

Bidder's Name: _____

ACKNOWLEDGMENT OF ADDENDUM

ADDENDUM NUMBER 1

JULY 7, 2017

COUNTY OF UNION

The Watchung Reservation – Tracy Loop Septic System
Borough of Mountainside, County of Union, New Jersey

(Name of Construction /Public Works Project)

BA#33-2017
UC Engineering Project #2014-033

(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> Cover Memo with responses to questions received for this project and a Courtesy copy of NJAC Rule | | |
| | | |

ACKNOWLEDGMENT BY BIDDER:

NAME OF BIDDER: _____

ORIGINAL SIGNATURE: _____

PRINTED NAME AND TITLE: _____

DATE: _____



COUNTY OF UNION

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

**BOARD OF
CHOSEN FREEHOLDERS**

BRUCE H. BERGEN
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County Manager

ROBERT E. BARRY, ESQ.
County Counsel

JAMES E. PELLETTIERE, RMC
Clerk of the Board

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

MEMO TO: All Prospective Bidders

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

DATE: July 7, 2017

RE: **ADDENDUM NUMBER 1**
BA#33-2017 – The Watchung Reservation – Tracy Loop Septic
System, Borough of Mountainside
County of Union, New Jersey
Union County Engineering Project #2014-033

The following are responses to questions received for the above referenced project:

1)

a) *Section 1 – Technical*

- i) *Please confirm that the size of the septic stone is 1 ½" clean.*
Per N.J.A.C. 7:9A-10.3(e), "the filter material shall be washed gravel or crushed stone, free of fines, dust, ashes or clay. Refer to the New Jersey Department of Transportation standard sizes for coarse aggregates as shown in Figure 26 of Appendix A. The filter material shall conform in size and gradation to size number 24, size number three or size number four." See attached Figure 26.
- ii) *Does the stone have to be washed. If so, please provide a supplier for washed stone. The local quarries – Weldon, Stavola and Tilcon do not sell washed stone. They just sell clean stone.*
Per N.J.A.C. 7:9A-10.3(e), "the filter material shall be washed gravel or crushed stone, free of fines, dust, ashes or clay."
- iii) *Sheet 2 indicates all soil to stay on site and to be used to fill in existing areas in the Watchung Reservation. Can you please clarify?*
 - (1) *Please indicate size of areas?*
Union County will determine exact stockpile size and location within the Watchung Reservation. The selected stockpile transport location will be within 3,000 feet of the project site.
 - (2) *Please indicate access to these areas.*
Stabilized access to the proposed stockpile location will be provided for Contractor's vehicles .
 - (3) *Will extra silt fence be required in these areas?*
Union County will provide the require soil erosion and sediment control measures at the stockpile location.

DIVISION OF ENGINEERING

DEPARTMENT OF ENGINEERING, PUBLIC WORKS & FACILITIES MANAGEMENT

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

(4) When we have done similar projects we just dumped the additional soil in a stockpile that was accessible by trucks. This note leaves it too open ended and doesn't allow us to properly understand the scope of work to provide an accurate estimate.

See responses (1) and (2), above.

b) Section 2 – Insurance

i) In reviewing the insurance requirements in the general specification for the Watchung Reservation- Tracy Loop Septic System project I thought we should clarify several items:

(1) Commercial General Liability (CGL) requires a \$5,000,000 per occurrence/ \$10,000,000 aggregate limit. KDP Developers carries a \$1,000,000 per occurrence/ \$2,000,000 aggregate on our CGL policy AND an Umbrella with a total of \$10,000,000 in limits. Will this sufficiently meet this CGL limit requirement?

This is acceptable: any combination of primary and umbrella/excess may be used to satisfy the limits.

(2) Automobile Liability requires a \$5,000,000 per occurrence combined single limit (CSL). KDP Developers carries an automobile policy with a \$1,000,000 CSL as we all as an Umbrella with a total of \$10,000,000 in limits. Will this sufficiently meet the Automobile limit requirement?

This is acceptable: any combination of primary and umbrella/excess may be used to satisfy the limits.

(3) Contractors Pollution Legal Liability and/or Asbestos Legal Liability and/or Errors & Omissions coverage. The general specification states these are required only if the project involves environmental hazards. We would like to confirm that this coverage is NOT required for the Watchung Reservation- Tracy Loop Septic System project.

This coverage is required.

(4) Builders Risk is required for "Major Renovations". We would like to confirm that this coverage is NOT required for the Watchung Reservation- Tracy Loop Septic System project.

The County intends on constructing a new septic system, not just repairing the existing: therefore, this is a major renovation.

DIVISION OF ENGINEERING

THIS IS A COURTESY COPY OF THIS RULE. ALL OF THE DEPARTMENT'S RULES ARE COMPILED IN TITLE 7 OF THE NEW JERSEY ADMINISTRATIVE CODE.

| Size Number | Nominal Size Square Openings (1) | Amounts finer than each laboratory sieve (square openings), percentage by weight | | | | | | | | | | | | | | | |
|-------------|----------------------------------|--|--------|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|-------|
| | | 4 | 3½ | 3 | 2½ | 2 | 1½ | 1 | ¾ | ½ | ⅜ | No. 4 | No. 8 | No. 16 | No. 30 | No. 100 | |
| 1 | 3½ to 1½ | 100 | 90-100 | | 25-60 | | 0-15 | | 0-5 | | | | | | | | |
| 2 | 2½ to 1½ | | | 100 | 90-100 | 35-70 | 0-15 | | 0-5 | | | | | | | | |
| 24 | 2½ to ¾ | | | 100 | 90-100 | | 25-60 | | 0-10 | 0-5 | | | | | | | |
| 3 | 2 to 1 | | | | 100 | 90-100 | 35-70 | 0-15 | | 0-5 | | | | | | | |
| 357 | 2 to No. 4 | | | | 100 | 95-100 | | 35-70 | | 10-30 | | | 0-5 | | | | |
| 4 | 1½ to ¾ | | | | | 100 | 90-100 | 20-55 | 0-15 | | 0-5 | | | | | | |
| 467 | 1½ to No. 4 | | | | | | 100 | 95-100 | | 35-70 | | 10-30 | 0-5 | | | | |
| 5 | 1 to ½ | | | | | | | 100 | 90-100 | 20-55 | 0-10 | 0-5 | | | | | |
| 56 | 1 to ¾ | | | | | | | 100 | 90-100 | 40-75 | 15-35 | 0-15 | 0-5 | | | | |
| 57 | 1 to No. 4 | | | | | | | 100 | 95-100 | | 25-60 | | 0-10 | 0-5 | | | |
| 6 | ¾ to ¾ | | | | | | | | 100 | 90-100 | 20-55 | 0-15 | 0-5 | | | | |
| 67 | ¾ to No. 4 | | | | | | | | 100 | 90-100 | | 20-55 | 0-10 | 0-5 | | | |
| 68 | ¾ to No. 8 | | | | | | | | 100 | 90-100 | | 30-65 | 5-25 | 0-10 | 0-5 | | |
| 7 | ½ to No. 4 | | | | | | | | | 100 | 90-100 | 40-70 | 0-15 | 0-5 | | | |
| 78 | ½ to No. 8 | | | | | | | | | 100 | 90-100 | 40-75 | 5-25 | 0-10 | 0-5 | | |
| 8 | ¾ to No. 8 | | | | | | | | | | 100 | 85-100 | 10-30 | 0-10 | 0-5 | | |
| 89 | ¾ to No. 16 | | | | | | | | | | | 100 | 90-100 | 20-55 | 0-30 | 0-10 | |
| 9 | No. 4 to No. 16 | | | | | | | | | | | | 100 | 85-100 | 10-40 | 0-10 | 0-5 |
| 10 | No. 4 to 0 ² | | | | | | | | | | | | | 100 | | | 10-30 |

¹In inches, except where otherwise indicated. Numbered sieves are those of the United States Sieve Series.
²Screenings.

Figure 26. N.J. Department of Transportation Standard Sizes for Coarse Aggregate

**SPECIFICATIONS
FOR
THE WATCHUNG RESERVATION – TRACY LOOP SEPTIC SYSTEM
BOROUGH OF MOUNTAINSIDE
COUNTY OF UNION, NEW JERSEY
BA#33-2017; UNION COUNTY ENGINEERING PROJECT #2014-033
JUNE 2017**

**UNION COUNTY OFFICIALS
BOARD OF CHOSEN FREEHOLDERS**

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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:
Neglia Engineering Associates
34 Park Avenue
PO Box 426
Lyndhurst, New Jersey 07071
T: 201-939-8805

**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 July 19, 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:

**THE WATCHUNG RESERVATION – TRACY LOOP SEPTIC SYSTEM
BOROUGH OF MOUNTAINSIDE, COUNTY OF UNION, NEW JERSEY
BA#33-2017; UNION COUNTY ENGINEERING PROJECT #2014-033**

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

**THE WATCHUNG RESERVATION – TRACY LOOP SEPTIC SYSTEM
BOROUGH OF MOUNTAINSIDE, COUNTY OF UNION, NEW JERSEY
BA#33-2017; Union County Engineering Project #2014-033**

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- Statement of Bidder's Qualifications
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- Affidavit Regarding List of Disbarred, Suspended or Disqualified Bidders
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STANDARD SPECIFICATION FORM - SS-1

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: **The Watchung Reservation – Tracy Loop Septic System
Borough of Mountainside, County of Union, New Jersey
BA#33-2017; UC Engineering Project #2014-033**

BIDDER: Bidder shall be a single overall contract bidder

ENGINEER: **Neglia Engineering Associates
34 Park Avenue, PO Box 426
Lyndhurst, New Jersey 07071**

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 Contractor's risk. Such payment will only be in the amount agreed to by the parties, in writing in the Change Order(s). See Section 37, Change Orders, of these general specifications for further details.

Refer to Bid Document Submission Checklist for all required documents.

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

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

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

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

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

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

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

2. WITHDRAWAL OF BID DUE TO MISTAKE

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

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

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

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

3. QUALIFICATIONS OF BIDDERS AND REQUIRED SUBMISSIONS

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

4. INTERPRETATIONS AND ADDENDA

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

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

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

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

5. OBLIGATION OF BIDDER TO INSPECT SITE AND CONTRACT DOCUMENTS

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

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

6. BID AND PERFORMANCE GUARANTEE

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

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

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

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

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

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

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

7. COMMENCEMENT AND COMPLETION

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

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

8. BIDDER AFFIDAVIT

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

9. BID SECURITY

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

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

10. LABOR AND MATERIALS

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

11. INSURANCE REQUIREMENTS

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

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

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

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

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

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

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

12. INDEMNIFICATION REQUIREMENTS

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

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

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

13. ROYALTIES AND PATENTS

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

14. PLANS AND SPECIFICATIONS

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

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

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

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

15. GUARANTEE AGAINST DEFECTIVE WORK

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

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

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

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

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

16. TRAFFIC AND STREET MAINTENANCE

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

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

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

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

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

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

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

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

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

17. CONTRACTOR'S EMPLOYEES

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

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

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

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

18. OWNERSHIP DISCLOSURES REQUIRED

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

19. NON-COLLUSION AFFIDAVIT

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

20. EQUAL EMPLOYMENT OPPORTUNITY COMPLIANCES

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

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

21. COMPLIANCE WITH NEW JERSEY PREVAILING WAGE ACT

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

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

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

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

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

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

UNION LABOR IS PREFERRED ON ALL COUNTY WORK

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

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

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

22. BRAND NAME OR EQUAL

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

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

- B. To offer substitute goods as an equal to those specified herein, it is necessary that:
 - 1. The Bidder submits sufficient information with its bid to permit the County to determine that the goods are equivalent to the brand name goods specified herein, including, but not necessarily limited to the brand, catalog number and specifications/data sheets;

 - 2. The Bidder fully identifies and describes the variations of the goods from the brand name goods specified herein on a separate sheet that is to be submitted with the bid proposal. Bidder’s literature WILL NOT suffice in explaining exceptions to these specifications.

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

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

23. LINES AND GRADES

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

24. NUMBER OF WORKING DAYS

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

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

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

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

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

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

26. STOPPING WORK ON ACCOUNT OF BAD WEATHER

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

27. ACCESS FOR OTHER CONTRACTORS

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

28. CONDEMNED MATERIALS AND WORK

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

29. STORAGE

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

30. FINAL CLEAN UP

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

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

31. SUB-LETTING OF WORK

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

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

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

32. SAFETY

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

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

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

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

33. QUALITY, SAFETY AND PERFORMANCE STANDARDS

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

34. MATTERS NOT MENTIONED IN CONTRACT DOCUMENTS

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

35. PERMITS

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

36. CONTRACTOR TO PROVIDE PROOF OF PAYMENT

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

37. CHANGE ORDERS

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

38. SUPPLEMENTAL WORK

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

39. FORM OF CONTRACT

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

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

40. PROGRESS PAYMENTS

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

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

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

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

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

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

When the Project is completed, the final cost of the Project will be based on actual quantities of authorized Work done under each item scheduled in the bidding sheet and approved Change Orders, if any. The money due to the Contractor as determined by said final certificate after deduction of previous monthly payments on account, will be paid to the Contractor in accordance with the terms of the contract dealing with Prompt Payment, providing, however that before such final payment is made, all outstanding claims against the Contractor must be satisfied. Before final

payment is released, the Contractor must furnish: **a)** Maintenance Bond (see Section 6 of these general specifications); **b)** Certification of Compliance, New Jersey Prevailing Wage Act (see Sections 21 and 51); and **c)** General Release (see Section 36) in a form satisfactory to County Counsel; **d)** complete set of as-built plans in the latest AutoCad on compact disc; and **e)** a complete set of in-progress photos in jpg, jpeg, or bmp digital format on a compact disc.

41. INSPECTION

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

42. DAMAGES

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

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

43. LIQUIDATED DAMAGES

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

44. AFFIRMATIVE ACTION REQUIREMENTS

EXHIBIT B (Revised 4/10)

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

CONSTRUCTION CONTRACTS

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(C) The contractor or subcontractor agrees that nothing contained in (B) above shall preclude the contractor or subcontractor from complying with the union hiring hall or apprenticeship policies in any applicable collective bargaining agreement or union hiring hall arrangement, and, where required by custom or agreement, it shall send journeymen and trainees to the union for referral, or to the apprenticeship program for admission, pursuant to such agreement or arrangement. However, where the practices of a union or apprenticeship program will result in the exclusion of minorities and women or the failure to refer minorities and women consistent with the targeted county employment goal, the contractor or subcontractor shall consider for employment persons referred pursuant to (B) above without regard to such agreement or arrangement; provided further, however, that the contractor or subcontractor shall

not be required to employ women and minority advanced trainees and trainees in numbers which result in the employment of advanced trainees and trainees as a percentage of the total workforce for the construction trade, which percentage significantly exceeds the apprentice to journey worker ratio specified in the applicable collective bargaining agreement, or in the absence of a collective bargaining agreement, exceeds the ratio established by practice in the area for said construction trade. Also, the contractor or subcontractor agrees that, in implementing the procedures of (B) above, it shall, where applicable, employ minority and women workers residing within the geographical jurisdiction of the union.

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

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

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

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45. INVESTMENT ACTIVITIES IN IRAN

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

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

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

47. UTILITIES

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

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

When pipes or other structures are encountered or when the removal, relocation or protection of these utilities are necessary in carrying out the Project as planned, the Contractor will cooperate with the owner of said utilities and will permit the owners or their agents access to the site of the Work in order to relocate or protect their facilities

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

48. MATERIAL COMPLIANCE AND SHOP DRAWINGS

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

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

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

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

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

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

49. PRECONSTRUCTION

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

50. DISPUTES UNDER THE CONTRACT

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

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

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

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51. 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.

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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

**THE WATCHUNG RESERVATION – TRACY LOOP SEPTIC SYSTEM
BOROUGH OF MOUNTAINSIDE, COUNTY OF UNION, NEW JERSEY
BA#33-2017; UNION COUNTY ENGINEERING PROJECT #2014-033**

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 | DESCRIPTION | UNIT | CONTRACT QUANTITY | UNIT PRICE | AMOUNT |
|---------|--|------|-------------------|------------|--------|
| 1 | Mobilization and Demobilization | L.S. | 1 | | |
| 2 | Soil Erosion and Sediment Control Measures | L.S. | 1 | | |
| 3 | Site Clearing and Demolition | L.S. | 1 | | |
| 4 | Tree Removal, Including Stump, 4" to 12" Caliper | UNIT | 2 | | |
| 5 | Tree Removal, Including Stump, Greater than 12" to 24" Caliper | UNIT | 3 | | |
| 6 | Tree Removal, Including Stump, Greater than 24" to 36" Caliper | UNIT | 1 | | |
| 7 | Tree Removal, Including Stump, Greater than 36" to 48" Caliper | UNIT | 1 | | |
| 8 | Removal and hauling of Site Soil to Location within Watchung Reservation | C.Y. | 2,100 | | |
| 9 | Abandon Existing Septic System | L.S. | 1 | | |
| 10 | Import of Septic Filter Material | C.Y. | 2,625 | | |
| 11 | Geotextile Fabric | S.Y. | 1,925 | | |
| 12 | Connection to Existing Building Sewer Line | L.S. | 1 | | |
| 13 | 4" Schedule 40 PVC Pipe, Perforated | L.F. | 3,000 | | |
| 14 | 6" Schedule 40 PVC, Solid-Wall | L.F. | 400 | | |
| 15 | Distribution Box (Modified Type 'A' Inlet Box with Solid, Locking Cover) | UNIT | 1 | | |
| 16 | 3,000-Gallon Septic Tank, Heavy-Duty, 2-Compartment, Including Frames, Covers, and Appurtenances | UNIT | 2 | | |
| 17 | Clean-out | UNIT | 5 | | |
| 18 | Inspection Port | UNIT | 6 | | |
| 19 | Final Clean-Up and Site Restoration | L.S. | 1 | | |

BASE BID ITEMS (1 THROUGH 19):

Written

Figures

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

Twenty-Thousand Dollars

Written

\$20,000

Figures

TOTAL BASE BID ITEMS (1 THROUGH 19) PLUS BID CONTINGENCY AMOUNT:

Written

Figures

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

Bidder's Name _____

CONSENT OF SURETY
TO ACCOMPANY PROPOSAL (BID)

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

NOTE:
Expiration date
Needed if Annual
Surety

NAME OF INSURANCE COMPANY
ADDRESS: _____

ORIGINAL SIGNATURE
ATTORNEY-IN-FACT FOR INSURANCE CO.

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

BIDDER SIGNATURE PAGE

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

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

NAME OF BIDDER

ADDRESS OF BIDDER

**ORIGINAL SIGNATURE
CORPORATE SECRETARY**

**PRINT NAME AND TITLE
CORPORATE SECRETARY**

TEL: _____
FAX: _____
E-Mail: _____

BY: _____
ORIGINAL SIGNATURE

Corporate Seal

PRINT OR TYPE NAME AND TITLE

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

Bidder's Name _____

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 |
|---------------------------------------|--|
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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 |
|---|----------|
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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 |
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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 |
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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 302
TRENTON, NJ 08646

TAXPAYER NAME: TAX REG TEST ACCOUNT
TRADE NAME: CLIENT REGISTRATION
TAX REGISTRATION TEST ACCOUNT
SEQUENCE NUMBER: 0107510
TAXPAYER IDENTIFICATION: 070-007-082/000
ISSUANCE DATE: 07/14/04
ADDRESS: 847 ROEBLING AVE
TRENTON NJ 08611
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.

Bidder's Name _____

NON-COLLUSION AFFIDAVIT
(N.J.S.A. 52:34-15)

STATE OF _____)
COUNTY OF _____) **SS:** _____

I _____, of the City of _____, in the County of _____, and the 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, and that I executed the said proposal for the above named project, and that I executed the said proposal with full authority to do so; that said bidder has not, directly or indirectly, entered into any agreement, participation in any collusion, or otherwise taken any action in restraint of free, competitive bidding in connection with the above named project; and that all statements contained in said proposal and in this Affidavit are true and correct, and made with full knowledge that the COUNTY OF UNION, NEW JERSEY relies upon the truth of the statements contained in said proposal and in the statements contained in the affidavit in awarding the contract for the said project.

I further warrant that no person or selling agency has been employed or retained to solicit or secure such contract upon an agreement or understanding for a commission, percentage, brokerage or contingent fee, except bona fide employees or bonafide established commercial or selling agencies maintained by _____ (N.J.S.A. 52:34-15).

NAME OF BIDDER

ORIGINAL SIGNATURE ONLY

NOTE: The person who signed the bidder signature page for the bidder should sign this form also.

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

Notary Public of the State of _____
My commission expires: _____

WARNING: IF YOU FAIL TO FULLY, ACCURATELY, AND COMPLETELY FILL OUT THIS AFFIDAVIT OF NON-COLLUSION, YOUR BID MAY BE REJECTED.

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

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

Bidder's Name _____

CONTRACTOR PERFORMANCE RECORD
CERTIFICATION

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

(Name of Organization)

(Signature)

(Title)

Subscribed and sworn to before me

this _____ day of _____, 20__.

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

My Commission Expires _____, 20__.

PRIOR NEGATIVE EXPERIENCE QUESTIONNAIRE

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

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

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

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

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

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

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

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

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

Bidder's Name _____

PRIOR NEGATIVE EXPERIENCE CERTIFICATION

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

Name of Contractor

By _____
(Signature of Authorized Representative)

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

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

My Commission Expires _____, 20__.

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

Bidder's Name _____

TO BE COMPLETED ONLY WHEN FINAL PAYMENT IS REQUESTED

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

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

CONTRACT:

PROJECT:

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

COUNTY OF UNION

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

CONTRACTOR: _____
ADDRESS: _____

BY: _____
ORIGINAL SIGNATURE ONLY

STATE OF NEW JERSEY
COUNTY OF _____

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

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

Notary Public: _____
My Commission Expires: _____

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

Bidder's Name _____

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

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

| ENTITY | PROJECT TITLE | ORIGINAL CONTRACT AMOUNT | UNCOMPLETED AMOUNT AS OF BID OPENING DATE | NAME AND TELEPHONE NUMBER OF PARTY TO BE CONTACTED FROM ENTITY FOR VERIFICATION |
|--------|---------------|--------------------------|---|---|
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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 **ninety (90) 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.



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

PREVAILING WAGE RATE DETERMINATION

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

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

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

Prevailing Wage Rate

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

W = Wage Rate per Hour **B** = Fringe Benefit Rate per Hour* **T** = Total Rate per Hour

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

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

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

Apprentice Rate Schedule

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

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

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

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

Comments/Notes

For each craft listed there will be comments/notes that cover the definition of the regular workday, shift differentials, overtime, recognized holidays, and any other relevant information.

Public Works Contractor Registration

The Public Works Contractor Registration Act (N.J.S.A. 34:11-56.48, et seq.) requires that **all** contractors, subcontractors, or lower tier subcontractors who are working on or who bid on public works projects register with the Department of Labor and Workforce Development. Applications are available at www.nj.gov/labor (click on Wage & Hour and then go to Registration & Permits).

Pursuant to N.J.S.A. 34:11-56.51:

No contractor shall bid on any contract for public work as defined in section 2 of P.L.1963, c. 150 (C.34:11-56.26) unless the contractor is registered pursuant to this act. No contractor shall list a subcontractor in a bid proposal for the contract unless the subcontractor is registered pursuant to P.L.1999, c.238 (C.34:11-56.48 et seq.) at the time the bid is made. No contractor or subcontractor, including a subcontractor not listed in the bid proposal, shall engage in the performance of any public work subject to the contract, unless the contractor or subcontractor is registered pursuant to that act.

Snow Plowing

Snow plowing contracts are not subject to the New Jersey Prevailing Wage Act or the Public Works Contractor Registration Act.

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

County - UNION

Craft: Air Conditioning & Refrigeration - Service and Repair

PREVAILING WAGE RATE

| | |
|-----------------------|----------------------------|
| | 03/01/17 |
| Journeyman (Mechanic) | W37.48 B22.91 T60.39 |

Craft: Air Conditioning & Refrigeration - Service and Repair

APPRENTICE RATE SCHEDULE

| INTERVAL | PERIOD AND RATES | | | | | | | | | |
|---------------|------------------|----------|----------|----------|----------|----------|--|----------|----------|------|
| | Mo. 1-3 | Mo. 4-12 | 2nd Year | 3rd Year | 4th Year | 5th Year | | Wage = % | of Jnymn | Wage |
| As Shown | | | | | | | | | | |
| Wage and Bene | 50% | 55% | 60% | 65% | 75% | 85% | | Bene = % | of Jnymn | Bene |

Ratio of Apprentices to Journeymen - 1:4

APPRENTICE RATE SCHEDULE FOR THOSE APPRENTICES ENTERING PROGRAM AFTER 3-1-13:

| INTERVAL | PERIOD AND RATES | | | | | | | |
|------------------|------------------|----------|----------|----------|----------|--|------------------------|--|
| As Shown | 1st Year | 2nd Year | 3rd Year | 4th Year | 5th Year | | Wage =% of Jnymn Wage | |
| Wage and Benefit | 40% | 50% | 60% | 70% | 80% | | Bene. =% of Jnymn Wage | |

Craft: Air Conditioning & Refrigeration - Service and Repair

COMMENTS/NOTES

THESE RATES MAY BE USED FOR THE FOLLOWING:

- Service/Repair/Maintenance Work to EXISTING facilities.
- Replacement or Installation of air conditioning and refrigeration equipment when the combined tonnage does not exceed 15 tons for refrigeration, or 25 tons for air conditioning.
- Replacement or Installation of "packaged" or "unitary" rooftop-type units when the combined tonnage of the units does not exceed 75 tons.

NOTE: These rates may NOT be used for any work in new construction (including work on new additions).

The regular workday shall consist of 8 hours, starting between 6:00 AM and 10:00 AM, Monday through Friday.

SHIFT DIFFERENTIALS:

- The second and third shifts shall be paid an additional 15% of the hourly rate.
- All shifts must run for a minimum of 5 consecutive days.

OVERTIME:

Hours worked in excess of 8 per day or before or after the regular workday, that are not shift work, and all hours on Saturday shall be paid at time and one-half the hourly rate, inclusive of benefits. All hours on Sunday and holidays shall be paid at double the hourly rate, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Veterans' Day, Thanksgiving Day, Christmas Day.

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

County - UNION

Craft: Boilermaker PREVAILING WAGE RATE

| | |
|-----------------|----------------------------|
| | 01/01/17 |
| Foreman | W48.70 B41.32 T90.02 |
| General Foreman | W50.70 B42.30 T93.00 |
| Journeyman | W43.70 B39.72 T83.42 |

Craft: Boilermaker APPRENTICE RATE SCHEDULE

| INTERVAL | PERIOD AND RATES | | | | | | | | | |
|------------|------------------|-------|-------|-------|-------|-------|-------|--|--|--|
| | 65% | 70% | 75% | 80% | 85% | 90% | 95% | | | |
| 1000 Hours | | | | | | | | | | |
| Benefit = | 33.58 | 34.50 | 35.38 | 36.24 | 37.12 | 37.49 | 38.85 | | | |

Ratio of Apprentices to Journeymen - *

* 1 apprentice will be allowed for the first 5 journeymen, 1 apprentice for the next 10 journeymen and 1 apprentice for each succeeding 20 journeymen up to a maximum of 5 apprentices per contractor on any one job.

Craft: Boilermaker COMMENTS/NOTES

HIGH WORK: All apprentices working on the erection, repair, or dismantling of smoke stacks, standpipes, or water towers shall be paid the Journeyman rate.

The regular workday shall consist of 8 hours, between 8:00 AM and 4:30 PM.

SHIFT DIFFERENTIALS:

- The second shift shall work 7½ hours and receive 8 hours pay, at a rate equal to the regular hourly rate plus 10%.
- The third shift shall work 7 hours and receive 8 hours pay, at a rate equal to the regular hourly rate plus 20%.
- For "Municipal Water Works" projects only, the following shall apply: Two, four day, 10 hour shifts may be worked at straight time Monday through Thursday. The day shift shall work four days, at 10 hours, for 10 hours pay. The second shift shall work four days, at nine and a half hours, for 10 hours pay, plus 10% the hourly rate for new work and .25 cents on repair work. Friday may be used as a make-up day at straight time, due to weather conditions, holiday or any other circumstances beyond the employer's control.

OVERTIME:

- Hours in excess of 8 per day, Monday through Friday, and all hours on Saturdays shall be paid at time and one-half the hourly rate. All hours on Sundays and holidays (except Labor Day) shall be paid at double the hourly rate. All hours on Labor Day shall be paid at four times the hourly rate.
- If any other craft employed by the same contractor, or a subcontractor thereof, receives double time in lieu of time and one-half, then the Boilermaker shall receive double time in lieu of time and one-half.
- For "Municipal Water Works" projects only, the following shall apply: Four 10 hour days may be worked Monday through Thursday at straight time. Friday may be used as a make-up day for a day lost to inclement weather, holiday or other conditions beyond the control of the employer. Overtime shall be paid for any hours that exceed 10 hours per day or 40 hours per week.

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

County - UNION

RECOGNIZED HOLIDAYS: New Year's Day, Washington's Birthday, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays observed the following Monday.

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

County - UNION

Craft: Boilermaker - Minor Repairs

PREVAILING WAGE RATE

| | 01/01/17 |
|-----------------|----------------------------|
| Foreman | W32.54 B16.17 T48.71 |
| General Foreman | W33.04 B16.17 T49.21 |
| Mechanic | W31.04 B16.17 T47.21 |

Craft: Boilermaker - Minor Repairs

COMMENTS/NOTES

NOTE: These rates apply to MINOR REPAIR WORK ONLY (repair work in the field for which the contract amount does not exceed \$125,000.00).

OVERTIME:

Hours in excess of 8 per day, Monday through Friday, and all hours on Saturdays shall be paid at time and one-half the hourly rate. All hours on Sundays and holidays (except Labor Day) shall be paid at double the hourly rate. All hours on Labor Day shall be paid at four times the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, Washington's Birthday, Good Friday, Memorial Day, July 4th, Labor Day, Presidential Election Day, Thanksgiving Day, day after Thanksgiving, Christmas Day. Saturday holidays observed the preceding Friday, Sunday holidays observed the following Monday.

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

County - UNION

Craft: Bricklayer, Stone Mason

PREVAILING WAGE RATE

| | 05/01/17 | 05/01/18 |
|----------------|----------------------------|--------------------------|
| Deputy Foreman | W44.10 B31.94 T76.04 | W0.00 B0.00 T78.23 |
| Foreman | W47.10 B31.94 T79.04 | W0.00 B0.00 T81.23 |
| Journeyman | W41.10 B31.94 T73.04 | W0.00 B0.00 T75.23 |

Craft: Bricklayer, Stone Mason

APPRENTICE RATE SCHEDULE

| INTERVAL | PERIOD AND RATES | | | | | | | | | |
|----------|------------------|------|------|------|-------|-------|-------|-------|--|--|
| | 40% | 50% | 55% | 60% | 65% | 70% | 75% | 80% | | |
| 6 Months | | | | | | | | | | |
| Benefits | 3.72 | 4.65 | 5.12 | 5.58 | 20.48 | 21.83 | 23.18 | 24.52 | | |

Ratio of Apprentices to Journeymen - 1:5

Craft: Bricklayer, Stone Mason

COMMENTS/NOTES

APPRENTICE RATE SCHEDULE AS OF 5-1-17:

| INTERVAL | PERIOD AND RATES | | | | | | | |
|----------|------------------|------|------|------|-------|-------|-------|-------|
| 6 Months | 40% | 50% | 55% | 60% | 65% | 70% | 75% | 80% |
| Benefits | 3.80 | 4.75 | 5.23 | 5.70 | 21.16 | 22.55 | 23.95 | 25.33 |

The regular workday shall consist of 8 hours, between 6:00 AM and 4:30 PM.

SHIFT DIFFERENTIALS:

- When a 2 shift schedule (including a day shift) is established, the first, or day shift, shall be established on an 8 hour basis. The second shift shall be established on an 8 hour basis, and receive the regular rate plus 10%, inclusive of benefits.
- When a three shift schedule is established, the first shift shall be established on an 8 hour basis, the second shift on a 7.5 hour basis, and the third shift on a 7 hour basis. The first shift shall receive the regular hourly rate, the second shift shall receive the regular rate plus 10%, inclusive of benefits, and the third shift shall receive the regular rate plus 15%, inclusive of benefits.
- When there is no day shift, and a second or third shift is established, it shall be established on an 8 hour basis. The second shift shall receive the regular rate plus 10%, inclusive of benefits, and the third shift shall receive the regular rate plus 15%, inclusive of benefits.
- When an irregular shift must be established, this shift shall receive the regular rate plus 10%, inclusive of benefits.

OVERTIME:

- The first 2 hours in excess of 8 per day, or before or after the regular workday that are not shift work, Monday through Friday, shall be paid at time and one-half the regular rate, inclusive of benefits. Any additional overtime shall be paid at double the regular rate, inclusive of benefits. The first 10 hours on Saturday shall be paid at time and one-half the

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

County - UNION

regular rate, inclusive of benefits. Any additional overtime shall be paid at double the regular rate, inclusive of benefits. All hours on Sundays and holidays shall be paid at double the regular rate, inclusive of benefits.

- Saturday may be used as a make-up day for hours lost to inclement weather.

- When Bricklayers/Stone Masons work on Saturday with Laborers, and no other crafts are working on the project for the day, benefits may be paid at straight time. If other crafts are present, the applicable overtime rate for benefits shall be paid.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays will be observed the following Monday.

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

County - UNION

Craft: Carpenter PREVAILING WAGE RATE

| | 05/01/17 | 11/01/17 | 05/01/18 | 11/01/18 |
|------------|----------|----------|----------|----------|
| Foreman | W54.37 | W0.00 | W0.00 | W0.00 |
| | B31.00 | B0.00 | B0.00 | B0.00 |
| | T85.37 | T86.04 | T87.29 | T88.54 |
| Journeyman | W47.28 | W0.00 | W0.00 | W0.00 |
| | B26.95 | B0.00 | B0.00 | B0.00 |
| | T74.23 | T75.23 | T76.48 | T77.73 |

Craft: Carpenter APPRENTICE RATE SCHEDULE

| INTERVAL | PERIOD AND RATES | | | | | | | | | |
|----------|------------------|--------|------|------|---------|-----------|--|--|--|--|
| | Yearly | 40% | 55% | 65% | 80% | 90% | | | | |
| Benefit | 57% of | Appren | tice | Wage | for all | intervals | | | | |

Ratio of Apprentices to Journeymen - 1:3

Craft: Carpenter COMMENTS/NOTES

FOREMAN REQUIREMENTS:

- When there are 2 or more Carpenters on a job, 1 shall be designated as a Foreman.
- When there are 21 or more Carpenters on a job, 2 shall be designated as Foremen.

The regular workday shall consist of 8 hours, starting between 7:00 AM and 9:00 AM.

SHIFT DIFFERENTIALS:

- When a 2 shift schedule (including a day shift) is established, the day shift shall be established on an 8 hour basis. The second shift shall be established on an 8 hour basis, and receive the regular rate plus 15%, inclusive of benefits.
- When a three shift schedule is established, the first shift shall be established on an 8 hour basis, the second shift on a 7.5 hour basis, and the third shift on a 7 hour basis. The first shift shall receive the regular hourly rate, the second shift shall receive the regular rate plus 15% and the third shift shall receive the regular rate plus 20%, inclusive of benefits.
- When there is no day shift, and a second or third shift is established, it shall be established on an 8 hour basis. The second shift shall receive the regular rate plus 15% and the third shift shall receive the regular rate plus 20%, inclusive of benefits.

OVERTIME:

- All hours in excess of 8 per day, or before or after an established shift that are not shift work, and all hours on Saturdays shall be paid at time and one-half the hourly rate, inclusive of benefits. All hours on Sundays and holidays shall be paid at double the hourly rate, inclusive of benefits.
- Four 10-hour days may be worked, Monday to Thursday, at straight time. Friday may be used as a make-up day for a day lost due to inclement weather. If Friday is not a make-up day, all hours on Friday shall be paid at time and one-half the hourly rate, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays observed the following Monday.

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

County - UNION

Craft: Carpenter - Resilient Flooring

PREVAILING WAGE RATE

| | 05/01/17 | 11/01/17 | 05/01/18 | 11/01/18 |
|------------|----------|----------|----------|----------|
| Foreman | W54.37 | W0.00 | W0.00 | W0.00 |
| | B31.00 | B0.00 | B0.00 | B0.00 |
| | T85.37 | T86.04 | T87.29 | T88.54 |
| Journeyman | W47.28 | W0.00 | W0.00 | W0.00 |
| | B26.95 | B0.00 | B0.00 | B0.00 |
| | T74.23 | T75.23 | T76.48 | T77.73 |

Craft: Carpenter - Resilient Flooring

APPRENTICE RATE SCHEDULE

| INTERVAL | PERIOD AND RATES | | | | | | | | | |
|----------|------------------|-----|--------|------|------|---------|-----------|--|--|--|
| | Yearly | 40% | 55% | 65% | 80% | 90% | | | | |
| Benefit | 57% | of | Appren | tice | Wage | for all | intervals | | | |

Ratio of Apprentices to Journeymen - *

* 1 apprentice shall be allowed to every 2 journeymen or major fraction thereof. No more than 3 apprentices on any one job or project.

Craft: Carpenter - Resilient Flooring

COMMENTS/NOTES

FOREMAN REQUIREMENTS:

- On any job where there are 4 or more Carpenters of Resilient Flooring, 1 must be designated a Foreman.

FOR SYNTHETIC TURF INSTALLATION ONLY:

- The rate shall be 90% of the wage and benefit rate.

The regular workday consists of 8 hours, starting between 6:00 AM and 9:00 AM.

SHIFT DIFFERENTIALS:

- When a 2 shift schedule (including a day shift) is established, the day shift, shall be established on an 8 hour basis. The second shift shall be established on an 8 hour basis, and receive the regular wage rate plus 15%.
- When a three shift schedule is established, the first shift shall be established on an 8 hour basis, the second shift on a 7.5 hour basis, and the third shift on a 7 hour basis. The first shift shall receive the regular wage rate, the second shift shall receive the regular wage rate plus 15% and the third shift shall receive the regular wage rate plus 20%.
- When there is no day shift, and a second or third shift is established, it shall be established on an 8 hour basis. The second shift shall receive the regular wage rate plus 15% and the third shift shall receive the regular wage rate plus 20%.

OVERTIME:

- Hours in excess of 8 per day or 40 per week, or before or after the regular workday, Monday through Friday, shall be paid at time and one-half the wage rate. Saturday may be used as a make-up day, at straight time, up to 8 hours, for hours lost to reasons beyond the control of the employer, up to a total of 40 hours per week; hours in excess of 8 on Saturday shall then be paid at time and one-half the wage rate. If Saturday is not a make-up day, all hours on Saturday shall be paid at time and one-half the wage rate. All hours on Sundays and holidays shall be paid at double the wage rate.
- Four 10-hour days may be worked, Monday to Thursday, at straight time. Friday may be used as a make-up day for hours lost to reasons beyond the control of the employer. If Friday is not a make-up day, all hours on Friday shall be paid at time and one-half the wage rate.

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

County - UNION

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays will be observed the following Monday.

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

County - UNION

Craft: Cement Mason

PREVAILING WAGE RATE

See "Bricklayer, Stone Mason" Rates

Craft: Cement Mason

APPRENTICE RATE SCHEDULE

| INTERVAL | PERIOD AND RATES | | | | | | | | | |
|----------|------------------|--|--|--|--|--|--|--|--|--|
| | | | | | | | | | | |
| | | | | | | | | | | |

Ratio of Apprentices to Journeymen - 1:4

Craft: Cement Mason

COMMENTS/NOTES

See "Bricklayer, Stone Mason" Rates

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

County - UNION

Craft: Diver PREVAILING WAGE RATE

| | 05/12/17 | 11/01/17 | 05/01/18 | 11/01/18 |
|--------|----------|----------|----------|----------|
| Diver | W56.84 | W0.00 | W0.00 | W0.00 |
| | B45.07 | B0.00 | B0.00 | B0.00 |
| | T101.91 | T103.11 | T104.36 | T105.61 |
| Tender | W45.10 | W0.00 | W0.00 | W0.00 |
| | B45.07 | B0.00 | B0.00 | B0.00 |
| | T90.17 | T91.37 | T92.62 | T93.87 |

Craft: Diver COMMENTS/NOTES

NOTE: All dive crews must consist of a Tender, a Diver, and a standby Diver (standby Diver is the same rate as a Diver).

DEPTH & PENETRATION RATES: Divers shall be paid the following depth and penetration rates, in addition to the regular hourly rate, when applicable:

AIR DIVES:

0-59 feet: No additional wage
60-74 feet: + \$0.25 per foot
75-125 feet: + \$0.78 per foot

MIXED GAS DIVES:

0-74 feet: No additional wage
75-125 feet: + \$1.00 per foot
126-200 feet: + \$2.00 per foot

PENETRATION DIVES:

126-200 feet: + \$1.50 per foot
201-275 feet: + \$1.75 per foot
276-350 feet: + \$2.00 per foot
351-425 feet: + \$2.50 per foot

OVERTIME:

Hours in excess of 8 per day, Monday through Friday, and all hours on Saturdays shall be paid at time and one-half the hourly rate. All hours on Sundays and holidays shall be paid at double the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Veterans' Day, Presidential Election Day, Thanksgiving Day, Christmas Day. Veterans' Day may be switched with the day after Thanksgiving.

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

County - UNION

Craft: Dockbuilder PREVAILING WAGE RATE

| | 05/12/17 | 11/01/17 | 05/01/18 | 11/01/18 |
|------------------------------------|----------------------------|--------------------------|--------------------------|---------------------------|
| Foreman | W51.87 B45.07 T96.94 | W0.00 B0.00 T97.99 | W0.00 B0.00 T99.24 | W0.00 B0.00 T100.49 |
| Foreman (Concrete Form Work) | W51.29 B31.76 T83.05 | W0.00 B0.00 T84.10 | W0.00 B0.00 T85.35 | W0.00 B0.00 T86.60 |
| Journeyman | W45.10 B45.07 T90.17 | W0.00 B0.00 T91.37 | W0.00 B0.00 T92.62 | W0.00 B0.00 T93.87 |
| Journeyman (Concrete Form Work) | W44.60 B31.76 T76.36 | W0.00 B0.00 T77.56 | W0.00 B0.00 T78.81 | W0.00 B0.00 T80.06 |

Craft: Dockbuilder APPRENTICE RATE SCHEDULE

| <u>INTERVAL</u> | <u>PERIOD AND RATES</u> | | | | | | | | | |
|-----------------|-------------------------|---------|-----------|-------|----------|--------------|--------------|---------|---------|-----------|
| Yearly | 18.04 | 22.55 | 29.32 | 36.08 | | | | | | |
| Benefit | 30.31 | for all | intervals | | Concrete | Form Work | Only Ben. | = 21.91 | for all | intervals |

Ratio of Apprentices to Journeymen - *

* When there are 4 or fewer Dockbuilders on a job, no more than 1 may be an apprentice. When there are 5 or more Dockbuilders, there may be 1 apprentice for every 5 Dockbuilders.

Craft: Dockbuilder COMMENTS/NOTES

CREOSOTE HANDLING:

When handling creosote products on land piledriving, floating marine construction, and construction of wharves, the worker shall receive an additional \$0.25 per hour.

HAZARDOUS WASTE WORK:

- Hazardous waste removal work on a state or federally designated hazardous waste site where Level A, B, or C personal protection is required: an additional 20% of the hourly rate, per hour.
- Hazardous waste removal work in Level D, or where personal protection is not required: an additional \$1.00 per hour.

CERTIFIED WELDER: When required on the job by the project owner, a Certified Welder shall receive an additional \$1.00 per hour.

FOREMAN REQUIREMENTS:

The first Dockbuilder on the job shall be designated a Foreman.

OVERTIME:

Hours in excess of 8 per day, Monday through Friday, and all hours on Saturdays shall be paid at time and one-half the hourly rate. All hours on Sundays and holidays shall be paid at double the hourly rate.

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

County - UNION

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Veterans' Day, Presidential Election Day, Thanksgiving Day, Christmas Day. Veterans' Day may be switched with the day after Thanksgiving.

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

County - UNION

Craft: Drywall Finisher

PREVAILING WAGE RATE

| | |
|-----------------|----------------------------|
| | 05/01/17 |
| Foreman | W43.45 B23.60 T67.05 |
| General Foreman | W45.43 B23.60 T69.03 |
| Journeyman | W39.50 B23.60 T63.10 |

Craft: Drywall Finisher

APPRENTICE RATE SCHEDULE

| INTERVAL | PERIOD AND RATES | | | | | | | | | |
|----------|------------------|----------|------|-----------|----------|-------|-----------|----------|-------|--|
| | 30% | 40% | 50% | 60% | 70% | 75% | 80% | 85% | 90% | |
| 4 Months | | | | | | | | | | |
| Benefits | Intervals | 1 to 3 = | 9.85 | Intervals | 4 to 6 = | 12.28 | Intervals | 7 to 9 = | 14.95 | |

Ratio of Apprentices to Journeymen - 1:4

Craft: Drywall Finisher

COMMENTS/NOTES

The regular workday shall consist of 8 hours between 7:00 AM and 5:30 PM.

SHIFT DIFFERENTIALS:

- The second shift shall receive an additional 10% of the hourly rate, per hour, and the third shift shall receive an additional 15% of the hourly rate, per hour.
- When 3 shifts are worked, the second shift shall receive 8 hours pay for 7.5 hours of work, and the third shift shall receive 8 hours pay for 7 hours of work.
- Shift work must run for a minimum of 5 consecutive workdays.

OVERTIME:

- Hours in excess of 8 per day, Monday through Friday, and all hours on Saturdays shall be paid at time and one-half the regular rate, inclusive of benefits. All hours on Sundays and holidays shall be paid at double the regular rate, inclusive of benefits.
- Saturday or Sunday may be used to make up a day lost to inclement weather, at straight time.

RECOGNIZED HOLIDAYS: New Year's Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Saturday holiday observed the preceding Friday. Sunday holiday observed the following Monday.

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

County - UNION

Craft: Electrician

PREVAILING WAGE RATE

| | 05/30/16 | 05/29/17 | 05/28/18 |
|---------------|----------------------------|----------------------------|----------------------------|
| Cable Splicer | W58.71 B33.74 T92.45 | W60.08 B34.53 T94.61 | W61.52 B35.35 T96.87 |
| Foreman | W59.77 B34.34 T94.11 | W61.17 B35.15 T96.32 | W62.64 B35.98 T98.62 |
| Journeyman | W53.37 B30.67 T84.04 | W54.62 B31.39 T86.01 | W55.93 B32.13 T88.06 |

Craft: Electrician

APPRENTICE RATE SCHEDULE

| INTERVAL | PERIOD AND RATES | | | | | | | | | |
|----------|------------------|-----|-----|-----|-----|-----|---------|---------|---------|------|
| | Yearly | 40% | 49% | 58% | 68% | 80% | | of Jour | neyman | Wage |
| Benefit | 40% | 49% | 58% | 68% | 80% | | of Jour | neyman | Benefit | Rate |

Ratio of Apprentices to Journeymen - 2:3

Craft: Electrician

COMMENTS/NOTES

THESE RATES ALSO APPLY TO THE FOLLOWING:

- All burglar and fire alarm work.
- All fiber optic work.
- Teledata work in new construction.
- Teledata work involving 16 Voice/Data Lines or more.

The regular workday shall be 8 hours, between 8:00 AM and 4:30 PM.

FOREMAN REQUIREMENTS:

- On any job where there are 1 to 10 Journeymen electricians, 1 shall be designated a Foreman.

SHIFT DIFFERENTIALS:

- Shift work must run for a minimum of 5 consecutive workdays.
- 2nd Shift (4:30 PM to 12:30 AM) shall receive 8 hours pay for 7.5 hours work + an additional 10% of the regular rate, per hour, inclusive of benefits.
- 3rd Shift (12:30 AM to 8:00 AM) shall receive 8 hours pay for 7 hours work + an additional 15% of the regular rate, per hour, inclusive of benefits.

OVERTIME:

Hours in excess of 8 per day, or outside of the regular workday, Monday through Friday, and all hours on Saturdays, shall be paid at time and one-half the regular rate, inclusive of benefits. All hours on Sundays and holidays shall be paid at double the regular rate, inclusive of benefits.

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

County - UNION

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day.

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

County - UNION

Craft: Electrician - Teledata (15 Voice/Data Lines & Less)

PREVAILING WAGE RATE

| | 11/01/16 |
|---|----------------------------|
| Master Technician/General Foreman | W52.18 B28.69 T80.87 |
| Senior Technician/Lead Foreman (21-30 Workers on Job) | W47.77 B26.26 T74.03 |
| Technician A/Foreman (11-20 Workers on Job) | W45.76 B25.16 T70.92 |
| Technician B/Working Foreman (4-10 Workers on Job) | W43.75 B24.06 T67.81 |
| Technician C/Journeyman (1-3 Workers on Job) | W40.14 B22.07 T62.21 |

Craft: Electrician - Teledata (15 Voice/Data Lines & Less)

APPRENTICE RATE SCHEDULE

| <u>INTERVAL</u> | <u>PERIOD AND RATES</u> | | | | | | | | | |
|-----------------|-------------------------|-------|-------|-------|-------|-------|-------|-------|--|--|
| 6 Months | 20.14 | 21.48 | 23.72 | 26.41 | 29.54 | 32.23 | 35.36 | 38.49 | | |
| Benefits | 7.85 | 8.38 | 9.25 | 10.29 | 11.52 | 12.56 | 13.79 | 15.01 | | |

Ratio of Apprentices to Journeymen - 2:3

Craft: Electrician - Teledata (15 Voice/Data Lines & Less)

COMMENTS/NOTES

APPRENTICE RATE SCHEDULE FOR THOSE APPRENTICES ENTERING PROGRAM AFTER 10-31-14:

| INTERVAL | PERIOD AND RATES | | | | | | | | |
|----------|------------------|-------|-------|-------|-------|-------|-------|-------|--|
| 6 Months | 17.90 | 19.25 | 21.48 | 24.17 | 27.30 | 29.99 | 33.12 | 36.26 | |
| Benefits | 6.98 | 7.51 | 8.38 | 9.42 | 10.65 | 11.69 | 12.92 | 14.13 | |

NOTES:

- These rates are for service, maintenance, moves, and/or changes affecting 15 Voice/Data (teledata) lines or less. These rates may NOT be used for any teledata work in new construction (including additions) or any fiber optic work.
- The number of Teledata workers on the jobsite is the determining factor for which Foreman category applies .

The regular workday shall be 8 hours, between 8:00 AM and 4:30 PM.

SHIFT DIFFERENTIALS:

- Shift work must run for a minimum of 5 consecutive workdays.

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

County - UNION

- 2nd Shift (4:30 PM to 12:30 AM) shall receive 8 hours pay for 7.5 hours work + an additional 10% of the regular rate, per hour, inclusive of benefits.
- 3rd Shift (12:30 AM to 8:00 AM) shall receive 8 hours pay for 7 hours work + an additional 15% of the regular rate, per hour, inclusive of benefits.

OVERTIME:

Hours in excess of 8 per day, or outside of the regular workday, Monday through Friday, and all hours on Saturdays, shall be paid at time and one-half the regular rate, inclusive of benefits. All hours on Sundays and holidays shall be paid at double the regular rate, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day.

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

County - UNION

Craft: Electrician - Teledata (16 Instruments & More)

PREVAILING WAGE RATE

See "Electrician" Rates

Craft: Electrician - Teledata (16 Instruments & More)

COMMENTS/NOTES

See ELECTRICIAN Rates

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

County - UNION

Craft: Electrician- Outside Commercial

PREVAILING WAGE RATE

| | 05/30/16 | 05/29/17 | 05/28/18 |
|---|-----------------------------|-----------------------------|-----------------------------|
| Cable Splicer | W58.99 B33.46 T92.45 | W60.37 B34.24 T94.61 | W61.82 B35.06 T96.88 |
| Certified Welder | W56.31 B31.94 T88.25 | W57.62 B32.68 T90.30 | W59.01 B33.47 T92.48 |
| Equipment Operator | W53.63 B30.42 T84.05 | W54.88 B31.13 T86.01 | W56.20 B31.88 T88.08 |
| Foreman (1-10 Journeyman workers on job) | W60.07 B34.07 T94.14 | W61.47 B34.86 T96.33 | W62.94 B35.70 T98.64 |
| Foreman (11-20 Journeyman workers on job) | W61.67 B34.98 T96.65 | W63.11 B35.79 T98.90 | W64.63 B36.66 T101.29 |
| General Foreman (21-30 Journeyman workers on job) | W63.28 B35.89 T99.17 | W64.76 B36.73 T101.49 | W66.32 B37.61 T103.93 |
| General Foreman (31-60 Journeyman workers on job) | W68.65 B38.94 T107.59 | W70.25 B39.84 T110.09 | W71.94 B40.80 T112.74 |
| General Foreman (61+ Journeyman workers on job) | W69.72 B39.54 T109.26 | W71.34 B40.46 T111.80 | W73.06 B41.44 T114.50 |
| Groundman | W32.18 B18.26 T50.44 | W32.93 B18.68 T51.61 | W33.72 B19.13 T52.85 |
| Journeyman Lineman/Technician | W53.63 B30.42 T84.05 | W54.88 B31.13 T86.01 | W56.20 B31.88 T88.08 |
| Sub-Foreman | W60.07 B34.07 T94.14 | W61.47 B34.86 T96.33 | W62.94 B35.70 T98.64 |

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

County - UNION

Craft: Electrician- Outside Commercial

APPRENTICE RATE SCHEDULE

| INTERVAL | PERIOD AND RATES | | | | | | | | | |
|-----------------|-------------------------|---------|-----|------|------|-----|-----|--|--|--|
| 1000 Hours | 60% | 65% | 70% | 75% | 80% | 85% | 90% | | | |
| Benefits | 56.4% of | Journey | man | wage | +.01 | | | | | |

Craft: Electrician- Outside Commercial

COMMENTS/NOTES

EFFECTIVE 5-30-16- The apprentice benefit rate shall be 56.7% + \$.01.
 EFFECTIVE 5-29-17- The apprentice benefit rate shall be 56.7% + \$.01.
 EFFECTIVE 5-28-18- The apprentice benefit rate shall be 56.7% + \$.01.

* FOR UTILITY WORK PLEASE SEE STATEWIDE RATES

The regular worday shall be 8 hours, between 8:00 AM and 4:30 PM.

FOREMAN REQUIREMENTS:

On jobs where there are 2 Journeymen, one shall be a Foreman. The following number of Foreman, General Foreman, Assistant General Foreman and Sub-Foreman shall be required with respect to number of Journeymen on site:

- 2-10 Journeymen (1 Foreman)
- 11-20 Journeymen (1 Foreman and 1 Sub-Foreman)
- 21-30 Journeymen (1 Foreman and 2 Sub-Foremen)

SHIFT DIFFERENTIALS:

- Shift work must run for a minimum of 5 consecutive workdays.
- 2nd Shift (4:30 PM to 12:30 AM): 8 hrs. pay for 7.5 hrs. work + an additional 10% of the regular rate, inclusive of benefits.
- 3rd Shift (12:30 AM to 8:00 AM): 8 hrs. pay for 7 hrs. work + an additional 15% of the regular rate per hour, inclusive benefits.

OVERTIME:

Hours in excess of 8 per day, or outside of the regular workday, Monday through Friday, and all hours on Saturdays, shall be paid at time and one-half the regular rate, inclusive of benefits. All hours on Sundays and holidays shall be paid at double the regular rate, inclusive of benefits.

RECOGNIZED HOLIDAYS:

New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day and Christmas Day.

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

County - UNION

Craft: Electrician-Utility Work (North)

PREVAILING WAGE RATE

Rates are located in the "Statewide" rate package

Craft: Electrician-Utility Work (North)

APPRENTICE RATE SCHEDULE

| INTERVAL | PERIOD AND RATES | | | | | | | | | |
|----------|------------------|--------|------|------|------|---------|-----------|--|--|--|
| 6 Months | 60% | 65% | 70% | 75% | 80% | 85% | 90% | | | |
| Benefits | 62.5% of | Appren | tice | Wage | Rate | for all | intervals | | | |

Craft: Electrician-Utility Work (North)

COMMENTS/NOTES

Electrician-Utility Work (North) rates are located in the "Statewide" rate package.

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

County - UNION

Craft: Electrician-Utility Work (South)

PREVAILING WAGE RATE

Rates are located in the "Statewide" rate package

Craft: Electrician-Utility Work (South)

APPRENTICE RATE SCHEDULE

| INTERVAL | PERIOD AND RATES | | | | | | | | | |
|----------|------------------|-------|-------|-------|-------|-------|-------|--|--|--|
| 6 Months | 27.37 | 29.65 | 31.93 | 34.21 | 36.49 | 38.77 | 41.05 | | | |
| Benefits | 24.01 | 25.34 | 26.73 | 28.09 | 29.43 | 30.80 | 32.18 | | | |

Craft: Electrician-Utility Work (South)

COMMENTS/NOTES

Electrician-Utility Work (South) rates are located in the "Statewide" rate package.

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

County - UNION

Craft: Elevator Constructor PREVAILING WAGE RATE

| | 03/17/17 | 03/17/18 |
|------------|-----------------------------|-----------------------------|
| Journeyman | W62.64 B41.56 T104.20 | W64.48 B43.36 T107.84 |

Craft: Elevator Constructor APPRENTICE RATE SCHEDULE

| INTERVAL | PERIOD AND RATES | | | | | | | | | |
|----------|------------------|-------|-------|-------|--|--|--|--|--|--|
| Yearly | 27.95 | 34.45 | 40.72 | 46.98 | | | | | | |
| Benefits | 33.31 | 34.46 | 36.04 | 37.61 | | | | | | |

Ratio of Apprentices to Journeymen - 1:1

Craft: Elevator Constructor COMMENTS/NOTES

The regular workday shall consist of either 7 or 8 hours to be established at the beginning of the project, between 7:00 AM and 4:30 PM.

OVERTIME:

For all hours worked before or after the regular workday, Monday through Friday, and all hours on Saturday and Sunday, shall be paid at double the hourly rate. Holiday pay is one days wages (8 hours) plus double the hourly rate for all hours worked.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Good Friday, Memorial Day, July 4th, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day and the day after, Christmas Day. Saturday holidays shall be observed on the previous Friday and Sunday holidays shall be observed on the following Monday.

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

County - UNION

Craft: Elevator Modernization & Service

PREVAILING WAGE RATE

| | 03/17/17 | 03/17/18 |
|------------|----------|----------|
| Journeyman | W49.14 | W50.49 |
| | B39.91 | B41.66 |
| | T89.05 | T92.15 |

Craft: Elevator Modernization & Service

APPRENTICE RATE SCHEDULE

| INTERVAL | PERIOD AND RATES | | | | | | | | | |
|----------|------------------|-------|-------|-------|--|--|--|--|--|--|
| Yearly | 27.95 | 27.03 | 31.94 | 36.86 | | | | | | |
| Benefits | 33.23 | 33.57 | 34.97 | 36.37 | | | | | | |

Ratio of Apprentices to Journeymen - 1:1

Craft: Elevator Modernization & Service

COMMENTS/NOTES

MODERNIZATION (addition, replacement, refurbishing, relocation, or changes in design or appearance, of elevator equipment in existing buildings):

- The regular workday consists of 8 hours, between 7:00 AM and 4:30 PM.

- Overtime:

Hours in excess of 8 per day, or before or after the regular workday, Monday through Friday, and all hours on Saturday and Sunday shall be paid at time and one-half the hourly rate. Holiday pay is one days wages (8 hours) plus time and one-half the hourly rate for all hours worked.

SERVICE (repair or replacement of parts for the purpose of maintaining elevator equipment in good operating condition):

- The regular workday consists of 8 hours, between 6:00 AM and 6:00 PM.

- Overtime:

Hours in excess of 8 per day, or before or after the regular workday, Monday through Friday, and all hours on Saturday shall be paid at time and one-half the hourly rate. All hours on Sunday and holidays shall be paid at double the hourly rate.

RECOGNIZED HOLIDAYS (Modernization and Service): New Year's Day, Presidents' Day, Good Friday, Memorial Day, July 4th, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day and the day after, Christmas Day. Saturday holidays shall be observed on the previous Friday and Sunday holidays shall be observed on the following Monday.

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

County - UNION

Craft: Glazier PREVAILING WAGE RATE

| | |
|-----------------|----------------------------|
| | 06/20/16 |
| Foreman | W47.39 B23.26 T70.65 |
| General Foreman | W49.39 B23.50 T72.89 |
| Journeyman | W43.39 B22.78 T66.17 |

Craft: Glazier APPRENTICE RATE SCHEDULE

| INTERVAL | PERIOD AND RATES | | | | | | | | | |
|----------|------------------|----------|------|-----------|----------|------|-----------|----------|-------|--|
| | 30% | 40% | 50% | 60% | 70% | 75% | 80% | 85% | 90% | |
| 4 Months | | | | | | | | | | |
| Benefits | Intervals | 1 to 3 = | 6.51 | Intervals | 4 to 6 = | 9.33 | Intervals | 7 to 9 = | 11.67 | |

Ratio of Apprentices to Journeymen - 1:4

Craft: Glazier COMMENTS/NOTES

APPRENTICE RATE SCHEDULE FOR THOSE APPRENTICES ENTERING PROGRAM AS OF 5-1-14:

| INTERVAL | PERIOD AND RATES | | | | | | | |
|----------|------------------|------|-------|-------|-------|-------|-------|-------|
| 6 Months | 50% | 55% | 60% | 65% | 70% | 75% | 80% | 90% |
| Benefits | 8.10 | 8.10 | 10.34 | 10.34 | 11.51 | 11.51 | 14.62 | 14.62 |

Hazard/Height Pay: +\$1.00 per hour

FOREMAN REQUIREMENTS:

- When there are 4 or more Glaziers on a job, 1 must be designated a Foreman.
- When there are 15 or more Glaziers on a job, 1 must be designated a General Foreman.

The regular workday shall consist of 8 hours, between 7:00 AM and 5:30 PM, Monday to Friday.

SHIFT DIFFERENTIALS:

- The second shift shall receive an additional 10% of the hourly rate, per hour, and the third shift shall receive an additional 15% of the hourly rate, per hour.
- When 3 shifts are worked, the second shift shall receive 8 hours pay for 7.5 hours of work, and the third shift shall receive 8 hours pay for 7 hours of work.

OVERTIME:

Hours in excess of 8 per day, or before or after the regular workday Monday through Friday, and all hours on Saturdays shall be paid at time and one-half the regular rate. All hours on Sundays and holidays shall be paid at double the regular rate.

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

County - UNION

RECOGNIZED HOLIDAYS: New Year's Day, Memorial Day, July 4th, Labor Day, General Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Saturday holiday observed the preceding Friday. Sunday holiday observed the following Monday.

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

County - UNION

Craft: Heat & Frost Insulator

PREVAILING WAGE RATE

| | |
|-----------------|----------------------------|
| | 10/17/16 |
| Foreman | W52.52 B30.17 T82.69 |
| General Foreman | W55.07 B31.28 T86.35 |
| Journeyman | W51.24 B29.61 T80.85 |

Craft: Heat & Frost Insulator

APPRENTICE RATE SCHEDULE

| INTERVAL | PERIOD AND RATES | | | | | | | | | |
|----------|------------------|-------|-------|-------|--|--|--|--|--|--|
| Yearly | 23.77 | 28.19 | 34.05 | 39.96 | | | | | | |
| Benefits | 17.83 | 21.08 | 23.21 | 25.16 | | | | | | |

Ratio of Apprentices to Journeymen - 1:3

Craft: Heat & Frost Insulator

COMMENTS/NOTES

NOTE: These rates apply to the installing of insulation on hot and cold mechanical systems.

The regular workday shall be 8 hours between 8:00 AM and 4:30 PM.

SHIFT DIFFERENTIAL:

- Shift work must run for a minimum of 5 consecutive workdays.
- Second Shift shall work 7.5 hours and receive 8 hours pay, at the regular rate, plus 25% per hour.
- Third Shift shall work 7 hours and receive 8 hours pay, at the regular rate, plus 30% per hour.

OVERTIME:

The first 2 hours in excess of 8 per day, hours outside of the regular workday Monday through Friday that are not shift work, and the first 10 hours on Saturday, shall be paid at time and one-half the regular rate, inclusive of benefits. All hours in excess of 10 per day, and all hours on Sunday and holidays (except Labor Day) shall be paid at double the regular rate, inclusive of benefits. All hours on Labor Day shall be paid at triple the regular rate, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, President's Day, Memorial Day, July 4th, Labor Day, Veterans' Day, Presidential Election Day, Thanksgiving Day and Christmas Day. Sunday holidays observed the following Monday.

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

County - UNION

Craft: Heat & Frost Insulator - Asbestos Worker

PREVAILING WAGE RATE

| | |
|------------------------------|----------------------------|
| | 10/17/16 |
| Asbestos Helper Abatement | W33.52 B22.69 T56.21 |
| Firestop/Hazmat | W26.93 B9.25 T36.18 |
| Foreman | W52.52 B30.17 T82.69 |

Craft: Heat & Frost Insulator - Asbestos Worker

APPRENTICE RATE SCHEDULE

| INTERVAL | PERIOD AND RATES | | | | | | | | | |
|----------|------------------|--------|-------|---------------|--|--|--|--|--|--|
| | SEE | HEAT & | FROST | INSULAT OR | | | | | | |
| | | | | | | | | | | |

Ratio of Apprentices to Journeymen - 1:3

Craft: Heat & Frost Insulator - Asbestos Worker

COMMENTS/NOTES

NOTE: These rates apply only to the removal of insulation materials/asbestos from mechanical systems, including containment erection and demolition, and placing material in appropriate containers.

The regular workday shall be 8 hours between 8:00 AM and 4:30 PM.

SHIFT DIFFERENTIALS:

- Shift work must run for a minimum of 5 consecutive workdays.
- The second shift shall work 7.5 hours and receive 8 hours pay at the regular rate, plus 25% per hour.
- The third shift shall work 7 hours and receive 8 hours pay at the regular rate, plus 30% per hour.

OVERTIME: The first 2 hours in excess of 8 per day, hours outside of the regular workday Monday through Friday that are not shift work, and the first 10 hours on Saturday, shall be paid at time and one-half the regular rate, inclusive of benefits. All hours in excess of 10 per day, and all hours on Sunday and holidays (except Labor Day) shall be paid at double the regular rate, inclusive of benefits. All hours on Labor Day shall be paid at triple the regular rate, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Veterans' Day, Presidential Election Day, Thanksgiving Day and Christmas Day. Sunday holidays observed the following Monday.

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

County - UNION

Craft: Ironworker PREVAILING WAGE RATE

| | 08/02/16 | 07/01/17 |
|-----------------------|----------------------------|--------------------------|
| Rod /Fence Foreman | W42.24 B44.27 T86.51 | W0.00 B0.00 T88.51 |
| Rod/Fence Journeyman | W39.24 B44.27 T83.51 | W0.00 B0.00 T85.51 |
| Structural Foreman | W44.54 B44.27 T88.81 | W0.00 B0.00 T90.56 |
| Structural Journeyman | W41.54 B44.27 T85.81 | W0.00 B0.00 T87.56 |

Craft: Ironworker APPRENTICE RATE SCHEDULE

| <u>INTERVAL</u> | <u>PERIOD AND RATES</u> | | | | | | | | | |
|-----------------|-------------------------|-----|--|--------|-----|-----|-----|--|--|--|
| 6 Months | 50% | 60% | | Yearly | 70% | 80% | 90% | | | |
| | | | | | | | | | | |

Ratio of Apprentices to Journeymen - 1:4

Craft: Ironworker COMMENTS/NOTES

HAZARDOUS WASTE WORK: On hazardous waste removal work on a state or federally designated hazardous waste site where the Ironworker is required to wear Level A,B, or C personal protection: + \$3.00 per hour

The regular workday consists of 8 hours between 6:00 AM and 4:30 PM.

FOREMAN REQUIREMENTS:

When there are 2 or more Ironworkers on a job, 1 shall be designated a Foreman.

SHIFT DIFFERENTIALS:

- When a 2 shift schedule is established, the first, or day shift , shall be established on an 8 hour basis .The second shift shall be established on an 8 hour basis, and receive the regular rate plus 15%.
- When a three shift schedule is established, the first shift shall be established on an 8 hour basis, the second shift on a 7.5 hour basis, and the third shift on a 7 hour basis. The first shift shall receive the regular hourly rate, the second shift shall receive the regular rate plus 15%, and the third shift shall receive the regular rate plus 20%.
- When there is no day shift, and a second or third shift is established, it shall be established on an 8 hour basis.
- When an irregular shift is established for the Ironworker (Structural) classification, the rate shall be paid at time and one-half the regular rate, inclusive of benefits. When an irregular shift is established for the Rod/Fence classification, the shift shall be established on an 8 hour basis and receive the regular rate, plus 20%.

OVERTIME:

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

County - UNION

- All hours in excess of 8 per day, or before or after an established shift that are not shift work, and all hours on Saturday, shall be paid at time and one-half the regular rate, inclusive of benefits. All hours on Sunday and holidays shall be paid at double the hourly rate, inclusive of benefits. Saturday may be used as a make-up day for a day lost to inclement weather. If Saturday is not a make-up day, all hours on Saturday shall be paid at time and one-half the hourly rate, inclusive of benefits.

- Four 10-hour days may be worked, Monday to Thursday, at straight time. Friday may be used as a make-up day for a day lost to inclement weather. If Friday is not a make-up day, all hours on Friday shall be paid at time and one-half the hourly rate, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans Day, Thanksgiving Day, Christmas Day.

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

County - UNION

Craft: Laborer - Asbestos & Hazardous Waste Removal

PREVAILING WAGE RATE

| | |
|----------------------|----------------------------|
| | 01/26/17 |
| Journeyman (Handler) | W30.88 B21.91 T52.79 |

Craft: Laborer - Asbestos & Hazardous Waste Removal

APPRENTICE RATE SCHEDULE

| INTERVAL | PERIOD AND RATES | | | | | | | | | |
|----------|------------------|-------|-------|-----------|--|--|--|--|--|--|
| Yearly | 18.53 | 21.62 | 24.70 | 27.79 | | | | | | |
| Benefits | 20.26 | for | all | intervals | | | | | | |

Ratio of Apprentices to Journeymen - *

* Ratio of apprentices to journeymen shall not be more than one apprentice for the first journeyman and no more than (1) apprentice for each additional three (3) journeymen.

Craft: Laborer - Asbestos & Hazardous Waste Removal

COMMENTS/NOTES

NOTE: These rates apply to work in connection with Asbestos, Radiation, Hazardous Waste, Lead, Chemical, Biological, Mold Remediation and Abatement.

The regular workday shall be 8 hours between 6:00 AM and 6:00 PM.

OVERTIME:

- Hours in excess of 8 per day, Monday through Saturday, and all hours on Sunday and holidays shall be paid at time and one-half the regular rate.
- When the owner (Public Body) mandates that work is to be performed on Sunday, those hours may be worked at straight time, up to 8 hours per day, up to 40 hours per week.
- Benefits on ALL overtime hours shall be paid at straight time.

RECOGNIZED HOLIDAYS: New Year's Day, President's Day, Good Friday, Easter, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day.

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

County - UNION

Craft: Laborer - Building PREVAILING WAGE RATE

| | 05/01/17 | 11/01/17 | 05/01/18 |
|--------------------|----------------------------|--------------------------|--------------------------|
| Class A Journeyman | W32.30 B27.37 T59.67 | W0.00 B0.00 T60.72 | W0.00 B0.00 T62.57 |
| Class B Journeyman | W31.80 B27.37 T59.17 | W0.00 B0.00 T60.22 | W0.00 B0.00 T62.07 |
| Class C Journeyman | W27.03 B27.37 T54.40 | W0.00 B0.00 T55.60 | W0.00 B0.00 T57.45 |
| Foreman | W36.34 B27.37 T63.71 | W0.00 B0.00 T64.63 | W0.00 B0.00 T66.48 |
| General Foreman | W40.38 B27.37 T67.75 | W0.00 B0.00 T68.55 | W0.00 B0.00 T70.40 |

Craft: Laborer - Building APPRENTICE RATE SCHEDULE

| INTERVAL | PERIOD AND RATES | | | | | | | | | |
|-----------------|-------------------------|-------|-------|-------|--|--|--|--|--|--|
| | 60% | 70% | 80% | 90% | | | | | | |
| 6 Months | | | | | | | | | | |
| Benefit | 24.12 | 24.12 | 24.12 | 24.12 | | | | | | |

Ratio of Apprentices to Journeymen - *

* Ratio of apprentices to journeymen shall not be more than one apprentice for the first journeyman and no more than (1) apprentice for each additional three (3) journeymen.

Craft: Laborer - Building COMMENTS/NOTES

CLASS A: Specialist laborer including mason tender or concrete pour crew; scaffold builder (scaffolds up to 14 feet in height); operator of forklifts, Bobcats (or equivalent machinery), jack hammers, tampers, motorized tampers and compactors, vibrators, street cleaning machines, hydro demolition equipment, riding motor buggies, conveyors, burners; and nozzlemen on gunite work.

CLASS B: Basic laborer - includes all laborer work not listed in Class A or Class C.

CLASS C: Janitorial-type light clean-up work associated with the TURNOVER of a project, or part of a project, to the owner. All other clean-up work is Class B.

The regular workday shall be 8 hours between 6:00 AM and 6:00 PM.

SHIFT DIFFERENTIALS:

- Shift work must run for a minimum of 5 consecutive workdays.
- When a 2-shift schedule is worked, including a day shift, both shifts shall be established on the basis of 8 hours pay for 8 hours worked. The second shift shall receive the regular rate plus an additional 10%.
- When a 3-shift schedule is worked, the day shift shall be established on the basis of 8 hours pay for 8 hours worked, the second shift shall be established on the basis of 8 hours pay for 7.5 hours worked, and the third shift shall be established

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

County - UNION

on the basis of 8 hours pay for 7 hours worked. The day shift shall receive the regular rate, the second shift shall receive the regular rate plus an additional 10%, and the third shift shall receive the regular rate plus an additional 15%.

- When a second or third shift is worked with no day shift, the second or third shift shall be established on the basis of 8 hours pay for 8 hours worked. The second shift shall receive the regular rate plus an additional 10%, and the third shift shall receive the regular rate plus an additional 15%.

OVERTIME:

- Hours in excess of 8 per day, or outside the regular workday that are not shift work, Monday through Friday, and all hours on Saturdays shall be paid at time and one-half the regular rate. Saturday may be used as a make-up day (paid at straight time) for a day lost to inclement weather, or for a holiday that is observed during the work week, Monday through Friday. All hours on Sundays and holidays shall be paid at double the regular rate.

- Four 10-hour days may be worked Monday to Thursday, at straight time, with Friday used a make-up day for a day lost to inclement weather. If Friday is not a make-up day, all hours on Friday shall be paid at time and one-half the regular rate.

- Benefits on ALL overtime hours shall be paid at time and one-half.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays observed the following Monday.

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

County - UNION

Craft: Laborer - Heavy & General

PREVAILING WAGE RATE

Rates are located in the
"Statewide" rate package

Craft: Laborer - Heavy & General

APPRENTICE RATE SCHEDULE

| INTERVAL | PERIOD AND RATES | | | | | | | | | |
|------------|------------------|-----|-----|-----------|--|--|--|--|--|--|
| 1000 Hours | 60% | 70% | 80% | 90% | | | | | | |
| Benefit | 19.53 | for | all | intervals | | | | | | |

Ratio of Apprentices to Journeymen - *

* No more than 1 apprentice for the first journeyman and no more than 1 apprentice for each additional 3 journeymen.

Craft: Laborer - Heavy & General

COMMENTS/NOTES

Heavy & General Laborer rates are located in the "Statewide" rate package.

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

County - UNION

Craft: Laborer-Residential and Modular Construction

PREVAILING WAGE RATE

| | 04/01/17 |
|--|---------------------------|
| * Skilled Tradesman (only applies to Modular Construction) | W25.55 B5.45 T31.00 |
| Foreman (person directing crew, regardless of his skill classification) | W25.55 B5.45 T31.00 |
| Laborer | W21.55 B5.45 T27.00 |
| Laborer (for single family and stand-alone duplex owned by single owner) | W17.05 B2.95 T20.00 |

Craft: Laborer-Residential and Modular Construction

APPRENTICE RATE SCHEDULE

| <u>INTERVAL</u> | <u>PERIOD AND RATES</u> | | | | | | | | | |
|-----------------|-------------------------|-----------|-----------|--|--|--|--|--|--|--|
| As shown | 800 hours | 600 hours | 600 hours | | | | | | | |
| wage & benefits | 70% | 80% | 90% | | | | | | | |

Ratio of Apprentices to Journeymen-

One (1) apprentice shall be allowed for the first journeyman on site and no more than one (1) additional apprentice for each additional three (3) journeymen on site.

Craft: Laborer-Residential and Modular Construction

COMMENTS/NOTES

* SKILLED TRADESMAN- any worker doing work not typically done by a Building Laborer. Some examples are installing interior doors, sheet rock, hooking up appliances, installing light fixtures, installing railing systems, etc. Please note where local building codes require that certain work be performed under the supervision of a licensed tradesman (i.e. Plumber, Electrician, etc.) Laborers shall work under such supervision.

RESIDENTIAL CONSTRUCTION- All residential construction (not commercial), single-family, stand-alone duplex houses, townhouses and multi-family buildings of not more than four (4) floors, including basement levels. Please note the construction must be residential in nature for ALL FLOORS at an elevation of no more than FOUR (4) FLOORS, INCLUDING BASEMENT. In addition, barracks and dormitories are not considered residential projects.

MODULAR RESIDENTIAL CONSTRUCTION- all aspects of modular residential construction (not commercial) at the site of installation of structures of no more than four (4) stories, including all excavation and site preparation, footings and foundation systems whether poured on-site or prefabricated, all underground waterproofing, underground utilities, concrete slabs, sidewalks, driveways, paving, hardscape and landscaping. Please note the construction must be residential in nature for ALL STORIES at an elevation of no more than FOUR (4) STORIES. All work performed by the Set Crew (the crew of workers who set the modular boxes on the foundation), including the rigging, setting, attaching and assembly of all modules and structural members, preparation of the foundation to accept modules, such as sill plates, connection of all in-module and under-module connections including, but not limited to, plumbing, electrical, HVAC, fire suppression, CATS,

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

County - UNION

telephone, television/internet, and fiber optic, the building or installation of any porches or decks regardless of material or method of construction, the on-site installation of, or completion of any roof system, doors, windows and fenestrations, including flashing, gutter and soffit systems, waterproofing, insulation and interior and exterior trim work, and painting. Please note that modular construction does not include on-site stick built construction, tip up construction or panel built construction.

The regular workday shall be 8 hours between 6:00 AM and 6:00 PM.

OVERTIME:

Hours worked in excess of 8 per day/40 per week, Monday through Saturday, and all hours worked on Sunday and holidays shall be paid at time and one-half the hourly rate.

RECOGNIZED HOILDAYS:

New Year's Day, Martin Luther King Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day and Christmas Day.

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

County - UNION

Craft: Millwright PREVAILING WAGE RATE

| | |
|------------|----------------------------|
| | 05/01/17 |
| Foreman | W54.48 B32.20 T86.68 |
| Journeyman | W47.37 B28.08 T75.45 |

Craft: Millwright APPRENTICE RATE SCHEDULE

| INTERVAL | PERIOD AND RATES | | | | | | | | | |
|----------|------------------|--------|------|------|------|---------|-----------|---------|-----|-----|
| 6 Months | 40% | 45% | 50% | 55% | 60% | 65% | 70% | 75% | 85% | 95% |
| Benefits | 58% of | Appren | tice | Wage | Rate | for all | intervals | + \$.60 | | |

Ratio of Apprentices to Journeymen - 1:3

Craft: Millwright COMMENTS/NOTES

FOREMAN REQUIREMENTS:

- When there are 2 or more Millwrights on a job, 1 shall be designated as a Foreman.
- When there are 21 or more Millwrights on a job, 2 shall be designated as Foremen.

The regular workday shall consist of 8 hours, starting between 7:00 AM and 9:00 AM.

SHIFT DIFFERENTIALS:

- When a 2 shift schedule (including a day shift) is established, the day shift shall be established on an 8 hour basis. The second shift shall be established on an 8 hour basis, and receive the regular rate plus 15%, inclusive of benefits.
- When a three shift schedule is established, the first shift shall be established on an 8 hour basis, the second shift on a 7.5 hour basis, and the third shift on a 7 hour basis. The first shift shall receive the regular hourly rate, the second shift shall receive the regular rate plus 15% and the third shift shall receive the regular rate plus 20%, inclusive of benefits.
- When there is no day shift, and a second or third shift is established, it shall be established on an 8 hour basis. The second shift shall receive the regular rate plus 15% and the third shift shall receive the regular rate plus 20%, inclusive of benefits.

OVERTIME:

- All hours in excess of 8 per day, or before or after an established shift that are not shift work, and all hours on Saturdays shall be paid at time and one-half the hourly rate, inclusive of benefits. All hours on Sundays and holidays shall be paid at double the hourly rate, inclusive of benefits.
- Four 10-hour days may be worked, Monday to Thursday, at straight time. Friday may be used as a make-up day for a day lost due to inclement weather. If Friday is not a make-up day, all hours on Friday shall be paid at time and one-half the hourly rate, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays will be observed the following Monday.

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

County - UNION

Craft: Operating Engineer **PREVAILING WAGE RATE**

Rates are located in the
"Statewide" rate package

Craft: Operating Engineer **APPRENTICE RATE SCHEDULE**

| INTERVAL | PERIOD AND RATES | | | | | | | | | |
|----------|------------------|-----|-----|-----|--|--|--|--|--|--|
| Yearly | 60% | 70% | 80% | 90% | | | | | | |
| | | | | | | | | | | |

Ratio of Apprentices to Journeymen - *

* 1 apprentice for each piece of heavy equipment. At least 10 pieces of heavy equipment or a minimum of 5 Operating Engineers must be on site.

Craft: Operating Engineer **COMMENTS/NOTES**

Operating Engineer rates are located in the "Statewide" rate package.

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

County - UNION

Craft: Operating Engineer - Field Engineer

PREVAILING WAGE RATE

Rates are located in the
"Statewide" rate package

Craft: Operating Engineer - Field Engineer

APPRENTICE RATE SCHEDULE

| INTERVAL | PERIOD AND RATES | | | | | | | | | |
|----------|------------------|-----|---------|----------|----------|------------|-----|------|--|--|
| Yearly | 70% | 75% | of Rod/ | Chainman | Wage | | | | | |
| Yearly | | | 80% | 90% | Transit/ | Instrument | man | Wage | | |

Ratio of Apprentices to Journeymen - *

* No more than 1 Field Engineer Apprentice per Survey Crew.

Craft: Operating Engineer - Field Engineer

COMMENTS/NOTES

Operating Engineer - Field Engineer rates are located in the "Statewide" rate package.

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

County - UNION

Craft: Painter - Bridges

PREVAILING WAGE RATE

| | |
|-----------------|----------------------------|
| | 05/04/17 |
| Foreman | W59.13 B27.67 T86.80 |
| General Foreman | W61.13 B27.67 T88.80 |
| Journeyman | W54.13 B27.67 T81.80 |

Craft: Painter - Bridges

APPRENTICE RATE SCHEDULE

| INTERVAL | PERIOD AND RATES | | | | | | | | | |
|----------|------------------|----------|------|-----------|----------|-------|-----------|----------|-------|--|
| | 40% | 50% | | | 60% | 70% | | 80% | 90% | |
| 6 Months | | | | | | | | | | |
| Benefits | Intervals | 1 to 2 = | 8.88 | Intervals | 3 to 4 = | 10.81 | Intervals | 5 to 6 = | 13.48 | |

Ratio of Apprentices to Journeymen - 1:4

Craft: Painter - Bridges

COMMENTS/NOTES

These rates apply to: All bridges that span waterways, roadways, railways and canyons. All tunnels, overpasses, viaducts and all appurtenances.

FOREMEN REQUIREMENTS:

- When there are 4 or more Painters on a job, 1 shall be designated a Foreman.
- When there are 15 or more Painters on a job, 1 shall be designated a General Foreman.

The regular workday shall consist of 8 hours between 7:00 AM and 5:30 PM.

SHIFT DIFFERENTIALS:

- The second shift shall receive an additional 10% of the hourly rate, per hour, and the third shift shall receive an additional 15% of the hourly rate, per hour.

OVERTIME:

- Hours in excess of 8 per day, Monday through Friday, and all hours on Saturdays and Sundays shall be paid at time and one-half the regular rate. All hours on holidays shall be paid at double the regular rate.
- Saturday or Sunday may be used to make up a day lost to inclement weather, at straight time.
- Four 10-hour days may be worked, at straight time, Monday through Friday.

RECOGNIZED HOLIDAYS: New Year's Day, President's Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Saturday holiday observed the preceding Friday. Sunday holiday observed the following Monday.

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

County - UNION

Craft: Painter - Line Striping

PREVAILING WAGE RATE

| | 12/29/16 |
|---|----------------------------|
| Apprentice (1st year) | W24.45 B10.75 T35.20 |
| Apprentice (2nd year) | W28.45 B16.80 T45.25 |
| Foreman (Charge Person) | W36.60 B17.08 T53.68 |
| Journeyman 1 (at least 1 year of working exp. as a journeyman) | W32.33 B17.08 T49.41 |
| Journeyman 2 (at least 2 years of working exp. as a journeyman) | W36.10 B17.08 T53.18 |

Craft: Painter - Line Striping

COMMENTS/NOTES

OVERTIME:

Hours in excess of 8 per day, Monday through Saturday, and all hours on Sundays and holidays shall be paid at time and one-half the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Veterans Day, Thanksgiving Day and Christmas Day. Veterans Day may be substituted for the day after Thanksgiving.

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

County - UNION

Craft: Painter - New Construction

PREVAILING WAGE RATE

| | |
|-----------------|----------------------------|
| | 05/01/17 |
| Foreman | W44.39 B22.35 T66.74 |
| General Foreman | W48.43 B22.81 T71.24 |
| Journeyman | W40.36 B21.90 T62.26 |

Craft: Painter - New Construction

APPRENTICE RATE SCHEDULE

| INTERVAL | PERIOD AND RATES | | | | | | | | | |
|----------|------------------|----------|------|-----------|----------|-------|-----------|----------|-------|--|
| | 30% | 40% | 50% | 60% | 70% | 75% | 80% | 85% | 90% | |
| 4 Months | | | | | | | | | | |
| Benefits | Intervals | 1 to 3 = | 8.00 | Intervals | 4 to 6 = | 10.00 | Intervals | 7 to 9 = | 11.00 | |

Ratio of Apprentices to Journeymen - 1:4

Craft: Painter - New Construction

COMMENTS/NOTES

APPRENTICE RATE SCHEDULE FOR THOSE APPRENTICES ENTERING PROGRAM ON 5-1-14:

| INTERVAL | PERIOD AND RATES | | | | | | | |
|----------|------------------|------|-------|-------|-------|-------|-------|-------|
| 6 Months | 40% | 45% | 55% | 65% | 70% | 75% | 80% | 90% |
| Benefits | 8.00 | 8.00 | 10.00 | 10.00 | 11.00 | 11.00 | 14.00 | 14.00 |

Spraying, sandblasting, lead abatement, work on tanks or stacks, work performed above 3 stories or 30 feet in height, or using swing scaffolds requires an additional 10% of the wage rate.

FOREMEN REQUIREMENTS:

- When there are 4 or more Painters on a job, 1 shall be designated a Foreman.
- When there are 15 or more Painters on a job, 1 shall be designated a General Foreman.

The regular workday shall consist of 8 hours between 7:00 AM and 5:30 PM.

SHIFT DIFFERENTIALS:

- The second shift shall receive an additional 10% of the hourly rate, per hour, and the third shift shall receive an additional 15% of the hourly rate, per hour.

OVERTIME:

- Hours in excess of 8 per day, or before or after the regular workday, Monday through Friday, and all hours on Saturdays shall be paid at time and one-half the regular rate. All hours on Sundays and holidays shall be paid at double the regular rate.

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

County - UNION

- Saturday or Sunday may be used to make up a day lost to inclement weather, at straight time.
- Four 10-hour days may be worked, at straight time, Monday through Friday.

RECOGNIZED HOLIDAYS: New Year's Day, President's Day, Memorial Day, July 4th, Labor Day, General Election Day, Veterans' Day, Thanksgiving Day, Christmas Day.

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

County - UNION

Craft: Painter - Repainting

PREVAILING WAGE RATE

| | |
|-----------------|----------------------------|
| | 05/01/17 |
| Foreman | W34.17 B18.45 T52.62 |
| General Foreman | W37.39 B18.45 T55.84 |
| Journeyman | W31.16 B18.45 T49.61 |

Craft: Painter - Repainting

APPRENTICE RATE SCHEDULE

| INTERVAL | PERIOD AND RATES | | | | | | | | | |
|----------|------------------|---------|-----|--------------|------|--|--|--|--|--|
| | SEE | PAINTER | NEW | CONSTR UC | TION | | | | | |
| | | | | | | | | | | |

Ratio of Apprentices to Journeymen - 1:4

Craft: Painter - Repainting

COMMENTS/NOTES

NOTE: These rates may only be used on jobs where no major alterations (only doing painting and carpeting with nothing else being changed in the office or on the project) occur, and where not more than 3 other trades are present on the job, but may NOT, under any circumstances, be used for work on bridges, stacks, elevated tank, or generating stations.

Spraying, sandblasting, lead abatement, work on tanks or stacks, work performed above 3 stories or 30 feet in height, or using swing scaffolds requires an additional 10% of the wage rate.

FOREMEN REQUIREMENTS:

- When there are 4 or more Painters on a job, 1 shall be designated a Foreman.
- When there are 15 or more Painters on a job, 1 shall be designated a General Foreman.

OVERTIME:

- Hours in excess of 8 per day and 40 per week 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.
- Four 10-hour days may be worked, at straight time, Monday through Sunday.

RECOGNIZED HOLIDAYS: New Year's Day, President's Day, Memorial Day, July 4th, Labor Day, General Election Day, Veterans' Day, Thanksgiving Day, Christmas Day.

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

County - UNION

Craft: Painter- Containment

PREVAILING WAGE RATE

| | |
|------------|----------------------------|
| | 05/04/17 |
| Journeyman | W35.18 B24.75 T59.93 |

Craft: Painter- Containment

COMMENTS/NOTES

NOTE: These rates shall require no painting, but used in a supporting capacity only, such as wrapping, boxing, fencing, etc. on tanks.

The regular workday shall consist of 8 hours between 7:00 AM and 5:30 PM.

SHIFT DIFFERENTIALS:

- The second shift shall receive an additional 10% of the hourly rate, per hour, and the third shift shall receive an additional 15% of the hourly rate, per hour.

OVERTIME:

- Hours in excess of 8 per day, Monday through Friday, and all hours on Saturdays and Sundays shall be paid at time and one-half the regular rate. All hours on holidays shall be paid at double the regular rate..

- Four 10-hour days may be worked, at straight time, Monday through Friday.

RECOGNIZED HOLIDAYS: New Year's Day President's Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Saturday holiday observed the preceding Friday. Sunday holiday observed the following Monday.

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

County - UNION

Craft: Painter-Elevated Water Tanks

PREVAILING WAGE RATE

| | |
|-----------------|----------------------------|
| | 05/04/17 |
| Foreman | W48.92 B24.92 T73.84 |
| General Foreman | W50.92 B24.92 T75.84 |
| Journeyman | W43.92 B24.92 T68.84 |

Craft: Painter-Elevated Water Tanks

APPRENTICE RATE SCHEDULE

| INTERVAL | PERIOD AND RATES | | | | | | | | | |
|----------|------------------|---------|---------|--|--|--|--|--|--|--|
| | SEE | PAINTER | BRIDGES | | | | | | | |
| | | | | | | | | | | |

Craft: Painter-Elevated Water Tanks

COMMENTS/NOTES

These rates apply to: All new and repaint elevated water tanks (interior and exterior).

FOREMEN REQUIREMENTS:

- When there are 4 or more Painters on a job, 1 shall be designated a Foreman.
- When there are 15 or more Painters on a job, 1 shall be designated a General Foreman.

The regular workday shall consist of 8 hours between 7:00 AM and 5:30 PM.

SHIFT DIFFERENTIALS:

- The second shift shall receive an additional 10% of the hourly rate, per hour, and the third shift shall receive an additional 15% of the hourly rate, per hour.

OVERTIME:

- Hours in excess of 8 per day, Monday through Friday, and all hours on Saturdays and Sundays shall be paid at time and one-half the regular rate. All hours on holidays shall be paid at double the regular rate.
- Saturday or Sunday may be used to make up a day lost to inclement weather, at straight time.
- Four 10-hour days may be worked, at straight time, Monday through Friday.

RECOGNIZED HOLIDAYS: New Year's Day, President's Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Saturday holiday observed the preceding Friday. Sunday holiday observed the following Monday.

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

County - UNION

Craft: Painter-Structural Steel

PREVAILING WAGE RATE

| | |
|-----------------|----------------------------|
| | 05/04/17 |
| Foreman | W47.87 B25.27 T73.14 |
| General Foreman | W49.87 B25.27 T75.14 |
| Journeyman | W42.87 B25.27 T68.14 |

Craft: Painter-Structural Steel

APPRENTICE RATE SCHEDULE

| INTERVAL | PERIOD AND RATES | | | | | | | | | |
|----------|------------------|---------|---------|--|--|--|--|--|--|--|
| | SEE | PAINTER | BRIDGES | | | | | | | |
| | | | | | | | | | | |

Craft: Painter-Structural Steel

COMMENTS/NOTES

These rates apply to: All work in power plants (any aspect). On steeples, on dams, on hangers, transformers, substations, etc. and on open steel, whether new or repaint. All new work (excluding traditional commercial painting work) in refineries, tank farms, water/sewerage treatment facilities and on pipelines.

FOREMEN REQUIREMENTS:

- When there are 4 or more Painters on a job, 1 shall be designated a Foreman.
- When there are 15 or more Painters on a job, 1 shall be designated a General Foreman.

The regular workday shall consist of 8 hours between 7:00 AM and 5:30 PM.

SHIFT DIFFERENTIALS:

- The second shift shall receive an additional 10% of the hourly rate, per hour, and the third shift shall receive an additional 15% of the hourly rate, per hour.

OVERTIME:

- Hours in excess of 8 per day, Monday through Friday, and all hours on Saturdays and Sundays shall be paid at time and one-half the regular rate. All hours on holidays shall be paid at double the regular rate.
- Saturday or Sunday may be used to make up a day lost to inclement weather, at straight time.
- Four 10-hour days may be worked, at straight time, Monday through Friday.

RECOGNIZED HOLIDAYS: New Year's Day, President's Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Saturday holiday observed the preceding Friday. Sunday holiday observed the following Monday.

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

County - UNION

Craft: Paperhanger - New Construction

PREVAILING WAGE RATE

| | |
|------------|----------------------------|
| | 05/01/17 |
| Foreman | W45.32 B21.44 T66.76 |
| Journeyman | W41.20 B22.01 T63.21 |

Craft: Paperhanger - New Construction

APPRENTICE RATE SCHEDULE

| INTERVAL | PERIOD AND RATES | | | | | | | | | |
|----------|------------------|----------|------|-----------|----------|-------|-----------|----------|-------|--|
| 4 Months | 30% | 40% | 50% | 60% | 70% | 75% | 80% | 85% | 90% | |
| Benefits | Intervals | 1 to 3 = | 8.00 | Intervals | 4 to 6 = | 10.00 | Intervals | 7 to 9 = | 11.00 | |

Ratio of Apprentices to Journeymen - 1:4

Craft: Paperhanger - New Construction

COMMENTS/NOTES

APPRENTICE RATE SCHEDULE FOR THOSE APPRENTICES ENTERING PROGRAM ON 5-1-14:

| INTERVAL | PERIOD AND RATES | | | | | | | |
|----------|------------------|------|-------|-------|-------|-------|-------|-------|
| 6 Months | 40% | 45% | 55% | 65% | 70% | 75% | 80% | 90% |
| Benefits | 8.00 | 8.00 | 10.00 | 10.00 | 11.00 | 11.00 | 14.00 | 14.00 |

FOREMEN REQUIREMENTS:

- When there are 4 or more Paperhangers on a job, 1 shall be designated a Foreman.

The regular workday shall consist of 8 hours between 7:00 AM and 5:30 PM.

SHIFT DIFFERENTIALS:

- The second shift shall receive an additional 10% of the hourly rate, per hour, and the third shift shall receive an additional 15% of the hourly rate, per hour.

OVERTIME:

- Hours in excess of 8 per day, Monday through Friday, and all hours on Saturdays shall be paid at time and one-half the regular rate. All hours on Sundays and holidays shall be paid at double the regular rate.
- Saturday or Sunday may be used to make up a day lost to inclement weather, at straight time.
- Four 10-hour days may be worked, at straight time, Monday through Friday.

RECOGNIZED HOLIDAYS: New Year's Day, President's Day, Memorial Day, July 4th, Labor Day, General Election Day, Veterans' Day, Thanksgiving Day, Christmas Day.

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

County - UNION

Craft: Paperhanger - Renovation

PREVAILING WAGE RATE

| | |
|------------|----------------------------|
| | 05/01/17 |
| Foreman | W35.06 B18.53 T53.59 |
| Journeyman | W31.88 B18.53 T50.41 |

Craft: Paperhanger - Renovation

APPRENTICE RATE SCHEDULE

| INTERVAL | PERIOD AND RATES | | | | | | | | | |
|----------|------------------|--------|--------|-----|--------------|------|--|--|--|--|
| | SEE | PAPER- | HANGER | NEW | CONSTR UC | TION | | | | |
| | | | | | | | | | | |

Ratio of Apprentices to Journeymen - 1:4

Craft: Paperhanger - Renovation

COMMENTS/NOTES

NOTE: These rates may only be used on jobs where no major alterations occur, and where not more than 3 other trades are present on the job, but may NOT, under any circumstances, be used for work on bridges, stacks, elevated tanks, or generating stations.

FOREMEN REQUIREMENTS:

- When there are 4 or more Paperhangers on a job, 1 shall be designated a Foreman.

OVERTIME:

- Hours in excess of 8 per day and 40 per week shall be paid at time and one-half the regular rate.

- Four 10-hour days may be worked, at straight time, Monday through Sunday.

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

County - UNION

ANY new construction.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays are observed the following Monday.

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

County - UNION

Craft: Plasterer

PREVAILING WAGE RATE

See Bricklayer, Stone Mason Rates

Craft: Plasterer

COMMENTS/NOTES

See BRICKLAYER, STONE MASON Rates

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

County - UNION

Craft: Plumber PREVAILING WAGE RATE

| | |
|-----------------|----------------------------|
| | 05/01/17 |
| Foreman | W56.87 B33.84 T90.71 |
| General Foreman | W60.56 B33.84 T94.40 |
| Journeyman | W52.66 B33.84 T86.50 |

Craft: Plumber APPRENTICE RATE SCHEDULE

| INTERVAL | PERIOD AND RATES | | | | | | | | | |
|----------|------------------|-------|-------|-------|-------|--|--|--|--|--|
| Yearly | 30% | 45% | 55% | 65% | 75% | | | | | |
| Benefits | 10.15 | 15.23 | 18.61 | 22.00 | 25.38 | | | | | |

Ratio of Apprentices to Journeymen - *

* Employers may employ 1 apprentice on any job where 1 or 2 journeymen are employed. Thereafter, 1 apprentice may be employed for every 4 journeymen.

Craft: Plumber COMMENTS/NOTES

FOREMAN REQUIREMENTS:

- On any job having 2 or more Plumbers, 1 must be designated a Foreman.
- On any job having 9 or more Plumbers, 2 shall be designated as Foremen.

The regular workday shall consist of 8 hours between 7:00 AM and 4:30 PM.

SHIFT DIFFERENTIALS:

- Shift work must continue for a minimum of 5 consecutive workdays.
- When two shifts are worked, the second shift shall work 7.5 hours and receive 8 hours pay, at a rate equal to the hourly rate plus 10%, inclusive of benefits.
- When a third shift is worked, the third shift shall work 7 hours and receive 8 hours pay, at a rate equal to the hourly rate plus 15%, inclusive of benefits.

OVERTIME:

- All hours in excess of 8 per day, or before or after the regular workday that are not shift work, Monday through Friday, and all hours on Saturday, shall be paid at time and one-half the regular rate, inclusive of benefits. All hours on Sunday and holidays, shall be paid at double the hourly rate, inclusive of benefits.
- Four 10-hour days may be worked, Monday to Thursday, at straight time. Friday may be used as a make-up day for a day lost due to inclement weather. If Friday is not a make-up day, all hours on Friday shall be paid at time and one-half, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays will be observed the following Monday.

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

County - UNION

Craft: Roofer PREVAILING WAGE RATE

| | |
|------------|----------------------------|
| | 06/06/16 |
| Foreman | W36.52 B25.03 T61.55 |
| Journeyman | W35.52 B25.03 T60.55 |

Craft: Roofer APPRENTICE RATE SCHEDULE

| INTERVAL | PERIOD AND RATES | | | | | | | | | |
|----------|------------------|-------|-------|-------|-------|-------|--|--|--|--|
| 6 Months | 14.21 | 17.76 | 21.31 | 24.86 | 28.42 | 31.97 | | | | |
| Benefits | 2.10 | 2.10 | 22.28 | 22.28 | 22.28 | 22.28 | | | | |

Ratio of Apprentices to Journeymen - *

- * A) For roofing jobs that are of the 1 or single ply nature: 1:2 or fraction thereof
- B) For roofing jobs on new built up roofs: 1:3 or fraction thereof
- C) For roofing jobs that are of a tear-off nature: 1:2 or fraction thereof
- D) For roofing jobs {not requiring complete removal of existing systems, installation done over existing roof}: 1:3 or fraction thereof

Craft: Roofer COMMENTS/NOTES

Pitch: +.50 per hour

Mop Man: +.30 per hour

The regular workday consists of 8 hours between 8:00 AM and 4:30 PM.

OVERTIME:

Hours in excess of 8 per day, or before or after the regular workday, Monday through Friday, and all hours on Saturdays, Sundays, and holidays shall be paid at time and one-half the regular rate.

RECOGNIZED HOLIDAYS: New Year's Day, Good Friday, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day.

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

County - UNION

Craft: Sheet Metal Sign Installation

PREVAILING WAGE RATE

| | 04/13/17 | 10/01/17 |
|------------|----------------------------|----------------------------|
| Foreman | W34.79 B32.13 T66.92 | W34.79 B32.89 T67.68 |
| Journeyman | W33.54 B32.13 T65.67 | W33.54 B32.89 T66.43 |

Craft: Sheet Metal Sign Installation

APPRENTICE RATE SCHEDULE

| INTERVAL | PERIOD AND RATES | | | | | | | | | |
|------------|------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1000 hours | 35% | 40% | 45% | 50% | 55% | 60% | 65% | 70% | 75% | 80% |
| Benefits | 10.44 | 11.89 | 13.34 | 14.82 | 16.68 | 18.17 | 19.66 | 21.16 | 22.65 | 24.14 |

Ratio of Apprentices to Journeymen - 1:3

Craft: Sheet Metal Sign Installation

COMMENTS/NOTES

FOREMAN REQUIREMENT:

When there are 6 or more Sheet Metal Sign Installers on a job, 1 shall be designated a Foreman.

The regular workday consists of 8 hours, between 7:00 AM and 3:30 PM.

OVERTIME:

Hours before or after the regular workday, Monday through Friday, and all hours worked on Saturday shall be paid at time and one-half the hourly rate. All hours on Sunday and holidays shall be paid at double the hourly rate.

Four(4) 10 hour days may be worked, Monday through Friday, at straight time, for projects lasting at least one week in duration. The fifth day may be used as a make-up day at straight time for a day lost due to inclement weather. However, if the fifth day is not a make-up day, all hours worked will be paid at time and one-half the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Good Friday, Memorial Day, July 4th, Labor Day, Veterans' Day, Thanksgiving Day and the day after, Christmas Day. Saturday holidays observed the preceding Friday, Sunday holidays observed the following Monday.

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

County - UNION

Craft: Sheet Metal Worker

PREVAILING WAGE RATE

| | 08/02/16 | 06/01/17 |
|-----------------|----------------------------|--------------------------|
| Foreman | W49.99 B38.73 T88.72 | W0.00 B0.00 T91.22 |
| General Foreman | W50.99 B38.73 T89.72 | W0.00 B0.00 T92.22 |
| Journeyman | W46.49 B38.73 T85.22 | W0.00 B0.00 T87.72 |

Craft: Sheet Metal Worker

APPRENTICE RATE SCHEDULE

| INTERVAL | PERIOD AND RATES | | | | | | | | | |
|----------|------------------|-----|-----|-----|-----|---------|---------|---------|------|------|
| | Yearly | 35% | 45% | 55% | 65% | of | Journey | man | Wage | Rate |
| Benefit | 35% | 45% | 55% | 65% | of | Journey | man | Benefit | Rate | |

Ratio of Apprentices to Journeymen - 1:4

Craft: Sheet Metal Worker

COMMENTS/NOTES

FOREMAN REQUIREMENTS:

- When there are 2 or more Sheet Metal Workers on a project, 1 must be designated a Foreman.
- When there are 17 or more Sheet Metal Workers on a project, 1 must be designated a General Foreman.
- When there is only 1 Sheet Metal Worker (1 Journeyman) on a project, he/she shall receive \$1.00 more than the regular Journeyman's rate.

The regular workday is 8 hours between 7:00 AM and 4:30 PM.

SHIFT DIFFERENTIAL:

- 2nd Shift (3:30 PM - 12:00 AM) : +17% of regular hourly rate
- Shift work must run for a minimum of 5 consecutive workdays.

OVERTIME:

- Hours in excess of 8 per day, or before or after the regular workday, that are not shift work, and the first 10 hours on Saturdays shall be paid at time and one-half of the regular rate, inclusive of benefits. Hours in excess of 10 per day on Saturday, and all hours on Sundays and holidays shall be at double the regular rate, inclusive of benefits.
- Four 10-hour days may be worked, Monday through Friday, at straight time, with hours in excess of 10 per day, and hours in excess of 40 per week paid at the overtime rates listed above.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Good Friday, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays will be observed the following Monday.

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

County - UNION

Craft: Sprinkler Fitter

PREVAILING WAGE RATE

| | 01/01/17 | 07/01/17 | 01/01/18 | 07/01/18 | 01/01/19 |
|-----------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| Foreman | W62.93 B26.12 T89.05 | W64.93 B26.12 T91.05 | W64.38 B26.67 T91.05 | W66.63 B26.67 T93.30 | W66.08 B27.22 T93.30 |
| General Foreman | W65.93 B26.12 T92.05 | W67.93 B26.12 T94.05 | W67.38 B26.67 T94.05 | W69.63 B26.67 T96.30 | W69.08 B27.22 T96.30 |
| Journeyman | W58.83 B26.12 T84.95 | W60.83 B26.12 T86.95 | W60.28 B26.67 T86.95 | W62.53 B26.67 T89.20 | W61.98 B27.22 T89.20 |

Craft: Sprinkler Fitter

APPRENTICE RATE SCHEDULE

| INTERVAL | PERIOD AND RATES | | | | | | | | | |
|------------|------------------|-------|-------|-------|-------|-------|-----------|---------|---------|------|
| | 9.50 | 11.25 | 50% | 55% | 60% | 65% | 70% | 75% | 80% | 85% |
| 1000 Hours | 9.50 | 11.25 | 50% | 55% | 60% | 65% | 70% | 75% | 80% | 85% |
| Benefits | 10.67 | 10.67 | 21.22 | 21.22 | 21.22 | 21.22 | Intervals | 7 to 10 | Jourymn | Ben. |

APPRENTICE RATE SCHEDULE FOR THOSE APPRENTICES REGISTERED AS OF 7-1-13:

| INTERVAL | PERIOD AND RATES | | | | | | | | | |
|------------|------------------|-------|-------|-------|-------|-------|-----------|---------|---------|-----------------|
| 1000 hours | 25% | 30% | 40% | 45% | 55% | 60% | 70% | 75% | 85% | 90% |
| Benefits | 10.67 | 10.67 | 21.22 | 21.22 | 21.22 | 21.22 | Intervals | 7 to 10 | receive | Journeyman Ben. |

Craft: Sprinkler Fitter

COMMENTS/NOTES

The regular workday consists of 8 consecutive hours between 6:00 AM and 4:30 PM.

FOREMAN REQUIREMENTS:

- The first Sprinkler Fitter on the job must be designated a Foreman.
- On any job having 12 or more Sprinkler Fitters, one must be designated a General Foreman.

SHIFT DIFFERENTIALS:

- Shift work must run for a minimum of 2 consecutive workdays.
- 2nd and 3rd shift shall receive an additional 15% of the regular rate, per hour.
- Any "off hours" shift starting at 8:00 PM or later shall receive an additional 25% of the regular rate, per hour.

OVERTIME:

The first 2 hours in excess of 8 per day, after the regular workday that are not shift work, Monday through Friday, shall be paid at time and one-half the regular rate. Hours worked in excess of 10 per day, Monday through Friday, and all hours on Saturday, Sunday and holidays, shall be paid double the regular rate.
Four 10 hour days may be worked, Monday through Thursday, at straight-time.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Good Friday, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans Day, Thanksgiving Day, Christmas Day.

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

County - UNION

Craft: Tile Finisher-Marble PREVAILING WAGE RATE

| | 01/01/17 | 07/01/17 | 01/01/18 |
|----------|----------|----------|----------|
| Finisher | W46.01 | W46.32 | W46.66 |
| | B32.68 | B33.44 | B34.18 |
| | T78.69 | T79.76 | T80.84 |

Craft: Tile Finisher-Marble APPRENTICE RATE SCHEDULE

| INTERVAL | PERIOD AND RATES | | | | | | | | | |
|-----------|------------------|-----|-----|-----|-----|-----|-----|-----|--|--|
| | 50% | 55% | 65% | 70% | 75% | 85% | 90% | 95% | | |
| 750 Hours | | | | | | | | | | |
| | | | | | | | | | | |

Ratio of Apprentices to Journeymen - 1:4

Craft: Tile Finisher-Marble COMMENTS/NOTES

OVERTIME:

Hours in excess of 7 per day, Monday through Friday, and the first 7 hours on Saturdays shall be paid at time and one half the regular rate, inclusive of benefits. Hours in excess of 7 on Saturdays and all hours on Sundays and holidays shall be paid at double the regular rate, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Good Friday, Memorial Day, July 4th, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day and the day after, Christmas Day. Sunday holidays observed the following Monday.

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

County - UNION

Craft: Tile Setter - Marble

PREVAILING WAGE RATE

| | 01/01/17 | 07/01/17 | 01/01/18 |
|-------------|----------|----------|----------|
| Tile Setter | W57.74 | W58.18 | W58.53 |
| | B34.26 | B35.27 | B36.37 |
| | T92.00 | T93.45 | T94.90 |

Craft: Tile Setter - Marble

APPRENTICE RATE SCHEDULE

| INTERVAL | PERIOD AND RATES | | | | | | | | | |
|-----------|------------------|-----|-----|-----|-----|-----|-----|-----|--|--|
| | 50% | 55% | 65% | 70% | 75% | 85% | 90% | 95% | | |
| 750 Hours | | | | | | | | | | |
| | | | | | | | | | | |

Ratio of Apprentices to Journeymen - 1:4

Craft: Tile Setter - Marble

COMMENTS/NOTES

OVERTIME:

Hours in excess of 7 per day, Monday through Friday, and the first 7 hours on Saturdays shall be paid at time and one-half the regular rate, inclusive of benefits. Hours in excess of 7 on Saturdays, and all hours on Sundays and holidays shall be paid at double the regular rate, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Good Friday, Memorial Day, July 4th, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day and the day after, Christmas Day. Sunday holidays observed the following Monday.

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

County - UNION

Craft: Tile Setter - Mosaic & Terrazzo

PREVAILING WAGE RATE

| | |
|----------------------|----------------------------|
| | 01/01/17 |
| Grinder or Assistant | W50.86 B34.14 T85.00 |
| Mechanic | W52.46 B34.16 T86.62 |

Craft: Tile Setter - Mosaic & Terrazzo

APPRENTICE RATE SCHEDULE

| INTERVAL | PERIOD AND RATES | | | | | | | | | |
|-----------|------------------|-----|-----|-----|-----|-----|-----|-----|--|--|
| 750 Hours | 50% | 55% | 65% | 70% | 75% | 85% | 90% | 95% | | |
| | | | | | | | | | | |

Ratio of Apprentices to Journeymen - 1:5

Craft: Tile Setter - Mosaic & Terrazzo

COMMENTS/NOTES

The regular workday consists of 7 hours, between 8:00 AM and 3:30 PM.

OVERTIME:

- Hours in excess of 7 per day, or before or after the regular workday, Monday through Friday, and all hours on Saturdays shall be paid at time and one-half the hourly rate. All hours on Sundays and holidays shall be paid at double the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Good Friday, Monday after Easter, Memorial Day, July 4th, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day and the day after, Christmas Day. Sunday holidays observed the following Monday.

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

County - UNION

Craft: Truck Driver

PREVAILING WAGE RATE

| | 05/01/17 | 11/01/17 | 05/01/18 | 11/01/18 |
|--|----------------------------|----------------------------|----------------------------|----------------------------|
| Bucket, Utility, Pick-up, Fuel Delivery trucks | W36.83 B33.78 T70.61 | W36.83 B34.58 T71.41 | W37.26 B35.40 T72.66 | W37.66 B35.80 T73.46 |
| Dump truck, Asphalt Distributor, Tack Spreader | W36.83 B33.78 T70.61 | W36.83 B34.58 T71.41 | W37.26 B35.40 T72.66 | W37.66 B35.80 T73.46 |
| Euclid-type vehicles (large, off-road equipment) | W36.98 B33.78 T70.76 | W36.98 B34.58 T71.56 | W37.41 B35.40 T72.81 | W37.81 B35.80 T73.61 |
| Helper on Asphalt Distributor truck | W36.83 B33.78 T70.61 | W36.83 B34.58 T71.41 | W37.26 B35.40 T72.66 | W37.66 B35.80 T73.46 |
| Slurry Seal, Seeding/Fertilizing/ Mulching truck | W36.83 B33.78 T70.61 | W36.83 B34.58 T71.41 | W37.26 B35.40 T72.66 | W37.66 B35.80 T73.46 |
| Straight 3-axle truck | W36.88 B33.78 T70.66 | W36.88 B34.58 T71.46 | W37.31 B35.40 T72.71 | W37.71 B35.80 T73.51 |
| Tractor Trailer (all types) | W36.98 B33.78 T70.76 | W36.98 B34.58 T71.56 | W37.41 B35.40 T72.81 | W37.81 B35.80 T73.61 |
| Vacuum or Vac-All truck (entire unit) | W36.83 B33.78 T70.61 | W36.83 B34.58 T71.41 | W37.26 B35.40 T72.66 | W37.66 B35.80 T73.46 |
| Winch Trailer | W37.08 B33.78 T70.86 | W37.08 B34.58 T71.66 | W37.51 B35.40 T72.91 | W37.91 B35.80 T73.71 |

Craft: Truck Driver

COMMENTS/NOTES

BLENDED RATE:

When a truck driver is performing work on the site and also serving as a material delivery driver, the driver shall be paid a "blended rate" which shall be 80% of the above-listed wage rates, plus the full benefit rate. This rate shall be used when the driver "round robins" for a minimum of 6 hours during the work day.

HAZARDOUS WASTE REMOVAL:

- On hazardous waste removal work on a State designated hazardous waste site where the driver is in direct contact with hazardous materials and when personal protective equipment is required for respiratory, skin, and eye protection, the driver shall receive an additional \$3.00 per hour (with or without protective gear).
- A hazardous waste related certified worker at a designated hazardous waste site who is not working in a zone requiring level A, B or C personal protection shall receive an additional \$1.00 per hour.

TRUCK FOREMAN: \$.75 cents per hour above regular rate. Overtime shall be increased accordingly.

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

County - UNION

The regular workday shall be 8 hours, starting between 6:00 AM and 8:00 AM.

SHIFT DIFFERENTIAL:

- Shifts starting at 4:00 PM (2nd Shift): + \$2.50 per hour.
- Shifts starting at 12:00 AM (midnight/3rd Shift): time and one-half the hourly rate.
- Shifts starting at a time other than from 6:00 AM to 8:00 AM, when such hours are mandated by the project owner: + \$2.50 per hour.

OVERTIME:

- Hours in excess of 8 per day, or before or after the regular workday, Monday through Friday, that are not shift work, and all hours on Saturdays shall be paid at time and one-half the hourly rate. All hours on Sundays and holidays shall be paid at double the hourly rate.
- Employees may work four 10-hour days at straight time, Monday through Thursday, with Friday used as a make-up day for a lost day. If Friday is not a make-up day, then all hours on Friday shall be paid at time and one-half the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day (Decoration Day), July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays will be observed the following Monday. The day after Thanksgiving may be substituted for Veterans' Day.

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

County - UNION

Craft: Truck Driver-Material Delivery Driver

PREVAILING WAGE RATE

| | |
|--------|----------------------------|
| | 05/01/12 |
| Driver | W22.90 B10.17 T33.07 |

Craft: Truck Driver-Material Delivery Driver

COMMENTS/NOTES

BLENDED RATE:

When a truck driver is performing work on the site and also serving as a material delivery driver, the driver shall be paid a "blended rate". See the "Truck Driver" craft for the blended rates.

Truck Foreman/Shop Steward: +\$0.25 per hour

SHIFT DIFFERENTIALS:

- 2nd Shift shall receive an additional \$0.50 per hour
- 3rd Shift shall receive time and one-half the hourly rate.

OVERTIME:

- Hours in excess of 8 per day, or before or after the regular workday that are not shift work, Monday through Friday, and all hours on Saturday shall be paid at time and one-half the hourly rate. All hours on Sunday and holidays shall be paid at double the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, President's Day, Memorial Day (Decoration Day), July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays will be observed the following Monday. The day after Thanksgiving may be substituted for Veterans' Day.

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

County - UNION

Craft: Welder

PREVAILING WAGE RATE

Welder

Craft: Welder

COMMENTS/NOTES

Welders rate is the same as the craft to which the welding is incidental .

STATEWIDE RATES

OPERATING ENGINEERS **Rates Expiration Date : 06/30/2017**

{For apprentice rates refer to "Operating Engineers" apprentice rates in any county rate package}

The regular workday consists of 8 hours, Monday to Friday, between 6:00 AM and 4:30 PM.

SHIFT DIFFERENTIALS:

- Shift work must run for 5 consecutive workdays.
- When 2 shifts are worked, the second shift shall receive an additional 10% of the regular rate inclusive of benefits, per hour.
- When 3 shifts are worked, the second shift shall receive 8 hours pay for 7.5 hours of work, plus an additional 10% of the regular rate inclusive of benefits, per hour. The third shift shall receive 8 hours pay for 7 hours of work, plus an additional 15% of the regular rate inclusive of benefits, per hour.
- When such hours are mandated by the project owner, a shift that starts between 8:00 PM and midnight and ends by 6:00 AM Saturday, or that starts after 8:00 PM on Sunday, provided there are consecutive hours of work within the shift, shall receive an additional 15% of the regular rate, inclusive of benefits.
- On Highway, Road, Street, and Sewer projects irregular shifts starting between 5:00 PM and 12:00 AM may be worked Monday through Friday, and shall receive an additional 15% of the regular rate, inclusive of benefits. When working with other trades that receive a higher irregular shift rate, the Operating Engineer shall also receive the higher irregular shift rate.

OVERTIME:

- Hours in excess of 8 per day, or outside of the regular workday, Monday through Friday, that are not shift work, and all hours on Saturdays shall be paid at time and one-half the regular rate, inclusive of benefits. All hours on Sundays and holidays shall be paid at double the regular rate, inclusive of benefits.
- Four 10-hour days may be worked, Monday through Thursday, at straight time, with all hours on Friday paid at time and one-half the regular rate, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays observed the following Monday. 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 : 06/30/2017**

Effective Dates:

02/15/2017

| Rate | Fringe | Total |
|-------|--------|-------|
| 47.63 | 30.63 | 78.26 |

CLASSIFICATIONS:

- A-Frame
- Backhoe (combination)
- Boom Attachment on loaders (Except pipehook)
- Boring & Drilling Machine
- Brush Chopper, Brush Shredder, Tree Shredder
- Bulldozer, finish grade
- Cableway
- Carryall
- Concrete Pump
- Concrete Pumping System (Pumpcrete & similar types)
- Conveyor, 125 feet or longer
- Drill Doctor (Duties include dust collector and maintenance)
- Front End Loader (2 cu. yds. but less than 5 cu. yds.)
- Grader, finish
- Groove Cutting Machine (ride-on type)
- Heater Planer
- Hoist (all types including steam, gas, diesel, electric, air hydraulic, single and double drum, concrete, brick shaft caisson, snorkle roof, and other similar types, Except Chicago-boom type)
- Hydraulic Crane (10 tons & under)
- Hydro-Axe
- Hydro-Blaster
- Jack (screw, air hydraulic, power-operated unit, or console type, Except hand jack or pile load test type)
- Log Skidder

OPERATING ENGINEERS **Rates Expiration Date : 06/30/2017**

Effective Dates:

02/15/2017

| Rate | Fringe | Total |
|-------|--------|-------|
| 47.63 | 30.63 | 78.26 |

CLASSIFICATIONS:

- Pan
- Paver, concrete
- Plate & Frame Filter Press
- Pumpcrete (unit type)
- Pumpcrete, Squeezecrete, or Concrete Pumping machine
(regardless of size)
- Scraper
- Side Boom
- Straddle Carrier (Ross and similar types)
- Vacuum Truck
- Whiphammer
- Winch Truck (hoisting)

OPERATING ENGINEERS **Rates Expiration Date : 06/30/2017**

Effective Dates:

02/15/2017

| Rate | Fringe | Total |
|-------|--------|-------|
| 45.72 | 30.63 | 76.35 |

CLASSIFICATIONS:

- Asphalt Curbing Machine
- Asphalt Plant Engineer
- Asphalt Spreader
- Autograde Curb Trimmer & Sidewalk Shoulder Slipform (CMI & similar types)
- Autograde Curecrete Machine (CMI & similar types)
- Autograde Tube Finisher & Texturing Machine (CMI & similar types)
- Bar Bending Machines (Power)
- Batcher, Batching Plant, & Crusher [On Site]
- Belt Conveyor System
- Boom-Type Skimmer Machine
- Bridge Deck Finisher
- Bulldozer (all sizes)
- Captain (Power Boats)
- Car Dumper (railroad)
- Compressor & Blower unit for loading/unloading of concrete, cement, fly ash, or similar type materials (used independently or truck-mounted)
- Compressor (2 or 3 battery)
- Concrete Breaking Machine
- Concrete Cleaning/Decontamination Machine
- Concrete Finishing Machine
- Concrete Saw or Cutter (ride-on type)
- Concrete Spreader (Hetzl, Rexomatic & similar types)
- Concrete Vibrator

OPERATING ENGINEERS **Rates Expiration Date : 06/30/2017**

Effective Dates:

02/15/2017

| Rate | Fringe | Total |
|-------|--------|-------|
| 45.72 | 30.63 | 76.35 |

CLASSIFICATIONS:

- Conveyors - under 125 feet
- Crane Signalman
- Crushing Machine
- Directional Boring Machine
- Ditching Machine - Small (Ditchwitch, Vermeer or similar types)
- Dope Pot - Mechanical (with or without pump)
- Dumpster
- Elevator
- Fireman
- Fork Lift (Economobile, Lull & similar types)
- Front End Loader (1 cu. yd. and over but less than 2 cu. yds.)
- Generator (2 or 3 battery)
- Giraffe Grinder
- Grader & Motor Patrols
- Grout Pump
- Gunnite Machine (Excluding nozzle)
- Hammer - Vibratory (in conjunction with generator)
- Heavy Equipment Robotics - Operator/Technician
- Hoist (roof, tugger, aerial platform hoist, house car)
- Hopper
- Hopper Doors (power operated)
- Ladder (motorized)
- Laddervator

OPERATING ENGINEERS **Rates Expiration Date : 06/30/2017**

Effective Dates:

02/15/2017

| Rate | Fringe | Total |
|-------|--------|-------|
| 45.72 | 30.63 | 76.35 |

CLASSIFICATIONS:

Locomotive (Dinky-type)

Maintenance Utility Man

Master Environmental Maintenance Technician

Mechanic

Mixer (Except paving mixers)

Pavement Breaker (truck-mounted or small self-propelled
ride-on type)

Pavement Breaker - maintenance of compressor or hydraulic unit

Pipe Bending Machine (power)

Pitch Pump

Plaster Pump (regardless of size)

Post Hole Digger (post pounder, auger)

Roller (black top)

Scale (power)

Seamen Pulverizing Mixer

Shoulder Widener

Silo

Skimmer Machine (boom type)

Steel Cutting Machine (service & maintenance)

Tamrock Drill

Tractor

Transfer Machines

Tug Captains

Tug Master (Power Boats)

OPERATING ENGINEERS **Rates Expiration Date : 06/30/2017**

Effective Dates:

02/15/2017

| Rate | Fringe | Total |
|-------|--------|-------|
| 45.72 | 30.63 | 76.35 |

CLASSIFICATIONS:

Ultra High Pressure Waterjet Cutting Tool System -
Operator/Maintenance Technician

Vacuum Blasting Machine - Operator/Maintenance Technician

Vibrating Plant (used with unloading)

Welder & Repair Mechanic

Effective Dates:

02/15/2017

| Rate | Fringe | Total |
|-------|--------|-------|
| 42.38 | 30.63 | 73.01 |

CLASSIFICATIONS:

Assistant Engineer/Oiler

Driller's Helper

Field Engineer - Transit man or Instrument man

Maintenance Apprentice (Deckhand)

Maintenance Apprentice (Oiler)

Mechanic's Helper

Off Road Back Dump

Effective Dates:

02/15/2017

| Rate | Fringe | Total |
|-------|--------|-------|
| 39.80 | 30.63 | 70.43 |

CLASSIFICATIONS:

Field Engineer - Rodman or Chainman

TERRITORY
ENTIRE STATE

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

OPERATING ENGINEERS Rates Expiration Date : 06/30/2017

Effective Dates:

02/15/2017

| Rate | Fringe | Total |
|-------|--------|-------|
| 49.96 | 30.63 | 80.59 |

CLASSIFICATIONS:

Lead Engineer, Foreman Engineer, Safety Engineer (minimum)

OPERATING ENGINEERS **Rates Expiration Date : 06/30/2017**

Effective Dates:

02/15/2017

| Rate | Fringe | Total |
|-------|--------|-------|
| 49.22 | 30.63 | 79.85 |

CLASSIFICATIONS:

- Autograde Pavement Profiler (CMI & similar types)
- Autograde Pavement Profiler - Recycle Type (CMI & similar types)
- Autograde Placer/Trimmer/Spreader Combination (CMI & similar types)
- Autograde Slipform Paver (CMI & similar types)
- Backhoe (Excavator)
- Central Power Plant
- Concrete Paving Machine
- Draglines
- Drill, Bauer, AMI and similar types
- Drillmaster, Quarrymaster
- Drillmaster/Quarrymaster (down-the-hole drill), rotary drill, self-propelled hydraulic drill, self-powered drill
- Elevator Grader
- Field Engineer-Chief of Party
- Front End Loader (5 cu. yards or larger)
- Gradall
- Grader, Rago
- Helicopter Co-Pilot
- Helicopter Communications Engineer
- Juntann Pile Driver
- Locomotive (large)
- Mucking Machine
- Pavement & Concrete Breaker (Superhammer & Hoe Ram)

OPERATING ENGINEERS **Rates Expiration Date : 06/30/2017**

Effective Dates:

02/15/2017

| Rate | Fringe | Total |
|-------|--------|-------|
| 49.22 | 30.63 | 79.85 |

CLASSIFICATIONS:

Pile Driver

Prentice Truck

Roadway Surface Grinder

Scooper (loader & shovel)

Shovel (Excavator)

Trackhoe (Excavator)

Tree Chopper with boom

Trenching Machine (cable plow)

Tunnel Boring Machine

OPERATING ENGINEERS **Rates Expiration Date : 06/30/2017**

Effective Dates:

02/15/2017

| Rate | Fringe | Total |
|-------|--------|-------|
| 44.09 | 30.63 | 74.72 |

CLASSIFICATIONS:

- Chipper
- Compressor (single)
- Concrete Spreader (small type)
- Conveyor Loader (Except elevator graders)
- Engines, Large Diesel (1620 HP) & Staging Pump
- Farm Tractor
- Fertilizing Equipment (operation & maintenance)
- Fine Grade Machine (small type)
- Form Line Grader (small type)
- Front End Loader (under 1 cubic yard)
- Generator (single)
- Grease, Gas, Fuel, & Oil Supply Trucks
- Heaters (Nelson or other type)
- Lights - portable generating light plant
- Mixer, Concrete (small)
- Mulching Equipment (operation & maintenance)
- Power Broom or Sweeper
- Pump (diesel engine & hydraulic - regardless of power)
- Pump (larger than 2 inch suction, including submersible pumps)
- Road Finishing Machine (small type)
- Roller - grade, fill, or stone base
- Seeding Equipment (operation & maintenance)
- Sprinkler & Water Pump Trucks

OPERATING ENGINEERS **Rates Expiration Date : 06/30/2017**

Effective Dates:

02/15/2017

| Rate | Fringe | Total |
|-------|--------|-------|
| 44.09 | 30.63 | 74.72 |

CLASSIFICATIONS:

Steam Generator or Boiler

Stone Spreader

Tamping Machine (vibrating ride-on type)

Temporary Heating Plant (Nelson or other type, including
proprane, 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:

02/15/2017

| Rate | Fringe | Total |
|-------|--------|-------|
| 51.04 | 30.63 | 81.67 |

CLASSIFICATIONS:

Helicopter Pilot/Engineer

Effective Dates:

02/15/2017

| Rate | Fringe | Total |
|-------|--------|-------|
| 55.72 | 30.63 | 86.35 |

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:

02/15/2017

| Rate | Fringe | Total |
|-------|--------|-------|
| 54.72 | 30.63 | 85.35 |

CLASSIFICATIONS:

Cranes, Derricks, Pile Driver (all types), over 100 tons and TOWER CRANE with boom (including jib and/or leads) from 100 ft. to 139 ft.

OPERATING ENGINEERS **Rates Expiration Date : 06/30/2017**

Effective Dates:

02/15/2017

| Rate | Fringe | Total |
|-------|--------|-------|
| 51.22 | 30.63 | 81.85 |

CLASSIFICATIONS:

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

Effective Dates:

02/15/2017

| Rate | Fringe | Total |
|-------|--------|-------|
| 53.72 | 30.63 | 84.35 |

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:

02/15/2017

| Rate | Fringe | Total |
|-------|--------|-------|
| 50.22 | 30.63 | 80.85 |

CLASSIFICATIONS:

Cranes, Derricks, Pile Driver (all types), under 100 tons with a boom (including jib and/or leads) from 100 ft. to 139 ft.

STRUCTURAL STEEL ERECTION **Rates Expiration Date : 06/30/2017**

{For apprentice rates refer to "Operating Engineers" apprentice rates in any county rate package}

The regular workday consists of 8 hours, Monday to Friday, between 6:00 AM and 4:30 PM.

SHIFT DIFFERENTIALS:

- Shift work must run for 5 consecutive workdays.
- When 2 shifts are worked, the second shift shall receive an additional 10% of the regular rate inclusive of benefits, per hour.
- When 3 shifts are worked, the second shift shall receive 8 hours pay for 7.5 hours of work, plus an additional 10% of the regular rate inclusive of benefits, per hour. The third shift shall receive 8 hours pay for 7 hours of work, plus an additional 15% of the regular rate inclusive of benefits, per hour.
- When such hours are mandated by the project owner, a shift that starts between 8:00 PM and midnight and ends by 6:00 AM Saturday, or that starts after 8:00 PM on Sunday, provided there are consecutive hours of work within the shift, shall receive an additional 15% of the regular rate, inclusive of benefits.
- On Highway, Road, Street, and Sewer projects irregular shifts starting between 5:00 PM and 12:00 AM may be worked Monday through Friday, and shall receive an additional 15% of the regular rate, inclusive of benefits. When working with other trades that receive a higher irregular shift rate, the Operating Engineer shall also receive the higher irregular shift rate.

OVERTIME:

- Hours in excess of 8 per day, or outside of the regular workday, Monday through Friday, that are not shift work, and all hours on Saturdays shall be paid at time and one-half the regular rate, inclusive of benefits. All hours on Sundays and holidays shall be paid at double the regular rate, inclusive of benefits.
- Four 10-hour days may be worked, Monday through Thursday, at straight time, with all hours on Friday paid at time and one-half the regular rate, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays observed the following Monday. 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:

02/15/2017

| Rate | Fringe | Total |
|-------|--------|-------|
| 52.85 | 30.63 | 83.48 |

CLASSIFICATIONS:

Helicopter Pilot or Engineer

STRUCTURAL STEEL ERECTION **Rates Expiration Date : 06/30/2017**

Effective Dates:

02/15/2017

| Rate | Fringe | Total |
|-------|--------|-------|
| 48.79 | 30.63 | 79.42 |

CLASSIFICATIONS:

A-Frame

Cherry Picker -10 tons or less (Over 10 tons use crane rate)

Hoist (all types Except Chicago-boom)

Jack (screw, air hydraulic, power-operated unit or console type, Except hand jack or pile load test type)

Side Boom

Straddle Carrier

Effective Dates:

02/15/2017

| Rate | Fringe | Total |
|-------|--------|-------|
| 46.13 | 30.63 | 76.76 |

CLASSIFICATIONS:

Aerial Platform Used On Hoists

Apprentice Engineer/Oiler with Compressor or Welding Machine

Captain (Power Boats)

Compressor (2 or 3 in battery)

Conveyor or Tugger Hoist

Elevator or House Car

Fireman

Forklift

Generator (2 or 3)

Maintenance Utility Man

Tug Master (Power Boats)

Welding Machines, Gas or Electric Converters on any type-2 or 3 in battery including diesels

STRUCTURAL STEEL ERECTION **Rates Expiration Date : 06/30/2017**

Effective Dates:

02/15/2017

| Rate | Fringe | Total |
|-------|--------|-------|
| 44.60 | 30.63 | 75.23 |

CLASSIFICATIONS:

Compressor (Single)

Generators

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

Welding System, Multiple (Rectifier Transformer Type)

Effective Dates:

02/15/2017

| Rate | Fringe | Total |
|-------|--------|-------|
| 42.84 | 30.63 | 73.47 |

CLASSIFICATIONS:

Assistant Engineer/Oiler

Drillers Helper

Field Engineer - Transit/Instrument Man

Maintenance Apprentice (Deckhand)

Maintenance Apprentice (Oiler)

Effective Dates:

02/15/2017

| Rate | Fringe | Total |
|-------|--------|-------|
| 50.41 | 30.63 | 81.04 |

CLASSIFICATIONS:

Lead Engineer, Foreman Engineer, Safety Engineer (Minimum)

Effective Dates:

02/15/2017

| Rate | Fringe | Total |
|-------|--------|-------|
| 39.80 | 30.63 | 70.43 |

CLASSIFICATIONS:

Field Engineer - Rodman or Chainman

TERRITORY
ENTIRE STATE

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

STRUCTURAL STEEL ERECTION **Rates Expiration Date : 06/30/2017**

Effective Dates:

02/15/2017

| Rate | Fringe | Total |
|-------|--------|-------|
| 49.55 | 30.63 | 80.18 |

CLASSIFICATIONS:

Field Engineer-Chief of Party

Effective Dates:

02/15/2017

| Rate | Fringe | Total |
|-------|--------|-------|
| 57.74 | 30.63 | 88.37 |

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:

02/15/2017

| Rate | Fringe | Total |
|-------|--------|-------|
| 56.08 | 30.63 | 86.71 |

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:

02/15/2017

| Rate | Fringe | Total |
|-------|--------|-------|
| 53.24 | 30.63 | 83.87 |

CLASSIFICATIONS:

Cranes (all cranes, land or floating with booms including jib, 140 ft. and over, above ground), Derricks (all derricks, land, floating or Chicago Boom type with booms including jib, 140 ft. and over, above ground), Pile Drivers (all types), under 100 tons.

Effective Dates:

02/15/2017

| Rate | Fringe | Total |
|-------|--------|-------|
| 51.58 | 30.63 | 82.21 |

CLASSIFICATIONS:

Cranes (all cranes, land or floating with booms including jib, less than 140 ft. above ground), Derricks (all derricks, land, floating or Chicago Boom type with booms including jib, less than 140 ft. above ground), Pile Drivers (all types), under 100 tons.

TERRITORY
ENTIRE STATE

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

STRUCTURAL STEEL ERECTION Rates Expiration Date : 06/30/2017

Effective Dates:

02/15/2017

| Rate | Fringe | Total |
|-------|--------|-------|
| 53.24 | 30.63 | 83.87 |

CLASSIFICATIONS:

Helicopter Co-Pilot

Helicopter Communications Engineer

TEST BORING PRELIMINARY TO CONSTRUCTION-SOUTH/WEST **Rates Expiration Date : 06/30/2017**

THESE RATES APPLY IN THE FOLLOWING COUNTIES ONLY:

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

The regular workday consists of 8 hours, Monday to Friday, between 6:00 AM and 4:30 PM.

SHIFT DIFFERENTIALS:

- Shift work must run for 5 consecutive workdays.
- When 2 shifts are worked, the second shift shall receive an additional 10% of the regular rate inclusive of benefits, per hour.
- When 3 shifts are worked, the second shift shall receive 8 hours pay for 7.5 hours of work, plus an additional 10% of the regular rate inclusive of benefits, per hour. The third shift shall receive 8 hours pay for 7 hours of work, plus an additional 15% of the regular rate inclusive of benefits, per hour.
- When such hours are mandated by the project owner, a shift that starts between 8:00 PM and midnight and ends by 6:00 AM Saturday, or that starts after 8:00 PM on Sunday, provided there are consecutive hours of work within the shift, shall receive an additional 15% of the regular rate, inclusive of benefits.
- On Highway, Road, Street, and Sewer projects irregular shifts starting between 5:00 PM and 12:00 AM may be worked Monday through Friday, and shall receive an additional 15% of the regular rate, inclusive of benefits. When working with other trades that receive a higher irregular shift rate, the Operating Engineer shall also receive the higher irregular shift rate.

OVERTIME:

- Hours in excess of 8 per day, or outside of the regular workday, Monday through Friday, that are not shift work, and all hours on Saturdays shall be paid at time and one-half the regular rate, inclusive of benefits. All hours on Sundays and holidays shall be paid at double the regular rate, inclusive of benefits.
- Four 10-hour days may be worked, Monday through Thursday, at straight time, with all hours on Friday paid at time and one-half the regular rate, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays observed the following Monday. 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:

02/15/2017

| Rate | Fringe | Total |
|-------|--------|-------|
| 49.22 | 30.63 | 79.85 |

CLASSIFICATIONS:

Driller

Effective Dates:

02/15/2017

| Rate | Fringe | Total |
|-------|--------|-------|
| 42.38 | 30.63 | 73.01 |

CLASSIFICATIONS:

Driller's Helper

FREE AIR TUNNEL JOBS **Rates Expiration Date : 08/31/2017**

{For apprentice rates refer to "Heavy & General" apprentice rates in any county rate package}

The regular workday consists of 8 hours, starting at 7:00 AM or 8:00 AM.

SHIFT DIFFERENTIALS:

- Shifts must start at 3:00 PM, 4:00 PM, 12:00 AM, or 1:00 AM, to be considered shift work, except when the project owner mandates special hours of work in the job specifications, in which case those hours may be considered shift work.
- When such hours are mandated by the project owner, a shift that begins before midnight on Friday and ends on Saturday morning, or that begins at or after 8:00 PM on Sunday and ends on Monday morning may be paid at the shift differential rate.
- Shifts shall receive an additional \$2.50 per hour.

OVERTIME:

- Hours in excess of 8 per day, Monday through Friday, or outside of the regular workday that are not shift work, and all hours on Saturdays, shall be paid at time and one-half the hourly rate. All hours on Sundays and holidays shall be paid at double the hourly rate.
- Four 10-hour days may be worked, Monday through Thursday, at straight time, with Friday used as a make-up day for a day lost to inclement weather. If Friday is not a make-up day, all hours on Friday shall be paid at time and one-half the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays observed the following Monday. Veterans Day may be substituted for the day after Thanksgiving. However, in the trading of Veterans Day for the day after Thanksgiving, if overtime is worked on Veterans Day, it shall be paid at double the hourly rate.

Hazardous Waste Work:

- where Level A, B, or C protection is required: + \$3.00/hr
- other Hazardous Waste site: + \$1.00/hr

Effective Dates:

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 : 08/31/2017**

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)

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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 : 06/30/2017**

The well driller and/or helper may perform all work relative to the construction, finishing, and servicing of wells, pumps and borings for ground water supply. The present methods of well drilling entailing as they do, many diverse job operations calling for drilling, pump discharge, piping, and the operation of various types of related power equipment, shall all be within the job duties and functions of the well driller and/or helper. In the event that an extension of work should occur beyond water well drilling functions, into the field of general construction work, such extension of work would come under the appropriate rates listed elsewhere in this wage determination.

- For Work Hours, Shift Differentials, Overtime Rates, and Recognized Holidays see the "Operating Engineers" section of this wage determination.

Effective Dates:

02/15/2017

| Rate | Fringe | Total |
|-------|--------|-------|
| 47.97 | 30.63 | 78.60 |

CLASSIFICATIONS:

Driller

Effective Dates:

02/15/2017

| Rate | Fringe | Total |
|-------|--------|-------|
| 41.13 | 30.63 | 71.76 |

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

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

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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 : 08/31/2017

"THESE RATES APPLY IN THE FOLLOWING COUNTIES ONLY: Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Mercer, Ocean, Salem

{For apprentice rates refer to "Laborer - Heavy & General" apprentice rates in any county rate package}

The regular workday consists of 8 hours, starting at 7:00 AM or 8:00 AM.

SHIFT DIFFERENTIALS:

- Shifts must start at 3:00 PM, 4:00 PM, 12:00 AM, or 1:00 AM, to be considered shift work, except when the project owner mandates special hours of work in the job specifications, in which case those hours may be considered shift work.
- When such hours are mandated by the project owner, a shift that begins before midnight on Friday and ends on Saturday morning, or that begins at or after 8:00 PM on Sunday and ends on Monday morning may be paid at the shift differential rate.
- Shifts shall receive an additional \$2.50 per hour.

OVERTIME:

- Hours in excess of 8 per day, Monday through Friday, or outside of the regular workday that are not shift work, and all hours on Saturdays, shall be paid at time and one-half the hourly rate. All hours on Sundays and holidays shall be paid at double the hourly rate.
- Four 10-hour days may be worked, Monday through Thursday, at straight time, with Friday used as a make-up day for a day lost to inclement weather. If Friday is not a make-up day, all hours on Friday shall be paid at time and one-half the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays observed the following Monday. Veterans Day may be substituted for the day after Thanksgiving. However, in the trading of Veterans Day for the day after Thanksgiving, if overtime is worked on Veterans Day, it shall be paid at double the hourly rate.

Hazardous Waste Work:

- where Level A, B, or C protection is required: + \$3.00/hr
- other Hazardous Waste site: + \$1.00/hr

Effective Dates:

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

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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 : 08/31/2017

THESE RATES APPLY IN THE FOLLOWING COUNTIES ONLY:

Bergen, Essex, Hudson, Hunterdon, Middlesex, Monmouth, Morris, Passaic, Somerset, Sussex, Union, Warren

{For apprentice rates refer to "Laborer - Heavy & General" apprentice rates in any county rate package}

The regular workday consists of 8 hours, starting at 7:00 AM or 8:00 AM.

SHIFT DIFFERENTIALS:

- Shifts must start at 3:00 PM, 4:00 PM, 12:00 AM, or 1:00 AM, to be considered shift work, except when the project owner mandates special hours of work in the job specifications, in which case those hours may be considered shift work.
- When such hours are mandated by the project owner, a shift that begins before midnight on Friday and ends on Saturday morning, or that begins at or after 8:00 PM on Sunday and ends on Monday morning may be paid at the shift differential rate.
- Shifts shall receive an additional \$2.50 per hour.

OVERTIME:

- Hours in excess of 8 per day, Monday through Friday, or outside of the regular workday that are not shift work, and all hours on Saturdays, shall be paid at time and one-half the hourly rate. All hours on Sundays and holidays shall be paid at double the hourly rate.
- Four 10-hour days may be worked, Monday through Thursday, at straight time, with Friday used as a make-up day for a day lost to inclement weather. If Friday is not a make-up day, all hours on Friday shall be paid at time and one-half the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays observed the following Monday. Veterans Day may be substituted for the day after Thanksgiving. However, in the trading of Veterans Day for the day after Thanksgiving, if overtime is worked on Veterans Day, it shall be paid at double the hourly rate.

Hazardous Waste Work:

- where Level A, B, or C protection is required: + \$3.00/hr
- other Hazardous Waste site: + \$1.00/hr

Effective Dates:

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; traffic director/flagman; salamander tender; pitman; dumpman; rakers or tampers on cold patch work; wrappers or coaters of pipe; waterproofer; timberman; wagon drill or drill master helper; powder carrier; magazine tender; signal man; power buggy operator; tree cutter; operator of basic power tools

Effective Dates:

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 : 08/31/2017**

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 : 08/31/2017**

THESE RATES APPLY IN THE FOLLOWING COUNTIES ONLY:

Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Mercer, Ocean, Salem

{For apprentice rates refer to "Laborer - Heavy & General" apprentice rates in any county rate package}

The regular workday consists of 8 hours, starting at 7:00 AM or 8:00 AM.

SHIFT DIFFERENTIALS:

- Shifts must start at 3:00 PM, 4:00 PM, 12:00 AM, or 1:00 AM, to be considered shift work, except when the project owner mandates special hours of work in the job specifications, in which case those hours may be considered shift work.
- When such hours are mandated by the project owner, a shift that begins before midnight on Friday and ends on Saturday morning, or that begins at or after 8:00 PM on Sunday and ends on Monday morning may be paid at the shift differential rate.
- Shifts shall receive an additional \$2.50 per hour.

OVERTIME:

- Hours in excess of 8 per day, Monday through Friday, or outside of the regular workday that are not shift work, and all hours on Saturdays, shall be paid at time and one-half the hourly rate. All hours on Sundays and holidays shall be paid at double the hourly rate.
- Four 10-hour days may be worked, Monday through Thursday, at straight time, with Friday used as a make-up day for a day lost to inclement weather. If Friday is not a make-up day, all hours on Friday shall be paid at time and one-half the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays observed the following Monday. Veterans Day may be substituted for the day after Thanksgiving. However, in the trading of Veterans Day for the day after Thanksgiving, if overtime is worked on Veterans Day, it shall be paid at double the hourly rate.

Hazardous Waste Work:

- where Level A, B, or C protection is required: + \$3.00/hr
- other Hazardous Waste site: + \$1.00/hr

Effective Dates:

03/01/2017

| Rate | Fringe | Total |
|-------|--------|-------|
| 38.75 | 29.03 | 67.78 |

CLASSIFICATIONS:

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

tree cutter, timberman

Effective Dates:

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 : 08/31/2017**

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

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NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
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HEAVY & GENERAL LABORERS - SOUTH Rates Expiration Date : 08/31/2017

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 : 06/04/2017

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:

06/01/2016

| Rate | Fringe | Total |
|-------|--------|-------|
| 54.56 | 26.59 | 81.15 |

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 : 06/04/2017

Effective Dates:

06/01/2016

| Rate | Fringe | Total |
|-------|--------|-------|
| 54.56 | 26.59 | 81.15 |

CLASSIFICATIONS:

Pipeline Journeyman

Effective Dates:

06/01/2016

| Rate | Fringe | Total |
|-------|--------|-------|
| 32.99 | 18.73 | 51.72 |

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 : 08/31/2017**

THESE RATES APPLY IN THE FOLLOWING COUNTIES ONLY:

Bergen, Essex, Hudson, Hunterdon, Middlesex, Monmouth, Morris, Passaic, Somerset, Sussex, Union, Warren

{For apprentice rates refer to "Laborer - Heavy & General" apprentice rates in any county rate package}

The regular workday consists of 8 hours, starting at 7:00 AM or 8:00 AM.

SHIFT DIFFERENTIALS:

- Shifts must start at 3:00 PM, 4:00 PM, 12:00 AM, or 1:00 AM, to be considered shift work, except when the project owner mandates special hours of work in the job specifications, in which case those hours may be considered shift work.
- When such hours are mandated by the project owner, a shift that begins before midnight on Friday and ends on Saturday morning, or that begins at or after 8:00 PM on Sunday and ends on Monday morning may be paid at the shift differential rate.
- Shifts shall receive an additional \$2.50 per hour.

OVERTIME:

- Hours in excess of 8 per day, Monday through Friday, or outside of the regular workday that are not shift work, and all hours on Saturdays, shall be paid at time and one-half the hourly rate. All hours on Sundays and holidays shall be paid at double the hourly rate.
- Four 10-hour days may be worked, Monday through Thursday, at straight time, with Friday used as a make-up day for a day lost to inclement weather. If Friday is not a make-up day, all hours on Friday shall be paid at time and one-half the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays observed the following Monday. Veterans Day may be substituted for the day after Thanksgiving. However, in the trading of Veterans Day for the day after Thanksgiving, if overtime is worked on Veterans Day, it shall be paid at double the hourly rate.

Hazardous Waste Work:

- where Level A, B, or C protection is required: + \$3.00/hr
- other Hazardous Waste site: + \$1.00/hr

Effective Dates:

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 : 08/31/2017

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

TERRITORY
ENTIRE STATE

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

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 : 08/31/2017

****THESE RATES APPLY TO CONSTRUCTION ON NEW TRANS HUDSON TUNNELS ONLY****

{For apprentice rates refer to "Laborer - Heavy & General" apprentice rates in any county rate package}

The regular workday consists of 8 hours, starting at 7:00 AM or 8:00 AM.

SHIFT DIFFERENTIALS:

- Shifts must start at 3:00 PM, 4:00 PM, 12:00 AM, or 1:00 AM, to be considered shift work, except when the project owner mandates special hours of work in the job specifications, in which case those hours may be considered shift work.
- When such hours are mandated by the project owner, a shift that begins before midnight on Friday and ends on Saturday morning, or that begins at or after 8:00 PM on Sunday and ends on Monday morning may be paid at the shift differential rate.
- Shifts shall receive an additional \$2.50 per hour.

OVERTIME:

- Hours in excess of 8 per day, Monday through Friday, or outside of the regular workday that are not shift work, and all hours on Saturdays, shall be paid at time and one-half the hourly rate. All hours on Sundays and holidays shall be paid at double the hourly rate.
- Four 10-hour days may be worked, Monday through Thursday, at straight time, with Friday used as a make-up day for a day lost to inclement weather. If Friday is not a make-up day, all hours on Friday shall be paid at time and one-half the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays observed the following Monday. Veterans Day may be substituted for the day after Thanksgiving. However, in the trading of Veterans Day for the day after Thanksgiving, if overtime is worked on Veterans Day, it shall be paid at double the hourly rate.

Hazardous Waste Work:

- where Level A, B, or C protection is required: + \$3.00/hr
- other Hazardous Waste site: + \$1.00/hr

Effective Dates:

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 : 08/31/2017**

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 : 08/31/2017

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 THE

TRACY LOOP RESTROOM SEPTIC SYSTEM

WATCHUNG RESERVATION
BOROUGH OF MOUNTAIN SIDE
UNION COUNTY, NEW JERSEY

NEA PROJECT No.: UNIOCTY15.011

DATE: DECEMBER 9, 2016
REVISED JUNE 8, 2017



NEGLIA ENGINEERING ASSOCIATES

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New Jersey License No. 49668

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SECTION 013233 – PRE-CONSTRUCTION PHOTOGRAPHS

PART 1 – GENERAL

1.1 DESCRIPTION

- A. The Contractor shall furnish photographs, taken by a professional photographer acceptable to the Engineer, to show the condition of the site prior to construction, as well as to show the progress of the work.

PART 2 – PRODUCTS

2.1 MATERIALS

- A. Prints of pre-construction and construction photographs shall be 3 inch by 5 inch size, mounted on cardboard and provided with reinforced 1inch wide flap, punched with 2 holes for binding, spaced 4¼ inches apart. The binding flap shall be located along the 8-inch dimension, and at the lower right hand corner on the front. The title shall include the name of the photographer, name of the project, contract number, station or other description, direction of view and date the picture was taken. The photographs shall also be numbered consecutively. Negatives of all photographs shall be furnished to the Engineer.

PART 3 – EXECUTION

3.1 METHODS OF PHOTOGRAPHS

- A. Pre-construction photographs shall be taken where directed by the Engineer to especially note the character of all easements and the condition of any structures, lawns, trees, streets, sidewalks, etc., which might be damaged, and shall average at least one photograph for each 50 feet of street or easement in the contract. The Engineer shall be provided with one matte print of each photograph. A minimum of thirty-six construction photographs shall be taken each month at regular intervals while the work is in progress. Photographs shall be taken at such times and at such locations as may be determined by the Engineer. One matte print of each picture taken during the month shall be submitted to the Engineer at the time of submitting the periodic estimate for progress payment.

PART 4 – QUANTITY AND PAYMENT

4.1 QUANTITY AND PAYMENT

- A. No specific payment shall be made for the above item. The cost of the above described work shall be included in the overall price bid on the project.

- B. Contractors are advised that damage claims by property owners, which cannot be disputed by pre-construction photographs, will be required to restore the claimed damage. Therefore, pre-construction photos will be required, and furnished to the engineer. Separate payment will not be made for pre-construction photos and shall be included in the various bid items.
- C. Should the Contractor fail to take pre-construction photos, any property damage complaints received will be repaired by the contractor at no cost to the owner.

END OF SECTION

SECTION 017113 – MOBILIZATION AND DEMOBILIZATION

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Mobilization and Demobilization shall consist of the cost of initiating the contract, including preparatory work and operations, necessary for the movement of personnel, equipment, supplies and incidentals to the Project site, and other work performed or costs incurred prior to beginning work and completing work. In any case of inconsistencies with the N.J.A.C. 7:14-2.9, the NJ Administrative Code shall govern.

PART 2 – PRODUCTS (NOT APPLICABLE)

PART 3 – EXECUTION (NOT APPLICABLE)

PART 4 – QUANTITY AND PAYMENT

4.1 QUANTITY AND PAYMENT

- A. Payment for mobilization and demobilization will be made on a lump sum basis, which price shall include the cost of initiating the contract, regardless of the fact that the Contractor may have, for any reason, shut down his work on the Project or moved equipment away from the Project and back again, in accordance with Standard Specifications Section.
- B. Payment will be made in accordance with the following schedule:
- When 5% of the work is completed - 25% of the amount bid for mobilization or 2.5% of the Total Contract Price, whichever is less, will be paid
 - When 10% of the work is completed - 50% of the amount bid for mobilization or 5% of the Total Contract Price, whichever is less, will be paid
 - When 15% of the work is completed – 75% of the amount bid for mobilization or 7.5% of the Total Contract Price, whichever is less, will be paid
 - When 20% of the work is completed – 100% of the amount bid for mobilization or 10% of the Total Contract Price, whichever is less, will be paid
 - upon completion of all work on the project, payment for the amount bid for mobilization in excess of 10% of the Total Contract Price will be made.
 - the percentage of work completed shall be the total of payments earned compared to the Total Contract Price. The total of payments earned excludes the amount paid for this item and the amount paid for materials furnished but not incorporated into the work in accordance with Subsection 109.06, as shown on the monthly estimates of the approximate quantities of work done, prepared in accordance with Subsection 109.05.

C. The lump sum price bid for mobilization and demobilization is limited to the following maximum amounts:

Original Contract Amount
(Including Mobilization)

| <u>For More Than</u> | <u>To and Including</u> | Max. Amount for Item of <u>Mobilization</u> |
|----------------------|-------------------------|---|
| \$0 | 100,000 | \$3,000 |
| 100,000 | 500,000 | 15,000 |
| 500,000 | 1,000,000 | 30,000 |
| 1,000,000 | 2,000,000 | 60,000 |
| 2,000,000 | 3,000,000 | 90,000 |
| 3,000,000 | 4,000,000 | 120,000 |
| 4,000,000 | 5,000,000 | 125,000 |
| 5,000,000 | 6,000,000 | 150,000 |
| 6,000,000 | 7,000,000 | 175,000 |
| 7,000,000 | 10,000,000 | 200,000 |
| 10,000,000 | | 2.5% of amount bid |

D. Payment for Mobilization and Demobilization will be made on a lump sum basis at the price bid for the item **MOBILIZATION AND DEMOBILIZATION** in the Proposal which price shall include the cost of, any and all materials, all labor and equipment and all else necessary and incidental thereto.

END OF SECTION

SECTION 017123 – CONSTRUCTION LAYOUT

PART 1 – GENERAL

1.1 DESCRIPTION

- A. Under this item the Contractor shall provide all work required in connection with the layout for construction of the project, using the control points and data furnished by the project Licensed Surveyor.

PART 2 – PRODUCTS (NOT APPLICABLE)

PART 3 – EXECUTION

3.1 METHOD OF STAKEOUT

- A. The Contractor shall submit all necessary computations to establish the exact position of all the work from the control points furnished by the project Licensed Surveyor, along with construction grade sheets, prepared by a licensed land surveyor hired by the Contractor, to Neglia Engineering Associates and Union County for approval prior to the start of construction.
- B. The Contractor shall maintain the line and grade stakes furnished by the project Survey for his use in staking out the work. If such control points are damaged, lost, displaced or removed, they shall be reset or replaced at a charge to the Contractor for the actual cost of the work.
- C. The Contractor shall be responsible for maintaining the points he has established. Any error or apparent discrepancies found in the plans or specifications shall be called to Neglia Engineering Associates and Union County attention in writing for interpretation prior to proceeding with the work.
- D. Should any inconsistencies arise during layout by the Contractor's surveyor, Neglia Engineering Associates shall be advised prior to construction. Any downtime costs incurred by the Contractor due to inconsistencies will not be absorbed by Neglia Engineering Associates and Union County.

PART 4 – QUANTITY AND PAYMENT

4.1 QUANTITY AND PAYMENT

- A. No specific payment will be made for construction layout and the cost thereof shall be included in the prices bid for the various items within the bid proposal.

SECTION 017423 – FINAL CLEAN-UP AND SITE RESTORATION

PART 1 – GENERAL

1.1 DESCRIPTION

- A. Under this item, the Contractor shall restore the work site and access area to its original condition including, but not limited to, installation of both temporary and permanent striping, remove and reset street, road and parking lot signs, remove and dispose of all topsoil, seeding, trees and landscaping, sidewalks, roadways, curbs, cleaning and removal of stockpiles and equipment, and all else not specifically covered elsewhere in these specifications. All concrete aprons shall be restored, as applicable.
- B. This item includes restoration of adjacent parking areas, driveways, associated striping, and landscaping disturbed during construction. Driveways shall be restored with material matching existing material in a uniform seamless manner. Disturbed landscaped areas shall be restored in-kind. All existing painted curbs which are damaged during construction shall be repainted in-kind.

PART 2 – PRODUCTS

2.1 MATERIALS

- A. NJDOT 2007 Standard Specifications
- B. All soil, stone and other fill materials either imported onto or exported from the property shall comply with all applicable local, County, State, and Federal regulations and requirements.

PART 3 – EXECUTION

3.1 METHODS OF CONSTRUCTION

- A. The site shall be returned to its original condition. Lawn areas disturbed by Contractor's activities shall be re-graded, seeded and mulched or topsoil and sod shall be laid as specified by Neglia Engineering Associates.
- B. All pavement and sidewalk where conduit lines are installed shall be repaired. Cleaning shall include hand brooming of sidewalk and pavement areas. Adjacent structures shall be cleaned, as necessary, by a method approved by Neglia Engineering Associates. Sidewalks shall be replaced with concrete walk in evenly sized slabs, sawcut where necessary, only to the extent damaged by the construction. Both concrete and bituminous concrete shall be repaired as specified by Neglia Engineering Associates, sawcut where necessary, only to the extent damaged by the construction. All construction equipment and stockpiles shall be removed from the site and disposed of by the Contractor in a suitable and timely manner.

PART 4 – QUANTITY AND PAYMENT

4.1 QUANTITY AND PAYMENT

- A. The quantity of Final Clean-up and Site Restoration for which payment will be made will be on a lump sum basis for the item **FINAL CLEAN-UP AND SITE RESTORATION** in the Proposal, which price shall include the cost of any and all materials, labor and equipment and all else necessary and incidental thereto.

END OF SECTION

SECTION 024113 - SITE CLEARING AND DEMOLITION

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Under this item, the Contractor shall remove and dispose of all fences, drainage pipes, drainage structures, sewer pipes, sewer structures, water pipes, gas pipes, conduits, valves (all utilities), curbs, sidewalks, asphalt pavement, signs, dirt, stones, trees, shrubs, concrete pads, stripping of existing fields, and all debris; the removal of which is required for carrying out the work of this project, shall be removed and disposed of off-site. The Contractor shall perform test pits to locate any uncertainties in existing subsurface structures to determine if these structures interfere or affect the proposed construction.
- B. The Contractor shall remove and dispose of pipes, inlets, manholes, reinforced concrete pavement, bituminous pavement, concrete and bituminous sidewalk, and old curb, utility boxes, irrigation systems and controls, light poles, light pole foundations, backstops as necessary for new construction. He shall remove and reset street and road signs, not otherwise paid for; remove and reset any monuments, shrubs and fences; remove and reset to grade manhole and catch basin frames, fire hydrants, guide rail, gas and water valves; and complete all other removals and relocations required for the work and not specifically covered elsewhere for payment.
- C. The Contractor is advised to make a site visit, check the existing site conditions, and determine the detail scope of work for the site clearing before the bidding of this project.
- D. The Contractor shall perform test pits to locate any uncertainties in Existing Subsurface Structures to determine if these structures interfere or affect the proposed construction.

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION

3.1 METHODS OF CONSTRUCTION

- A. The lights, signs, parking meters, inlets, sidewalk, pavement, bollards, curb and excavation unclassified shall be disposed of outside of the limits of the contract at no extra cost to the Owner.
- B. Trees and shrubs removed by the Contractor shall be cut and the roots and stumps removed by grubbing, and shall be refilled with suitable material which shall be solidly compacted so as to make the surface at these points conform to the adjoining grade. No trees shall be cut outside the specified limits without permission of Neglia Engineering Associates.

- C. Street and road signs shall be removed carefully and shall be reset at the exact locations and in the manner required by the public authorities having jurisdiction, thereof. Site signs along with their foundations and any electrical components shall be removed in their entirety and shall be submitted to the owner unless owner requests complete disposal off-site.
- D. Manhole frames, catch basin frames, fire hydrants, guide rail, gas valves, water valves, and other structures shall be removed and carefully reset to match proposed grades.

PART 4 - QUANTITY AND PAYMENT

4.1 QUANTITY AND PAYMENT

- A. The quantity of Site Clearing and Demolition for which payment will be made, will be a lump sum basis covering all work of **SITE CLEARING AND DEMOLITION** including but not limited to the work specified above. Such price shall include removal of debris, disposal of materials, and all else necessary therefore, incidental thereto and included herein.
- B. The Contractor shall abide by all of the rules and regulations as set forth in Section 201 – Clearing Site of the 2007 NJDOT State Standard Specifications and the respective amendments.

END OF SECTION

SECTION 310000 – EARTHWORK

PART 1 – GENERAL

1.1 DEFINITIONS

A. The following terms shall have the meanings ascribed to them in this Article, wherever they appear in this Section.

1. Earth Excavation: The removal of all surface and subsurface material not classified as rock (as defined below).
2. Rock Excavation, Unclassified: Rock excavation, unclassified shall mean removal of all rock, boulders or pieces of concrete, and solid ledge rock and masonry, which in the opinion of Neglia Engineering Associates requires for its removal, wedging, sledging, barring, or breaking up with a power operated tool. Soft or disintegrated rock which can be removed with a pick or power-operated excavator or shovel, loose, shaken or previously blasted rock, broken stone in rock fill or elsewhere, and rock exterior to the maximum limits allowed, or which may fall in the excavation, shall not be included as rock excavation. Pavements, curbs, gutters, sidewalks and driveways shall not be included as rock excavation.
3. Subgrade Surface: Surface upon which subbase or topsoil is placed.
4. Subbase: Select granular material or subbase course Type 2 which is placed immediately beneath pavement or concrete slabs.
5. Maximum Density: The dry unit weight in pounds per cubic foot of the soil at "Optimum Moisture Content" when determined by ASTM D 698 (Method C), and ASTM D 2922 (Method B).
6. Landscaped Areas: Areas not covered by structures, walks, roads, paving, or parking.
7. Unauthorized Excavation: The removal of material below required elevation indicated on the Drawings or beyond lateral dimensions indicated or specified without specific written direction by Neglia Engineering Associates.

1.2 SUBMITTALS

A. Product Data:

1. Filter Fabric: Manufacturer's catalog sheets, specifications, and installation instructions.

B. Samples: Submit samples as follows. Take the samples in the presence of the Engineer, and complete a Granular Material Sample Information Form for each sample. Forms

and field sample designation numbers will be furnished by Neglia Engineering Associates. Said samples shall be of the following weights:

1. Select Granular Material: 10 pounds
2. Selected Fill: 10 pounds
3. Subbase Course Type 2: 10 pounds
4. Quarry Process (QP): 10 pounds

1.3 PROJECT CONDITIONS

A. Protect existing trees and plants during performance of the work unless otherwise indicated. Box trees and plants indicated to remain within the project limit line with temporary steel fencing or solidly constructed wood barricades as required. Protect root systems from smothering. Do not store excavated material, or allow vehicular traffic or parking within the branch drip line. Restrict foot traffic to prevent excessive compaction of soil over root systems.

B. Cold Weather Requirements:

1. When freezing temperatures are predicted, do not excavate to final required elevations for concrete Work unless concrete can be placed immediately. Retain enough earth over the bottom elevation of footings to prevent frost penetration. If excavation has progressed to final footing elevations and concrete cannot be placed immediately, cover the bottom of the excavations with protective material to adequately insulate the exposed earth surface from frost. Remove protective material immediately before placing concrete.
2. Do not backfill between November 1 and April 1, except with written permission of Neglia Engineering Associates.

1.4 RELATED DOCUMENTS

A. Refer to the soil testing report prepared by Johnson Soils Company, provided in Appendix A of these Technical Specifications.

PART 2 – PRODUCTS

2.1 MATERIALS

A. Select Granular Material: Stockpiled, sound, durable, sand, gravel, stone, or blends of these materials, free from organic and other deleterious materials. Comply with NJDOT Standard Specifications for subbase course material.

| Sieve | Percent Passing |
|--------------|------------------------|
| 2 inch | 100 |
| 1/4 inch | 30-65 |
| No. 40 | 5-40 |
| No. 200 | 0-10 |

1. Magnesium Sulfate Soundness Test: 20 percent maximum loss by weight after 4 test cycles.
 2. Plasticity Index: The plasticity index of the material passing the No. 40 mesh sieve shall not exceed 5.0.
 3. Elongated Particles: Not more than 30 percent, by weight, of the particles retained on a 1/2-inch sieve shall consist of flat or elongated particles. A flat or elongated particle is defined as one which has its greatest dimension more than three times its least dimension.
- B. Selected Fill: Sound, durable, sand, gravel, stone, or blends of these materials, free from organic and other deleterious materials.

| Sieve | Percent Passing |
|--------------|------------------------|
| 4 inch | 100 |
| No. 40 | 0-70 |
| No. 200 | 0-15 |

- C. Subbase Course Type 2: Stockpiled, crushed ledge rock or approved blast furnace slag. Comply with NJDOT 2007 Standard Specifications for Subbase Course material.

| Sieve | Percent Passing |
|--------------|------------------------|
| 2 inch | 100 |
| 1/4 inch | 25-60 |
| No. 40 | 5-40 |
| No. 200 | 0-10 |

1. Magnesium Sulfate Soundness Test: 20 percent maximum loss by weight after 4 test cycles.
2. Plasticity Index: The plasticity index of the material passing the No. 40 mesh sieve shall not exceed 5.0.
3. Elongated Particles: Not more than 30 percent, by weight, of the particles retained on a 1/2-inch sieve shall consist of flat or elongated particles. A flat or elongated particle is defined as one which has its greatest dimension more than three times its least dimension.

- D. Suitable Material (Fill and Backfill for Landscaped Areas): Material consisting of mineral soil (inorganic), blasted or broken rock and similar materials of natural or man-made origin, including mixtures thereof. Maximum particle size shall not exceed 2/3 of the specified layer thickness prior to compaction. NOTE: Material containing cinders, industrial waste, sludge, building rubble, land fill, muck, and peat shall be considered unsuitable for fill and backfill, except topsoil and organic silt may be used as suitable material in landscaped areas provided it is placed in the top layer of the subgrade surface.
- E. Filter Fabric (Separation, Drainage, Slope Protection): Amoco CEF 4545, CEF 4551; Exxon Chemical Co. GTF 150 EX; Mirafi Inc. 140N, 140NL; Nicolon Corp. Filterweave 70/06; Phillips Fibers Corp. Supac 4NP, 5NP, 7NP; Wellman Quline Inc. Q60, Q80, Q100 or approved equal.
- F. Filter Fabric (Stabilization): Amoco CEF 2002 & 2006; Exxon Chemical Co. GTF 350; Mirafi Inc. 500X, 600X, 700X; Nicolon Corp. 500; Phillips Fibers Corp. Supac 3WS, 4WS, 5WS, 6WS; Wellman Quline Inc. Q160 or approved equal.
- G. Backfill: Contractor is advised to follow the specifications of backfill material proposed under this project. The placement of this and all fill material must meet the requirements of the Geotechnical Engineer. Refer to the Soils Testing cited in Section 1.4 of this Specification for additional information pertaining to site soils and permeability.

PART 3 – EXECUTION

3.1 CLEARING AND GRUBBING

- A. Clear and grub the site of trees, shrubs, brush, other prominent vegetation, debris, and obstructions except for those items indicated to remain. Completely remove stumps and roots protruding through the ground surface.
- B. Fill depressions caused by the clearing and grubbing operations in accordance with the requirements for filling and backfilling, unless further excavation is indicated.

3.2 UNDERGROUND UTILITIES

- A. Locate existing underground utilities and service connections or laterals prior to commencing excavation work. Determine exact utility locations by hand-excavated test pits. Support and protect utilities to remain in place.
- B. Remove inactive, abandoned utilities within the limits of the areas to be excavated. Cap or plug open ends of abandoned utilities extending outside the excavation limits.

3.3 EXCAVATION

- A. Maintain sides and slopes of excavations in a safe condition until completion of backfilling. Comply with Code of Federal Regulations Title 29 - Labor, Part 1926 (OSHA).
- B. Stockpile excavated materials classified as suitable material where directed, until required for fill. Place, grade, and shape stockpiles for proper drainage as approved by Neglia Engineering Associates.
- C. Excavation for Structures: Conform to elevations, lines, and limits indicated. Excavate to a vertical tolerance of plus or minus one inch. Extend excavation a sufficient lateral distance to provide clearance to execute the work.
- D. Footings and Foundations: Trim bottoms to required lines and elevations. Excavate to final elevations by hand just prior to concrete placement. Leave solid undisturbed base for concrete.
- E. Slabs and Floors: Excavate to the following depths below bottom of concrete for addition of select granular material:
 - 1. Interior Floors: 6 inches unless otherwise indicated.
 - 2. Exterior Slabs and Steps: 12 inches unless otherwise indicated.
- F. Pipe Trenches: Open only enough trench length to facilitate laying pipe sections. Unless otherwise indicated on the Drawings, excavate trenches approximately 24 inches wide plus the outside pipe diameter, equally divided on each side of pipe centerline. Cut trenches to cross section, elevation, profile, line, and grade indicated. Accurately grade and shape trench bottom for uniform bearing of pipe.
- G. Pavement: Excavate to subgrade surface elevation.
- H. Unauthorized Excavations: Unless otherwise directed, backfill unauthorized excavation under footings, foundation bases, and retaining walls with compacted select granular material without altering the required footing elevation. Elsewhere, backfill and compact unauthorized excavation as specified for authorized excavation of the same classification, unless otherwise directed by Neglia Engineering Associates.

3.4 ROCK EXCAVATION

- A. No blasting shall be permitted on the project site without written permission from Neglia Engineering Associates and Union County.

3.5 DEWATERING

- A. Prevent surface and subsurface water from flowing into excavations and trenches and from flooding the site and surrounding area.

3.6 PLACING FILTER FABRIC

- A. Place and overlap filter fabric in accordance with the manufacturer's installation instructions, unless otherwise shown. Backfill over fabric in accordance with the manufacturer's instructions and in a manner to prevent damage to the fabric.

3.7 PLACING FILL AND BACKFILL

- A. Surface Preparation of Fill Areas: Strip topsoil, remaining vegetation, and other deleterious materials prior to placement of fill. Break-up or scarify old pavements to a maximum of two square feet.
- B. Excavations: Backfill as promptly as practicable, but only after approval by Neglia Engineering Associates. Do not backfill with excavated material unless it meets the requirements of this Section.
- C. Place backfill and fill materials in layers not more than 8 inches thick in loose depth unless otherwise specified. Before compaction, moisten or aerate each layer as necessary to facilitate compaction to the required density. Do not place backfill or fill material on surfaces that are muddy, frozen, or covered with ice.
 - 1. Place fill and backfill in confined areas (such as trenches) not easily accessible by larger compaction equipment, in maximum 6-inch-thick (loose depth) layers.
- D. Prevent wedging action of backfill against structures by placing backfill uniformly around structure to approximately same elevation in each layer. Place backfill against walls of structures containing basements or crawl spaces only after the first floor structural members are in place.
- E. Under Exterior Concrete Slabs and Steps:
 - 1. Up to Subgrade Surface Elevation: Place selected fill when fill or backfill is required.
 - 2. Subbase Material: Place 12 inches of select granular material over subgrade surface.
- F. Under Interior Concrete Slabs:
 - 1. Up to Subgrade Surface Elevation: Place selected fill when fill or backfill is required.
 - 2. Subbase Material: Place 6 inches of select granular material over subgrade surface.
- G. Under Pavements and Walks:
 - 1. Up to Subgrade Surface Elevation: Place selected fill when fill or backfill is required.

- 2. Subbase Material: Place as indicated.
- H. Landscaped Areas: Place suitable material when required to complete fill or backfill areas up to subgrade surface elevation. Do not use material containing rocks over 4 inches in diameter within the top 12 inches of suitable material.
- I. Plastic Pipe and Cement Water Pipe in Trenches: Place cushion material a minimum of 4 inches deep under pipe, 4 inches on both sides, and 4 inches over top of pipe. Complete balance of backfill as specified.
- J. Copper Tubing and Steel Gas Pipe in Trenches: Place cushion material a minimum of 6 inches deep under pipe, 6 inches on both sides, and 4 inches over top of pipe. Complete balance of backfill as specified.
- K. Rigid Non-Metallic Conduit: Except where concrete encasement is required, place cushion material a minimum of 4 inches deep under conduit, 4 inches on both sides, and 12 inches over top of conduit. Complete balance of backfill as specified.

3.8 COMPACTION

- A. Compact each layer of fill and backfill for the following area classifications to the percentage of maximum density specified below and at a moisture content suitable to obtain the required densities, but at not less than three percent drier or more than two percent wetter than the optimum content as determined by ASTM D698.
 - 1. Concrete Slabs and Steps: 95%
 - 2. Landscaped Areas: 90%
 - 3. Pavements and Walks: 95%
 - 4. Pipes: 95%

3.9 GRADING

- A. Rough Grading: Trim and grade area required by this Contract to a level of 4 inches below the finished grades indicated unless otherwise specified herein or where greater depths are indicated. Provide smooth uniform transition to adjacent areas.
- B. Finish Grading: Finish surfaces free from irregular surface changes, and as follows:
 - 1. Grassed Areas: Finish areas to receive topsoil to within one inch above or below the required subgrade surface elevations.
 - 2. Walks and Pavements: Place and compact subbase material as specified. Shape surface of areas to required line, grade and cross section, with the finish surface not more than one-half inch above or below the required subbase elevation.

3. Building Slabs: Grade subbase material smooth and even, free of voids, compacted as specified to within one-quarter inch above or below required subbase elevation.

3.10 SUBGRADE SURFACE FOR WALKS AND PAVEMENT

A. Shape and grade subgrade surface as follows:

1. Walks: Shape the surface of areas under walks to required line, grade and Cross-section, with the finish surface not more than one inch above or below the required subgrade surface elevation.
2. Pavements: Shape the surface of areas under pavement to required line, grade and cross section, with the finish surface not more than one-half inch above or below the required subgrade surface elevation.
3. Grade Control: During construction, maintain lines and grades including crown and cross-slope of subbase course.
4. Thoroughly compact subgrade surface for walks and pavement by mechanical rolling, tamping, or with vibratory equipment as approved to the density specified.

3.11 RESTORATION

- A. Restore pavements, walks, curbs, lawns, and other exterior surfaces damaged during performance of the work to match the appearance and performance of existing corresponding surfaces as closely as practicable.
- B. Topsoil and seed or sod damaged lawn areas outside of the project area as directed. Water as required until physical completion of the work.

3.12 DISPOSAL OF EXCESS AND UNSUITABLE MATERIALS

- A. It is not the intent of this project to export excess and/or unsuitable soil material off-site. Excess suitable soil material may be used as trench backfill, in accordance with the Contract Documents. Excess and/or unsuitable soil material which is not used shall remain on-site and be utilized to restore existing grades within the Watchung Reservation. Contractor shall coordinate with the Owner regarding exact location of restoration within the Watchung Reservation.

3.13 FIELD QUALITY CONTROL

- A. Compaction Testing: Notify Neglia Engineering Associates at least three working days in advance of all phases of filling and backfilling operations. Compaction testing will be performed by an independent lab retained by the Contractor to ascertain the compacted density of the fill and backfill materials. Compaction testing will be performed on certain layers of the fill and backfill as determined by project Geotechnical Engineer. If a compacted layer fails to meet the specified percentage of

maximum density, the layer shall be re-compacted and will be retested. No additional material may be placed over a compacted layer until the specified density is achieved.

3.14 PROTECTION

A. Protect areas from traffic and erosion, and keep them free of trash and debris.

PART 4 – QUANTITY AND PAYMENT

4.1 QUANTITY AND PAYMENT

A. No specific payment will be made for earthwork and the cost thereof shall be included in the prices bid for **REMOVAL AND HAULING OF SITE SOIL TO LOCATION WITHIN WATCHUNG RESERVATION** within the **BASE BID** proposal.

PART 5 – ADDITIONAL INFORMATION

5.1 SOIL TESTING REPORT (See Appendix A, at the end of these Technical Specifications)

END OF SECTION

SECTION 311300 – TREE REMOVAL

PART 1 – GENERAL

1.1 DESCRIPTION

- A. Tree Removal shall include the work of cutting, removing and disposing all specifically designated individual trees including all limbs, trunks, stumps and roots and the restoration and replacement of all structures including, but not limited to, curbs, sidewalks, driveway aprons, utilities, vegetation, or other property which may be damaged as a result of the Tree Removal, unless removal and/or replacement of such is outlined in these Specifications and an item included in the Proposal. Tree Removal shall also include the topsoil and seeding or asphalt overlay of all disturbed areas.

PART 2 – PRODUCTS

2.1 MATERIALS

- A. Sidewalks, curbs, driveway aprons, topsoil and seed shall comply with the requirements listed elsewhere in these Specifications.
- B. Any additional material which may be required during construction shall be subject to the approval of the Engineer.

PART 3 – EXECUTION

3.1 METHODS OF CONSTRUCTION

State Standard Specifications and Somerset-Union County Soil Conservation District Regulations.

- A. Trees removed by the Contractor shall be cut and the roots and stumps removed by grubbing shall be refilled with suitable material, which shall be solidly compacted so as to make the surface at these points conform to the adjoining grade. No trees shall be cut outside the specified limits without permission of the engineer.
- B. Cutting of trees shall be done by competent workman only and in a workmanship like manner. All trees shall be topped and limbed previous to filling, unless otherwise directed by the Engineer. If necessary, trees shall be felled in sections and disposed of to prevent damage to adjacent vegetation, structures, utility wires, or other property.
- C. When or where any direct or indirect damage or injury is done to public or private property by or on account of any act, omission, neglect or misconduct, on the part of the Contractor in the execution of the work, such property shall be restored by the Contractor, at his expense, to a condition equal to that existing before such damage or injury was done, or he shall make good such damage or injury in such other manner as may be acceptable to the Engineer.

- D. It shall be the responsibility of the Bidders to ascertain, by their own inspection and investigations the sizes and types of trees to be removed and to determine and supply the necessary equipment to perform the work.
- E. All trunks, limbs and branches shall be removed from the site as well as sweeping and removal of all chips to a degree that is satisfactory to the Engineer.
- F. Prior to the removal of any trees, the Contractor shall provide for, if needed, the disconnection of all water, sewer, gas, electric, telephone and cable television service facilities that may interfere with the safe performance of the work. The Contractor shall notify the Municipality and utility companies of the time any such disconnections may be needed and the cost of any and all such utility work, including charges, if any, which may be made by the Municipality and utility companies shall be borne by the Contractor and shall be included in the price bid.

PART 4 – QUANTITY AND PAYMENT

4.1 QUANTITY AND PAYMENT

- A. The quantity of Tree Removal, for which payment will be made, will be on a per unit basis for the items **TREE REMOVAL, INCLUDING STUMP, 4” TO 12” CALIPER; TREE REMOVAL, INCLUDING STUMP, GREATER THAN 12” TO 24” CALIPER; TREE REMOVAL, INCLUDING STUMP, GREATER THAN 24” TO 36” CALIPER; and TREE REMOVAL, INCLUDING STUMP, GREATER THAN 36” TO 48” CALIPER** in the Proposal, which price shall include the furnishing of all materials, labor and equipment and all else necessary therefore and incidental thereto.

END OF SECTION

SECTION 312200 - SITE GRADING

PART 1 – GENERAL

1.1 DESCRIPTION

- A. Site Grading shall include grading, excavation, preparing and compacting all material required for construction of the sub-grade of the entire disturbed area and all incidental work necessary to the satisfaction of the Engineer. All excavated soil in excess of what is required to grade the site shall be disposed of off-site in accordance with local, State and Federal standards. It is the Contractor's responsibility to excavate and dispose of this soil to construct all site, drainage, utility, and building improvements per the Contract plans and details.

PART 2 – PRODUCTS – Not Applicable

PART 3 – EXECUTION

3.1 MATERIAL

- A. Borrow material required for site grading shall conform to NJDOT Standard Specifications. The Contractor shall provide the Engineer with certification attesting that said material is free of contaminants and suitable for this application. The soil shall be smooth, soft and free of depressions, clods, mounds, stones, or other debris as approved by the Engineer.
- B. All soil, stone, and other fill materials either imported onto or exported from the property shall comply with all applicable local, County, State, and Federal regulations and requirements.
- C. Soil materials brought on site for the septic field shall comply with the requirements contained herein, or NJAC 7:9A, whichever is more stringent.

3.2 METHODS OF CONSTRUCTION

- A. The site shall be graded within the limits shown on the Plans or as directed by the Engineer. The Contractor shall grade the sub-grade according to the elevations shown on the Plans, taking into account the thickness of the layers above, and if necessary borrow materials as approved by the Engineer. The soil shall be placed uniformly in layers not to exceed 12-inch loose thickness. Each layer shall be compacted to 95% density in accordance with Section 204 of the NJDOT Standard Specifications.
- B. The Contractor shall make provisions to implement approved dust control measures while performing this work as not to impact surrounding residences. Should the contractor fail to implement these measures, he will be responsible to power-wash all structures, at no additional cost to the Owner.

PART 4 – QUANTITY AND PAYMENT

4.1 QUANTITY AND PAYMENT

- A. There will be no specific payment for site grading, and the cost for any work under this item shall be distributed among the various related bid items.

END OF SECTION

SECTION 312316 – EXCAVATION, UNCLASSIFIED

PART 1 – GENERAL

1.2 DESCRIPTION

- A. Excavation Unclassified shall consist of the excavation, removal, export and disposal of all materials of whatever nature, bituminous concrete, concrete, regulated waste, rock, boulders, brick, stone, and concrete masonry, small structures, removal of any other materials encountered of whatsoever nature, if and where directed, required for the proposed construction, the stockpiling and disposal of all excavated materials, the transportation of the excavated material, the construction of embankments with the material excavated when so required, the disposal of unsuitable and surplus materials, and all other work as herein described.

PART 2 – PRODUCTS

2.1 MATERIALS

- A. All soil, stone and other fill materials either imported onto or exported from the property shall comply with all applicable local, County, State, and Federal regulations and requirements.

PART 3 – EXECUTION

3.1 METHODS OF CONSTRUCTION

- A. 2007 NJDOT Standard Specifications – Section 202 – Excavation.

PART 4 – QUANTITY AND PAYMENT

4.1 QUANTITY AND PAYMENT

- A. No specific payment will be made for excavation, unclassified. The cost thereof shall be included in the price bid for respective bid items, which the price shall include the cost of, any and all materials, all labor and equipment and all else necessary and incidental thereto.

END OF SECTION

SECTION 312319 – DEWATERING

PART 1 GENERAL

1.1 DESCRIPTION

- A. The Contractor shall at all times provide ample means and equipment with which to promptly remove and dispose of all water and drainage entering the excavations or other parts of the work, and to keep such excavations dry until the structures to be built therein are completed. In no case will the laying of pipe or placing of masonry be permitted with water in the excavation.
- B. Dewatering methods and equipment shall be subject to the approval of Neglia Engineering Associates, and all water removed from the work shall be disposed of in a manner without damage to adjacent properties.
- C. All applicable NJDEP regulations must be maintained with respect to dewatering and discharge. Any applicable construction permits for dewatering must be obtained prior to construction by the contractor.
- D. Contractor shall note that dewatering will be necessary for the construction of all utilities, building foundations, slabs, deck foundations, slabs, etc. must be anticipated when bidding of the project.

PART 2 – PRODUCTS

2.1 MATERIALS

- A. All soil, stone and other fill materials either imported onto or exported from the property shall comply with all applicable local, County, State, and Federal regulations and requirements.

PART 3 – EXECUTION – Not Applicable

PART 4 – QUANTITY AND PAYMENT

4.1 QUANTITY AND PAYMENT

- A. No specific payment will be made for dewatering associated for construction related sanitary improvements and associated site improvements. This shall be included in the price bid for respective bid items, which the price shall include the cost of, any and all materials, all labor and equipment and all else necessary and incidental thereto.

END OF SECTION

SECTION 312500 - EROSION AND SEDIMENT CONTROL

PART 1 – GENERAL

1.1 DESCRIPTION

- A. The work performed under this item shall include construction of all soil erosion structures, temporary seeding or mulching and general soil stabilization as shown on the site plans.

PART 2 – PRODUCTS

2.1 MATERIALS

- A. Materials shall be in conformance with the Plan and Details, and shall include silt fences, inlet filters, stabilized construction accesses, jute matting soil stockpiles and soil stabilization. All materials shall be approved by Neglia Engineering Associates or Somerset-Union Soil Conservation District.
- B. Contractor is advised that a 48-hour notice prior to construction activities must be given to the Somerset-Union Soil Conservation District.

PART 3 – EXECUTION

3.1 METHODS OF CONSTRUCTION

State Standard Specifications and Hudson County Soil Conservation District Regulations.

- A. All erosion and sedimentation control measures shall be in place prior to any grading operations or construction of proposed facilities and shall be maintained until construction is complete and the construction area is stabilized. After restoration is complete, temporary control measures shall be removed and disposed of properly.
- B. All erosion and sedimentation control measures shall be constructed and maintained in accordance with the "Standards for Soil Erosion and Sediment Control in New Jersey," prepared by the New Jersey State Soil Conservation Committee, current edition.
- C. Disturbed areas that will be exposed in excess of 14 days shall be temporarily seeded and/or mulched until proper weather conditions exists for establishment of a permanent vegetative cover except in areas where final restoration is expected to be completed within seven days after the completion of construction, in which case no temporary protective measures will be required. If final restoration is expected to begin more than seven days and completed more than 30 days after the start of construction, seeding shall be required for temporary protection, except where seasonal conditions are not suitable for growing vegetation. In this case, mulch may be applied until

conditions are suitable for establishing vegetative cover or until final restoration is implemented.

PART 4 – QUANTITY AND PAYMENT

4.1 QUANTITY AND PAYMENT

- A. The quantity of Soil Erosion and Sediment Control Measures, for which payment will be made, will be on a lump sum basis for the item **SOIL EROSION AND SEDIMENT CONTROL MEASURES** in the Proposal, which price shall include the furnishing of all materials, labor and equipment and all else necessary therefore and incidental thereto as required by the local county Soil Conservation District.

END OF SECTION

SECTION 321540 – CLEAN, CRUSHED STONE

PART 1 – GENERAL

1.1 DESCRIPTION

- A. The Clean Crushed Stone shall be furnished and placed under all sanitary structures and within pipe trenches, as shown on the plans or as directed by the Engineer. Three-quarter-inch clean crushed stone is recommended for construction.

PART 2 – PRODUCTS

2.1 MATERIALS

- A. Clean Stone shall be uniform in texture and quality and shall conform to the 2007 NJDOT Standard Specifications – Section 901.04, Broken Stone.

PART 3 – EXECUTION – Not Applicable

PART 4 – QUANTITY AND PAYMENT

4.1 QUANTITY AND PAYMENT

- A. No specific payment will be made for the above item. The cost for all the work specified above shall be included in the prices bid for the sidewalk.

END OF SECTION

SECTION 329113 – TOPSOILING, FERTILIZING AND SEEDING

PART 1 – GENERAL

1.1 DESCRIPTION

- A. Under this item the Contractor shall provide topsoil & hydroseed with underdrains for the ground cover over the proposed drainage field areas as shown on the Site Plans.
- B. In addition, under this item the Contractor shall provide topsoil & hydroseed at all disturbed areas of construction.

PART 2 – PRODUCTS

2.1 MATERIALS

- A. Topsoil obtained from stripping within limits of the project, or furnished from outside the project, shall contain no stones, lumps, roots, or similar objects larger than 2 inches in any dimension, and shall have a pH value of not less than 5.8. When the pH value of the topsoil is less than 5.8, it shall be increased by applying ground limestone at a rate necessary to attain a pH value of 6.5.
- B. Material stripped from the following sources shall not be considered suitable for use as topsoil.
 - Soils having a pH value less than 4.1
 - Chemically contaminated soils.
 - Areas from which the original surface has been stripped and/or covered over, such as borrow pits, open mines, demolition sites, dumps, and sanitary landfills.
 - Unacceptable wet excavation.
- C. Topsoil furnished from sources outside the limits of the project shall have a minimum organic content of not less than 2.75 percent by weight. When the organic content of the topsoil furnished from sources outside the limits of the project is less than 2.75 percent, it shall be increased by adding peat at a rate necessary to attain this minimum organic content. The organic content of soils shall be determined by the Laboratory using the chromic acid titration method, as described in the United States Department of Agriculture's Circular 757.
- D. The organic content of all topsoil used for planting shall conform to the requirements specified above.
- E. The gradation of the topsoil furnished from sources outside the limits of the project shall be determined by the Laboratory, using the Bouyoucos Hydrometer Analysis

conforming to the requirements of current A.A.S.H.O. Designation T88. The gradation of the topsoil shall be within the following ranges:

Sand (1.00 MM to 0.25 MM) 70% to 80%
Silt and Clay (less than .25 MM) 20% to 30%

- F. A percolation rate of 1 inch/Hour to 2 inch/Hour is required after root growth by the sod after establishment.
- G. The materials to be used for topsoiling shall conform to the appropriate articles of the NJDOT Standard Specifications as follows:

| | |
|---|-----------------------|
| Fertilizer, 5-10-5 Commercial Designation | Sec. 917.03 |
| Ground Limestone | Sec. 917.04 |
| Mulch, Hay | Sec. 917.06 |
| Grain Seed..... | Sec. 917.05 |
| Topsoil | Sec. 917.01 |
| Grass Seed Mixture..... | Hydroseed Lesco 3 Rye |

- H. The hydroseed shall be furnished and delivered premixed. A manufacturer's certificate of compliance to the specified mixes shall be submitted by the manufacturer.

PART 3 – EXECUTION

3.1 METHODS OF CONSTRUCTION

- A. The topsoil shall be spread over the surface in a uniform layer that will produce the prescribed compacted thickness of at least six (6") inches. When required, ground limestone which has been protected from moisture and is dry and free flowing, shall be evenly spread over the area to be seeded at a rate that will produce a pH value of the soil of 6.5. The area shall then be raked, disked or otherwise worked to incorporate the limestone into the upper 3 to 4 inches of soil to remove stones, roots, debris and other unsuitable material and to form an even surface. The soil shall be in a pliable condition at the time of seeding.
- B. If the quantity of topsoil obtained from stripping, or from storage piles when prescribed, or both, is insufficient for the requirements of the project, the Contractor shall furnish the required additional topsoil from other sources.
- C. The contractor shall hydro-seed only on a calm day. No seeding shall be performed on frozen ground or when the temperature is 32 degrees Fahrenheit or lower. Schedules for fertilizing and seeding must be submitted to Neglia Engineering Associates for approval prior to the work. Hydroseeding shall be done within ten days following soil preparation.

Fertilizer shall be 5-10-5 and shall be applied at a rate of 325 lbs. per acre.

Virgin wood fiber mulch shall be applied at a rate of 1500 lbs. per acre.

ECT tackifier shall be applied at a rate of 5 lbs. per acre.

Hydroseed mix shall be Lesco 3 Rye.

PART 4 – QUANTITY AND PAYMENT

4.1 QUANTITY AND PAYMENT

- A. The Contractor will be responsible for returning all disturbed grass areas to their original conditions as described above. The quantity of Topsoiling, Fertilizing and Seeding for which payment will be made will be included in the lump sum item **FINAL CLEAN-UP AND SITE RESTORATION** in the Proposal, which price shall include the cost of any and all materials, labor and equipment and all else necessary and incidental thereto.
- B. This shall include the cost of preparing and stripping material for topsoil and placing it; furnishing, cleaning and placing topsoil furnished from sources outside the limits of the project, including furnishing and incorporating additional organic material if required; furnishing and sowing seed mixture and grain seed; furnishing and placing ground limestone, fertilizer, and other materials; raking, rolling, re-fertilizing and reseeding where required; the repair of previously topsoiled and seeded areas damaged by the Contractor's work; furnishing all labor and equipment; and all else necessary for the topsoil and seeding shown on the Plans or as directed by the Engineer.

END OF SECTION

SECTION 333120 – ABANDON EXISTING SEPTIC SYSTEM

PART 1 – GENERAL

1.1 DESCRIPTION

- A. Under this section, the Contractor shall provide all labor, equipment and materials necessary to abandon the existing septic system and appurtenances as shown on the plans or as directed by the Engineer.

PART 2 – MATERIALS

2.1 PRODUCTS

- A. Flowable fill pump, mixer, hopper, hose, fittings, etc.
- B. Grouting Material Data.

PART 3 – EXECUTION

3.1 METHODS OF CONSTRUCTION

- A. Upon completion of rerouting the existing sanitary sewer system indicated on the Construction Drawings, the Contractor shall abandon the existing septic system by removing the manhole frames and covers, pumping and draining all chambers of waste and water, power washing the interior of all existing septic system tanks, breaking bottom of septic tank to allow for adequate drainage, cupping or plugging associated piping, backfill the interior of any existing septic tanks with flowable and sealing the existing septic system as directed by the Engineer.
- B. The contractor will be required to clean inside of manholes, septic tanks and install plugs at each end of the sections. The plugs shall be fabricated to fit into the pipes tightly with an air release hole at the one end. The flowable fill pump provided shall have enough power and capacity to push the fill material for the entire section. The fill material shall be pumpable, flowable, and self-leveling at normal temperature, and the fill shall be continued until the septic tank is full and satisfactory to the inspector at the site. The contractor shall submit the flowable fill pump data, materials and details of the plug for approval.

PART 4 – PAYMENT

4.1 QUANTITY AND PAYMENT

- A. Payment for the item Abandon Existing Septic System will be made on a lump sum basis, and the cost thereof shall be bid for the item **ABANDON EXISTING SEPTIC SYSTEM** within the Proposal, which price shall include the furnishing of all materials,

labor and equipment and all else necessary therefore and incidental thereto as required for preparing and installing all materials required and all incidental work necessary.

END OF SECTION

SECTION 333123 – POLYVINYL CHLORIDE (PVC) PIPE

PART 1 – GENERAL

1.1 DESCRIPTION

- A. The work under this item shall include the excavation, filling, furnishing and installing septic system and drainage field pipe, fittings, specials, connection chimneys and laterals, clean outs, inspection ports, joint materials and couplings. The restoration of the topsoil and seeding and all other materials necessary to connect the sanitary sewer to the existing septic systems and collection systems at all locations is NOT included under this item.
- B. PVC Pipe shall consist of the excavation for the construction of the various sizes and classes of PVC pipe and corresponding cleanouts as shown on the Plans and Details or as otherwise directed by Neglia Engineering Associates.
- C. See Earthwork Specification.
- D. Refer to Appendix A – NJDEP Treatment Works Approval (TWA), for additional information and requirements pertaining to the proposed septic system.

PART 2 – PRODUCTS

2.1 MATERIALS AND TESTING

- A. The pipe shall be made of Schedule 40 Polyvinyl Chloride (PVC) plastic having a cell classification of 12454B or 12454C or 13364B, (with minimum tensile modulus of 500,000 PSI) as defined in ASTM Specification D1784. Fittings shall be made of PVC plastic having a cell classification of 12454B or 12454C or 13343C as defined in ASTM Specification D1784. Compounds that have different cell classifications because one or more properties are superior to those of the specified compounds are also acceptable.
- B. The pipe shall be made of Schedule 40 Perforated Polyvinyl Chloride (PVC) plastic having a cell classification of 12454B or 12454C or 13364B, (with minimum tensile modulus of 500,000 PSI) as defined in ASTM Specification D1784. Fittings shall be made of PVC plastic having a cell classification of 12454B or 12454C or 13343C as defined in ASTM Specification D1784. Compounds that have different cell classifications because one or more properties are superior to those of the specified compounds are also acceptable.
- C. Elastomeric gaskets shall comply with the requirements described in ASTM Specification F477.

- D. The pipe and fittings shall meet all the requirements of ASTM Standard D3034-83 for Schedule 40 PVC pipe for sanitary sewer pipes unless otherwise noted.
- E. Pipe and socket dimensions shall conform to those shown in Tables 1 and 2, respectively (Taken from ASTM D-3034-83).
- F. Cleanouts as per Construction Details.

PART 3 – EXECUTION

3.1 METHODS OF CONSTRUCTION

- A. Septic System Pipes shall be constructed in accordance with the “Drainage Field System” Section of these Specifications.
- B. All pipes, which have been damaged after delivery, will be rejected, and if such pipe has already been laid, it shall be acceptably repaired, if permitted, or removed and replaced or made good, solely at the Contractor's expense.
- C. Inspection ports shall be constructed of perforated 4-inch diameter, Schedule 40 PVC, extending from finished grade to the limit of infiltration, and shall be provided with a removable, screw-type plug with a brass cap and depressed nut, as indicated on the plans or as directed by the Engineer.
- D. Capped outlets shall be furnished and set as indicated by the drawings, or as directed by the Engineer.

PART 4 – PAYMENT

4.1 QUANTITY AND PAYMENT

- A. No specific payment will be made for the item Polyvinyl Chloride (PVC) Pipe, and the cost thereof shall be included in the prices bid for the various septic system items within the bid proposals, which price shall include the furnishing of all materials, labor and equipment and all else necessary therefore and incidental thereto as required for preparing and installing all materials required and all incidental work necessary.
- B. The quantity will be paid on a per unit basis, and the cost thereof shall be bid for the items **CLEAN-OUT**; and **INSPECTION PORT** within the Proposal, which price shall include the furnishing of all materials, labor and equipment and all else necessary therefore and incidental thereto as required for preparing and installing all materials required and all incidental work necessary.
- C. The quantity for will be paid on a per linear foot basis, and the cost thereof shall be bid for the item **4” SCHEDULE 40 PVC PIPE, PERFORATED**; and **6” SCHEDULE 40 PVC PIPE, SOLID-WALL** within the Proposal, which price shall include the furnishing of all materials, labor and equipment and all else necessary therefore and

incidental thereto as required for preparing and installing all materials required and all incidental work necessary.

- D. The quantity for will be paid on a lump sum basis, and the cost thereof shall be bid for the item **CONNECTION TO EXISTING BUILDING SEWER LINE** within the Proposal, which price shall include the furnishing of all materials, labor and equipment and all else necessary therefore and incidental thereto as required for preparing and installing all materials required and all incidental work necessary.

END OF SECTION

SECTION 333413 – CONCRETE SEPTIC TANK

PART 1 – GENERAL

1.2 DESCRIPTION

- A. Concrete Septic Tank shall consist of the construction of precast concrete septic tank structures, stone bedding, backfilling and backfill material, and the furnishing, installing, resetting, and placing of new castings.
- B. Refer to Appendix A – NJDEP Treatment Works Approval (TWA), for additional information and requirements pertaining to the proposed septic system.

PART 2 – PRODUCTS

2.1 MATERIALS

- A. The use of a septic tank shall be required for all systems except as provided at N.J.A.C. 7:9A-8.3.
- B. Multiple compartment septic tanks shall be required for institutional and commercial installations where the daily volume of sewage determined as prescribed in N.J.A.C. 7:9A-7.4 is greater than 1,000 gallons or when sewage is conveyed from the building served to the septic tank by means of a sewage ejector pump. When multiple compartment tanks are used the following shall be required:
 - 1. The total capacity of multiple compartment tanks shall not be less than 1,000 gallons. The first compartment shall have a liquid capacity of two-thirds the total required liquid capacity determined as prescribed in the plans.
 - 2. Not more than two compartments shall be provided in tanks having liquid capacities of less than 1,250 gallons. Tanks having liquid capacities of over 1,250 gallons may be provided with more than two compartments.
 - 3. Multiple compartments may be provided by partitions within a single tank as shown in Figure 11 of Appendix A in N.J.A. 7:9A, or by connecting individual tanks in series. When a single partitioned tank is used, vent holes shall be provided near the top of each partition to allow free exchange of evolved gases between compartments and the two compartments shall be connected by means of a pipe tee, baffle or septic solids retainer, as shown in Figure 11.
- C. Septic tanks shall be designed and constructed according to the following requirements:
 - 1. Septic tanks shall be water-tight and constructed of sound and durable materials which are resistant to corrosion, decay, frost damage or to cracking or buckling due to settlement or backfilling. All joints below the liquid level of the tank or below the seasonally high water table shall be provided with a permanent water-tight seal.

2. Covers shall be designed and constructed so as not to be damaged by any load which is likely to be placed on them. Precast slabs used as covers shall be water-tight, a minimum of three inches in thickness and adequately reinforced.
 3. The walls and base of poured-in-place concrete tanks shall not be less than six inches in thickness. The sides and bottom of precast concrete tanks shall be a minimum of three inches in thickness and shall be adequately reinforced.
 4. Concrete used in the construction of septic tanks shall conform to the American Concrete Institute (ACI) standards for frost resistance (ACI 318-16-4.5.1) and water-tightness (ACI 318-16-4.5.2). In the case of built-in-place tanks, certification that these standards have been met shall be provided by the design engineer and the certification shall be signed, sealed and attached to the approved engineering design. In the case of precast tanks, certification shall be provided by the manufacturer and the certification displayed on the tank.
 5. All inside concrete surfaces shall be sealed with two coatings of an appropriate inert coating to minimize corrosion. Coating of pre-cast tanks shall be applied by the manufacturer prior to delivery to the job site.
 6. The base of poured-in-place tanks shall be cast in one piece and shall extend beyond the side and end walls of the tank. Such tanks shall not be emplaced until 48 hours after the base has been poured.
 7. Pre-fabricated fiberglass septic tanks shall conform to ASTM Standard D4021.
- D. A pre-fabricated septic tank constructed of any material which may be floated or shifted by water or ground cave-in shall be filled with water immediately after it is set in its proper position. When a septic tank is installed below or partially below the level of the seasonally high water table, the design engineer shall show by means of appropriate calculations that the tank is of sufficient weight or will be otherwise secured or anchored so that it will not shift or float if emptied during the time of seasonally high groundwater. Perforating or otherwise damaging the water-tight integrity of a septic tank for the purpose of installation below the water table is prohibited.
- E. Septic tanks shall be placed upon a firm and stable foundation so that the potential for uneven settlement or shifting is minimized. Tanks shall be constructed or installed directly on undisturbed natural soil. If the excavation is dug too deep, it shall be backfilled to the proper elevation with sand. When the tank must be constructed or installed on a layer of fill material greater than one foot in thickness, the fill shall be properly emplaced and compacted as prescribed in N.J.A.C. 7:9A-10.4(f)3.
- F. Metal septic tanks are prohibited. Septic tanks may be constructed of precast reinforced concrete.
- G. Access openings for septic tanks shall meet the following requirements:

1. Each septic tank or each compartment of a multiple compartment tank shall be provided with at least one access opening which shall be a manhole a minimum of 24 inches square or 24 inches in diameter.
 2. All manholes shall be extended to and maintained at finished grade by means of a riser fitted with a removable watertight cover. Covers shall be bolted or locked to prevent access by children and shall be of cast iron when a concrete riser is used. Manhole covers shall be designed using materials that will ensure a water tight seal between the cover and the riser at all times as specified by a septic system designer and approved by the administrative authority. A permanent, non-corrosive marker a minimum of six square inches in size containing the following information shall be attached to the manhole cover or riser immediately below the cover:
 - a. The administrative authority name and permit number under which the system was installed;
 - b. The date of installation;
 - c. The type of system; and
 - d. The total design criteria in gallons per day.
 3. An inspection port extending to finished grade shall be provided over each tank or compartment inlet and outlet which is not directly below a manhole except for those outlets where a septic solids retainer or effluent filter is used. Inspection ports shall extend to finished grade, shall be constructed of four-inch cast iron or Polyvinyl Chloride (PVC), and shall have a locked or bolted cap. Outlets where a septic solids retainer or effluent filter is located shall be directly below a manhole or have an inspection port that allows for at grade access to that device to allow for unimpeded maintenance without entering the septic tank.
 4. Manhole risers and inspection ports on fiberglass or polyethylene tanks shall be constructed of the same material as the tank.
- E. All tanks, including risers and inspection ports to the highest joint, shall be tested for watertightness after installation using hydrostatic or vacuum tests in accordance with the following:
1. Watertightness testing procedures and criteria for concrete tanks shall follow the methods described in American Standard Testing Method (ASTM) C-1227 standards incorporated by reference, as amended, or the National Pre-cast Concrete Association (NPCA) testing criteria and procedures specified in its Precast Concrete On-site Wastewater Tank Best Practices Manual incorporated by reference, as amended. The ASTM methods can be obtained at: <http://www.astm.org/Standard/index.shtml> and the NPCA methods may be obtained at: <http://www.precast.org/technical-services-overview>.

2. Tanks made of materials other than concrete shall be tested, after installation, in accordance with the methods described in ASTM C-1227 standards, if applicable, or other hydrostatic or vacuum testing methods approved by the tank manufacturer.
 3. Water used for this testing shall be either from a potable water source or reclaimed water for beneficial reuse authorized by a NJPDES permit.
 4. The use of an onsite potable well for purposes of supplying water for this testing is not recommended.
 5. If an onsite potable well is to be used, withdrawal of water from the well shall be at a rate of less than 50 percent of the design yield of the well and in a manner that will avoid damage to the pump or any other part of the well.
- F. Backfill around septic tanks shall be free of large stones, roots or foreign objects, shall be placed in thin layers, not to exceed eight inches, and shall be thoroughly tamped in a manner that will not produce undue strain on the tank. In the case of pre-fabricated plastic or fiberglass tanks, backfill shall be no thicker than the maximum depth recommended by the manufacturer.

PART 3 – EXECUTION

3.1 METHODS OF CONSTRUCTION

A. Septic tanks shall conform to the following specifications:

1. The depth below the liquid level of the tank shall not be less than 36 inches or more than 72 inches.
2. Inlets and outlets shall be arranged so that all flow is directed along the longest horizontal dimension of the tank.
3. Tanks which are rectangular in cross-section shall have an inside length at least twice the inside width. The inside length, measured from the inlet side to the outlet side, shall not be less than 72 inches. The inside width of the tank shall not be less than 36 inches.
4. All cylindrical tanks shall have a minimum inside length of 72 inches measured between the inlet side to the outlet side and a minimum width at the liquid level of 36 inches.

B. Inlets and outlets of septic tanks shall conform to the following specifications:

1. Inlet and outlet connections of each tank or compartment shall be arranged so as to obtain effective retention of scum and sludge and shall be fastened with and constructed of, or coated with, materials which are resistant to corrosion by sulfuric acid. Where pipe tees are used, the tees shall be sanitary tees and shall be installed in a manner that will provide a lasting water-tight seal between the tee and the wall

of the tank. For this purpose, a manufactured water-proof pipe coupling which is incorporated into the wall of the tank may be used, or an expanding grout which will adhere both to the tee and to the body of the tank where the tee is installed.

2. A baffle or a pipe tee, not less than four inches in diameter, is required at the inlet of the tank. The bottom of the baffle or the bottom of the vertical leg of the tee shall extend below the liquid level a distance equal to 25 to 33 percent of the liquid depth. The invert elevation of the inlet shall not be less than two inches higher than the invert elevation of the tank outlet or the outlet of the first compartment. The inverts of the inlets of subsequent compartments shall be a minimum of one inch higher than their outlets.
 3. A septic solids retainer or septic effluent filter shall be installed and maintained in conjunction with all new septic tanks prior to the effluent distribution network and in accordance with all manufacturer's specifications. Septic solids retainers and septic effluent filters shall be certified by, and bear the mark of, NSF International (NSF) under NSF Standard 46. The Department recommends that filters be a minimum of six inches in diameter (or equivalent area) measured at the inlet to the filter. Additionally, the Department recommends that system designers provide a means in the design to prevent flow of solids, scum and floatables out of the tank when the filter is removed for maintenance. Outlet connections of an existing tank or each compartment thereof and connections between new tank compartments or tanks installed in series shall be provided with a tee not less than four inches in diameter or a durable baffle equivalent in size. They shall be permanently fastened in place with the bottom opening extending below the liquid level by a distance equal to 25 to 40 percent of the total liquid depth. Outlet baffles or tees shall be provided with a gas deflection device adequately designed to prevent gases generated in the septic tank from rising through the outlet baffle or tee. The gas deflection device shall be constructed of, or coated with, materials which are resistant to corrosion by sulfuric acid and shall be securely fastened to the tee or the side of the tank. Figure 12 of Appendix A illustrates several acceptable gas deflection devices. In lieu of a baffle or tee connection, a septic solids retainer or septic effluent filter installed and maintained in accordance with this chapter may be used. Where a septic solids retainer or septic effluent filter is used, a gas deflection baffle is not required.
- C. The space between the liquid surface and the top of the outlet tee or baffle shall not be less than 15 percent of the total liquid depth.

PART 4 – QUANTITY AND PAYMENT

4.1 QUANTITY AND PAYMENT

- A. Payment for Concrete Septic Tank will be made on a per unit basis, and the cost thereof shall be bid for the item **3,000-GALLON SEPTIC TANK, HEAVY DUTY, 2-COMPARTMENT, INCLUDING FRAMES, COVERS, AND APPURTENANCES** within the Proposal, which price shall include the furnishing of

all materials, labor and equipment and all else necessary therefore and incidental thereto as required for preparing and installing all materials required and all incidental work necessary.

END OF SECTION

SECTION 333451 – SEPTIC DISPOSAL FIELD SYSTEM

PART 1 – GENERAL

1.1 DESCRIPTION

- A. Under this item the Contractor shall construct the proposed septic disposal field system along with all appurtenances associated with this construction. These items are including, but not limited to, installation of polyvinyl chloride piping, excavation, backfilling, labor and associated materials for the completion of construction. The restoration of the topsoil and seeding and all other materials necessary to connect the sanitary sewer to the existing septic systems and collection systems at all locations is NOT included under this item.
- B. Refer to Appendix B – NJDEP Treatment Works Approval (TWA), for additional information and requirements pertaining to the proposed septic system.

PART 2 – PRODUCTS

2.1 MATERIALS

- A. A disposal field shall be required for all new systems except as allowed in N.J.A.C. 7:9A-7.6, in which case a seepage pit may be approved in lieu of a disposal field. The disposal field shall consist of one or more disposal trenches or a disposal bed designed, constructed and installed as hereafter prescribed.
- B. When fill material is utilized within the zone of treatment, the fill shall meet the following requirements:
 - 1. Coarse fragment content (greater than a No. 8 sieve) less than 15 percent by volume or less than 20 percent by weight;
 - 2. Textural analysis (composition, by weight, of size fraction passing the particular sieve as stated below in this subparagraph) between 80 and 100 percent must pass a No. 8 sieve (2.36 mm); between 50 and 85 percent must pass a No. 16 sieve (1.18 mm); between 25 and 60 percent must pass a No. 30 sieve (0.6 mm); between 10 and 30 percent must pass a No. 50 sieve (0.3 mm); and between two and 10 percent must pass a No. 100 sieve (0.15 mm); and
 - 3. Permeability for this material is established in this chapter at the range of six to 20 inches per hour for design purposes.
- C. When fill material is placed within the zone of disposal, the fill material shall meet the specifications in (f)4 above or the following requirements:
 - 1. Coarse fragment content less than 15 percent by volume or less than 25 percent by weight;

2. Textural analysis (composition, by weight, of size fraction passing the two millimeter sieve): 85 percent or more sand; and
 3. Permeability greater than two inches per hour; or percolation rate faster than 30 minutes per inch.
- D. Use of the term or specification bank run, which implies a material of alluvial deposition which is high in coarse fragment content, in system designs shall be prohibited unless a septic system designer includes a specification for that material consistent with (f)4 or 5 above, as applicable.
- E. The following requirements shall be met when installing a disposal field in sloping ground:
1. The interface between filter material and the underlying soil or fill material at the bottom of each individual trench or bed shall be level;
 2. On strongly sloping sites the shape of the disposal field shall be elongated with the long axis parallel to the topographic contour;
 3. When the slope of the existing ground surface is between 10 and 25 percent, trenches shall be used rather than beds;
 4. Mound or mounded soil replacement installations shall be restricted to slopes less than 10 percent; and
 5. When disposal trenches are installed at different elevations and gravity flow or gravity dosing are used, the distribution of effluent between trenches shall be accomplished by means of a distribution box.
- F. The following requirements shall be met when installing a disposal field in sloping ground:
1. The interface between filter material and the underlying soil or fill material at the bottom of each individual trench or bed shall be level;
 2. On strongly sloping sites the shape of the disposal field shall be elongated with the long axis parallel to the topographic contour;
 3. When the slope of the existing ground surface is between 10 and 25 percent, trenches shall be used rather than beds;
 4. Mound or mounded soil replacement installations shall be restricted to slopes less than 10 percent; and
 5. When disposal trenches are installed at different elevations and gravity flow or gravity dosing are used, the distribution of effluent between trenches shall be accomplished by means of a distribution box.

- G. When a conventional or soil replacement installation is proposed, the bottom of the disposal field shall be at a depth from one to three feet below the existing ground surface. When a mound or mounded soil replacement installation is proposed, the level of infiltration shall be at an elevation no higher than four feet above the existing ground surface, measured on the upslope side of the disposal bed or each individual disposal trench. In no case shall the level of infiltration be greater than three feet below the finished grade.
- H. The following materials are acceptable for distribution laterals:
 - 1. Clay pipe, standard and extra strength perforated (ASTM C-211); or
 - 2. Plastic:
 - a. Acrylonitrile-Butadiene-Styrene (ABS) (ASTM D-2751);
 - b. Polyvinyl Chloride (PVC) (ASTM D-2729, D-3033, D-3034);
 - c. Styrene-Rubber (ASTM D-2852, D-3298); or
 - d. Polyethylene, straight wall (ASTM F-810).

PART 3 – EXECUTION

3.1 METHODS OF CONSTRUCTION

- A. A conventional installation shall be made by placing the disposal bed or each individual disposal trench in an excavation made directly within the natural soil.
- B. All rough-grading shall be in accordance with the following requirements:
 - 1. Sites which have been re-graded prior to site evaluation, soil evaluation or permeability testing shall be considered to be disturbed ground and all requirements relating to disturbed ground shall be met.
 - 2. When a site is re-graded after site evaluation, soil evaluation or permeability testing, this re-grading shall be carried out in conformance with an engineering design which has been approved by the administrative authority.
- C. Excavation for the disposal field shall be in accordance with the following procedures:
 - 1. Adequate measures shall be used to insure that the bottom of the disposal bed or each individual disposal trench is level.
 - 2. In soil textures other than sands or loamy sands, excavation which exposes the infiltrative surface of the disposal field shall not be carried out when the soil moisture content is above the lower plastic limit. This means that when a small lump of soil, taken from the depth of the proposed excavation, can be rolled out

with the fingers to form a wire or rod, one-eighth of an inch in thickness, and does not crumble when handled, the soil is too wet to proceed with the excavation.

3. Excavation shall be carried out in a manner that will avoid unnecessary compaction of the disposal field bottom and sidewalls. Heavy equipment such as bulldozers or front-end loaders shall not be driven over the exposed infiltrative surface of the disposal field. Excavation should be carried out with a backhoe operating from between disposal trenches or from outside the perimeter of previously excavated portions of the disposal bed. If it becomes necessary to walk on the disposal field bottom, a suitable board shall be laid over the soil to avoid trampling.
 4. Any smeared or compacted soil surfaces which have been produced on the bottom or sidewalls of the excavation shall be removed to expose a fresh soil surface which is rough and uneven.
- D. The construction of the distribution network shall be in accordance with N.J.A.C. 7:9A-9.5, when gravity flow or gravity dosing is used, or N.J.A.C. 7:9A-9.6, when pressure dosing is used. Additional requirements for disposal trenches or beds are given in (d)1, and 2 below, respectively.
1. Disposal trenches shall be constructed in accordance with the following requirements:
 - a. The maximum width of trenches shall be three feet.
 2. Disposal beds shall be constructed in conformance with the following requirements:
 - a. There shall be a minimum of two distribution lines per bed.
 - b. The maximum distance from edge of bed to nearest distribution line shall be three feet.
 - c. The minimum distance from edge of bed to nearest distribution line shall be one foot.
 - d. The maximum spacing between distribution lines for gravity distribution shall be three feet.
 - e. The required spacing between distribution lines for pressure distribution shall be from $\frac{3}{4}$ to $\frac{5}{4}$ of the hole spacing;
 - f. The spacing between all distribution lines shall be equal and uniform; and
 - g. Holes in pressure distribution lines shall be aligned so that holes in adjacent laterals shall be off-set by one-half the hole spacing.

- E. Except as provided by N.J.A.C. 7:9A-9.8, filter material shall meet the following requirements:
1. Filter material shall cover the distribution lines and extend the full width of the trench or bed, shall extend between 12 and 18 inches deep beneath the bottom of the distribution lines and shall extend at least two inches above the top of the lines.
 2. The filter material shall be washed gravel or crushed stone, free of fines, dust, ashes or clay. Refer to the New Jersey Department of Transportation standard sizes for coarse aggregates as shown in Figure 26 of Appendix A. The filter material shall conform in size and gradation to size number 24, size number three or size number four.
 3. The filter material shall be covered with drainage fabric as the laying of the distribution lines progresses. In addition, the following requirements shall be met:
 - a. Edges of adjacent sheets shall be overlapped by a minimum of six inches.
 - b. Drainage fabric shall be specified in the engineering design and shall have adequate tensile strength to prevent ripping during installation and backfilling, adequate air permeability to allow free passage of gases, and adequate particle retention to prevent downward migration of soil particles into the filter material.
 4. The filter material may be laid into the excavation using a backhoe, front-end loader or dump truck provided that this operation is carried out from sides of the system rather than by driving out onto the exposed disposal field infiltrative surface. In the case of large beds, tracked equipment may be operated within the disposal bed provided that the equipment does not exert a ground pressure in excess of eight pounds per square inch and provided that the filter material is pushed out in front of the vehicle while maintaining a minimum thickness of one foot of filter material below the vehicle tracks at all times.
- F. Backfill and final grading shall be carried out in accordance with the following requirements:
1. A minimum of nine inches and no more than 18 inches of backfill shall be placed over the top of the disposal field filter material.
 2. Backfill material shall be of earth similar to that found at the site and free of large stones, tree stumps, broken masonry or other waste construction material.
 3. In no case shall the backfill material be more permeable than the surrounding soil.
 4. Backfill shall completely cover the entire disposal bed or each of the disposal trenches and shall be graded smoothly into the surrounding topography on all sides.
 5. The following practices shall be followed:

- a. Heavy machinery, rubber-tired vehicles or other vehicles exerting a ground pressure in excess of eight pounds per square inch shall not be permitted to pass over the disposal field after the filter material and distribution network have been installed.
 - b. Tracked equipment may be used for the purpose of backfilling and final grading provided that this equipment does not exert a pressure on the underlying soil in excess of eight pounds per square inch.
 - c. Final grading shall be completed in accordance with the approved engineering design and in such a manner that surface water will not collect over the disposal field.
 - d. After completion of backfilling and final grading, the backfilled area over the disposal field shall be seeded or sodded to establish a vegetative cover or otherwise stabilized against erosion in a manner acceptable to the administrative authority
- G. Except as provided by N.J.A.C. 7:9A-9.8, gravity flow networks and gravity dosing networks may consist of a single distribution lateral, two or more laterals connected by means of elbows or tees, or two or more separate distribution laterals connected independently to a distribution box. Distribution laterals shall meet all the following requirements:
1. Distribution laterals shall be a minimum of three inches in diameter.
 2. Distribution laterals shall consist of lengths of rigid perforated pipe connected with tight joints.
 3. Spacing and arrangement of distribution laterals shall conform with N.J.A.C. 7:9A-10.3(d).
 4. Perforations shall be evenly spaced along two rows running the length of the pipe, on each side, midway between the invert and the centerline which separates the upper and lower halves of the pipe. Perforations shall be no smaller than three-eighth inch and no longer than three-quarter inch in diameter.
 5. Each individual distribution line shall be approximately level and shall be capped at the end, except where the laterals are connected together by loops. In no case shall the slope of the distribution lines be greater than two inches per 100 feet.
 6. An inspection port shall be provided in each corner of the disposal bed or at each end of a disposal trench. Inspection ports shall consist of a perforated pipe with a removable cap, extending from the level of infiltration to finished grade.

PART 4 – QUANTITY AND PAYMENT

4.1 QUANTITY AND PAYMENT

- A. No specific payment will be made for septic disposal field system associated for construction related sanitary improvements and associated site improvements. This shall be included in the price bid for the bid items located in Section 333123 – Polyvinyl Chloride Pipe and Section 333453 – Septic System Distribution Box, which the price shall include the cost of, any and all materials, all labor and equipment and all else necessary and incidental thereto.
- B. Payment for Import of Septic Filter Material will be made on a cubic yard basis, and the cost thereof shall be bid for the item **IMPORT OF SEPTIC FILTER MATERIAL** within the Proposal, which price shall include the furnishing of all materials, labor and equipment and all else necessary therefore and incidental thereto as required for preparing and installing all materials required and all incidental work necessary.
- C. Payment for Geotextile Fabric will be made on a square yard basis, and the cost thereof shall be bid for the item **GEOTEXTILE FABRIC** within the Proposal, which price shall include the furnishing of all materials, labor and equipment and all else necessary therefore and incidental thereto as required for preparing and installing all materials required and all incidental work necessary.
- D. Payment for Removal and Hauling of Site Soil to Location within Watchung Reservation will be made on a cubic yard basis, and the cost thereof shall be bid for the item **REMOVAL AND HAULING OF SITE SOIL TO LOCATION WITHIN WATCHUNG RESERVATION** within the Proposal, which price shall include the furnishing of all materials, labor and equipment and all else necessary therefore and incidental thereto as required for preparing and installing all materials required and all incidental work necessary.

END OF SECTION

SECTION 333453 – SEPTIC SYSTEM DISTRIBUTION BOX

PART 1 – GENERAL

1.1 DESCRIPTION

- A. The work performed under this item shall include all items necessary for the construction of all septic system distribution box structures and appurtenances. This shall include, but is not limited to, furnishing and installation of compacted stone bedding, ladder rungs, precast concrete distribution box, solid cover and frame, piping, backfilling, labor, and materials needed for the completion of construction.
- B. Refer to Appendix A – NJDEP Treatment Works Approval (TWA), for additional information and requirements pertaining to the proposed septic system.

PART 2 – PRODUCTS

2.1 MATERIALS

- A. Connecting pipes between pretreatment units and dosing tanks, distribution boxes or distribution networks, and delivery pipes discharging effluent from dosing tanks shall be of such size as to serve the connected fixtures but in no case less than one and one half inches in diameter. Delivery pipes from dosing tanks using siphons shall be one nominal size larger than the siphon to facilitate venting.
- B. All pipe joints in connecting pipes and delivery pipes shall be made water-tight and protected against damage by roots.
- C. Connecting pipes and delivery pipes shall be laid on a firm foundation satisfactory to the administrative authority.
- D. The alignment and grade of connecting pipes shall meet the following requirements:
 - 1. Connecting pipes shall have a minimum grade of one-quarter inch per foot unless otherwise authorized by the administrative authority.
 - 2. Connecting pipes shall be laid in a continuous grade and, as nearly as possible, in a straight line. Drop manholes may be installed if found necessary. Horizontal bends, where required, shall not be sharper than 45 degrees. The inside angle between adjacent sections of pipe shall be no less than 135 degrees.

PART 3 – EXECUTION

3.1 METHODS OF CONSTRUCTION

- A. A distribution box shall be required for all gravity flow systems and all gravity dosing systems where the effluent shall be distributed between two or more separate distribution laterals. The following requirements shall be met:

1. Distribution boxes shall be water-tight and constructed of sound and durable materials which will resist decay or corrosion by sulfuric acid, frost damage, cracking or buckling due to backfilling or other anticipated stresses.
2. The distribution box shall be set perfectly level and shall be installed as follows:
 - a. In the case of disposal beds, the distribution box shall be installed directly on the filter material within the disposal bed.
 - b. In the case of disposal trenches, the distribution box shall be set on a layer of gravel or a concrete footing extending downward below the maximum expected depth of frost penetration. Where gravel is used, the gravel shall extend laterally a minimum of six inches beyond the sides of the distribution box.
3. A separate outlet shall be provided for each distribution lateral. The inverts of all outlets shall be securely set at the same level which shall be a minimum of two inches above the bottom of the box. When installation is complete the distribution box shall be filled with water at which time the installation shall be checked to make sure that it is level. Adjustments shall be made as necessary so that all outlets are permanently and securely fixed at exactly the same elevation prior to backfilling.
4. The invert of the inlet shall be at least one inch above the invert of the outlets. Where dosing is employed, or where the connecting pipe from the pre-treatment unit has a steep slope, measures shall be taken to prevent direct flow of effluent across the distribution box resulting in unequal distribution of effluent among the distribution box outlets. This may be accomplished by installation of a baffle or elbow within the distribution box or by use of two distribution boxes connected in series. In the latter case, all outlets of the first distribution box shall be sealed off except for the outlet which discharges to the second distribution box.
5. Distribution boxes shall be provided with a means of access which may be a removable lid in the case of smaller boxes. Access to larger boxes may be provided by means of manholes and inspection ports with removable water-tight covers. In any case, the following requirements shall be met:
 - a. Access openings must be adequate in size and located to facilitate removal of accumulated solids and inspection of the inlet and all outlets.
 - b. All access openings shall be extended to within 12 to 18 inches of the finished grade surface.
 - c. Access openings shall be constructed in such a manner as to prevent the entrance of surface water.

PART 4 – QUANTITY AND PAYMENT

4.1 QUANTITY AND PAYMENT

- A. The quantity of Septic System Distribution Box, for which payment will be made, will be on a per unit basis for the item **DISTRIBUTION BOX (MODIFIED TYPE ‘A’ INLET BOX WITH SOLID, LOCKING COVER)** in the Proposal, which price shall include the furnishing of all materials, labor and equipment and all else necessary therefore and incidental thereto.

END OF SECTION

Technical Specifications

**Appendix A – Geotechnical Engineering Report (by Johnson Soils
Company)**



66 Glen Avenue
 Glen Rock, NJ 07452
 Telephone: 201-301-1045
 Fax: 201-857-8002
 Email: info@johnsonsoils.com

September 16, 2016

NEGLIA ENGINEERING ASSOCIATES

34 Park Avenue, PO Box 426
 Lyndhurst, NJ 07071

Attn: David Juzmeski

Re: Watchung Reservation
 Tracy Loop
 Mountainside, NJ
 JSC Job # 16-337
 NEA PROJECT No. UNIOCTY15.011

Dear Sir:

Following are the test results for the sample submitted on September 8, 2016. The hydrometer analysis was done accordingly to ASTM-D-422 as per N.J.A.C. 7:9A-6.3 (a).

| Sample # | DEPTH | SAND | SILT | CLAY | Permeability Rating |
|-----------------|--------------|-------------|-------------|-------------|----------------------------|
| TP -1 | 8' | 72 | 17 | 11 | K-3 |
| TP -2 | 8' | 47 | 26 | 27 | K-1** |
| TP -3 | 8' | 56 | 19 | 25 | K-1** |
| TP -4 | 8' | 50 | 21 | 29 | K-1 |
| TP -5 | 8' | 49 | 25 | 26 | K-2 |

- TP-1 19% of the sample was coarse fragments.
 32 % of the total Sand sample was fine and very fine Sand.
- TP-2 7% of the sample was coarse fragments.
 51 % of the total Sand sample was fine and very fine Sand.
- TP-3 13% of the sample was coarse fragments.
 50 % of the total Sand sample was fine and very fine Sand.
- TP-4 24% of the sample was coarse fragments.
 48 % of the total Sand sample was fine and very fine Sand.
- TP-5 19% of the sample was coarse fragments.
 45 % of the total Sand sample was fine and very fine Sand.

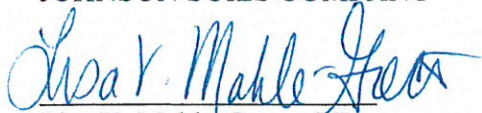
Watchung Reservation
Tracy Loop
Mountainside, NJ
JSC Job # 16-337
NEA PROJECT No. UNIOCTY15.011

SOIL PERMEABILITY RATING IS FROM THE SOIL PERMEABILITY / TEXTURAL TRIANGLE. Based on the average textural analysis, the soil permeability ratings are K-3(2-6 in/hr), K-1(0.2-0.6 in/hr) and K-2(0.6-2 in/hr).

** Please note the permeability rating has been adjusted to the next slowest class due to the high percentage of fine and very fine SAND as per Chapter 9A Standards for Individual Subsurface Sewage Disposal Systems 7:9A-6.3 (h)2.

| | |
|-----------------|---------------------------------|
| Plate 1 - | Gradation Curves |
| Plate 2A & 2B - | Log of Test Pits |
| Plate 3A - | Log of Boring |
| Plate 4 - | Unified Soil Classification |
| Plate 5 - | Boring & Test Pit Location Plan |

Very truly yours,
JOHNSON SOILS COMPANY



Lisa V. Mahle-Greco, PE
Engineering Manager
NJ Lic. # 43197

Mohammed Alam



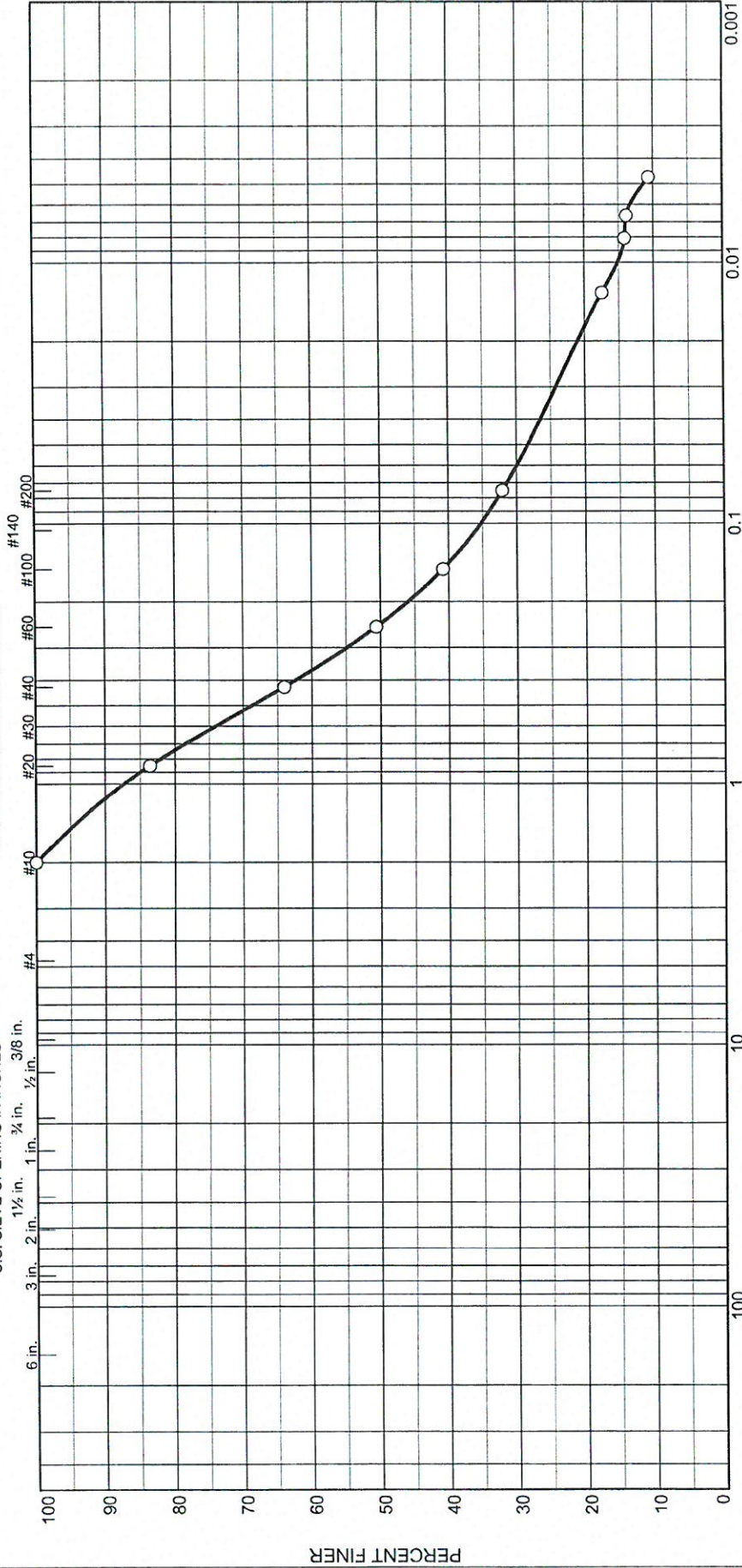
Plate 1



HYDROMETER

U.S. STANDARD SIEVE NUMBERS

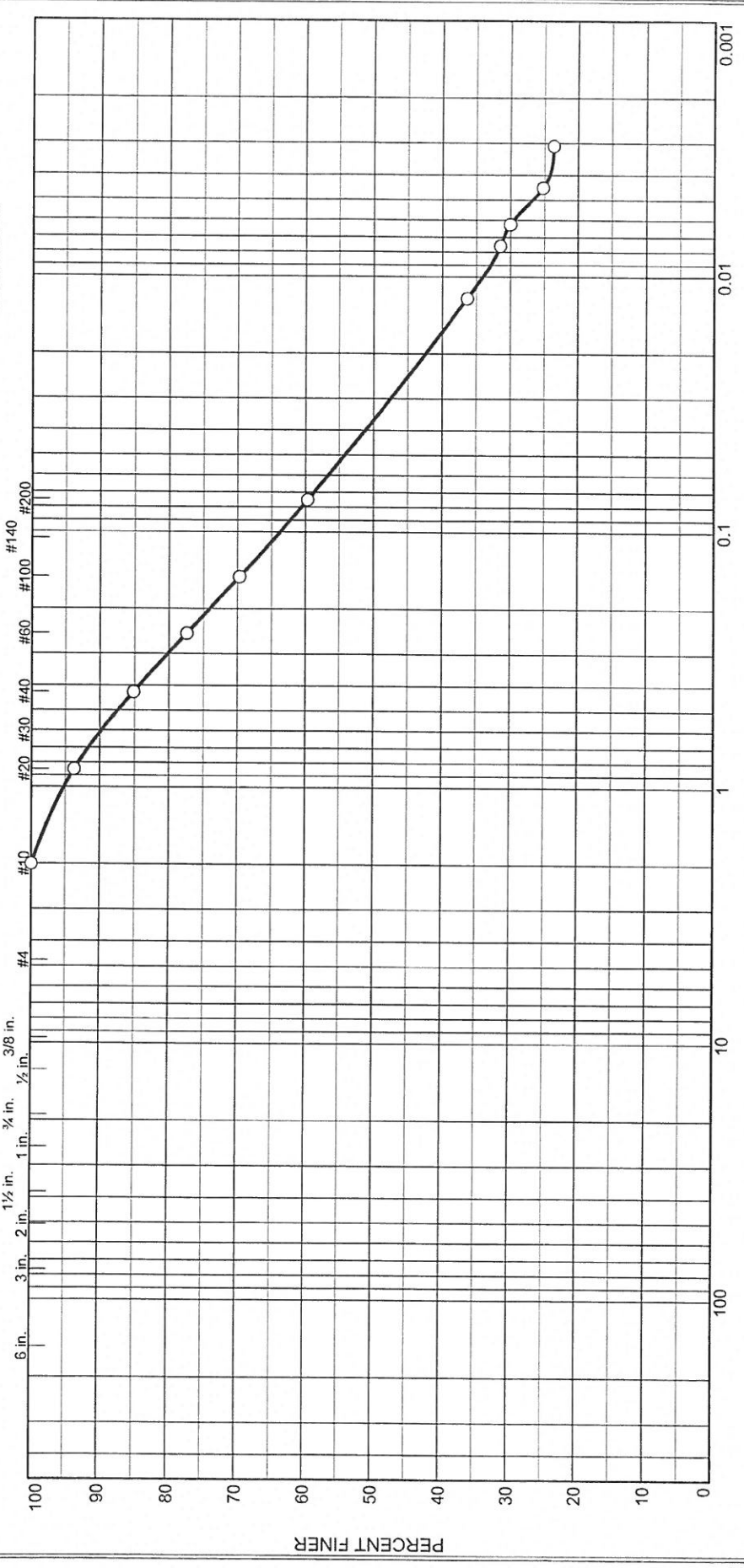
U.S. SIEVE OPENING IN INCHES
 6 in. 3 in. 2 in. 1 1/2 in. 1 in. 3/4 in. 3/8 in.



HYDROMETER

U.S. STANDARD SIEVE NUMBERS

U.S. SIEVE OPENING IN INCHES



| GRAIN SIZE - mm. | | % Sand | | % Silt | | % Clay | |
|------------------|-------|--------|--------|--------|---------|--------|------|
| % Stones | % +3" | Coarse | Medium | Fine | V. Crs. | Crns. | Fine |
| | | | | | | | |

| Location | Source | Sample # | Depth/Elev. | Material Description |
|----------|--------|----------|-------------|--|
| | TP-2 | TP-2 | 8' | 47% Sand, 26% Silt, 27% Clay 51%** Fine and Very Fine Sand 7% Coarse Fragments |
| | | | | K-Value: K-1** (0.2-0.6 in/hr) |
| | | | | Report Date 9/13/16 |

Project No. 16-377 Client David Juzmeski

Figure

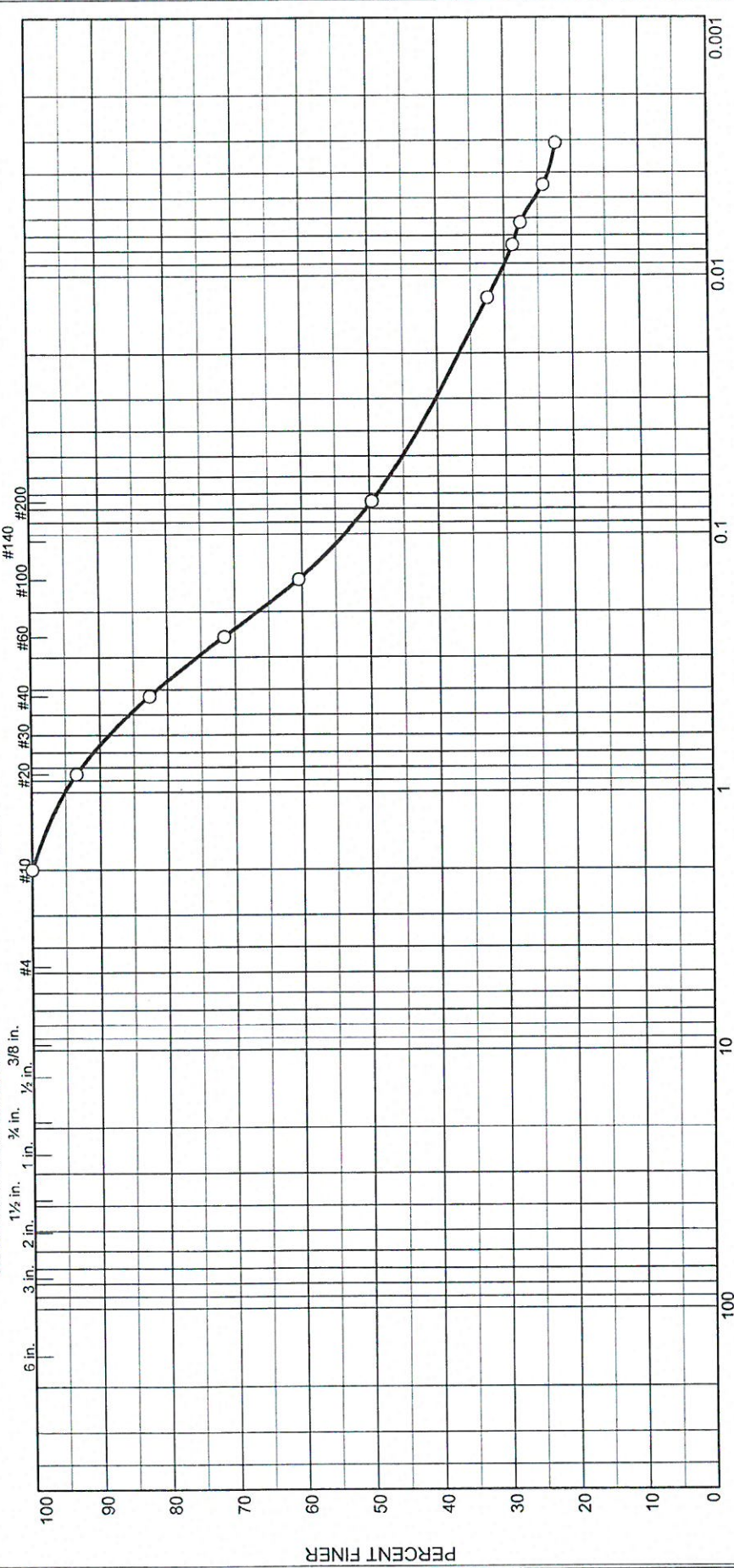
JOHNSON SOILS COMPANY

Neglia Engineering Associates, Watchung Reservation, Tracy Loop, Mountainside, Glen Rock, NJ

HYDROMETER

U.S. STANDARD SIEVE NUMBERS

U.S. SIEVE OPENING IN INCHES



| GRAIN SIZE - mm. | | % Sand | | % Silt | | % Clay | |
|------------------|-------|--------|--------|--------|---------|--------|------|
| % Stones | % +3" | Coarse | Medium | Fine | V. Crs. | Crs. | Fine |
| | | | | | | | |

| Location | Source | Sample # | Depth/Elev. | Material Description |
|----------|--------|----------|-------------|--------------------------------|
| | TP-3 | TP-3 | 8' | 56% Sand, 19% Silt, 25% Clay |
| | | | | 50%** Fine and Very Fine Sand |
| | | | | 13% Coarse Fragments |
| | | | | K-Value: K-1** (0.2-0.6 in/hr) |
| | | | | Report Date 9/13/16 |

Project No. 16-377 Client David Juzmeski Figure

Particle Size Distribution Report

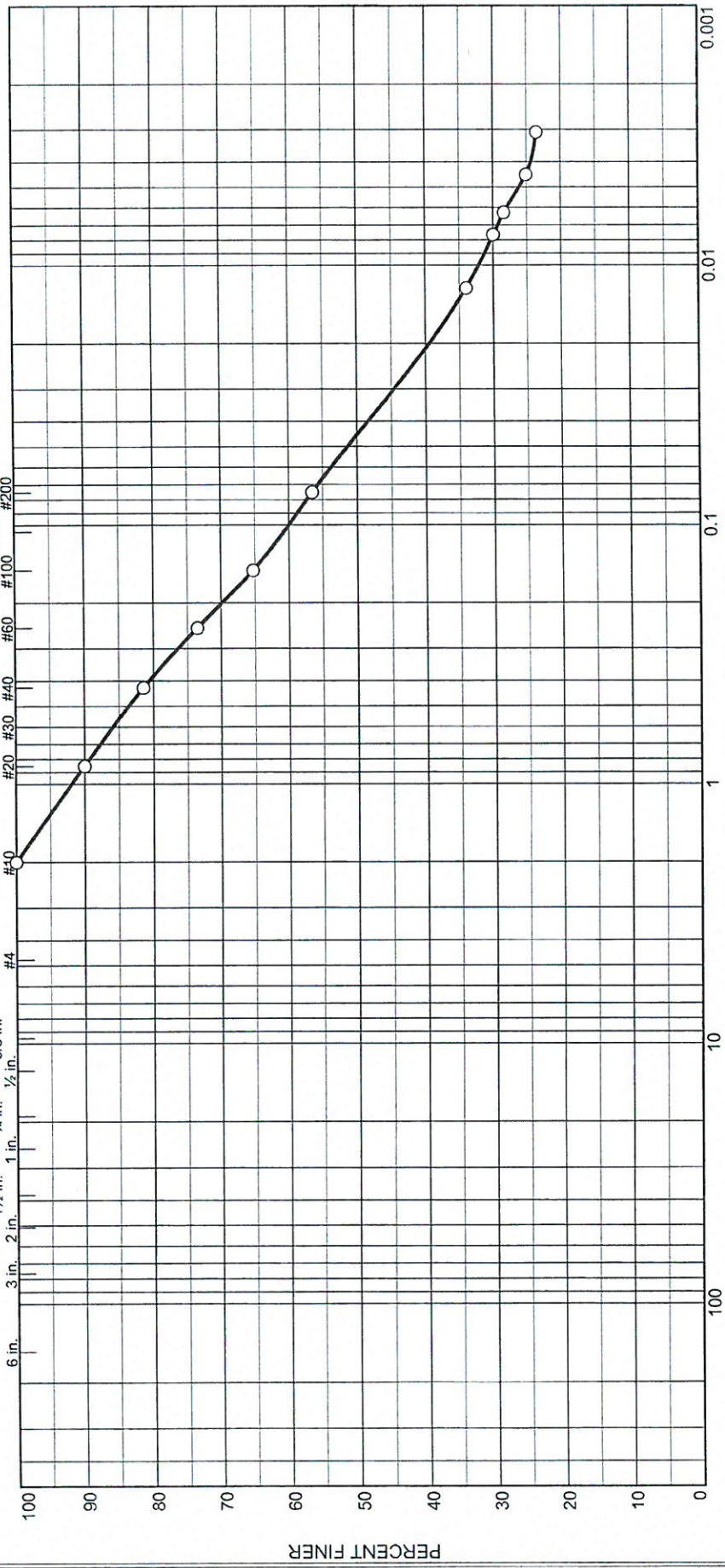
Neglia Engineering Associates, Watching Reservation, Tracy Loop, Mountainside, Glen Rock, NJ

JOHNSON SOILS COMPANY

HYDROMETER

U.S. STANDARD SIEVE NUMBERS

U.S. SIEVE OPENING IN INCHES



| GRAIN SIZE - mm. | | % Sand | | % Silt | | % Clay | |
|------------------|------|--------|------|---------|------|--------|--------|
| Coarse | Fine | Med. | Fine | V. Fine | Crs. | Fine | % Clay |
| | | | | | | | |

| Location | Sample # | Depth/Elev. | Material Description |
|----------|----------|-------------|------------------------------|
| TP-5 | TP-5 | 8' | 49% Sand, 25% Silt, 26% Clay |
| | | | 45% Fine and Very Fine Sand |
| | | | 19% Coarse Fragments |
| | | | K-Value: K-2 (0.6-2 in/hr) |
| | | | Report Date 9/13/16 |

Project No. 16-377 Client David Juzmeski

Figure

JOHNSON SOILS COMPANY

Neglia Engineering Associates, Watching Reservation, Tracy Loop, Mountainside, Glen Rock, NJ



Neglia Engineering Associates
Watchung Reservation
Tracy Loop
Mountainside, NJ
JSC Job # 16-337

Date: September 8, 2016

Log of Test Pits

TP-1

0'-6" Topsoil
6"-36" 10 YR 6/8 Brownish Yellow Silt loam.
36"-120" 10 YR 5/6 Yellowish Brown Sandy Loam 20% Coarse.
Dry
No Mottle

TP-2

0'-6" Topsoil
6"-24" 10 YR 6/8 Brownish Yellow Silt loam.
24"-120" 10 YR 5/6 Yellowish Brown Silt Loam 20% Coarse.
Dry
No Mottle

TP-3

0'-5" Topsoil
5"-12" 10 YR 6/8 Brownish Yellow Silt loam.
12"-120" 10 YR 5/6 Yellowish Brown Silt Loam 20% Coarse.
Dry
No Mottle



Neglia Engineering Associates
Watchung Reservation
Tracy Loop
Mountainside, NJ
JSC Job # 16-337

Date: September 8, 2016

TP-4

0'-6" Topsoil
6"-30" 10 YR 6/8 Brownish Yellow Silt loam.
30"-120" 10 YR 5/6 Yellowish Brown Silt Loam 20% Coarse.
Dry
No Mottle

TP-5

0'-7" Topsoil
7"-36" 10 YR 6/8 Brownish Yellow Silt loam.
36"-120" 10 YR 5/6 Yellowish Brown Silt Loam 20% Coarse.
Dry
No Mottle



LOG OF BORING

B-1

Sheet: 1 of 1
 Project Number : 16-337
 Date Started: 09/07/16
 Date Completed: 09/07/201
 Ground Surface El:
 Depth to Ground Water: Dry

| Depth (Feet) | Sample No. | Depth (Feet) | Sample/Spoon Blows/6" | Symbol USCS | Description |
|--------------|------------|--------------|-----------------------|--------------------------------------|--|
| 0 | S-1 | 0-2 | 4-9-8-9 | ML | 0"-5" Topsoil |
| - | - | - | - | | 5"-3' Brownish Yellow Silt, trace fine Sand. |
| - | S-2 | 2-4 | 8-9-9-9 | SM | 3'-25' Yellowish Brown fine to medium Sand, some Silt, little Gravel (moist, medium dense) |
| - | - | - | - | | |
| - | S-3 | 4-6 | 9-9-10-13 | | |
| 5 | - | - | - | | |
| - | S-4 | 6-8 | 7-7-8-9 | | |
| - | - | - | - | | |
| - | S-5 | 8-10 | 13-13-13-13 | | |
| - | - | - | - | | |
| 10 | S-6 | 10-12 | 5-8-13-19 | | |
| - | - | - | - | | |
| - | - | - | - | | |
| - | - | - | - | | |
| 15 | S-7 | 15-17 | 7-7-5-5 | | |
| - | - | - | - | | |
| - | - | - | - | | |
| - | - | - | - | | |
| 20 | S-8 | 20-22 | 3-4-5-6 | -grading to loose@20' | |
| - | - | - | - | | |
| - | - | - | - | | |
| - | S-9 | 23-25 | 8-52-17-13 | -grading to very dense@23' | |
| 25 | - | - | - | Boring Completed @ 25' on 09/07/2016 | |
| - | - | - | - | | |
| - | - | - | - | | |
| - | - | - | - | | |
| 30 | - | - | - | | |

Remarks:

Client: **Neglia Engineering Associates**
 Project: **Watchung Reservation - Tracy Loop**
 Location: **Mountainside, NJ**
 Driller: **RV Drilling**

Hollow Stem Auger
 Mud Rotary - Portable Equipment
 Air Rotary



UNIFIED SOIL CLASSIFICATION SYSTEM

SOIL CLASSIFICATION CHART

| MAJOR DIVISIONS | | | LETTER SYMBOL | TYPICAL DESCRIPTIONS | |
|---|--|---|---|--|--|
| COARSE GRAINED SOILS | GRAVEL AND GRAVELLY SOILS | CLEAN GRAVELS (LITTLE OR NO FINES) | GW | WELL-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES | |
| | | GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES) | GP | POORLY-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES | |
| | SAND AND SANDY SOILS | CLEAN SAND (LITTLE OR NO FINES) | GM | SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES | |
| | | SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES) | GC | CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES | |
| | MORE THAN 50% OF COURSE FRACTION RETAINED ON NO. 4 SIEVE | MORE THAN 50% OF COURSE FRACTION PASSING NO.4 SIEVE | | SW | WELL-GRADED SANDS, GRAVELLY-SANDS LITTLE OR NO FINES |
| | | | | SP | POORLY-GRADED SANDS, GRAVELLY SANDS LITTLE OR NO FINES |
| MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE | | | SM | SILTY SANDS, SAND-SILT MIXTURES | |
| FINE GRAINED SOILS | SILTS AND CLAYS | LIQUID LIMIT LESS THAN 50 | SC | CLAYEY SANDS, SAND-CLAY MIXTURES | |
| | | | ML | INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY | |
| | | | CL | INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDS CLAYS, SILTY CLAYS, LEAN CLAYS | |
| | SILTS AND CLAYS | LIQUID LIMIT GREATER THAN 50 | OL | ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY | |
| | | | MH | INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS | |
| | | | CH | INORGANIC CLAYS OF HIGH PLASTICITY FAT CLAYS | |
| | | OH | ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS | | |
| HIGHLY ORGANIC SOILS | | | PT | PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS | |

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS.

| | | |
|---|------------------------------------|--|
| GRADUATION* | COMPACTNESS* SAND AND/OR GRAVEL | CONSISTENCY* CLAY AND/OR SILT |
| % FINER BY WEIGHT | RELATIVE DENSITY | RANGE OF SHEARING STRENGTH IN POUND PER SQUARE FOOT |
| TRACE.....0% TO 10% | LOOSE.....0% TO 40% | VERY SOFT.....LESS THAN 250 |
| LITTLE.....10% TO 20% | MEDIUM DENSE.....40% TO 70% | SOFT.....250 TO 500 |
| SOME.....20% TO 35% | DENSE.....70% TO 90% | MEDIUM.....500 TO 1000 |
| AND.....35% TO 50% | VERY DENSE.....90% TO 100% | STIFF.....1000 TO 2000 |
| VALUES ARE FROM LABORATORY OR FIELD TEST DATA WHERE APPLICABLE WHEN NO TESTING WAS PERFORMED, VALUES ARE ESTIMATED. | | VERY STIFF.....2000 TO 4000 |
| | | HARD.....GREATER THAN 4000 |



Scale: N.T.S



Boring & Test Pit Location Plan
 Tracy Loop
 Mountainside, NJ

JSC # 16-337

PLATE 5

Technical Specifications

Appendix B – NJDEP Treatment Works Approval (TWA) Permit



State of New Jersey

Department of Environmental Protection
Division of Water Quality
Water Resource Management
Municipal Finance and Construction Element
Post Office Box 420, Mail Code 401-03D
Trenton, New Jersey 08625-0420
Tel. 609-984-4429
Fax 609-633-8165
<http://www.nj.gov/dep/dwq/twa.htm>

RECEIVED

APR 24 2017

Neglia Engineering Associates

CHRIS CHRISTIE
Governor

KIM GUADAGNO
Lt. Governor

BOB MARTIN
Commissioner

APR 19 2017

Thomas O. Mineo, P.E., County Engineer
Union County
2325 South Avenue
Scotch Plains, NJ 07076

Re: Treatment Works Approval No. 17-0098
Tracy Loop Restroom Facility, Watchung Reservation Mountainside Borough, Union County

Dear Mr. Mineo:

There is enclosed a Treatment Works Approval issued to you pursuant to Title 58 of the Revised Statutes of New Jersey and in consideration of your application received on 02/17/2017 signed by yourself and David Juzmeski, P.E., P.P., Project Manager, Neglia Engineering Associates.

This approval is valid for a period of two (2) years from the issuance date, unless otherwise stated in the attached approval document. This approval shall expire unless building, installing or modifying of the treatment works has begun within the initial approval period. Treatment works approvals may be extended beyond the original two year approval date, to a maximum period of five years from the original issuance date, in accordance with the terms and conditions contained in N.J.A.C. 7:14A-22.12. A time extension request must be received by the Department prior to the permit's expiration date. Time extension requests shall be submitted to the Bureau of Environmental, Engineering, and Permitting (BEEP) at the address noted in the heading of this letter.

Within 30 days of completion of the treatment works approved herein, the permittee shall submit an executed Form WQM005 (Certification for Approval by Professional Engineer) to BEEP, as indicated in the Treatment Works Approval under Part II - "General Conditions for Treatment Works Approvals", Section B. Note that for indirect dischargers, the submitted WQM005 form must also be executed by the receiving sewage treatment plant.

If you have any questions regarding the permit, please contact Theodore Ovsiew of my staff in writing or by telephone at your option.

Sincerely,

James Pontoriero, Supervising Engineer
Bureau of Environmental, Engineering, and Permitting

17-0098
Enclosure
c: Mountainside Borough
Neglia Engineering Associates

Let's protect our earth



STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
P.O. Box 402, TRENTON, NJ 08625-0402

PERMIT TO CONSTRUCT AND OPERATE* TREATMENT WORKS

**Local Agency approval required prior to operation*

The New Jersey Department of Environmental Protection grants this approval in accordance with your application, attachments accompanying same application, and applicable laws and regulation.

| PERMIT NO. | ISSUANCE DATE | EXPIRATION DATE | DESIGN FLOW |
|------------|---------------|-----------------|-------------|
| 17-0098 | 04/12/2017 | 04/11/2019 | 0 M.G.D. |

NAME AND ADDRESS OF APPLICANT

County of Union
2325 South Avenue
Scotch Plains, NJ 07076

LOCATION OF ACTIVITY

Mountainside Borough
Union County

This permit grants permission to:

Construct and operate a subsurface wastewater disposal system as described herein to serve in place of a failed system serving the Tracy Loop restrooms at the Watchung Reservation unit within the Union County Park System, in the Borough of Mountainside, Union County.

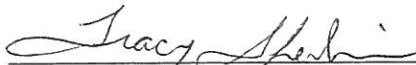
According to the plans entitled:

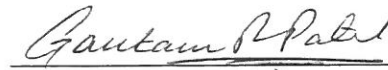
"TRACY LOOP RESTROOM SEPTIC SYSTEM - WATCHUNG RESERVATION" - Utility Plan (sheet 3.00), Cross-Sections (sheet 3.01), and Construction Details (sheet 5.01), prepared by Neglia Engineering Associates, dated 7 December 2016, last revised 28 March 2017.

and according to the specifications entitled:

"TECHNICAL SPECIFICATIONS for the TRACY LOOP RESTROOM SEPTIC SYSTEM" - prepared by Neglia Engineering Associates, dated 9 December 2016 (unrevised).

APPROVED by the Department of Environmental Protection


Tracy Shevlin, P.E., Section Chief


Gautam R. Patel, Chief
Bureau of Environmental, Engineering & Permitting

This permit is also subject to special provisos and general conditions stipulated on the attached three (3) pages which are agreed to by the permittee upon acceptance of the permit.

PART I

PROVISOS

A. Project Specific Provisos

1. That the permittee shall conform to all effluent and monitoring requirements stipulated in the NJPDES Permit Authorization No. NJG0265209 for this facility or any modification thereof, unless otherwise permitted by the Department.
2. That the proper operation and maintenance of the wastewater disposal system approved herein is the sole responsibility of the holder of the NJPDES Permit Authorization No. NJG0265209 regulating discharge from said system or its assignees.
3. That the rated design capacity of the disposal facility approved herein remains at 3000 gallons per day.
4. That the disposal appurtenances which are to be abandoned shall be emptied of wastes and removed or completely filled with gravel, stone, or soil material in a manner which is acceptable to the administrative authority.

B. Custom Requirement

1. That the wastewater disposal system alterations approved herein shall consist of abandonment of the existing sewage disposal system as detailed in Section 333120 of the approved Specifications and provision of 62 LF 6-inch PVC lateral, two 3000-gallon dual compartment septic tanks, 91 LF 6-inch PVC delivery pipe, and 9000 square foot disposal field.

GENERAL CONDITIONS FOR TREATMENT WORKS APPROVALS**Section A. GENERAL CONDITIONS**

1. This permit is revocable, or subject to modification or change, at any time, when in the judgement of the Department of Environmental Protection of the State of New Jersey ("Department") such revocation, modification or change shall be necessary.
2. The issuance of this permit shall not be deemed to affect in any way action by the Department on any future application.
3. The works, facilities, and/or activities shown by plans and/or other engineering data, which are this day approved, subject to the conditions herewith established, shall be constructed and/or executed in conformity with such plans and/or engineering data and the said conditions.
4. No change in plans or specifications shall be made except with the prior written permission of the Department.
5. The granting of this permit shall not be construed to in any way affect the title or ownership of property, and shall not make the State a party in any suit or question of property.
6. This permit does not waive the obtaining of Federal or other State or local government consent when necessary. This permit is not valid and no work shall be undertaken until such time as all other required approvals and permits have been obtained.
7. A copy of this permit shall be kept at the work site, and shall be exhibited upon request of any person.
8. No treatment unit or conveyance system may be by-passed which would result in the discharge of untreated sewage into any of the waters of the state.
9. The full responsibility for adequate design, construction and operation of the treatment works, and the full responsibility for successful collection, treatment, and discharge of pollutants shall be on the applicant.
10. The issuance of approval by the Department shall not relieve the applicant of the continuing responsibility for the successful collection, treatment, or discharge of pollutants for the continuing compliance with any applicable effluent limitations, permits, regulations, statute, or other law.
11. Review and approval is based solely upon the information contained in the application and the contents of the engineer's report as certified by the licensed professional engineer as being in compliance with the Department's Rules and Regulations.

Section B. CONSTRUCTION COMPLETION CERTIFICATION

1. Within 30 days of completion of the treatment works approved herein, the permittee shall submit two executed forms, WQM005 Certification of Approval, to the appropriate sewage treatment plant (STP) for their approval prior to operation. One executed copy approved by the receiving STP shall be forwarded to the Bureau of Environmental, Engineering and Permits ("BEEP") at the address noted on the cover page of this approval. Failure to submit the certification within 30 days of completion of the project may be grounds for revocation of the permit. Should partial operation be required prior to completion, approval will be under local jurisdiction.
2. In cases where the project and the receiving treatment facility are one in the same, the WQM005 Certification of Approval form must be submitted to the BEEP at the address noted on the cover page of this approval within 30 days of completion of the treatment works. Failure to submit the certification within this time period may be grounds for revocation of the permit.

Section C. PERMIT EXPIRATION AND EXTENSIONS OF TIME

1. This permit shall remain in force for a period of only two years from the date of approval unless stated otherwise within the special provisos, or construction of said works has begun within the approved time frame. Interruption of construction of said works for a period of more than two years may serve as a basis for permit revocation.
2. Treatment works approvals may be extended beyond the original two year approval date, to a maximum of five years from the original issuance date, in accordance with the terms and conditions in N.J.A.C. 7:14A-22.12, unless stated otherwise within the special provisos. A time extension request must be received by the Department prior to the permit's expiration date. Requests must be submitted to the BEEP at the address noted on the cover page.

Section D. ADJUDICATORY HEARING REQUESTS

1. Pursuant to N.J.A.C. 7:14A-22.24, any interested person who considers himself or herself aggrieved by this action, may, within 10 days of publication of notice of the decision in the DEP Bulletin, request a hearing by addressing a written request for such hearing to the:

Office of Legal Affairs
Attention: Adjudicatory Hearing Requests
Mail Code 401-04L
New Jersey Department of Environmental Protection
P.O. Box 420
Trenton, NJ 08625-0420

Such a request should include a completed Administrative Hearing Request Checklist and Tracking form for Approvals or Denials (enclosed herein for Denials). This form is required, as the Department is the transmitting agency to the Office of Administrative Law, pursuant to N.J.A.C. 1:1-8.2.

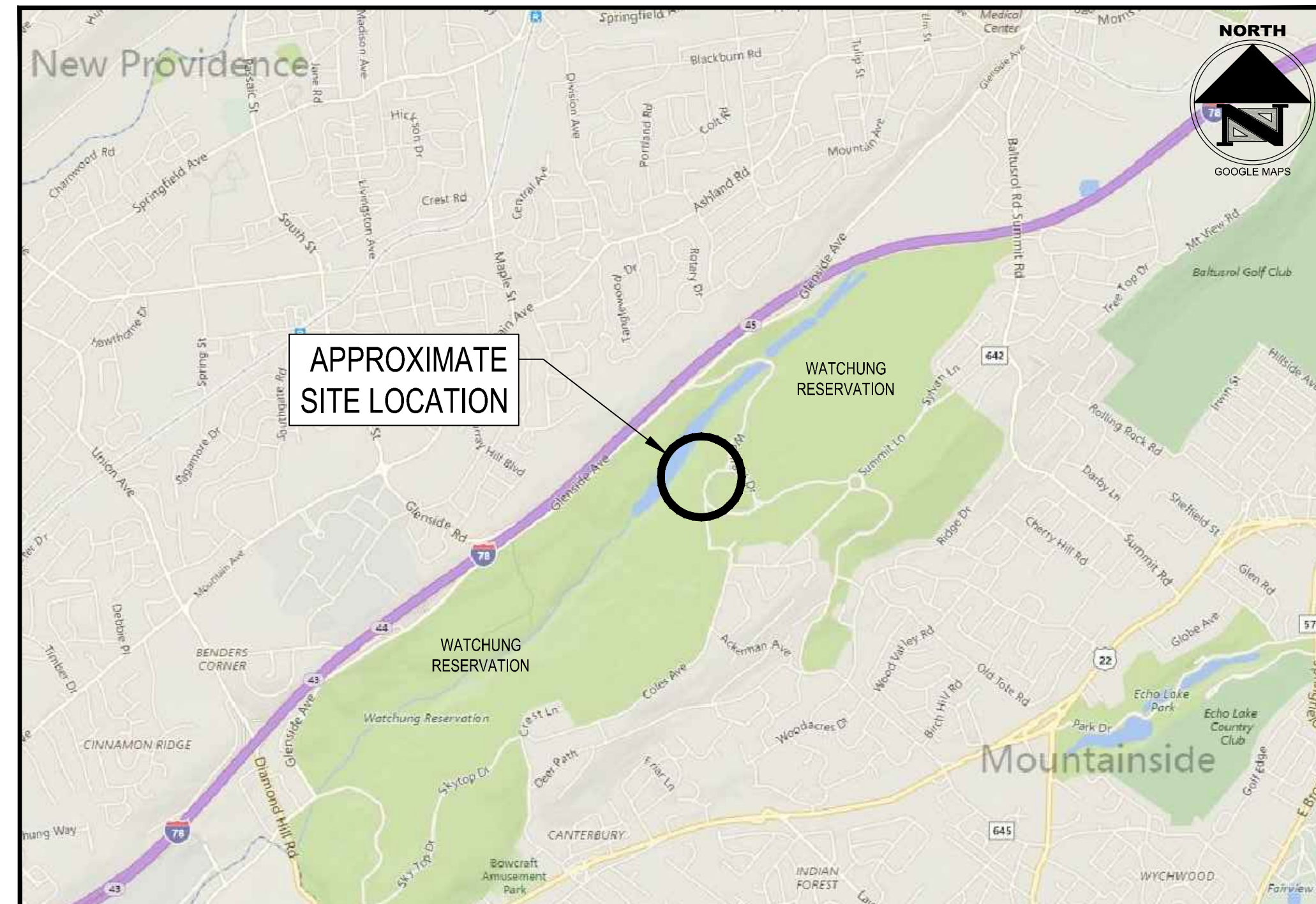
TRACY LOOP RESTROOM SEPTIC SYSTEM

WATCHUNG RESERVATION
BOROUGH OF MOUNTAINSIDE, UNION COUNTY, NEW JERSEY

UNION COUNTY PROJECT No. 2014-033

DECEMBER 7, 2016
LAST REVISED JUNE 8, 2017

| UTILITY COMPANY CONTACTS | |
|--|---|
| COMPANY | ADDRESS |
| NATURAL GAS PUBLIC SERVICE ELECTRIC AND GAS (PSE&G) | 472 WESTEN CANAL ROAD SOMERSET, N.J. (732) 764-3067 |
| NATURAL GAS ELIZABETH GAS COMPANY | 520 GREEN LANE UNION, N.J. (908) 662-8321 |
| ELECTRIC JERSEY CENTRAL POWER AND LIGHT (JCP&L) | P.O. BOX 1911 MORRISTOWN, N.J. (973) 401-8521 |
| ELECTRIC PUBLIC SERVICE ELECTRIC AND GAS (PSE&G) | 80 PARK PLAZA T-12 NEWARK, N.J. (973) 297-2128 |
| WATER NEW JERSEY AMERICAN WATER | 1341 NORTH AVENUE PLAINFIELD, N.J. (973) 564-5701 |
| TELECOMMUNICATIONS VERIZON | 175 WESTMAIN STREET FREEHOLD, N.J. (732) 357-2313 |
| BOROUGH OF MOUNTAINSIDE DPW | 1385 U.S. HIGHWAY 22 EAST MOUNTAINSIDE, N.J. 07092 (908) 232-2400 |



KEY MAP (N.T.S.)
SOURCE: BING MAPS

COUNTY MANAGER
ALFRED J. FAELLA

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

COUNTY ENGINEER
THOMAS O. MINEO, P.E.

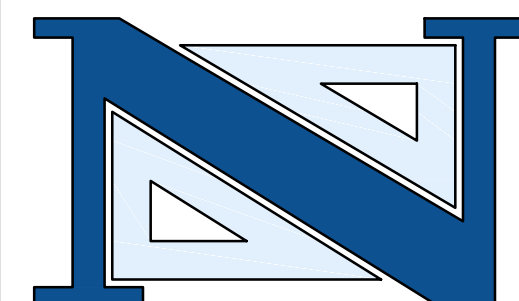
| DRAWING INDEX | |
|---------------|---|
| DRAWING NO. | DRAWING TITLE |
| 1.00 | COVER SHEET |
| 1.01 | GENERAL NOTES AND LEGEND |
| 2.00 | EXISTING CONDITIONS AND DEMOLITION PLAN |
| 3.00 | SEPTIC SYSTEM UTILITY PLAN |
| 3.01 | SEPTIC SYSTEM CROSS-SECTIONS |
| 4.00 | SOIL EROSION AND SEDIMENT CONTROL PLAN |
| 5.00 | SOIL EROSION AND SEDIMENT CONTROL DETAILS |
| 5.01 | CONSTRUCTION DETAILS |



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CERTIFICATE OF AUTHORIZATION (N.J.S.A. 45:8-56) GA 276890

| REVISIONS | | | DRAWN | DESIGNED | CHECKED |
|-----------|----------|----------------|--------|----------|---------|
| NO. | DATE | DESCRIPTION | E.M.J. | E.M.J. | D.J. |
| 1 | 06/08/17 | ISSUED FOR BID | | | |



DAVID JUZMESKI, P.E., P.P.
PROFESSIONAL ENGINEER
N.J. LICENSE NO. 46751

NEGLIA ENGINEERING ASSOCIATES
34 PARK AVENUE
LYNDHURST, NEW JERSEY
TEL: 201-939-8805 FAX: 201-939-0846 E-MAIL: NEA@NEGLIAENGINEERING.COM

MICHAEL J. NEGLIA, P.E., P.L.S., P.P.
PROFESSIONAL ENGINEER N.J. LICENSE NO. 38604
PROFESSIONAL LAND SURVEYOR N.J. LICENSE NO. 38604
PROFESSIONAL PLANNER N.J. LICENSE NO. 33L000569800

COVER SHEET
TRACY LOOP RESTROOM SEPTIC SYSTEM
WATCHUNG RESERVATION
BOROUGH OF MOUNTAINSIDE
UNION COUNTY
NEW JERSEY

| | | | |
|---------------------|------------------|---------------------------|----------------|
| DRAWN BY: E.M.J. | CHECKED BY: D.J. | PROJECT NO: UNIOCTY15.011 | SHEET NO: 1.00 |
| DESIGNED BY: E.M.J. | SCALE: N.T.S. | DATE: DECEMBER 7, 2016 | |
| FIELD BOOK NO: | PAGE: | | |

FINAL FOR SEWER DESIGN

MOUNTAIN COUNTY UNIOCTY15.011 TRACY LOOP RESTROOM SEWER CONNECTION/DRAWING SHEETS/0100 - COVER SHEET.DWG

CONSTRUCTION NOTES

- 1. THE LOCATIONS OF UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE. THE CONTRACTOR SHALL CONTACT THE RESPECTIVE UTILITY COMPANIES FOR THEIR EXACT LOCATIONS.
2. THE CONTRACTOR IS RESPONSIBLE FOR REPLACING EXISTING OFF-SITE PAVEMENT MARKINGS DISTURBED BY THE WORK SPECIFIED HEREIN.
3. TRENCHES OR AREAS EXCAVATED WITHIN PAVEMENT AREAS ARE TO BE BACKFILLED WITH DENSE GRADED AGGREGATE AT THE END OF EACH WORKING DAY AND PAVED AT THE END OF THE WORK WEEK. TRENCHES THAT ARE LEFT OPEN OVERNIGHT ARE NOT PERMITTED IF OPEN TO ROAD TRAFFIC.
4. THE 2007 NJDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AS AMENDED AND ADDED TO HEREIN, SHALL GOVERN IN THIS CONTRACT AND CONSTRUCTION, SHOULD THE SPECIFICATIONS NOT INCLUDE PARTICULAR CONSTRUCTION ITEMS.
5. MATERIALS OR PROPERTY THAT MAY BE DISTURBED OR DAMAGED THROUGHOUT CONSTRUCTION MUST BE RETURNED TO ITS ORIGINAL CONDITION PRIOR TO CONSTRUCTION AT THE CONTRACTOR'S OWN EXPENSE.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TAPERING PROPOSED WORK TO MEET EXISTING CONDITIONS IN A UNIFORM MANNER.
7. WASTE MATERIAL SHALL BE TRANSPORTED TO AN APPROVED RECYCLING OR DISPOSAL CENTER.
8. ALL TRAFFIC SIGNAGE AND STRIPING MUST CONFORM WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.).
9. THE CONTRACTOR SHALL RECEIVE ALL THE NECESSARY BUILDING PERMITS AND APPROVALS FROM ALL LOCAL, COUNTY, AND STATE GOVERNING AGENCIES PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY ASSOCIATED FEES. THE ONLY EXCEPTION BEING THE SOIL EROSION AND SEDIMENT CONTROL PLAN CERTIFICATION FROM THE SOMERSET-UNION SOIL CONSERVATION DISTRICT AND THE TREATMENT WORKS APPROVAL (TWA) FROM THE NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION, WHICH WILL BE OBTAINED BY THE ENGINEER PRIOR TO CONSTRUCTION.
10. THE CONTRACTOR SHALL INSTALL PROTECTIVE BLOCKING, BRACING OR SHEETING TO SUPPORT ANY EXPOSED GAS, WATER, SANITARY, TELECOMMUNICATIONS, OR ELECTRIC UTILITIES IN ACCORDANCE WITH THE RESPECTIVE UTILITY COMPANY'S REGULATIONS.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE ONE CALL NUMBER (800) 272-1000 FOR MARKOUTS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR SHALL RECORD AND HAVE THE CONFIRMATION NUMBER ON-SITE DURING CONSTRUCTION.
12. THE CONTRACTOR SHALL VISIT THE SITE TO PERFORM HIS OWN DUE DILIGENCE, AND FAMILIARIZE HIMSELF WITH THE EXISTING CONDITIONS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, ANY DISCREPANCIES SHALL BE IMMEDIATELY REPORTED TO THE ENGINEER.
13. IN THE EVENT THAT THE BACKFILL SOILS CANNOT BE MACHINE-COMPACTED, THE CONTRACTOR SHALL COMPACT THE SOILS BY OTHER MEANS (I.E. HAND TAMPING).
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL ROAD CLOSURES AND TEMPORARY NO PARKING SIGNS WITH THE MOUNTAINSIDE POLICE DEPARTMENT AND THE UNION COUNTY ENGINEERING DEPARTMENT.
15. THE CONTRACTOR MUST NOTIFY RESIDENTS, UNION COUNTY ENGINEERING DEPARTMENT, MOUNTAINSIDE DEPARTMENT OF PUBLIC WORKS, AND NEGLIA ENGINEERING ASSOCIATES 48 HOURS PRIOR TO DISRUPTION OF SERVICE.
16. ALTHOUGH THIS PROJECT IS NOT AN NJDOT FUNDED PROJECT, THE 2007 NJDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AS AMENDED AND ADDED TO HEREIN, SHALL GOVERN IN THIS CONTRACT AND CONSTRUCTION.
17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TAPERING PROPOSED WORK TO MEET EXISTING CONDITIONS IN A UNIFORM MANNER.
18. ALL PROPOSED SANITARY SEWER INVERTS SHALL MATCH EXISTING INVERTS AND MAINTAIN EXISTING PIPE SLOPES, UNLESS OTHERWISE INDICATED.
19. THE CONTRACTOR SHALL FURNISH AN APPROVED CONSTRUCTION SCHEDULE PRIOR TO MOBILIZATION AND THE COMMENCEMENT OF ANY WORK. WORK SHALL NOT BEGIN UNTIL THE SCHEDULE HAS BEEN APPROVED BY ALL PARTIES.
20. ALL LAWN AREAS DISTURBED DURING CONSTRUCTION SHALL BE TOPSOILED, FERTILIZED, SEEDED, AND STRAW MULCHED. THE COST THEREOF SHALL BE INCLUDED IN VARIOUS ITEMS IN THE PROPOSAL.
21. THE CONTRACTOR SHALL TAKE EVERY PRECAUTION TO PROTECT THE TREES WHICH ARE IN CLOSE PROXIMITY TO THE WORK, AND ARE NOT TO BE REMOVED.
22. THE CONTRACTOR SHALL TELEPHONE AND CLEAN THE SANITARY SEWER LINE PRIOR TO CONSTRUCTION OF THE SEPTIC SYSTEM.
23. REFER TO THE GEOTECHNICAL ENGINEERING REPORT, PREPARED BY JOHNSON SOILS COMPANY, IN THE CONTRACT DOCUMENTS FOR SPECIFIC INFORMATION PERTAINING TO SEPTIC SYSTEM DISPOSAL FIELD SOILS.
24. THE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH THE REQUIREMENT OF THE UNITED STATES OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) AND ALL OTHER APPLICABLE FEDERAL, STATE, AND LOCAL LABOR REGULATIONS.
25. THE CONTRACTOR SHALL INSTALL PROTECTIVE BLOCKING, BRACING, AND/OR SHEETING, AS NECESSARY, TO SUPPORT EXCAVATION NEAR THE EXISTING BUILDING.
26. PURSUANT TO N.J.A.C. 7:22-10.11(C)2, ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY, PREPARED BY THE NEW JERSEY STATE SOIL CONSERVATION COMMITTEE, 1999, INCORPORATED HEREIN BY REFERENCE, AS AMENDED AND SUPPLEMENTED.
27. THE CONTRACTOR SHALL PROVIDE TWO COPIES OF PHOTOGRAPHS OR VIDEOTAPES OF THE PROJECT AREA. IMAGES SHALL BE LABELED AND MOUNTED INTO BINDERS AND AUDIO SHALL BE PROVIDED IN VIDEOTAPES TO DESIGNATE AREAS. THE CONTRACTOR SHALL PROVIDE THE PHOTOGRAPHS OR VIDEOTAPES PRIOR TO MOBILIZATION.
28. CONSTRUCTION OF THE NEW SEPTIC SYSTEM SHALL FULLY COMPLY WITH THE REQUIREMENTS CONTAINED WITHIN N.J.A.C. 7:9A (SUBSURFACE SEWAGE DISPOSAL SYSTEMS). THIS INCLUDES, BUT IS NOT LIMITED TO, CONSTRUCTION MATERIALS, COMPACTION REQUIREMENTS, AND INSPECTION BY THE BOROUGH OF MOUNTAINSIDE DEPARTMENT OF HEALTH. IN ADDITION, THIS HAS RECEIVED A TREATMENT WORKS APPROVAL (TWA) PERMIT FROM THE NJDEP (PERMIT NO. 17-0098). THE CONTRACTOR SHALL FULLY COMPLY WITH ALL REQUIREMENTS CONDITIONS PERTAINING TO THIS PERMIT AS WELL AS ANY SPECIFIC DIRECTION PROVIDED BY THE NJDEP. A COPY OF THIS PERMIT AND ASSOCIATED CONDITIONS IS LOCATED IN THE PROJECT TECHNICAL SPECIFICATIONS.
29. IT IS NOT THE INTENT OF THIS PROJECT TO EXPORT MATERIAL OFF-SITE. EXCESS SUITABLE SOIL MATERIAL MAY BE USED AS TRENCH BACKFILL, IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. EXCESS SOIL WHICH IS NOT USED SHALL REMAIN ON-SITE AND BE UTILIZED TO RESTORE EXISTING GRADES WITHIN THE WATCHUNG RESERVATION. CONTRACTOR SHALL COORDINATE WITH THE OWNER REGARDING EXACT LOCATION OF STOCKPILE WITHIN THE WATCHUNG RESERVATION.

GENERAL NOTES

EXISTING CONDITIONS

- 1. THE EXISTING BUILDING RESTROOM FACILITIES SHALL REMAIN OPEN AND ACCESSIBLE THROUGHOUT THE DURATION OF THE CONTRACT, EXCEPT DURING CONSTRUCTION OF THE NEW CONNECTION TO THE BUILDING SEWER LINE. THIS NEW CONNECTION SHALL BE MADE AS LATE AS POSSIBLE DURING THE PROJECT SUCH THAT ANY TEMPORARY CLOSURE OF THE RESTROOM FACILITIES ARE MINIMIZED.
2. THE CONTRACTOR SHALL FIELD-LOCATE THE EXISTING BUILDING SEWER LINE. THE CONTRACTOR SHALL REPORT TO THE ENGINEER THE EXACT LOCATION, ELEVATION, DIAMETER, AND PIPE MATERIAL OF SAID SEWER LINE PRIOR TO SEPTIC FIELD CONSTRUCTION.
3. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING THE EXISTING ON-SITE AND OFF-SITE AMENITIES, INCLUDING BUT NOT LIMITED TO, THE EXISTING LANDSCAPING, TREES, ROADWAYS, CURBING, DRAINAGE STRUCTURES, BUILDINGS, RAILROADS, UTILITIES, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING ANY DAMAGE TO THE ORIGINAL CONDITION AT NO ADDITIONAL COST TO THE OWNER.

PROPOSED WORK

- 1. MAINTENANCE AND PROTECTION OF PEDESTRIAN TRAFFIC CONTROL MUST CONFORM TO NJDOT AND M.U.T.C.D. STANDARDS ALONG WITH THE REQUIREMENTS OF THE MUNICIPALITY AND COUNTY. POLICE TRAFFIC DIRECTORS SHALL BE COORDINATED WITH THE MUNICIPALITY AND COUNTY, AS NEEDED.
2. EXISTING PAVEMENT MUST BE CUT WITH A COMPRESSOR, WET SAW, OR AN APPROVED MECHANICAL CUTTING DEVICE. ALL STORM DRAINS AND CATCH BASINS SHALL BE PROTECTED AT ALL TIMES. ANY DAMAGE WILL BE REPAIRED BY THE CONTRACTOR AT THE CONTRACTOR'S OWN EXPENSE.
3. ALL FILL REMOVED FROM TRENCHES IS TO BE DISCARDED BY THE CONTRACTOR IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REQUIREMENTS.
4. ALL TREES TO BE REMOVED SHALL BE MARKED BY THE CONTRACTOR AND APPROVED BY THE OWNER BEFORE ANY TREE REMOVAL COMMENCES. EACH TREE DESIGNATED FOR REMOVAL SHALL BE COMPLETELY REMOVED, EXCEPT FOR STUMPS THAT CANNOT BE REMOVED BY GRUBBING WHICH SHALL BE GRINDED TO TWELVE (12) INCHES BELOW THE EXISTING GROUND SURFACE. THE AREA DISTURBED FOR TREE REMOVAL SHALL BE BACKFILLED WITH SUITABLE MATERIAL AND SOLIDLY COMPACTED SO AS TO MAKE THE SURFACE AT THESE POINTS CONFORM WITH THE ADJOINING GRADE. ROOTS, DEBRIS, OR GRINDINGS ARE NOT SUITABLE FOR BACKFILL. ALL TRAFFIC AREAS SHALL BE COMPACTED TO 95%.

RESTRICTIONS AND REQUIREMENTS

- 1. THE CONTRACTOR SHALL OBTAIN THE ALLOWABLE WORKING HOURS ON MUNICIPAL AND COUNTY ROADS FROM THE MUNICIPALITY AND COUNTY PRIOR TO BIDDING.
2. THE CONTRACTOR SHALL MAINTAIN ROADWAY ACCESS FOR EMERGENCY VEHICLES.
3. THE CONTRACTOR SHALL PROVIDE PRE-CONSTRUCTION PHOTOGRAPHS OR VIDEOTAPES OF THE PROJECT AREA. PHOTOGRAPHS SHALL BE LABELED WITH STREET NAME AND STATIONING OR APPROXIMATE LOCATION ON A PHOTO MAP AND MOUNTED INTO BINDERS. AUDIO SHALL BE USED ON VIDEOTAPES TO DESIGNATE STREET AND STATIONING OR APPROXIMATE LOCATION. THE CONTRACTOR SHALL PROVIDE THE PHOTOGRAPHS OR VIDEOTAPES TO THE OWNER PRIOR TO MOBILIZATION.
4. THE CONTRACTOR SHALL OBSERVE ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES ILLUSTRATED WITHIN THESE

CONSTRUCTION PLANS. A STAGING AREA HAS NOT BEEN DETERMINED FOR USE BY THE CONTRACTOR AT THE TIME THESE CONTRACT DRAWINGS WERE DRAWN. WHEN A STAGING AREA IS DETERMINED, THE CONTRACTOR SHALL CALL THE SOMERSET-UNION COUNTY SOIL CONSERVATION DISTRICT (908-526-2701) FOR DETERMINATION OF THE STAGING AREA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES AT THE STAGING AREA PRIOR TO INSPECTION AND IN ACCORDANCE WITH THE SOIL EROSION AND SEDIMENT CONTROL CERTIFICATION. THE CONTRACTOR SHALL ALSO STRICTLY ADHERE TO THE SOIL EROSION AND SEDIMENT CONTROL MEASURES AS PER THE APPROVED AND PERMITTED PLAN. ANY MODIFICATIONS TO THE PLAN SHALL BE VERIFIED BY THE SOMERSET-UNION SOIL CONSERVATION DISTRICT AND NEGLIA ENGINEERING ASSOCIATES PRIOR TO IMPLEMENTATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY SUBSEQUENT PERMIT OR RE-INSPECTION FEES AS A RESULT OF A CONTRACTOR-REQUESTED MODIFICATION.

ALL WORK STATED IN THESE NOTES, PLANS AND SPECIFICATIONS SHALL BE INCLUDED IN THE CONTRACTOR'S SCOPE OF WORK. THE CONTRACTOR IS NOT LIMITED TO THE REQUIREMENTS WITHIN THESE NOTES AND IS STRONGLY ADVISED TO REVIEW THE SPECIFICATIONS FOR ADDITIONAL INFORMATION.

GENERAL NOTES

A. LEGAL

- A1. THE MOST CURRENT EDITIONS OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, STANDARD INPUTS, AND STANDARD DETAILS, AS PUBLISHED BY THE NEW JERSEY DEPARTMENT OF TRANSPORTATION (NJDOT), THE PLANS, TECHNICAL SPECIFICATIONS, ADVERTISEMENT, CONTRACTOR'S PROPOSAL AND INCLUDING BUT NOT LIMITED TO THE AMENDMENTS CONTAINED HEREINAFTER SHALL COMPRISE THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL READ AND UNDERSTAND THE PROJECT SPECIFICATIONS PRIOR TO CONSTRUCTION. THE MUNICIPALITY IS UNDER THE JURISDICTION OF THE STATE CENTRAL LAW AND THE GOVERNMENT.
A2. THE CONTRACTOR SHALL VISIT THE SITE AND FAMILIARIZE HIMSELF WITH THE EXISTING CONDITIONS PRIOR TO SUBMITTING HIS BID, ANY DISCREPANCIES BETWEEN THESE PLANS AND THE ACTUAL CONDITIONS AT THE SITE SHALL BE IMMEDIATELY REPORTED TO THE PROFESSIONAL ENGINEER.
A3. THE CONTRACTOR SHALL COMPLY WITH ALL LAWS, ORDINANCES, RULES, ORDERS AND REGULATIONS RELATING TO THE PERFORMANCE OF THE WORK, THE PROTECTION OF ADJACENT PROPERTY AND THE MAINTENANCE OF PASSAGEWAYS.
A4. THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE SAFETY REQUIREMENTS AS OUTLINED IN THE GENERAL CONDITIONS OF THE CONSTRUCTION SPECIFICATIONS. NEITHER THE ENGINEER NOR THE OWNER SHALL BE HELD RESPONSIBILITY AND/OR LIABLE FOR THE SAFETY OF THE WORK SITE. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING A SAFE WORK SITE AT ALL TIMES.
A5. THE CONTRACTOR IS RESPONSIBLE TO OBEY ALL THE SAFETY AND HEALTH REGULATIONS. THE OWNER ASSUMES NO RESPONSIBILITY FOR THE HEALTH AND SAFETY OF THE WORK PERFORMED.

B. SITE CLEARING AND CONSTRUCTION

- B1. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED LOCAL, COUNTY, STATE, FEDERAL OPENING PERMITS AND SHALL BARE THE COST OF ALL ACCOMPANYING FEES. ALL PERMITS MUST BE SECURED PRIOR TO THE COMMENCEMENT OF WORK (WITH THE EXCEPTION OF THE SOIL EROSION PERMIT, WHICH WILL BE OBTAINED BY THE ENGINEER PRIOR TO CONSTRUCTION).
B2. WHENEVER A QUESTION ARISES REGARDING THE SPECIFICATIONS OR DRAWINGS OR ANY SUPPLEMENTARY DRAWINGS OR INSTRUCTIONS OF THE FIELD ENGINEER, SAME SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE PROFESSIONAL ENGINEER RESPONSIBLE FOR THE DESIGN.
B3. ONE COPY OF THE APPROVED CONSTRUCTION PLANS AND SPECIFICATIONS FURNISHED TO THE CONTRACTOR MUST BE KEPT ON THE PROJECT SITE. 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 IN ACCORDANCE WITH THE SPECIFICATIONS AND PLANS. ANY CONFLICT OR INCONSISTENCY BETWEEN THE PLANS AND SPECIFICATIONS, OR ANY DISCREPANCY BETWEEN THE FIGURES AND SCALE OF DRAWINGS SHALL BE SUBMITTED BY THE CONTRACTOR TO THE ENGINEER, WHOSE DECISION THEREON SHALL BE FINAL. THE DECISION OF THE ENGINEER AS TO WHICH SPECIFICATION WILL GOVERN WILL BE FINAL.
B4. THE CONTRACTOR IS RESPONSIBLE TO CONSTRUCT THE PROJECT IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. ALL PROPOSED FIELD CHANGES MUST BE APPROVED IN WRITING BY THE PROFESSIONAL ENGINEER RESPONSIBLE FOR THE DESIGN (PROJECT MANAGER, PE) PRIOR TO THE CONSTRUCTION OF ANY FIELD CHANGES.
B5. ALL INFORMATION SHOWN OR NOTED FOR EXISTING FACILITIES, GRADES, ROADWAYS AND MATERIALS IS APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY ALL INFORMATION WHICH MAY AFFECT HIS WORK.
B6. ALL DISTURBED SHRUBS, FENCING, WALKWAYS, SIGNS, MAILBOXES, DRIVEWAYS, ETC., SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AND TO THE SATISFACTION OF THE ENGINEER AND/OR THE OWNER. NO SEPARATE PAYMENT SHALL BE MADE FOR THIS RESTORATION WORK UNLESS SAME IS CLEARLY SPECIFIED ELSEWHERE IN THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL TAKE PRUDENT MEASURES TO PROTECT ALL EXISTING PROPERTY EVIDENCE (MONUMENTS, IRON PIPE, PINS, ETC.) DURING CONSTRUCTION.
B7. ALL PROPERTY CORNERS OR MONUMENTS REMOVED OR DAMAGED DURING CONSTRUCTION SHALL BE REPLACED BY A NJ LICENSED LAND SURVEYOR AT NO ADDITIONAL COST TO THE OWNER.
B8. RECONSTRUCTED CURB SHALL BE INSTALLED TO MATCH EXISTING CURB ELEVATIONS AND ALIGNMENT UNLESS OTHERWISE SPECIFIED ON GRADING PLANS, PROFILES OR CROSS SECTIONS. SEPARATE PAYMENT WILL NOT BE MADE FOR REMOVAL OF EXISTING CURB IN RECONSTRUCTED AREAS. PAYMENT FOR THE REMOVAL OF EXISTING CURB SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE CURB LINE ITEM.
B9. THE CONTRACTOR SHALL SAWCUT AND REPAIR THE PAVEMENT ADJACENT TO NEWLY CONSTRUCTED CURB PRIOR TO PROCEEDING ON TO SUBSEQUENT STAGES OF WORK. CURB TRENCHES WILL NOT BE LEFT OPEN OVERNIGHT IN AREAS WHERE THE ROADWAY IS TO BE OPENED TO TRAFFIC. NO SEPARATE PAYMENT WILL BE GIVEN FOR SUCH SAID SAWCUTTING AND RESTORATION, THE COST OF WHICH SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE CURB LINE ITEM.
B10. ALL ASPHALT MATERIAL REMOVED FROM THE PROJECT MUST BE TRANSPORTED TO AN APPROVED RECYCLING CENTER AND THE TONNAGE CERTIFIED TO THE OWNER. NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK BUT SHALL BE INCLUDED IN THE VARIOUS ITEMS IN THE PROPOSAL.
B11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DISPOSAL OF ALL EXCESS MATERIALS EXCAVATED, WHATEVER NATURE, AT HIS OWN EXPENSE. THE OWNER IS NOT OBLIGATED TO SUPPLY A DISPOSAL SITE. THE CONTRACTOR MUST NOT DEPOSIT THE EXCESS MATERIALS WITHIN THE MUNICIPAL LIMITS WITHOUT EXPRESS PERMISSION OF THE PROFESSIONAL ENGINEER. EXCAVATED MATERIAL MAY NOT BE STORED ON-SITE AND SHALL BE REMOVED AT THE END OF EACH DAY.
B12. ALL EXCAVATED MATERIALS ARE TO BE DISPOSED OF IN ACCORDANCE WITH APPROVED NJDOT/NJDEP MEANS AND METHODS, OR TRANSPORTED AT THE DIRECTION OF THE OWNER.
B13. ALL DISTURBED AREAS OUTSIDE THE PROJECT LIMITS OR NOT INTENDED TO BE INCLUDED IN THIS PROJECT, SHALL BE RESTORED TO THEIR ORIGINAL CONDITION, AND TO THE SATISFACTION OF THE OWNER. NO SEPARATE PAYMENT SHALL BE MADE FOR THIS RESTORATION, UNLESS SPECIFIED ELSEWHERE.
B14. THE CONTRACTOR MUST PROVIDE A SMOOTH SAWCUT EDGE IN ALL CASES WHERE PROPOSED PAVEMENT OF WHATEVER NATURE, CONCRETE CURBS OR CONCRETE SIDEWALKS ABOUT EXISTING PAVEMENTS, CURBS OR SIDEWALKS. NO SEPARATE PAYMENT WILL BE MADE FOR SAWCUTTING. THE COST SHALL BE INCLUDED IN THE VARIOUS ITEMS IN THE PROPOSAL.
B15. THE CONTRACTOR MAY DISCOVER THAT EXISTING ROADWAY MAY CONTAIN EXISTING CONCRETE BASE OR COBBLE STONE AND SHALL MAKE ALL NECESSARY REQUIREMENTS FOR ITS REMOVAL WHERE REQUIRED. THE COST FOR THIS WORK SHALL BE INCLUDED IN THE COST OF ROADWAY EXCAVATION, UNCLASSIFIED.
B16. THE REPLACEMENT OF ANY SIDEWALK WITHIN THE PROJECT AREA MAY REQUIRE THAT SIDEWALK SLABS BE SAWCUT FROM THE SURROUNDING CONCRETE WALK. NO SPECIFIC PAYMENT FOR SAWCUTTING WILL BE MADE AND THEREFORE SHALL BE INCLUDED UNDER PRICES BID FOR CONCRETE SIDEWALK ITEMS IN THE PROPOSAL.
B17. NO CONSTRUCTION, MAINTENANCE OR UTILITY WORK ON, UNDER OR ABOVE THE PROJECT ROAD THAT WILL OBSTRUCT, INTERFERE WITH AND/OR DETOUR TRAFFIC ON THE ROAD, SHALL BE PERFORMED BEFORE THE HOUR OF 9:00 AM OR AFTER 4:00 PM. THE CONTRACTOR'S WORK HOURS SHALL CONFORM TO LOCAL ORDINANCE REQUIREMENTS.

- B18. ALL TRENCHES IN THE EXISTING PAVEMENT SHALL BE SAW-CUT. NO SEPARATE PAYMENT WILL BE MADE FOR SAW-CUTTING AND THE COST THEREOF SHALL BE INCLUDED UNDER PRICES BID FOR VARIOUS ITEMS IN THE PROPOSAL.
B19. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORATION AND MAINTENANCE OF ALL ACCESS DRIVEWAYS AT ALL TIMES DURING CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER.
B20. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES ARE TO BE INSTALLED IN CONFORMANCE WITH SOIL CONSERVATION DISTRICT STANDARDS AND THE APPROVED SOIL EROSION PERMIT, PRIOR TO ANY MAJOR SOIL DISTURBANCES. ALL WORK SHALL BE COMPLETED IN PROPER SEQUENCE AND ALL EROSION CONTROL DEVICES SHALL BE MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
B21. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL PROPERTIES AT ALL TIMES DURING CONSTRUCTION.
B22. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO MAINTAIN DUST CONTROL AS REQUIRED OR DIRECTED BY THE PROFESSIONAL ENGINEER. ALL VEHICLES SHALL BE CLEAN AND ALL ROADWAYS SHALL BE MAINTAINED AS DIRECTED BY THE FIELD ENGINEER.
B23. CONTRACTOR SHALL KEEP THE SITE CLEAN AT ALL TIMES AND SWEEP THE STREET AT THE END OF EACH WORK DAY.
B24. ALL MATERIAL ENCOUNTERED WITHIN THE WORK ZONE AREA THAT MUST BE REMOVED TO CONSTRUCT THE PROJECT AS DIRECTED BY THE FIELD ENGINEER, SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CLEARING SITE. THIS IS INCLUSIVE OF BUT NOT LIMITED TO THE REMOVAL OF ALL CURBED EDGING AND CONCRETE GUTTER.
B25. ALL TREES ARE TO BE SAVED AND PROTECTED FROM HARM DURING CONSTRUCTION WITH THE EXCEPTION OF THE TREES MARKED WITH AN 'X' ON THE CONSTRUCTION PLANS. IF ANY TREES ARE DAMAGED DURING CONSTRUCTION, THE CONTRACTOR WILL BE RESPONSIBLE FOR THE REMOVAL AND REPLACEMENT AS DETERMINED BY THE MUNICIPALITY AND/OR COUNTY.
B26. ALL TREES TO BE REMOVED SHALL BE MARKED BY THE CONTRACTOR AND APPROVED BY THE OWNER BEFORE ANY TREE REMOVAL COMMENCES. EACH TREE DESIGNATED FOR REMOVAL SHALL BE COMPLETELY REMOVED, EXCEPT FOR STUMPS THAT CANNOT BE REMOVED BY GRUBBING WHICH SHALL BE GRINDED TO TWELVE (12) INCHES BELOW THE EXISTING GROUND SURFACE.
B27. THE CONTRACTOR SHALL INSTALL PROTECTIVE BLOCKING, BRACING OR SHEETING TO SUPPORT ANY EXPOSED GAS, WATER, SANITARY, TELECOMMUNICATIONS, OR ELECTRIC UTILITIES IN ACCORDANCE WITH THE RESPECTIVE UTILITY COMPANY'S REGULATIONS.
B28. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TAPERING PROPOSED WORK TO MEET EXISTING CONDITIONS IN A UNIFORM MANNER.
C. UTILITY PERMITS
C1. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL HAVE ALL UNDERGROUND UTILITIES LOCATED AND PHYSICALLY MARKED OUT WITHIN THE LIMITS OF THE PROJECT (CALL 1-800-272-1000). THE CONTRACTOR SHALL PROVIDE TEST HOLES IN AREAS OF POSSIBLE CONFLICT TO VERIFY THE DEPTH AND LOCATION OF THE UTILITY. NO SEPARATE PAYMENT SHALL BE MADE FOR DELAYS THAT MAY BE NECESSARY TO RELOCATE UTILITIES OR THE PROPOSED LOCATION OF UNDERGROUND UTILITIES. NO SEPARATE PAYMENT WILL BE MADE FOR TEST PITS BUT THE COST SHALL BE INCLUDED IN THE VARIOUS ITEMS IN THE PROPOSAL.
C2. LOCATION AND DEPTH OF EXISTING UTILITIES ARE ONLY INDICATED TO BRING ATTENTION TO POSSIBLE CONFLICTS. ANY DAMAGE TO UTILITIES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND ALL COSTS FOR REPAIRS SHALL BE BORNE BY THE CONTRACTOR.
C3. ANY DAMAGE TO UTILITIES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND ALL COSTS FOR REPAIR SHALL BE BORNE BY THE CONTRACTOR. ALL DISTURBED OR DAMAGED WALKWAYS, SIGNS, CURBING, TREES, HYDRANTS, UTILITIES, PAVED SURFACES, DRIVEWAYS, BUILDING FACADES, ETC. SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AND TO THE SATISFACTION OF THE OWNER. NO SEPARATE PAYMENT WILL BE MADE FOR THIS RESTORATION UNLESS SPECIFIED ELSEWHERE IN THE CONTRACT.
C4. THE LOCATIONS OF UTILITIES SHOWN ARE APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE EXACT LOCATIONS OF THE UTILITIES PRIOR TO THE START OF CONSTRUCTION.
C5. ALL GAS AND WATER VALVES AND VARIOUS MANHOLES TO REMAIN SHALL BE RESET TO FINISHED GRADE.
C6. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH ALL AFFECTED PUBLIC UTILITY COMPANIES. ELECTRIC, TELEPHONE, GAS & CABLE UTILITY MANHOLE CASTINGS AND VALVE BOX COVERS SHALL BE RESET BY THE RESPECTIVE UTILITY COMPANIES.
C7. PRIVATE UTILITY COMPANIES MUST BE CONTACTED BY THE CONTRACTOR SO THAT PRIVATELY OWNED CASTINGS WILL BE RESET AS REQUIRED.
C8. WATER SERVICE VALVE BOXES, GAS SERVICE VALVE BOXES, JUNCTION BOXES, ELECTRIC BOXES, BASEMENT VAULT DOORS AND ALL OTHER APPURTENANCES LOCATED IN THE SIDEWALK AREA SHALL BE RESET TO THE NEW SIDEWALK ELEVATION. THE COST FOR RESETTING ANY AND ALL OF THESE CASTINGS SHALL NOT BE PAID SEPARATELY BUT SHALL BE INCLUDED IN THE VARIOUS CONCRETE SIDEWALK LINE ITEMS IN THE PROPOSAL.
C9. THE CONTRACTOR IS RESPONSIBLE FOR ACCURATELY LOCATING EXISTING TRAFFIC SIGNAL LOOP DETECTOR AND LEADS, IF APPLICABLE. THE CONTRACTOR WILL ONLY BE COMPENSATED FOR THE REPLACEMENT OF LOOP DETECTORS AND LEADS WHICH HAVE BEEN REMOVED AT THE DIRECTION OF THE PROFESSIONAL ENGINEER. THE CONTRACTOR SHALL NOT REMOVE LOOP DETECTORS AND LEADS UNLESS HE IS DIRECTED TO DO SO BY THE PROFESSIONAL ENGINEER.
C10. TRENCHES SHALL BE BACKFILLED WITHOUT DELAY. OPEN EXCAVATIONS SHALL BE KEPT TO A MINIMUM AND MADE SAFE AT ALL TIMES. ALL TRENCHES SHALL BE ADEQUATELY COMPACTED BY APPROVED METHODS AND WITH MATERIALS APPROVED BY THE FIELD ENGINEER. ANY TRENCH SETTLEMENT SHALL BE IMMEDIATELY BROUGHT TO GRADE AND TEMPORARY PAVING SHALL BE PLACED WHERE REQUIRED. NO TRENCH (INCLUDING CURBS) SHALL BE LEFT OPEN OVERNIGHT. THIS NOTE APPLIES ONLY TO TRENCHES IN PAVED AREAS, NOT THE SEPTIC SYSTEM EXCAVATION.
C11. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN TEMPORARY RAMPS AROUND ALL EXPOSED UTILITY CASTINGS, BOTH PUBLIC AND PRIVATE WHICH HAVE BEEN UNCOVERED DURING CONSTRUCTION.
D. DRAINAGE
D1. THE CONTRACTOR IS RESPONSIBLE TO CLEAN AND MAINTAIN ALL EXISTING DRAINAGE STRUCTURES PRIOR TO THE START OF CONSTRUCTION WITHIN THE PROJECT LIMITS.
D2. ALL EXISTING STORM SEWER PIPES WITHIN PROJECT LIMITS MUST BE CLEANED BY THE CONTRACTOR AFTER COMPLETION OF CONSTRUCTION. THE COST FOR CLEANING SHALL NOT BE PAID SEPARATELY BUT SHALL BE INCLUDED IN THE VARIOUS DRAINAGE ITEMS IN THE PROPOSAL.
D3. ALL STORM LINES AND ROOF LEADERS ARE TO REMAIN FREE FLOWING, DURING CONSTRUCTION. CONTRACTOR SHALL PROVIDE A TEMPORARY BYPASS ACCORDINGLY.
D4. ALL ROOF DRAIN PIPES IN CURB/SIDEWALK AREA TO BE MAINTAINED AND RECONNECTED, AND SHALL BE EXTENDED UNDER THE SIDEWALK AND THROUGH THE CURB, AS NECESSARY.
D5. ALL INLETS, MANHOLES AND VAULT CASTINGS TO BE RESET SHALL BE RESET TO THE PROPOSED FINISHED GRADE AS DIRECTED BY THE FIELD ENGINEER. THESE CASTINGS MUST BE RESET FLUSH TO THE PROPOSED GRADE AND THE NEW PAVEMENT SHALL NOT BE MOUND UP OR FEATHERED DOWN TO MEET THESE CASTINGS. ALL CASTINGS RESET TO THE IMPROPER GRADE OR NOT TO THE SATISFACTION OF THE FIELD ENGINEER SHALL BE RESET TO THE NEW GRADE AT NO ADDITIONAL EXPENSE TO THE OWNER.
D6. EXISTING GRATES THAT ARE INDICATED TO BE REMOVED OR REPLACED ARE THE PROPERTY OF THE MUNICIPALITY OR UTILITY

AUTHORITY AND WILL BE DELIVERED, AT NO ADDITIONAL COST TO THE OWNER, TO THE LOCAL DEPARTMENT OF PUBLIC WORKS OR UTILITY AUTHORITY YARD. PAYMENT WILL NOT BE MADE FOR NEW GRATES UNLESS THE EXISTING GRATES ARE RETURNED TO THE OWNER.

- D7. ALL OPEN DRAINAGE EXCAVATIONS SHALL BE BACKFILLED AT THE END OF EACH DAY AND PROTECTED FROM PEDESTRIAN AND VEHICULAR TRAFFIC.
D8. THE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTAINING POSITIVE DRAINAGE DURING AND AFTER CONSTRUCTION. IF A SITUATION ARISES WHERE WATER WILL POND AT A PARTICULAR LOCATION, THE PROFESSIONAL ENGINEER RESPONSIBLE FOR THE DESIGN MUST BE NOTIFIED IMMEDIATELY IN ORDER TO MAKE CORRECTIVE MEASURES IN WRITING.
D9. THE CONTRACTOR IS FULLY RESPONSIBLE FOR VERIFYING THAT ALL PROPOSED STORM SEWER CONNECTIONS ARE TO THE EXISTING STORM SEWER SYSTEMS.
E. TRAFFIC CONTROL
E1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF TRAFFIC CONTROL MEASURES.
E2. MAINTENANCE AND PROTECTION OF PEDESTRIAN TRAFFIC CONTROL MUST CONFORM TO NJDOT AND MUTCD STANDARDS ALONG WITH THE REQUIREMENTS OF THE MUNICIPALITY AND COUNTY. POLICE TRAFFIC DIRECTORS SHALL BE COORDINATED WITH THE MUNICIPALITY AND COUNTY, AS NEEDED.
E3. THE CONTRACTOR SHALL BE RESPONSIBLE TO PREPARE A DETOUR PLAN AS NEEDED OR REQUIRED BY THE OWNER AND/OR LOCAL POLICE DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO STARTING WORK.
F. SIGNS

- F1. ANY SIGNS LOCATED WITHIN THE SIDEWALK AREAS SHOULD BE RESET/RELOCATED IN ACCORDANCE WITH THE STANDARD NJDOT STANDARD DETAILS. SEPARATE PAYMENT WILL NOT BE MADE FOR RESETTING OBJECTS LOCATED IN THE SIDEWALK. THE COST SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE REPLACEMENT OF SIDEWALKS, UNLESS PAYMENT FOR SUCH WORK IS SPECIFIED IN THE PROPOSAL.
F2. THE CONTRACTOR SHALL RELOCATE/RESET SIGNS AS SHOWN ON THE PLANS OR DIRECTED BY THE PROFESSIONAL ENGINEER. NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK BUT THE COST SHALL BE INCLUDED IN THE VARIOUS ITEMS IN THE PROPOSAL.
F3. SIGNS FOR PARKING PROHIBITION MUST BE POSTED AT LEAST 48 HOURS IN ADVANCE OF CONSTRUCTION. CONTRACTOR SHALL COORDINATE, OBTAIN AND PLACE SIGNS AS DIRECTED BY THE OWNER.
G. SURVEY
G1. LAYOUT OF ALL WORK SHALL BE ADJUSTED IN THE FIELD TO MEET SITE CONDITIONS AS APPROVED IN WRITING BY THE PROFESSIONAL ENGINEER RESPONSIBLE FOR THE DESIGN.
G2. THE CONTRACTOR IS RESPONSIBLE TO LAYOUT ALL NEW WORK PRIOR TO CONSTRUCTION FOR FIELD ENGINEER'S APPROVAL. ANY LOCATIONS NOT APPROVED BY THE FIELD ENGINEER AND INSTALLED BY THE CONTRACTOR SHALL BE REMOVED AND REPLACED AS PER THE FIELD ENGINEER'S INSTRUCTIONS AT NO ADDITIONAL COST TO THE OWNER.
G3. ALL LAYOUT WORK SHALL BE DONE BY A NEW JERSEY LICENSED LAND SURVEYOR.
G4. ALL EXISTING LOCATIONS TAKEN FROM A SURVEY PREPARED BY NEGLIA ENGINEERING ASSOCIATES.

H. TREES

- H1. CONTRACTOR MUST RETAIN A CERTIFIED TREE EXPERT FOR TREE EVALUATION WHERE NECESSARY. NO ADDITIONAL PAYMENT WILL BE MADE FOR TREE EXPERT; PRICE TO BE INCLUDED IN SITE CLEARING.
H2. ALL TREES THAT HAVE ROOTS THAT ENCROACH INTO THE PROPOSED CURBS OR PAVEMENT AND ARE TO BE SAVED SHALL BE EVALUATED BY THE CONTRACTOR'S CERTIFIED TREE EXPERT. ALL EVALUATIONS SHALL BE IN WRITING AND SHALL ACCURATELY IDENTIFY THE TREE IN QUESTION BY STATION AND OFFSET (LEFT OR RIGHT). ALL EVALUATIONS SHALL BE SUBMITTED TO THE PROFESSIONAL ENGINEER FOR REVIEW AND CONSULTATION WITH THE MUNICIPALITY'S TREE EXPERTS PRIOR TO CUTTING ANY ROOTS. NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK BUT THE COST THEREOF SHALL BE INCLUDED IN THE CLEARING SITE ITEM.
H3. TREES THAT ARE TO BE SAVED, WHERE IT IS DETERMINED THAT ROOT CUTTING MAY SEVERELY DAMAGE THE TREE, SHALL HAVE A CURB BREAK AND STEEL CURB FACE PLATES INSTALLED AS SHOWN ON THE DETAILS.
H4. THE CONTRACTOR IS RESPONSIBLE FOR THE TIMELY EVALUATION OF ALL TREES AND THERE WILL NOT BE CHANGE ORDERS FOR DELAYS RESULTING FROM ROOT CUTTING.
H5. IN AREAS WHERE THE ROOTS ENCROACH INTO THE CURB LINE, THE FULL PAVEMENT SECTION SHALL BE REMOVED PRIOR TO REMOVING THE CURB. THEN THE EXISTING CURB SHALL BE REMOVED BY PULLING IT AWAY FROM THE TREE TOWARDS THE ROADWAY TO MINIMIZE ROOT DAMAGE DURING THE REMOVAL OF THE EXISTING CURB. NO SEPARATE PAYMENT SHALL BE MADE FOR THIS WORK BUT THE COST THEREOF SHALL BE INCLUDED IN THE CLEARING SITE LINE ITEM.

PLAN LEGENDS

| EXISTING LEGEND | | | |
|-----------------|------------------|--|---------------------|
| | WATER VALVE | | INLET |
| | GAS VALVE | | DEPRESSED CURB |
| | CLEAN OUT | | UTILITY POLE |
| | MANHOLE | | FIRE HYDRANT |
| | SANITARY MANHOLE | | CONCRETE CURB |
| | DRAINAGE MANHOLE | | GAS MAIN |
| | TREE | | WATER MAIN |
| | SHRUB | | STORM SEWER PIPE |
| | | | SANITARY SEWER PIPE |
| | | | OVERHEAD WIRES |
| | | | CONTOUR |

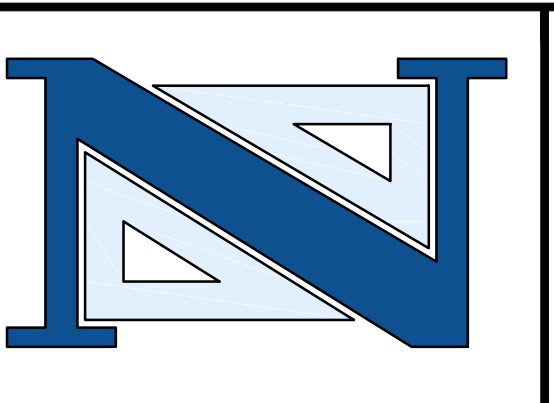
| PROPOSED LEGEND | |
|-----------------|---|
| | SANITARY SEWER (SOLID-WALL) |
| | SEPTIC FIELD LATERAL (PERFORATED) |
| | SEPTIC FIELD EXCAVATION LIMIT (APPROX.) |
| | CLEANOUT OR INSPECTION PORT (SEE PLAN) |
| | FILTER FABRIC INLET PROTECTION |
| | SILT FENCE LINE |
| | LIMIT OF DISTURBANCE LINE |

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CERTIFICATE OF AUTHORIZATION (N.J.S.A. 45:8-56) GA 276890

| REVISIONS | | |
|-----------|----------|----------------|
| NO. | DATE | DESCRIPTION |
| 1 | 06/08/17 | ISSUED FOR BID |

| DRAWN | DESIGNED | CHECKED |
|--------|----------|---------|
| E.M.J. | E.M.J. | D.J. |



DAVID JUZMESKI, P.E., P.P.
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N.J. LICENSE NO. 48751

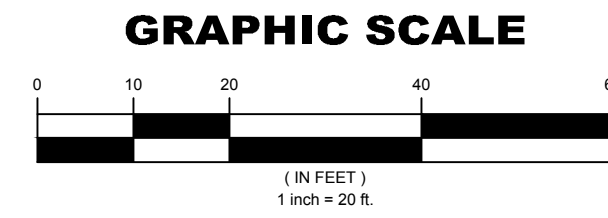
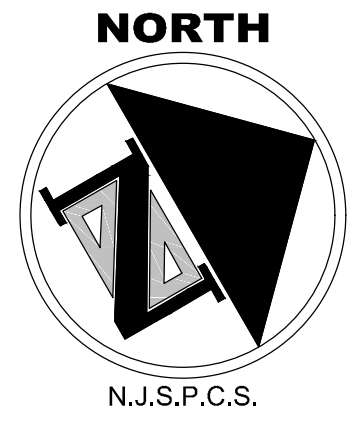
A PROJECT OF
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PROFESSIONAL PLANNER N.J. LICENSE NO. 33L00059860

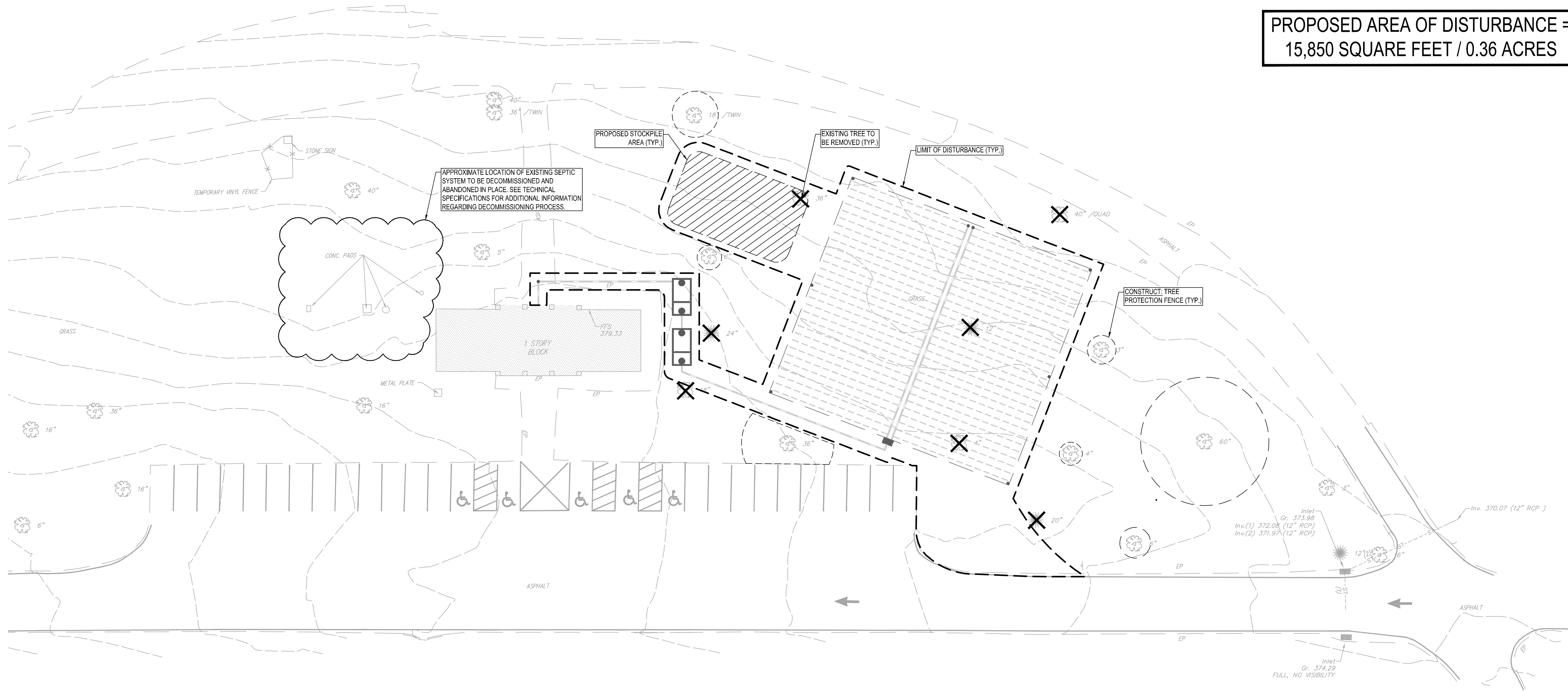
GENERAL NOTES AND LEGEND
TRACY LOOP RESTROOM SEPTIC SYSTEM
WATCHUNG RESERVATION
BOROUGH OF MOUNTAINSIDE
UNION COUNTY NEW JERSEY

| | | | |
|---------------------|------------------|------------------------|--------------------|
| DRAWN BY: E.M.J. | CHECKED BY: D.J. | PROJECT NO.: | SHEET NO.: |
| DESIGNED BY: E.M.J. | SCALE: | N.T.S. | UNIOCTY15,011 1.01 |
| FIELD BOOK NO.: | PAGE: | DATE: DECEMBER 7, 2016 | |

UNION COUNTY\CONTRACT\15011\TRACY LOOP RESTROOM SEWER CONNECTION\ORIGINAL SHEET\15011 - GENERAL NOTES AND LEGEND.DWG



**PROPOSED AREA OF DISTURBANCE =
15,850 SQUARE FEET / 0.36 ACRES**

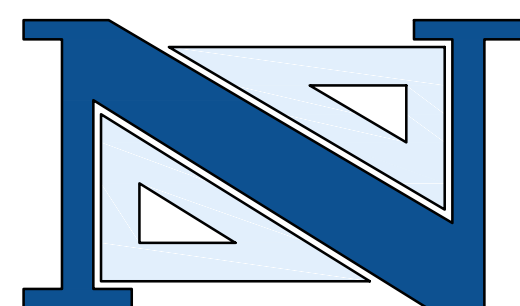


EXCESS SOIL NOTES:
ALL EXCAVATED SOILS SHALL REMAIN ON THE PROPERTY. WHERE PRACTICAL, AND IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL REUSE SUITABLE EXISTING SITE SOILS AS BACKFILL ABOVE THE SEPTIC FIELD. ALL EXCESS SOIL SHALL BE USED TO FILL-IN EXISTING AREAS WITHIN THE WATCHUNG RESERVATION, AT THE DIRECTION OF NEGLIA ENGINEERING ASSOCIATES AND/OR THE COUNTY OF UNION. TESTING OF THIS MATERIAL IS NOT REQUIRED. NO SOIL SHALL LEAVE THE SUBJECT SITE WITHOUT WRITTEN PERMISSION FROM THE COUNTY OF UNION.

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| REVISIONS | | DRAWN | DESIGNED | CHECKED | |
|-----------|----------|----------------|----------|---------|------|
| NO. | DATE | DESCRIPTION | E.M.J. | E.M.J. | D.J. |
| 1 | 06/08/17 | ISSUED FOR BID | | | |



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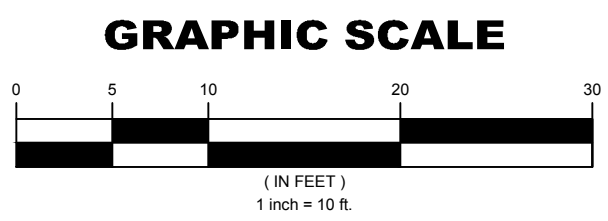
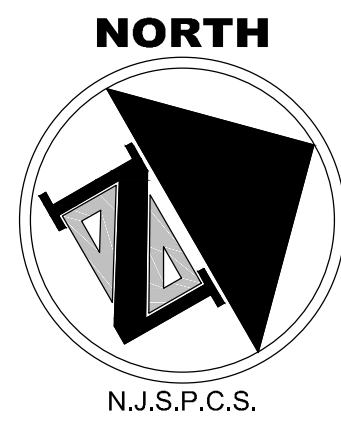
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N.J. LICENSE NO. 38604

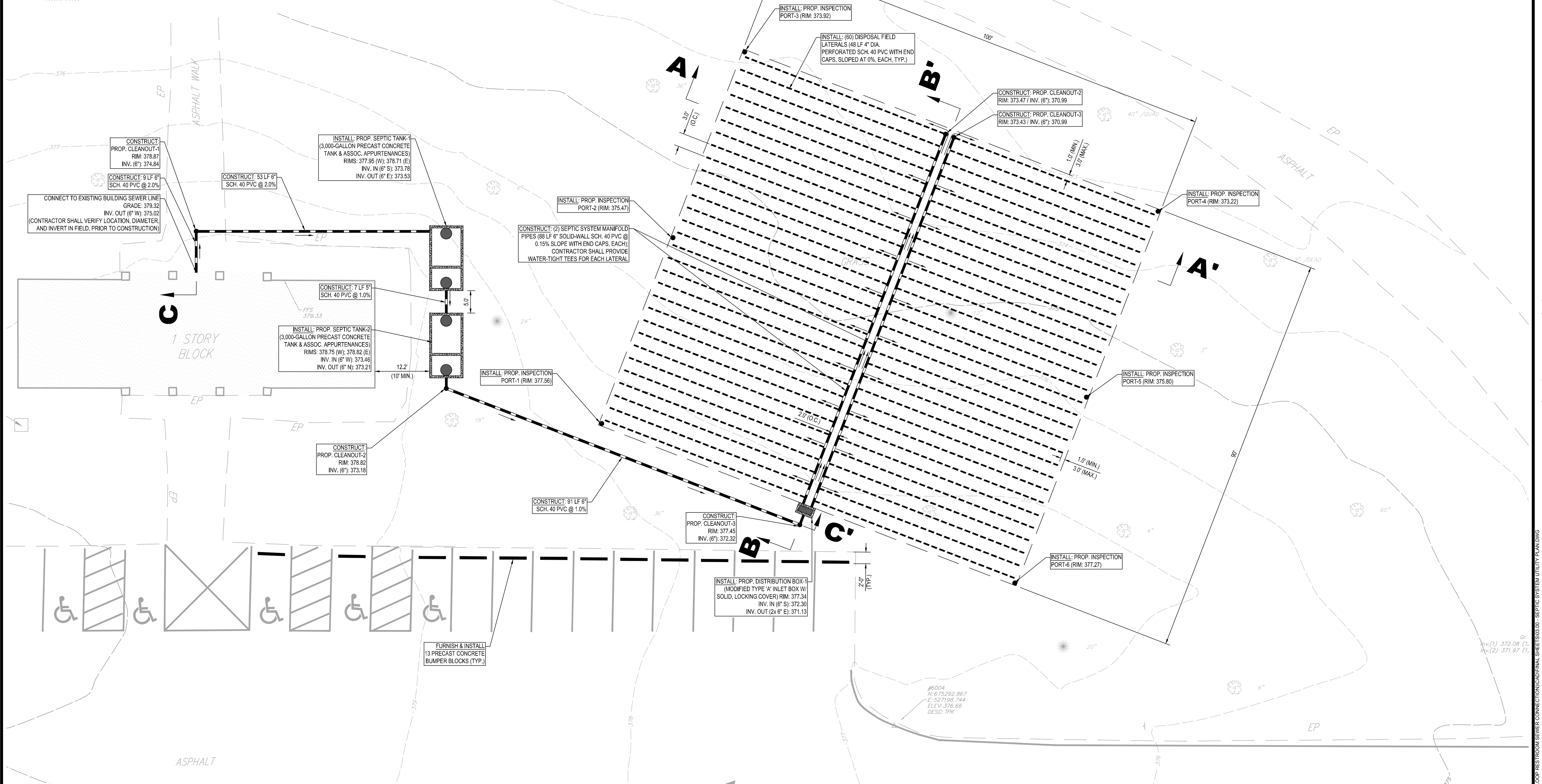
PROFESSIONAL PLANNER
N.J. LICENSE NO. 33L00569800

**EXISTING CONDITIONS & DEMOLITION PLAN
TRACY LOOP RESTROOM SEPTIC SYSTEM
WATCHUNG RESERVATION
BOROUGH OF MOUNTAINSIDE
UNION COUNTY
NEW JERSEY**

| | | | |
|---------------------|------------------|------------------------|-----------|
| DRAWN BY: E.M.J. | CHECKED BY: D.J. | PROJECT NO: | SHEET NO: |
| DESIGNED BY: E.M.J. | SCALE: 1" = 20' | UNIOCTY15.011 | 2.00 |
| FIELD BOOK NO: | PAGE: | DATE: DECEMBER 7, 2016 | |



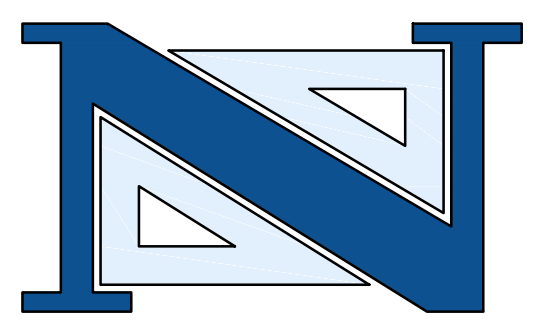
REFER TO DRAWING 3.01 FOR SEPTIC SYSTEM CROSS-SECTIONS A-A', B-B', AND C-C'



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| REVISIONS | | | DRAWN | DESIGNED | CHECKED |
|-----------|----------|---|--------|----------|---------|
| NO. | DATE | DESCRIPTION | | | |
| 1 | 03/29/17 | REVISED SEPTIC TANK SIZES PER NDEP COMMENTS | E.M.J. | E.M.J. | D.J. |
| 2 | 06/08/17 | ISSUED FOR BID | E.M.J. | E.M.J. | D.J. |



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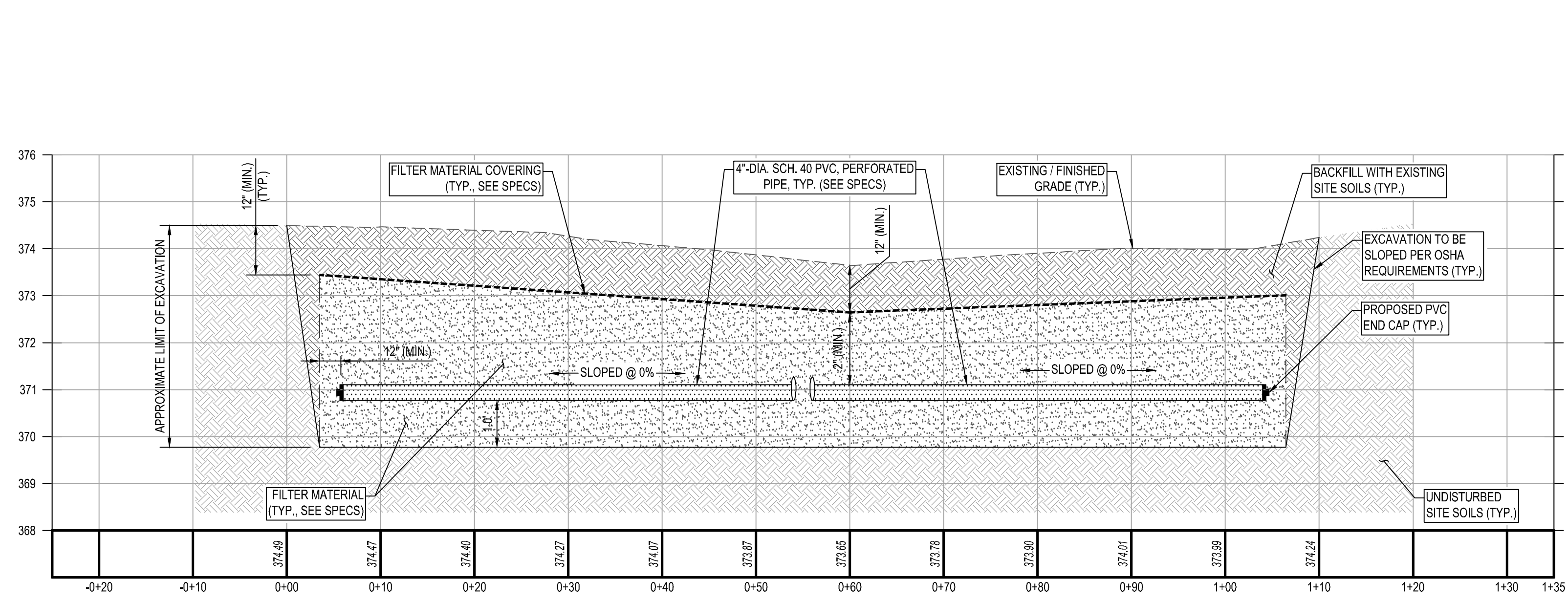
MICHAEL J. NEGLIA, P.E., P.L.S., P.P.
PROFESSIONAL ENGINEER N.J. LICENSE NO. 38604
PROFESSIONAL LAND SURVEYOR N.J. LICENSE NO. 38604
PROFESSIONAL PLANNER N.J. LICENSE NO. 33L00569800

SEPTIC SYSTEM UTILITY PLAN
TRACY LOOP RESTROOM SEPTIC SYSTEM
WATCHUNG RESERVATION
BOROUGH OF MOUNTAINSIDE
UNION COUNTY
NEW JERSEY

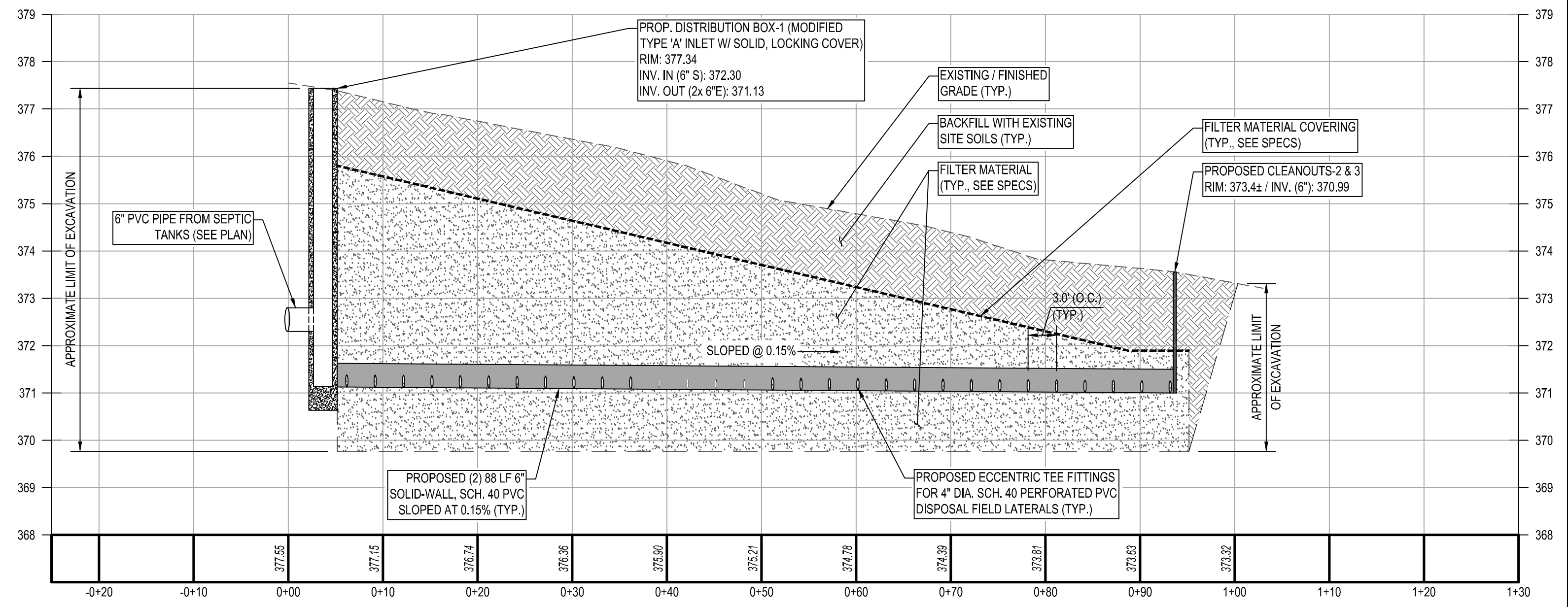
DRAWN BY: E.M.J. CHECKED BY: D.J. PROJECT NO.: UNIOCTY15.011 SHEET NO.: 3.00
DESIGNED BY: E.M.J. SCALE: 1" = 10' FIELD BOOK NO.: DATE: DECEMBER 7, 2016

FINAL FOR SEWER DESIGN

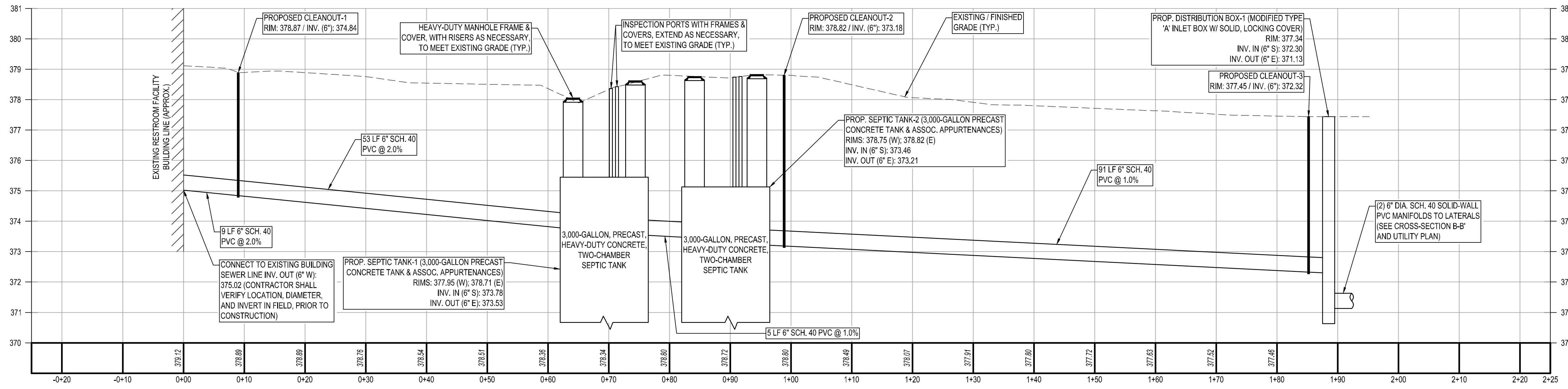
UNION COUNTY UNIOCTY15.011 TRACY LOOP RESTROOM SEWER CONNECTION/CAD/FINAL SHEETS/3.00 - SEPTIC SYSTEM UTILITY PLAN.DWG



PROPOSED SEPTIC SYSTEM CROSS-SECTION A-A'
 SCALES (H): 1" = 10' / (V): 1" = 2'

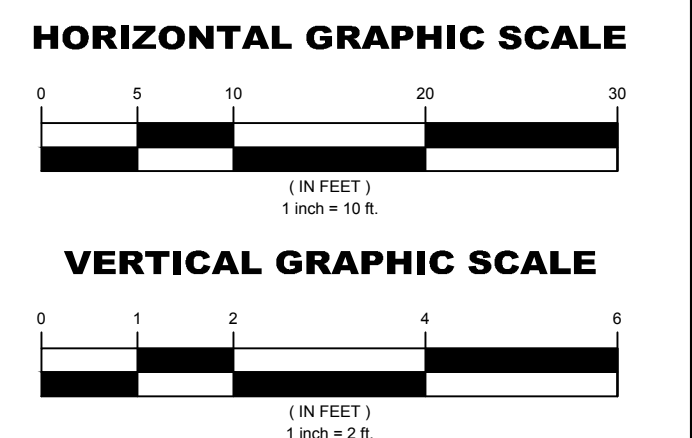


PROPOSED SEPTIC SYSTEM CROSS-SECTION B-B'
 SCALES (H): 1" = 10' / (V): 1" = 2'



PROPOSED SEPTIC SYSTEM CROSS-SECTION C-C'
 SCALES (H): 1" = 10' / (V): 1" = 2'

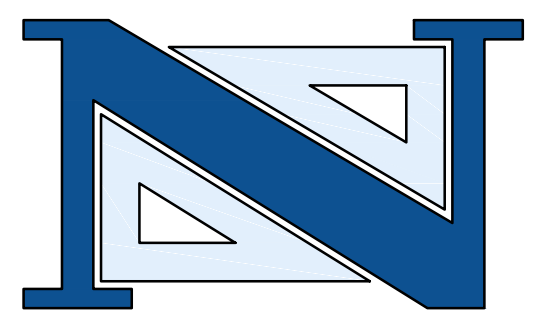
REFER TO SEPTIC SYSTEM UTILITY PLAN FOR
 LOCATION OF CROSS-SECTIONS A-A', B-B', AND C-C'



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| 1 | 03/28/17 | REVISED SEPTIC TANK SIZES PER NJDEP COMMENTS | E.M.J. | E.M.J. | D.J. |
| 2 | 06/08/17 | ISSUED FOR BID | E.M.J. | E.M.J. | D.J. |



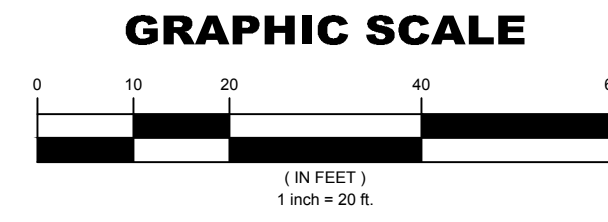
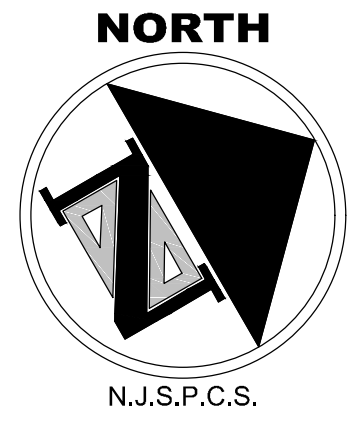
DAVID JUZMESKI, P.E., P.P.
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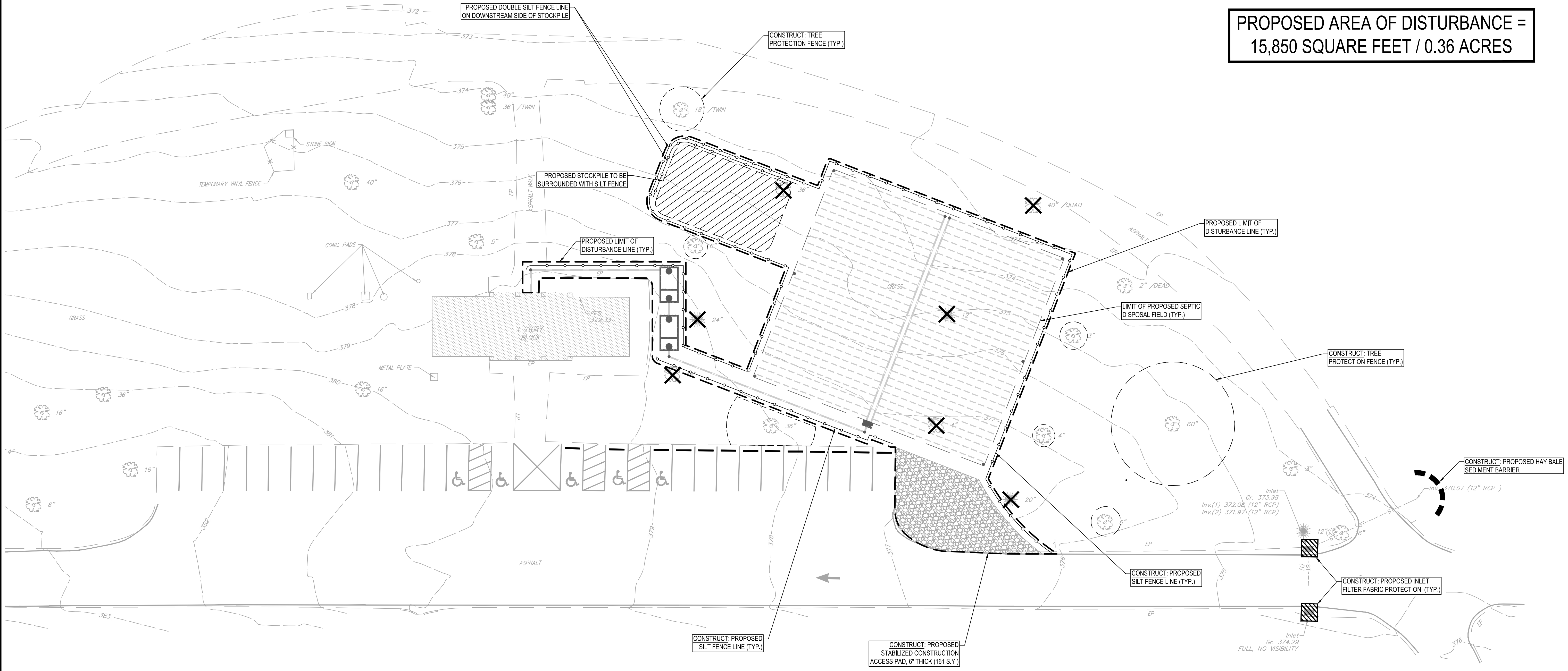
MICHAEL J. NEGLIA, P.E., P.L.S., P.P.
 PROFESSIONAL ENGINEER N.J. LICENSE NO. 38604
 PROFESSIONAL LAND SURVEYOR N.J. LICENSE NO. 38604
 PROFESSIONAL PLANNER N.J. LICENSE NO. 33L00569800

SEPTIC SYSTEM CROSS-SECTIONS
TRACY LOOP RESTROOM SEPTIC SYSTEM
WATCHUNG RESERVATION
BOROUGH OF MOUNTAINVIEW
UNION COUNTY
NEW JERSEY

DRAWN BY: E.M.J. CHECKED BY: D.J. PROJECT NO.: UNIOCTY15.011 SHEET NO.: 3.01
 DESIGNED BY: E.M.J. SCALE: (H): 1" = 10' / (V): 1" = 2' FIELD BOOK NO.: DATE: DECEMBER 7, 2016



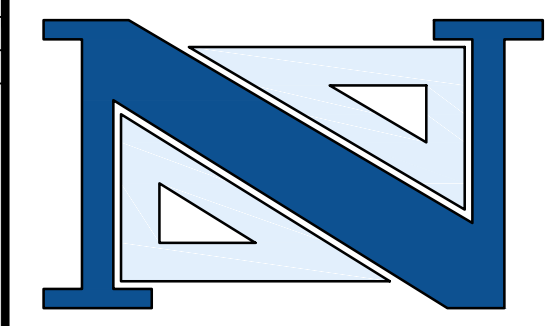
**PROPOSED AREA OF DISTURBANCE =
15,850 SQUARE FEET / 0.36 ACRES**



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| NO. | DATE | DESCRIPTION | E.M.J. | E.M.J. | D.J. |
| 1 | 06/08/17 | ISSUED FOR BID | | | |



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PROFESSIONAL PLANNER N.J. LICENSE NO. 33L00569800

SOIL EROSION & SEDIMENT CONTROL PLAN
TRACY LOOP RESTROOM SEPTIC SYSTEM
WATCHUNG RESERVATION
BOROUGH OF MOUNTAINSIDE
UNION COUNTY
NEW JERSEY

DRAWN BY: E.M.J. CHECKED BY: D.J. PROJECT NO: UNIOCTY15.011 SHEET NO: 4.00
DESIGNED BY: E.M.J. SCALE: 1" = 20' FIELD BOOK NO: PAGE: [DATE: DECEMBER 7, 2016]

**SOMERSET-UNION COUNTY SOIL CONSERVATION DISTRICT
SOIL EROSION AND SEDIMENT CONTROL NOTES**

- ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCE, OR IN THEIR PROPER SEQUENCE AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
- ANY DISTURBED AREAS THAT WILL BE LEFT EXPOSED MORE THAN 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 STATE STANDARDS.
- PERMANENT VEGETATION SHALL BE SEEDING OR SODDED ON ALL EXPOSED AREAS WITHIN TEN (10) DAYS AFTER FINAL GRADING. MULCH WILL BE USED FOR PROTECTION UNTIL SEEDING IS ESTABLISHED.
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE STATE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY.
- 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 15 DAYS OF PRELIMINARY GRADING.
- 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 STATE STANDARDS.
- ANY STEEP SLOPES RECEIVING PIPELINE INSTALLATION WILL BE BACKFILLED AND STABILIZED DAILY, AS THE INSTALLATION PROCEEDS (I.E. SLOPES GREATER THAN 3:1).
- TRAFFIC CONTROL STANDARDS REQUIRE THE INSTALLATION OF A 100'X30'X1" PAD OF 1 1/2" OR 2" STONE, AT ALL CONSTRUCTION DRIVEWAYS, IMMEDIATELY AFTER INITIAL SITE DISTURBANCE.
- THE SOMERSET-UNION SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED IN WRITING 48 HOURS IN ADVANCE OF ANY LAND DISTURBING ACTIVITY.
- AT THE TIME WHEN THE SITE PREPARATION FOR PERMANENT VEGETATIVE STABILIZATION IS GOING TO BE ACCOMPLISHED, ANY SOIL THAT WILL NOT PROVIDE SUITABLE ENVIRONMENT TO SUPPORT ADEQUATE VEGETATIVE GROUND COVER, SHALL BE REMOVED OR TREATED IN SUCH A WAY THAT 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 OR PERMANENT GROUND STABILIZATION WILL HAVE TO BE EMPLOYED.
- IN THAT NJSA 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.
- CONDUIT OUTLET PROTECTION MUST BE INSTALLED AT ALL REQUIRED OUTFALLS PRIOR TO THE DRAINAGE SYSTEM BECOMING OPERATIONS.
- 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 RECERTIFICATION. THE REVISED PLANS MUST MEET ALL CURRENT STATE SOIL EROSION AND SEDIMENT CONTROL STANDARDS.
- THE SOMERSET-UNION SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED OF ANY CHANGES IN OWNERSHIP.
- MULCHING IN THE STANDARDS IS REQUIRED FOR OBTAINING A CONDITIONAL REPORT OF COMPLIANCE. CONDITIONS ARE ONLY ISSUED WHEN THE SEASON PROHIBITS SEEDING.
- THE CONTRACTOR IS RESPONSIBLE FOR KEEPING ALL ADJACENT ROADS CLEAN DURING THE LIFE OF THE CONSTRUCTION PROJECT.
- 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.
- HYDROSEEDING IS A TWO-STEP PROCESS. THE FIRST STEP INCLUDES SEED, FERTILIZER, LIME, ETC., ALONG WITH MINIMAL AMOUNTS OF MULCH TO PROMOTE CONSISTENCY, GOOD SEED TO SOIL CONTACT, AND GIVE A VISUAL INDICATION OF COVERAGE. UPON COMPLETION OF THE SEEDING OPERATION, HYDRO-MULCH SHOULD BE APPLIED AT A RATE OF 1500 LBS. PER ACRE IN THE SECOND STEP. THE USE OF HYDRO-MULCH AS OPPOSED TO STRAW, IS LIMITED TO OPTIMUM SEEDING DATES AS LISTED IN THE STANDARDS.

INLET PROTECTION STANDARDS

DEFINITION

A TEMPORARY BARRIER AND SETTLING FACILITY INSTALLED AT A STORM SEWER INLET.

PURPOSE

THE PURPOSE OF STORM SEWER INLET PROTECTION IS TO INTERCEPT AND RETAIN SEDIMENT, THUS PREVENTING THE ENTRANCE OF SEDIMENT INTO THE STORM SEWER SYSTEM.

CONDITIONS WHERE PRACTICE APPLIES

- CONTRIBUTING DRAINAGE AREA IS 3 ACRES OR LESS.
- A STORM SEWER OR THE OUTLET CHANNEL OF A STORM SEWER NEEDS PROTECTION FROM SEDIMENT.
- TRAFFIC WILL NOT DESTROY OR CAUSE CONSTANT MAINTENANCE OF THE STORM SEWER INLET PROTECTION.
- A TRAFFIC HAZARD WILL NOT BE CREATED.
- A FLOODING PROBLEM WILL NOT BE CREATED.

WATER QUALITY ENHANCEMENT

THE PRIMARY BENEFIT TO WATER QUALITY IS REMOVAL OF SEDIMENT FROM STORMWATER RUNOFF PRIOR TO ENTERING THE STORM SEWER SYSTEM. AS AN ADDED BENEFIT, OTHER FLOATABLE DEBRIS, SUCH AS VEGETATIVE MATTER AND LITTER, MAY ALSO BE FILTERED OUT OF THE RUNOFF.

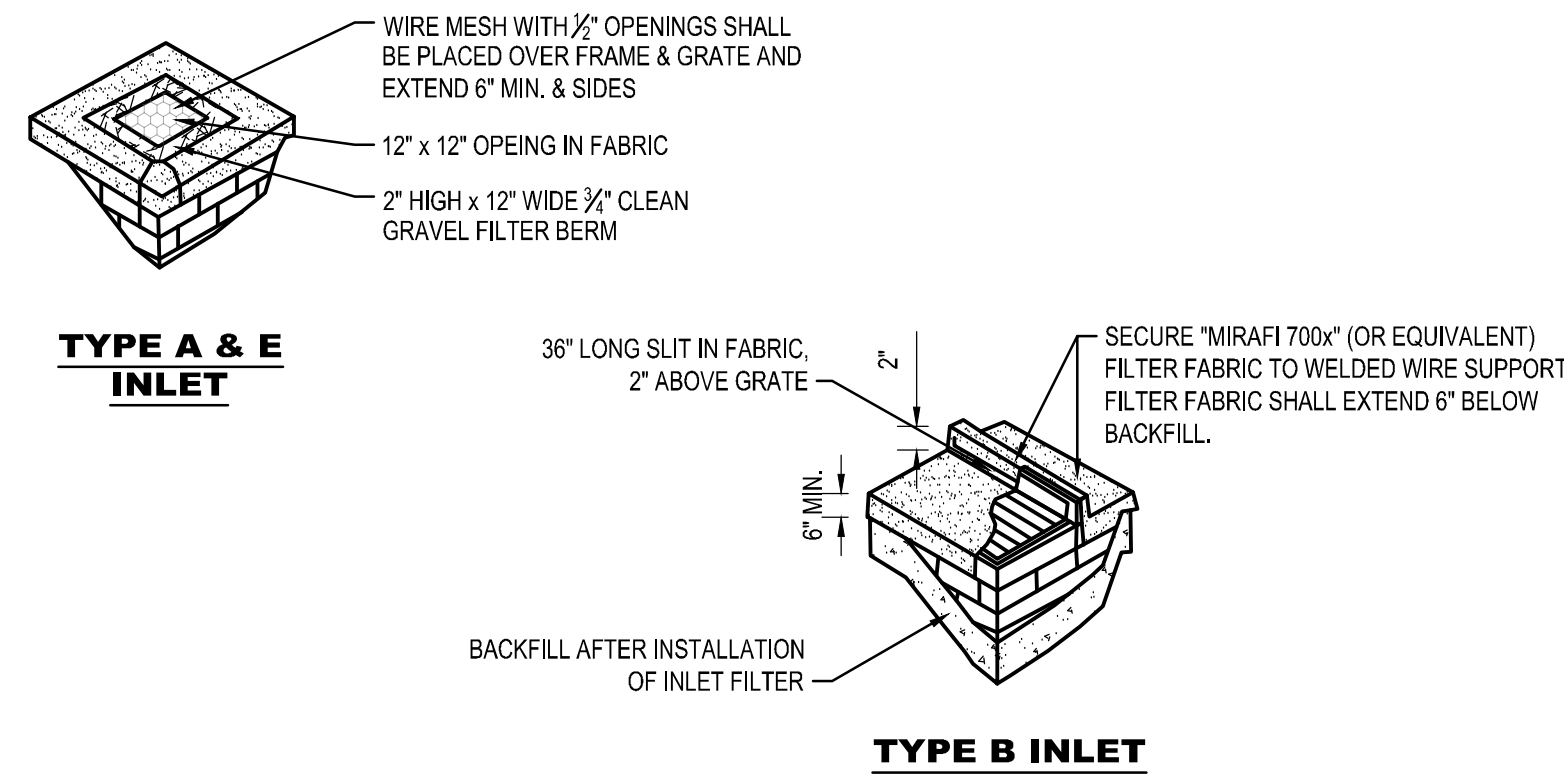
DESIGN CRITERIA

THE FOLLOWING APPLIES TO ALL METHODS OF STORM SEWER INLET PROTECTION:

- MUST SLOW THE STORM WATER, PROVIDE THE COARSE SEDIMENT PARTICLES A CHANCE TO SETTLE, AND PROVIDE AN AREA TO RETAIN THE PARTICLES THAT HAVE SETTLED.
- IN ALL CASES, THE INLET PROTECTION SHOULD NOT COMPLETELY CLOSE OFF THE INLET.
- THE PROTECTION DEVICE WILL BE DESIGNED TO CAPTURE OR FILTER RUNOFF FROM THE 1 YEAR, 24 HOUR STORM EVENT AND SHALL SAFELY CONVEY HIGHER FLOWS DIRECTLY INTO THE STORM SEWER SYSTEM.

OTHER METHODS THAT ACCOMPLISH THE PURPOSE OF STORM SEWER INLET PROTECTION MAY BE USED IF APPROVED BY THE SOIL CONSERVATION DISTRICT.

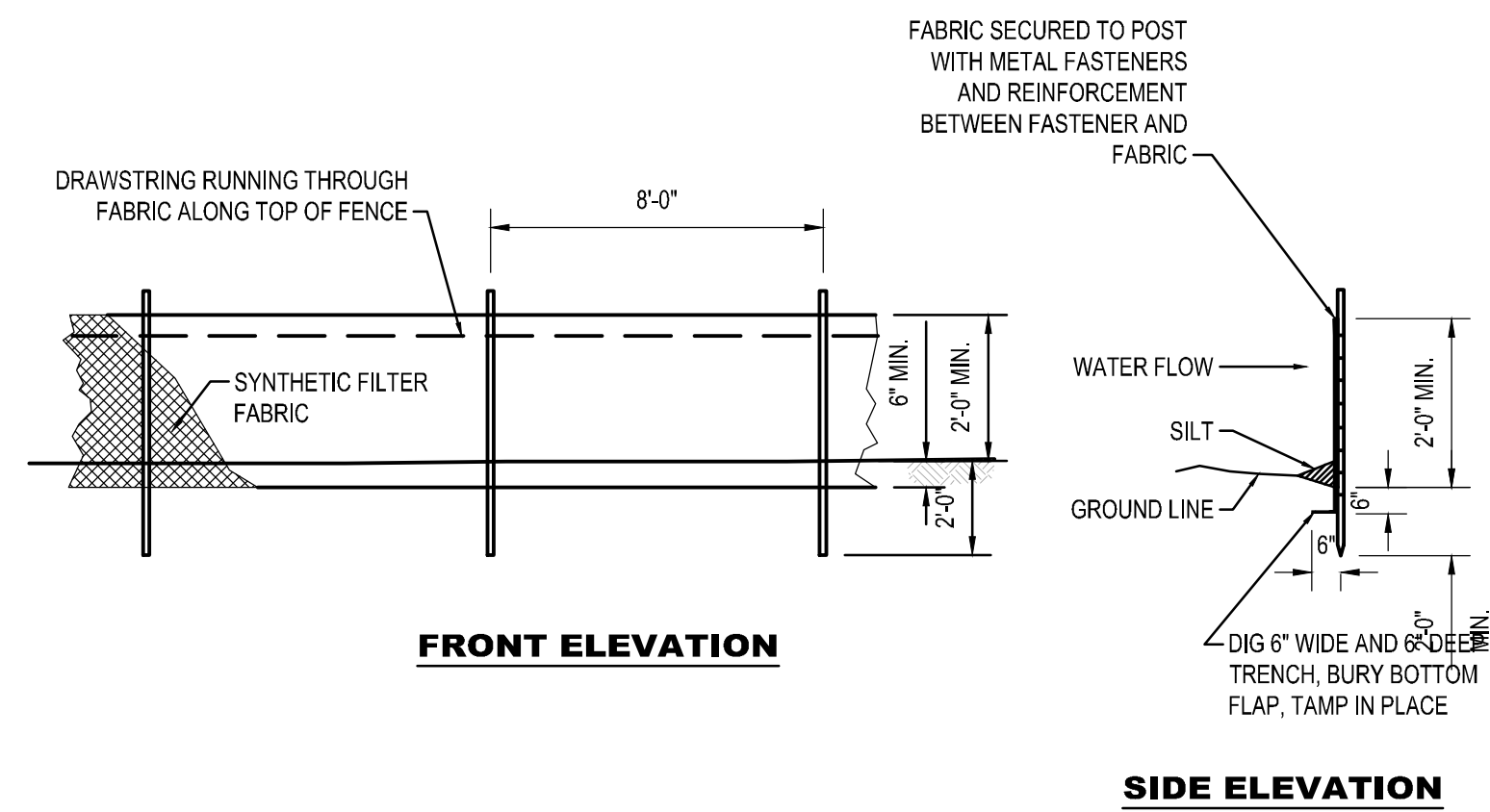
INSPECTIONS SHALL BE FREQUENT, MAINTENANCE, REPAIR, AND REPLACEMENT SHALL BE MADE PROMPTLY, AS NEEDED. THE BARRIER SHALL BE REMOVED WHEN THE AREA DRAINING TOWARD THE INLET HAS BEEN STABILIZED.



- NOTES:**
- CONTRACTOR IS TO INSPECT INLET FILTER AFTER EVERY STORM, AND CLEAN OR REPLACE AS REQUIRED
 - CONTRACTOR IS TO REMOVE FABRIC AND MESH JUST PRIOR TO PAVING
 - FILTER FABRIC SHALL BE "MIRAFI 700K" TYPE OR APPROVED EQUAL
 - INLET FILTER SHALL FILTER RUNOFF FROM THE 1 YEAR 24 HOUR STORM EVENT AND SHALL SAFELY CONVEY HIGHER FLOWS DIRECTLY INTO STORM SEWER SYSTEM.

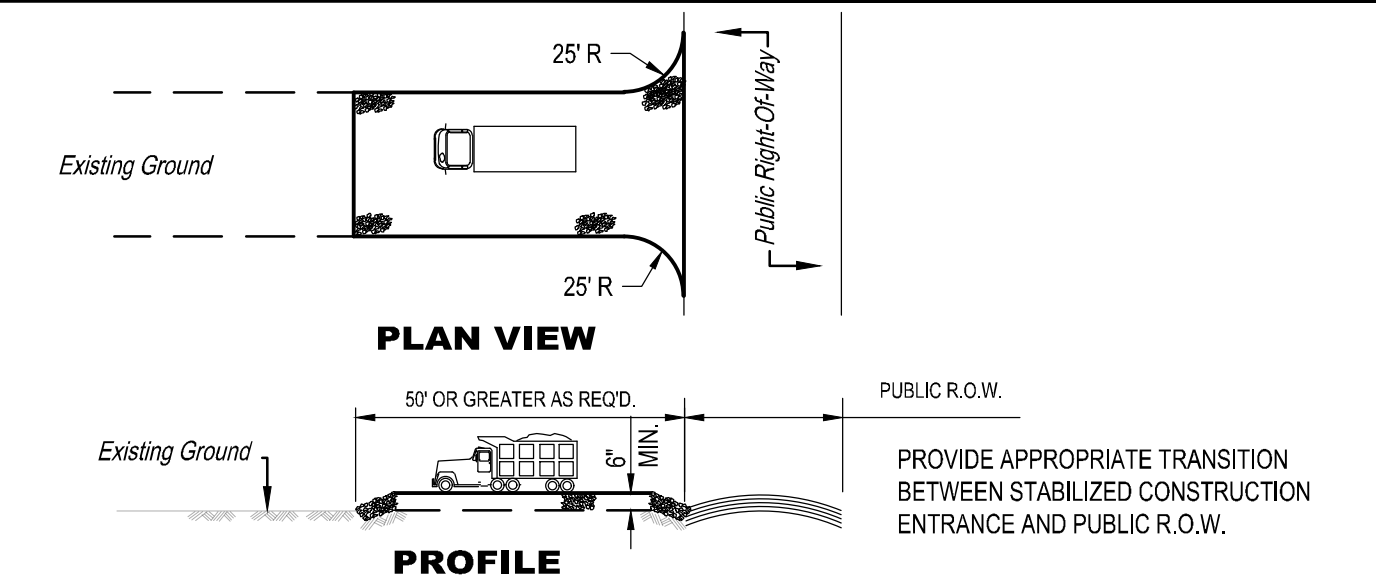
INLET FILTER & PROTECTION

NOT TO SCALE



FILTER FENCE DETAIL

NOT TO SCALE

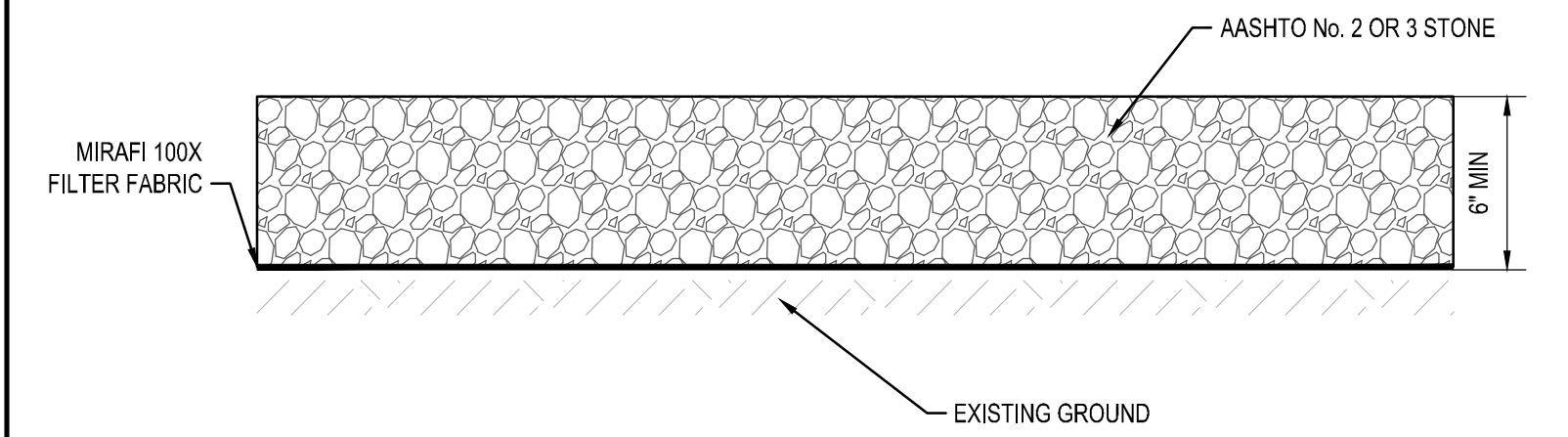


- NOTES:**
- PLACE STABILIZED CONSTRUCTION ENTRANCE AT LOCATION(S) AS SHOWN ON THE SOIL EROSION AND SEDIMENT CONTROL PLAN.
 - STONE SIZE SHALL BE ASTM C-33, SIZE NO.2 OR 3, CRUSHED STONE.
 - THE THICKNESS OF THE STABILIZED CONSTRUCTION ENTRANCE SHALL NOT BE LESS THAN 6".
 - THE WIDTH AT THE EXIST. PAVEMENT SHALL NOT BE LESS THAN THE FULL WIDTH OF POINTS OF INGRESS AND EGRESS.
 - THE STAB. CONST. ENT. SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO THE R.O.W. PAVEMENT. THIS REQUIRES PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR ADDITIONAL LENGTH AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURE USED TO TRAP SEDIMENT.
 - ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO THE PUBLIC ROADWAY MUST BE REMOVED IMMEDIATELY.
 - APPROPRIATE TRANSITION BETWEEN STAB. CONST. ENT. & PUBLIC R.O.W. MUST BE PROVIDED.
 - THE RATIO OF STONE SIZE TO WIDTH MUST BE 9:27.

| PERCENT SLOPE OF ROADWAY | LENGTH OF STONE REQUIRED | |
|--------------------------|--|---------------------|
| | COARSE GRAINED SOILS | FINED GRAINED SOILS |
| 0 TO 2% | 50 FT. | 100 FT. |
| 2 TO 5% | 100 FT. | 200 FT. |
| >5% | ENTIRE SURFACE STABILIZED WITH FABRIC BASE COURSE* | |

STABILIZED CONSTRUCTION ACCESS

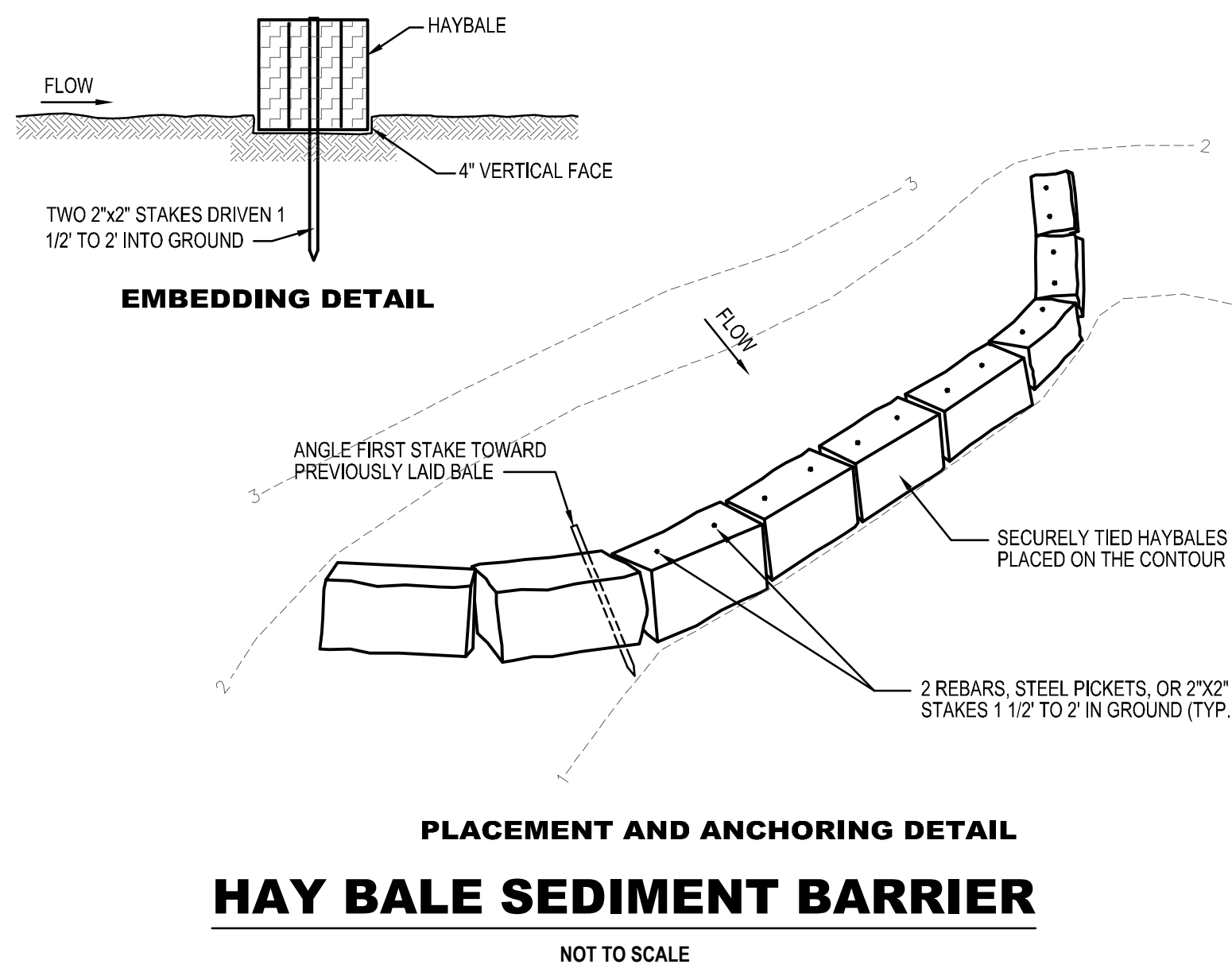
NOT TO SCALE



- NOTES:**
- APPROPRIATE TRANSITION BETWEEN STABILIZED CONSTRUCTION, ENTRANCE AND PUBLIC R.O.W. MUST BE PROVIDED.
 - THE RATIO OF STONE SIZE TO WIDTH MUST BE 9:27.

STABILIZED CONSTRUCTION ACCESS

NOT TO SCALE

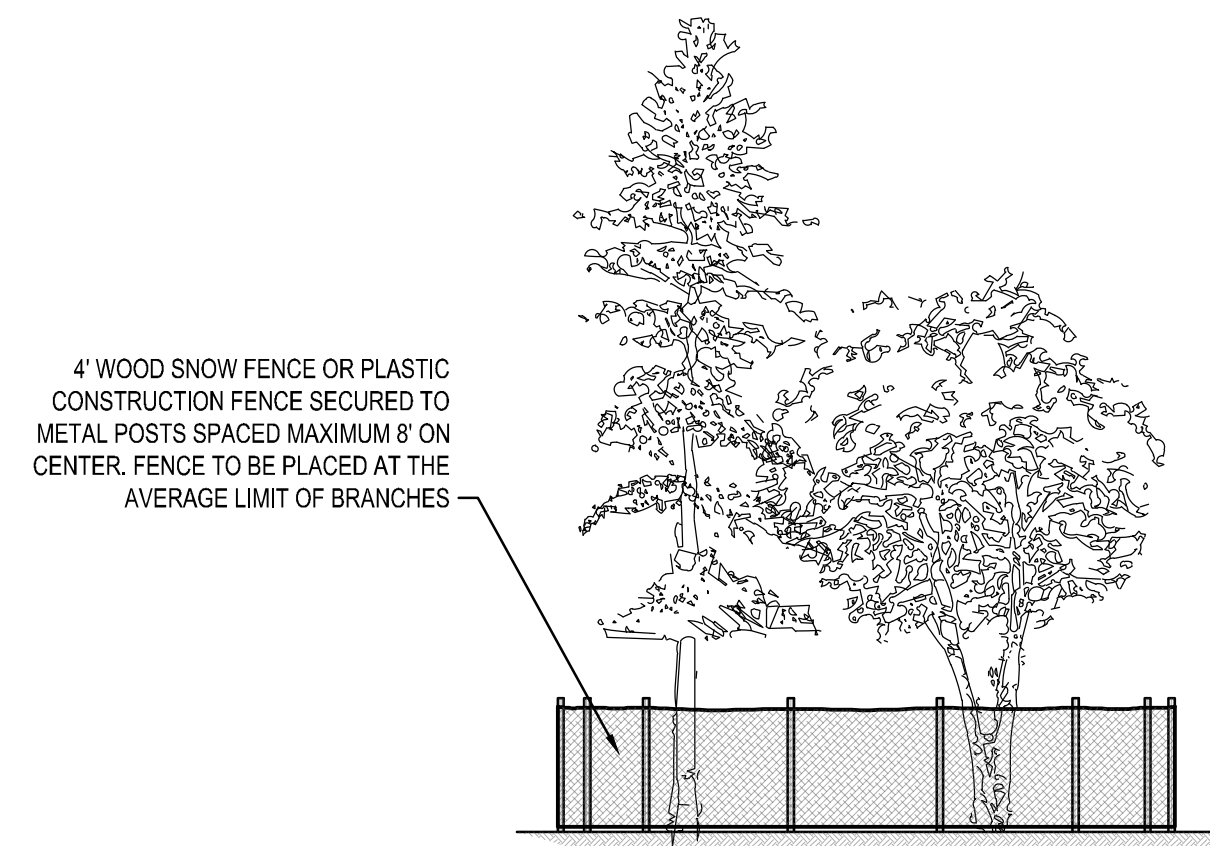


HAY BALE SEDIMENT BARRIER

NOT TO SCALE

SEQUENCE OF CONSTRUCTION

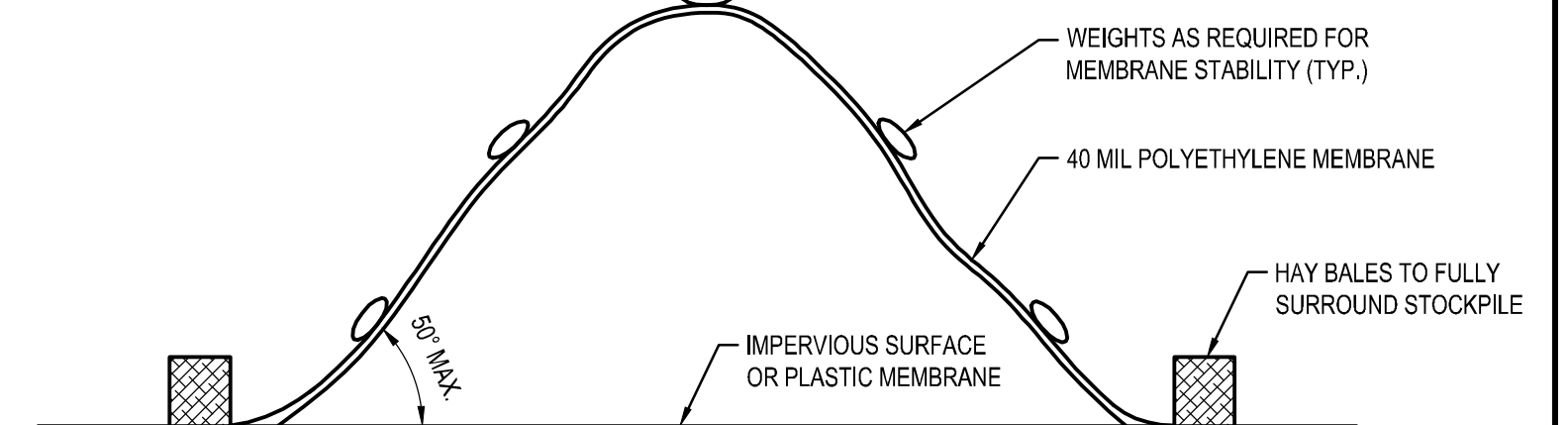
| ACTIVITY | APPROXIMATE DURATION, (days) |
|--|------------------------------|
| 1. INSTALL STABILIZED CONSTRUCTION ACCESS | 1 |
| 2. INSTALL SEDIMENT CONTROL MEASURES AND TREE PROTECTION FENCE | 2 |
| 3. BEGIN EXCAVATION FOR SEPTIC FIELD AND TANKS | 10 |
| 4. INSTALL SEPTIC TANKS, DISTRIBUTION PIPING, DISPOSAL FIELD, ETC. | 30 |
| 5. BACKFILL EXCAVATION AND STABILIZE DISTURBED SOIL | 5 |
| 6. TOPSOIL, SEED & MULCH AS SITE AREAS COMPLETED | 3 |
| 7. REMOVE SOIL EROSION & SEDIMENT CONTROL MEASURES | 2 |
| TOTAL: | 53 |



- NOTES:**
- CONSTRUCTION EQUIPMENT OF ANY KIND IS TO BE PROHIBITED FROM DRIVING AND/OR PARKING UNDER TREES. THE STOCKPILE OF CONSTRUCTION MATERIAL SHALL BE PROHIBITED FROM BEING STORED UNDER ANY TREES.

TREE PROTECTION

NOT TO SCALE



- NOTES:**
- FOR NON-CONTAMINATED SOIL, SURROUND STOCKPILE WITH SILT FENCE. NO COVER REQUIRED.

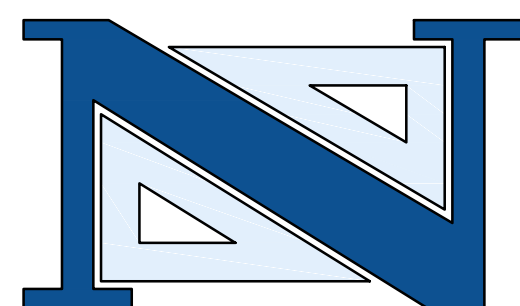
SOIL STOCKPILE

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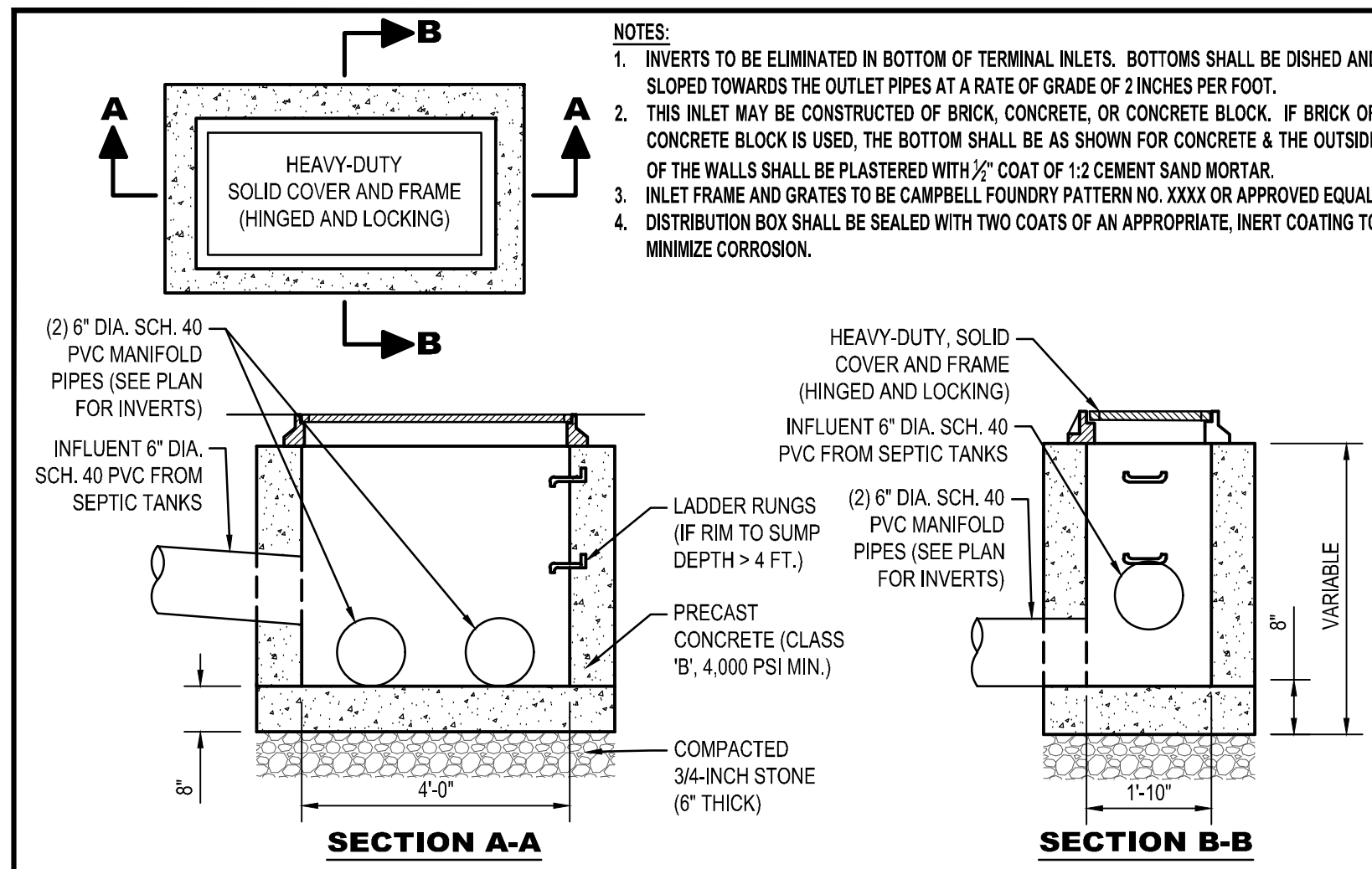
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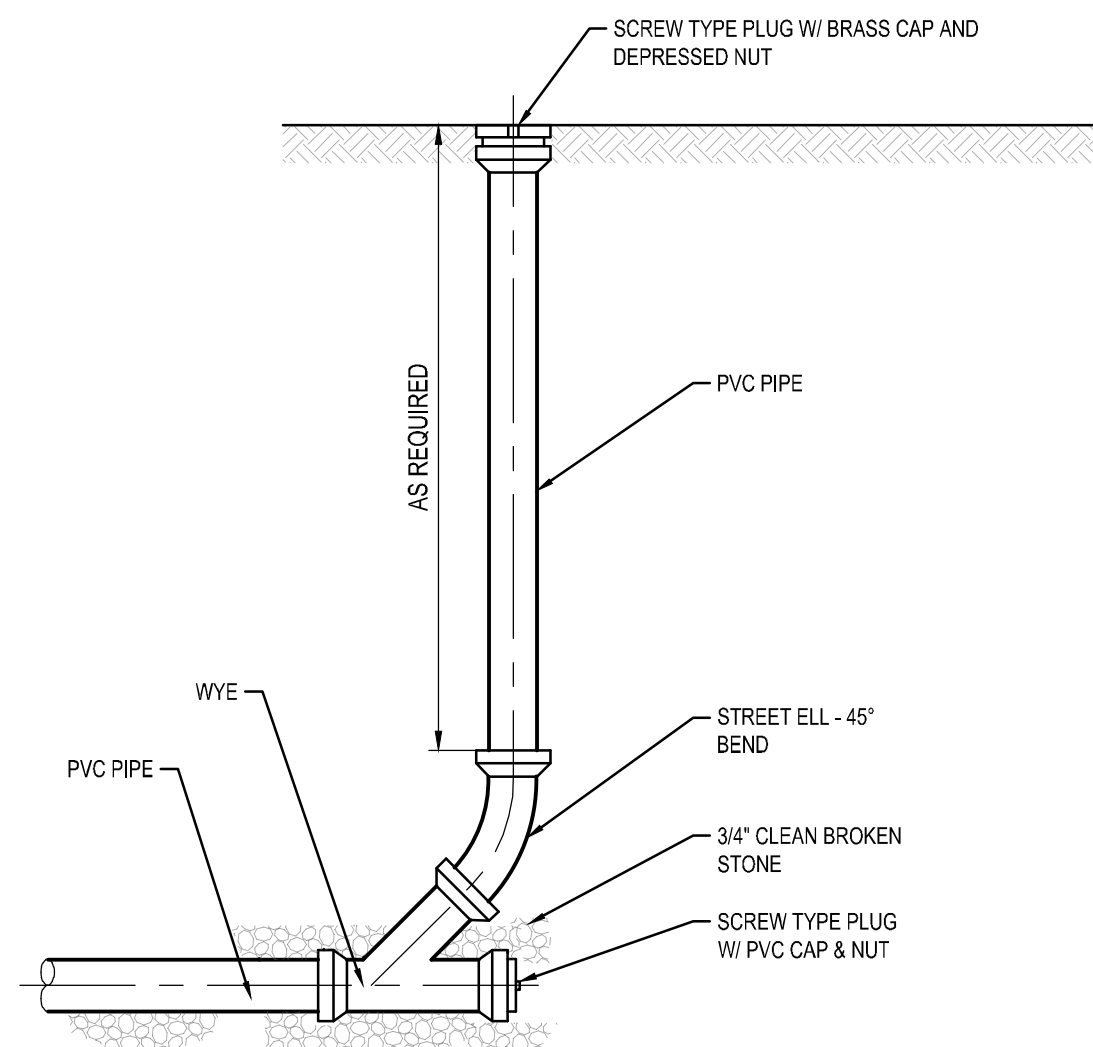
**SOIL EROSION & SEDIMENT CONTROL DETAILS
TRACY LOOP RESTROOM SEPTIC SYSTEM
WATCHUNG RESERVATION
BOROUGH OF MOUNTAINVIEW
UNION COUNTY
NEW JERSEY**

DRAWN BY: E.M.J. CHECKED BY: D.J. PROJECT NO. SHEET NO.:
DESIGNED BY: E.M.J. SCALE: N.T.S. UNIOCTY15.011 5.00
FIELD BOOK NO. PAGE: DATE: DECEMBER 7, 2016



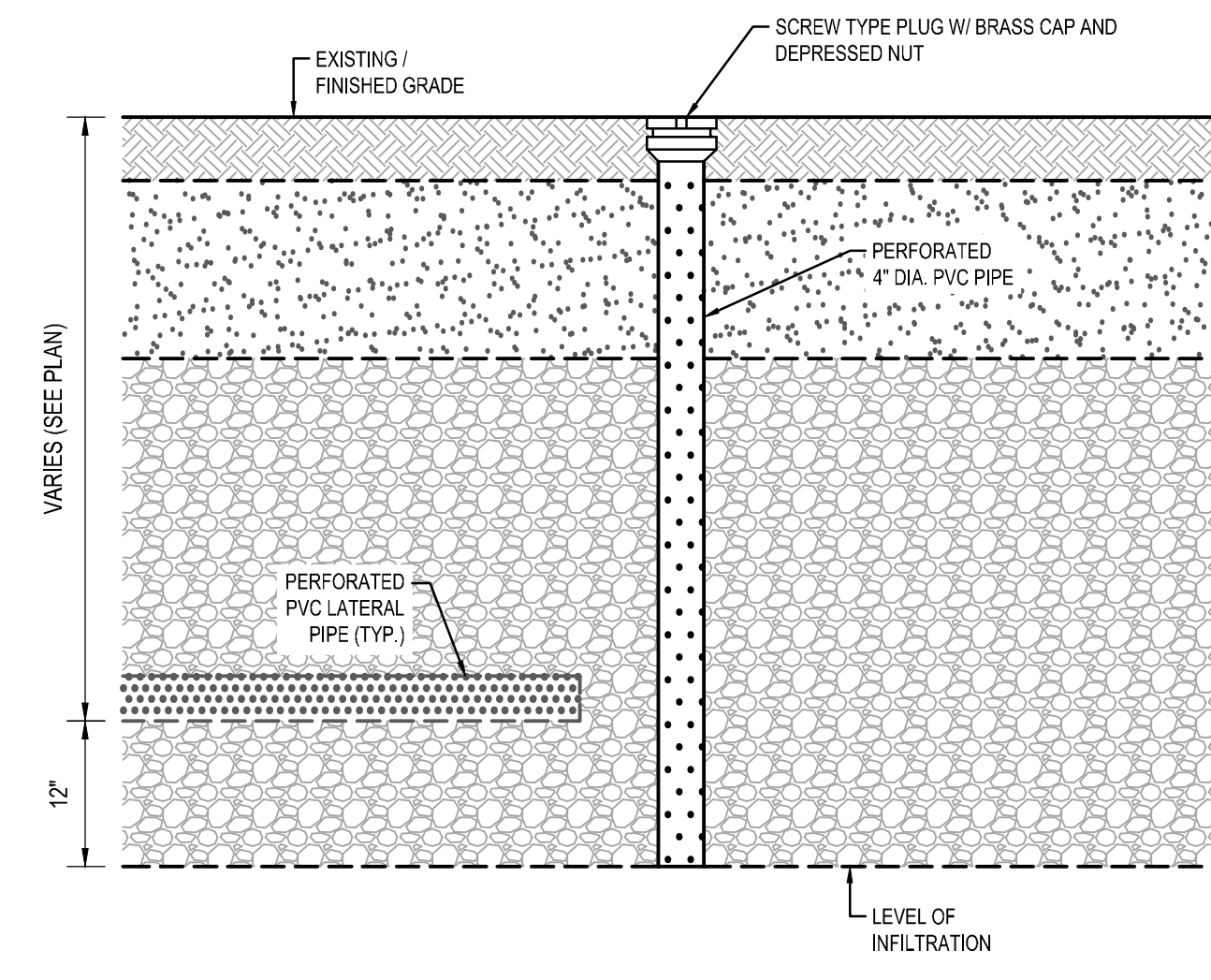
**SEPTIC DISTRIBUTION BOX
(MODIFIED TYPE 'A' INLET)**

NOT TO SCALE



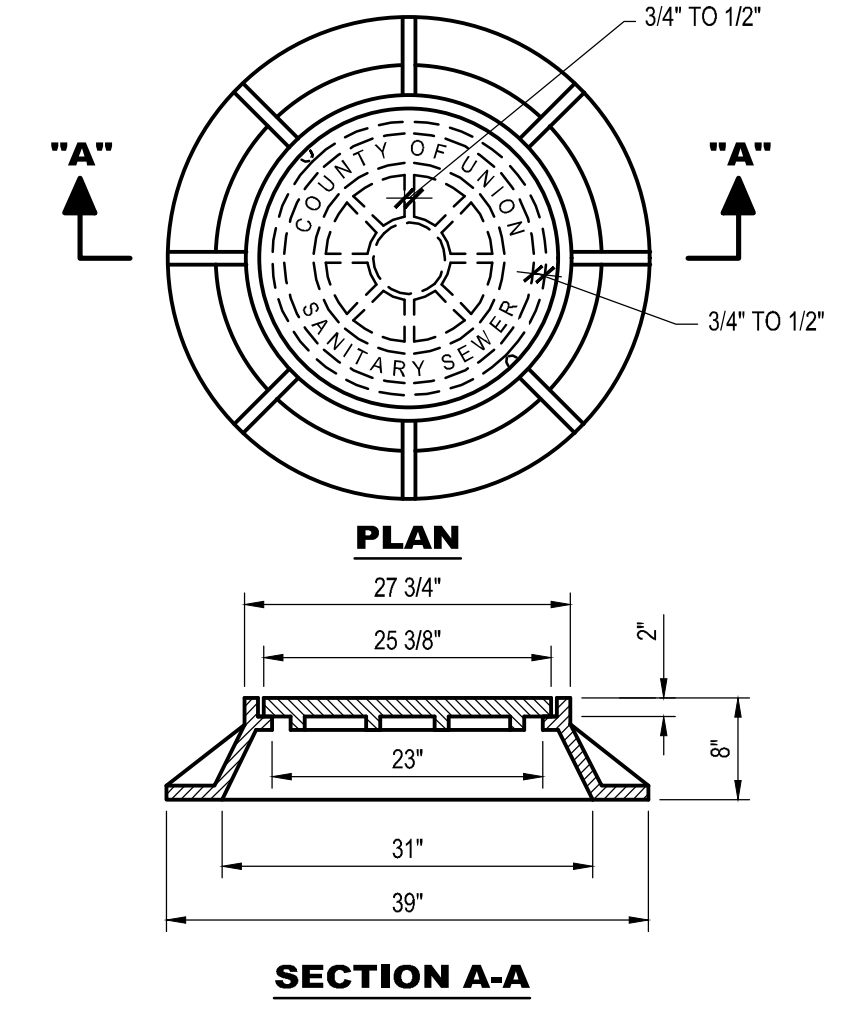
SANITARY CLEAN OUT

NOT TO SCALE



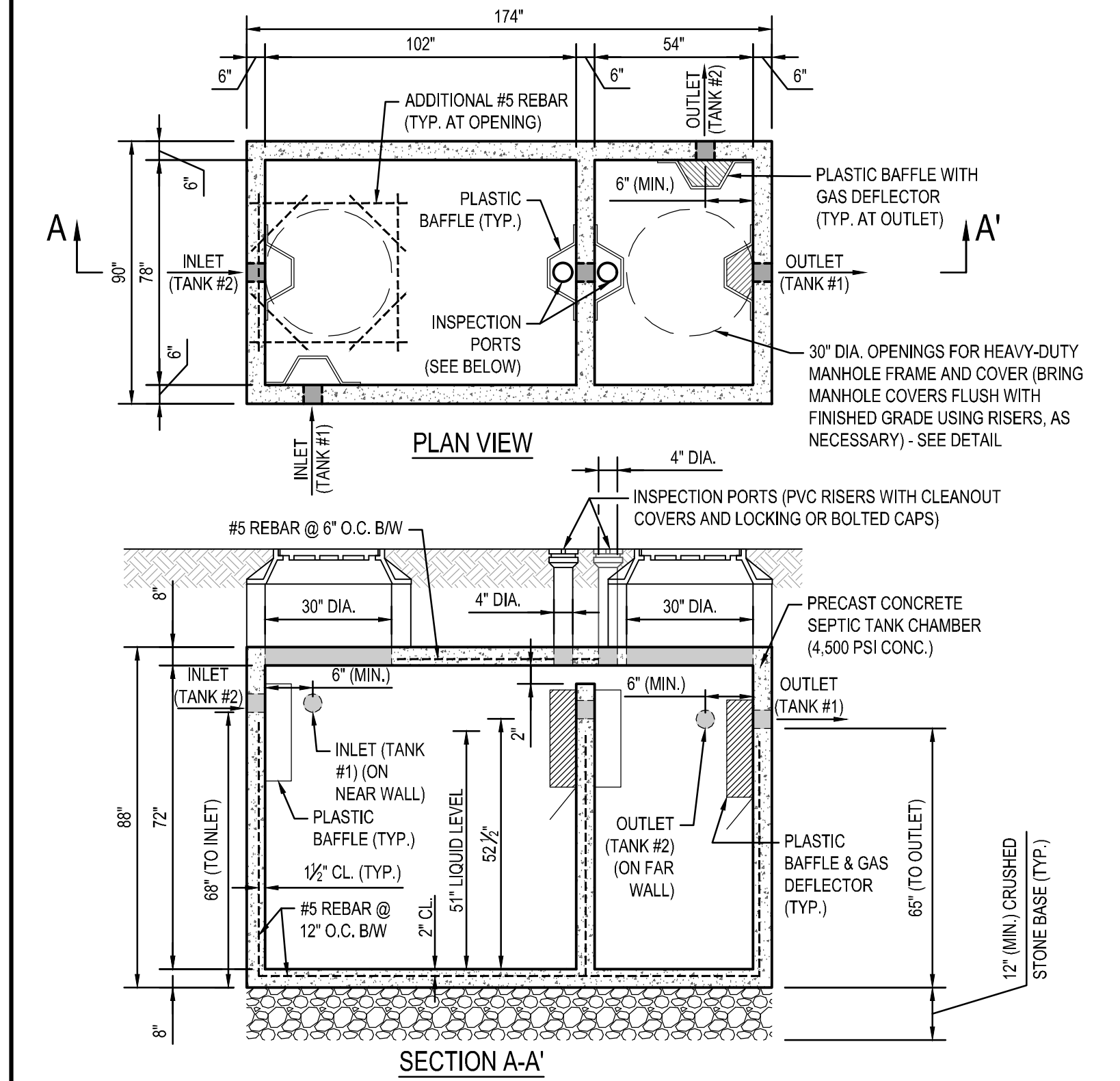
SEPTIC FIELD INSPECTION PORT

NOT TO SCALE



MANHOLE FRAME & COVER

NOT TO SCALE



- NOTES:**
- THE BASIS OF DESIGN SHOWN ABOVE IS THE 3,000-GALLON, HEAVY-DUTY, RECTANGULAR SEPTIC TANK (2 COMPARTMENT), AS MANUFACTURED BY PEERLESS CONCRETE PRODUCTS CO., OR APPROVED EQUIVALENT.
 - SEPTIC TANKS SHALL BE CONSTRUCTED AND INSTALLED IN FULL COMPLIANCE OF N.J.A.C. 7.9A (STANDARDS FOR INDIVIDUAL SUBSURFACE SEWAGE DISPOSAL SYSTEMS), SECTION 8.J (SEPTIC TANKS).
 - PRECAST CONCRETE SEPTIC TANKS SHALL HAVE A MINIMUM CAPACITY OF 3,000 GALLONS EACH.
 - PRECAST CONCRETE SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4,500 PSI.
 - REINFORCING STEEL (REBAR) SHALL BE GRADE 60 STEEL.
 - SEPTIC TANK, AND ASSOCIATED APPURTENANCES, SHALL BE DESIGNED AND CONSTRUCTED TO ACCOMMODATE HS-20 LOADING.
 - SEPTIC TANKS SHALL BE SEALED WITH TWO (2) COATS OF AN APPROPRIATE, INERT COATING TO MINIMIZE CORROSION.
 - SEPTIC TANKS SHALL BE CONSTRUCTED TO BE WATER-TIGHT AND CONSTRUCTED OF SOUND AND DURABLE MATERIALS WHICH ARE RESISTANT TO CORROSION, DECAY, FROST DAMAGE OR TO CRACKING OR BUCKLING DUE TO SETTLEMENT OR BACKFILLING. ALL JOINTS BELOW THE LIQUID LEVEL OF THE TANK, OR BELOW THE SEASONALLY HIGH WATER TABLE SHALL BE PROVIDED WITH A PERMANENT WATER-TIGHT SEAL.
 - HEAVY-DUTY MANHOLE COVERS AND FRAMES SHALL BE FURNISHED AND INSTALLED. RISER SECTIONS SHALL BE USED TO BRING MANHOLE COVERS FLUSH WITH FINISHED GRADE.
 - INLETS AND OUTLETS SHALL BE EQUIPPED WITH PLASTIC BAFFLES. OUTLETS SHALL ALSO BE EQUIPPED WITH GAS DEFLECTORS THAT COMPLY WITH N.J.A.C. 7.9A-8.2.J.
 - ALL TANKS, INCLUDING RISERS AND INSPECTION PORTS TO THE HIGHEST JOINT, SHALL BE TESTED FOR WATERTIGHTNESS AFTER INSTALLATION, USING HYDROSTATIC OR VACUUM TESTING IN ACCORDANCE WITH N.J.A.C. 7.9A-8.2.M.
 - RISER SECTIONS, AS WELL AS BRICK AND MORTAR SHALL BE USED TO ADJUST MANHOLE OPENINGS TO FINISHED GRADE.

3,000-GALLON, 2-COMPARTMENT SEPTIC TANK

NOT TO SCALE

DUST CONTROL NOTES

DEFINITION
THE CONTROL OF DUST ON CONSTRUCTION SITES AND ROADS.

PURPOSE
TO PREVENT BLOWING AND MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES, REDUCE ON- AND OFF-SITE DAMAGE AND HEALTH HAZARDS, AND IMPROVE TRAFFIC SAFETY.

WHERE APPLICABLE
THIS PRACTICE IS APPLICABLE TO AREAS SUBJECT TO DUST BLOWING AND MOVEMENT WHERE ON- AND OFF-SITE DAMAGE IS LIKELY WITHOUT TREATMENT. CONSULT WITH LOCAL MUNICIPAL ORDINANCES ON ANY RESTRICTIONS.

WATER QUALITY ENHANCEMENT
SEDIMENTS DEPOSITED AS "DUST" ARE OFTEN FINE COLLOIDAL MATERIAL WHICH IS EXTREMELY DIFFICULT TO REMOVE FROM WATER ONCE IT BECOMES SUSPENDED. USE OF THIS STANDARD WILL HELP TO CONTROL THE GENERATION OF DUST FROM CONSTRUCTION SITES AND SUBSEQUENT BLOWING AND DEPOSITION INTO LOCAL SURFACE WATER RESOURCES.

PLANNING CRITERIA
THE FOLLOWING METHODS SHOULD BE CONSIDERED FOR CONTROLLING DUST:
MULCHES - SEE STANDARDS FOR STABILIZATION WITH MULCHES ONLY (p. 5-1).
VEGETATIVE COVER - SEE STANDARDS FOR TEMPORARY VEGETATIVE COVER (p. 7-1), PERMANENT VEGETATIVE COVER (p. 4-1), AND PERMANENT STABILIZATION WITH SOD (p. 6-1).
SPRAY-ON ADHESIVES - ON MINERAL SOILS (NOT EFFECTIVE ON MUCK SOILS). KEEP TRAFFIC OFF THESE AREAS.

DUST CONTROL MATERIALS

| | WATER DILUTION | TYPE OF NOZZLE | APPLY GALLOWACRE |
|-----------------------------------|----------------|---|------------------|
| 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 | | 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, p. 26-1 | |
| POLYACRYLAMIDE (PAM) - DRY SPREAD | | | |
| ACIDULATED SOY BEAN SOAP STICK | NONE | COARSE SPRAY | 1,200 |

TILLAGE - TO ROUGHEN SURFACE AND BRING CLODS 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.

SEEDING SPECIFICATIONS

A. SELECT A MIXTURE FROM TABLE 4-3 (PG. 4-7) OR USE MIXTURE RECOMMENDED BY RUTGERS COOPERATIVE EXTENSION OR NATURAL RESOURCES CONSERVATION SERVICE WHICH IS APPROVED BY THE SOIL CONSERVATION DISTRICT. SEED GERMINATION SHALL HAVE BEEN TESTED WITHIN 12 MONTHS OF THE PLANTING DATE. NO SEED SHALL BE ACCEPTED WITH A GERMINATION TEST DATE MORE THAN 12 MONTHS OLD UNLESS RETESTED.

1. SEEDING RATES SPECIFIED ARE REQUIRED WHEN A REPORT OF COMPLIANCE IS REQUESTED PRIOR TO ACTUAL ESTABLISHMENT OF PERMANENT VEGETATION. UP TO 50% REDUCTION IN RATES MAY BE USED WHEN PERMANENT VEGETATION IS ESTABLISHED PRIOR TO A REPORT OF COMPLIANCE INSPECTION. THESE RATES APPLY TO ALL METHODS OF SEEDING. ESTABLISHING PERMANENT VEGETATION MEANS 80% VEGETATIVE COVERAGE WITH THE SPECIFIED SEED MIXTURE FOR THE SEEDED AREA AND MOWED ONCE.

2. WARM SEASON MIXTURES ARE GRASSES AND LEGUMES WHICH MAXIMIZE GROWTH AT HIGH TEMPERATURES, GENERALLY 85°F AND ABOVE. SEE TABLE 4-3 (PG. 4-7), MIXTURES 1 TO 7. PLANTING RATES FOR WARM SEASON GRASSES SHALL BE THE AMOUNT OF PURE LIVE SEED (PLS) AS DETERMINED BY GERMINATION TESTING RESULTS.

3. COOL SEASON MIXTURES ARE GRASSES AND LEGUMES WHICH MAXIMIZE GROWTH AT TEMPERATURES BELOW 85°F. MANY GRASSES BECOME ACTIVE AT 65°F. SEE TABLE 3, MIXTURES 8-20. ADJUSTMENT OF PLANTING RATES TO COMPENSATE FOR THE AMOUNT OF PURE LIVE SEED IS NOT REQUIRED FOR COOL SEASON GRASSES.

B. CONVENTIONAL SEEDING IS PERFORMED BY APPLYING SEED UNIFORMLY BY HAND, CYCLONE (CENTRIFUGAL) SEEDER, DROP SEEDER, DRILL OR CULTIPACKER SEEDER EXCEPT FOR DRILLED, HYDROSEEDED OR CULTRIPACKED SEEDINGS. SEED SHALL BE INCORPORATED INTO THE SOIL WITHIN 24 HOURS OF SEEDING PREPARATION TO A DEPTH OF 1/4 TO 1/2 INCH BY RAKING OR DRAGGING. DEPTH OF SEED PLACEMENT MAY BE 1/4 INCH DEEPER ON COARSE TEXTURED SOIL.

C. HYDROSEEDING IS A BROADCAST SEEDING METHOD USUALLY INVOLVING A TRUCK OR TRAILER MOUNTED TANK, WITH AN AGITATION SYSTEM AND HYDRAULIC PUMP FOR MIXING SEED, WATER AND FERTILIZER AND SPRAYING THE MIX ONTO THE PREPARED SEEDBED. MULCH SHALL NOT BE INCLUDED IN THE TANK WITH SEED. SHORT FIBERED MULCH MAY BE APPLIED WITH A HYDROSEEDER FOLLOWING SEEDING. (ALSO SEE SECTION IV MULCHING BELOW) HYDROSEEDING IS NOT A PREFERRED SEEDING METHOD BECAUSE SEED AND FERTILIZER ARE APPLIED TO THE SURFACE AND NOT INCORPORATED INTO THE SOIL. POOR SOIL CONTACT OCCURS REDUCING SEED GERMINATION AND GROWTH. HYDROSEEDING MAY BE USED FOR AREAS TOO STEEP FOR CONVENTIONAL EQUIPMENT TO TRAVERSE OR TOO OBSTRUCTED WITH ROCKS, STUMPS, ETC.

D. AFTER SEEDING, FIRING THE SOIL WITH A CORRUGATED ROLLER WILL ASSURE GOOD SEED-TO-SOIL CONTACT, RESTORE CAPILLARITY, AND IMPROVE SEEDLING EMERGENCE. THIS IS THE PREFERRED METHOD. WHEN PERFORMED ON THE CONTOUR, SHEET EROSION WILL BE MINIMIZED AND WATER CONSERVATION ON SITE WILL BE MAXIMIZED.

E. TEMPORARY SEEDING: TEMPORARY VEGETATIVE COVER SHALL CONSIST OF PERENNIAL RYEGRASS APPLIED UNIFORMLY AT A RATE OF 1.0 POUND PER 1,000 SQ. FT. (40 lbs./Ac.) IN ACCORDANCE WITH TABLE 7-2, PAGE 7-3. LIMESTONE PULVERIZED DOLOMITIC EQUIVALENT TO 5% PERCENT CALCIUM PLUS MAGNESIUM OXIDES SHALL BE APPLIED AT THE RATE OF 45 LBS./1,000 SQ. FT. (1 TON/ACRE) IN ACCORDANCE WITH TABLE 7-1, PAGE 7-2. FERTILIZER (10-20-10 OR EQUIVALENT) AT THE RATE OF 11 lbs./1,000 SQ. FT. (500 lbs./Ac.) OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN, IN ACCORDANCE WITH PARAGRAPH 2A, PAGE 7-1.

F. MULCHING IS REQUIRED ON ALL SEEDING SHALL BE ACCOMPLISHED AS FOLLOWS:

1. MULCH MATERIALS SHOULD BE UNROTTED SALT HAY, HAY, OR SMALL GRAIN STRAW AT A RATE OF 1.5 TO 2.0 TONS PER ACRE, OR 70 TO 90 POUNDS PER 1,000 SQUARE FEET. MULCH BLOWERS SHOULD NOT GRIND OR CHOP THE MATERIAL.

2. SPREAD UNIFORMLY BY HAND OR MECHANICALLY SO THAT APPROXIMATELY 85% OF THE SOIL SURFACE WILL BE COVERED. FOR UNIFORM DISTRIBUTION OF HAND-SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1,000-SQUARE-FOOT SECTIONS AND DISTRIBUTE 70 TO 90 LBS. WITHIN EACH SECTION.

3. MULCH ANCHORING SHALL BE ACCOMPLISHED USING EITHER PEG AND TWINE, MULCH NETTING, MULCH-ANCHORING COULTER TOOL OR LIQUID MULCH BINDERS, PER THE ACCOMPANYING "STABILIZATION WITH MULCH ONLY" SPECIFICATION. *OPTIMUM SEEDING DATES: 03/01 - 05/15 AND 08/15 - 10/15

G. PERMANENT SEEDING

1. TOPSOIL TO BE PLACED TO A DEPTH OF 4 INCHES ON EXPOSED SOILS UPON COMPLETION OF FINAL GRADING.

2. SEED IS TO BE UNIFORMLY APPLIED TO THE NORMAL DEPTH OF 1/4-INCH TO 1/2-INCH (EXCEPT HYDROSEEDING), ZONE 6b SEED MIXTURE 17, AS SHOWN ON PAGE 4-12 IN THE SOIL EROSION STANDARDS. THE SEEDING RATE SHALL BE:

| SEED MIXTURE | PLANTING RATE | |
|--------------------|---------------|------------------|
| | LBS PER ACRE | LBS PER 1,000 SF |
| HARD FESCUE | 120 | 2.7 |
| CREeping FESCUE | 30 | 0.7 |
| PERENNIAL RYEGRASS | 10 | 0.25 |

*OPTIMAL SEEDING DATES: 3/1 - 4/30 AND 8/15 - 10/15

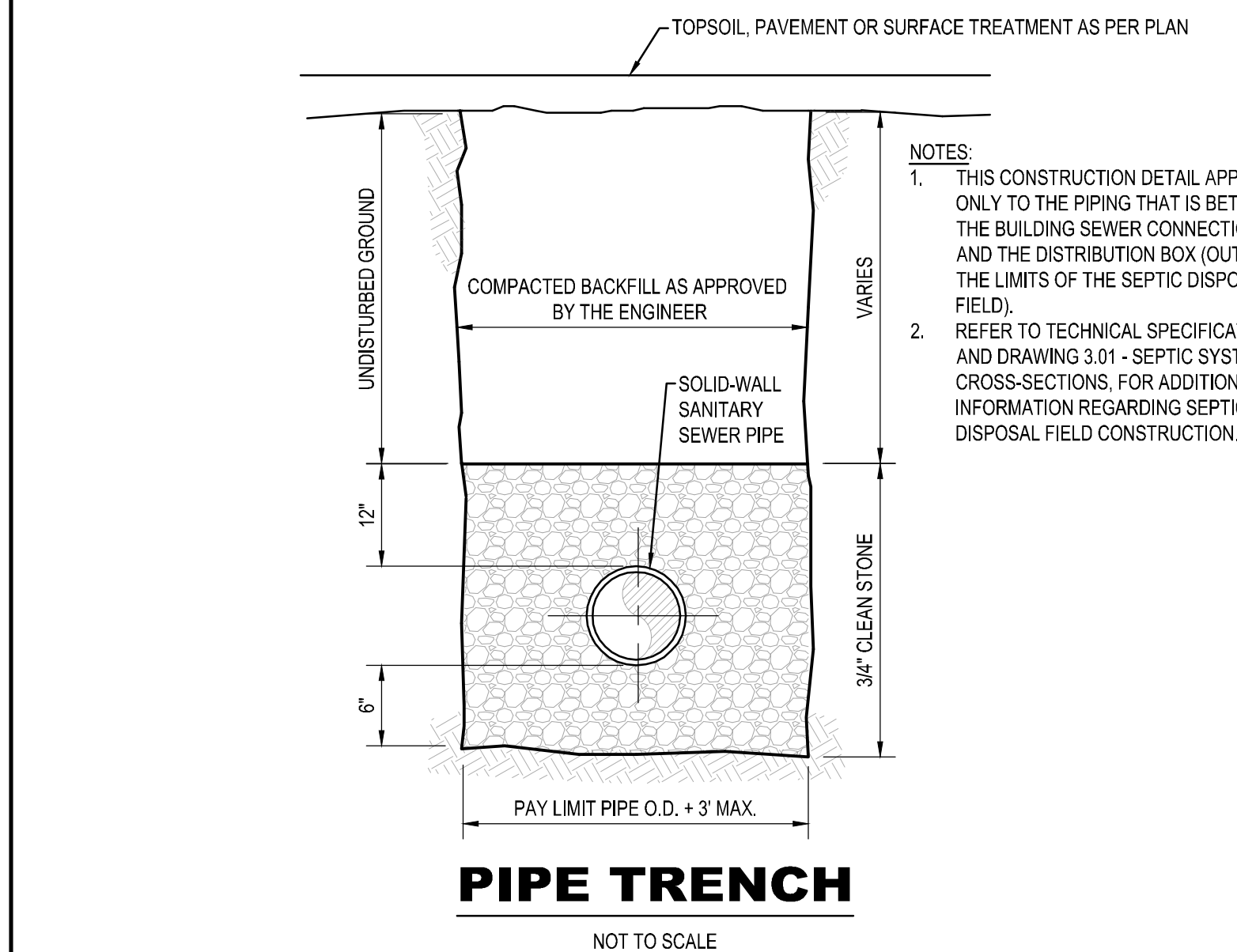
H. SOIL PREPARATION

1. SUITABLE EQUIPMENT WILL BE USED TO PREPARE A REASONABLE, UNIFORM, FINE SEED BED TO A MINIMUM DEPTH OF 4 INCHES.

2. APPLY GROUND LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS. FERTILIZER SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET USING 10-20-10 OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE. LIME SHALL BE PULVERIZED DOLOMITIC LIMESTONE. CALCIUM CARBONATE IS THE EQUIVALENT AND STANDARD FOR MEASURING THE ABILITY OF LIMING MATERIALS TO NEUTRALIZE SOIL ACIDITY AND SUPPLY CALCIUM AND MAGNESIUM TO GRASSES AND LEGUMES. THE FOLLOWING TABLE IS A GENERAL GUIDELINE FOR LIMESTONE APPLICATION RATES:

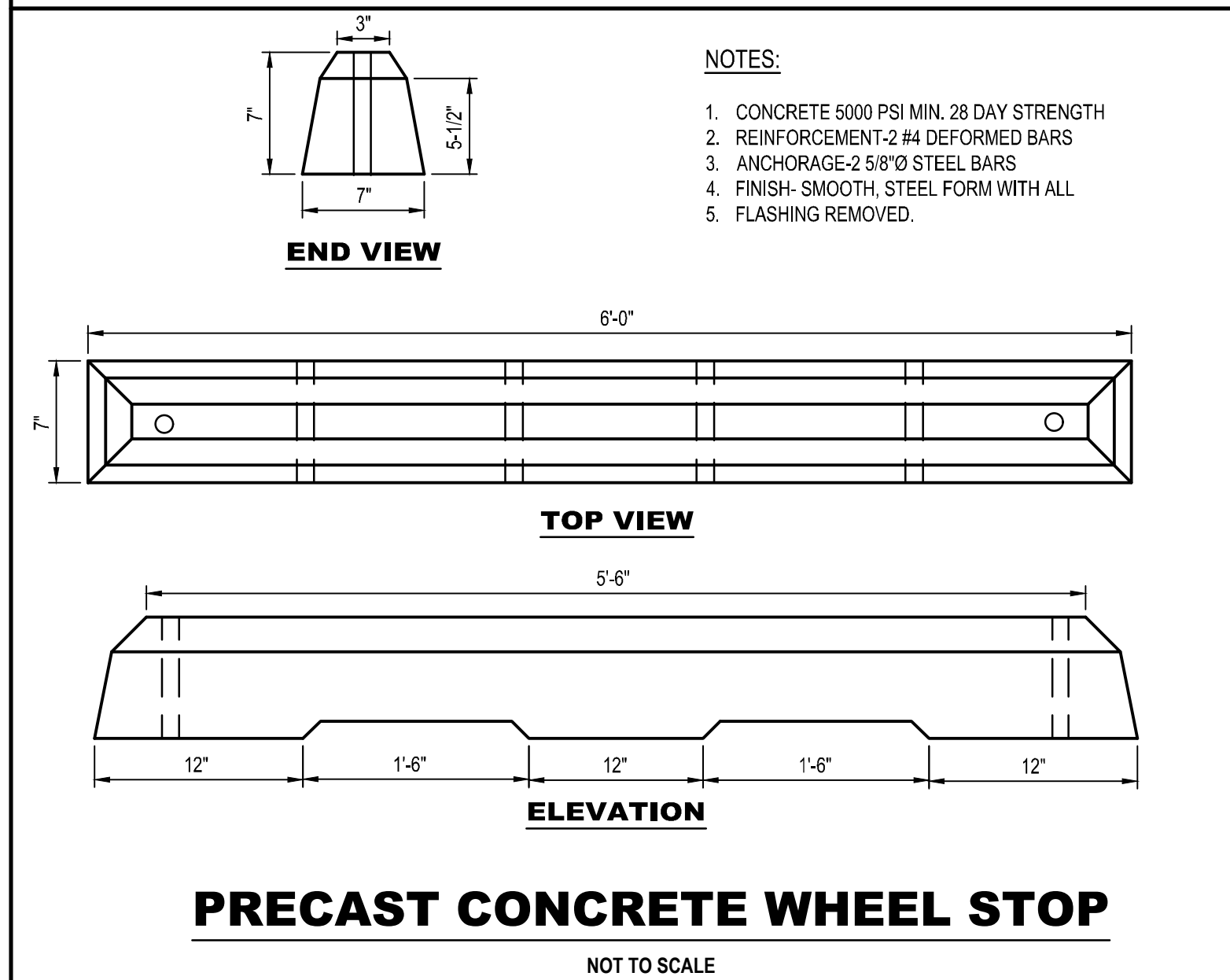
| SOIL TEXTURE | TONS PER ACRE | | LBS PER 1,000 SQ. FT. | |
|---------------------------------------|---------------|-------|-----------------------|-------|
| | CLAY | SANDY | CLAY | SANDY |
| CLAY, CLAY LOAM & HIGHLY ORGANIC SOIL | 3 | 2 | 135 | 90 |
| SANDY LOAM, LOAM, SILT LOAM | 2 | 1 | 90 | 45 |
| LOAMY SAND, SAND | 1 | 1 | 45 | 45 |

3. WORK LIME AND FERTILIZER INTO THE TOPSOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRINGTOOTH HARROW, OR OTHER SUITABLE EQUIPMENT.



PIPE TRENCH

NOT TO SCALE



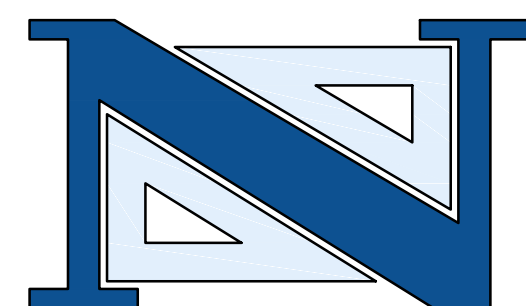
PRECAST CONCRETE WHEEL STOP

NOT TO SCALE

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CONSTRUCTION DETAILS
TRACY LOOP RESTROOM SEPTIC SYSTEM
WATCHUNG RESERVATION
BOROUGH OF MOUNTAINSIDE
UNION COUNTY
NEW JERSEY

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