

SPECIFICATIONS

FOR

**REBID: REPLACEMENT OF MADISON HILL ROAD BRIDGE RA28
TOWNSHIP OF CLARK, CITY OF RAHWAY**

COUNTY OF UNION, NEW JERSEY

BA#52-2015; UNION COUNTY ENGINEERING PROJECT #2012-016

JUNE 2015

**UNION COUNTY OFFICIALS
BOARD OF CHOSEN FREEHOLDERS**

Mohamed S. Jalloh, Chairman
Bruce H. Bergen, Vice Chairman
Linda Carter, Freeholder
Angel G. Estrada, Freeholder
Sergio Granados, Freeholder
Christopher Hudak, Freeholder
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COUNTY MANAGER

Alfred J. Faella

DEPUTY COUNTY MANAGER

Director of Economic Development
William Reyes, Jr.,

DEPARTMENT OF ENGINEERING, PUBLIC WORKS AND FACILITIES MANAGEMENT

Joseph A. Graziano, Sr., CPWM, Director

**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:

**T&M Associates
11 Tindall Road**

Middletown, New Jersey 07748

T: 1-732-671-6400

F: 1-732-671-7365

**COUNTY OF UNION
NOTICE TO BIDDERS**

Sealed bids will be received by the director of the Division of Purchasing, or his designee, at the County of Union, New Jersey on July 23, 2015 at 2:30 p.m., prevailing time, in the 3rd Floor Conference Room, U.C. Administration Building, 10 Elizabethtown Plaza, Elizabeth, New Jersey for:

**REBID: REPLACEMENT OF MADISON HILL ROAD BRIDGE RA-28
TOWNSHIP OF CLARK, CITY OF RAHWAY
COUNTY OF UNION, NEW JERSEY
BA#52-2015; UNION COUNTY ENGINEERING PROJECT #2012-016**

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

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

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

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

MICHAEL M. YUSKA – DIRECTOR OF PURCHASING

**UNION COUNTY BOARD
OF CHOSEN FREEHOLDERS**

We're Connected to You!

NB-1

REBID: REPLACEMENT OF MADISON HILL ROAD BRIDGE RA-28
TOWNSHIP OF CLARK, CITY OF RAHWAY
COUNTY OF UNION, NEW JERSEY

BA# 52-2015; Union County Engineering Project No. 2012-016

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Consent of Surety
Bidder Signature Page
Bidder Disclosure Statement
Subcontractor Identification Statement: List of Subcontractors
Subcontractor Identification Certification
Acknowledgement of Addendum
Contractor Business Registration Certificate
Affirmative Action Requirement
Experience Statement
Certificate of Bidder Showing Ability to Perform Contract
Non-Collusion Affidavit
Contractor Registration Advertisement
Americans with Disabilities Act
Statement of Bidder's Qualifications
Contractor Performance Record
Affidavit Regarding List of Disbarred, Suspended or Disqualified Bidders
Prior Negative Experience Questionnaire-Certification
Contractor's Certification of Compliance - New Jersey Prevailing Wage Act
Uncompleted Contracts Affidavit
Certificate of Insurance Statement
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NEW JERSEY PREVAILING WAGE DETERMINATION DOCUMENTS

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STANDARD FORM OF AGREEMENT BETWEEN OWNER AND CONTRACTOR AIA DOCUMENT A-101/2007

(Draft form until contract is awarded)

GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION AIA DOCUMENT A-201/2007

(Draft form until contract is awarded)

PROJECT TECHNICAL SPECIFICATIONS

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

DEFINITIONS

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

OWNER/COUNTY:

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

ADDRESS BIDS AND SUBMIT TO:

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

TITLE OF PROJECT: **REBID: Replacement of Madison Hill Road Bridge RA-28
Township of Clark, City of Rahway
County of Union, New Jersey
BA#52-2015; UC Engineering Project #2012-016**

BIDDER: Bidder shall be a single overall contract bidder

ARCHITECT/ENGINEER: **T&M Associates
11 Tindall Road
Middletown, New Jersey**

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

GENERAL SPECIFICATIONS

1. BID FORM

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

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

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

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

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

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

The bidding sheet for this Project may include a fixed amount as a Bid Allowance. If applicable, all bidders are required to add this fixed amount to their base bid and to include this additional amount in their Bid Bond. This sum will be included in the Contract as well as the performance, labor and materials bond. Payment by the County will be made to the Contractor from these funds only upon the completion of extra Work pursuant to a written Change Order(s) signed by the County's Engineer or his designee and the Contractor, prior to the commencement of such Work. Work commenced prior to written approval by the County shall be done at Contractor's risk. Such payment will only be in the amount agreed to by the parties, in writing in the Change Order(s). See Section 38, 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. 1148-98 adopted by

the Board of Chosen Freeholders on September 24, 1998. The resolution is furnished in Section 50 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 statues 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. SUBLETTING 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 38. The Contractor will do no supplemental work on any character, for which the Contractor will demand pay, except upon the written order of the County.

39. FORM OF CONTRACT

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

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

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

40. PROGRESS PAYMENTS

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

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

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

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

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

For contracts less than \$100,000.00, monthly payments will be on the Work to the extent of 90% of the value of the Work done. In lieu of the retainage, the Contractor

will, at his option, deposit with the County Counsel negotiable bearer bonds of the State of New Jersey or any political subdivision thereof, equal to the amount otherwise withheld as retainage.

When the Project is completed, the final cost of the Project will be based on actual quantities of authorized Work done under each item scheduled in the bidding sheet and approved Change Orders, if any. The money due to the Contractor as determined by said final certificate after deduction of previous monthly payments on account, will be paid to the Contractor in accordance with the terms of the contract dealing with Prompt Payment, providing, however that before such final payment is made, all outstanding claims against the Contractor must be satisfied. Before final payment is released, the Contractor must furnish: **a)** Maintenance Bond (see Section 16 of these general specifications); **b)** Certification of Compliance, New Jersey Prevailing Wage Act (see Sections 22 & 51); and **c)** General Release (see Section 37) in a form satisfactory to County Counsel; **d)** complete set of as-built plans in the latest AutoCad on compact disc; and **e)** a complete set of in-progress photos in jpg, jpeg, or bmp digital format on a compact disc.

41. INSPECTION

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

42. DAMAGES

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

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

43. LIQUIDATED DAMAGES

If the Project is not completed within the time specified herein or within such further time as may have been granted by the County Engineer, then the Contractor hereby agrees to pay to the County as liquidated damages, but not as a penalty, \$1,000.00 per day for each and every calendar day that he is in default on time to

complete the Work. The said sum will be deducted from moneys due the Contractor and if the damages exceed this amount, then the Contractor or his Surety Company will pay the excess. These damages may be waived at the option of the County.

44. AFFIRMATIVE ACTION REQUIREMENTS

EXHIBIT B (Revised 4/10)

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

CONSTRUCTION CONTRACTS

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

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

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

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

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

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

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

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

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

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

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

(4) To leave standing requests for additional referral to minority and women workers with the

local construction trade union, provided the contractor or subcontractor has a referral agreement or arrangement with a union for the construction trade, the State Training and Employment Service and other approved referral sources in the area;

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

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

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

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

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

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

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

(C) The contractor or subcontractor agrees that nothing contained in (B) above shall preclude the contractor or subcontractor from complying with the union hiring hall or apprenticeship policies in any applicable collective bargaining agreement or union hiring hall arrangement, and, where required by custom or agreement, it shall send journeymen and trainees to the union for referral, or to the apprenticeship program for admission, pursuant to such agreement or arrangement. However, where the practices of a union or apprenticeship program will result in the exclusion of minorities and women or the failure to refer minorities and women consistent with the targeted county employment goal, the contractor or subcontractor

shall consider for employment persons referred pursuant to (B) above without regard to such agreement or arrangement; provided further, however, that the contractor or subcontractor shall not be required to employ women and minority advanced trainees and trainees in numbers which result in the employment of advanced trainees and trainees as a percentage of the total workforce for the construction trade, which percentage significantly exceeds the apprentice to journey worker ratio specified in the applicable collective bargaining agreement, or in the absence of a collective bargaining agreement, exceeds the ratio established by practice in the area for said construction trade. Also, the contractor or subcontractor agrees that, in implementing the procedures of (B) above, it shall, where applicable, employ minority and women workers residing within the geographical jurisdiction of the union.

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

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

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

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45. INVESTMENT ACTIVITIES IN IRAN

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

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

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

47. UTILITIES

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

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

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

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

48. MATERIAL COMPLIANCE AND SHOP DRAWINGS

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

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

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

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

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

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

49. PRECONSTRUCTION

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

50. DISPUTES UNDER THE CONTRACT

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

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

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

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**51. RESOLUTION NO. 1148-98 ADOPTED ON
SEPTEMBER 24, 1998 BY THE BOARD OF CHOSEN
FREEHOLDERS**

In addition to compliance with the New Jersey Prevailing Wage Act, the Contractor shall comply with the requirement as set forth in Resolution No. 1148-98 adopted on September 24, 1998 by the Union County Board of Chosen Freeholders.

UNION COUNTY BOARD OF CHOSEN FREEHOLDERS RESOLUTION NO. 1148-98

DATED: 9/24/98

WHEREAS, the Public Contract Law of New Jersey that all contractors and subcontractors pay to the workforce on such projects the prevailing wage rates; and

WHEREAS, it has come to the attention of the Board of Chosen Freeholders that workmen have not at all times received such wages; and

WHEREAS, while the Board of Chosen Freeholders is aware that the State of New Jersey is the actual enforcing arm for such requirements, the Board desires to itself on behalf of such workers put in place a procedure which will further protect the rights of the workers to the payment of accurate and fair wages:

NOW, THEREFORE, BE IT RESOLVED, by the Board of Chosen Freeholders of the County of Union; hereby declares that henceforth, as a matter of POLICY;

- (1) The bidder and all contractors and subcontractors on any project for the County of Union must comply with the Prevailing Wage Law of the State of New Jersey, N.J.S.A. 34:11-56.25 et seq., and its regulations, N.J.A.C. 12:60-1 et seq.
- (2) As per N.J.S.A. 34:11-56.29 the County shall have the right to inspect the books and records of every contractor and subcontractor showing the name, craft or trade, and actual hourly rate of wages paid to each worker employed by the contractor in connection with a public work. Further, the County shall have the right to demand such proof as necessary to verify said records.
- (3) All contractors shall post the prevailing wage rates for each craft and classification involved in prominent and easily accessible places at the site of the work.
- (4) All public works specifications and contracts shall include a clause that requires all contractors and subcontractors to submit properly executed Worker Notification Acknowledgment forms to the County. These forms will be supplied by the County to all approved contractors and subcontractors; a copy of such form is attached as Appendix A. These forms will provide proof that all workers have been made aware of their rights to receive the prevailing wage for the particular craft or trade for which they are employed.
- (5) This resolution shall apply to any projects bid after the passage of this Resolution and shall not apply to any project already under construction or for which bid specifications have been issued.

EMPLOYEE NOTIFICATION ACKNOWLEDGMENT FORM*

Pursuant to N.J.S.A 34:11-56.25 *et seq.* as well as N.J.A.C. 12:60 *et seq.*, the Contractor,

_____, has informed me that I will be employed as a
(Name of Contractor)

_____, on the public project designated as,
_____.
(Employee's Job Title) (Project Name)

I further acknowledge that my compensation for this job will be _____, plus (+)
the Fringe Benefits (\$ per hour)
_____ for a Total Prevailing Wage of _____. This total is pursuant to the
(\$per hour) (\$ per hour)
Prevailing Wage for Construction Trades in Union County.

DATE: _____

(Print Name)

(Sign Name)

Employer Certification

I hereby certify as to the accuracy of the above information.

DATE: _____

(Name of Company Officer)

(Signature of Company Officer)

*This acknowledgment form is a public record that will be kept to determine compliance with N.J.S.A. 34:11-56.25 *et seq.* Falsification of a public record is a crime. Union County reserves the right to prosecute violators of the Prevailing Wage Act to the fullest extent possible, including, but not limited to, fraud upon a public agency, theft of services, theft of deception, and misrepresentation of public records.

White Copy = Labor Compliance Officer
Pink = Employee

Yellow = Contractor

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

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

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

Proof of business registration shall be

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

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

Note: A NJ Certificate of Authority is not acceptable.

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

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

IN ADDITION:

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

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

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

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

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53. BID PROTEST – LEGAL FEES AND COSTS

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

54. AMERICAN GOODS AND PRODUCTS WHERE POSSIBLE

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

55. NEW JERSEY PAY-TO-PLAY REQUIREMENTS

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

56. STATEMENT OF EQUIPMENT TO BE USED IN CONSTRUCTION

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

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

57. NEW JERSEY SALES AND USE TAX REQUIREMENTS,

Contractors are required to comply with the following:

New Jersey Sales and Use Tax Requirements: All contractors with subcontractors, or any of their affiliates, who enter into contracts for the provision of goods or services with or for New Jersey local government entities, are required to collect and remit to the New Jersey Director of Taxation in the Department of the Treasury the use tax due on all of their sales of tangible personal property delivered into the State of New Jersey pursuant to the "Sales and Use Tax Act," (NJSA 54:32B-1 et, seq.), regardless of whether the tangible personal property is intended for a

contract with the contracting agency. This tax shall be remitted for the term of the Contract.

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

ALFRED J. FAELLA
COUNTY MANAGER

MICHAEL M. YUSKA, DIRECTOR
DIVISION OF PURCHASING

BID DOCUMENT SUBMISSION CHECKLIST

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

EACH BIDDER SHOULD COMPLETE THIS FORM AND INITIAL EACH ENTRY.

DATE COMPLETED: _____

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

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

_____ Security in the form of:

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

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

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

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

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

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

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

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

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

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

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

- _____ Affirmative Action Requirement
- _____ Experience Statement
- _____ Certificate of Bidder showing ability to perform Contract
- _____ Non-Collusion Affidavit – Fill out completely and notarize
- _____ Certificates from New Jersey Department of Labor – Public Works Contractor Registration Act. **(Only for certain types of work)**
- _____ Federal Attachments **(If applicable)**
- _____ 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
- _____ Certificate of Insurance Statement
- _____ Collection of Use Tax on Sales to Local Government Statement
- _____ Time of Completion
- _____ Disclosure of Investment Activities in Iran form

I HAVE TAKEN THE FOLLOWING ACTIONS:

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

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

BIDDING DOCUMENTS

The Bidding Documents consist of the following items:

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

Bidder's Name _____

BID FORM

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

**REBID: REPLACEMENT OF MADISON HILL ROAD BRIDGE RA-28
TOWNSHIP OF CLARK, CITY OF RAHWAY
COUNTY OF UNION, NEW JERSEY**

BA No. 52-2015; Union County Engineering Project No.2012-016

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

BASE BID ITEMS:

ITEM	DESCRIPTION	UNITS	CONTRACT QUANTITY	UNIT PRICE	AMOUNT
1	MOBILIZATION	LS	1		
2	FIELD OFFICE, TYPE 'A'	UN	1		
3	SILT FENCE	LF	900		
4	INLET FILTER, TYPE 1	SF	44		
5	FLOATING TURBIDITY BARRIER, TYPE 2	LF	200		
6	BREAKAWAY BARRICADE	UN	23		
7	DRUMS	UN	18		
8	CONSTRUCTION SIGNS	SF	175		
9	CONSTRUCTION BARRIER CURB	LF	400		
10	TEMPORARY CRASH CUSHION, INERTIAL BARRIER SYSTEM, 10 MODULES	UN	3		
11	TEMPORARY TRAFFIC STRIPES	LF	3,200		
12	TEMPORARY INLET CASTING, TYPE 'E'	UN	8		
13	TEMPORARY PEDESTRIAN BRIDGE	LS	1		
14	POLICE TRAFFIC DIRECTORS	ALLW.	1	\$125,000.00	\$125,000.00
15	FUEL PRICE ADJUSTMENT	ALLW.	1	\$5,000.00	\$5,000.00
16	ASPHALT PRICE ADJUSTMENT	ALLW.	1	\$10,000.00	\$10,000.00
17	CLEARING SITE	LS	1		
18	EXCAVATION, UNCLASSIFIED	CY	590		
19	DENSE GRADED AGGREGATE BASE COURSE, 4" THICK	SY	510		
20	HOT MIX ASPHALT MILLING, 3" OR LESS	SY	1,750		
21	HOT MIX ASPHALT 19M64 BASE COURSE	TON	300		
22	HOT MIX ASPHALT 9.5M64 SURFACE COURSE	TON	270		
23	I-14 SOIL AGGREGATE	CY	870		
24	18" REINFORCED CONCRETE PIPE	LF	140		
25	24" REINFORCED CONCRETE PIPE	LF	35		
26	24" STEEL CASING	LF	44		
27	30" STEEL CASING	LF	34		
28	INLET, TYPE 'B' SPECIAL	UN	1		
29	INLET TYPE 'B'	UN	3		

30	GABION MATTRESS, 12" THICK	CY	50		
31	CONCRETE SIDEWALK, 4" THICK	SY	80		
32	CONCRETE SIDEWALK, REINFORCED, 6" THICK	SY	14		
33	CONCRETE DRIVEWAY, REINFORCED, 6" THICK	SY	13		
34	10" X 20" CONCRETE VERTICAL CURB	LF	1,080		
35	NONVEGETATIVE SURFACE, HOT MIX ASPHALT	SY	100		
36	BEAM GUIDE RAIL	LF	175		
37	TANGENT GUIDE RAIL TERMINALS	UN	4		
38	TRAFFIC STRIPES, LONG LIFE, THERMOPLASTIC, 4" WIDE	LF	1,300		
39	TOPSOILING, 4" THICK	SY	910		
40	SEEDING AND FERTILIZING, TYPE A-3	SY	910		
41	STRAW MULCHING	SY	910		
42	CLEARING SITE, BRIDGE (NO RA-28)	LS	1		
43	COARSE AGGREGATE LAYER	CY	135		
44	I-9 SOIL AGGREGATE	CY	45		
45	BRIDGE CHAIN-LINK FENCE, 4' HIGH	LF	81		
46	PERMANENT SHEETING	SF	6,860		
47	STEEL SHEET PILE WALL	SF	3,400		
48	STEEL H-PILE, FURNISHED, HP 12X53	LF	1,604		
49	STEEL H-PILE, INSTALLED, HP 12X53	LF	1,574		
50	PRESTRESSED CONCRETE BOX BEAM, (TYPE B21-36), 36X21	LF	1,036		
51	CONCRETE BRIDGE DECK	CY	90		
52	CONCRETE BRIDGE SIDEWALK	CY	21		
53	CONCRETE BRIDGE PARAPET	LF	140		
54	CONCRETE FOOTING	CY	100		
55	CONCRETE ABUTMENT WALL	CY	23		
56	CONCRETE WING WALL	CY	7		
57	CONCRETE BRIDGE RELIEF SLAB, HPC	CY	168		
58	REINFORCEMENT STEEL, GALVANIZED	LBS	29,500		
59	EPOXY WATERPROOFING	SY	65		
60	STEEL PLATE (IF AND WHERE DIRECTED) 1"X4'X8'	UN	2		
61	8" CORRUGATED STEEL UNDERDRAIN PIPE	LF	140		
62	BRIDGE PLAQUE	UN	2		

TOTAL BASE BID ITEMS:

Written

Figures

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

One Hundred Thousand Dollars

\$100,000.00

Written

Figures

TOTAL BASE BID ITEMS PLUS BID CONTINGENCY:

Written

Figures

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

Bidder's Name _____

CONSENT OF SURETY
TO ACCOMPANY PROPOSAL (BID)

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

NOTE:
Expiration date
Needed if Annual
Surety

NAME OF INSURANCE COMPANY
ADDRESS: _____

ORIGINAL SIGNATURE
ATTORNEY-IN-FACT FOR INSURANCE CO.

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

BIDDER SIGNATURE PAGE

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

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

NAME OF BIDDER

ADDRESS OF BIDDER

**ORIGINAL SIGNATURE
CORPORATE SECRETARY**

**PRINT NAME AND TITLE
CORPORATE SECRETARY**

TEL: _____
FAX: _____
E-Mail: _____

BY: _____
ORIGINAL SIGNATURE

Corporate Seal

PRINT OR TYPE NAME AND TITLE

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

Bidder's Name _____

BIDDER DISCLOSURE STATEMENT

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

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

CHECK ONE

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

OR

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

LEGAL NAME OF BIDDER: _____

Check the box that represents the type of business organization:

Partnership

Corporation

Sole Proprietorship

Limited Partnership

Limited Liability Company

Limited Liability Partnership

Subchapter S Corporation

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

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

BUSINESS ADDRESS:

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

Telephone #

Fax #

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

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

BIDDER DISCLOSURE STATEMENT – (Continued)

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

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

II. Principals:

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

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

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

Bidder's Name _____

SUBCONTRACTOR IDENTIFICATION STATEMENT

LIST OF SUBCONTRACTORS

This form is ONLY required for plumbing and gas fitting, steam and hot water heating and ventilating apparatus, steam power plants, electrical work, structural steel, ornamental iron work, and any other trades required to be identified by the specifications.

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

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

Company Name: _____

Address: _____

Telephone: _____ Subcontract Amount: \$ _____

Specific Scope of Work Subcontracted: _____

License No. _____

Company Name: _____

Address: _____

Telephone: _____ Subcontract Amount: \$ _____

Specific Scope of Work Subcontracted: _____

License No. _____

Company Name: _____

Address: _____

Telephone: _____ Subcontract Amount: \$ _____

Specific Scope of Work Subcontracted: _____

License No. _____

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

(Continued on following page)

Bidder's Name _____

SUBCONTRACTOR IDENTIFICATION CERTIFICATION

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

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

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

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

Witness

Date _____

NAME OF BIDDER

ADDRESS

By: _____
ORIGINAL SIGNATURE ONLY

PRINT NAME AND TITLE

Bidder's Name: _____

ACKNOWLEDGMENT OF ADDENDUM

COUNTY OF UNION

(Name of Construction /Public Works Project)

(Project or Bid Number)

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

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

ACKNOWLEDGMENT BY BIDDER:

NAME OF BIDDER: _____

ORIGINAL SIGNATURE: _____

PRINTED NAME AND TITLE: _____

DATE: _____

CONTRACTOR BUSINESS REGISTRATION CERTIFICATE

New Mandatory Requirement - Effective 1/18/2010

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

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

Proof of business registration shall be

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

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

Note: A NJ Certificate of Authority is not acceptable.

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

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

IN ADDITION:

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

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

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

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

Bidder's Name _____

BUSINESS REGISTRATION
Mandatory Requirement

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

Proof of business registration shall be:

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

STATE OF NEW JERSEY
BUSINESS REGISTRATION CERTIFICATE
FOR STATE AGENCY AND CASINO SERVICE CONTRACTORS

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

TAXPAYER NAME: TAX REG TEST ACCOUNT
TRADE NAME: CLIENT REGISTRATION
TAX REGISTRATION TEST ACCOUNT
SEQUENCE NUMBER: 0107510
TAXPAYER IDENTIFICATION: 070-007-382/000
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.

Give name of project, owner's name and address, contact person, and phone number, type of work, when started and completed, and dollar amount of work.

Witness

Date

NAME OF BIDDER

ADDRESS

By: _____
ORIGINAL SIGNATURE ONLY

PRINT NAME AND TITLE

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

Contractor Registration Advisement
For Public Works Projects

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

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

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

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

Bidder's Name _____

AMERICANS WITH DISABILITIES ACT

EQUAL OPPORTUNITY FOR INDIVIDUALS WITH DISABILITIES

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

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

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

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

Name _____ (Please print or type)

Signature _____ Date _____

Bidder's Name _____

STATEMENT OF BIDDER'S QUALIFICATIONS

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

1. _____
(Name of Bidder)

2. _____
(Permanent Main Office Address)

3. _____
(When Organized)

4. _____
(If a Corporation, Where Incorporated)

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

6. Contracts on hand: (Show gross amount of each Contract and the appropriate dates of Completion)

7. General character of work performed by you. _____

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

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

Bidder's Name _____

STATEMENT OF BIDDER'S QUALIFICATIONS - (continued)

10. List your major equipment available for this Contract. (Attach separate sheet, if necessary)

11. Experience in the Construction work similar in importance to this Project.

12. 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.

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

14. Bank Reference. (Name, Address, Phone, Representative) _____

15. Will you, upon request, fill out a detailed financial statement and furnish any other information that may be required by the proper agency? _____

16. The undersigned, hereby authorized and requests any person, firm or corporation to furnish any information requested by the proper agency in verification of the recitals 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 _____

Bidder's Name _____

STATEMENT OF BIDDER'S QUALIFICATIONS - (continued)

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

How many years has your organization been in business as a Contractor under your present business name?

How many years' experience in construction work has your organization had (a) as a general contractor? _____ (b) As a subcontractor? _____

What is the construction experience of the principal individuals of your organization?

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

Have you ever failed to complete any work contracted to you?

If so, where and why? (Attach separate sheet if necessary)

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.

Bidder's Name _____

CONTRACTOR'S PERFORMANCE RECORD - (Continued)

List of all contracts completed by you.

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

Explain "Yes" answers under following item.

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

Bidder's Name _____

CONTRACTOR'S PERFORMANCE RECORD - (Continued)

Explanation of details in connection with non-completion of contracts, time extensions, penalties imposed, labor troubles experience, liens, claims and notices filed again contracts listed in preceding item "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__.

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

PRIOR NEGATIVE EXPERIENCE QUESTIONNAIRE

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

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

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

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

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

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

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

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

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

Bidder's Name _____

PRIOR NEGATIVE EXPERIENCE CERTIFICATION

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

Name of Contractor

By _____
(Signature of Authorized Representative)

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

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

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

Bidder's Name _____

TO BE COMPLETED ONLY WHEN FINAL PAYMENT IS REQUESTED

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

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

CONTRACT: _____

PROJECT: _____

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

COUNTY OF UNION

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

CONTRACTOR: _____
ADDRESS: _____

BY: _____
ORIGINAL SIGNATURE ONLY

STATE OF NEW JERSEY
COUNTY OF _____

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

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

Notary Public: _____
My Commission Expires: _____

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

Bidder's Name _____

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 **300 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:

s 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

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

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

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

Name _____ Relationship to Bidder/Offeror _____

Description of Activities _____

Duration of Engagement _____ Anticipated Cessation Date _____

DISCLOSURE OF INVESTMENT ACTIVITIES IN IRAN – (Continued)

Bidder/Offeror
Contact Name _____ Contact Phone Number _____

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

Full Name (Print) _____ Signature _____

Title _____ Date _____

STANDARD SPECIFICATIONS

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

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

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

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

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

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

DRAFT AIA Document A101™ - 2007

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

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

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

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

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

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

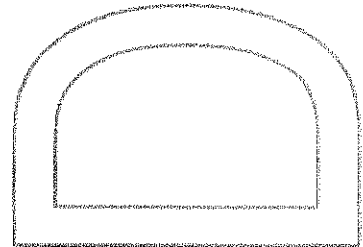
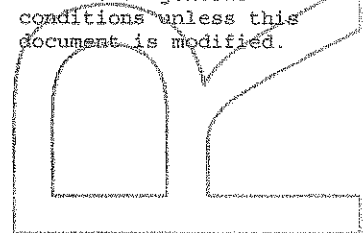
The Owner and Contractor agree as follows.



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

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

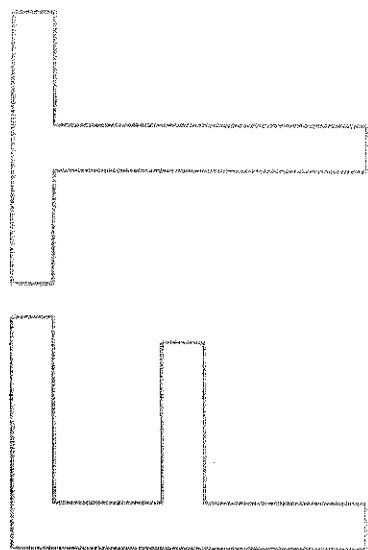
AIA Document A201™-2007, General Conditions of the Contract for Construction, is adopted in this document by reference. Do not use with other general conditions unless this document is modified.



ELECTRONIC COPYING of any portion of this AIA Document to another electronic file is prohibited and constitutes a violation of copyright laws as set forth in the footer of this document.

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- 7 TERMINATION OR SUSPENSION
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ARTICLE 1 THE CONTRACT DOCUMENTS

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

ARTICLE 2 THE WORK OF THIS CONTRACT

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

ARTICLE 3 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION

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

(())

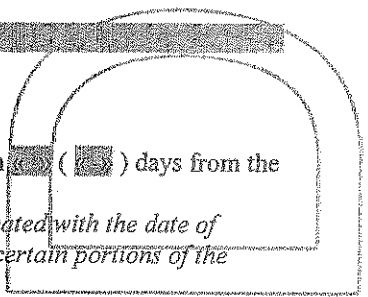
If, prior to the commencement of the Work, the Owner requires time to file mortgages and other security interests, the Owner's time requirement shall be as follows: Not applicable.

(())

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

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

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



Portion of Work

Substantial Completion Date

Entire Work

TBD

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

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

ARTICLE 4 CONTRACT SUM

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

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

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

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

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

Item	Price
« »	« »

ARTICLE 5 PAYMENTS

§ 5.1 PROGRESS PAYMENTS

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

§ 5.2 FINAL PAYMENT

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

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

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

« »

ARTICLE 6 DISPUTE RESOLUTION

§ 6.1 INITIAL DECISION MAKER

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

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

« »
« »
« »
« »

§ 6.2 BINDING DISPUTE RESOLUTION

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

ARTICLE 7 TERMINATION OR SUSPENSION

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

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

ARTICLE 8 MISCELLANEOUS PROVISIONS

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

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

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

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

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

§ 8.4 Indemnification – See Indemnification Requirements in Bid Documents.

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

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

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

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

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

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

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

ARTICLE 9 ENUMERATION OF CONTRACT DOCUMENTS

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

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

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

§ 9.1.3 The Supplementary and other Conditions of the Contract:

Document	Title	Date	Pages

§ 9.1.4 The Specifications:

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

« See Specifications as referenced by Exhibit B.

Section	Title	Date	Pages

§ 9.1.5 The Drawings:

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

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

Number	Title	Date

§ 9.1.6 The Addenda, if any:

Number	Date	Pages

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

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

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

■

- 2 Other documents, if any, listed below:

■

ARTICLE 10 INSURANCE AND BONDS

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

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

Type of insurance or bond

Limit of liability or bond amount (\$0.00)

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

OWNER (Signature)

<><><>

(Printed name and title)

CONTRACTOR (Signature)

<><><>

(Printed name and title)

DRAFT AIA Document A201™ - 2007

General Conditions of the Contract for Construction

for the following PROJECT:

(Name and location or address)

«County of Union»

« »

THE OWNER:

(Name, legal status and address)

« »

« »

THE ENGINEER, OR HIS DESIGNEE :

(Name, legal status and address)

« »

« »

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- 14 TERMINATION OR SUSPENSION OF THE CONTRACT
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ADDITIONS AND DELETIONS:

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

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

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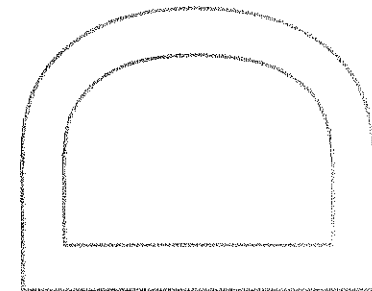
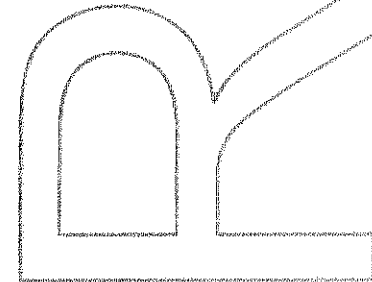
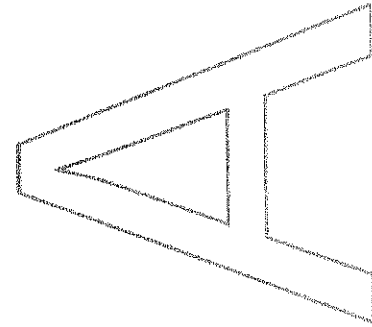
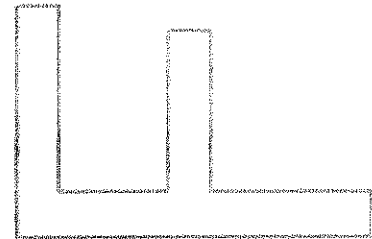
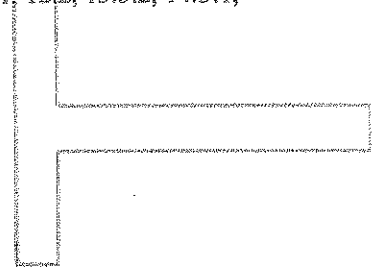
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ARTICLE 1 GENERAL PROVISIONS

§ 1.1 BASIC DEFINITIONS

§ 1.1.1 THE CONTRACT DOCUMENTS

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

§ 1.1.2 THE CONTRACT

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

§ 1.1.3 THE WORK

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

§ 1.1.4 THE PROJECT

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

§ 1.1.5 THE DRAWINGS

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

§ 1.1.6 THE SPECIFICATIONS

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

§ 1.1.7 INSTRUMENTS OF SERVICE

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

§ 1.1.8 INITIAL DECISION MAKER

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

§ 1.2 CORRELATION AND INTENT OF THE CONTRACT DOCUMENTS

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

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

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

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

§ 1.3 CAPITALIZATION

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

§ 1.4 INTERPRETATION

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

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

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

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

§ 1.6 TRANSMISSION OF DATA IN DIGITAL FORM

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

ARTICLE 2 OWNER

§ 2.1 GENERAL

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

§ 2.2 INFORMATION AND SERVICES REQUIRED OF THE OWNER

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

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

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

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

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

§ 2.3 OWNER'S RIGHT TO STOP THE WORK

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

§ 2.4 OWNER'S RIGHT TO CARRY OUT THE WORK

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

ARTICLE 3 CONTRACTOR

§ 3.1 GENERAL

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

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

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

§ 3.2 REVIEW OF CONTRACT DOCUMENTS AND FIELD CONDITIONS BY CONTRACTOR

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

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

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

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

§ 3.3 SUPERVISION AND CONSTRUCTION PROCEDURES

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

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

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

§ 3.4 LABOR AND MATERIALS

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

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

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

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

§ 3.5 WARRANTY

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

§ 3.6 TAXES

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

§ 3.7 PERMITS, FEES, NOTICES AND COMPLIANCE WITH LAWS

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

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

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

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

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

§ 3.8 ALLOWANCES

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

§ 3.8.2 Unless otherwise provided in the Contract Documents,

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

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

§ 3.9 SUPERINTENDENT

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

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

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

§ 3.10 CONTRACTOR'S CONSTRUCTION SCHEDULES

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

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

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

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

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

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

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

§ 3.11 DOCUMENTS AND SAMPLES AT THE SITE

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

§ 3.12 SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

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

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

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

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

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

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

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

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

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

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

§ 3.13 USE OF SITE

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

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

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

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

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

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

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

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

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

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

§ 3.14 CUTTING AND PATCHING

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

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

§ 3.15 CLEANING UP

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

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

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

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

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

§ 3.16 ACCESS TO WORK

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

§ 3.17 ROYALTIES, PATENTS AND COPYRIGHTS

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

§ 3.18 INDEMNIFICATION

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

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

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

ARTICLE 4 ENGINEER, OR HIS DESIGNEE OR ENGINEER

§ 4.1 GENERAL

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

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

§ 4.2 ADMINISTRATION OF THE CONTRACT

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

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

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

§ 4.2.4 COMMUNICATIONS FACILITATING CONTRACT ADMINISTRATION

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

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

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

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

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

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

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

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

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

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

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

ARTICLE 5 SUBCONTRACTORS

§ 5.1 DEFINITIONS

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

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

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

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

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

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

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

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

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

§ 5.3 SUBCONTRACTUAL RELATIONS

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

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

§ 5.4 CONTINGENT ASSIGNMENT OF SUBCONTRACTS

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

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

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

ARTICLE 6 CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS

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

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

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

§ 6.2 MUTUAL RESPONSIBILITY

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

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

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

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

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

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

§ 6.3 OWNER'S RIGHT TO CLEAN UP

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

ARTICLE 7 CHANGES IN THE WORK

§ 7.1 GENERAL

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

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

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

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

§ 7.2 CHANGE ORDERS

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

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

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

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

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

§ 7.3 CONSTRUCTION CHANGE DIRECTIVES

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

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

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

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

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

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

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

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

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

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

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

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

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

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

§ 7.4 MINOR CHANGES IN THE WORK

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

ARTICLE 8 TIME

§ 8.1 DEFINITIONS

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

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

§ 8.1.2 Intentionally omitted

§ 8.1.3 Intentionally omitted.

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

§ 8.2 PROGRESS AND COMPLETION

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

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

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

§ 8.3 DELAYS AND EXTENSIONS OF TIME

§ 8.3.1 Intentionally omitted

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

§ 8.3.3 Intentionally omitted

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

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

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

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

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

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

ARTICLE 9 PAYMENTS AND COMPLETION

§ 9.1 CONTRACT SUM

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

§ 9.2 SCHEDULE OF VALUES

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

§ 9.3 APPLICATIONS FOR PAYMENT

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

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

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

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

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

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

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

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

§ 9.4 CERTIFICATES FOR PAYMENT

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

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

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

§ 9.5 DECISIONS TO WITHHOLD CERTIFICATION

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

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

§ 9.6 PROGRESS PAYMENTS

§ 9.6.1 After the Engineer, or his designee has issued a Certificate for Payment, the Owner shall make payment in the manner and within the time provided in the Contract Documents, and shall so notify the Engineer, or his designee .

§ 9.6.2 The Contractor shall promptly pay each Subcontractor, upon receipt of payment from the Owner, out of the amount paid to the Contractor on account of such Subcontractor's portion of the Work, the amount to which the Subcontractor is entitled, reflecting percentages actually retained from payments to the Contractor on account of the Subcontractor's portion of the Work and shall certify same to Owner. The Contractor shall, by appropriate agreement with each Subcontractor, require each Subcontractor to make payments to Sub-subcontractors in a similar manner.

§ 9.6.3 The Engineer, or his designee will, on request, furnish to a Subcontractor, if practicable, information regarding percentages of completion or amounts applied for by the Contractor and action taken thereon by the Owner and Engineer, or his designee on account of portions of the Work done by such Subcontractor.

§ 9.6.4 Neither the Owner nor Engineer, or his designee shall have an obligation to pay or to see to the payment of money to a Subcontractor except as may otherwise be required by law.

§ 9.6.5 Payment to material and equipment suppliers shall be treated in a manner similar to that provided in Sections 9.6.2, 9.6.3 and 9.6.4.

§ 9.7 FAILURE OF PAYMENT

If the Engineer, or his designee does not issue a Certificate for Payment, through no fault of the Contractor, within seven days after receipt of the Contractor's Application for Payment, or if the Owner does not pay the Contractor within seven days after the date established in the Contract Documents the amount certified by the Engineer, or his designee or awarded by binding dispute resolution, then the Contractor may, upon seven additional days' written notice to the Owner and Engineer, or his designee , stop the Work until payment of the amount owing has been received. The Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's reasonable costs of shut-down, delay and start-up, plus interest as provided for in the Contract Documents.

§9.7 REIMBURSEMENT TO OWNER

§9.7.1 If the Owner is entitled to any reimbursement or payment from the Contractor under, or pursuant to, the Contract Documents, such payment shall be made promptly upon demand by the Owner. Notwithstanding anything contained in the Contract Documents to the contrary, if the Contractor fails to promptly make any payment due the Owner, or the Owner incurs any costs and expenses to cure any default of the Contractor or to correct defective Work, the Owner shall have an absolute right to offset such amount against the Contract Sum and may, in the Owner's sole discretion, elect either to: (1) deduct an amount equal to that which the Owner is entitled from any

payment then, or thereafter, due the Contractor from the Owner; or (2) issue a written notice to the Contractor reducing the Contract Sum by an amount equal to that which the Owner is entitled.

§ 9.8 SUBSTANTIAL COMPLETION

§ 9.8.1 Substantial Completion is the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work for its intended use; provided, however, that a condition precedent to Substantial Completion shall be the Owner's receipt of all certificates of occupancy (permanent or temporary) and any other permits, approvals, licenses, and other documents from any governmental authority having jurisdiction thereof necessary for the occupancy of the Project. The Owner may withhold a certification of Substantial Completion if temporary installations or temporary construction exists in areas requesting certification, or if certificates of occupancy are temporary or conditional.

§ 9.8.2 When the Contractor considers that the Work, or a portion thereof which the Owner agrees to accept separately, is substantially complete, the Engineer, or his designee shall prepare a comprehensive list of items to be completed or corrected ("Punch List"). The Contractor shall proceed immediately and correct items on the list. Failure to include an item on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents. Upon receipt of the list, the Engineer, or his designee, will make an inspection to determine whether the Work or designated portion thereof is substantially complete. If the Engineer, or his designee's inspection discloses any item, whether or not included on the list, which is not in accordance with the requirements of the Contract Documents, the Contractor shall, before issuance of the Certificate of Substantial Completion, complete or correct such item upon notification by the Engineer, or his designee. The Contractor shall then submit a request for another inspection by the Engineer, or his designee to determine Substantial Completion. When the Work or designated portion thereof is substantially complete, the Engineer, or his designee will prepare a Certificate of Substantial Completion which shall establish the date of Substantial Completion, shall establish responsibilities of the Contractor for security, maintenance, heat, utilities, damage to the Work and insurance, and shall fix the time within which the Contractor shall finish all items on the List accompanying the Certificate. Warranties required by the Contract Documents shall commence on the date of Substantial Completion of the Work or designated portion thereof unless otherwise provided in the Certificate of Substantial Completion. The Certificate of Substantial Completion shall be submitted to the Contractor for its written acceptance and to the Owner for its approval and acceptance as required by Section 9.8.1. No Certificate of Substantial Completion shall be deemed effective unless executed by both Owner and Contractor.

§ 9.9 PARTIAL OCCUPANCY OR USE

§ 9.9.1 The Owner may occupy or use any completed or partially completed portion of the Work at any stage when such portion is designated by separate agreement with the Contractor, who shall obtain all necessary modifications to its insurance coverage to permit such occupancy or use. In addition, Contractor shall obtain consent of those public authorities having jurisdiction over the Work. Such partial occupancy or use may commence whether or not the portion is substantially complete pursuant to the terms of that Agreement. When the Contractor considers a portion substantially complete, the Engineer, or his designee shall prepare a Punch List as provided under Section 9.8.2. Consent of the Contractor to partial occupancy or use shall not be unreasonably withheld.

§ 9.9.2 Immediately prior to such partial occupancy or use, the Owner, Contractor and Engineer, or his designee shall jointly inspect the area to be occupied or portion of the Work to be used in order to determine and record the condition of the Work.

§ 9.9.3 Unless otherwise agreed upon, partial occupancy or use of a portion or portions of the Work shall not constitute acceptance of Work not complying with the requirements of the Contract Documents.

§ 9.9.4 The occupancy of any portion of the Work shall not constitute acceptance of any Work, except as hereinafter stated, nor does it waive the Owner's right to Liquidated Damages. Final Acceptance of the Work shall be for the whole Work only and not part.

§ 9.9.5 Occupancy by the Owner shall not be deemed to constitute a waiver of existing claims on behalf of the Owner or Contractor against each other.

§ 9.10 FINAL COMPLETION AND FINAL PAYMENT

§ 9.10.1 Upon completion of the Work, the Contractor shall forward to the Engineer, or his designee a written notice that the Work is ready for final inspection and acceptance and shall also forward to the Engineer, or his designee a final Contractor's Application for Payment. The Engineer, or his designee will promptly make such inspection. When the Engineer, or his designee finds the Work acceptable under the Contract Documents and the Contract fully performed, the Engineer, or his designee will promptly issue a final Certificate for Payment stating that to the best of their knowledge, information and belief, and on the basis of their observations and inspections, the Work has been completed in accordance with terms and conditions of the Contract Documents and that the entire balance found to be due the Contractor and noted in the final Certificate is due and payable. The Engineer, or his designee's final Certificate for Payment will constitute a further representation that conditions listed in Section 9.10.2 as precedent to the Contractor's being entitled to final payment have been fulfilled.

§ 9.10.2 Neither final payment nor any remaining retained percentage shall become due until the Contractor complies with all requirements set forth in Section 6 of the Standard Form of Agreement between Owner and Contractor and the Contractor submits to the Engineer, or his designee (1) an affidavit that payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the Owner or the Owner's property might be responsible or encumbered (less amounts withheld by Owner) have been paid or otherwise satisfied, (2) a certificate evidencing that insurance required by the Contract Documents to remain in force after final payment is currently in effect and will not be canceled or allowed to expire until at least 30 days' prior written notice has been given to the Owner, (3) a written statement that the Contractor knows of no substantial reason that the insurance will not be renewable to cover the period required by the Contract Documents, (4) consent of surety, if any, to final payment and (5), if required by the Owner, other data establishing payment or satisfaction of obligations, such as receipts, releases and waivers of liens, claims, security interests or encumbrances arising out of the Contract, to the extent and in such form as may be designated by the Owner. If a Subcontractor refuses to furnish a release or waiver required by the Owner, the Contractor may furnish a bond satisfactory to the Owner to indemnify the Owner against such lien. If such lien remains unsatisfied after payments are made, the Contractor shall refund to the Owner all money that the Owner may be compelled to pay in discharging such lien, including all costs and reasonable attorneys' fees.

§ 9.10.3 Intentionally omitted

§ 9.10.4 Acceptance of final payment by the Contractor, a Subcontractor or material supplier shall constitute a waiver of claims by that payee

ARTICLE 10 PROTECTION OF PERSONS AND PROPERTY

§ 10.1 SAFETY PRECAUTIONS AND PROGRAMS

The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the performance of the Contract. The Contractor shall submit the Contractor's safety program to the Engineer, or his designee for review and coordination with the safety programs of other Contractors.

§ 10.2 SAFETY OF PERSONS AND PROPERTY

§ 10.2.1 The Contractor shall take reasonable precautions for safety of, and shall provide reasonable protection to prevent damage, injury or loss to

- .1 employees on the Work and other persons who may be affected thereby;
- .2 the Work and materials and equipment to be incorporated therein, whether in storage on or off the site, under care, custody or control of the Contractor or the Contractor's Subcontractors or Sub-subcontractors; and
- .3 other property at the site or adjacent thereto, such as trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction.
- .4 Construction or operations by the Owner or other Contractors.

§ 10.2.2 The Contractor shall comply with and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities bearing on safety of persons or property or their protection from damage, injury or loss.

§ 10.2.3 The Contractor shall erect and maintain, as required by existing conditions and performance of the Contract, reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards, promulgating safety regulations and notifying Owners and users of adjacent sites and utilities.

§ 10.2.4 When use or storage of explosives or other hazardous materials or equipment or unusual methods are necessary for execution of the Work, the Contractor shall exercise utmost care and carry on such activities under supervision of properly qualified personnel.

§ 10.2.5 The Contractor shall promptly remedy damage and loss (other than damage or loss insured under property insurance required by the Contract Documents) to property referred to in Sections 10.2.1.2, 10.2.1.3 and 10.2.1.4 caused in whole or in part by the Contractor, a Subcontractor, a Sub-subcontractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts they may be liable and for which the Contractor is responsible under Sections 10.2.1.2, 10.2.1.3 and 10.2.1.4, except damage or loss attributable to acts or omissions of the Owner or Engineer, or his designee or anyone directly or indirectly employed by either of them, or by anyone for whose acts either of them may be liable, and not attributable to the fault or negligence of the Contractor. The foregoing obligations of the Contractor are in addition to the Contractor's obligations under Section 3.18.

§ 10.2.6 The Contractor shall designate a responsible member of the Contractor's organization at the site whose duty shall be the prevention of accidents. This person shall be the Contractor's superintendent unless otherwise designated by the Contractor in writing to the Owner and Engineer, or his designee.

§ 10.2.7 The Contractor shall not permit any part of the construction or site to be loaded so as to cause damage or create an unsafe condition.

§ 10.2.8 INJURY OR DAMAGE TO PERSON OR PROPERTY

If either party suffers injury or damage to person or property because of an act or omission of the other party, or of others for whose acts such party is legally responsible, written notice of such injury or damage, whether or not insured, shall be given to the other party within a reasonable time not exceeding 21 days after discovery. The notice shall provide sufficient detail to enable the other party to investigate the matter.

§ 10.3 HAZARDOUS MATERIALS

§ 10.3.1 The Contractor is responsible for compliance with any requirements included in the Contract Documents regarding hazardous materials. If the Contractor encounters a hazardous material or substance not addressed in the Contract Documents and if reasonable precautions will be inadequate to prevent foreseeable bodily injury or death to persons resulting from a material or substance, including but not limited to asbestos or polychlorinated biphenyl (PCB), encountered on the site by the Contractor, the Contractor shall, upon recognizing the condition, immediately stop Work in the affected area and report the condition to the Owner and Engineer, or his designee in writing.

§ 10.3.2 Upon receipt of the Contractor's written notice, the Owner shall obtain the services of a licensed laboratory to verify the presence or absence of the material or substance reported by the Contractor and, in the event such material or substance is found to be present, to cause it to be rendered harmless. Unless otherwise required by the Contract Documents, the Owner shall furnish in writing to the Contractor and Engineer, or his designee the names and qualifications of persons or entities who are to perform tests verifying the presence or absence of such material or substance or who are to perform the task of removal or safe containment of such material or substance.

§ 10.3.3 Intentionally omitted

§ 10.3.4 The Owner shall not be responsible under this Section 10.3 for materials or substances the Contractor brings to the site unless such materials or substances are required by the Contract Documents. The Owner shall be responsible for materials or substances required by the Contract Documents, except to the extent of the Contractor's fault or negligence in the use and handling of such materials or substances.

§ 10.3.5 The Contractor shall indemnify the Owner for the cost and expense the Owner incurs (1) for remediation of a material or substance the Contractor brings to the site and negligently handles, or (2) where the Contractor fails to perform its obligations under Section 10.3.1, except to the extent that the cost and expense are due to the Owner's fault or negligence.

§ 10.3.6 Intentionally omitted

§ 10.4 EMERGENCIES

In an emergency affecting safety of persons or property, the Contractor shall act, at the Contractor's discretion, to prevent threatened damage, injury or loss. Additional compensation or extension of time claimed by the Contractor on account of an emergency shall be determined as provided in Article 15 and Article 7.

ARTICLE 11 INSURANCE AND BONDS

§ 11.1 CONTRACTOR'S LIABILITY INSURANCE

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

1. Automobile Liability Insurance in any amount of not less than \$1,000,000.00 combined single limits for Bodily Injury and Property Damage Liability. A certificate of such current insurance will be provided to the County and will reflect the provision of at least thirty (30) days notice to the County before any major cancellation or major change may be made the policy.

2. Workers Compensation Insurance insuring the obligations of the Contractor and all Subcontractors under the New Jersey Workers Compensation and Occupational Disability Laws as respects to Work performed under the Contract. Insurance will be extended to include any obligations under the United States Longshoremen's and Harbor Workers Act or any maritime act, when applicable.

3. General Liability Insurance will be provided on a Comprehensive General Liability form with a combined single limit of \$3,000,000.00 per occurrence for Bodily Injury Liability and Property Damage Liability and will include the interest of the County with respect to Work emanating from the Contract with the County. The insurance will include the following:

- a) Personal Injury Liability
- b) Blanket Contractual Liability applies to assumption of liability under any written Contract
- c) Coverage for A, X, C, U exposures, relating to excavation, blasting underground damage
- d) Broad Form Property Damage Liability
- e) Products and/or Completed Operations Liability

A Certificate of Insurance will be filed with the County prior to commencement of any Work. This certificate will contain a provision that insurance afforded under the policies will not be canceled without at least (30) days prior written notice being given to the County.

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§ 11.1.2 The insurance required by Section 11.1.1 shall remain in effect for the duration of the project, i.e., from beginning of construction until final payment and closeout.

§ 11.1.3 All insurance required by Section 11.1.1 shall be issued by insurance companies authorized to do business in the State of New Jersey and rated as "A" or better as determined by A.M. Best Company.

§ 11.1.4 The Contractor waives all rights against the Owner for damages caused by fire or other perils to the extent covered by insurance provided under this Article. Any deductibles, co-insurance, or contribution to the loss will be borne solely by the Contractor.

§ 11.1.5 A certificate of insurance evidencing the coverages required by Section 11.1.1 shall be submitted to the Owner's attorney for approval and transmittal to the Owner and Engineer, or his designee prior to the commencement of the Work. The certificate must be submitted on the ACORD form Certificate of Insurance. These certificates and the insurance policies required by this Section 11.1 shall contain a provision that coverages afforded under the policies will not be canceled or allowed to expire until at least thirty (30) days written notice has been given to the Owner. If requested by the Owner, the Contractor shall provide complete copies of any policies of insurance required by this Contract to be obtained by the Contractor and Subcontractor(s). Information concerning any reduction of coverage shall be furnished by the Contractor with reasonable promptness in accordance with the Contractor's information and belief.

§ 11.2 PROPERTY INSURANCE

§ 11.2.1 Unless otherwise provided, the Owner shall purchase and maintain, in a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located, property insurance in the amount of the initial Contract Sum as well as subsequent modifications thereto for the entire Work at the site on a replacement cost

basis without voluntary deductibles. Such property insurance shall be maintained, unless otherwise provided in the Contract Documents or otherwise agreed in writing by all persons and entities who are beneficiaries of such insurance, until final payment has been made as provided in Section 9.10 or until no person or entity other than the Owner has an insurance interest in the property required by this Section 11.2 to be covered, whichever is earlier. This insurance shall include the interest of the Owner, Contractor, Subcontractor(s), and Sub-Contractor(s) in the Work.

§ 11.2.1.1 Property insurance shall be on an "all-risk" policy form and shall be against the perils of fire and extended coverage and physical loss or damage including, without duplication of coverage, theft, vandalism, malicious mischief, collapse, falsework, temporary buildings and debris removal including demolition occasioned by enforcement of any applicable legal requirements, and shall cover reasonable compensation for Engineer, or his designee's services and expenses required as a result of such insured loss. Coverage for all other perils shall not be required unless otherwise provided in the Contract Documents.

§ 11.2.1.2 If the Owner does not intend to purchase such property insurance required by the Contract and with all of the coverages in the amount described above, the Owner shall so inform the Contractor in writing prior to commencement of the Work. The Contractor may then effect insurance which will protect the interests of the Contractor, Subcontractor(s) and Sub-subcontractor(s) in the Work. If the Contractor is damaged by the failure or neglect of the Owner to purchase or maintain insurance as described above, without so notifying the Contractor, then the Owner shall bear all reasonable costs properly attributable thereto.

§ 11.2.1.3 If the property insurance requires minimum deductibles, and such deductibles are identified in the Contract Documents, the Contractor shall pay costs not covered because of such deductibles. If the Owner or insurer increases the required minimum deductibles over the amounts so identified or if the Owner elects to purchase this insurance with voluntary deductible amounts, the Owner shall be responsible for payment of the additional costs not covered because of such increased or voluntary deductibles.

§ 11.2.1.4 Unless otherwise provided in the Contract documents, this property insurance shall cover portions of the Work stored off the site after written approval of the Owner at the value established in the approval, and also portions of the Work in transit.

§ 11.2.1.5 A loss insured under Owner's property insurance shall be adjusted by the Owner as fiduciary and made payable to the Owner as fiduciary for the insureds, as their interests may appear, subject to requirements of any applicable mortgage clause and of Section 11.3.10. The Contractor shall pay Subcontractor(s) their just shares of insurance proceeds received the Contractor, and by appropriate agreements, written where legally required for validity, shall require Subcontractor(s) to make payments to their Sub-Contractor(s) in a similar manner.

§ 11.2.2 BOILER AND MACHINERY INSURANCE

The Owner shall purchase and maintain boiler and machinery insurance required by the Contract Documents or by law, which shall specifically cover such insured objects during installation and until final acceptance by the Owner; this insurance shall include interests of the Owner, Contractor, Subcontractors and Sub-subcontractors in the Work, and the Owner and Contractor shall be named insureds. The Owner as fiduciary shall have the power to adjust and settle a loss with insurers.

§ 11.2.3 LOSS OF USE INSURANCE

The Owner, at the Owner's option, may purchase and maintain such insurance as will insure the Owner against loss of use of the Owner's property due to fire or other hazards, however caused.

§ 11.2.4 If the Contractor requests in writing that insurance for risks other than those described herein or other special causes of loss be included in the property insurance policy, the Owner shall, if possible, include such insurance, and the cost thereof shall be charged to the Contractor by appropriate Change Order.

§ 11.3 PERFORMANCE BOND, PAYMENT BOND AND MAINTENANCE BOND

§ 11.3.1 Contractor, at its sole expense, shall furnish bonds covering faithful performance of the contract and payment of obligations arising thereunder as stipulated in bidding requirements or specifically required in the Contract Documents on the date of execution of the Contract, including material and labor..

§ 11.3.2 Upon the request of any person or entity appearing to be a potential beneficiary of bonds covering payment of obligations arising under the Contract, the Contractor shall promptly furnish a copy of the bonds or shall authorize a copy to be made

§ 11.3.3 The Contractor shall file with the Owner, as a condition of final acceptance, a statement from the Surety of its Performance Bond and Payment Bond, that the Surety is satisfied that all claims for labor and material supplied under its contract have been satisfactorily settled.

§ 11.3.4 As a condition of Substantial Completion of the Work, the Contractor shall provide an acceptable Maintenance Bond in accordance with section 16, page G-9 of the Instructions to Bidders.

ARTICLE 12 UNCOVERING AND CORRECTION OF WORK

§ 12.1 UNCOVERING OF WORK

§ 12.1.1 If a portion of the Work uncovered is contrary to the Engineer, or his designee's request or to requirements specifically expressed in the Contract Documents, it must, if requested in writing by the Engineer, or his designee, be uncovered for the Engineer, or his designee's examination and be replaced at the Contractor's expense without change in the Contract Time or Contract Sum.

§ 12.1.2 If a portion of the Work has been covered that the Engineer, or his designee has not specifically requested to examine prior to its being covered, the Engineer, or his designee may request to see such Work and it shall be uncovered by the Contractor. If such Work is in accordance with the Contract Documents, costs of uncovering and replacement shall, by appropriate Change Order, be at the Owner's expense. If such Work is not in accordance with the Contract Documents, such costs and the cost of correction shall be at the Contractor's expense unless the condition was caused by the Owner or a separate Contractor in which event the Owner shall be responsible for payment of such costs.

§ 12.2 CORRECTION OF WORK

The Contractor shall promptly correct Work rejected by the Engineer, or his designee or failing to conform to the requirements of the Contract Documents, whether discovered before or after Substantial Completion and whether or not fabricated, installed or completed. Costs of correcting such rejected Work, including additional testing and inspections, the cost of uncovering and replacement, and compensation for the Engineer, or his designee's services and expenses made necessary thereby, shall be at the Contractor's expense.

§ 12.2.2.1 In addition to the Contractor's obligations under Section 3.5, if, within one year after the date of Substantial Completion of the Work or designated portion thereof or after the date for commencement of warranties established under Section 9.9.1, or by terms of an applicable special warranty required by the Contract Documents any of the Work is found to be not in accordance with the requirements of the Contract Documents, the Contractor shall correct it promptly after receipt of written notice from the Owner to do so unless the Owner has previously given the Contractor a written acceptance of such condition. The Owner shall give such notice promptly after discovery of the condition. The Contractor shall give such notice promptly after discovery of the non-conforming work. If the Contractor fails to correct nonconforming Work within a reasonable time during that period after the receipt of notice from the Owner or Engineer, or his designee, the Owner may correct it in accordance with Section 2.4. This obligation under Section 12.2.2 shall survive acceptance of the Work under the Contract and termination of the Contract.

§ 12.2.2.2 The one-year period for correction of Work shall be extended with respect to portions of Work first performed after Substantial Completion by the period of time between Substantial Completion and the actual completion of that portion of the Work.

§ 12.2.2.3 Intentionally omitted.

§ 12.2.3 The Contractor shall remove from the site portions of the Work that are not in accordance with the requirements of the Contract Documents and are neither corrected by the Contractor nor accepted by the Owner.

§ 12.2.4 The Contractor shall bear the cost of correcting destroyed or damaged work, whether completed or partially completed, of the Owner or separate contractors caused by the Contractor's correction or removal of Work that is not in accordance with the requirements of the Contract Documents.

§ 12.2.5 Nothing contained in this Section 12.2 shall be construed to establish a period of limitation with respect to other obligations the Contractor has under the Contract Documents. Establishment of the one-year period for correction of Work as described in Section 12.2.2 relates only to the specific obligation of the Contractor to correct the Work, and has no relationship to the time within which the obligation to comply with the Contract Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to the Contractor's obligations other than specifically to correct the Work, nor to any deficient Work discovered after the one-year period that could not have readily been discovered.

§ 12.3 ACCEPTANCE OF NONCONFORMING WORK

If the Owner prefers to accept Work, that is not in accordance with the requirements of the Contract Documents, the Owner may do so instead of requiring its removal and correction, in which case the Contract Sum will be reduced as appropriate and equitable. Such adjustment shall be effected whether or not final payment has been made. However, there shall be no implied or expressed acceptance of Work not in compliance with applicable law. The amount of said reduction will be within the exclusive determination of the Owner as its representative.

ARTICLE 13 MISCELLANEOUS PROVISIONS

§ 13.1 GOVERNING LAW

§ 13.1.1 The Contract shall be governed by the laws of the State of New Jersey.

§ 13.1.2 Nothing in the Contract Documents shall be construed to permit deviation from the governing law.

§ 13.1.3 In accordance with N.J.S.A. 40A:11-18, American manufactured products or materials shall be used in the Work, wherever possible.

13.1.4 RATE OF WAGES

Where the Project is not subject to a Project Labor Agreement, wage notes shall be paid pursuant to the New Jersey Prevailing Wage Act, N.J.S.A. 34:11-56.25 et seq, the Contractor and Subcontractor are required to do the following:

§ 13.1.4.1 Pay to all workmen engaged in the performance of services, directly upon a public work, the prevailing rate of wages, which shall be those in effect for the Project site(s) on the Contract Date and such rates shall remain in effect for (2) years, unless superseded by a subsequent determination.

§ 13.1.4.2 Before final payment, furnish Owner with an affidavit stating that all workmen have been paid the prevailing rate of wages specified in the contract.

§ 13.1.4.3 Keep an accurate record showing the name, craft, or trade and actual hourly rate of wages paid to each workman employed by it in connection with any public work. Records shall be preserved for two (2) years from date of payment.

§ 13.1.4.4 Post the prevailing wage rated for each craft and classification involved as determined by the Commissioner of Labor and Industry, including the effective date of any changes thereof in prominent and easily accessible places at the site of the Work, and at such place or places as are used by them to pay workmen their wages.

§ 13.1.4.5 Submit the Owner, certified payroll records for each payroll period within ten (10) days of the date of the payment of wages. A certified payroll record is defined as "a payroll record that is attested by the employer or the Owner of the company doing business as the employer, or a corporate officer of such company, or an authorized agent of the employer". A copy of the certified payroll form for submission of the payroll records may be obtained by contacting the Department of Labor, Division of Workplace Standards at 609.292.2259.

§ 13.1.4.6 In the event the Owner finds that any workers employed by the Contractor or Subcontractor, covered by the said contract, have been paid a rate of wages less than the prevailing wage required to be paid by such contract, the Owner may terminate the Contractor's or Subcontractor's right to proceed with the Work, or such part of the

Work as to where there has been a failure to pay required wages, and to prosecute the Work to completion or otherwise, the Contractor and its sureties shall be liable to the Owner for any excess costs occasioned thereby,

§ 13.1.4.7 a current wage rate determination is on file at the offices of the Owner for inspection and Contractor's use.

§ 13.1.5 SAFETY AND HEALTH REGULATIONS (OSHA)

§ 13.1.5.1 The Contractor shall comply with the laws, rules, regulations and codes dealing with occupational safety and health, including, but not limited to, the latest amendments of the following:

§ 13.1.5.2 Williams – Steiger Occupational Safety and Health Act of 1970, Public Law 91-595.

§ 13.1.5.3 Part 1910 – Occupational Safety and Health Standards Chapter XVII of Title 29, Code of Federal Regulations.

§ 13.1.5.4 Part 126 – Safety and Health Regulations for Construction, Chapter XVII of Title 29, Code of Federal Regulations.

§ 13.1.5.3 N.J.A.C. 8:59-5.1-5.109 requirements properly label any substances stored in containers) of the Worker and Community Right to Know Act, P.L. 1983, c.315.

§ 13.1.6 ENVIRONMENTAL REGULATIONS

§ 13.1.6.1 The Contractor shall comply with laws, rules, regulations, and codes dealing with the prevention of environmental pollution and the preservation of public natural resources, including but not limited to, the latest amendments of the following:

§ 13.1.6.2 Chapter 251, public Law of 1975 of the State of New Jersey, "soil Erosion and Sediment Control Act."

§ 13.1.7 AFFIRMATION ACTIONE EMPLOYMENT LAW

Contractor agrees to comply with the terms of the Mandatory Equal Employment Opportunity Language, a copy of which is annexed to the Contract Documents as Exhibit F and incorporated as if set forth herein.

§ 13.1.7.1 Contractor shall submit a copy of the Monthly Project Workforce Report, New Jersey Department of Treasury Form AA-202, to the New Jersey Department of Treasury's Division of Public Contracts Equal Employment Opportunity Compliance and to the Owner

§ 13.1.7.2 Contractor shall complete and submit to the Owner an Initial Project Workforce Report, New Jersey Department of Treasury Form AA 201, upon notification of award and no later than the execution of this Agreement. Failure to submit this completed form may result in this Agreement being terminated.

§ 13.2. SUCCESSORS AND ASSIGNS

§ 13.2.1 The Owner and Contractor respectively bind themselves, their partners, successors, assigns and legal representatives to covenants, agreements and obligations contained in the Contract Documents, neither party to the Contract shall assign the Contract as a whole without written consent of the other, unless as may be provided for elsewhere in the Contract Documents. If either party attempts to make such an assignment without such consent, that party shall nevertheless remain legally responsible for all obligations under the Contract.

§ 13.3 WRITTEN NOTICE

Written notice shall be deemed to have been duly served if delivered in person to the individual, to a member of the firm or entity, or to an officer of the corporation for which it was intended; or if delivered at or sent by registered or certified mail or by courier service providing proof of delivery to, the last business address known to the party giving notice.

§ 13.4 RIGHTS AND REMEDIES

§ 13.4.1 Duties and obligations imposed by the Contract Documents and rights and remedies available thereunder shall be in addition to and not a limitation of duties, obligations, rights and remedies otherwise imposed or available by law.

§ 13.4.2 No action or failure to act by the Owner, Engineer, or his designee or Contractor shall constitute a waiver of a right or duty afforded them under the Contract, nor shall such action or failure to act constitute approval of or acquiescence in a breach there under, except as may be specifically agreed in writing.

§ 13.5 TESTS AND INSPECTIONS

§ 13.5.1 Tests, inspections and approvals of portions of the Work shall be made as required by the Contract Documents and by applicable laws, statutes, ordinances, codes, rules and regulations or lawful orders of public authorities. Unless otherwise provided, the Contractor shall make arrangements for such tests, inspections and approvals with an independent testing laboratory or entity acceptable to the Owner, or with the appropriate public authority, and shall bear all related costs of tests, inspections and approvals. The Contractor shall give the Engineer, or his designee timely notice of when and where tests and inspections are to be made so that the Engineer, or his designee may be present for such procedures. The Owner shall bear costs of (1) tests, inspections or approvals that do not become requirements until after bids are received or negotiations concluded, and (2) tests, inspections or approvals where building codes or applicable laws or regulations prohibit the Owner from delegating their cost to the Contractor.

§ 13.5.2 If the Engineer, or his designee, Owner or public authorities having jurisdiction determine that portions of the Work require additional testing, inspection or approval not included under Section 13.5.1, the Engineer, or his designee will, upon written authorization from the Owner, instruct the Contractor to make arrangements for such additional testing, inspection or approval by an entity acceptable to the Owner, and the Contractor shall give timely notice to the Engineer, or his designee of when and where tests and inspections are to be made so that the Engineer, or his designee may be present for such procedures. Such costs, except as provided in Section 13.5.3, shall be at the Owner's expense.

§ 13.5.3 If such procedures for testing, inspection or approval under Sections 13.5.1 and 13.5.2 reveal failure of the portions of the Work to comply with requirements established by the Contract Documents, all costs made necessary by such failure including those of repeated procedures and compensation for the Engineer, or his designee's services and expenses shall be at the Contractor's expense.

§ 13.5.4 Required certificates of testing, inspection or approval shall, unless otherwise required by the Contract Documents, be secured by the Contractor and promptly delivered to the Engineer, or his designee.

§ 13.5.5 If the Engineer, or his designee is to observe tests, inspections or approvals required by the Contract Documents, the Engineer, or his designee will do so promptly and, where practicable, at the normal place of testing.

§ 13.5.6 Tests or inspections conducted pursuant to the Contract Documents shall be made promptly to avoid unreasonable delay in the Work.

§ 13.6 INTEREST

Except as required by Section 5.1.3 of the Owner Contractor Agreement and notwithstanding anything to the contrary contained in the Contract Documents and related documents, the Owner will pay no interest whatsoever for any payments due.

§ 13.7 TIME LIMITS ON CLAIMS

Intentionally deleted.

ARTICLE 14 TERMINATION OR SUSPENSION OF THE CONTRACT

§ 14.1 TERMINATION BY THE CONTRACTOR

§ 14.1.1 The Contractor may terminate the Contract if the Work is stopped for a period of 30 consecutive days through no act or fault of the Contractor or a Subcontractor, Sub-subcontractor or their agents or employees or any other persons or entities performing portions of the Work under direct or indirect contract with the Contractor, for any of the following reasons:

- .1 Issuance of an order of a court or other public authority having jurisdiction that requires all Work to be stopped;
- .2 An act of government, such as a declaration of national emergency that requires all Work to be stopped;

§ 14.1.2 Intentionally deleted

§ 14.1.3 If one of the reasons described in Section 14.1.1 exists, the Contractor may, upon thirty (30) days' written notice to the Owner and Engineer, or his designee, terminate the Contract

§ 14.1.4 Intentionally deleted.

§ 14.2 TERMINATION BY THE OWNER FOR CAUSE

§ 14.2.1 The Owner may terminate the Contract if the Contractor after Notice and an opportunity to cure.

- .1 refuses or fails to supply enough properly skilled workers or proper materials;
- .2 fails to make payment to Subcontractors for materials or labor in accordance with the respective agreements between the Contractor and the Subcontractors;
- .3 disregards laws, ordinances, rules or regulations, or orders of a public authority having jurisdiction;
- .4 fails to furnish the Owner with assurances satisfactory to the Owner, evidencing the Contractor's ability to complete the Work in compliance with all requirements of the Contract Documents;
- .5 fails after commencement of the Work, to proceed continuously with the construction and completion of the Work, for more than three (3) days, except as permitted by the Contract Documents;
- .6 disregards orders of the Owner or Engineer, or his designee;
- .7 fails to maintain the Site in a clean, safe and orderly manner;
- .8 fails to comply with a Construction Change Directive; or
- .9 otherwise is guilty of any breach of a provision of the Contract Documents.

§ 14.2.2 When any of the above reasons exist, the Owner, upon certification by the Initial Decision Maker that sufficient cause exists to justify such action, may without prejudice to any other rights or remedies of the Owner and after giving the Contractor and the Contractor's surety, if any, seven days' written notice, terminate employment of the Contractor and may, subject to any prior rights of the surety:

- .1 Exclude the Contractor from the site and take possession of all materials, equipment, tools, and construction equipment and machinery thereon owned by the Contractor;
- .2 Accept assignment of subcontracts pursuant to Section 5.4; and
- .3 Finish the Work by whatever reasonable method the Owner may deem expedient. And charge the costs incurred against the Contractor's Contract balance

§ 14.2.3 When the Owner terminates the Contract for one of the reasons stated in Section 14.2.1, the Contractor shall not be entitled to receive further payment until the Work is finished. The Engineer, or his designee's certification issued pursuant to Section 14.2.2 shall be given a presumption of correctness.

§ 14.2.4 If the unpaid balance of the Contract Sum exceeds costs of finishing the Work, including compensation for the Engineer, or his designee's services and expenses made necessary thereby, and other damages incurred by the Owner and not expressly waived, such excess shall be paid to the Contractor. If such costs and damages exceed the unpaid balance, the Contractor shall pay the difference to the Owner. The amount to be paid to the Contractor or Owner, as the case may be, shall be certified by the Engineer, or his designee, upon application, and this obligation for payment shall survive termination of the Contract.

§ 14.3 SUSPENSION BY THE OWNER FOR CONVENIENCE

§ 14.3.1 The Owner may, without cause, order the Contractor in writing to suspend, delay or interrupt the Work in whole or in part for such period of time as the Owner may determine.

§ 14.3.2 Intentionally deleted.

§ 14.4 TERMINATION BY THE OWNER FOR CONVENIENCE

§ 14.4.1 The Owner may, at any time, terminate the Contract for the Owner's convenience and without cause.

§ 14.4.2 Upon receipt of written notice from the Owner of such termination for the Owner's convenience, the Contractor shall

- .1 cease operations as directed by the Owner in the notice;

- 2 take actions necessary, or that the Owner may direct, for the protection and preservation of the Work; and
- 3 except for Work directed to be performed prior to the effective date of termination stated in the notice, terminate all existing subcontracts and purchase orders and enter into no further subcontracts and purchase orders.

§ 14.4.3 In case of such termination for the Owner's convenience, the Contractor shall be entitled to receive payment for Work executed, and costs incurred by reason of such termination, along with reasonable overhead and profit on the Work not executed.

ARTICLE 15 CLAIMS AND DISPUTES

§ 15.1 CLAIMS

§ 15.1.1 DEFINITION

A Claim is a demand or assertion by one of the parties seeking adjustment or interpretation of Contract terms, payment of money, extension of time, or other relief with respect to the terms of the Contract. Any Contractor Claim seeking the payment of money shall not include consequential damages, which Contractor hereby waives, and shall be calculated in accordance with Section 7.3.6 and Section 7.3.10 hereof.

§ 15.1.2 DECISION OF ENGINEER, OR HIS DESIGNEE

Owner and Contractor agree that the Engineer, or his designee shall be the initial arbiter of all Claims, including those alleging error or omission by the Engineer, or his designee. All claims, shall be referred, initially to the Engineer, or his designee for action as provided in Article 4 and shall be required as a condition precedent to litigation of a Claim between the Contractor and Owner to all such matters arising prior to the date final payment is due, regardless of: (1) whether such matters relate to execution and progress of the Work; or (2) the extent to which the work has been completed. The decision by the Engineer, or his designee in response to a Claim shall not be a condition precedent to litigation in the event: (1) the position of the Engineer, or his designee is vacant; (2) the Engineer, or his designee has not received evidence or has failed to render a decision within agreed time limits; (3) the Engineer, or his designee has failed to take action required under Article 4 within thirty (30) days after the Claim is made; (4) forty-five (45) days have passed after the Claim has been referred to the Engineer, or his designee; or, (5) the claim relates to a mechanic's lien.

§ 15.1.3 TIME LIMITS ON CLAIMS

Claims must be within twenty one (21) calendar days after the occurrence of the event giving rise to the Claim or within twenty-one (21) calendar days after the claimant first becomes aware of the condition giving rise to the Claim, whichever is later. There shall be no time limitation upon any Claims made by the Owner. Claims must be made by written notice to the Engineer, or his designee. An additional Claim made after the initial Claim has been implemented by Change Order will not be considered unless submitted pursuant to the requirements of this Paragraph. Notice shall be deemed effective upon the Engineer, or his designee's receipt of the Notice.

§ 15.1.4 CONTINUING CONTRACT PERFORMANCE

Pending final resolution of a Claim, unless otherwise agreed in writing, the Contractor shall proceed diligently with performance of the Contract and the Owner shall continue to make payments to the extent required by the Contract Documents.

§ 15.1.5 CLAIMS FOR CONCEALED OR UNKNOWN CONDITIONS

If conditions are encountered at the Site which are: (1) subsurface or otherwise concealed physical conditions which differ materially from those indicated in the Contract Documents; or (2) unknown physical conditions of an unusual nature, which differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for the Contract Documents, the Owner and Contractor mutually agree to give written notice to each other; including the Engineer, or his designee and any affected Contractor or subcontractor, upon the observation of the condition within twenty-four (24) hours of first observation of the condition. The Engineer, or his designee will investigate such conditions within seventy-two (72) hours and will diligently process and render a recommendation within twenty-one (21) days unless otherwise agreed in writing. If the Engineer, or his designee determines that the condition at the site are not materially different from those indicated in the Contract Documents and that no change in the terms of the Contract is justified the Engineer, or his designee shall so notify the Owner and Contractor in writing, stating the reasons. Claims by either party in

opposition to such determination must be made within seven (7) days after the Engineer, or his designee has given notice of the decision.

§ 15.1.6 CLAIMS FOR ADDITIONAL COST

If the Contractor wishes to make a Claim for an increase in the Contract Sum written notice as provided herein shall be given before proceeding to execute the Work. All documentation in support of the Contractor's request shall, likewise be provided at the time said written request is made. Prior notice is not required for Claims relating to an emergency endangering life or property arising under Section 10.3 or elsewhere in the Contract Documents.

§ 15.2 CLAIMS FOR ADDITIONAL TIME

§ 15.2.1 If the Contractor wishes to make a Claim for an increase in the Contract Time, written notice as provided herein shall be given. The Contractor's Claim shall include an estimate of cost and of probable effect of delay on progress of the Work, , all documentation in support of the Contractor's request shall, likewise be provided at the time said written request is made. In the case of a continuing delay, only one Claim is necessary.

§ 15.2.2 If adverse weather conditions are the basis for a Claim for additional time, such Claim shall be documented by data substantiating that weather conditions were abnormal for the period of time, could not have been reasonably anticipated and had an adverse effect on the scheduled construction. The term "abnormal" as used here shall be construed according to the following formula: average rainfall (or snow, low temperature, etc) for the past five (5) years for the month in question, plus ten percent (10%). Accordingly, weather is not deemed to be abnormal unless it is ten percent (10%) worse than the average for the month over the past five (5) years. Claims relating to weather must be submitted within seven (7) calendar days of the occurrence of any such delays.

§ 15.3 CLAIMS FOR INJURY OR DAMAGE TO PERSON OR PROPERTY. If either Party to the Contract suffers injury or damage to person or property because of an act or omission of the other party, of any of the other party's employees or agents, or of others for whose acts such party is legally liable, written notice of such injury or damage, whether or not insured, shall be given to the other party, including the Engineer, or his designee , within a reasonable time not exceeding twenty-one (21) days after first occurrence, unless another time period is required by law. The notice shall provide sufficient detail to enable the other party to investigate the matter. If a Claim for additional cost or time related to this Claim is to be asserted, it shall be filed as provided for in Article 15.

§ 15.3.2 The Owner is not required to institute a claim under this section in order to terminate this Agreement.

§ 15.4 RESOLUTION OF CLAIMS AND DISPUTES

The Engineer, or his designee will review Claims and take one or more of the following preliminary actions with ten (10) days of receipt of a Claim: (1) request additional supporting data from the claimant; (2) reject the Claim in who or in part, stating reasons for rejection ; (3) recommend approval of the Claim by other party; or (4) suggest a compromise.

§ 15.4.2 If a Claim has been resolved, the Engineer, or his designee will prepare or obtain appropriate documentation in consultation with Owner's counsel as circumstances dictate.

§ 15.4.3 If a Claim has not been resolved after consideration of the foregoing and of further evidence presented by the parties or requested by the Engineer, or his designee , the Engineer, or his designee will notify the parties in writing that the Engineer, or his designee 's decision will be made within seven (7) days, which decision shall be final. Upon expiration of such time period, the Engineer, or his designee will render to the parties the Engineer, or his designee 's written decision relative to the Claim, including any change in the Contract Sum or Contract Time or both.

§ 15.5. CLAIMS FORUM

Unless otherwise required by Section 5.1.3 of the Standard Form of Agreement between the Owner and Contractor, claims, disputes, or other matters in question between the parties to this Contract arising out of or relating to the Project or to this Contract, or the alleges breach thereof, shall be subject in the first instance to mediation and failing that, there in, a Court of competent jurisdiction venued in Union County, New Jersey. The Owner may not be compelled to submit any dispute concerning the Project to arbitration. By accepting award of the Contract and executing the Agreement, the Contractor consents to its joinder as a party in any litigation, mediation, arbitration or any other legal proceeding involving the Project and any references in the Contract documents.

§ 16.1 INTERPRETATIONS IN WRITING

§ 16.1.1 Neither the price bid for the work of any Contract, nor the Contract Sum, shall be based in any manner upon oral opinions, or real or alleged instructions of an oral nature, regardless if whether such opinions or instructions are expressed by the Owner, the Engineer, or his designee or its Consultants, the Contractor, or agents or representative of any of them and no such oral communication shall form the basis of a Claim.

§ 16.1.2 These provisions do not intend to deny, on an oral basis, normal discussion, recommendations, explanations, suggestions, approvals, rejections, and similar activity in pursuit of the work of the Project, such as at job conferences and otherwise at the Site. In such instances, the written minutes, correspondence, shop drawing records, written field orders, and other written data shall govern over personal claims regarding statements made contrary to the written data.

§ 17.1 JOB SITE MEETINGS

§ 17.1.1 Job site meetings, when called by the Engineer, or his designee, shall be held at a location and time convenient to the Owner's representatives, the Engineer, or his designee, and Contractor(s). Each Contractor shall attend such meeting, or be represented by a person in authority who is thoroughly familiar with the Project and who can speak and make decisions for the Contractor. In the instance of a Single Overall Contract, each of the major Subcontractors-Structural Steel, and ornamental iron work, plumbing, gas fitting and all kindered work and steam power plants, steam, and hot water heating and ventilating apparatus and Electrical-shall have a person in authority who is thoroughly familiar with the Project attend the meetings.

§ 18.1 MANDATORY LAW AGAINST DISCRIMINATION LANGUAGE
PROCUREMENT, PROFESSIONAL AND SERVICE CONTRACTS
(N.J.A.C. 13:6-1.3)

§ 18.1.1 The parties of this contract do hereby agree that the provision of N.J.S.A. 10:2-1 through N.J.S.A. 10:2-4 dealing with discrimination in employment on public contracts, and the rules and regulations promulgated pursuant thereto, are hereby made a part of this contract and are binding upon them.

§ 18.1.1 Pursuant to the provision of N.J.S.A. 10:2-1 through N.J.S.A. 10:2-4, during the performance of this contract, the Contractor agrees as follows:

§ 18.2.1.1 In the hiring of persons for the performance of work under this contract or any subcontract hereunder, or for the procurement, manufacture, assembling or furnishing of any such materials, equipment, supplies or services to be acquired under this contract, no Contractor, including without limitation, the Contractor, nor any person acting on behalf of such Contractor or subcontractor, shall by reason of race, creed, color national origin, ancestry, Marital status, gender identity or expression, affectional or sexual orientation, or sex, discriminate against any person who is qualified and available to perform the Work, to which the employment relates;

§ 18.2.1.2 No Contractor, including, without limitation, the Contractor, Subcontractor, nor any person acting on its behalf shall, in any manner, discriminate against or intimidate any employee engaged in the performance of work under this Contract or any subcontract hereunder, or engaged in the procurement, manufacture, assembling or furnishing of any such materials, equipment, supplies or services to be acquired under such Contract, on account of race, creed, color, national origin, ancestry, marital status, gender identity or expression, affectional or sexual orientation, or sex;

§ 18.2.1.3 There may be deducted from the amount payable to the Contractor by the Owner, under the Contract, a penalty of \$50.00 (fifty dollars) for each person for each calendar day during which such person is discriminated against or intimidated in violation of the provisions of the Contract; and

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

§ 19.1 CONTRACTOR AND SUBCONTRACTOR COLLECTION OF USE TAX TO LOCAL GOVERNMENTS

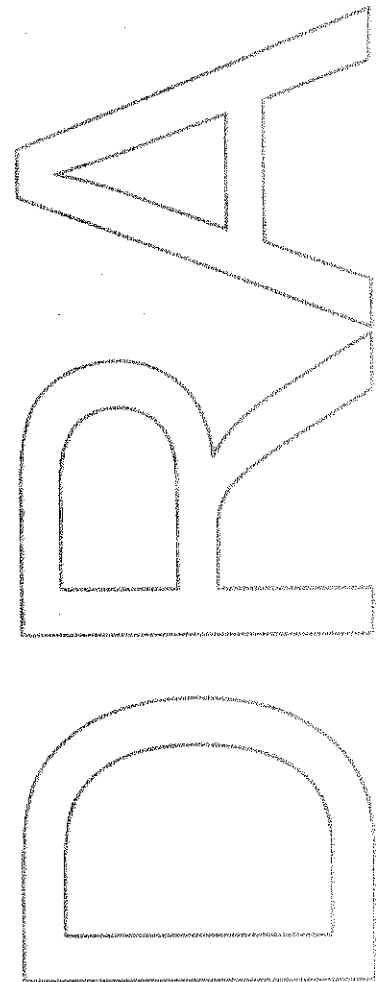
§ 19.1.1 The Contractor acknowledges and agrees that pursuant to P.L. 2004, c. 57, enacted by the State of New Jersey on June 29, 2004, contractors or contractors with subcontractors, or their affiliates, who enter into contracts

with New Jersey local government entities, including without limitation, boards of education, are, effective as of September 1, 2004, required to collect and remit to the New Jersey Director of Taxation in the Department of the Treasury the use tax pursuant to the "sales and Use Tax Act," P.L. 1966, c. 30 (C.54:32B-1 et. seq.) on all their sales of tangible personal property delivered into the State of New Jersey (hereinafter referred to as the "Contractor Use Tax Collection Legislation").

§ 19.2.1 The Contractor hereby covenants and agrees that the Contractor, any subcontractor and each of their affiliates, shall collect and remit to the New Jersey Director of the Division of Taxation in the Department of Treasury, the use tax due pursuant to the "Sales and Use Tax Act," P.L. 1966, c. 30 (C.54:32B-1 et. seq.) on all their sales of tangible personal property delivered into the State of New Jersey. For purposes herein, "affiliate" shall mean any entity that : (a) directly, indirectly or constructively controls another entity; (b) is directly, indirectly, or constructively controlled by another entity; or (c) is subject to the control of a common entity. For purposes of the immediately preceding sentence, an entity controls another entity if it owns, directly or indirectly, more than fifty percent (50%) of the Ownership interest in that entity.

§ 19.3.1 The parties intend that this Article 19 shall comply with the rules and regulations promulgated pursuant to the Contractor Use Tax Collection Legislation and shall be interpreted consistent therewith.

§ 19.4 Notwithstanding anything contained in the Agreement to the contrary, the Contractor hereby agrees to indemnify and hold the Owner harmless from and against any and all fines, taxes, penalties, interest, claims, losses. Costs, expenses, liabilities, or damages arising out of or in connection with the Contractor's failure to comply with the terms and condition of Sections 19.1 and 19.2 to the fullest extent permitted by law and public policy.





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

PREVAILING WAGE RATE DETERMINATION

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

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

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

Prevailing Wage Rate

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

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

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

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

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

Apprentice Rate Schedule

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

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

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

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

Comments/Notes

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

Public Works Contractor Registration

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

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

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

Snow Plowing

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

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

County - UNION

Craft: Air Conditioning & Refrigeration - Service and Repair

PREVAILING WAGE RATE

	03/19/15
Journeyman (Mechanic)	W36.18 B21.10 T57.28

Expiration Date: 02/29/2016

Craft: Air Conditioning & Refrigeration - Service and Repair

APPRENTICE RATE SCHEDULE

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

Ratio of Apprentices to Journeymen - 1:4

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

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

Craft: Air Conditioning & Refrigeration - Service and Repair

COMMENTS/NOTES

THESE RATES MAY BE USED FOR THE FOLLOWING:

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

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

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

SHIFT DIFFERENTIALS:

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

OVERTIME:

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

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

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

County - UNION

Craft: Boilermaker PREVAILING WAGE RATE

	01/09/15
Foreman	W45.00 B40.02 T85.02
General Foreman	W47.00 B41.00 T88.00
Journeyman	W41.00 B38.42 T79.42

Expiration Date: 12/31/2015

Craft: Boilermaker APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
	65%	70%	75%	80%	85%	90%	95%			
1000 Hours										
Benefit =	32.33	33.20	34.08	34.94	35.82	36.69	37.55			

Ratio of Apprentices to Journeymen - *

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

Craft: Boilermaker COMMENTS/NOTES

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

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

SHIFT DIFFERENTIALS:

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

OVERTIME:

- Hours in excess of 8 per day, Monday through Friday, and all hours on Saturdays shall be paid at time and one-half the hourly rate. All hours on Sundays and holidays (except Labor Day) shall be paid at double the hourly rate. All hours on Labor Day shall be paid at four times the hourly rate.
- If any other craft employed by the same contractor, or a subcontractor thereof, receives double time in lieu of time and one-half, then the Boilermaker shall receive double time in lieu of time and one-half.
- For "Municipal Water Works" projects only, the following shall apply: Four 10 hour days may be worked Monday through

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

County - UNION

Thursday at straight time. Friday may be used as a make-up day for a day lost to inclement weather, holiday or other conditions beyond the control of the employer. Overtime shall be paid for any hours that exceed 10 hours per day or 40 hours per week.

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

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

County - UNION

Craft: Boilermaker - Minor Repairs

PREVAILING WAGE RATE

	01/09/15
Foreman	W30.29 B16.17 T46.46
General Foreman	W30.79 B16.17 T46.96
Mechanic	W28.79 B16.17 T44.96

Expiration Date: 12/31/2015

Craft: Boilermaker - Minor Repairs

COMMENTS/NOTES

NOTE: These rates apply to MINOR REPAIR WORK ONLY (repair work in the field for which the contract amount does not exceed \$20,000.00).

OVERTIME:

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

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

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

County - UNION

Craft: Bricklayer, Stone Mason

PREVAILING WAGE RATE

	05/01/15
Deputy Foreman	W41.25 B29.83 T71.08
Foreman	W44.25 B29.83 T74.08
Journeyman	W38.25 B29.83 T68.08

Expiration Date: 04/30/2016

Craft: Bricklayer, Stone Mason

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
6 Months	40%	50%	55%	60%	65%	70%	75%	80%		
Benefits	3.72	4.65	5.12	5.58	19.73	21.04	22.35	23.65		

Ratio of Apprentices to Journeymen - 1:5

Craft: Bricklayer, Stone Mason

COMMENTS/NOTES

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

SHIFT DIFFERENTIALS:

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

OVERTIME:

- The first 2 hours in excess of 8 per day, or before or after the regular workday that are not shift work, Monday through Friday, shall be paid at time and one-half the regular rate, inclusive of benefits. Any additional overtime shall be paid at double the regular rate, inclusive of benefits. The first 10 hours on Saturday shall be paid at time and one-half the regular rate, inclusive of benefits. Any additional overtime shall be paid at double the regular rate, inclusive of benefits. All hours on Sundays and holidays shall be paid at double the regular rate, inclusive of benefits.
- Saturday may be used as a make-up day for hours lost to inclement weather.
- When Bricklayers/Stone Masons work on Saturday with Laborers, and no other crafts are working on the project for the day, benefits may be paid at straight time. If other crafts are present, the applicable overtime rate for benefits shall be paid.

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

County - UNION

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

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

County - UNION

Craft: Carpenter

PREVAILING WAGE RATE

	05/12/15	11/01/15
Foreman	W51.22 B28.68 T79.90	W0.00 B0.00 T80.42
Journeyman	W44.54 B24.94 T69.48	W0.00 B0.00 T70.73

Expiration Date: 04/30/2016

Craft: Carpenter

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
	40%	45%	50%	55%	60%	65%	70%	75%	85%	95%
6 Months										
Benefit	56% of	Appren	tice	Wage	Rate		for all	intervals		

Ratio of Apprentices to Journeymen - 1:4

Craft: Carpenter

COMMENTS/NOTES

FOREMAN REQUIREMENTS:

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

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

SHIFT DIFFERENTIALS:

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

OVERTIME:

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

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

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

County - UNION

Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays observed the following Monday.

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

County - UNION

Craft: Carpenter - Resilient Flooring

PREVAILING WAGE RATE

	05/12/15
Foreman	W51.22 B28.68 T79.90
Journeyman	W44.54 B24.94 T69.48

Expiration Date: 10/31/2015

Craft: Carpenter - Resilient Flooring

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
6 Months	40%	45%	50%	55%	60%	65%	70%	75%	85%	95%
Benefit	56%	of	Appren	tice	Wage	Rate		for all	intervals	

Ratio of Apprentices to Journeymen - *

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

Craft: Carpenter - Resilient Flooring

COMMENTS/NOTES

FOREMAN REQUIREMENTS:

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

FOR SYNTHETIC TURF INSTALLATION ONLY:

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

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

SHIFT DIFFERENTIALS:

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

OVERTIME:

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

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

County - UNION

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

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

County - UNION

Craft: Cement Mason

PREVAILING WAGE RATE

See "Bricklayer, Stone Mason" Rates

Expiration Date:

Craft: Cement Mason

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									

Ratio of Apprentices to Journeymen - 1:4

Craft: Cement Mason

COMMENTS/NOTES

See "Bricklayer, Stone Mason" Rates

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

County - UNION

Craft: Diver PREVAILING WAGE RATE

	05/01/15
Diver	W54.84 B42.32 T97.16
Tender	W42.88 B42.32 T85.20

Expiration Date: 11/01/2015

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
5-125 feet: + \$0.78 per foot
126-200 feet: + \$1.60 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

	05/01/15
Foreman	W49.57 B42.32 T91.89
Foreman (Concrete Form Work)	W49.57 B34.48 T84.05
Journeyman	W43.10 B42.32 T85.42
Journeyman (Concrete Form Work)	W43.10 B34.48 T77.58

Expiration Date: 11/01/2015

Craft: Dockbuilder APPRENTICE RATE SCHEDULE

<u>INTERVAL</u>	<u>PERIOD AND RATES</u>									
Yearly	17.24	21.55	28.02	34.48						
Benefit	28.90	for all	intervals		Concrete	Form Work	Only Ben.	= 23.65	for all	intervals

Ratio of Apprentices to Journeymen - *

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

Craft: Dockbuilder COMMENTS/NOTES

CREOSOTE HANDLING:

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

HAZARDOUS WASTE WORK:

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

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

FOREMAN REQUIREMENTS:

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

OVERTIME:

Hours in excess of 8 per day, Monday through Friday, and all hours on Saturdays shall be paid at time and one-half the

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

County - UNION

hourly rate. All hours on Sundays and holidays shall be paid at double the hourly rate.

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

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

County - UNION

Craft: Drywall Finisher

PREVAILING WAGE RATE

	05/04/15	05/01/16	05/01/17
Foreman	W41.80 B22.60 T64.40	W43.05 B22.60 T65.65	W44.30 B22.60 T66.90
General Foreman	W43.70 B22.60 T66.30	W44.95 B22.60 T67.55	W46.20 B22.60 T68.80
Journeyman	W38.00 B22.60 T60.60	W39.25 B22.60 T61.85	W40.50 B22.60 T63.10

Expiration Date: 04/30/2018

Craft: Drywall Finisher

APPRENTICE RATE SCHEDULE

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

Ratio of Apprentices to Journeymen - 1:4

Craft: Drywall Finisher

COMMENTS/NOTES

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

SHIFT DIFFERENTIALS:

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

OVERTIME:

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

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

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

County - UNION

Craft: Electrician

PREVAILING WAGE RATE

	06/02/15	05/30/16	05/29/17	05/28/18
Cable Splicer	W57.52 B32.88 T90.40	W58.71 B33.74 T92.45	W60.08 B34.53 T94.61	W61.52 B35.35 T96.87
Foreman	W58.56 B33.47 T92.03	W59.77 B34.34 T94.11	W61.17 B35.15 T96.32	W62.64 B35.98 T98.62
Journeyman	W52.29 B29.90 T82.19	W53.37 B30.67 T84.04	W54.62 B31.39 T86.01	W55.93 B32.13 T88.06

Expiration Date: 05/31/2019

Craft: Electrician

APPRENTICE RATE SCHEDULE

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

Ratio of Apprentices to Journeymen - 2:3

Craft: Electrician

COMMENTS/NOTES

THESE RATES ALSO APPLY TO THE FOLLOWING:

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

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

FOREMAN REQUIREMENTS:

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

SHIFT DIFFERENTIALS:

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

OVERTIME:

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

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

County - UNION

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

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

County - UNION

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

PREVAILING WAGE RATE

	12/04/14
Master Technician/General Foreman	W49.84 B28.49 T78.33
Senior Technician/Lead Foreman (21-30 Workers on Job)	W45.62 B26.08 T71.70
Technician A/Foreman (11-20 Workers on Job)	W43.71 B24.99 T68.70
Technician B/Working Foreman (4-10 Workers on Job)	W41.79 B23.89 T65.68
Technician C/Journeyman (1-3 Workers on Job)	W38.34 B21.92 T60.26

Expiration Date: 11/01/2015

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

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
6 Months	19.20	20.48	22.62	25.18	28.16	30.72	33.71	36.70		
Benefits	7.96	8.49	9.38	10.44	11.68	12.74	13.98	15.22		

Ratio of Apprentices to Journeymen - 2:3

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

COMMENTS/NOTES

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

INTERVAL	PERIOD AND RATES									
6 Months	17.07	18.35	20.48	23.04	26.03	28.59	31.58	34.56		
Benefits	7.08	7.61	8.49	9.56	10.79	11.86	13.09	14.33		

NOTES:

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

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

SHIFT DIFFERENTIALS:

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

County - UNION

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

OVERTIME:

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

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

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

County - UNION

Craft: Electrician - Teledata (16 Instruments & More)

PREVAILING WAGE RATE

See "Electrician" Rates

Expiration Date:

Craft: Electrician - Teledata (16 Instruments & More)

COMMENTS/NOTES

See ELECTRICIAN Rates

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

County - UNION

Craft: Electrician- Outside Commercial

PREVAILING WAGE RATE

	06/02/14
Cable Splicer	W56.56 B31.92 T88.48
Certified Welder	W53.99 B30.46 T84.45
Equipment Operator	W51.42 B29.01 T80.43
Foreman (1-10 Journeyman workers on job)	W57.59 B32.49 T90.08
Foreman (11-20 Journeyman workers on job)	W59.13 B33.37 T92.50
General Foreman (21-30 Journeyman workers on job)	W60.67 B34.23 T94.90
General Foreman (31-60 Journeyman workers on job)	W65.82 B37.13 T102.95
Groundman	W30.85 B17.41 T48.26
Journeyman Lineman/Technician	W51.42 B29.01 T80.43
Sub-Foreman	W57.59 B32.49 T90.08

Expiration Date: 06/01/2015

Craft: Electrician- Outside Commercial

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
1000 Hours	60%	65%	70%	75%	80%	85%	90%			
Benefits	55.95% of	Journey	man	wage	+ \$.01					

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

County - UNION

Craft: Electrician- Outside Commercial

COMMENTS/NOTES

APPRENTICE RATE SCHEDULE AS OF 6-2-14:

INTERVAL	PERIOD AND RATES							
1000 Hours	60%	65%	70%	75%	80%	85%	90%	
Benefits	56.41% of Journeyman wage + \$.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 4 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:

4-10 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 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 and Christmas Day.

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

County - UNION

Craft: Electrician-Utility Work (North)

PREVAILING WAGE RATE

Rates are located in the "Statewide" rate package

Expiration Date:

Craft: Electrician-Utility Work (North)

APPRENTICE RATE SCHEDULE

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

Craft: Electrician-Utility Work (North)

COMMENTS/NOTES

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

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

County - UNION

Craft: Electrician-Utility Work (South)

PREVAILING WAGE RATE

Rates are located in the "Statewide" rate package

Expiration Date:

Craft: Electrician-Utility Work (South)

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
6 Months	26.27	28.46	30.65	32.84	35.03	37.22	39.41			
Benefits	21.83	23.08	24.32	25.57	26.81	28.06	29.32			

Craft: Electrician-Utility Work (South)

COMMENTS/NOTES

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

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

County - UNION

Craft: Elevator Constructor PREVAILING WAGE RATE

	03/27/15	03/17/16	03/17/17	03/17/18
Journeyman	W59.55	W60.96	W62.64	W64.48
	B38.02	B39.77	B41.56	B43.36
	T97.57	T100.73	T104.20	T107.84

Expiration Date: 03/16/2019

Craft: Elevator Constructor APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
	Yearly	26.62	32.75	38.71	44.66					
Benefits	30.23	31.32	32.81	34.30						

Ratio of Apprentices to Journeymen - 1:1

Craft: Elevator Constructor COMMENTS/NOTES

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

OVERTIME:

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

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

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

County - UNION

Craft: Elevator Modernization & Service

PREVAILING WAGE RATE

	03/27/15	03/17/16	03/17/17	03/17/18
Journeyman	W46.92	W47.91	W49.14	W50.49
	B36.46	B38.17	B39.91	B41.66
	T83.38	T86.08	T89.05	T92.15

Expiration Date: 03/16/2019

Craft: Elevator Modernization & Service

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
	Yearly	26.62	25.81	30.50	35.19					
Benefits	30.16	30.47	31.80	33.13						

Ratio of Apprentices to Journeymen - 1:1

Craft: Elevator Modernization & Service

COMMENTS/NOTES

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

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

- Overtime:

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

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

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

- Overtime:

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

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

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

County - UNION

Craft: Glazier PREVAILING WAGE RATE

	06/11/15	05/01/16
Foreman	W46.50 B22.65 T69.15	W0.00 B0.00 T70.65
General Foreman	W48.50 B22.89 T71.39	W0.00 B0.00 T72.89
Journeyman	W42.50 B22.17 T64.67	W0.00 B0.00 T66.17

Expiration Date: 04/30/2017

Craft: Glazier APPRENTICE RATE SCHEDULE

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

Ratio of Apprentices to Journeymen - 1:4

Craft: Glazier COMMENTS/NOTES

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

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

Hazard/Height Pay: +\$1.00 per hour

FOREMAN REQUIREMENTS:

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

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

SHIFT DIFFERENTIALS:

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

OVERTIME:

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

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

County - UNION

rate.

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

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

County - UNION

Craft: Heat & Frost Insulator

PREVAILING WAGE RATE

	09/19/14
Foreman	W51.52 B28.42 T79.94
General Foreman	W54.07 B29.53 T83.60
Journeyman	W50.24 B27.86 T78.10

Expiration Date: 09/18/2015

Craft: Heat & Frost Insulator

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
Yearly	23.27	27.59	33.35	39.16						
Benefits	16.96	20.03	21.99	23.76						

Ratio of Apprentices to Journeymen - 1:3

Craft: Heat & Frost Insulator

COMMENTS/NOTES

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

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

SHIFT DIFFERENTIAL:

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

OVERTIME:

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

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

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

County - UNION

Craft: Heat & Frost Insulator - Asbestos Worker

PREVAILING WAGE RATE

	09/19/14
Asbestos Worker/Firestop	W25.68 B9.25 T34.93
Foreman	W51.52 B28.42 T79.94

Expiration Date: 09/18/2015

Craft: Heat & Frost Insulator - Asbestos Worker

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
	SEE	HEAT &	FROST	INSULAT OR						

Ratio of Apprentices to Journeymen - 1:3

Craft: Heat & Frost Insulator - Asbestos Worker

COMMENTS/NOTES

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

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

SHIFT DIFFERENTIALS:

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

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

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

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

County - UNION

Craft: Ironworker PREVAILING WAGE RATE

	07/01/14
Rod Foreman	W40.74 B41.52 T82.26
Rod Journeyman	W37.74 B41.52 T79.26
Structural Foreman	W43.79 B41.52 T85.31
Structural Journeyman	W40.79 B41.52 T82.31

Expiration Date: 06/30/2015

Craft: Ironworker APPRENTICE RATE SCHEDULE

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

Ratio of Apprentices to Journeymen - 1:4

Craft: Ironworker COMMENTS/NOTES

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

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

FOREMAN REQUIREMENTS:

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

SHIFT DIFFERENTIALS:

- When a 2 shift schedule is established, the first, or day shift , shall be established on an 8 hour basis .The second shift shall be established on an 8 hour basis, and receive the regular rate plus 15%.
- When a three shift schedule is established, the first shift shall be established on an 8 hour basis, the second shift on a 7.5 hour basis, and the third shift on a 7 hour basis. The first shift shall receive the regular hourly rate, the second shift shall receive the regular rate plus 15%, and the third shift shall receive the regular rate plus 20%.
- When there is no day shift, and a second or third shift is established, it shall be established on an 8 hour basis.
- When an irregular shift is established for 5 consecutive days, the rate shall be paid at the regular rate and benefit rate , with no wage premium included. When an irregular shift is established for less than 5 days, the rate shall be paid at the regular rate plus 15%.

OVERTIME:

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

County - UNION

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

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

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

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

County - UNION

Craft: Laborer - Asbestos & Hazardous Waste Removal

PREVAILING WAGE RATE

	12/17/14
Foreman	W38.00 B16.20 T54.20
Journeyman (Handler)	W36.00 B16.20 T52.20

Expiration Date: 07/31/2015

Craft: Laborer - Asbestos & Hazardous Waste Removal

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
Yearly	27.96	28.66	29.72	31.84						
Benefits	16.15	for	all	intervals						

Ratio of Apprentices to Journeymen - *

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

Craft: Laborer - Asbestos & Hazardous Waste Removal

COMMENTS/NOTES

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

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

OVERTIME:

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

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

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

County - UNION

Craft: Laborer - Building

PREVAILING WAGE RATE

	05/04/15
Class A Journeyman	W30.65 B25.22 T55.87
Class B Journeyman	W30.15 B25.22 T55.37
Class C Journeyman	W25.63 B25.22 T50.85
Foreman	W34.48 B25.22 T59.70
General Foreman	W38.31 B25.22 T63.53

Expiration Date: 04/30/2016

Craft: Laborer - Building

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
	60%	70%	80%	90%						
6 Months										
Benefit	21.97	21.97	21.97	21.97						

Ratio of Apprentices to Journeymen - *

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

Craft: Laborer - Building

COMMENTS/NOTES

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

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

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

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

SHIFT DIFFERENTIALS:

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

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

County - UNION

- When a 3-shift schedule is worked, the day shift shall be established on the basis of 8 hours pay for 8 hours worked, the second shift shall be established on the basis of 8 hours pay for 7.5 hours worked, and the third shift shall be established on the basis of 8 hours pay for 7 hours worked. The day shift shall receive the regular rate, the second shift shall receive the regular rate plus an additional 10%, and the third shift shall receive the regular rate plus an additional 15%.
- When a second or third shift is worked with no day shift, the second or third shift shall be established on the basis of 8 hours pay for 8 hours worked. The second shift shall receive the regular rate plus an additional 10%, and the third shift shall receive the regular rate plus an additional 15%.

OVERTIME:

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

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

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

County - UNION

Craft: Laborer - Heavy & General

PREVAILING WAGE RATE

Rates are located in the
"Statewide" rate package

Expiration Date:

Craft: Laborer - Heavy & General

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
1000 Hours	60%	70%	80%	90%						
Benefit	18.03	for	all	intervals						

Ratio of Apprentices to Journeymen - *

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

Craft: Laborer - Heavy & General

COMMENTS/NOTES

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

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

County - UNION

Craft: Millwright

PREVAILING WAGE RATE

	05/01/15
Foreman	W51.72 B29.52 T81.24
Journeyman	W44.97 B25.74 T70.71

Expiration Date: 10/31/2015

Craft: Millwright

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
	40%	45%	50%	55%	60%	65%	70%	75%	85%	95%
6 Months										
Benefits	56% of	Appren	tice	Wage	Rate	for all	intervals	+.55		

Ratio of Apprentices to Journeymen - 1:4

Craft: Millwright

COMMENTS/NOTES

FOREMAN REQUIREMENTS:

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

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

SHIFT DIFFERENTIALS:

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

OVERTIME:

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

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

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

County - UNION

Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays will be observed the following Monday.

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

County - UNION

Craft: Operating Engineer

PREVAILING WAGE RATE

Rates are located in the
"Statewide" rate package

Expiration Date:

Craft: Operating Engineer

APPRENTICE RATE SCHEDULE

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

Ratio of Apprentices to Journeymen - *

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

Craft: Operating Engineer

COMMENTS/NOTES

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

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

County - UNION

Craft: Operating Engineer - Field Engineer

PREVAILING WAGE RATE

Rates are located in the
"Statewide" rate package

Expiration Date:

Craft: Operating Engineer - Field Engineer

APPRENTICE RATE SCHEDULE

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

Ratio of Apprentices to Journeymen - *

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

Craft: Operating Engineer - Field Engineer

COMMENTS/NOTES

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

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

County - UNION

Craft: Painter - Bridges

PREVAILING WAGE RATE

	05/22/15	05/01/16	05/01/17
Foreman	W56.38 B25.67 T82.05	W58.63 B25.67 T84.30	W61.13 B25.67 T86.80
General Foreman	W58.38 B25.67 T84.05	W60.63 B25.67 T86.30	W63.13 B25.67 T88.80
Journeyman	W51.38 B25.67 T77.05	W53.63 B25.67 T79.30	W56.13 B25.67 T81.80

Expiration Date: 01/31/2019

Craft: Painter - Bridges

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
	6 Months	50%	55%			60%	65%		75%	85%
Benefits	Intervals	1 to 2 =	8.88	Intervals	3 to 4 =	10.81	Intervals	5 to 6 =	13.48	

Ratio of Apprentices to Journeymen - 1:4

Craft: Painter - Bridges

COMMENTS/NOTES

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

FOREMEN REQUIREMENTS:

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

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

SHIFT DIFFERENTIALS:

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

OVERTIME:

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

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

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

County - UNION

Craft: Painter - Line Striping

PREVAILING WAGE RATE

	07/25/14
Foreman (Charge Person)	W35.45 B13.80 T49.25
Helper (1st Year)	W26.88 B13.71 T40.59
Helper (2nd Year)	W28.48 B13.74 T42.22
Helper (3rd Year)	W30.62 B13.75 T44.37
Journeyman	W34.95 B13.80 T48.75

Expiration Date: 06/30/2015

Craft: Painter - Line Striping

COMMENTS/NOTES

OVERTIME:

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

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

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

County - UNION

Craft: Painter - New Construction

PREVAILING WAGE RATE

	07/11/14
Foreman	W40.90 B21.34 T62.24
General Foreman	W44.67 B21.34 T66.01
Journeyman	W37.22 B21.34 T58.56

Expiration Date: 04/30/2015

Craft: Painter - 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: Painter - New Construction

COMMENTS/NOTES

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

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

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

FOREMEN REQUIREMENTS:

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

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

SHIFT DIFFERENTIALS:

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

OVERTIME:

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

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

County - UNION

rate.

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

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

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

County - UNION

Craft: Painter - Repainting

PREVAILING WAGE RATE

	07/11/14
Foreman	W31.41 B17.95 T49.36
General Foreman	W34.27 B17.95 T52.22
Journeyman	W28.56 B17.95 T46.51

Expiration Date: 04/30/2015

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 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.
- 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

	05/22/15	05/01/16	05/01/17
Journeyman	W32.93 B22.92 T55.85	W35.18 B22.92 T58.10	W37.68 B22.92 T60.60

Expiration Date: 01/31/2019

Craft: Painter- Containment

COMMENTS/NOTES

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

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

SHIFT DIFFERENTIALS:

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

OVERTIME:

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

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

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

County - UNION

Craft: Painter-Elevated Water Tanks

PREVAILING WAGE RATE

	05/22/15	05/01/16	05/01/17
Foreman	W46.17 B22.92 T69.09	W48.42 B22.92 T71.34	W50.92 B22.92 T73.84
General Foreman	W48.17 B22.92 T71.09	W50.42 B22.92 T73.34	W52.92 B22.92 T75.84
Journeyman	W41.17 B22.92 T64.09	W43.42 B22.92 T66.34	W45.92 B22.92 T68.84

Expiration Date: 01/31/2019

Craft: Painter-Elevated Water Tanks

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
	SEE	PAINTER	BRIDGES							

Craft: Painter-Elevated Water Tanks

COMMENTS/NOTES

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

FOREMEN REQUIREMENTS:

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

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

SHIFT DIFFERENTIALS:

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

OVERTIME:

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

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

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

County - UNION

Craft: Painter-Structural Steel

PREVAILING WAGE RATE

	05/22/15	05/01/16	05/01/17
Foreman	W45.12 B23.26 T68.38	W47.37 B23.26 T70.63	W49.87 B23.26 T73.13
General Foreman	W47.12 B23.26 T70.38	W49.37 B23.26 T72.63	W51.87 B23.26 T75.13
Journeyman	W40.12 B23.26 T63.38	W42.37 B23.26 T65.63	W44.87 B23.26 T68.13

Expiration Date: 01/31/2019

Craft: Painter-Structural Steel

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
	SEE	PAINTER	BRIDGES							

Craft: Painter-Structural Steel

COMMENTS/NOTES

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

FOREMEN REQUIREMENTS:

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

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

SHIFT DIFFERENTIALS:

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

OVERTIME:

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

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

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

County - UNION

Craft: Paperhanger - New Construction

PREVAILING WAGE RATE

	07/11/14
Foreman	W41.93 B21.44 T63.37
Journeyman	W38.12 B21.44 T59.56

Expiration Date: 04/30/2015

Craft: Paperhanger - New Construction

APPRENTICE RATE SCHEDULE

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

Ratio of Apprentices to Journeymen - 1:4

Craft: Paperhanger - New Construction

COMMENTS/NOTES

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

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

FOREMEN REQUIREMENTS:

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

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

SHIFT DIFFERENTIALS:

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

OVERTIME:

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

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

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

County - UNION

Craft: Paperhanger - Renovation

PREVAILING WAGE RATE

	07/11/14
Foreman	W32.21 B18.03 T50.24
Journeyman	W29.28 B18.03 T47.31

Expiration Date: 04/30/2015

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

Craft: Pipefitter PREVAILING WAGE RATE

	05/01/15
Foreman	W50.42 B38.67 T89.09
Journeyman	W46.67 B35.80 T82.47

Expiration Date: 04/30/2016

Craft: Pipefitter APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
Yearly	35%	45%	55%	65%	75%					
Benefit	76.5% of	Appren	tice	Wage	Rate + .10	cents				

Ratio of Apprentices to Journeymen - 1:5

Craft: Pipefitter COMMENTS/NOTES

FOREMAN REQUIREMENTS:

- When there are 2 or more Journeyman Pipefitters on a job, 1 shall be designated a Foreman.
- There shall be a Foreman for every 8 Journeyman Pipefitters on a job.

The regular workday shall be 8 hours between 7:00 AM and 3:30 PM.

SHIFT DIFFERENTIAL:

- 2nd Shift (3:30 PM-11:30 PM) shall work 7.5 hours and receive 8 hours pay at the regular rate, plus 25% per hour.
- 3rd Shift (11:30 PM-7:00 AM) shall work 7 hours and receive 8 hours pay at the regular rate, plus 30% per hour.

OVERTIME:

- All hours worked in excess of 8 per day, Monday through Friday, and all hours worked on Saturday, shall be paid at time and one-half, inclusive of benefits. All hours on Sunday and holidays shall be paid at double time, inclusive of benefits.
- By mutual agreement, employees may work four 10-hour days, Monday to Thursday, at straight time rate. Friday may be used as a make-up day for a day lost to inclement weather, and may be paid at straight time. If Friday is not a make-up day, the first 8 hours shall be paid at time and one-half, inclusive of benefits; hours in excess of 8 shall be paid at double time, inclusive of benefits.

SHIFT DIFFERENTIAL (Maintenance Work Only):

- 2nd Shift (3:30 PM-11:30 PM) shall work 7.5 hours and receive 8 hours pay at the regular rate, plus 10% per hour.
- 3rd Shift (11:30 PM-7:00 AM) shall work 7 hours and receive 8 hours pay at the regular rate, plus 15% per hour.

OVERTIME (Maintenance Work Only):

- All hours in excess of 8 per day, Monday through Saturday, shall be paid at time and one-half, inclusive of benefits. All hours on Sundays and holidays shall be paid at double time, inclusive of benefits.

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

County - UNION

NOTE: Maintenance work is work to repair, restore, or improve the efficiency of existing facilities. This does NOT apply to ANY new construction.

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

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

County - UNION

Craft: Plasterer

PREVAILING WAGE RATE

See Bricklayer, Stone Mason Rates

Expiration Date:

Craft: Plasterer

COMMENTS/NOTES

See BRICKLAYER, STONE MASON Rates

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

County - UNION

Craft: Plumber PREVAILING WAGE RATE

	05/01/15
Foreman	W54.39 B31.94 T86.33
General Foreman	W57.91 B31.94 T89.85
Journeyman	W50.36 B31.94 T82.30

Expiration Date: 04/30/2016

Craft: Plumber APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
Yearly	30%	45%	55%	65%	75%					
Benefits	12.24	18.04	19.65	21.28	22.89					

Ratio of Apprentices to Journeymen - *

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

Craft: Plumber COMMENTS/NOTES

FOREMAN REQUIREMENTS:

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

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

SHIFT DIFFERENTIALS:

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

OVERTIME:

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

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

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

County - UNION

Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays will be observed the following Monday.

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

County - UNION

Craft: Roofer PREVAILING WAGE RATE

	06/02/15
Foreman	W36.27 B24.04 T60.31
Journeyman	W35.27 B24.04 T59.31

Expiration Date: 05/31/2016

Craft: Roofer APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
	40%	50%	60%	70%	80%	90%				
6 Months										
Benefits	14.10	17.64	21.16	24.69	28.22	31.74				

Ratio of Apprentices to Journeymen - *

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

Craft: Roofer COMMENTS/NOTES

Pitch: +.50 per hour

Mop Man: +.30 per hour

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

OVERTIME:

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

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

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

County - UNION

Craft: Sheet Metal Sign Installation

PREVAILING WAGE RATE

	04/07/15
Foreman	W32.89 B28.07 T60.96
Journeyman	W31.64 B28.07 T59.71

Expiration Date: 09/30/2015

Craft: Sheet Metal Sign Installation

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
	35%	40%	45%	50%	55%	60%	65%	70%	75%	80%
1000 hours										
Benefits	10.34	11.53	12.73	13.92	15.51	16.73	17.97	19.20	20.44	21.66

Ratio of Apprentices to Journeymen - 1:3

Craft: Sheet Metal Sign Installation

COMMENTS/NOTES

FOREMAN REQUIREMENT:

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

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

OVERTIME:

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

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

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

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

County - UNION

Craft: Sheet Metal Worker

PREVAILING WAGE RATE

	06/09/14
Foreman	W47.13 B35.84 T82.97
General Foreman	W48.13 B35.84 T83.97
Journeyman	W44.63 B35.84 T80.47

Expiration Date: 05/31/2015

Craft: Sheet Metal Worker

APPRENTICE RATE SCHEDULE

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

Ratio of Apprentices to Journeymen - 1:4

Craft: Sheet Metal Worker

COMMENTS/NOTES

FOREMAN REQUIREMENTS:

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

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

SHIFT DIFFERENTIAL:

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

OVERTIME:

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

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

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

County - UNION

Craft: Sprinkler Fitter

PREVAILING WAGE RATE

	07/01/14	07/01/15
Foreman	W60.78 B23.87 T84.65	W0.00 B0.00 T86.65
General Foreman	W63.59 B23.87 T87.46	W0.00 B0.00 T89.46
Journeyman	W56.78 B23.87 T80.65	W0.00 B0.00 T82.65

Expiration Date: 06/30/2016

Craft: Sprinkler Fitter

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
1000 Hours	9.50	11.25	28.39	31.23	34.07	36.91	39.75	42.59	45.42	48.26
Benefits	10.12	10.12	19.87	19.87	19.87	19.87	Intervals	7 to 10	Jourymn	Ben.

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

INTERVAL	PERIOD AND RATES									
1000 hours	14.20	17.03	22.71	25.55	31.23	34.07	39.75	42.59	48.26	51.10
Benefits	10.12	10.12	19.87	19.87	19.87	19.87	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

	02/05/15	07/01/15	01/01/16	07/01/16	01/01/17	07/01/17	01/01/18
Finisher	W44.81	W45.08	W45.35	W45.66	W46.01	W46.32	W46.66
	B29.94	B30.56	B31.19	B31.95	B32.68	B33.44	B34.18
	T74.75	T75.64	T76.54	T77.61	T78.69	T79.76	T80.84

Expiration Date: 06/30/2018

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 - Ceramic

PREVAILING WAGE RATE

	06/01/15	12/07/15	06/06/16	12/05/16
Finisher	W0.00	W0.00	W0.00	W0.00
	B0.00	B0.00	B0.00	B0.00
	T69.99	T70.81	T71.63	T72.45
Setter	W0.00	W0.00	W0.00	W0.00
	B0.00	B0.00	B0.00	B0.00
	T85.13	T86.26	T87.39	T88.52

Expiration Date: 06/01/2017

Craft: Tile Setter - Ceramic

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
	50%	55%	60%	65%	70%	75%	85%	95%	100%	
750 Hours										

Ratio of Apprentices to Journeymen - 1:4

Craft: Tile Setter - Ceramic

COMMENTS/NOTES

OVERTIME:

Hours in excess of 7 per day, and the first 10 hours on Saturdays shall be paid at time and one-half the hourly rate. All hours on Saturdays after 10 hours shall be paid double the hourly rate. All hours on Sundays and holidays shall be paid at double the hourly rate.

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

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

County - UNION

Craft: Tile Setter - Marble

PREVAILING WAGE RATE

	02/05/15	07/01/15	01/01/16	07/01/16	01/01/17	07/01/17	01/01/18
Tile Setter	W56.15	W56.53	W56.89	W57.32	W57.74	W58.18	W58.53
	B30.46	B31.32	B32.21	B33.23	B34.26	B35.27	B36.37
	T86.61	T87.85	T89.10	T90.55	T92.00	T93.45	T94.90

Expiration Date: 06/30/2018

Craft: Tile Setter - Marble

APPRENTICE RATE SCHEDULE

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

Ratio of Apprentices to Journeymen - 1:4

Craft: Tile Setter - Marble

COMMENTS/NOTES

OVERTIME:

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

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

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

County - UNION

Craft: Tile Setter - Mosaic & Terrazzo

PREVAILING WAGE RATE

	02/23/15	07/01/15	01/01/16	07/01/16	01/01/17
Grinder or Assistant	W48.12	W0.00	W0.00	W0.00	W0.00
	B32.28	B0.00	B0.00	B0.00	B0.00
	T80.40	T81.55	T82.70	T83.85	T85.00
Mechanic	W49.72	W0.00	W0.00	W0.00	W0.00
	B32.30	B0.00	B0.00	B0.00	B0.00
	T82.02	T83.17	T84.32	T85.47	T86.62

Expiration Date: 06/30/2017

Craft: Tile Setter - Mosaic & Terrazzo

APPRENTICE RATE SCHEDULE

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

Ratio of Apprentices to Journeymen - 1:5

Craft: Tile Setter - Mosaic & Terrazzo

COMMENTS/NOTES

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

OVERTIME:

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

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

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

County - UNION

Craft: Truck Driver

PREVAILING WAGE RATE

	05/01/15	11/01/15
Bucket, Utility, Pick-up, Fuel Delivery trucks	W0.00 B0.00 T67.57	W0.00 B0.00 T68.07
Dump truck, Asphalt Distributor, Tack Spreader	W0.00 B0.00 T67.57	W0.00 B0.00 T68.07
Euclid-type vehicles (large, off-road equipment)	W0.00 B0.00 T67.72	W0.00 B0.00 T68.22
Helper on Asphalt Distributor truck	W0.00 B0.00 T67.57	W0.00 B0.00 T68.07
Slurry Seal, Seeding/Fertilizing/ Mulching truck	W0.00 B0.00 T67.57	W0.00 B0.00 T68.07
Straight 3-axle truck	W0.00 B0.00 T67.62	W0.00 B0.00 T68.12
Tractor Trailer (all types)	W0.00 B0.00 T67.72	W0.00 B0.00 T68.22
Vacuum or Vac-All truck (entire unit)	W0.00 B0.00 T67.57	W0.00 B0.00 T68.07
Winch Trailer	W0.00 B0.00 T67.82	W0.00 B0.00 T68.32

Expiration Date: 04/30/2016

Craft: Truck Driver

COMMENTS/NOTES

BLENDED RATE:

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

HAZARDOUS WASTE REMOVAL:

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

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

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

County - UNION

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

SHIFT DIFFERENTIAL:

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

OVERTIME:

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

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

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

County - UNION

Craft: Truck Driver-Material Delivery Driver

PREVAILING WAGE RATE

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

Expiration Date: 05/30/2016

Craft: Truck Driver-Material Delivery Driver

COMMENTS/NOTES

BLENDED RATE:

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

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

SHIFT DIFFERENTIALS:

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

OVERTIME:

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

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

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

County - UNION

Craft: Welder

PREVAILING WAGE RATE

Welder

Expiration Date:

Craft: Welder

COMMENTS/NOTES

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

STATEWIDE RATES

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

OPERATING ENGINEERS Rates Expiration Date : 06/30/2015

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

On all machines, including pile drivers with booms of 100 feet and over (including jib) the Operating Engineer shall receive the regular hourly rate plus: \$1.00 per hour on rigs with 100 foot Boom (including jib) up to 139 feet, and \$2.00 per hour on rigs with 140 foot Boom (including jib) and over. On all hoists where "Cat Head" or "Sheave Point" is 100 feet or more above ground level, the same differential pay shall apply as applicable to booms 100 feet and over.

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

SHIFT DIFFERENTIALS:

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

OVERTIME:

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

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

On hazardous waste removal work or asbestos removal work, on a state or federally designated hazardous waste site, where the operating engineer is in direct contact with hazardous material and when personal protective equipment is required for respiratory, skin, and eye protection, the operating engineer shall receive an additional 20% of the hourly wage, per hour.

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

OPERATING ENGINEERS Rates Expiration Date : 06/30/2015

Effective Date:

01/28/2015

Rate	Fringe	Total	Total	Total
44.48	29.48	73.96	0.00	0.00

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

TERRITORY
ENTIRE STATE

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

OPERATING ENGINEERS Rates Expiration Date : 06/30/2015

Effective Date:

01/28/2015

Rate	Fringe	Total	Total	Total
44.48	29.48	73.96	0.00	0.00

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)

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

OPERATING ENGINEERS Rates Expiration Date : 06/30/2015

Effective Date:

01/28/2015

Rate	Fringe	Total	Total	Total
42.57	29.48	72.05	0.00	0.00

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

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

OPERATING ENGINEERS Rates Expiration Date : 06/30/2015

Effective Date:	01/28/2015				
	Rate	Fringe	Total	Total	Total
	42.57	29.48	72.05	0.00	0.00
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, tigger, aerial platform hoist, house car)					
Hopper					
Hopper Doors (power operated)					
Ladder (motorized)					
Laddervator					

TERRITORY
ENTIRE STATE

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

OPERATING ENGINEERS Rates Expiration Date : 06/30/2015

Effective Date:	01/28/2015				
	Rate	Fringe	Total	Total	Total
	42.57	29.48	72.05	0.00	0.00
Locomotive (Dinky-type)					
Maintenance Utility Man					
Master Environmental Maintenance Technician					
Mechanic					
Mixer (Except paving mixers)					
Pavement Breaker - maintenance of compressor or hydraulic unit					
Pavement Breaker (truck-mounted or small self-propelled ride-on type)					
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)					

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

OPERATING ENGINEERS **Rates Expiration Date : 06/30/2015**

Effective Date:	01/28/2015				
	Rate	Fringe	Total	Total	Total
	42.57	29.48	72.05	0.00	0.00
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 Date:	01/28/2015				
	Rate	Fringe	Total	Total	Total
	39.23	29.48	68.71	0.00	0.00
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 Date:	01/28/2015				
	Rate	Fringe	Total	Total	Total
	36.65	29.48	66.13	0.00	0.00
Field Engineer - Rodman or Chainman					

Effective Date:	01/28/2015				
	Rate	Fringe	Total	Total	Total
	46.81	29.48	76.29	0.00	0.00
Lead Engineer, Foreman Engineer, Safety Engineer (minimum)					

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

OPERATING ENGINEERS Rates Expiration Date : 06/30/2015

Effective Date:

01/28/2015

Rate	Fringe	Total	Total	Total
46.07	29.48	75.55	0.00	0.00

Autograde Pavement Profiler - Recycle Type (CMI & similar types)

Autograde Pavement Profiler (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 Communications Engineer

Helicopter Co-Pilot

Juntann Pile Driver

Locomotive (large)

Mucking Machine

Pavement & Concrete Breaker (Superhammer & Hoe Ram)

TERRITORY
ENTIRE STATE

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

OPERATING ENGINEERS Rates Expiration Date : 06/30/2015

Effective Date:

01/28/2015

Rate	Fringe	Total	Total	Total
46.07	29.48	75.55	0.00	0.00

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

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

OPERATING ENGINEERS Rates Expiration Date : 06/30/2015

Effective Date:

01/28/2015

Rate	Fringe	Total	Total	Total
40.94	29.48	70.42	0.00	0.00

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

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

OPERATING ENGINEERS **Rates Expiration Date : 06/30/2015**

Effective Date:	01/28/2015				
	Rate	Fringe	Total	Total	Total
	40.94	29.48	70.42	0.00	0.00
Steam Generator or Boiler					
Stone Spreader					
Tamping Machine (vibrating ride-on type)					
Temporary Heating Plant (Nelson or other type, including propane, natural gas, and flow-type units)					
Water or Sprinkler Truck					
Welding Machine (gas, diesel, or electric convertor, of any type)					
Welding System - Multiple (rectifier transformer type)					
Wellpoint Systems (including installation by bull gang and maintenance)					

Effective Date:	01/28/2015				
	Rate	Fringe	Total	Total	Total
	47.89	29.48	77.37	0.00	0.00
Helicopter Pilot/Engineer					

Effective Date:	01/28/2015				
	Rate	Fringe	Total	Total	Total
	49.57	29.48	79.05	0.00	0.00
Cranes, Derricks, Pile Driver (all types), over 100 tons and TOWER CRANE with boom (including jib and/or leads) 140 ft. and over					

Effective Date:	01/28/2015				
	Rate	Fringe	Total	Total	Total
	48.57	29.48	78.05	0.00	0.00
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.					

Effective Date:	01/28/2015				
	Rate	Fringe	Total	Total	Total
	48.07	29.48	77.55	0.00	0.00
Cranes, Derricks, Pile Driver (all types) , under 100 tons with a boom (including jib and/or leads) 140 ft. and over					

TERRITORY
ENTIRE STATE

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

OPERATING ENGINEERS **Rates Expiration Date : 06/30/2015**

Effective Date:	01/28/2015				
	Rate	Fringe	Total	Total	Total
	47.57	29.48	77.05	0.00	0.00

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

Effective Date:	01/28/2015				
	Rate	Fringe	Total	Total	Total
	47.07	29.48	76.55	0.00	0.00

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

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

STRUCTURAL STEEL ERECTION **Rates Expiration Date : 06/30/2015**

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

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

SHIFT DIFFERENTIALS:

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

OVERTIME:

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

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

On hazardous waste removal work or asbestos removal work, on a state or federally designated hazardous waste site, where the operating engineer is in direct contact with hazardous material and when personal protective equipment is required for respiratory, skin, and eye protection, the operating engineer shall receive an additional 20% of the hourly wage, per hour.

Effective Date:

01/28/2015

Rate	Fringe	Total	Total	Total
49.70	29.48	79.18	0.00	0.00

Helicopter Pilot or Engineer

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

STRUCTURAL STEEL ERECTION **Rates Expiration Date : 06/30/2015**

Effective Date:	01/28/2015				
	Rate	Fringe	Total	Total	Total
	45.64	29.48	75.12	0.00	0.00
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 Date:	01/28/2015				
	Rate	Fringe	Total	Total	Total
	42.98	29.48	72.46	0.00	0.00
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					

TERRITORY
ENTIRE STATE

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

STRUCTURAL STEEL ERECTION **Rates Expiration Date : 06/30/2015**

Effective Date:	01/28/2015				
	Rate	Fringe	Total	Total	Total
	41.45	29.48	70.93	0.00	0.00
Compressor (Single)					
Generators					
Welding Machines, Gas, Diesel, Or Electric Converters of any type-single					
Welding System, Multiple (Rectifier Transformer Type)					

Effective Date:	01/28/2015				
	Rate	Fringe	Total	Total	Total
	39.69	29.48	69.17	0.00	0.00
Assistant Engineer/Oiler					
Drillers Helper					
Field Engineer - Transit/Instrument Man					
Maintenance Apprentice (Deckhand)					
Maintenance Apprentice (Oiler)					

Effective Date:	01/28/2015				
	Rate	Fringe	Total	Total	Total
	47.26	29.48	76.74	0.00	0.00
Lead Engineer, Foreman Engineer, Safety Engineer (Minimum)					

Effective Date:	01/28/2015				
	Rate	Fringe	Total	Total	Total
	36.65	29.48	66.13	0.00	0.00
Field Engineer - Rodman or Chainman					

Effective Date:	01/28/2015				
	Rate	Fringe	Total	Total	Total
	46.40	29.48	75.88	0.00	0.00
Field Engineer-Chief of Party					

TERRITORY
ENTIRE STATE

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

STRUCTURAL STEEL ERECTION **Rates Expiration Date : 06/30/2015**

Effective Date:	01/28/2015				
	Rate	Fringe	Total	Total	Total
	51.59	29.48	81.07	0.00	0.00

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 Date:	01/28/2015				
	Rate	Fringe	Total	Total	Total
	49.93	29.48	79.41	0.00	0.00

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 Date:	01/28/2015				
	Rate	Fringe	Total	Total	Total
	50.09	29.48	79.57	0.00	0.00

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 Date:	01/28/2015				
	Rate	Fringe	Total	Total	Total
	48.43	29.48	77.91	0.00	0.00

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.

Effective Date:	01/28/2015				
	Rate	Fringe	Total	Total	Total
	50.09	29.48	79.57	0.00	0.00

Helicopter Communications Engineer

Helicopter Co-Pilot

**TERRITORY
ENTIRE STATE**

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

TEST BORING PRELIMINARY TO CONSTRUCTION-SOUTH/WEST Rates Expiration Date : 06/30/2015

THESE RATES APPLY IN THE FOLLOWING COUNTIES ONLY:

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

On all machines, including pile drivers with booms of 100 feet and over (including jib) the Operating Engineer shall receive the regular hourly rate plus: \$1.00 per hour on rigs with 100 foot Boom (including jib) up to 139 feet, and \$2.00 per hour on rigs with 140 foot Boom (including jib) and over. On all hoists where "Cat Head" or "Sheave Point" is 100 feet or more above ground level, the same differential pay shall apply as applicable to booms 100 feet and over.

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

SHIFT DIFFERENTIALS:

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

OVERTIME:

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

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

On hazardous waste removal work or asbestos removal work, on a state or federally designated hazardous waste site, where the operating engineer is in direct contact with hazardous material and when personal protective equipment is required for respiratory, skin, and eye protection, the operating engineer shall receive an additional 20% of the hourly wage, per hour.

Effective Date:

01/28/2015

Rate	Fringe	Total	Total	Total
46.07	29.48	75.55	0.00	0.00

Driller

TERRITORY
ENTIRE STATE

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

TEST BORING PRELIMINARY TO CONSTRUCTION-SOUTH/WEST Rates Expiration Date : 06/30/2015

Effective Date:

01/28/2015

Rate	Fringe	Total	Total	Total
39.23	29.48	68.71	0.00	0.00

Driller's Helper

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

FREE AIR TUNNEL JOBS Rates Expiration Date : 02/28/2016

{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 Date:	06/05/2015			09/01/2015	
	Rate	Fringe	Total	Total	Total
	38.50	26.28	64.78	65.53	0.00

Walking Boss & Superintendent

Effective Date:	06/05/2015			09/01/2015	
	Rate	Fringe	Total	Total	Total
	38.20	26.28	64.48	65.23	0.00

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

Effective Date:	06/05/2015			09/01/2015	
	Rate	Fringe	Total	Total	Total
	37.70	26.28	63.98	64.73	0.00

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

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

FREE AIR TUNNEL JOBS **Rates Expiration Date : 02/28/2016**

Effective Date:	06/05/2015			09/01/2015	
	Rate	Fringe	Total	Total	Total
	40.20	26.28	66.48	67.23	0.00

Blaster

Effective Date:	06/05/2015			09/01/2015	
	Rate	Fringe	Total	Total	Total
	37.15	26.28	63.43	64.18	0.00

Top Labor Foreman

Effective Date:	06/05/2015			09/01/2015	
	Rate	Fringe	Total	Total	Total
	36.80	26.28	63.08	63.83	0.00

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 Date:	06/05/2015			09/01/2015	
	Rate	Fringe	Total	Total	Total
	36.65	26.28	62.93	63.68	0.00

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)

Effective Date:	06/05/2015			09/01/2015	
	Rate	Fringe	Total	Total	Total
	36.15	26.28	62.43	63.18	0.00

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

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

DRILL FOR GROUND WATER SUPPLY **Rates Expiration Date : 06/30/2015**

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 Date:	01/28/2015				
	Rate	Fringe	Total	Total	Total
	44.82	29.48	74.30	0.00	0.00
Driller					

Effective Date:	01/28/2015				
	Rate	Fringe	Total	Total	Total
	37.98	29.48	67.46	0.00	0.00
Driller's Helper					

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

OPERATING ENGINEERS MARINE-DREDGING **Rates Expiration Date : 09/30/2015**

NOTE: Boat crews carrying explosive material (dynamite, pourfex, and other similar materials) shall be paid at 120% of the hourly wage rate for hours engaged in handling of said materials. Employees required to possess a Hazardous Material Certification as a condition of employment shall be compensated at 120% of the hourly wage rate.

OVERTIME:

Hours in excess of 40 per week, and all hours on Saturdays and Sundays, shall be paid at time and one-half the hourly rate. All hours on holidays shall be paid at double the hourly rate.

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

Effective Date:

10/01/2014

Rate	Fringe	Total	Total	Total
35.63	12.89	48.52	0.00	0.00

Lead Dredgerman, Operator, Leverman

Licensed Tug Operator (over 1000 HP)

Effective Date:

10/01/2014

Rate	Fringe	Total	Total	Total
30.81	12.50	43.31	0.00	0.00

Derrick Operator, Spider/Spill Barge Operator

Engineer, Electrician, Chief Welder, Chief Mate

Fill Placer, Operator II

Licensed Boat Operator

Maintenance Engineer

Effective Date:

10/01/2014

Rate	Fringe	Total	Total	Total
29.01	12.36	41.37	0.00	0.00

Certified Welder

Effective Date:

10/01/2014

Rate	Fringe	Total	Total	Total
28.22	12.00	40.22	0.00	0.00

Mate, Drag Barge Operator, Steward, Assistant Fill Placer

Welder

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

OPERATING ENGINEERS MARINE-DREDGING Rates Expiration Date : 09/30/2015

Effective Date:	10/01/2014				
	Rate	Fringe	Total	Total	Total
	27.30	11.92	39.22	0.00	0.00
Boat Operator					

Effective Date:	10/01/2014				
	Rate	Fringe	Total	Total	Total
	22.68	11.25	33.93	0.00	0.00
Shoreman, Deckhand, Rodman, Scowman					

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

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 Date:	03/01/2015			03/01/2016	03/01/2017
	Rate	Fringe	Total	Total	Total
	35.00	19.69	54.69	56.10	57.77

Foreman

Effective Date:	03/01/2015			03/01/2016	03/01/2017
	Rate	Fringe	Total	Total	Total
	32.40	19.69	52.09	53.45	55.07

Box man

Effective Date:	03/01/2015			03/01/2016	03/01/2017
	Rate	Fringe	Total	Total	Total
	30.40	19.69	50.09	51.45	53.02

Microsurface/Slurry Preparation

Effective Date:	03/01/2015			03/01/2016	03/01/2017
	Rate	Fringe	Total	Total	Total
	30.40	19.69	50.09	51.45	53.02

Squeegee man

Effective Date:	03/01/2015			03/01/2016	03/01/2017
	Rate	Fringe	Total	Total	Total
	28.90	19.69	48.59	49.95	51.57

Cleaner, Taper

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

ASPHALT LABORERS - SOUTH Rates Expiration Date : 02/28/2016

"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 Date:	06/11/2015			09/01/2015	
	Rate	Fringe	Total	Total	Total
	38.00	26.28	64.28	65.03	0.00

Paving Foreman

Effective Date:	06/11/2015			09/01/2015	
	Rate	Fringe	Total	Total	Total
	36.55	26.28	62.83	63.58	0.00

Head Raker

Effective Date:	06/11/2015			09/01/2015	
	Rate	Fringe	Total	Total	Total
	36.40	26.28	62.68	63.43	0.00

Raker, Screedman, Luteman

Effective Date:	06/11/2015			09/01/2015	
	Rate	Fringe	Total	Total	Total
	36.15	26.28	62.43	63.18	0.00

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

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

ASPHALT LABORERS - SOUTH Rates Expiration Date : 02/28/2016

Effective Date:	06/11/2015			09/01/2015	
	Rate	Fringe	Total	Total	Total
	36.25	26.28	62.53	63.28	0.00
Milling Controller					

Effective Date:	06/11/2015			09/01/2015	
	Rate	Fringe	Total	Total	Total
	36.45	26.28	62.73	63.48	0.00
Traffic Control Coordinator					

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

TEST BORING PRELIMINARY TO CONSTRUCTION-NORTH **Rates Expiration Date : 10/16/2015**

THESE RATES APPLY IN THE FOLLOWING COUNTIES ONLY:
Bergen, Essex, Hudson, Middlesex, Morris, Passaic, Somerset, Union

SHIFT DIFFERENTIAL:

Employees on a shift other than between the hours of 8:00 AM and 5:00 PM shall receive an additional \$1.00 per hour.

OVERTIME:

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

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

Hazardous Waste Pay (for Levels A, B, and C): an additional 10% of the hourly rate, per hour.

A newly hired Helper with no experience in the industry shall be paid as follows:

- 1st year on the job - 70% of Helper wage rate
- 2nd year on the job - 80% of Helper wage rate
- 3rd year on the job - 90% of Helper wage rate
- All helpers receive full fringe benefit rate.

Effective Date:

11/13/2014

Rate	Fringe	Total	Total	Total
29.44	22.89	52.33	0.00	0.00

Helper (4th year helper)

Effective Date:

11/13/2014

Rate	Fringe	Total	Total	Total
36.82	22.89	59.71	0.00	0.00

Driller

Effective Date:

11/13/2014

Rate	Fringe	Total	Total	Total
42.22	22.89	65.11	0.00	0.00

Foreman

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

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

THESE RATES APPLY IN THE FOLLOWING COUNTIES ONLY:

Bergen, Essex, Hudson, Hunterdon, Middlesex, Monmouth, Morris, Passaic, Somerset, Sussex, Union, Warren

{For apprentice rates refer to "Laborer - Heavy & General" apprentice rates in any county rate package}

The regular workday consists of 8 hours, starting at 7:00 AM or 8:00 AM.

SHIFT DIFFERENTIALS:

- Shifts must start at 3:00 PM, 4:00 PM, 12:00 AM, or 1:00 AM, to be considered shift work, except when the project owner mandates special hours of work in the job specifications, in which case those hours may be considered shift work.
- When such hours are mandated by the project owner, a shift that begins before midnight on Friday and ends on Saturday morning, or that begins at or after 8:00 PM on Sunday and ends on Monday morning may be paid at the shift differential rate.
- Shifts shall receive an additional \$2.50 per hour.

OVERTIME:

- Hours in excess of 8 per day, Monday through Friday, or outside of the regular workday that are not shift work, and all hours on Saturdays, shall be paid at time and one-half the hourly rate. All hours on Sundays and holidays shall be paid at double the hourly rate.
- Four 10-hour days may be worked, Monday through Thursday, at straight time, with Friday used as a make-up day for a day lost to inclement weather. If Friday is not a make-up day, all hours on Friday shall be paid at time and one-half the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays observed the following Monday. Veterans Day may be substituted for the day after Thanksgiving. However, in the trading of Veterans Day for the day after Thanksgiving, if overtime is worked on Veterans Day, it shall be paid at double the hourly rate.

Hazardous Waste Work:

- where Level A, B, or C protection is required: + \$3.00/hr
- other Hazardous Waste site: + \$1.00/hr

Effective Date:	06/05/2015			09/01/2015	03/01/2016
	Rate	Fringe	Total	Total	Total
	35.75	26.28	62.03	62.78	64.28

"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 coatlers 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 Date:	06/05/2015			09/01/2015	03/01/2016
	Rate	Fringe	Total	Total	Total
	36.45	26.28	62.73	63.48	64.98

"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

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION

HEAVY & GENERAL LABORERS - NORTH **Rates Expiration Date : 02/28/2018**

Effective Date:	06/05/2015			09/01/2015	03/01/2016
	Rate	Fringe	Total	Total	Total
	36.70	26.28	62.98	63.73	65.23

"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 Date:	06/05/2015			09/01/2015	03/01/2016
	Rate	Fringe	Total	Total	Total
	40.25	26.28	66.53	67.28	68.78

"A" Rate:
blaster

Effective Date:	06/05/2015			09/01/2015	03/01/2016
	Rate	Fringe	Total	Total	Total
	38.00	26.28	64.28	65.03	66.53

"FOREMAN" Rate:
labor foreman, asphalt foreman, drill foreman, pipe foreman, grade foreman, finisher foreman, concrete foreman

Effective Date:	06/05/2015			09/01/2015	03/01/2016
	Rate	Fringe	Total	Total	Total
	39.00	26.28	65.28	66.03	67.53

"GENERAL FOREMAN" Rate

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**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

HEAVY & GENERAL LABORERS - SOUTH Rates Expiration Date : 02/28/2016

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 Date:	06/11/2015			09/01/2015	
	Rate	Fringe	Total	Total	Total
	35.75	26.28	62.03	62.78	0.00

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 Date:	06/11/2015			09/01/2015	
	Rate	Fringe	Total	Total	Total
	35.75	26.28	62.03	62.78	0.00

wagon drill or drill master helper; powder carrier; magazine tender; signal man

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION

HEAVY & GENERAL LABORERS - SOUTH **Rates Expiration Date : 02/28/2016**

Effective Date:	06/11/2015			09/01/2015	
	Rate	Fringe	Total	Total	Total
	36.45	26.28	62.73	63.48	0.00

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 Date:	06/11/2015			09/01/2015	
	Rate	Fringe	Total	Total	Total
	36.45	26.28	62.73	63.48	0.00

wagon or directional drill operator; drill master

Effective Date:	06/11/2015			09/01/2015	
	Rate	Fringe	Total	Total	Total
	40.25	26.28	66.53	67.28	0.00

blaster

Effective Date:	06/11/2015			09/01/2015	
	Rate	Fringe	Total	Total	Total
	38.00	26.28	64.28	65.03	0.00

labor foreman, drill foreman, pipe foreman, grade foreman, finisher foreman, concrete foreman

Effective Date:	06/11/2015			09/01/2015	
	Rate	Fringe	Total	Total	Total
	39.00	26.28	65.28	66.03	0.00

general foreman

Effective Date:	06/11/2015			09/01/2015	
	Rate	Fringe	Total	Total	Total
	36.70	26.28	62.98	63.73	0.00

concrete finisher; setter of brick or stone pavers; stone cutter; form setter; manhole, catch basin, or inlet builder; rammer; gunite nozzle man

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION

PIPELINE - MAINLINE TRANSMISSION **Rates Expiration Date : 05/31/2016**

These rates apply to the following: welding on Transportation Mainline pipe lines (cross-country pipe lines, or any segments thereof, transporting coal, gas, oil, water or other transportable materials, vapors or liquids, including portions of such pipe lines within private property boundaries up to the final metering station or connection - the point where a valve, consumer connection, or town border station divides mainline transmission lines or higher pressure lateral and branch lines from lower pressure distribution systems).

PER DIEM PAYMENT:

In addition to the total wage rate paid for each craft, the following per diem (per day) amounts must also be paid - Pipeline Journeyman: \$42.50; Pipeline Journeyman Welder: \$102.50; and Pipeline Helper: \$42.50. Note: in order to receive the per diem payment an employee must work a minimum of 8 hours in a 24 hour period.

NOTES:

- Journeymen employed as "stringer bead" welders and journeymen who are regularly employed as "hot-pass" welders shall receive \$1.00 per hour more than other journeymen.
- Welders running "stringer bead" or "hot-pass" on "cutouts" or "tie-ins" on a production basis shall be paid \$1.00 per hour above the journeymen rate.
- Whenever a welder helper is employed using a power buffer or power grinder immediately behind the stringer bead and/or hot-pass welders, and the pipe gang is set on a production basis, the helper shall be paid \$2.00 per hour above the helper rate.
- If back welding is performed inside a pipe under either or both of the following conditions, the welder engaged in the welding will receive \$3.00 per hour above the regular rate for the job only for the days on which such back welding is performed:
 - The employer elects, as a regular procedure, to back weld each line-up. This condition is not intended to apply to occasional back welding performed by the pipe gang to repair a bead, to rectify a "high-lo" condition or wall thickness, etc.
 - A welder is required to back weld a completed weld behind the firing line.
- If the welder helper is required to go inside the pipe for the purpose of brushing, buffing and grinding the weld, they shall receive a wage rate \$1.00 per hour above the regular helper rate for the days involved.
- Welders working on "hot work" shall be paid \$2.00 per hour above the regular rate for each day engaged in such work. "Hot work" is defined as work on lines in service where there is the danger of fire or explosion.

The regular workday shall be 8 hours, between 8:00 AM and 4:30 PM.

OVERTIME:

Hours in excess of 8 per day, and all hours on Sundays shall be paid at time and one-half the regular rate, inclusive of benefits. All hours on holidays shall be paid at double the regular rate, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, July 4th, Labor Day, Thanksgiving Day, and Christmas Day. Sunday holidays observed the following Monday.

Effective Date:

06/02/2015

Rate	Fringe	Total	Total	Total
52.53	26.14	78.67	0.00	0.00

Pipeline Journeyman Welder

TERRITORY
ENTIRE STATE

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION

PIPELINE - MAINLINE TRANSMISSION Rates Expiration Date : 05/31/2016

Effective Date:	06/02/2015				
	Rate	Fringe	Total	Total	Total
	52.53	26.14	78.67	0.00	0.00
Pipeline Journeyman					

Effective Date:	06/02/2015				
	Rate	Fringe	Total	Total	Total
	31.82	18.28	50.10	0.00	0.00
Pipeline Helper					

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION

PIPELINE - GAS DISTRIBUTION **Rates Expiration Date : 10/31/2015**

These rates apply to the following: welding on gas line distribution systems (that portion of the gas distribution system placed in streets, roads, subways, tunnels, viaducts, highways and easements which serves the users of gas).

SHIFT DIFFERENTIALS:

An "irregular" shift may start any time from 5:00 PM to 12:00 AM, Monday through Friday, and shall receive an additional 15% of the regular rate per hour, inclusive of benefits.

OVERTIME:

Hours in excess of forty per week, and all hours on Saturdays shall be paid at time and one-half the regular rate, inclusive of benefits. All hours on Sundays and holidays shall be paid at double the regular rate, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day, and Christmas Day. Sunday holidays observed the following Monday.

Effective Date:	10/30/2014				
	Rate	Fringe	Total	Total	Total
	54.13	20.90	75.03	0.00	0.00

Pipeline Journeyman Welder

Effective Date:	10/30/2014				
	Rate	Fringe	Total	Total	Total
	54.13	20.90	75.03	0.00	0.00

Pipeline Journeyman

Effective Date:	10/30/2014				
	Rate	Fringe	Total	Total	Total
	35.07	15.09	50.16	0.00	0.00

Pipeline Helper

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

ASPHALT LABORERS- NORTH Rates Expiration Date : 02/28/2016

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 Date:	06/05/2015			09/01/2015	
	Rate	Fringe	Total	Total	Total
	38.00	26.28	64.28	65.03	0.00

Asphalt Foreman

Effective Date:	06/05/2015			09/01/2015	
	Rate	Fringe	Total	Total	Total
	36.70	26.28	62.98	63.73	0.00

Asphalt Screedman

Effective Date:	06/05/2015			09/01/2015	
	Rate	Fringe	Total	Total	Total
	36.45	26.28	62.73	63.48	0.00

Asphalt Raker or Lute Man

Effective Date:	06/05/2015			09/01/2015	
	Rate	Fringe	Total	Total	Total
	35.75	26.28	62.03	62.78	0.00

Asphalt Laborer

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION

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 Date:	12/01/2014			11/29/2015	12/04/2016
	Rate	Fringe	Total	Total	Total
	48.93	32.78	81.71	84.36	87.27
Chief Lineman					

Effective Date:	12/01/2014			11/29/2015	12/04/2016
	Rate	Fringe	Total	Total	Total
	46.16	30.92	77.08	79.59	82.34
Journeyman Lineman					

Effective Date:	12/01/2014			11/29/2015	12/04/2016
	Rate	Fringe	Total	Total	Total
	46.16	30.92	77.08	79.59	82.34
Special License Operator					

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION

ELECTRICIAN- UTILITY WORK (NORTH) **Rates Expiration Date : 12/03/2017**

Effective Date:	12/01/2014			11/29/2015	12/04/2016
	Rate	Fringe	Total	Total	Total
	45.70	30.61	76.31	78.79	81.51

Transit Man

Effective Date:	12/01/2014			11/29/2015	12/04/2016
	Rate	Fringe	Total	Total	Total
	44.32	29.69	74.01	76.40	79.04

Line Equipment Operator

Effective Date:	12/01/2014			11/29/2015	12/04/2016
	Rate	Fringe	Total	Total	Total
	38.78	25.98	64.76	66.85	69.17

Dynamite Man

Effective Date:	12/01/2014			11/29/2015	12/04/2016
	Rate	Fringe	Total	Total	Total
	54.47	36.49	90.96	93.92	97.16

General Foreman

Effective Date:	12/01/2014			11/29/2015	12/04/2016
	Rate	Fringe	Total	Total	Total
	53.09	35.57	88.66	91.53	94.68

Assistant General Foreman

Effective Date:	12/01/2014			11/29/2015	12/04/2016
	Rate	Fringe	Total	Total	Total
	51.70	34.63	86.33	89.14	92.21

Line Foreman

Effective Date:	12/01/2014			11/29/2015	12/04/2016
	Rate	Fringe	Total	Total	Total
	37.39	25.05	62.44	64.46	66.69

Straight Light Mechanical Leader

Effective Date:	12/01/2014			11/29/2015	12/04/2016
	Rate	Fringe	Total	Total	Total
	35.54	23.81	59.35	61.28	63.40

Groundman Winch Operator

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION

ELECTRICIAN- UTILITY WORK (NORTH) **Rates Expiration Date : 12/03/2017**

Effective Date:	12/01/2014			11/29/2015	12/04/2016
	Rate	Fringe	Total	Total	Total
	35.54	23.81	59.35	61.28	63.40

Groundman Truck Operator

Effective Date:	12/01/2014			11/29/2015	12/04/2016
	Rate	Fringe	Total	Total	Total
	35.08	23.50	58.58	60.48	62.57

Straight Light Mechanic

Effective Date:	12/01/2014			11/29/2015	12/04/2016
	Rate	Fringe	Total	Total	Total
	35.08	23.50	58.58	60.48	62.57

Line Equipment Mechanic

Effective Date:	12/01/2014			11/29/2015	12/04/2016
	Rate	Fringe	Total	Total	Total
	30.01	20.10	50.11	51.73	53.52

Groundman 2nd Year

Effective Date:	12/01/2014			11/29/2015	12/04/2016
	Rate	Fringe	Total	Total	Total
	27.70	18.55	46.25	47.76	49.39

Groundman 1st Year

Effective Date:	12/01/2014			11/29/2015	12/04/2016
	Rate	Fringe	Total	Total	Total
	45.70	30.61	76.31	78.79	81.51

Line Equipment Foreman

TERRITORY
ENTIRE STATE

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION

ELECTRICIAN- UTILITY WORK (SOUTH) **Rates Expiration Date : 11/30/2015**

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.

**TERRITORY
ENTIRE STATE**

**NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION**

HEAVY & GENERAL LABORERS- NEW TRANS HUDSON TUNNELS Rates Expiration Date : 02/28/2016

****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 Date:	06/11/2015			09/01/2015	
	Rate	Fringe	Total	Total	Total
	57.75	26.28	84.03	85.03	0.00

Walking Boss & Superintendent

Effective Date:	06/11/2015			09/01/2015	
	Rate	Fringe	Total	Total	Total
	57.30	26.28	83.58	84.58	0.00

Heading Foreman, Shaft Foreman, Rod Foreman, Electrical Foreman, Rigging Foreman

Effective Date:	06/11/2015			09/01/2015	
	Rate	Fringe	Total	Total	Total
	56.55	26.28	82.83	83.83	0.00

Iron Foreman, Caulking Foreman, Form Foreman, Cement Finishing Foreman, Concrete Foreman, Track Foreman, Clean-up Foreman, Grout Foreman

TERRITORY
ENTIRE STATE

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
PREVAILING WAGE RATE DETERMINATION

HEAVY & GENERAL LABORERS- NEW TRANS HUDSON TUNNELS **Rates Expiration Date : 02/28/2016**

Effective Date:	06/11/2015			09/01/2015	
	Rate	Fringe	Total	Total	Total
	60.30	26.28	86.58	87.58	0.00

Blaster

Effective Date:	06/11/2015			09/01/2015	
	Rate	Fringe	Total	Total	Total
	55.73	26.28	82.01	83.01	0.00

Top Labor Foreman

Effective Date:	06/11/2015			09/01/2015	
	Rate	Fringe	Total	Total	Total
	55.20	26.28	81.48	82.48	0.00

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)

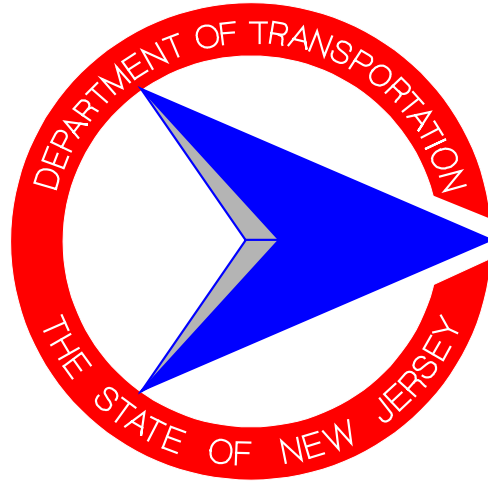
Effective Date:	06/11/2015			09/01/2015	
	Rate	Fringe	Total	Total	Total
	54.98	26.28	81.26	82.26	0.00

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)

Effective Date:	06/11/2015			09/01/2015	
	Rate	Fringe	Total	Total	Total
	54.23	26.28	80.51	81.51	0.00

All others (including Powder Watchman, Change House Attendant, Top Laborer, Job Steward)

Department of Transportation



Supplementary Specifications For Federal Aid Projects

Chris Christie
Governor

James S. Simpson
Commissioner

Kim Guadagno
Lt. Governor

SUPPLEMENTARY SPECIFICATIONS FOR FEDERAL AID PROJECTS

FOR THE REPLACEMENT OF

MADISON HILL ROAD BRIDGE (RA28) OVER RAHWAY RIVER

IN THE CITY OF RAHWAY, TOWNSHIP OF CLARK

COUNTY OF UNION

AUTHORIZATION OF CONTRACT

The contract for this project is authorized by the provisions of local public contracts law, NJSA 40A: 11-1 et seq and Title 23 of the United States Code - Highways.

SPECIFICATIONS TO BE USED

The 2007 Standard Specifications for Road and Bridge Construction, of the New Jersey Department of Transportation as amended herein will govern the construction of this Project and the execution of the Contract.

These Supplemental Specifications consist of the following:

Pages S-1 to S-59 inclusive.

General wage determinations issued under Davis-Bacon and related acts, published by US Department of Labor, may be obtained from the Davis-Bacon web site at <http://www.access.gpo.gov/davisbacon/nj.html> under the appropriate county, select the construction type heading: HIGHWAY.

Pay the prevailing wage rates determined by the United States Secretary of Labor and the New Jersey Department of Labor. If the prevailing wage rate prescribed for any craft by the United States Secretary of Labor is not the same as the prevailing wage rate prescribed for that craft by the New Jersey Department of Labor, pay the higher rate.

State wage rates may be obtained from the New Jersey Department of Labor & Workforce Development (Telephone: 609-292-2259) or by accessing the Department of Labor & Workforce Development's web site at http://lwd.dol.state.nj.us/labor/wagehour/wagehour_index.html The State wage rates in effect at the time of award are part of this Contract, pursuant to Chapter 150, Laws of 1963 (NJSA 34:11-56.25, et seq.).

If an employee of the Contractor or subcontractor has been paid a rate of wages less than the prevailing wage, the Department may suspend the Work, and declare the Contractor in default.

The following FHWA funded project Attachments that are located after Division 1000 in these Supplemental Specifications:

1. Required Contract Provisions, Federal-Aid Construction Contracts (Form FHWA-1273).
2. Standard Federal Equal Employment Opportunity Construction Contract Specifications (Executive Order 11246).
3. Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity (Executive Order 11246).
4. State of New Jersey Equal Employment Opportunity for Contracts Funded by FHWA.
5. Emerging Small Business Enterprise Utilization Attachment, FHWA Funded Contracts.
5. Disadvantaged Business Enterprise Utilization Attachment, FHWA Funded Contracts
- 5(A) The Incentive Program, Disadvantaged Business Enterprise Utilization Attachment for FHWA Funded Contracts.
6. Equal Employment Opportunity Special Provisions.
7. Special Contract Provisions for Investigating, Reporting, and Resolving Employment Discrimination and Sexual Harassment Complaints.

GENERAL

All awards shall be made subject to the approval of the New Jersey Department of Transportation. No construction shall start before approval of said award by the New Jersey Department of Transportation. Prior to the start of construction the contractor must submit a Material Questionnaire (SA-11) listing all sources of materials. Any materials used on the project from a non-approved New Jersey Department of Transportation source will be considered non-participating. The contractor is also notified that the District Office, Division of Local Aid and Economic Development must be notified of the construction commencement date at least five (5) calendar days prior to the start of construction.

Award of contract and subletting will not be permitted to, materials will not be permitted from, and use of equipment will not be permitted that is owned and/or operated by, firms and individuals included in the report of suspensions, debarments and disqualifications of firms and individuals as maintained by the Department of the Treasury, General Services Administration, CN-039, Trenton NJ 08625 (609-633-3990).

Payment for a pay item in the proposal includes all the compensation that will be made for the work of that item as described in the contract documents unless the "basis of payment" clause provides that certain work essential to that item will be paid for under another pay item.

Whenever any section, subsection, subpart or subheading is amended by such terms as changed to, deleted or added it is construed to mean that it amends that section, subsection, subpart or subheading of the 2007 Standard Specifications unless otherwise noted.

Whenever reference to page number is made, it is construed to refer to the 2007 Standard Specifications unless otherwise noted.

Henceforth in this supplementary specification whenever reference to the State, Commissioner, Department, Engineer or Inspector is made, it is construed to mean the particular municipality or county executing this contract.

Whenever reference to Title 27 is made, it is construed to mean Title 40.

DIVISION 100 – GENERAL PROVISIONS

SECTION 101- GENERAL INFORMATION

101.01 INTRODUCTION

THE FOLLOWING IS ADDED:

Whenever any section, subsection, subpart, or subheading is amended by such terms as changed to, deleted or added it is construed to mean that it amends that section, subsection, part, subpart, or subheading of the 2007 Standard Specifications for Road and Bridge Construction, NJDOT.

Whenever any reference to page number is made, it is construed to refer to the 2007 Standard Specifications for Road and Bridge Construction, NJDOT.

The following terms are amended:

The Board of Chosen Freeholders intends to proceed expeditiously with this project. Funds have been appropriated by the Board of Chosen Freeholders under Capital Improvement Program.

101.02 ABBREVIATIONS

THE FOLLOWING IS ADDED:

COUNTY – County of Union, a Municipal Corporation

101.03 TERMS

THE FOLLOWING IS ADDED:

It is the intent of those amendments to the terms to change all reference to the State of New Jersey (and various Departments and offices thereof) to the County of Union, except in the circumstances where the State of New Jersey has jurisdiction.

The following terms are amended and/or added:

ADDITIONAL COMPENSATION. A monetary payment(s), sought by the Contractor, premised upon (1.) an adjustment or modification to the Contract pay item(s) for particular work or (2.) any or all forms of compensation over and above that which is specifically provided under the various individual Contract Pay Items or Contract payment provisions.

BIDDER. The term “Bidder” means an individual, firm, partnership, corporation, or any acceptable combination thereof, acting directly or through a duly authorized representative, legally submitting a bid for the advertised work.

BY OTHERS. The term “by others” refers to a person, firm, or corporation other than the Contractor or its surety or persons, firms, or corporations in a contractual relationship with the Contractor or the surety, such as a subcontractor, supplier, fabricator, or consultant at any tier. “By others” shall include the Department or other public body.

CALENDAR DAY. Each and every day shown on the calendar.

CHANGE ORDER. A written work order submitted by the Contractor, approved by the Engineer, accepted by the contractor, and authorized by the Board of Chosen Freeholders.

COMMISSIONER. Change all reference to the County of Union, Board of Chosen Freeholders.

COMPLETION OF THE CONTRACT. The event termed “Completion of the Contract”, under the Specifications and the Contractual Liability Act NJSA 59:13-1 *et seq.*, shall be deemed to have occurred as of the date the Contractor accepts or accepts with reservation of specific claims, in writing in accord with forms supplied by the Department, the Final Certificate issued by the Department or the 31st day after issuance of said Final Certificate by the Department, whichever event may be the first to occur.

CONSTRUCTION ENGINEERING COSTS. The cost incurred by the Department of Engineering, inspection, and administration of a Project during construction.

CONSTRUCTION ORDER. The term “Construction Order” includes Field Orders, Change Orders, and Supplementary Agreements.

101.03 TERMS (Cont'd)

CONTRACT TIME. The term "Contract Time" means the number of Working Days or Calendar Days including authorized adjustments allowed for Completion. When a specified completion date is shown in the Specifications instead of the number of Working Days or Calendar Days, completion shall be on or before that date. Specified completion date and Calendar Day contracts shall be completed on or before the day indicated even when that date is a Saturday, Sunday, or holiday.

CLAIM. The Contractor has reason to believe it is entitled to additional compensation and/or an extension of contract time, in accordance with and subject to the Contract Documents and the provisions of the Contractual Liability Act, N.J.S.A. 59:13-1 *et seq.*, arising out of or relating to the happening of an event, thing or occurrence or an act or failure to act by the Engineer. A claim accrues when it arises, meaning when a situation or occurrence takes place or comes about which has or possesses the potential to support or become the basis for additional compensation and/or an extension of time.

DAY. Means the same as calendar days.

DISPUTE (AS TO A CLAIM). A disagreement between the Department and the Contractor with regard to the Work or Contract Documents arising out of a claim by the Contractor for additional compensation or an extension of time

EXTRA WORK. The term "Extra Work" means new and unforeseen work found essential to the satisfactory completion of the Project, as determined by the Engineer, and not covered by any of the various Pay Items for which there is a bid price or by combination of such items. In the event portions of such work are determined by the Engineer to be covered by one of the various Pay Items for which there is a bid price or combinations of such items, the remaining portion of such work will be designated as Extra Work. Extra Work also includes work specifically designated as Extra Work in the Contract Documents.

EXTREME WEATHER CONDITIONS. When solely as a result of adverse weather, the contractor is not able to work, the contractor is entitled to claim that progress of the work has been affected by extreme weather conditions and may seek an extension of contract time, consistent with the provisions of Subsection 108.11.

FINAL CERTIFICATE. It is the final payment document that sets forth the total amount payable to the Contractor, including therein an itemization of said amount segregated as to Pay Item quantities, Extra Work, and any other basis for payment; it also includes therein any retainage to be released and all deductions made or to be made from prior payments as required pursuant to the provisions of the Contract Documents, which may result in either a Final Payment to the Contractor or a Credit (payment) due the Department.

HOLIDAYS. The term holiday is changed to be the following holidays:

New Year's Day
Martin Luther King's Birthday
Lincoln's Birthday
President's Day
Good Friday
Memorial Day
Independence Day
Labor Day
Columbus Day
Election Day
Veteran's Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day

MAJOR AND MINOR PAY ITEMS. The term "Major Pay Item" means any Pay Item having an original Contract value in excess of ten percent of the Total Contract Price and those items specifically designated as "Major Pay Items" in Subsection 104.03.01. The original Contract value of a Pay Item equals the per unit price bid for said Pay Item multiplied by the estimated quantity such item contained in the Proposal Form. All other Pay Items shall be considered "Minor Pay Items."

MATERIALS. Any substances specified for use in the construction of the Project.

101.03 TERMS (Cont'd)

MATERIALS QUESTIONNAIRE. The specified forms on which the Contractor shall notify the Engineer of the sources of materials expected to be used.

ME. The County Engineer or his duly authorized representative.

NON-BINDING MEDIATION. The fourth and final step in the Department's Contractual Claim Resolution Process for claims arising under the Contract utilizing a non-binding mediation forum wherein an independent mediator is engaged in an attempt to resolve a claim presented by a Contractor.

NOTICE TO PROCEED. The term "Notice to Proceed" means the written notice to the Contractor to begin Work.

PARCEL. Property to be acquired for transportation purposes, described by metes and bounds.

PAY ITEM. The term "Pay Item" means a specifically described item of Work for which the bidder provides unit or lump sum price in the Proposal.

POLICE. The term "police" shall mean a person authorized to enforce the laws of the State and its political subdivisions, who has jurisdiction at the Project site, and who has successfully completed a traffic safety program approved by the Department.

PROPOSAL. The term "Proposal" is changed to "Bid". The term "Bid" means the offer of a bidder, properly signed and guaranteed, on the bid form furnished by the County, to perform the work at the prices therein.

PROPOSAL BOND. The term "Proposal Bond" is changed to "Bid Bond". The term "Bid bond" means the security furnished with a bid to guarantee that the bidder shall be entered into the contract if awarded the contract.

PROPOSAL FORM. The term "Proposal Form" is changed to "Bid Form". The term "Bid Form" means the approved form furnished by the County on which the County requires bids to be prepared and submitted for the work.

REGIONAL ENGINEER. This item is not used by the County of Union, but for the purpose of these specifications it shall be construed to mean the Union County Engineer.

RESIDENT ENGINEER or RE. This item is not used by the County of Union, but for purposes of these specifications it shall be construed to mean the Union County Engineer or his duly authorized representative.

SECRETARY, DEPARTMENT CLAIMS COMMITTEE. The individual employed by the Department who gathers information and provides administrative assistance to the members of the Department Claims Committee. This individual is the conduit between the Department Claims Committee members and the Contractor. Contact by the Contractor regarding any issue involving the Claims Committee or Mediation shall be through the Secretary.

STATE. Change all reference to the County of Union.

THE TERM "SUBSTANTIAL COMPLETION" IS CHANGED TO:

SUBSTANTIAL COMPLETION. The term "Substantial Completion" means the point at which the performance of all Work on the Project has been completed except final cleanup, and repair of unacceptable Work, and provided the Engineer has solely determined that:

1. the Project is safe and convenient for use by the public, and
2. failure to complete the Work and repairs excepted above does not result in the deterioration of other completed Work; and provided further, that the value of repairs, and cleanup is less than two percent of the Total Adjusted Contract Price.

THE TERM "EXTREME WEATHER CONDITIONS" IS CHANGED TO:

EXTREME WEATHER CONDITIONS. When, solely as a result of adverse weather, the Contractor is not able to work, the Contractor is entitled to claim that progress of the Work has been affected by extreme weather conditions and may seek an extension of Contract Time consistent with the provisions of Subsection 108.11.

101.03 TERMS (Cont'd)

THE FOLLOWING TERMS ARE REVISED:

DEPARTMENT CLAIMS COMMITTEE. A contractual body available to review and resolve claims that arise under the Contract. The Committee consists of three voting members with the Director of Design Services as the chairperson, one member is the Department's Chief Financial Office, and one member is selected from the other directors within Capital Program Management. Additional non-voting members are a Deputy Attorney General, the Secretary of the Department Claims Committee, and a member of the Federal Highway Administration (for federally funded projects).

REGIONAL DISPUTE BOARD. A three-member Board, comprised of one member from the Division of Project Management, one member from the Bureau of Construction Engineering, and the Regional Construction Engineer (Chairperson), that is available under the terms of the Contract to review Disputes which have not been resolved by the Resident Engineer.

THE FOLLOWING TERMS ARE DELETED:

CLAIMS REVIEW BOARD

DISPUTE

101.04 INQUIRIES REGARDING THE PROJECT:

THE FOLLOWING IS ADDED TO THIS SUBSECTION:

Inquiries regarding the various types of work of this Contract shall be directed to the following representatives of the Department:

1. Before Award of the Contract.

All inquiries shall include the following:

- a. Name of the company;
- b. Telephone number, fax number, and contact person; and
- c. Specifics of the inquiry, including anticipated impacts.

The Department will investigate the information provided in the inquiry and then respond through an addendum only if determined to be necessary.

2. After Award of the Contract.

SECTION 102 – BIDDING REQUIREMENTS AND CONDITIONS

102.01 QUALIFICATION TO BID

THE FOLLOWING IS ADDED AFTER THE FIRST PARAGRAPH:

Additionally, for wholly State-funded contracts, bidders must be registered with the New Jersey Department of Labor, Division of Wage and Hour Compliance, at the time of bid pursuant to the “Public Works Contractor Registration Act,” N.J.S.A. 34:11-56.48 et seq. (P.L. 2003, c. 91). This requirement for registration at the time of bid does not apply to FHWA funded projects.

102.04 EXAMINATION OF CONTRACT AND PROJECT LIMITS

THE ENTIRE TEXT IS CHANGED TO:

The Bidder shall examine carefully the site of the proposed Project, the Contract Documents, and other information before submitting a Proposal. The Contract Documents are not to be construed as an averred representation or warranty of the existing conditions. In the event the Bidder’s examination reveals that the site conditions are inconsistent with the Contract Documents or there are discrepancies, errors, omissions or patent ambiguities within the Contract Documents, the Bidder shall immediately notify the Department as provided in Subsection 101.04. Bidders shall make such independent investigation and examination as necessary to satisfy the Bidder as to the conditions to be encountered in the performance of the Work and the type of equipment and operations required to perform the Work. The Bidder shall investigate, with respect to possible local material sources, the quality and quantity of material available and the type and extent of processing that may be required to produce material conforming to the requirements of the Contract Documents. The submission of a Proposal shall be considered prima facie evidence that the Bidder has made such independent investigation and examination, including the information provided below, and is fully aware of the requirements of the Contract Documents, including all restrictions. Further, the Bidder warrants that the proposed contract prices in the Proposal include all costs to complete the Work.

The Bidders must provide written notice to the Regional Construction Engineer as listed in the Special Provisions Subsection 101.04, at least 24 hours in advance of any investigation at the site, and insure any staff at the site have two forms of identification and the site authorization form received with the purchase of the Contract Documents.

What is specified below is not a part of the Contract and is made available for information only. The Department makes no representation, warranty or guarantee, expressed or implied, by making available such information. It is also the Bidder’s responsibility to access such information.

1. Investigation of Subsurface and Surface Conditions.

The records of the Department’s subsurface investigation, including, but not limited to, boring logs and Geotechnical Engineering Design Reports, may be inspected at or ordered through the Department. This investigation, while considered by the Department to be sufficient for design purposes, may not be a sufficient substitute for the Bidder’s own investigation, interpretation, or judgement in preparing a Proposal for construction purposes. The Bidder shall not rely on any estimates and quantities included in these investigations. The conditions indicated by such investigations or records thereof, and as shown by the cross-sections in the Plans, may not be representative of those existing throughout such areas, or that materials other than, or in proportions different from those indicated, may be encountered.

The soil and rock descriptions shown on the boring logs are determined by a visual inspection of samples from the various explorations unless otherwise noted. These samples may be available for nondestructive examination. The observed water levels and other water conditions indicated on the boring logs are as recorded at the time of the exploration. These levels and other conditions may vary considerably, with time, according to the prevailing climate, rainfall, and other factors. If a generalized soil profile is described in the text it is intended to convey trends in subsurface conditions. The boundaries between strata are approximate and idealized and have been developed by interpretations of widely spaced explorations and samples.

The Bidder is charged with knowledge of the State’s physical geography, and in performing its site investigation shall be fully aware of the following publications and such others as may be listed in the Special Provisions:

- a. Bulletin 50, Geologic Series, “The Geology of New Jersey” by H. Kummel, out of print, available generally as library reference material.
- b. Geologic Maps of New Jersey, available through NJDEP.
- c. Engineering Soils Survey of New Jersey, available through the Bureau of Research, College of Engineering, Rutgers University, New Brunswick, New Jersey 08903.
- d. Soil Surveys of Individual Counties prepared by the US Department of Agriculture, Soil Conservation Service, in cooperation with the New Jersey Agricultural Experiment Station and Cook College, Rutgers University, available through local Soil Conservation District Offices.

Additional Publications to refer to are as follows:

2. **Utility Agreements.** In addition to what is provided under Subsection 105.09, the Utility agreements, modifications, and orders relating to the Project may be inspected at or ordered through the Department's plan file. Existing information and proposed construction documents shall be obtained through the utility owners for their respective work.

3. **Existing Plans & As-builts.** As-built plans of Department owned facilities may be inspected at the Department's plan file room or copies ordered upon written request through the Engineering Department. Contour maps may be available for some Projects and the Bidders may inspect such maps or obtain copies for their use upon written request to the Engineering Documents Unit. Plans of Municipal owned or County owned facilities shall be obtained through the Municipality or County. Any information obtained from the existing documents shall be verified by the Bidder in regards to its application for bidding and completing the Project. A list of existing structures within the Project will be provided on the Plans. The existing plans and as-builts used in the development of Contract Documents will be listed in the Special Provisions.
Existing Plans & As-builts used are as follows:

Permits. In addition to the permit information provided in the Contract Documents, the full permits relating to the Project may be inspected at or ordered through the Engineering Department

102.15 DISQUALIFICATION OF BIDDERS

THE FOLLOWING IS ADDED TO THE END OF LIST:

10. For wholly State-funded contracts, failure to have valid, current registration with the New Jersey Department of Labor, Division of Wage and Hour Compliance according to N.J.S.A. 34:11-56.48 et seq., at the time of bid.

SECTION 103 - AWARD AND EXECUTION OF CONTRACT

103.04 EXECUTION OF THE CONTRACT

THIS SUBSECTION IS CHANGED TO:

Execution. The successful Bidder shall properly and duly execute a Contract in accord with Contract Documents and return same, together with the Performance Bond and Payment Bond, within ten State Business Days of the date of Award or Conditional Award. The successful bidder shall also provide the Department, within the same ten State Business Day period, proof of a valid business registration with the Division of Revenue in the New Jersey Department of Treasury. The Contract will not be entered into by the Department unless the Bidder first provides proof of a valid business registration in compliance with N.J.S.A. 52:32-44 (P.L. 2001, c134). For FHWA funded projects, the successful bidder shall also provide proof of valid, current registration with the New Jersey Department of Labor, Division of Wage and Hour Compliance as required by “Public Works Contractor Registration Act,” N.J.S.A. 34:11-56.48 et seq. (P.L. 2003, c. 91). If said Contract is not executed by the Owner within 45 State Business Days following receipt from the Bidder of the executed Contract and Performance Bond and Payment Bond, the Bidder may within its discretion withdraw its bid without penalty; where the Bidder chooses not to withdraw prior to the Owner executing said Contract, the Bidder shall be deemed to have waived any claim for Additional Compensation or for an extension of time. The Contract shall not become effective until it has been fully executed by all parties.

103.05 ESCROW OF BID DOCUMENTS

Escrow. The successful Bidder who would like to participate in the Non-Binding Mediation of any and all claims arising under the Contract, as provided in Subsection 107.02, shall, within the same ten State Business Day period, escrow all of its bid preparation documents, which are dated prior to or as of submission of the bid proposal to the Department, in sealed boxes with a Custody Agent, and return to the Department a Custody Agreement fully executed by the Bidder and the Custody Agent. The Bidder shall also certify under oath that the escrowed documents have not been modified changed or corrected in any manner since the date appearing on said documents and that the documents escrowed constitute all related documents relied upon in preparing the proposal. The Custody Agreement Form will be provided by the Department at the time of Award and shall be completed in its entirety and include a detailed list of all documents contained in the boxes of bid documents placed in escrow.

A failure by the Bidder to escrow its bid preparation documents and to return to the Department the fully executed Custody Agreement within ten State Business Days shall constitute a waiver by the Bidder of any ability or opportunity to participate in the Non-Binding Mediation of claims arising under the Contract. The use and preservation of escrowed bid documents shall be governed by the terms of the escrow agreement that is to be executed by the Contractor and the escrow agent, which agreement shall be in accord with the form provided by the Department. Upon Completion of the Contract, the Contractor may apply to the Department to release any escrowed documents so long as there are no pending claims.

SECTION 104 – SCOPE OF WORK

104.01 INTENT

THE FOLLOWING IS ADDED TO THIS SUBSECTION:

This project involves the replacement of Madison Hill Road Bridge (RA28) Over Rahway River in the City of Rahway, Township of Clark, Union County, New Jersey.

The work to be performed under this Contract consists of the removal of existing bridge in its entirety and construction of a new single span bridge consisting of: reinforced concrete abutments; Steel H-piles; cofferdams; steel sheet pile retaining walls; prestressed concrete box beams; reinforced concrete deck slab; reinforced concrete sidewalk and concrete cap; masonry stone facing; the reconstruction of approach roadways including curb, beam guide rail, bituminous concrete pavement and other incidental and necessary work shown on Construction Plans and further described herein.

The attention of the Contractor is called to the presence of various utilities that may require relocation and/or temporary support during construction. Specifics regarding same are discussed further in Subsection 105.07.

The Contractor is advised that under this Contract all utility facilities requiring relocation are to be relocated by the various utility companies in advance of the Contractor commencing with the proposed improvements to County facilities. The Contractor will be responsible for coordination and work to assist the utility companies with their relocations.

Provide and maintain of a field office for the Resident Project Representative.

Preparation of Contractor's access to the site and installation of the required Soil Erosion & Sediment Control measures.

Removal of all Soil Erosion & Sediment Control devices and restoration of all disturbed areas after construction is complete.

All work shall be performed in such a manner as to minimize the disturbance of construction activities on the County's Property and to minimize adverse effects of construction activities in order to not disturb the surrounding area.

The Contractor shall abide to the conditions of the permits to be obtained for the project, copies of which will be furnished to the successful Bidder.

104.02 VALUE ENGINEERING

THIS SUBSECTION IS DELETED.

104.03 CHANGES TO THE CONTRACT

104.03.01 Authority to Make Changes

THE FIRST SENTENCE OF THE FIRST PARAGRAPH IS DELETED.

1. FIELD ORDERS.

This Subpart is deleted.

2. CHANGE ORDERS.

The second and third paragraphs are changed to:

The Engineer reserves the right upon the consultation with the Board of Chosen Freeholders to make in writing, at any time during the work, such changes in quantities and such alterations in the work as necessary to satisfactorily complete the project.

Such changes in quantities and alterations do not invalidate the Contract nor release the surety, and the Contractor agrees to perform the work as altered.

If the alterations or changes in quantities significantly change the character of the Work under the Contract, whether such alterations or changes are themselves significant changes to the character of the Work or by affecting other work cause such other work to become significantly different in character, or not changed by any such different quantities or alterations, an adjustment, excluding loss of anticipated profits, will be made to the Contract. The basis for the adjustment shall be

agreed upon before the performance of the work. If a basis cannot be agreed upon, then an adjustment will be made either for or against the Contractor in such amount as the Engineer may determine to be fair and equitable.

If the alterations or changes in quantities do not significantly change the character of the Work to be performed under the Contract, the altered work will be paid for as provided elsewhere in the Contract.

The term "significant change" shall be construed to apply only to the following circumstances:

1. When the character of the Work as altered differs materially in kind or nature from that involved or included in the original proposed construction, or
2. When a major item of work, as defined elsewhere in the Contract, is increased in excess of 120 percent or decreased below 80 percent of the original Contract quantity. Any allowance for an increase in quantity shall apply only to that portion in excess of 120 percent of original Contract item quantity, or in case of a decrease below 80 percent, to the actual amount or work performed.

Changes that solely involve the increase or decrease in the quantity of Pay Items not involving unit price adjustments pursuant to the following paragraphs, the elimination of Pay Items, the adjustment of the estimated quantities in the Bid as the result of as-built calculations, or minor changes in the Work as provided below, may be affected by Change Order, as determined by the Engineer. All other changes will be included in a Change Order that specifies, in addition to the Work to be done, an adjustment of Contract Time, if any, and the basis of compensation for such Work. A Change Order does not become effective until the Board of Chosen Freeholders has approved the proposed Change Order submitted by the County Engineer.

A change order will not become effective until recommended by the Engineer and approved by the Board of Chosen Freeholders.

104.03.01 Authority to Make Changes (Cont'd)

The Resident Engineer has the authority to order minor changes in the Work not involving an adjustment to the unit or lump sum prices, or an adjustment to Pay Items, or an extension of Contract Time, and not inconsistent with the intent of the Contract Documents. Such changes may be effected by Change Order and are binding on the Department and the Contractor. Additional compensation or extension of Contract Time will not be allowed.

Increases or decreases in the quantity of a Pay Item will be determined by comparing the total as-built quantity of such item of Work with the quantity contained in the Proposal. In making such a comparison, quantities that are the subject of Supplementary Agreements or Change Orders for Extra Work will not be considered.

Minor Pay Items are not eligible for any adjustment in unit price regardless of how much the total as-built quantity varies from the quantity contained in the Proposal.

If the total pay quantity of any Major Pay Item varies from the estimate contained in the Proposal by more than 20 percent, payment will be made according to the following categories:

1. **Increase of More than 20 Percent.** Should the total as-built quantity of any Major Pay Item exceed the estimate contained in the Proposal by more than 20 percent, the Work in excess of 120 percent of such estimate will be paid for by adjusting the unit price, as hereinafter provided. Alternatively, the Contractor and Engineer may negotiate a Supplementary Agreement for such adjustment.

Such adjustment of the unit price is to be the difference between the unit price and the actual unit cost, which will be determined as hereinafter provided. If the costs applicable to such item of Work include overhead, such overhead will be deemed to have been recovered by the Contractor by the payments made for the 120 percent of the Contract quantity for such item already paid, and in computing the actual unit cost, such overhead will be excluded.

When the compensation payable for the number of units of an item of Work performed in excess of 120 percent of the Engineer's estimate is less than \$1,500 at the applicable unit price. The Engineer reserves the right to make no adjustment in said price if the Engineer so elects, except that an adjustment will be made if requested in writing by the Contractor.

2. **Decreases of More than 20 Percent.** Should the total as-built quantity of any Major Pay Item be less than 80 percent of the estimate contained in the Proposal, an adjustment in compensation pursuant to this Subsection will not be made unless the Contractor so requests in writing. If the Contractor so requests, the quantity of said item performed will be paid for by adjusting the unit price as hereinafter provided. Alternately, the Contractor and Engineer may negotiate a Supplementary Agreement for such adjustment.

Such adjustment of the unit price is to be the difference between the unit price and the actual unit costs, which will be determined as hereafter provided, of the total as-built quantity of the item, including overhead.

The payment for the total as-built quantity of such item of Work is not to exceed the payment that would be made for the performance of 80 percent of the estimate contained in the Proposal for such item at the original unit price bid.

The Contractor further understands and agrees that neither the procedure established under this Subsection nor the review of claims by the Department pursuant hereto shall in any way affect the requirement of the filing of a Notice of Potential Claim or the filing of a suit pursuant to the provisions of NJSA 59:13-1 et seq.

104.03.01 Authority to Make Changes (Cont'd)

Change Orders which will cause the total amount of change orders executed for the particular contract to exceed the originally awarded total contract price by more than 20 percent shall be permitted only under limited circumstances. The procedures set forth in N.J.A.C. 5:30-11.1 et seq. shall be followed for the issuance of this change order and are set forth in part herein. The contractor with his chief executive officer or his designee, shall provide a written certification justifying the performance of the work or the furnishing of the services, which would necessitate issuance of the change order. This certification shall include an explanation of the factual circumstances which necessitate issuance of the change order; a statement indicating why these circumstances could not have been foreseen; a statement indicating why these circumstances could not have been foreseen; a statement indicating why issuance of the change order would be in the best interests of the contracting unit and would not constitute an abuse of the rules set forth in N.J.A.C. 5:30-11.1 et seq.; and, if the nature of the change order is technical the certification shall include a certified statement from the contractor's appropriate expert, such as an engineer or architect. This statement shall be acceptable to the Engineer and, shall explain in detail the factual circumstances, which necessitate issuance of the proposed change order.

Change orders which will cause the total amount of change orders executed for the particular contract to exceed the originally awarded total contract price by more than 20 percent shall not become effective until recommended by the Engineer, authorized by resolution of, and executed by, the Board of Chosen Freeholders.

Upon receipt of an approved change order, the contractor shall proceed with the ordered work. Where the changes involved require receipt by the Contractor of an approved change order and same has not been processed by the Board of Chosen Freeholders, the Engineer may direct that the contractor proceed with the desired work and the contractor shall comply.

When the compensation for an item or Work is subject to adjustment under the provisions of Subsections 104.03.01 through 104.03.09, the Contractor shall, upon request, furnish the Engineer with adequate detailed cost data for such item of Work. If the Contractor requests an adjustment in compensation for an item or Work as provided in Subsection.

In addition to Change Orders, the terms and conditions relating to changes may be negotiated with the Contractor. If the Contractor signifies acceptance of such terms and conditions by executing a Supplementary Agreement, and if such Supplementary Agreement is approved by the Board of Chosen Freeholders issued to the Contractor, payment according to the terms and conditions as to compensation and adjustments in the Contract Time therein set forth constitutes full compensation and a mutually acceptable adjustment of Contract Time for all Work included therein or required thereby. The Contractor agrees that a proposed Supplementary Agreement that is not approved by the Board of Chosen Freeholders or that is rejected by the Contractor shall have no effect and that neither may attempt to use it in any litigation that may result from the Contract.

No claim for additional compensation shall be made because of any such alteration, deviation, addition to, or omission from the Work required by the Contract, by reason of any variation between the approximate quantities in the Proposal and the quantities of Work as done, by reason of Extra Work, by reason of elimination or Pay Items, or by reason of changes in the character of Work except as allowed in this Section. Attention is directed to _____.

No claim for additional compensation or extension of Contract Time within the scope of this Section will be allowed if asserted after Acceptance.

The fourth and fifth paragraphs are changed to:

Do not deviate from the requirements of the Contract unless a Change Order is approved by the Board of Chosen Freeholders.

104.03.02 Protests to Change Orders

The third paragraph is changed to:

In the protest, list the points of disagreement, and, if possible, the specification references, quantities, and the costs involved. Ensure that the protest is a specific, detailed statement of the points of disagreement. The Department will reject general protests. If the Department rejects a protest for being a general protest, the contractor shall provide a specific, detailed statement within 7 days of such rejection.

104.03.03 Types of Changes

1. Quantity increases and decreases

- The last sentence of paragraph 3 is deleted.

- Paragraphs 5, 6 & 12 are deleted

3. Changes in the Character of Work

This subpart is deleted.

104.03.04 Contractual Notice

Paragraphs 4 and 5 are deleted.

SECTION 105 – CONTROL OF WORK

105.01 AUTHORITY OF THE DEPARTMENT

105.01.01 RE

THE FIRST SENTENCE OF THE FIRST PARAGRAPH IS CHANGED TO:

The Engineer will decide all questions that may arise as to the quality and acceptability of the Work and as to the rate of progress of the Work, all questions that may arise as to the interpretation of the Contract Documents, all questions as to the acceptable fulfillment of the Contract on the part of the Contractor, and all questions as to compensation.

105.01.02 Inspection

105.02 RESPONSIBILITIES OF THE CONTRACTOR

105.02.01 Labor and Equipment

105.02.02 Superintendent

105.02.03 Subcontracted Work

105.02.04 Fabricators and Suppliers

105.03 CONFORMITY WITH CONTRACT

Add, and STATE OR, to the third sentence of the 5th paragraph after the word, loses.

105.04 PLANS AND SPECIFICATIONS

105.05 WORKING DRAWINGS

THE FOLLOWING IS ADDED.

Drawings shall be 22x36 inches or 8-1/2x11 inches. Six copies shall be submitted to the Engineer for review. One additional copy each shall be submitted when an outside testing agency and/or an outside authority is/are involved in the project.

Corrections shall be made on drawings that are "approved as noted" prior to furnishing copies for distribution.

Drawings requiring corrections and/or changes shall indicate "revise and resubmit" and shall be returned directly to the Contractor. Once changes have been made, the Contractor shall resubmit drawings as above.

The above submittal procedure will simultaneously facilitate both approval and distribution.

Each drawing shall be identified by a title block in the lower right-hand corner containing the following minimum information:

Name of structure
Municipality and County
Contractor's name
Fabricator's name (if applicable)
Contract/job number
Title of drawing
Sheet number

Each drawing shall contain two (2) blank blocks placed directly above the title block. One block designated for the Engineer's approval shall be used for the stamped markings "no exceptions", "approved as noted" and "revise and resubmit". The remaining blocks shall be used for the Contractor approval stamp and signature. Calculation cover sheet shall also contain a block for a New Jersey Professional Engineer's seal. Each drawing shall also contain a revision block which shall be located to the left and adjacent to the title block. Drawings or calculations submitted on 8-1/2 x 11 inch sheets shall be accompanied by a cover sheet which shall contain the above blocks and the blocks shall not appear on the 8-1/2 x 11 inch drawing/calculation sheets. The specific format and direction for submission of working drawings will be supplied after award.

The original tracing for each 22 x 36 inch drawing or the cover sheet for 8-1/2 x 11 inch drawings or calculations shall include the contractor's approval stamp, containing the work "approved" and contractor's original signature and date. Future revisions to the original tracing shall have the date within the approval stamp updated with each revision to verify that the revision was reviewed and approved by the contractor.

Original tracings for the following shall be on 22 by 36 inch sheets (3 mil minimum thickness) of polyester film such as mylar or herculene and shall be done in ink, drafting lead or similar writing material so as to produce clear and legible 22 x 36 inch prints which shall be submitted as working drawings:

Cofferdam / Sump Pit Details

Temporary sheeting

Sheeting left in place

Dewatering details and procedure, including temporary bypass piping and discharge point

Reinforcement bar schedule for abutments, retaining walls, slab, parapets, relief slabs and all other reinforced concrete work detailing all reinforcing steel and including footings and sheet pile caps.

Design calculations will be required to be submitted for the prefabricated chambers, manhole, temporary cofferdam, temporary sheeting, and temporary bypass piping. Any calculations for the above may be submitted on 8-1/2 x 11 inch paper.

All calculations shall bear an actual embossed seal of a professional engineer licensed to practice in the state of New Jersey.

The above lists of items requiring working drawings indicate those items for which working drawings will be reviewed. All items may not be present on this project.

Material specification designations shall be noted on the drawings. All lines and lettering on tracing shall be dense in opacity and of sufficient height and width so as to have residual density to produce microfilm negatives from which legible 11 by 18 inch prints may be made.

The original tracings (sepias not accepted) cited above shall be furnished to the resident engineer prior to completion of the project.

105.06 COOPERATION WITH OTHERS

105.07 COOPERATION WITH UTILITIES

THE FOLLOWING IS ADDED AFTER THE FIRST PARAGRAPH:

Bidders are advised to verify the above information as to its accuracy and completeness is not guaranteed by the Department.

The Contractor is required to investigate underground excavation and is reminded to call the State's One Call System as specified in the Standard Specification's, as noted, to verify that a conflict does not exist. Contractor shall contact and notify facility owners of any conflicts.

105.07.02 Work Performed by Utilities

THIS SUBSECTION IS CHANGED TO:

Paragraphs 1 through 3 are deleted and the following is added:

Within the site of the Project there may be public utility structures, and notwithstanding any other clause or clauses of the contract, the Contractor shall not proceed with its Work until it has made inquiry at the offices of the Engineer, the utility owners and municipal authorities, or other owners to determine their exact location. The Contractor shall notify, in writing (Certified Mail, Return Receipt), the utility owners and municipalities or other owners involved of the nature and scope of the Project, and of its operations that may affect their facilities or property. The notifications shall request a schedule for the relocation of the utilities facilities. Two copies of such notices shall be sent to the Resident Engineer. The Contractor shall repeat the notification on a weekly basis until a response is received. The Contractor shall also comply with the State's Underground Facility Protection Act and notify the State's One Call System and identify itself at the County's Contractor before performing Work on the Project. The One Call System can be reached by calling 1-800-272-1000.

The Contractor shall also comply with the State's "High Voltage Proximity Act", codified at NJSA 34:6-47.1 to 47.9 inclusive, as amended and supplemented, concerning safety precautions to be taken in the proximity of certain electric conductors installed above ground. In addition, the Contractor's construction operations shall be according to all rules and regulations promulgated by the New Jersey Commissioner of Labor. The Contractor shall follow all applicable rules and regulations issued thereunder, including but not limited to 29 CFR 1926.550 and according to the NEC. The Department of Labor, Office of Safety Compliance may be contacted for the latest rules, regulations, and guidance.

There are no utility agreements and/or orders relating to the Project.

The Contractor shall make a written request to the utilities in advance of the notice called for in the utility schedules to notify utility owners to proceed with each utility item. The Contractor shall guarantee the site availability for utility operations.

Utility items constructed or installed by the Contractor for a utility owner must meet the owner's specifications. The owner shall be given the opportunity to inspect the actual material to be installed as well as the installation. The Contractor shall notify the utility owner ten days in advance of the beginning of construction of the utility items.

The Contractor shall protect, support, and secure all in-place utility facilities so as to avoid damage to them and their interruption of service. The Contractor shall satisfactorily maintain the flow in drains and sewers at all times. The Contractor shall not move utility facilities without the owner's written consent, and the facilities shall be as safe and permanent at Completion as they were before the Contractor's involvement. In the event the Contractor damages a utility facility, the Contractor shall notify the owner immediately and the owner may require the damage to be repaired at the Contractor's expense. The Contractor shall pay for the repair of utility facilities damaged by the Contractor within 30 days of the completed repair or the County may retain sufficient monies due or about to be due the Contractor to reimburse the owner for the repair of its facility. The Contractor shall be responsible to repair/relocation of private services either damaged by the Contractor's operation or impacted by utility relocations, and must have the work performed by a N.J. Licensed Electrician.

The Contractor shall permit the utility owners or their agents access to their facilities at all times and shall cooperate with them in performing their work.

The Contractor shall be cognizant that where joint use poles or duct banks are used the time frames for work performed by each use may be cumulative and shall seek clarification and coordinated schedules from the multiple utilities.

105.07.02 Work Performed by Utilities (Cont'd)

The Contractor, after providing notice to the utilities, shall monitor and record the utilities performance/work effort on a daily basis. A separate written report shall be submitted to the resident engineer for his agreement/confirmation reporting the work performed on each utility, equipment/personnel on site, hours on site and work accomplished. A file should be maintained in the field office.

A request for payment by the contractor shall not be processed if the separate written report for each utility is not submitted to the resident engineer reporting the work performed by each utility. The required written report shall be concurrent to the date of submission for request of payment to the resident engineer.

Should the Contractor, solely for its own convenience, cause the utility company to incur costs without prior written approval of the Resident Engineer, the Contractor shall be responsible for these costs and delays.

The Contractor shall cooperate with the utility owners concerned and shall notify them, not less than ten days in advance of the time it proposes to perform any Work that may endanger or affect their facilities. The Contractor assumes the obligation of coordinating its activities with those of the utilities based on the developed schedules.

For the purpose of establishing the exact location of subsurface utilities, the Contractor may request utilities perform the excavation of test pits. The Resident Engineer may direct the Contractor to perform tests in accordance with the bid item in the Contract. Failure of the Resident Engineer to direct the digging of test pits does not relieve the Contractor of its responsibilities regarding the protection and preservation of utilities.

It is understood and agreed that the Contractor has considered in its bid all of the permanent and temporary utility facilities in their present or relocated positions as may be shown on the Plans, as described in the Specifications and as revealed by its site investigations; is aware that utility company service demands, adverse field conditions and emergencies may affect the owner's ability to comply with the proposed schedules for utility work; and is cognizant of the limited ability of the County to control the actions of the utilities, including the actions of railroads, and has made allowances in its bid that no further compensation or extensions of Contract Time will be granted for delays, inconvenience or damage sustained by the Contractor due to any interference from utility facilities or the operation of moving them.

105.08 ENVIRONMENTAL PROTECTION

105.09 LOAD RESTRICTIONS

105.10 USE OF EXPLOSIVES

THE SECTION IS AMENDED AS FOLLOWS:

The use of explosives on the project is prohibited.

SECTION 106 – CONTROL OF MATERIAL

106.01 SOURCE OF SUPPLY AND QUALITY REQUIREMENTS

106.02 DEPARTMENT-FURNISHED MATERIAL

106.03 FOREIGN MATERIALS

THE FOLLOWING IS ADDED:

If the Engineer shall find that in the performance of the Contract there has been a failure to comply with the provisions contained in the Contract Documents relative to foreign materials, he shall make his finding known to the Board of Chosen Freeholders and to the State of New Jersey Department of Transportation.

Union County follows Buy America Statute N.J.S.A. 40A:11-18.

In case of conflict between State Law and Federal Law, the Federal Law will govern.

106.04 MATERIALS QUESTIONNAIRE

106.05 MATERIALS INSPECTIONS, TESTS, AND SAMPLES

THE SIXTH PARAGRAPH IS CHANGED TO:

For aggregates that do not meet the requirements of the Contract for gradation or density of are not used in the Work, the Department has the right to charge the Contractor for the cost of sampling and testing. The Department will charge \$300.00 per failing sample tested for gradation and \$200.00 per failing lot or sub-lot tested for density.

106.06 PLANT INSPECTION

106.07 CERTIFICATION OF COMPLIANCE

106.08 UNACCEPTABLE MATERIAL

106.09 SUBSTITUTES FOR PROPRIETARY ITEMS

SECTION 107 – LEGAL RELATIONS

107.01 LEGAL JURISDICTION

107.01.01 Applicable Law

107.01.02 Permits, Licenses, and Approvals

THE FOLLOWING IS ADDED:

Prior to the start of any road work within the County right of way the contractor must obtain a road opening permit from the County Road Supervisor (P.O. Box 1856), Apple Orchard Road, North Brunswick Township, New Jersey 08902.

107.01.03 Sovereign Immunity

107.02 DISCRIMINATION IN EMPLOYMENT ON PUBLIC WORKS

107.03 AFFIRMATIVE ACTION, DISADVANTAGED BUSINESS ENTERPRISES, OR EMERGING SMALL BUSINESS ENTERPRISE

THIS SUBSECTION IS CHANGED TO:

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 or 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, 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.

AFFIRMATIVE ACTION, DISADVANTAGED BUSINESS ENTERPRISES OR EMERGING SMALL BUSINESS ENTERPRISE (Cont'd)

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 or is so notified by the Division 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;

107.03 AFFIRMATIVE ACTION, DISADVANTAGED BUSINESS ENTERPRISES OR EMERGING SMALL BUSINESS ENTERPRISE (Cont'd)

(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 paragraph (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 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.

107.03 AFFIRMATIVE ACTION AND MINORITY OR DISADVANTAGED BUSINESS ENTERPRISES OR EMERGING SMALL BUSINESS ENTERPRISE (Cont'd)

(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)**.

THE FOLLOWING IS ADDED:

The Contractor shall complete and forward Monthly Project Manning Report Form AA-202 to the Affirmative Action Office, Department of the Treasury, CN 209, Trenton, NJ 08625-0209 for each month during construction. A copy of the form must be supplied to the County at the time same is sent. Said original forms may be obtained by contacting the Affirmative Action Office at 609-292-5475.

107.04 NEW JERSEY CONTRACTUAL LIABILITY ACT

107.05 LIMITATIONS OF LIABILITY

107.06 PERSONAL LIABILITY OF PUBLIC OFFICIALS

107.07 ASSIGNMENT

107.08 NON WAIVER

107.09 INDEPENDENT CONTRACTOR

107.10 NON-THIRD PARTY BENEFICIARY CLAUSE

107.11 RISKS ASSUMED BY THE CONTRACTOR

THE FOLLOWING IS ADDED:

The contractor shall save, protect, indemnify and hold harmless the County of Union, its employees and/or agents from any and all injuries or claims for injuries or damages to persons or property caused by the Contractor or its employees, agents and/or subcontractors in undertaking the work contemplated by these bid specifications. The indemnification /hold harmless provided to the County hereunder shall survive the completion of the work and final acceptance of the project by the Board of Chosen Freeholders.

THE SECOND PARAGRAPH OF NOTE 1 IN PARAGRAPH THREE IS DELETED.

107.12 THE CONTRACTUAL CLAIM RESOLUTION PROCESS

THIS SUBSECTION IS CHANGED.

MEDIATION OF DISPUTES

Section 1.

Definitions

A. Mediation is a voluntary process in which an impartial and independent third party assists parties to a dispute in reaching an acceptable resolution to the issues in the dispute. The results of the mediation shall be non-binding on the parties.

B. Mediator Service Provider refers to the American Arbitration Association (AAA) for the purpose of mediating disputes.

C. Parties to a mediation are the County, the contractor and if appropriate, the Consulting Design Architect of Engineer.

107.12 THE CONTRACTUAL CLAIM RESOLUTION PROCESS (Cont'd)

D. Mediator is a trained impartial and independent third party selected by the Mediator Service Provider and agreed upon by the parties to help the parties reach an agreement on a determined set of issues.

Section 2. **Applicable Rules**

The rules contained herein, in conjunction with the AAA Mediation rules, shall apply to disputes submitted to the Mediation Service Provider for mediation of unresolved issues. The parties shall be deemed to have adopted these rules whenever they have submitted a request for mediation.

Section 3. **Initiation of Mediation**

The County or the contractor may initiate mediation by filing with the AAA a written request for mediation, with a copy being provided to the other party. Any such request shall be accompanied with the appropriate filing fee pursuant to the AAA Mediation Rules. Payments of all mediation costs, fees or other AAA charges shall be the sole responsibility of the party requesting mediation.

Section 4. **Requests for Mediation**

A request for mediation shall contain a brief statement of the nature of the dispute and the names, addresses, and telephone numbers of all parties to the dispute and those who will represent them, is any, in the mediation. The initiating party shall simultaneously file, by registered mail within five (5) calendar days, two (2) copies of the request with the AAA and one (1) copy with every other party to the dispute.

Section 5. **Appointment of the Mediator**

Upon receipt of a request for mediation, the AAA will appoint a qualified mediator to serve. Normally, a single mediator will be appointed unless the parties agree otherwise or the AAA determines otherwise.

Section 6. **Qualifications of the Mediator**

No Person shall serve as a mediator in any dispute in which that person has any financial or personal interest in the result of the mediation, except by the written consent of all parties. Prior to accepting an appointment, the prospective mediator shall disclose any circumstances likely to create a presumption of bias or prevent a prompt meeting with the parties. Upon receipt of such information, the AAA shall either replace the mediator or immediately communicate the information to the parties for their comments. In the event that the parties disagree as to whether the mediator shall serve, the AAA will appoint another mediator.

The AAA is authorized to appoint another mediator if the appointed one is unable to serve promptly.

Section 7. **Vacancies**

If any mediator shall become unwilling or unable to serve, the AAA will appoint another mediator, unless the parties agree otherwise.

Section 8. **Representation**

Any party may be represented by one person of the party's choice. The name and address of such person shall be communicated in writing to all parties and to the AAA.

- (c) proposals made or views expressed by the mediator; or
- (d) the fact that another party did or did not indicate willingness to accept a proposal for settlement made by the mediator.

Section 14. **No Stenographic Record**

There shall be no stenographic record of the mediation process.

Section 15. **Termination of Mediation**

The mediation shall be terminated:

- (a) by the execution of a settlement agreed by the parties;
- (b) by a written declaration of the mediator to the effect that further efforts at mediation are no longer worthwhile;
- (c) by a written declaration of a party or parties to the effect that the mediation proceedings are terminated; or
- (d) by a written declaration of the mediator to the effect that after (5) days of efforts at mediation proceedings there is no settlement agreement between the parties.

A copy of any of the above written agreement or statement shall be provided to the parties and to the AAA.

Section 16. **Exclusion of Liability**

Neither the AAA nor any mediator is a necessary party in judicial proceedings related to the mediation.

Section 17. **Interpretation and Application of Rules**

The mediator shall interpret and apply these rules insofar as they relate to the mediator's duties and responsibilities. All other rules shall be interpreted and applied by the AAA.

Section 18. **Expenses**

The expenses of witnesses for either side shall be paid by the party producing such witnesses.

THE FIRST THREE PARAGRAPHS ARE ADDED:

The various notice provisions set forth in this Contract are contractual obligations assumed by the Contractor in executing the Contract. Any required notice shall be given only on forms provided by the Department. All forms shall be completed in their entirety and signed by the Contractor. Incomplete forms will be rejected and of no effect. Submission of completed notice forms acceptable to the Engineer constitutes compliance with the notice requirements of the New Jersey Contractual Liability Act if such notices are given within the time limits established by that Act, NJSA 59:13-5.

107.12 NOTICE OF POTENTIAL CLAIM (Continued)

The Contractor agrees that the only evidence of compliance with NJSА 59:13-5 shall be the filing of said forms with the Engineer and that the Contractor shall not claim that any other documents sent or delivered to the Department or any of its officers or employees satisfies this notice requirement.

The Contractor understands that it will be forever barred from recovering against the State if it fails to give notice of any act, or failure to act, by the Engineer, or the happening of any event, thing, or occurrence, according to NJSА 59:13-5 and on the forms required by this Subsection.

107.13 LITIGATION OF CLAIMS BY THE CONTRACTOR

THE SECOND SENTENCE OF THE SECOND PARAGRAPH IS DELETED.

107.14 PATENTED DEVICES, MATERIALS, AND PROCESSES

107.15 TAXES

107.16 RECOVERY OF MONIES BY THE STATE

SECTION 108 – PROSECUTION AND COMPLETION

108.01 SUBCONTRACTING

THE FOLLOWING IS ADDED TO THE END OF THE FIFTH PARAGRAPH:

The Contractor shall also attach to that form (application for subcontracting form) proof of the Subcontractor's valid, current registration with the New Jersey Department of Labor, Division of Wage and Hour Compliance as required by "Public Works Contractor Registration Act," N.J.S.A. 34:11-56.48 et seq. (P.L. 2003, c. 91). Pursuant to P.L. 2003, c. 91, the Department will not consent to the proposed subcontracting, and the Subcontractor shall not perform any work under the Contract, unless the Contractor first provides the required proof of the Subcontractor's valid, current registration with the New Jersey Department of Labor, Division of Wage and Hour Compliance as required by "Public Works Contractor Registration Act." The Contractor shall ensure full compliance with the Public Works Contractor Registration requirements by their Subcontractors.

108.02 COMMENCEMENT OF WORK

DELETE PARAGRAPHS ONE, TWO AND FIVE.

THE FOLLOWING IS ADDED:

Upon award of the Contract by the Board of Chosen Freeholders, a copy of the resolution awarding the contract shall be provided to the Contractor. Upon execution of the contract by the Board of Chosen Freeholders, a pre-construction conference will be held, and the Contractor will be authorized to order materials. The Contractor must have the entire project completed within the time frame stipulated in Article III of the Form of Contract.

Construction operations shall begin within 10 days of the date of the Notice to Proceed and shall continue without interruption until the work is completed. Failure to begin construction operations within 10 days shall constitute a default for which the Board of Chosen Freeholders may take whatever action that is deemed appropriate under the contract.

108.03 DAILY COMMUNICATIONS

PARAGRAPH TWO IS DELETED.

108.04 WORK SITE AND STORAGE

THE SECOND SENTENCE IN THE FIRST PARAGRAPH IS CHANGED TO:

Except as otherwise provided, any space that the Contractor may require for plant, equipment, storage, or other purposes in addition to that available at the Project site, shall be procured by the Contractor, and the cost thereof shall be included in the prices bid for the various Pay Items scheduled in the Proposal.

THE FOLLOWING IS ADDED:

The contractor shall give the engineer a copy of any lease for the use of private property.

Upon completion of all work and prior to the release of final retainage, the contractor shall give the Engineer a copy of a letter of release from the property owner stating that the site has been restored in a satisfactory manner.

108.05 SANITARY AND SAFETY PROVISIONS

108.05.01 Sanitary

108.05.02 Safety Program

All paragraphs after the first paragraph are deleted.

108.06 NIGHT OPERATIONS

THIS SUBSECTION IS CHANGED TO:

Night operations comprises work performed from 30 minutes before sunset to 30 minutes after sunrise.

108.07 TRAFFIC CONTROL

108.07.01 Interference

108.07.02 Changes to the Traffic Control Plan (TCP)

In the first sentence change the reference of 40 days to 14 days.

108.08 LANE OCCUPANCY CHARGES

108.09 MAINTENANCE WITHIN THE PROJECT LIMITS

THE FIRST SENTENCE OF THE THIRD PARAGRAPH IS CHANGED TO:

The Contractor is not responsible for removal of ice and snow from sections of the roadway opened to thru traffic.

THE FOLLOWING IS ADDED:

Vehicular and pedestrian traffic shall be maintained within the limits of the project. TRAFFIC CONTROL SHALL BE COORDINATED WITH LOCAL AUTHORITIES.

The contractor, shall backfill all excavated areas within the roadway to a grade compatible with the existing traveled way at such times he is not actively working. This shall include nights, weekends, and periods of shut downs.

Trenches shall not remain open overnight under any circumstances.

Roadways and shoulders in areas within which the Contractor has actually commenced construction operations and which are reserved for traffic shall be maintained by the Contractor, at his expense, free from obstructions and in a smooth riding condition at all times, including seasonal shutdowns. In areas within which the Contractor has not actually commenced construction operations, the Engineer may direct the Contractor to construct Hot Mix Asphalt Patch in order to maintain roadways and shoulders reserved for traffic in a smooth riding condition.

The contractor shall be required to remove ice and snow from the existing or newly constructed pavements within work zone area that is either active or non-active during winter months to provide access to intersecting roadways, businesses, parking lots, driveways, residences and garages for vehicular and pedestrian traffic at the contractor's expense.

The ice and snow removal, and spreading of de-icing material shall be carried out immediately by the contractor from the beginning of ice and snow event to the ending of the ice and snow event. The contractor shall be required to monitor the weather forecasting during winter months and to effect immediately the removal of ice and snow and application of de-icing material.

Separate payment will not be made for removal of snow and ice and application of de-icing material during winter months. All costs thereof shall be included in the prices bid for the various pay items scheduled in the Proposal.

Competent, trained, traffic directors shall be employed at every point where Contractor's equipment is working immediately adjacent to, or is entering, leaving or crossing active traffic lanes. Traffic directors shall be employed continuously for the full time such conditions exist as determined by the Engineer.

The cost of maintaining and protecting such traffic and employing traffic directors will not be paid for under any specific item but the cost thereof shall be included in the prices bid for the various maintenance of traffic items scheduled in the Proposal.

108.09 MAINTENANCE WITHIN THE PROJECT LIMITS (Cont'd)

Escape ramps shall be provided at the edges of pavement lifts or at excavations. Safety ramps of hot mix asphalt shall be provided at and around all drainage and utility castings.

Alternate one-way traffic, if required, during resurfacing, and storm sewer crossings will be coordinated with the local police and the Engineer with at least 3 days notice. One-way traffic control will be carried out by 2 police traffic directors, one at each end of the work, with appropriate sign installation as shown on the plans.

Final responsibility for the installation of adequate precautions and for the protection of the traveling public and his own personnel, shall rest with the contractor.

Site for the storage of equipment and materials during the progress of the work shall be subject to the approval of the Engineer.

Compliance with all prescribed safety precautions contained herein shall not relieve the contractor of this primary responsibility to take all necessary measures to protect and safeguard the public nor relieve him of any responsibilities described in the contract agreements.

If the Local Police notifies the contractor of his superintendent or the Engineer of any hazardous condition or violation or traffic control regulations in the work area, all operations shall be immediately discontinued and immediate remedial action will be taken to the satisfaction of the Local Police before work is resumed. All costs incurred as a result of each action shall be borne by the contractor without recourse against the County.

108.10 CONTRACT TIME

108.11 MODIFICATIONS TO CONTRACT TIME

108.11.01 Extensions to Contract Time

THIS SUBSECTION IS CHANGED TO:

- A. Basis for Extension.** Where appropriate under the provisions of this Subsection, extensions or reductions to the Contract Time may be provided by Construction Order, however, such extensions or reductions will be allowed only to the extent that the increase or decrease in the Work or delays of the types indicated below affect current controlling operations and the overall Completion. Increases or decreases in Work or such delays, which do not affect the overall Completion, are not to be the basis for reduction or extension of Contract Time. Extensions of Contract Time will not be granted under this Subsection where it is determined that the Contractor could have avoided the circumstances which caused the request for extension.

If the Contractor is delayed in completion of the Work by reason of changes made under Subsection 104.02, or by failure of the Department to acquire right-of-way, or by any act of other contractors consistent with Subsection 105.10, or due to the discovery of archeological finds consistent with Subsection 108.13, or the discovery of hazardous substances, or by any act of the Engineer or of the Department not contemplated by the Contract, an extension of Contract Time commensurate with the delay in overall completion of the Contract thus caused will be granted, and the Contractor is relieved from any claim for liquidated damages or engineering and inspection charges.

Additionally, the Contractor may be granted an extension of Contract Time and not be assessed liquidated damages or the costs of engineering and inspection for any portion of the delay in overall completion of the Work beyond the time provided in Subsection 108.10 caused by the following reasons:

1. acts of civil or military authorities, war, or riot;
2. fire;
3. floods, tidal waves, earthquakes, cyclones, tornadoes, hurricanes, or other cataclysmic natural phenomenon (except on working day contracts);
4. extreme weather conditions (see Item 1 of the fourth paragraph) (except on working day contracts);
5. epidemics or quarantine restrictions;
6. strikes or labor disputes beyond the control of the Contractor which prevent work on the construction operations which are critical to the completion of the Project;
7. shortages of materials (see Item 2 of the fourth paragraph) or freight embargoes;
8. acts of the State in its sovereign capacity;

108.11.01 Extensions to Contract Time (Cont.)

- 9. failure of the Engineer to furnish interpretations of the Contract Documents (see Item 3 of the fourth paragraph).

B. Criteria for Evaluation. Extension of Contract Time for the reasons set forth in this Subsection will not be granted unless the Contractor has notified the Engineer in writing of the causes of delay within 15 State Business Days from the beginning of any such delay on forms provided by the Department. The Engineer will evaluate the facts and the extent of the delay, and the Engineer's findings will be final and conclusive and will be based on the following:

- 1. Extensions of Contract Time for extreme weather conditions will be granted in accordance with the following

Number of Days the Contractor's Work is Limited to in One Month as the Result of Extreme Weather Conditions (April through November inclusive)	Extension of Contract Time Allowable
16 - 31	0
15	1
14	2
13	3
12	4
11	5
10	6
9	7
8	8
7	9
6	10
5	11
4	12
3	13
2	14
1	15
0	16

Extensions of Contract Time for extreme weather conditions will be granted in accordance with the following for the months of December through March inclusive:

It is anticipated that the average number of total Working Days during this four month winter period is for road work (Exclusive of temperature sensitive work, for example but not limited to, paving operations, earthwork, aggregates, curb and sidewalk, etc.) and for bridge work (Exclusive of temperature sensitive work, for example but not limited to, concrete decks, parapets, bridge repairs, bridge painting, etc.)

- a. Consider days for which an extension is granted under the above category "floods, tidal waves, earthquakes, cyclones, tornadoes, hurricanes, or other cataclysmic natural phenomenon" as days on which the Contractor's work is limited as the result of these extreme weather conditions;
 - b. Consider days for which an extension is granted under the above categories for causes other than "floods, tidal waves, earthquakes, cyclones, tornadoes, hurricanes, or other cataclysmic natural phenomenon" as days on which the Contractor worked and was unaffected by extreme weather conditions; and
 - c. Make the above calculation based on the full number of days in the calendar month as being days on which the Contractor could have worked without regard to Saturdays, Sundays, and holidays.
 - d. Extension of time for extreme weather conditions will only be granted when the Critical Path of the Progress Schedule is affected and documented by the contractor in accordance with Subsection 108.04. No extension of time will be granted unless the Contractor submits daily documentation of such extreme weather.
- 2. Extensions of Contract Time will not be granted for a delay caused by a shortage of materials unless the Contractor furnishes:
 - a. Documentary proof that it has diligently made every effort to obtain such materials from all known sources within reasonable distance from the Work, and

108.11.01 Extensions to Contract Time (Cont.)

- b. Further proof in the form of a progress schedule, as required in Subsection 108.04, showing that the inability to obtain such materials when originally planned, did, in fact, delayed the date of Completion which could not be compensated for by revising the sequence of the Contractor's operations. The term "shortage of materials" applies only to raw and fabricated materials, articles, parts, or equipment which are standard items and does not apply to materials, parts, articles, or equipment which are processed, made, constructed, fabricated, or manufactured to meet the specific requirements of the Contract. Only the physical shortage of materials and not the cost of materials will be considered.
3. Extensions of Contract Time will not be granted for failure of the Engineer to furnish interpretations of the Contract Documents until 20 State Business Days after receipt of such demand in writing as required by Subsections 105.01 and 105.07, and not then unless such request for an interpretation of the Contract Documents is reasonable and made in good faith, and the failure to respond was unwarranted.
4. It is understood and agreed that the Contractor has considered in its bid all of the permanent and temporary utility facilities in their present or relocated positions as may be shown on Plans, as described in Specifications and as revealed by its site investigation; is aware that utility company service demands, adverse field conditions and emergencies may affect the owner's ability to comply with the proposed schedules for utility work; and is cognizant of the limited ability of the State to control the actions of the utility companies, including the actions of railroads, and has made allowances in its bid. Extensions of Contract Time will be granted for extreme weather and exigent circumstances only, as specifically set forth above and which are outside the control of the respective utility company(ies) or the Contractor as determined by the Engineer utilizing the Extreme Weather provisions specified in 1. above. Extension of time for utility work will only be granted when the Critical Path of the Progress Schedule is affected and documented by the Contractor in accordance with Subsection 108.04.

Except where specifically provided in the Contract Documents, the Contractor shall not make any claim for damages or additional compensation for any delay in or hindrance to the performance of the Contract occasioned by any act or omission to act by the State or any of its representatives, or for any of the reasons enumerated in this Subsection and agrees that any such claim shall be fully compensated for by an extension of Contract Time to complete performance of the Work.

Extensions of Contract Time will not be granted due to delays caused by, or in any way related to, the financial condition of the Contractor, subcontractors, sub-subcontractors, material, men, fabricators, or suppliers. The Contractor and its surety assume full responsibility for ensuring that the financial condition of any of the above does not delay completion of the Contract.

If, as a result of modifications made under Subsection 104.02, 104.05, 104.06, or 108.09, the Work required is reduced or altered so that the time required for Completion is reduced, the Engineer may reduce the Contract Time provided under Subsection 108.10. The Engineer will evaluate the facts and the extent of the reduction. The Engineer's findings thereon will be final and conclusive.

It is the intention of the above provisions that the Contractor or surety is not relieved of liability for liquidated damages or engineering and inspection charges for any period of delay in Completion in excess of that expressly provided for in this Subsection.

108.12 RIGHT-OF-WAY RESTRICTIONS

THE TITLE OF THIS SUBSECTION IS CHANGED TO:

108.12 Right-Of-Way Information and Delays.

108.12 Right-Of-Way Information and Delays.

THE FOLLOWING IS ADDED:

The Contractor shall obtain from the Engineer all information regarding ROW Parcels and Easements acquired for the Project as well as the nature and type of title acquired. The Contractor shall make periodic requests for updates to this information during the course of the Contract.

The Contractor shall not enter an Easement until the Resident Engineer provides written notice to the property owner. The Contractor shall provide written notice to the Resident Engineer, 30 calendar days prior to entering a particular Easement or right, which is lesser than a fee interest. The Contractor shall make no claim for delays by reason that entry upon an Easement or right which is lesser than a fee interest is conditioned upon notice or is limited in duration; the Contractor is required to schedule accordingly and take such limitations into account when planning performance of the Work.

Temporary Easements and/or temporary construction rights will in most cases contain a limitation as to the length of time that they are extant. The Contractor shall schedule the Work pursuant to Subsection 108.04 so as to accommodate the particular time limitations of an Easement or right which is lesser than a fee interest as reflected on the R.O.W. plans. The Contractor shall provide a written request to the Engineer that the Department procure an extension from the owner of a particular temporary easement or right, which is lesser than a fee simple interest, so as to enable the Contractor to continue occupancy of or re-enter same in the future, beyond the initial time period set forth in the respective property description prior to the expiration thereof.

Where the Contractor fails to complete the work within an area of a temporary easement or right lesser than a fee interest during the time allowed under the property description, by reason of the Contractor's own fault; the Contractor shall reimburse the State for the sum payable to the owner of the underlying fee interest for the extended period of occupancy use. The Resident Engineer may deduct an amount equal to such payments from the monthly estimate of the Work performed after providing 30 day written notice to the Contractor of such action, including a breakdown of the costs sought or to be sought by reason of the delay in timely vacating a temporary easement or right lesser than a fee interest.

The following is a list of all rights-of-way that have not been secured and their approximate anticipated dates of availability:

Properties and Vacation/Availability Dates

<u>Demolition and/ or Parcel No.</u>	<u>Approximate Baseline Station</u>	<u>Offset/Direction</u>	<u>Date</u>
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108.13 SUSPENSION OF WORK

THE FOURTH PARAGRAPH OF THIS SUBSECTION IS CHANGED TO:

Resume work when directed by the RE. Within 7 days of receiving notice to resume work, provide the RE a written request for a modification of Contract Time for the number of days sought resulting from the suspension.

108.14 DEFAULT AND TERMINATION OF CONTRACTOR'S RIGHT TO PROCEED

ITEM NUMBER ONE IS CHANGED TO:

1. Fails to begin construction operations within 10 days of issuance of the Notice to Proceed.

108.15 TERMINATION OF CONTRACT

108.16 PARTIAL ACCEPTANCE

108.17 INTERIM COMPLETION

108.18 SUBSTANTIAL COMPLETION

108.19 COMPLETION AND ACCEPTANCE

THE FIRST PARAGRAPH IS CHANGED TO:

Notify the RE, in writing, when the Work is complete. When the RE receives written notice, the Department, the New Jersey Department of Transportation and/or the Federal Highway Administration, if the project is State or Federally funded, will perform an inspection. If the Department, the New Jersey Department of Transportation and/or the Federal Highway Administration determines that the Work is complete, the Department will execute a final change and issue a resolution of acceptance and make final payment.

THE SECOND PARAGRAPH IS CHANGED TO:

If the Department, the New Jersey Department of Transportation and/or the Federal Highway Administration determines that the Work is not complete, the RE will respond within 30 days and provide the Contractor the Department's necessary instructions for correction. Final Inspection by New Jersey Department of Transportation and the Federal Highway Administration will be according to their availability and schedule which the Department does not control. The New Jersey Department of Transportation and the Federal Highway Administration may provide comments and instructions for corrections after the Departments. Complete the Work and re-notify the RE. Repeat this procedure until the Department issues a Certificate of Completion.

The third paragraph is changed to:

The date of the Department resolution of acceptance is the date of completion.

108.20 LIQUIDATED DAMAGES

LIQUIDATED DAMAGES SHALL BE AS FOLLOWS:

1. For each Calendar Day that the Contractor fails to complete Construction Operations, as specified in Item A of Subsection 108.10 of these Special Provisions, for Substantial Completion, the Contractor shall pay liquidated damages consisting of Road User Costs and Construction Engineering Costs, as defined in Subsection 101.03, to the State in the amount as defined in "43. Liquidated Damages" of the General Specifications
2. For each Calendar Day that the Contractor fails to complete the entire Work of the Project as specified in Item B of Subsection 108.10 of these Special Provisions, for Completion, the Contractor shall pay liquidated damages consisting of Construction Engineering Costs, as defined in Subsection 101.03, to the State in the amount as defined in "43. Liquidated Damages" of the General Specifications, provided that Construction Operations as specified for Substantial Completion are actually completed.

The days in default set forth above are the number of Calendar Days in default when the time for Completion is specified on the basis of Calendar Days or a specified completion date, and are the number of Working Days in default when the time for Completion is specified on the basis of Working Days.

Anytime after the Engineer notifies the Contractor in writing, that Substantial Completion of the Project has been actually achieved, the Owner may elect, to waive the imposition of liquidated damages under paragraph number 2 above and, in lieu thereof, require the Contractor to pay the actual costs incurred by the State for engineering, inspection, and administration (including overhead) between the actual date of Substantial Completion or such subsequent date as the Owner may determine and the actual date of Completion of all Work, as established by the Certificate of Completion. The Contractor hereby waives the right to challenge this election by the Owner on the grounds that such costs exceed the amount of liquidated damages specified under number 2 above.

The owner will recover all damages specified above by deducting the amount thereof from any monies due or that may become due the Contractor, or from the Contractor or from its surety.

SECTION 109 – MEASUREMENT AND PAYMENT

109.01 MEASUREMENT OF QUANTITIES

THE FOLLOWING IS ADDED:

The Pay Items shown within the contract documents have not been designated as M (measured) or P (Proposal). All items will be considered M and will be measured for payment accordingly unless they are a Lump Sum item. Lump Sum items are considered P.

109.02 SCOPE OF PAYMENT

THE FOLLOWING IS ADDED:

The pay items listed in the proposal are the only pay items applicable to this contract. Pay items listed in the specifications that are not included in the proposal are not applicable to this contract.

109.03 PAYMENT FOR FORCE ACCOUNT

5. Profit. Profit shall be computed at ten percent of the following:
SUBPART C. IS ADDED AS FOLLOWS:

c.Total fringe benefits on total direct labor cost as computed above.

6. Overhead.

THE FIRST SENTENCE IS CHANGED TO:

Any and all overhead for the Contractor is defined to include the following:

THE FIRST SENTENCE OF THE SECOND PARAGRAPH IS CHANGED TO:

Any and all overhead costs of the Contractor for Force Account work shall be computed at 15 percent of the following:

109.05 ESTIMATES

The Department will make monthly payments to the Contractor for work performed as specified in 109.06. The Contractor will calculate the requested payment in an Estimate consistent with the provisions of the Contract for review and approved of the RE. If not otherwise described in the Contract, the RE will be the sole judge of the amount of progress payment due for partially completed work. The quantities provided in the Estimate may be approximations and may not be based on as-built quantity measurements. The Department will establish the date of the month that the Estimate is processed.

Delete the first and second paragraph and add the following:

The Contractor will provide a summary of the Estimate to the RE. Before the issuance of each payment, the contractor should certify that:

1. Each subcontractor or supplier has been paid the amount due from the previous progress payment and shall be paid the amount due from the current progress payment and no retainage is being withheld from any subcontractor on Federally funded projects; or.
2. There exists a valid basis under the terms of the subcontractor's or supplier's contract to withhold payment from the subcontractor or supplier, and therefore payment is withheld.

Delete paragraph 7 and 9.

109.06 MATERIALS PAYMENTS AND STORAGE

The County does not make payments for materials delivered to the job site but not yet incorporated into the work.

109.07 BONDS POSTED IN LIEU OF RETAINAGE

109.08 AS-BUILT QUANTITIES

THE FIRST AND SECOND SENTENCE OF THE SECOND PARAGRAPH ARE CHANGED TO:

The Resident Engineer may from time to time, before Substantial Completion, prepare as-built quantities and incorporate these quantities into monthly estimate certificates through an appropriate Field Order or Change Order. Such interim as-built quantities are subject to recalculation in completion of the Final Certificate.

THE THIRD PARAGRAPH IS DELETED.

109.09 AUDITS

109.10 CONTRACTOR'S COMPLIANCE WITH N.J.S.A. 34:11-56.25, ET SEQ.

THIS SUBSECTION IS CHANGED TO:

All Contractors receiving contracts for the work outlined by these drawings and specifications shall agree to comply with NJSA 34.11-56.25 relating to public works contracts providing for prevailing wages.

Every Contract in excess of \$2,000 for any public work to which any public body is a party shall contain a provision stating the prevailing wage rate which can be paid (as shall be designated by the commissioner) to the workmen employed in the performance of the contract and the contract shall contain a stipulation that such workmen shall be paid not less than such prevailing wage rate. Such contract shall also contain a provision that in the event it is found that any workmen, employed by the Contractor or any Sub-contractor covered by said contract has been paid less than such prevailing wage rate, the public body may terminate the Contractor's or Sub-contractor's right to proceed with the work, or such part of the work as to which there has been a failure to pay required wages to prosecute the work to completion or otherwise. The contractor and his sureties shall be liable to the public body for any excess costs occasioned thereby.

NJSA 34.11-56.25 et seq., regarding the prevailing rate of wages to be paid on public contract, provides that the rate of wages for all laborers and mechanics employed by the Contractor or any Sub-contractor on the public projects covered by the Contract shall not be less than the prevailing rate of wages for work of a similar nature in the city, town, village, or other civil division of the State in which the projects are located, "and further provision," that in case any dispute arises as to what are the prevailing rate of wages for work of similar nature applicable to the Contract which cannot be adjusted by the Contracting Officer the matter shall be referred to the Commissioner of Labor for determination and his decision shall be conclusive on all parties to the Contract. All Contractors receiving contracts for work outlined by these specifications shall agree to comply with NJSA 34.11-56.25 et seq.

A copy of the Determination of the Wage and Hour Bureau or other Documents specifying the prevailing wages is considered as incorporated by reference as a part of the Contract Documents.

All contractors and sub-contractors receiving contracts for the work outlined by these drawings and specifications SHALL SUBMIT A CERTIFIED PAYROLL WITHIN TEN (10) DAYS OF THE PAYMENT OF WAGES, TO THE UNION COUNTY PREVAILING WAGE OFFICER. Failure to comply with the prevailing wage reporting rules will result in the levy of administrative penalties up to a maximum of \$250.00 for the first violation and up to \$500.00 for subsequent for violations and possible withholding of payment in accordance with Subsection 109.02.

109.10 CONTRACTOR'S COMPLIANCE WITH N.J.S.A. 34:11-56.25, ET SEQ. (Cont'd)

After the contractor has completed the work and paid its employees, the contractor shall submit the Certification of Payment of Prevailing Wages and Compliance with the Prevailing Wage Law to the Union County Prevailing Wage Officer. The Engineer will obtain a letter from the Union County Prevailing Wage Officer certifying that said contractor has fully complied with the provisions of the Prevailing Wage Scale and Law. Final payment shall not be processed for payment and shall not be considered due and payable until said certification, is received by the Engineer. It is the contractor's sole responsibility to ensure that the contractor and all sub-contractors have provided all required documentation to MCIA in order to obtain such certification.

109.11 FINAL PAYMENT AND CLAIMS

THE ENTIRE TEXT IS CHANGED TO:

1. **Final Certificate.** All prior estimates and payments made by the Department are subject to correction in the Final Certificate, which will be completed as follows:
 - a. After Acceptance is completed as specified in [Subsection 105.23](#) and the As-Built quantities finalized, the Department will make an estimate of the total amount of Work done under the Contract, and prepare and issue the Final Certificate to the Contractor.
 - b. Within 30 State Business Days after said Final Certificate has been issued to the Contractor, the Contractor shall submit to the Department either a written acceptance of the Final Certificate without exception together with an executed release in the form provided with the Final Certificate or a written acceptance of the Final Certificate with a reservation of specific claims, but otherwise releasing all claims not specifically reserved, by executing a conditional release in the form provided with the Final Certificate. The Contractor's failure to submit any written acceptance or acceptance with reservation within said 30 days will be construed by the Department as an acceptance by the Contractor of the Final Certificate without exception or reservation of Claims.
 - c. Upon receipt of the Contractor's written acceptance of the Final Certificate with unconditional or conditional release, or when the Contractor fails to provide any written acceptance of the Final Certificate within 30 State Business Days of issuance, the Department will pay the entire sum due thereunder as provided by the New Jersey Prompt Payment Act NJSA 52:32-32 *et seq.*, provided the Final Certificate indicates a payment is due the Contractor. However, where the Final Certificate indicates a Credit (payment) is due the Department, the Contractor shall remit said Credit (payment) to the Department in the amount set forth in the Final Certificate.
 - d. If the Contractor fails to remit the Credit (payment) due the Department, as indicated on the Final Certificate, within 30 State Business Days of issuance of the Final Certificate, the Department may pursue all legal means available to recover the amount due the State, including but not limited to, deducting the amount from payment due the Contractor on this or other Department Contracts or from retainage and/or the sale of bonds held in lieu of retainage for the Contract or for other Contracts, even where the credit is being contested by the Contractor.

Neither the failure of the Contractor to accept the tendered Final Payment nor the failure of the Contractor to remit the credit (payment) due the Department shall affect when the "Completion of the Contract" shall be deemed to have occurred for any reason. Where there is a remaining monetary balance due to the Contractor by the Department, Final Payment will be made after the "Completion of the Contract". Retainage shall be released to the Contractor upon completion of the contract unless a credit (payment) is due to the Department, which shall be deducted or adjusted in accord with the Specifications.

2. Conditions for Claims. Conditional acceptance of the Final Certificate will be permitted only where all of the following are met:

- a. When the Contractor submits a Release conditioned with exception or reservation, the release shall state the specific monetary amounts and category of the claims being reserved. The Contractor acknowledges, by the act of executing the contract, that the failure to state specific monetary amounts and specific categories shall result in a waiver of such claims lacking as to amounts or specific categories thereof. The Contractor may reserve only those claims properly filed with the Department pursuant to Subsection 107.02 and not previously resolved. The Contractor waives all claims for which the required notice has not been filed with the Department.
- b. The Contractor further understands and agrees, by the act of executing the Contract that neither the procedures established under this Subsection nor the review of claims by the Department pursuant hereto shall in any way modify the requirements applicable to the filing of a Contractual Notice Form or the filing of a suit pursuant to the provisions of N.J.S.A. 59:13-1 *et seq.* .
- c. If the Contractor conditions its acceptance of the Final Certificate by reserving particular claims, the Contractor shall at the same time state in writing whether it would like to submit its reserved claims for review by the Department Claims Committee. Only those claims properly reserved, as provided for in Subsection 107.02, and which are unresolved after completing Steps I and II of the Contractual Claim Resolution Process for the resolution of contract claims, are eligible for review by the Department Claims Committee to the extent provided in that Subsection. If the Contractor states that it does not want Department Claims Committee review of the reserved claims or if it fails to request Department Claims Committee review of reserved claims when it conditions its acceptance of the Final Certificate or if it files suit in a court of law regarding those claims, the Contractor shall be deemed to have waived any ability to have its reserved claims reviewed by the Department Claims Committee.
- d. If the Contractor requests review of its reserved claims when it conditions its acceptance of the Final Certificate, it shall send at the same time a copy of its request for review to the Secretary of the Department Claims Committee, PO Box 600, Trenton, NJ 08625-0600. Department Claims Committee review will then take place according to Subsection 107.02.
- e. At the election of the Contractor upon completion of the Contract, claims that are unresolved after review by the Department Claims Committee may be submitted to Non-Binding Mediation according to Subsection 107.02.
- f. Interest shall neither be paid nor shall it accrue upon the amount of any additional compensation paid in resolution or settlement of a claim resolved through the various steps of the Contractual Claims Resolution Process.

DIVISION 150 – CONTRACT REQUIREMENTS

SECTION 151 – PERFORMANCE BOND AND PAYMENT BOND

151.01 DESCRIPTION

151.02 MATERIALS

151.03 PROCEDURE

151.03.01 Performance Bond and Payment Bond

THIS SUBSECTION IS CHANGED TO:

Within ten business days of the award of contract, the bidder to whom the contract has been awarded shall deliver a Performance and Payment Bond in the sum not less than the total contract price, issued by a responsible bonding company which is licensed and authorized to do business in the State of New Jersey, and is satisfactory to the County Counsel of the County of Union and shall be maintained by the Contractor until acceptance of the work by the Board of Chosen Freeholders. The Performance and Payment Bond shall be a New Jersey Statutory Bond pursuant to N.J.S.A. 2A:44-143-147. No notice to proceed will be issued until the Performance and Payment Bond is received and approved. Upon request by the County, said insurance company shall submit verifiable documentation as to its financial capabilities.

The Contractor must submit a letter of consent of surety statement, accompanying his bid, from a responsible bonding company which is licensed and authorized to do business in the State of New Jersey, stating that if the prospective bidder is awarded the contract, the bonding company shall provide the required bonds, covering the contract period and total contract price. Bond shall be maintained by the Contractor until acceptance of the project.

The Bond shall be made out to the COUNTY OF UNION, A Municipal Corporation, and contain the full title of the project.

151.04 MEASUREMENT AND PAYMENT

THIS SUBSECTION IS CHANGED TO:

The Bond shall be made out to the COUNTY OF UNION, A Municipal Corporation, and contain the full title of the project.

The following Item is deleted:

<u>Item</u>	<u>Unit</u>
Performance Bond and Payment Bond	Lump Sum

The Department will not make payment for Performance Bond and Payment Bond. The contractor shall provide Bond at the contractor's expense.

SECTION 153 – PROGRESS SCHEDULE

153.01 DESCRIPTION

153.02 MATERIALS

153.03 PROCEDURE

THIS ENTIRE SUBSECTION IS CHANGED TO:

153.03.01 Progress Schedule and Prosecution of the Work

At or before the preconstruction conference, the Contractor shall furnish, for review, a progress schedule showing the order in which the Contractor proposes to prosecute the Work; the dates on which the various stages, operations, and principal items of Work including procurement of materials and plant will begin; the quantity and kinds of equipment and character of the labor force; and the contemplated dates for completing the same. The progress schedule shall clearly outline the intended maintenance of traffic, the locations where temporary and permanent soil erosion and sediment control measures shall be installed, and such other information as required by the Contract documents or as deemed appropriate for the Project. The progress schedule shall give special consideration to sensitive areas such as wetlands, floodplains, waterways, and parklands to ensure that appropriate staging and seasonal constraints are considered to maximize the effectiveness of the soil erosion and sediment controls. The progress schedule shall also indicate any time frames when work is restricted in these sensitive areas as outlined in the permits issued by the regulatory agencies. The progress schedule shall also include a detailed, step-by-step outline of the clean-up operations regarding contaminated materials. When clean-up operations are involved, four additional copies of this portion of the progress schedule shall be furnished.

Construction operations shall not begin until the progress schedule has been reviewed. Five Working Days will be required for review and approval of progress schedules for projects having a duration of two years or less with two additional Working Days for each year or part thereof in excess of two years. Once the progress schedule has been approved, the Contractor shall not deviate from it without first notifying the Engineer in writing.

In scheduling and executing the Work, the following shall be considered:

1. **Staging.** The Contractor shall schedule the Work using such procedures and staging as may be specified in the Contract Documents or where approved.

When the Contract Documents provide for staging or specific procedures, the Contractor may, before submitting a progress schedule, present for written approval of the Engineer, a detailed, written alternate staging plan or procedure which incorporates the requirements of the Department. As a condition of the Engineer's reviewing the alternate staging plan or procedure, the Contractor agrees that it is not entitled to additional Contract Time or compensation arising from possible delays to construction due to the time spent in reviewing the Contractor's staging plan or procedure, regardless of whether the Department accepts or rejects it. If such staging plan or procedure is approved in writing, the Contractor may then prepare a progress schedule consistent with the approval.

HMA paving operations shall be staged to progress up to the bottom of the surface course. The HMA concrete surface course for the full width of the traveled way, shoulder, and auxiliary lanes shall be paved as a single stage of construction and as the final paving operation.

153.03.01 Progress Schedule and Prosecution of the Work (Cont'd)

2. Prosecution of the Work. The Contractor shall provide sufficient materials, equipment, and labor to guarantee the completion of the Project according to the Contract Documents and within the time set forth under Subsection 108.10.

If the Contractor falls ten percent or more of the total project time behind the submitted schedule, the Contractor shall submit a revised schedule for approval.

Should the Contractor discontinue the prosecution of the Work for any reason, it shall notify the Engineer, in writing, before discontinuing work and at least 24 hours before resuming operations.

The Contractor shall arrange and prosecute the Work so that each successive construction operation at each location shall follow the preceding operation as closely as the requirements of the various types of construction permit.

Work that closes or alters the use of existing roadways shall not be undertaken until adequate provisions, conforming to the requirements of Section 617, have been made by the Contractor and approved.

The Engineer may revise stage construction and maintenance of traffic, if deemed necessary, due to unforeseen circumstances that may arise during construction.

Compensation for additional expense to the Contractor and allowance of additional time for completion of the Work shall be as set forth in a Change Order or Supplementary Agreement or according to Subsections 108.11 and 109.03.

When possible, the construction of subsurface structures adjacent to traffic shall be performed while traffic is being diverted from such areas. If traffic must be maintained in such areas, the Work shall be performed expeditiously in stages, as approved, and with minimum interference with traffic.

Subsurface structure excavation adjacent to traffic shall not remain open overnight unless adequately protected by approved safety devices.

The Contractor shall proceed with the Work of demolition of the various buildings that are identified with a demolition number as they become available for demolition. If any of the buildings that are to be demolished are not available for demolition at the time the Contractor begins Work on the Project, the Contractor shall temporarily defer its Work in the vicinity of the building and complete the Work when the building is available for demolition.

Operations adjacent to traffic shall be confined to only one side of the traffic at any one time unless otherwise specified in the Contract Documents.

Concrete curbs to be construction adjacent to flexible base and surface courses shall be completed, cured, and backfilled before the flexible base and surface courses are constructed.

Underground structures for traffic signals, except for pressure detector installations, shall be constructed before completion of the intersecting road.

3. **Intent, Responsibility, and Time.** Scheduling of construction is the responsibility of the Contractor. Therefore, it is the Contractor's responsibility to determine the most feasible order of Work commensurate with the Contractor's abilities and the Contract Documents. The requirement for the progress schedule is included to ensure adequate planning and execution of the Work, to assist the Engineer in appraising the Contractor's compliance with the Contract Documents, and to evaluate progress of the Work. The progress schedule will be used for determining extensions or reductions of Contract Time pursuant to Subsection 108.11.

153.03.01 Progress Schedule and Prosecution of the Work (Cont'd)

It is not intended that the Engineer, by reviewing the progress schedule, agrees that it is reasonable in all respects or that following the progress schedule can result in timely completion of the Project. The progress schedule is not a part of the Contract.

If, in the preparation of the progress schedule, the Contractor projects a completion date that is different than that specified under Subsection 108.10, this in no way voids the date set therein. The dates as specified in that Subsection governs. Where the progress schedule reflects a completion date that is earlier than that specified as the Contract Time, the Engineer may approve the schedule with the Contractor specifically understanding that no claim for additional Contract Time or compensation shall be brought against the State as the result of failure to complete the Work by the earlier date shown on the progress schedule.

4. **Acceleration and Default.** If, in the opinion of the Engineer, the Contractor falls behind its progress schedule, and cannot complete the Work within the time prescribed under Subsection 108.10, as modified pursuant to Subsection 108.11, the Contractor shall take such steps as may be necessary to improve its progress. The Engineer may require the Contractor to increase the number of shifts, begin overtime operations, work extra days including weekends and holidays, or supplement its construction plant and to submit for approval such supplementary schedule or schedules, as may be deemed necessary to demonstrate the manner in which the agreed rate of progress shall be regained, all at no cost to the State.

Failure of the Contractor to comply with the requirements of the Engineer under this Subheading is grounds for the determination that the Contractor is not prosecuting the Work with such diligence as to ensure Completion within the time specified. Upon such determination, the Engineer may terminate the Contractor's right to proceed with the Work or any separable part thereof according to Subsection 108.17.

5. **Types of Progress Schedules.** All progress schedules shall comply with the foregoing provisions of this Subsection. Regardless of the type of progress schedule used, the Contractor shall supply the Resident Engineer with a weekly work schedule indicating the Contractor's planned work, the subcontractors' planned work, the dates when materials are to be delivered, and a forecast of lane closings.

The progress schedule shall be the following:

- a. When the Progress Schedule is not a Pay Item. The progress schedule may be a bar chart or similar type acceptable to the Engineer as a form and substance. The schedule shall be in a suitable scale to indicate the percentage or work scheduled for completion at any time. The progress schedule shall include, as a minimum, one activity for each Pay Item, however, the Engineer may require, and the Contractor shall provide, a breakdown of each discrete component part to be included in the progress schedule for certain Pay Items. The Contractor shall include in the progress schedule, or in a separate submission, a schedule of working drawing submissions. The Contractor shall update the progress schedule when conditions have changed such to invalidate the current schedule.

153.04 MEASUREMENT & PAYMENT

THIS SECTION IS CHANGED TO:

The Department will not measure and will not make payment for Progress Schedule, Progress Schedule Update and Bar Chart Progress Schedule and Updates.

The contractor shall provide all costs at the contractor's expense.

SECTION 154 – MOBILIZATION

- 154.01 DESCRIPTION**
- 154.02 MATERIALS**
- 154.03 PROCEDURE**
- 154.04 MEASUREMENT & PAYMENT**

THIS SUBSECTION IS CHANGED TO:

Mobilization shall consist of the 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.

Payment for mobilization will be made on a lump sum basis regardless of the fact that the Contractor may have, for any reason, shut down its work on the Project or moved equipment away from the Project and back again.

Payment will be made in accordance with the following schedule:

1. When five percent of the Work is completed and the Baseline Progress Schedule is approved by the Engineer, 25 percent of the lump sum bid for mobilization or 2.5 percent of the Total Contract Price, whichever is less, will be paid.
2. When ten percent of the Work is completed and all required CPM Progress Schedule Updates are approved by the Engineer, 50 percent of the lump sum bid for mobilization or five percent of the Total Contract Price, whichever is less, will be paid.
3. When 15 percent of the Work is completed and all required CPM Progress Schedule Updates are approved by the Engineer, 75 percent of the lump sum bid for mobilization or 7.5 percent of the Total Contract Price, whichever is less, will be paid.
4. When 20 percent of the Work is completed and all required CPM Progress Schedule Updates are approved by the Engineer, 100 percent of the lump sum bid for mobilization or ten percent of the Total Contract Price, whichever is less, will be paid.
5. When all Work on the Project is complete, payment for the lump sum bid for mobilization in excess of ten percent of the Total Contract Price will be made.
6. 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 performed, prepared in accordance with Subsection 109.05.
7. No payment will be made for mobilization until a Baseline Schedule is approved, except when all Work on the Project is complete, then 50 percent of the lump sum bid for mobilization will be paid and no further payment(s) will be made for the lump sum bid for mobilization.

Payment will be made under:

Pay Item
MOBILIZATION

Pay Unit
LUMP SUM

When mobilization is not a Pay Item, all costs for the Work shall be included in the prices bid for various Pay Items scheduled in the Proposal.

All unit prices include furnishing materials, installation, labor, equipment and all other costs incidental thereof necessary to complete same.

SECTION 155 – CONSTRUCTION FIELD OFFICE

155.01 DESCRIPTION

155.02 MATERIALS

155.03 PROCEDURE

155.03.01 FIELD OFFICE

1. Office Size Requirements
2. Utilities and Lighting
3. Lavatory
4. Communication Equipment

Add the following:

a. Telephones. Provide 1 cordless phone with auto-switching.

c. Cell Phones. Provide 1 cellular phone. Ensure the cellular phone plan provides for unlimited mobile to mobile in-network usage, unlimited internet and data usage and an anticipated monthly usage of 1400 any-time minutes for each phone. Ensure the phones are on the same plan. Ensure the cellular phone plan has a home rate with no roaming charges within the state. Ensure each cellular phone has the following features:

1. Camera with 2 Megapixel picture capability
2. Battery life capable of 180 minutes of continuous use and 72 hours of standby use
3. Equipped with a hands-free headset
4. Base charger and car charger

d. Computer System. Provide a computer system meeting the following requirements:

1 Laptop or desk top computer configuration meeting the following:

1. Equipped with an Intel Core2 6300 processor having a clock speed of 2.1 GHz or faster, 4 GB RAM, 500 Gigabyte hard drive designated as drive C, one DVD (+/-) Writer Drive, one CD-R Recordable Drive. Ensure the system is USB 2.0 compatible and has at least two front USB ports.
2. Wireless Ethernet Hub Switch with appropriate number of ports and cables and a print server.
3. High-speed broad band internet connection with 7.1 to 15 Mbps Download 768 Kbps Upload speeds.
4. 19 inch or larger Flat Screen LCD monitor with tilt/swivel capabilities.
5. 300 Megabyte or larger Zip Drive internal or external with backup software for MS-Windows and DOS, and fifteen corresponding formatted data cartridges corresponding to the tape drive size.
6. 1 Flatbed USB version 2.0 or greater Color Scanner with automatic document feed.
7. Uninterruptible power supply (UPS).
8. Surge protector for the entire computer configuration to be used in conjunction with the UPS.
9. 1 computer workstations, chair, printer stand, and/or table having both appropriate surface and chair height.
10. One can of compressed air and screen cleaning solution every other month of the duration of the contract.
11. 2 USB 32 GB Flash/Jump memory drives
12. 50 CD-R 1 MB (or larger) recordable CD's compatible with the CD drive
13. 50 recordable DVD's.
14. 1 CD/DVD Holder (each holds 50)

15. 1 All-in-One Wireless color laser printer with Scanner , Copier & Fax with minimum capabilities set forth below and supplies as follows:

- a. 8" x 11", 8" x 14" and 11" x 17" size capacity
- b. ISO Speed: Up to 20 ppm black, Up to 16 ppm color
- c. Scan Resolution: Up to 4800 dpi
- d. Copy Resolution: Up to 1200 x 600 dpi

16. One set of printer ink cartridges every other month for the duration of the construction project for each printer which shall be restocked by the contractor as necessary.

17. Four Reams of Paper for each of the sizes noted in 1.a. which shall be restocked by the contractor as necessary.

18. Ensure one computer has a 56K baud data/fax modem. If more than one computer configuration is specified, provide one wireless network card for the base computer configuration and hardwire connections between computer configurations as directed by the RE.

Software as follows:

1. Microsoft Windows, latest version with future upgrades for the duration of the entire project. Ensure 1 computer has a Microsoft Windows 32 Bit Operating System for ACES, Extra and Groupwise.
2. Microsoft Office Professional, latest version.
3. Norton's System Works for Windows, latest version, or compatible software package with future upgrades and latest virus patches.
4. Anti-Virus software, latest version with monthly updates for the duration of the contract.
5. Visio Professional Graphics Software for Windows, latest version
6. Microsoft Project or Primavera Project Planner, latest version
7. PaperPort, latest version, for Scanner
8. Adobe Acrobat Professional, Latest Version
9. ACDSee Photo Software, Latest Version

e) Internet Services

THE THIRD PARAGRAPH IS CHANGED TO:

When the computer system is no longer required by the RE, the Department will retain or return the computer system to the Contractor upon the agencies discretion. The Department will retain other data storage media. If the computer system is returned to the Contractor the hard drive will be removed from the computer and destroyed.

5. Office Furnishings

6. Office Equipment

1. One All-in-One Wireless Color Printer with Scanner, Copier & Fax with minimum capabilities of:
 - a. 8" x 11", 8" x 14" and 11" x 17" size capacity
 - b. ISO Speed: Up to 20 ppm black, Up to 16 ppm color
 - c. Scan Resolution: Up to 4800 dpi
 - d. Copy Resolution: Up to 1200 x 600 dpi
2. 1 digital camera(s). Ensure each digital camera has auto-focus, with rechargeable batteries and charger, 16 GB memory card, USB Memory Card Reader compatible with camera and field office computer, 3" inch LCD monitor, 12 mega pixel resolution, 5X optical zoom lens, built in flash, image stabilization, Waterproof to 10m/33ft, Shockproof 2.1m/6.9ft, Crushproof 100kgf/220lbf , Full 1080P Full HD Video, computer connections, and a carrying case

3. 1 video camcorder(s). Ensure each video camcorder is a mini DVD camcorder with 4X optical zoom, 2" LCD monitor, USB 2.0 compatible and includes USB 2.0 connections.

7. Inspection Equipment

1. 1 Calculators with trigonometric capability
2. 1 Dry Eraser whiteboard with markers
3. 1 Date/ Received stamp and ink pad
4. 1 Electronic Smart level, 2 foot
5. 1 Electronic Smart level, 4 foot
6. 1 Carpenter rulers
7. 1 Steel tape, 100 feet
8. 1 Cloth tape, 100 feet
9. 1 measuring wheel, minimum 1' diameter
10. 1 Plumb bob and cord
11. 1 Line level and cord
12. 1 Surface thermometer
13. 1 Concrete thermometer
14. 1 Digital infrared asphalt thermometer
15. 1 Direct Tension Indicator (DTI) Feeler Gage, 0.005 inch
16. 1 Sledge hammer, 8lb
17. 1 Self leveling laser level with range of 100 feet and an accuracy of ¼ inch per 100 feet
18. 2 Hard hats - white, reflectorized hard hats according to ANSI Z89.1
19. 2 Safety garments – yellow, reflectorized, 360° high visibility safety garments according to ANSI/ISEA Class 3, Level 2 standards. To be replaced yearly for the duration of the contract.
20. 2 Sets of rain gear with reflective sheeting
21. 2 Sets of hearing protection with a Noise Reduction Rating of 22 dB
22. 2 Sets of eye protection according to ANSI Z87.1
23. 2 Sets of fall arrest equipment according to ANSI Z359.1 standards consisting of a full body harness, lanyard and anchor
24. 1 Light meter - capable of measuring the level of luminance in foot-candles
25. 1 Lantern flashlight, 6V with monthly battery replacements
26. Testing equipment and apparatus conforming to AASHTO T23, T119, T152

155.03.02 Field Office Maintenance

155.03.03 Telephone Service

THIS SUBPART IS CHANGED TO:

No separate payment will be made for maintenance, setup, and monthly service charges for telephone and Internet service for the field office and materials

155.04 MEASUREMENT AND PAYMENT

THE FOLLOWING ITEMS ARE DELETED:

<u>PAY ITEM</u>	<u>PAY UNIT</u>
Field Office, Type ___ Set Up	Unit
Field Office, Type ___ Maintenance	Month
Telephone Service	Lump Sum

THE FOLLOWING ITEM IS ADDED:

<u>PAY ITEM</u>	<u>PAY UNIT</u>
Field Office, Type A	Unit

THE FOLLOWING IS ADDED:

No separate payment will be made for maintenance, power, utilities and setup and monthly service charges of the office, internet, telephone and telephone services, computer, data, inspection equipment and all else incidental for the operation of the field office for the duration of the project at no additional cost the Owner. All cost to operate the office shall be included in the bid item "FIELD OFFICE, TYPE 'A'".

All Communication Equipment, Office Equipment, Inspection Equipment shall be provided to the inspector at the beginning of the project and will be turned over to the department when the project is complete.

When the computer system is no longer required by the RE, the Department will retain the computer system upon their discretion. The Department will retain other data storage media. If the computer system is returned to the Contractor the hard drive will be removed from the computer and destroyed.

Payment for Field Office Lump Sum shall be made as follows:

50% paid upon setup of field office and the remaining 50% prorated over the duration of the contract.

SECTION 156 – MATERIALS FIELD LABORATORY AND CURING FACILITY

This Section is deleted.

SECTION 157 – CONSTRUCTION LAYOUT AND MONUMENTS

157.01 DESCRIPTION

157.02 MATERIALS

157.03 PROCEDURE

157.03.01 Construction Layout

THIS SUBSECTION IS CHANGED TO:

(A) For Projects without Construction Layout as a Pay Item.

The contractor shall provide all Work required in connection with the layout for construction of the Project, using the control points and data furnished by the Engineer.

The contractor shall furnish all necessary qualified personnel and adequate equipment to preserve such controls throughout the duration of the Contract and shall lay out there from all of the lines and grades necessary for the complete construction of the Project. All work shall be performed under the supervision of a currently licensed New Jersey Professional Land Surveyor.

The contractor shall make all necessary computations to establish the exact position of all the Work from the control points, which are shown on the Plans or furnished by the Engineer. All the work shall be referenced to baselines which the Contractor shall establish from the control points, re-establish when necessary and maintain throughout the life of the Contract so as not to delay the Engineer from making necessary preliminary, interim, and final measurements and from checking the Contractor's layout if he so desires.

The Engineer will lay out the work to be done by utility companies using the construction baselines established by the Contractor. The Engineer will notify the Contractor, in writing, not less than 5 days in advance of when the construction baselines shall be established.

The contractor shall be responsible for the preservation of all control points furnished by the County of his use in staking out the Work. If such control points are damaged, lost, displaced, or removed, they shall be reset at no cost to the County.

The Contractor shall provide and maintain offset stakes from each main roadway baseline, from each ramp, jug handle, or turnaround baseline and from each local road baseline, at each station, and outside the limits of grading and construction.

Each stake shall be identified and marked to show the offset distance from the baseline and the Contractor shall furnish grade sheets showing the cut or fill to the finished profile lines with reference to the offset stakes. Grade sheets for construction of sub base and under layer preparation shall also include calculations to establish the typical cross section from the profile grade stake. The Contractor shall provide adequate and accurate offset lines during such construction that require occupation of the baseline points by construction operations.

It shall be the Contractors sole responsibility for the construction of all items of work to the line and grades shown on the plans. The contractor shall provide the necessary qualified personnel to correctly interpret the survey layout as provided by the licensed New Jersey Professional Land Surveyor.

With the exception of Right-Of-Way monuments to be set, unless otherwise specified or directed by the Engineer all items of work shall be constructed to within 0.10' of plan line and grade.

157.03.01 Construction Layout (w/encl.)

Failure to construct an item or items of work to within the tolerances shown above will result in the Engineer evaluating the work in order to determine the impact of the failure to meet plan line or grade on the effectiveness of the project.

If in the opinion of the Engineer, the project cannot be successfully completed with the quality of work performed, he shall order the work redone at the contractor's expense.

In instances where the Engineer feels the impact of the defective work is less severe, the Engineer shall have the option to negotiate a credit to the County. If a credit cannot be successfully negotiated, the contractor will be ordered to redo the work at his sole expense.

The Engineer will make every effort to periodically check the work in progress for conformity to plan line and grade, however, no guarantee is implied that said checks will be performed at the contractor's convenience. If any work is found to be defective the Engineer shall within 3 working days render a decision as to whether the work should be redone or if the Engineer wishes to negotiate a credit to the County.

(B) Vertical Control.

Where projects without construction layout as a Pay Item and prior to the beginning of any construction work which requires accurate elevations, rough grading, and clearing not included, the vertical control network shall be verified by the contractor's survey crew.

(C) Horizontal Control

When projects without construction layout as a Pay Item, the contractor's survey crew shall be responsible to recover, verify, and check the horizontal control shown on the plans.

157.03.02 Monument

157.03.03 Monument Box

157.04 MEASUREMENT AND PAYMENT

THE FOLLOWING IS ADDED:

Construction Layout will not be measured and is not included in the proposal, include the costs in the various items in the proposal. The contractor shall provide all construction layout costs at the contractor's expense.

**SECTION 158 – SOIL EROSION AND SEDIMENT CONTROL
AND WATER QUALITY CONTROL**

158.01 DESCRIPTION

158.02 MATERIALS

158.03 CONSTRUCTION

158.03.01 Environmental Manager

DELETE THE FIRST AND SECOND PARAGRAPH AND ADD THE FOLLOWING:

The Contractor Representative shall have the responsibility and sufficient authority for implementing the approved SESC and water quality methods of operations. The environmental manager shall coordinate, oversee, and supervise SESC and water quality operations on the Project. This includes both on-site and off-site activities, including those involving subcontractors. The environmental manager shall oversee and supervise all site waste control operations for the Project. Notify Freehold Soil Conservation District 48 hours before the installation of SESC measures.

158.03.02 SESC Measures

158.03.03 Erosion Control Sediment Removal

158.04 MEASUREMENT AND PAYMENT

THE FOLLOWING IS ADDED:

No separate payment associated with furnishing, installing, relocating, removing, labor, materials and equipment necessary required for these items will be included in the various items of the proposal

SECTION 159 – TRAFFIC CONTROL

159.01 DESCRIPTION

159.02 MATERIALS

159.02.01 Materials

159.02.02 Equipment

THE FOLLOWING IS ADDED TO THE LIST OF EQUIPMENT REFERENCES:

Portable Variable Message Sign w/Remote Communication1001.04

Portable Trailer Mounted CCTV Camera Assembly.....1001.05

159.03 PROCEDURE

159.03.01 Traffic Control Coordinator

THE FIRST FIVE (5) SENTENCES OF THE FIRST PARAGRAPH OF THIS SUBSECTION ARE DELETED.

The abbreviation TCC is changed to Contractor.

THE FIRST SENTENCE OF THE SECOND PARAGRAPH IS DELETED AND THE FOLLOWING ADDED:

Provide additional employees as needed. The RE may request the TCC or additional employees to demonstrate their competency at any time. Notify the RE before performing daily inspections to provide the RE with the opportunity to observe the inspection.

159.03.02 Traffic Control Devices

2. Construction Barrier Curb.

THE SECOND PARAGRAPH IS DELETED AND THE FOLLOWING IS ADDED:

At least (5) five days before delivering construction barrier curb to the Project Limit, provide the RE notice that the barrier curb is available for inspection. The RE may inspect the barrier curb and approve individual pieces for delivery to the Project Limits.

159.03.03 Removable Black Line Masking Tape

159.03.04 Temporary Pavement Markers

159.03.05 Temporary Pavement Marking Tape

159.03.06 Temporary Traffic Stripes and Temporary Traffic Markings

159.03.07 HMA Patch

159.03.08 Traffic Direction

B. Police.

THIS SUBSECTION IS CHANGED TO:

Traffic safety services shall consist of the use of the local police in the enforcement of the approved Traffic Control Plan (TCP), and applicable laws to provide a safe worksite for both construction personnel, and the traveling vehicular and pedestrian public.

Police providing traffic safety services shall be off-duty. Police officers shall be from the municipality within which the Work of the Project is to be accomplished.

The Contractor agrees that it shall make no claims against the County for extra costs resulting from any delays or interruptions to its operations attributable to the actions or inactions of police in the performance of traffic safety services. The Contractor further agrees that it has incorporated in its Proposal any costs that maybe incurred by the Contractor as a result of delays attributable for the actions or inactions of police in the performance of traffic safety services, and agrees to bear the risk of loss for any costs not included in its Proposal.

Police providing traffic safety services shall operate traffic signals when manual control of the signals is required, or shall maintain traffic flow at a signalized intersection when the signals are temporarily out of service.

The use of police on the Project will be as determined by the Contractor and Engineer. Assignment of police to the Project will be on the basis of the Contractor's operations, and the needs of the worksite, and will be made solely by the local police.

The Contractor's failure to give complete, detailed, timely and proper notice of its operations shall not be cause for claims for extra costs by the Contractor, nor shall the number of police assigned to a project constitute a valid basis for a claim by the Contractor. The Contractor agrees that the TCP is a stand-alone document, and that the Contractor is solely responsible for the safety of the Project, the continuity of movement of traffic through the worksite, and the impact of traffic on its work.

The Contractor is advised that there may be emergency situations when police are not available, or when police do not arrive at the job site until after the scheduled arrival time or leave before the scheduled departure time. The Contractor agrees that it shall make no claims against the County for any costs associated with failure of police to be on the job site at a scheduled time. The Contractor further agrees that it shall assume risk of the possibility of such occurrences and shall factor the associated costs into the Proposal.

The Contractor shall be fully responsible for the set-up and maintenance of the TCP except as required by Local and State law or as specifically set forth in the Contract. The use of police in the providing of traffic safety services is supplemental to the TCP and their presence shall not relieve the Contractor of its responsibility to maintain the TCP and safety on the Project.

The Contractor shall notify the Resident Engineer of any work cancellations at least 24 hours before start of work with the sole exception of unforeseen weather cancellations that occur after the start of work or less than 24 hours before the start of work.

When police have been assigned to a project by the Contractor, it is the Contractor's obligation to notify the Engineer of all cancellations of projected or scheduled operations. Police reporting for work will be reimbursed for a minimum of four hours. If projected work has been canceled, for whatever reason, including but not limited to foreseen weather conditions, and the Resident Engineer was not notified of the cancellations at least 24 hours before by the Contractor, except as noted above, the police will each be reimbursed for four hours of work. These payments will be made by the Contractor and the amount will be deducted from Contractor invoices for the reason of his failure to notify

159.03.09 Emergency Towing Service

THE FOLLOWING SUBSECTION IS ADDED:

159.03.10 Traffic Safety Requirements

This subsection is added to include information on Traffic Safety Requirements as provided by the Municipality.

The Contractor is advised that the estimated budget has been provided on the Bid Proposal Sheet for the project, and the price thereof shall be made part of the Total Bid.

THE FOLLOWING SUBSECTION IS ADDED:

159.03.11 Miscellaneous

Traffic directors, flaggers will not be measured. Police Traffic Directors, for the traffic safety services will be measured by allowance.

Removable wet weather pavement marking tape will be measured by the linear foot of 4-inch wide strips, deducting the gaps.

159.04 MEASUREMENT AND PAYMENT

THE FOLLOWING PAY ITEMS ARE DELETED.

<u>ITEM</u>	<u>PAY UNIT</u>
Traffic Director, Flagger	Hour

THE FOLLOWING PAY ITEMS ARE ADDED:

<u>ITEM</u>	<u>PAY UNIT</u>
Police Traffic Directors	Allowance

Separate payment will not be made for relocating traffic control devices and lighting systems used for nighttime operations. Relocation of pre-cast concrete curb construction barrier will not be made due to changes in staging of the project or for relocation made for the contractor's convenience.

Separate payment will not be made for traffic directors, flaggers. All costs thereof shall be included in the prices bid for the various pay items scheduled in the Proposal.

Separate payment will not be made for safety ramps provided at the edges and around drainage and utility castings.

Separate payment will not be made for lost, stolen and replacement of traffic control devices, breakaway barricades, drums, and traffic cones.

Police Traffic Directors, for the traffic safety services will be measure by the man-hour. The contractor shall include the allowance stipulated in the proposal. All Police Traffic Director fees, including Municipal Administration, Police car fees etc. will be considered a direct expense and the amount request by the Contractor shall not exceed the amount paid to the municipalities. Excess "Traffic Director, Municipal Police Allowance" monies shall not be used by the Contractor for any other purpose. Only the amount paid to Municipality, as supported by the appropriate receipts, shall be reimbursed to the Contractor. The second payment will not be made until the County receives a receipt that shows the first payment was made in full to the municipality for the local police department services. Each and every subsequent payment will require prior submission of the receipt that shows the previous payment was made in full to the municipality for the local police department services. Payment for overhead and profit for this item will not be made directly. These costs shall be included in the various other items in the proposal.

SECTION 160 – PRICE ADJUSTMENTS

- 160.01 DESCRIPTION
- 160.02 MATERIALS
- 160.03 PROCEDURE
- 160.04 MEASUREMENT AND PAYMENT

This Section is changed to:

<u>ITEM</u>	<u>PAY UNIT</u>
Fuel Price Adjustment	Allowance
Asphalt Price Adjustment	Allowance

Fuel and Asphalt Price Adjustments are measured and paid as allowance items. The Contractor shall include the allowance stipulated in the proposal. Excess monies shall not be used by the Contractor for any other purpose. Only the amount supported by the appropriate documentation shall be reimbursed to the Contractor. Payment for overhead and profit for this item will not be made directly. These costs shall be included in the various other items in the proposal.

DIVISION 200 – EARTHWORK

SECTION 201 – CLEARING SITE

201.01 DESCRIPTION

The following is added:

Clearing site shall also include the removal and resetting of fences; and removal and resetting of other appurtenances as shown on the Plans. Any work not specifically mentioned under other pay items and necessary for the satisfactory completion of this project in a neat and workmanlike manner shall be included under this item.

Clearing site shall also include removal and relocation of resetting of lawn sprinkler heads and landscaping decorations, minor yard structures, mailboxes or similar obstructions within the limits of construction. If no separate payment is provided for in the Proposal, Clearing Site shall then also include removal and/or resetting and/or replacement of any decorative shrubs, and hedges within the limit of construction. Clearing Site shall also include removal of tree stumps, underbrush, clearing of wooded areas or any unsuitable or undesirable obstructions in the area of the proposed work and the backfilling of the resultant voids with suitable material. Clearing site shall also include the removal of the existing headwalls and retaining walls as shown on the plans.

Clearing site shall also include relocating or resetting of any underground sprinkler heads, piping or valves. The contractor shall determine the manufacturer and model of the existing system prior to disturbing the area. Sprinklers shall be reset or relocated to the surrounding proposed elevations in accordance with the procedures recommended by the manufacturer. Materials which require replacement shall be replaced with materials equal or greater in kind. No separate payment will be made for additional materials required to reactivate lawn sprinkler system.

Existing signs and the existing electrical material and equipment to be removed under Clearing Site shall become the property of Union County, and shall be delivered to a County facility as directed by the Engineer. The Contractor shall obtain written receipt for the materials delivered to the County.

Clearing Site shall also include removal of abandoned underground utility facilities in coordination with the utility company.

Clearing Site shall also include removal of existing guide rail and appurtenances as shown on the plans.

Clearing Site shall also include sealing abandoned pipes using concrete.

Clearing Site shall also include, but not limited to, the removal of the existing electrical material and equipment designated for removal, as indicated on the plans, such as controller cabinet and equipment, meter cabinet and equipment, traffic signal assemblies, traffic signal standards, pedestal standards, traffic signal cables, loop detectors leads, junction boxes, push button assemblies, associated lighting units, service risers and foundations. The item shall also include backfilling the existing holes remaining after removal of existing service risers, foundations and junction boxes and installation of a water tight cap on all abandoned conduit ends.

Clearing Site shall also include, but not limited to, the resetting of the existing electrical material and equipment designated to remain in service, as indicated on the plans, such as traffic heads, photo imaging systems, controller cabinet and equipment, meter cabinet and equipment, traffic signal assemblies, traffic signal standards, pedestal standards, traffic signal cables, loop detectors leads, junction boxes, push button assemblies, associated lighting units, service risers and foundations.

All service risers abandoned, shall be removed to a depth of 12 inches below grade.

The removal of the existing foundations and junction boxes shall be in accordance with subsection 701.03.01

The existing above ground electrical material and equipment designated for removal shall be salvaged in accordance with subsection 701.03.01

201.02 MATERIALS

The following is added:

Dense Graded Aggregate Base Course 901.10

201.03 CONSTRUCTION

201.03.01 CLEARING SITE

B. Clearing and Grubbing.

The following is added to the Subpart:

Trim trees within 10 feet of the end of utility company pole cross arms. If resulting tree is rendered hazardous, then remove the entire tree according to Section 802.

E. The second sentence of the first paragraph is changed to:

Backfill shall be made with Dense Graded Aggregate Base course.

The second sentence of the second paragraph is changed to:

Existing inlet and manhole castings which are not used on the project shall be delivered to the Union County Department of Highway and Bridges and shall become the property of the County.

F. Removing Sidewalks, Driveways, Curbs and Gutters

The following is added:

Fences, guide-rails, concrete and timber retaining walls, concrete headwalls designated for removal shall be disposed of in accordance with Subsection 201.03.09.

The following subparts are added:

H. Removing Guiderails, Fences.

Remove existing guiderails, terminals, anchorages and fences. Post holes within proposed pavement areas shall be backfilled with dense graded aggregate in accordance with Section 302. Holes outside of proposed pavement areas shall be backfilled with suitable embankment material. Backfill material shall be compacted to the elevation of the adjacent surface using directed method as specified in 203.03.02.C. Dispose of guiderails and fences as specified in 203.03.09.

I. Removing Headwalls, Retaining Walls.

Excavate for the removal of existing headwalls and retaining walls that are designated for removal. Backfill with dense graded aggregate within proposed pavement areas and suitable embankment material outside of proposed pavement areas. Compact backfill material using directed method as specified in 203.03.02.C.

J. Removing Abandoned Underground Utility Facilities.

Remove abandoned underground utility piping and valves, service risers that are abandoned. Dispose of removed materials and debris.

K. Removing and Relocating Underground Sprinkler Heads, Piping and Zone Valves.

Remove existing irrigation sprinkler system prior to any disturbance. Reset irrigation sprinkler system to proposed grade as per manufacturer guidelines. Replace material with equal or greater in kind.

201.03.02 Clearing Site, Bridge and Clearing Site, Structures
THE FOLLOWING IS ADDED TO THE FIRST PARAGRAPH.

Clearing Site, Bridge shall also include but not limited to excavation and disposal of unclassified materials, existing bridge structure and grout bags below the proposed coarse aggregate layer as shown on the plans.

Only the following equipment is permitted for the work:

1. Pneumatic or Electric Equivalent Hand Operated Hammers.

- a. When demolishing concrete not closer than 6 inches to structural members: hammers weighing no more than 90 lbs (exclusive of bit), equipped only with chisel point bits.
- b. When demolishing concrete within 6 inches of structural members: hammers weighing no more than 30 lbs (exclusive of bit).

2. Saw Cutters.

- a. When cutting concrete within 6 inches of structural members: concrete cutters and concrete saws. While using water in the cutting operation, provide shielding beneath the cutting operation to prevent water leakage. Continuously collect slurry and dispose of as specified in 201.03.09. Ensure that the slurry does not enter the structure or highway drainage system.

3. Hydraulic Breakers. Ram-hoe type breakers, hydraulic breakers, and demolition shears may be used with the following restrictions:

- a. Submit required data to the RE for Department's analysis of stresses induced to the girders.
- b. Delineate the centerline and limits of the top flange of girders before the equipment operation.
- c. Do not use equipment within 6 inches of the delineated flanges.
- d. Do not pull or twist the reinforcement steel.

4. Hydraulic Splitters. Hydraulic splitters.

5. Other Equipment. Obtain RE approval before use.

THE FOLLOWING IS ADDED:

The procedure is described below:

- 1. Pre-stressed Concrete Stringers and Concrete Diaphragms.** Repair damage to pre-stressed concrete stringers and concrete diaphragms using non-shrink grout conforming to Subsection 903.08 before deck placement.

201.03.03	TEMPORARY SHIELDING
201.03.04	REMOVING UNDERGROUND STORAGE TANKS
201.03.05	MONITORING WELLS
201.03.06	SEALING ABANDONED WELLS
201.03.07	DEMOLITION
201.03.08	ASBESTOS REMOVAL
201.03.09	DISPOSAL OF REMOVED MATERIALS AND DEBRIS

MEASUREMENT AND PAYMENT

This subsection is changed to:

The Department will measure and make payment for Items as follows:

<u>Item</u>	<u>Pay Unit</u>
Clearing Site	Lump Sum
Clearing Site, Bridge, (No. RA-28)	Lump Sum

Clearing Site will not be measured separately and payment will be made on a lump sum basis. The Department will not make payment for the Item Clearing Site in excess of \$50,000 until substantial completion.

The Department will not make payment for the Item Clearing Site, Bridge (RA-28) in excess of \$225,000 until substantial completion.

The Department will not make separate payment for all items specified for removal and disposal in parts 201.03.01.

The Department will not make payment for backfill with suitable excavated materials from the project.

Separate payment will not be made for removal of abandoned underground utility facilities.

Separate payment will not be made for removal of existing guide-rail and end treatments.

Separate payment will not be made for removal of existing headwalls and retaining walls.

Separate payment will not be made for removal of existing fences.

Separate payment will not be made for removal and relocation of mailboxes, minor yard structures, decorative shrubs, and hedges.

Separate payment will not be made for removal, resetting, and reactivating existing sprinkler system.

Separate payment will not be made for resetting and maintenance of the existing traffic control systems.

Separate payment will not be made for the protection of the existing utilities, drainage or sanitary sewer pipe. In the event that the facility is damaged and must be replaced as described in this section, separate payment will not be made for the replacement of the damaged pipe.

Temporary Sheeting or alternate means required for the removal of the existing footing will not be measured separately for payment. All costs shall be included within the respective bid item listed in the proposal.

Separate payment will not be made for the excavation and disposal of unclassified materials, existing bridge structure and grout bags below the proposed coarse aggregate layer as shown on the plans. All costs shall be included within the respective bid item listed in the proposal.

All unit prices include furnishing materials, installation, labor, equipment and all other costs incidental thereof necessary to complete same.

SECTION 202 – EXCAVATION

202.01 DESCRIPTION

THE FOLLOWING IS ADDED:

This section also describes the requirements for disposing of unsuitable material, regulated material and acid producing soil and installing of escape ramp.

This work shall consist of excavation and removal of all earth, rock, boulders, brick, stone and concrete masonry, small structures and other materials encountered of whatever nature, required for the construction of roadways and their appurtenances, exclusive of these materials provided for payment under other items scheduled in the proposal; the transportation of the excavated materials; the construction of embankment with suitable materials excavated; the disposal of unsuitable and surplus materials; and other work as herein described.

This work shall also consist of milling of the traveled way and shoulders and the making of saw-cuts in existing bituminous and/or Portland Cement Concrete Materials.

Excavation is provided for the Contract as Excavation, Unclassified.

Excavation, Unclassified, shall also include removal of bituminous concrete pavement overlay, bituminous concrete base and surface courses, and reinforced and non-reinforced concrete base courses and surface courses.

Excavation, Unclassified, shall also include the power saw-cutting of the existing pavement as described under Section 202.03.06 of the Supplementary Specifications.

Excavation, Unclassified, shall also include removal of unsuitable material in cut sections disclosed by proof rolling.

Excavation, Unclassified, shall also include the construction of escape ramps at the edge of pavement lifts or excavations.

202.02 MATERIALS

THE FIRST IN THE LIST IS CHANGED TO:

Coarse Aggregate (No. 57 or 67)..... 901.03.

THE FOLLOWING IS ADDED:

Dense Graded Aggregate..... 901.10.

202.03 CONSTRUCTION

202.03.01 STRIPPING

THE FOLLOWING IS ADDED:

Stripped topsoil shall be stored on the project site. The removal and disposal of excess topsoil from the project shall not be done until completion of all topsoiling work and upon approval of the Engineer.

202.03.02 EXCAVATING TEST PITS

THE LAST SENTENCE OF THE SECOND PARAGRAPH IS CHANGED TO:

Backfill test pits with dense graded aggregate in 6-inch lifts and compact using the directed method as specified in 202.03.02.C.

202.03.03 EXCAVATING UNCLASSIFIED MATERIAL

THE FOLLOWING IS ADDED TO THE FIRST PARAGRAPH:

The Engineer may waive the taking of cross-sections of certain areas.

THE FOLLOWING IS ADDED:

When excavation to the finished graded section results in a sub-grade or slope of unstable soil, material shall be removed and the area backfilled with dense graded aggregate. The backfill shall be placed and compacted according to Section 301.03.01.B.

All unstable material shall be disposed of according to Subsection 202.03.07

A. Excavating

THE SECOND AND THIRD SENTENCES OF THE FOURTH PARAGRAPH IS CHANGED TO:

Obtain RE approval before removing unstable material and backfilling the area with dense graded aggregate. Backfill with dense graded aggregate and compact using the directed method as specified in 203.03.02.C.

202.03.03 1 WET AREAS

THE FOLLOWING IS ADDED:

Excavation, Unclassified in wet areas shall also include all measures to control storm water runoff including dewatering of the ditch or channel which are to be constructed or reconstructed.

Soil Erosion and Sediment control shall be in accordance with Section 158.

202.03.03 3 ROCK AREAS

THE FOLLOWING IS ADDED:

Blasting in Union County is prohibited, and will not be authorized.

202.03.04 EXCAVATING REGULATED MATERIAL.

3. Temporarily Storing.

THE FIRST PARAGRAPH IS CHANGED TO:

Temporarily store regulated or hazardous material in stockpiles within the Project Limits and as shown on the Plans. Construct stockpiles on polyethylene sheeting. Contain stockpiles with haybales or silt fence placed continuously at the perimeter of the stockpiles. For hazardous material, if a stockpile area is not available within the Project Limits, sample and analyze materials in-situ for disposal. Excavate and place the hazardous regulated material directly into trucks, and haul it directly to the approved disposal facility.

202.03.05 EXCAVATING ACID PRODUCING SOILS (APS)

202.03.06 REMOVING PAVEMENT

THE FOLLOWING IS ADDED:

Heat vertical saw-cut face of the existing bituminous concrete pavement to a temperature of 220 degree Fahrenheit with infra-red generators. Give a brush coat of hot tack coat.

Saw-cutting consists of the cutting of existing reinforced and non-reinforced concrete and bituminous concrete pavements that are to remain in place. Whenever new pavement is to be constructed abutting existing pavement the saw-cutting shall be carried out at a distance of one foot from the edge of the existing pavement that is to remain in place so that a proper bond shall be formed between the two. No separate payment will be made for saw-cutting.

The edges of existing pavement shall be cut along a vertical straight line with a power saw through the full thickness of the concrete or bituminous concrete course as shown on the plans or as directed by the Engineer. The existing pavement shall be removed to the depth shown on the plans.

Power saw-cutting shall be performed using a water cooled power saw mounted on wheels. "Jack-Hammers" will not be allowed, nor attachments, such as non-powered cutting wheels, for use with loaders, backhoes, trucks, etc. Saw-cuts that are irregular, wavy, and not cut in a neat workmanlike manner shall be re-cut at an appropriate distance from the first saw-cut as directed by the Engineer; the resulting additional excavation, additional sub-base and/or base material and any other quantity increases due to non-acceptance of the saw-cuts will not be paid for by the County, and all costs associated therewith shall be borne by the contractor.

Immediately before placing new bituminous concrete pavement, the vertical saw-cut face of the existing bituminous concrete pavement shall be heated to a temperature of approximately 220 degree Fahrenheit, with infra-red generators and then given a brush coat of hot tack coat. Tack coat shall conform to Subsection 902.01.01.

202.03.07 REUSE OR DISPOSING OF EXCESS MATERIAL

202.03.08 DISPOSAL OF REGULATED MATERIAL

202.03.09 DISPOSAL OF REGULATED MATERIAL. HAZARDOUS

202.04 MEASUREMENT AND PAYMENT

THE FOLLOWING IS ADDED:

The Department will measure and make payment for Items as follows:

<u>Item</u>	<u>Pay Unit</u>
Coarse Aggregate Layer	Cubic Yard

The Department will not measure or make payment for sawcutting existing pavements, stripping, or disposal of excess or unsuitable material from excavation. All such work shall be included in the price bid for the pay item "Excavation, Unclassified."

The price bid for the pay item "Excavation, Unclassified" shall include all materials, equipment, and labor required for excavation, sampling, testing, storage, disposal, and temporary control of materials excavated, of any nature.

The Department will measure Excavation, Unclassified in unstable area by cubic yard of material actually excavated in the work. The Department will make payment for Excavation, Unclassified as specified in this section.

The Department will measure DGA used for Dense Graded Aggregate, Backfill by Cubic Yard of material actually used in the work to stabilize unstable area. The Department will make payment for Dense Graded Aggregate, Backfill as specified in 302.04.

The Department will not measure or make payment for "Excavation, Regulated" or "Excavation, Acid Producing Soil" if those conditions exist. All excavation shall be provided for under the item "Excavation, Unclassified."

The Department will not make payment for presplitting but all costs shall be included in the unit price bid for the item Excavation, Unclassified.

The Department will not make payment for the excavation of regulated materials or acid producing soils but all costs shall be included in the unit price bid for the item Excavation, Unclassified.

The Department will not make payment for soil sampling and analyses required to complete the project but all costs shall be included in the unit price bid for the item Excavation, Unclassified.

The Department will not make payment for removal of pavement but all costs shall be included in the unit price bid for the item Excavation, Unclassified.

The Department will not make payment for saw-cutting, stripping and disposal of excess, unstable or unsuitable or unusable material from Excavation, Unclassified.

The Department will measure Excavation, Unclassified in unstable areas by the cubic yard of material actually excavated in the work. The Department will make payment for Excavation, Unclassified as specified in this section.

The Department will measure Coarse Aggregate Layer, Size No. 57 used for coarse aggregate layer by Cubic Yard of material actually used in the work. The Department will make payment for Coarse Aggregate Layer, Size No. 57 as specified in this section.

All unit prices include furnishing materials, installation, labor, equipment and all other costs incidental thereof necessary to complete same.

SECTION 203 – EMBANKMENT

203.01 DESCRIPTION

203.02 MATERIALS

203.02.01 MATERIALS

THIS SUBPART IS CHANGED TO:

Provide materials as specified:

Soil Aggregate (I-7, I-9, I-10, I-11, I-13, and I-14) 901.11

203.03.01 CONSTRUCTING EMBANKMENT

THE FOURTH PARAGRAPH IS CHANGED TO:

Before placing embankment or any other unbound aggregate material, such as subbase or dense graded aggregate, on existing pavement, break the pavement into pieces that are a maximum of 12 inches in all dimensions.

203.03 CONSTRUCTION

203.04 MEASUREMENT AND PAYMENT

THIS SUBSECTION IS CHANGED TO:

The Department will measure and make payment as follows:

ITEM	PAY UNIT
I-9 Soil Aggregate	Cubic Yard
I-14 Soil Aggregate	Cubic Yard

The Department will make payment for removal and disposal of unstable material in cut sections of pavement during proof rolling of subgrade under EXCAVATION, UNCLASSIFIED, as specified in 202.04.

The Department will not make payment for removal and disposal of unstable material disclosed in embankment sections of pavement structure during preparation of subgrade.

The Department will not make payment for backfill with suitable excavated material in unstable area disclosed in embankment sections of pavement structure during preparation of subgrade.

The Department will not make payment for constructing embankment and for preparing area on which embankments are placed.

The Department will make payment for SESC measures specified in 158.04.

All unit prices include furnishing materials, installation, labor, equipment and all other costs incidental thereof necessary to complete same.

DIVISION 300 – SUBBASE AND BASE COURSES

SECTION 302 – AGGREGATE BASE COURSES

302.01 DESCRIPTION

THIS SUBSECTION IS CHANGED TO:

This section describes the requirements for constructing aggregate base courses and DGA, backfill for storm sewer trenches and miscellaneous construction.

302.02 MATERIALS

302.03 CONSTRUCTION

302.03.01 AGGREGATE BASE COURSE

THE FOLLOWING IS ADDED:

The compaction requirements in Subsection 302.03.01, Subparts B and E, are waived.

The in-place dry density of each compacted layer will be determined according to AASHTO T191 or T310 (Direct Transmission Method) except that only one method will be used throughout the project.

Traffic shall not be permitted to ride on the compacted base course.

C. AGGREGATE BASE COURSE PLACEMENT

THE FOLLOWING IS ADDED:

Correct damage to the aggregate base course caused by construction activities, and maintain the corrected aggregate base course until the subsequent course is placed. Do not allow traffic on the aggregate base course. Remove all standing storm water and obtain the RE's approval before constructing subsequent courses.

D. THICKNESS REQUIREMENTS

THIS SUBPART IS CHANGED TO:

The thickness will be measured at a frequency not exceeding 100 feet or as established by means of test holes or other methods. Test holes shall be refilled with the base course material and the material re-compacted in layers not more than 6 inches thick with a flat-face mechanical tamper.

Any deficiency in total thickness of the base course in excess of ½ inch, correct deficient areas as follows:

1. Scarify base course to a depth of 3 to 4 inches.
2. Ensure that remaining material is contaminant free.
3. Add or remove base course material to obtain the required grade while the existing surface is in a loose, scarified condition.
4. Compact using the same method used for the density control strip.

302.04**MEASUREMENT AND PAYMENT**

THE FOLLOWING IS ADDED TO THIS SUBSECTION:

PAY ITEM	PAY UNIT
Dense Graded Aggregate Base Course, 4" Thick	Square Yard

The Department will not make separate payment for the test holes described in part 302.03.01.D.

The Department not will measure DGA used for Dense Graded Aggregate, Backfill by cubic yard of material actually used in the work for storm sewer trenches and miscellaneous construction to stabilize unstable areas.

All unit prices include furnishing materials, installation, labor, equipment and all other costs incidental thereof necessary to complete same.

DIVISION 400 – PAVEMENTS

SECTION 401 – HOT MIX ASPHALT (HMA) COURSES

401.01 DESCRIPTION

401.02 MATERIALS

401.02.01 MATERIALS

EMULSIFIED ASPHALT UNDER TACK COAT IS REVISED TO:

Emulsified Asphalt, Grade RS-1, CRS-1, SS-1, SS-1h, Grade CSS-1 or CSS-1h.....902.01.03

401.02.02 EQUIPMENT

THE LAST PARAGRAPH IS CHANGED TO:

When an MTV is used, install a paver hopper insert with a minimum capacity of 14 tons in the hopper of the HMA paver.

The following is added:

All hot mix asphalt must be produced by a N.J.D.O.T. approved supplier.

The costs of the plant laboratory and all facilities and equipment therein shall be included in the prices bid for the various pay items scheduled in the proposal. No separate payment will be made for the plant laboratory.

401.03.01 MILLING OF HMA

THE FOLLOWING IS ADDED:

Milled areas shall not be left unpaved for longer than 48 hours unless approved by the engineer.

THE FOLLOWING IS ADDED AFTER THE FOURTH PARAGRAPH:

Sawcut at the limit of paving in driveways and at other limits requiring a neat edge between new and existing HMA.

D. Repairing HMA Pavement.

THE ENTIRE TEXT IS CHANGED TO:

If potholes are discovered, notify the RE immediately. The RE may immediately direct repairs of small areas. The RE may require further evaluation of a large area to determine the need for additional milling and paving.

Sawcut existing HMA pavement to a maximum depth of 10 inches, or to the full depth of bound layers, whichever is less. Sawcut lines parallel and perpendicular to the roadway baseline and 3 inches away, at the closest point, from the damaged area to be repaired.

Remove damaged and loose material to a depth of at least 3 and no more than 10 inches below the level of milling within the boundary of the sawcuts to form rectangular openings with vertical sides. Shape and compact the underlying surface to produce a firm, level base. Ensure that the remaining pavement is not damaged.

Apply polymerized joint adhesive or tack coat to the vertical surfaces of the openings. Spread and grade HMA in the opening as directed by the RE. Ensure that the temperature of the HMA when placed is at least 250 °F, and compact as specified in 401.03.03.F. Compact areas not accessible to rollers with a flat face compactor. Compact until the top of the patch is flush with the adjacent pavement surface.

Reuse removed material as specified in 202.03.07.A.

401.03.02 Tack Coat and Prime Coat

TABLE 401.03.02-1 IS CHANGED TO:

Table 401.03.02-1 Tack Coat Application			
Material	Spraying Temp, °F	Gallons per Square Yard	Season
Cut-Back Asphalt:			
RC-70	120 to 190	0.05 to 0.15	Oct 15 to Apr 15
Emulsified Asphalt:			
RS-1	70 to 140	0.05 to 0.15	All year
CRS-1	125 to 185	0.05 to 0.15	All year
SS-1, SS-1h	70 to 140	0.05 to 0.15	All year
CSS-1, CSS-1h	70 to 140	0.05 to 0.15	All year

TABLE 401.03.02-2 IS CHANGED TO:

Table 401.03.02-2 Prime Coat Application			
Cut-Back Asphalt	Spraying Temp, °F	Gallons per Square Yard	Season
MC-30	85 to 150	0.1 to 0.5	Oct 15 to Apr 15
MC-70	120 to 190	0.1 to 0.5	Oct 15 to Apr 15
Emulsified Asphalt:			
CSS-1	70 to 140	0.1 to 0.50	All year

401.03.03 HMA COURSES

D. Transportation and Delivery of HMA.

THE FIRST PARAGRAPH IS CHANGED TO:

Deliver HMA using HMA trucks in sufficient quantities and at such intervals to allow continuous placement of the material. Do not allow trucks to leave the plant within 1 hour of sunset unless nighttime lighting is provided as specified in 108.06. The RE will reject HMA trucks do not meet the requirements specified in 1009.02. The RE will suspend construction operations if the Contractor fails to maintain a continuous paving operation. Before the truck leaves the plant, obtain a weight ticket from a fully automatic scale. Before unloading, submit for each truckload a legible weigh ticket that includes the following:

1. Name and location of the HMA plant.
2. Project title.
3. Load time and date.
4. Truck number.
5. Mix designation.
6. Plant lot number.
7. Tare, gross, and net weight.

E. SPREADING AND GRADING.

THE THIRD PARAGRAPH IS CHANGED TO:

The use of an MTV is optional for the construction of intermediate and surface course in the traveled way. If an MTV is used, ensure that the MTV independently delivers HMA from the HMA trucks to the HMA paver. Operate the MTV to ensure that the axle loading does not damage structures, roadway, or other infrastructure.

THE THIRD PARAGRAPH IS CHANGED TO:

Use an MTV for the construction of intermediate and surface course in the traveled way. Ensure that the MTV independently delivers HMA from the HMA trucks to the HMA paver. Operate the MTV to ensure that the axle loading does not damage structures, roadway, or other infrastructure.

Use an MTV for the construction of surface course in the traveled way. Ensure that the MTV independently delivers HMA from the HMA trucks to the HMA paver. Operate the MTV to ensure that the axle loading does not damage structures, roadway, or other infrastructure.

401.03.03 Subpart E, Part 1 Longitudinal Joints.

THE FOLLOWING IS ADDED:

For all longitudinal joints that do not meet the requirements of this subsection, the Contractor shall saw joints according to dimension guidelines of Subsection 401.03.04 and seal with an approved sealer.

To assure a true line, the paver shall closely follow lines or markings placed along the joint for alignment purposes. All longitudinal joints shall be constructed parallel to the centerlines within a tolerance of plus or minus 3 inches for every 100 linear feet. If this tolerance is not met, the mat shall be cut back to conform. The width and depth of overlapped material shall be kept uniform at all times. Overlapped material shall be luted back, pushing the material off of the cold HMA and onto the hot HMA mat directly over the joint. In no case shall excess material be broadcast across the new layer. All excess material shall be removed.

401.03.03 Subpart F Compacting.

THE FOLLOWING IS ADDED:

Alternate trips of the roller shall be terminated in stops approximately 2 feet from the preceding stop.

The Contractor shall submit a plan, to ensure proper compaction of the wedge edge, for the Resident Engineer's approval prior to the commencement of paving operations.

After compaction has been completed, the pavement shall be free of all visible defects such as segregation, bleeding, ruts, ridges, roller marks, cracking, tearing, raveling, open or segregated transverse or longitudinal joints, depressed or raised areas around manholes or raised areas around inlets in the Traveled Way or any other defects, as determined by the Resident Engineer. All visible defects shall be repaired to the satisfaction of the Resident Engineer at no additional cost to the State.

At the discretion of the Resident Engineer where it is deemed to be impractical to repair visible defects, a payment reduction due to nonconformance will be applied according to Subsection 401.03.03, Subpart J. Ride Quality Requirements

H. Air Void Requirements.

THE FOLLOWING IS ADDED AFTER THE THIRD PARAGAPH:

If areas of existing shoulders are found to be insufficient to support the proposed HMA pavement and the required compaction cannot be achieved, notify the RE immediately. The RE may either direct additional milling and paving to provide a suitable base to pave the proposed HMA or waive coring and air void requirements in such shoulder areas.

401.03.03 Subpart J. Ride Quality Requirements.

THE FIRST PARAGRAPH IS CHANGED TO:

The Department will evaluate the HMA surface course using the International Roughness Index (IRI) according to ASTM E 1926. The Department will use the measured IRI to compute the appropriate pay adjustment (PA). The PA may be positive for superior quality work or negative for defective work. The Department may exclude certain area as specified in the Special Provisions.

The entirety of this project is excluded from the above IRI requirements.

SUBPART 3 OF SECOND PARAGRAPH IS CHANGED TO:

3. Preparation for IRI Testing. Provide the necessary traffic control when the Department performs IRI testing. Perform required mechanical sweeping of the surface course before IRI testing. To facilitate auto triggering on laser profilers, place a single line of preformed traffic marking tape perpendicular to the roadway baseline 300 feet before the beginning of each lane, shoulder, and ramp to be tested. Submit the actual stationing for each traffic marking tape location to the RE.

401.03.05 Core Samples

THE LAST SENTENCE OF THE 2ND PARAGRAPH IS CHANGED TO THE FOLLOWING:

Apply an even coating of tack coat to sides of the hole. Place HMA in maximum lifts of 4 inches in the hole and compact each lift. Ensure that the final surface is 1/4 inch above the surrounding pavement surface.

401.04 MEASUREMENT AND PAYMENT

THE FOLLOWING IS ADDED TO THIS SUBSECTION:

The Department will not make payment for MTV, test strips, Quality Control Cores or additional cores for reset and a thin-lift nuclear density gauge. All costs thereof shall be included in the prices bid for the various Hot Mix Asphalt items in the Proposal.

The Department will make a payment adjustment for HMA air void quality by the following formula:

$$\text{Pay Adjustment} = Q \times \text{BP} \times \text{PPA}$$

Where:

BP = Bid Price

Q = Air Void Lot Quantity

PPA = air void PPA as specified in 401.03.03H.

The Department will make a payment adjustment for HMA thickness quality by the following formula:

$$\text{Pay Adjustment} = Q \times \text{BP} \times \text{PPA}$$

Where:

BP = Bid Price

Q = Air Void Lot Quantity

PPA = air void PPA as specified in 401.03.03I

The Department will make a payment adjustment for HMA ride quality, as specified in 401.03.03J.

DIVISION 500 – BRIDGES AND STRUCTURES

SECTION 501 – SHEETING AND COFFERDAMS

501.01 DESCRIPTION

This work shall include maintenance of adequate drainage flow during all phases of construction. It shall also include the construction of cofferdams, low profile equipment, dewatering and bypass pumping as necessary enabling the construction of bridge footings, abutment, wingwalls, etc. This work shall also include the clearing and restoring of the areas subjected to storm water runoff during construction. Design calculations and working drawings shall be submitted according to Subsection 105.05.

501.02 MATERIALS

501.03 CONSTRUCTION

501.03.01 Temporary Sheeting

A. Working Drawings.

THE FOLLOWING IS ADDED:

10. Method for maintaining safe and adequate passage of stream and storm water flow at all times during construction.
11. Method for removal of debris, dirt and sediment generated by storm events and construction activities within and vicinity of the project limits.
12. Method for pumping to handle heavy stream flow due to high and unexpected flooding.

B. Construction.

THE FOLLOWING IS ADDED:

Maintain safe and adequate passage of stream and storm flow to protect the foundation and the construction against damage and water. Remove dirt, debris and sediment generated by construction activities and storm events. The contractor is fully responsible for the losses that may arise out due to failure to collect and consider flooding information during preparation of bid proposal.

Provide advance notice to all utility companies if utility needs to be supported or protected. When high voltage lines are within the project limits, comply N.J.S.A. 34:6-47.1 to N.J.S.A. 34:6-47.9, 29 CFR 1926.550 and N.J.A.C. 16.25.

501.03.02 Permanent Sheeting

501.03.03 Temporary Cofferdams

This item is changed to Maintenance of Stream Flow including construction of temporary cofferdams.

A. Working Drawings

THE FOLLOWING IS ADDED:

9. Method of maintaining safe and adequate passage of storm water flow at all times during construction.
10. Method of removal of debris, dirt and sediment generated by storm events and construction activities within and vicinity of the project limits.
11. Method for pumping to handle heavy stream flow due to high and unexpected flooding.

B. Construction

THE FOLLOWING IS ADDED:

Maintenance of adequate drainage flow shall be provided at all times during the course of construction. The Contractor shall phase his work in such a manner as to at no time block or impede stream flow.

Any dirt, debris, or sediment resulting from the Contractor's work or storm runoff shall be immediately removed from the stream channel.

The limit of the stream for which the Contractor shall be responsible for cleaning storm runoff damage shall be limits of construction shown on the plans.

The Contractor shall be responsible for the entire area damaged by dirt, debris, or sediment resulting from his work regardless of the limits of construction. The Engineer's decision as to the extent of stream damage caused by the Contractor's work shall be final.

Necessary waterway opening shall be provided to maintain the stream flow. Also, pumping and other means shall be employed whenever necessary to handle heavy flow.

The Contractor is advised to the fact that this area may be subjected to high flooding. He must take into consideration the high flooding into his planning operation. He is also required to contact the Department of Environmental Protection, State of New Jersey, and the County of Union, to obtain further information about flooding.

If the Contractor, in making his decision for construction planning and operation, and in the bidding process, neglects to collect and consider flooding information, he will be responsible for the losses that may arise out of his business decision.

Provide advance notice to all utility companies if utility need to be supported or protected. When high voltage lines are within the project limits, comply N.J.S.A. 34:6-47.1 to N.J.S.A. 34:6-47.9, 29, CFR 1926.550 and N.J.A.C. 16.25.

501.03.04 Permanent Cofferdams

501.04 MEASUREMENT AND PAYMENT

THE FOLLOWING ITEM IS DELETED:

<i>Item</i>	<i>Pay Unit</i>
TEMPORARY SHEETING	SQUARE FOOT

THE FOLLOWING ITEM IS ADDED:

<i>Item</i>	<i>Pay Unit</i>
STEEL SHEET PILE WALL	SQUARE FOOT

The department will measure the square footage of Steel Sheet Pile Wall by multiplying the average height and length of sheeting that is driven. Measurement will be made from the approximate minimum tip elevation to the sheeting cutoff length as shown on the plans complete and in place. All unit prices include furnishing materials, tie-rod, structural steel, nuts, bolts, washers, installation, labor, equipment and all other costs incidental thereof necessary to complete same.

THE FOLLOWING ITEM IS ADDED:

No separate payment will be made for concrete cap, shear studs, concrete fill between sheeting and footing, concrete collar, and incidental work associated with the Sheet Pile Wall. All costs therefor shall be included in the price bid for Sheet Pile Wall and shall include all equipment, labor, and materials necessary to construct this item.

No separate measurement will be made for Temporary Sheeting. The contractor shall include this cost in the various items in the proposal.

No separate measurement will be made for labor, materials, pumping, equipment and all else necessary therefore and incidental thereto for the maintenance of stream flow as specified.

No separate payment will be made for temporary sheeting if same is utilized within the cofferdam system.

No separate measurement will be made for the removal and disposal of all stream maintenance devices and the restoration of the area within the limit of or the entire area damaged by dirt, debris or sediment resulting from his work.

The contractor is advised that the relocation work of existing utilities may not be complete prior to performance of the cofferdam system and they may have to work around the existing facilities. No separate measurement will be made for working around this limitation all costs associated with this limitation shall be included in the respective bid items.

The unit bid price for this item shall also include the cost of labor and material for providing the necessary waterway opening.

The unit bid price for this item shall also include the cost for labor and material for the construction, reconstruction bypass pumping and dewatering and maintenance of cofferdams as necessary.

Payment for permanent sheeting will be made if specified for on plans. The Department will measure the square footage of permanent sheeting by multiplying the average height and length of the sheeting left in place. Measurement will be made from the approximate minimum tip elevation to the sheeting cutoff length as shown on the plans complete and in place.

During installation of the sheeting and or cofferdam, the Contractor must observe the High voltage Proximity Act (P.L. 1948, C 249 as amended by P.L. 1966, c 261). All costs of modifications of overhead electrical lines that may be necessary to observe this law, shall be paid by the Contractor to the utility company. The contractor shall include this cost in the various items in the proposal.

All unit prices include furnishing materials, installation, labor, equipment and all other costs incidental thereof necessary to complete same.

SECTION 502 – LOAD BEARING PILES

502.01 DESCRIPTION

THE FOLLOWING IS ADDED:

This work shall include labor, material, testing, preboring of piles, rock coring, grouting, equipment, low profile equipment, and incidental work as necessary for the furnishing and installing all piles as shown on the plans.

Piles of the specified materials, dimensions, and at the designated locations shall be furnished and installed as shown on the plans. In general, lengths of piles will be greater than the estimated length of production piles to provide for variation in soil conditions and contractor's means of installation. The Contractor shall excavate the ground at each footing location to the elevation of the bottom of the footing before the pile is installed. The piles shall be installed at the designated locations to the bearing capacity and tip elevation that is shown on the Plans.

502.03 MATERIALS

502.04 MEASUREMENT AND PAYMENT

THE FOLLOWING ITEM IS DELETED:

<i>Item</i>	<i>Pay Unit</i>
FURNISHING EQUIPMENT FOR DRIVING PILES	LUMP SUM

THE FOLLOWING ITEM IS ADDED:

<i>Item</i>	<i>Pay Unit</i>
STEEL H-PILE, INSTALLED, HP 12X53	LF

THE FOLLOWING IS ADDED:

Furnishing Equipment For Driving Piles is not a pay item. All costs associated with supplying equipment for installing piles shall be included in the items requiring same.

The price bid for these items shall include the cost of furnishing and installing the piles as shown on the plans and shall also include the cost for labor, equipment, material, testing, prebored holes, rock coring, grouting and equipment as necessary for the furnishing and installing all piles.

During installation of the steel H-piles, the Contractor must observe the High voltage Proximity Act (P.L. 1948, C 249 as amended by P.L. 1966, c 261). All costs of modifications of overhead electrical lines that may be necessary to observe this law, shall be paid by the Contractor to the utility company. The contractor shall include this cost in the various items in the proposal.

All unit prices include furnishing materials, installation, labor, equipment and all other costs incidental thereof necessary to complete same.

SECTION 504 – STRUCTURAL CONCRETE

504.01 DESCRIPTION

504.02 MATERIALS

504.02.01 MATERIALS

THE FOLLOWING IS ADDED AFTER THE FIRST PARAGRAPH:

The epoxy resin system that is to be used for the filling of concrete cracks by pressure injection shall be a two component 100 percent solid moisture insensitive high-modulus high-strength epoxy resin adhesive. The following products, or approved equal, may be used:

1. Sikadur Hi-Mod LV, manufactured by Sika Corporation.
2. Duralcrete, as manufactured by Dural International Corporation.
3. Metaband HMLV, as manufactured by American Metaseal Company.
4. Therma-Chem Injection Resin Product No. 2, as manufactured by Thermal-Chem, Inc.
5. Concessive 1380, as manufactured by Adhesive Engineering Co. of San Carlos, California.

504.03 CONSTRUCTION

504.04 MEASUREMENT AND PAYMENT

THE FOLLOWING IS ADDED:

The quantity of concrete for seal in cofferdams will not be measured for separate payment the cost thereof shall be included in the various scheduled bridge items.

Causes for Rejection of Concrete Structures

Concrete structures shall be rejected and ordered repaired or replaced by the Engineer if any or all of the following should occur or exist:

- a. Staining or discoloration of concrete.
- b. Concrete is out of horizontal alignment in excess of 1”.
- c. Concrete is out of vertical alignment in excess of 1”.
- d. Joints and surface are improperly finished or aligned.
- e. Expansion joints protrude from concrete.
- f. Cracks, chips, or other damage occur in construction or maintenance period.
- g. Settlement of concrete.
- h. Inspection not requested of forms and reinforcing prior to pouring concrete.
- i. Improper vibration of concrete.
- j. Vandalism during initial setup of concrete.
- k. Improper installation or placement of components such as drainage pipes, weepholes sleeves, etc.

These deficiencies must be corrected prior to opening of structures to traffic.

SECTION 505 – PRECAST AND PRESTRESSED STRUCTURAL CONCRETE

505.01 DESCRIPTION

THE FOLLOWING IS ADDED:

This work shall also consist of manufacturing, furnishing, and erecting of precast PRESTRESSED CONCRETE BOX BEAM, (TYPE B21-36), 36X21 in accordance with these Specifications and in conformity with the lines, grades and dimensions shown on the Plans.

Materials and methods of construction that are used in the furnishing of precast PRESTRESSED CONCRETE BOX BEAM, (TYPE B21-36), 36X21 that are not specifically covered on the Plans and in these Specifications shall conform to the AASHTO LRFD Bridge Design Specifications. In lieu of the applicable AASHTO Specifications, the current ACI Manual of Concrete Practice and the current PCI precast Pre-stressed Bridge Design Manual shall be adhered to.

505.02 MATERIALS

THE FOLLOWING IS ADDED:

Reinforcement steel for precast PRESTRESSED CONCRETE BOX BEAM, (TYPE B21-36), 36X21 shall be deformed billet steel bars. Welded wire fabric shall not be allowed. The deformed billet bars shall conform to AASHTO M 31, Grade 60. The longitudinal distribution reinforcement shall consist of deformed billet steel bars.

505.03.01 PRESTRESSED CONCRETE STRUCTURES

THE FOLLOWING IS ADDED:

A. WORKING DRAWINGS.

All shop drawings must clearly indicate the length of time necessary, after the engineer's approval, for delivery of the finished product to the project site, complete and ready for installation. Once final shop drawings are approved, a mylar copy of each approved drawings shall be forwarded to the Department.

E. POST-TENSIONING OF PRESTRESSED SLABS AND BOX BEAMS

Longitudinal ties used to tie the precast units together shall be 1 1/4-inch diameter high-tensile strength steel alloy bars conforming to AASHTO 275. Bars shall be galvanized according to AASHTO M 111. End Anchorages (nuts, washers, and anchor plates), to be used with high-tensile strength steel bars, shall be approved by the Engineer. End anchorages shall be compatible with the tie rod system and shall be galvanized according to AASHTO M 111.

Materials and methods of construction not specifically covered in the plans and specifications shall conform to AASHTO Standard Specifications for Highway Bridges.

THE NEW SUBSECTION IS ADDED:

G. DESIGN AND DETAIL REQUIREMENTS.

The fabricator of prestressed beams shall be certified by the PCI or the NPCA to the category of applicable work. The certification will be maintained during production of items for the Project. A copy of the current field audit report shall be submitted to the Department's Bureau of Materials before the start of production.

Precast concrete units shall be designed with the minimum design compressive strength s as shown on the contract plans.

The cover of concrete over the circumferential reinforcement shall be s as shown on the contract plans.

Reinforcement bars shall be tied at all intersections, except where the spacing is less than 12 inches in each direction, in which case alternate intersections shall be tied.

Use of welded wire fabric is not allowed.

One longitudinal tie rod shall be placed in position through a 3 -inch diameter preformed hole located as shown on the contract plans (a total of four longitudinal ties) and stressed to a tension of 85,000 pounds each of longitudinal tie rods. After tensioning, the exposed end of the ties shall be removed so that no part of the ties or no part of the end fittings extend beyond a point 1 inch inside the anchorage pocket.

The tie rod bars shall be tensioned by torquing. Precautions shall be taken during the tensioning process to prevent any damage to the concrete under the outside bearing plates. The tensioning process shall be conducted so that the tension being applied may be measured at all times.

The Contractor should be aware it will be necessary to have concentrated material, equipment and labor forces at the job site during the placement of the beams in order to expeditiously erect the beams.

505.04

MEASUREMENT AND PAYMENT

THE FOLLOWING IS ADDED:

All unit prices include furnishing materials, installation, labor, equipment and all other costs incidental thereof necessary to complete same.

During installation of the structures, the Contractor must observe High-voltage Proximity Act (P.L. 1948, C 249 as amended by P.L. 1966, c 261). All cost of modifications of overhead electrical lines that may be necessary to observe this law, shall be paid by the Contractor to the utility company. The contractor shall include this cost in the various items in the proposal.

CAUSES FOR REJECTION OF CONCRETE STRUCTURES

Concrete structures shall be rejected and ordered repaired or replaced by the Engineer if any or all of the following should occur or exist:

- a. Staining or discoloration of concrete.
- b. Concrete is out of horizontal alignment in excess of 1”.
- c. Concrete is out of vertical alignment in excess of 1”.
- d. Joints and surface are improperly finished or aligned.
- e. Expansion joints protrude from concrete.
- f. Cracks, chips, or other damage occur in construction or maintenance period.
- g. Inspection not requested of forms and reinforcing prior to pouring concrete.
- h. Improper vibration of concrete.

These deficiencies must be corrected prior to opening of structures to traffic.

SECTION 506 – STRUCTURAL STEEL

506.01 DESCRIPTION

This Section shall also include the construction of Temporary Pedestrian Bridges utilizing overhang brackets attached to the existing prestressed concrete beams and concrete retaining walls.

506.02 MATERIALS

Flooring and railings for the Temporary Pedestrian Bridges shall conform to the requirements of Section 510

506.03 CONSTRUCTION

506.03.01 STRUCTURAL STEEL

B. Erection Plan.gabion

THE ENTIRE TEXT IS CHANGED TO:

At least 30 days before the pre-erection meeting, submit working drawings for certification regarding the plan of operations to the RE. Include, at a minimum, the following in the plan:

1. Number and type of manpower and equipment.
2. Shipping procedures.
3. Lifting procedures.
4. Beam erecting sequence, including method of setting bearings and diaphragms.
5. Temporary bracing.
6. Manufacturer's recommendations.
7. Procedures for employee safety.
8. Traffic control and protection.

E. Installing High-Strength Steel Bolts.

THE SECOND PARAGRAPH IS CHANGED TO:

Provide a Skidmore-Wilhelm calibrator or an acceptable equivalent tension measuring device on the Project during erection. Ensure that the manufacturer's representative is present during the first full day of tensioning work to provide technical assistance. Verify each lot of DTIs using the Skidmore-Wilhelm calibrator as specified in NJDOT S-3.

506.03.06 Repair Galvanizing

THE LAST SENTENCE OF THE SECOND PARAGRAPH IS CHANGED TO:

If painting is directed, treat the galvanized surface according to the manufacturer's recommendations, then apply the epoxy intermediate and urethane finish coats only.

506.04 MEASUREMENT AND PAYMENT

THE FOLLOWING IS ADDED:

<u>Pay Item</u>	<u>Pay Unit</u>
TEMPORARY PEDESTRIAN BRIDGE	LUMP SUM
STEEL PLATES (IF & WHERE DIRECTED), 1" X 4' X 8'	UNIT

Temporary Pedestrian Bridges will not be measured and payment will be on a lump sum basis regardless of the amount of temporary pedestrian bridges constructed in the various locations. All costs for furnishing, relocations, installations, removals, equipment, materials, and labor to construct the items will be included in the pay items.

SECTION 507 – CONCRETE BRIDGE DECK AND APPROACHES

507.01 DESCRIPTION

THE FOLLOWING IS ADDED:

This work shall also consist of the furnishing and installation of stone masonry facing with a concrete base on wingwalls and parapets at the location shown on the plans.

507.02 MATERIALS

THE FOLLOWING IS ADDED:

Material shall conform to Subsection 515.02 and modified by the following:

Stone Veneer shall be “Bucks County Brownstone Fieldstone” as supplied by the Delaware Quarries, Inc., 6603 Route 202, P.O. Box 778, New Hope, PA 18938, Phone No. 215-862-1670, or another approved equal quarry source. This stone shall be sound, durable and free from flaws, discoloration and structural defects. Samples indicating the range of color, texture, shape and size of the stone for use on this project shall be submitted to the Engineer for approval.

Mortar shall be tinted conforming to Subsection 903.08. The Contractor shall submit a color chart to the Engineer for selection of mortar color.

Water shall conform to Subsection 919.08

Concrete shelves for supporting the stone veneer shall be as shown on the plans and shall extend from the top of the footing to the elevations shown on the plans, but shall not less than twelve inches (12”) from the proposed grade at the front face of wingwalls and piers. All faces shall be true to shape, true in relation to each other and each shall have a dense uniform surface.

The stone veneer anchoring system shall consist of corrosion resistant steel. Dovetail anchor slots shall be formed of 12 gauge galvanized steel. Stone anchors shall be formed of stainless steel and of the type as shown on the plans.

Certificates of Compliance shall be furnished in accordance with Subsection 106.04 for all materials. Sample product data and material specification shall be submitted by the Contractor with the Certificates of Compliance for materials requested for consideration as “Approved equals”.

Brands of cementitious materials and admixtures, and the source of supply of masonry sand shall remain the same throughout the entire project.

507.03 CONSTRUCTION

507.03.02 Constructing Bridge Decks

L. Saw Cut Grooved Surfacing.

THE FOLLOWING IS ADDED TO THE FIRST PARAGRAPH:

Do not saw cut until after the Department performs Acceptance Testing as specified in Subsection 507.03.02 N.

N. Concrete Deck Surface Requirements

1. Acceptance Testing.

THE FIRST PARAGRAPH IS CHANGED TO:

Construct deck slabs so that less than 9 percent of the measured length of the lot exceeds 1/8 inch tolerance in 10 feet. The ME will test the surface of concrete bridge deck slabs with a Class I Walking

Profiler prior to the performance of saw cut grooved surfacing. The ME will calculate the percent defective using a rolling straight edge simulator analysis of the profiler data.

THE SECOND PARAGRAPH IN SUBPART 1 ACCEPTANCE TESTING IS CHANGED TO:

Conformance to the surface tolerance for concrete deck slabs will be determined in lots, each being equal to the length of deck in one span or continuous span. The longitudinal limits of the lot will be bounded by the expansion joints or fixed structural deck joints. The full length of the lot will be tested through any construction joints within the deck, whether these joints are required for the placement sequence or caused by the Contractor's operations. Such lot quantity will be calculated using the specified nominal deck thickness and excludes the quantity of concrete placed in haunches, end dams, and diaphragms. For the second course of the two-course deck slab construction, such lot quantity will be calculated using the specified nominal thickness of the concrete overlay protective system.

507.03.05 Concrete Parapet and Barrier Curb

THE SECOND PARAGRAPH IS CHANGED TO:

Cure using curing compound as specified 504.03.02.F. If drilling is required for subsequent construction, allow the concrete to cure for a minimum of 14 days before drilling.

507.03.07 Concrete Bridge Approach

This subsection is renamed to the following:

507.03.07 Concrete Bridge Approach and Concrete Bridge Relief Slab, HPC

THE FOLLOWING IS ADDED:

Ensure the concrete conforms to the surface requirements as specified in 507.03.02 N, except each lot will be equal to the number of cubic yards of approach concrete placed in the lane.

The following subsections are added:

507.03.08 Test Panel

Prior to starting work on the stone veneer, a 3' x 6' test panel shall be constructed for approval on construction methods. The test panel shall incorporate all of the actual materials to be used during construction including the stone facing; anchorages, tinted mortar, and flat finish clear sealer. The test panel shall demonstrate the workmanship, coursing, bonding, texture and color, tooling of joints, and mortar color. The sample panel shall be left in place at least one week prior to inspection for approval. The approved panel shall become the project standard for masonry materials, workmanship, and appearance. The test panel shall remain on site for comparison throughout construction of the stone facing on the headwalls and shall be removed after the stone veneer on the headwalls has been accepted by the Engineer.

507.03.09 Working Drawings

Shop drawings shall be in accordance with the applicable sections Subsection 105.05 of the standard specification and the following:

Catalog cuts shall be submitted for all proprietary products, hardware and accessories.

507.03.10 Cutting and Delivery

The facing pattern shall be random coursed rectangular stones. The stones shall not project more than 1/4" from the face of the adjacent stones to provide a smooth visual finish. Thicknesses shall be as indicated on the plans. Drill holes and other imperfections shall not appear on the exposed face of the stones.

The stone facing shall be handled, loaded and fastened for delivery so that there is no danger of spalling or breaking of the stones during transit using all reasonable and customary precautions. All holes in stones shall be protected from the weather, during shipment and storage, in such a way as to prevent the collection of water, which may freeze. At all times during handling and storage, the stones shall be kept clear of the ground. Should

the surrounding ground at storage sites be of such a nature that the stones may become stained by spattering during rainstorms, steps shall be taken to protect it and, should any of it become stained, the stain shall be removed or else the stones so stained shall be replaced.

Sand shall be stored where directed in a neat pile so that a minimum of clean-up will be required upon completion of the Project. Sand shall be protected from rain and ground moisture and shall be covered to prevent intrusion of foreign material.

507.03.11 Mortar and Anchors

Setting mortar shall be mixed in such quantities as needed for immediate use. For very small batches, mortar shall be mixed in a batch-type machine mixer. Materials which have been mixed for a period exceeding 30 minutes shall not be used on any portion of the work. Retempering of mortar will not be permitted.

Dovetail anchor slots of 12 gauge galvanized steel shall be placed at 16" spacing, center to center horizontally. Stainless steel, triangular dovetail stone anchors shall be placed in each dovetail anchor slot not more than 16" apart vertically. There shall be 6 gauge (3/16") stainless steel wire looped through each dovetail stone anchor. This tie shall be of size as shown on the plans and shall be bent so that it will lie in the stone veneer mortar joints. Each anchor shall be embedded in mortar bed and centered in the joint.

507.03.12 Setting

Granite facing shall be set before the concrete directly behind it is placed. The work shall not be constructed in freezing weather or when the stone contains frost except by written permission and conforming to such conditions as may be expressed. Under no circumstances shall salt be used for thawing out holes.

Bed joints and vertical joints shall average 3/4" in thickness with a tolerance of plus or minus 1/4". Joints shall be recessed 1/4" from the surface of the face of the stones.

Stone veneer shall not be set in freezing weather or when the stone contains frost except by written permission and conforming to such conditions as may be expressed. Under no circumstances shall salt be used for thawing out holes.

All joints, sinkages, holes, and any other spaces between stones, and substructures shall be filled with mortar, packed tightly. Hardwood wedges, soaked in water before use and removed before the mortar has set hard, may be used to facilitate proper setting. Each stone shall be cleaned by brushing or other means and drenched with water immediately before it is set, and the bed which is to receive it shall be cleaned and settled in place with a wooden maul. Stones shall not be dropped or slipped but shall be placed without jarring any stone already laid. Heavy hammering will not be allowed after a course is laid. Stones becoming loose after the mortar is set shall be removed, cleaned and re-laid with fresh mortar.

All spaces between the stones and the abutment and wingwall faces shall be completely filled with tightly placed mortar. To assure that all spaces between the stone veneer and the base concrete are filled, the mortar for the unfilled space shall be mixed to a wetter consistency than the mix used for the joints between stones, and the mortar shall be placed after each course of stone is set. The mortar shall be firmly packed by repetitively inserting (probing) the pointed end of the trowel into the mortar to displace all air voids. The mortar used for backfilling may be un-tinted natural color.

All mortar droppings or smears on the exposed faces of the stone veneer shall be cleaned or brushed off immediately after the stone is set and shall be kept clean and free of mortar stains until the work is completed.

507.03.12 Pointing

Pointing of joints is not permitted. Joints shall be finished when the mortar for the joints has set.

507.03.12 Protecting and Cleaning of Stonework

As soon as stonework is set, it shall be protected from damage from weather or other causes until final completion and acceptance of the work.

Immediately after laying and while mortar is still fresh, all face stones shall be cleaned of all mortar stains and shall be kept clean until the work is completed. Before final acceptance, the surface shall be cleaned using wire brushes and muriatic acid if necessary.

The stone facing on wingwalls, and piers, after the mortar has cured, shall be protected with flat finish clear sealer, VIP OMBRELLA 9100 clear acrylic water repellent coating as manufactured by VIP/Lighthouse Products, Telephone (800) 228-5537 or an approved equal.

Prior to applying sealer to all specified surfaces, the area to be seal coated shall be cleaned of all laitance by power wash rotating-nozzle water jet. In addition, the surface shall be cleaned using wire brushes and muriatic acid solution where necessary, and as directed by the engineer.

In hot or dry weather, the masonry shall be protected from the sun and shall be kept wet for a period of five days after completion.

507.04 MEASUREMENT AND PAYMENT

THE FOLLOWING ITEM IS ADDED:

<i>Item</i>	<i>Pay Unit</i>
CONCRETE BRIDGE RELIEF SLAB, HPC	CUBIC YARD

All unit prices include furnishing materials, installation, labor, equipment and all other costs incidental thereof necessary to complete same.

THE SECOND PARAGRAPH IS CHANGED TO:

The Department will include payment for reinforcement steel for the bridge approach under the item CONCRETE BRIDGE RELIEF SLAB, HPC; for other concrete items, the Department will make payment for reinforcement steel under REINFORCEMENT STEEL, REINFORCEMENT STEEL, EPOXY-COATED, and REINFORCEMENT STEEL, GALVANIZED as specified in 504.04.

THE FOLLOWING IS ADDED:

The Department will make a payment adjustment for concrete surface requirement quality in deck slabs and approach, by the following formula:

$$\text{Pay Adjustment} = Q \times BP \times PR$$

Where:

BP = Bid Price

Q= Surface Requirement Lot Quantity

PR= percent reduction as specified in Table 507.03.02-2

No separate measurement will be made for the stone facing treatment on the parapets. Stone facing treatment shall be paid under the item "CONCRETE BRIDGE PARAPET" and shall include all labor, materials, equipment, test panel and incidental items necessary to construct same.

No separate payment will be made for the stone facing treatment on the parapets. Stone facing treatment shall be paid under the item "CONCRETE BRIDGE PARAPET" and shall include all labor, materials, equipment, test panel and incidental items necessary to construct same.

THE FOLLOWING SECTION IS ADDED:

SECTION 515 - GRANITE MASONRY

515.01 DESCRIPTION.

This work shall consist of the construction of 2'-0" x 2" thick granite capstone along the bridge parapets.

MATERIALS

515.02 MATERIALS.

Materials shall conform to the following Subsections:

Granite Facing for Pier Shafts	910.05
Mortar.....	903.08
Bolts and Bolting Material	908.01

CONSTRUCTION

515.03 CUTTING AND DELIVERY.

The stones shall have lengths between 4 and 8 feet except where parapet joints or slopes prohibit such lengths. Thicknesses not less than 2 inches nor more than 2 1/8" inches, including projections shall be provided. Coped stones at ends of parapets shall conform to these thickness requirements.

The front face shall be smooth, split surfaces will not be permitted. Snipped corners over 3/8 inch will not be permitted. Drill holes shall not appear in the face. The back may be quarry-split surface but in no case shall rear projections exceed the prescribed thicknesses. The face of the granite shall be as smooth as possible.

The joint surface of stones shall be cut full and square and the balance of the joint surfaces roughed off on a batter away from the joint of not more than 1 in 12.

Depression in a joint surface shall not be less than 3 inches from the edge of stone.

Lewis holes will be permitted in all stones weighing over 100 pounds except that Lewis holes or other holes will not be permitted in exposed surfaces without approval.

Holes for anchor clamps shall be at least 4 inches from any face of the stone and shall be of such size as to allow at least 3/16 inch for mortar between metal and stone.

The granite shall be handled, loaded, and fastened for delivery so that there is no danger of spalling or breaking of the stones during transit. All holes shall be protected from the weather, during shipment and storage, in such a way as to prevent the collection of water which may freeze. At all times during handling and storage, the granite shall be kept clear of the ground. Should the surrounding ground at storage sites be of such a nature that the granite may become stained by spattering during rainstorms, steps shall be taken to protect it and, should any of it become stained, the stain shall be removed or else the stones so stained shall be replaced.

515.04 Mortar and Anchors.

Setting mortar shall be mixed in such quantities as needed for immediate use. For very small batches, mortar shall be mixed in a batch-type machine mixer. Materials which have been mixed for a period exceeding 30 minutes shall not be used on any portion of the work. Retempering of mortar will not be permitted.

Anchor cramps required to tie the granite firmly to the concrete pier shaft shall be furnished. They shall be of the general character as indicated and shall be of stainless steel. At least two anchors shall be used for each stone.

515.05 SETTING.

The work shall not be constructed in freezing weather or when the stone contains frost except by written permission and conforming to such conditions as may be expressed. Under no circumstances shall salt be used for thawing out holes.

Bed joints and vertical joints shall average 3/4 inch in thickness with a tolerance of plus or minus 1/4 inch.

All joints, sinkages, holes, and any other spaces between stones, or between stones and metal parts, shall be filled with mortar, packed tightly. Hardwood wedges, soaked in water before use and removed before the mortar

has set hard, may be used to facilitate proper setting. Each stone shall be cleaned by brushing or other means and drenched with water immediately before it is set, and the bed which is to receive it shall be cleaned and settled in place with a wooden maul. Stones shall not be dropped or slipped but shall be placed without jarring any stone already laid. Heavy hammering will not be allowed after a course is laid. All mortar droppings or smears on the exposed faces of the granite shall be brushed off immediately after the stone is set. Stones becoming loose after the mortar is set shall be removed, cleaned and relaid with fresh mortar.

515.06 POINTING.

All joints shall be raked out to a depth of 1 inch, cleaned out, mortar set, and pointed.

Pointing shall be done with lead wool of commercial quality. It shall be driven into the joints with caulking tools so as to fill all openings, and then finished with a pointing tool so as to give flush joints.

515.07 PROTECTING AND CLEANING STONework.

As soon as stonework is set, it shall be protected from damage from weather or other causes until final completion and acceptance of the work.

Immediately after laying and while mortar is still fresh, all face stones shall be cleaned of all mortar stains and shall be kept clean until the work is completed. Before final acceptance, the surface shall be cleaned using wire brushes and muriatic acid if necessary.

In hot or dry weather, the masonry shall be protected from the sun and shall be kept wet for a period of five days after completion.

COMPENSATION

515.08 MEASUREMENT AND PAYMENT.

No separate measurement will be made for the granite masonry treatment on the parapets. Granite masonry treatment shall be paid under the item "CONCRETE BRIDGE PARAPET" and shall include all labor, materials, equipment, test panel and incidental items necessary to construct same.

No separate payment shall be made for granite masonry treatment on the parapets. Granite masonry treatment shall be paid under the item "CONCRETE BRIDGE PARAPET" and shall include all labor, materials, equipment, test panel and incidental items necessary to construct same.

DIVISION 600 – MISCELLANEOUS CONSTRUCTION

SECTION 601 – PIPE

601.01 DESCRIPTION

THIS SECTION IS CHANGED TO:

This section describes the requirements for constructing storm drains for surface drainage, for constructing sub-base outlet drains and under drains, and for cleaning existing pipe.

601.02 MATERIALS

THE FOLLOWING IS ADDED IN THE LIST:

Bedding Material (Size Number 57)	901.03
Dense Graded Aggregate	901.10
Polyvinyl Chloride Perforated Drainage Pipe	909.02.03
Ductile Iron Culvert Pipe	909.02.07
Ductile Iron Water Pipe	909.02.08
Grout.....	903.08.02
Flexible Watertight Gasket	919.15

Backfill Materials for Plastic Drainage Pipe, Size 57, Subsection 901.03, Table 901.03-1

Backfill Materials for Underdrains, Size 57, Subsection 901.03, Table 901.03-1

Bedding Materials for Plastic Drainage Pipe for Underdrains, Size 57, Subsection 901.03, Table 901.03-1

Portland cement concrete for pipe plugs, encasements, or saddles shall conform to Section 903.03.

For jacked pipe, reinforced concrete culvert pipe shall conform to Subsection 913.04 except that the pipe shall be Class V, Wall B, tongue and groove type.

The tube material shall conform to the requirements of ASTM 1216. The tube shall be fabricated to a size that, when installed, conforms to the internal circumference and length of the original pipe.

The wall color of the interior tube surface after installation shall not be of a dark or non-reflective nature that could inhibit proper closed-circuit television inspection

601.03 CONSTRUCTION

601.03.01 Installing Pipe

B. Excavating

THE FOLLOWING IS ADDED TO THE SECOND PARAGRAPH:

Excavate as specified in 202.03.03. Dispose of excess material as specified in 202.03.07. Dispose of removed materials and debris as specified in 201.03.09.

THE FOLLOWING IS ADDED TO THE THIRD PARAGRAPH:

Maintain the grade of the trench during excavation to provide positive drainage in the trench.

THE SECOND SENTENCE OF THE LAST PARAGRAPH IS CHANGED TO:

Do not leave trenches open overnight under any circumstances. Restore all trenches to surrounding grade at the end of each workday.

601.03.01 Installing Pipe (cont'd.)

C. Bedding.

THE SECOND SENTENCE OF THE FIRST PARAGRAPH IS CHANGED TO:

Provide Class "C" bedding for storm drains. Use coarse aggregate No. 57 as specified in 901.03. Excavate trench at least six (6) inches below the bottom of storm drains along the full width of the trench to receive Class "C" bedding.

D. Installing Pipe.

THE FOLLOWING IS ADDED:

Remove and replace storm drains damaged during installation. Remove and replace storm drains found to be out of vertical and horizontal alignment.

E. Joining Pipe

THE FIRST SENTENCE OF THE FIRST PARAGRAPH IS CHANGED TO:

Join all rigid storm drains using flexible watertight gaskets as specified in 919.15.

THE FOLLOWING IS ADDED TO THE FOURTH PARAGRAPH:

Avoid bumping the gasket and thus displacing it or covering it with dirt and other foreign materials. Remove and replace gasket if damaged or displaced. Align storm drain before joints are forced home. Support storm drain by a lifting equipment to maintain concentricity until the gasket is properly compressed in the joint space. Apply sufficient pressure in making the joint to assure that the joint is home. See evidence of a slight squeeze out of the gasket at the outside or inside of the pipe joint.

F. Backfilling.

THE FIRST PARAGRAPH AND SECOND PARAGRAPH ARE CHANGED TO:

Backfill entire trench with dense graded aggregate as specified in 901.10.

Place dense graded aggregate backfill material symmetrically on each side of the pipe in lifts not exceeding six (6) inches thick, loose measurement. Compact as follows:

1. Use vibratory plate compactors for dense graded aggregate backfill to two (2) feet above
2. May use a roller for dense graded aggregate backfill two (2) feet above the pipe.

601.03.03 Underdrains and Subbase Outlet Drains.

A. Excavating.

THE LAST SENTENCE OF THE THIRD PARAGRAPH IS CHANGED TO:

If the RE determines that the bottom of the trench is unstable, undercut as directed by the RE and backfill with Class "C" bedding.

THE FOLLOWING IS ADDED UNDER SUBPART A.

Excavate as specified in 202.03.03. Dispose of excavated material as specified in 202.03.07 and 201.03.09. Excavate a depth of six (6) inches below the invert grade of the underdrain and subbase outlet drain. Maintain the grade of the trench during construction to provide positive drainage in the trench.

B. Installing.

THE FOLLOWING IS ADDED UNDER SUBPART B.

Cut and trim subsurface drainage geotextile to meet required dimensions with sufficient size to provide an overlap of the underdrain pipe and backfill material.

601.03.03 Underdrains and Subbase Outlet Drains (cont'd.)

C. Backfilling.

The following is added under Subpart C.

Use coarse aggregate No. 57 as specified in 901.03.

601.03.05 DEFLECTION INSPECTION OF HDPE PIPE.

Remedial action may include but is not limited to removal and replacement or an accepted repair procedure.

601.04 MEASUREMENT AND PAYMENT

THE FOLLOWING PAY ITEMS ARE DELETED.

<u>PAY ITEM</u>	<u>PAY UNIT</u>
Cleaning Existing Pipe, ___" to ___" diameter	Linear Foot
Cleaning Existing Pipe, ___" to ___" diameter	Linear Foot
Cleaning Existing Pipe, ___" diameter	Linear Foot

THE FOLLOWING PAY ITEMS ARE ADDED.

<u>PAY ITEM</u>	<u>PAY UNIT</u>
24" Steel Casing	Linear Foot
30" Steel Casing	Linear Foot

THE FOLLOWING IS ADDED:

The Department will not measure flexible watertight gaskets, Class "C" bedding, and cleaning existing pipes of the various sizes. The Department will not make payment for flexible watertight gaskets, Class "C" bedding, and cleaning existing pipes of the various sizes within the contract limits. The costs thereof shall be included in the price bid for the various drainage pipe items in the proposal.

The Department will not measure excavation and disposal of excavated, unusable, and unsuitable material from storm drain trenches. The Department will not make payment for excavation and disposal of excavated material, unusable, and unsuitable material from storm drain trenches. The costs thereof shall be included in the price bid for the various drainage pipe items in the proposal.

Dense Graded Aggregate for pipe trench backfill shall be measured in accordance with Section 302.04.

The unit prices bid in the Proposal for the various items of storm drains shall also include all costs of materials and labor necessary to connect the pipes to existing and proposed drainage structures. This shall be done in a manner satisfactory to the Engineer and in conformance with the detail as shown, and temporary plugging and staging as required.

All unit prices include furnishing materials, installation, labor, equipment and all other costs incidental thereof necessary to complete same.

All work required to maintain and construct the drainage system as shown on the plans including cleaning of the existing system within the project limit shall be included in the respective bid items in the contract.

SECTION 602 – DRAINAGE STRUCTURES

602.01 DESCRIPTION

602.02 MATERIALS

602.02.01 MATERIALS

All reference to brick is deleted in this Subsection.

602.03 CONSTRUCTION

602.03.01 CULVERTS AND HEADWALLS

THE FOLLOWING IS ADDED:

Culverts and headwalls shall be constructed on a six (6) inch bed of compacted course aggregate No. 57 or as shown on the plans.

602.03.02 INLETS AND MANHOLES

THE FOLLOWING IS ADDED UNDER SUBPART 1:

All precast bases shall be set on a six (6) inch bed of compacted course aggregate No. 57.

The heading and first four sentences under Subpart 2 are changed to:

2. Concrete Block Construction. Lay concrete block with staggered joints. Fill with mortar horizontal joints, concrete block vertical joints and concrete block key ways. Ensure that horizontal joints and vertical joints in concrete block are not more than 3/8 inch wide.

602.03.03 SETTING CASTINGS, RESETTING CASTINGS, AND RECONSTRUCTING INLETS AND MANHOLES

THE FOLLOWING IS ADDED:

When surrounding existing pavement grade in the traveled way and shoulder is lower than inlet grate or manhole cover, construct hot mix asphalt surface course transition ramp, four (4') feet from the edge of the casting. Remove hot mix asphalt surface course ramp prior to placement of final hot mix asphalt surface course.

Return unused Existing inlet and manhole castings existing frames and existing extension rings that are not to be used on the project shall be reclaimed, stored and returned in accordance with Section 201.03.01 to County Road Department.

602.04 MEASUREMENT AND PAYMENT

THE FOLLOWING ITEM IS DELETED:

<u>ITEM</u>	<u>PAY UNIT</u>
Cleaning Existing Structure	Unit

THE FOLLOWING ITEM IS ADDED:

<u>ITEM</u>	<u>PAY UNIT</u>
TEMPORARY INLET CASTING, TYPE 'E'	UNIT

THE FOLLOWING IS ADDED:

The Department will not measure or make payment for excavation and disposal of excavated material, unusable, and unsuitable material for drainage structures. The costs thereof shall be included in the price bid for the various drainage pipe items in the proposal.

602.04 MEASUREMENT AND PAYMENT (CON'T)

The Department will not measure or make payment for installation and removal of hot mix asphalt surface course ramp, coarse aggregate bedding No. 57 under precast structure, opening and closing temporary drainage openings into the drainage structures, and cleaning existing drainage structure. The costs thereof shall be included in the price bid for the various drainage structure items in the proposal.

Payment adjustments for strength will be made in accordance with Subsection 903.03.04, Subpart (E) and will be applied to the lot for those pay items specified in that Subpart.

Separate payment will not be made for cleaning existing drainage structures, the cost thereof shall be included under the pay item "Clearing Site".

All unit prices include furnishing materials, installation, labor, equipment and all other costs incidental thereof necessary to complete same.

SECTION 606 – SIDEWALKS, DRIVEWAY, AND ISLANDS

606.01 DESCRIPTION

THE FOLLOWING IS ADDED:

This work shall also consist of installing safety red color coating and detectable warning surfaces on Portland Cement Concrete sidewalks for curb ramp delineation.

This work shall also include the excavation, removal and disposal of existing concrete sidewalk, bituminous sidewalk and the installation of dense graded aggregate for the new reinforced sidewalk.

606.02 MATERIALS

THE FOLLOWING IS ADDED ON THE LIST OF MATERIALS:

Tack Coat.....	902.01
Joint Sealer	914.02

THE FOLLOWING IS ADDED:

Portland cement concrete shall conform to Section 903 except that driveways shall attain a strength of not less than 3,000 pounds per square inch in three days.

The preformed expansion joint filler shall be capped with a VINYLEX removable cap strip (#VP1391 1/2" joint cap) as cataloged by ZOUBEK of 3220 Bordentown Turnpike, Parlin, N.J. 908-727-8080 or approved equal.

Joint Sealer for concrete sidewalk joints shall be Sikaflex-1A, Gray, 1-component, high performance polyurethane sealant, as manufactured by Sika Chemical Corp. of Lyndhurst, New Jersey or approved equal.

606.03 CONSTRUCTION

606.03.02 CONCRETE SIDEWALKS, DRIVEWAYS, AND ISLANDS

THE FOLLOWING IS ADDED:

Concrete Sidewalk, Reinforced, 6" thick; Concrete Driveway, Reinforced, 6" thick; and Concrete Island, reinforced, 6" thick shall have a four (4) inch thick bed of Dense Graded Aggregate in accordance with Section 901.10

A. Underlayment Preparation:

THE FOLLOWING IS ADDED UNDER SUBPART A

Provide a four (4) inch thick bedding of dense graded aggregate when the RE approved the depth of excavation and the material at the bottom of the excavation. Compact using the directed method as specified in 203.03.02.C. Backfill the undercut with dense graded aggregate.

D. Welded Wire Mesh.

THE FOLLOWING IS ADDED UNDER SUBPART D

Use chairs and ties to support and maintain welded wire mesh in position during the placement of concrete.

E. Expansion Joints.

THE FIRST SENTENCE UNDER SUBPART E IS CHANGED TO:

Construct 1/2-inch wide expansion joints, placed at intervals of approximately eight (8) feet, with preformed joint filler and a cap strip in the top of expansion joints. Use VINYLEX #VP 1391 or approved equal.

F. Placing Concrete

THE FOLLOWING IS ADDED UNDER SUBPART F:

Before placing the concrete the underlying material shall be compacted and four (4) inch thick bed of Dense Graded Aggregate shall be placed and compacted. The forms shall be installed and given a coating of light oil.

Curb and sidewalk shall be poured separately. Monolithic pours are not permitted.

Where forms removed and used again, the forms shall be thoroughly cleaned and oiled each time before using. Immediately before placing concrete, the welded steel wire fabric shall be installed and overlapped not less than one mesh in width. Overlaps shall be fastened securely at ends and edges. Chains and ties shall be capable of supporting the maintaining welded steel wire fabric in position during the placement of concrete.

The top of the expansion joint shall have a VINYLEX #VP1391 Removable Cap Strip installed prior to placing concrete. The top of this cap strip shall be even with the finished concrete. After the concrete sets the 1/2" x 1/2" top portion of the cap strip shall be removed and the remaining area (1/2" x 1/2") shall be filled with joint sealer as specified in 607.02. Expansion joints shall be 1/2 inch wide placed at intervals of approximately eight (8) feet.

The expansion joint material shall extend for the full depth of sidewalks and driveways. Expansion joint shall be formed around all appurtenances such as manholes, utility boxes and poles extending into or through the concrete. Expansion joint shall be installed between concrete and any fixed structure, such as a building or bridge.

All areas determined to have been damaged or not to be in conformance with the Specifications of the plans shall be removed and replaced at no additional compensation to the County.

Concrete islands, reinforced shall conform to the construction requirements for concrete sidewalk except as stated herein. Welded steel wire fabric shall be accurately placed and overlapped not less than one mesh in width. Overlaps shall be fastened securely at ends and edges.

Chains and ties shall be capable of supporting and maintaining welded steel wire fabric in position during the placement of concrete.

The ADA compliant curb ramp and landings shall be poured separately, no monolithic pours. The slope of the curb ramp, landings will follow the Revised ADA Regulations implementing Title II and the 2010 ADA Standards for Accessible Design. It is recommended that the curb ramp slope not exceed 7.5% and the landing slope not exceed 1.5% in either the running slope or the cross slope. It is recommended that the landings be constructed first.

H. Protection and Curing.

THE LAST SENTENCE IS CHANGED TO:

Ensure vehicles and other loads are not placed on sidewalks, islands, and driveways until the concrete has attained compressive strength of 3000 pounds per square inch, as determined from 2 concrete cylinders field cured according to AASHTO T23.

I. Removable Cap Strip.

Remove cap strip after the concrete sets and fill cap strip area with joint sealer according to the manufacturer's recommendations. Use Sikaflex-1A, Gray, 1-Component, high performance sealant, as manufactured by Sika Chemical Corp. of Lyndhurst, New Jersey or approved equal.

J. Weather Limitations.

The following Subpart J is added:

Do not place concrete if it is precipitating. Do not place concrete when precipitation is imminent as determined by the RE. Do not place concrete when the ambient temperature is below 30°F or above 100°F. Do not pour concrete sidewalks, driveway, and islands between November 15th to March 15th.

K. ADA Compliant Curb Ramp Design Certification.

THE FOLLOWING SUBPART K IS ADDED:

Prior to installation, the contractor shall provide to the Engineer a design certification for each new curb ramp to be installed or existing ramp to be verified within the project limits including a statement certifying that the ramp meets the Revised ADA Regulations implementing Title II and the 2010 ADA Standards for Accessible Design requirements. The certification shall include an individual plan layout of each ramp at a scale of 1"=5', signed by the contractor, and signed and sealed by a Professional Engineer registered in the State of New Jersey. The plan layout shall include but not be limited to the following information:

- a. All existing topographic features to remain following construction;
- b. Proposed topographic features including drainage, striping, sidewalk, curbing, etc.;
- c. The setting or verification of elevations, station and offset from major road construction baseline to centerline of ramp at the proposed gutter line;
- d. Ramp length, width, running slope and cross slope;
- e. Landing length, width, running slope and cross slope;
- f. Curb transition lengths and curb heights at the end of transition lengths;
- g. Indicate concrete headers, if necessary;
- h. Location and orientation of detectable warning surface.

An as-built certification shall also be provided after installation of the ramps stating the curb ramp was installed in accordance with the Revised ADA Regulations implementing Title II and the 2010 ADA Standards for Accessible Design requirements. This certification shall include the plan layout of each ramp and be signed by the contractor, and signed and sealed by a Professional Engineer registered in the State of New Jersey. Any deviations in the information contained in the design certification shall be noted.

CADD files for the development of the site specific plans will be made available upon request. NJDOT standard curb ramp details shall not be allowed for plan layout, however, they can be referenced if applicable.

606.03.03 DETECTABLE WARNING SURFACES

REPLACE THIS SECTION WITH THE FOLLOWING:

Detectable Warning Surfaces shall be of the type which can be set into uncured cast-in place concrete. Glue/stick-on type warning surfaces shall not be allowed.

MEASUREMENT AND PAYMENT

THE FOLLOWING IS ADDED:

The Department will not measure dense graded aggregate, welded wire mesh, removable cap strip, expansion joints and joint sealer.

The Department will not make separate payment for dense graded aggregate, welded wire mesh, removable cap strip, expansion joints, and joint sealer. The costs thereof shall be included in the various concrete sidewalk and driveway items listed in the proposal.

The Department will not make separate payment for the design certification or as-built certification of the pedestrian curb ramps to be installed within the project limits. The costs thereof shall be included in the item, "Concrete Sidewalk, Reinforced, ___" Thick" measured for payment.

The Department will not make separate payment for the design certification for each existing ramp to be verified within the project limits including a statement certifying that the ramp meets the Revised ADA Regulations implementing Title II and the 2010 ADA Standards for Accessible Design requirements. The costs thereof shall be included in the item, "Concrete Sidewalk, Reinforced, ___" Thick" measured for payment.

Existing curbs, curb ramps, and sidewalks that are replaced for compliance with the Revised ADA Regulations implementing Title II and the 2010 ADA Standards for Accessible Design requirements shall be measured for payment. Sidewalks and detectable warning surfaces shall be measured in accordance with subsection 606.04. Curbs shall be measured in accordance with subsection 607.04.

Reject and replace concrete sidewalks, driveways, and islands if the following occur or exist.

- a. Staining and discoloration of the concrete.
- b. Sidewalks, driveways, and islands are out of horizontal and vertical alignment.
- c. Improper joints and improper broom finish.
- d. Protrude expansion joints and joint sealer above the surface of the concrete.
- e. Failure to install removable cap strip and joint sealer.
- f. Failure to request inspection prior to pouring the concrete.
- g. Improper vibration of the concrete and segregation of the concrete during its initial set.
- h. Vandalism occurs during its initial set.
- i. Occur chips, cracks, and other damage during construction period and maintenance period.
- j. Failure to comply with the Revised ADA Regulations implementing Title II and the 2010 ADA Standards for Accessible Design.

All unit prices include furnishing materials, installation, labor, equipment and all other costs incidental thereof necessary to complete same.

SECTION 607 – CURB

607.01 DESCRIPTION

THIS SUBSECTION IS CHANGED TO:

This work shall consist of the construction of Portland Cement Concrete curbs and granite block curb, and HMA curb, resetting granite block curb, and the removal and disposal of existing concrete curbs, granite curbs and concrete barrier curbs.

607.02 MATERIALS

THE FOLLOWING IS ADDED TO THE LIST OF MATERIALS:

Dense Graded Aggregate 901.10

607.03 CONSTRUCTION

607.03.02 CONCRETE VERTICAL CURB AND CONCRETE SLOPPING CURB

A. Underlayer Preparation

THE FOLLOWING IS ADDED TO SUBPART A.

Install a five (5) inch thick bedding of dense graded aggregate when the RE approves the depth of the excavation and the suitability of subgrade material at the bottom of the excavation. Compact using the directed method as specified in 203.03.02.C. Backfill the undercut with dense graded aggregate.

D. Placing Concrete.

THE ENTIRE TEXT IS CHANGED TO:

Place concrete for vertical curb and sloping curb as specified in 607.03.01.D, except that consolidation may be achieved by hand spading or internal mechanical vibrators.

H. Weather Limitations.

THE FOLLOWING SUBPART H IS ADDED:

Do not place concrete when precipitation is imminent as determined by the RE. Do not place concrete when the ambient temperature is below 30°F or above 100°F. Do not pour curb between November 15th to March 15th.

607.03.04 Concrete Vertical Curb and Concrete Sloping Curb, Dowelled

D. Placing Concrete.

THE ENTIRE TEXT IS CHANGED TO:

Place concrete for vertical and sloping curb as specified in 607.03.02.D.

607.04 MEASUREMENT AND PAYMENT

THE LAST PARAGRAPH IS CHANGED TO:

The Department will measure curb along the face at the gutter line excepting the length of curb pieces of inlet castings.

THE FOLLOWING IS ADDED:

The Department will not measure dense graded aggregate bedding placed under the curb.

The Department will not make payment for dense graded aggregate. Cost to be included in the concrete curb pay item.

607.04**MEASUREMENT AND PAYMENT (CON'T)**Causes for Rejection of Concrete Curb

Concrete curbs or curb and gutter shall be rejected and ordered to be replaced by the Engineer at no cost to the County if any or all of the following should occur or exist:

- a. Staining and discoloration of concrete.
- b. Curb is out of horizontal and vertical alignment.
- c. Protrude preformed joint filler. Do not flush with the top and face of the curb.
- d. Improper finish of the top and the face of the curb.
- e. Cracks, chips, and other damage occur during construction period and maintenance period.
- f. Vandalism occurs during its initial set.
- g. Failure to request inspection prior to pouring the concrete.
- h. Improper vibration of the concrete and segregation of the concrete during placement.
- i. Settlement of the curb.

All unit prices include furnishing materials, installation, labor, equipment and all other costs incidental thereof necessary to complete same.

SECTION 608 – NON-VEGETATIVE SURFACES

THE ENTIRE SECTION IS CHANGED TO:

608.01 DESCRIPTION

This Section describes the requirements for constructing non-vegetative surfaces of HMA; color-coated HMA; porous HMA; broken stone, and polyester matting.

608.02 MATERIALS

608.02.01 Materials

Provide materials as specified:

Broken Stone, Coarse Aggregate No. 3.....	901.03
HMA (9.5M64).....	902.02
Asphalt-Stabilized Drainage Course.....	902.06
Non-Vegetative Surface Coating.....	912.02.04
Herbicide.....	917.11.03
Polyester Matting.....	919.15

Provide Non-Vegetative Surface, Porous HMA conforming to the requirements of Asphalt-Stabilized Drainage Course.

608.02.02 Equipment

Provide equipment as specified:

HMA Compactor.....	1003.05
Vibratory Drum Compactor.....	1003.06
HMA Plant.....	1009.01
HMA Trucks.....	1009.02

608.03 CONSTRUCTION

THE FOLLOWING IS ADDED:

Broken stone, approximately aggregate size No. 4 shall be spread in the specified uniform layer conforming to the proposed grade.

608.03.01 Non-Vegetative Surface, HMA

Excavate as specified in 202.03.03. Shape and compact the underlying material to produce a firm, even surface. Obtain RE approval before finishing excavation. If the RE determines that the bottom of the excavation is unstable, undercut, backfill, and compact as directed by the RE.

Construct the non-vegetative surface, HMA before installing guide rail. Obtain RE approval for alternate methods of construction.

Deliver HMA as specified in 401.03.03.D. Construct non-vegetative surfaces 4 inches thick. Place and compact the material to produce a surface free of roller marks and ridges. Spread and grade the HMA as specified in 401.03.03.E. Ensure that the finished surface is smooth, even, and graded to drain away from the guide rail. Compact HMA as specified in 401.03.03.F. Spread, rake, and lute areas not accessible to pavers and rollers with hand tools and compact with dynamic compactors.

Repair non-vegetative surface damaged by guide rail installation with HMA. Use hand tampers around posts and other obstacles where mechanical compactors are not accessible.

608.04 MEASUREMENT AND PAYMENT

All unit prices include furnishing materials, installation, labor, equipment and all other costs incidental thereof necessary to complete same.

SECTION 609 – BEAM GUIDE RAIL

609.01 DESCRIPTION

THE FOLLOWING IS ADDED:

This section also describes the requirements for installing terminals and anchorages.

609.02 MATERIALS

609.03 CONSTRUCTION

609.03.01 Beam Guide Rail

THE SEVENTH PARAGRAPH IS CHANGED TO:

Install flexible delineators with white retroreflective sheeting on the right side of the direction of traffic. Install flexible delineators with yellow retroreflective sheeting on the left side of the direction of traffic. Mount flexible delineators on the blockout of beam guide rail using either a “U” channel base on the I-beam blockout or a flat base attached to a wood, polymer, or other solid top blockout. Attach the base to the blockout using an adhesive recommended by the manufacturer of the base and panel.

609.03.03 Terminals and Anchorages

THE FOLLOWING IS ADDED:

Use FLEAT 350 (Flared Energy Absorbing Terminal)

Slotted Guide Rail Terminals as manufactured by Road Systems, Inc.

Use ET-2000 PLUS Extruder Terminals as manufactured by Trinity Highway Safety Products, Inc.

Use SKT 350 Extruder Terminals as manufactured by Road Systems, Inc.

Use CAT 350 Telescoping Guide Rail End Terminals as manufactured by Trinity Highway Safety Products, Inc.

Use Brakemaster 350 Telescoping Guide Rail Terminals as manufactured by Energy Absorption Systems, Inc.

Excavate cut slope as specified in 202.03.03 within the limits of the buried guide rail terminal. Drive beam guide rail posts for buried guide rail terminal to the required position. Ensure that posts are driven plumb, properly spaced, and to the line and grade shown. Attach the beam guide rail element to the spacer at every post. Attach the beam guide rail element and plate to the terminal posts. Align the top edge of the beam guide rail element in a straight line. Where a vertical transition is required, ensure that the top edge of the beam guide rail element forms the chords of a smooth vertical curve. Backfill with excavated material as specified in 203.03.02C.

609.04 MEASUREMENT AND PAYMENT

THE FOLLOWING PAY ITEMS ARE DELETED:

<u>PAY ITEM</u>	<u>PAY UNIT</u>
Removal of Beam Guide Rail	Linear Foot

THE FOLLOWING IS ADDED:

The Department will not measure Removal of Beam Guide Rail.

The Department will not make payment for Removal of Beam Guide Rail. The Department will include payment for Removal of Beam Guide Rail under Pay Item Clearing Site.

Attachments Type “A” and B” costs shall be included in the pay item “Beam Guide Rail”

All unit prices include furnishing materials, installation, labor, equipment and all other costs incidental thereof necessary to complete same.

SECTION 610
TRAFFIC STRIPES, TRAFFIC MARKINGS, AND RUMBLE STRIPS

610.01 DESCRIPTION

THE FOLLOWING IS ADDED TO THIS SUBSECTION:

Removal of pavement reflectors and castings consists of the removal and disposal of existing raised pavement markers, including the lens when still intact.

Removal and replacement of pavement reflector lenses consists of the removal of existing pavement reflector lenses and installing new mono-directional or bi-directional pavement reflector lenses.

610.02 MATERIALS

610.02.02 EQUIPMENT

THE FOLLOWING IS ADDED TO THE LIST OF EQUIPMENT:

LTL-2000 Retroreflectometer

610.03 CONSTRUCTION

610.03.01 Subpart E DEFECTIVE STRIPES

THE FOLLOWING IS ADDED TO THIS SUBSECTION:

All retroreflectance measurements taken with a LTL-2000 Retrometer will be made on a clean, dry surface.

610.03.04 Removal of RPMs

THE ENTIRE TEXT IS CHANGED TO:

Remove RPMs as directed by the RE. Dispose of RPMs as specified in 201.03.09. If directed by the RE, fill the hole with HMA patch as specified in 159.03.07 except sawcutting is not required.

610.03.05 REMOVAL AND REPLACEMENT OF RPM LENSES

THE FOLLOWING IS ADDED TO THIS SUBSECTION:

The Contractor shall remove existing pavement reflector lenses and install new mono-directional or bi-directional pavement reflector lenses within the limits of construction or as directed by the Engineer. The reflector adhesive used in the bonding of the reflector lenses to the casting shall be in conformance with Subsection 912.03.03.4

Disposal of pavement reflectors and castings shall be in conformance with Subsection 201.03.09

610.03.08 REMOVAL OF TRAFFIC STRIPES AND MARKINGS

THE FOLLOWING IS ADDED TO THIS SUBSECTION:

Obliterating stripes or markings by painting over them shall not be permitted.

Disposal of pavement reflectors and castings shall be in conformance with Subsection 201.03.09

610.04 MEASUREMENT AND PAYMENT

THE FOLLOWING PAY ITEM IS ADDED:

<u>PAY ITEM</u>	<u>PAY UNIT</u>
Traffic Stripes, Long Life, Thermoplastic, 4" Wide	Linear Foot

All unit prices include furnishing materials, installation, labor, equipment and all other costs incidental thereof necessary to complete same.

SECTION 612 - SIGNS

612.01 DESCRIPTION

612.02 MATERIALS

THE FOLLOWING IS DELETED FROM THE MATERIALS LIST.

Non-Breakaway Sign Supports911.02.03

612.03 CONSTRUCTION

612.03.01 REGULATORY AND WARNING SIGNS AND TYPE GA “U” POST SUPPORT GUIDE SIGNS

THE FOLLOWING IS ADDED:

Regulatory and warning signs shall be fabricated of flat aluminum sheets and shall be covered with ASTM D 4956 Type IX retroreflective sheeting. Legends, borders, and accessories shall be Type B unless otherwise designated. Signs shall be fabricated according to Subsection 911.01.02

Guide signs fabricated of extruded aluminum sheets shall be covered with ASTM D 4956, Type IX retroreflective sheeting depending on the following:

1. Guide signs on steel “U” posts shall be fabricated of flat aluminum sheets and shall be covered with ASTM D 4956 Type IX retroreflective sheeting. Legends, borders, and accessories shall be Type B unless otherwise designated.
2. Guide signs on overheads and breakaway or non-breakaway posts shall be fabricated of extruded aluminum panels covered with ASTM D 4956 IX retroreflective sheeting. Legends, borders, and accessories shall be Type A.

Lay out the locations of all signs before installing to ensure proper placement. Obtain RE approval of sign locations before beginning installation operations. Confirm that the sign meets the requirements specified in 911.01.

612.03.02 Type GA Breakaway and Non-Breakaway Support Guide Signs

THE SUBPART HEADING IS CHANGED TO:

612.03.02 Type GA Breakaway Support Guide Signs

612.03.02 Type GA Breakaway Support Guide Signs

C. Constructing Pedestals

THE SUBPART IS CHANGED TO:

Place reinforcement steel as specified in 504.03.01 before placing the concrete. Ensure that concrete placement complies with the limitations as specified in 504.03.02.C. Place concrete as specified in 504.03.02.D. Cure concrete as specified in 504.03.02.F.

D. Erecting Posts

THE SUBPART IS CHANGED TO:

Erect posts as specified in 512.03.01.G.

THE FOLLOWING IS ADDED:

F. Constructing Anchor, Hinge, Bracket and Coupling Assemblies..At least 10 days before beginning the work, submit the manufacturer’s installation guide and installer’s certification to the RE.

Ensure that the installer is certified by the manufacturer.

Ensure that the manufacturer’s representative is present during the foundation pour and the installation of the first sign. Install anchor, hinge, bracket and coupling assemblies according to the manufacturer’s recommendations. The RE may require the system manufacturer’s representative to be present at all times during the installation to provide on-site technical support.

612.04 Measurement and Payment

THE FOLLOWING IS ADDED:

Regulatory and Warning Signs unit prices includes furnishing materials including signs, bolts, u-supports, breakaway supports and includes the installation, labor, equipment and all other costs incidental thereof necessary to complete same.

THE FOLLOWING SECTION IS ADDED:

SECTION 613 – BRIDGE PLAQUE

613.01 DESCRIPTION

This Section describes the requirements for fabricating and erecting bronze plaques.

This work shall consist of fabricating, furnishing, assembling and erecting bronze plaques, insured with text as directed by the Engineer.

The existing bridge plaque, if any, shall be removed and delivered to the County Engineer's Office.

613.02 MATERIALS

Provide materials as specified:

Plaque is to be cast in one piece of statuary bronze. Background shall be in dark oxidized hard matted surface having a stippled appearance; borders and tops of letters to have a smooth, burnished finish. Plaque having dimensions shown on the drawing shall be set in concrete at locations determined by the Engineer.

613.03 CONSTRUCTION

613.03.01 Bronze Plaque

Submit a full sized drawing of the plaque showing size, coloring, surface finish, and arrangement of letters to the RE for approval. Use block letters. Panel contains name of the structure, names of the elected officials, names of County Engineer, County Road Supervisor and County Counsel. Ensure that the plaque is cast true and straight in a single unit of the statutory bronze that includes cast anchorages to accept parapet reinforcement. Ensure that background is dark oxidized matted surface having a stippled appearance. Ensure that borders and tops of letters to have a smooth, burnished finish. Install plaque by recessing into the parapet and tied to reinforcement at a location approved by the RE.

613.04 MEASUREMENT AND PAYMENT

Bridge Plaque will be measured by the number of unit.

Payment will be made under:

<u>ITEM</u>	<u>PAY UNIT</u>
Bridge Plaque	Unit

All unit prices include furnishing materials, installation, labor, equipment and all other costs incidental thereof necessary to complete same.

THE FOLLOWING SECTION IS ADDED:

SECTION 614 – GABION MATTRESS

614.01 DESCRIPTION

This work shall consist of the furnishing, assembling, tying and filling of open wire mesh baskets with aggregate, forming gabion mattresses of the type indicated.

This work shall also consist of the furnishing and placement of the filter fabric and coarse aggregate, size No. 57 in accordance with the contract plans.

614.02 MATERIALS

(A) Aggregate

1. Physical Requirements – The aggregate shall be acceptable quality aggregate, sound, free from structural defects and foreign substances, meeting the geologic classifications in subsection 901.03.01 & 901.09 of the Standard Specifications or other durable rock.
2. Size – Use aggregate in the following sizes, measured in the greatest dimension:

<u>Mattress Height</u>	<u>Min. Size</u>	<u>Max. Size</u>
12” or less	4 inch	7 inch
Greater than 12”	6 inch	10 inch

(B) Filter Fabric

Filter fabric shall be a woven or non-woven fabric consisting of log chain, polymeric filaments or yarns such as polypropylene, polyester, polyamide, or polyvinylidene-chlorides, formed into a stable network so the filaments or yarns retain their relative position to each other. The fabric shall be inert to commonly encountered construction chemicals or substances.

The physical requirements for filter fabric shall be as indicated in Table A below:

TABLE A

Fabric Property	Test Method	Minimum of Range
Grab Tensile Strength, Lbs.	ASTM-D-1682	120
Grab Tensile Elongation	ASTM-D-1682	15
Burst Strength, Psi	ASTM-D751 (Diaphragm Method)	200
Puncture, Lbs.	CW-02215	40
Trapezoid Tear Strength, Lbs.	ASTM-D2263	50
Equivalent Opening Size, U.S. Sieve	CW-02215	40-100

Maximum or Range		
Water Permeability K, cm/sec	Delta H, 20 cm - 10 cm	0.01
Abrasion Resistance, Lbs.	ASTM-D-1175 & 1682	25
Sewn Seam Breaking Strength, Lbs.	ASTM-D-1682	120

Acceptance will be based on certified test data submitted by the manufacturer.

Certification shall be specified in subsection 106.07 of the Standard Specifications.

The fabric or its container shall be labeled with the manufacturer's names, fabric type of trade name, lot number and material quantity.

Mattress baskets shall be as follows:

1. Wire Mesh – The wire mesh shall be polyvinyl chloride coated, galvanized steel wire; No. 12 gauge wire core for heights 12 inches or over, coated with polyvinyl chloride 0.0216 inch thick, minimum tensile strength of the wire shall be 60,000 to 84,000 psi, as determined in accordance with ASTM-A392.

The weight of the zinc coating shall be minimum 0.80 oz. per square foot, determined in accordance with ASTM-A90.

For baskets 12 inches in height or over, the maximum linear dimension of the mesh opening shall not exceed 4 ½ inches and the mesh opening area shall not exceed 8 square inches.

2. Fabrication – The baskets shall be so fabricated that the side, end, lid and diaphragms can be assembled at the construction site into the required rectangular basket.

The baskets shall be of single unit construction. The based, lid, ends and sides shall be weaved into a single unit or with one (1) edge of those members connected to the base section of the basket, so the strength and flexibility at the point of connection is at least equal to the mesh.

The baskets shall be assembled with the necessary diaphragms secured in position on the base so no additional tying is necessary at this juncture. Joint the mesh perimeter forming the basket so the joints formed have at least same strength as the mesh body. Four internal connecting wires shall be provided in each cell (two across the width and two across the length) at a level of one-third the cell height and at a level two-thirds the cell height. Use the same connecting wire mesh diameter by more than one gauge.

The wire mesh shall be so fabricated as to be non-raveling, which is the ability to resist pulling apart with twists or connections forming the mesh when a single wire in a mesh section is cut, and the mesh section is then subjected to the load test for strength, specified below.

3. Wire Mesh Tests
 - (A) Elongation – The diameter or tensile strength of individual wires shall not be reduced to values less than those of wire 1 gauge smaller when elongated equivalent to 10% of the section length.
 - (B) Strength – The wire may not rupture or the mesh fasteners may not open when a load of 6,000 pounds is applied as follows:

Step 1. Clamp a section 6 feet long, not less than three feet wide including selvage bindings, for 3 feet along the width, or in the middle of widths greater than 3 feet, with the excess falling free at the side.

Step 2. Apply tension to elongate the section 10%.

Step 3. Apply the load to one square foot area located approximately in the center of the sample between clamps in a direction perpendicular to the tension force direction using circular ram head with edges beveled or rounded to prevent cutting the wires.

(C) Resistance of Coating to Corrosive Effects of Air and Water.

1. Immerse for 20 hours in hydrochloric acid (solution composed of 50% water and 50% hydrochloric acid concentration 21 baum test temperature 15 deg. C.); or immerse for 60 hours in a saturated solution of salt water at 15 deg. C. Unprotected ends not immersed and mesh showing noticeable loss of weight dues to sheathing material corrosion of wire's diameter reduction will not be acceptable.
2. Immerse for 50 hours in a 3.5% solution of potassium permanganate at ambient temperature; the maximum allowable penetration between the coating and the core wire from a square cut end is 0.472 inches.
3. Subject wire to temperature ranging between 158 deg. F. and minus 40 deg. F.; mesh is acceptable if the coating is not altered or deformed.

614.03 CERTIFICATION

Certification shall be as specified in subsection 106.07 of the Standard Specifications. Certify each shipment delivered to the job site. A shipment consists of material arriving at the job site at approximately the same time.

614.04 CONSTRUCTION

Construction shall be as shown on the drawings and as follows:

Excavation – Excavate as required to place the baskets. Unsuitable material below the bottom of the baskets shall be removed and replaced with acceptable material. The entire foundation shall be thoroughly compacted and finished to a firm even surface, free of vegetation, large stones and other debris, with all depressions filled. All suitable and excess material shall be disposed of.

Filter Fabric and Coarse Aggregate Bedding– Place the filter fabric on the prepared area in a loose and un-stretched condition to minimize shifting, puncturing or tearing of the fabric. Join adjacent edges and end with a folded seam. Sewing may be done on site or by the manufacturer. Overlapping is only allowed when permitted and then directed. Provide a minimum 1 foot overlap. For underwater placement, overlap a minimum of 3 feet place coarse aggregate on fabric prior to placing baskets. Backfill behind the fabric and stone filled gabion baskets as soon as possible, so the fabric is not exposed for more than 2 weeks. Slippage of the backfill material on the fabric shall be prevented.

Gabions – Assemble each basket by binding vertical edges together with a continuous piece of connecting wire, looped twice around the vertical edges with a coil, approximately every 4 inches; on 9 inch height baskets, loop the coils every 3 inches. Set empty baskets to line and grade as indicated. Join the units together with connecting wire, in the same manner as described above. Space uniformly, when securely fasten the internal tie wires in each outside cell of the structure, or as directed. When gabions are being placed as slope protection or channel lining, the internal tie wires may be deleted, if directed.

Join adjacent edges and end with a folded seam. Sewing may be done on site or by the manufacturer. Overlapping is only allowed when permitted and then directed. Provide a minimum 1 foot overlap. For

underwater placement, overlap a minimum of 3 feet. Backfill behind the fabric and stone filled gabion baskets as soon as possible, so the fabric is not exposed for more than 2 weeks. Slippage of the backfill material on the fabric shall be prevented.

Gabion mattresses – Assemble each basket by binding vertical edges together with a continuous piece of connecting wire, looped twice around the vertical edges with a coil, approximately every 4 inches; on 9 inch height baskets, loop the coils every 3 inches. Set empty baskets to line and grade as indicated. Join the units together with connecting wire, in the same manner as described above. Space uniformly, then securely fasten the internal tie wires in each outside cell of the structure, or as directed. When gabion mattresses are being placed as slope protection or channel lining, the internal tie wires may be deleted, if directed.

Fill baskets by hand placement of aggregate, at least along the exposed faces, for an uniform appearance, and the remaining baskets with small power equipment or by hand.

When filling baskets, use a standard fence stretcher, chain fall or iron rod to stretch the baskets and to maintain alignment.

Carefully place aggregates in corrosion resistant baskets, making sure the sheathing is not broken or damaged. After the basket has been filled, bend the lid to the side, ends and diaphragms, using connecting wire in the manner specified for assembling.

614.05 MEASUREMENT AND PAYMENT

<u>Pay Item</u>	<u>Pay Unit</u>
Gabion Mattress, 12” Thick	C.Y.

Gabion mattresses will be measured in place in final position by mattress’ volume, cubic yard, actually furnished and placed in accordance with the plans and specifications and as directed by the Engineer.

Payment for Gabion Mattress will be made at the unit price bid in the proposal, which price shall include the cost of furnishing and installing the gabion mattress and filter fabric at the locations shown on the plans or as directed by the Engineer, and the cost of 6” thick base of Coarse Aggregate, size No. 57, disposal of material, bedding, labor and equipment; and all other costs incidental thereof for the gabions.

All unit prices include furnishing materials, installation, labor, equipment and all other costs incidental thereof necessary to complete same.

SECTION 652 – SANITARY SEWERS

652.04 MEASUREMENT AND PAYMENT

THE FOLLOWING IS ADDED:

No separate payment shall be made for coordination with the Utility Company or provision of inserts or sleeves as required. In the event that the existing sewer is damaged during construction, the contractor shall remove the entire sewer within the limits of excavation and replace it with an 8" dia. ductile iron sewer pipe. All costs thereof shall be included in the various pay items in the proposal.

SECTION 653 – GAS

653.01 DESCRIPTION

This work shall consist of coordination with the Utility Company for the termination and/or relocation of the existing gas main. The contractor shall notify the utility in writing upon receipt of Notice to Proceed to begin their relocation efforts and provide to the utility their construction schedule for relocation of the existing main. The utility company requires a minimum of 2 weeks advance notice prior to their mobilization on site to perform their relocation work within the cofferdam. It is anticipated that the relocation work will take 4 weeks to complete. The RE shall be copied on all correspondences with the utility company for record.

The utility company shall provide to the contractor all materials necessary for the relocation of the existing main including inserts or sleeves below the proposed footing elevation within the sheeting limits. The contractor shall install the inserts or sleeves as required to facilitate the relocation of the existing main.

653.04 MEASUREMENT AND PAYMENT

THE FOLLOWING IS ADDED:

Relocation of the existing gas mains and appurtenances shall be performed by the Utility Company.

No separate payment shall be made for coordination with the Utility Company or installation of inserts or sleeves within the sheeting limits as required for the utility relocation. All costs thereof shall be included in the various pay items in the proposal.

DIVISION 700 – ELECTRICAL

SECTION 701 – GENERAL ITEMS

701.01 DESCRIPTION

701.02 MATERIALS

701.03 CONSTRUCTION

701.03.01 Existing Systems

THE FOLLOWING IS ADDED TO THE THIRD PARAGRAPH:

The contractor assumes maintenance responsibility and perform routine and emergency maintenance on the modified signal system and newly installed traffic signal system until acceptance of the project by the Board of Chosen Freeholders or approval of the installation from the New Jersey Department of Transportation. The contractor s responsibility starts from the time the County issues Notice to Proceed until the acceptance of the project by the Board of Chosen Freeholders or the approval of installation fro the New Jersey Department of Transportation. Maintenance includes any and all components of the traffic signal to provide a fully functional operation. Should any portion of the traffic signal system fail or malfunction for any reason, it is contractor’s responsibility to affect immediate repair and return the traffic signal system to normal operation. The contractor bears the risk of loss or damage to the existing, new or modified signal system arising due to third person or persons, vehicular accidents, vandalism, or from any other cause until the acceptance of the project by the Board of Chosen Freeholders or approval of the installation from New Jersey Department of Transportation. The contractor promptly repairs, replaces and makes good any such damage or loss at no additional cost to the County. Begin repair of the traffic signal system within 2 hours of receiving notice of damage or malfunction from the County or local authorities. Ensure that workers assigned to such repair work continuously until the traffic signal system resumes normal traffic signal operation.

In addition, if the Contractor fails to respond to a failure or knockdown within two hours after notification, or does not begin work within the two hours limit specified, or does not continue to work until the traffic signal is back into normal signal operation, in the interest of safety, the County will respond with its own forces to restore normal signal operation. If the County responds with its own forces to affect repair at the intersection(s), the Contractor agrees to pay the County a sum of \$3,000 for costs of mobilizing its forces and equipment. In addition, the Contractor shall pay the County its actual cost of material used to affect the repair, and shall pay the actual costs of traffic protection to the agency providing the police, etc. This amount may be deducted from any money due and owing the Contractor by the Department. Any such emergency work performed by County forces will not in any way diminish the Contractor’s liabilities as described hereunder.

701.03.01 Existing Systems (Cont'd)

All material, labor, equipment, fees, energy costs and all else necessary for the contractor to maintain the signal in operation shall be at his own expense.

Prior to modification of the existing traffic signal, the governmental agency's representative shall be given the names and telephone numbers of the person or persons to be contacted should a failure or damage occur. These persons shall be a licensed electrical contractor having a license to do business in the State of New Jersey familiar with traffic signal construction and operation. The contractor agrees to defend, indemnify and otherwise save harmless the governmental agency, its departments, bureaus, boards, officials, and employees from any and all claims, demands, suits, recoveries, judgments or actions at law, whether for personal injury, property damage or liabilities of any other kind, including the costs of defense which arise from acts or omissions whether negligent or not of the contractor, or his agents, employees, servants, subcontractors, material men or other working for the contractor in the construction and/or maintenance of the traffic signal installation (s) at no additional cost to the County.

THE THIRD SENTENCE OF THE FIFTH PARAGRAPH IS CHANGED TO:

As directed, deliver salvaged materials to Union County Road Department Complex and unload the materials as directed and get a written receipt for the materials unloaded from Road Department representative.

701.03.03 RIGID METALLIC CONDUIT (ROADWAY)

THE FOLLOWING IS ADDED TO THIRD PARAGRAPH:

Rigid Metallic Conduit installed under existing roadways that are not to be milled, resurfaced, disturbed or removed during construction shall be installed by the jacking method and the pay item shall be classified as TYPE CUR.

When open cut method is allowed by the RE in lieu of jacking or directional drilling the maximum trench width shall not exceed 6 inches and the pay item is classified as TYPE CUG.

701.03.05 RIGID NONMETALLIC CONDUIT

B. Installation.

THE LAST PARAGRAPH IS CHANGED TO:

Install true tape marked in 1 foot increments for the length of the rigid non-metallic conduit. Install a tracer wire continuously for the entire run of 1 of the conduits, including through the junction boxes mounted on the wall. Splice the tracer wire only in the junction boxes. Seal the rigid nonmetallic conduit with the tracer wire. If wire or cable is not scheduled to be installed within the next 6 months, cap and seal the other conduits leaving the true tape inside. Install marking tape in the trench above the conduit.

701.03.07 FLEXIBLE NONMETALLIC CONDUIT

B. Installation.

THE SECOND PARAGRAPH IS CHANGED TO:

Cut flexible nonmetallic conduit according to manufacturer's recommendations.

701.03.07 FLEXIBLE NONMETALLIC CONDUIT (CONT'D)

THE LAST PARAGRAPH CHANGED TO:

Install true tape marked in 1 foot increments for the length of the flexible non-metallic conduit. Install a tracer wire continuously for the entire run of conduits, including through the junction boxes mounted on the wall. Splice the tracer wire only in the junction boxes. Seal the flexible nonmetallic conduit with the tracer wire. If wire or cable is not scheduled to be installed within the next 6 months, cap and seal the other conduits leaving the true tape inside. Install marking tape in the trench above the conduit.

701.03.08 JUNCTION BOX

THE FOLLOWING IS ADDED:

Precast junction boxes may be used, if approved, in areas where the junction box can be installed to conform to the surrounding grade

701.04 MEASUREMENT AND PAYMENT

THE FOLLOWING IS ADDED:

If restoration of disturbed areas includes sidewalks, driveways and islands, the Department will not make measurement and will not make payment for sidewalks, driveways and islands. All costs thereof shall be included in the various conduit items scheduled in the proposal.

If restoration of disturbed areas includes pavement, the Department will not make measurement and will not make payment for pavement restoration and concrete backfill for conduit trenches in the existing paved roadway. All costs thereof shall be included in the various conduit items scheduled in the proposal.

Measurement and payment for Cable rack assemblies installed in existing junction boxes will not be measured separately.

During installation of the sheeting and or cofferdam, the Contractor must observe the High voltage Proximity Act (P.L. 1948, C 249 as amended by P.L. 1966, c 261). All costs of modifications of overhead electrical lines that may be necessary to observe this law, shall be paid by the Contractor to the utility company. The contractor shall include this cost in the various items in the proposal.

During installation of the piles, the Contractor must observe the High voltage Proximity Act (P.L. 1948, C 249 as amended by P.L. 1966, c 261). All costs of modifications of overhead electrical lines that may be necessary to observe this law including but not limited to switches, alley arms, raising of the facilities, shall be paid by the Contractor to the utility company and the costs shall be included in the various items in the proposal.

DIVISION 800 – LANDSCAPING

SECTION 801 – SELECTIVE VEGETATION REMOVAL

- 801.01 DESCRIPTION**
- 801.02 MATERIALS**
- 801.03 CONSTRUCTION**

THE FOLLOWING SUBPART IS ADDED:

811.03.01 Planting

E. Excavation for Plant Pits and Beds.

THE LAST SENTENCE OF THE SECOND PARAGRAPH IS CHANGED TO:

Obtain RE approval before reusing topsoil from the excavated pits.

I. Watering.

THE FIRST PARAGRAPH IS CHANGED TO:

Water plants with sufficient frequency and quantity to ensure that the soil surrounding the root system remains moist but not saturated.

811.03.02 Plant Establishment Period

THE THIRD AND FOURTH PARAGRAPHS ARE CHANGED TO:

The Department will reinspect the plants annually for ____ years, beginning approximately 1 year after the start of the plant establishment period. If the Department determines that plants need to be replaced after each inspection, replant plants as specified in 811.03.01 within 3 weeks of notification. If replacing outside of the optimal planting season as specified in Table 811.03.01-1, only use containerized or balled and burlapped plants that are certified as being dug dormant.

801.03.03 Application of Herbicides

Comply with the requirements and procedures of N.J.A.C. 7:30-1 Et. Seq. for the application of herbicides.

801.04 MEASUREMENT AND PAYMENT

THIS SUBSECTION IS CHANGED TO:

The Department will not measure and will not make payment for SELECTIVE THINNING or SELECTIVE TRIMMING. All costs thereof shall be included in the pay item "Clearing Site."

All unit prices include furnishing materials, installation, labor, equipment and all other costs incidental thereof necessary to complete same.

SECTION 802 – TRIMMING AND REMOVING TREES

802.01 DESCRIPTION

802.02 MATERIALS

802.03 CONSTRUCTION

802.03.01 Trimming Existing Trees

THE FOLLOWING IS ADDED THIS PART.

Comply the requirements and procedures of N.J.A.C. 7:30-1 Et. Seq. for the application of herbicides.

Trees and shrubs within the limits of construction that interfere with the construction of project items shall be removed. All tree stumps shall be grubbed out. Stump holes shall be backfilled with dense graded aggregate within proposed pavement, curb, and sidewalk areas and shall be backfilled with suitable embankment material in all other areas.

803.04 MEASUREMENT AND PAYMENTS

THIS SUBSECTION IS CHANGED TO:

The Department will not measure and will not make payment for TRIMMING AND REMOVAL OF TREES. All costs thereof shall be included in the pay item "Clearing Site."

The Department will not measure and will not make payment for backfilling with embankment material. All costs thereof shall be included in the pay item "Clearing Site."

Measurement and payment of Dense Graded Aggregate shall be made in accordance with Section 302.04.

SECTION 803 – PREPARATION OF EXISTING SOIL

- 803.01 DESCRIPTION**
- 803.02 MATERIALS**
- 803.03 CONSTRUCTION**
- 803.04 MEASUREMENT AND PAYMENT**

THIS SECTION IS CHANGED TO:

The Department will not measure and will not make payment for PREPARATION OF EXISTING SOIL.

The Department will include payment for PREPARATION OF EXISTING SOIL under Item TOPSOILING, 4” THICK.

SECTION 804 - TOPSOILING

804.01 DESCRIPTION

THIS SECTION IS CHANGED TO:

This section describes the requirements for preparing, screening and placing topsoil stripped from the project site if deemed acceptable for use as topsoil. This Section also describes the requirement for preparing, screening and placing topsoil imported from off-site approved sources.

804.02 MATERIALS

804.03 CONSTRUCTION

THE SUBSECTION IS CHANGED TO:

All topsoil for the project shall be imported from approved sources off the site, unless specifically directed otherwise by the Engineer. All imported topsoil shall conform to the requirements specified in Subsection 917.01. Topsoil shall be screened topsoil. If on site materials are deemed acceptable for use as topsoil, they shall be screened first to remove all roots, stones larger than one inch or larger in any direction, other debris such as wires, cables, tree roots, clods, lumps, broken asphalt, concrete and other deleterious substances.

The contractor shall allow in his bid for the application of pulverized limestone at the rate of 100 lbs. per 1000 sq. ft. to all topsoil, both imported and onsite materials.

Topsoil shall not be placed until the area to be topsoiled has been approved. Topsoil shall be spread on a previously prepared surface in a uniform layer to the prescribed thickness. Topsoiled areas outside the limits of work shall be protected against damage caused by the delivery, handling, and/or storage of materials, by washouts due to drainage diversion, by workmen, or by equipment. Any such damage shall be replaced by grading, fertilizing, seeding and mulching at no additional cost to the County. Where either embankment or excavation slopes become eroded during the work and before acceptance, repairs shall be made at no additional cost to the County.

804.03.01 TOP SOILING

THE FOLLOWING IS ADDED TO SECOND PARAGRAPH:

If on-site stripped topsoil is deemed acceptable, screen first the stripped topsoil to remove all stones larger than ½ inch or larger in any dimension and other debris such as tree roots, clods, lumps, wires, cables, piece of concrete, pieces of asphalt and other deleterious substances. Add pulverized limestone at the rate of 100 lbs. per square feet to all screened topsoil, on-site and off-site. Bring screened topsoil in excess of that obtained from stripping.

804.04 MEASUREMENT AND PAYMENT

THE FOLLOWING ITEM IS DELETED:

<u>Item</u>	<u>Pay Unit</u>
Borrow Topsoil	Cubic Yard

THE FOLLOWING IS ADDED:

Additional payment will not be made for the preparation, screen and placement of on site material.

If on-site material is approved to use as topsoiling, the UNIT PRICE FOR THIS ITEM IN THE PROPOSAL shall be reduced by 50%. The Department will not include additional payment for the preparing and screening topsoil from the job site.

The Department will not include additional payment for the preparing and screening topsoil from the job site. No Additional payment will be made for borrow topsoil and should be included in the items of the proposal.

All unit prices include furnishing materials, installation, labor, equipment and all other costs incidental thereof necessary to complete same.

SECTION 805 – TURF REPAIR STRIP

805.01 DESCRIPTION

THIS SUBSECTION IS CHANGED TO:

This work shall consist of re-grading and repairing the area immediately adjacent to the shoulder or back of curb, including fertilizing and seeding, wood cellulose fiber mulching, and placing incidental topsoil.

805.02 MATERIALS

805.03 CONSTRUCTION

805.04 MEASUREMENT AND PAYMENT

THE FOLLOWING ITEM IS DELETED:

<u>Item</u>	<u>Pay Unit</u>
Turf Repair Strip	Linear Foot

The Department will not measure and will not make payment for TURF REPAIR STRIP.

The Department will include payment for this item under various pay items in the proposal.

SECTION 806 – FERTILIZING AND SEEDING

806.01 DESCRIPTION

806.02 MATERIALS

806.03 CONSTRUCTION

806.04 MEASUREMENT AND PAYMENT

THE FOLLOWING IS ADDED:

The Department will not make payment for the areas disturbed by construction operations, beyond the specified grading limits, and between grading limits and the ROW.

SECTION 809 - MULCHING

- 809.01 DESCRIPTION**
- 809.02 MATERIALS**
- 809.03 CONSTRUCTION**
- 809.04 MEASUREMENT AND PAYMENT**

THE FOLLOWING IS ADDED:

The Department will not make payment for the areas disturbed by construction operations, beyond the specified grading limits, and between grading limits and the ROW.

SECTION 810 – MOWING

810.01 DESCRIPTION

810.02 MATERIALS

810.03 CONSTRUCTION

THE FIRST PARAGRAPH IS CHANGED TO:

Grass shall be mowed when it attains the height of 6 to 8 inches unless otherwise directed by the Engineer. The grass and other growth shall be mowed to a height of 2 to 3 inches. The Contractor will be required to employ hand mowing methods and light equipment in areas where the use of heavy equipment might be injurious to the turf or soil. Where, in the opinion of the Engineer, the cuttings resulting from the mowing operation are excessive, the cuttings shall be removed in accordance with Subsection 201.03.09.

810.04 MEASUREMENT AND PAYMENT

THIS SUBSECTION IS CHANGED TO:

The Department will not measure and will not make payment for MOWING. The Department will include payment for MOWING under Item SEEDING AND FERTILIZING TYPE _____ in the proposal.

SECTION 811 – PLANTING

811.01 DESCRIPTION

811.02 MATERIALS

811.03 CONSTRUCTION

811.03.01 PLANTING

E. Excavation for Plant Pits and Beds.

THE LAST SENTENCE OF THE SECOND PARAGRAPH IS CHANGED TO:

Obtain RE approval before reusing topsoil from the excavated pits.

I. Watering.

THE FIRST PARAGRAPH IS CHANGED TO:

Water plants with sufficient frequency and quantity to ensure that the soil surrounding the root system remains moist but not saturated.

THE FOLLOWING IS ADDED TO THIS PART:

P. Wrapping.

Wrap all deciduous trees more than 2 inches in caliper. Wind burlap wrapping material or creped kraft paper from ground line to six (6) inches above the lowest main branches. Tie wrapping material at the bottom and at the top and at maximum 24-inches intervals between. Wrap within 4 days after planting but not before the condition of the trunks has been inspected by the RE.

811.03.02 PLANT ESTABLISHMENT PERIOD

THE THIRD AND FOURTH PARAGRAPHS ARE CHANGED TO:

The Department will reinspect the plants annually for 1 year, beginning approximately 1 year after the start of the plant establishment period. If the Department determines that plants need to be replaced after each inspection, replant plants as specified in 811.03.01 within 3 weeks of notification. If replacing outside of the optimal planting season as specified in Table 811.03.01-1, only use containerized or balled and burlapped plants that are certified as being dug dormant.

2. Maintenance Bond.

Provide a bond to the Department in the amount of \$2,000.

811.04 MEASUREMENT AND PAYMENT

THE FOLLOWING IS ADDED TO THIS SUBSECTION:

The Department will not measure and will not make payment for initial and weekly watering of the plants.

DIVISION 900 -MATERIALS

SECTION 901 - AGGREGATES

- 901.01 SOURCE**
- 901.02 STOCKPILES**
- 901.03 COARSE AGGREGATE**
- 901.04 BLAST FURNACE SLAB**
- 901.05 AGGREGATE FOR HMA**
- 901.06 AGGREGATE FOR CONCRETE, MORTAR, AND GROUT**
- 901.07 GRIT**
- 901.08 RIP-RAP STONES**
- 901.09 GABION BASKET STONE**
- 901.10 DENSE GRADED AGGREGATE (DGA)**
- 901.10.02 RECYCLED CONCRETE AGGREGATE (RCA)**
THIS PART IS DELETED
- 901.10.03 VIRGIN AND RAP MIXTURE**
THIS PART IS DELETED
- 901.11 SOIL AGGREGATE**

1. Composition of Soil Aggregate.

THE FOLLOWING IS ADDED TO THE LAST PARAGRAPH:

For Designation I-14, the Contractor may use up to 30 percent steel slag by weight of the coarse aggregate portion of the soil aggregate. Obtain steel slag from a source listed on the QPL as specified in 901.01. Use steel slag that was produced as a co-product of the steel making process. Ensure that the steel slag consists of tough, durable pieces that are uniform in density and quality. Stockpile steel slag as specified in 901.02. Ensure steel slag for blending with I-14 Soil Aggregate does not exceed 0.50 percent expansion from hydration when tested according to ASTM D 4792.

SECTION 902 – ASPHALT

- 902.01 BITUMINOUS MATERIALS**
- 902.02 HOT MIX ASPHALT (HMA)**
- 902.02.02 COMPOSITION OF MIXTURES**

All reference to the use of reclaimed asphalt pavement is deleted.

902.02.02 Composition of Mixtures
TABLE 902.02.02-2 IS CHANGED TO:

Table 902.02.02-2 Additional Fine Aggregate Requirements for HMA		
Tests	Test Method	Minimum Percent
Uncompacted Void Content of Fine Aggregate	AASHTO T 304, Method A	45
Sand Equivalent	AASHTO T 176	45

902.02.03 MIX DESIGN

The following is added to this Subsection:

All hot mix asphalt shall be produced at a N.J.D.O.T. approved plant.

A copy of the N.J.D.O.T. approved job mix formula for each mix shall be given to the engineer in accordance with the requirements of Section 106 – Control of Material. This information shall include the N.J.D.O.T. approved laboratory serial number for each mixture.

In the event the supplier has more than one plant location that may be used to supply the bituminous concrete mixture, the project job mix information, shall be supplied for each plant.

Only one (1) job mix formula for each mixture shall be approved for each plant location. The submittal of multiple job mixtures for the same plant location shall not be permitted.

During construction the contractor shall not be permitted to use mixtures from more than one source for each mixture. Switching between plants will not be allowed.

- 902.03 OPEN-GRADED FRICTIONS COURSE (OGFC) AND MODIFIED OPEN-GRADED FRICTION COURSE (MOGFC)**
- 902.04 ULTRA-THIN HMA**
- 902.05 STONE MATRIX ASPHALT (SMA)**
- 902.06 ASPHALT-STABLIZED DRAINAGE COURSE (ASDC)**

SECTION 903 – CONCRETE

- 903.01 CEMENT**
- 903.02 CONCRETE ADMIXTURES**
- 903.03 CONCRETE**
- 903.03.05 CONTROL AND ACCEPTANCE TESTING REQUIREMENTS**

E. Acceptance Testing for Strength for Pay-Adjustment Items.

Concrete Items which are subject to pay adjustment and the base prices are as follows:

ITEMS	DESCRIPTION	UNIT	BASE PRICE
507021P	CONCRETE BRIDGE DECK	CY	\$500.00
507036P	CONCRETE BRIDGE PARAPET	LF	\$250.00
	PRESTRESSED CONCRETE BOX BEAM, (TYPE B21-36), 36" X 21"	LF	\$170.00

903.03.06 Tables

Table 903.03.06-2 Requirements for Structural Concrete Items
 THE SEVENTH LINE UNDER CAST-IN-PLACE ITEMS IS CHANGED TO:

Table 903.03.06-2 Requirements for Structural Concrete Items				
	Concrete Class	Slump ¹ (inches)	Percent Air Entrainment for Coarse Aggregate ¹	
			No. 57 & No. 67	No. 8
Decks, Sidewalks, Curbs, Parapets, Concrete Patch	A	3 ± 1	6.0 ± 1.5	7.0 ± 1.5

- 903.04 PAVEMENT REPAIR MIXES CLASS V AND E**
- 903.05 HIGH PERFORMANCE CONCRETE (HPC)**
- 903.06 SELF-CONSOLIDATING CONCRETE (SCC)**
- 903.07 QUICK-SETTING PATCHING MATERIALS**
- 903.08 MORTAR AND GROUT**
- 903.09 CONTROLLED LOW STRENGTH MATERIAL (CLSM)**
- 903.10 CURING MATERIALS**

SECTION 904 – PRE-CAST AND PRESTRESSED CONCRETE

904.01 NON-STRUCTURAL PRE-CAST CONCRETE

904.01.02 FABRICATION

THE LAST SENTENCE OF PART 2 IS CHANGED TO:

If using SCC, minimize or eliminate the use of vibrators to prevent segregation.

904.02 PRE-CAST RETAINING WALLS

904.02.06 QUALITY CONTROL AND ACCEPTANCE REQUIREMENTS

STEP 2 IN THE THIRD PARAGRAPH IS CHANGED TO:

2. Dimensions not conforming to the tolerances specified in Table 904.02.02-1.

904.03 STRUCTURAL PRE-CAST CONCRETE

904.04 PRESTRESSED CONCRETE

SECTION 905 – REINFORCEMENT METALS

905.01 REINFORCEMENT STEEL

905.01.03 WELDED WIRE REINFORCEMENT

THE SECOND PARAGRAPH IS CHANGED TO:

When approved as an alternate to galvanized reinforcement bars, use galvanized welded wire reinforcement that meets the requirements of ASTM A 641, Table 1, Class 1.

905.01.05 DOWELS

THE ENTIRE SUBPART IS CHANGED TO:

Use plain reinforcement bars according to ASTM A 615, Grade 60. Galvanize according to ASTM A 123.

905.03.03 DOWEL BARS

THE FIRST PARAGRAPH IS CHANGED TO:

For dowel bars in transverse joints, use epoxy-coated, Grade 60, plain reinforcement steel according to ASTM A 615. If shown on the Plans, use dowel bars fitted with end caps. Ensure that the end caps are non-metallic and designed to prevent the entrance of grout or mortar into the expansion void.

905.02 PRESTRESSING AND POST-TENSIONING REINFORCEMENT

905.03 REINFORCEMENT FOR CONCRETE PAVEMENT

SECTION 909 – DRAINAGE

909.01 PIPE BEDDING

909.01.03 CLASS “C” BEDDING

THIS PART IS CHANGED TO:

Use coarse aggregate No. 57 as specified in 901.03 and Table 901.03-1.

909.02 PIPE

909.02.02 HDPE PIPE

Use Corrugated HDPE drainage pipe that conforms to AASHTO M 252 or AASHTO M 294M.

909.02.03 PLASTIC DRAINAGE PIPE

THE FOLLOWING IS ADDED:

CIRCULAR PVC PERFORATED PIPE FOR UNDERDRAINS

PVC pipe for underdrains shall be 4" diameter (4.215" O.D., min. wall thickness 0.75", wt. per L.F. 6357 lbs.) or 6" diameter (6.275" O.D. minimum wall thickness 0.100", weight per L.F. 1.2643 lbs.) perforated with 2 rows of 5/8" holes on 5" centers 120° apart.

Pipe shall be PVC-DS drain and sewer pipe conforming to ASTM D2729 as manufactured by CRESTLINE PLASTIC PIPE COMPANY of MECHANICSBERG, PA and distributed by AARON & COMPANY of NEW BRUNSWICK, NJ (908-247-4500) or approved equal.

Compatible solvent Weld DS end caps, elbows, tees, fittings, etc., shall be provided as required.

THE FOLLOWING SUBPART IS ADDED:

909.02.09 Fiberglass Pipe for Bridge Storm Drainage

Fabricate fiberglass pipe conforming to ASTM D2996, RTRP-12EA1-2122 and fiberglass pipe fittings conforming to ASTM D3840.

Ensure that all fiberglass pipe, fittings and adhesives use pigmented resin throughout the wall and the color is concrete gray or designated color with UV stabilized resin. Painted gel-coat or exterior coating is not acceptable.

Ensure that adhesives are in accordance with the pipe manufacturer and adhesive manufacturer's recommendations.

SECTION 910 – MASONRY UNITS

- 910.01 CLAY OR SHALE BRICK
- 910.02 CONCRETE BLOCK FOR INLETS AND MANHOLES
- 910.03 CONCRETE BRICK
- 910.04 STONE CURB
- 910.05 STONE FACING FOR PIER SHAFTS
- 910.05 STONE FACING FOR PIER SHAFTS
Add the following after last sentence of the third paragraph:
The number of cores to be furnished for such tests shall be six.
- 910.06 STONE PAVING BLOCK

SECTION 911 -SIGNS, SIGN SUPPORTS, AND DELINEATORS

911.01 SIGNS

911.01.01 B. RETROFLECTIVE SHEETING

THIS SECTION IS CHANGED TO:

All sign types shall conform to ASTM D 4956 and shall use Type IV retroreflective sheeting.

911.02 SIGN SUPPORTS

911.02.03 Non-Breakaway Sign Support for Ground Mounted Signs

THE LAST SENTENCE OF THE SECOND PARAGRAPH CHANGED TO:

Tie-wrap post during shipment and handling to protect the finish.

911.03 FLEXIBLE DELINEATORS

SECTION 912 - PAINTS, COATINGS, TRAFFIC STRIPES, AND TRAFFIC MARKINGS

912.01 PAINTS AND STAINS

912.02 COATINGS

912.03 PERMANENT TRAFFIC STRIPES AND MARKINGS

912.03.01 EPOXY TRAFFIC STRIPES

A. Epoxy Resin.

THE FIRST SENTENCE IS CHANGED TO:

For pavement striping, use an epoxy resin that is a 2 component, 100 percent solids formulation conforming to the following requirements:

B. Glass Beads.

THE FIRST PARAGRAPH IS CHANGED TO:

Submit certifications of compliance as specified in 106.07 for each lot of glass beads used on the Contract. For each lot of glass beads, submit test results indicating the parts per million of lead, antimony and arsenic as determined by testing according to Environmental Protection Agency testing method 3052 and testing method 6010B or 6010C. Ensure that glass beads do not contain more than 200 ppm of lead, 200 ppm of antimony, or 100 ppm of arsenic.

912.03.02 Thermoplastic Traffic Markings

THE FOLLOWING IS ADDED TO THE FIRST PARAGRAPH:

Ensure that glass beads do not contain more than 200 ppm of lead, 200 ppm of antimony, or 200 ppm of arsenic.

912.04 TEMPORARY TRAFFIC STRIPES AND MARKINGS

912.04.01 Latex Paint

THE FOLLOWING IS ADDED TO THE SECOND PARAGRAPH:

Ensure that glass beads do not contain more than 200 ppm of lead, 200 ppm of antimony, or 200 ppm of arsenic.

SECTION 913 - GUIDE RAIL, FENCE, AND RAILING

913.01 BEAM GUIDE RAIL

913.01.03 POSTS AND BLOCKOUTS

The following is added:

The approved manufacturers are Lifetime Lumber and Mondo Polymer Technologies, Polymer.

913.01.05 MISCELLANEOUS HARDWARE

SUBPART 3 OF THE FIRST PARAGRAPH IS CHANGED TO:

3. Use plates for guide rail on bridges and buried guide rail terminals conforming to ASTM A 36 and galvanized according to ASTM A 123.

913.02 FENCE

913.03 BRIDGE RAILING

SECTION 914 – JOINT MATERIALS

914.01 PREFORMED JOINT FILLER

914.02 JOINT SEALER

THE FOLLOWING IS ADDED:

Use Sikaflex-1A, Gray 1-component high performance polyurethane sealant, as manufactured by Sika Chemical Core of Lyndhurst, New Jersey or approved equal for sealing joints in concrete sidewalk.

914.03 POLYMERIZED JOINT ADHESIVE

914.04 JOINT ASSEMBLIES

914.04.01 PREFORMED ELASTOMERIC (COMPRESSION TYPE)

B. Joint Sealer

THE LAST SENTENCE OF THE SECOND PARAGRAPH IS CHANGED TO:

If splicing of a sealer is allowed, ensure that the sealer at the splice point has not significant misalignment at its sides or top and that misalignment at the bottom does not exceed half of the bottom wall thickness.

SECTION 917 – LANDSCAPING MATERIALS

917.01 TOPSOIL

THE FIRST SENTENCE OF THE FIRST PARAGRAPH IS CHANGED TO:

Topsoil shall be screened and shall not contain stones, lumps, roots, or similar objects larger than one-half (1/2") inch in any direction and shall have not less than a 5.8 pH value.

THE FOLLOWING IS ADDED:

A laboratory analysis of the materials proposed for topsoil (from an approved testing firm) shall be submitted to the Engineer for approval prior to placing any topsoil.

IF ONSITE MATERIAL IS APPROVED FOR TOPSOIL, THE UNIT PRICE FOR THIS ITEM SHALL BE REDUCED BY 50%.

917.02 SOIL ADDITIVES

917.03 FERTILIZER

917.04 PULVERIZED UME STONE

917.05 SEED MIXTURES

917.05.01 GRASS SEED MIXTURES

THE FOLLOWING GRASS SEED TABLE 917.05.01-8 IS ADDED:

Table 917.05.01-7, TYPE P, GRASS SEED MIXTURE
(Soil Erosion & Sediment Control Seed Mixture)

Kind of Seed	Minimum Purity Percent	Minimum Germination Percent	Percent of Total Weight of Mixture
Deer Tongue	95	85	35
Blackwells Switchgrass	95	85	50
Red Top	92	85	5
Birdfoot Trefoil	92	85	10

917.06 MULCH

917.07 TACKFIERS

917.08 TOPSOIL STABILIZATION MATTING

917.09 SODDING

917.10 PLANT MATERIALS

H. Inspection.

THE SECOND PARAGARPH IS CHANGED TO:

The Department may inspect plan materials before delivery to the Project Limits and upon delivery to the Project Limits before installation. The Department may seal the inspected plant materials. For plant material originating from nurseries farther than 100 miles from the Project Limits, stock plant material at a Contractor-provided holding yard that is acceptable to the Department. The Department may inspect plant material originating from nurseries within 100 miles of the Project Limits at the nursery. Ensure that all plant material is untied and located so that trunk or stem and branch structure can be easily inspected. Provide sufficient notice to allow Department inspection at the nursery or holding yard and to allow time for Contractor reordering of rejected material. Notify the RE at least 7 days in advance of delivery to the Project Limits for installation. The Department will reject materials arriving with broken or missing seals, broken or loose balls, broken or pruned leaders, insufficient protection, or that have been damaged in transit. The Department may randomly inspect the root system of the plant material by breaking open the earth balls. Provide assistance during Department inspections.

917.11 MISCELLANEOUS LANDSCAPE MATERIALS

SECTION 918 – ELECTRICAL MATERIALS

918.01 CONDUIT AND FITTINGS

4. Flexible Nonmetallic Conduit.

THE FOLLOWING IS ADDED:

For colored conduits (other than black and natural) ensure the “X” designation as part of the Cell Classification under Section 6.2 of ASTM D 3350 is “E”.

For ITS Conduit Type ___, one of the conduits that is designated for electrical use is to be extruded integrally colored red to indicate its use for Electrical wiring.

918.02 CABLE AND WIRE

918.03 BONDING AND GROUNDING MATERIALS

918.04 CABLE CONNECTORS

918.05 RESIN SPLICING KITS

918.06 ELECTRICAL TAPE

918.07 CABLE RACKS

918.08 CAST BOXES AND FITTINGS

918.09 CABINETS

918.10 PANEL BOARDS AND CIRCUIT BREAKERS

918.11 PHOTOELECTRIC CONTROLS

918.12 PEDESTALS, POLES, TRANSFORMER BASES, AND MAST BRACKET ARMS

THE FIRST SENTENCE OF THE FIRST PARAGRAPH IS CHANGED TO:

Fabricate pedestals, poles, transformer bases, and mast bracket arms for traffic signal, highway lighting, and camera standards with materials according to the appropriate ASTM Standard and the AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaries and Traffic Signals.

918.13 TOWER POLES

918.14 LAMPS

THE FOLLOWING SUBSECTION IS ADDED:

918.15 PRIORITY CONTROL SYSTEM

Priority Control System shall be Priority Control System, as manufactured by 3M or approved equal and include: One (1) Model 754 Phase Selector, one (1) Model 760 Card Rack, three (3) Model 721 Optical Detectors, three (3) Model 575 Confirmation Light Kits, one (1) Push Button Assembly, M138 Detector Cable 1000' spool, EDC Small Single Door Cabinet Enclosure Model SSD 141111 (pole mount flanges to be removed) and all associated mounting hardware etc.

918.15 PRIORITY CONTROL SYSTEM (CONT'D)

Optical Emitters are not included in this payment item or contract.

Contract: Roger Davenport, 3M Regional Rep. (610) 328-4040 extension 24.

Phase Selector module shall be contained in a separate single door enclosure that shall be secured to the top of the meter cabinet. All mounting hardware shall be stainless steel. Connection from meter cabinet to single door enclosure shall be weather tight and properly sealed. The manufacturer, prior to delivery, shall prefabricate phase Selector in the single door enclosure.

Four (4) Push Button Assemblies shall be installed inside the _____ Building, one at each bay door at a location to be determined by the ENGINEER/OWNER during construction. Detectors and confirmation light kits shall be installed on traffic signal standards per manufacturer recommendations. Modifications to the signal standard caps, fittings and mounting hardware shall be included in this item. Location of detectors will be determined during construction by ENGINEER and a representative of manufacturer.

THE FOLLOWING SUBSECTION IS ADDED:

918.16 IMAGE DETECTION SYSTEM

1. Video Detection—General

This specification sets forth the minimum requirements for a system that monitors vehicles on a roadway via processing of video images. The detection of vehicles passing through the field-of-view of an image sensor shall be made available to a large variety of end user applications as simple contact closure outputs that reflect the current real-time detector or alarm states (on/off) or as summary traffic statistics that are reported locally or remotely.

The contact closure outputs shall be provided to a traffic signal controller and comply with the National Electrical Manufacturers Association (NEMA) type C or D detector rack standards.

The system architecture shall fully support Ethernet networking of system components through a variety of industry standard and commercially available infrastructures that are used in the traffic industry. The data communications shall support direct connect, [modem,] and multi-drop interconnects. Simple, standard Ethernet wiring shall be supported to minimize overall system cost and improve reliability, utilizing existing infrastructure and ease of system installation and maintenance. Both streaming video and data communications shall optionally be interconnected over long distances through fiber optic, microwave, or other commonly used digital communications transport configurations.

On the software application side of the network, the system shall be integrated through a client-server relationship. A communications server application shall provide the data communications interface between as few as one to as many as hundreds of Machine Vision Processor (MVP) sensors and a number of client applications. The client applications shall either be hosted on the same PC as the communications server or may be distributed over a local area network of PC's using the industry standard TCP/IP network protocol. Multiple client applications shall execute simultaneously on the same host or multiple hosts, depending on the network configuration. Additionally, a web-browser interface shall allow use of industry standard Internet web browsers to connect to MVP sensors for setup, maintenance, and playing digital streaming video.

1.1. System Hardware

The machine vision system hardware shall consist of three components:

- 1) a color, 22x zoom, MVP sensor
- 2) a modular cabinet interface unit
- 3) a communication interface panel.

Additionally, a customer owned personal computer (PC) shall host the server and client applications that are used to program and monitor the system components. The real-time performance shall be observed by viewing the video output from the sensor with overlaid flashing detectors to indicate the current detection state (on/off). The MVP sensor shall optionally store cumulative traffic statistics internally in non-volatile memory for later retrieval and analysis.

The MVP shall communicate to the modular cabinet interface unit via the communications interface panel and the software applications using the industry standard TCP/IP network protocol. The MVP shall have a built-in, Ethernet-ready, Internet Protocol (IP) address and shall be addressable with no plug in devices or converters required. The MVP shall provide standard MPEG-4 streaming digital video. Achievable frame rates shall vary from 5 to 30 frames/sec as a function of video quality and available bandwidth.

The modular cabinet interface unit shall communicate directly with up to eight (8) MVP sensors and shall comply with the form factor and electrical characteristics to plug directly into a NEMA type C or D detector rack providing up to thirty-two (32) inputs and sixty-four (64) outputs or a 170 input file rack providing up to sixteen (16) contact closure inputs and twenty-four (24) contact closure outputs to a traffic signal controller.

The communication interface panel shall provide four (4) sets of three (3) electrical terminations for three-wire power cables for up to eight (8) MVP sensors that may be mounted on a pole or mast arm with a traffic signal cabinet or junction box. The communication interface panel shall provide high-energy transient protection to electrically protect the modular cabinet interface unit and connected MVP sensors. The communications interface panel shall provide single-point Ethernet connectivity via RJ45 connector for communication to and between the modular cabinet interface module and the MVP sensors.

1.2. System Software

The MVP sensor embedded software shall incorporate multiple applications that perform a variety of diagnostic, installation, fault tolerant operations, data communications, digital video streaming, and vehicle detection processing. The detection shall be reliable, consistent, and perform under all weather, lighting, and traffic congestion levels. An embedded web server shall permit standard internet browsers to connect and perform basic configuration, maintenance, and video streaming services.

There shall be a suite of client applications that reside on the host client / server PC. The applications shall execute under Microsoft Windows XP or Vista. Available client applications shall include:

Master network browser: Learn a network of connected modular cabinet interface units and MVP sensors, display basic information, and launch applications software to perform operations within that system of sensors.

Configuration setup: Create and modify detector configurations to be executed on the MVP sensor and the modular cabinet interface unit.

Operation log: Retrieve, display, and save field hardware run-time operation logs of special events that have occurred.

Software install: Reconfigure one or more MVP sensors with a newer release of embedded system software.

Streaming video player: Play and record streaming video with flashing detector overlay.

Data retrieval: Fetch once or poll for traffic data and alarms and store on PC storage media.

Communications server: Provide fault-tolerant, real-time TCP/IP communications to / from all devices and client applications with full logging capability for systems integration.

2.1. MVP Sensor

The MVP sensor shall be an integrated imaging color CCD array with zoom lens optics, high-speed, dual-core image processing hardware bundled into a sealed enclosure. The CCD array shall be directly controlled by the dual-core processor, thus providing high-quality video for detection that has virtually no noise to degrade detection performance. It shall be possible to zoom the lens as required for setup and operation. It shall provide JPEG video compression as well as standard MPEG-4 digital streaming video with flashing detector overlay.

The MVP shall provide direct real-time iris and shutter speed control.

The MVP image sensor shall be equipped with an integrated 22x zoom lens that can be changed using either configuration computer software. The digital streaming video output and all data communications shall be transmitted over the three-wire power cable.

2.1.2. Power

The MVP sensor shall operate on 110/220 VAC, 50/60Hz at a maximum of 25 watts. The camera and processor electronics shall consume a maximum of 10 watts and the remaining 15 watts shall support an enclosure heater.

2.1.3 Detection Zone Programming

Placement of detection zones shall be by means of a PC with a Windows XP or Vista operating system, a keyboard, and a mouse. The PC monitor shall be able to show the detection zones superimposed on images of traffic scenes.

The detection zones shall be created by using a mouse to draw detection zones on the PC monitor. Using the mouse and keyboard it shall be possible to place, size, and orient detection zones to provide optimal road coverage for vehicle detection. It shall be possible to download detector configurations from the PC to the MVP sensor and cabinet interface module, to retrieve the detector configuration that is currently running in the MVP sensor, and to back up detector configurations by saving them to the PC fixed disks or other removable storage media.

The supervisor computer's mouse and keyboard shall be used to edit previously defined detector configurations to permit adjustment of the detection zone size and placement, to add detectors for additional traffic applications, or to reprogram the MVP sensor for different traffic applications or changes in installation site geometry or traffic rerouting.

2.2 Detection Types

The MVP shall be able to be programmed with a variety of detector types that perform specific functions. Detector types shall include the following:

- a) Count Detector--outputs traffic volume statistics;
- b) Presence Detector--indicates presence of a vehicle, stopped vehicle, or vehicles traveling the wrong direction
- c) Speed Detector--provides vehicle speed, length, classification, volume, density and traffic flow statistics;
- d) Detector Function--combines outputs of multiple detector types via Boolean logic functions and allows timing extensions and delays. Similar to the Contrast Detector below, it monitors video signal quality globally in the scene.
- e) Station--accumulates traffic data over user specified time intervals, including cycle splits for intersection applications;
- f) Input Label Detector--provides states of a user-provided input signal;
- g) Speed Alarm--generates an alarm output based on user-defined speed and volume thresholds;
- h) Contrast Detector--monitors video signal quality and provides an optical fail safe alarm feature. Unlike the global measure of video quality in the Detector Function above, this Contrast Detector can monitor specific areas of the scene.
- i) Incident Detector--operates an incident detection algorithm which monitors speed and occupancy data from individual traffic lanes to detect the shock wave effects which propagate upstream from a capacity-reducing incident that occurs outside the camera field of view. It is adjustable for regularly recurring congestion.
- j) Scheduler--controls detector operation based upon a user-defined time schedule;
- k) Label--displays system or user-defined static or dynamic information on the output video of the MVP, including titles and bitmap graphics.
- l) Lane Detector-- generates an alarm for stopped vehicle (default setting), a slow vehicle, or a wrong-way vehicle along an entire outdoor traffic lane within the field of view.
- m) Tunnel Detector--generates an alarm for stopped vehicle (default setting), a slow vehicle, or a wrong- way vehicle along an entire tunnel lane within the field of view.

2.2 Detection Types

- 2.2.1. The speed detector shall report vehicle speed and vehicle classification based on five user-defined length categories, satisfying the four generalized category requirement recommended by FHWA.
- 2.2.2. Multiple detector outputs can be combined together via OR, AND, NAND, and N of M logical functions. In addition, the MVP shall be able to condition the detector outputs based on the state of associated input signals. The following detector output types shall be available:
- a) Type 0 -- send a call for every vehicle presence detected;
 - b) Type 1 -- extends a call on Green, delays a call on NOT Green;
 - c) Type 2 -- both Extends and Delays a call on Green, no change to call on NOT Green;
 - d) Type 3 -- provides Stop Bar detection;
 - e) Type 4 -- provides Stop Bar detection with a timer;
 - f) Type 5 -- provides Stop Bar detection with a reset timer;
 - g) Type 6 -- enables a call when the input phase is Red;
 - h) Type 8 -- provides Dilemma Zone detection, based on the speed of the vehicle;
 - i) Type 9 -- provides moving vehicle detection and time validation during Red;
 - j) Type 10 -- arbitrates between individual Contrast Loss detectors to determine video quality loss.
- 2.2.3. Each MVP shall be able to detect the absence of a valid video signal on each image sensor input. Upon detecting the absence of a valid video signal, the MVP shall place all the detector outputs associated with the failed image sensor input into a fail-safe ON state known as recall.

- 2.2.4. Each MVP shall be able to detect when the quality of the video input from the image sensor is not sufficient to enable vehicle detection (e.g., when environmental conditions obscure the sensor view). Use of this video loss detection capability shall be selectable by the user. If a video loss failure is detected, the MVP shall place the detector outputs associated with the failed sensor on minimum recall, maximum recall, or fixed time recall as selected by the user.

2.3. Interval Traffic Data

- 2.3.1. Each MVP shall count vehicles in real-time and compute the average of traffic parameters over user-defined time intervals (or time slices), as follows:

- a) Volume -- number of vehicles detected during the time interval;
- b) Occupancy -- detector occupancy measured in percent of time;
- c) Vehicle Classification -- number of vehicles in each of five classes, as defined by vehicle length in feet or meters;
- d) Flow Rate -- vehicles per hour per lane;
- e) Headway -- average time interval between vehicles;
- f) Speed -- time mean and space mean vehicle speed in km/hr or mi/hr;
- g) Level of Service -- determined by user-defined thresholds for average speed or capacity flow rates;
- h) Space Occupancy -- sum of the vehicle lengths divided by average distance traveled during the time interval measured as percent;
- i) Density -- flow rate divided by space mean speed expressed in vehicles/km or vehicles/mi.

- 2.3.2. The duration of the time intervals (or time slices) shall be user-customizable as per signal control cycle or 10, 20, or 30 seconds, or 1, 5, 10, 15, 30, or 60 minutes, or any other arbitrary time interval of choice.

- 2.3.3. It shall be possible to poll the MVP for traffic flow, vehicle presence, or event alarm data during normal operation when connected to a computer with serial communications.

Furthermore, an option to minimize data loss, called persistent polling, shall be provided to collect time interval data when the MVP is not connected to a computer. It shall operate as follows: When the communication link to the traffic management computer is cutoff temporarily, for whatever reason, the MVP shall write the persistent poll data to non-volatile EEPROM flash memory. At such time as the link is restored, the persistent poll data shall be transferred to the traffic management computer. Thus though delayed, there is no loss of data due to communications link failures. This shall also allow the use of dial-up modem applications to be scheduled, for example daily or weekly calls, to collect all data since last connection was made.

Finally, the option for persistent polling shall begin accumulating and storing defined poll data to flash memory if needed after system reboot, as may be caused by local mains power failures.

2.3. Interval Traffic Data

- 2.3.4. Using the persistent polling technique above, it shall be possible to save the time-interval data in non-volatile EEPROM flash memory within the MVP for later transfer to the supervisor computer for analysis.
- 2.3.5. Retrieval of real-time poll data or persistent poll data stored in the memory of the MVP shall be via a serial communications port or integrated Ethernet port using manufacturer provided software tools. Provision shall be made for transfer of data via a modem and dial-up telephone lines, via private cable, fiber optic network, wireless system, Ethernet or via direct connection to another computer by serial cable.
- 2.3.6. Each MVP shall provide an optional power line monitor to ensure the accuracy of its internal clock.

2.4. Optimal Detection

The video detection system shall optimally detect vehicle passage and presence when the MVP sensor is mounted 30 feet (10 m) or higher above the roadway, when the image sensor is adjacent to the desired coverage area, and when the distance to the farthest detection zone locations are not greater than ten (10) times the mounting height of the MVP. The recommended deployment geometry for optimal detection also requires that there be an unobstructed view of each traveled lane where detection is required. Although optimal detection may be obtained when the MVP is mounted directly above the traveled lanes, the MVP shall not be required to be directly over the roadway. The MVP shall be able to view either approaching or receding traffic or both in the same field of view. The preferred MVP sensor orientation shall be to view approaching traffic since there are more high contrast features on vehicles as viewed from the front rather than the rear. The MVP sensor placed at a mounting height that minimizes vehicle image occlusion shall be able to simultaneously monitor a maximum of six (6) traffic lanes when mounted at the road-side or up to eight (8) traffic lanes when mounted in the center with four lanes on each side.

2.5 Modular Cabinet Interface Unit

The modular cabinet interface unit shall provide the hardware and software means for up to eight (8) MVP sensors to communicate real-time detection states and alarms to a local traffic signal controller. It shall comply with the electrical and protocol specifications of the detector rack standards. The card shall have 1500 Vrms isolation between rack logic ground and street wiring. The modular cabinet interface unit shall be a simple interface card that plugs directly into a NEMA type C or D detector rack. The modular cabinet interface unit shall occupy only 2 slots of the detector rack. The modular cabinet interface unit shall accept up to sixteen (16) phase inputs and shall provide up to twenty-four (24) detector outputs.

2.6 Communications Interface Panel

The communications interface panel shall support up to eight MVPs. The communications interface panel shall accept 110/220 VAC, 50/60 Hz power and provide predefined wire termination blocks for MVP power connections, a Broadband-over-Power-Line (BPL) transceiver to support up to 10MB/s interdevice communications, electrical surge protectors to isolate the modular cabinet interface unit and MVP sensors, and an interface connector to cable directly to the modular cabinet interface unit. The interface panel shall provide power for up to eight (8) MVP sensors, taking local line voltage 110/220 VAC, 50/60 Hz and producing 110/220 VAC, 50/60 Hz, at about 30 watts to each MVP sensor. Two ½-amp SLO-BLO fuses shall protect the communications interface panel.

3. System Installation

When required, the supplier of the video detection system shall supervise the installation and testing of the video detection system and computer equipment.

4. Warranty, Service, & Support

For a minimum of two (2) years, the supplier shall warrant the video detection system. An option for additional year(s) warranty for up to 5 years shall be available. Ongoing software support by the supplier shall include software updates of the MVP sensor, modular cabinet interface unit, and supervisor computer applications. These updates shall be provided free of charge during the warranty period. The supplier shall maintain a program for technical support and software updates following expiration of the warranty period. This program shall be available to the contracting agency in the form of a separate agreement for continuing support.

A single video detection device shall consist of the following. A Machine Video Processor (MVP) shall include a TCP/IP internet protocol addressable 22X zoom color image sensor.

The MVP image sensor shall be an integrated imaging color CCD array with optics, high-speed, image processing hardware and a general purpose CPU bundled into a sealed enclosure. The MVP shall provide direct real-time iris and shutter speed control. The MVP image sensor shall be equipped with an integrated auto zoom / auto focus lens that can be changed using configuration computer software.

1 - camera video detection system package consisting of the following items:

1 – Machine Video Processor (MVP) color 22x zoom

1 – 80 ft camera cable

1 – camera mounting bracket (AB-0173-1-29-SS)

1 – Communication interface panel w/ ethernet adapter (ACIP4E)

918.16 WIDE-AREA VIDEO VEHICLE DETECTION SYSTEM (Cont'd)

4. Warranty, Service, & Support

1 – minihub II detector port master

1 – shelf mount enclosure with AC adapter for minihub

1 – supplier to assist with installation and setup

2 - camera video detection system package consisting of the following items:

2 – Machine Video Processor (MVP) color 22x zoom

2 - 80ft camera cable

2 – camera mounting brackets (AB-0173-1-29-SS)

1 – Communication interface panel w/ ethernet adapter (ACIP4E)

1 – 500ft bulk roll camera branch cable

1 – minihub II detector port master

1 – shelf mount enclosure with AC adapter for minihub

1 – supplier to assist with installation and setup

4-camera video detection system package consisting of the following items:

4 – Machine Video Processor (MVP) color 22x zoom

4 - 80ft camera cable

4 – camera mounting brackets (AB-0173-1-29-SS)

1 – Communication interface panel w/ ethernet adapter (ACIP4E)

1 – 1000 ft bulk roll camera branch cable

1 – minihub II detector port master

1 – shelf mount enclosure with AC adapter for minihub

1 – supplier to assist with installation, setup

SECTION 919 – MISCELLANEOUS

- 919.01 GEOTEXTILES**
- 919.02 SEDIMENT CONTROL BAG**
- 919.03 HAY AND STRAW**
- 919.04 GABION WIRE BASKETS**
- 919.05 GEOMEMBRANE LINEAR**
- 919.06 WATER STOPS**
- 919.07 EPOXY BONDING COMPOUND**
- 919.08 WATER**
- 919.09 SLEEVES**
- 919.10 EPOXY INJECTION MATERIAL**
- 919.11 EPOXY INJECTION MATERIAL**
- 919.12 POLYETHYLENE SHEETING**
- 919.13 FLOATING TURBIDITY BARRIER**
- 919.14 DETECTABLE WARNING SURFACE**

REPLACE THIS SECTION WITH THE FOLLOWING:

The cast-in-place tile with truncated domes is to fully comply with the Revised ADA Regulations implementing Title II and the 2010 ADA Standards for Accessible Design, and OSHA requirements for dome size, spacing and color.

THE FOLLOWING IS ADDED:

Ensure that the coating has a minimum thickness of 40 mil upon final drying.

DIVISION 1000 - EQUIPMENT

SECTION 1001 – TRAFFIC CONTROL EQUIPMENT

1001.01 FLASHING ARROW BOARD

1001.02 PORTABLE VARIABLE MESSAGE SIGN

1001.03 TRAFFIC CONTROL TRUCK MOUNTED CRASH CUSHIONS

THE FOLLOWING SUBSECTION IS ADDED:

1001.04 PORTABLE VARIABLE MESSAGE SIGN W/REMOTE OPERATION

Provide a portable variable message sign as described under 1001.02 equipped with the required broadband cellular modem.

THE FOLLOWING IS ADDED:

Provide a NTCIP compliant portable variable message sign as described under 1001.02 with the exceptions noted below and each equipped with broadband cellular modem.

Ensure that the sign panel is capable of displaying three lines of text with variable size characters.

Ensure nine characters are displayed per line for posting travel times. For this nine character requirement, smaller size characters may be allowed that meets MUTCD guidelines.

Ensure that the panel is also capable of displaying eight (8) characters per line with a minimum character height of eighteen (18) inches.

1001.05 PORTABLE TRAILER MOUNTED CCTV CAMERA ASSEMBLY

Provide a Portable Trailer Mounted CCTV Camera Assembly with the following:

A. Trailer Platform

1. Single Axle steel welded trailer with 2 inches adjustable ball hitch.
2. Heavy-duty safety chains.
3. Single drop torsion suspension or leaf springs.
4. Self lubricating wheel spindles.
5. Maximum size, including tongue, 14 feet long by 7 feet wide by 8 feet high.
6. Maximum payload 3500 pounds.
7. Tire size F7815 or F78-14ST with Tire Tools and a spare wheel mounted and locked on trailer.
8. DOT approved lighting package to include electrical brake and marker lights with wire connections.
9. Prime and paint customer's choice of color.
10. Fitted with manual telescoping outriggers with adjustable jacks sized to counter full mast extension.
11. Four 3500 pounds, drop leg, top wind screw jacks.
12. Custom fabricated mounts for all options installed.
13. All equipment secured to prevent theft or separation from platform.
14. Stainless steel hardware to prolong trailer life.
15. 24/7 operation in all weather conditions.

16. Wheel locks to secure trailer while deployed.
 17. Two locking NEMA-4 equipment boxes for electronic components and camera storage.
 18. One locking NEMA-4 equipment box for operational controls.
 19. Max trailer weight of 3500 pounds when fully configured.
 20. Wheels removable when trailer in deployed position.
 21. Operation manual.
- B. Mast
1. 150 pounds payload capacity.
 2. 29 feet to 32 feet of extension with capability to mount antenna at 20 feet, 25 feet or at the top, maximum nested length of mast is 10 feet – 3 to 9 sections.
 3. Un – guyed.
 4. Locking collars to allow the mast to remain extended indefinitely without air pressure.
 5. Anodized and sealed exterior aluminum surfaces for long life.
 6. Custom fabricated mount for cameras.
 7. Folds down during transport for better height clearance.
 8. Spiral conduit for cable.
 9. Compactly retractable when mast is nested into storage container at bottom of mast.
 10. Automatically hydraulic (pneumatic) operation or power winch with a safety brake.
- C. Electrical System
1. 12 VDC battery operated with multi-crystal solar electric panel.
 2. Fuse panel to protect electronics.
 3. Four 110 watt solar panels on collapsible mounts.
 4. Charge controller that automatically switches charging sources.
 5. Isolated 12 VDC starting battery.
 6. Provisions for operation on auxiliary power (Electric, Gasoline or fuel generated power source) for deployment.
- D. Auxillary Power Source
- Auxillary Power Source can either be gasoline or diesel operated power generated with a fuel tank capable of up to 72 hours operation without refueling. Ensure that the engine is shock mounted to reduce vibration and locked in a ventilated enclosure.
- E. Inverter
1. To provide main power when (AC) power is not available.
 2. Battery charger.
 3. Install all cables in weather tight conduits with sealed connections to equipment boxes.

1001.05 PORTABLE TRAILER MOUNTED CCTV CAMERA (Cont'd)

- F. Electronics

1. Cellular (CDMA), microwave, or 802.11 bandwidth option.
2. Onboard Ethernet switch to connect cameras, bandwidth, and monitoring devices.
3. Work lights in all cabinets.
4. Remote trailer diagnostic (battery level, charging output, etc.).

G. Camera and Software

Ensure that the camera has the following characteristics:

1. Weather resistant powder coated aluminum case with stainless steel hardware fittings.
2. Impact resistant viewing window.
3. Minimum resolution of NTSC 704(H) x 480 (V).
4. Backlight compensation.
5. Image stabilization.
6. Light Sensitivity 0.02 lux NIR Mode.
7. Auto Focus with Manual Focus capability.
8. Auto White Balance with Manual White Balance capability.
9. Motorized Zoom up to 16x optical, 10x digital.
10. Motorized Pan-Tilt, pan 360°, tilt 180°.
11. Thermostatically controlled heater and defroster -50° to 140°F operating range.
12. Windshield wiper.
13. 24/7 operation in all weather conditions.
14. Time and date stamp.
15. Max power consumption 70VA.

Ensure that the software includes:

1. Remote control of pan, tilt and zoom.
2. Ability to display streaming video in MPEG format, motion-JPEG, and single snapshot JPEG images, remotely central selectable through software.
3. Preset controls of pan/tilt/zoom combinations. All presets to be accessible from drop-down menu with descriptive name of preset. Set first 8 presets with quick-launch icons with graphical representation of the preset views.
4. Ability to display all the project's web cams in a single view screen.
5. Display of local time and weather conditions including temperature and humidity.
6. Ability to save images to disk or e-mail images.
7. Ability to view archived images via a graphical calendar control and to store archived images at least every five minutes.
8. Three levels of password protection admin, user & guest, individual user accounts.
9. Remote camera diagnostics and "self-healing" automatic problem rectification.
10. Ability to monitor and control the cameras from the web.

SECTION 1009 – HMA PLANT EQUIPMENT

1009.01 HMA PLANT

A. Requirements for HMA Mixing Plants.

THE FOLLOWING IS ADDED AFTER THE SECOND PARAGRAPH:

The HMA producer is required to have a quality control (QC) program plan approved annually by the ME as per Materials Approval Procedure MAP-102. The HMA producer is required to ensure that the QC plan conforms to the requirements outlined in the report entitled “Hot Mix Asphalt Quality Control Program Plan” prepared by the Department of Transportation and New Jersey Asphalt Paving Association. Failure to follow these requirements will result in rejection of HMA materials supplied by the HMA producer and removal of the HMA supplier from the QPL.

THE FOLLOWING SUBSECTION IS ADDED AFTER 1009.02:

1009.03 ASPHALT-RUBBER BINDER BLENDING EQUIPMENT

Provide equipment for preparation of Asphalt-Rubber Binder. Ensure that the unit is equipped with a crumb rubber feed system capable of continuously supplying the asphalt cement feed system, and is capable of fully blending the individual crumb rubber particles with the asphalt cement. Use an asphalt-rubber binder storage tank that is equipped with a heating system capable of maintaining the temperature of the binder between 325 and 375 °F during the reaction. Ensure the asphalt-rubber binder storage tank is also equipped with an internal auger mixing device, oriented horizontally in the tank, capable of maintaining a uniform mixture of the asphalt-rubber binder.

Ensure that the tanks for storage of asphalt-rubber binder are equipped to uniformly heat the material to the required temperature under effective and positive control at all times. Ensure that heating is accomplished so that no flame comes in contact with the heating tank.

Provide a circulating system of sufficient capacity for the binder to ensure continuous circulation between the storage tank and proportioning units during the entire operating period. Ensure that the discharge end of the binder circulating pipe is maintained below the surface of the binder in the storage tank to prevent discharge of hot binder into the open air.

Ensure that pipe lines and fittings are steam or oil jacketed, electrically or otherwise heated, and insulated to prevent heat loss.

Provide valves according to AASHTO T 40, except ensure that a sampling valve is also located in the lowest third of each storage tank.

If the plant has been equipped with a water injection type asphalt foaming system, ensure that the system will allow the proper amount of asphalt rubber binder to be supplied continuously or provide a by-pass to ensure that the proper amount of asphalt rubber binder is supplied to the mix.

SECTION 1011 – PRECAST AND PRESTRESSED CONCRETE PLANT EQUIPMENT

1011.03 ME’S OFFICE

THE SECOND PARAGRAPH SUBPART 2 &3 ARE CHANGED TO:


2. One high-speed broad band connection with a minimum speed of 3 megabits per second (mbps) with dynamic IP address (DSL, Cable, etc.).
3. Two desks and 2 chairs.



**STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF LAND USE REGULATION**
Mail Code 501-02A, P.O. Box 420, Trenton, New Jersey 08625-0420
Telephone: (609) 777-0454 or Fax: (609) 777-3656
www.state.nj.us/dep/landuse



PERMIT

<p>In accordance with the laws and regulations of the State of New Jersey, the Department of Environmental Protection hereby grants this permit to perform the activities described below. This permit is revocable with due cause and is subject to the limitations, terms and conditions listed below and on the attached pages. For the purpose of this document, "permit" means "approval, certification, registration, authorization, waiver, etc." Violation of any term, condition or limitation of this permit is a violation of the implementing rules and may subject the permittee to enforcement action.</p>		Approval Date DEC 04 2013
		Expiration Date DEC 03 2018
Permit Number: 2013-12-0001.1 FHA 130001 2013-12-0001.1 FWW130002	Type of Approval: Flood Hazard Area Individual Permit Freshwater Wetlands General Permit #10A	Enabling Statutes: N.J.S.A. 13:1D N.J.S.A. 13:9B N.J.S.A. 58:16A N.J.S.A. 58:10A-1 N.J.S.A. 40:55D-93-99
Permittee: Union County Department of Engineering 2325 South Avenue Scotch Plains, NJ 07091	Site Location: Block: N/A Lot: N/A Municipality: City of Rahway County: Union	
Description of Authorized Activities: This permit authorizes the replacement of the existing Madison Hill Road Bridge crossing over Robinsons Branch within the City of Rahway, Union County, New Jersey. This permit also authorizes the disturbance of 0.007 of an acre of state open waters for said bridge replacement. The proposed relocation of the utility line shown on the approved plan sheets may not commence until condition 25 of this permit has been satisfied.		
Prepared by:  _____ Gabriel Mahon	Received and/or Recorded by County Clerk	
THIS PERMIT IS NOT EFFECTIVE AND NO CONSTRUCTION APPROVED BY THIS PERMIT MAY BE UNDERTAKEN UNTIL THE PERMITTEE HAS SATISFIED ALL PRE-CONSTRUCTION CONDITIONS AS SET FORTH HEREIN.		
This permit is not valid unless authorizing signature appears on the last page.		

CONDITIONS APPLICABLE TO ALL LAND USE PERMITS

1. In accordance with applicable regulations, any person who is aggrieved by this permit or any of the conditions of this permit may request a hearing within 30 days after notice of the permit is published in the DEP Bulletin. This request must include a completed copy of the Administrative Hearing Request Checklist. The DEP Bulletin is available through the Department's website at <http://www.nj.gov/dep/bulletin> and the checklist is available through the Division's website at <http://www.nj.gov/dep/landuse/forms/lurpaahr.pdf>. In addition to the hearing request, a request may be filed with the Office of Dispute Resolution to engage in alternative dispute resolution. Please visit www.nj.gov/dep/odr for more information about this process.
2. The permittee, its contractors, and subcontractors shall comply with all conditions of this permit, supporting documents, and approved drawings.
 - i. Plans and specifications in the permit application and conditions imposed by this permit shall remain in full force and effect so long as the proposed development or any portion thereof is in existence, unless modified by the Department in writing;
 - ii. If this permit contains any conditions that must be satisfied prior to the commencement of construction, the permittee must comply with said conditions within the timeframe required by the permit or, if no timeframe is imposed, within six months of the effective date of this permit. If these timeframes cannot be met, then the permittee shall provide evidence satisfactory to the Department that such conditions cannot be satisfied; and
 - iii. Any noncompliance with this permit constitutes a violation and is grounds for enforcement action, as well as suspension and/or termination of this permit. This approval does not in any way affect the right of the State to seek and collect monetary penalties or to take other enforcement action should it be determined that a violation has occurred.
3. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with any condition of this permit.
4. The permittee shall take any and all reasonable steps to prevent, minimize, or correct any adverse impact on the environment resulting from activities conducted pursuant to this permit and/or from activities conducted that are not in compliance with this permit.
5. The issuance of this permit shall in no way expose the State of New Jersey or the Department to liability for the sufficiency or correctness of the design of any construction, structure, or structures. Neither the State nor the Department shall, in any way, be liable for the loss of life or property which may occur by virtue of the activity of development resulting from any permit.

6. The permittee shall immediately inform the Department of any unanticipated adverse effects on the environment not described in the permit application or in the conditions of this permit. The Department may, upon discovery of such unanticipated adverse effects, and upon the failure of the permittee to submit a report thereon, notify the permittee of its intent to suspend the permit.
7. This permit can be modified, suspended, or terminated for cause. The filing of a request to modify a permit by the permittee, or a notification of planned changes or anticipated noncompliance, does not stay any condition of this permit. Nor does it extend the expiration date of this permit.
8. This permit does not convey any property rights of any sort or any exclusive privilege.
9. A copy of this permit and other authorizing documents, including all approved plans and drawings, shall be maintained at the authorized site at all times and be made available to Department representatives or their designated agents immediately upon request.
 - i. The permittee shall also furnish to the Department within a reasonable time any information that the Department requests to determine compliance with this permit or to determine whether cause exists for suspension or termination of this permit; and
 - ii. The permittee shall also furnish to the Department, upon request, copies of records required to be kept as a result of this permit.
10. The permittee shall allow an authorized representative of the Department, upon notification under current rules and upon the presentation of credentials, to do the following:
 - i. Enter upon the permittee's premises where a regulated activity is located or conducted, or where records must be kept under the conditions of this permit;
 - ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
 - iii. Inspect at reasonable times any facilities, equipment, practices, or operations regulated or required under this permit. Failure to allow reasonable access under this section shall be considered a violation of this permit and the applicable rules and shall subject the permittee to enforcement action; and
 - iv. Sample or monitor at reasonable times for the purposes of assuring compliance with applicable rules.
11. No change in plans or specifications upon which this permit is issued shall be made except with the prior written permission of the Department.
12. The permittee shall provide reports to the Department as follows:
 - i. Monitoring results shall be reported at the intervals specified elsewhere in this permit;

- ii. The permittee shall immediately report to the Department by telephone at (877) 927-6337 any noncompliance that may endanger public health or the environment. In addition, the permittee shall provide notice of all noncompliance to Bureau of Coastal and Land Use Compliance and Enforcement, 401 E. State Street, 4th Floor, P.O. Box 422, Mail Code: 401-04C, Trenton, NJ 08625, in writing within five business days of the time the permittee becomes aware of the noncompliance. Such notice shall not, however, serve as a defense to any enforcement action taken by the Department if the project is found to be in violation of any chapter of the regulations under which this permit has been issued. The written notice shall include the following:
 - a. A description of the noncompliance and its cause;
 - b. The period of noncompliance, including exact dates and times and, if the noncompliance has not been corrected, the anticipated length of time it is expected to continue; and
 - c. Steps taken or planned to reduce, eliminate and prevent recurrence of the noncompliance.
 - iii. Where the permittee becomes aware that it failed to submit any relevant facts in an application, or submitted incorrect information in an application or in any report to the Department, it shall promptly submit such facts or information.
13. For development that requires soil disturbance, the creation of drainage structures, or changes in natural contours, the permittee shall conduct operations in accordance with the latest revised version of "Standards for Soil Erosion Sediment Control in New Jersey," promulgated by the New Jersey State Soil Conservation Committee, pursuant to the Soil Erosion and Sediment Control Act of 1975, N.J.S.A. 4:24-42 et seq. and N.J.A.C. 2:90-1.3 through 1.14. The permittee must obtain any required approvals from the local Soil Conservation District prior to the start of construction.
14. If any condition of this permit is determined to be legally unenforceable, modifications and additional conditions may be imposed by the Department as necessary to protect the public interest.
15. This permit is not transferable to any person unless the transfer is approved by the Department.
16. The permittee must obtain any and all other Federal, State and/or local approvals. Authorization to undertake a regulated activity under this permit does not indicate that the activity also meets the requirements of any other rule, plan, or ordinance. It is the permittee's responsibility to obtain all necessary approvals for a proposed project prior to the start of construction.

17. While the regulated activities are being undertaken, neither the permittee nor its agents shall cause or permit any unreasonable interference with the free flow of a regulated feature by placing or dumping any materials, equipment, debris, or structures within or adjacent to the regulated area. Upon completion or abandonment of the work, the permittee and/or its agents shall remove and dispose of in a lawful manner all excess materials, debris, equipment, silt fences, and other temporary soil erosion and sediment control devices from all regulated areas. Only clean non-toxic fill shall be used where fill is necessary.
18. All excavated material and dredged spoils shall be disposed of in a lawful manner, outside of any flood hazard area, riparian zone, regulated water, freshwater/coastal wetland, and adjacent transition area, and in such a way as to not interfere with the positive drainage of the receiving area.

CONDITIONS APPLICABLE TO FLOOD HAZARD RULES

19. All sediment barriers and other soil erosion control measures shall be installed prior to commencing any clearing, grading or construction onsite, and shall be maintained in proper working condition throughout the entire duration of the project.
20. In order to protect the general fishery resources within the tributary of Robinson's Branch, any proposed grading or construction activities within the banks of this or any other stream on site are prohibited between May 1 to June 30 of each year. Furthermore, any activity outside a watercourse, which would likely introduce sediment into the watercourse and/or increase its turbidity, is also prohibited during this period. The Department reserves the right to suspend all regulated activities onsite should it be determined that the applicant has not taken proper precautions to ensure continuous compliance with this condition.
21. For the purposes of this permit, the Department has determined that this project is not a Major Development as defined in the Stormwater Management rules at N.J.A.C. 7:8-1.2. Therefore, the Department did not review the proposed stormwater management system onsite for compliance with these rules.

CONDITIONS APPLICABLE TO FRESHWATER WETLANDS RULES

22. Provisions of the Freshwater Wetlands General Permit No. 10A

This portion of the permit authorizes the disturbance of 0.007 of an acre of state open waters for the replacement of the existing Madison Hill Road Bridge under General Permit No. 10A. Any additional disturbance of freshwater wetlands, State open waters and/or transition areas shall be considered a violation of the Freshwater Wetlands Protection Act unless a permit is obtained prior to the start of the disturbances from the Division of Land Use Regulation. This permit to conduct a regulated activity in a wetland or open water includes the Program's approval of a Water Quality Certificate for these activities.

23. To ensure that the new bridge design is compatible with these historic resources and meets the Secretary of the Interior Standards for Treatment of Historic Properties, the applicant

should submit project design plans and specifications to the New Jersey Historic Preservation Office for review prior to bidding.

- 24. All temporary disturbances must be permanently discontinued within six months after they are begun and all temporary disturbed areas must be restored to their original condition.
- 25. Prior to relocation of the on-site utility line, authorization for its relocation must be obtained under both the Flood Hazard Area Control Act Rules (N.J.A.C. 7:13) and the Freshwater Wetlands Protection Act Rules (N.J.A.C. 7:7A).
- 26. The drawings hereby approved are seven (7) sheets prepared by T&M Associates, certified September 3, 2013, unrevised, unless otherwise noted, entitled:

“COUNTY OF UNION REPLACEMENT OF MADISON HILL ROAD BRIDGE, RA-28 CITY OF RAHWAY AND TOWNSHIP OF CLARK, UNION COUNTY, NEW JERSEY”

“CONSTRUCTION PLAN”, sheet no. 9 of 26,

“PROFILE”, sheet no. 10 of 26,

“GRADING PLAN”, sheet no. 11 of 26,

“CROSS SECTIONS STA. 7+00 TO STA. 8+00”, sheet no. 13 of 26,

“CROSS SECTIONS STA. 8+50 TO STA. 11+00”, sheet no. 14 of 26,

“GENERAL PLAN AND ELEVATION”, sheet no. 18 of 26, and

“LAND USE PLAN”, sheet no. 21 of 26, certified October 28, 2013, last revised October 24, 2013.

If you need clarification on any section of this permit or conditions, please contact our Technical Support Call Center at (609) 777-0454.



Peter DeMeo, Supervisor
Division of Land Use Regulation

12/4/13

Date

Original sent to Agent to record

- C: Applicant
- Municipal Construction Official
- Municipal Clerk



State of New Jersey
DEPARTMENT OF TRANSPORTATION
P. O Box 600
Trenton, New Jersey 08625-0600

SCANNED

By: ms Date: 11/25

File Loc. 2011-041

CHRIS CHRISTIE
GOVERNOR

JAMES S. SIMPSON
COMMISSIONER

KIM GUADAGNO
LT. GOVERNOR

November 22, 2013

Honorable Alfred Faella
Union County Manager
Union County Administration Building
10 Elizabethtown Plaza
Elizabeth, New Jersey 07207

RECEIVED
UNION COUNTY

NOV 25 2013

Re: Madison Hill Road Bridge Replacement Project
Clark Township, Rahway City, Union County
FY-13 Local Bridges, Future Needs

Div. of Engineering

Dear Mr. Faella:

Enclosed is one copy of the fully executed Application/Agreement, as approved by the Department of Transportation for the captioned project in the amount of \$1,000,000.00.

As stipulated in the agreement, this project will be funded from the New Jersey Transportation Fiscal Year 2013 New Jersey Transportation Trust Fund Local Bridges, Future Needs. State participation in the cost of the project is limited to 100 percent of the cost of the completed construction work, including construction supervision, inspection and material testing, or the amount of the Allotment, whichever is less.

The construction contract is to be awarded within 18 months from the date of the execution of the Application/ Agreement. Failure to make an award by 05/06/2015 or to comply with the requirements and conditions of the Application/Agreement will jeopardize the use of State funds on this project.

Within 30 days following the receipt of construction bids, the following shall be submitted to the District Office:

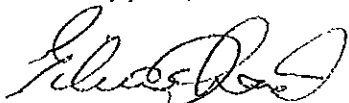
1. One copy of the summary of the construction bids for all bidders showing all unit prices and extensions;
2. A fully executed and sealed Resolution awarding the construction contract to the lowest responsible bidder subject to the concurrence of the Department.
3. An invoice for up to 75% of the award amount, or 75% of the allotment amount, whichever is less.

Page 2

Attached are the State Aid Checklists to assist you with the Local Aid Project Process. Also, please be knowledgeable of the requirements included in the State Aid Handbook. The Handbook is available on line at www.state.nj.us/transportation/business/localaid/pubs.shtml.

If you should have any questions regarding the above please contact me at 973-877-1500.

Sincerely yours,



Eileen Schack
Supervising Engineer,
Bureau of Local Aid – District 2

bc: Clerk -- Board of Chosen Freeholders
County Engineer

FOR THE DEPARTMENT OF TRANSPORTATION

Subject Project: Madison Hill Road Bridge Replacement Project
Name of Sponsor: Union County
Address: Administration Building, 10 Elizabethtown Plaza, Elizabeth, NJ 07207-3451

Vendor ID Number: 226002481

Fiscal Year/Funds: 2013 Local Bridges Future Needs

Job Number: 2205445

Account: 13-480-078-6320-ALE-6010

State Funds: \$1,000,000.00

FAO Number 9875850

Certification of Funds 10-30-13
Date

By Anna Ross
Director, Division of Accounting and Auditing

APPROVED: [Signature]
Michael Russo
Director, Division of Local Aid and Economic Development

11/6/13
Date

ATTEST and SEAL
It is hereby certified that the foregoing allocation of funds and this Agreement were approved by the
Commissioner of Transportation or Designee on November 06, 2013

[Signature]
Jacqueline Trausi
Secretary, Department of Transportation

Approval as to Form by Certification Process.



UNION COUNTY BOARD OF CHOSEN FREEHOLDERS

RESOLUTION: 2013-147

FEBRUARY 21, 2013
CHAIRMAN LINDA CARTER

BE IT RESOLVED by the Union County Board of Chosen Freeholders that it hereby authorizes the County Manager to apply for, and if awarded, to enter into an Agreement with the New Jersey Department of Transportation (NJDOT) for the 2013 Local Bridges, Future Needs Program for the Replacement of Madison Hill Bridge, Rahway, New Jersey, application LBFN 2013-Union County - 00016 in the amount of \$1,000,000.00.

No Sufficiency of Funds Required :
Approved as to Form:
Certifying as to an Original Resolution:
Certified as to a True Copy:

FWP
[Handwritten Signature]

Vote Record		Yes/Aye	No/Nay	Abstain	Absent
<input checked="" type="checkbox"/> Adopted	Bruce Bergen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Adopted as Amended	Angel G. Estrada	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Defeated	Mohamed S. Jiloh	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Tabled	Bette Jane Kowalski	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Withdrawn	Alexander Miralbes	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Daniel P. Sullivan <i>SM</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Vernell Wright	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Christopher Hodak	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Linda Carter	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

NEW JERSEY DEPARTMENT OF TRANSPORTATION
DIVISION OF LOCAL AID AND ECONOMIC DEVELOPMENT

CHECKLIST FOR STATE AID PROJECTS

The following documents must be submitted to the Division of Local Aid and Economic Development District Office within the time frames specified in the approved Resolution, Application and Agreement for State Aid. Additional information concerning these documents and time frames can be found in the current "State Aid Handbook". Further all document submittals must be posted in the SAGE System and the Sponsor is responsible for continued updates with respect to the construction administration/management phase of the project in the SAGE System.

Contract Document Submission Phase

- | | |
|--------------------------|--|
| <input type="checkbox"/> | Plans for projects that have Railroad Crossings within 100 feet of project limits (60 days prior to advertisement for bids) |
| <input type="checkbox"/> | Design Exception (30 days prior to advertisement) |
| <input type="checkbox"/> | Final Plans, Specifications, Engineer's Estimate of Cost, Engineer's Certification (15 days prior to advertisement for bids) |

Award of Contract Submission Phase

- | | |
|--------------------------|--|
| <input type="checkbox"/> | Tabulation of Bids Form SA-41 (Original signed by Engineer) |
| <input type="checkbox"/> | Resolution of Award Form SA-22 (Certified by raised seal) |
| <input type="checkbox"/> | Force Account Agreement Form SA-27 (Applicable if using local government forces to perform work) |

Construction Phase Submission

(Ongoing updates and submissions "Project Status Submitted" via SAGE only after all items are addressed)

- | | |
|--------------------------|---|
| <input type="checkbox"/> | Preconstruction Meeting Notification (Two weeks prior to meeting date) |
| <input type="checkbox"/> | Material Questionnaire Form SA-11 (Must be submitted before the start of construction) |
| <input type="checkbox"/> | Minutes of Preconstruction Meeting (To be submitted before the start of construction) |
| <input type="checkbox"/> | Start of Construction Written Notification (At least 3 days prior to start of construction) |
| <input type="checkbox"/> | Major Construction Changes Form SA-1 (At least 3 days prior to start of construction) |
| <input type="checkbox"/> | End of Construction Written Notification (As soon as construction items are complete) |

Project Closeout Submission

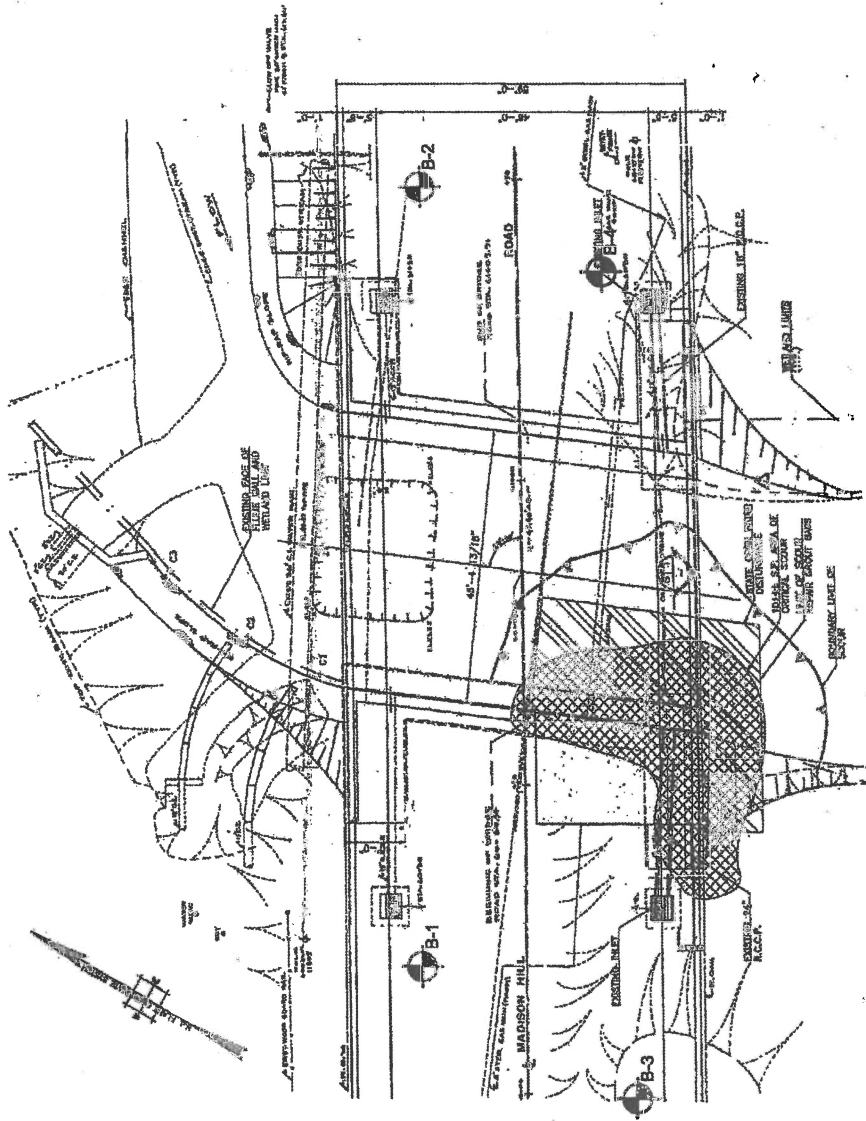
- | | |
|--------------------------|--|
| <input type="checkbox"/> | Bituminous Concrete Test Results and Analysis Form DS-8S |
| <input type="checkbox"/> | Major Pay Items Material Certifications |
| <input type="checkbox"/> | Final Change Order Form SA-1 (4 originally signed) |
| <input type="checkbox"/> | Engineer's Certification of Project Completion (signed and sealed) |
| <input type="checkbox"/> | Chief Financial Officer's Certification (originally signed) |
| <input type="checkbox"/> | Final Payment Voucher Form PV (originally signed) |

dwg by: YJ
chk by: JN
scale: 1"=20'
date: 2/27/13

CERT. OF AUTH. # SA042784700
SES I
SOILS / FOUNDATIONS
SITE DESIGN
ENGINEERS
CONSULTING
ENVIRONMENTAL
12A MAPLE AVE. PINE BROOK, N.J. 07058 PH: 973-908-0050

project: MADISON HILL ROAD BRIDGE
CLARK, NJ
drawing title: BORING LOCATION PLAN

job no.: 8336
drawing no.:
FIG-1
1 of 1



LEGEND
B-1

NOTE:
THIS PLAN IS FOR LOCATING BORINGS ONLY. OTHER SITE WORK SHOWN HERE IS NOT INTENDED FOR CONSTRUCTION.

REFERENCE:
1. SITE INFORMATION TAKE FROM PLAN ENTITLED "MADISON HILL ROAD NUDEP PERMIT PLAN" PREPARED BY T & M ASSOCIATES, REVISED DATED 7/18/12.

© SESI CONSULTING ENGINEERS, 2013
This drawing and all information contained hereon is proprietary information of SESI CONSULTING ENGINEERS, and may not be copied or reproduced, either in whole or in part, by any method, without written permission of SESI CONSULTING ENGINEERS.

SES CONSULTING GROUP				PROJECT NAME:		Madison Hill Road		BORING NO.		B-1					
				LOCATION:		Clark, NJ		JOB NO.		P-8336					
				METHOD:		HSA		GROUND ELEVATION:							
BORING BY:		GDI		DATE STARTED:		2/4/2013		GROUNDWATER TABLE DEPTH							
INSPECTOR:		WMS		DATE COMPLETED:		2/4/2013		0 Hr.	10±	Date	2/4/2013	24 Hr.	N/A	Date	N/A
DEPTH (ft)	SAMPLE No.	REC (in)	DEPTH		Blows on Spoon				N (bl/ft)	SOIL DESCRIPTION AND STRATIFICATION	Symbol				
			FROM (ft)	TO (ft)	0/6	6/12	12/18	18/24			USCS				
0															
5	1	3	1	3	38	50/2"									
	2	12	3	5	15	15									
10	3	6	5	7	26	24									
15	4	12	10	12	3	5									
20	5	16	15	17	15	26									
25	6	12	20	22	68	85									
30	7	14	25	27	30	36									
35	8	16	30	32	25	35									
40	9	0	35	37	100/3"										

Nominal I.D. of Hole	in
Nominal I.D. of Split Barrel Sampler	1½ in
Weight/type of Hammer on Drive Pipe	300 lb
Weight/type of Hammer on Split Barrel	140 lb
Drop of Hammer on Drive Pipe	in
Core Size	in


The subsurface information shown hereon was obtained for the design and estimating purposes for our client. It is made available to authorized users only that they may have access to the same information available to our client. It is presented in good faith, but it is not intended as a substitute for investigations, interpretations or judgment of such authorized users. Information on the logs should not be relied upon without the geotechnical engineers recommendations contained in the report from which these logs were extracted.

Pp: Pocket Penetrometer; WOH: Weight of Hammer; WOR: Weight of Rod

Approximate Change in Strata: _____ Inferred Change in Strata: _____

Soil descriptions represent a field identification after D. M. Burmister unless otherwise noted.

FIGURE 2

				PROJECT NAME: Madison Hill Road		BORING NO. B-2						
				LOCATION: Clark, NJ		JOB NO. P-8336						
				METHOD: HSA		GROUND ELEVATION:						
BORING BY: GDI		DATE STARTED: 2/4/2013		GROUNDWATER TABLE DEPTH								
INSPECTOR: WMS		DATE COMPLETED: 2/4/2013		0 Hr.	10±	Date 2/4/13	24 Hr. N/A	Date N/A				
DEPTH (ft)	SAMPLE No.	REC (in)	DEPTH		Blows on Spoon				N (bl/ft)	SOIL DESCRIPTION AND STRATIFICATION	Symbol	
			FROM (ft)	TO (ft)	0/6	6/12	12/18	18/24				
0										16" Asphalt		
5	1	6	3	5	15	14				Fill: Brown & dark brown medium to fine Sand, little Silt, some coarse to fine Gravel		
	2	6	5	7	7	6	8	7	22			
10							15	9	21			
15	3	18	10	12	2	5		4	7	9	Brown & Light Gray medium to fine SAND, little Silt, trace vegetation (wet)	SM
20	4	16	15	17	27	27		36	28	63	Red-brown coarse to fine SAND, some Silt, some coarse to fine Gravel	SM
25	5	16	20	22	36	60		47	100/4"		Red-brown coarse to fine Sand, some coarse to fine Gravel, some Silt	GM
30	6	18	25	27	42	60		65	57	125	Red-brown coarse to fine SAND, some coarse to fine Gravel, little Silt	SM
35	7	16	30	32	24	34		65	59	99	Red-brown medium to fine SAND, some Silt, little coarse to fine Gravel	SM
40	8	0	35	37	28	40		64	100/1"		BORING COMPLETED AT 36 FEET, 7 INCHES Note: Refusal to further sampler penetration encountered @ 36' 7" probably on weathered shale bedrock	

Nominal I.D. of Hole	in	The subsurface information shown hereon was obtained for the design and estimating purposes for our client. It is made available to authorized users only that they may have access to the same information available to our client. It is presented in good faith, but it is not intended as a substitute for investigations, interpretations or judgment of such authorized users. Information on the logs should not be relied upon without the geotechnical engineers recommendations contained in the report from which these logs were extracted.
Nominal I.D. of Split Barrel Sampler	1½ in	
Weight/type of Hammer on Drive Pipe	300 lb	
Weight/type of Hammer on Split Barrel	140 lb	
Drop of Hammer on Drive Pipe	in	
Core Size	in	

Pp: Pocket Penetrometer; WOH: Weight of Hammer; WOR: Weight of Rod
 Approximate Change in Strata: _____ Inferred Change in Strata: _____

Soil descriptions represent a field identification after D. M. Burmister unless otherwise noted.

FIGURE 3


DEPTH (ft)		SAMPLE No.	REC (In)	DEPTH (ft)		Blows on Spoon				N (bl/ft)	SOIL DESCRIPTION AND STRATIFICATION	Symbol
0				FROM	TO	0/6	6/12	12/18	18/24			USCS
5		1	14	3	5	12	12			19	16" Asphalt	
10		2	8	5	7	4	4			36	Fill: Orange-brown medium to fine Sand, little Silt, little coarse to fine Gravel	
		Auger	Bulk	7	9						Dark brown SILT, little medium to fine Sand (wet)	ML
15		3	16	10	12	25	28				Red-brown coarse to fine GRAVEL, little coarse to fine Sand, little clayey Silt (wet)	GM
20		4	12	15	17	25	42				Red-brown medium to fine SAND, little Silt, little coarse to fine Gravel, with occasional cobbles	SM
25		5	6	20	22	72	100/5"					
30		6	14	25	27	25	27				Red-brown medium to fine SAND, little Silt, trace fine Gravel	SM
35		7	16	30	32	24	34					
40		8	4	35	37	100/4"					Red-brown weathered SHALE	

Nominal I.D. of Hole	In	The subsurface information shown hereon was obtained for the design and estimating purposes for our client. It is made available to authorized users only that they may have access to the same information available to our client. It is presented in good faith, but it is not intended as a substitute for investigations, interpretations or judgment of such authorized users. Information on the logs should not be relied upon without the geotechnical engineers recommendations contained in the report from which these logs were extracted.
Nominal I.D. of Split Barrel Sampler	1% in	
Weight/type of Hammer on Drive Pipe	300 lb	
Weight/type of Hammer on Split Barrel	140 lb	
Drop of Hammer on Drive Pipe	In	
Core Size	in	

Pp: Pocket Penetrometer; WOH: Weight of Hammer; WOR: Weight of Rod
 Approximate Change in Strata: _____ Inferred Change in Strata: _____

Soil descriptions represent a field identification after D. M. Burmister unless otherwise noted.

FIGURE 4


				PROJECT NAME:		Madison Hill Road		BORING NO.		B-3						
				LOCATION:		Clark, NJ		JOB NO.		P-8336						
				METHOD:		HSA		GROUND ELEVATION:								
BORING BY:			GDI		DATE STARTED		2/4/2013		GROUNDWATER TABLE DEPTH			10' 0"				
INSPECTOR:			WMS		DATE COMPLETED		2/4/2013		0 Hr.	10±	Date	2/4/13	24 Hr.	N/A	Date	N/A
DEPTH (ft)	SAMPLE No.	REC (in)	DEPTH		Blows on Spoon				N (bl/ft)	SOIL DESCRIPTION AND STRATIFICATION	Symbol USCS					
			FROM (ft)	TO (ft)	0/6	6/12	12/18	18/24								
40	9	1	40	40' 1"	100/1"						Red-brown weathered SHALE, very close to close joint spacing Core Run #1-40' 1" to 45' 1" Recovery = 100% RQD = 30%					
45																
50											BORING COMPLETED AT 45 FEET 1 INCH					
55																
60																
65																
70																
75																
80																

Nominal I.D. of Hole	in	The subsurface information shown hereon was obtained for the design and estimating purposes for our client. It is made available to authorized users only that they may have access to the same information available to our client. It is presented in good faith, but it is not intended as a substitute for investigations, interpretations or judgment of such authorized users. Information on the logs should not be relied upon without the geotechnical engineers recommendations contained in the report from which these logs were extracted.
Nominal I.D. of Split Barrel Sampler	1½ in	
Weight/type of Hammer on Drive Pipe	300 lb	
Weight/type of Hammer on Split Barrel	140 lb	
Drop of Hammer on Drive Pipe	In	
Core Size	in	

Pp: Pocket Penetrometer; WOH: Weight of Hammer; WOR: Weight of Rod
 Approximate Change in Strata: _____ Inferred Change in Strata: _____

Soil descriptions represent a field identification after D. M. Burmister unless otherwise noted.

FIGURE 4

			PROJECT NAME:		Madison Hill Road				BORING NO.		B-4					
			LOCATION:		Clark, NJ				JOB NO.		P-8336					
			METHOD:		HSA				GROUND ELEVATION:							
BORING BY:			GDI		DATE STARTED:		2/4/2013		GROUNDWATER TABLE DEPTH							
INSPECTOR:			WMS		DATE COMPLETED:		2/4/2013		0 Hr.	10±	Date	2/4/13	24 Hr.	N/A	Date	N/A
DEPTH (ft)	SAMPLE No.	REC (in)	DEPTH		Blows on Spoon				N (bl/ft)	SOIL DESCRIPTION AND STRATIFICATION	Symbol					
			FROM (ft)	TO (ft)	0/6	6/12	12/18	18/24				USCS				
0																
5	1	10	3	5	11	13			33	16" Asphalt Fill: Brown & red-brown Silt, little medium to fine Sand, little coarse to fine Gravel						
								20	14							
10	2	10	5	7	9	6			11	Red-brown coarse to fine SAND, and Silt, little coarse to fine Gravel, with occasional cobbles (wet)	SM					
								5	7							
15	3	6	10	12	12	100/3"				Red-brown coarse to fine SAND, some fine Gravel, little Silt W.S. = 15.5% (-200) = 11.0%	SM					
20	4	16	15	17	23	34				BORING COMPLETED AT 17 FEET						
								47	60			81				
25																
30																
35																
40																

Nominal I.D. of Hole	in	The subsurface information shown hereon was obtained for the design and estimating purposes for our client. It is made available to authorized users only that they may have access to the same information available to our client. It is presented in good faith, but it is not intended as a substitute for investigations, interpretations or judgment of such authorized users. Information on the logs should not be relied upon without the geotechnical engineers recommendations contained in the report from which these logs were extracted.
Nominal I.D. of Split Barrel Sampler	1 1/2 in	
Weight/type of Hammer on Drive Pipe	300 lb	
Weight/type of Hammer on Split Barrel	140 lb	
Drop of Hammer on Drive Pipe	in	
Core Size	in	

Pp: Pocket Penetrometer; WOH: Weight of Hammer; WOR: Weight of Rod
 Approximate Change in Strata: _____ Inferred Change in Strata: _____

Soil descriptions represent a field identification after D. M. Burmister unless otherwise noted.

FIGURE 5

Definitions of Identification Terms for Granular Soils

Our experience has shown that the following field identification system, which is patterned somewhat after the Burmister System, permits a more detailed breakdown of the components within a soil sample than other identification systems allow. It also compels the supervising technician to examine a sample quite closely in order to accurately describe the components within the sample.

Principal Component (All Capitalized)

- GRAVEL More than 50% of the sample by weight is Gravel
- SAND More than 50% of the sample by weight is Sand
- SILT More than 50% of the sample by weight is Silt

Minor Component (Proper Case)

- Gravel Less than 50% of the sample by weight is Gravel
- Sand Less than 50% of the sample by weight is Sand
- Silt Less than 50% of the sample by weight is Silt

Proportion Terms

- and Component ranges from 35% to 50% of the sample by weight
- some Component ranges from 20% to 35% of the sample by weight
- little Component ranges from 10% to 20% of the sample by weight
- trace Component ranges from 0% to 10% of the sample by weight

Size of Soil Components

- Gravel
 - Coarse gravel ranges from 3 inches to 1 inch
 - Medium gravel ranges from 1 inch to 3/8 inch
 - Fine gravel ranges from 3/8 inch to No. 10 sieve
- Sand
 - Coarse sand ranges from No. 10 sieve to No. 30 sieve
 - Medium sand ranges from No. 30 sieve to No. 60 sieve
 - Fine sand ranges from No. 60 sieve to No. 200 sieve
- Silt
 - Material which passes the No. 200 sieve
- Clay
 - Material which passes the No. 200 sieve
 - Exhibits varying degrees of plasticity

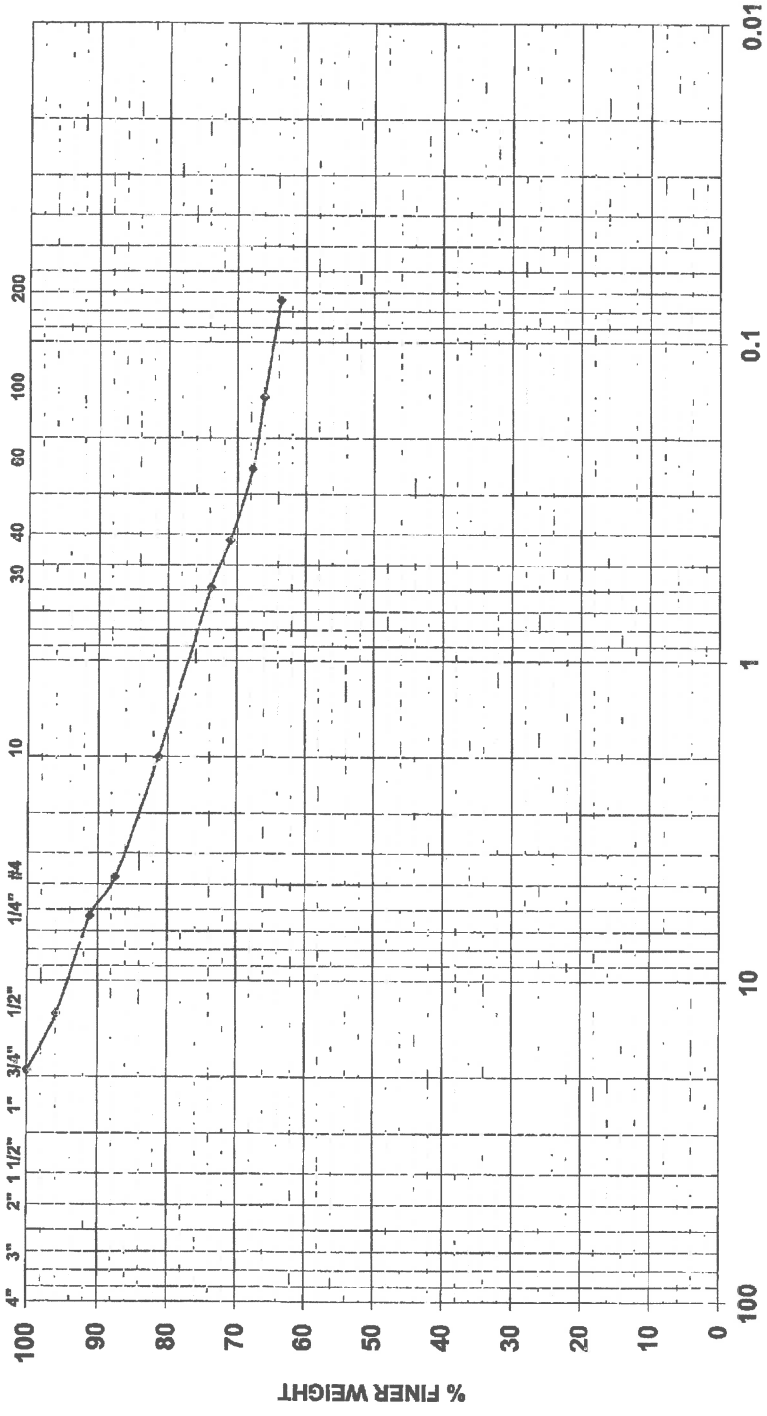
Gradation Designations

- Coarse to fine (c-f) All fractions greater than 10% of the component
- Coarse to medium (c-m) Less than 10% of the component is fine
- Medium to fine (m-f) Less than 10% of the component is coarse
- Coarse (c) Less than 10% of the component is medium and fine
- Medium (m) Less than 10% of the component is coarse and fine
- Fine (f) Less than 10% of the component is coarse and medium

Fig. 6

GRAVEL		SAND		SILT OR CLAY	
COARSE	FINE	COARSE	MEDIUM	FINE	FINE
3/4"	2mm				.75mm

U.S. STANDARD SIEVE SIZES

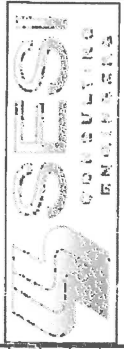


GRAIN SIZE IN MILLIMETERS

Symbol	◆
Boring	B-1
Sample	S-5
Depth	15'-17'
% +3"	
% Gravel	18.65
% Sand	17.71
% Fines	63.64
% Silt	
% Clay	
Sp.G	
LL	
PL	
PI	
W (%)	14.4
Particle Size	Percent Finer Than
3"	-
1 1/2"	-
1"	-
3/4"	100.00
1/2"	95.97
1/4"	91.14
4	87.48
10	81.35
30	73.79
40	70.97
60	67.71
100	66.01
200	63.64

PARTICLE SIZE DISTRIBUTION

CLIENT: T&M Associates
 PROJECT: Clark, NJ
 DATE: February 22, 2013
 JOB NO. P-8336 FIGURE No 7

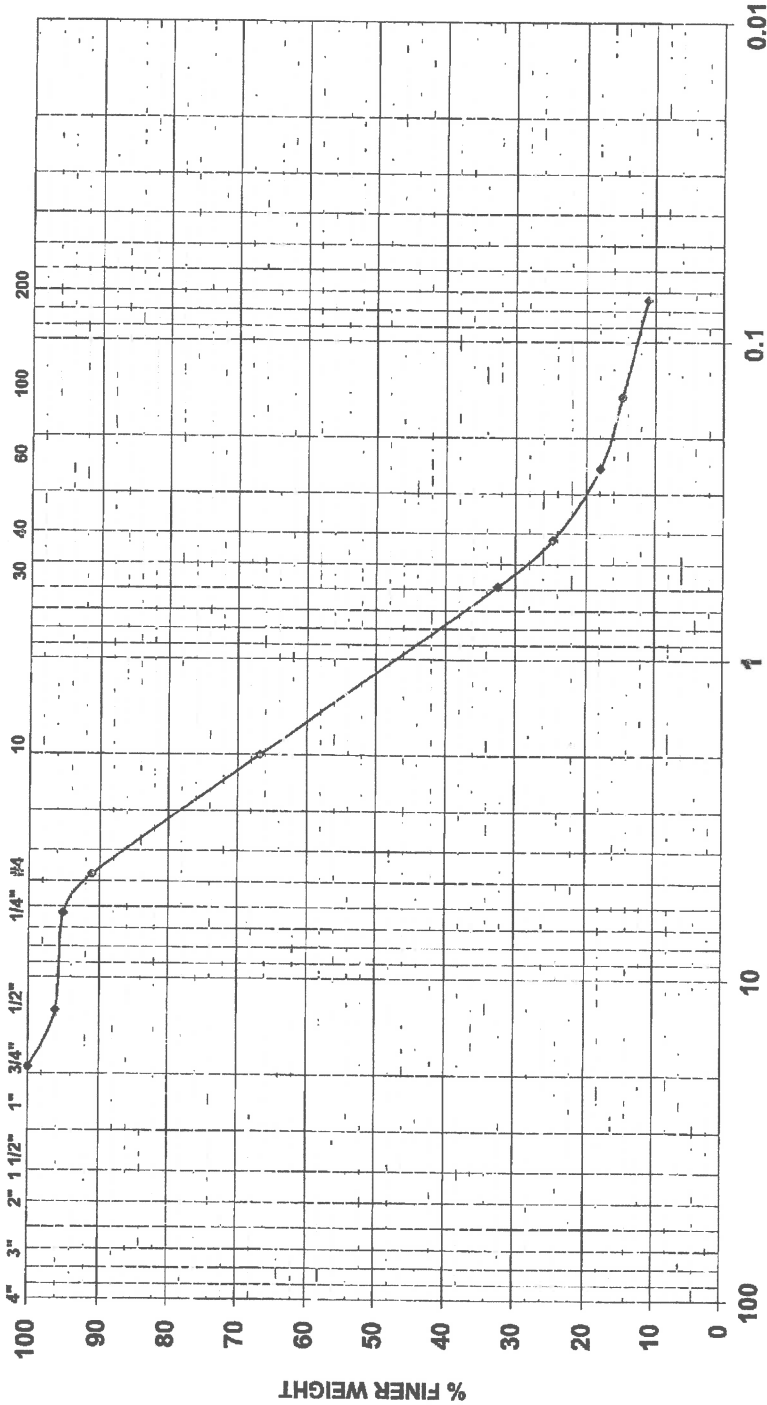


DESCRIPTION AND REMARKS

◆ Red-brown SILT, little medium to fine Gravel, little coarse to fine Sand

GRAVEL		SAND		SILT OR CLAY	
COARSE	FINE	COARSE	MEDIUM	FINE	
3/4"	2mm			.75mm	

U.S. STANDARD SIEVE SIZES



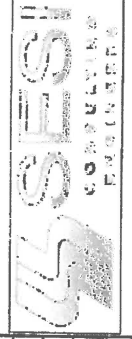
GRAIN SIZE IN MILLIMETERS

Symbol	◆
Boring	B-4
Sample	S-4
Depth	15'-17"
% +3"	33.23
% Gravel	55.76
% Sand	11.00
% Fines	
% Silt	
% Clay	
Sp.G	
LL	
PL	
PI	15.5
W (%)	
Particle Size Finer Than	
Sieve #	
3"	
1 1/2"	
1"	100.00
3/4"	96.23
1/2"	95.18
1/4"	91.11
4	66.77
10	32.48
30	24.72
40	18.01
60	14.77
100	11.00
200	

PARTICLE SIZE DISTRIBUTION

CLIENT: T&M Associates
 PROJECT: Clark, NJ
 DATE: February 22, 2013
 JOB NO. P-8336 FIGURE No 8

SYMBOL	◆	DESCRIPTION AND REMARKS
		Brown coarse to fine SAND, some fine Gravel, little Silt



**COUNTY OF UNION
BOARD OF CHOSEN FREEHOLDERS
PLANS FOR
REPLACEMENT OF
MADISON HILL ROAD BRIDGE, RA-28
LOCATED IN
CITY OF RAHWAY AND TOWNSHIP OF CLARK, UNION COUNTY
BA# 52-2015; UNION COUNTY ENGINEERING PROJECT # 2012-016**

**DECEMBER 2014
PREPARED BY: T&M ASSOCIATES**

SHEET INDEX	
SHEET	DESCRIPTION
1	TITLE SHEET
2	ESTIMATE & DISTRIBUTION OF QUANTITIES
3	LEGEND, GENERAL NOTES, AND ABBREVIATIONS
4	BASELINE TIES
5 TO 8	MAINTENANCE AND PROTECTION OF TRAFFIC PLANS
9	TYPICAL SECTION
10	CONSTRUCTION PLAN
11	PROFILE
12	GRADING PLAN
13	SIGNING AND STRIPING PLAN
14 TO 16	CROSS SECTIONS
17	SOIL EROSION SEDIMENT CONTROL DETAILS
18	SOIL EROSION AND SEDIMENT CONTROL NOTES
19	CONSTRUCTION DETAILS
20 TO 38	BRIDGE PLANS

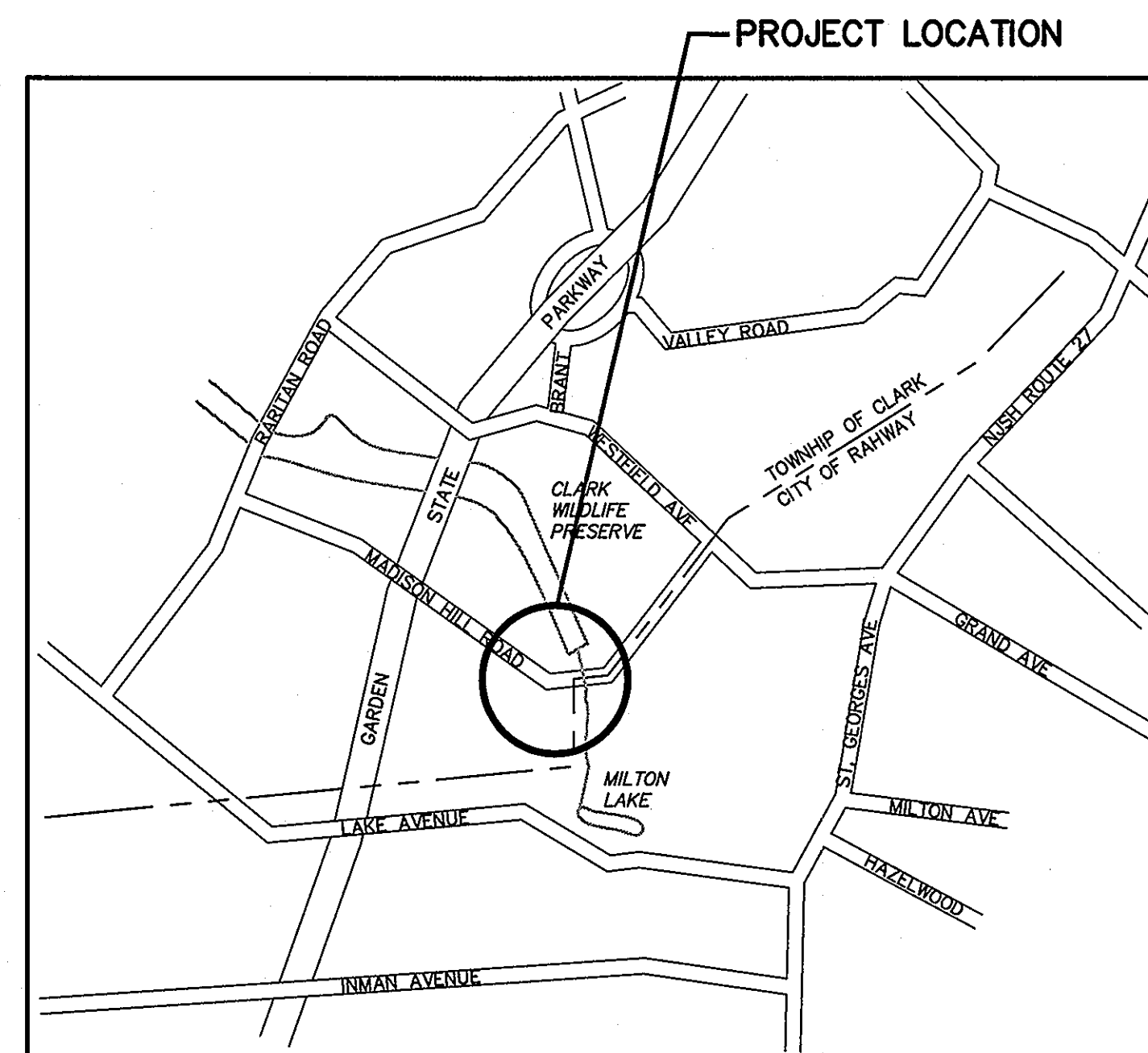
PUBLIC UTILITIES		
SERVICE	OWNER	CONTACT INFORMATION
GAS	ELIZABETHTOWN GAS COMPANY 520 GREEN LANE UNION, NJ 07083	PHONE: 908-662-8321 CONTACT: GREGORY J. BALINT
ELECTRIC	PSE&G (ELECTRIC DIVISION) 472 WESTON CANAL ROAD SOMERSET, NJ 08873	PHONE: (732) 764-3157 CONTACT: ANDREW GOODING
WATER	NJ AMERICAN WATER 1341 NORTH AVE PLAINFIELD, NJ 07061	PHONE: 908-791-3464 CONTACT: SCOTT SCHREIBER
PHONE	VERIZON COMMUNICATION 6000 HADLEY ROAD SOUTH PLAINFIELD, NJ 07080	PHONE: CONTACT: BILL SCHNEIDER
CABLE TV	COMCAST CABLEVISION OF NJ 800 RAHWAY AVE UNION CITY, NJ 07083	PHONE: 732-602-7444 EXT. 6202293 CONTACT: BOB KNOEPFEL

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXACT LOCATION AND DEPTH OF UTILITIES AT ALL AREAS OF WORK PRIOR TO CONSTRUCTION.

IN ADDITION, THE CONTRACTOR SHOULD CALL:

GARDEN STATE UNDERGROUND
PLANT LOCATION SERVICE
PLAINFIELD, NJ
800-272-1000

BIDDERS ARE ADVISED TO VERIFY THE ABOVE INFORMATION AS ITS ACCURACY AND COMPLETENESS ARE NOT GUARANTEED BY THE COUNTY.



KEY MAP
SCALE : 1" = 2000'

THE NEW JERSEY DEPARTMENT OF TRANSPORTATION "STANDARD ROADWAY CONSTRUCTION/TRAFFIC CONTROL/BRIDGE CONSTRUCTION DETAILS" BOOKLET DATED (2007) AND "ELECTRICAL BUREAU STANDARD DETAILS" (2007) TO GOVERN, EXCEPT FOR THOSE DETAILS CONTAINED HEREIN.




JAMES A. BUCZEK, PE

James A. Buczek 06-26-15
DATE
LICENSED PROFESSIONAL ENGINEER
STATE OF NEW JERSEY LICENSE No. GE45122

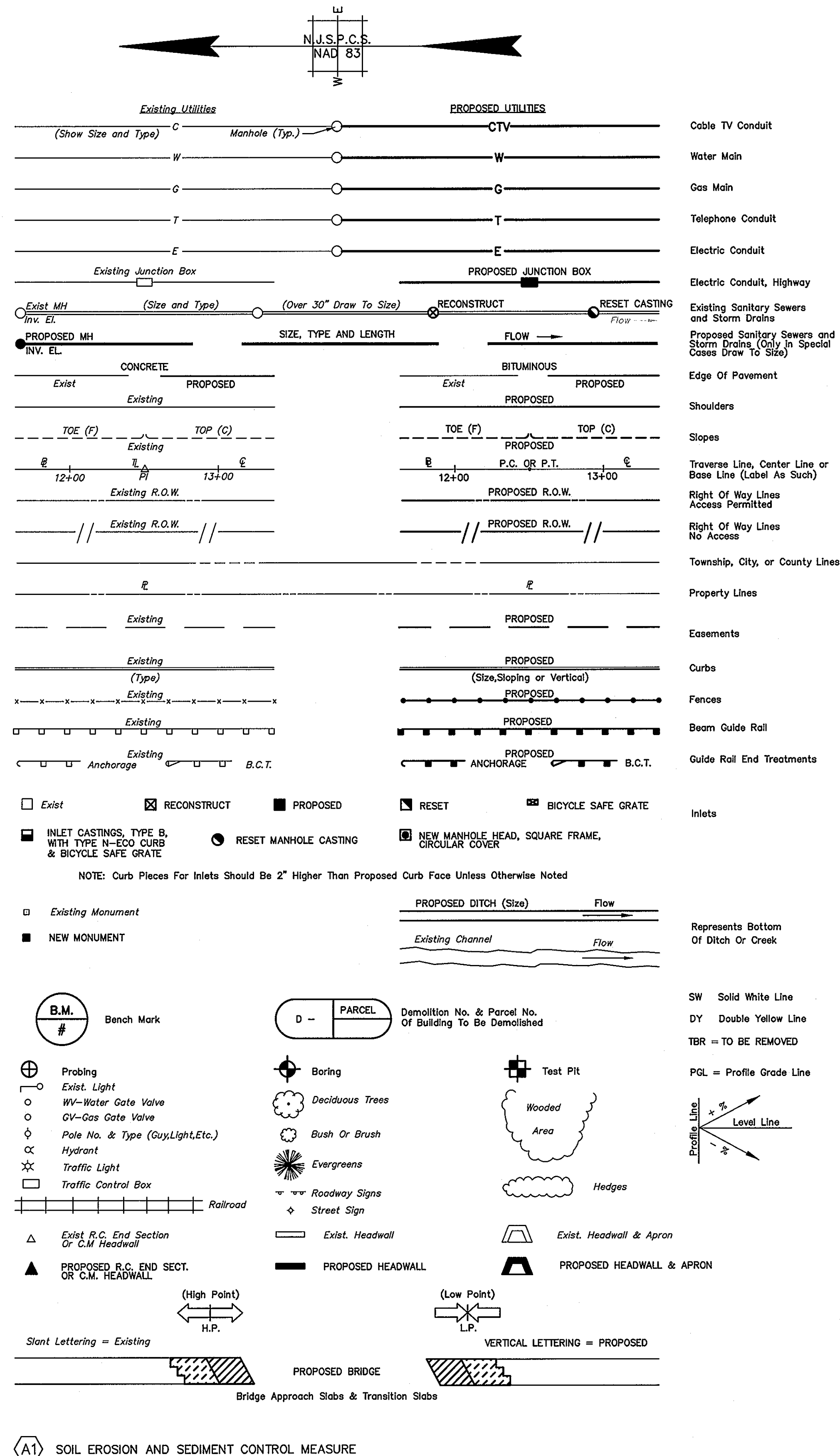
<i>Alfred Faella</i>	APPROVED BY ALFRED FAELLA, Union County Manager	12/2/14 DATE
<i>Thomas O. Mineo</i>	RECOMMENDED BY THOMAS O. MINEO, P.E., Union County Engineer	11/11/14 DATE
<i>Sal Bonaccorso</i>	RECOMMENDED BY SAL BONACCORSO, Township of Clark, Mayor	11/25/14 DATE
<i>Rich O'Connor</i>	RECOMMENDED BY RICH O'CONNOR, PE, Township of Clark, Engineer	11/25/14 DATE
<i>Samson Steinman</i>	RECOMMENDED BY SAMSON STEINMAN, City of Rahway, Mayor	11/12/14 DATE
<i>James R. Houston, Jr.</i>	RECOMMENDED BY JAMES R. HOUSTEN, JR., PE, City of Rahway, Engineer	11/12/14 DATE

PAY ITEM NO.	DESCRIPTION	UNIT	CONTRACT QUANTITY	PLAN QUANTITY	IF AND WHERE DIRECTED	AS-BUILT QUANTITY	DISTRIBUTION OF PLAN SHEET QUANTITIES				
							MPT-1	CP-1	SS-1	XS-1	B-1
							SH. 5	SH. 10	SH. 13	SH. 14	SH. 20
1	MOBILIZATION	LS	1								
2	FIELD OFFICE, TYPE 'A'	UN	1		1						
3	SILT FENCE	LF	900	840	60		840				
4	INLET FILTER, TYPE 1	SF	44	40	4		40				
5	FLOATING TURBIDITY BARRIER, TYPE 2	LF	200	180	20		180				
6	BREAKAWAY BARRICADE	UN	23	19	4		19				
7	DRUMS	UN	18	12	6		12				
8	CONSTRUCTION SIGNS	SF	175	144	31		144				
9	CONSTRUCTION BARRIER CURB	LF	400	370	30		370				
10	TEMPORARY CRASH CUSHION, INERTIAL BARRIER SYSTEM, 10 MODULES	UN	3	2	1		2				
11	TEMPORARY TRAFFIC STRIPES	LF	3,200	2,880	320		2,880				
12	TEMPORARY INLET CASTING, TYPE 'E'	UN	8	4	4		4				
13	TEMPORARY PEDESTRIAN BRIDGE	LS	1	1			1				
14	POLICE TRAFFIC DIRECTORS	ALLW.	1		1						
15	FUEL PRICE ADJUSTMENT	ALLW.	1		1						
16	ASPHALT PRICE ADJUSTMENT	ALLW.	1		1						
17	CLEARING SITE	LS	1	1			1				
18	EXCAVATION, UNCLASSIFIED	CY	590	521	69				340	181	
19	DENSE GRADED AGGREGATE BASE COURSE, 4" THICK	SY	510	463	47		463				
20	HOT MIX ASPHALT MILLING, 3" OR LESS	SY	1,750	1,598	152		1,598				
21	HOT MIX ASPHALT 19M64 BASE COURSE	TON	300	274	26		110	164			
22	HOT MIX ASPHALT 9.5M64 SURFACE COURSE	TON	270	247	23			247			
23	I-14 SOIL AGGREGATE	CY	870	807	63					807	
24	18" REINFORCED CONCRETE PIPE	LF	140	132	8		132				
25	24" REINFORCED CONCRETE PIPE	LF	35	32	3		32				
26	24" STEEL CASING	LF	44	40	4		40				
27	30" STEEL CASING	LF	34	30	4		30				
28	INLET, TYPE 'B' SPECIAL	UN	1	1	-		1				
29	INLET TYPE 'B'	UN	3	3	-		3				
30	GABION MATTRESS, 12" THICK	CY	50		50						
31	CONCRETE SIDEWALK, 4" THICK	SY	80	73	7		73				
32	CONCRETE SIDEWALK, REINFORCED, 6" THICK	SY	14	12	2		12				
33	CONCRETE DRIVEWAY, REINFORCED, 6" THICK	SY	13	11	2		11				
34	10" X 20" CONCRETE VERTICAL CURB	LF	1,080	970	110		970				
35	NONVEGETATIVE SURFACE, HOT MIX ASPHALT	SY	100		100						
36	BEAM GUIDE RAIL	LF	175	150	25		150				
37	TANGENT GUIDE RAIL TERMINALS	UN	4	4	-		4				
38	TRAFFIC STRIPES, LONG LIFE, THERMOPLASTIC, 4" WIDE	LF	1,300	1,170	130			1,170			
39	TOPSOILING, 4" THICK	SY	910	860	50				860		
40	SEEDING AND FERTILIZING, TYPE A-3	SY	910	860	50				860		
41	STRAW MULCHING	SY	910	860	50				860		
42	CLEARING SITE, BRIDGE (NO RA-28)	LS	1	1						1	
43	COARSE AGGREGATE LAYER	CY	135	126	9					126	
44	I-9 SOIL AGGREGATE	CY	45	41	4					41	
45	BRIDGE CHAIN-LINK FENCE, 4' HIGH	LF	81	74	7		74				
46	PERMANENT SHEETING	SF	6,860	6,701	159					6,701	
47	STEEL SHEET PILE WALL	SF	3,400	3,307	93					3,307	
48	STEEL H-PILE, FURNISHED, HP 12X53	LF	1,604	1,596	8					1,596	
49	STEEL H-PILE, INSTALLED, HP 12X53	LF	1,574	1,508	66					1,508	
50	PRESTRESSED CONCRETE BOX BEAM, (TYPE B21-36), 36X21	LF	1,036	1,036	-					1,036	
51	CONCRETE BRIDGE DECK	CY	90	85	5					85	
52	CONCRETE BRIDGE SIDEWALK	CY	21	19	2					19	
53	CONCRETE BRIDGE PARAPET	LF	140	137	3					137	
54	CONCRETE FOOTING	CY	100	97	3					97	
55	CONCRETE ABUTMENT WALL	CY	23	21	2					21	
56	CONCRETE WING WALL	CY	7	6	1					6	
57	CONCRETE BRIDGE RELIEF SLAB, HPC	CY	168	160	8		160				
58	REINFORCEMENT STEEL, GALVANIZED	LBS	29,500	28,200	1,300					28,200	
59	EPOXY WATERPROOFING	SY	65	61	4					61	
60	STEEL PLATE (IF AND WHERE DIRECTED) 1"x4'x8'	UN	2		2						
61	8" CORRUGATED STEEL UNDERDRAIN PIPE	LF	140	127	13					127	
62	BRIDGE PLAQUE	UN	2	2	-					2	

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NO.	DATE	REVISIONS	BY	CHECKED
COUNTY OF UNION REPLACEMENT OF MADISON HILL ROAD BRIDGE, RA-28 CITY OF RAHWAY AND TOWNSHIP OF CLARK, UNION COUNTY, NEW JERSEY ESTIMATE & DISTRIBUTION OF QUANTITIES				
		JAMES A. BUCZEK, PE LICENSED PROFESSIONAL ENGINEER STATE OF NEW JERSEY LICENSE No. GE45122		DRAWING DOQ-1 SHEET
NEW JERSEY BOARD OF PROFESSIONAL ENGINEERS AND LAND SURVEYORS CERTIFICATE OF AUTHORIZATION 246A27897500		DESIGNED BY ES/RS PROJECT NO. UNCO-00420	DRAWN BY FC CADD FILE UNCO00420_SHT002_DOQ.dwg	CHECKED BY PWS DATE 6-29-15
		2 OF 38		

STANDARD LEGEND



GENERAL NOTES:

- NO SEPARATE PAYMENT SHALL BE MADE TO SAWCUT EXISTING PAVEMENT, DRIVEWAYS, OR SIDEWALKS. INCLUDE ALL COSTS IN THE VARIOUS ITEMS IN THE PROPOSAL.
- THE CONTRACTOR SHALL PRESERVE AND PROTECT ALL PROPERTY CORNERS DURING CONSTRUCTION. ANY PROPERTY CORNERS DISTURBED SHALL BE RESET AT THE EXPENSE OF THE CONTRACTOR.
- THE CONTRACTOR SHALL CONTACT THE UTILITY COMPANIES TO COORDINATE ANY WORK THAT MAY NEED TO BE CONDUCTED WITHIN THE PROJECT LIMITS.
- THE CONTRACTOR SHALL MAINTAIN EXISTING DRAINAGE PATTERNS ON ROADWAYS, IN YARDS, AND PRIVATE PROPERTIES ALONG PROPOSED PAVEMENT AND SIDEWALK INSTALLATIONS.
- ALL TREES ADJACENT TO OR WITHIN THE LIMITS OF WORK ARE NOT TO BE DISTURBED UNLESS OTHERWISE DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL PROTECT TREES DURING ALL CONSTRUCTION RELATED ACTIVITIES.
- THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATIONS AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. UTILITY LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL LOCATIONS PRIOR TO CONSTRUCTION. ALL EXISTING UTILITIES MUST BE MAINTAINED AND KEPT OPERATIONAL AT ALL TIMES DURING CONSTRUCTION EXCEPT AS AUTHORIZED BY THE UTILITY COMPANY. ALL EXISTING UNDERGROUND AND OVERHEAD UTILITIES MUST BE PROTECTED FROM DAMAGE AT ALL TIMES. THE CONTRACTOR SHALL BE RESPONSIBLE TO SUPPORT UTILITY POLES ADJACENT TO EXCAVATION AREAS UNTIL THE AREAS ARE BACKFILLED AND STABILIZED.
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE 2007 NJDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AS AMENDED HERIN.
- ALL WORK IS TO BE PERFORMED IN ACCORDANCE WITH THE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY. ALL SOIL EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO GROUND DISTURBANCE.
- TOPOGRAPHIC AND EXISTING FEATURES ARE BASED ON GROUND SURVEY. THE HORIZONTAL DATUM IS NAD83 AND THE VERTICAL DATUM IS NAVD88.
- TRAFFIC SHALL BE MAINTAINED DURING CONSTRUCTION IN ACCORDANCE WITH THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND THE MAINTENANCE AND PROTECTION OF TRAFFIC PLANS CONTAINED HEREIN.
- ONLY PAY ITEMS LISTED IN THE PROPOSAL ARE APPLICABLE TO THIS PROJECT. ITEMS NOT IN THE PROPOSAL WILL NOT BE USED.
- THE CONTRACTOR SHALL ADHERE AND CONFORM TO ALL APPROVED PERMIT RESTRICTIONS.
- NO WORK SHALL BE PERFORMED IN THE STREAM FROM MAY 1 TO JUNE 30.

ABBREVIATIONS

A.D.	ALGEBRAIC DIFFERENCE	GR, GRT	GRATE	PT	POINT OF TANGENCY
ACC	ASPHALT CEMENT CONCRETE	GRD	GRADE, GRADED	PVC	POINT OF VERTICAL CURVATURE
ACI	AMERICAN CONCRETE INSTITUTE	GUT	GUTTER	PVI	POINT OF VERTICAL INTERSECTION
ADA	AMERICANS WITH DISABILITIES ACT	GV	GAS VALVE	PVT	POINT OF VERTICAL TANGENCY
AGA	AGGREGATE	HIC, HCR	HANDICAP RAMP	R	RADIUS
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	HMA	HOT MIX ASPHALT	RCES	REINFORCED CONCRETE END SECTION
APPROX.	APPROXIMATE, APPROXIMATELY	HORIZ	HORIZONTAL	RCP	REINFORCED CONCRETE PIPE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	HP	HIGH POINT	RD	ROAD
AVG	AVERAGE	IN	INCHES	REINF	REINFORCED
B	BOTTOM	INV	INVERT	RF	REAR FACE
BIT	BITUMINOUS	JCP&L	JERSEY CENTRAL POWER & LIGHT LOCKING COVER	RMC	RIGID METALLIC CONDUIT
BL	BENCHMARK	LC	LOCKING COVER	RNMC	RIGID NONMETALLIC CONDUIT
BO	BOTTOM OF	LF	LINEAR FEET	ROW	RIGHT OF WAY
BW, BOW	BOTTOM OF WALL	LOD	LIMIT OF DISTURBANCE	RPM	RAISED PAVEMENT MARKER
BRG	BEARING	LOM	LIMIT OF MILLING	RT	RIGHT
C	CUT	LOP	LIMIT OF PAVING	S, SO	SOUTH
CC	CURVE CENTER	LP	LOW POINT	SB	SOUTHBOUND
CC, C TO C	CENTER-TO-CENTER	LS	LUMP SUM	SCD	SOIL CONSERVATION DISTRICT
CCA	CHROMIATED COPPER ARSENATE	LT	LEFT	SE	SOUTHEAST
CF	CUBIC FEET	MAX	MAXIMUM	SF	SQUARE FEET
CFS	CUBIC FEET PER SECOND	MH	MANHOLE	SHLDR	SHOULDER
CIP	CAST IN PLACE, CAST IRON PIPE	MHW	MEAN HIGH WATER	SHT	SHEET
CL	CENTERLINE	MHHW	MEAN HIGH HIGH WATER	SHWT	SEASONAL HIGH WATER TABLE
CLF	CHAIN LINK FENCE	MIN	MINIMUM	SI&A	STRUCTURE INVENTORY AND APPRAISAL
CMP	CORRUGATED METAL PIPE	MLW	MEAN LOW WATER	SOD	SUBBASE OUTLET DRAIN
COE	U.S. ARMY CORPS OF ENGINEERS CONCRETE	MLLW	MEAN LOW LOW WATER	SQ	SQUARE
CONC	CONCRETE	MP	MIDPOINT	STA	STATION
CP	CONTROL POINT	MPH	MILES PER HOUR	STAB	STABILIZED
CR	COUNTY ROUTE	MPT	MAINTANANCE AND PROTECTION OF TRAFFIC	SURF	SURFACE
CRSE	COURSE	MUTCD	MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES	SW	SOUTHWEST
CY	CUBIC YARDS	NAD	NORTH AMERICAN DATUM	SW, SDWK	SIDEWALK
DC	DEPRESSED CURB	NAVD	NORTH AMERICAN VERTICAL DATUM	SY	SQUARE YARDS
DEP, NJDEP	NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION	NB	NORTHBOUND	T	TOP, TELEPHONE
DGA	DENSE GRADED AGGREGATE	NE	NORTHEAST	TAN	TANGENT
DIA	DIAMETER	NGVD	NATIONAL GEODETIC VERTICAL DATUM	TBA	TO BE ABANDONED
DIP	DUCTILE IRON PIPE	N	NORTH	TBR	TO BE REMOVED
DOT, NJDOT	NEW JERSEY DEPARTMENT OF TRANSPORTATION	NO	NUMBER	TC	TOP OF CURB
DWS	DETECTABLE WARNING SURFACE	NTS	NOT TO SCALE	TEMP	TEMPORARY
DWY	DRIVEWAY	NW	NORTHWEST	TG	TOP OF GRATE
E	EAST	OC	ON CENTER	THK	THICK
EB	EASTBOUND	PAVT, PVMT	PAVEMENT	TO	TOP OF
EC	EDGE OF CONCRETE, EPOXY COATED	PC	PRESTRESSED CONCRETE	TS	TOPSOIL
EF	EACH FACE	PCC	POINT OF COMPOUND CURVATURE, PORTLAND CEMENT CONCRETE	TW, TOW	TOP OF WALL
EL, ELEV	ELEVATION	POC	POINT OF CURVATURE	TYP	TYPICAL
EP	EDGE OF PAVEMENT	PE	PROFESSIONAL ENGINEER	UNIT	UNIT
EX, EXIST	EXISTING	PED	PEDESTRIAN	UP	UTILITY POLE
EXP	EXPANSION	PGL	PROFILE GRADE LINE	VAR	VARIABLE, VARIABLE
EXP JT	EXPANSION JOINT	PI	POINT OF INTERSECTION	VC	VERTICAL CURVE
FEMA	FEDERAL EMERGENCY MANAGEMENT AGENCY	PK	MASONRY NAIL	VERT	VERTICAL
FERT	FERTILIZER, FERTILIZING	PL	PROPERTY LINE	VMS	VARIABLE MESSAGE SIGN
FF	FRONT FACE	POL	POINT ON LINE	W	WEST
FIX	FIXED	PP	PETROLEUM PIPELINE	W/	WITH
FNMC	FLEXIBLE NONMETALLIC CONDUIT	PROP	PROPOSED	WB	WESTBOUND
FO	FIBER OPTIC	PROWAG	PROPOSED ACCESSIBILITY GUIDELINES FOR PEDESTRIAN FACILITIES	WP	WORKING POINT
FTG	FOOTING	PSE&G	PUBLIC SERVICE ELECTRIC AND GAS	WS	WATER SURFACE
GAS	GAS	PSF	POUNDS PER SQUARE FOOT	WSE, WSEL	WATER SURFACE ELEVATION
GIS	GEOGRAPHIC INFORMATION SYSTEM	PSI	POUNDS PER SQUARE INCH	WV	WATER VALVE
GPS	GLOBAL POSITIONING SYSTEM			WWM	WELDED WIRE MESH

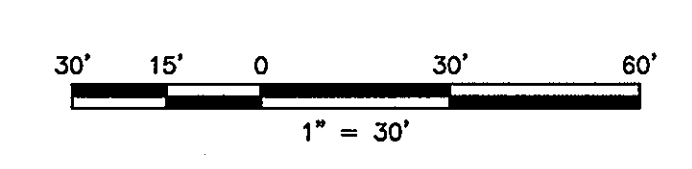
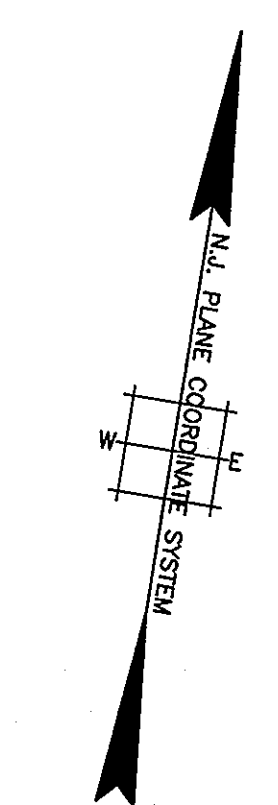
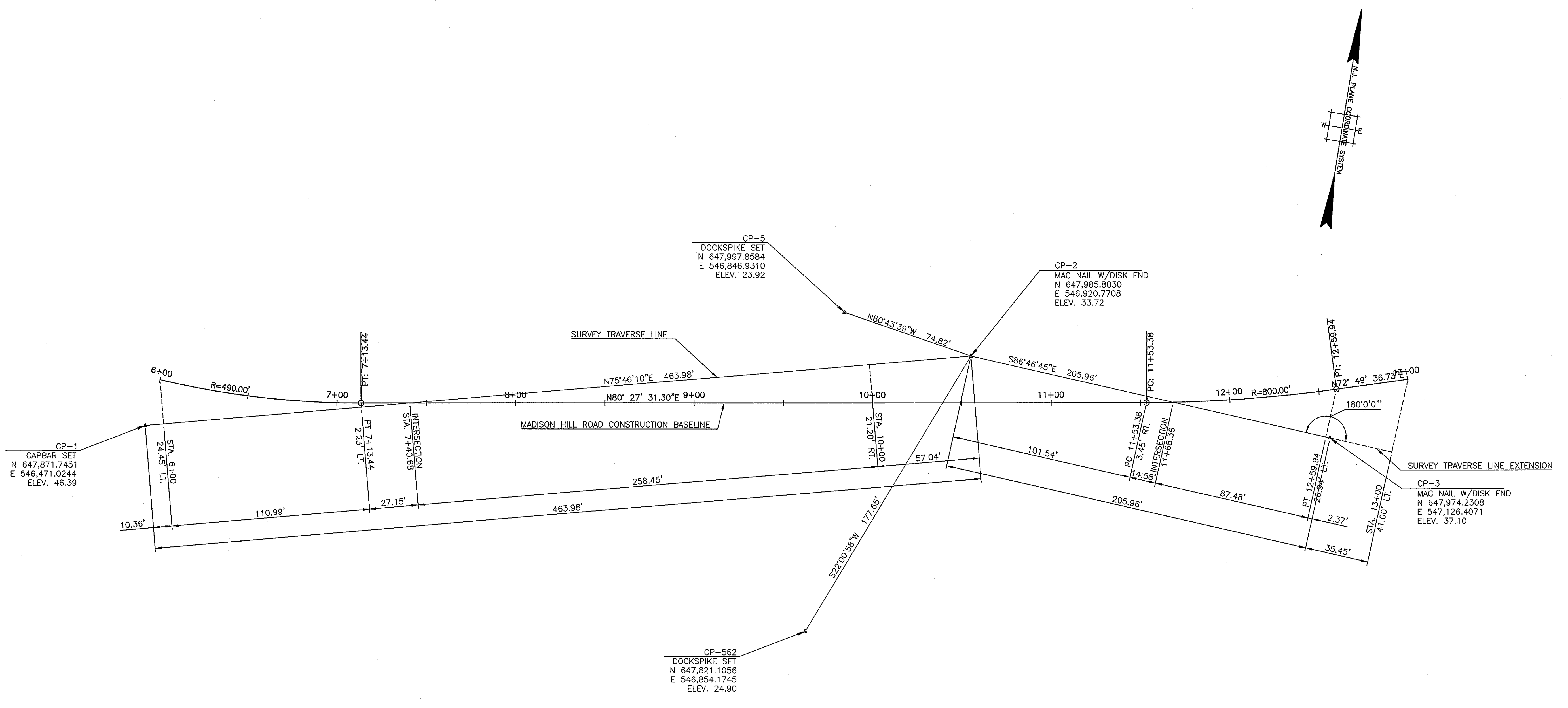
HATCH PATTERNS

	HMA MILLING, 3" OR LESS		FULL DEPTH PAVEMENT		NON-VEGETATIVE SURFACE, HOT MIX ASPHALT
	GABION MATTRESS		CONC. SIDEWALK, 4" THICK		CONC.. SIDEWALK, REINFORCED, 6" THICK

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NO.	DATE	REVISIONS	BY	CHECKED
COUNTY OF UNION REPLACEMENT OF MADISON HILL ROAD BRIDGE, RA-28 CITY OF RAHWAY AND TOWNSHIP OF CLARK, UNION COUNTY, NEW JERSEY				
LEGEND, GENERAL NOTES, AND ABBREVIATIONS				
 11 TRINAIL ROAD MIDDLETOWN, NJ 07940 TEL: 732-971-2200 FAX: 732-971-2202		JAMES A. BUCZEK, PE LICENSED PROFESSIONAL ENGINEER STATE OF NEW JERSEY LICENSE No. GE45122 DATE: 6-29-15		DRAWING LEG-1 SHEET
DESIGNED BY	RFS	DRAWN BY	RFS	CHECKED BY
PROJECT NO.	UNCO-00420	CADD FILE	UNCO00420_SHT003_GN_LEG.dwg	PWS 3 OF 38

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NO.	DATE	REVISIONS	BY	CHECKED

COUNTY OF UNION
REPLACEMENT OF
MADISON HILL ROAD BRIDGE, RA-28
CITY OF RAHWAY AND TOWNSHIP OF CLARK, UNION COUNTY, NEW JERSEY

BASELINE TIES

 <small>11 MADISON ROAD MORRISTOWN, NJ 07960 TEL 973-871-2400 FAX 973-871-2400</small>	JAMES A. BUCZEK, PE <small>LICENSED PROFESSIONAL ENGINEER STATE OF NEW JERSEY LICENSE No. GE45122</small>		DRAWING TIE-1
	DESIGNED BY: RFS DRAWN BY: RFS CHECKED BY: PWS		DATE: 6-20-15 SHEET:

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OF 38

PROJECT NO. UNCO-00420
CADD FILE UNCO00420_SHT004_RD_TIE.dwg

GENERAL NOTES:

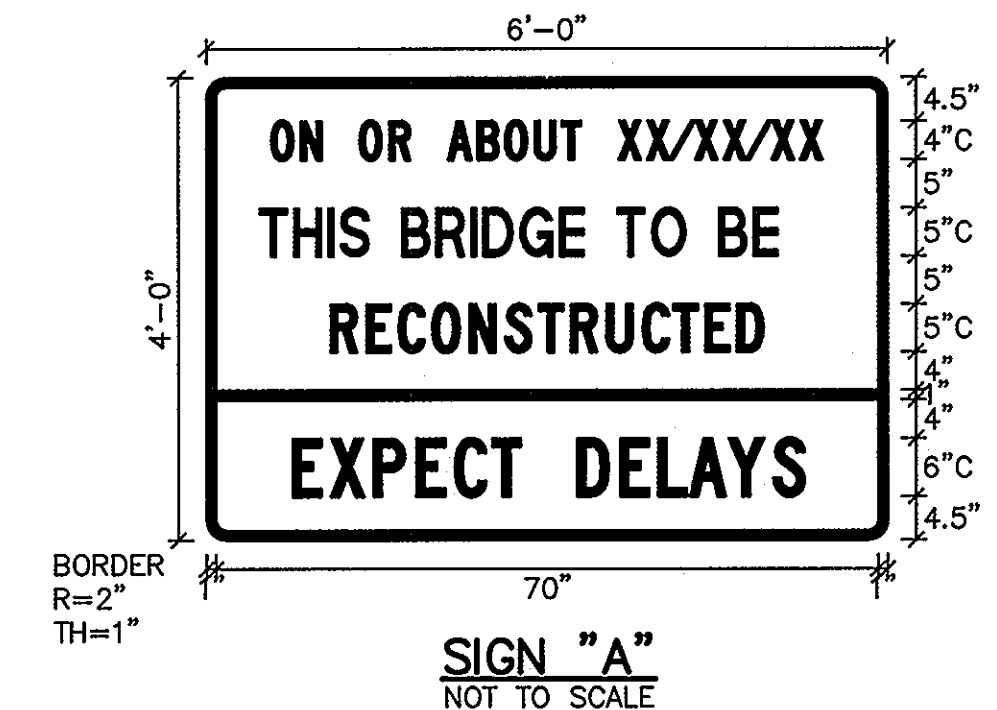
- ADVANCE WARNING SIGNS, DISTANCES, AND TAPER LENGTHS MAY BE EXTENDED, AT DIRECTION OF THE ENGINEER, TO ADJUST FOR REDUCED VISIBILITY DUE TO HORIZONTAL AND VERTICAL CURVATURE OF THE ROADWAY.
- PRIOR TO ANY STAGE CONSTRUCTION ALL REQUIRED TRAFFIC CONTROL SIGNS AND TRAFFIC CONTROL DEVICES SHALL BE IN PLACE.
- ALL EXISTING SIGNS, PAVEMENT MARKINGS, SYMBOLS, STRIPES AND PAVEMENT REFLECTORS AND CASTINGS WHICH CONFLICT WITH THE PROPOSED STAGING PLANS SHALL BE COVERED, REMOVED AND/OR RELOCATED AS DIRECTED BY THE ENGINEER.
- MAINTENANCE AND PROTECTION OF TRAFFIC SHALL BE IN ACCORDANCE WITH THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES - PART 6 "TEMPORARY TRAFFIC CONTROL", UNLESS OTHERWISE NOTED IN THE PLANS AND SPECIFICATIONS, AND SHALL BE APPROVED BY THE ENGINEER.
- CONSTRUCTION SIGNS W8-8 (ROUGH ROAD) AND W8-11 (UNEVEN LANES) SHALL BE USED WHEN SUCH PAVEMENT CONDITIONS EXIST. THE PLACEMENT OF THESE SIGNS SHALL BE AS DIRECTED BY THE ENGINEER.
- THE CONTRACTOR SHALL SUBMIT A PLAN FOR THE SAFE ACCESS OF CONSTRUCTION VEHICLES THROUGHOUT THE WORK SITE WHERE SPACE CONSTRAINTS PREVENT THE USE OF LANE CLOSURES. THE PLAN SHALL BE SUBMITTED TO THE ENGINEER IN ACCORDANCE WITH SECTION 159 OF THE STANDARD SPECIFICATIONS.
- TRAFFIC SAFETY SERVICES SHALL BE USED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR TRAFFIC CONTROL, SECTION 159.
- HOT MIX ASPHALT PLACED DURING THE VARIOUS CONSTRUCTION STAGES SHALL BE TRANSITIONED ON A MINIMUM 20H : 1V SLOPE TO MEET THE ADJACENT EXISTING GRADE AT THE LONGITUDINAL AND TRANSVERSE LIMITS OF THE STAGE CONSTRUCTION AREAS UNLESS OTHERWISE NOTED ON THE STAGE CONSTRUCTION PLANS.
- TRAFFIC CONTROL DEVICES FOR LANE CLOSURES INCLUDING SIGNS, CONES, BARRICADES, ETC. SHALL BE PLACED AS SHOWN ON PLANS. SIGNS SHALL NOT BE PLACED WITHOUT ACTUAL LANE CLOSURES AND SHALL BE IMMEDIATELY REMOVED UPON REMOVAL OF THE CLOSURES.
- CONES MAY BE SUBSTITUTED FOR DRUMS AND INSTALLED UPON THE APPROVAL OF THE ENGINEER.
- CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES TO REMAIN FROM DAMAGE DURING CONSTRUCTION. COST FOR UTILITY PROTECTION IS TO BE INCLUDED UNDER ITEM 'CLEARING SITE.'
- PAYMENT TO MAINTAIN THE SAFE PASSAGE OF TRAFFIC DURING CONSTRUCTION SHALL BE INCLUDED IN THE PAY ITEM, 'CLEARING SITE.'
- ALL TRAFFIC CONTROL DEVICES SHALL REMAIN ON SITE AND IN OPERATIONAL CONDITION FOR THE DURATION OF THE PROJECT.
- CONSTRUCTION SIGNS SHALL BE RELOCATED IF REQUIRED BY THE STAGING OF THE PROJECT OR IF DIRECTED BY THE ENGINEER AT NO COST TO THE COUNTY. PAYMENT FOR CONSTRUCTION SIGNS WILL BE IN ACCORDANCE WITH SECTION 159.
- SIGN "A" SHALL BE PLACED TWO WEEKS PRIOR TO START OF CONSTRUCTION, AND REMOVED UPON THE START OF WORK.

- VARIOUS SOIL EROSION AND SEDIMENT CONTROL MEASURES, INCLUDING RELOCATING THEM AS REQUIRED FOR STAGE CONSTRUCTION SHALL BE INSTALLED AND MAINTAINED DURING THE ENTIRE STAGE OF CONSTRUCTION.
- ALL EXCAVATED AREAS FOR PROPOSED PAVEMENT BOX ADJACENT TO TRAVEL AREA SHALL BE BACKFILLED WITH DENSE-GRADED AGGREGATE BASE COURSE. DENSE GRADED AGGREGATE SHALL BE GRADED ON A MINIMUM 1:6 SLOPE PRIOR TO THE END OF EACH WORKDAY. DENSE GRADED AGGREGATE SHALL BE FINE GRADED, CONTOURED AND COMPACTED TO THE PRESCRIBED PROFILE AND CROSS SLOPE AND THEN PAVED WITH HMA 19M64 BASE COURSE WHICH SHALL BE TRANSITIONED TO MEET THE ADJACENT EXISTING PAVEMENT GRADE AT THE LONGITUDINAL AND TRANSVERSE LIMITS OF EACH STAGE CONSTRUCTION.
- PEDESTRIAN ACCESS SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. THE PEDESTRIAN ACCESS ROUTE SHALL BE IN COMPLIANCE WITH THE CURRENT ADA ACCESSIBILITY GUIDELINES FOR THE PUBLIC R.O.W. (PROWAG).
- DRIVEWAY ACCESS WITHIN THE WORK LIMITS SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION.
- CONTRACTOR SHALL PERFORM WORK IN SUCH A MANNER THAT THE GRADE OF PAVEMENT COURSES IS KEPT WELL DRAINED AT ALL TIMES TO AVOID THE CREATION OF SATURATED AND UNSTABLE AREAS WITHIN FULL DEPTH PAVEMENT BOX.
- THE PLACEMENT AND OR RELOCATION OF CONSTRUCTION BARRIER CURB SHALL BE DONE DURING APPROVED OFF-PEAK HOURS.
- THE RAHWAY AND CLARK POLICE DEPARTMENTS SHALL BE NOTIFIED 72 HOURS PRIOR TO START OF CONSTRUCTION.
- NORMAL WORKING HOURS SHALL BE APPROVED BY THE RAHWAY AND CLARK POLICE DEPARTMENTS PRIOR TO CONSTRUCTION.
- ALL COST FOR TRAFFIC DIRECTORS, FLAGGERS INCURRED AS A RESULT OF THE CONTRACTOR EXTENDING THE CONTRACT DURATION ABOVE THE ALLOTTED CONTRACT PERIOD SHALL BE PAID FOR BY THE CONTRACTOR AT THEIR OWN EXPENSE.
- ALL TRAFFIC CONTROL DEVICES WILL BE PAID FOR THE MAXIMUM AMOUNT USED AT ANY ONE TIME ONSITE PER THE M.P.T. PLANS. NO PAYMENT WILL BE MADE FOR RELOCATIONS, REPLACING M.P.T. DEVICES, IN ACCORDANCE WITH SECTION 159 OF THE SPECIFICATIONS.
- CONSTRUCTION SIGNS SHALL BE FABRICATED AND INSTALLED AS PER SPECIFICATION SECTIONS 159 AND 911. ALL COSTS SHALL BE PAID UNDER THE PAY ITEM "CONSTRUCTION SIGNS".
- ALL PAY ITEM UNITS INCLUDE THE COST FOR FURNISHING AND REMOVING MATERIALS, INSTALLATION, LABOR, EQUIPMENT AND ALL OTHER COSTS INCIDENTAL THEREOF NECESSARY TO COMPLETE SAME.

SIGN DESIGNATION	MESSAGE	SIZE IN. x IN.	AREA IN SQ. FT.	REQUIRED QUANTITY IN NUMBER	TOTAL AREA IN SQ. FT.
G20-2A	END ROAD WORK	48"x24"	8.0	2	16
R(N)5-17	TRAFFIC FINE DOUBLED IN WORK AREA	36"x36"	9.0	2	18
R9-11a(L,R)	SIDEWALK CLOSED CROSS HERE	24"x12"	2.0	2	4
W1-4 (L,R)	REVERSE CURVE	36"x36"	9.0	2	18
W1-6 (L,R)	LARGE ARROW	48"x24"	8.0	10	80
W5-1	ROAD NARROWS	36"x36"	9.0	2	18
WW11-2	PEDESTRIAN CROSSING	36"x36"	9.0	4	36
W16-7P	DIAGONAL ARROW	30"x18"	3.75	4	15
W20-1(A)	ROAD WORK 1500 FT	36"x36"	9.0	4	36
W20-1(F)	ROAD WORK AHEAD	36"x36"	9.0	1	9
SIGN 'A'	ON OR ABOUT XX/XX/XXXX BRIDGE TO BE RECONSTRUCTED EXPECT DELAYS	72"x48"	24.0	2	48
CONSTRUCTION SIGN TOTAL					298 S.F.

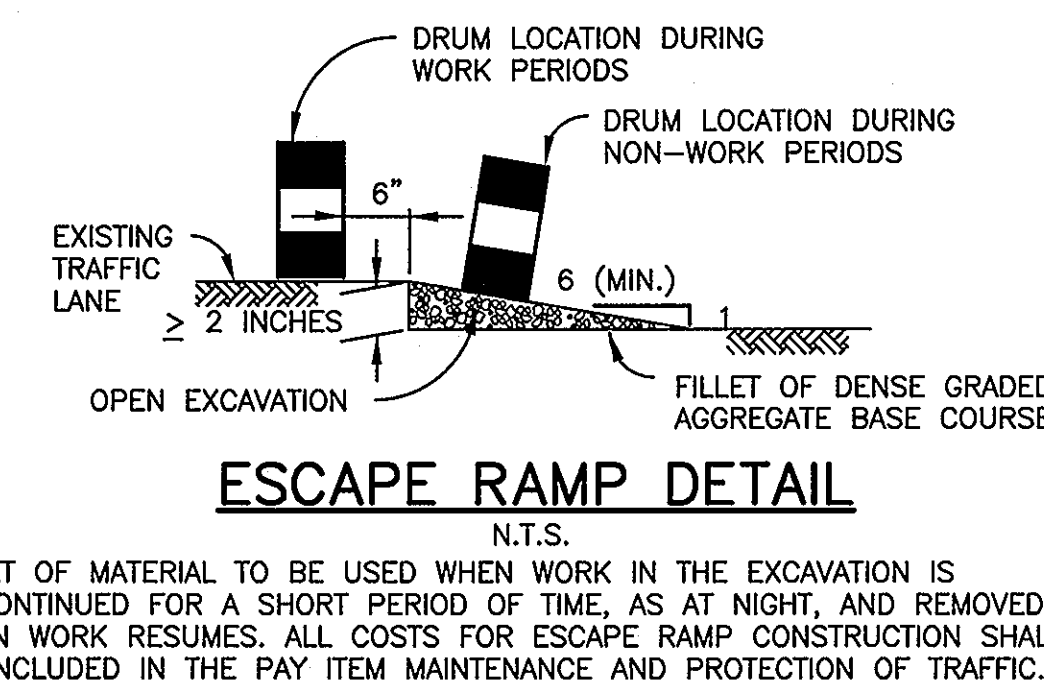
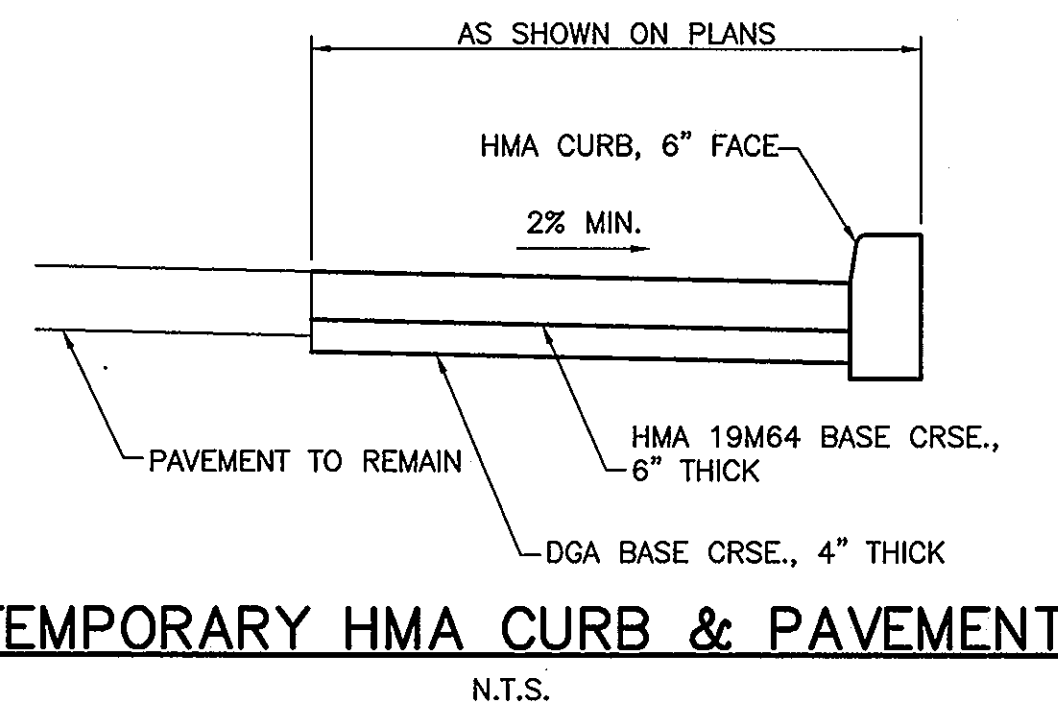
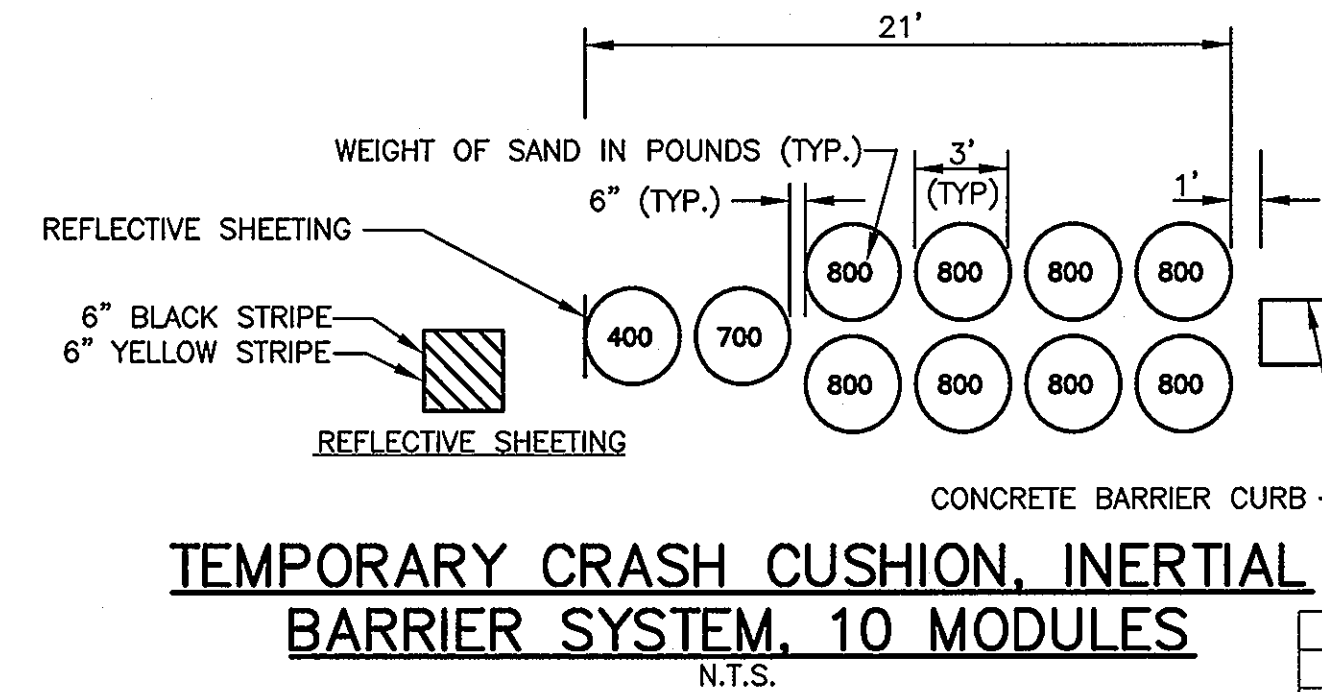
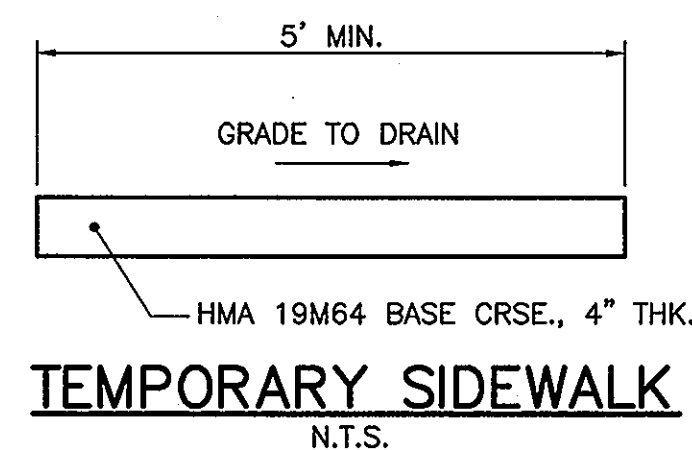
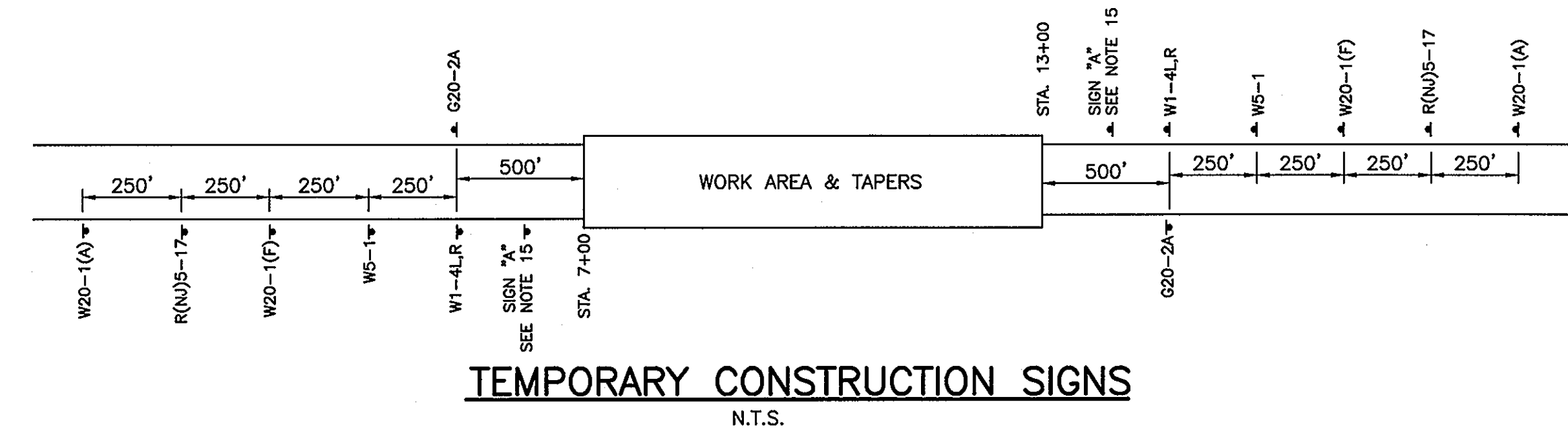
REGULATORY APPROACH SPEED OF TRAFFIC MILES/HOUR	MINIMUM TAPER RATIO IN LENGTH PER FOOT OF WIDTH	MINIMUM TAPER LENGTH L - FOR LANE WIDTHS	MAXIMUM DEVICE (B) SPACING ALONG TAPERS IN FEET	MAXIMUM DEVICE (D) SPACING ALONG TANGENTS IN FEET
25	10.5:1	105 115 125	25	50
30	15:1	150 165 180	30	60
35	20.5:1	205 225 245	35	70
40	27:1	270 300 325	40	80
45	45:1	450 495 540	45	90
50	50:1	500 550 600	50	100
55	55:1	550 605 660	55	110
60	60:1	600 660 720	60	120
65	65:1	650 715 780	65	130

NOTE: THE MAXIMUM DEVICE SPACING ALONG CURVES SHALL BE AS DEFINED FOR TAPERS (B) IN THE ABOVE TABLE.



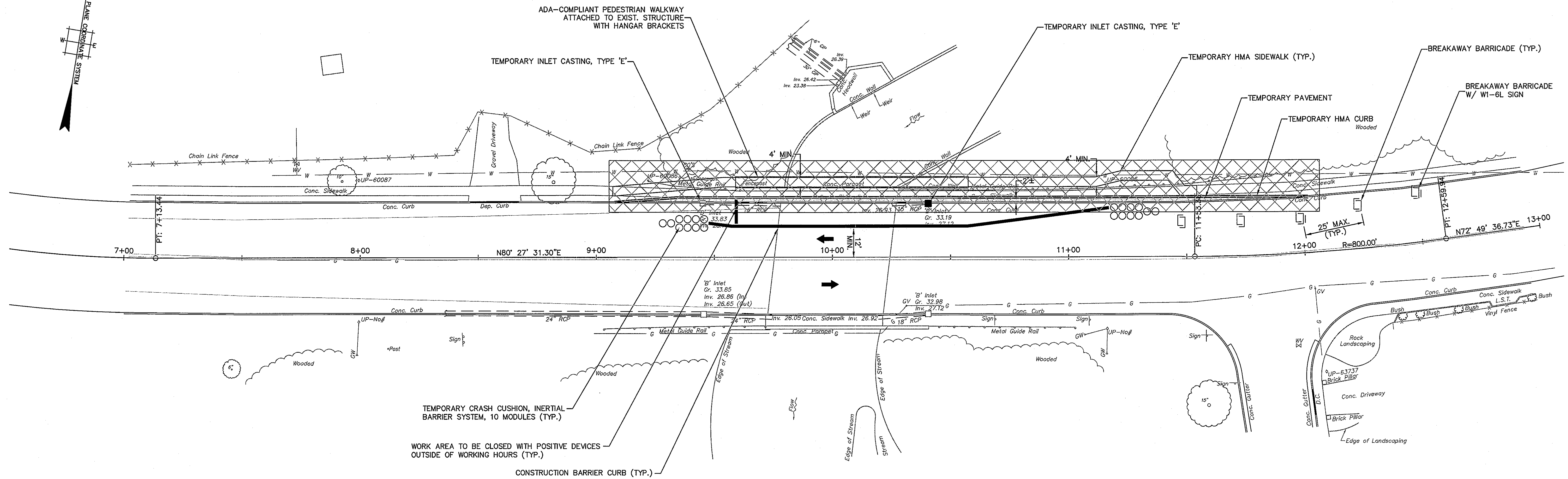
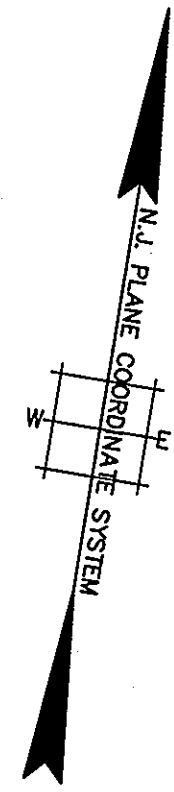
PAY ITEM NO.	DESCRIPTION	UNIT	PLAN QUANTITY
6	BREAKAWAY BARRICADE	UN	19
7	DRUMS	UN	12
8	CONSTRUCTION SIGNS	SF	144
9	CONSTRUCTION BARRIER CURB	LF	370
10	TEMPORARY CRASH CUSHION, INERTIAL BARRIER SYSTEM, 10 MODULES	UN	2
11	TEMPORARY TRAFFIC STRIPES	LF	2,880
12	TEMPORARY INLET CASTING, TYPE 'E'	UN	4
13	TEMPORARY PEDESTRIAN BRIDGE	LS	1
21	HOT MIX ASPHALT 19M64 BASE COURSE	TON	110

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	BREAKAWAY BARRICADES
	BREAKAWAY BARRICADES WITH SIGN
	CONSTRUCTION SIGNS
	DRUMS
	CONSTRUCTION BARRIER CURB
	DIRECTION OF TRAFFIC FLOW
	FLAGGER
	TEMPORARY CRASH CUSHION, INERTIAL BARRIER SYSTEM, 10 MODULES
	WORK AREA
	TEMPORARY HMA PAVEMENT

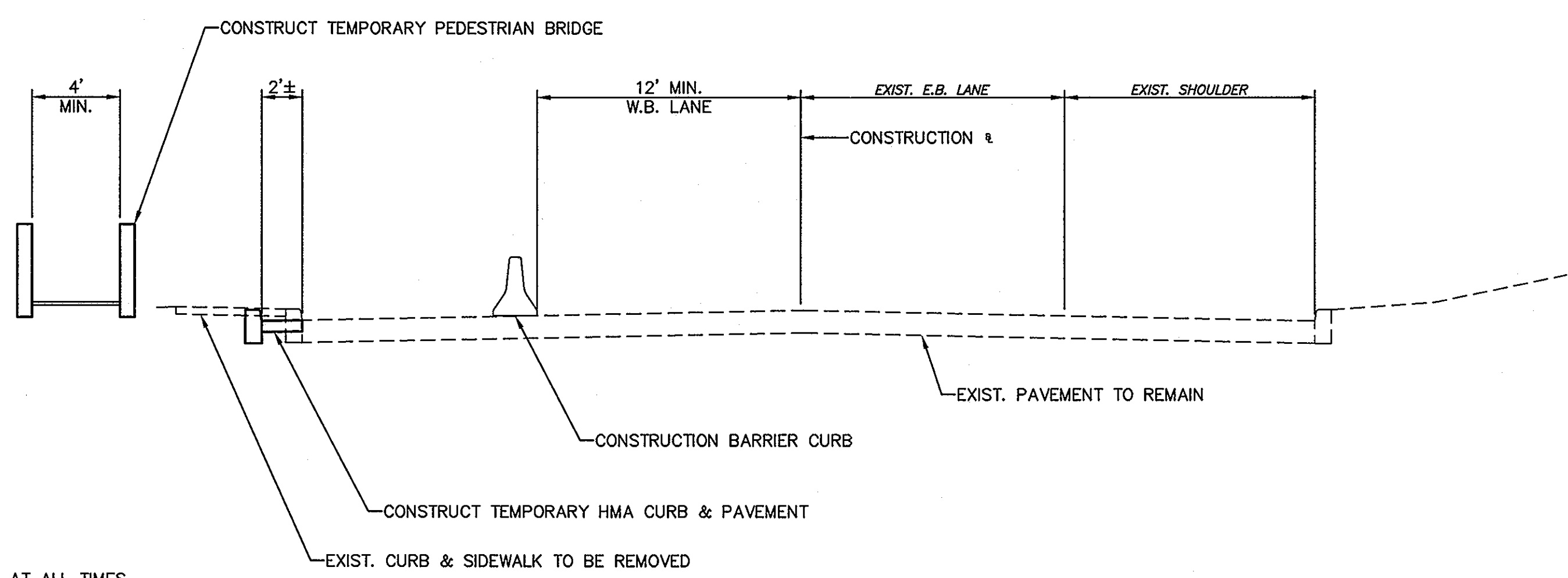
NO.	DATE	REVISIONS	BY	CHECKED
COUNTY OF UNION				
REPLACEMENT OF MADISON HILL ROAD BRIDGE, RA-28				
CITY OF RAHWAY AND TOWNSHIP OF CLARK, UNION COUNTY, NEW JERSEY				
MAINTENANCE AND PROTECTION OF TRAFFIC PLANS				
JAMES A. BUCZEK, PE			DRAWING MPT-1	
LICENSED PROFESSIONAL ENGINEER STATE OF NEW JERSEY LICENSE No. GE45122			DATE	
DESIGNED BY RFS		DRAWN BY RFS		CHECKED BY PWS
PROJECT NO. UNCO-00420		CADD FILE UNCO00420_SHT005_RD_MPT.dwg		
 NEW JERSEY BOARD OF PROFESSIONAL ENGINEERS AND LAND SURVEYORS CERTIFICATE OF AUTHORIZATION 24627875200		SHEET 5 OF 38		



PLAN
SCALE: 1" = 20'

TO BE CONSTRUCTED - STAGE 1			
PAY ITEM NO.	DESCRIPTION	UNIT	PLAN QUANTITY
6	BREAKAWAY BARRICADE	UN	10
9	CONSTRUCTION BARRIER CURB	LF	200
10	TEMPORARY CRASH CUSHION, INERTIAL BARRIER SYSTEM, 10 MODULES	UN	2
12	TEMPORARY INLET CASTING, TYPE 'E'	UN	2
13	TEMPORARY PEDESTRIAN BRIDGE	LS	1
21	HOT MIX ASPHALT 19M64 BASE COURSE	TON	40

FOR INFORMATIONAL PURPOSES ONLY



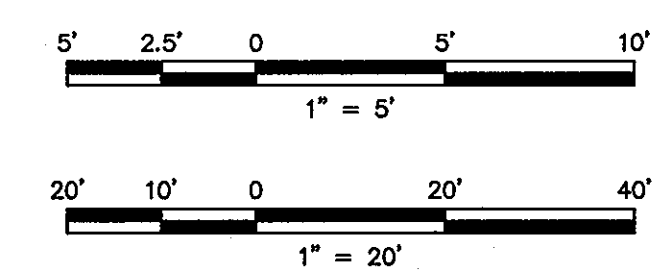
STAGE 1 SECTION
SCALE: 1" = 5'

STAGE 1 CONSTRUCTION SEQUENCE

1. INSTALL TRAFFIC CONTROL DEVICES AS SHOWN. CLOSE THE WESTBOUND SHOULDER OF MADISON HILL ROAD AND SHIFT VEHICULAR TRAFFIC TO THE SOUTH.
2. INSTALL TEMPORARY PEDESTRIAN BRIDGE AND SIDEWALK.
3. REMOVE EXISTING NORTHERLY PARAPET, CURB, AND SIDEWALK AND CONSTRUCT TEMPORARY CURB, PAVEMENT, AND INLET CASTINGS FOR USE IN STAGE 2.

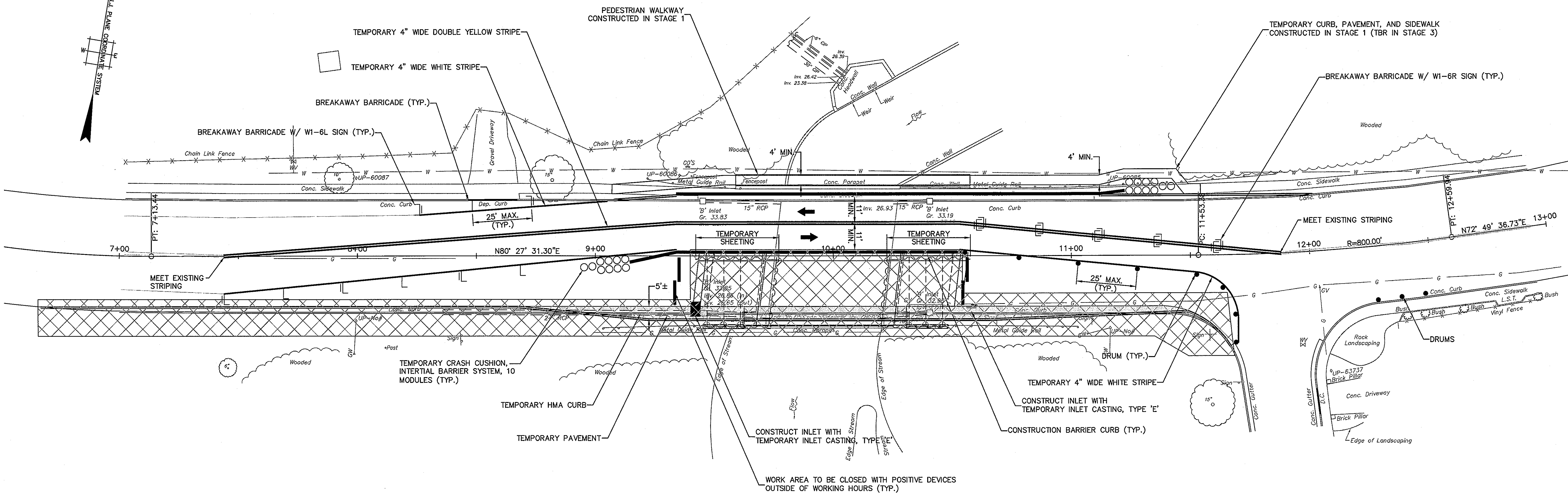
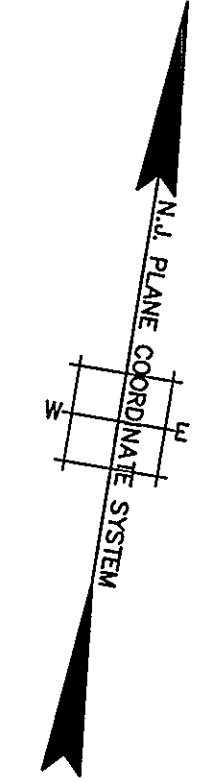
NOTES:

1. PEDESTRIAN ACCESS SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. THE PEDESTRIAN ACCESS ROUTE SHALL BE IN COMPLIANCE WITH THE CURRENT ADA ACCESSIBILITY GUIDELINES FOR THE PUBLIC R.O.W. (PROWAG) IMPLEMENTING TITLE 11 AND THE 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN.
2. ACCESS TO DRIVEWAYS AND SIDE STREETS MUST BE MAINTAINED AT ALL TIMES.
3. FOR GENERAL NOTES, SEE SHEETS 3 AND 5.



NO.	DATE	REVISIONS	BY	CHECKED
COUNTY OF UNION				
REPLACEMENT OF MADISON HILL ROAD BRIDGE, RA-28				
CITY OF RAHWAY AND TOWNSHIP OF CLARK, UNION COUNTY, NEW JERSEY				
MAINTENANCE AND PROTECTION OF TRAFFIC STAGE 1				
			JAMES A. BUCZEK, PE LICENSED PROFESSIONAL ENGINEER STATE OF NEW JERSEY LICENSE NO. GE45122	
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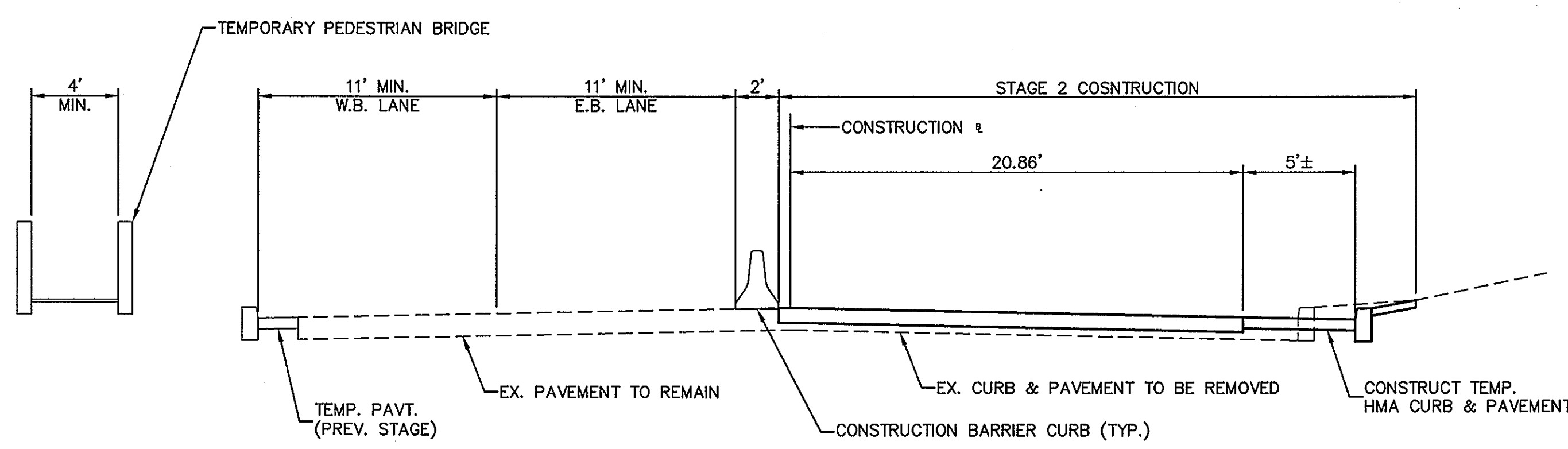
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PLAN
SCALE: 1" = 20'

TO BE CONSTRUCTED - STAGE 2			
PAY ITEM NO.	DESCRIPTION	UNIT	PLAN QUANTITY
6	BREAKAWAY BARRICADE	UN	19
7	DRUMS	UN	12
9	CONSTRUCTION BARRIER CURB	LF	370
10	TEMPORARY CRASH CUSHION, INERTIAL BARRIER SYSTEM, 10 MODULES	UN	2
11	TEMPORARY TRAFFIC STRIPES	LF	1,300
12	TEMPORARY INLET CASTING, TYPE 'E'	UN	2
21	HOT MIX ASPHALT 19M64 BASE COURSE	TON	50

FOR INFORMATIONAL PURPOSES ONLY



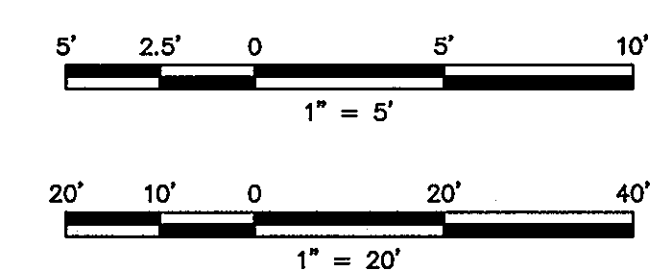
STAGE 2 SECTION
SCALE: 1" = 5'

STAGE 2 CONSTRUCTION SEQUENCE

- INSTALL TRAFFIC CONTROL DEVICES AS SHOWN AND SHIFT VEHICULAR TRAFFIC TO THE NORTH SIDE OF MADISON HILL ROAD.
- INSTALL MAINTINANCE AND PROTECTION OF STREAM FLOW AND SOIL EROSION AND SEDIMENT CONTROL MEASURES.
- INSTALL TEMPORARY SHEETING.
- DEMOLISH SOUTH SIDE OF EXISTING STRUCTURE AND CONSTRUCT PROPOSED IMPROVEMENTS.
- DEMOLISH EXISTING CURB ON SOUTH SIDE OF MADISON HILL ROAD AND CONSTRUCT TEMPORARY CURB, PAVEMENT, AND INLET CASTINGS FOR USE IN STAGE 3.

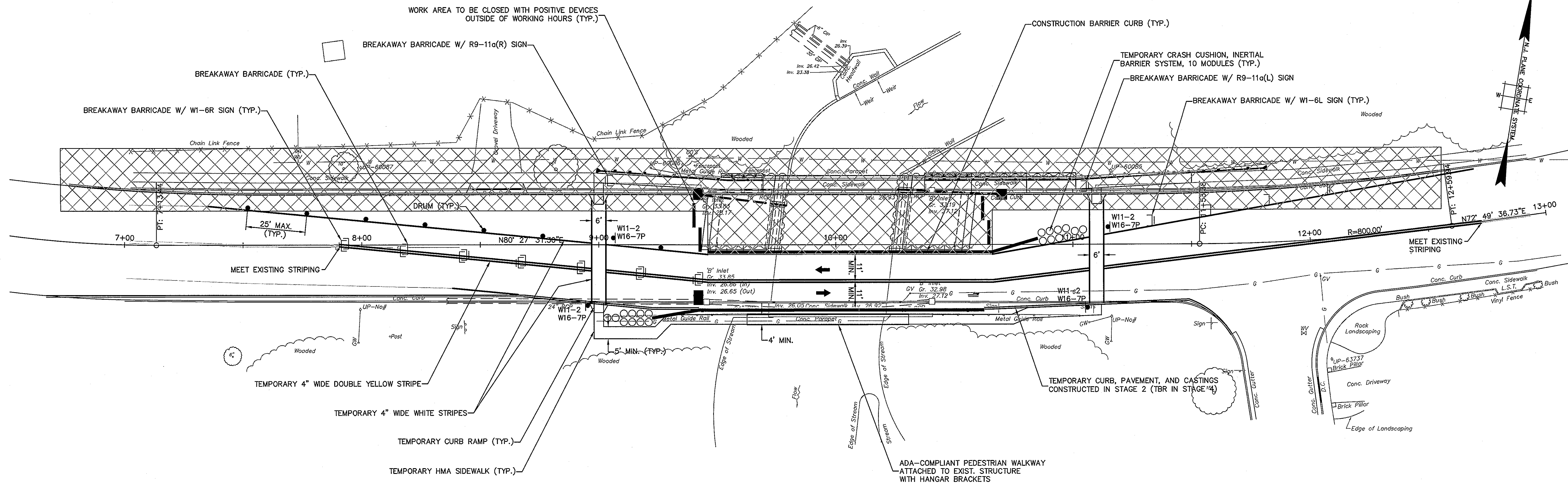
NOTES:

- PEDESTRIAN ACCESS SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. THE PEDESTRIAN ACCESS ROUTE SHALL BE IN COMPLIANCE WITH THE CURRENT ADA ACCESSIBILITY GUIDELINES FOR THE PUBLIC R.O.W. (PROWAG) IMPLEMENTING TITLE 11 AND THE 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN.
- ACCESS TO DRIVEWAYS AND SIDE STREETS MUST BE MAINTAINED AT ALL TIMES.
- FOR GENERAL NOTES, SEE SHEETS 3 AND 5.
- TEMPORARY PAVEMENT MARKINGS SHALL BE MAINTAINED IN GOOD CONDITION FOR ALL PAVEMENT MARKINGS INDICATED DURING STAGE CONSTRUCTION.



NO.		DATE		REVISIONS		BY	CHECKED
COUNTY OF UNION							
REPLACEMENT OF MADISON HILL ROAD BRIDGE, RA-28							
CITY OF RAHWAY AND TOWNSHIP OF CLARK, UNION COUNTY, NEW JERSEY							
MAINTENANCE AND PROTECTION OF TRAFFIC STAGE 2							
		DESIGNED BY		RFS		DRAWN BY	
		RFS		RFS		PWS	
LICENSED PROFESSIONAL ENGINEER STATE OF NEW JERSEY LICENSE No. 0E45122		DATE		PROJECT NO. UNCO-00420		CADD FILE UNCO00420_SHT007_RD_MPT.dwg	
NEW JERSEY BOARD OF PROFESSIONAL ENGINEERS AND LAND SURVEYORS CERTIFICATE OF AUTHORIZATION 24627957500		PROJECT NO. UNCO-00420		CADD FILE UNCO00420_SHT007_RD_MPT.dwg		DRAWING MPT-3 SHEET 7 OF 38	

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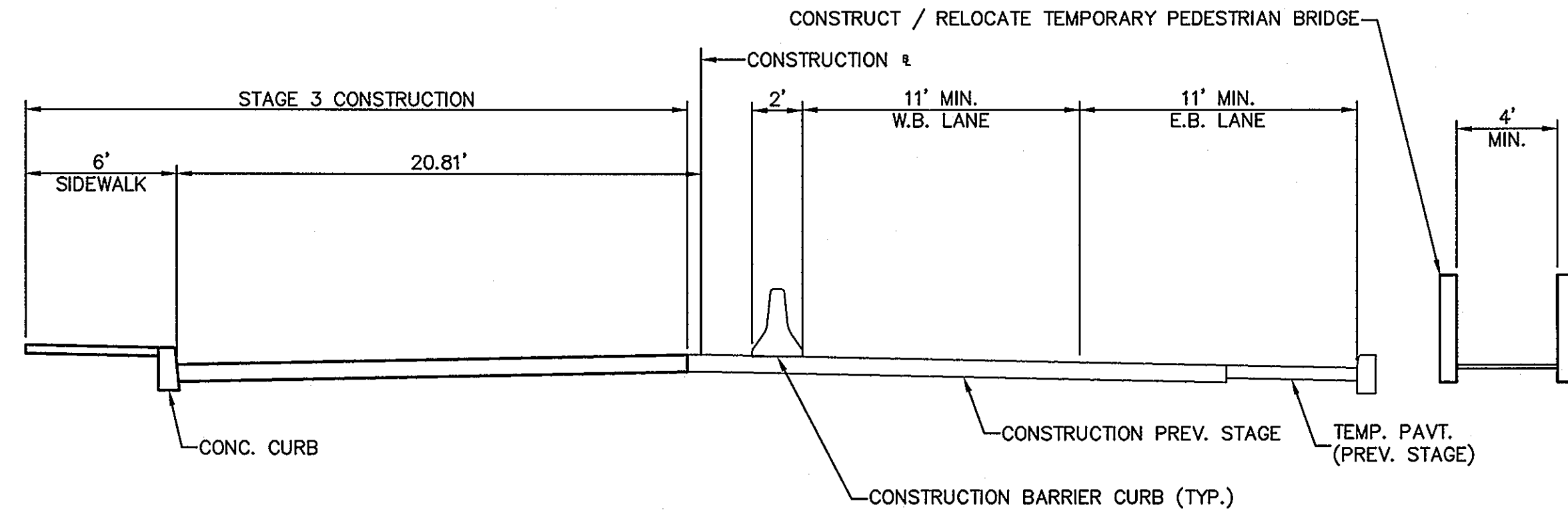
PLAN
SCALE: 1" = 20'

TO BE CONSTRUCTED - STAGES 3 AND 4			
PAY ITEM NO.	DESCRIPTION	UNIT	PLAN QUANTITY
6	BREAKAWAY BARRICADE	UN	18
7	DRUMS	UN	8
9	CONSTRUCTION BARRIER CURB	LF	320
10	TEMPORARY CRASH CUSHION, INERTIAL BARRIER SYSTEM, 10 MODULES	UN	2
11	TEMPORARY TRAFFIC STRIPES	LF	1,580
21	HOT MIX ASPHALT 19M64 BASE COURSE	TON	20

FOR INFORMATIONAL PURPOSES ONLY

STAGE 3 CONSTRUCTION SEQUENCE

1. INSTALL TEMPORARY PEDESTRIAN BRIDGE AND SIDEWALK.
2. INSTALL TRAFFIC CONTROL DEVICES AS SHOWN AND SHIFT VEHICULAR AND PEDESTRIAN TRAFFIC TO THE SOUTH SIDE OF MADISON HILL ROAD.
3. DEMOLISH NORTH SIDE OF EXISTING STRUCTURE AND CONSTRUCT PROPOSED IMPROVEMENTS.
4. CONSTRUCT PERMANENT CURB, SIDEWALK, DRAINAGE, AND ROADWAY IMPROVEMENTS UP TO THE HMA BASE COURSE ON THE NORTH SIDE OF MADISON HILL ROAD.



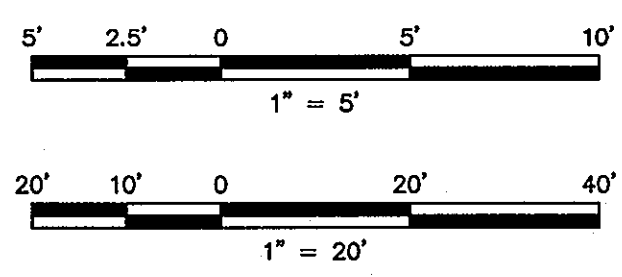
STAGE 3 SECTION
SCALE: 1" = 5'

STAGE 4 CONSTRUCTION SEQUENCE

1. SHIFT TRAFFIC TO THE NORTH SIDE OF MADISON HILL ROAD USING DAILY LANE CLOSURES AS APPROVED BY THE RAHWAY AND CLARK POLICE.
2. REMOVE TEMPORARY CURB AND PAVEMENT CONSTRUCTED IN STAGE 2 AND CONSTRUCT PERMANENT CURB AND SIDEWALK ON THE SOUTHERLY SIDE OF MADISON HILL ROAD.
3. CONSTRUCT HMA SURFACE COURSE.
4. INSTALL FINAL STRIPING AND PROPOSED SIGNS.
5. INSTALL TOPSOIL AND SEED AND RESTORE ALL DISTURBED AREAS. REMOVE TEMPORARY TRAFFIC CONTROL AND SOIL EROSION DEVICES.

NOTES:

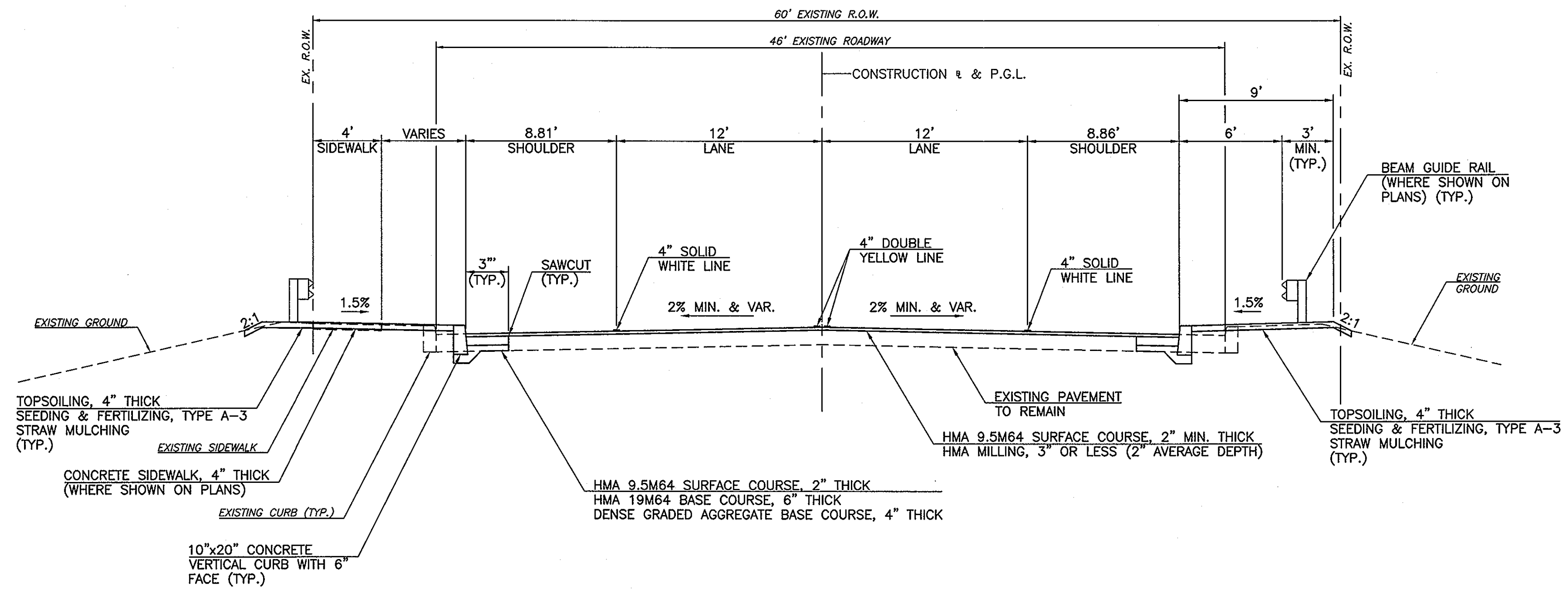
1. PEDESTRIAN ACCESS SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. THE PEDESTRIAN ACCESS ROUTE SHALL BE IN COMPLIANCE WITH THE CURRENT ADA ACCESSIBILITY GUIDELINES FOR THE PUBLIC R.O.W. (PROWAG), IMPLEMENTING TITLE 11 AND THE 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN.
2. ACCESS TO DRIVEWAYS AND SIDE STREETS MUST BE MAINTAINED AT ALL TIMES.
3. FOR GENERAL NOTES, SEE SHEETS 3 AND 5.
4. TEMPORARY PAVEMENT MARKINGS SHALL BE MAINTAINED IN GOOD CONDITION FOR ALL PAVEMENT MARKINGS INDICATED DURING STAGE CONSTRUCTION.



NO.	DATE	REVISIONS	BY	CHECKED
COUNTY OF UNION				
REPLACEMENT OF MADISON HILL ROAD BRIDGE, RA-28				
CITY OF RAHWAY AND TOWNSHIP OF CLARK, UNION COUNTY, NEW JERSEY				
MAINTENANCE AND PROTECTION OF TRAFFIC STAGE 3 & 4				
			DRAWING MPT-4 SHEET	
PROJECT NO. UNCO-00420 CADD FILE UNCO00420_SHT008_RD_MPT.dwg		DESIGNED BY RFS DRAWN BY RFS CHECKED BY PWS		
8 OF 38				

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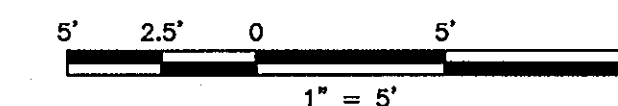
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TYPICAL SECTION
SCALE: 1" = 5'

NOTE:

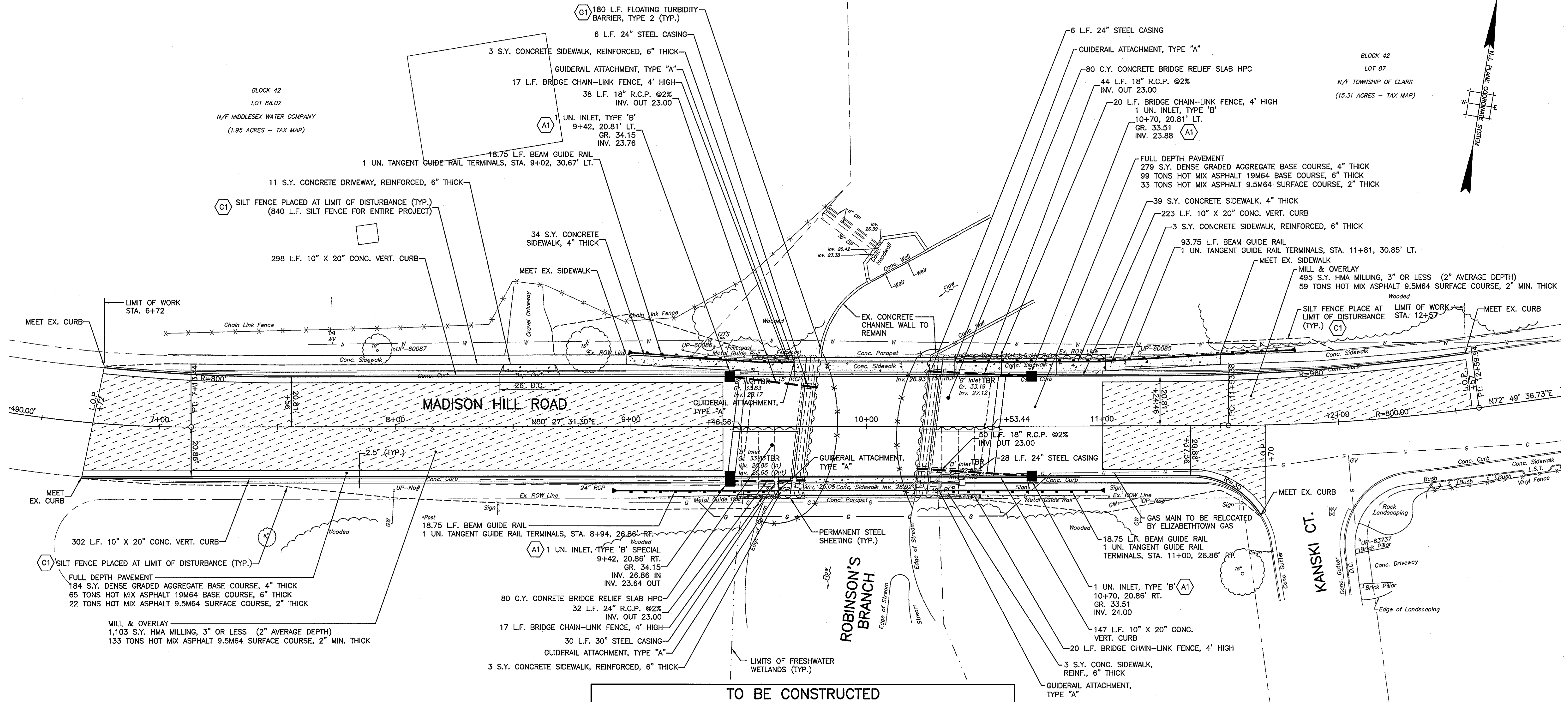
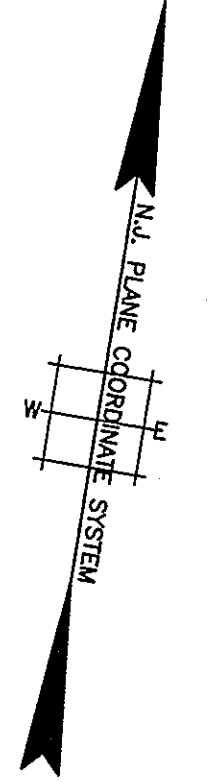
- EXISTING CURB TO BE REMOVED WILL NOT BE MEASURED FOR PAYMENT ALL COSTS THEREOF SHALL BE INCLUDED IN THE PRICES BID FOR THE ITEM "CLEARING SITE".



NO.	DATE	REVISIONS	BY	CHECKED
COUNTY OF UNION				
REPLACEMENT OF MADISON HILL ROAD BRIDGE, RA-28				
CITY OF RAHWAY AND TOWNSHIP OF CLARK, UNION COUNTY, NEW JERSEY				
TYPICAL SECTION				
 11 TRINIDAD ROAD HIGHTSTOWN, NJ 07934 TEL: 732-271-2400 FAX: 732-271-2401		JAMES A. BUCZEK, PE  LICENSED PROFESSIONAL ENGINEER STATE OF NEW JERSEY LICENSE No. GE45122 DATE 6/29/15		DRAWING TYP-1 SHEET
NEW JERSEY BOARD OF PROFESSIONAL ENGINEERS AND LAND SURVEYORS CERTIFICATE OF AUTHORIZATION 246A2787200		DESIGNED BY RFS PROJECT NO. UNCO-00420	DRAWN BY RFS CADD FILE UNCO00420_SHT009_RD_TYP.dwg	CHECKED BY PWS DATE
9 OF 38				

BLOCK 42
LOT 88.02
N/F MIDDLESEX WATER COMPANY
(1.95 ACRES - TAX MAP)

BLOCK 42
LOT 87
N/F TOWNSHIP OF CLARK
(15.31 ACRES - TAX MAP)



TO BE CONSTRUCTED


PAY ITEM NO.	DESCRIPTION	UNIT	PLAN QUANTITY
3	SILT FENCE	LF	840
4	INLET FILTER, TYPE 1	SF	40
5	FLOATING TURBIDITY BARRIER, TYPE 2	LF	180
19	DENSE GRADED AGGREGATE BASE COURSE, 4" THICK	SY	463
20	HOT MIX ASPHALT MILLING, 3" OR LESS	SY	1,598
21	HOT MIX ASPHALT 19M64 BASE COURSE	TON	164
22	HOT MIX ASPHALT 9.5M64 SURFACE COURSE	TON	247
24	18" REINFORCED CONCRETE PIPE	LF	132
25	24" REINFORCED CONCRETE PIPE	LF	32
26	24" STEEL CASING	LF	40
27	30" STEEL CASING	LF	30
28	INLET, TYPE "B" SPECIAL	UN	1
29	INLET TYPE "B"	UN	3
31	CONCRETE SIDEWALK, 4" THICK	SY	73
32	CONCRETE SIDEWALK, REINFORCED, 6" THICK	SY	12
33	CONCRETE DRIVEWAY, REINFORCED, 6" THICK	SY	11
34	10" X 20" CONCRETE VERTICAL CURB	LF	970
36	BEAM GUIDE RAIL	LF	150
37	TANGENT GUIDE RAIL TERMINALS	UN	4
45	BRIDGE CHAIN-LINK FENCE, 4' HIGH	LF	150
57	CONCRETE BRIDGE RELIEF SLAB, HPC	CY	160

LEGEND:
A1 SOIL EROSION AND SEDIMENT CONTROL MEASURE (SEE DWG. SE-1)

NOTES:

- GUIDERAIL POST SPACING NOT SHOWN TO SCALE. REFER TO NJDOT STANDARD CONSTRUCTION DETAILS FOR PROPER POST SPACING.
- NO SOIL STOCKPILING WILL BE ALLOWED ON SITE.
- SIGNING AND STRIPING QUANTITIES ARE SHOWN ON THE SIGNING AND STRIPING PLAN.
- REMOVAL AND REPLACEMENT AND/OR RELOCATION OF EXISTING SIGNS, MAILBOXES AND/OR ANY OBSTRUCTION WILL NOT BE MEASURED. PAYMENT WILL BE INCLUDED IN UNDER THE ITEM "CLEARING SITE".
- NO SEPARATE PAYMENT WILL BE MADE FOR REMOVAL OF TREES BUT THE COST THEREOF SHALL BE INCLUDED IN THE PRICE BID FOR THE PAY ITEM "CLEARING SITE" SCHEDULED IN THE PROPOSAL.
- CONCRETE CURB AND SIDEWALKS SHALL BE POURED SEPARATELY. MONOLITHIC POURS ARE NOT PERMITTED.
- SIGNING AND STRIPING QUANTITIES ARE SHOWN ON THE SIGNING AND STRIPING PLAN.
- GABION WALLS AND MATTRESS NOT SHOWN FOR CLARITY. FOR GABION LIMITS REFER TO SHEET 18.

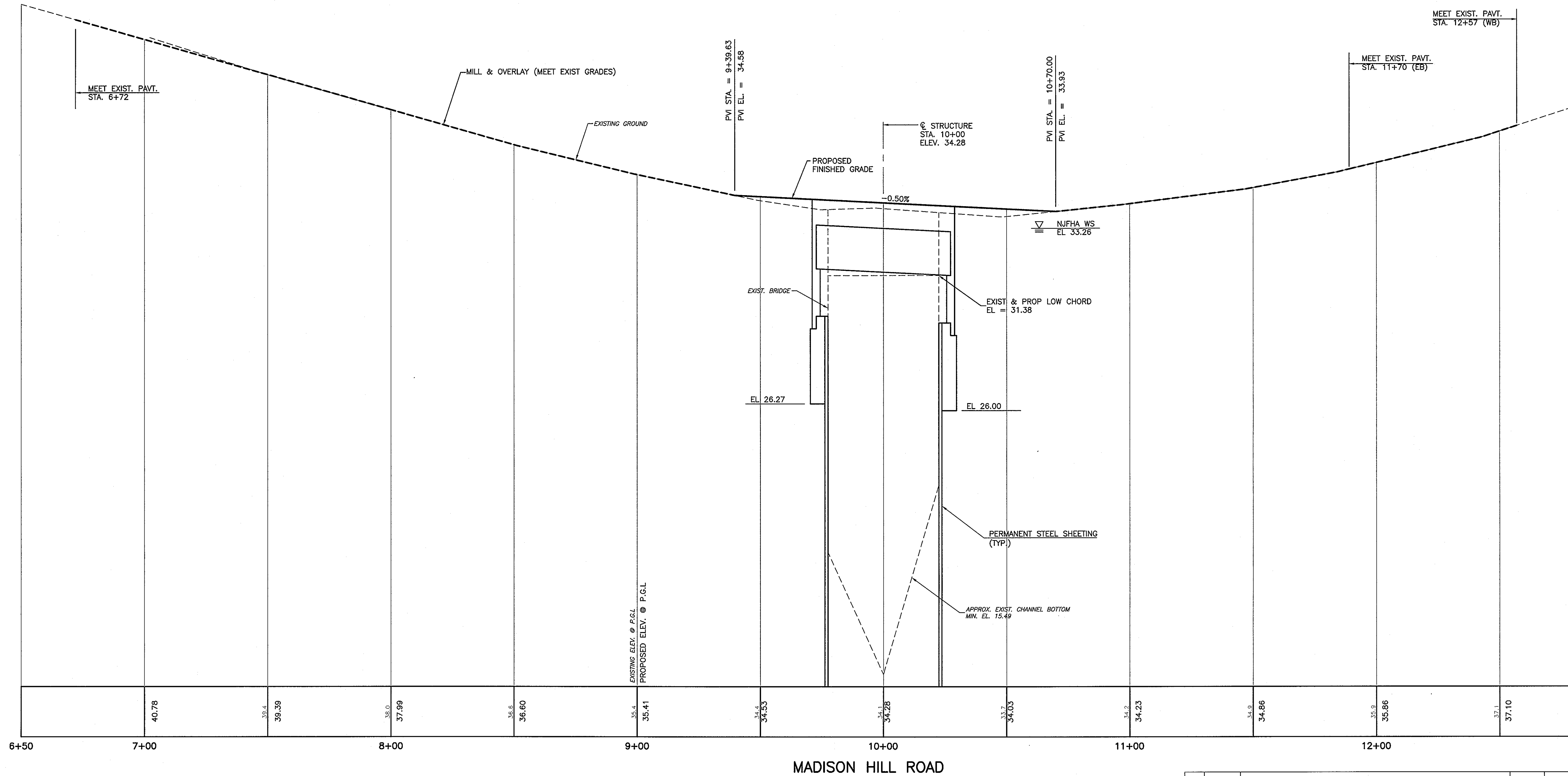
SOIL EROSION AND SEDIMENT CONTROL PLAN

NO.	DATE	REVISIONS	BY	CHECKED
COUNTY OF UNION				
REPLACEMENT OF MADISON HILL ROAD BRIDGE, RA-28				
CITY OF RAHWAY AND TOWNSHIP OF CLARK, UNION COUNTY, NEW JERSEY				
CONSTRUCTION PLAN				
 JAMES A. BUCZEK, PE LICENSED PROFESSIONAL ENGINEER STATE OF NEW JERSEY LICENSE NO. 0E45122			DRAWING	CP-1
NEW JERSEY BOARD OF PROFESSIONAL ENGINEERS AND LAND SURVEYORS CERTIFICATE OF AUTHORIZATION 24627887500			DESIGNED BY RFS DRAWN BY RFS CHECKED BY PWS	DATE PROJECT NO. UNCO-00420 CADD FILE UNCO00420_SHT010_RD_CSP.dwg
				10 OF 38

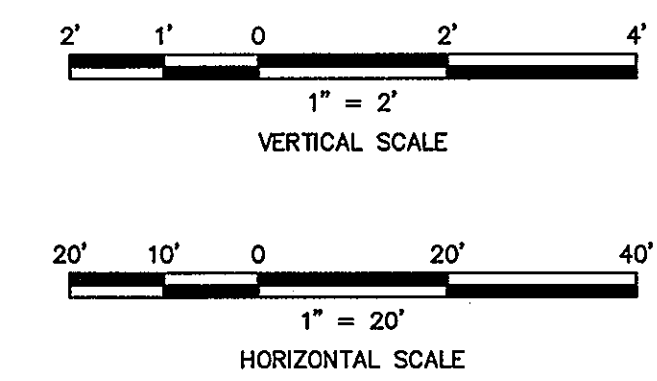
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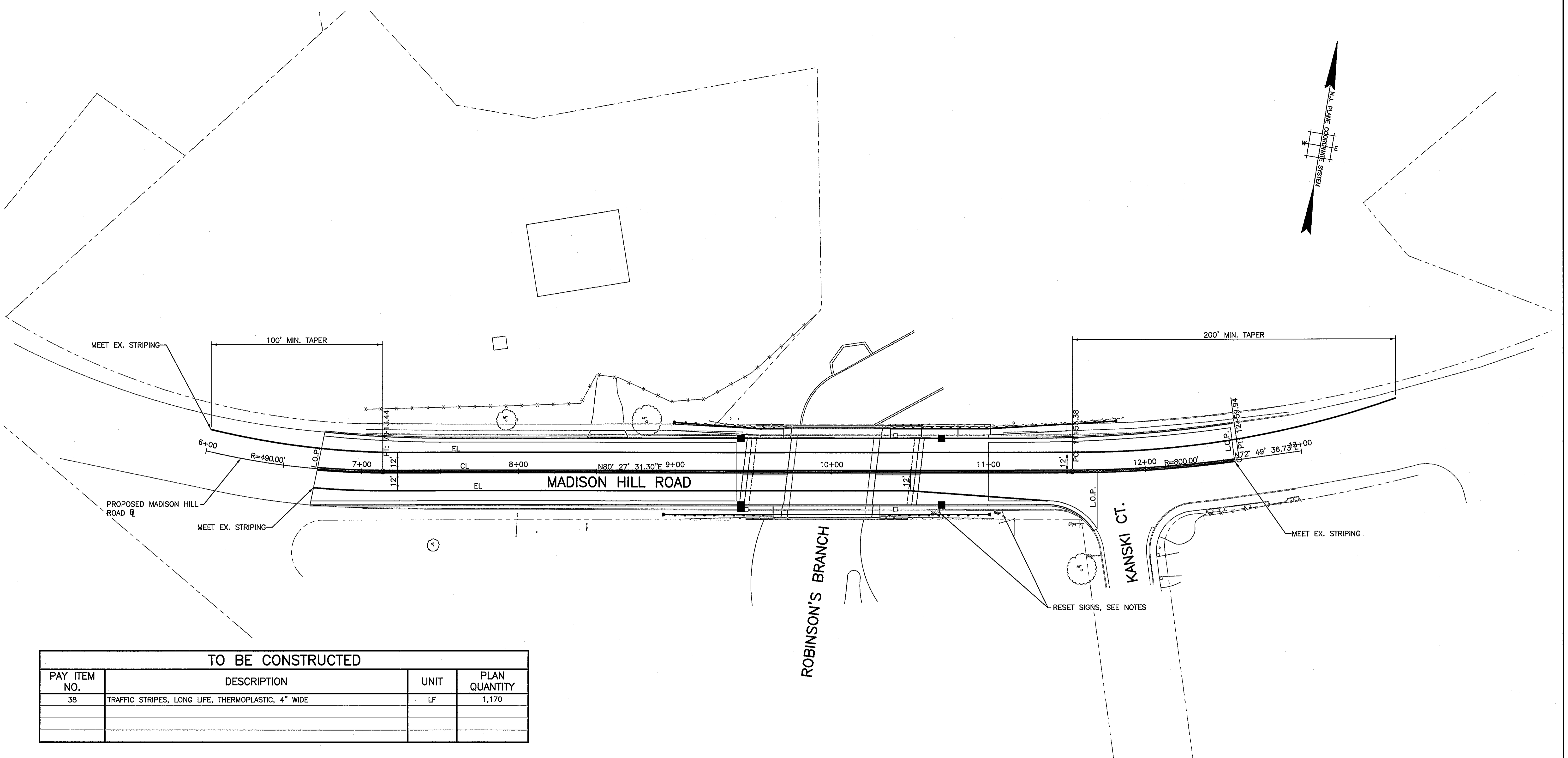
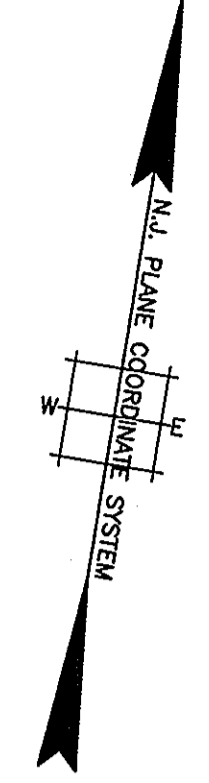
ATUM ELEV
15.00



MADISON HILL ROAD



NO.	DATE	REVISIONS	BY	CHECKED
COUNTY OF UNION				
REPLACEMENT OF MADISON HILL ROAD BRIDGE, RA-28				
CITY OF RAHWAY AND TOWNSHIP OF CLARK, UNION COUNTY, NEW JERSEY				
PROFILE				
 JAMES A. BUCZEK, PE LICENSED PROFESSIONAL ENGINEER STATE OF NEW JERSEY LICENSE No. GE45122			DRAWING	PR-1
PROJECT NO. UNCO-00420 CADD FILE UNCO00420_SHT011_RD_PRO.dwg			CHECKED BY	PWS
NEW JERSEY BOARD OF PROFESSIONAL ENGINEERS AND LAND SURVEYORS CERTIFICATE OF AUTHORIZATION 24627887500			SHEET	11 OF 38



TO BE CONSTRUCTED			
PAY ITEM NO.	DESCRIPTION	UNIT	PLAN QUANTITY
38	TRAFFIC STRIPES, LONG LIFE, THERMOPLASTIC, 4" WIDE	LF	1,170

PAVEMENT MARKING & SIGNING LEGEND

UNLESS OTHERWISE SHOWN, STRIPING SHALL CONFORM TO THE FOLLOWING:

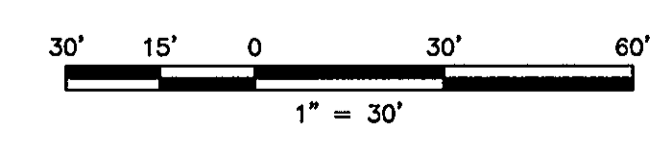
PAVEMENT STRIPING & MARKING	MATERIAL	DESCRIPTION	LEGEND
EDGE LINE	THERMOPLASTIC	4" WIDE WHITE	EL
CENTER LINE	THERMOPLASTIC	2-4" WIDE YELLOW SEPARATED 6"	CL

LEGEND

Sign — EXISTING SIGN TO REMAIN, BE REMOVED, OR BE RESET / RELOCATED AS INDICATED ON THE PLAN

NOTES:

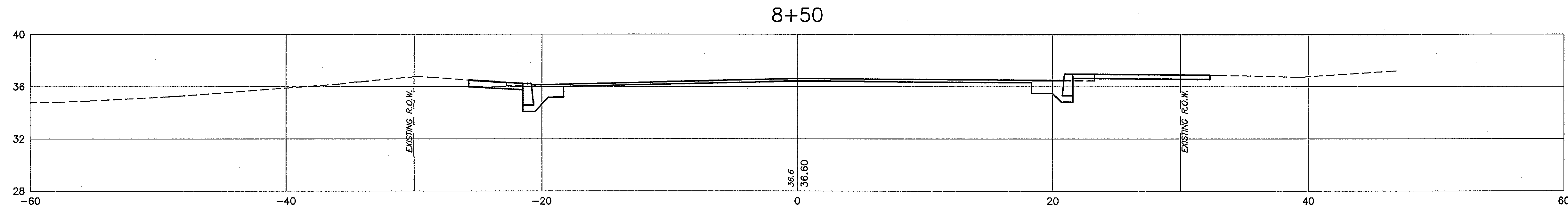
- RELOCATION AND / OR REMOVAL OF EXISTING SIGNS SHALL BE PAID FOR UNDER "CLEARING SITE".
- ALL TRAFFIC CONTROL DEVICES SHALL CONFORM WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION (M.U.T.C.D.). SIGN SIZES SHALL CONFORM WITH THOSE SPECIFIED IN M.U.T.C.D. UNLESS OTHERWISE SPECIFIED ON THESE PLANS.
- CONTRACTOR SHALL VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO INSTALLATION OF SIGNS.
- LAYOUT OF STRIPING AND PAVEMENT MARKINGS SHALL BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.
- ANY EXISTING STRIPING IN CONFLICT WITH PROPOSED STRIPING SHALL BE REMOVED PRIOR TO PLACEMENT OF PROPOSED STRIPING.
- REGULATORY AND WARNING AND NON-STANDARD SIGNS SHALL BE FABRICATED AND INSTALLED AS PER SPECIFICATIONS SECTION 612. ALL COST FOR SIGNS TO BE REPLACED IN KIND SHALL BE INCLUDED IN THE PAY ITEM CLEARING SITE.



NO.	DATE	REVISIONS	BY	CHECKED
COUNTY OF UNION REPLACEMENT OF MADISON HILL ROAD BRIDGE, RA-28 CITY OF RAHWAY AND TOWNSHIP OF CLARK, UNION COUNTY, NEW JERSEY				
SIGNING AND STRIPING PLAN				
			JAMES A. BUCZEK, PE LICENSED PROFESSIONAL ENGINEER STATE OF NEW JERSEY LICENSE No. GE45122	
DESIGNED BY RFS PROJECT NO. UNCO-00420		DRAWN BY RFS CADD FILE UNCO00420_SHT013_RD_SSP.dwg		CHECKED BY PWS DATE 6/29/15
NEW JERSEY BOARD OF PROFESSIONAL ENGINEERS AND LAND SURVEYORS CERTIFICATE OF AUTHORIZATION 24692787500				DRAWING SHEET SS-1 13 OF 38

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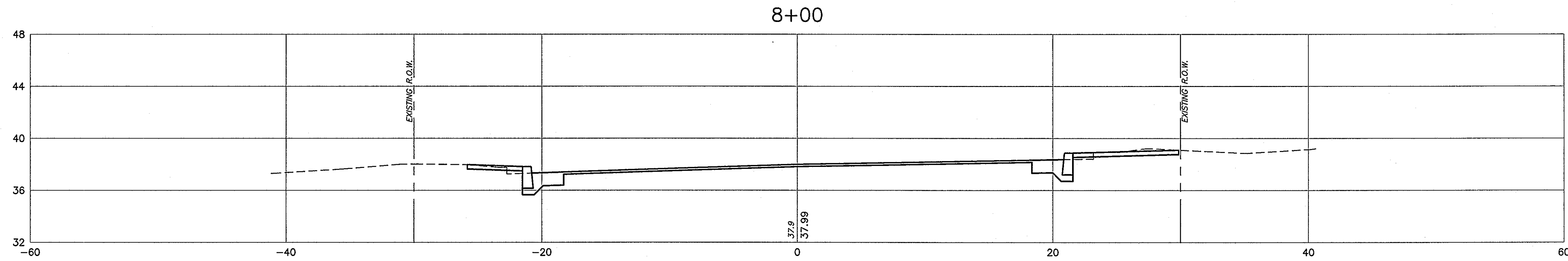
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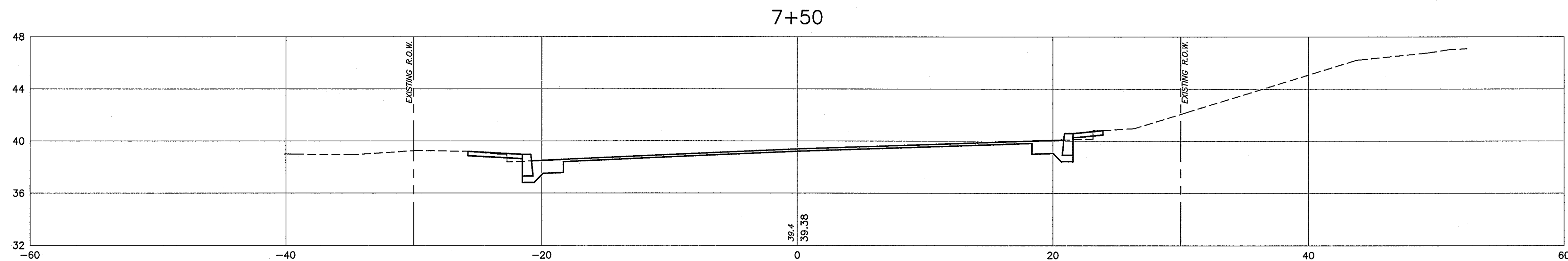
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 FILL= 0 S.F.
 TS= 15 L.F.

EARTHWORK SUMMARY

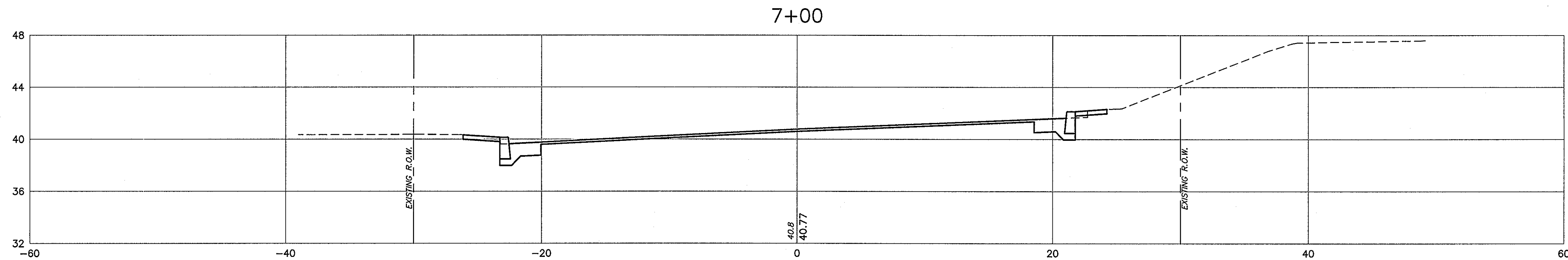
		TOTAL
EXCAVATION		
Roadway Excavation From Cross Sections	=	340 C.Y.
Roadway Excavation From Plan Sheets	=	+ 0 C.Y.
Roadway Excavation From Calculations	=	+ 0 C.Y.
Total Roadway Excavation	=	340 C.Y.
Total Roadway Excavation	=	340 C.Y.
Roadway Excavation Unsuitable for Embankment	=	- 280 C.Y.
Subtotal	=	60 C.Y.
Total Excavation Available For Embankment (With 0.10 Shrinkage) = 60 C.Y. x 0.90	=	54 C.Y.
EMBANKMENT		
Embankment From Cross Sections	=	20 C.Y.
Embankment From Plan Sheets	=	+ 0 C.Y.
Embankment From Calculations	=	+ 0 C.Y.
Total Embankment Required	=	20 C.Y.
Total Excavation Available For Embankment	=	- 54 C.Y.
Total I-14 Soil Aggregate	=	0 C.Y.
TOPSOILING		
Topsolling From Cross Sections	=	860 S.Y.
Topsolling From Plan Sheets	=	+ 0 S.Y.
Topsolling From Calculations	=	+ 0 S.Y.
Total Topsolling, 4" Thick	=	860 S.Y.



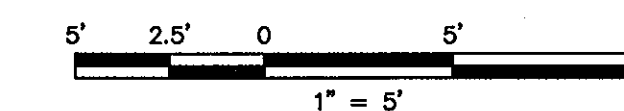
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 TS= 12 L.F.



CUT= 10 S.F.
 FILL= 0 S.F.
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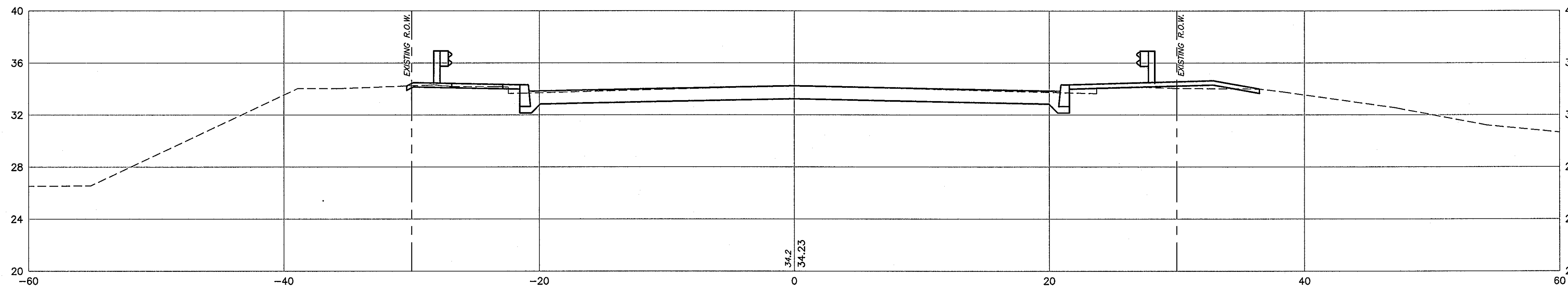


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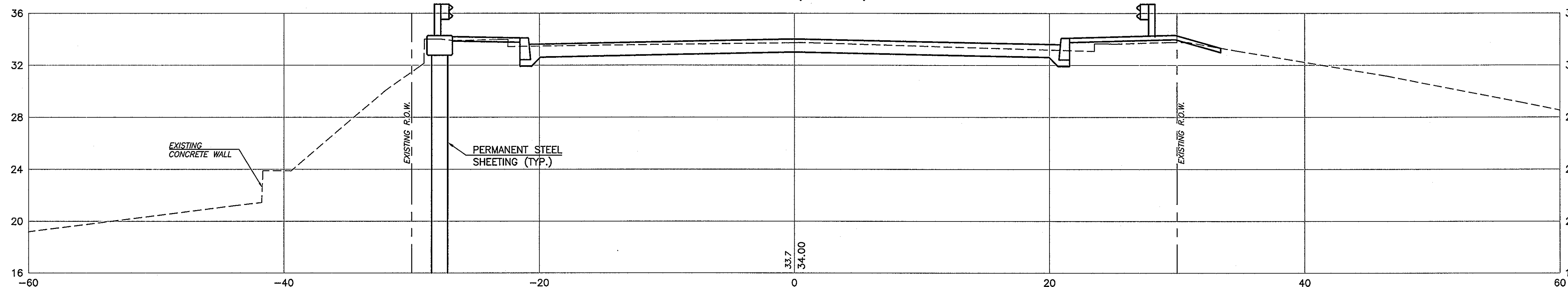
NO.	DATE	REVISIONS	BY	CHECKED
COUNTY OF UNION REPLACEMENT OF MADISON HILL ROAD BRIDGE, RA-28 CITY OF RAHWAY AND TOWNSHIP OF CLARK, UNION COUNTY, NEW JERSEY				
CROSS SECTIONS STA. 7+00 TO STA. 8+00				
JAMES A. BUCZEK, PE LICENSED PROFESSIONAL ENGINEER STATE OF NEW JERSEY LICENSE No. GE45122			DRAWING XS-1	
PROJECT NO. UNCO-00420 CADD FILE UNCC00420_SHT014-SHT016_RD_XSC.dwg			SHEET 14 OF 38	

11+00 (BACK)



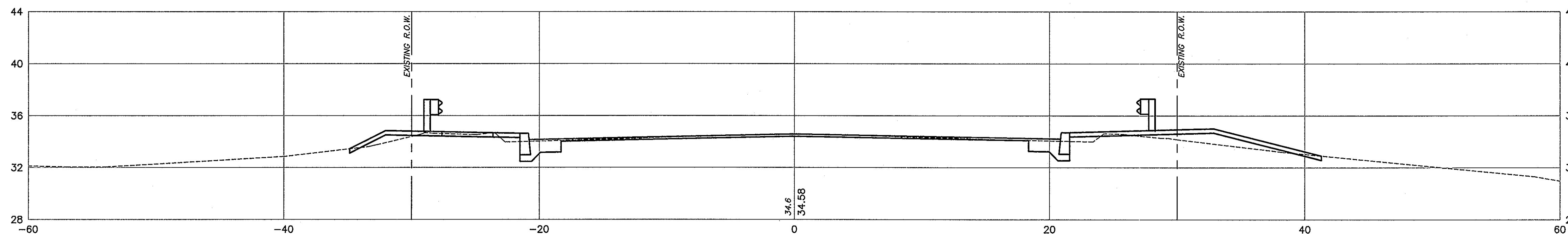
CUT= 42 S.F.
 FILL= 0 S.F.
 TS= 20 L.F.

10+56 (AHEAD)



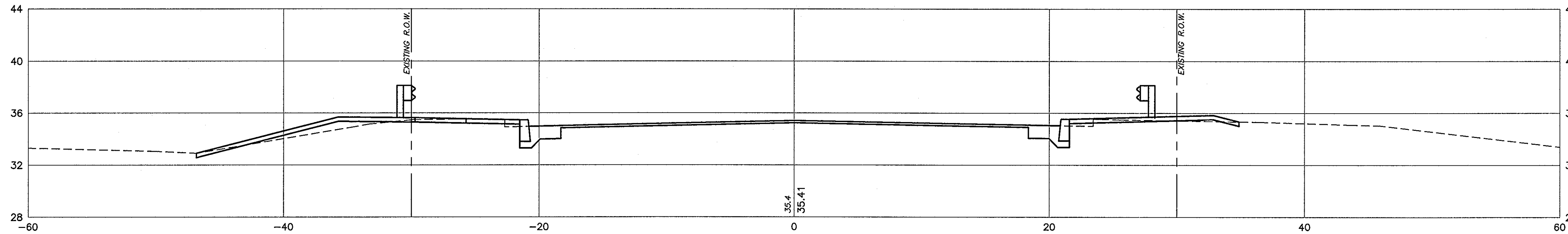
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9+39 (BACK)

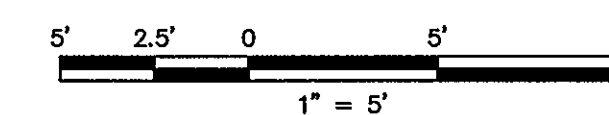


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 FILL= 7 S.F.
 TS= 29 L.F.

9+00



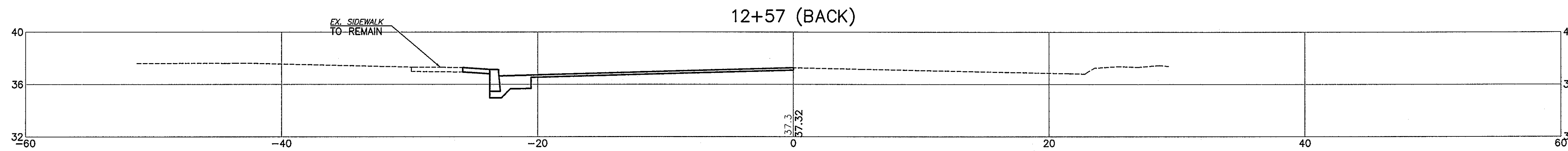
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 FILL= 4 S.F.
 TS= 34 L.F.



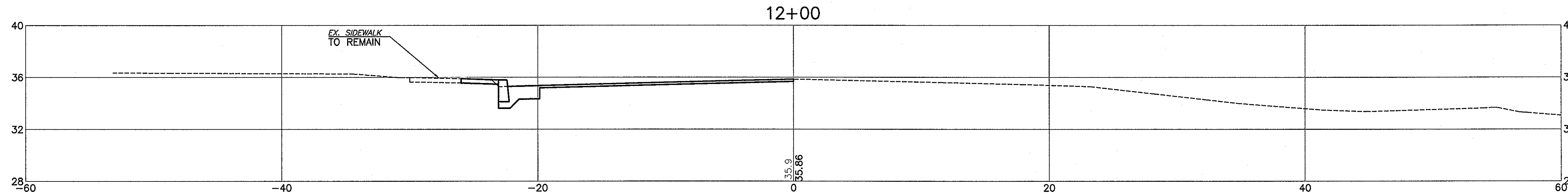
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NO.	DATE	REVISIONS	BY	CHECKED				
COUNTY OF UNION REPLACEMENT OF MADISON HILL ROAD BRIDGE, RA-28 CITY OF RAHWAY AND TOWNSHIP OF CLARK, UNION COUNTY, NEW JERSEY								
CROSS SECTIONS STA. 8+50 TO STA. 11+00								
JAMES A. BUCZEK, PE LICENSED PROFESSIONAL ENGINEER STATE OF NEW JERSEY LICENSE No. GE45122			DRAWING XS-2 SHEET					
PROJECT NO. UNCO-00420		CADD FILE UNCO00420_SHT014-SHT016_RD_XSC.dwg		DESIGNED BY RFS	DRAWN BY RFS	CHECKED BY PWS	DATE	15 OF 38
NEW JERSEY BOARD OF PROFESSIONAL ENGINEERS AND LAND SURVEYORS CERTIFICATE OF AUTHORIZATION 240A2787500								

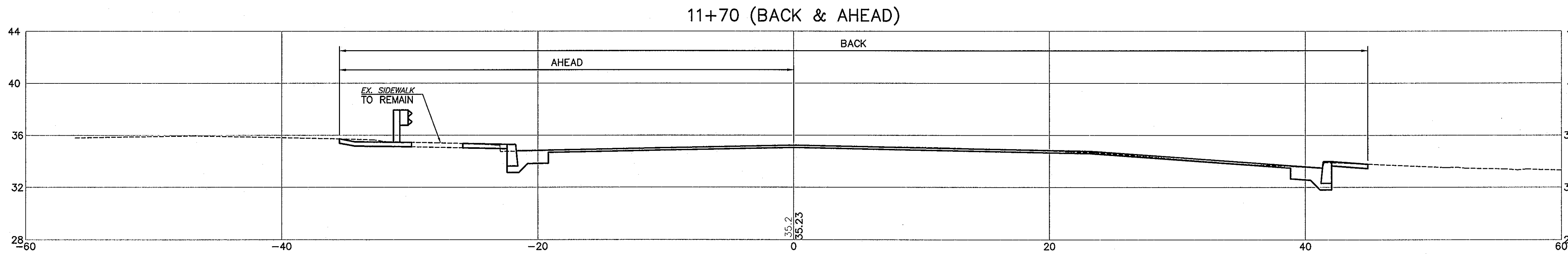
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CUT= 5 S.F.
 FILL= 0 S.F.
 TS= 3 L.F.

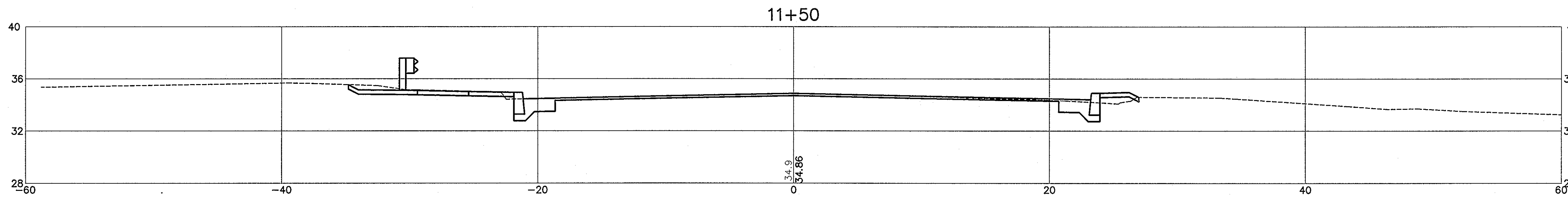


CUT= 5 S.F.
 FILL= 0 S.F.
 TS= 3 L.F.

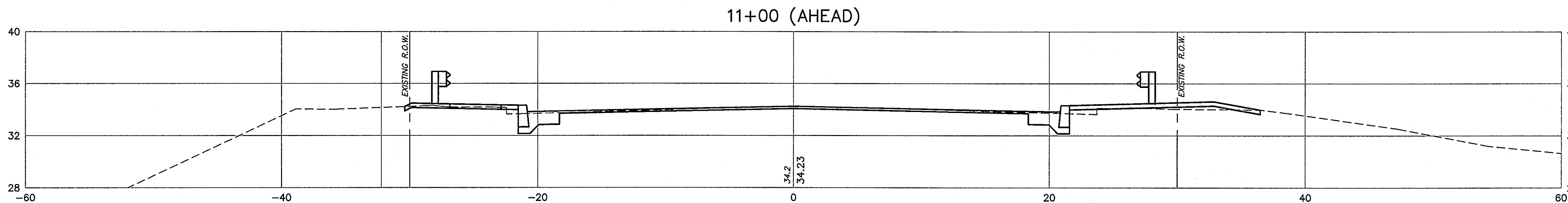


BACK
 CUT= 9 S.F.
 FILL= 0 S.F.
 TS= 12 L.F.

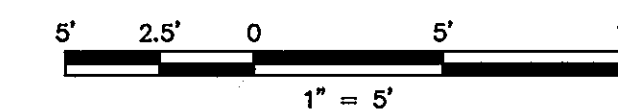
AHEAD
 CUT= 9 S.F.
 FILL= 0 S.F.
 TS= 9 L.F.




CUT= 8 S.F.
 FILL= 0 S.F.
 TS= 12 L.F.



CUT= 8 S.F.
 FILL= 0 S.F.
 TS= 20 L.F.



NO.	DATE	REVISIONS	BY	CHECKED
COUNTY OF UNION REPLACEMENT OF MADISON HILL ROAD BRIDGE, RA-28 CITY OF RAHWAY AND TOWNSHIP OF CLARK, UNION COUNTY, NEW JERSEY				
CROSS SECTIONS STA. 11+00 TO STA. 12+57				
DESIGNED BY RFS			DRAWN BY RFS	
PROJECT NO. UNCO-00420			CHECKED BY PWS	
CADD FILE UNCO00420_SHT014-SHT016_RD_XSC.dwg			DATE	

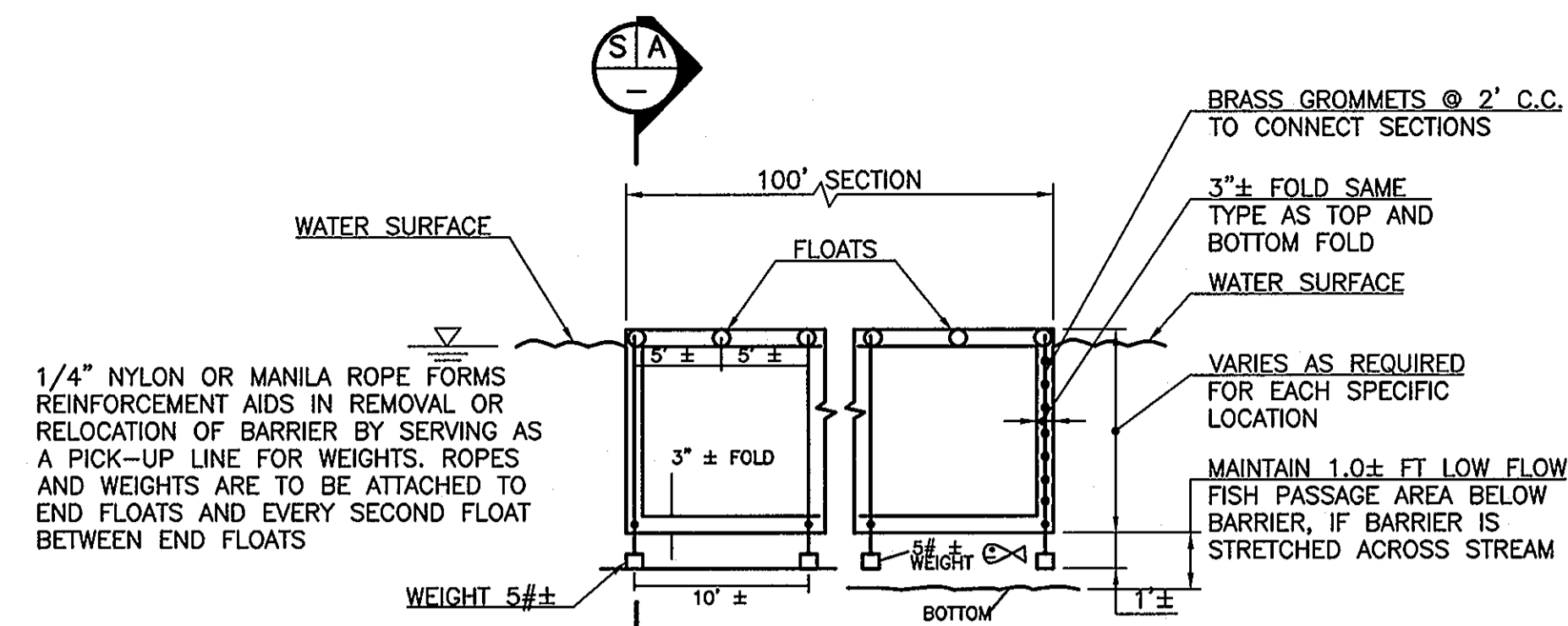


JAMES A. BUCZEK, PE
11 TRIUMPH ROAD
 HUNTSVILLE, NJ 07740
 TEL: 201-977-8400
 FAX: 201-977-8200
 LICENSED PROFESSIONAL ENGINEER
 STATE OF NEW JERSEY LICENSE No. GE45122

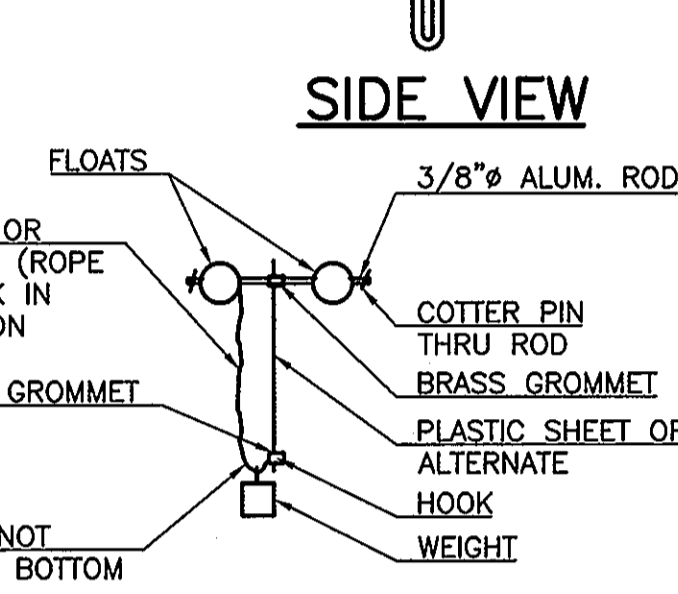
DRAWING **XS-3**
 SHEET

16

OF 38



1/4" NYLON OR MANILA ROPE FORMS REINFORCEMENT AIDS IN REMOVAL OR RELOCATION OF BARRIER BY SERVING AS A PICK-UP LINE FOR WEIGHTS. ROPES AND WEIGHTS ARE TO BE ATTACHED TO END FLOATS AND EVERY SECOND FLOAT BETWEEN END FLOATS



SECTION

NOTE:

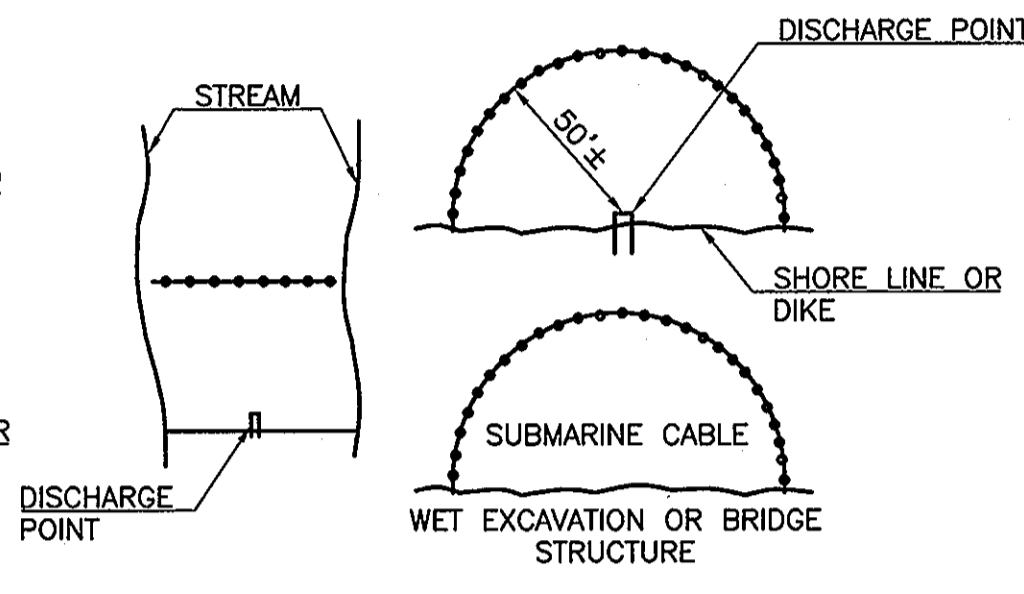
AT SHALLOW WATER LOCATIONS THE PLASTIC SHEET OR SUITABLE ALTERNATE MAY BE FASTENED TO STAKES DRIVEN INTO THE BOTTOM IN LIEU OF FLOATS AND WEIGHTS.

PLACEMENT:

- BARRIER WILL BE SET ON A 50' RADIUS FROM THE POINT OF DISCHARGE WHEN DISCHARGING THROUGH A CONDUIT. IF THE RADIUS CANNOT BE ACCOMODATED, BARRIER SHALL BE PLACED IN ACCORDANCE WITH NOTE NO. 3 BELOW.
- BARRIER WILL EXTEND PARALLEL TO THE CHANNEL BANK(S) FOR THE FULL LENGTH OF THE WORK AREA FOR SHORELINE DISTURBANCES.
- BARRIER WILL EXTEND ACROSS THE ENTIRE CHANNEL WHEN WORK IS PERFORMED WITHIN THE CHANNEL.

FRONT VIEW

10 MIL. POLYETHYLENE PLASTIC SHEET OR SUITABLE ALTERNATE TO FIT EXISTING CONDITIONS AS APPROVED BY THE ENGINEER



TYPICAL APPLICATIONS

GENERAL NOTES

SILT BARRIER TO PREVENT DRIFTING OF SILT CAUSED BY DISCHARGE OF STORM SEWERS DURING CONSTRUCTION, DREDGING OR FILLING OPERATIONS.

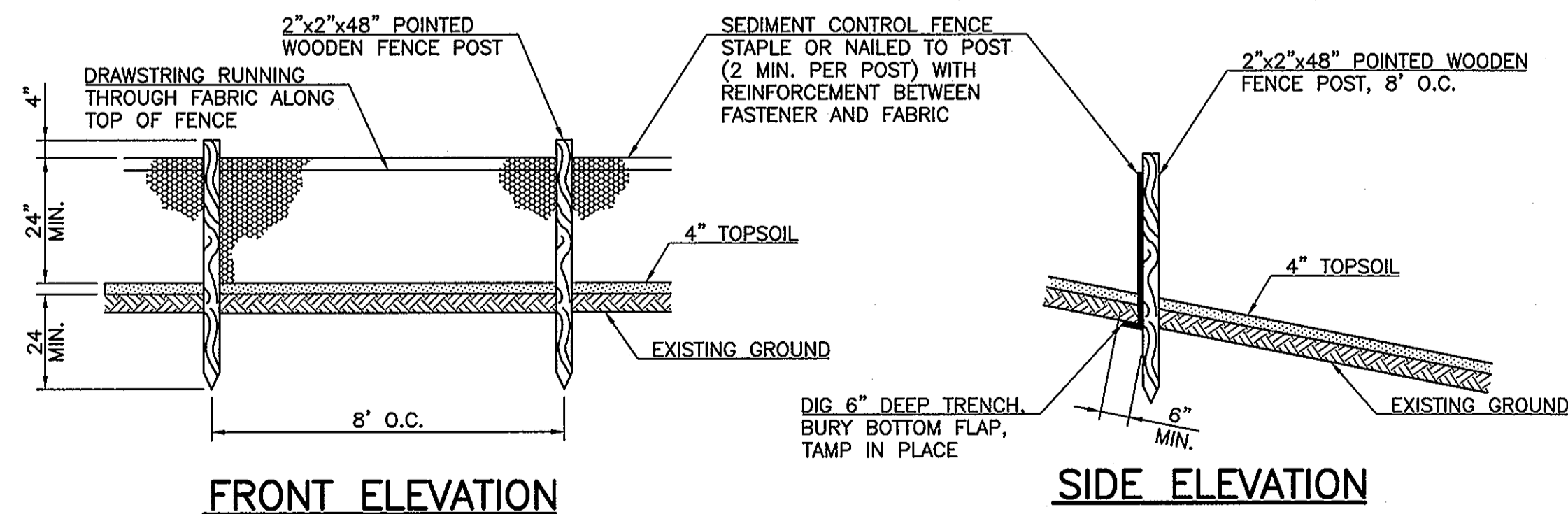
EXACT PLACEMENT OF SILT BARRIER SHALL BE SO AS TO EFFECTIVELY CONTROL SILT DISPERSION UNDER THE CONDITIONS PRESENT ON A PARTICULAR PROJECT.

THE DETAILS SHOWN ON THIS SHEET ARE SUGGESTED METHODS ONLY. ALTERNATE SOLUTIONS AND USAGE OF MATERIALS MAY BE USED AS APPROVED BY THE ENGINEER.

FLOATING TURBIDITY BARRIER, TYPE 2

NOT TO SCALE

PLAN SYMBOL **G1**



FRONT ELEVATION

SIDE ELEVATION

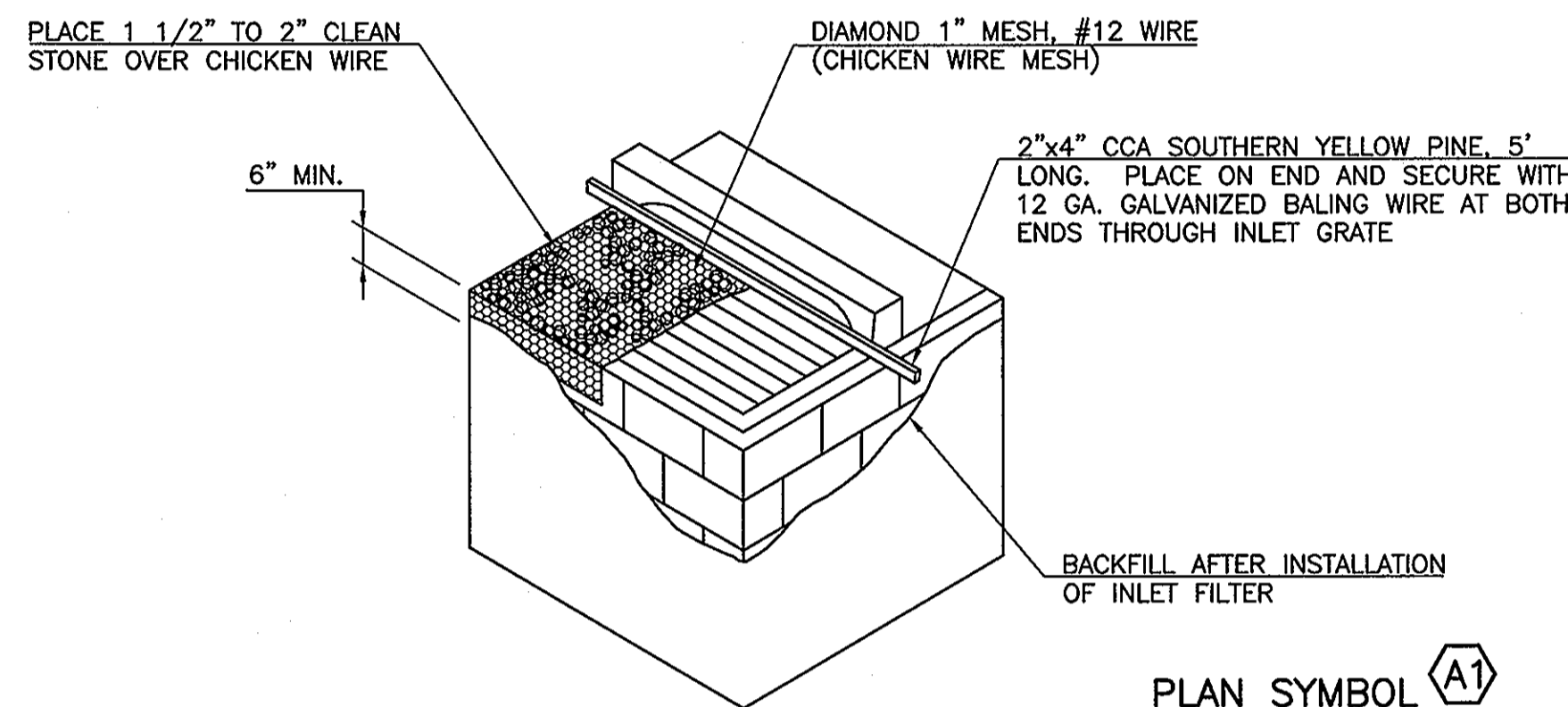
SILT FENCE

NOT TO SCALE

PLAN SYMBOL **C1**

GENERAL NOTES:

- CONTRACTOR TO CLEAN INLET FILTER AFTER EVERY STORM.
- FILTER FABRIC, WOOD PIECE OR PVC PIPE TO BE REMOVED AFTER PAVING OR FINAL GRADING AND ESTABLISHMENT OF VEGETATION.



INLET FILTERS, TYPE 1

NOT TO SCALE

PLAN SYMBOL **A1**

SOIL EROSION AND SEDIMENT CONTROL NOTES

- ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES ARE TO 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 THIRTY (30) DAYS, AND NOT SUBJECT TO CONSTRUCTION TRAFFIC, WILL IMMEDIATELY RECEIVE A TEMPORARY SEEDING, IF THE SEASON PREVENTS THE ESTABLISHMENT OF 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 IS TO BE SEEDDED 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 IS TO BE DONE IN ACCORDANCE WITH THE STATE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL OF NEW JERSEY.
- A SUB-BASE COURSE WILL BE APPLIED IMMEDIATELY FOLLOWING ROUGH GRADING AND INSTALLATION OF IMPROVEMENTS TO STABILIZE STREETS, ROADS, DRIVEWAYS, AND PARKING AREAS. IN AREAS WHERE NO UTILITIES ARE PRESENT, THE SUB-BASE SHALL BE INSTALLED WITHIN FIFTEEN (15) DAYS OF PRELIMINARY GRADING.
- IMMEDIATELY FOLLOWING INITIAL DISTURBANCE OR ROUGH GRADING, ALL CRITICAL AREAS SUBJECT TO EROSION (I.E. STEEP SLOPES AND ROADWAY EMBANKMENTS) WILL RECEIVE TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH OR A SUITABLE EQUIVALENT, AT A RATE OF TWO (2) TONS PER ACRE, ACCORDING TO STATE STANDARDS.
- ANY STEEP SLOPES RECEIVING PIPELINE INSTALLATION WILL BE BACKFILLED AND STABILIZED DAILY, AS THE INSTALLATION CONTINUES (I.E. SLOPES GREATER THAN 3:1).
- TRAFFIC CONTROL STANDARDS REQUIRE THE INSTALLATION OF A 50'x30'x1' PAD OF 1 1/2" OR 2" STONE AT ALL CONSTRUCTION DRIVEWAYS, IMMEDIATELY AFTER SITE DISTURBANCE.
- THE SOMERSET-UNION SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED IN WRITING FORTY EIGHT (48) HOURS IN ADVANCE OF ANY LAND DISTURBING ACTIVITY.
- AT THE TIME THE SITE PREPARATION FOR PERMANENT VEGETATIVE STABILIZATION IS GOING TO BE ACCOMPLISHED, ANY SOIL THAT WILL NOT PROVIDE A SUITABLE ENVIRONMENT TO SUPPORT ADEQUATE VEGETATIVE GROUND COVER SHALL BE REMOVED OR TREATED IN SUCH A WAY THAT IT WILL PERMANENTLY ADJUST THE SOIL CONDITIONS AND RENDER IT SUITABLE FOR VEGETATIVE GROUND COVER. IF THE REMOVAL OR TREATMENT OF THE SOIL WILL NOT PROVIDE SUITABLE CONDITIONS, NON-VEGETATIVE MEANS OF PERMANENT GROUND STABILIZATION WILL HAVE TO BE EMPLOYED.
- IN THAT N.J.S.A. 4:24-39 ET. SEQ. REQUIRES THAT NO CERTIFICATE OF OCCUPANCY BE ISSUED BEFORE THE PROVISIONS OF THE CERTIFIED PLAN FOR EROSION 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 OPERATIONAL.
- ANY CHANGES TO THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLANS 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.

PROPOSED CONSTRUCTION SEQUENCE

NOTIFY SOMERSET-UNION SOIL CONSERVATION DISTRICT 72 HOURS PRIOR TO ANY CONSTRUCTION ACTIVITY.


NO.	DATE	REVISIONS	BY	CHECKED
1.		APPLICATION OF PROPER MEASURES FOR THE CONTROL OF SOIL EROSION AND SEDIMENTATION.		
2.		STAGE 1 DEMOLITION AND BRIDGE CONSTRUCTION.		
3.		STAGE 2 DEMOLITION AND BRIDGE CONSTRUCTION.		
4.		CONSTRUCTION OF APPROACH ROADWAY IMPROVEMENTS.		
5.		REMOVAL OF SOIL EROSION AND SEDIMENT CONTROL DEVICES AFTER ESTABLISHED VEGETATIVE GROWTH HAS OCCURRED.		
		TOTAL ESTIMATED TIME OF CONSTRUCTION		

DURATION

1 DAY
150 DAYS
120 DAYS
28 DAYS
1 DAY
300 DAYS

MAINTENANCE OF SOIL EROSION MEASURES SHALL BE ON-GOING.

THE DURATIONS LISTED ABOVE FOR EACH CONSTRUCTION ITEM IN THE PROPOSED SEQUENCE OF CONSTRUCTION ARE APPROXIMATE AND MAY VARY DUE TO UNFORESEEN DELAYS CAUSED BY WEATHER OR SCHEDULING CONFLICTS. ITEMS LISTED ABOVE MAY BE ACCOMPLISHED CONCURRENTLY.

NO.		DATE		REVISIONS		BY	CHECKED
COUNTY OF UNION REPLACEMENT OF MADISON HILL ROAD BRIDGE, RA-28 CITY OF RAHWAY AND TOWNSHIP OF CLARK, UNION COUNTY, NEW JERSEY							
SOIL EROSION SEDIMENT CONTROL DETAILS							
 11 TRIBAL ROAD HOBOKEN, NJ 07030 TEL 732-977-6400 FAX 732-977-2285		JAMES A. BUCZEK, PE LICENSED PROFESSIONAL ENGINEER STATE OF NEW JERSEY LICENSE NO. GE45122		DATE		DRAWING	
		DESIGNED BY RFS DRAWN BY RFS CHECKED BY PWS		PROJECT NO. UNCO-00420 CADD FILE UNCO00420_SHT017-SHT018_SI_SDN.dwg		SHEET 17 OF 38	

STANDARD FOR
TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION

Definition
Establishment of temporary vegetative cover on soils exposed for periods of two to 6 months which are not being graded, not under active construction or not scheduled for permanent seeding within 60 days.

Purpose
To temporarily stabilize the soil and reduce damage from wind and water erosion until permanent stabilization is accomplished.

Water Quality Enhancement
Provides temporary protection against the impacts of wind and rain, slows the overland movement of stormwater runoff, increases infiltration and retains soil and nutrients on site, protecting streams or other stormwater conveyances.

Where Applicable
On exposed soils that have the potential for causing off-site environmental damage.

Methods and Materials

I. Site Preparation

- Grade as needed and feasible to permit the use of conventional equipment for seedbed preparation, seeding, mulch application, and mulch anchoring. All grading should be done in accordance with Standards for Land Grading, p. 19-1.
- Install needed erosion control practices or facilities such as diversions, grade stabilization structures, channel stabilization measures, sediment basins, and waterways. See Standards 11 through 42.
- Immediately prior to seeding, the surface should be scarified 6" to 12" where there has been soil compaction. This practice is permissible only where there is no danger to underground utilities (cables, irrigation systems, etc.).

II. Seedbed Preparation

- Apply ground limestone and fertilizer according to soil test recommendations such as those offered by Rutgers Co-operative Extension. Soil sample millers are available from the local Rutgers Cooperative Extension offices. Fertilizer shall be applied at the rate of 500 pounds per acre or 11 pounds per 1,000 square feet of 0-20-10 or equivalent with 50% water insoluble nitrogen unless a soil test indicates otherwise. Apply limestone at the rate of 2 tons/acre unless soil test indicates otherwise. 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. Table below is a general guideline for limestone application.

SOIL TEXTURE	TONS/ACRE	LBS./1000 SQ. FT.
Clay, clay loam, and high organic soil	3	135
Sandy loam, loam, silt loam	2	90
Loamy sand, sand	1	45

Pulverized dolomitic limestone is preferred for most soils south of the New Brunswick-Trenton line.

- Work lime and fertilizer into the soil as nearly as practical to a depth of 4 inches with a disc, springtooth harrow, or other suitable equipment. The final harrowing or discing operation should be on the general contour. Continue tillage until a reasonably uniform seedbed is prepared.
- Inspect seedbed just before seeding. If traffic has left the soil compacted, the area must be retitled as above.
- Soils high on sulfides or having a pH of 4 or less refer to Standard for Management of High Acid Producing Soils, pg. 1-1 of the Standards for Soil Erosion and Sediment Control in New Jersey.

III. Seeding

- Select seed from recommendations in Table.

SEED TYPES	SEEDING RATES 1/ (pounds)	OPTIMUM SEEDING DATE 2/ Based on Plant Hardiness Zone 3/	OPTIMUM SEED DEPTH 4/ (inches)
COOL SEASON GRASSES			
Perennial ryegrass	100	3/15-6/1 8/1-9/15	0.5
Spring Oats	86	3/15-6/1 8/1-9/15	1.0
Winter Barley	96	8/1-9/15	1.0
Winter Cereal Rye	112	8/1-11/1	1.0
WARM SEASON GRASSES			
Pearl millet	20	6/1-8/1	1.0
Millet (German or Hungarian)	30	6/1-6/1	1.0
Weeping lovegrass	5	6/1-8/1	0.25

- 1/ Seeding rate for warm season grass, shall be adjusted to reflect the amount of Pure Line Seed (PLS) as determined by a germination test result. No adjustment is required for cool season grasses.
- 2/ May be planted throughout summer if soil moisture is adequate or can be irrigated
- 3/ Plant Hardiness Zone (see below)
- 4/ Twice the depth for sandy soils

Zone 5b (-10 to -15) Portions of Sussex and Warren Counties

Zone 6a (-5 to -10) Portions of Sussex, Warren, Passaic, Morris, Somerset and Hunterdon counties.

Zone 6b (0 to -5) Portions of Bergen, Camden, Essex and Gloucester, Hunterdon, Mercer, Middlesex, Hudson, Monmouth, Ocean, Burlington, Morris, Passaic, Somerset, Union, Atlantic, Cumberland, and Cape May counties.

Zone 7a (5 to 0) Portions of Camden, Gloucester, Salem, Cumberland, Cape May, Atlantic, Burlington, Ocean, and Monmouth counties.

Zone 7b (10 to 5) Portions of Cape May, Atlantic, Ocean and Monmouth counties.

- Conventional Seeding - Apply seed uniformly by hand, cyclone (centrifugal) seeder, drop seeder, drill or cultipacker seeder. Except for drilled, hydroseeded or cultipacked seedings, seed shall be incorporated into the soil, 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.
- 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. Hydroseeding is not a preferred seeding method because seed and fertilizer are applied to the surface and not incorporated into the soil. Poor seed to 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.
- After seeding, firming the soil with a corrugated roller will assure good seed-to-soil contact, restore capillarity, and improve seeding emergence. This is the preferred method. When performed on the contour, sheet erosion will be minimized and water conservation on site will be maximized.

IV. Mulching

Mulching is required on all seeding. Mulch will insure against erosion before grass is established and will promote faster and earlier establishment. (The existence of vegetation sufficient to control soil erosion shall be deemed compliance with this mulching requirement.)

- Straw or Hay: Unrotted small grain straw, hay free of seeds, or salt hay to be applied at the rate of 1-1/2 to 2 tons per acre (70 to 90 pounds per 1,000 square feet), except that where a crimper is used instead of liquid mulch-binder (tackifying or adhesive agent), the rate of application is 3 tons per acre. Mulch chopper-blowers must not grind the mulch. Hay mulch is not recommended for establishing fine turf or lawns due to the presence of weed seed.
- Application: Spread uniformly by hand 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 pounds within each section.
- Anchoring should be accomplished immediately after placement to minimize loss by wind or water. This may be done by one of the following methods, depending upon the size of the area, steepness of slopes, and costs.
 - Peg and Twine - Drive 8 to 10 inch wooden pegs to within 2 to 3 inches of the soil surface every 4 feet in all directions. Stakes may be driven before or after applying mulch. Secure mulch to soil surface by stretching twine between pegs in a criss-cross and a square pattern. Secure twine around each peg with two or more round turns.
 - Mulch Nettings - Staple paper, jute, cotton, or plastic nettings to the soil surface. Use a degradable netting in areas to be mowed.
 - Crimper (mulch anchoring tool) - A tractor-drawn implement, somewhat like a disc-harrow, especially designed to push or cut some of the broadcast long fiber mulch 3 to 4 inches into the soil so as to anchor it and leave part standing upright. This technique is limited to areas traversable by a tractor, which must operate on the contour of slopes. Straw mulch rate must be 3 tons per acre. No tackifying or adhesive agent is required.
 - Liquid Mulch-Binders - May be used to anchor soil hay or straw mulches.
 - Applications should be heavier at edges where wind catches the mulch, in valleys, and at crests of banks. Remainder of area should be uniform in appearance.
 - Use one of the following:
 - Emulsified asphalt - (SS-1, CSS-1, CMS-1, MS-2, RS-1, RS-2, CRS-1, and CRS-2). Apply 0.04 gal./sq. yd. or 194 gal./acre on flat slopes less than 8 feet high. On slopes 8 feet or more high, use 0.075 gal./sq. yd. or 363 gal./acre. These materials may be difficult to apply uniformly and will discolor surfaces.
 - Organic and Vegetable Based Binders - Naturally occurring, powder based, hydrophilic materials when mixed with water formulates a gel and when applied to mulch under satisfactory curing conditions will form membraned networks of insoluble polymers. The vegetable gel shall be physiologically harmless and not result in a phytotoxic effect or impede growth of turfgrasses. Use at rates and weather conditions as recommended by the manufacturer to anchor mulch materials. Many new products are available, some of which may need further evaluation for use in this state.
 - Synthetic binders - High polymer synthetic emulsion, miscible with water when diluted and following application to mulch, drying and curing shall no longer be soluble or dispersible in water. It shall be applied at rates recommended by the manufacturer and remain tacky until germination of grass.
 - Wood-fiber or paper-fiber mulch. Shall be made from wood, plant fibers or paper containing no growth or germination inhibiting materials, used at the rate of 1,500 pounds per acre (or as recommended by the product manufacturer) and may be applied by a hydroseeder. This mulch shall not be mixed in the tank with the seed. Use is limited to flatter slopes and during optimum seeding periods in spring and fall.

- Apply the full 0.2 to 0.4 inches of water after spreading pelletized mulch on the seed bed is extremely important for sufficient activation and expansion of the mulch to provide soil coverage.

- Pelletized mulch, Compressed and extruded paper and/or wood fiber product, which may contain co-polymers, tackifiers, fertilizers and coloring agents. The dry pellets, when applied to a seeded area and watered, form a mulch mat. Pelletized mulch shall be applied in accordance with the manufacturers recommendations. Mulch may be applied by hand or mechanical spreader at the rate of 60-75 lbs/1,000 square feet and activated with 0.2 to 0.4 inches of water. This material has been found to be beneficial for use on small lawn or renovation areas, seeded areas where weed-seed free mulch is desired or on sites where straw mulch and tackifier agent are not practical or desirable.

STANDARD FOR
PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION

Definition
Establishment of permanent vegetative cover on exposed soils where perennial vegetation is needed for long term protection.

Purpose
To permanently stabilize the soil, assuring conservation of soil and water, and to enhance the environment.

Water Quality Enhancement
Slows the overland movement of stormwater runoff, increases infiltration and retains soil and nutrients on site, protecting streams or other stormwater conveyances.

Where Applicable
On exposed soils that have the potential for causing off-site environmental damage.

Methods and Materials

I. Site Preparation

- Grade as needed and feasible to permit the use of conventional equipment for seedbed preparation, seeding, mulch application, and mulch anchoring. All grading should be done in accordance with Standards for Land Grading, p. 19-1.
- Install needed erosion control practices or facilities such as diversions, grade stabilization structures, channel stabilization measures, sediment basins, and waterways. See Standards 11 through 42.
- Immediately prior to seeding, the surface should be scarified 6" to 12" where there has been soil compaction. This practice is permissible only where there is no danger to underground utilities (cables, irrigation systems, etc.).

II. Seedbed Preparation

- Apply ground limestone and fertilizer according to soil test recommendations such as those offered by Rutgers Co-operative Extension. Soil sample millers are available from the local Rutgers Cooperative Extension offices. Fertilizer shall be applied at the rate of 500 pounds per acre or 11 pounds per 1,000 square feet of 0-20-10 or equivalent with 50% water insoluble nitrogen unless a soil test indicates otherwise. Apply limestone in accordance with the table below and the results of soil testing. 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. Table below is a general guideline for limestone application rates.

SOIL TEXTURE	TONS/ACRE	LBS./1000 SQ. FT.
Clay, clay loam, and high organic soil	3	135
Sandy loam, loam, silt loam	2	90
Loamy sand, sand	1	45

Pulverized dolomitic limestone is preferred for most soils south of the New Brunswick-Trenton line.

- Work lime and fertilizer into the soil as nearly as practical to a depth of 4 inches with a disc, springtooth harrow, or other suitable equipment. The final harrowing or discing operation should be on the general contour. Continue tillage until a reasonably uniform seedbed is prepared.
- Inspect seedbed just before seeding. If traffic has left the soil compacted, the area must be retitled as above.
- Soils high on sulfides or having a pH of 4 or less or containing iron sulfide shall be covered with a minimum of 12 inches of soil having a pH of 5 or more before initiating seedbed preparation. See standard for Management of High Acid Producing Soils.

III. Seeding
Seed mix shall be as follows:

Type 'C' Seed Mixture Kind of Seed	Minimum Coverage-%	Minimum Germination-%	Application Rate Pounds/1,000 sq.ft.	
			Conventional Seeding	Hydroseeding
'Predator' Hard Fescue	95	85	2.7	
Creeping Red Fescue	95	85	0.7	
'Manhattan' Perennial Rye	95	85	0.25	
			Total 3.65 Pounds/Sq Ft	

Conventional Seeding - Apply seed uniformly by hand, cyclone (centrifugal) seeder, drop seeder, drill or cultipacker seeder. Except for drilled, hydroseeded or cultipacked seedings, seed shall be incorporated into the soil within 24 hours of seedbed 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.

STANDARD FOR STABILIZATION WITH MULCH ONLY

Definition
Stabilizing exposed soils with non-vegetative material.

Purpose
To protect exposed soil surfaces from erosion damage and to reduce offsite environmental damage.

Water Quality Enhancement
Provides temporary mechanical protection against wind or rainfall induced soil erosion until permanent vegetative cover may be established.

Where Applicable
This practice is applicable to areas subject to erosion, where the season and other conditions may not be suitable for growing an erosion resistant cover or where stabilization is needed for a short period until more suitable protection can be applied.

Method and Materials

I. Site Preparation

- Grade as needed and feasible to permit the use of conventional equipment and mulch anchoring. All grading should be done in accordance with Standards for Land Grading, p. 19-1.
- Install needed erosion control practices or facilities such as diversions, grade stabilization structures, channel stabilization measures, sediment basins, and waterways. See Standards 11 through 42.

2. Protective Materials

- Unrotted small-grain straw, or salt hay 2.0 to 2.5 tons per acre is spread uniformly at 90 to 115 pounds per 1,000 square feet and anchored with a mulch anchoring tool, liquid mulch binders, or netting tie down. Other suitable materials may be used if approved by the Soil Conservation District.
- Asphalt emulsions recommended at the rate of 600 to 1,200 gallons per acre. This is suitable for a limited period of time where travel by people, animals, or machines is not a problem.
- Synthetic or organic soil stabilizers may be used under suitable conditions and in quantities as recommended by the manufacturer.
- Wood-fiber or paper-fiber mulch at the rate of 1,500 pounds per acre (or according to the manufacturer's requirements) may be applied by a hydroseeder.

- Mulch netting, such as paper jute, excelsior, cotton, or plastic, may be used.
- Woodchips applied uniformly to a minimum depth of 2 inches may be used. Woodchips will not be used on areas where flowing water could wash them into an inlet and plug it.
- Gravel, crush stone, or slag at the rate of 9 cubic yards per 1,000 sq. ft. applied uniformly to a minimum depth of 3 inches may be used. Size 2 or 3 (astm c-33) is recommended.

Mulch anchoring should be accomplished immediately after placement of hay or straw mulch to minimize loss by wind or water. This may be done by one of the following methods, depending upon the size of the area and steepness of slopes.

- Peg and Drive - Drive 8 to 10 inch peg to within 2 to 3 inches of the soil surface every 4 feet in all directions. Stakes may be driven before or after applying mulch. Secure mulch to soil surface by stretching twine between pegs in a criss-cross and a square pattern. Secure twine around each peg with two or more round turns.
- Mulch nettings - Staple paper, cotton, and plastic nettings over mulch. Use a erodable netting in areas to be mowed. Netting is usually available in rolls 4 feet wide and 300 feet long.
- Crimper Mulch Anchoring Coupler Tool - A tractor-drawn implement especially designed to punch and anchor mulch into the soil surface. This practice affords maximum erosion control, but its use is limited to those slopes upon which the tractor can operate safely. Soil penetration should be about 3 to 4 inches. On sloping land, the operation should be on the contour.
- Liquid Mulch - Binders
 - Application should be heavier at edge where wind catches the mulch, in valleys, and at crests of banks. Remainder of area should be uniform in appearance.
 - Use one of the following:
 - Emulsified Asphalt - (SS-1, CSS-1, CMS-2, MS-2, RS-1, RS-2, CRS-1, and CRS-2). Apply 0.04 gal./sq.yd or 194 gal./acre on flat areas and on slopes less than 8 ft. or more high, use 0.075 gal./sq.yd or 363 gal./acre. This material may be difficult to apply uniformly and will discolor surfaces.
 - Organic and Vegetable Based Binders - Naturally occurring, powder based hydrophilic material that mixed with water formulates a gel and when applied to mulch under satisfactory curing conditions will form membrane networks of insoluble polymers. The vegetable gel shall be physiologically harmless and not result in a phytotoxic effect of impede growth of turfgrasses. Vegetable based gels shall be applied at rates and weather conditions recommended by the manufacturer.
 - Synthetic Binders - High polymer synthetic emulsion, miscible with water when diluted and following application to mulch, drying and curing shall no longer be soluble or dispersible in water. It shall be applied at rates and weather conditions recommended by the manufacturer and remain tacky until germination of grass.

- 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. Hydroseeding is not a preferred seeding method because seed and fertilizer are applied to the surface and not incorporated into the soil. Poor seed to 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.
- After seeding, firming the soil with a corrugated roller will assure good seed-to-soil contact, restore capillarity, and improve seeding emergence. This is the preferred method. When performed on the contour, sheet erosion will be minimized and water conservation on site will be maximized.

IV. Mulching

Mulching is required on all seeding. Mulch will insure against erosion before grass is established and will promote faster and earlier establishment. (The existence of vegetation sufficient to control soil erosion shall be deemed compliance with this mulching requirement.)

- Straw or Hay: Unrotted small grain straw, hay free of seeds, or salt hay to be applied at the rate of 1-1/2 to 2 tons per acre (70 to 90 pounds per 1,000 square feet), except that where a crimper is used instead of liquid mulch-binder (tackifying or adhesive agent), the rate of application is 3 tons per acre. Mulch chopper-blowers must not grind the mulch. Hay mulch is not recommended for establishing fine turf or lawns due to the presence of weed seed.
- Application: Spread uniformly by hand 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 pounds within each section.
- Anchoring should be accomplished immediately after placement to minimize loss by wind or water. This may be done by one of the following methods, depending upon the size of the area, steepness of slopes, and costs.
 - Peg and Twine - Drive 8 to 10 inch wooden pegs to within 2 to 3 inches of the soil surface every 4 feet in all directions. Stakes may be driven before or after applying mulch. Secure mulch to soil surface by stretching twine between pegs in a criss-cross and a square pattern. Secure twine around each peg with two or more round turns.
 - Mulch Nettings - Staple paper, jute, cotton, or plastic nettings to the soil surface. Use a degradable netting in areas to be mowed.
 - Crimper (mulch anchoring tool) - A tractor-drawn implement, somewhat like a disc-harrow, especially designed to push or cut some of the broadcast long fiber mulch 3 to 4 inches into the soil so as to anchor it and leave part standing upright. This technique is limited to areas traversable by a tractor, which must operate on the contour of slopes. Straw mulch rate must be 3 tons per acre. No tackifying or adhesive agent is required.
 - Liquid Mulch-Binders - May be used to anchor soil hay or straw mulches.
 - Applications should be heavier at edges where wind catches the mulch, in valleys, and at crests of banks. Remainder of area should be uniform in appearance.
 - Use one of the following:
 - Emulsified asphalt - (SS-1, CSS-1, CMS-2, MS-2, RS-1, RS-2, CRS-1, and CRS-2). Apply 0.04 gal./sq. yd. or 194 gal./acre on flat slopes less than 8 feet high. On slopes 8 feet or more high, use 0.075 gal./sq. yd. or 363 gal./acre. These materials may be difficult to apply uniformly and will discolor surfaces.
 - Organic and Vegetable Based Binders - Naturally occurring, powder based, hydrophilic materials when mixed with water formulates a gel and when applied to mulch under satisfactory curing conditions will form membraned networks of insoluble polymers. The vegetable gel shall be physiologically harmless and not result in a phytotoxic effect or impede growth of turfgrasses. Use at rates and weather conditions as recommended by the manufacturer to anchor mulch materials. Many new products are available, some of which may need further evaluation for use in this state.
 - Synthetic binders - High polymer synthetic emulsion, miscible with water when diluted and following application to mulch, drying and curing shall no longer be soluble or dispersible in water. It shall be applied at rates recommended by the manufacturer and remain tacky until germination of grass.
 - Wood-fiber or paper-fiber mulch. Shall be made from wood, plant fibers or paper containing no growth or germination inhibiting materials, used at the rate of 1,500 pounds per acre (or as recommended by the product manufacturer) and may be applied by a hydroseeder. This mulch shall not be mixed in the tank with the seed. Use is limited to flatter slopes and during optimum seeding periods in spring and fall.

Pelletized mulch, Compressed and extruded paper and/or wood fiber product, which may contain co-polymers, tackifiers, fertilizers and coloring agents. The dry pellets, when applied to a seeded area and watered, form a mulch mat. Pelletized mulch shall be applied in accordance with the manufacturers recommendations. Mulch may be applied by hand or mechanical spreader at the rate of 60-75 lbs/1,000 square feet and activated with 0.2 to 0.4 inches of water. This material has been found to be beneficial for use on small lawn or renovation areas, seeded areas where weed-seed free mulch is desired or on sites where straw mulch and tackifier agent are not practical or desirable.

Applying the full 0.2 to 0.4 inches of water after spreading pelletized mulch on the seed bed is extremely important for sufficient activation and expansion of the mulch to provide soil coverage.

V. Irrigation (where feasible)


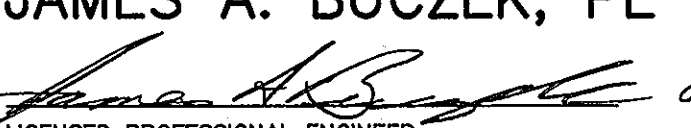
If soil moisture is deficient, and mulch is not used, supply new seedings with adequate water (a minimum of 1/4 inch twice a day until vegetation is well established). This is especially true when seedings are made in abnormally dry or hot weather or on droughty sites.

VI. Topdressing

Since slow release nitrogen fertilizer (water insoluble is prescribed in Section I.I.A. Seedbed preparation in this standard, topdressing is mandatory. An exception may be made where grass nitrogen deficiency exists to the extent that turf failure may develop. In that instance, topdress with 10-10-10 or equivalent at 400 pounds per 1,000 square feet.

VII. Establishing Permanent Vegetative Stabilization

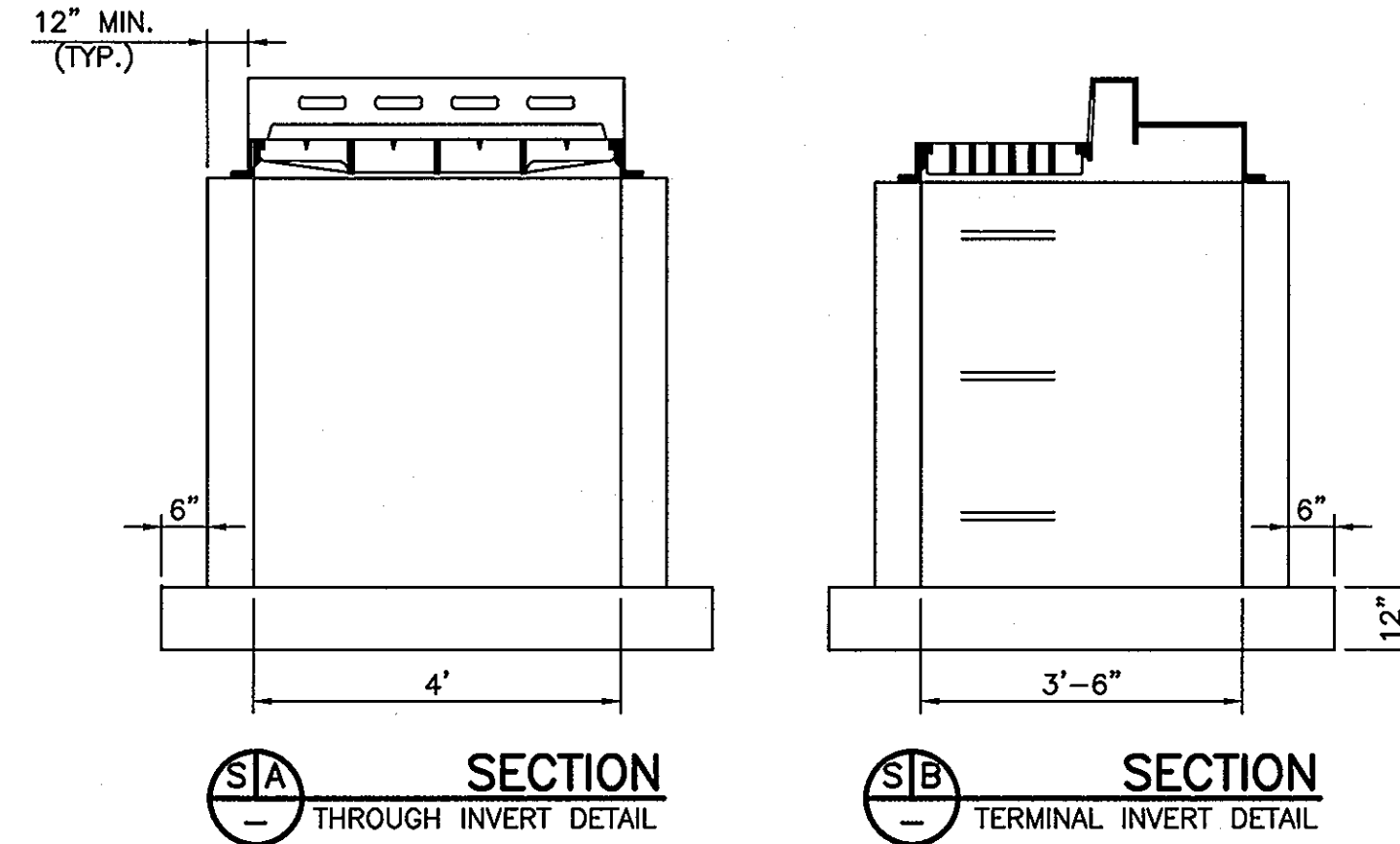
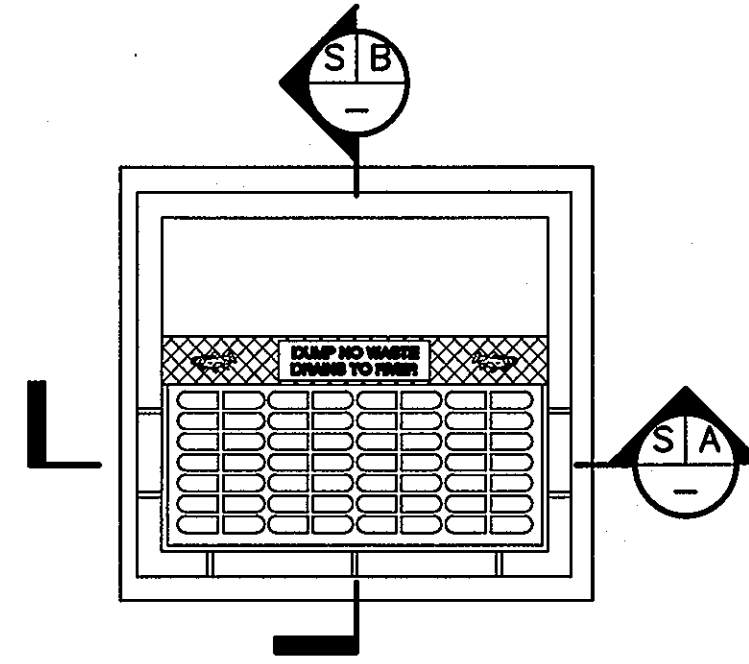
The quality of permanent vegetation rests with the contractor. The timing of seeding, preparing the seedbed, applying nutrients, mulch and other management are essential. The seed application rate is required when a Report of Compliance is requested prior to actual establishment of permanent vegetation. Up to 50% reduction in application rates may be used when permanent vegetation is established prior to requesting a Report of Compliance from the district. This rate applies to all methods of seeding. Establishing permanent vegetation means 80% vegetative cover (of the seeded species) and mowed once.

NO.	DATE	REVISIONS	BY	CHECKED
COUNTY OF UNION REPLACEMENT OF MADISON HILL ROAD BRIDGE, RA-28 CITY OF RAHWAY AND TOWNSHIP OF CLARK, UNION COUNTY, NEW JERSEY				
SOIL EROSION AND SEDIMENT CONTROL NOTES				
 <small>NEW JERSEY BOARD OF PROFESSIONAL ENGINEERS AND LAND SURVEYORS</small> <small>CERTIFICATE OF AUTHORIZATION 24629787500</small>		JAMES A. BUCZEK, PE  <small>LICENSED PROFESSIONAL ENGINEER STATE OF NEW JERSEY LICENSE NO. GE45122</small>		
PROJECT NO.	DRAWN BY	CHECKED BY	DATE	
UNCO-00420	RFS	RFS	6/29/11	
DRAWN FILE	CADD FILE			
UNCO00420_SHT017-SHT018_SI_SDN.dwg				
DRAWING SE-2 SHEET 18 OF 38				

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GENERAL NOTES

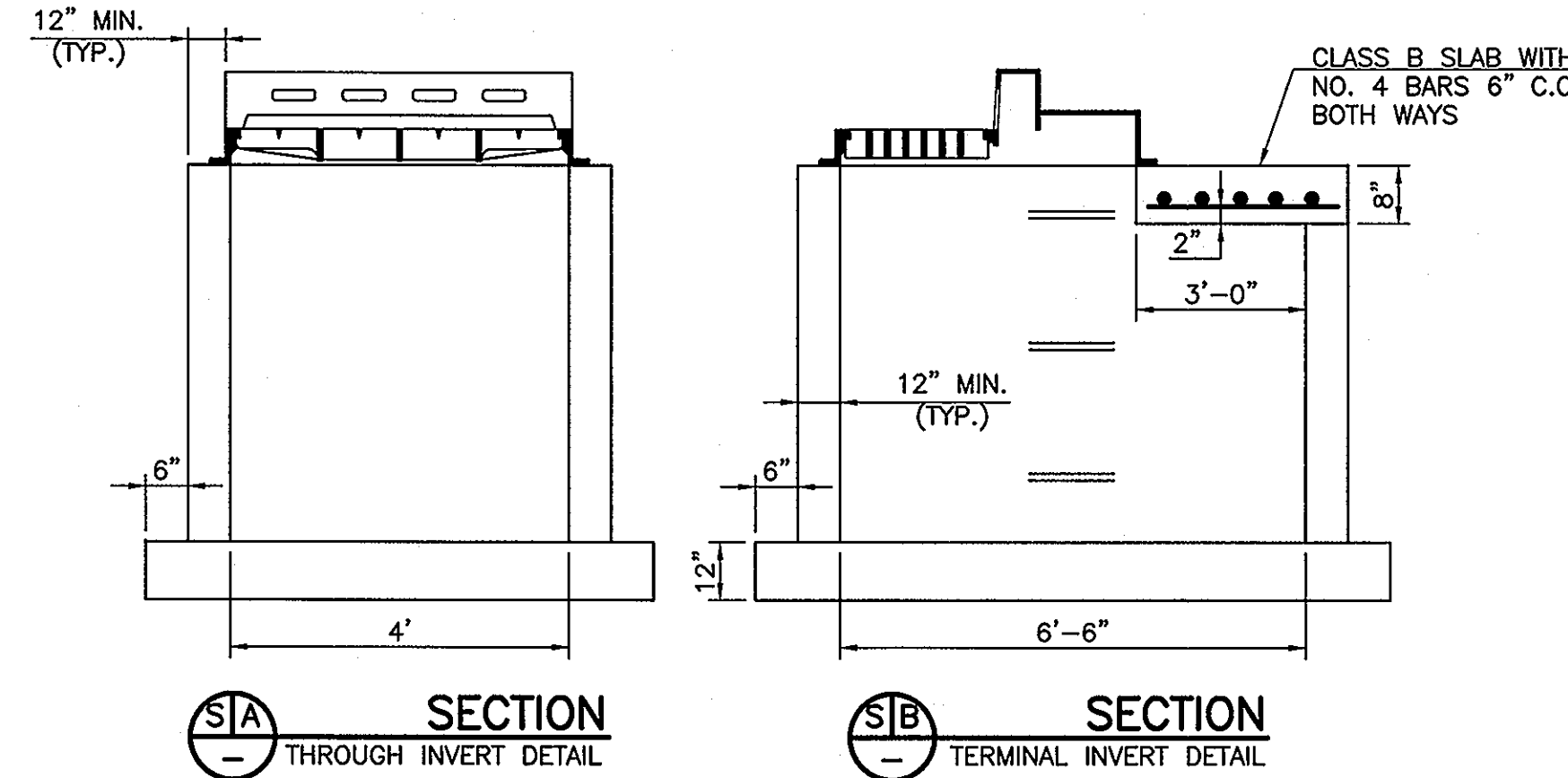
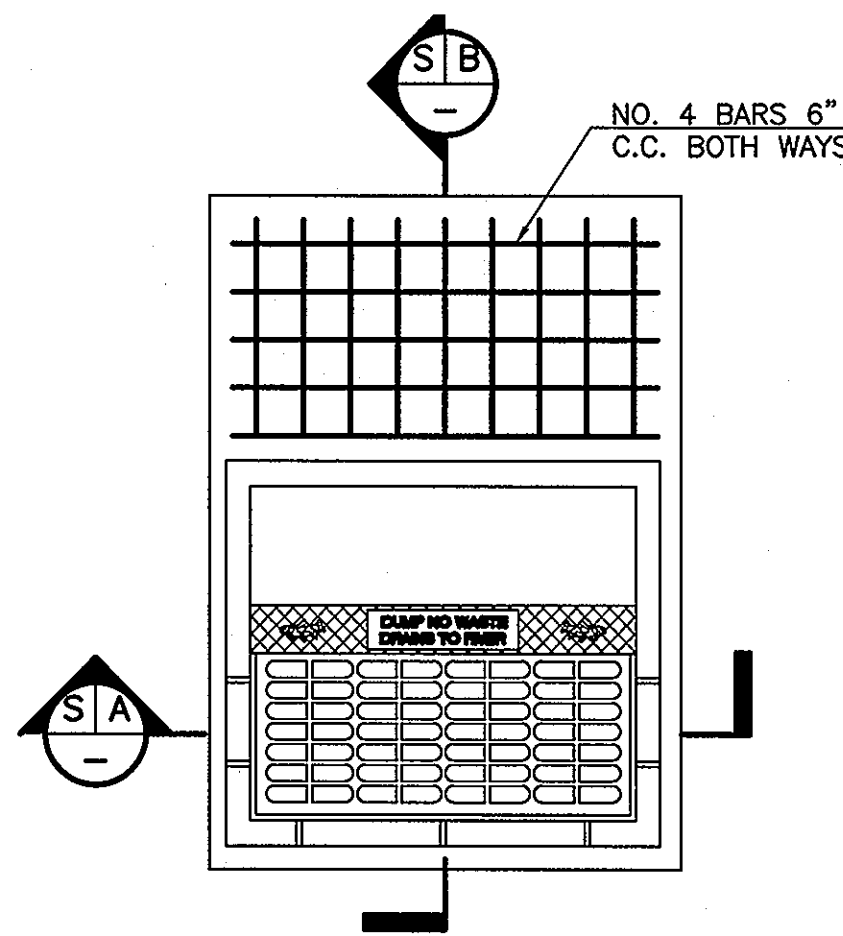
- FOOTER AND INVERT TO BE NJDOT CLASS "C" CONCRETE.
- IF WALL CONSTRUCTION OTHER THAN CONCRETE THE WALLS SHALL BE PLASTERED BOTH INSIDE AND OUTSIDE WITH 1/2" THICK CEMENT PLASTER.
- CASTING TO BE CAMPBELL FOUNDRY NO. 2618 WITH TYPE "N-ECO" CURB PIECE & BICYCLE SAFE GRATE, OR EQUIVALENT
- PROVIDE POLYPROPYLENE PLASTIC STEPS 12" O.C.
- WALLS SHALL BE MIN. 12" THICK IF CONCRETE OR DOUBLE BLOCK IF BLOCK.
- A MINIMUM OF 12" COARSE AGGREGATE SHALL BE PLACED BENEATH ALL STRUCTURES. COST INCLUDED IN COST OF STRUCTURE.
- FOR PIPE LAYOUT, INVERTS AND SIZES REFER TO SHEET NO. 10.



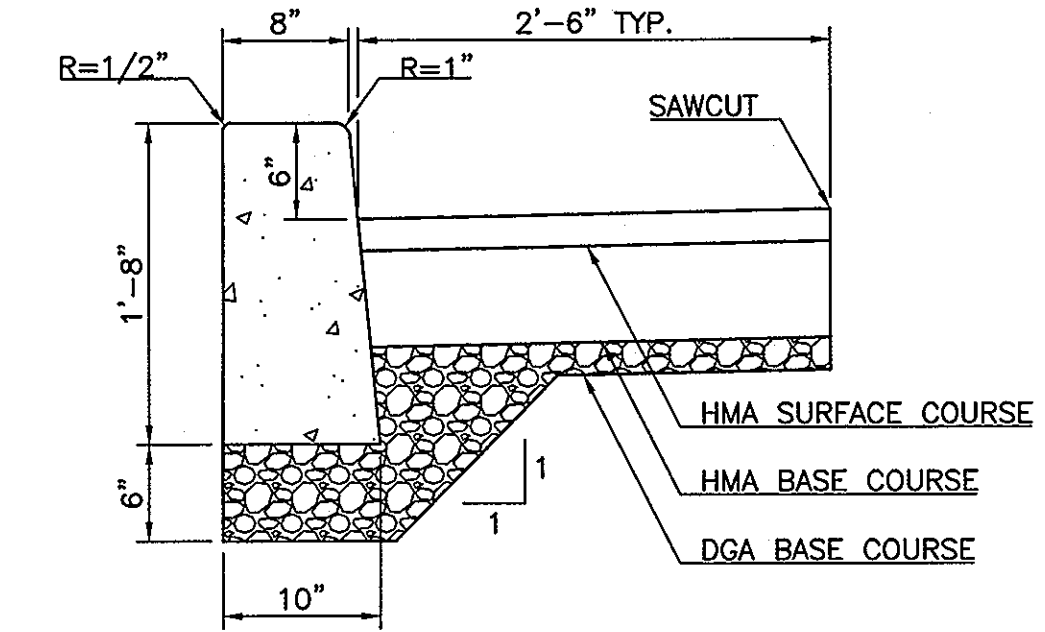
INLET, TYPE B
N.T.S.

GENERAL NOTES

- FOOTER AND INVERT TO BE NJDOT CLASS "C" CONCRETE.
- IF WALL CONSTRUCTION OTHER THAN CONCRETE THE WALLS SHALL BE PLASTERED BOTH INSIDE AND OUTSIDE WITH 1/2" THICK CEMENT PLASTER.
- CASTING TO BE CAMPBELL FOUNDRY NO. 2618 WITH TYPE "N-ECO" CURB PIECE & BICYCLE SAFE GRATE, OR EQUIVALENT
- PROVIDE POLYPROPYLENE PLASTIC STEPS 12" O.C.
- WALLS SHALL BE 12" THICK IF CONCRETE OR DOUBLE BLOCK IF BLOCK.
- A MINIMUM OF 12" COARSE AGGREGATE SHALL BE PLACED BENEATH ALL STRUCTURES. COST INCLUDED IN COST OF STRUCTURE.
- FOR PIPE LAYOUT, INVERTS AND SIZES REFER TO SHEET NO. 10.



INLET, TYPE B SPECIAL
N.T.S.




NOTES:

- CONCRETE SHALL BE NJDOT CLASS 'B', 4500 PSI, 6% AIR ENTRAINED.
- PROVIDE PREFORMED BITUMINOUS FIBER EXPANSION JOINTS AT 10'-0" MAX. INTERVALS.

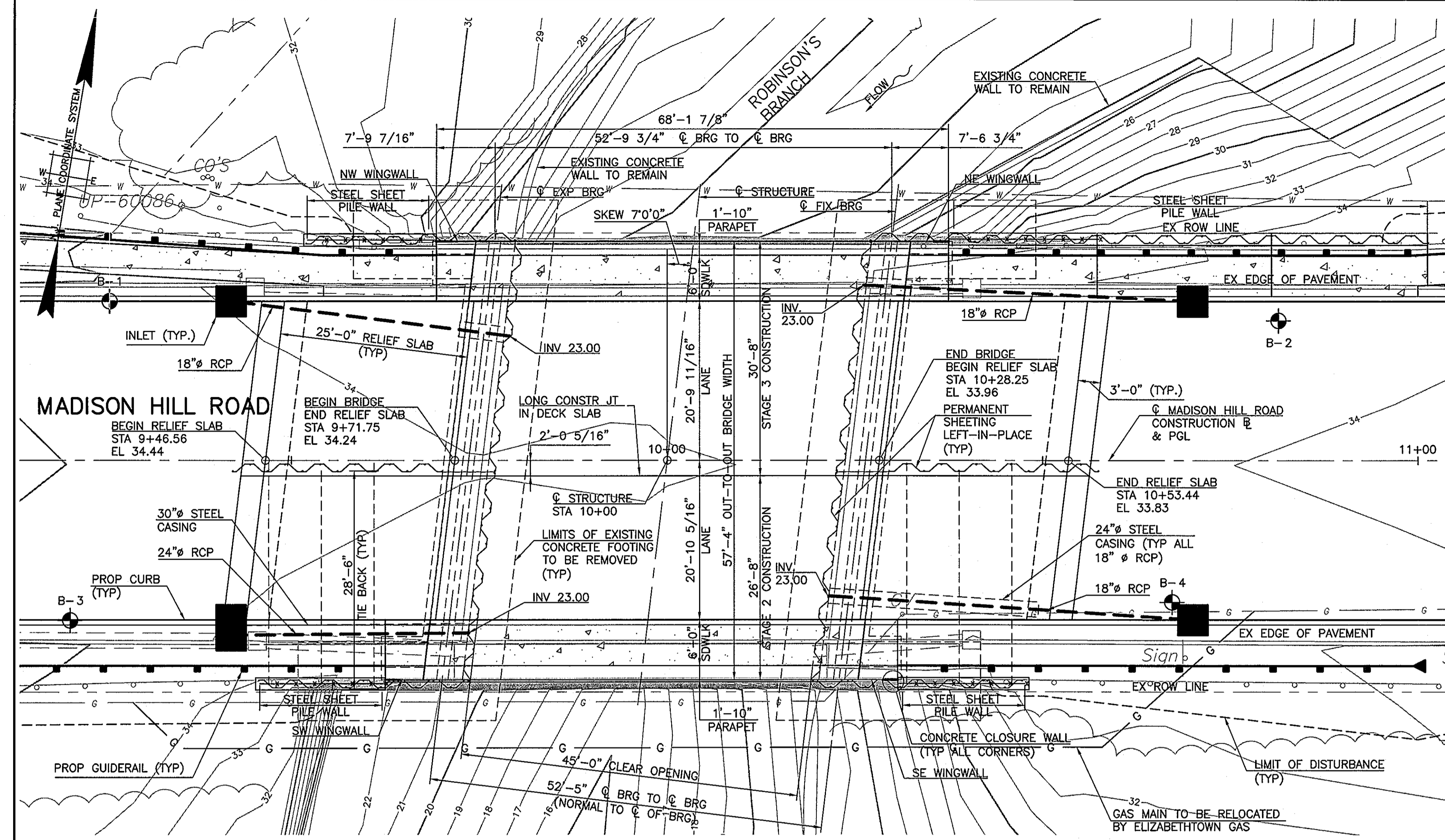
10"x20" CONCRETE VERTICAL CURB
N.T.S.

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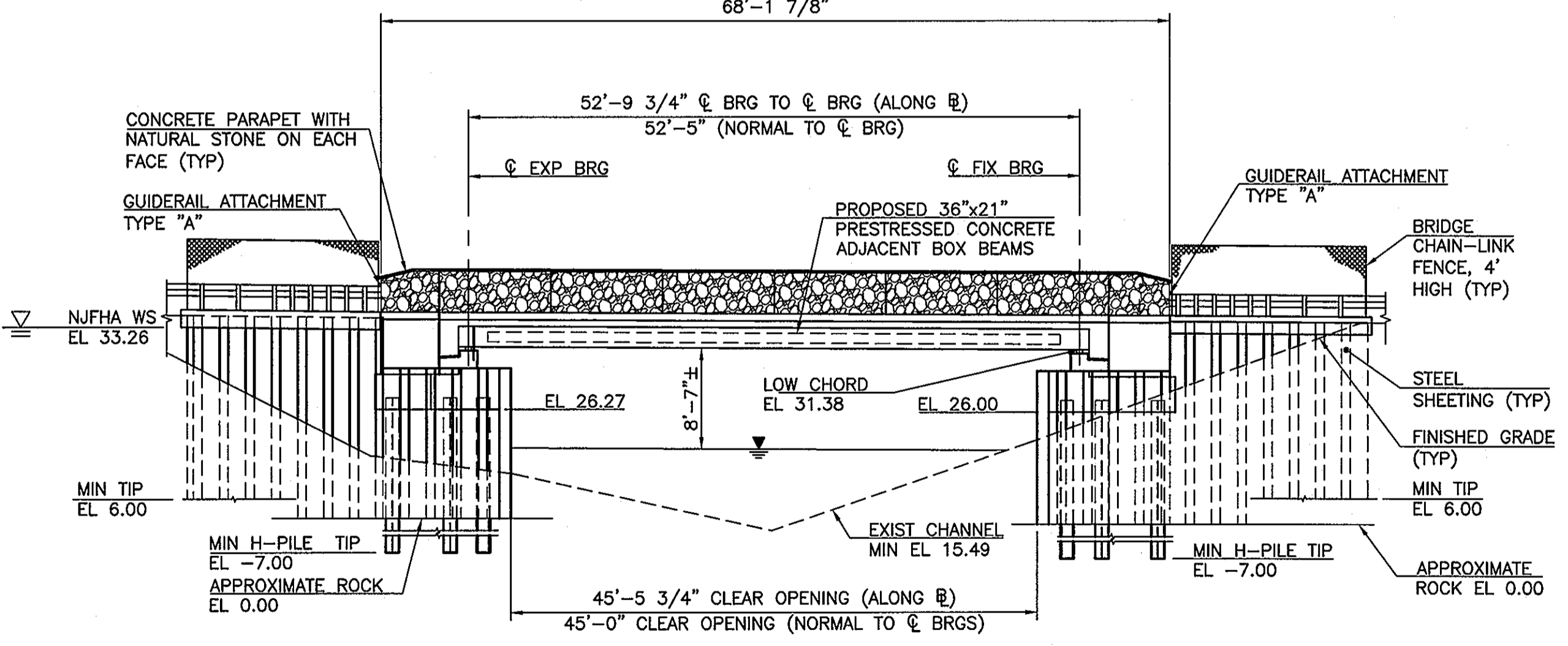
NO.	DATE	REVISIONS	BY	CHECKED
COUNTY OF UNION REPLACEMENT OF MADISON HILL ROAD BRIDGE, RA-28 CITY OF RAHWAY AND TOWNSHIP OF CLARK, UNION COUNTY, NEW JERSEY				
CONSTRUCTION DETAILS				
 JAMES A. BUCZEK, PE LICENSED PROFESSIONAL ENGINEER STATE OF NEW JERSEY LICENSE No. GE45122			DRAWING CD-1 SHEET	
PROJECT NO. UNCO-00420		DRAWN BY UNCO00420_SHT019_RD_DTL.dwg		CHECKED BY PWS
			19 OF 38	

GENERAL NOTES

- DESIGN SPECIFICATIONS:**
THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 6TH EDITION, WITH 2012 INTERIM REVISIONS, AS MODIFIED BY THE 2009 NJDOT DESIGN MANUAL FOR BRIDGES AND STRUCTURES WITH INTERIMS.
- CONSTRUCTION SPECIFICATIONS:**
THE 2007 NJDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION WITH CURRENT SUPPLEMENTAL SPECIFICATIONS, AS MODIFIED BY THE SPECIAL PROVISIONS.
- DEAD LOAD:**
DEAD LOAD INCLUDES 25 LBS/SQ FT. PROVISION FOR FUTURE 2" THICK OVERLAY ON BRIDGE DECK.
- LIVE LOAD:**
AASHTO LRFD HL-93 VEHICULAR LIVE LOAD OR NJDOT PERMIT VEHICLE, WHICHEVER GOVERNS.
- LIVE LOAD DEFLECTION:**
MAX. 1/1000 X SPAN LENGTH
- CONCRETE DESIGN STRESSES:**
 - DESIGN COMPRESSIVE STRENGTH (f'c)
CLASS A 4,000 PSI
CLASS B 3,000 PSI
CLASS P-2 6,000 PSI
 - CLASS MIX DESIGN STRENGTHS (IN ACCORDANCE WITH TABLE 903.03.06-3 OF THE NJDOT STANDARD SPECIFICATIONS)
CLASS A 4,600 PSI
CLASS B 3,700 PSI
CLASS P-2 6,500 PSI
 - MEMBER CONCRETE CLASS
FOOTINGS B
ABUTMENTS, WINGWALLS B
CONCRETE CAP FOR SHEETING B
PRECAST BOX BEAMS P-2
DECK SLAB, SIDEWALKS A
PARAPETS, PYLONS A
BRIDGE RELIEF SLAB, SLEEPER SLAB HPC
 - CONCRETE FOR ANY OTHER ITEM NOT LISTED HERE SHALL BE CLASS A.
- REINFORCEMENT STEEL:**
 - ASTM A615 (GRADE 60)
 - ALL REINFORCEMENT STEEL SHALL GALVANIZED IN ACCORDANCE WITH ASTM A767, UNLESS OTHERWISE NOTED OR APPROVED EQUAL.
 - BAR LAPS SHALL BE MINIMUM 30 BAR DIAMETER, UNLESS OTHERWISE NOTED.
- SEISMIC LOAD:**
 - SEISMIC ACCELERATION COEFFICIENT, "A" = 0.18
 - SEISMIC PERFORMANCE CATEGORY = B
 - SITE SOIL COEFFICIENT, S = 1.0
- BORINGS:**
B-# INDICATES LOCATION OF BORINGS.
LOG NO.
- BORING LOGS ARE PART OF BID DOCUMENTS.**
- FOUNDATION DESIGN:**
 - ABUTMENTS AND WINGWALLS SHALL BE FOUNDED ON REINFORCED CONCRETE FOOTINGS SUPPORTED BY STEEL PILES.
 - STEEL H-PILE DESIGN CRITERIA**
MINIMUM TIP ELEVATION = -7.00
MAXIMUM AXIAL CAPACITY = 200 KIPS
LATERAL CAPACITY = 9.5 KIPS
 - FOR PILE NOTES SEE SHEET 24.
- COFFERDAM SHEETING TO REMAIN IN-PLACE ALONG THE FRONT FACE OF THE SUBSTRUCTURE. MATERIAL FOR THE COFFERDAMS SHALL CONFORM TO AASHTO M270/M270M (ASTM A572), GRADE 50.**
 - PERMANENT COFFERDAM SHEETING SHALL REMAIN IN PLACE ALONG THE FRONT FACE OF THE WINGWALLS AND FRONT FACE OF ABUTMENT FOOTING.
 - THE CONTRACTOR SHALL PROVIDE WALER/ BRACING DURING CONSTRUCTION. PERMANENT COFFERDAM SHEETING SHALL BE DESIGNED BY CONTRACTOR AND APPROVED BY ENGINEER.
 - COFFERDAM SHEETING SHALL BE PZC 13 OR EQUAL SECTION, ASTM A572 GRADE 50 WITH COAL TAR EPOXY TO MINIMUM DRY COATING THICKNESS OF 20 MILS. COLD FORM SHEETING WILL NOT BE ALLOWED ON THIS PROJECT.
 - PERMANENT SHEETING SHALL BE ALL INCLUSIVE UNDER THE PAY ITEM, "PERMANENT SHEETING". NO SEPARATE PAYMENT SHALL BE MADE FOR STRUTS, BRACES, CONNECTIONS AND ALL INCLUDED WORK. ALL COSTS THEREFORE SHALL BE INCLUDED IN THE PRICE BID FOR "PERMANENT SHEETING".
 - TIE BACK SYSTEMS SHALL BE INSTALLED AT THE SOUTH SHEETING WALLS.
- ALL EXPOSED EDGES OF CONCRETE (PRECAST AND CAST-IN-PLACE) TO BE CHAMFERED 3/4", UNLESS OTHERWISE NOTED.**
- OVERHEAD UTILITIES:**
 - PSE&G, CABLEVISION, AND VERIZON HAVE OVERHEAD FACILITIES WITHIN THE PROJECT LIMITS. THE CONTRACTOR SHALL COORDINATE THE TEMPORARY AND PERMANENT RELOCATIONS OF THESE FACILITIES BY THE UTILITY COMPANIES AS NECESSARY INCLUDING SPLICING, BRACING, EQUIPMENT AND ALL WORK NECESSARY FOR THE INSTALLATION OF THE COFFERDAM/PILES. THE CONTRACTOR SHALL STAGE HIS WORK TO ALLOW THE REMOVAL OF OVERHEAD FACILITIES PRIOR TO THE START OF ANY WORK REQUIRING THE USE OF CRANES AND SHALL MEET ALL OSHA STANDARDS. ALL COSTS ASSOCIATED WITH DEENERGIZATION OR MODIFICATIONS TO THE OVERHEAD ELECTRICAL LINES SHALL BE PAID BY THE CONTRACTOR WITH THE UTILITY COMPANY.
 - ALL COSTS FOR OVERHEAD UTILITY RELOCATION SUPPORT ACTIVITIES SHALL BE INCLUDED IN THE PRICE BID FOR ITEM "CLEARING SITE".
- UTILITY NOTES:**
 - UTILITY LOCATIONS SHOWN HEREON ARE FROM ABOVE-GROUND OBSERVATIONS AND RECORD INFORMATION PROVIDED BY THE VARIOUS UTILITY COMPANIES. THIS INFORMATION IS NOT GUARANTEED TO BE ACCURATE NOR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATIONS AS TO THE TYPE AND LOCATIONS OF UTILITIES AS MAY BE NECESSARY. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE POTENTIAL FOR CONFLICTS IN ORDER TO AVOID DISRUPTION OF SERVICE.
 - THE CONTRACTOR SHALL ARRANGE FOR ALL UTILITY WORK ESSENTIAL FOR THE COMPLETION OF THE PROJECT AND SHALL COORDINATE THE WORK CARRIED ON BY THE PUBLIC UTILITIES WITH HIS OWN WORK. THE CONTRACTOR SHALL COOPERATE WITH UTILITY COMPANIES IN THE REMOVAL, RELOCATION AND REPLACEMENT OF UTILITIES. LOCATIONS OF RELOCATED UTILITIES SHALL BE VERIFIED WITH RESPECTIVE UTILITY COMPANIES. WHENEVER UNDERGROUND UTILITIES ARE ENCOUNTERED, THE CONTRACTOR SHALL TAKE SPECIAL PRECAUTIONS TO PREVENT BREAKAGE AND INTERRUPTION OF SERVICE, DELAYS RESULTING FROM THE CONTRACTOR'S FAILURE TO COORDINATE WITH THE UTILITY COMPANIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
 - ALL SHEETING SHALL BE DESIGNED AND MODIFIED AS NECESSARY TO ACCOMMODATE EXISTING AND RELOCATED UTILITY LOCATIONS. NO SEPARATE PAYMENT WILL BE MADE FOR THESE MODIFICATIONS. ALL COSTS TO BE INCLUDED IN THE BID PRICE FOR THE RESPECTIVE PAY ITEMS IN THE PROPOSAL.
 - COORDINATION FOR ALL UTILITIES RELOCATION SUPPORT ACTIVITIES SHALL BE INCLUDED IN THE PRICE BID FOR "CLEARING SITE".
- NO SEPARATE PAYMENT SHALL BE MADE FOR "REMOVE" OR "RELOCATE" ITEMS. ALL COSTS THEREOF ARE TO BE INCLUDED IN THE BID PRICE FOR THE ITEM "CLEARING SITE", UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL EXAMINE AND VERIFY IN THE FIELD ALL EXISTING CONDITIONS AND DIMENSIONS WITH THOSE SHOWN ON THE PLANS. IF FIELD CONDITIONS AND DIMENSIONS DIFFER FROM THOSE SHOWN ON THE PLANS, THE CONTRACTOR SHALL USE THE FIELD CONDITIONS AND DIMENSIONS AND MAKE THE APPROPRIATE CHANGES TO THOSE SHOWN ON THE PLANS AS APPROVED BY THE ENGINEER. THE RESULTS OF THIS CHECK OF CONDITIONS AND DIMENSIONS SHALL BE SO NOTED ON THE DRAWINGS SUBMITTED FOR APPROVAL.
- THERE SHALL BE NO CLAIM AGAINST THE COUNTY MADE BY THE CONTRACTOR FOR WORK PERTAINING TO MODIFICATIONS AS MAY BE REQUIRED DUE TO ANY DIFFERENCES BETWEEN ACTUAL FIELD CONDITIONS AND THE DETAILS AND DIMENSIONS SHOWN ON THE CONTRACT PLANS.
- THE EXISTING SUPERSTRUCTURE AND SUBSTRUCTURE ARE TO BE REMOVED IN THEIR ENTIRETY, SEE DEMOLITION PLAN FOR DETAILS.
- THE CONTRACTOR SHALL SUBMIT A SHOP DRAWING AFTER ALL NECESSARY TEST PITS HAVE BEEN PERFORMED DETAILING THE EXACT LAYOUT OF THE UTILITY RELOCATIONS INCLUDING THE STATIONS, OFFSETS, AND ELEVATIONS OF ALL UTILITY COMPONENTS. THE CONTRACTOR SHALL VERIFY THAT THE NEW GAS AND WATER MAINS HAVE NO CONFLICTS. THE CONTRACTOR SHALL COORDINATE THE SHOP DRAWING WITH THE RESPECTIVE UTILITY COMPANIES AND THEIR DESIGN REQUIREMENTS. THE CONTRACTOR IS RESPONSIBLE FOR THE MEANS AND METHODS INCLUDING, BUT NOT LIMITED TO, THE MAINTENANCE OF STREAM FLOW, DEWATERING, AND TEMPORARY SHEETING. THESE MEANS AND METHODS SHALL BE DETAILED IN THE SHOP DRAWING. ALL WORK WITHIN THE VICINITY OF THE STREAM SHALL BE IN ACCORDANCE WITH THE PROVISIONS OF THE PERMITS LISTED IN THE SPECIFICATIONS. ALL SHEETING SHALL BE DESIGNED AND MODIFIED AS NECESSARY TO ACCOMMODATE EXISTING AND RELOCATED UTILITY LOCATIONS INCLUDING SPLICING, BRACING, EQUIPMENT AND ALL WORK NECESSARY FOR THE INSTALLATION OF THE COFFERDAM. NO SEPARATE PAYMENT WILL BE MADE FOR THESE MODIFICATIONS. ALL COSTS TO BE INCLUDED IN THE BID PRICE FOR THE RESPECTIVE PAY ITEMS IN THE PROPOSAL.
- THE CONTRACTOR SHALL PROTECT AND MAINTAIN THE STREAM FLOW AT ALL TIMES DURING CONSTRUCTION AT NO ADDITIONAL COST TO THE COUNTY.
- ELEVATIONS SHOWN ARE BASED ON THE NORTH AMERICA VERTICAL DATUM (NAVD) OF 1988. HORIZONTAL DATUM IS NORTH AMERICAN DATUM (NAD) OF 1983.
- PEDESTRIAN WALKWAY - THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND DESIGN CALCULATIONS FOR A PEDESTRIAN WALKWAY MOUNTED WITH BRACKETS TO THE EXISTING BRIDGE AND WING WALLS ON THE NORTH SIDE AND MOUNTED TO THE NEW BRIDGE AND WING WALLS ON THE SOUTH SIDE. THE DESIGN SHALL BE BASED ON THE AASHTO LRFD GUIDE SPECIFICATIONS FOR DESIGN OF PEDESTRIAN BRIDGES, 2ND EDITION, WITH LATEST INTERIMS.



PLAN
SCALE: 1" = 10'

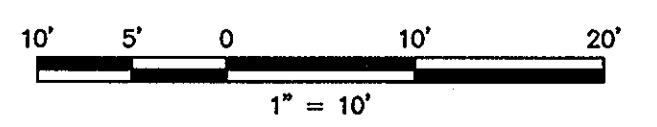


SOUTH ELEVATION
SCALE: 1" = 10'

INDEX OF BRIDGE DRAWINGS	
DWG NO	DESCRIPTION
B-1	GENERAL PLAN & ELEVATION
B-2	PROFILE & WORKING POINTS
B-3	DEMOLITION PLAN
B-4	STAGING SECTION
B-5	PILE PLAN
B-6	FOOTING PLAN
B-7	WEST ABUTMENT PLAN & ELEVATION
B-8	EAST ABUTMENT PLAN & ELEVATION
B-9	SECTIONS & DETAILS

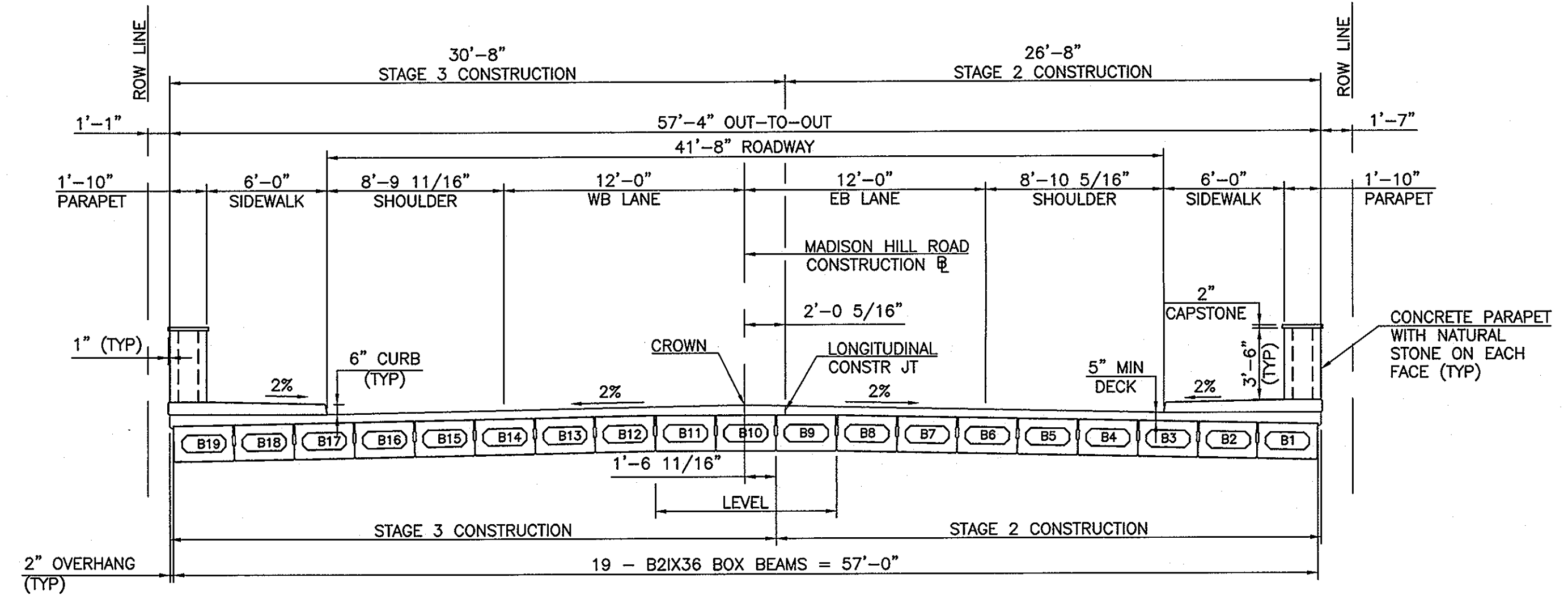
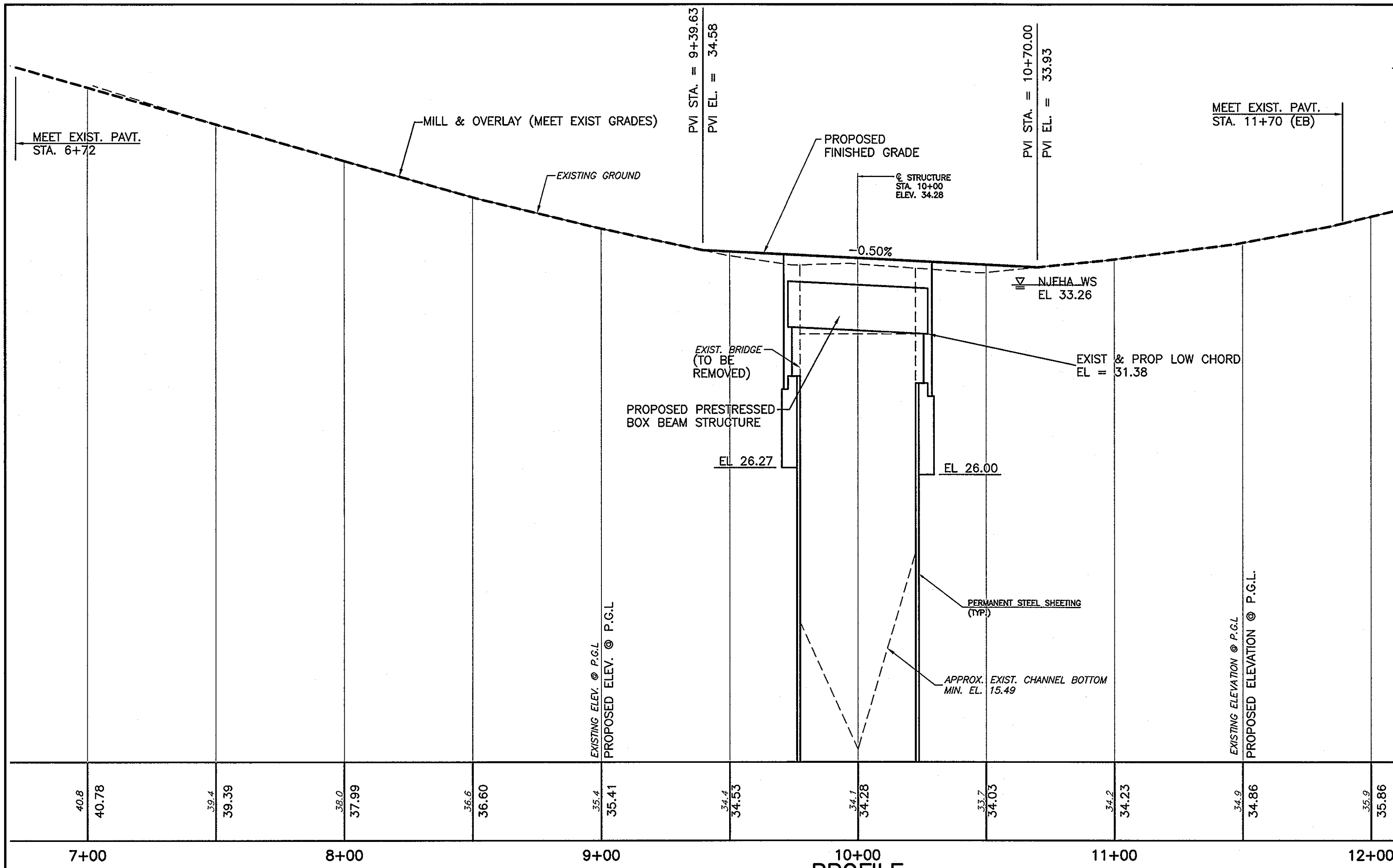
INDEX OF BRIDGE DRAWINGS	
DWG NO	DESCRIPTION
B-10	WINGWALL ELEVATIONS
B-11	NORTHEAST SHEET PILE WALL
B-12	PERMANENT SHEET PILE WALL DETAILS
B-13	FRAMING PLAN
B-14	PRESTRESSED CONCRETE BEAM DETAILS 1
B-15	PRESTRESSED CONCRETE BEAM DETAILS 2
B-16	DECK PLAN
B-17	TYPICAL DECK SECTION & DETAILS
B-18	PARAPET DETAILS
B-19	BRIDGE PLAQUE

HYDRAULIC & HYDROLOGIC DATA	
DESIGN DISCHARGE	4,420 CFS
DESIGN WATER SURFACE ELEVATION	33.26 Ft
ENERGY GRADE LINE ELEVATION	34.22 Ft
FREQUENCY	100 YR. + 25% = NJFHA



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NO.	DATE	REVISIONS	BY	CHECKED
COUNTY OF UNION				
REPLACEMENT OF MADISON HILL ROAD BRIDGE, RA-28				
CITY OF RAHWAY AND TOWNSHIP OF CLARK, UNION COUNTY, NEW JERSEY				
GENERAL PLAN & ELEVATION				
JAMES A. BUCZEK, PE				DRAWING
				B-1
DESIGNED BY ES DRAWN BY FC CHECKED BY JL				SHEET
PROJECT NO. UNCO-00420 CADD FILE UNCO00420_SHT020_BR_GPE.dwg				20 OF 38

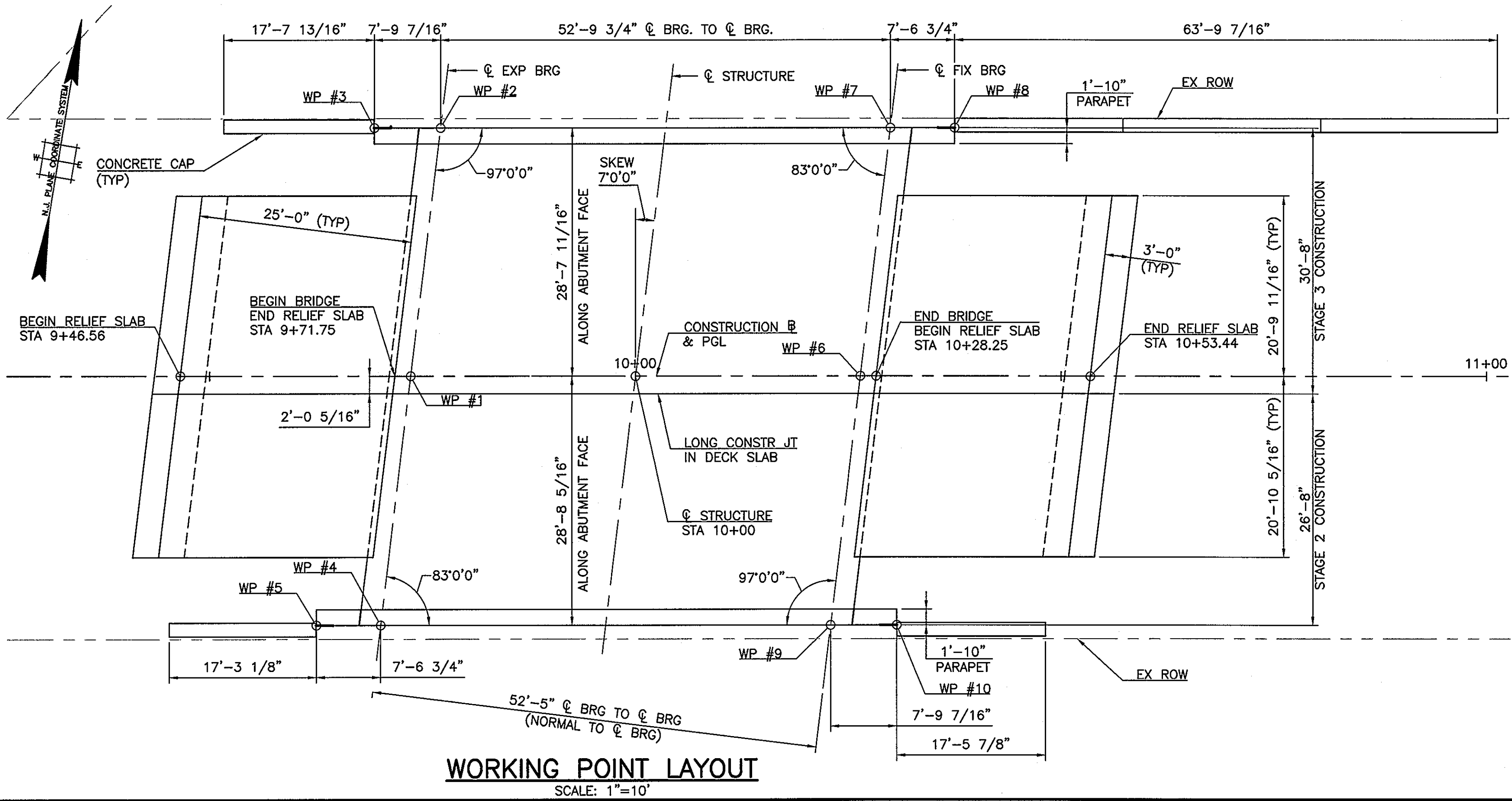


TO BE CONSTRUCTED

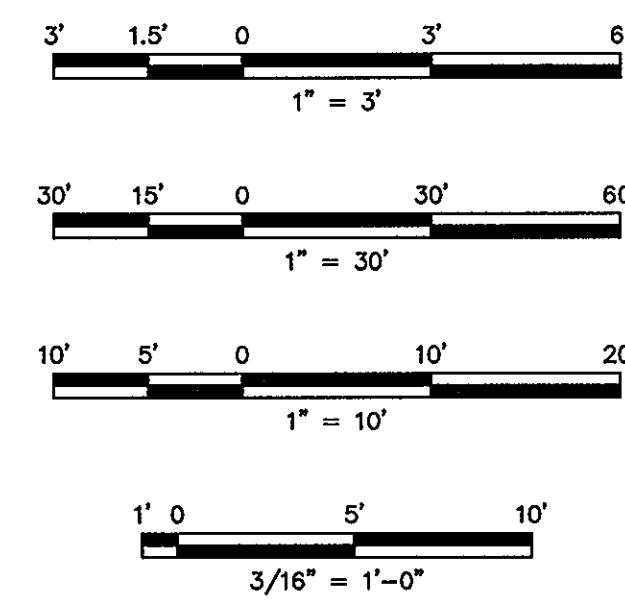
PAY ITEM NO.	DESCRIPTION	UNIT	PLAN QUANTITIES
18	EXCAVATION, UNCLASSIFIED	CY	181
23	I-14 SOIL AGGREGATE	CY	807
42	CLEARING SITE, BRIDGE (NO RA-28)	LS	1
43	COARSE AGGREGATE LAYER	CY	126
44	I-9 SOIL AGGREGATE	CY	41
46	PERMANENT SHEETING	SF	6,701
47	STEEL SHEET PILE WALL	SF	3,307
48	STEEL H-PILE, FURNISHED, HP 12X53	LF	1,596
49	STEEL H-PILE, DRIVEN, HP 12X53	LF	1,508
50	PRESTRESSED CONCRETE BOX BEAM, (TYPE B21-36), 36"x21"	LF	1,036
51	CONCRETE BRIDGE DECK	CY	85
52	CONCRETE BRIDGE SIDEWALK	CY	19
53	CONCRETE BRIDGE PARAPET	LF	137
54	CONCRETE FOOTING	CY	97
55	CONCRETE ABUTMENT WALL	CY	21
56	CONCRETE WING WALL	CY	6
58	REINFORCEMENT STEEL , GALVANIZED	LBS	28,200
59	EPOXY WATERPROOFING	SY	61
61	8" CORRUGATED STEEL UNDERDRAIN PIPE	LF	127
62	BRIDGE PLAQUE	UN	2

WORKING POINT TABLE

LOCATION	STATION	OFFSET	COORDINATES	
			NORTHING	EASTING
WP #1	9+73.60	0	647946.8564	546844.6548
WP #2	9+77.11	28.64 L	647975.6838	546843.3754
WP #3	9+69.33	28.64 L	647974.3932	546835.6972
WP #4	9+70.10	28.69 R	647917.9767	546845.9366
WP #5	9+62.51	28.69 R	647916.7234	546838.4805
WP #6	10+26.41	0	647955.6102	546896.7346
WP #7	10+29.92	28.64 L	647984.4375	546895.4551
WP #8	10+37.48	28.64 L	647985.6908	546902.9113
WP #9	10+22.88	28.69 R	647926.7304	546898.0164
WP #10	10+30.67	28.69 R	647928.0210	546905.6945



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NO.	DATE	REVISIONS	BY	CHECKED

COUNTY OF UNION
REPLACEMENT OF
MADISON HILL ROAD BRIDGE, RA-28
CITY OF RAHWAY AND TOWNSHIP OF CLARK, UNION COUNTY, NEW JERSEY

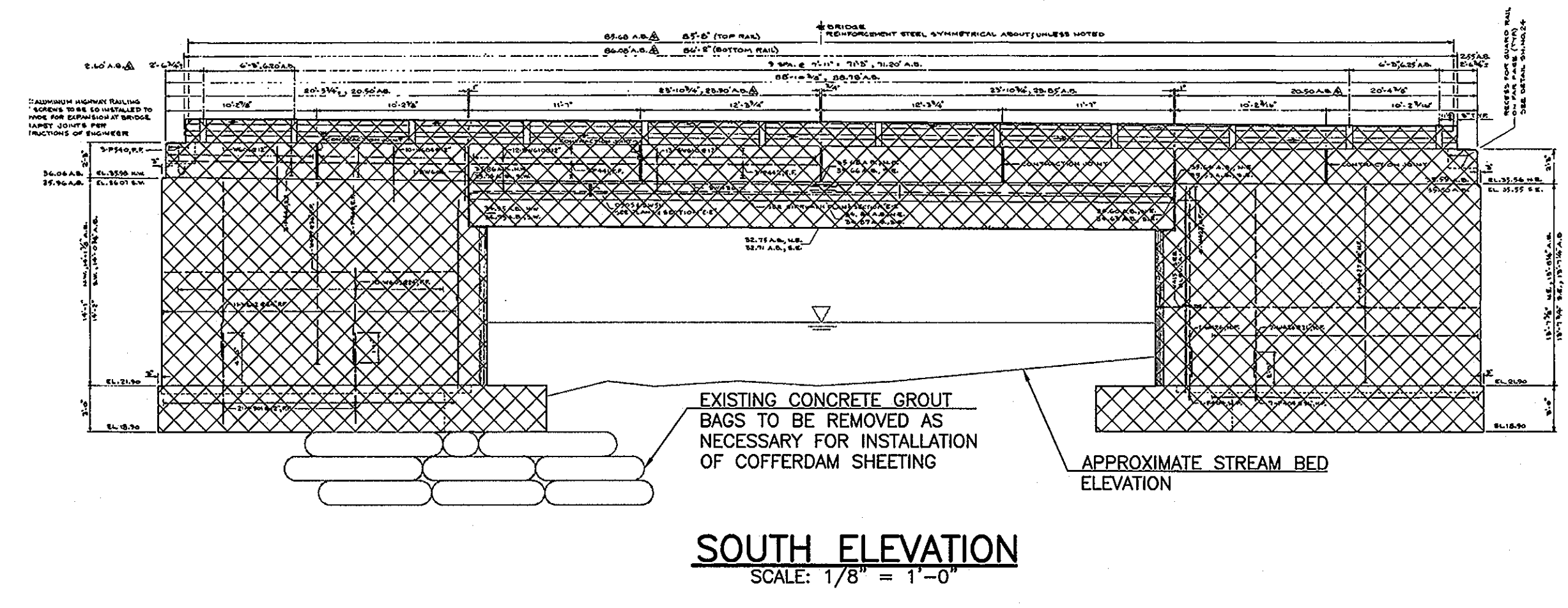
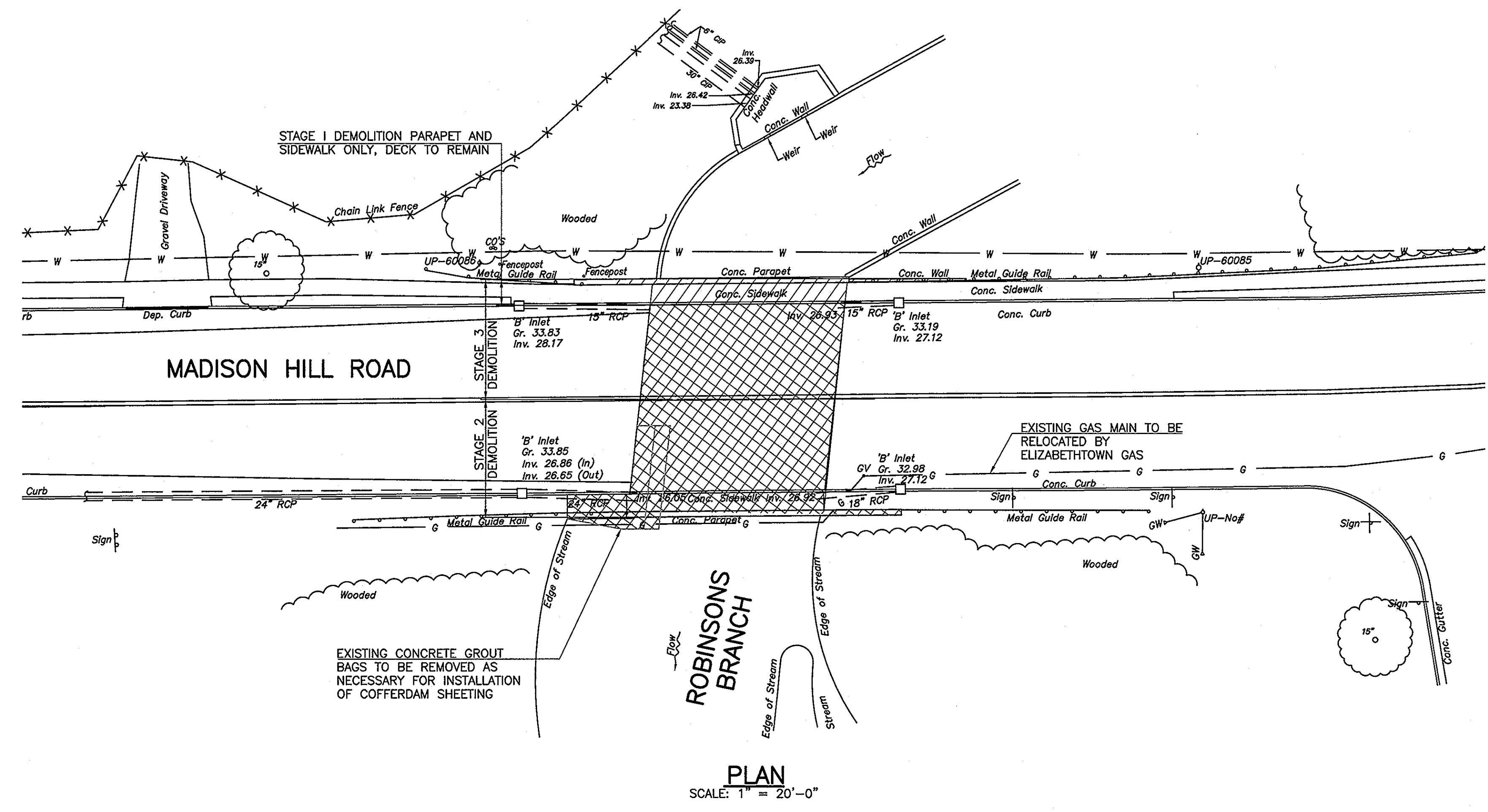
PROFILE & WORKING POINTS

JAMES A. BUCZEK, PE
LICENSED PROFESSIONAL ENGINEER
STATE OF NEW JERSEY LICENSE NO. GE45122

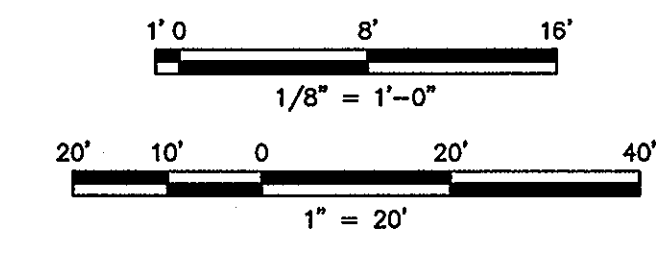
DESIGNED BY ES DRAWN BY FC CHECKED BY JL
PROJECT NO. UNCO-00420 CADD FILE UNCO00420_SHT021_BR_PWP.dwg

DRAWING **B-2**
SHEET **21** OF **38**

THE COUNTY ASSUMES NO RESPONSIBILITY FOR THE CORRECTNESS OF THIS PLAN SHEET. ANY INFORMATION OBTAINED FROM THIS PLAN SHEET SHALL BE VERIFIED BY THE BIDDER BEFORE USE OF SUCH INFORMATION FOR BIDDING FOR CONSTRUCTION OF THE PROJECT.



LEGEND:
 INDICATES EXISTING STRUCTURE TO BE DEMOLISHED UNDER THE PAY ITEM "CLEARING SITE, BRIDGE".
 INDICATES EXISTING STRUCTURE TO BE DEMOLISHED IN STAGE I, PARAPET AND SIDEWALK ONLY, UNDER THE PAY ITEM "CLEARING SITE, BRIDGE".



NOTES:

1. THE EXISTING BRIDGE STRUCTURE SHALL BE DEMOLISHED IN ITS ENTIRETY IN STAGES AND REMOVED FROM THE SITE. PAYMENT FOR THE REMOVAL AND DISPOSAL OF THE EXISTING BRIDGE, WINGWALLS, HEADWALL, RAIL, GROUT BAGS ETC. SHALL BE INCLUDED IN THE LUMP SUM FOR THE PAY ITEM ENTITLED "CLEARING SITE, BRIDGE".
2. THE EXISTING BRIDGE STRUCTURE PRESENTED HEREON IS FOR INFORMATIONAL PURPOSES ONLY AND MAY NOT BE COMPLETE OR ALL INCLUSIVE. THE BIDDERS SHALL VISIT THE BRIDGE SITE BEFORE SUBMITTING THEIR BIDS.
3. THE INFORMATION SHOWN ON THIS DRAWING SHALL NOT BE CONSTRUED IN ANY WAY AS A WAIVER FOR THE BIDDER TO CONDUCT SUCH INDEPENDENT INVESTIGATION AND EXAMINATION AS DEEMED NECESSARY TO ASCERTAIN THE EXTENT OF THE REMOVAL WORK.
4. TEMPORARY SHEETING REQUIRED FOR REMOVAL OF EXISTING ABUTMENT, WING WALL AND GROUT BAGS WILL NOT BE MEASURED FOR PAYMENT. ALL COSTS ASSOCIATED WITH THE REMOVAL OF EXISTING BRIDGE INCLUDING TEMPORARY SHEETING, TEMPORARY SHIELDING AND DEWATERING ARE TO BE INCLUDED IN THE ITEM "CLEARING SITE, BRIDGE".
5. THE CONTRACTOR SHALL BE AWARE THAT THE CHANNEL MAY CONTAIN LARGE RIPRAP STONE AND GROUT BAGS USED AS SCOUR COUNTERMEASURES WHICH MAY INTERFERE WITH DEMOLITION PROCEDURES. ALL COSTS FOR REMOVAL OF GROUT BAGS AS NECESSARY SHALL BE INCLUDED IN THE ITEM "CLEARING SITE, BRIDGE".
6. FOR CONSTRUCTION STAGING, SEE SHEET B-4 AND MAINTENANCE AND PROTECTION OF TRAFFIC PLANS.
7. NO STREAM DIVERSION OR BLOCKAGE OF FLOW IS PERMITTED DURING THE REMOVAL OF THE EXISTING BRIDGE AND ABUTMENTS. ABUTMENTS SHALL BE REMOVED AS PER NJDOT STANDARD SPECIFICATIONS SECTION 201.03.02. NO HEAVY EQUIPMENT ACTIVITY WILL BE PERMITTED IN THE STREAM. ALL HEAVY EQUIPMENT ACTIVITIES WILL BE LOCATED AT OR BEHIND THE EXISTING ABUTMENTS AND ANY WORK REQUIRED IN THE STREAM SHALL BE DONE BY HAND.
8. STREAM PROTECTION
THE CONTRACTOR SHALL EXECUTE HIS/HER WORK IN SUCH A MANNER AND TAKE SUCH PRECAUTIONS AS NECESSARY TO PROHIBIT THE FALLING OF DEBRIS INTO THE STREAM. THE METHODS OF PROTECTION PROPOSED BY THE CONTRACTOR SHALL BE APPROVED BY THE ENGINEER AND INCLUDED IN PAY ITEM "CLEARING SITE, BRIDGE".
9. NO SEPARATE PAYMENT SHALL BE MADE FOR "REMOVE" OR "RELOCATE" ITEMS. ALL COSTS THEREOF ARE TO BE INCLUDED IN THE BID PRICE FOR THE ITEM "CLEARING SITE", UNLESS OTHERWISE NOTED.

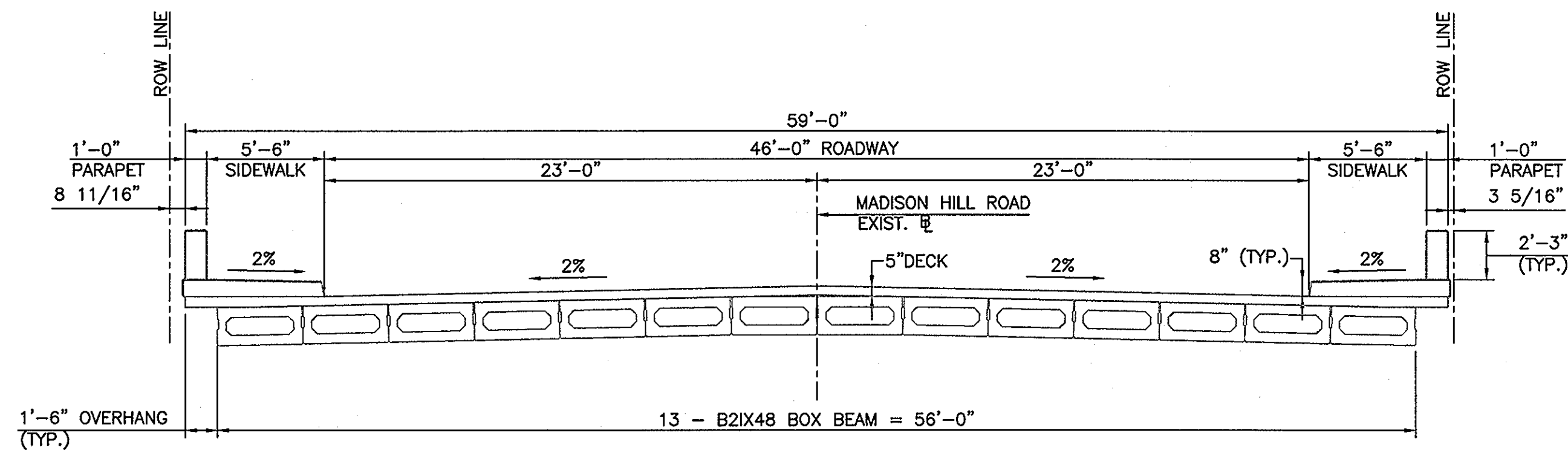
SUGGESTED DEMOLITION AND CONSTRUCTION SEQUENCE:

1. INSTALL TEMPORARY PEDESTRIAN WALKWAY WITH BRIDGE OVERHANG BRACKETS ON EAST FASCIA.
2. DEMOLISH PARAPET AND SIDEWALK AS INDICATED ON PLANS IN STAGE 1 DEMOLITION.
3. DEMOLISH STAGE 2 SUPERSTRUCTURE.
4. REMOVE EXISTING STAGE 2 SUBSTRUCTURE.
5. INSTALL STAGE 2 PERMANENT SHEETING.
6. CONSTRUCT STAGE 2 PROPOSED FOOTING.
7. CONSTRUCT STAGE 2 PROPOSED STRUCTURE.
8. INSTALL TEMPORARY PEDESTRIAN WALKWAY WITH BRIDGE OVERHANG BRACKETS ON WEST FASCIA.
9. DEMOLISH STAGE 3 SUPERSTRUCTURE.
10. REMOVE EXISTING STAGE 3 SUBSTRUCTURE.
11. INSTALL STAGE 3 PERMANENT SHEETING.
12. CONSTRUCT STAGE 3 PROPOSED FOOTING.
13. CONSTRUCT STAGE 3 PROPOSED STRUCTURE.

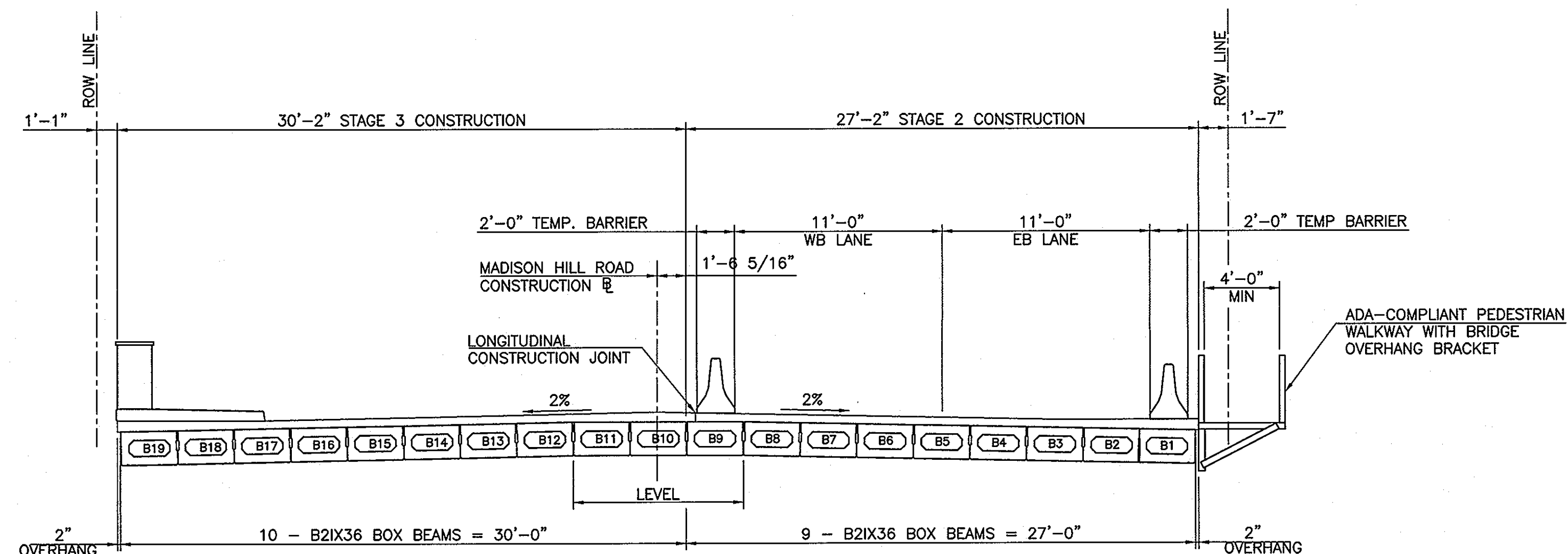
FOR INFORMATIONAL PURPOSES ONLY.

NO.	DATE	REVISIONS	BY	CHECKED
COUNTY OF UNION				
REPLACEMENT OF MADISON HILL ROAD BRIDGE, RA-28 CITY OF RAHWAY AND TOWNSHIP OF CLARK, UNION COUNTY, NEW JERSEY				
DEMOLITION PLAN				
 JAMES A. BUCZEK, PE LICENSED PROFESSIONAL ENGINEER STATE OF NEW JERSEY LICENSE NO. GE45122			DRAWING B-3 SHEET 22 OF 38	
DESIGNED BY ES		DRAWN BY FC		CHECKED BY PWS
PROJECT NO. UNCO-00420		CADD FILE UNCO00420_SHT022_BR_DEM.dwg		

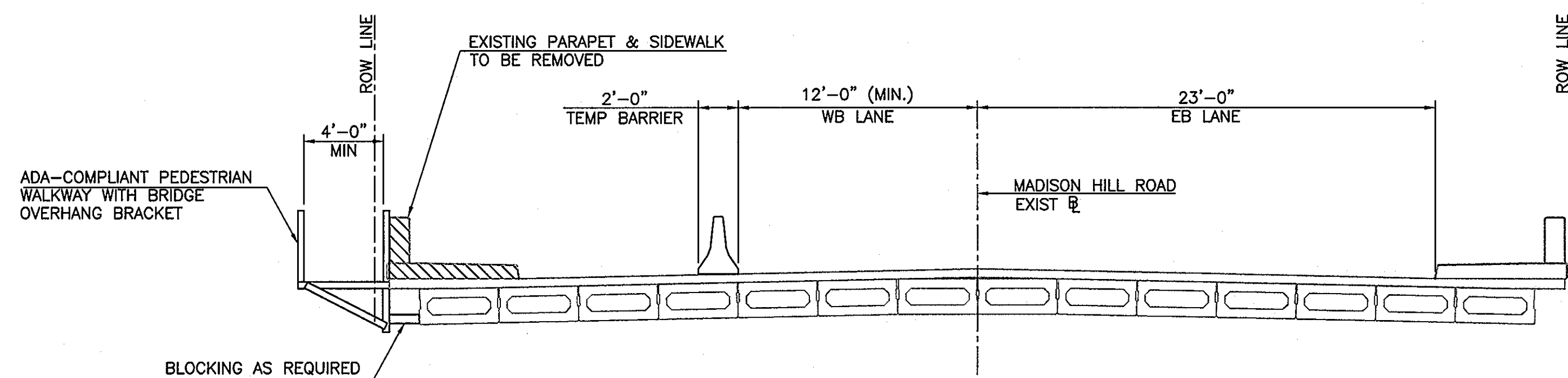
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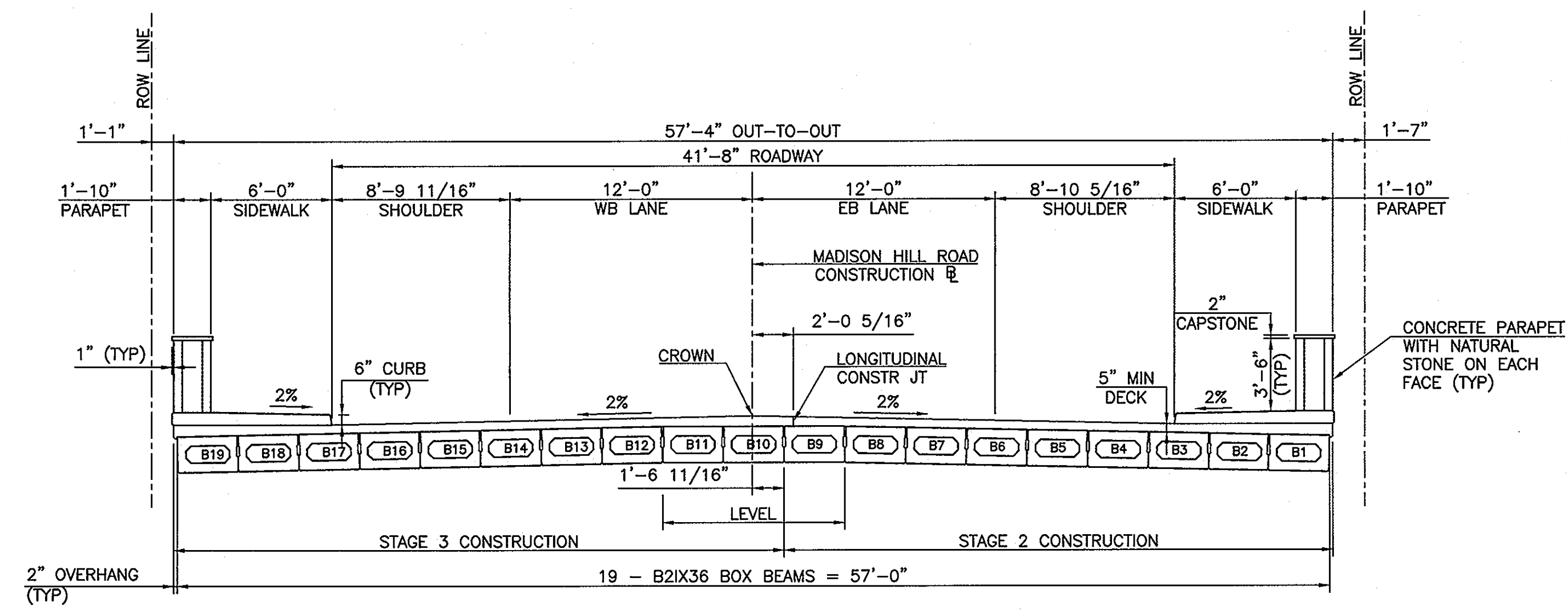
EXISTING TYPICAL SECTION
SCALE: 3/16" = 1'-0"



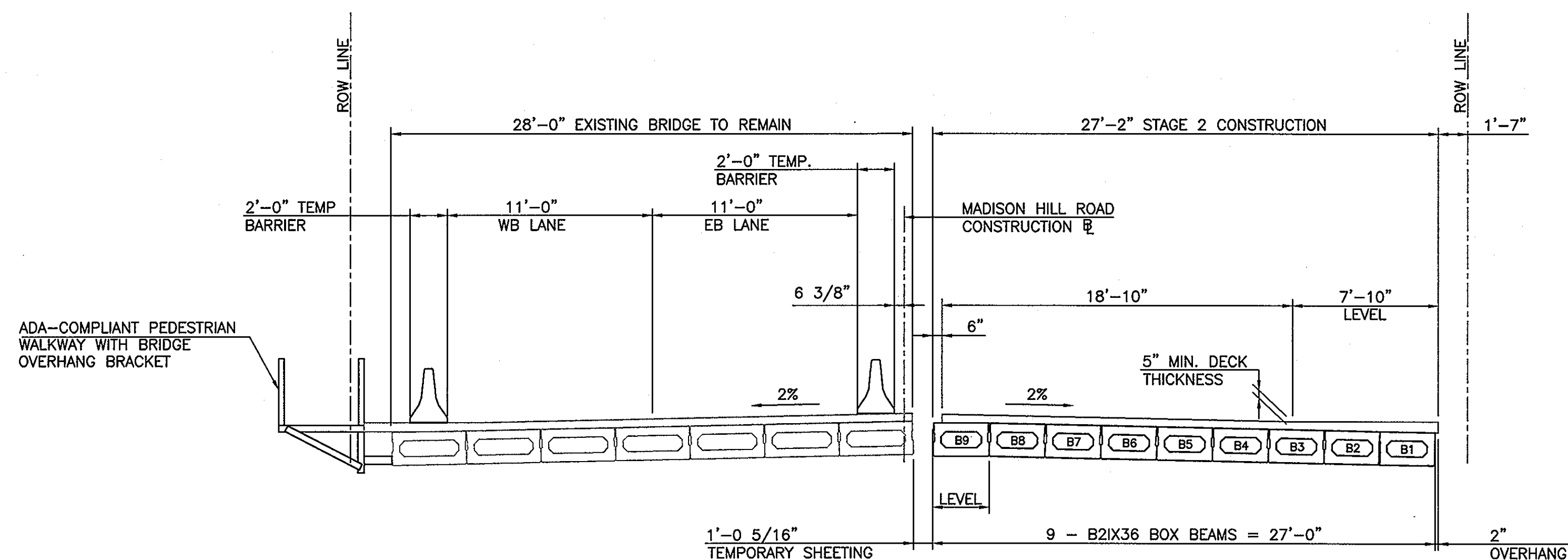
STAGE 3 CONSTRUCTION TYPICAL SECTION LOOKING EAST
SCALE: 3/16" = 1'-0"



STAGE 1 CONSTRUCTION TYPICAL SECTION LOOKING EAST
SCALE: 3/16" = 1'-0"



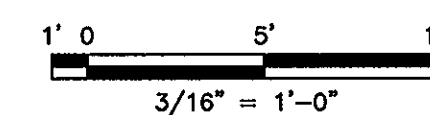
TYPICAL BRIDGE CROSS SECTION
SCALE: 3/16" = 1'-0"



STAGE 2 CONSTRUCTION TYPICAL SECTION LOOKING EAST
SCALE: 3/16" = 1'-0"

NOTES:

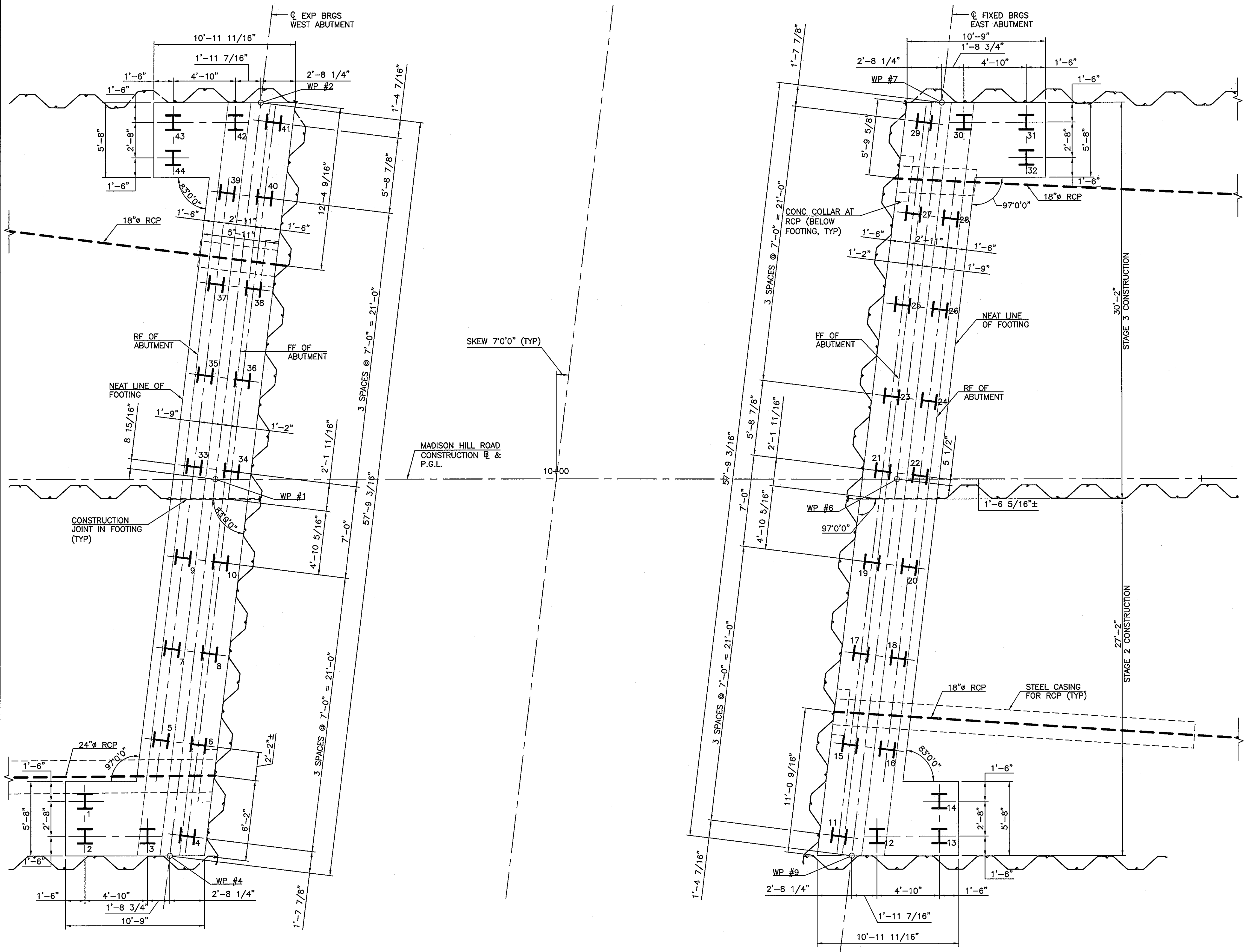
1. WORK THIS WITH MAINTENANCE AND PROTECTION OF TRAFFIC SHEETS 5 THROUGH 8.
2. FOR EXISTING STRUCTURE DEMOLITION LIMITS SEE SHEET 22.



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NO.	DATE	REVISIONS	BY	CHECKED
COUNTY OF UNION				
REPLACEMENT OF MADISON HILL ROAD BRIDGE, RA-28 CITY OF RAHWAY AND TOWNSHIP OF CLARK, UNION COUNTY, NEW JERSEY				
STAGING SECTION				
			JAMES A. BUCZEK, PE LICENSED PROFESSIONAL ENGINEER STATE OF NEW JERSEY LICENSE NO. G645122 DATE: 03-15-15	
DESIGNED BY: ES DRAWN BY: FC CHECKED BY: JL		PROJECT NO.: UNCO-00420 CADD FILE: UNCO00420_SHT023_BR_STG.dwg		
DRAWING: B-4 SHEET: 23 OF 38				

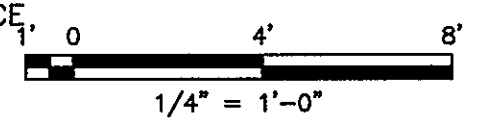
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PILE PLAN
SCALE: 1/4"=1'-0"

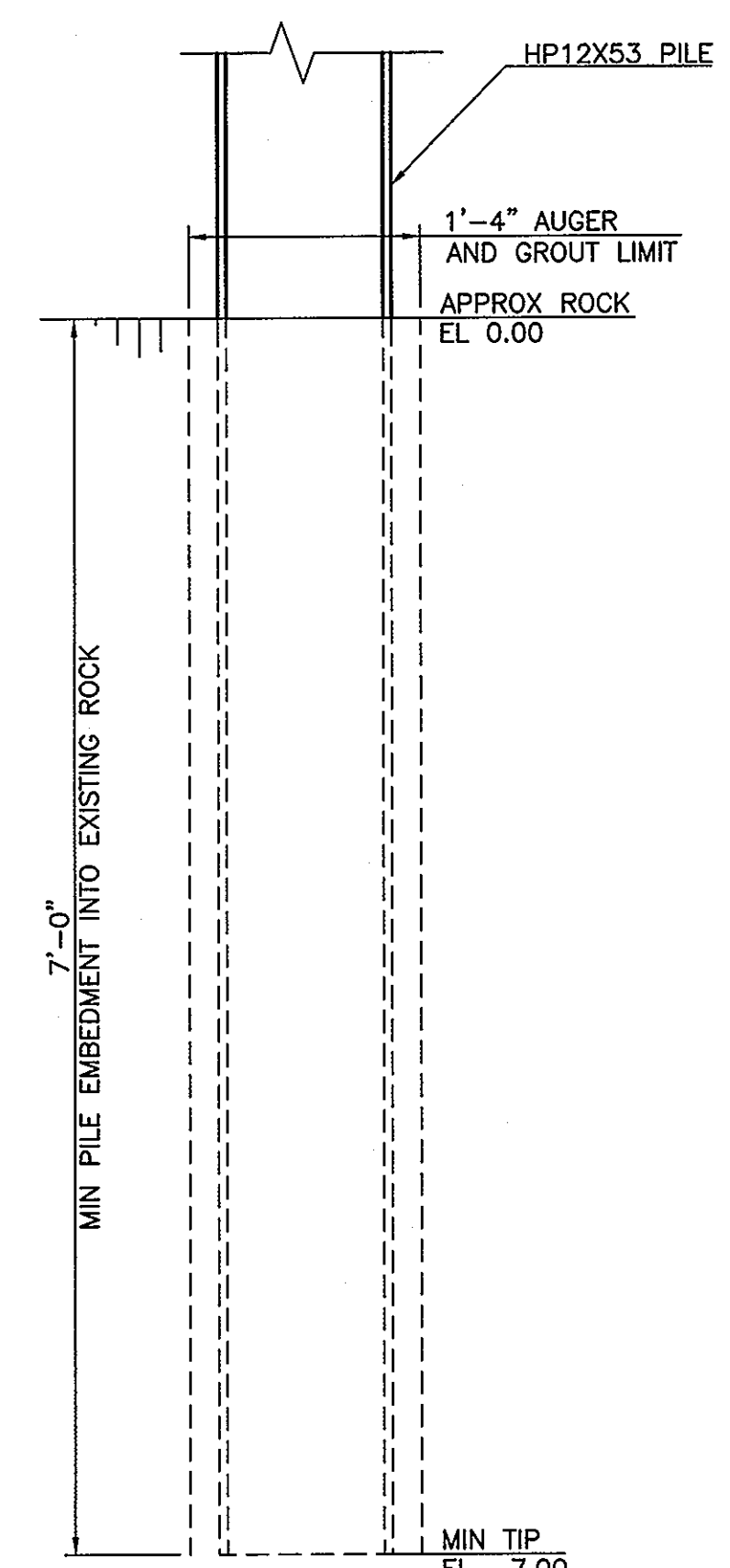
LEGEND

- I** INDICATES VERTICAL PILE
- #** NUMBER INDICATES SUGGESTED SEQUENCE OF PILE IN EACH FOUNDATION UNIT
- TOTAL NUMBER OF PILES = 44



PILE NOTES:

1. ALL STEEL PILES SHALL BE HP 12X53, ASTM A572, GRADE 50.
2. MINIMUM AXIAL CAPACITY = 200 KIPS.
3. LATERAL CAPACITY = 9.5 KIPS
4. PILES TO BE EMBEDDED 12" INTO FOOTING.
5. MINIMUM PILE TIP ELEVATION = -7.00 FT.
6. PILE CUT-OFF ELEVATION = 27.00 FT. (EAST) = 27.27 FT. (WEST)
7. COST FOR ALL STEEL PILES, PILE SPLICES (IF REQUIRED), PILE CUT-OFFS TO BE INCLUDED IN PAY ITEM "STEEL H-PILE, FURNISHED, HP 12X53".
8. THE COST OF ALL WORK INCLUDING, ALL LABOR, MATERIALS, TESTING, AND EQUIPMENT NECESSARY TO INSTALL PILES TO THE MINIMUM TIP ELEVATION AND CAPACITY, INCLUDING PRE-BORING HOLES, DRILLING INTO ROCK, GROUTING SHALL BE INCLUDED IN PAY ITEM "STEEL H-PILE, DRIVEN, HP 12X53".
9. DIMENSIONS SHOWN ARE TO THE CENTERLINES OF PILES.
10. FOR MORE INFORMATION ON SOIL PARAMETERS, SEE BORING LOGS.
11. STEEL SHEET PILE WALL SHALL BE PZC13 OR EQUAL SECTION. COFFERDAMS SHALL BE PZC13 OR EQUAL SECTION. ALL STEEL SHEETING LEFT IN PLACE SHALL BE A572 GRADE 50 STEEL AND COAL TAR EPOXY COATED. MINIMUM SECTION MODULUS EQUAL TO 24.2 IN³/FT, MOMENT INERTIA EQUAL TO 152 IN⁴/FT.



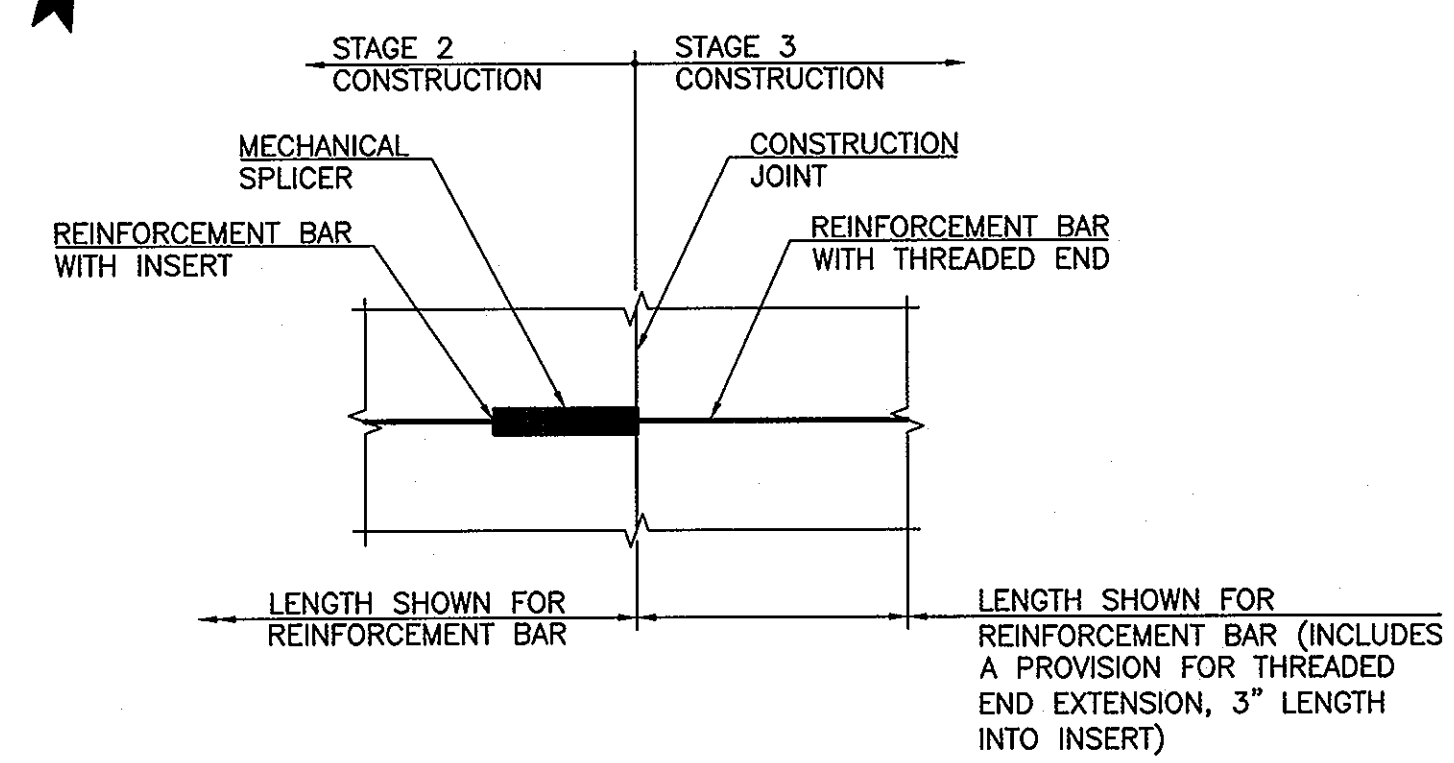
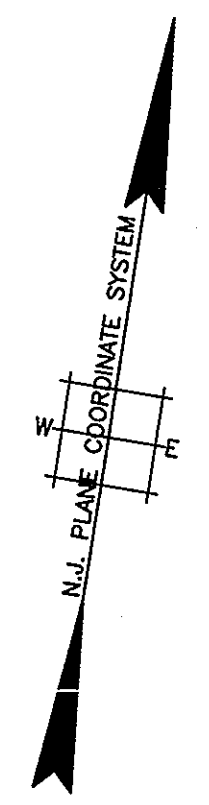
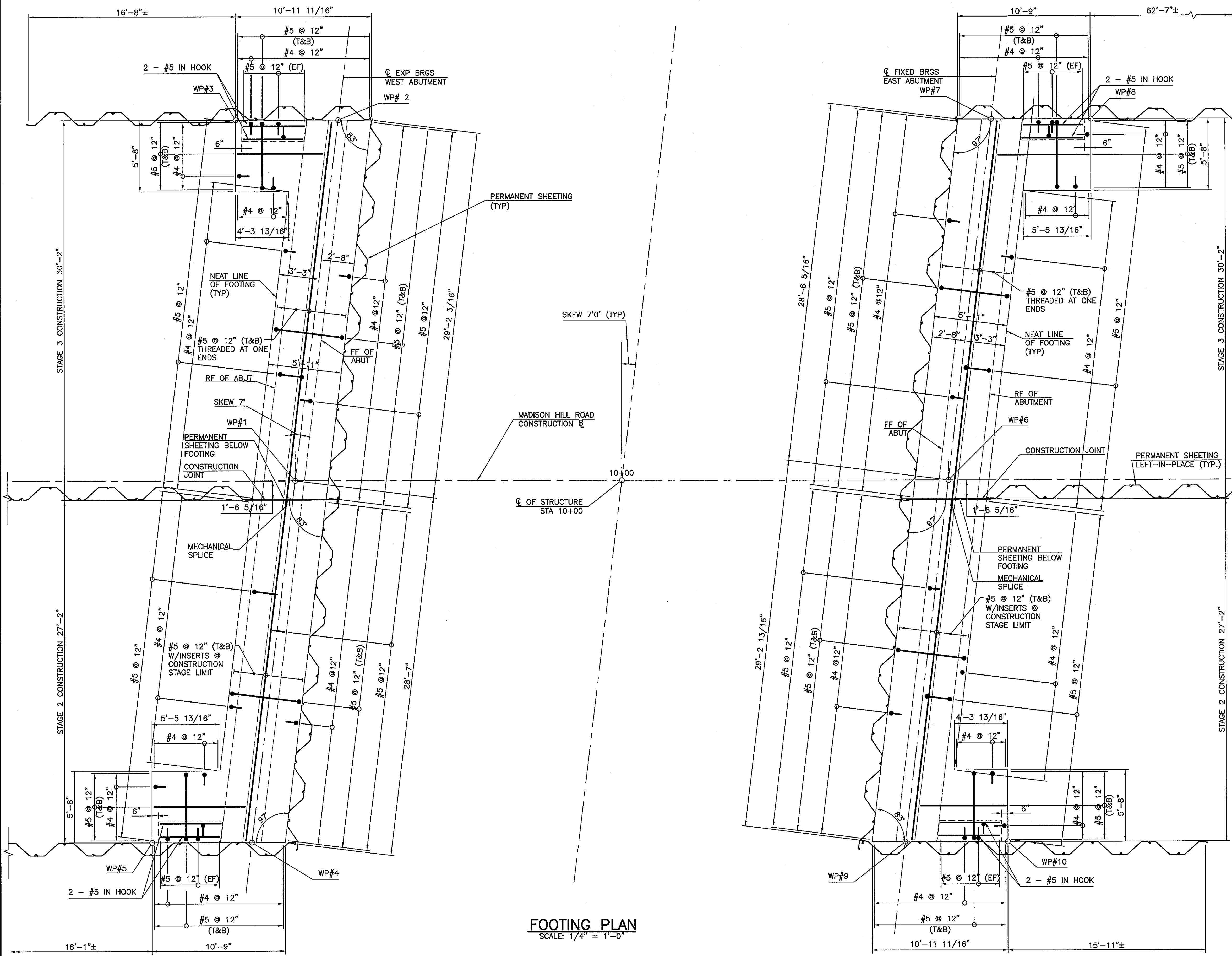
STEEL HP PILE DETAIL
SCALE: 1" = 1'-0"

REFERENCES:

1. FOR FOOTING ELEVATIONS, SEE SHEET NOS 26 THROUGH 29.
2. FOR ABUTMENT ELEVATIONS, TYPICAL SECTIONS AND PILE DETAILS, SEE SHEET NOS 26 THROUGH 28.
3. FOR WINGWALL TYPICAL SECTIONS AND ELEVATIONS, SEE SHEET NOS 28 AND 29.
4. FOR WORKING POINT LAYOUT, SEE PLAN ON SHEET NO 21.
5. ABUTMENT AND WINGWALL LAYOUT SHOWN LIGHT FOR CLARITY.
6. FOR CONCRETE COLLAR AND STEEL CASING DETAILS, SEE SHEET NO 26.

NO.	DATE	REVISIONS	BY	CHECKED
COUNTY OF UNION REPLACEMENT OF MADISON HILL ROAD BRIDGE, RA-28 CITY OF RAHWAY AND TOWNSHIP OF CLARK, UNION COUNTY, NEW JERSEY				
PILE PLAN				
JAMES A. BUCZEK, PE <small>DESIGNED BY ES DRAWN BY FC CHECKED BY PWS</small> <small>STATE OF NEW JERSEY LICENSE NO. GE45122</small>			DRAWING B-5 SHEET	
<small>11 TRINAIL ROAD NEWTON, NJ 07746 TEL 973-671-6403 FAX 973-671-2800</small>		<small>DATE 02-15-15</small> <small>NEW JERSEY BOARD OF PROFESSIONAL ENGINEERS AND LAND SURVEYORS CERTIFICATE OF AUTHORIZATION 24022787500</small>		
<small>PROJECT NO. UNCO-00420</small>		<small>CADD FILE UNCO00420_SHT024_BR_PILE.dwg</small>		
24				
OF 38				

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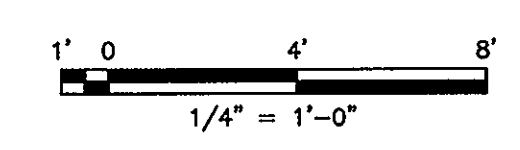



SUGGESTED MECHANICAL SPLICE SYSTEM DETAIL
N.T.S.
(SEE NOTE 4)

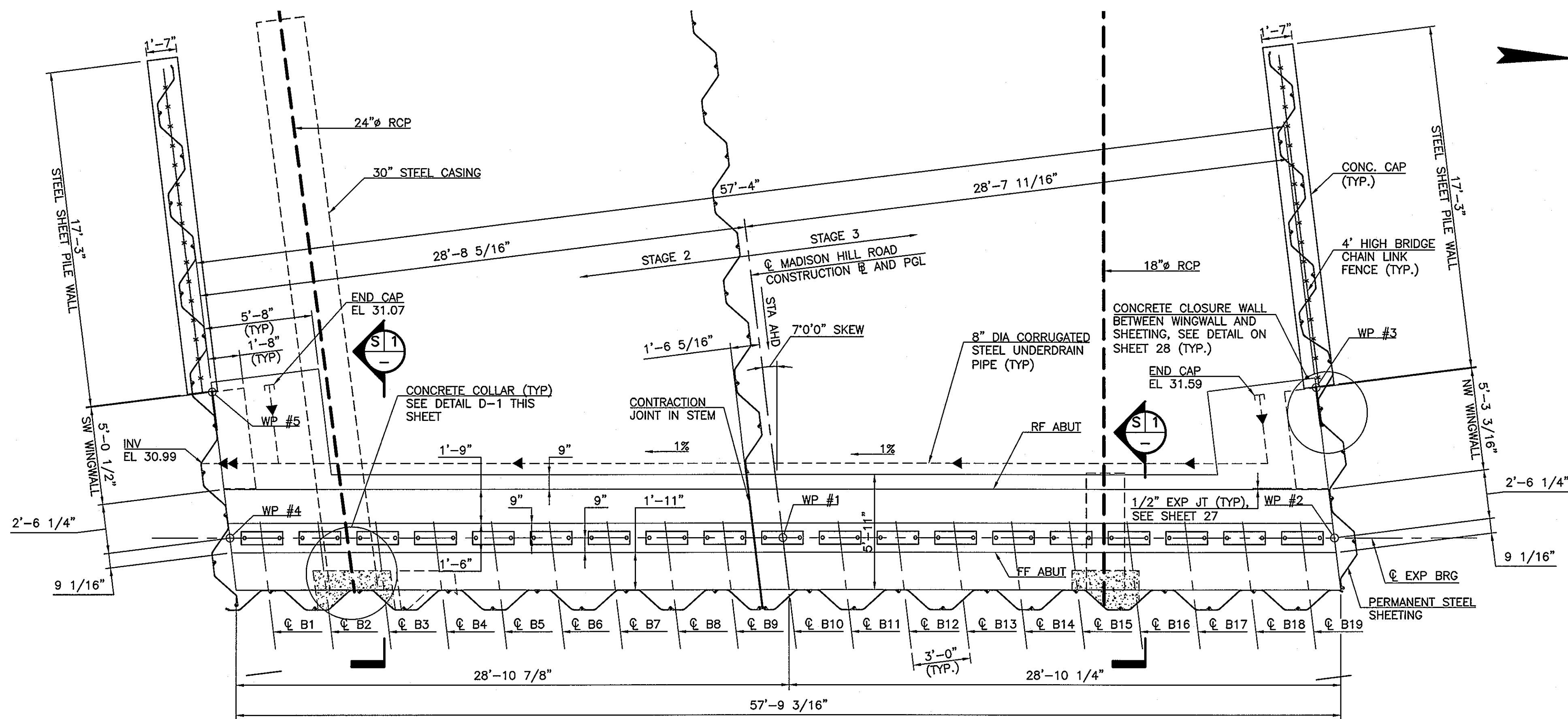
- NOTES:**
1. SKEW ANGLES ARE MEASURED PERPENDICULAR TO THE BEAM ORIENTATION WHICH IS PARALLEL TO THE CHORD FROM WP-1 TO WP-6.
 2. DIMENSIONS ARE MEASURED ALONG THE FACE OF FOOTINGS.
 3. ABUTMENT AND WINGWALL LAYOUT SHOWN LIGHT FOR CLARITY.
 4. MECHANICAL SPLICE SHALL DEVELOP THE FULL CAPACITY OF THE REINFORCEMENT.
 5. STEEL SHEET PILE WALL SHALL BE PZC13 OR EQUAL SECTION. COFFERDAMS SHALL BE PZC13 OR EQUAL SECTION. ALL STEEL SHEETING LEFT IN PLACE SHALL BE A572 GRADE 50 STEEL AND COAL TAR EPOXY COATED. MINIMUM SECTION MODULUS EQUAL TO 24.2 IN³/FT. MOMENT INERTIA EQUAL TO 152 IN⁴/FT.

- REFERENCES:**
1. FOR ABUTMENT ELEVATIONS AND TYPICAL SECTIONS, SEE SHEET NOS. 26 THROUGH 28.
 2. FOR WINGWALL TYPICAL SECTIONS AND ELEVATIONS, SEE SHEET NOS. 28 AND 29.
 3. FOR EXPANSION AND CONTRACTION JOINT DETAILS SEE SHEET NO. 29.
 4. FOR WORKING POINT LAYOUT, SEE PLAN ON SHEET NO. 21.
 5. FOR PILE PLAN, SEE SHEET NO. 24.

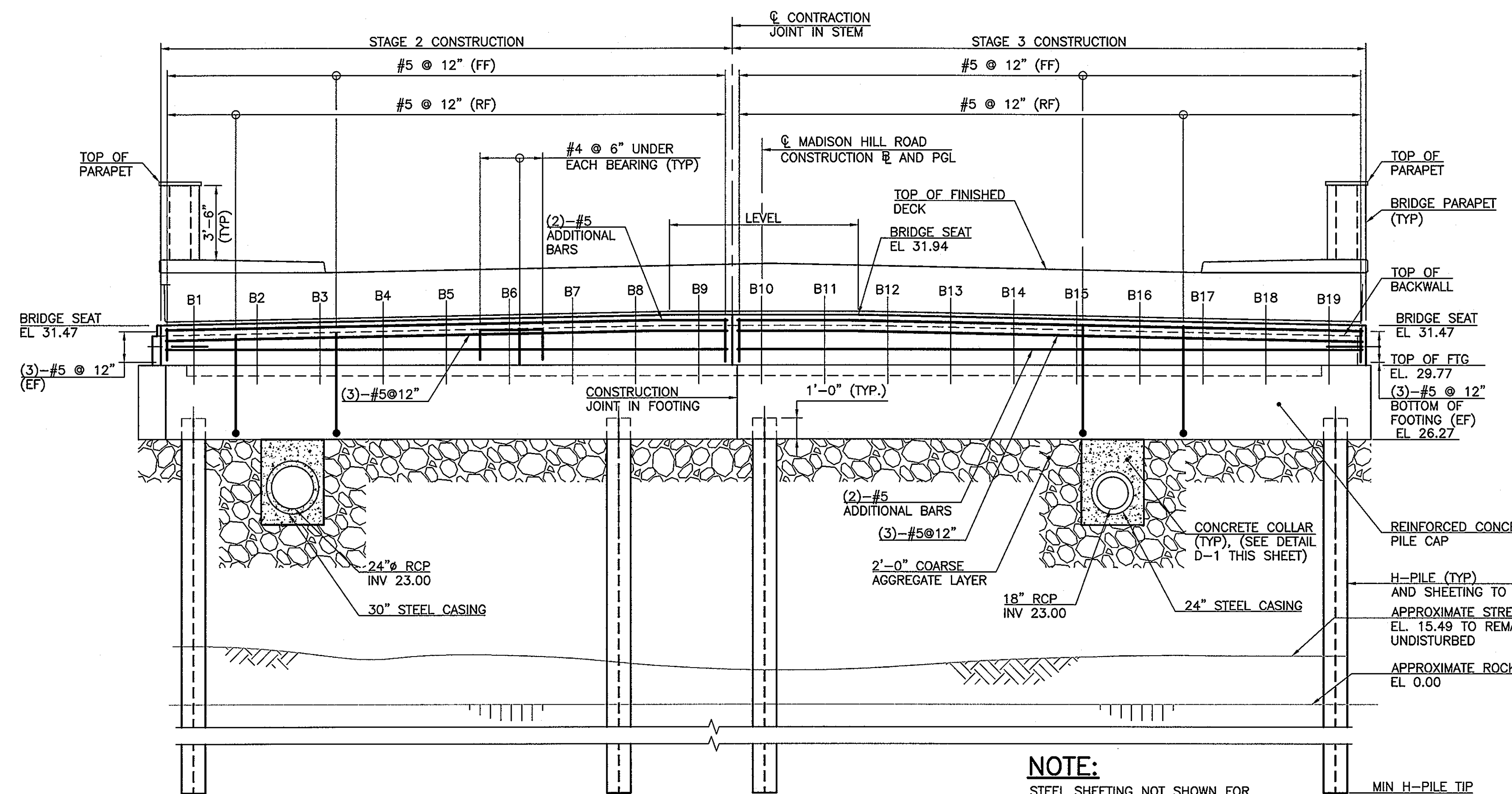
FOOTING PLAN
SCALE: 1/4" = 1'-0"



NO.	DATE	REVISIONS	BY	CHECKED
COUNTY OF UNION				
REPLACEMENT OF MADISON HILL ROAD BRIDGE, RA-28				
CITY OF RAHWAY AND TOWNSHIP OF CLARK, UNION COUNTY, NEW JERSEY				
FOOTING PLAN				
 JAMES A. BUCZEK, PE LICENSED PROFESSIONAL ENGINEER STATE OF NEW JERSEY LICENSE NO. GE45122			DRAWING B-6 SHEET	
PROJECT NO. UNCO-00420		CADD FILE UNCO00420_SHT025_BR_FTG.dwg		
DESIGNED BY ES		DRAWN BY FC		
CHECKED BY PWS		DATE		
25 OF 38				

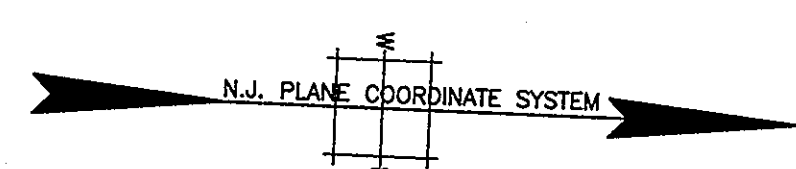


WEST ABUTMENT PLAN
SCALE: 1/4" = 1'-0"



WEST ABUTMENT ELEVATION
SCALE: 1/4" = 1'-0"

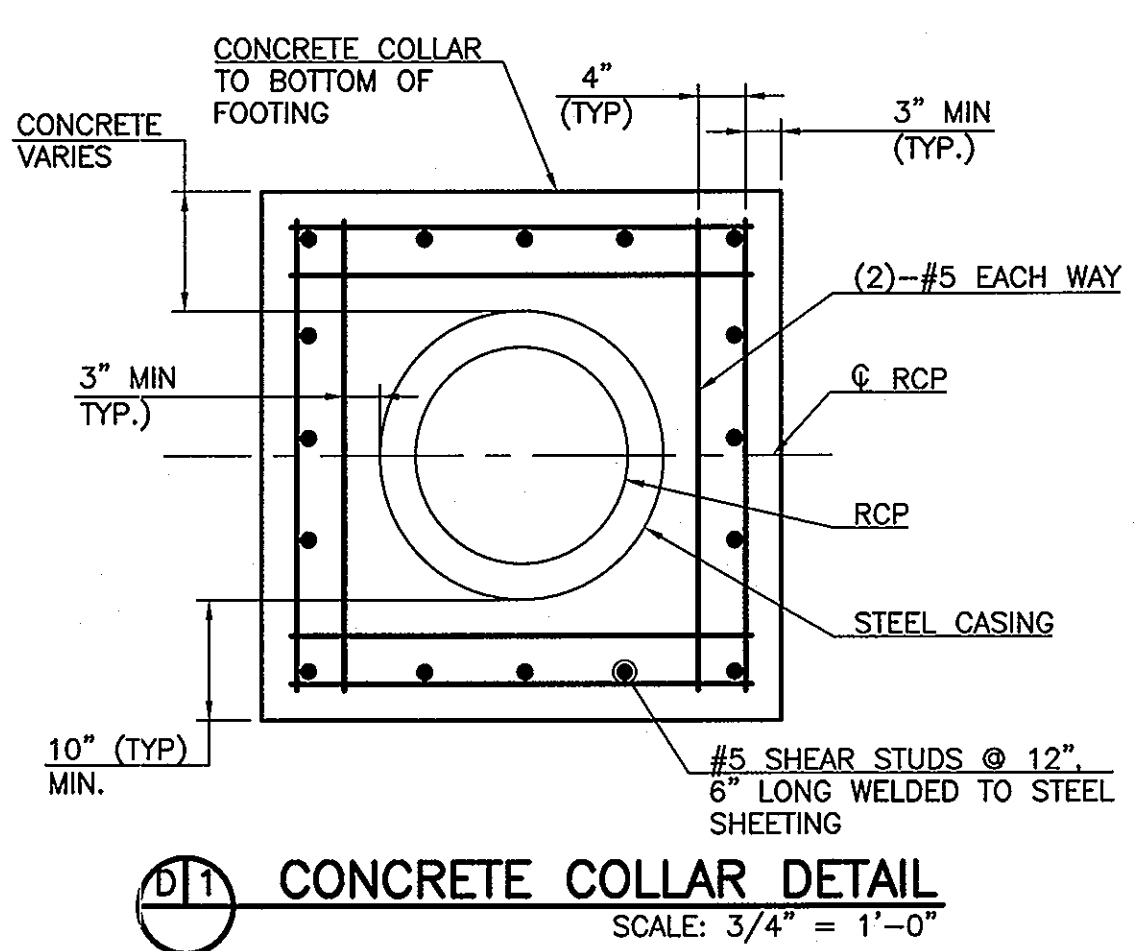
NOTE:
STEEL SHEETING NOT SHOWN FOR CLARITY.



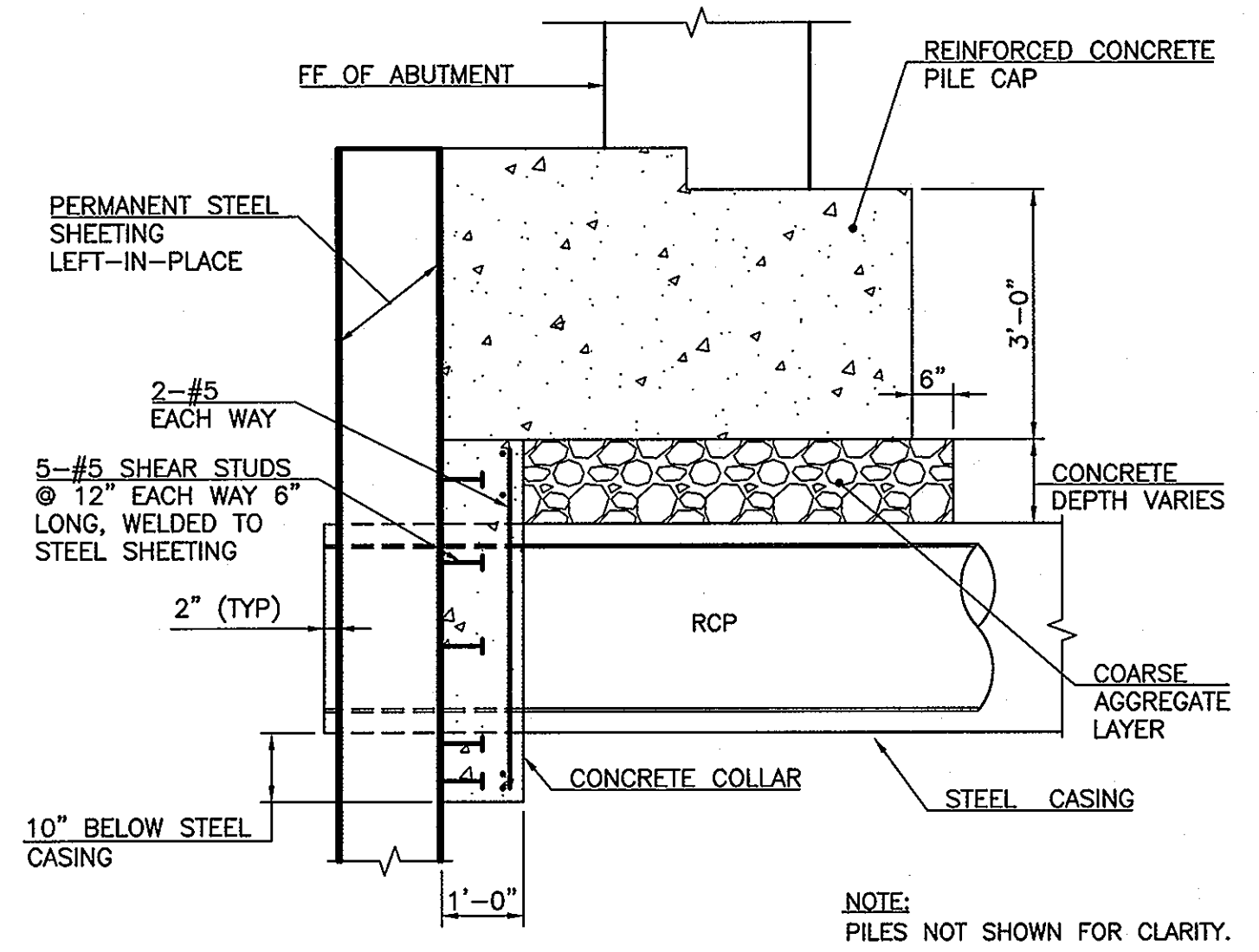
- NOTES:**
1. THE CONTRACTOR SHALL PROVIDE CORNER CLOSURE DETAILS TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO DRIVING SHEETING.
 2. BACKWALL ELEVATIONS ARE GIVEN AT FRONT FACE OF BACKWALL.
 3. PERMANENT STEEL SHEETING TO REMAIN IN PLACE SHALL BE DRIVEN TO TOP OF ROCK, APPROX. TIP ELEVATION 0.0.

- REFERENCES:**
1. FOR FOOTING REINFORCEMENT, SEE SHEET NO 25.
 2. FOR WORKING POINT LOCATIONS, SEE SHEET NO 21.
 3. FOR TYPICAL ABUTMENT SECTIONS, SEE SHEET NO 28.
 4. FOR WINGWALL TYPICAL SECTIONS AND ELEVATIONS, SEE SHEETS NOS 28 AND 29.
 5. FOR EXPANSION AND CONTRACTION JOINT DETAILS, SEE SHEET NO 29.
 6. FOR CONCRETE PYLON DETAILS, SEE SHEET NO 29.

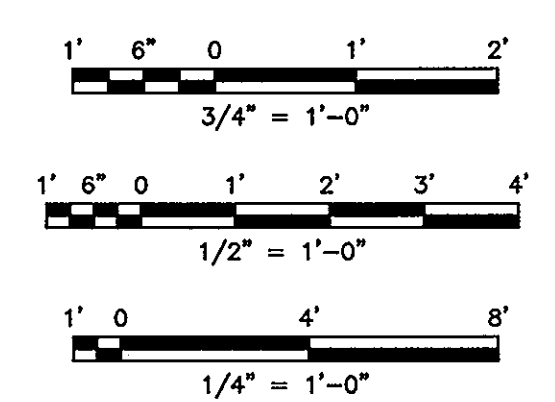
WEST ABUTMENT SEAT ELEVATIONS										
	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10
℄ OF EXP. BEARING ELEVATION	31.47	31.53	31.59	31.65	31.71	31.77	31.82	31.91	31.94	31.94
	B11	B12	B13	B14	B15	B16	B17	B18	B19	
	31.94	31.91	31.84	31.78	31.72	31.66	31.60	31.53	31.47	



D1 CONCRETE COLLAR DETAIL
SCALE: 3/4" = 1'-0"

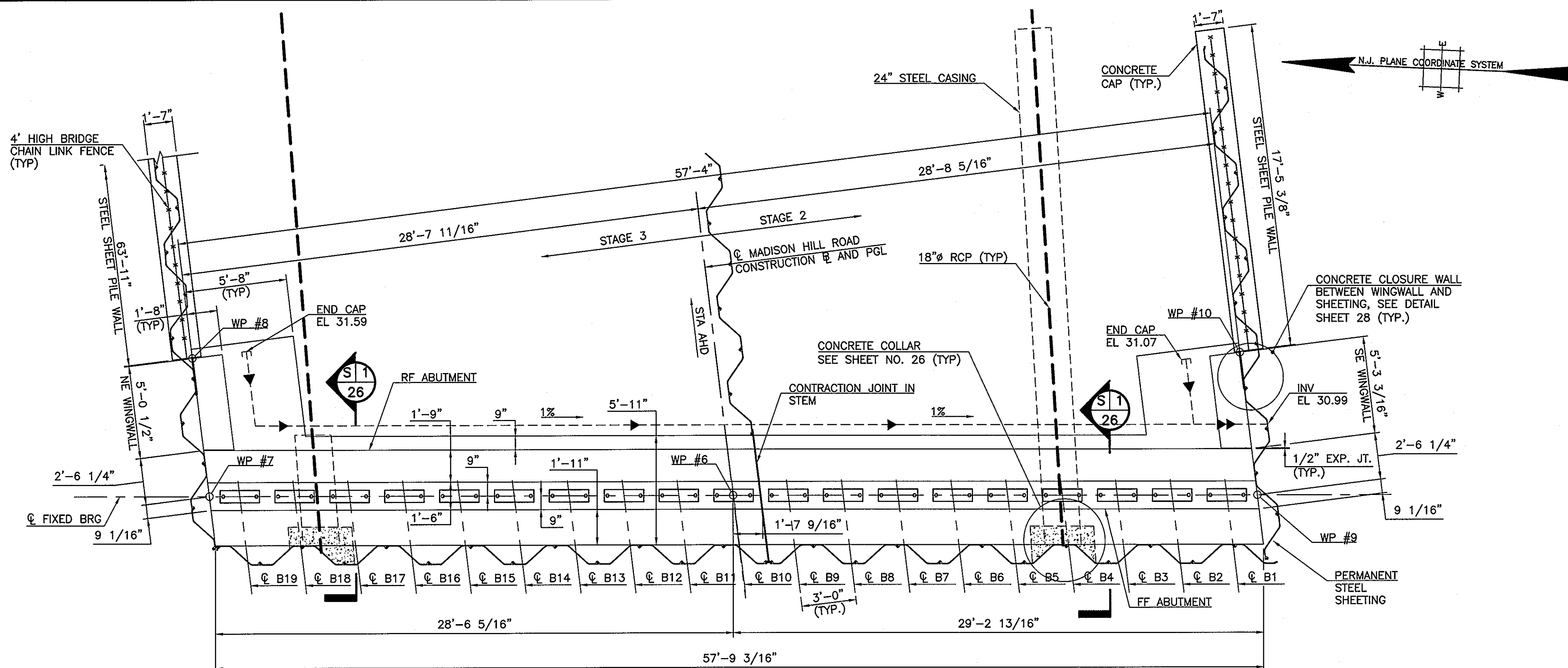


S1 SECTION
SCALE: 1/2" = 1'-0"

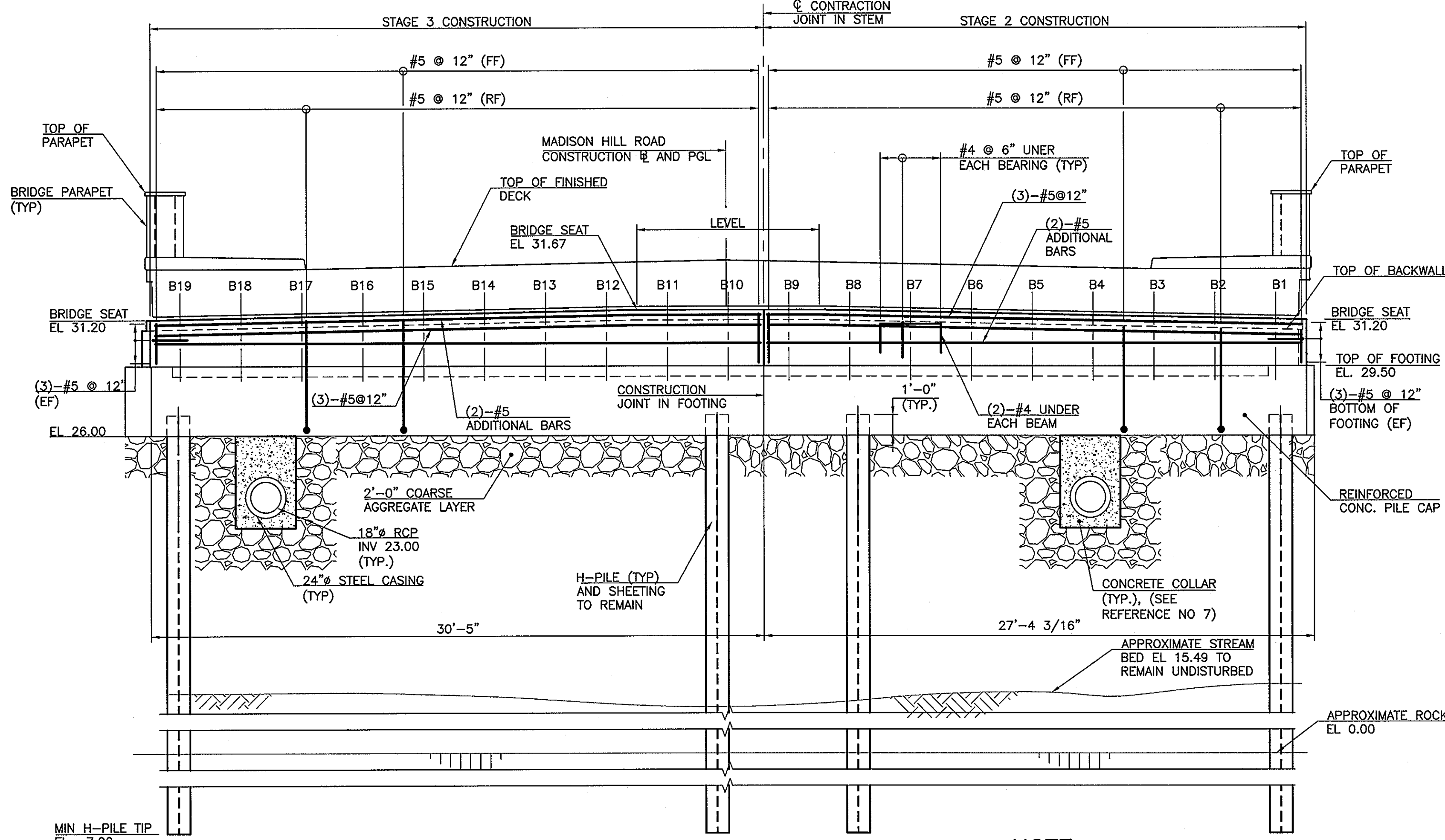


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COUNTY OF UNION REPLACEMENT OF MADISON HILL ROAD BRIDGE, RA-28 CITY OF RAHWAY AND TOWNSHIP OF CLARK, UNION COUNTY, NEW JERSEY WEST ABUTMENT PLAN & ELEVATION				
JAMES A. BUCZEK, PE <small>DESIGNED BY</small> ES <small>DRAWN BY</small> FC <small>CHECKED BY</small> JL <small>STATE OF NEW JERSEY LICENSE No. GE45122</small>			<small>DRAWING</small> B-7 <small>SHEET</small> 26 OF 38	
<small>PROJECT NO.</small> UNCO-00420 <small>CADD FILE</small> UNCO00420_SHT026_BR_ABUT.dwg		<small>DATE</small> <small>NEW JERSEY BOARD OF PROFESSIONAL ENGINEERS AND LAND SURVEYORS</small> <small>CERTIFICATE OF AUTHORIZATION</small> 245242987500		



EAST ABUTMENT PLAN
SCALE: 1/4" = 1'-0"



EAST ABUTMENT ELEVATION
SCALE: 1/4" = 1'-0"

NOTE:
STEEL SHEETING NOT SHOWN FOR CLARITY.

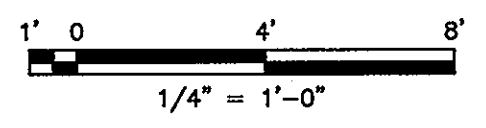
REFERENCES:

1. FOR FOOTING REINFORCEMENT, SEE SHEET NO 25.
2. FOR WORKING POINT LOCATIONS, SEE SHEET NO 21.
3. FOR TYPICAL ABUTMENT SECTIONS, SEE SHEET NO 28.
4. FOR WINGWALL TYPICAL SECTIONS AND ELEVATIONS, SEE SHEETS NO 28 AND 29.
5. FOR EXPANSION AND CONTRACTION JOINT DETAILS, SEE SHEET NO 29.
6. FOR CONCRETE PYLON DETAILS, SEE SHEET NO 29.
7. FOR CONCRETE COLLAR, 18" RCP PIPE, 24" RCP PIPE AND STEEL SHEETING SEE SHEET NO 26.


NOTES:

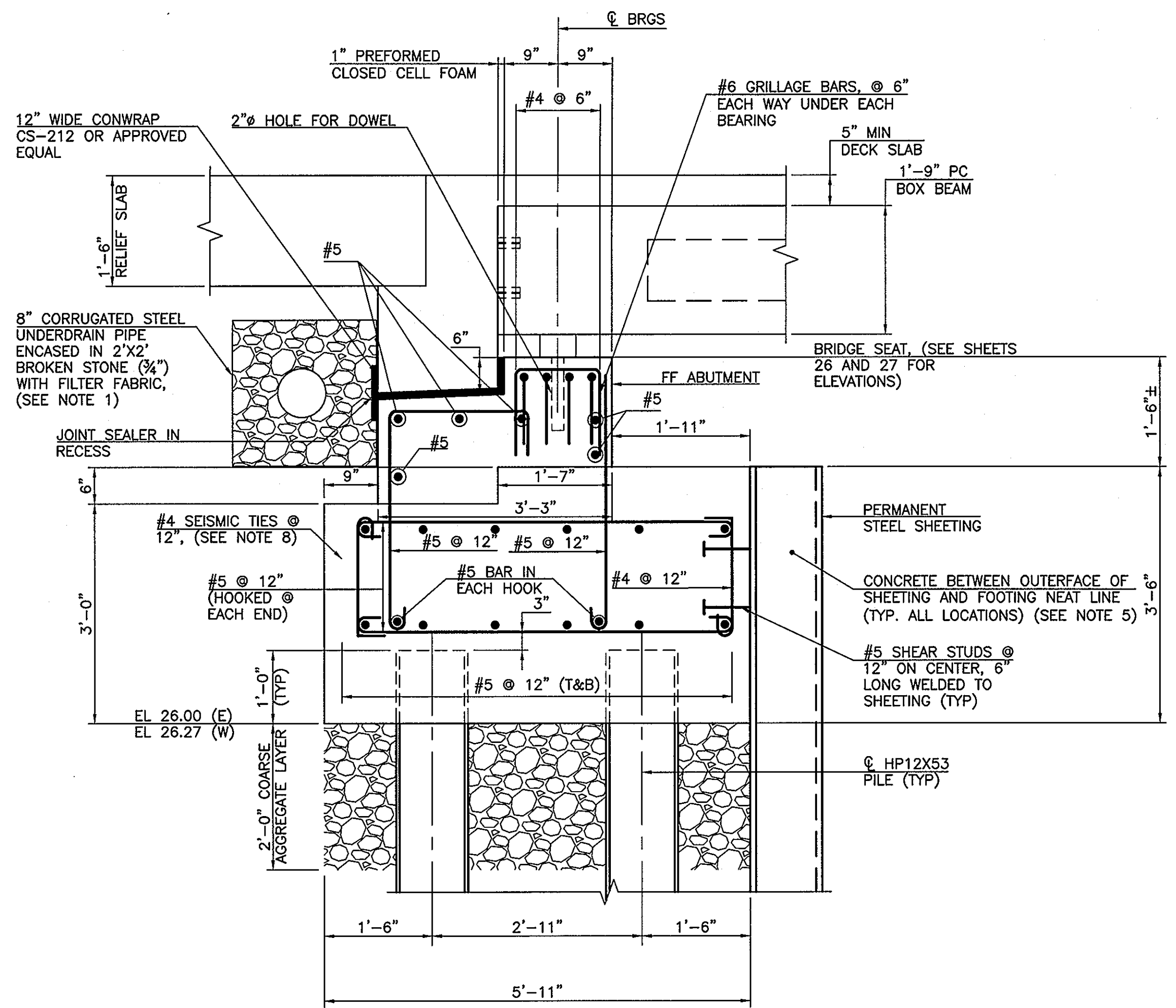
1. THE CONTRACTOR SHALL PROVIDE CORNER CLOSURE DETAILS TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO DRIVING SHEETING.
2. BACKWALL ELEVATIONS ARE GIVEN AT FRONT FACE OF BACKWALL.
3. PERMANENT STEEL SHEETING TO REMAIN IN PLACE SHALL BE DRIVEN TO TOP OF ROCK, APPROX. TIP ELEVATION 0.0.

EAST ABUTMENT SEAT ELEVATIONS										
C OF FIXED BEARING ELEVATION	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10
	31.20	31.26	31.32	31.38	31.44	31.50	31.55	31.64	31.67	31.67
	B11	B12	B13	B14	B15	B16	B17	B18	B19	-
	31.67	31.64	31.57	31.51	31.45	31.39	31.33	31.26	31.20	-

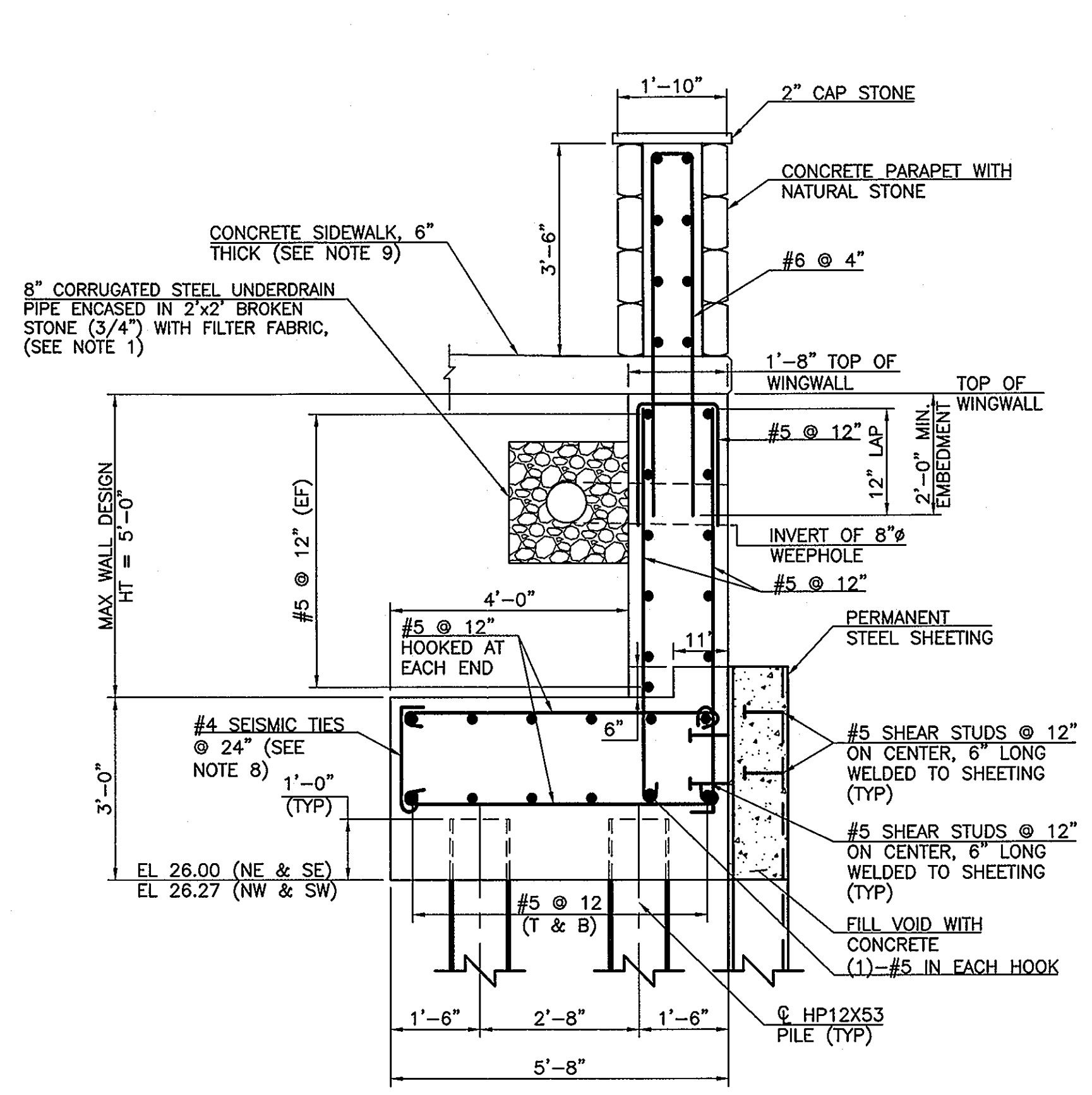


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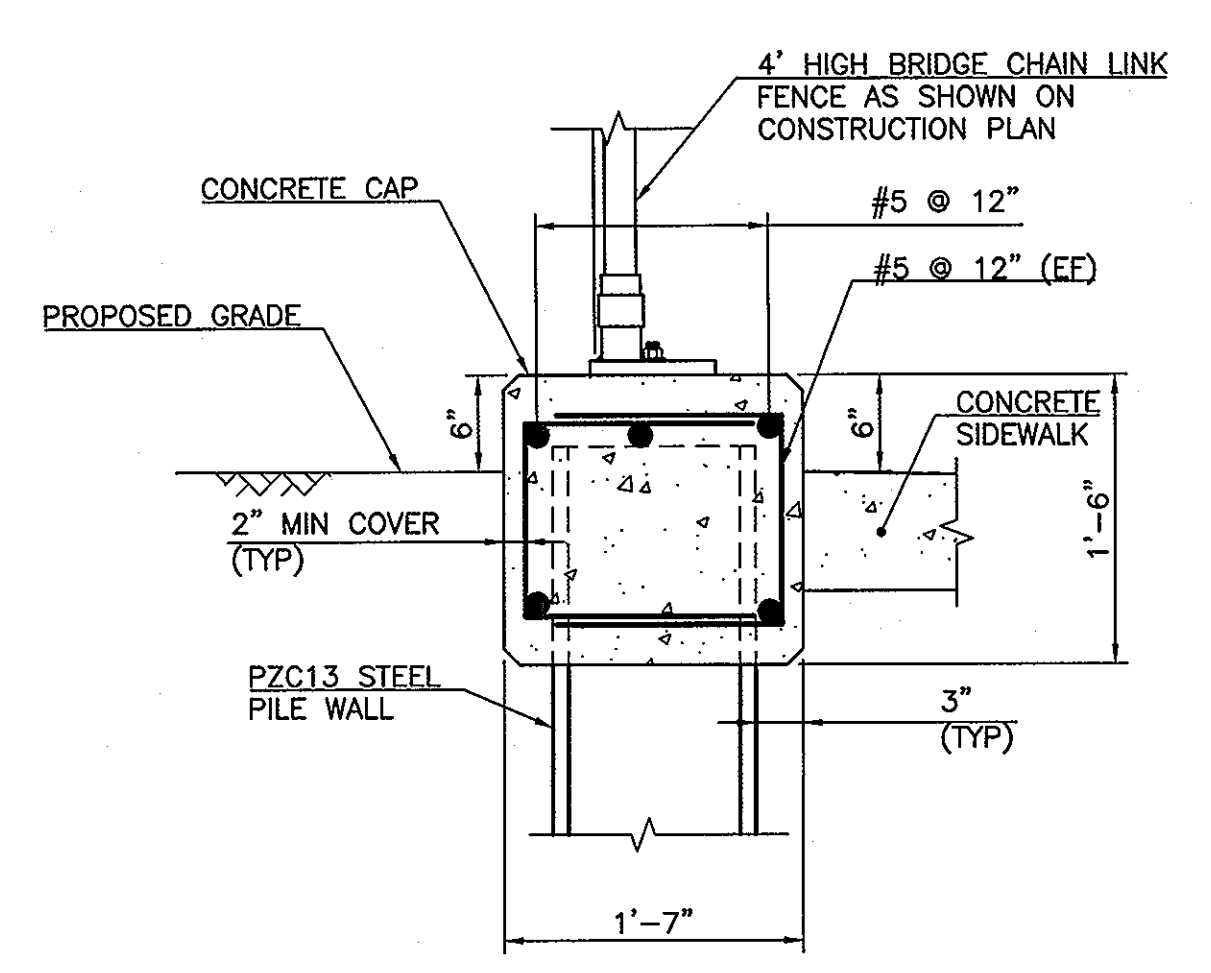
NO.	DATE	REVISIONS	BY	CHECKED
COUNTY OF UNION REPLACEMENT OF MADISON HILL ROAD BRIDGE, RA-28 CITY OF RAHWAY AND TOWNSHIP OF CLARK, UNION COUNTY, NEW JERSEY EAST ABUTMENT PLAN & ELEVATION				
 JAMES A. BUCZEK, PE LICENSED PROFESSIONAL ENGINEER STATE OF NEW JERSEY LICENSE NO. 0E45122		DRAWING B-8 SHEET		
PROJECT NO. UNCO-00420 CADD FILE UNCO00420_SHT027_BR_ABT.dwg		DESIGNED BY ES DRAWN BY FC CHECKED BY PWS DATE 6/28/15		
27 OF 38				



TYPICAL STUB ABUTMENT SECTION
SCALE: 3/4" = 1'-0"



TYPICAL WINGWALL SECTION
SCALE: 1/2" = 1'-0"



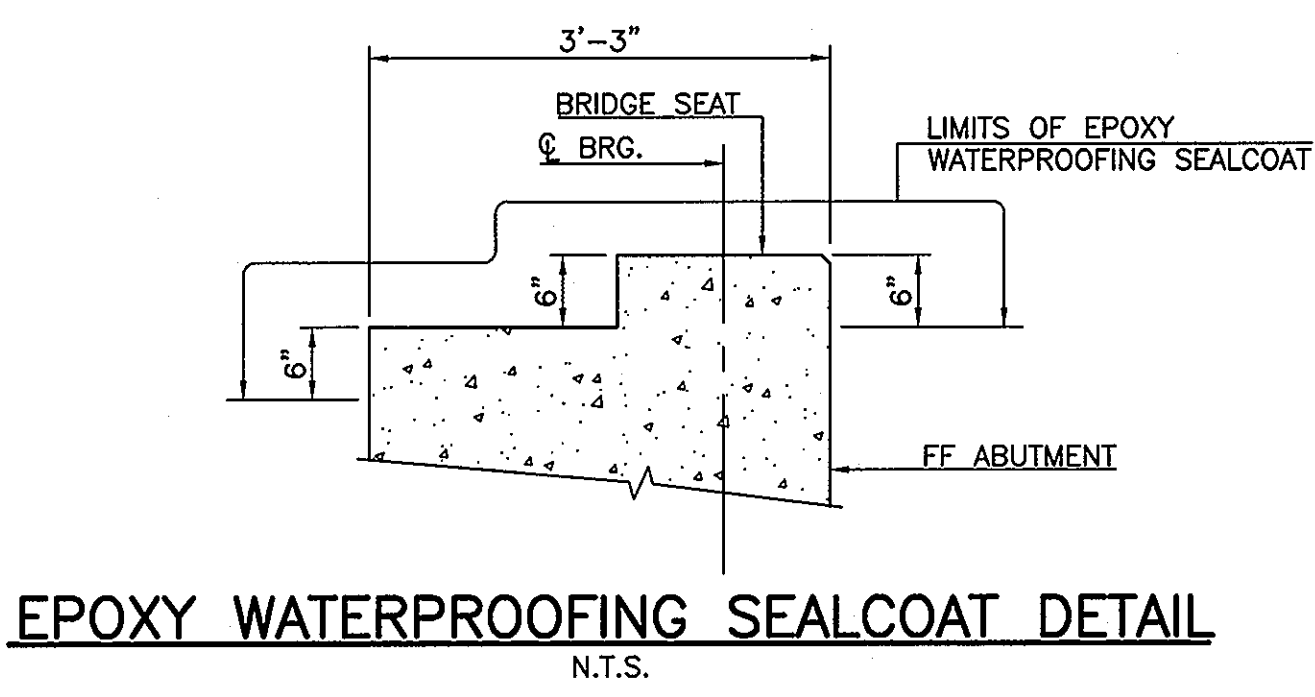
CONCRETE CAP DETAIL
SCALE: 1" = 1'-0"

REFERENCE:

1. FOR CONCRETE PYLON DETAILS, SEE SHEET NO 29.
2. FOR HP STEEL PILE PLAN, LAYOUT AND NOTES, SEE SHEET NO 24.
3. FOR FOOTING REINFORCEMENT, SEE SHEET NO 25.

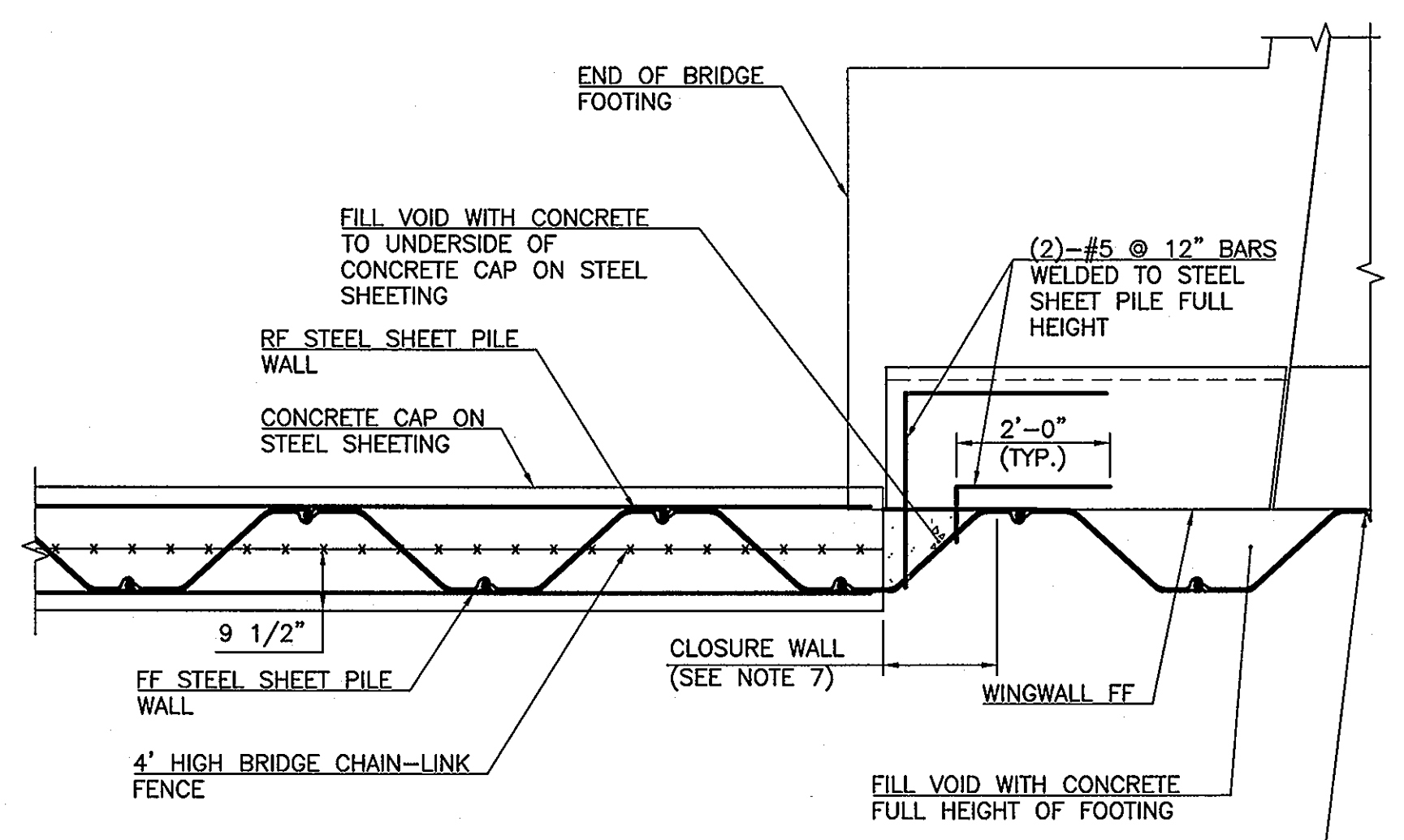
NOTES:

1. THE COST FOR THE 8" CORRUGATED STEEL UNDERDRAIN PIPE, GEOTEXTILE AND STONE POCKET SHALL BE INCLUDED IN THE PAYMENT FOR "8" CORRUGATED STEEL PIPE". FOR UNDERDRAIN DETAIL, SEE NJDOT STANDARD SHEET BCD-504-2.
2. THE COST FOR CONCRETE PARAPET ALONG WINGWALLS SHALL BE INCLUDED IN PRICE BID FOR ITEM "CONCRETE BRIDGE PARAPETS".
3. THE COST FOR CONCRETE CURB ALONG WINGWALLS SHALL BE INCLUDED IN PRICE BID FOR ITEM "10"x20" CONCRETE CURB" (ROADWAY ITEM).
4. STEEL SHEET PILE WALL SHALL BE PZC13 OR EQUAL SECTION. COFFERDAMS SHALL BE PZC13 OR EQUAL SECTION. ALL STEEL SHEETING LEFT IN PLACE SHALL BE A572 GRADE 50 STEEL AND COAL TAR EPOXY COATED. MINIMUM SECTION MODULUS EQUAL TO 24.2 IN /FT, MOMENT INERTIA EQUAL TO 152 IN /FT.
5. NO SEPARATE PAYMENT SHALL BE MADE FOR CONCRETE CAP, SHEAR STUDS, CONCRETE FILL BETWEEN SHEETING AND FOOTING, CONCRETE COLLAR, AND INCIDENTAL WORK. ALL COSTS THEREFORE SHALL BE INCLUDED IN THE PRICE BID FOR "STEEL SHEET PILE WALL".
6. THE COST FOR CONCRETE CLOSURE WALLS SHALL BE INCLUDED IN PRICE BID FOR ITEM " CONCRETE WINGWALL".
7. THE CONTRACTOR SHALL SUBMIT CONCRETE CLOSURE WALL DETAILS TO THE ENGINEER FOR REVIEW AND APPROVAL.
8. ALTERNATE 90° HOOK AND 135° HOOK ALL AT TOP IN ALTERNATING TIES.
9. COST FOR 6" CONCRETE SIDEWALK ALONG WINGWALL SHALL BE INCLUDED IN PRICE BID FOR PAY ITEM "CONCRETE SIDEWALK, REINFORCED, 6" THICK," (ROADWAY ITEM).

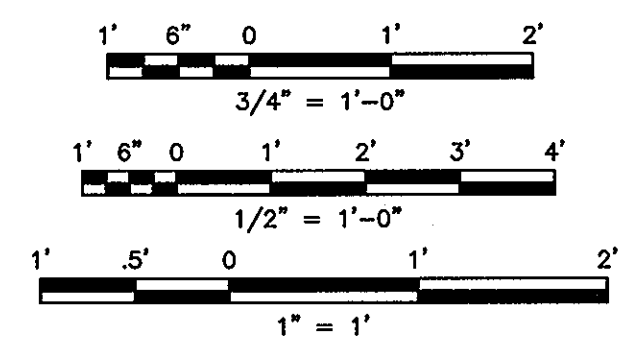


EPOXY WATERPROOFING SEALCOAT DETAIL
N.T.S.

NOTE:
THE COST FOR EPOXY WATERPROOFING SEAL COAT AT ABUTMENT SEAT SHALL BE INCLUDED IN THE PRICE BID ITEM "EPOXY WATERPROOFING".



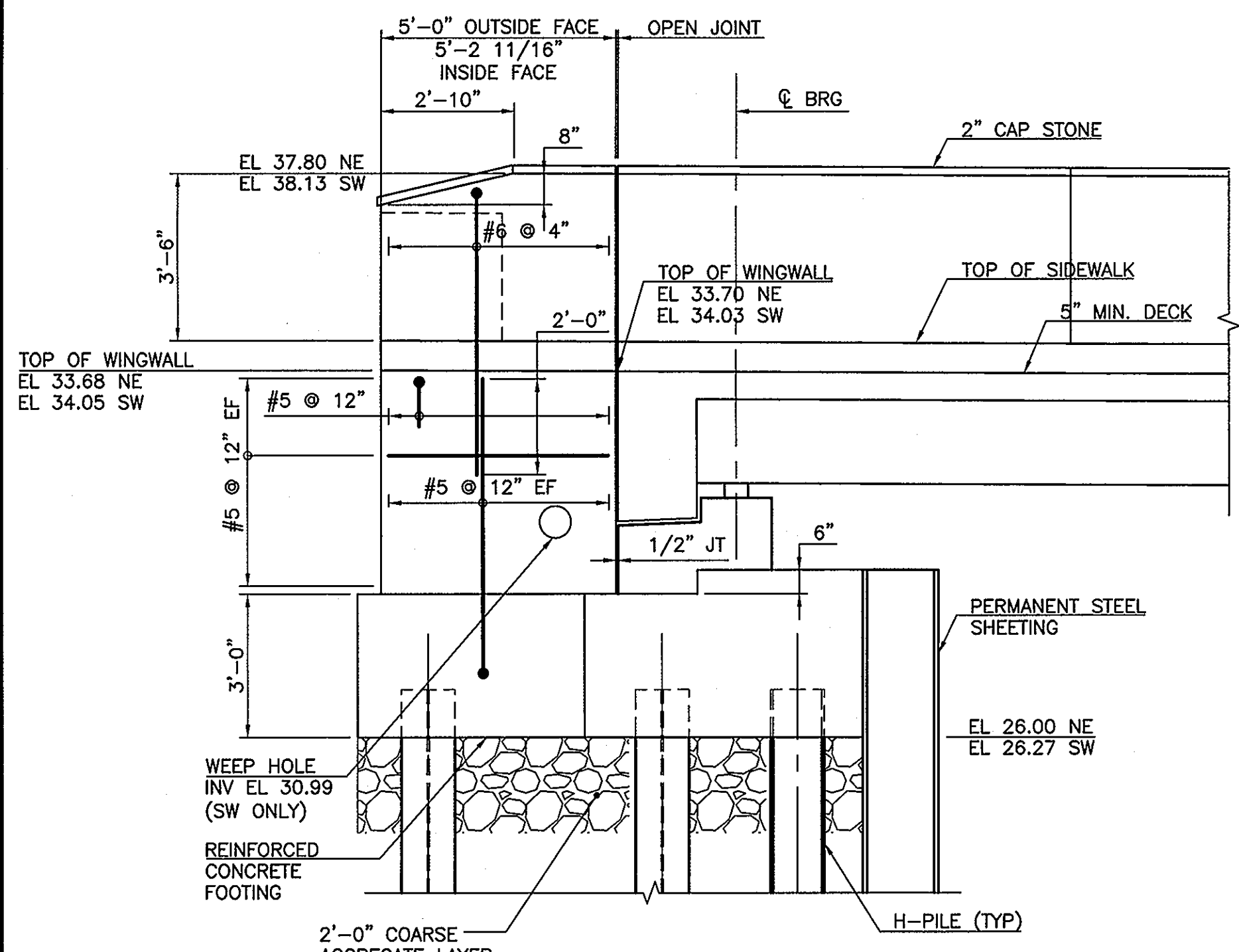
TYPICAL CLOSURE WALL PLAN
SCALE: 1/2" = 1'-0"



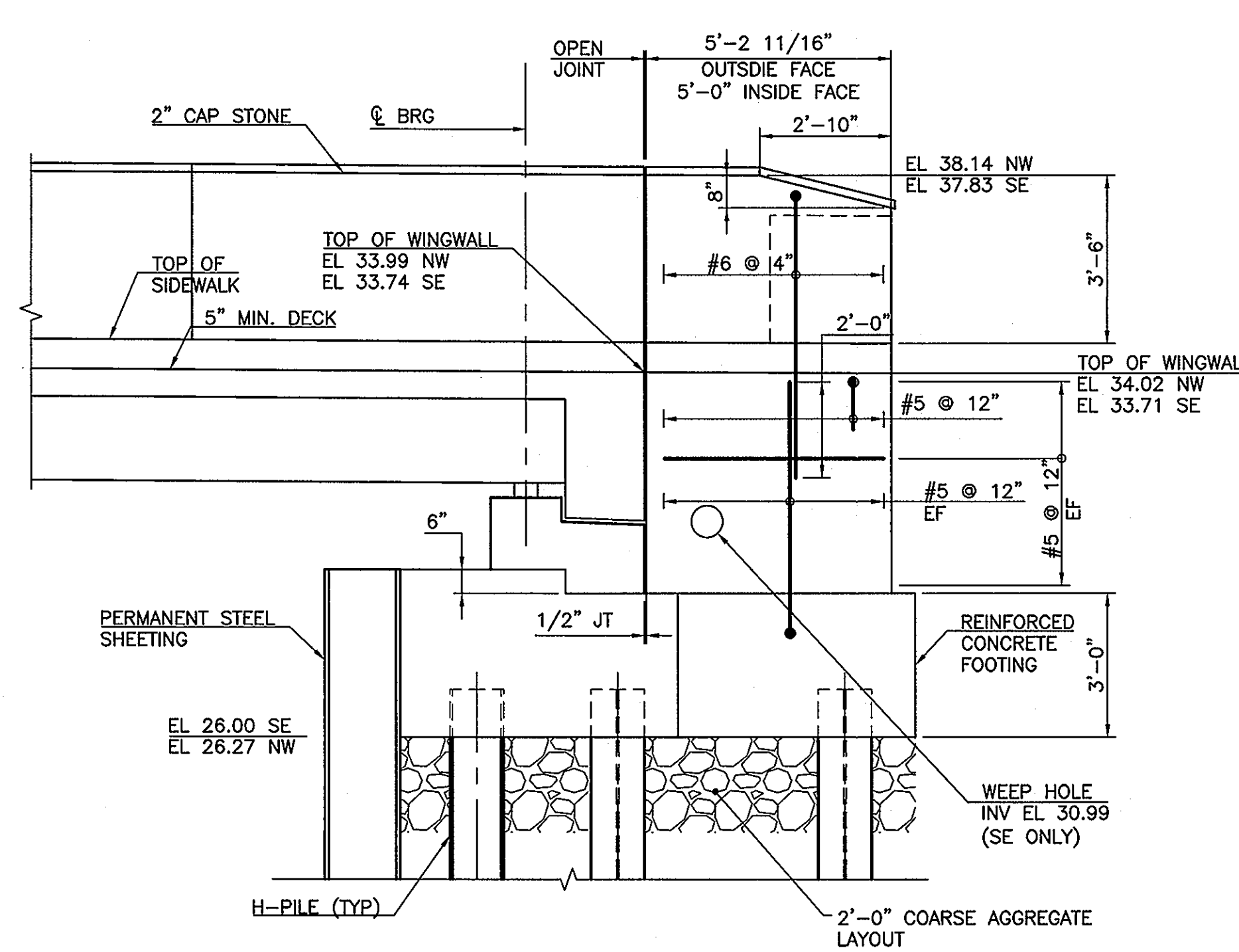
NO.	DATE	REVISIONS	BY	CHECKED	
COUNTY OF UNION					
REPLACEMENT OF MADISON HILL ROAD BRIDGE, RA-28					
CITY OF RAHWAY AND TOWNSHIP OF CLARK, UNION COUNTY, NEW JERSEY					
SECTIONS & DETAILS					
JAMES A. BUCZEK, PE			DRAWING	B-9	
			SHEET	28 OF 38	
DESIGNED BY	ES	DRAWN BY	FC	CHECKED BY	JL
PROJECT NO.	UNCO-00420	CADD FILE	UNCO00420_SHT028_BR_SEC.dwg	DATE	6-29-15

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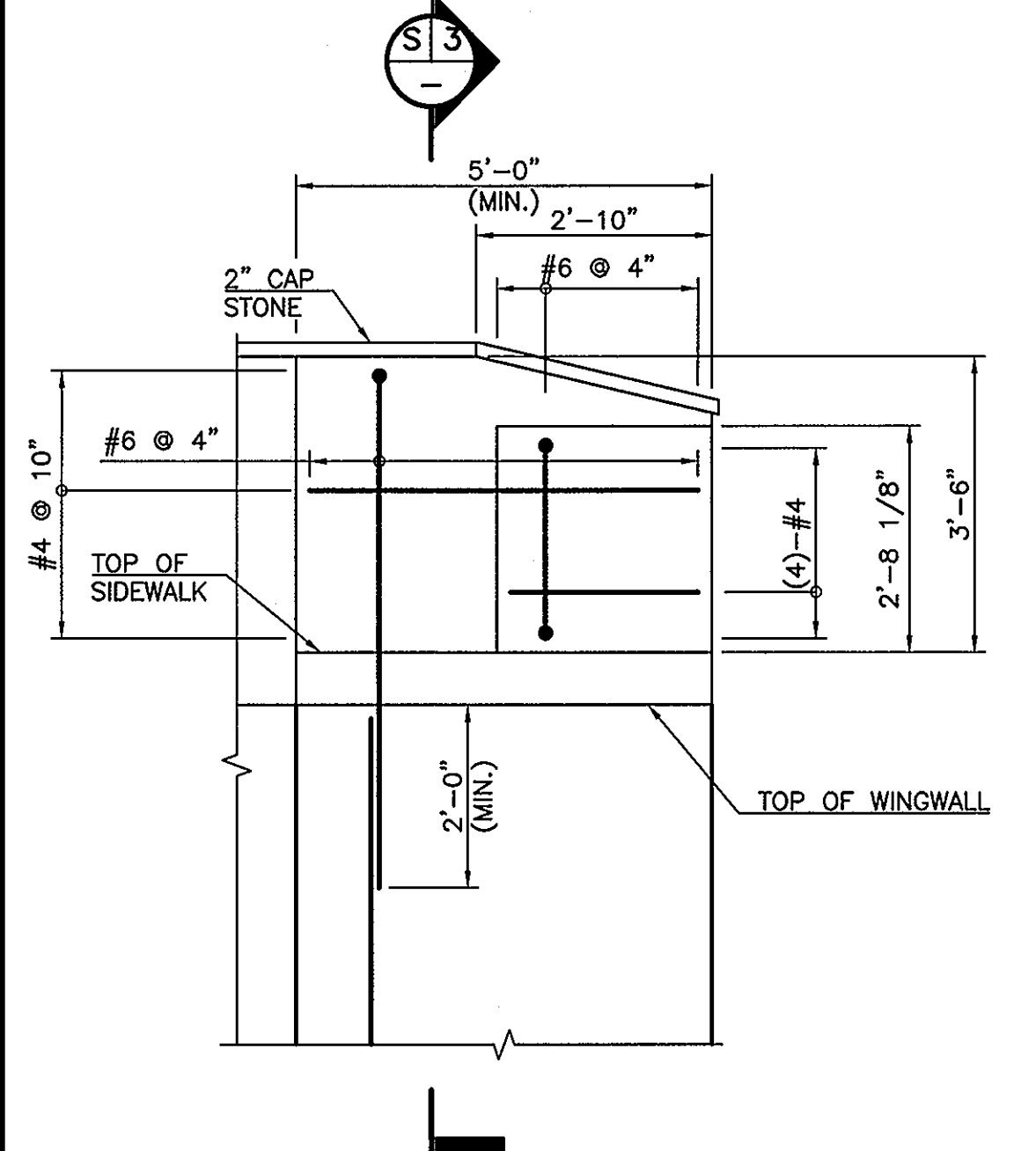
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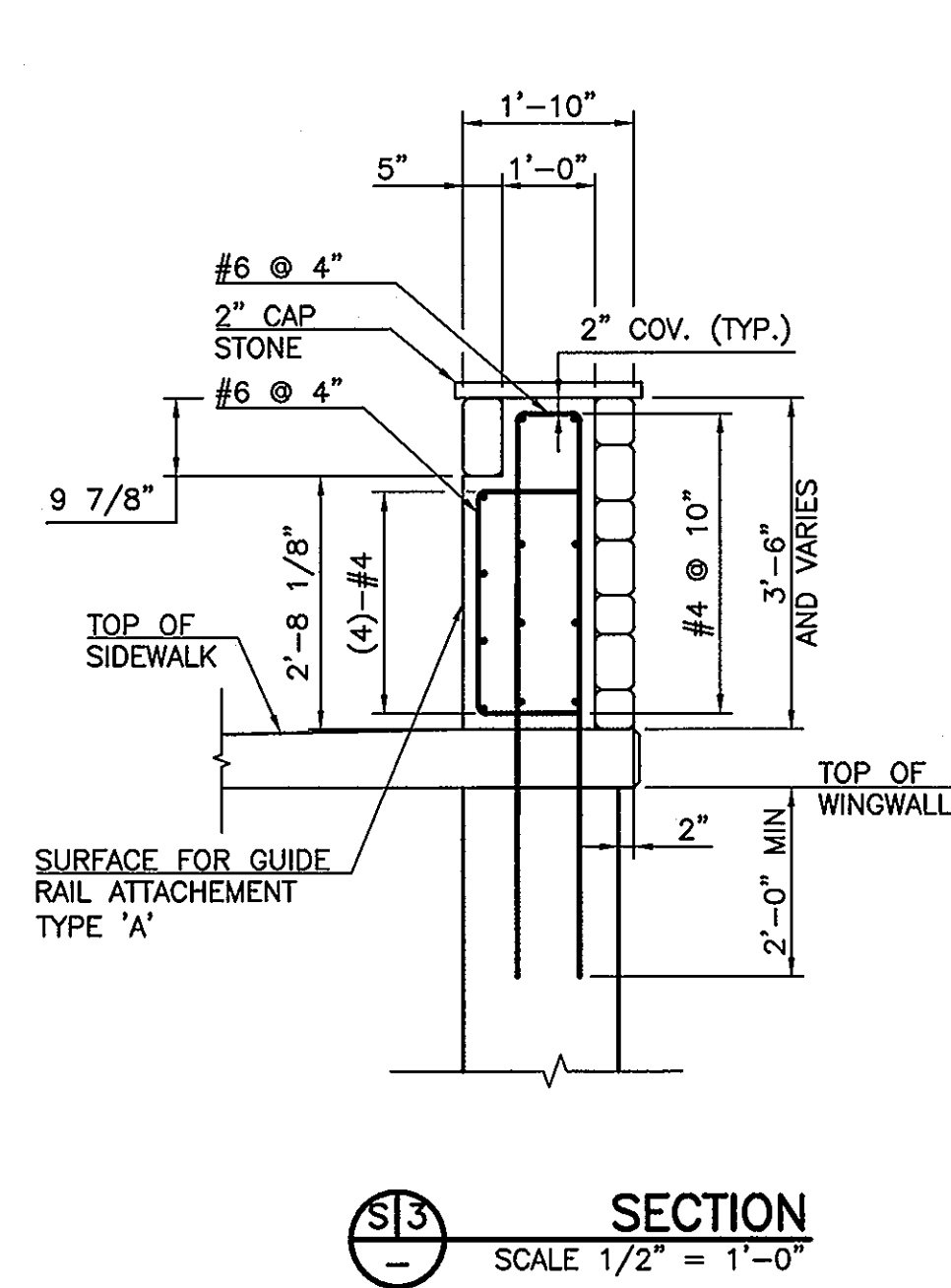
SOUTHWEST & NORTHEAST WINGWALLS ELEVATION
SCALE: 3/8" = 1'-0"



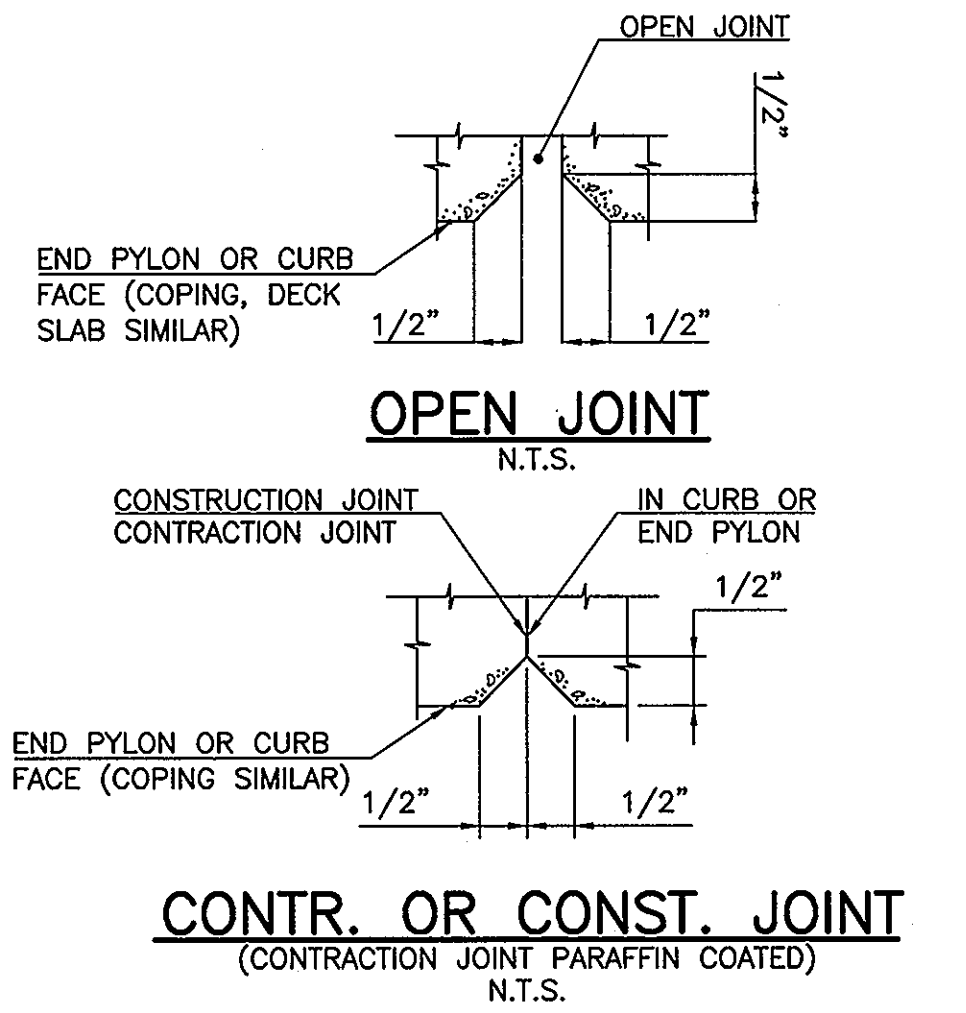
SOUTHEAST & NORTHWEST WINGWALLS ELEVATION
SCALE: 3/8" = 1'-0"



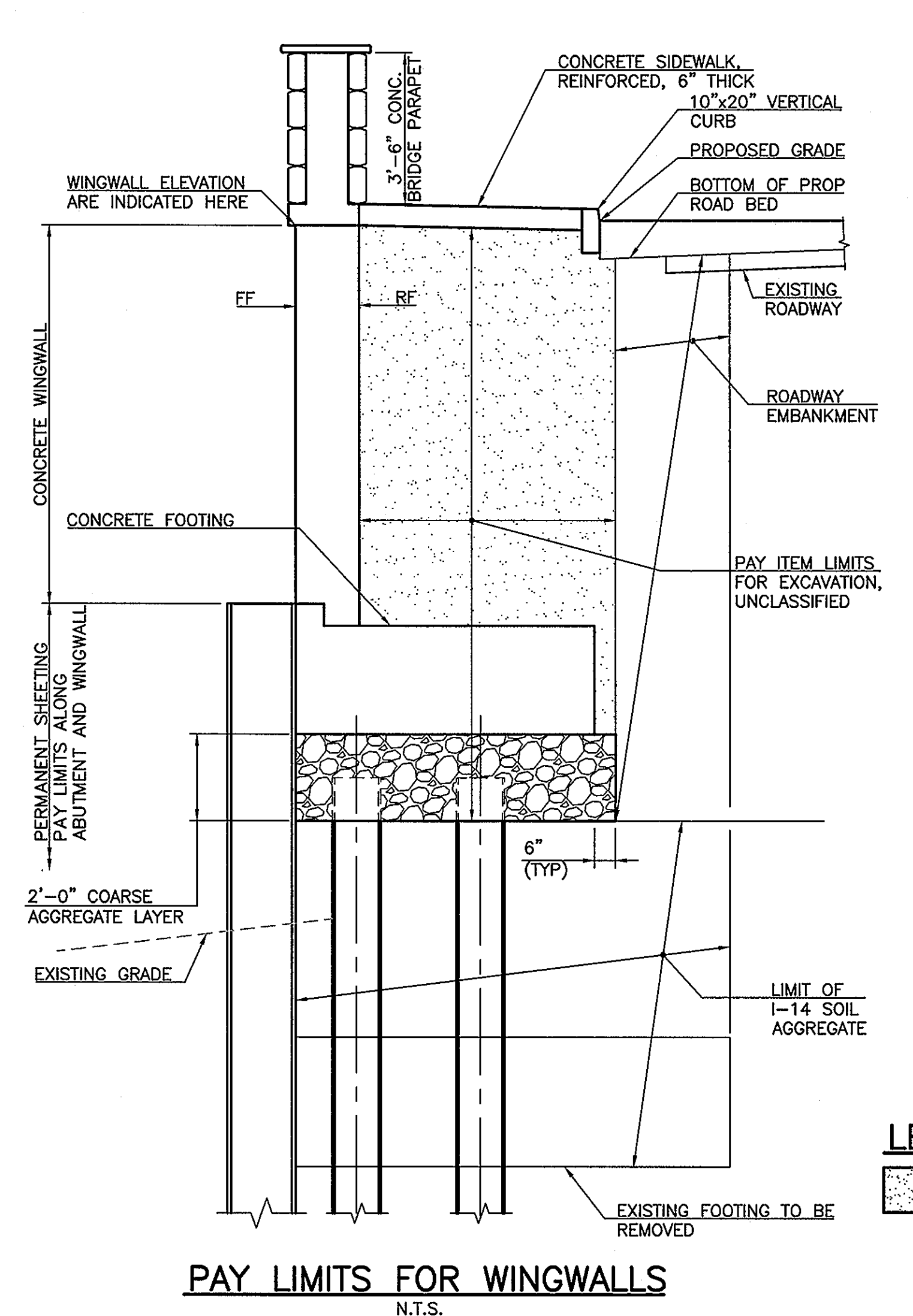
TYPICAL CONCRETE PYLON REINFORCEMENT DETAIL
SCALE: 1/2" = 1'-0"



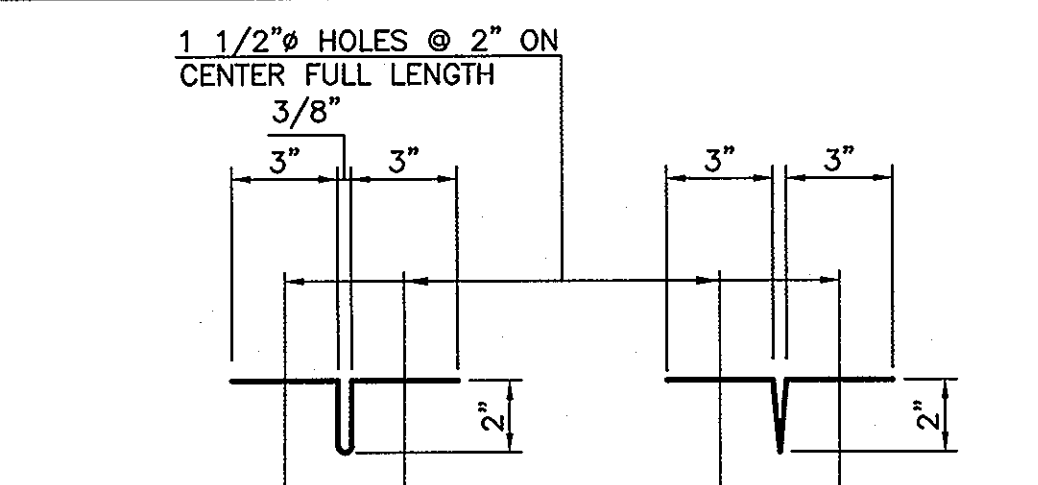
SECTION
SCALE: 1/2" = 1'-0"



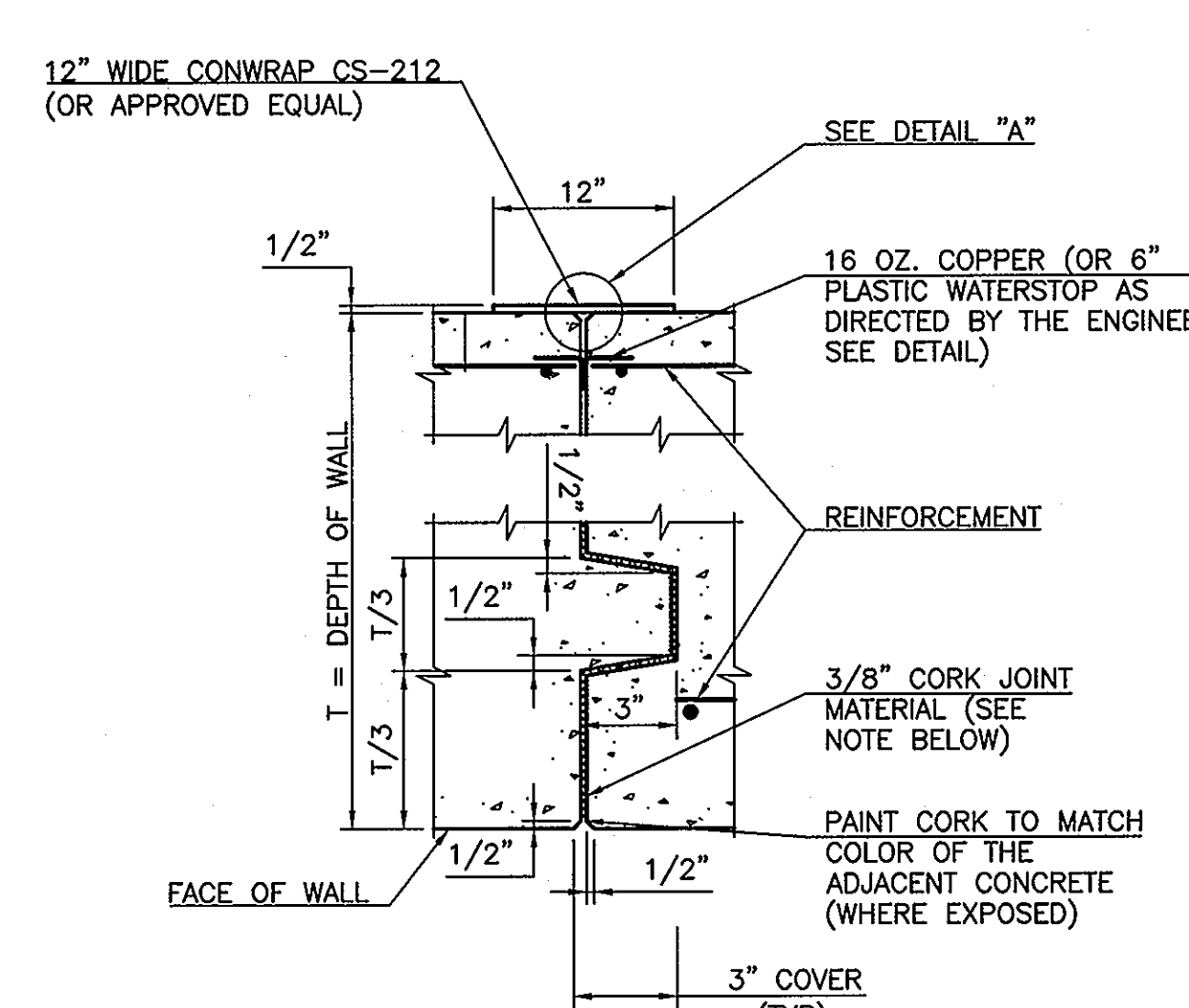
CONTR. OR CONST. JOINT
(CONTRACTION JOINT PARAFFIN COATED)
N.T.S.



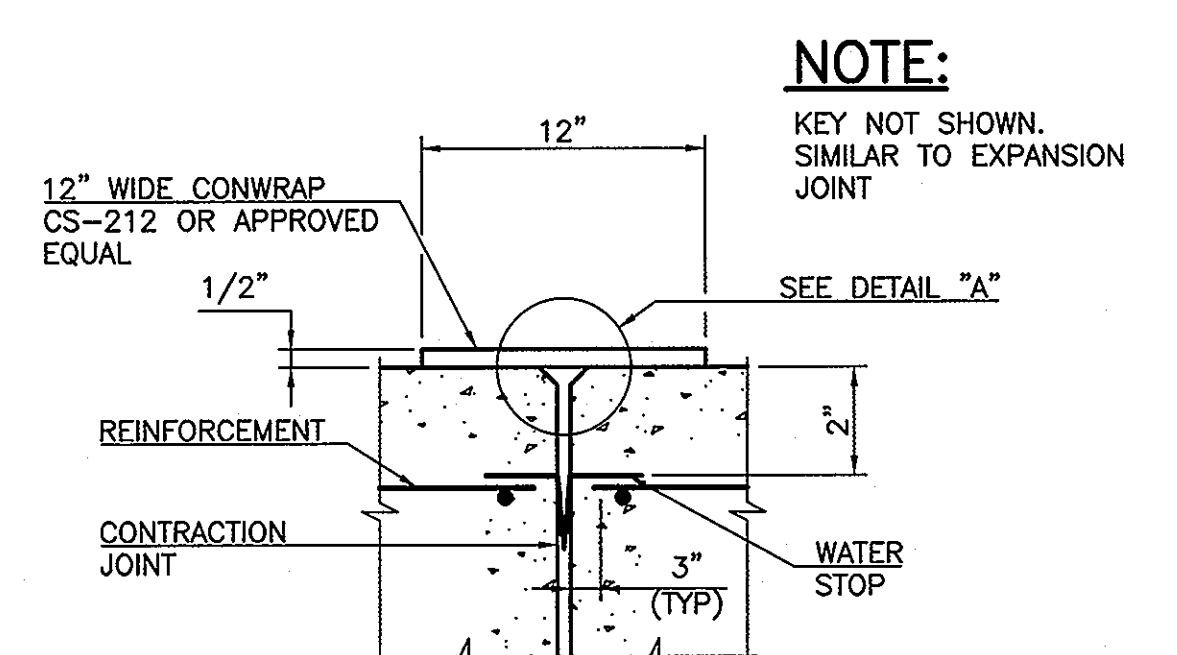
PAY LIMITS FOR WINGWALLS
N.T.S.



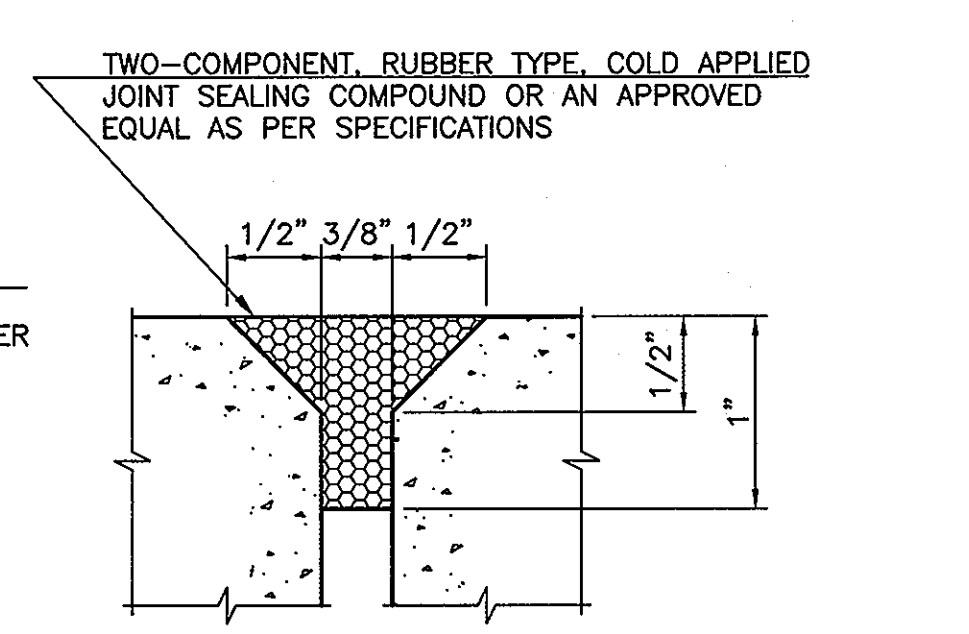
EXPANSION CONTRACTION
16 OZ. COPPER WATERSTOP - 10" WIDE
N.T.S.



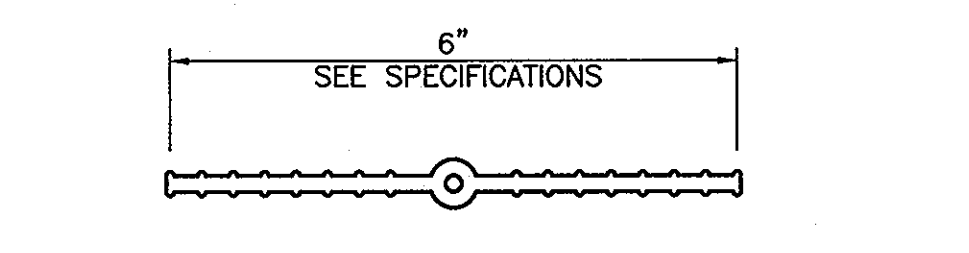
SECTION THROUGH EXPANSION JOINT
N.T.S.



CONTRACTION JOINT
N.T.S.



DETAIL "A" - SEALER
SCALE: FULL SIZE

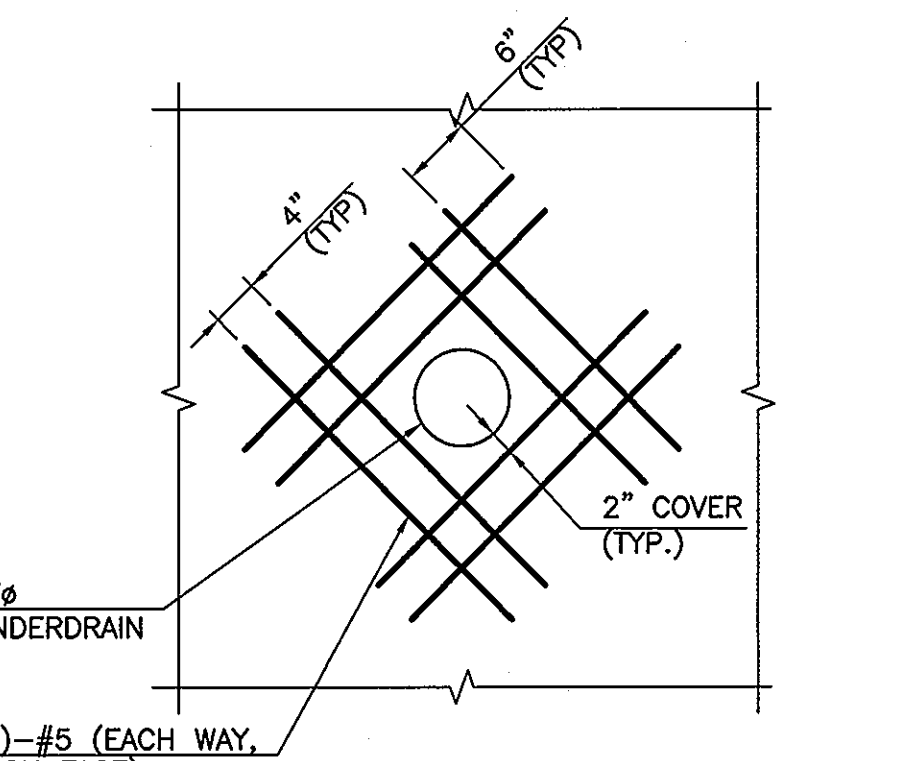


6" PLASTIC WATERSTOP DETAIL
N.T.S.

NOTES:

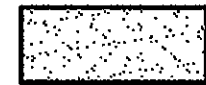
1. CORK JOINT MATERIAL CONFORMING TO AASHTO SPECIFICATIONS, DESIGNATION M153, TYPE 2, WHERE JOINT IS NOTED AS EXPANSION JOINT.
2. CONTRACTION JOINTS SHALL BE TIGHT AND SHALL BE PARAFFIN COATED.
3. REINFORCING STEEL TO DISCONTINUE AT CONTRACTION & EXPANSION JOINTS. PROVIDE 3" COVER HORIZONTALLY.
4. DISCONTINUE KEY AND WATERSTOP 6" BELOW TOP OF WALL.

JOINT DETAILS

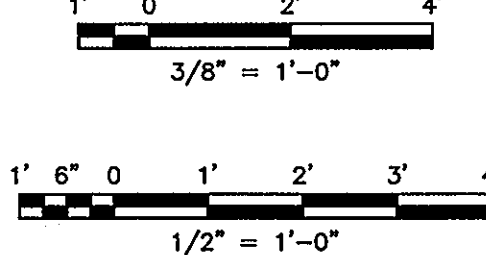


WEEP HOLE REINFORCEMENT DETAIL
N.T.S.

LEGEND



PAY ITEM LIMITS FOR 1-9 SOIL AGGREGATE



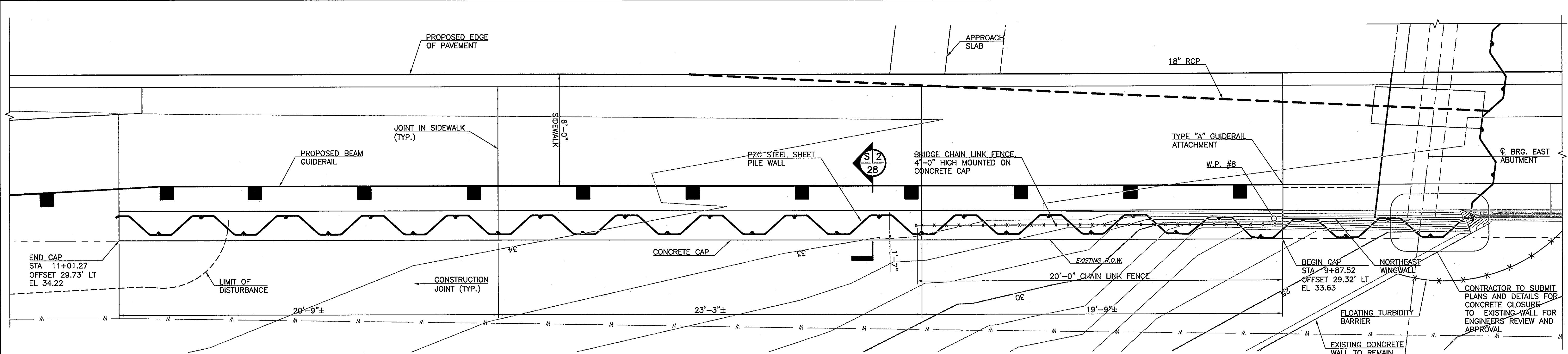
NOTE:

1. STEEL SHEET PILE WALL ALONG WINGWALLS NOT SHOWN FOR CLARITY.
2. THE COST FOR CONCRETE FOR PYLONS SHALL BE INCLUDED IN THE PAY ITEM "CONCRETE BRIDGE, PARAPET".

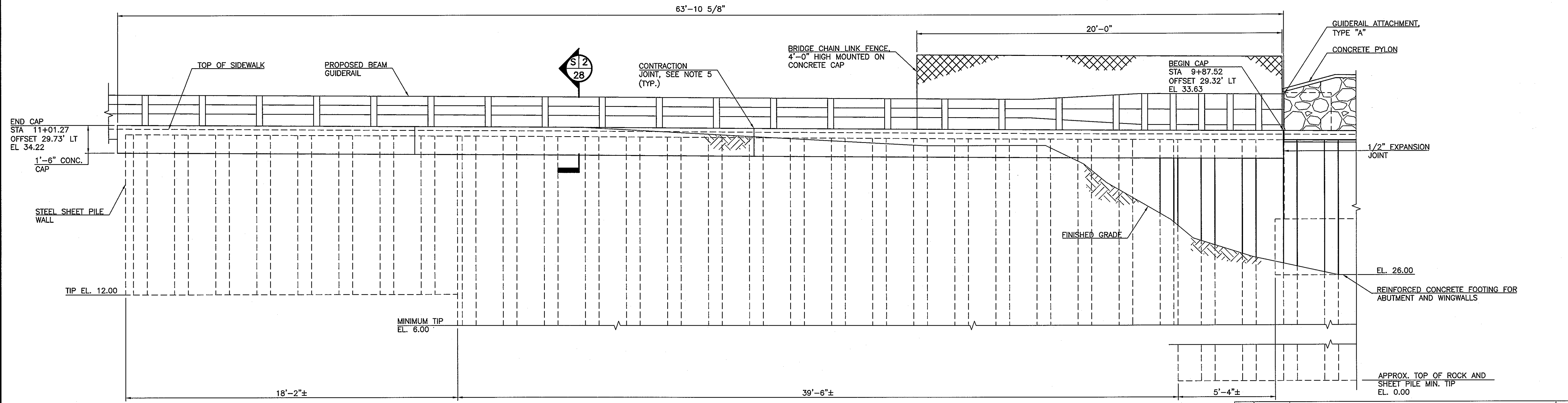
REFERENCE:

1. FOR GENERAL NOTES, SEE SHEET NO 20.
2. FOR ABUTMENT ELEVATIONS, SEE SHEETS NOS 26 AND 27.
3. FOR ABUTMENT TYPICAL SECTION DETAILS, SEE SHEET NO 28.
4. FOR PARAPET CONSTRUCTION JOINT LOCATIONS, SEE SHEET NO 37.

NO.	DATE	REVISIONS	BY	CHECKED
COUNTY OF UNION REPLACEMENT OF MADISON HILL ROAD BRIDGE, RA-28 CITY OF RAHWAY AND TOWNSHIP OF CLARK, UNION COUNTY, NEW JERSEY WINGWALL ELEVATIONS				
JAMES A. BUCZEK, PE LICENSED PROFESSIONAL ENGINEER STATE OF NEW JERSEY LICENSE No. GE45122			DRAWING B-10 SHEET	
PROJECT NO. UNCO-00420		CADD FILE UNCO00420_SHT029_WWD.dwg		
DESIGNED BY ES		DRAWN BY FC CHECKED BY FWS		
29 OF 38				



NORTHEAST SHEET PILE WALL PLAN
SCALE: 3/8" = 1'-0"




NORTHEAST SHEET PILE WALL ELEVATION
SCALE: 3/8" = 1'-0"

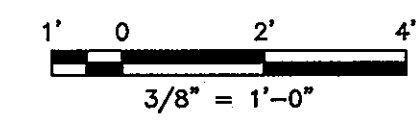
NOTES:

1. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND ELEVATIONS PRIOR TO FABRICATION AND CONSTRUCTION OF STEEL SHEET PILE WALL.
2. ALL STEEL SHEET PILE WALL SECTIONS SHALL BE AS SHOWN IN THIS PLAN PZC13 (MIN Sx = 24.2 IN² / FT., MIN Lx = 152.0 IN² / FT.) WITH COAL TAR EPOXY TO A MINIMUM DRY COATING THICKNESS OF 20 MILS.
3. STEEL MEMBER SHALL BE ASTM A709, GRADE 50 AND SHALL BE INCLUDED IN UNIT PRICE BID FOR ITEM "STEEL SHEET PILE WALL".
4. NO SEPARATE PAYMENT SHALL BE MADE FOR REINFORCED CONCRETE, CAP, COATING AND INCIDENTAL WORK. ALL COSTS THEREFORE SHALL BE INCLUDED IN THE PRICE BID FOR THE PAY ITEM "STEEL SHEET PILE WALL".
5. EXPANSION JOINTS SHALL BE PLACED AT 90 FT AND CONTRACTION JOINTS SHALL BE PLACED AT 30 FT ALONG THE CONCRETE CAP AT SHEETING LOCKS.
6. FOR CHAIN LINK FENCING DETAILS NOT SHOWN, SEE BCD-509-2 OF THE 2007 STANDARD ROADWAY CONSTRUCTION TRAFFIC CONTROL-BRIDGE CONSTRUCTION DETAILS.
7. THE CONTRACTOR SHALL PROVIDE STABILITY CALCULATIONS SIGNED AND SEALED BY A LICENSED ENGINEER IN THE STATE OF NJ FOR ALL EQUIPMENT STAGING ADJACENT TO THE PROPOSED SHEETING TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.

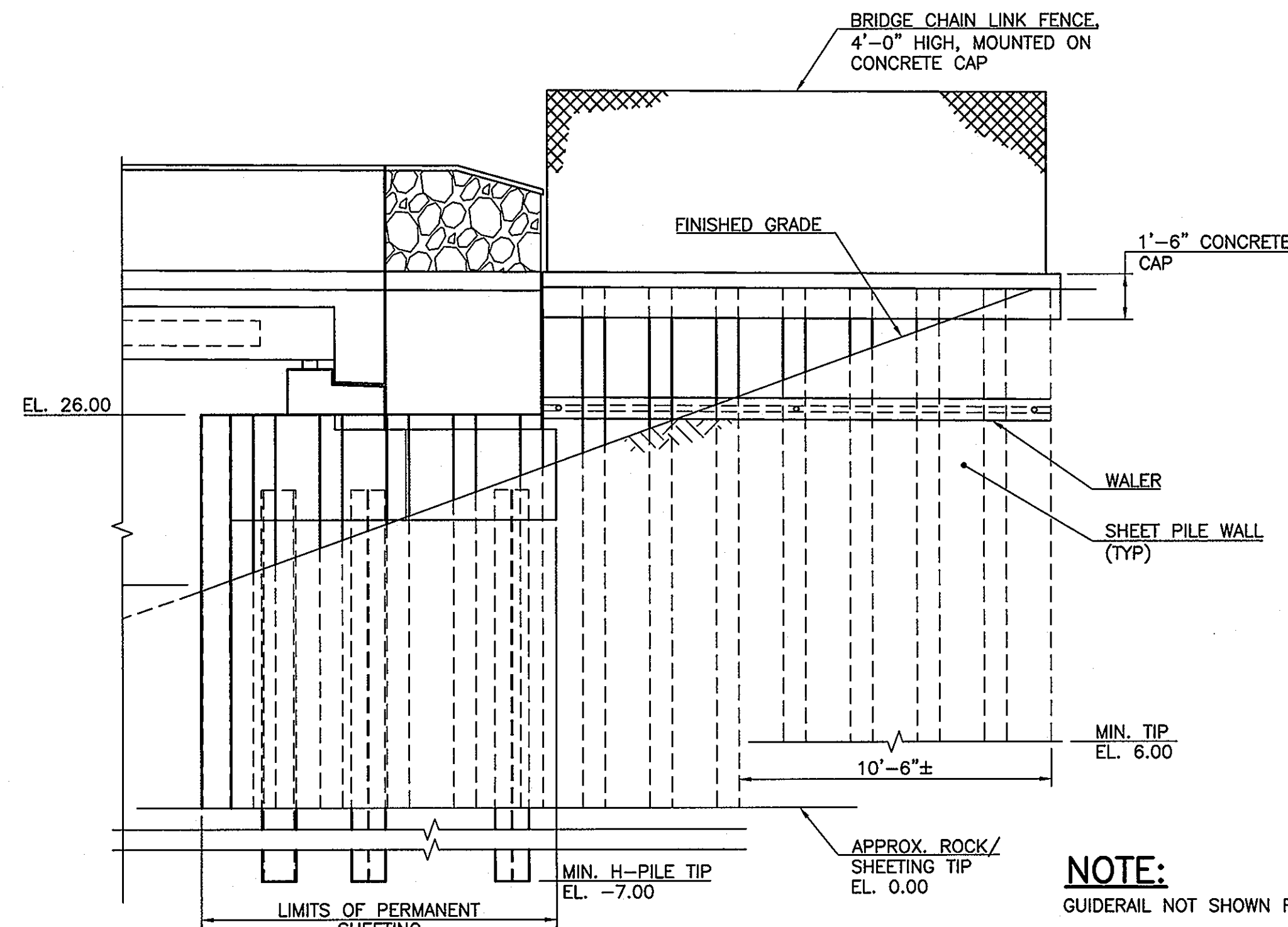
REFERENCES:

1. FOR GENERAL NOTES, SEE SHEET 20.
2. FOR CONCRETE CAP SECTIONS AND DETAILS, SEE SHEET 28.
3. FOR WORKING POINT LOCATIONS, SEE SHEET 21.

NO.	DATE	REVISIONS	BY	CHECKED
COUNTY OF UNION REPLACEMENT OF MADISON HILL ROAD BRIDGE, RA-28 CITY OF RAHWAY AND TOWNSHIP OF CLARK, UNION COUNTY, NEW JERSEY NORTHEAST SHEET PILE WALL				
 JAMES A. BUCZEK, PE LICENSED PROFESSIONAL ENGINEER STATE OF NEW JERSEY LICENSE NO. GE45122		DRAWING B-11 SHEET		
PROJECT NO. UNCO-00420 CADD FILE UNCO00420_SHT030_BR_RET_WALL.dwg		DESIGNED BY ES DRAWN BY FC CHECKED BY PWS		



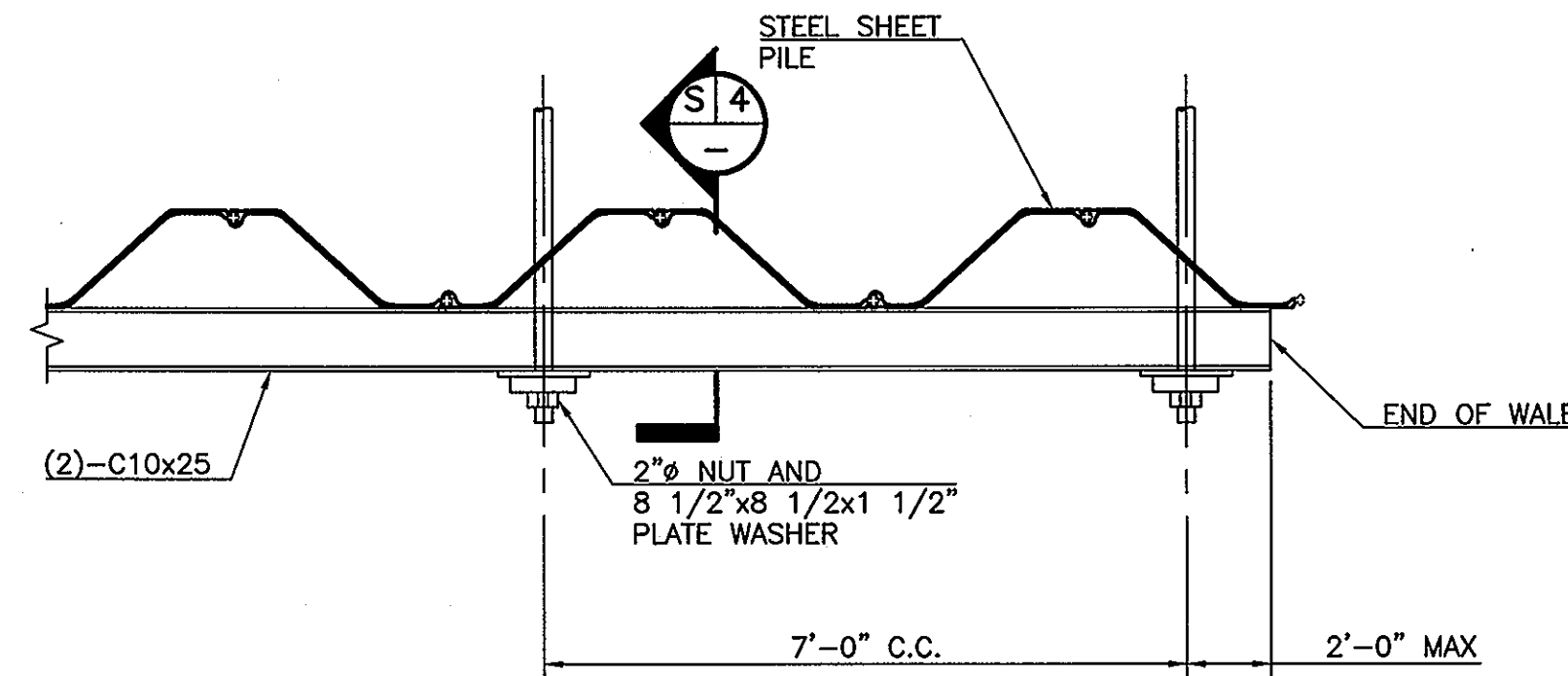
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SOUTHEAST SHEET PILE WALL ELEVATION

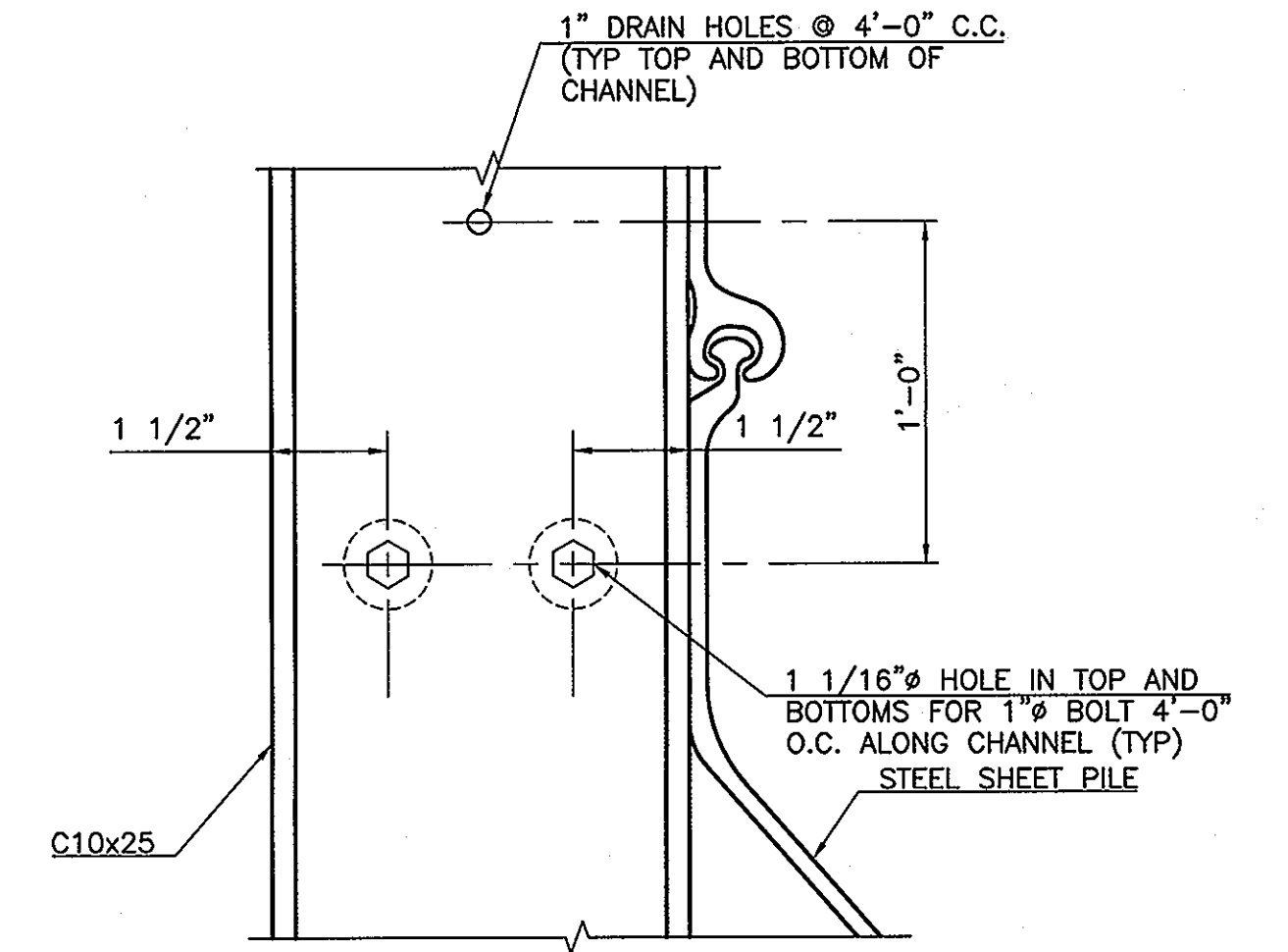
SCALE: 1/4" = 1'-0"
(SOUTHWEST AND NORTHWEST SIMILAR)

NOTE:
GUIDERAIL NOT SHOWN FOR CLARITY.

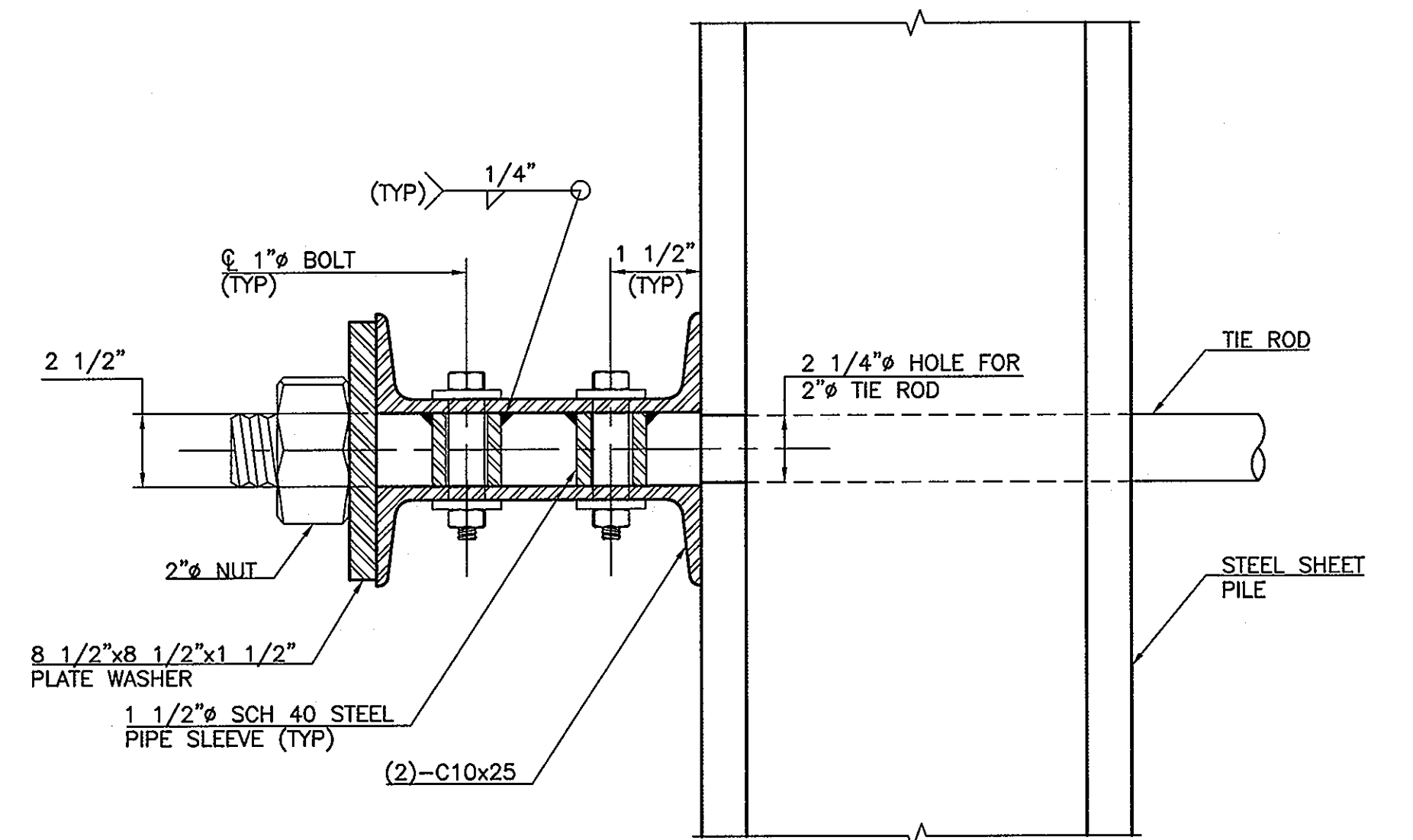


**TYPICAL TIE ROD AND WALER
CONNECTION DETAIL**

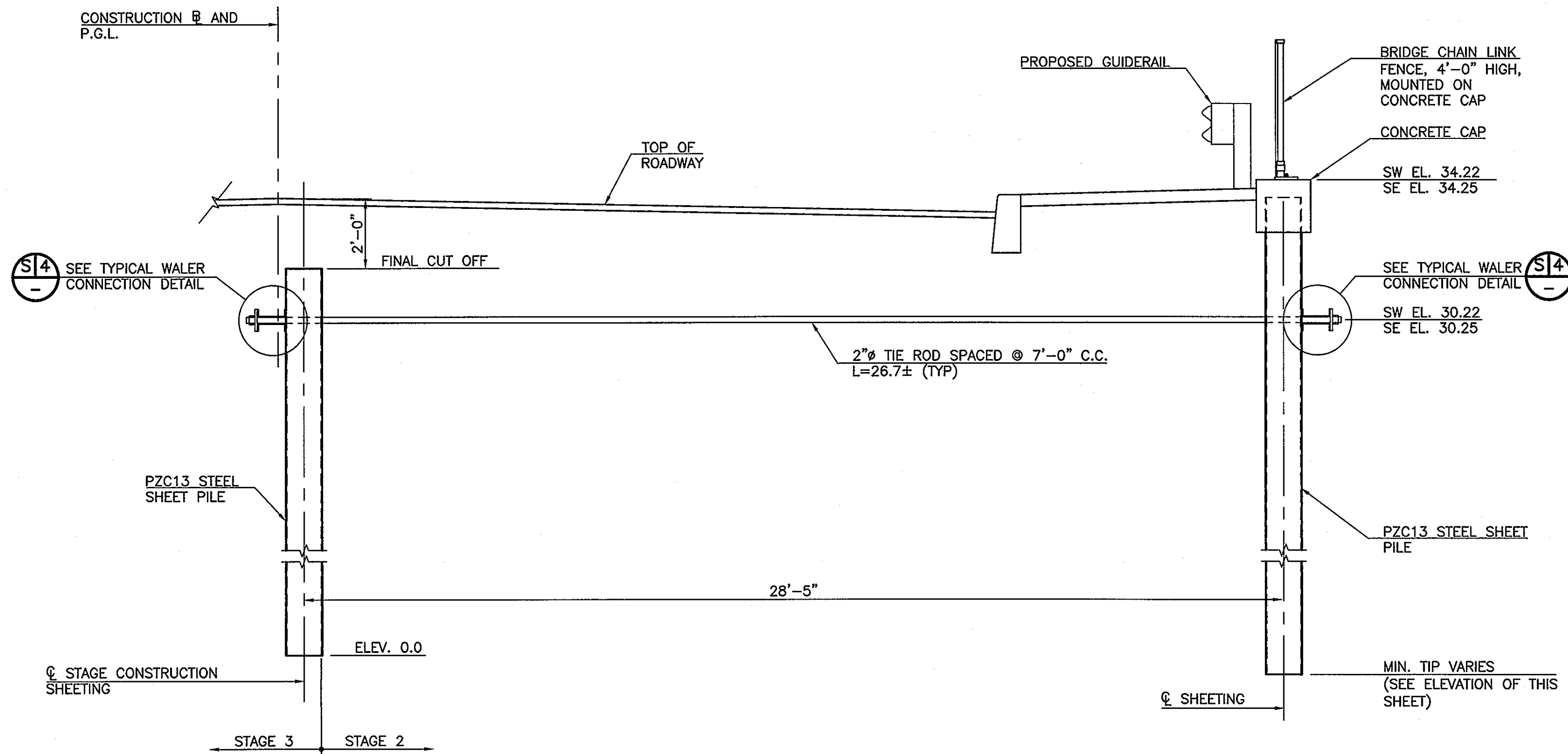
SCALE: 1/2" = 1'-0"



TOP VIEW



TYPICAL WALER CONNECTION DETAIL
N.T.S.



SECTION THROUGH WALER

SCALE: 3/8" = 1'-0"

REFERENCES:

1. FOR STEEL SHEETING NOTES, SEE SHEET 24.

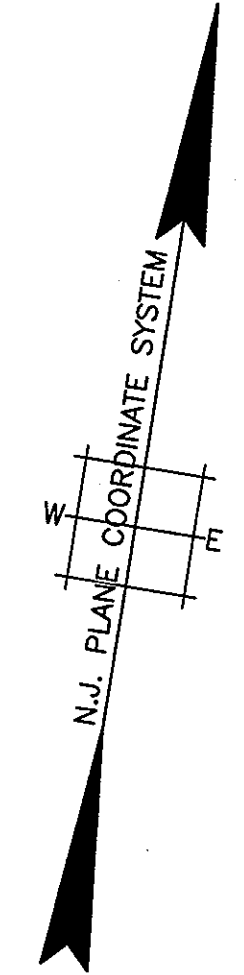
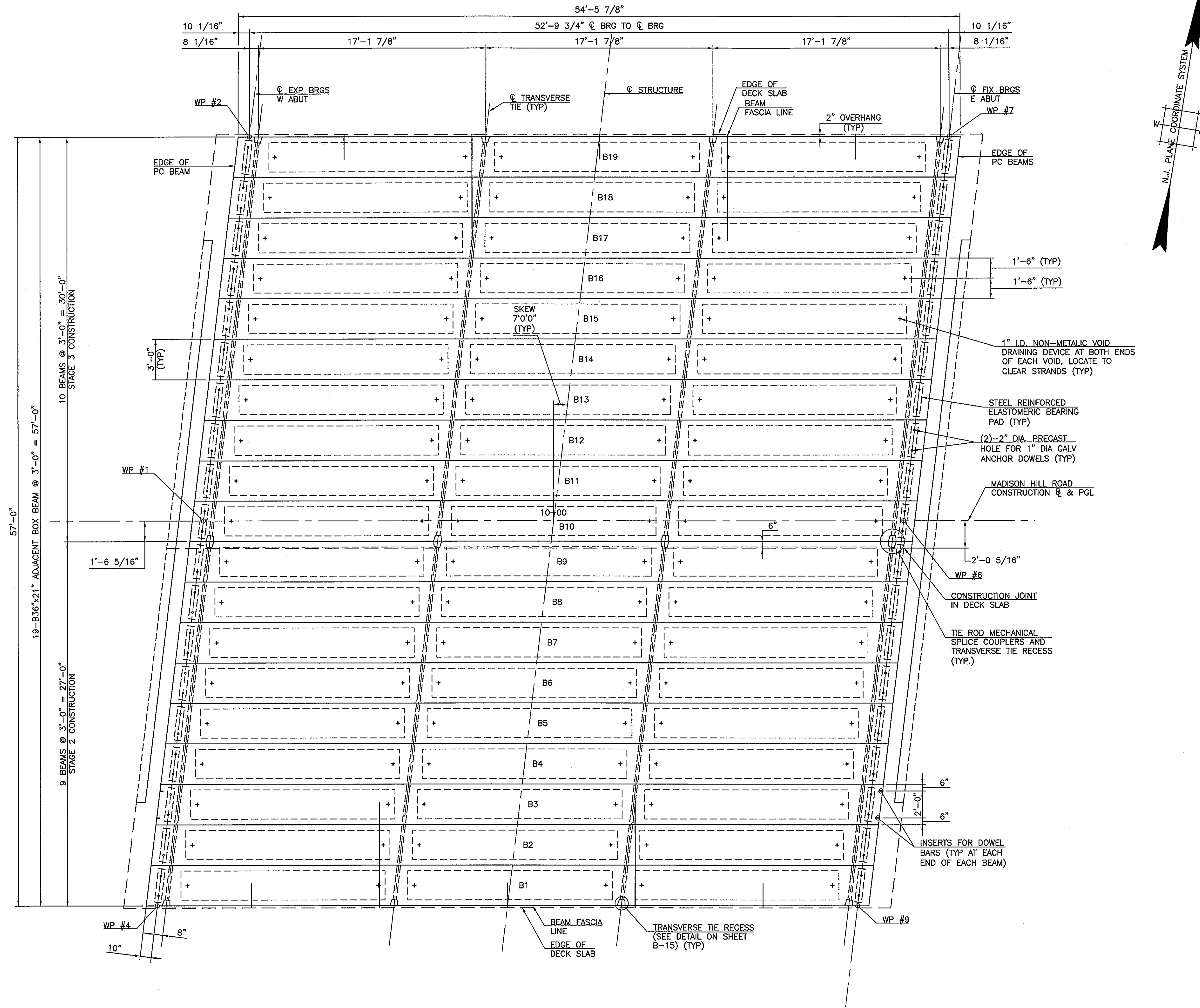
NOTES:

1. STEEL MEMBER SHALL BE ASTM A709, GRADE 50 AND SHALL BE INCLUDED IN UNIT PRICE BID FOR ITEM "STEEL SHEET PILE WALL".
2. TIE RODS SHALL BE 2" HIGH TENSILE STRENGTH STEEL ALLOY TIE RODS CONFORMING TO ASTM 722, TYPE 1 BAR.

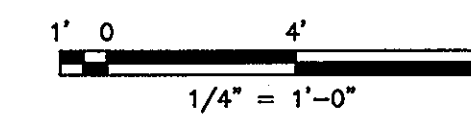
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NO.	DATE	REVISIONS	BY	CHECKED
COUNTY OF UNION				
REPLACEMENT OF MADISON HILL ROAD BRIDGE, RA-28				
CITY OF RAHWAY AND TOWNSHIP OF CLARK, UNION COUNTY, NEW JERSEY				
PERMANENT SHEET PILE WALL DETAILS				
			JAMES A. BUCZEK, PE <small>DATE</small>	
<small>11 TRIGALL ROAD MIDDLETOWN, NJ 07048 TEL 908-671-2500 FAX 908-671-2501</small>			<small>DESIGNED BY</small> AIL <small>DRAWN BY</small> FC <small>CHECKED BY</small> PWS	
<small>NEW JERSEY BOARD OF PROFESSIONAL ENGINEERS AND LAND SURVEYORS CERTIFICATE OF AUTHORIZATION 240A2787500</small>			<small>PROJECT NO.</small> UNCO-00420 <small>CADD FILE</small> UNCO00420_SHT031_BR_DTL.dwg	
			<small>DRAWING</small> B-12 <small>SHEET</small> 31 OF 38	

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FRAMING PLAN
SCALE: 1/4" = 1'-0"




NOTES:

1. ϕ OF BEARINGS IS PARALLEL TO ϕ OF STRUCTURE.
2. DIMENSIONS ARE PERPENDICULAR TO BEAMS.

REFERENCE:

1. FOR GENERAL NOTES, SEE SHEET NO 20
2. FOR WORKING POINT NORTHINGS AND EASTINGS, SEE SHEET NO 21.
3. FOR STANDARD ABBREVIATIONS, SEE SHEET NO 3.
4. FOR PRESTRESSED CONCRETE BEAM DETAILS, SEE SHEET NOS. 33 AND 34.
5. FOR DECK JOINT DETAILS, SEE SHEET NO 35.
6. FOR BEARING DETAILS, SEE SHEET NO 54.

NO.	DATE	REVISIONS	BY	CHECKED
COUNTY OF UNION REPLACEMENT OF MADISON HILL ROAD BRIDGE, RA-28 CITY OF RAHWAY AND TOWNSHIP OF CLARK, UNION COUNTY, NEW JERSEY				
FRAMING PLAN				
		JAMES A. BUCZEK, PE <small>LICENSED PROFESSIONAL ENGINEER STATE OF NEW JERSEY LICENSE NO. GE45122</small>		DRAWING B-13
<small>NEW JERSEY BOARD OF PROFESSIONAL ENGINEERS AND LAND SURVEYORS CERTIFICATE OF AUTHORIZATION 246A27887500</small>		PROJECT NO. UNCO-00420	CADD FILE UNCO00420_SHT032_BR_FRM.dwg	CHECKED BY PWS
SHEET 32 OF 38				DATE 6-25-15

PRESTRESSED CONCRETE BEAM NOTES

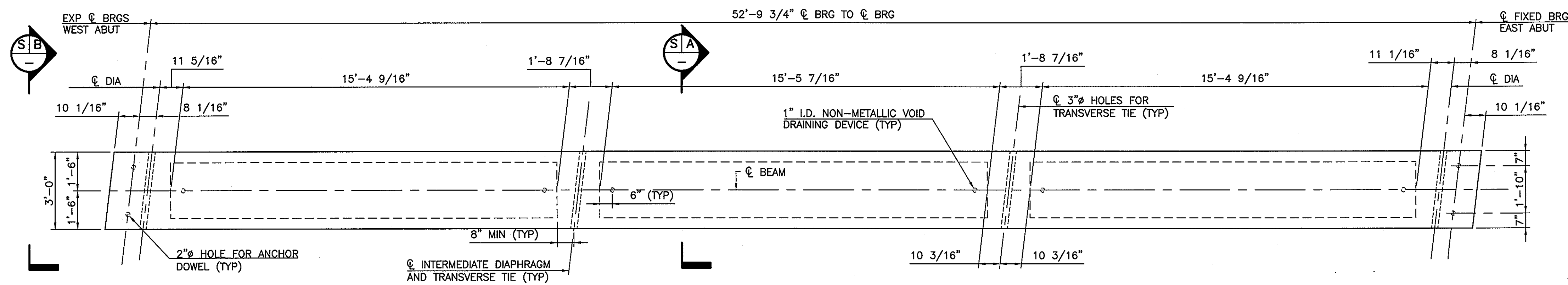
- PRESTRESSED CONCRETE:
 - CLASS DESIGN STRENGTH ($f'c$) (IN ACCORDANCE WITH THE NJDOT BRIDGE DESIGN MANUAL SECTION 3-5.9.4 CLASS P-2.....6,000 PSI
 - VERIFICATION STRENGTH AT 28 DAYS (IN ACCORDANCE WITH THE NJDOT STANDARD SPECIFICATION TABLE NO. 903.03.06-3) CLASS P-2.....7,000 PSI
 - COMPRESSIVE STRENGTH AT RELEASE (IN ACCORDANCE WITH THE NJDOT STANDARD SPECIFICATIONS SECTION 904.06.02) CLASS P-2.....5,000 PSI
 - ALL EXPOSED CORNERS SHALL BE CHAMFERED 3/4" OR ROUNDED TO 3/4" RADIUS UNLESS OTHERWISE NOTED.
- PRESTRESSING STEEL:
 - ALL PRETENSIONED STRANDS SHALL BE HIGH STRENGTH 1/2" DIA., 7-WIRE, LOW RELAXATION STRANDS (AREA=0.153 SQ. IN.) CONFORMING TO AASHTO M203 (ASTM A416) WITH MINIMUM ULTIMATE STRENGTH OF 270 ksi.
 - PRESTRESSING STRANDS SHALL BE PROTECTED AGAINST CORROSION IN THE VICINITY OF THE TIE ROD NOTCHES.
 - CONTRACTOR SHALL SUBMIT FOR APPROVAL HIS PROPOSED SEQUENCE OF RELEASING STRANDS.
- REINFORCEMENT STEEL:
 - ALL REINFORCING STEEL IN THE PRESTRESSED BEAM SHALL CONFORM TO AASHTO M31 (ASTM A615) (GRADE 60)
 - FABRICATOR SHALL SPACE REINFORCEMENT STEEL TO CLEAR STRANDS.
 - ALL REINFORCEMENT SHALL BE GALVANIZED.
- TRANSVERSE TIES SHALL BE 1 1/4" DIAMETER HIGH TENSILE STRENGTH STEEL ALLOY TIE RODS CONFORMING TO ASTM A722, TYPE I BAR. TRANSVERSE TIE RODS TO BE STRESSED TO A TOTAL TENSION OF 85 KIPS BEFORE GROUTING LONGITUDINAL JOINTS.
- BEAM LENGTH AS SHOWN ON DRAWINGS DO NOT INCLUDE EFFECT OF ELASTIC SHORTENING, CREEP OR SHRINKAGE.
- THE BEAMS MUST BE MAINTAINED IN UPRIGHT POSITION AT ALL TIMES AND MUST BE PICKED UP ONLY BY MEANS OF APPROVED LIFTING DEVICES. BEAMS TO BE ERECTED BY MEANS OF LIFTING DEVICES LOCATED AT ENDS OF BEAMS. LIFTING DEVICES SHALL BE SUBMITTED BY THE CONTRACTOR FOR ENGINEER'S APPROVAL. IN NO CASE SHALL STIRRUPS BE USED AS LIFTING DEVICES.
- END OF BEAMS SHALL BE VERTICAL AFTER INSTALLATION.
- IMMEDIATELY AFTER PLACING BEAMS, INSTALL AND TIGHTEN THE TRANSVERSE TIES. THEN PLACE NON-METALLIC NON-SHRINK GROUT IN LONG SHEAR KEYS. SHEAR KEYS TO BE SANDBLASTED PRIOR TO PLACING GROUT.
- SUBSEQUENT TO PLACING THE P.C. BEAMS, THE CONTRACTOR SHALL TAKE ELEVATIONS ALONG THE TOPS OF THE BEAMS AT THE 1/4 POINTS TO FINALIZE THE DECK PROFILE. THE CONTRACTOR SHALL NOT POUR THE DECK UNTIL GIVEN AUTHORIZATION BY THE ENGINEER. PROFILE ADJUSTMENTS ARE TO BE EXPECTED.
- TOP SURFACE OF BEAMS TO RECEIVE A "ROUGHENED SURFACE" TO THE ENGINEER'S SATISFACTION. JUST PRIOR TO PLACING DECK CONCRETE ALL LAITANCE SHALL BE REMOVED WITH A STIFF WIRE BRUSH.
- LENGTH OF BEAM ON SLOPE TO BE DETERMINED BY THE CONTRACTOR.
- THE BOTTOM SURFACE OF ALL BEAMS AT THEIR ENDS SHALL BE ADJUSTED TO PROVIDE FULL BEARING ON THE ABUTMENT BEARING PADS.
- THE COST OF FURNISHING AND PLACING OF GROUT, EPOXY WATERPROOFING, TRANSVERSE TIE RODS, THEIR ACCESSORIES AND ELASTOMERIC BEARING PADS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR "PRESTRESSED CONCRETE BOX BEAMS, (TYPE B21-26), 36X21".
- A COMBINED PLUS TOLERANCE OF 1/2 INCH FOR HORIZONTAL BOW AND WIDTH VARIATION SHALL BE ACCEPTABLE.
- OMIT SHEAR KEY ON OUTSIDE FACE FASCIA BEAMS.
- PROVIDE 3/4" RADIUS DRIP NOTCH ON BOTTOM OF FASCIA END OF EXTERIOR BEAMS.

NOTE:

- EXTEND END BLOCK #5 BAR 1'-6" BEYOND LIFTING INSERT.
- LIFTING DEVICES SHALL BE DESIGNED BY THE MANUFACTURER.

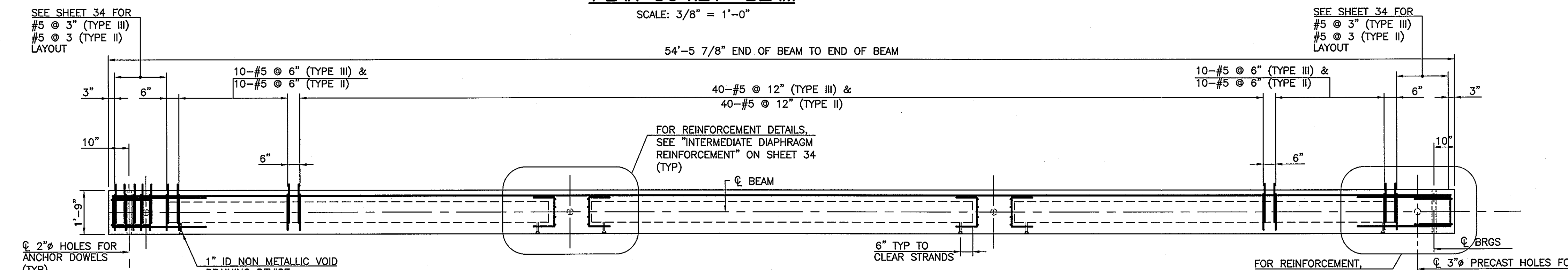
REFERENCES:

- SEE REBAR BEND TYPES, ON SHEET 34.
- FOR REINFORCEMENT DETAILS AT INTERMEDIATE DIAPHRAGM, SEE SHEET 34.



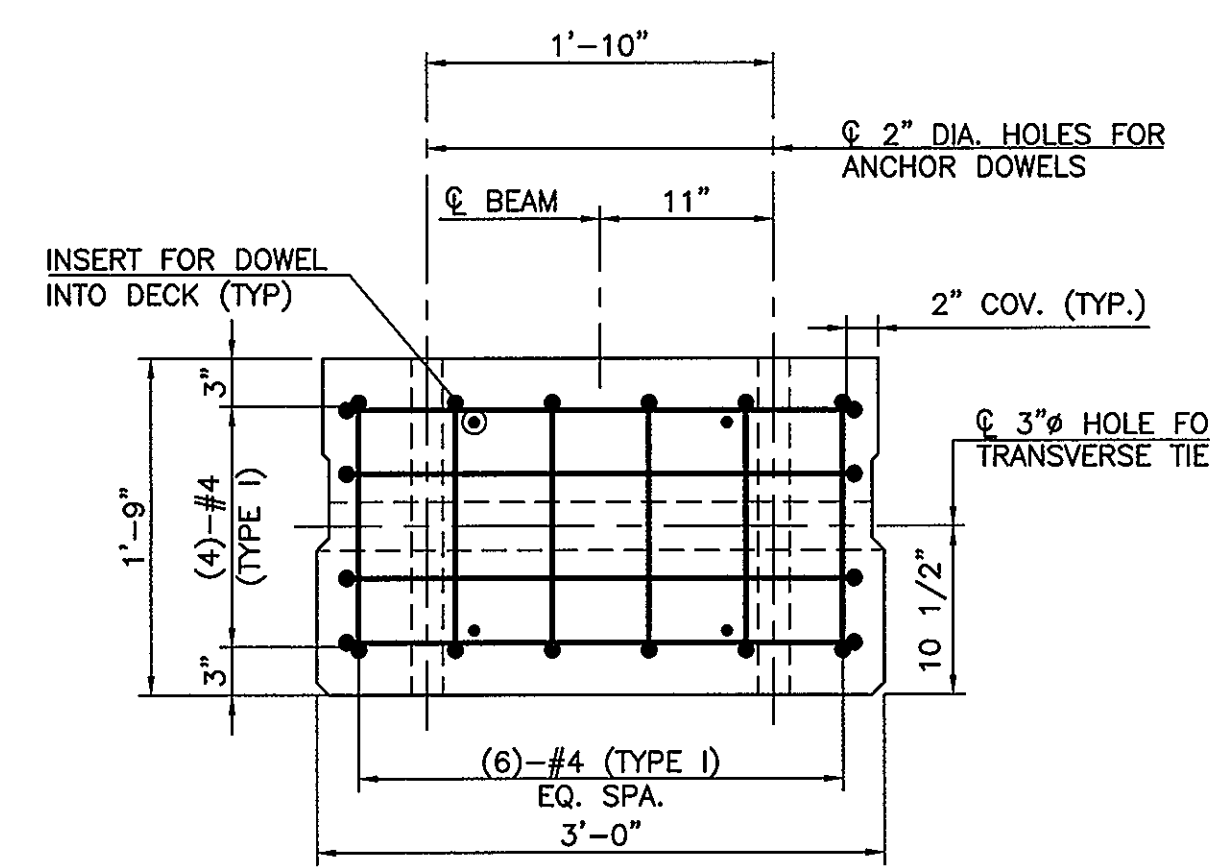
PLAN 36"x21" BEAM

SCALE: 3/8" = 1'-0"



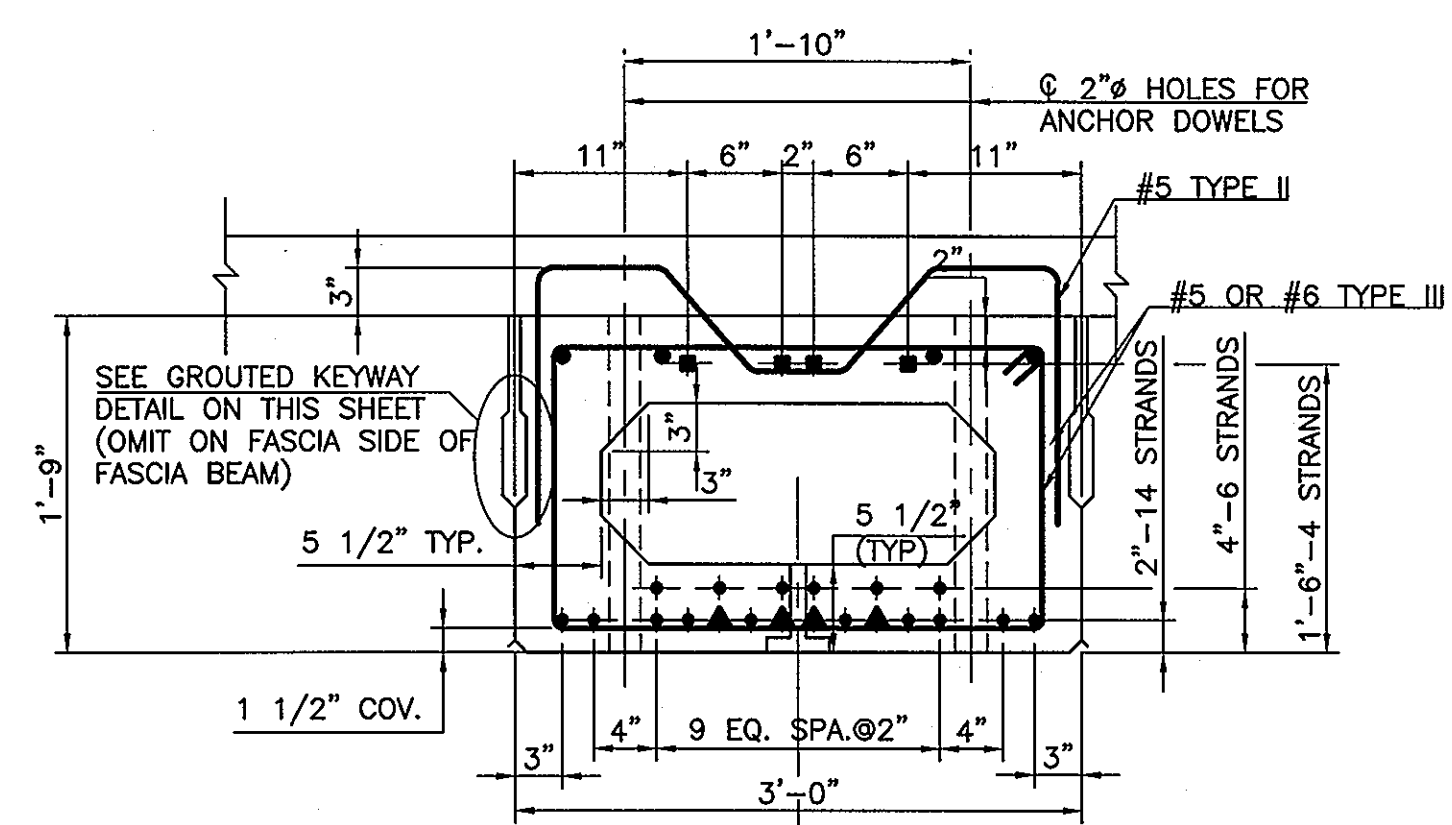
ELEVATION 36"x21" BEAM

SCALE: 3/8" = 1'-0"



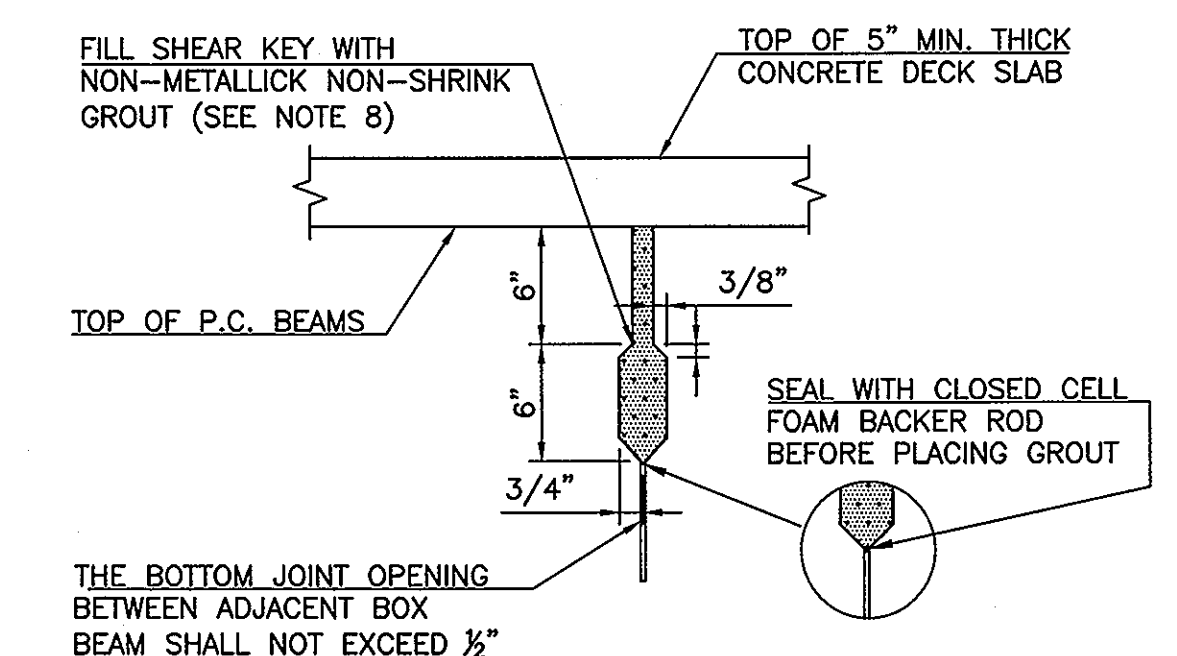
BEAM END SECTION

SCALE: 1" = 1'-0"



TYPICAL BEAM SECTION

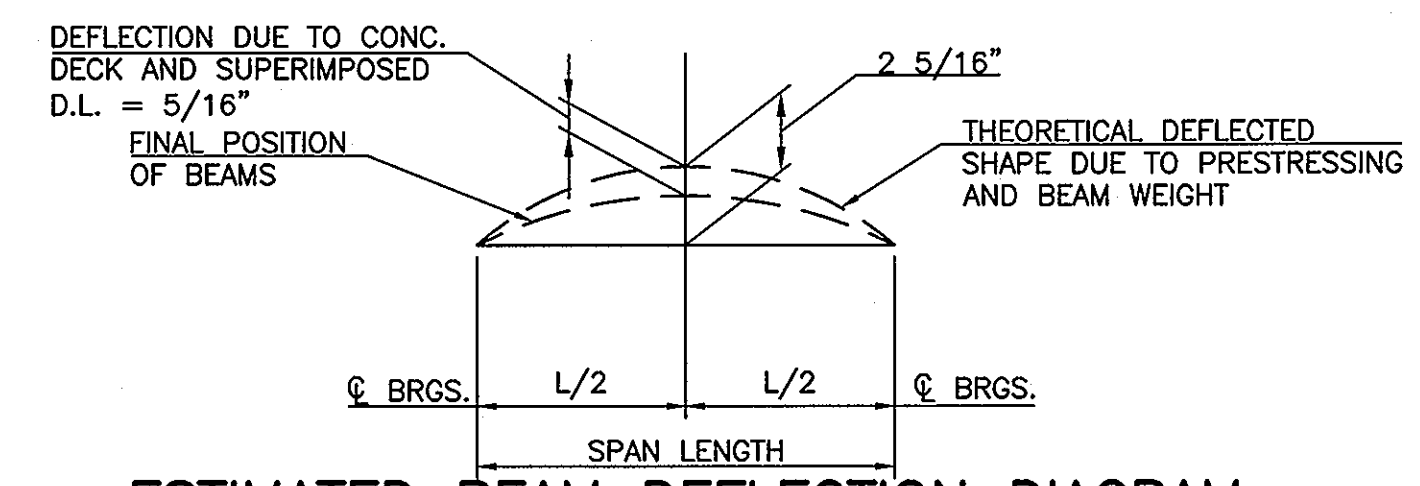
SCALE: 1" = 1'-0"



SHEAR KEY DETAIL

NOT TO SCALE

NOTE:
SEE NOTE 10 FOR ADDITIONAL INFORMATION.



ESTIMATED BEAM DEFLECTION DIAGRAM

N.T.S.

CAMBER NOTE:


- CAMBERS GIVEN ARE COMPLETED AT 30 DAYS. ACTUAL FINAL CAMBERS MAY VARY.
- CALCULATED CAMBERS AS SHOWN INCLUDES THE EFFECT OF PRESTRESSING FORCE AND THE WEIGHT OF BEAM AFTER REMOVAL FROM BED. CALCULATED CAMBER VALUES SHOWN DO NOT ACCOUNT FOR ANY CAMBER GROWTH OF THE BEAM.
- DEAD LOAD DEFLECTION INCLUDES THE COMBINED EFFECT OF THE WEIGHT OF CONCRETE DECK SLAB AND DIAPHRAGMS.
- IF THE ACTUAL CAMBER OF BEAMS IN STORAGE (FROM RELEASE TO THE TIME OF PLACING DECK CONCRETE) EXCEEDS 50% OF THAT SHOWN ON THE PLANS, THE ENGINEER MAY, AT HIS OPTION, ORDER THE AFFECTED BEAMS TO BE LOADED TO PREVENT DEVELOPMENT OF ANY ADDITIONAL CAMBER.

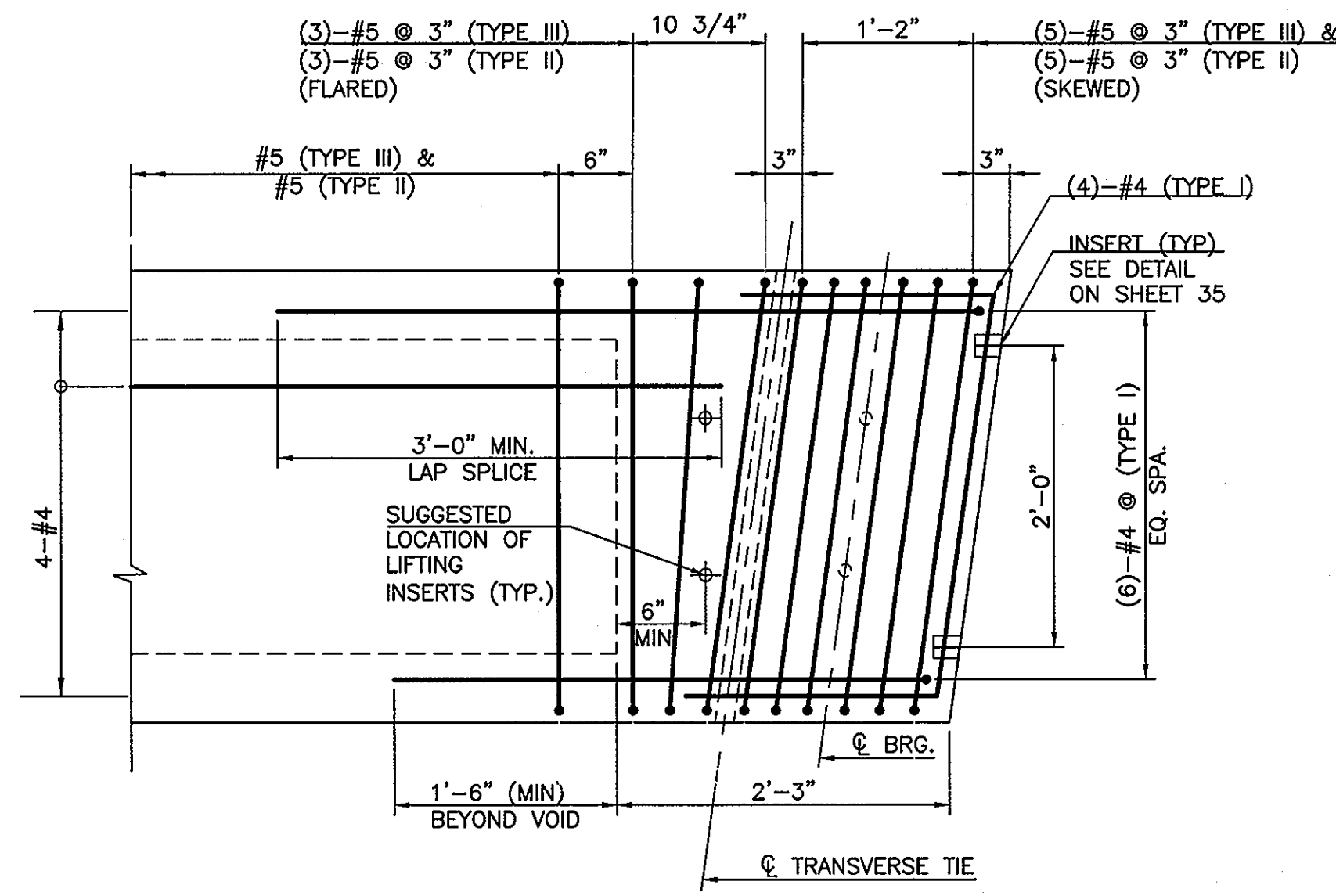
BEAM PROPERTIES	BEAM 36"x21"
MOMENT OF INERTIA, I_x	25622 IN^4
N.A. TO BOTTOM OF BEAM (Y_b)	10.40 IN
INITIAL P/S	743.6 K
LOSS %	14.74 %
EFFECTIVE P/S	634.00 K
NUMBER OF STRANDS	24
ECCENTRICITY	5.23 IN
P/S CONCRETE ULTIMATE COMP. STRESS ($f'c$)	6000 PSI
P/S CONCRETE TRANSFER STRESS ($f'ci$)	5000 PSI
P/S STEEL STRESS ($f's$)	240000 PSI

NOTE:

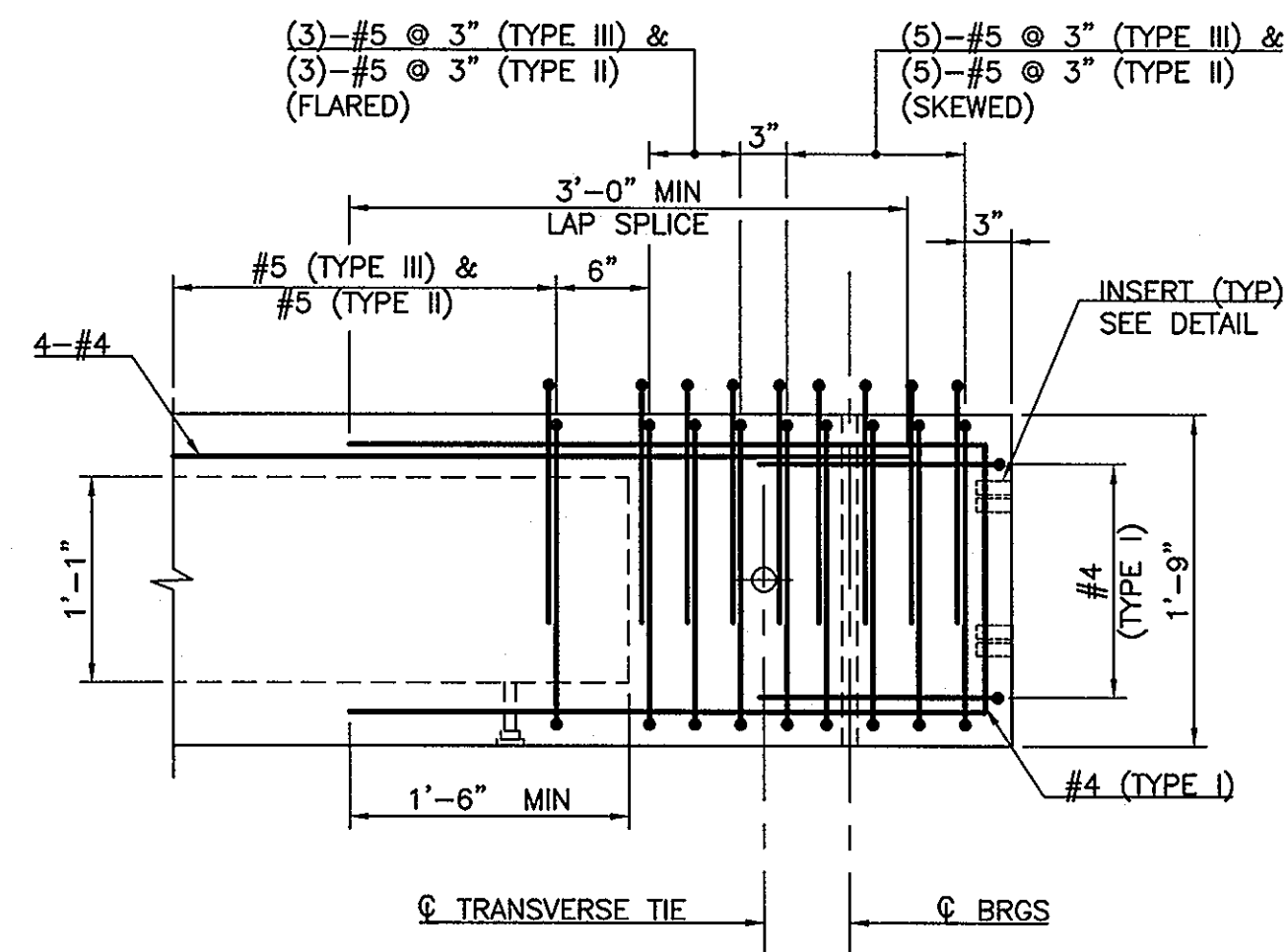
- PRESTRESS STRANDS ARE NOT SHOWN FOR CLARITY. FOR INFORMATION NOT SHOWN, SEE BEAM SECTION.

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NO.		DATE		REVISIONS		BY		CHECKED	
COUNTY OF UNION									
REPLACEMENT OF MADISON HILL ROAD BRIDGE, RA-28									
CITY OF RAHWAY AND TOWNSHIP OF CLARK, UNION COUNTY, NEW JERSEY									
PRESTRESSED CONCRETE BEAM DETAILS 1									
		DESIGNED BY			DRAWN BY			DATE	
		ES		FC		6-29-15		JL	
PROJECT NO. UNCO-00420		CADD FILE UNCO00420_SHT03-SHT034_BR_DTL.dwg		LICENSED PROFESSIONAL ENGINEER STATE OF NEW JERSEY LICENSE NO. GE45122		DRAWING B-14		SHEET 33 OF 38	

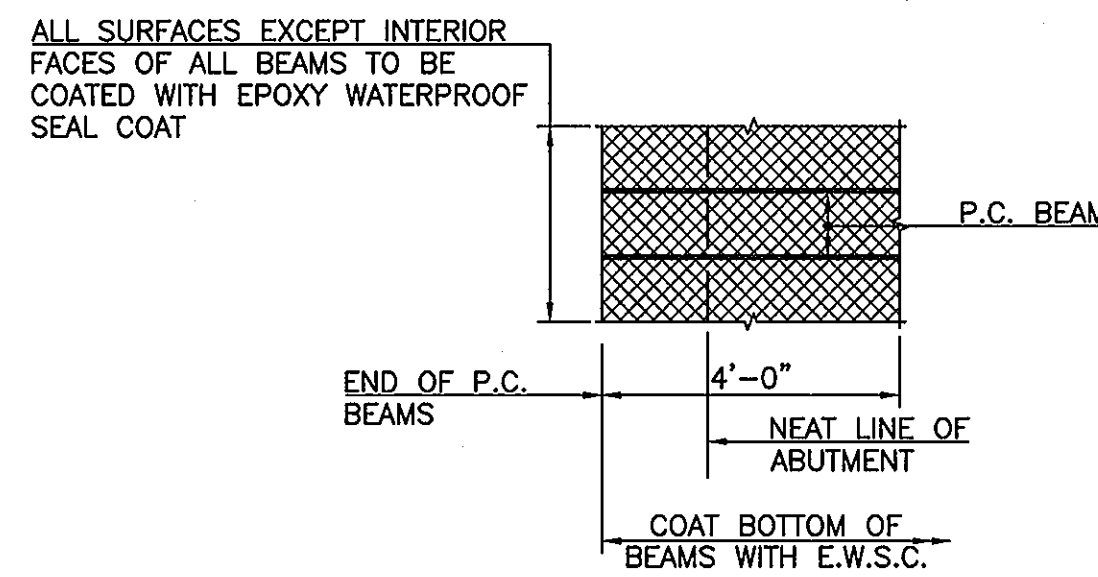
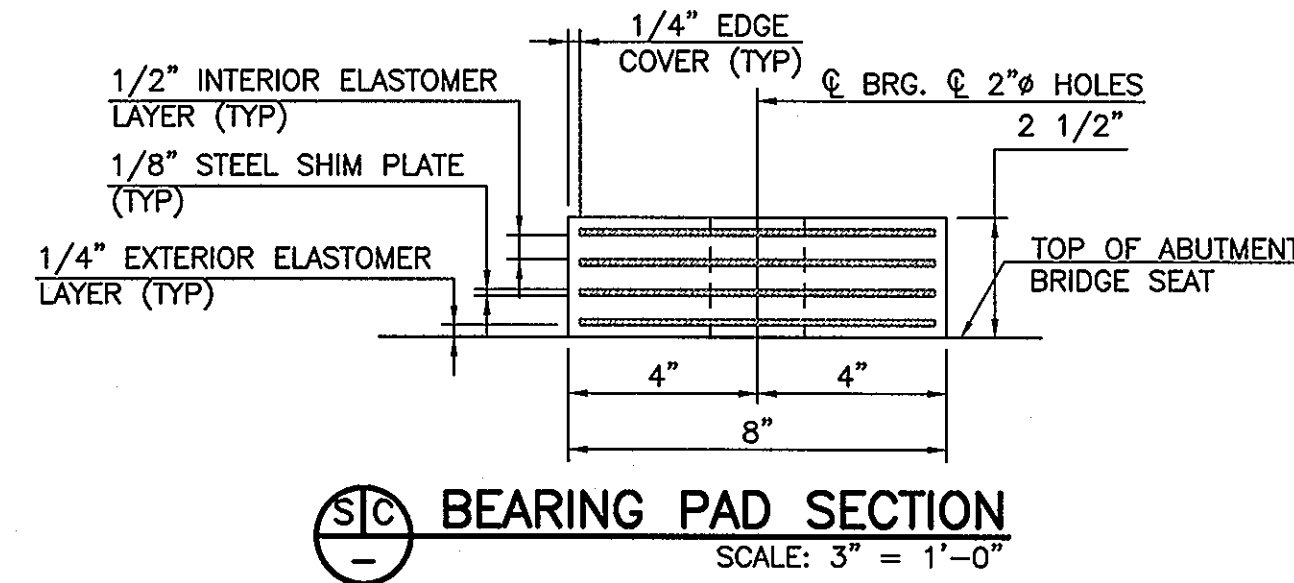
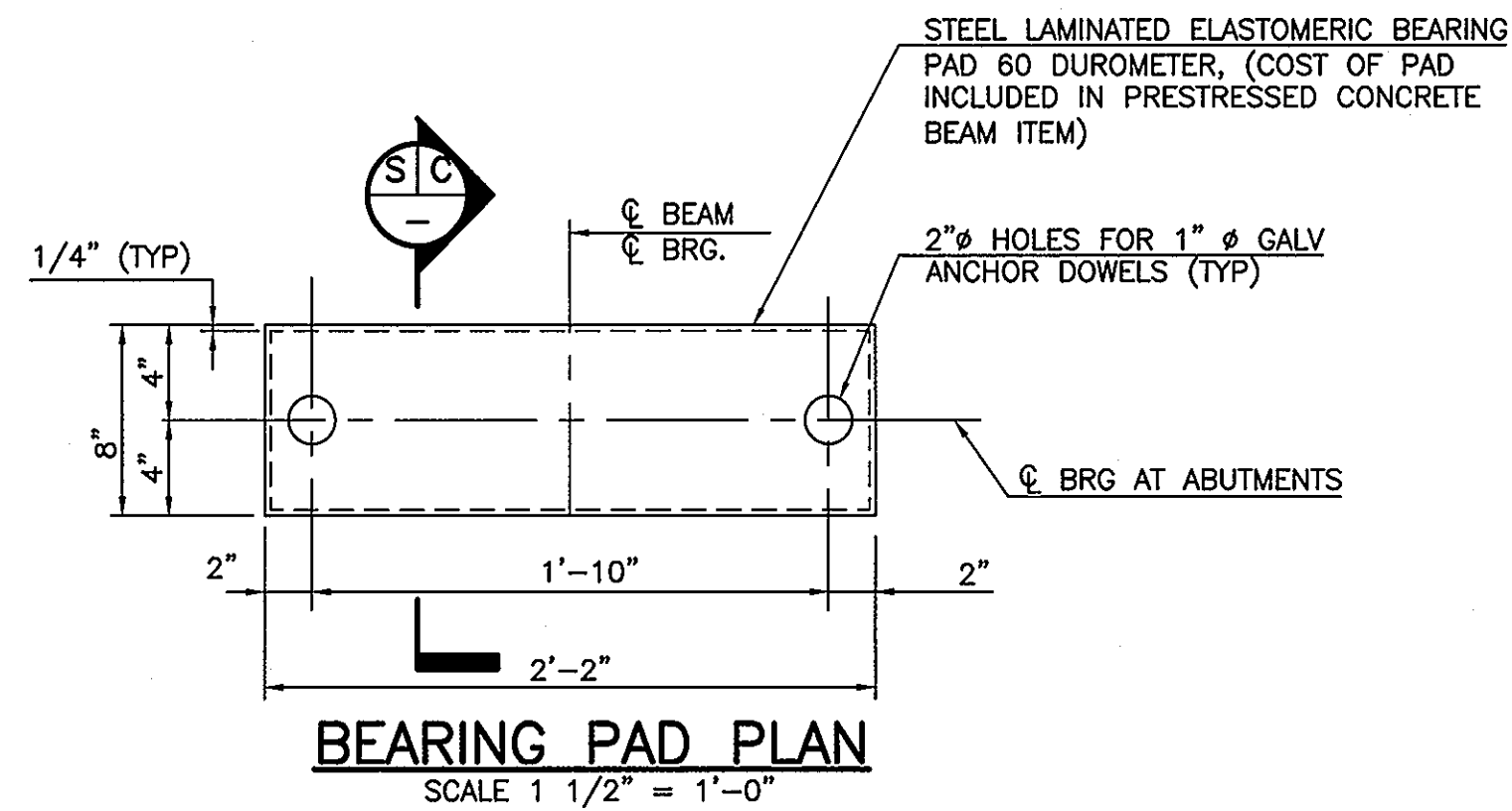


PLAN

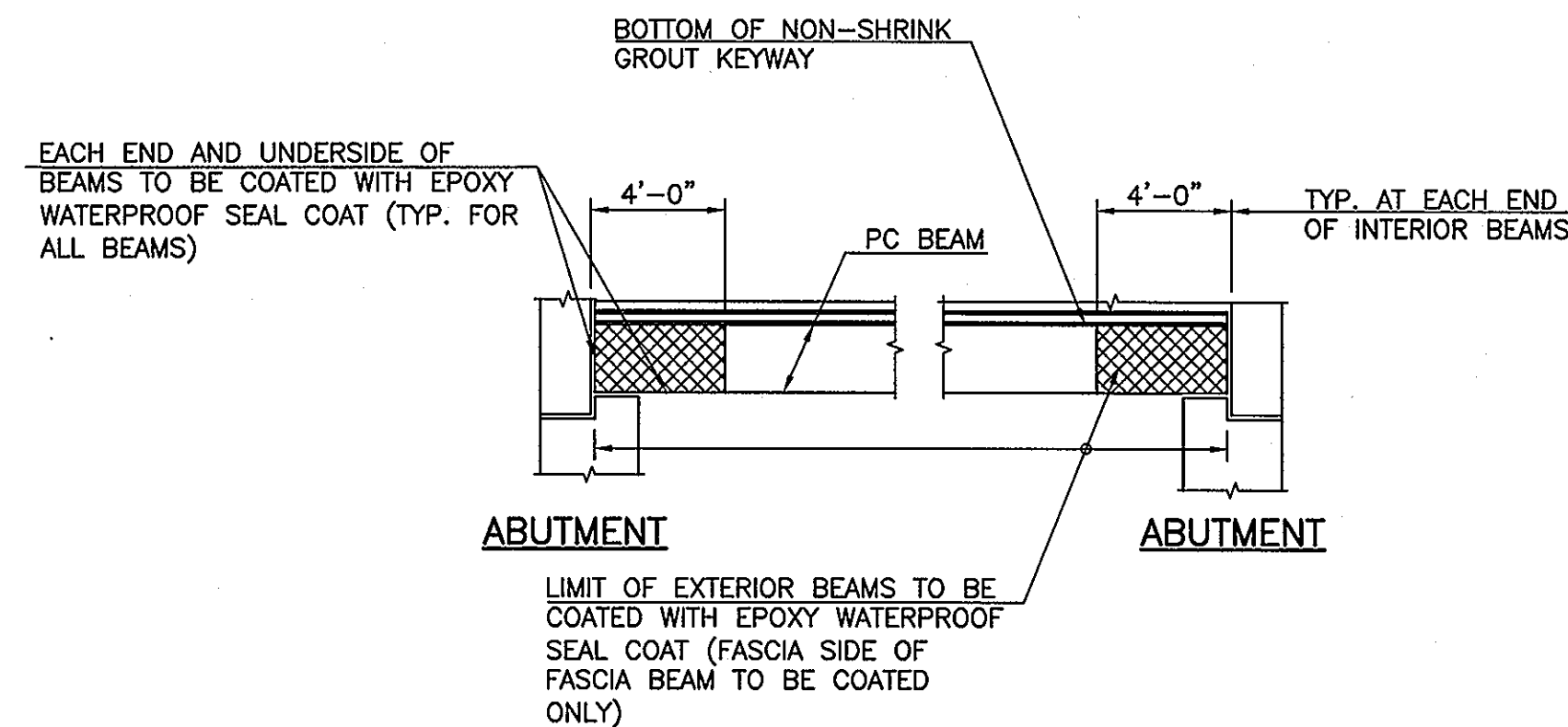


ELEVATION

DETAIL 1
(EAST END OF BEAM SHOWN, WEST END SIMILAR)
SCALE: 1" = 1'-0"



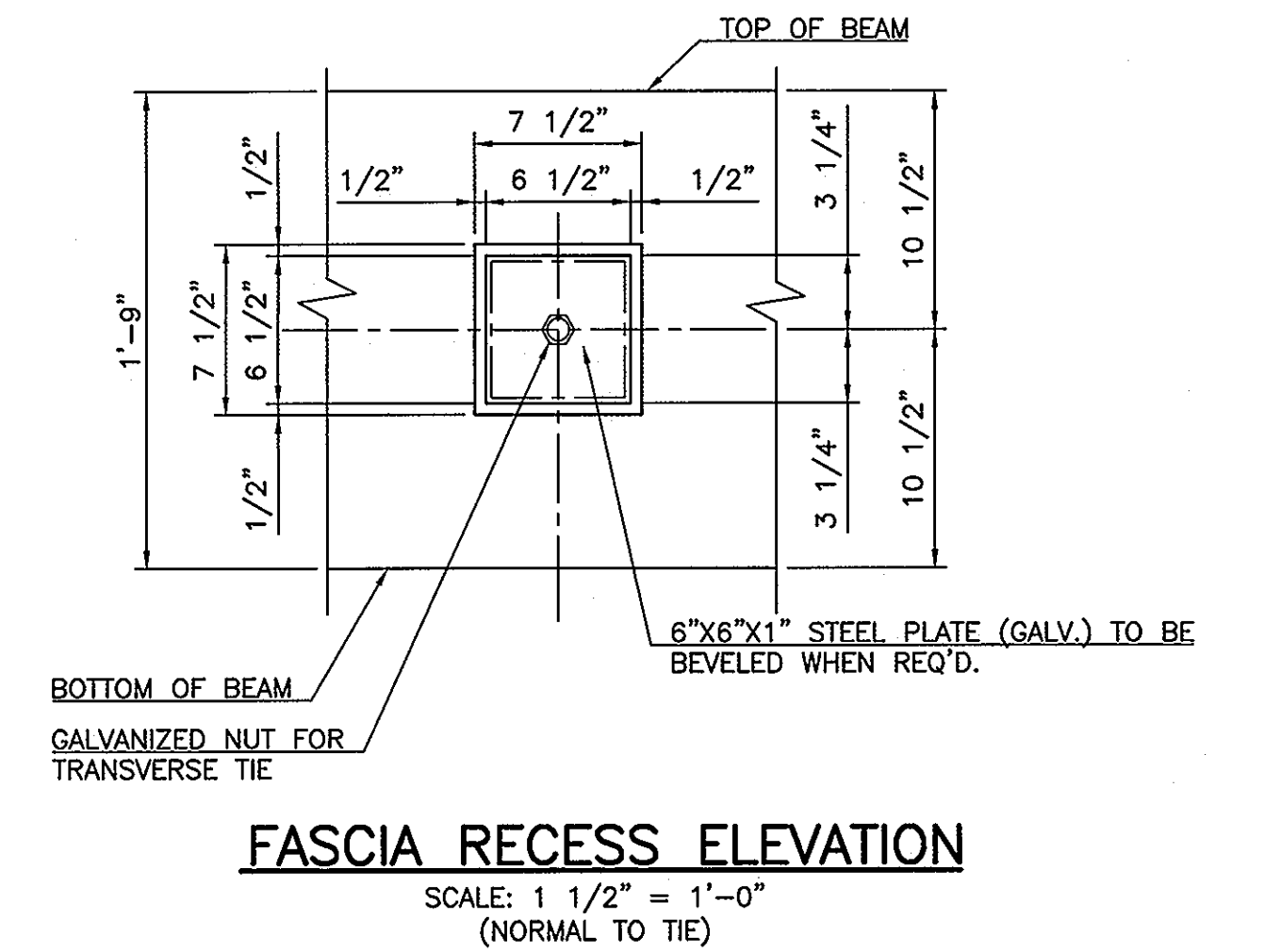
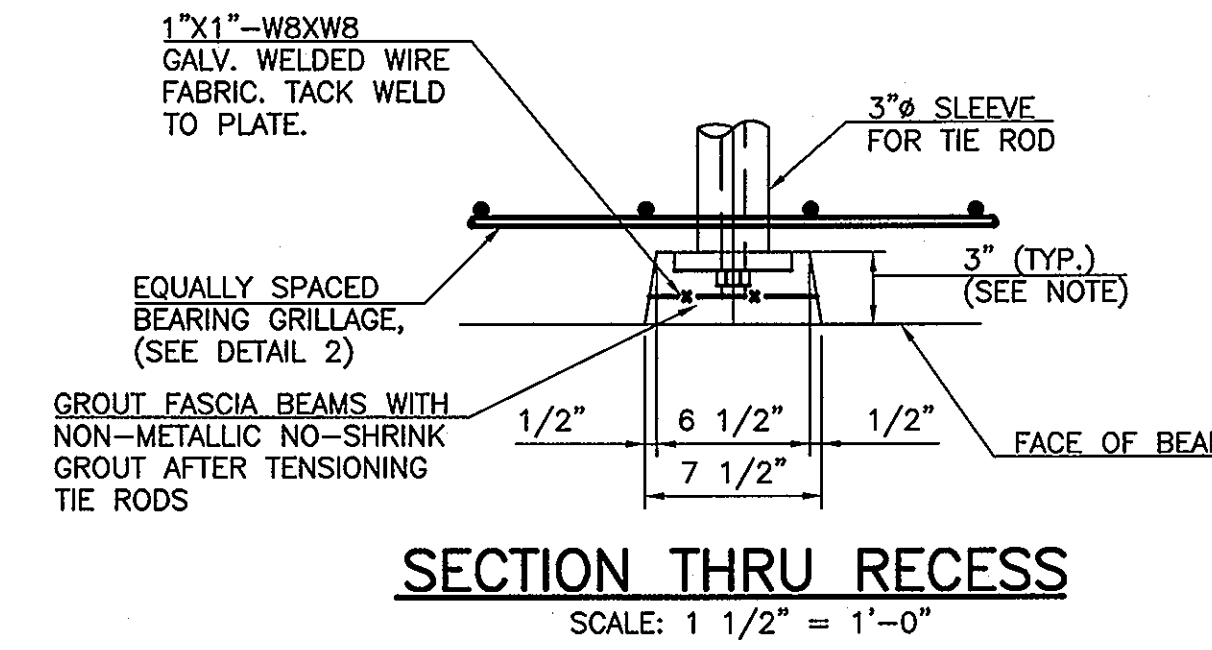
PART BRIDGE PLAN



TYPICAL PARTIAL BRIDGE ELEVATION

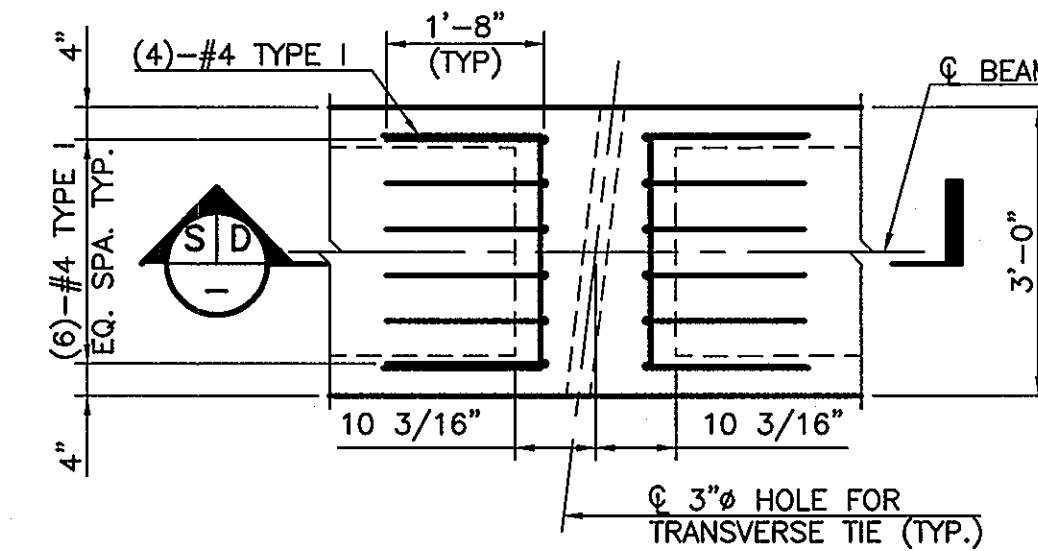
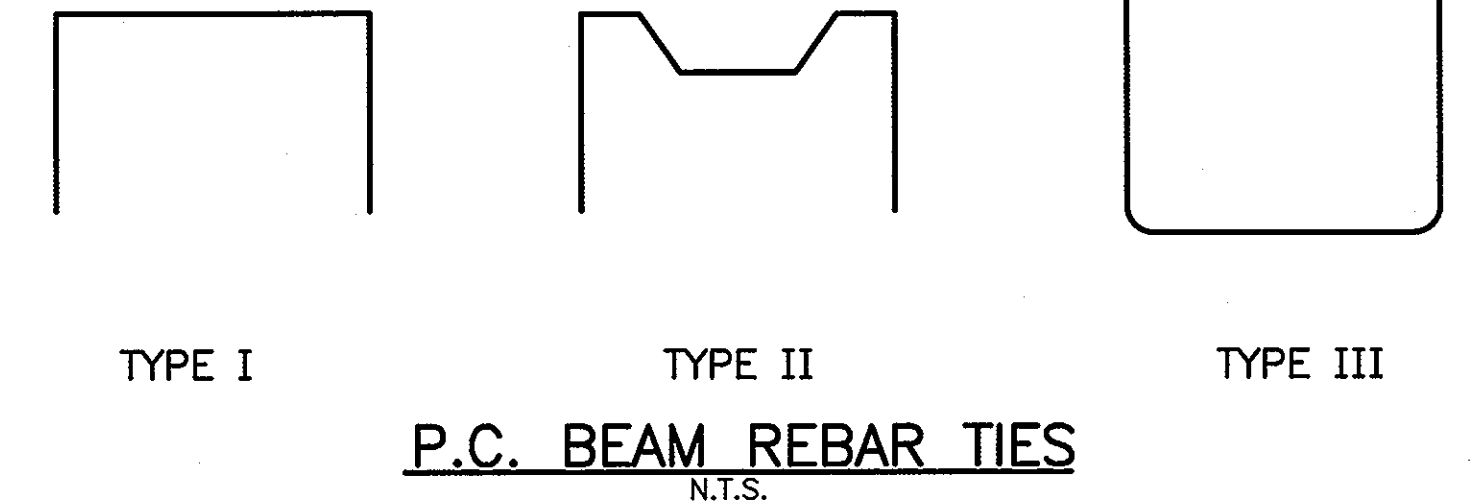
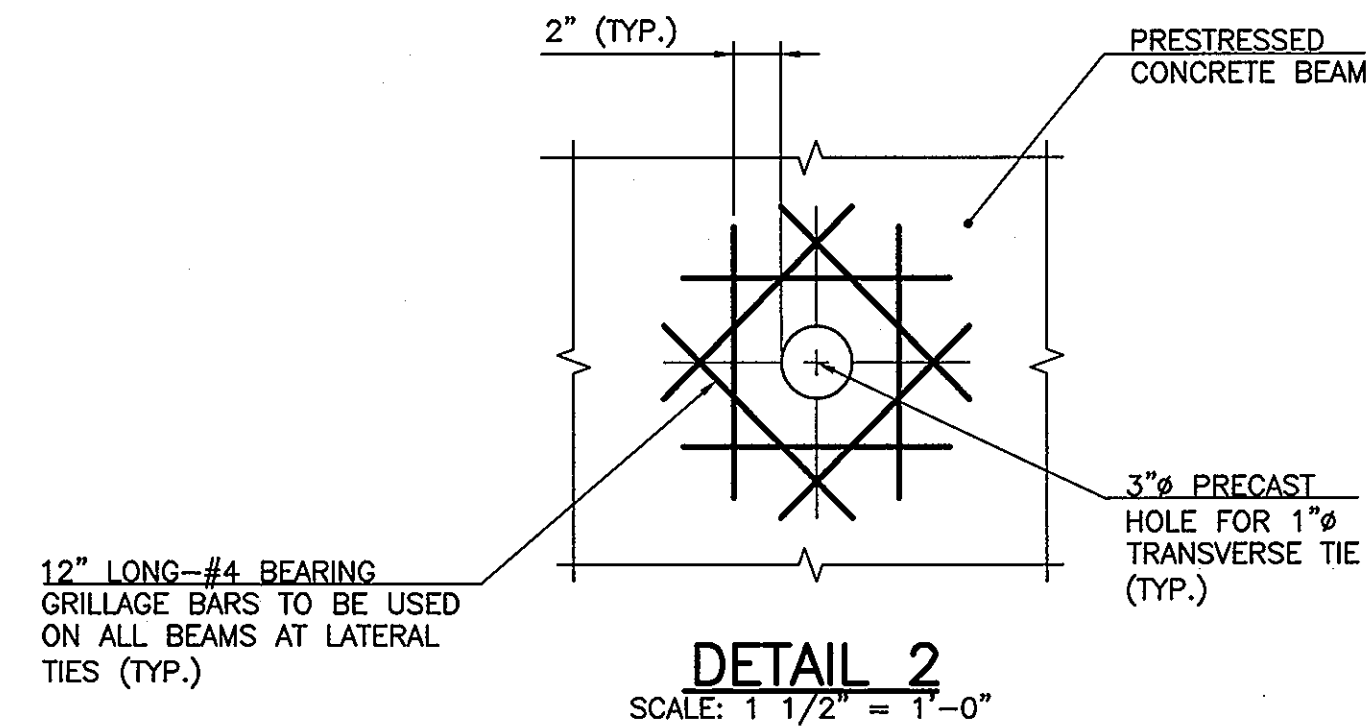
LEGEND:
 INDICATES LIMITS OF EPOXY WATERPROOFING SEAL COAT (E.W.S.C.) TO BE APPLIED IN THE SHOP. COLOR TO BE GREY TO MATCH CONCRETE. INCLUDE COST IN THE PRICE BID FOR P.C. BEAMS.

WATERPROOFING SEAL COAT DETAILS
N.T.S.

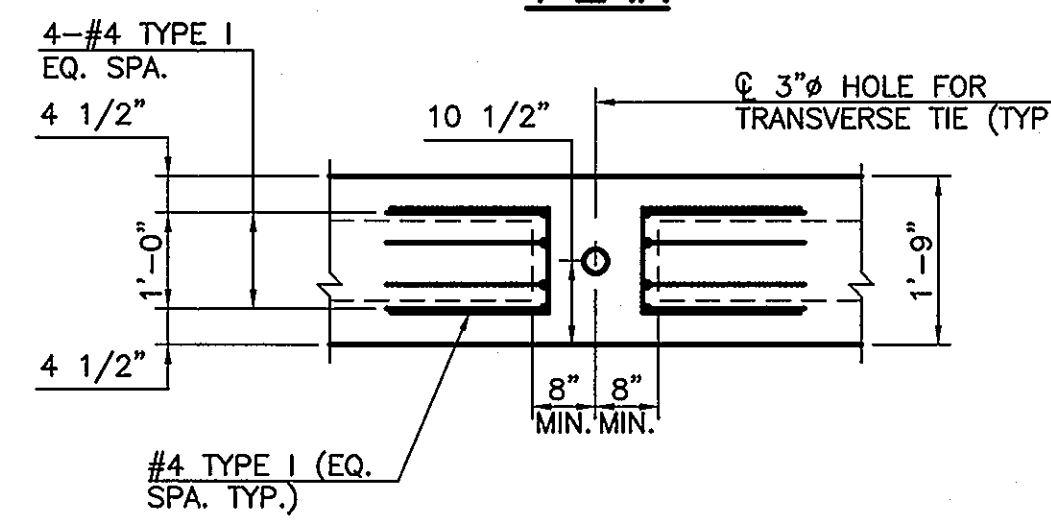


TRANSVERSE TIE RECESS DETAILS
(SEE LOCATION ON FRAMING PLAN)

NOTE:
RECESS SIZE MAY VARY FROM THE DIMENSIONS SHOWN DEPENDING UPON THE END ANCHORAGE DEVICE SELECTED.



PLAN



NOTES:
 1. PRESTRESS STRANDS ARE NOT SHOWN FOR CLARITY.
 2. FOR INFORMATION NOT SHOWN, SEE DETAILS ON SHEET 33.
 3. MINIMUM COVER ON THE VOIDS OF THE BEAM SHALL BE 1".

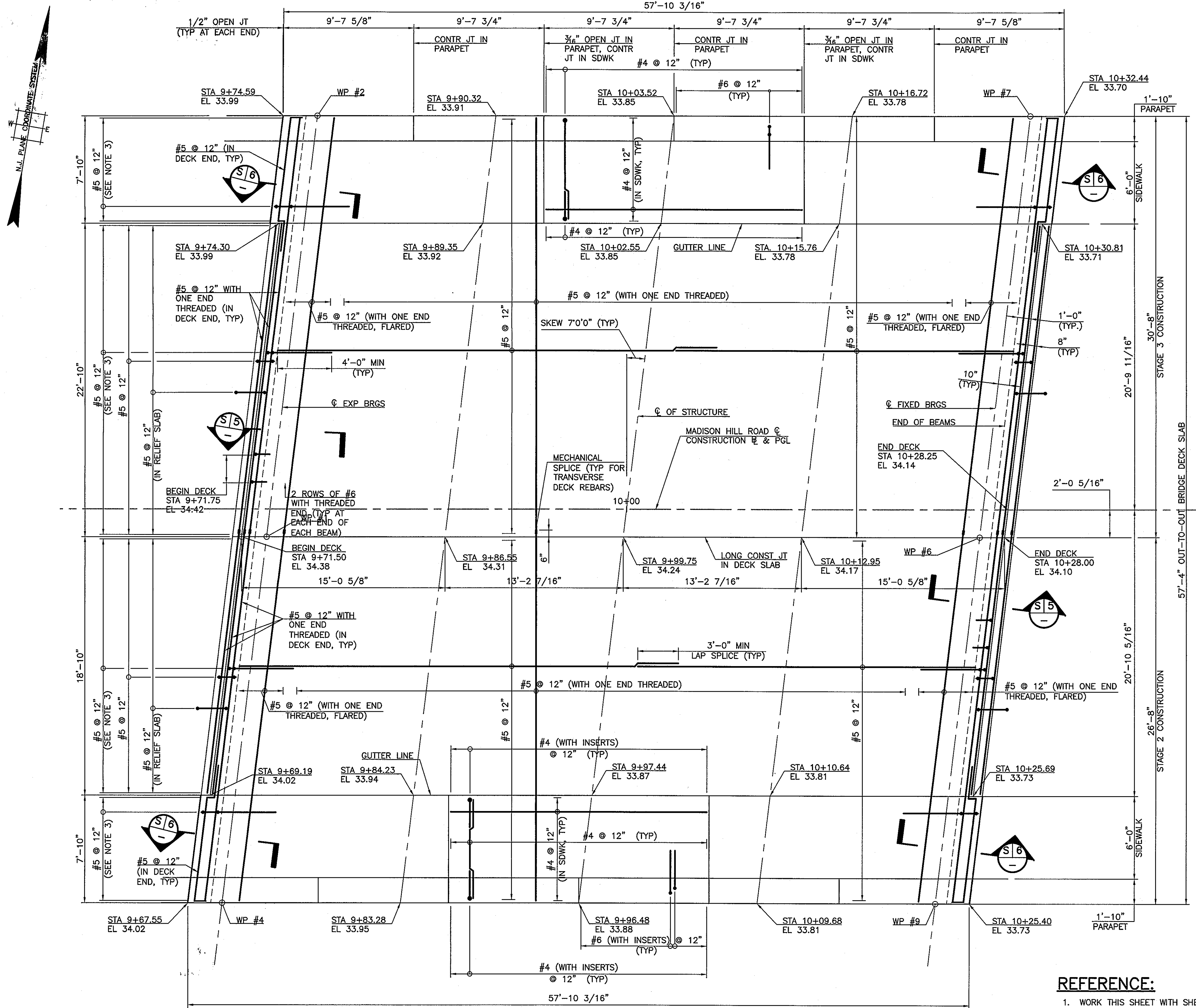
INTERMEDIATE DIAPHRAGM REINFORCEMENT
SCALE: 1/2" = 1'-0"

REFERENCES:

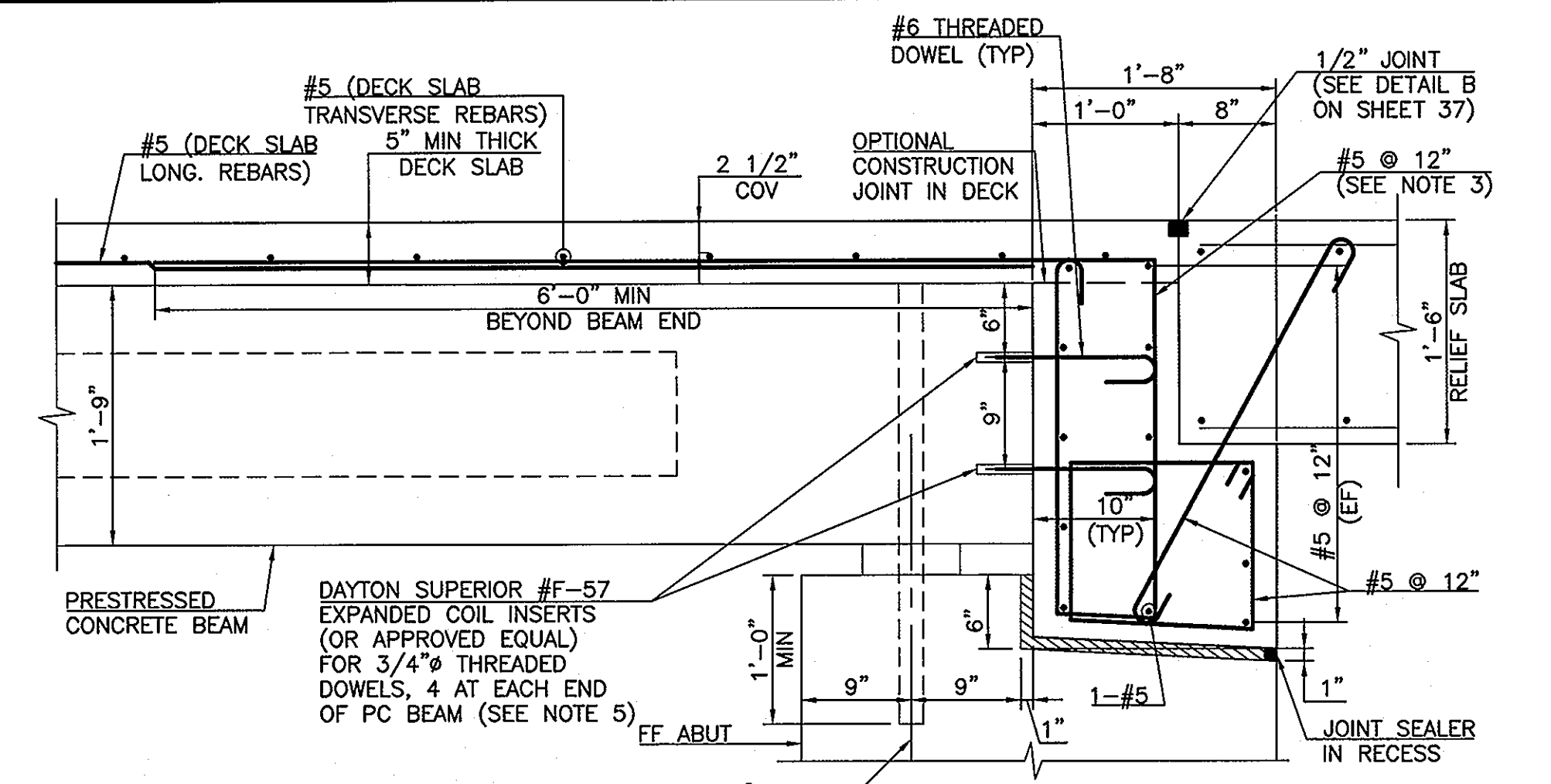
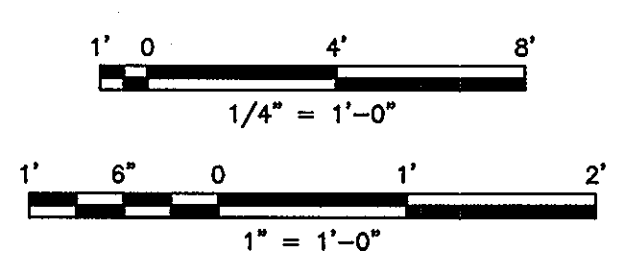
- FOR TYPICAL BEAM SECTION, SEE SHEET NO. 33.
- FOR END BLOCK REINFORCEMENT, SEE SHEET NO. 33.

NO.	DATE	REVISIONS	BY	CHECKED
COUNTY OF UNION				
REPLACEMENT OF MADISON HILL ROAD BRIDGE, RA-28 CITY OF RAHWAY AND TOWNSHIP OF CLARK, UNION COUNTY, NEW JERSEY				
PRESTRESSED CONCRETE BEAM DETAILS 2				
 JAMES A. BUCZEK, PE LICENSED PROFESSIONAL ENGINEER STATE OF NEW JERSEY LICENSE No. GE45122		DRAWING B-15 SHEET 34 OF 38		
DESIGNED BY ES DRAWN BY FC CHECKED BY JL		PROJECT NO. UNCO-00420 CADD FILE UNCO00420_SHT033-SHT034_BR_DTL.dwg		

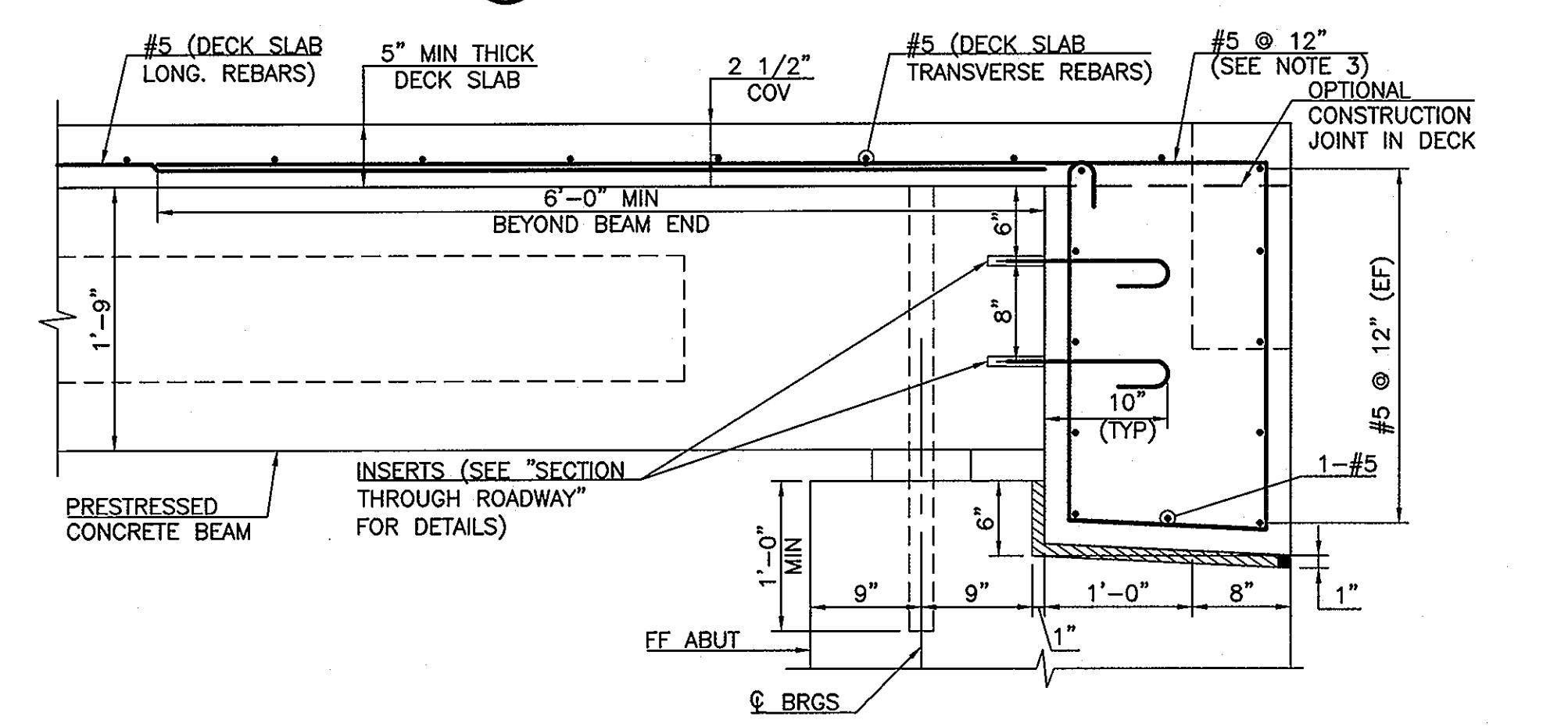
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DECK SLAB REINFORCEMENT PLAN
SCALE: 1/4"=1'-0"




S15 SECTION THROUGH ROADWAY
SCALE: 1"=1'-0"

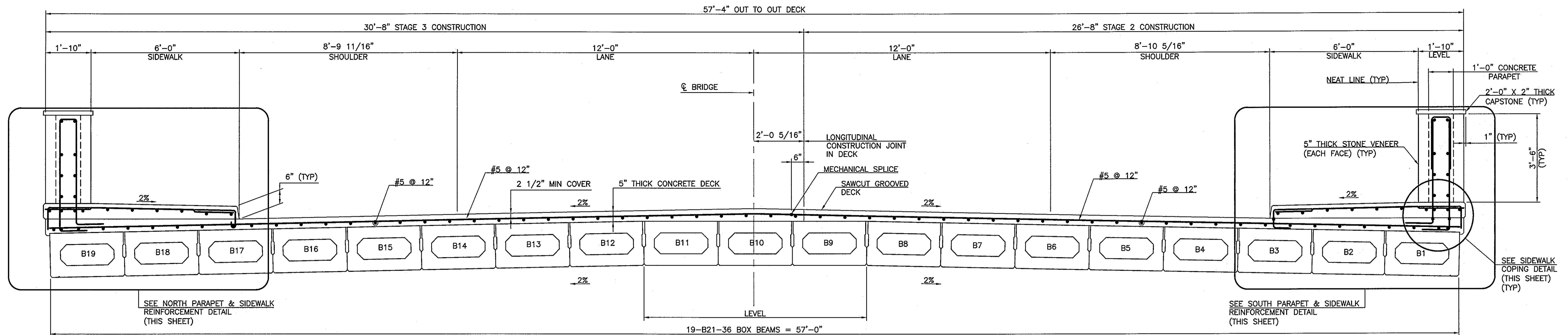


S16 SECTION THROUGH SIDEWALK
SCALE: 1"=1'-0"

- NOTES:**
- ELEVATIONS SHOWN ON PLAN ARE PERPENDICULAR TO PGL.
 - DIMENSIONS SHOWN ARE PERPENDICULAR TO THE FACE OF PARAPET UNLESS OTHERWISE NOTED.
 - DECK END REBARS SHALL BE TIED TO MAIN LONGITUDINAL REBARS OF THE CONCRETE DECK SLAB.
 - CONTRACTION JOINTS SHALL BE PROVIDED IN THE SIDEWALKS AT THE LOCATIONS OF THE 3/16" OPEN PARAPET JOINTS.
 - THE COST OF INSERTS SHALL BE INCLUDED IN THE PRICE BID FOR ITEM "PRESTRESSED CONCRETE BOX BEAMS, (TYPE B21-36), 36"x21".
 - PARAPET JOINTS ARE SYMMETRICAL ALONG EACH PARAPET.
 - DECK END REINFORCEMENT IS SYMMETRICAL EACH END OF DECK SLAB.

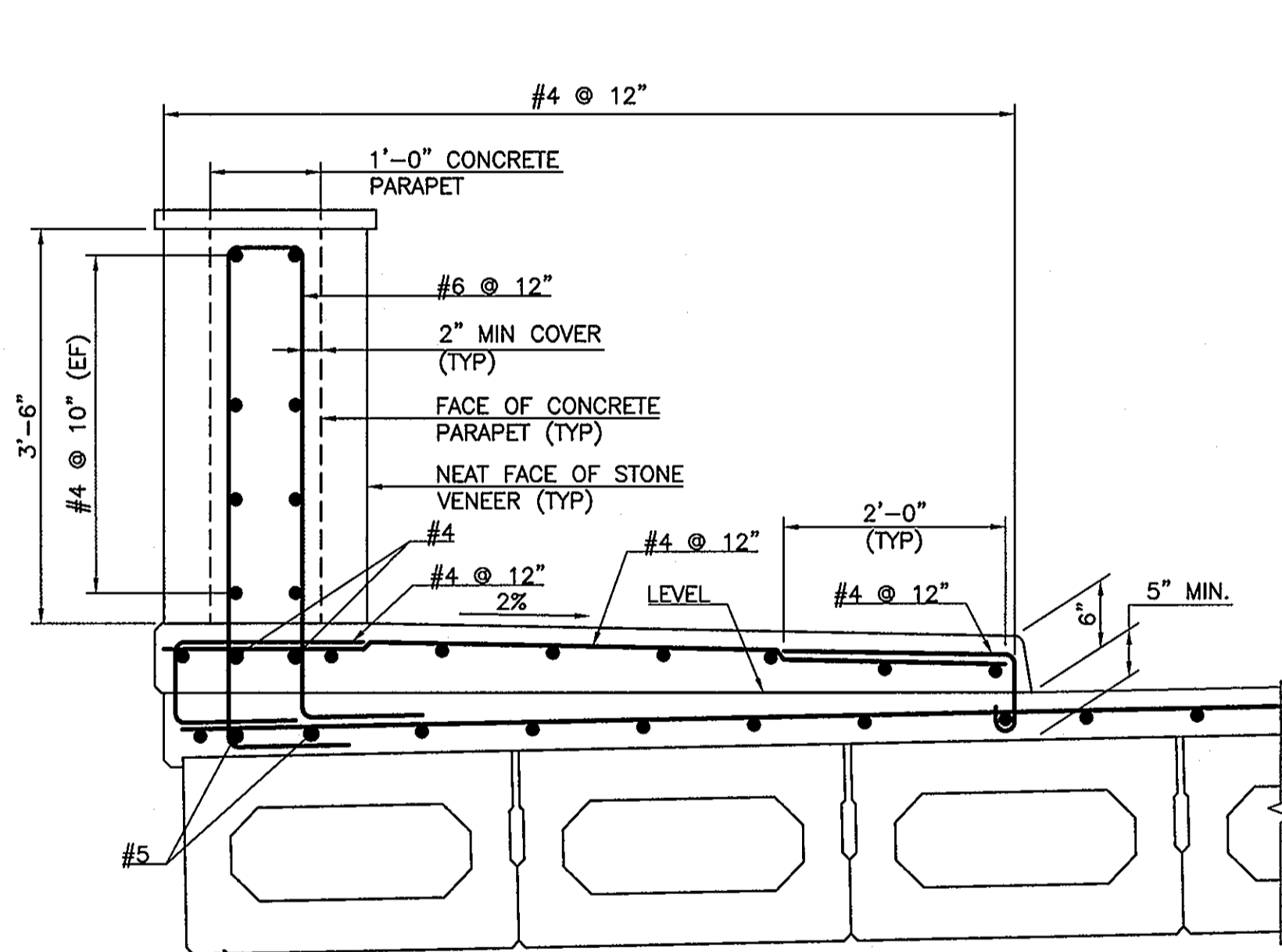
- REFERENCE:**
- WORK THIS SHEET WITH SHEET NO. 36 FOR TYPICAL PARAPET AND SIDEWALK REINFORCEMENT.
 - FOR WORKING POINT NORTHINGS AND EASTINGS, SEE SHEET NO. 21.
 - FOR BEARING DETAILS, SEE SHEET NO. 34.
 - FOR DECK PROTECTION COATING SEE SPECIFICATION.
 - FOR GENERAL NOTES, SEE SHEET NO. 20.
 - FOR RELIEF SLAB REINFORCEMENT, SEE SHEET NO. 37.

NO.	DATE	REVISIONS	BY	CHECKED
COUNTY OF UNION				
REPLACEMENT OF MADISON HILL ROAD BRIDGE, RA-28 CITY OF RAHWAY AND TOWNSHIP OF CLARK, UNION COUNTY, NEW JERSEY				
DECK PLAN				
 JAMES A. BUCZEK, PE LICENSED PROFESSIONAL ENGINEER STATE OF NEW JERSEY LICENSE NO. GE45122			DRAWING B-16 SHEET	
DESIGNED BY: JL DRAWN BY: FC CHECKED BY: PWS			DATE: 6-22-15 PROJECT NO.: UNCO-00420 CADD FILE: UNCO00420_SHT035_BR_DKP.dwg	
35				
OF 38				



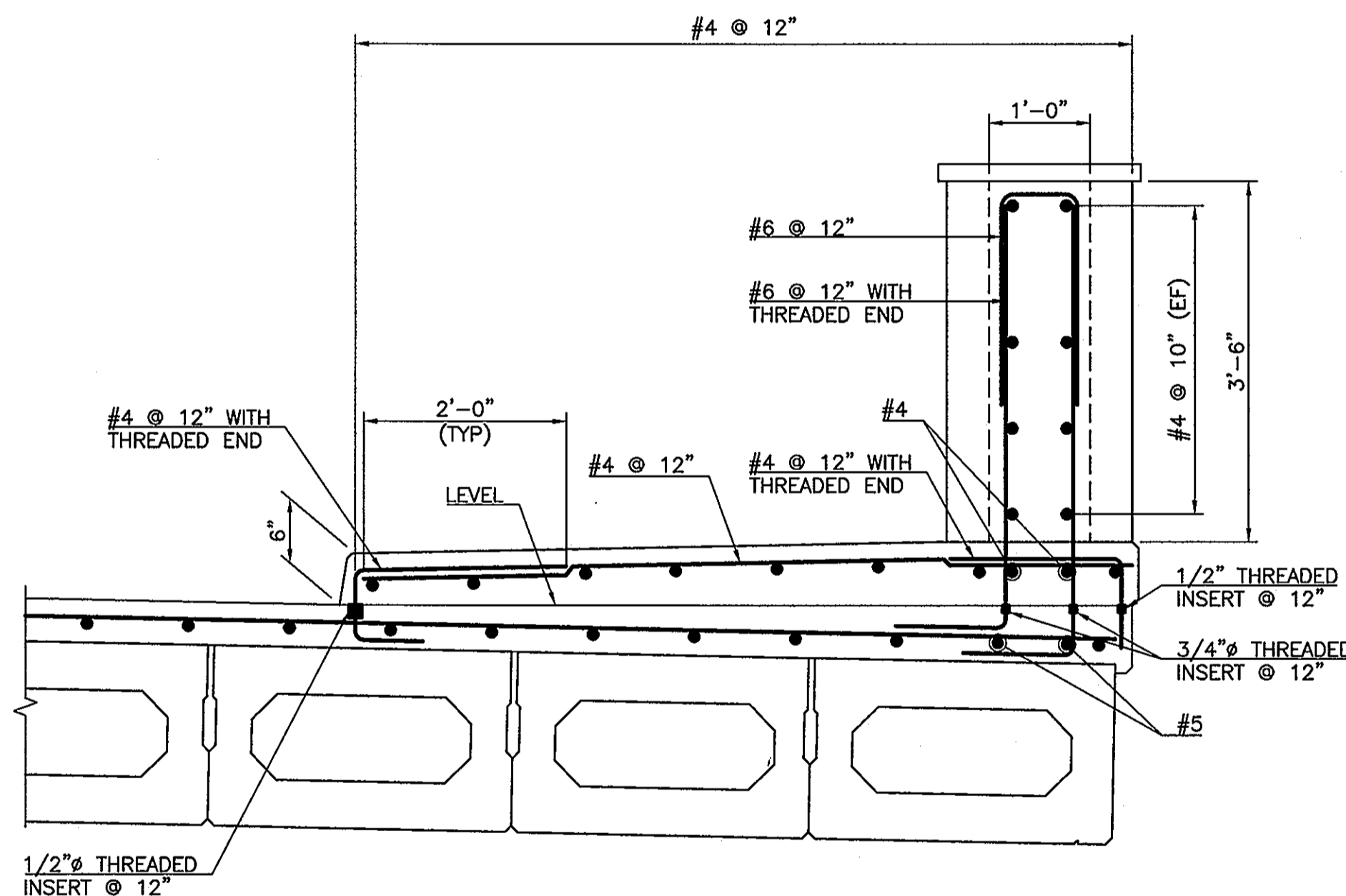
TYPICAL DECK SECTION

SCALE: 1/2" = 1'-0"



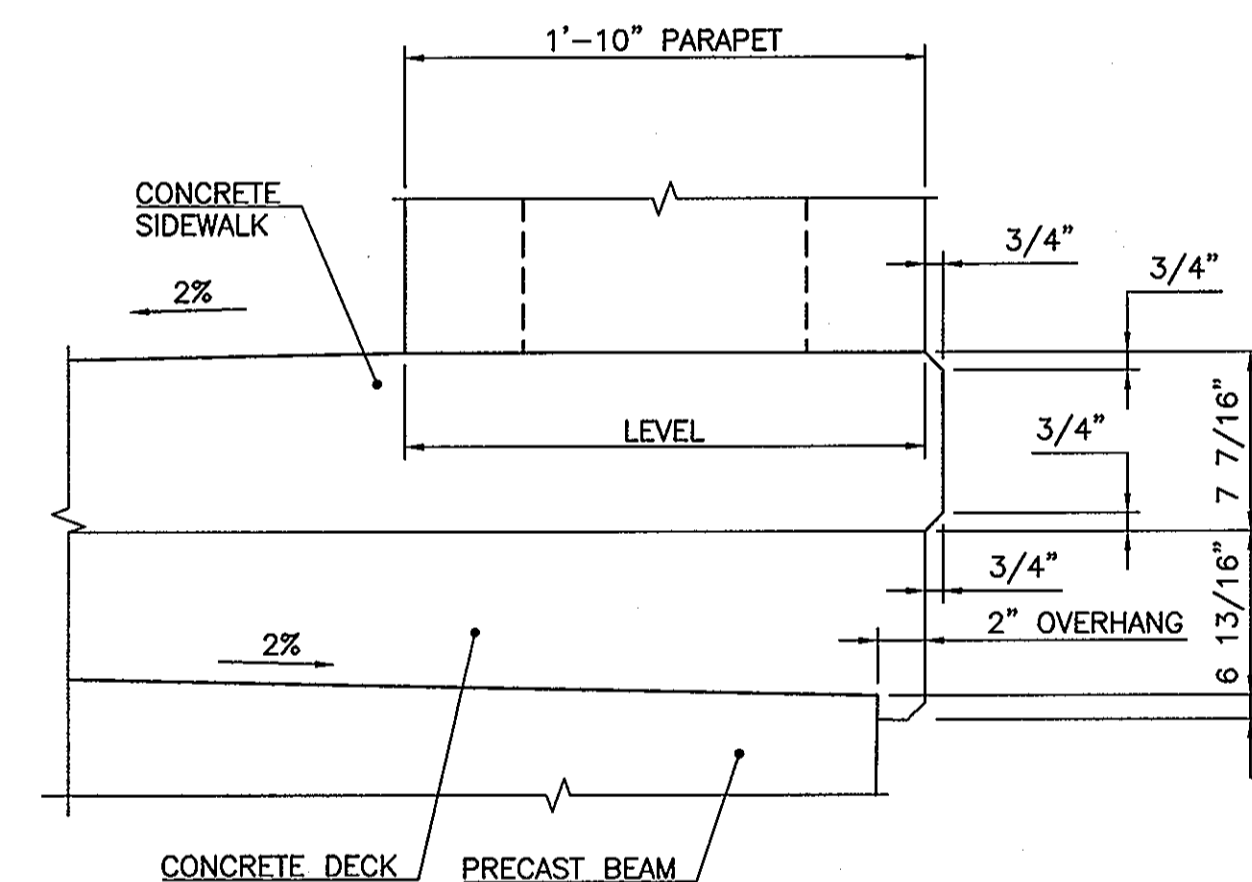
NORTH PARAPET & SIDEWALK REINFORCEMENT DETAIL

SCALE: 3/4" = 1'-0"



SOUTH PARAPET & SIDEWALK REINFORCEMENT DETAIL

SCALE: 3/4" = 1'-0"



SIDEWALK COPING DETAIL

SCALE: 1 1/2" = 1'-0"

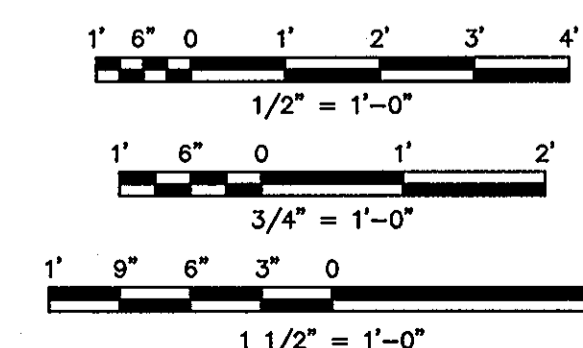
NOTES:


1. THE DECK SHALL BE SAWCUT IN ACCORDANCE WITH BCD-507-3 OF THE 2007 STANDARD ROADWAY AND BRIDGE CONSTRUCTION DETAILS. ALL COST TO BE INCLUDED IN THE PAY ITEM "CONCRETE IN DECK".

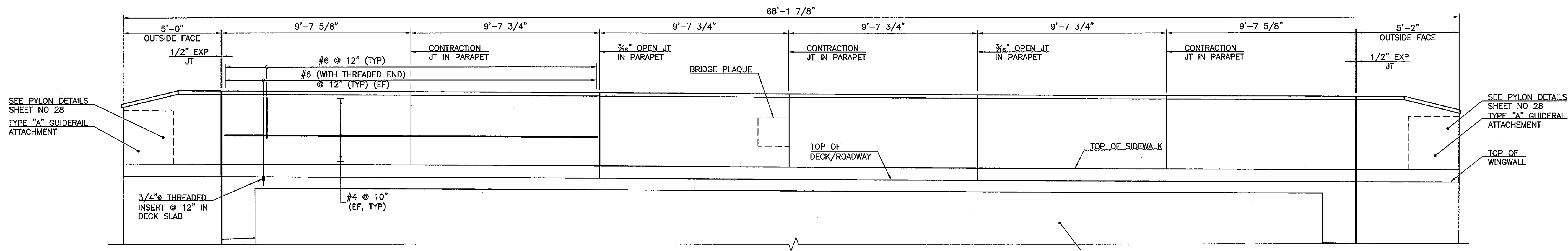
REFERENCES:

1. FOR GENERAL NOTES, SEE SHEET NO. 3.
2. FOR PRECAST BEAM DETAILS, SEE SHEET NOS. 33 AND 34.

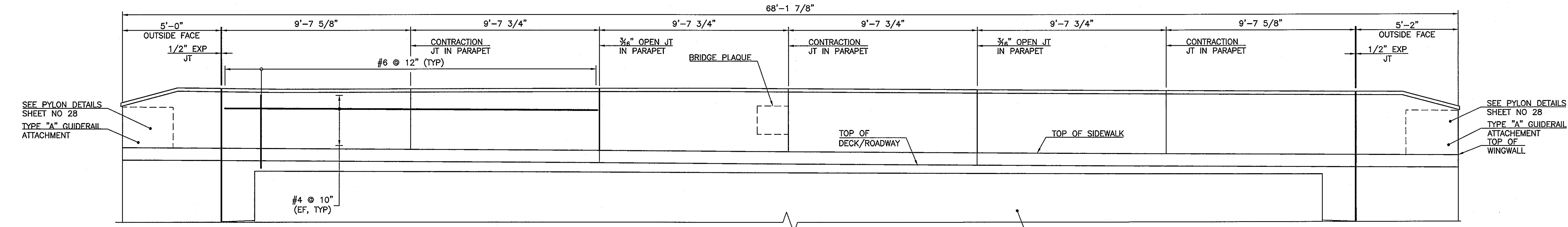
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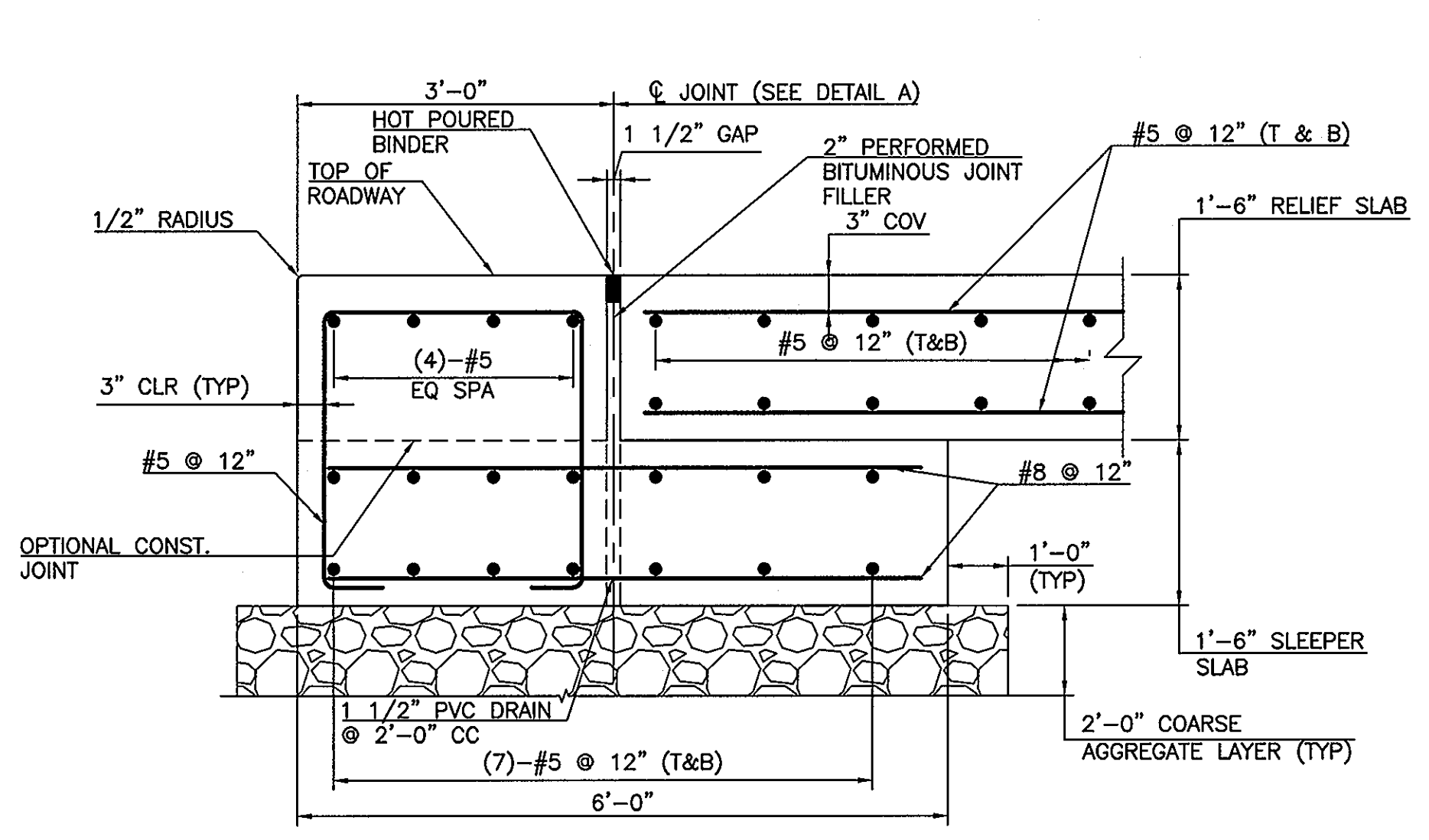
NO.	DATE	REVISIONS	BY	CHECKED
COUNTY OF UNION REPLACEMENT OF MADISON HILL ROAD BRIDGE, RA-28 CITY OF RAHWAY AND TOWNSHIP OF CLARK, UNION COUNTY, NEW JERSEY TYPICAL DECK SECTION & DETAILS				
 JAMES A. BUCZEK, PE LICENSED PROFESSIONAL ENGINEER STATE OF NEW JERSEY LICENSE No. GE48122		DRAWING B-17 SHEET		
DESIGNED BY ES DRAWN BY FC CHECKED BY PWS		DATE 6-29-15 STATE OF NEW JERSEY BOARD OF PROFESSIONAL ENGINEERS AND LAND SURVEYORS CERTIFICATE OF AUTHORIZATION 246242987500		
PROJECT NO. UNCO-00420 CADD FILE UNCO00420_SHT036_BR_TYP.dwg		36 OF 38		



SOUTH PARAPET FASCIA ELEVATION
SCALE: 3/8" = 1'-0"



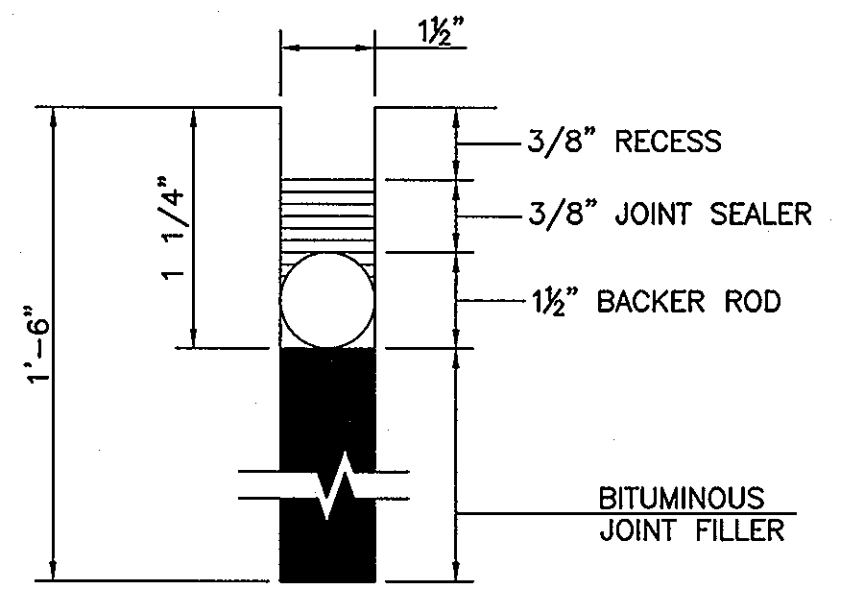
NORTH PARAPET FASCIA ELEVATION
SCALE: 3/8" = 1'-0"



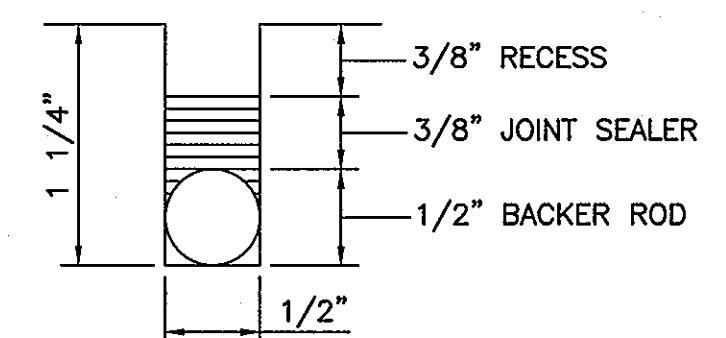
RELIEF SLAB & SLEEPER SLAB DETAIL
N.T.S.

RELIEF AND SLEEPER SLAB NOTES:

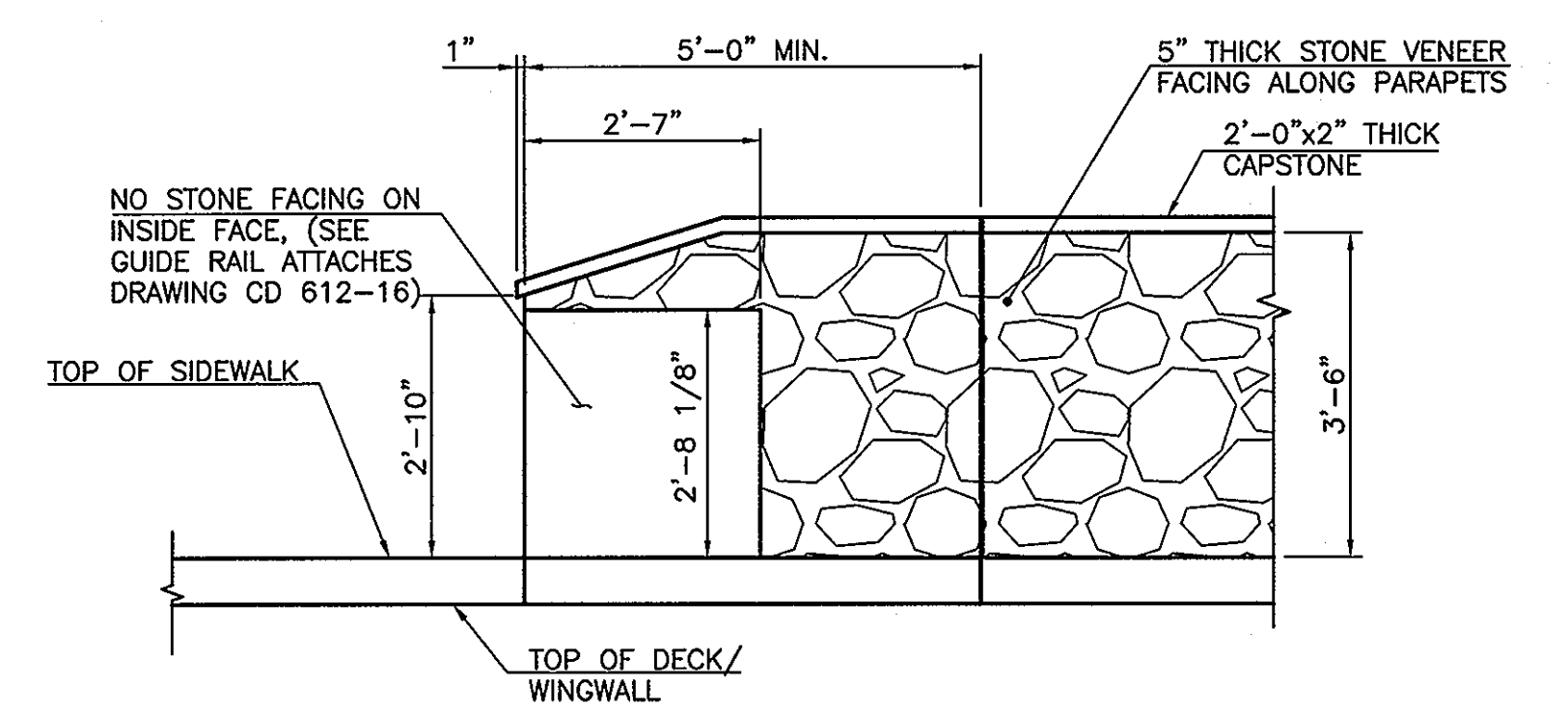
- ALL REINFORCING BARS SHALL BE 2 1/2" CLEAR FROM CONCRETE SURFACE. EXCEPT AS NOTED.
- CONCRETE FOR RELIEF AND SLEEPER SLABS SHALL BE PAID UNDER THE ITEM "CONCRETE BRIDGE RELIEF SLAB, HPC"
- BACKER ROD SHALL BE CLOSED CELL, NON-GASSING FOAM MATERIAL CAPABLE OF WITHSTANDING ELEVATED TEMPERATURE RESULTING FROM THE REACTION OF THE TWO COMPONENTS JOINT SEALER.



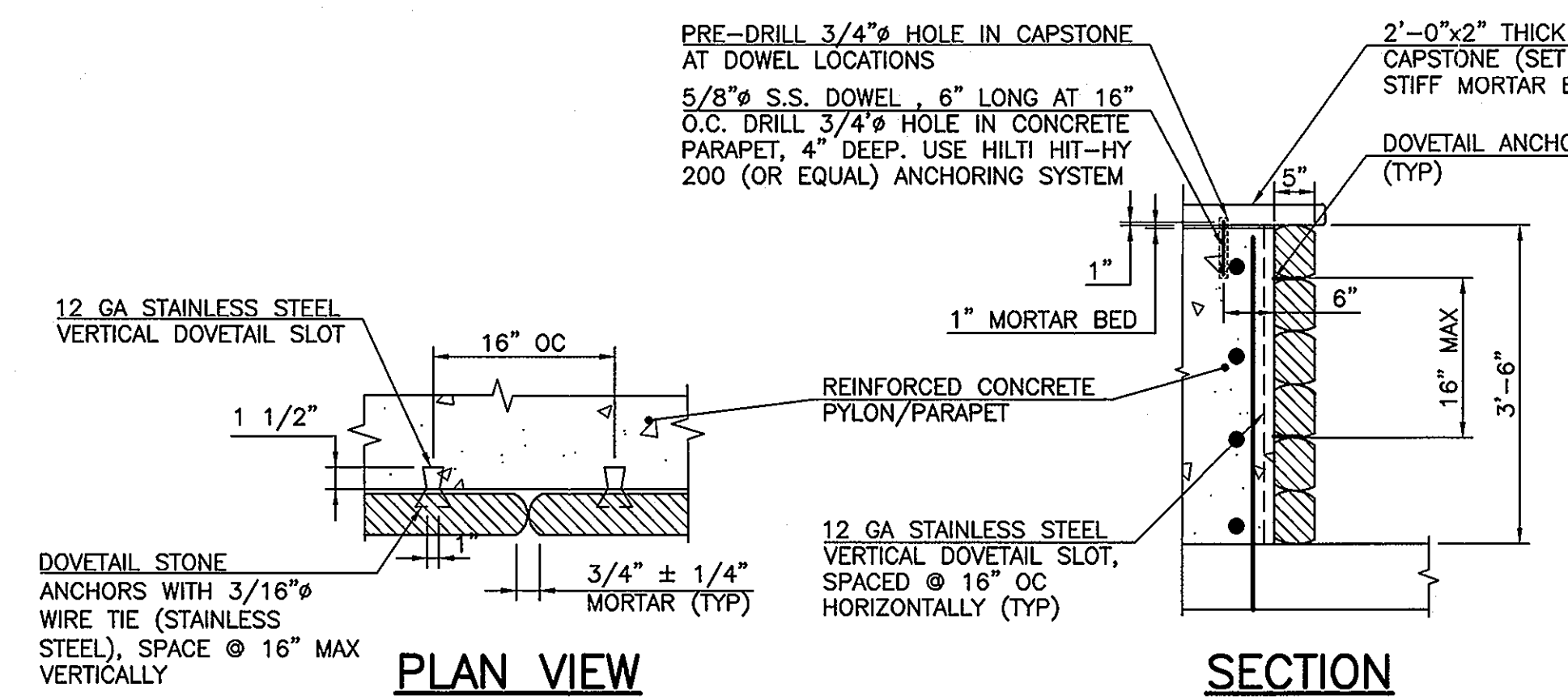
DETAIL A
N.T.S.



DETAIL B
SCALE: 1" = 1"



PYLON GUIDERAIL ATTACHMENT DETAIL
SCALE: 1/2" = 1'-0"



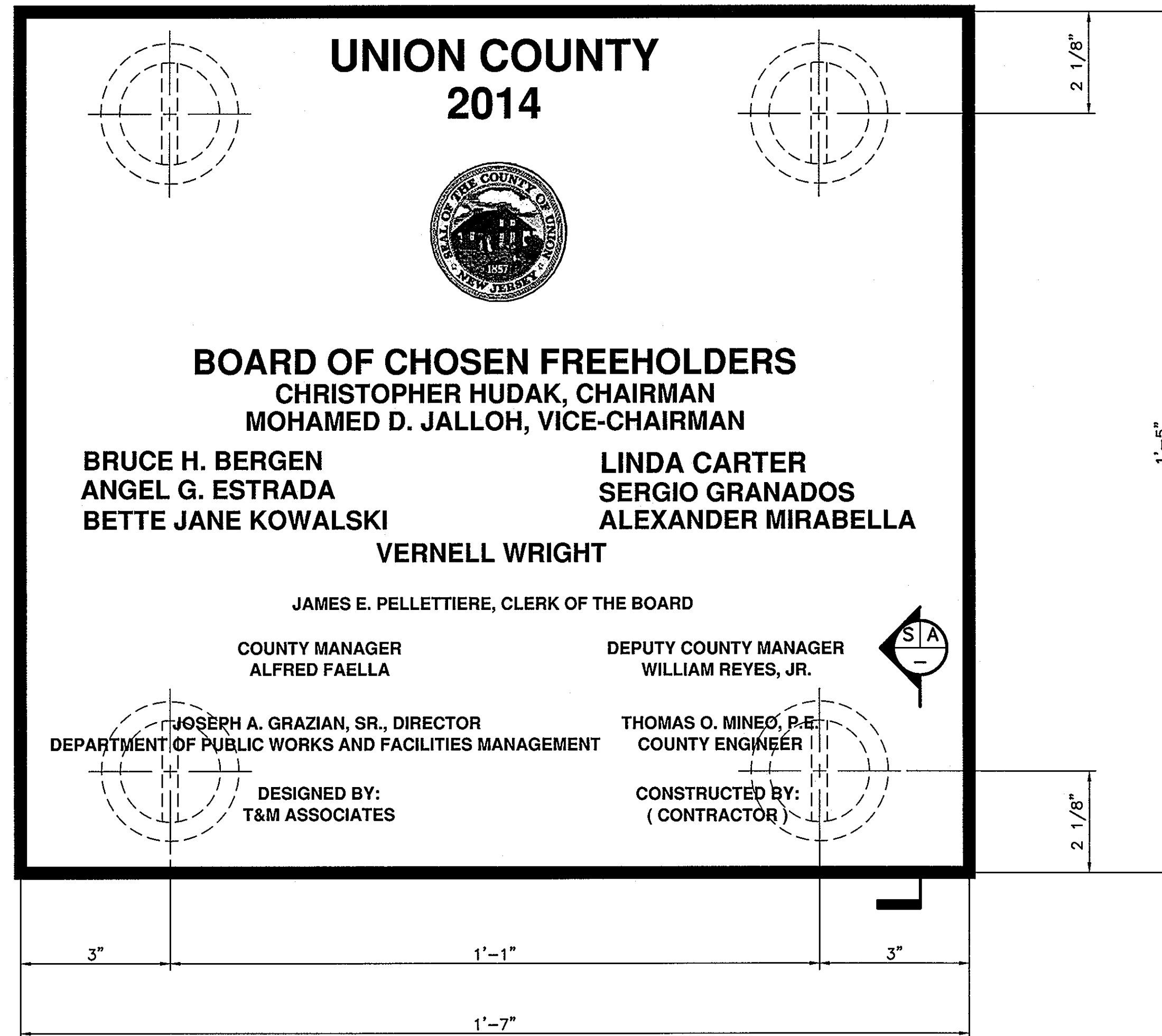
STONE VENEER DETAILS
N.T.S.

STONE FACING NOTES:

- CONTRACTOR SHALL SUBMIT A SHOP DRAWING CONTAINING ALL DIMENSIONS, STONE SIZES AND COLORS TO THE COUNTY PRIOR TO ORDERING AND INSTALLATION FOR APPROVAL. CONTRACTOR SHALL CONSTRUCT 3' X 3' TEST PANEL FOR REVIEW AND APPROVAL BY THE OWNER.
- STONE FACING TREATMENT SHALL BE PAID UNDER THE ITEM "CONCRETE BRIDGE PARAPET" AND SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, TEST PANEL AND INCIDENTAL ITEMS NECESSARY TO CONSTRUCT SAME.

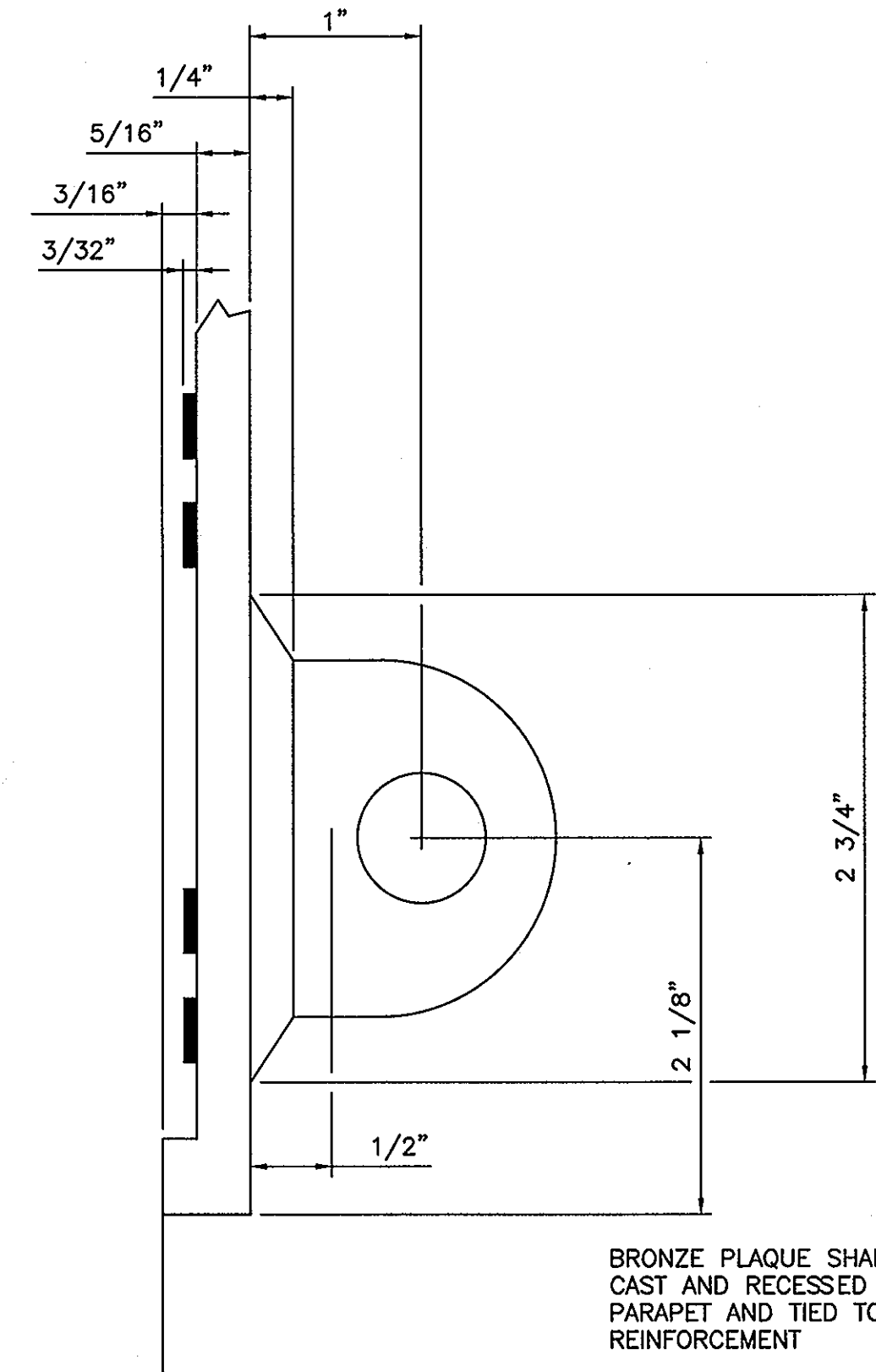
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NO.		DATE		REVISIONS		BY	CHECKED
COUNTY OF UNION REPLACEMENT OF MADISON HILL ROAD BRIDGE, RA-28 CITY OF RAHWAY AND TOWNSHIP OF CLARK, UNION COUNTY, NEW JERSEY							
PARAPET DETAILS							
JAMES A. BUCZEK, PE LICENSED PROFESSIONAL ENGINEER STATE OF NEW JERSEY LICENSE No. GE45122				DRAWING B-18 SHEET			
DESIGNED BY ES		DRAWN BY FC		CHECKED BY PWS		DATE 6-29-15	
PROJECT NO. UNCO-00420		CADD FILE UNCO00420_SHT037_BR_DTL.dwg		PROFESSIONAL ENGINEERS AND LAND SURVEYORS CERTIFICATE OF AUTHORIZATION 246427987500		37 OF 38	



**** VERIFY PLAQUE INFORMATION WITH THE COUNTY OF UNION BEFORE CREATING PLAQUE. ****

BRIDGE PLAQUE
N.T.S.



BRONZE PLAQUE SHALL BE CAST AND RECESSED INTO PARAPET AND TIED TO REINFORCEMENT


BRACKET DETAIL
N.T.S.

NOTES:

- BRIDGE PLAQUES SHALL BE INSTALLED ON THE UPSTREAM AND DOWNSTREAM PARAPETS AT THE CENTER OF THE STRUCTURE.
- PLAQUES SHALL BE CAST BRONZE WITH RAISED LETTERS AND BORDERS ON MATTED BACKGROUND.
- PLAQUE TO BE CAST IN ONE PIECE OF STATUARY BRONZE, TO HAVE BACKGROUND OF DARK BROWN, OXIDIZED, HARD MATTED SURFACE (STIPPLED EFFECT). LETTERS TO HAVE TOP SMOOTH FINISH.
- ALL COSTS ASSOCIATED WITH THE PLAQUE SHALL BE INCLUDED IN THE UNIT PRICE BID IN THE PROPOSAL FOR THE PAY ITEM ENTITLED "BRIDGE PLAQUE".
- THE CONTRACTOR SHALL SUBMIT A FULL SCALE SHOP DRAWING TO THE ENGINEER FOR APPROVAL PRIOR TO RELEASING PLAQUE FOR FABRICATION.
- PLAQUE INFORMATION:

SIZE:	17" HIGH x 19" WIDTH	HEIGHT
MATERIAL:	BRONZE	5/8"
BORDER:	SINGLE LINE	2 3/4"
LETTER STYLE:	HELVETICA REGULAR	1/2"
OXIDATION:	DARK BROWN	3/8"
LETTER SIZE:	"UNION COUNTY" AND "2014"	1/4"
	UNION COUNTY SEAL	3/8"
	"BOARD OF CHOSEN FREEHOLDERS"	3/8"
	CHOSEN FREEHOLDER NAMES	3/8"
	COUNTY EMPLOYEE NAMES	1/4"

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NO.	DATE	REVISIONS	BY	CHECKED
COUNTY OF UNION REPLACEMENT OF MADISON HILL ROAD BRIDGE, RA-28 CITY OF RAHWAY AND TOWNSHIP OF CLARK, UNION COUNTY, NEW JERSEY				
BRIDGE PLAQUE				
		JAMES A. BUCZEK, PE LICENSED PROFESSIONAL ENGINEER STATE OF NEW JERSEY LICENSE No. GE45122		DRAWING B-19
DESIGNED BY ES PROJECT NO. UNCO-00420		DRAWN BY FC GADD FILE UNCO00420_SHT038_BR_PLQ.dwg		CHECKED BY PWS DATE 6-23-15
NEW JERSEY BOARD OF PROFESSIONAL ENGINEERS AND LAND SURVEYORS CERTIFICATE OF AUTHORIZATION 246A2787500				38 OF 38