET.

BARRIERS - SOLID BOARD FENCES, SNOW FENCES, BURLAP FENCES, CRATE WALLS, BALES OF HAY, AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING.

CALCIUM CHLORIDE - SHALL BE IN THE FORM OF LOOSE, DRY GRANULES OR FLAKES FINE ENOUGH TO FEED THROUGH COMMONLY USED SPREADERS AT A RATE THAT WILL KEEP SURFACE MOIST BUT NOT CAUSE POLLUTION OR PLANT DAMAGE. IF USED ON STEEPER SLOPES, THEN USE OTHER PRACTICES TO PREVENT WASHING INTO STREAMS OR ACCUMULATION AROUND PLANTS.

STONE - COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL.

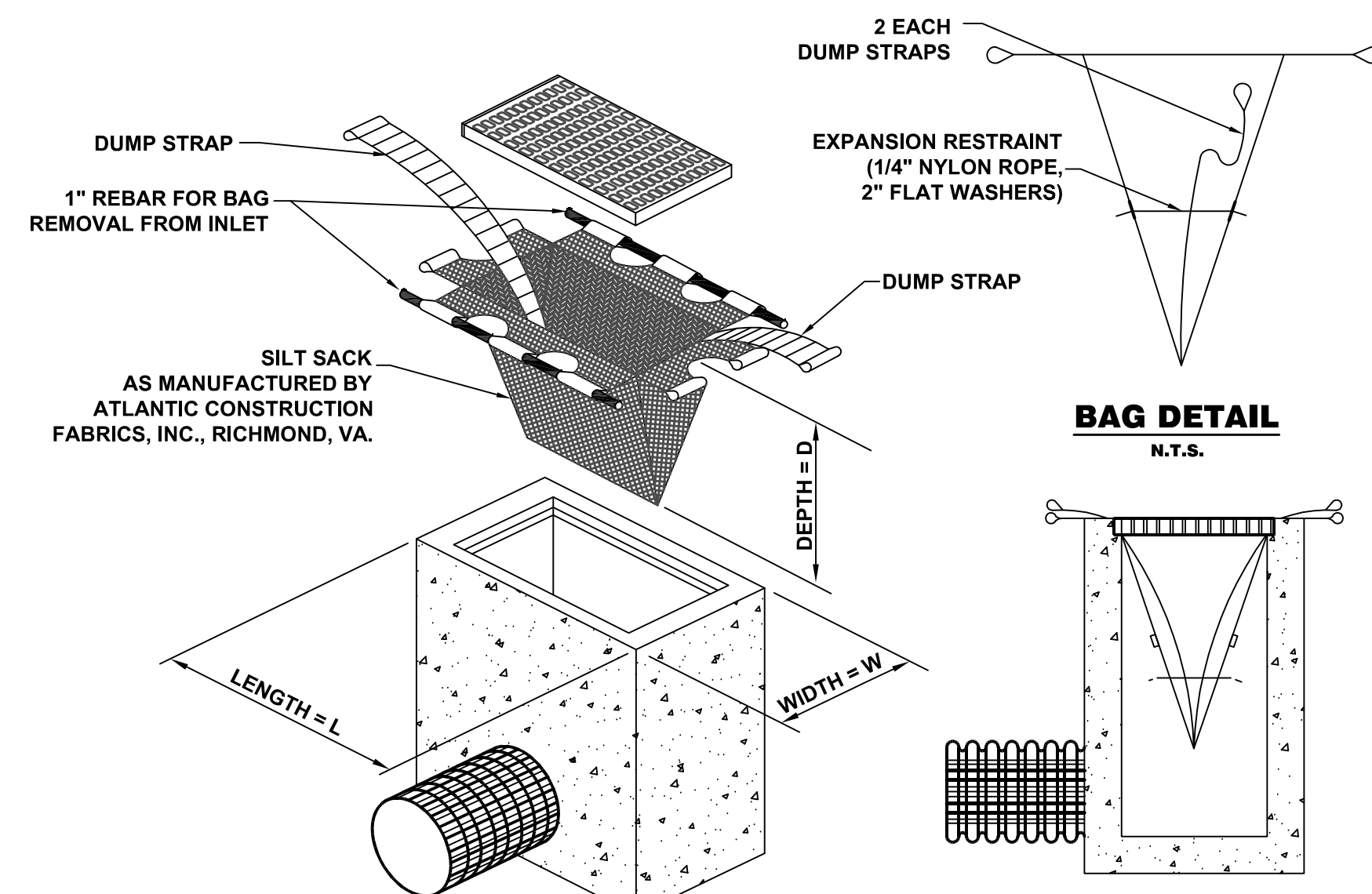


REQUIREMENTS FOR SILT FENCE:

1. FENCE POSTS SHALL BE SPACED 8 FEET CENTER TO CENTER OR CLOSER. THEY SHALL EXTEND AT LEAST 2 FEET INTO THE GROUND AND EXTEND AT LEAST 2 FEET ABOVE GROUND. POSTS SHALL BE CONSTRUCTED OF HARDWOOD WITH A MINIMUM DIAMETER THICKNESS OF 1.5 INCHES.
2. WHERE INDICATED AS SUPER SILT FENCE A METAL FENCE WITH 6 INCH OR SMALLER OPENINGS AND AT LEAST 2 FEET HIGH MAY BE UTILIZED, FASTENED TO THE FENCE POSTS, TO PROVIDE REINFORCEMENT AND SUPPORT TO THE GEOTEXTILE FABRIC WHERE SPACE FOR OTHER PRACTICES IS LIMITED AND HEAVY SEDIMENT LOADING IS EXPECTED.
3. A GEOTEXTILE FABRIC, RECOMMENDED FOR SUCH USE BY THE MANUFACTURER, SHALL BE BURIED AT LEAST 6 INCHES DEEP IN THE GROUND. THE FABRIC SHALL EXTEND AT LEAST 2 FEET ABOVE THE GROUND. THE FABRIC MUST BE SECURELY FASTENED TO THE POSTS USING A SYSTEM CONSISTING OF METAL FASTENERS (NAILS OR STAPLES) AND A HIGH STRENGTH REINFORCEMENT MATERIAL (NYLON WEBBING, GROMMETS, WASHERS, ETC.) PLACED BETWEEN THE FASTENER AND THE GEOTEXTILE FABRIC. THE FASTENING SYSTEM SHALL RESIST TEARING AWAY FROM THE POST. THE FABRIC SHALL INCORPORATE A DRAWSTRING IN THE TOP PORTION OF THE FENCE FOR ADDED STRENGTH.

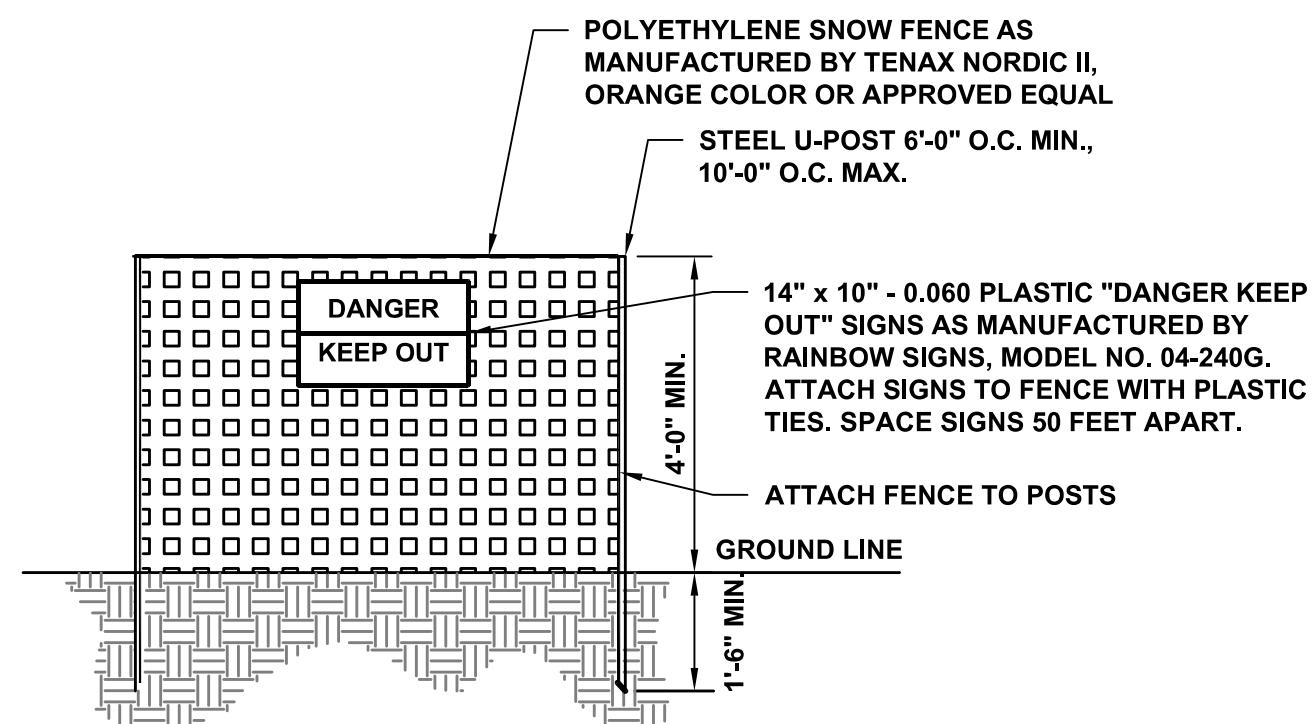
SEDIMENT FENCE DETAIL

N.T.S.



INLET PROTECTION DEVICE

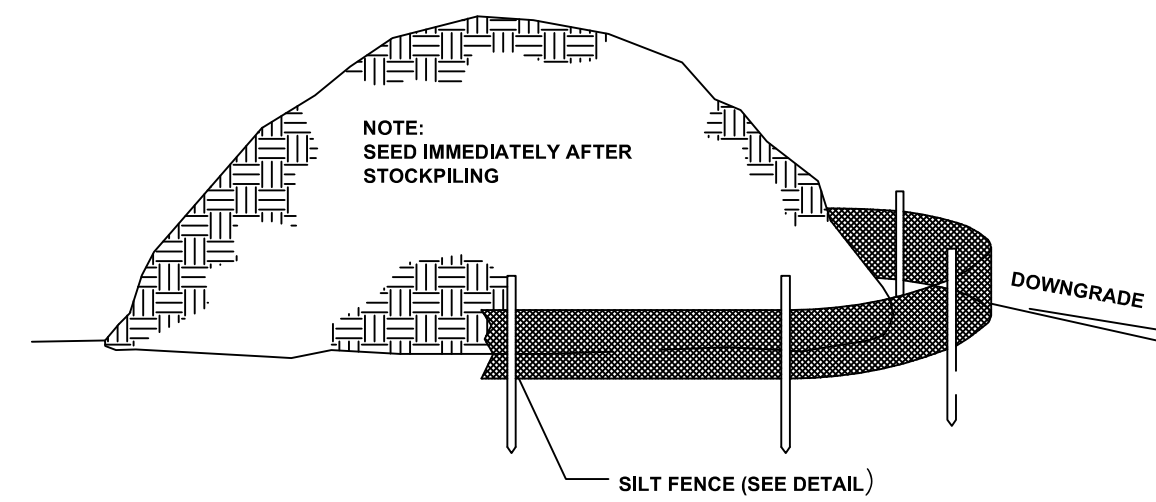
N.T.S.



CAUTION FENCE/TEMPORARY CONSTRUCTION FENCE SHALL BE PROVIDED CONTINUOUSLY AROUND THE CONSTRUCTION SITE PERIMETER AS DIRECTED BY THE ENGINEER. "DANGER-KEEP OUT" SIGNS SHALL BE PROVIDED EVERY 50 FEET ON THE TEMPORARY CONSTRUCTION FENCE.

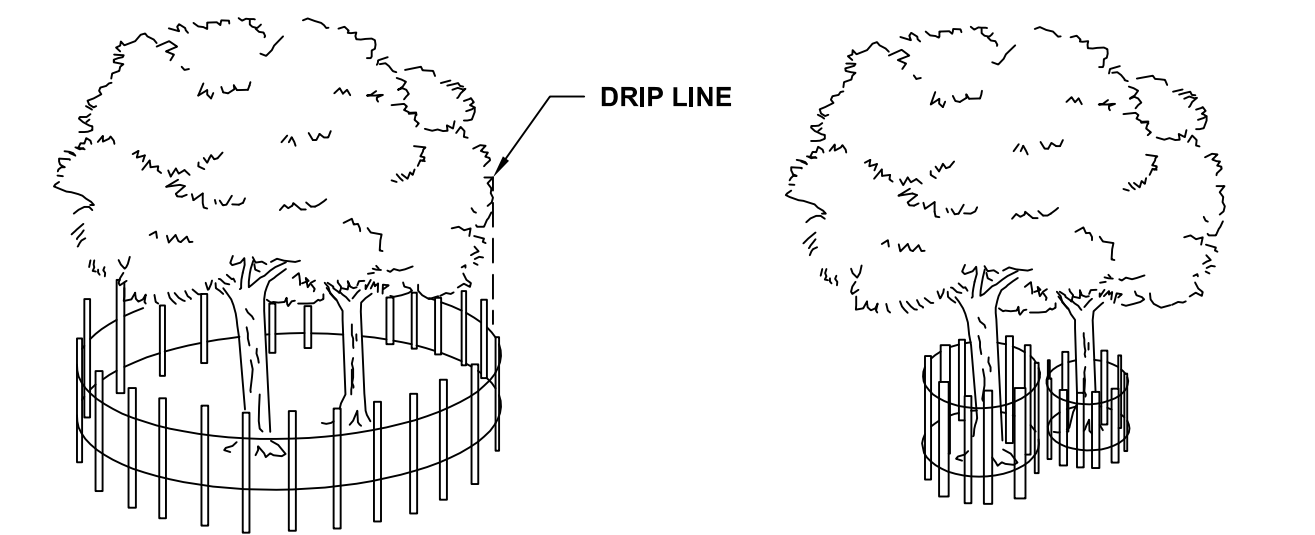
CAUTION FENCE/TEMPORARY CONSTRUCTION FENCE

N.T.S.



TYPICAL TOPSOIL STOCKPILE

N.T.S.

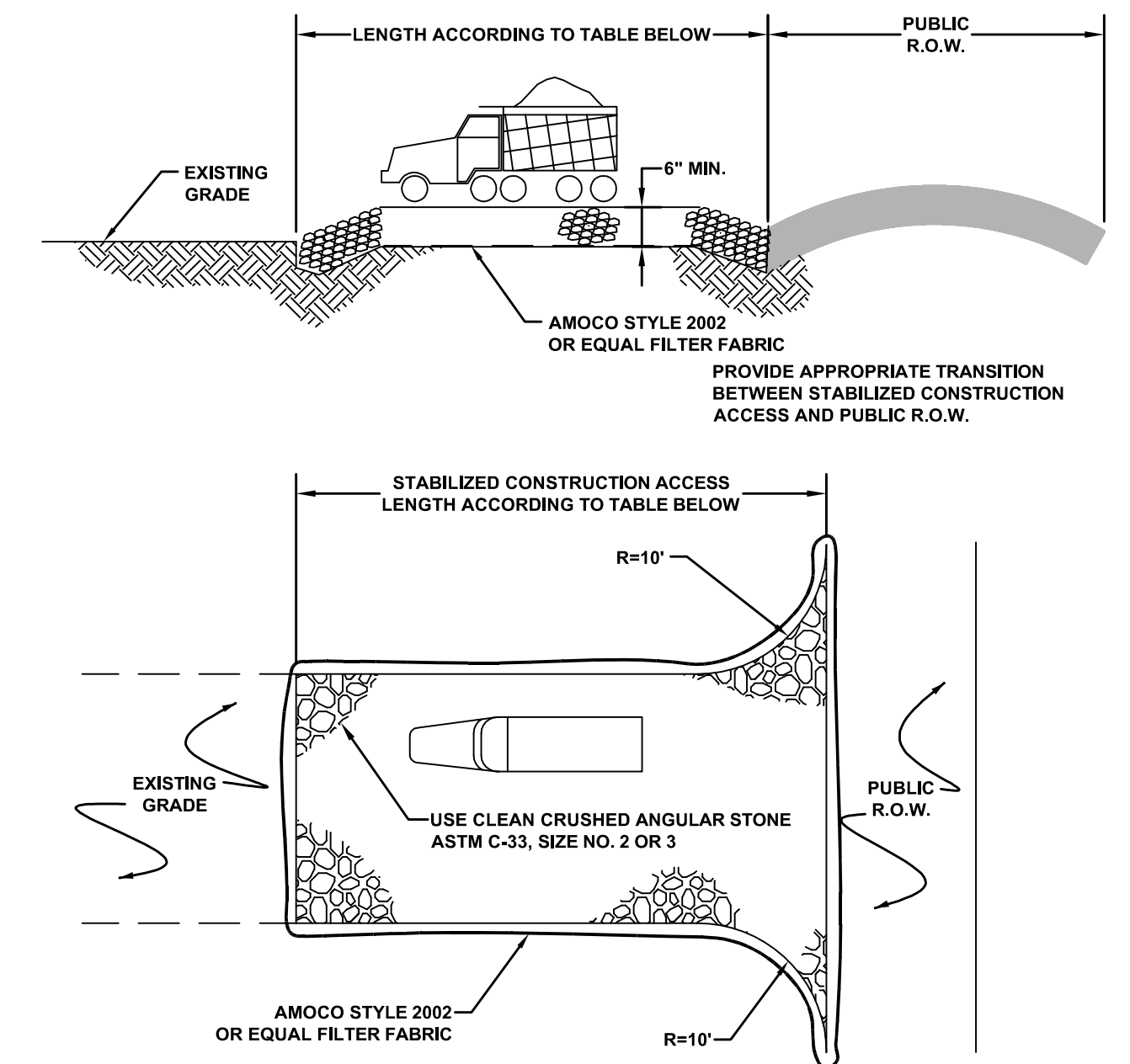


CORRECT FENCING FOR TREE PROTECTION

INCORRECT FENCING FOR TREE PROTECTION

TREE PROTECTION

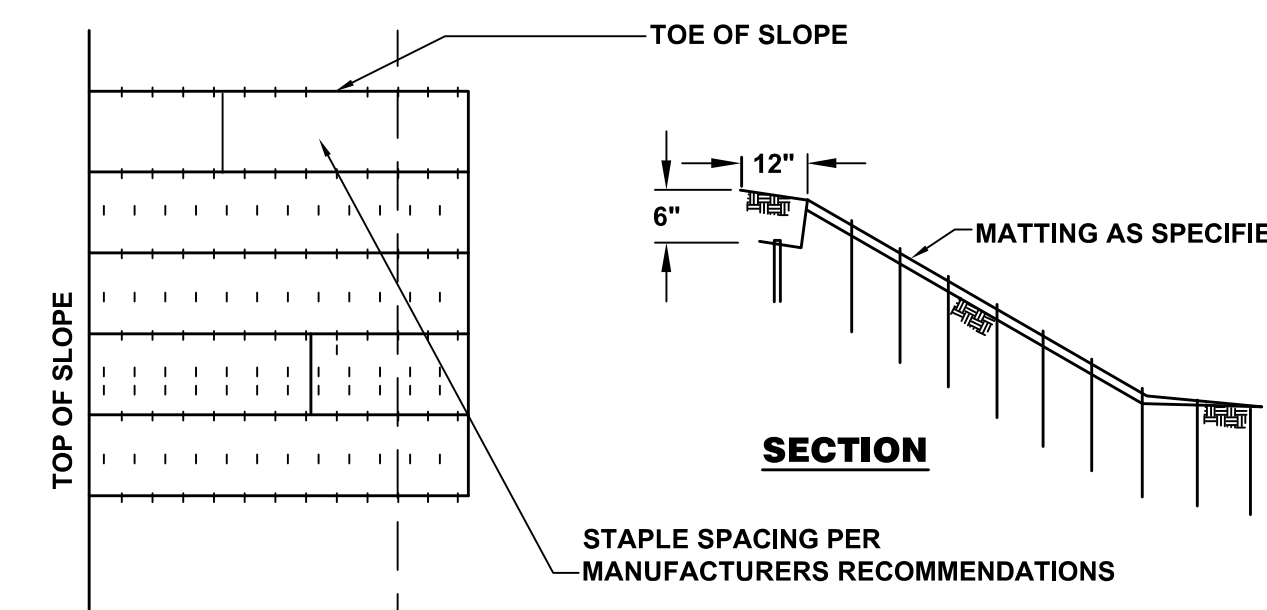
N.T.S.



PERCENT SLOPE OF ROADWAY	LENGTH OF STONE REQUIRED	
	COARSE GRAINED SOILS	FINE GRAINED SOILS
0 TO 2%	50 FT	100 FT
2 TO 5%	100 FT	200 FT
>5%	ENTIRE SURFACE STABILIZED WITH BITUMINOUS CONCRETE SUBBASE	

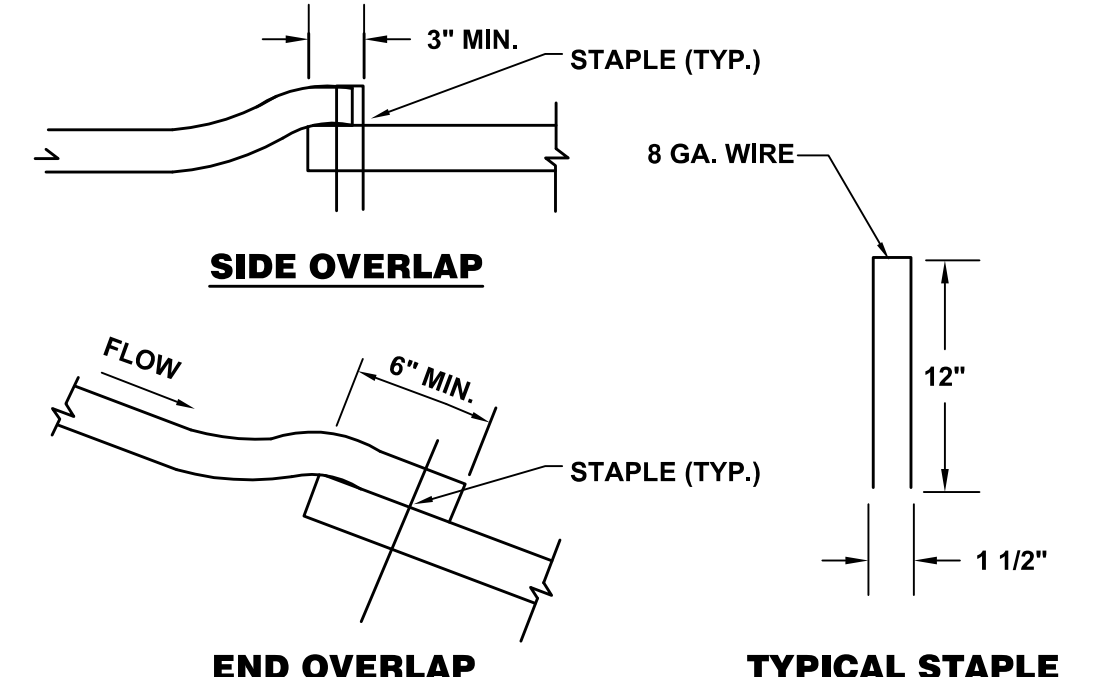
STABILIZED CONSTRUCTION ACCESS

N.T.S.



TOPSOIL STOCKPILE STABILIZATION

N.T.S.



TYPICAL STAPLE

<p>NOTICE</p> <p>THIS DRAWING AND ALL INFORMATION CONTAINED HEREIN IS AUTHORIZED FOR USE ONLY BY THE PARTY FOR WHOM THE WORK WAS CONTRACTED OR TO WHOM IT IS CERTIFIED.</p> <p>THIS DRAWING MAY NOT BE COPIED, REPRODUCED, DISCLOSED, DISTRIBUTED, OR REPRODUCED FOR ANY OTHER PURPOSE WITHOUT THE WRITTEN CONSENT OF Suburban Consulting Engineers, Inc.</p> <p>PER N.J.A.C. ELECTRONIC SUBMISSIONS NOT CONTAINING A VALID DIGITAL SEAL OR PAPER COPIES NOT CONTAINING A RAISED SEAL ARE NOT ORIGINALS AND MAY HAVE BEEN ALTERED.</p> <p>© COPYRIGHT 2017 Suburban Consulting Engineers, Inc.™ CERTIFICATE OF AUTHORIZATION NO: 24GA28037500 ALL RIGHTS RESERVED</p>	<p>DESCRIPTION</p> <p>NO.</p> <p>DATE:</p> <p>BY:</p> <p>CHK:</p>	<p>DRAWN BY:</p> <p>SD</p> <p>10/13/17</p>	<p>DAREN J. PHIL, PE</p> <p>NEW JERSEY PROFESSIONAL ENGINEER</p> <p>LICENSE NO. 24GE03619100</p> <p>DATE: 10/13/17</p>	<p>SC SUBURBAN CONSULTING ENGINEERS, INC.</p> <p>COA NO.: 24GA28037500</p> <p>Civil Engineers - Municipal Engineers - Landscape Architects - Planners - Environmentalists - Land Surveyors -</p> <p>96 US Highway 206, Suite 101 2430 Highway 34, Bldg. A Suite 1B Flinders, N.J. 07836 - 973.398.1776 Wall, N.J. 08736 - 732.282.1776</p> <p>EXCELLENCE ♦ ECONOMY ♦ ENVIRONMENT</p>	<p>CONSTRUCTION PLANS FOR</p> <p>MATTANO SKATEBOARD PARK</p> <p>MATTANO PARK</p> <p>BLOCK 5, LOT 453 B</p> <p>CITY OF ELIZABETH, UNION COUNTY, N.J.</p> <p>SOIL EROSION AND SEDIMENT CONTROL</p> <p>NOTES & DETAILS</p>	<p>PROJECT NUMBER:</p> <p>SC-E8745-011</p>
		<p>SCALE:</p> <p>AS NOTED</p>				<p>SHEET 17 OF 17</p>